BIC Process Design

GBTEC Software AG

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CONTENTS

1 Discover the new user interface **3**
- 1.1 Welcome Screen . . . 3
- 1.2 Diagrams & Repository . . . 5
- 1.3 Modeling . . . 6
- 1.4 Diagram view . . . 7
- 1.5 Catalog . . . 9
- 1.6 Search . . . 10
- 1.7 Profile . . . 11

2 Quickstart **13**
- 2.1 How do I sign in? . . . 14
- 2.2 How is the login lock configured? . . . 15
- 2.3 How do I sign out? . . . 15
- 2.4 Where can I find the help? . . . 16
- 2.5 How do I change my password? . . . 16
- 2.6 How can I view different repositories? . . . 17
- 2.7 How can I change my stage? . . . 18
- 2.8 How can I navigate through the BIC Process Design menu? . . . 18
- 2.9 How can I see the descriptions of the menu icons in the sidebar? . . . 19
- 2.10 How can I change my user role? . . . 20

3 Chatbot **23**
- 3.1 How does the chatbot work? . . . 24
- 3.2 Is the chat history saved during the session? . . . 26
- 3.3 How to talk to Arty . . . 26

4 MyBIC **29**
- 4.1 Which tiles do I see in myBIC? . . . 29
- 4.2 How can I remove a favorite from my myBIC page? . . . 31
- 4.3 How can I change my focus and customize my myBIC? . . . 32

5 Administration **35**
- 5.1 Users . . . 37
- 5.2 User groups . . . 46
- 5.3 User logins . . . 51
- 5.4 Repository . . . 53
- 5.5 Corporate Design . . . 58
- 5.6 Arty . . . 61
- 5.7 Catalog . . . 63
- 5.8 Languages . . . 70

5.9 Archive . . . 71
5.10 Method . . . 73
5.11 Search . . . 79
5.12 Workflows . . . 80
5.13 MyBIC . . . 83
5.14 Print . . . 85
5.15 Reports . . . 86
5.16 Details . . . 95
5.17 Translation Service . . . 103
5.18 Access restrictions and scope definitions . . . 106

6 Diagrams **109**
6.1 Where can I find diagrams and categories? . . . 109
6.2 Create diagrams . . . 112
6.3 How can I create a copy of a diagram? . . . 124
6.4 How can I delete a diagram? . . . 126
6.5 How can I rename a diagram? . . . 128
6.6 Functions in category explorer . . . 129
6.7 Gallery . . . 143
6.8 How can I analyze diagram attributes in the dashboard? . . . 143
6.9 How can I return to a recently opened diagram? . . . 145
6.10 Search and filter diagrams . . . 146
6.11 Bulk Update . . . 151
6.12 Which alternative views on diagrams are available? . . . 154
6.13 Diagram view . . . 155
6.14 Matrix . . . 158
6.15 Process execution . . . 162
6.16 Options in a diagram . . . 167
6.17 Translate diagrams . . . 179

7 Details **183**
7.1 What is displayed to me in the profile? . . . 184
7.2 What is displayed to me in the attributes? . . . 185
7.3 How can I access attachments in the details? . . . 186
7.4 How can I download files? . . . 187

8 Modeling **189**
8.1 First steps . . . 189
8.2 Objects . . . 194
8.3 Connections . . . 203
8.4 Copy, paste and more functions . . . 211
8.5 Formatting . . . 214
8.6 Support for visual adjustments . . . 217
8.7 Details and Options . . . 224
8.8 BPMN Collaboration . . . 247
8.9 DMN Editor . . . 253
8.10 Validation . . . 264
8.11 Allocation diagrams . . . 268
8.12 Multilingualism . . . 271
8.13 Navigation . . . 274
8.14 Useful hints . . . 276

9 Variant management **279**
9.1 Diagrams . . . 279
9.2 Catalog . . . 287

10 Enterprise Architecture Management **293**
10.1 What is Enterprise Architecture Management? . . . 293
10.2 Structure (Method) . . . 294
10.3 Objects . . . 298
10.4 Diagrams . . . 300
10.5 Modeling Guide . . . 304

11 Simulation **307**
11.1 How can I start a simulation of my process? . . . 307
11.2 How can I save my entered simulation parameter? . . . 311
11.3 How can I specify my resources in a simulation? . . . 312
11.4 Which distribution types can I choose and what do they look like? . . . 313
11.5 Which results do I get from the simulation of a scenario? . . . 317
11.6 What information is contained in the heatmap? . . . 318
11.7 What information is contained in the charts? . . . 319
11.8 How can I download simulation results? . . . 320

12 Catalog **321**
12.1 What is the catalog? . . . 321
12.2 Create and edit catalog items . . . 323
12.3 Quality assurance in the catalog . . . 333
12.4 Search and filter catalog items . . . 336
12.5 Bulk Update . . . 344
12.6 Translate catalog items . . . 348
12.7 EAM context reference . . . 350
12.8 Dashboard . . . 359
12.9 Lifecycle Roadmap . . . 361
12.10 Integrations . . . 365
12.11 Occurrences . . . 366
12.12 Catalog Export and Import . . . 369
12.13 Delete catalog items . . . 376

13 Tasks **381**
13.1 How can I view my tasks? . . . 381
13.2 How do I work with my tasks? . . . 383
13.3 How will I be informed about my tasks? . . . 384
13.4 How do I work with my deputy tasks? . . . 385
13.5 How do I work with my group tasks? . . . 385
13.6 How do I work with resubmission tasks? . . . 386
13.7 What happens if I initiate a publication while a resubmission workflow is active? . . . 388

14 Insights **389**
14.1 Where can I find the Insights? . . . 389
14.2 What insights are available, and what functions do they have? . . . 390
14.3 How are the Insights displayed? . . . 393
14.4 How can I view the details of an object used in an Insight? . . . 397
14.5 How can I switch between the profile view and the attribute view in an Insight? . . . 400
14.6 How can I change the coloring of main objects in an Insight? . . . 400
14.7 How can I color processes in the process hierarchy based on the number of contained objects? . . . 401
14.8 How can I change the reference date of the data for Insights? . . . 403
14.9 How can I filter node attributes, the main and axis objects? . . . 404
14.10 How can I group the content of an Insight by hierarchy levels? . . . 406
14.11 How can I compare changes within an Insight between two time periods? . . . 408
14.12 How can I visually highlight a cell object in a time period comparison in an Inisght? . . . 410
14.13 How can I navigate to the corresponding diagram of an object displayed in an Insight? . . . 411

15 Governance **413**
15.1 Diagrams . . . 413
15.2 Catalog items . . . 423
15.3 Notifications . . . 438

16 Reports and Exports **443**
16.1 How can I export the contents of a diagram as an Excel file? . . . 443
16.2 How can I export a diagram? . . . 447
16.3 How can I import an archive or diagram? . . . 449
16.4 Which reports can I download? . . . 450
16.5 How can I create and download a report? . . . 451
16.6 Process costs/simulation . . . 453
16.7 How can I export all diagrams of a category (as an Excel file)? . . . 459

17 Report templates **461**
17.1 What general adjustments to the manual template are possible? . . . 461
17.2 How do I output properties of a document? . . . 461
17.3 How do I output the diagram graphic in the template? . . . 462
17.4 How do I output attributes of a diagram? . . . 463
17.5 How can I specify the format of a date? . . . 464
17.6 How can I specify the format of the time? . . . 465
17.7 How do I output objects of a diagram in a list? . . . 465
17.8 How do I output connected nodes? . . . 467
17.9 How do I output all attributes of an element? . . . 467
17.10 How do I output multivalued attributes of a diagram in a list? . . . 468
17.11 How do I output my data in tables? . . . 468
17.12 How do I output sorted lists with certain conditions? . . . 470
17.13 How can I change the output language in the template? . . . 470
17.14 How do I use variables to store data? . . . 471
17.15 How do I use diagrams to visualize data? . . . 471
17.16 How do I use numbers in my template? . . . 473
17.17 How can I access the case data when I create a report? . . . 475
17.18 How can I access process variables in a form field for a case? . . . 475
17.19 How can I access the tasks within a case? . . . 476
17.20 What other options do I have with the report engine? . . . 477

18 Versions and History **483**
18.1 Diagrams . . . 483
18.2 Catalog . . . 490

19 Model comparison **497**
19.1 Where can I find the model comparison? . . . 497
19.2 How can I compare diagram versions? . . . 498
19.3 How can I highlight an object in color? . . . 501
19.4 How can I add or remove objects from the active version? . . . 503
19.5 How can I see which attribute of an object have been changed? . . . 504
19.6 How can I view changes in relationship and assignment attributes? . . . 506
19.7 How can I apply attribute values from other diagram versions? . . . 508

20 Governance Cockpit **509**
20.1 What information can I get from the Governance Cockpit? . . . 509
20.2 Workflows . . . 510
20.3 Analytics . . . 521
20.4 Roadmap . . . 524

21 Collaboration **527**
21.1 Comments . . . 527
21.2 Share links . . . 531

22 Favorites **533**
22.1 How do I add diagrams, dashboards and catalog lists to my favorites? . . . 533
22.2 How do I remove a favorite? . . . 536
22.3 How can I rename a personal favorite? . . . 537
22.4 How can I activate/deactivate notifications for favorites? . . . 538

23 Profile **541**
23.1 How do I find my user profile? . . . 541
23.2 Which user roles are available and which permissions do they have? . . . 543
23.3 How can I change my user role? . . . 544
23.4 How can I set my deputy? . . . 544
23.5 How do I change the content language and the alternative language? . . . 545
23.6 How can I turn on high contrast? . . . 546
23.7 How do I sign out? . . . 546

24 Navigation **549**
24.1 How do I hide and show the sidebar? . . . 549
24.2 How can I zoom? . . . 549
24.3 How can I navigate through my browsing history? . . . 550
24.4 How can I navigate in the list of categories and diagrams? . . . 550
24.5 How can I open a diagram in a new browser tab? . . . 550
24.6 How can I navigate the diagram? . . . 551
24.7 Which keystroke combination can I use? . . . 552
24.8 How do I open a subprocess? . . . 553
24.9 How do I open a subprocess when multiple ones are maintained? . . . 554
24.10 How can I edit a locked diagram? . . . 555
24.11 What happens if a diagram is not available? . . . 556
24.12 What happens if a catalog item is not available? . . . 556

25 Multilingualism **557**
25.1 Which language settings can be made? . . . 557
25.2 What languages are displayed for the content language and the alternative language when logging in for the first time? . . . 558
25.3 How do I set the content language and the alternative language? . . . 558

26 Search **559**
26.1 How can I use the Search in BIC Process Design? . . . 559
26.2 How can I search for specific content in BIC Process Design? . . . 560
26.3 What options do I have to search for specific terms? . . . 561
26.4 How can I filter search results? . . . 562
26.5 How can I save a search as favorite? . . . 563

27 Help **565**
27.1 Where can I find the help? . . . 567
27.2 Where can I find the quick start? . . . 567
27.3 Where can I find information about the version of the application? . . . 567
27.4 Where can I find the Data protection policy? . . . 568
27.5 Where can I find the Statement of Accessibility? . . . 568

28 Appendix **569**
28.1 Which stereotypes exist by default? . . . 569

28.2 Which exceptions and particularities occur when configuring the symbol type color? . . . 575
28.3 Notes on the use of AI features . . . 579
28.4 An overview of all email notifications . . . 580

29 BIC Process Execution **583**
29.1 Quickstart . . . 583
29.2 Modeling . . . 589
29.3 Tasks . . . 724
29.4 Cases . . . 757
29.5 ProcessApps . . . 788
29.6 Administration . . . 807
29.7 Profile . . . 819

30 Release Notes **825**
30.1 Version 8.3.11 . . . 825
30.2 Version 8.3.10 . . . 825
30.3 Version 8.3.9 . . . 825
30.4 Version 8.3.8 . . . 826
30.5 Version 8.3.7 . . . 827
30.6 Version 8.3.6 . . . 827
30.7 Version 8.3.5 . . . 827
30.8 Version 8.3.4 . . . 828
30.9 Version 8.3.3 . . . 828
30.10 Version 8.3.2 . . . 828
30.11 Version 8.3.1 . . . 829
30.12 Version 8.3.0 . . . 829
30.13 Version 8.2.19 . . . 842
30.14 Version 8.2.18 . . . 842
30.15 Version 8.2.17 . . . 843
30.16 Version 8.2.16 . . . 843
30.17 Version 8.2.15 . . . 843
30.18 Version 8.2.14 . . . 843
30.19 Version 8.2.13 . . . 844
30.20 Version 8.2.12 . . . 844
30.21 Version 8.2.11 . . . 844
30.22 Version 8.2.10 . . . 844
30.23 Version 8.2.9 . . . 845
30.24 Version 8.2.8 . . . 845
30.25 Version 8.2.7 . . . 845
30.26 Version 8.2.6 . . . 846
30.27 Version 8.2.5 . . . 846
30.28 Version 8.2.4 . . . 846
30.29 Version 8.2.3 . . . 847
30.30 Version 8.2.2 . . . 849
30.31 Version 8.2.1 . . . 850
30.32 Version 8.2.0 . . . 851
30.33 Version 8.1.26 . . . 859
30.34 Version 8.1.25 . . . 860
30.35 Version 8.1.24 . . . 860
30.36 Version 8.1.23 . . . 860
30.37 Version 8.1.22 . . . 860
30.38 Version 8.1.21 . . . 861
30.39 Version 8.1.20 . . . 861
30.40 Version 8.1.19 . . . 861

30.41 Version 8.1.18 . . . 862
30.42 Version 8.1.17 . . . 862
30.43 Version 8.1.16 . . . 862
30.44 Version 8.1.15 . . . 863
30.45 Version 8.1.14 . . . 863
30.46 Version 8.1.13 . . . 863
30.47 Version 8.1.12 . . . 863
30.48 Version 8.1.11 . . . 864
30.49 Version 8.1.10 . . . 865
30.50 Version 8.1.9 . . . 866
30.51 Version 8.1.8 . . . 866
30.52 Version 8.1.7 . . . 866
30.53 Version 8.1.6 . . . 867
30.54 Version 8.1.5 . . . 867
30.55 Version 8.1.4 . . . 868
30.56 Version 8.1.3 . . . 869
30.57 Version 8.1.2 . . . 869
30.58 Version 8.1.1 . . . 870
30.59 Version 8.1.0 . . . 870
30.60 Version 8.0.22 . . . 880
30.61 Version 8.0.21 . . . 880
30.62 Version 8.0.20 . . . 881
30.63 Version 8.0.19 . . . 881
30.64 Version 8.0.18 . . . 881
30.65 Version 8.0.17 . . . 881
30.66 Version 8.0.16 . . . 882
30.67 Version 8.0.15 . . . 883
30.68 Version 8.0.14 . . . 883
30.69 Version 8.0.13 . . . 884
30.70 Version 8.0.12 . . . 884
30.71 Version 8.0.11 . . . 884
30.72 Version 8.0.10 . . . 885
30.73 Version 8.0.9 . . . 885
30.74 Version 8.0.8 . . . 885
30.75 Version 8.0.7 . . . 886
30.76 Version 8.0.6 . . . 886
30.77 Version 8.0.5 . . . 886
30.78 Version 8.0.4 . . . 886
30.79 Version 8.0.3 . . . 887
30.80 Version 8.0.2 . . . 888
30.81 Version 8.0.1 . . . 890
30.82 Version 8.0.0 . . . 891
30.83 Version 7.17.29 . . . 904
30.84 Version 7.17.28 . . . 904
30.85 Version 7.17.27 . . . 904
30.86 Version 7.17.26 . . . 904
30.87 Version 7.17.25 . . . 904
30.88 Version 7.17.24 . . . 905
30.89 Version 7.17.23 . . . 905
30.90 Version 7.17.22 . . . 905
30.91 Version 7.17.21 . . . 905
30.92 Version 7.17.20 . . . 906
30.93 Version 7.17.19 . . . 906
30.94 Version 7.17.18 . . . 906

30.95 Version 7.17.17 . . . 907
30.96 Version 7.17.16 . . . 907
30.97 Version 7.17.15 . . . 907
30.98 Version 7.17.14 . . . 908
30.99 Version 7.17.13 . . . 908
30.100Version 7.17.12 . . . 908
30.101Version 7.17.11 . . . 909
30.102Version 7.17.10 . . . 909
30.103Version 7.17.9 . . . 910
30.104Version 7.17.8 . . . 910
30.105Version 7.17.7 . . . 911
30.106Version 7.17.6 . . . 911
30.107Version 7.17.5 . . . 912
30.108Version 7.17.4 . . . 912
30.109Version 7.17.3 . . . 912
30.110Version 7.17.2 . . . 913
30.111Version 7.17.1 . . . 913
30.112Version 7.17.0 . . . 914
30.113Version 7.16.21 . . . 921
30.114Version 7.16.20 . . . 921
30.115Version 7.16.19 . . . 921
30.116Version 7.16.18 . . . 922
30.117Version 7.16.17 . . . 922
30.118Version 7.16.16 . . . 922
30.119Version 7.16.15 . . . 923
30.120Version 7.16.14 . . . 923
30.121Version 7.16.13 . . . 923
30.122Version 7.16.12 . . . 923
30.123Version 7.16.11 . . . 924
30.124Version 7.16.10 . . . 924
30.125Version 7.16.9 . . . 924
30.126Version 7.16.8 . . . 924
30.127Version 7.16.7 . . . 925
30.128Version 7.16.6 . . . 925
30.129Version 7.16.5 . . . 925
30.130Version 7.16.4 . . . 926
30.131Version 7.16.3 . . . 926
30.132Version 7.16.2 . . . 927
30.133Version 7.16.1 . . . 927
30.134Version 7.16.0 . . . 928
30.135Version 7.15.22 . . . 934
30.136Version 7.15.21 . . . 934
30.137Version 7.15.20 . . . 934
30.138Version 7.15.19 . . . 934
30.139Version 7.15.18 . . . 935
30.140Version 7.15.17 . . . 935
30.141Version 7.15.16 . . . 935
30.142Version 7.15.15 . . . 935
30.143Version 7.15.14 . . . 935
30.144Version 7.15.13 . . . 936
30.145Version 7.15.12 . . . 936
30.146Version 7.15.11 . . . 936
30.147Version 7.15.10 . . . 937
30.148Version 7.15.9 . . . 937

30.149Version 7.15.8 . . . 937
30.150Version 7.15.7 . . . 937
30.151Version 7.15.6 . . . 938
30.152Version 7.15.5 . . . 938
30.153Version 7.15.4 . . . 938
30.154Version 7.15.3 . . . 938
30.155Version 7.15.2 . . . 939
30.156Version 7.15.1 . . . 939
30.157Version 7.15.0 . . . 940
30.158Version 7.14.19 . . . 946
30.159Version 7.14.18 . . . 946
30.160Version 7.14.17 . . . 946
30.161Version 7.14.16 . . . 947
30.162Version 7.14.15 . . . 947
30.163Version 7.14.14 . . . 947
30.164Version 7.14.13 . . . 947
30.165Version 7.14.12 . . . 947
30.166Version 7.14.11 . . . 948
30.167Version 7.14.10 . . . 948
30.168Version 7.14.9 . . . 948
30.169Version 7.14.8 . . . 948
30.170Version 7.14.7 . . . 949
30.171Version 7.14.6 . . . 949
30.172Version 7.14.5 . . . 949
30.173Version 7.14.4 . . . 950
30.174Version 7.14.3 . . . 950
30.175Version 7.14.2 . . . 950
30.176Version 7.14.1 . . . 951
30.177Version 7.14.0 . . . 951
30.178Version 7.13.25 . . . 959
30.179Version 7.13.24 . . . 959
30.180Version 7.13.23 . . . 959
30.181Version 7.13.22 . . . 959
30.182Version 7.13.21 . . . 959
30.183Version 7.13.20 . . . 960
30.184Version 7.13.19 . . . 960
30.185Version 7.13.18 . . . 960
30.186Version 7.13.17 . . . 960
30.187Version 7.13.16 . . . 960
30.188Version 7.13.15 . . . 961
30.189Version 7.13.14 . . . 961
30.190Version 7.13.13 . . . 961
30.191Version 7.13.12 . . . 961
30.192Version 7.13.11 . . . 961
30.193Version 7.13.10 . . . 962
30.194Version 7.13.9 . . . 962
30.195Version 7.13.8 . . . 962
30.196Version 7.13.7 . . . 962
30.197Version 7.13.6 . . . 963
30.198Version 7.13.5 . . . 963
30.199Version 7.13.4 . . . 963
30.200Version 7.13.3 . . . 963
30.201Version 7.13.2 . . . 963
30.202Version 7.13.1 . . . 964

30.203Version 7.13.0 . . . 964
30.204Version 7.12.21 . . . 970
30.205Version 7.12.20 . . . 971
30.206Version 7.12.19 . . . 971
30.207Version 7.12.18 . . . 971
30.208Version 7.12.17 . . . 971
30.209Version 7.12.16 . . . 971
30.210Version 7.12.15 . . . 972
30.211Version 7.12.14 . . . 972
30.212Version 7.12.13 . . . 972
30.213Version 7.12.12 . . . 972
30.214Version 7.12.11 . . . 972
30.215Version 7.12.10 . . . 973
30.216Version 7.12.9 . . . 973
30.217Version 7.12.8 . . . 973
30.218Version 7.12.7 . . . 973
30.219Version 7.12.6 . . . 973
30.220Version 7.12.5 . . . 974
30.221Version 7.12.4 . . . 974
30.222Version 7.12.3 . . . 974
30.223Version 7.12.2 . . . 975
30.224Version 7.12.1 . . . 975
30.225Version 7.12.0 . . . 975
30.226Version 7.11.15 . . . 982
30.227Version 7.11.14 . . . 982
30.228Version 7.11.13 . . . 982
30.229Version 7.11.12 . . . 983
30.230Version 7.11.11 . . . 983
30.231Version 7.11.10 . . . 983
30.232Version 7.11.9 . . . 983
30.233Version 7.11.8 . . . 983
30.234Version 7.11.7 . . . 984
30.235Version 7.11.6 . . . 984
30.236Version 7.11.5 . . . 984
30.237Version 7.11.4 . . . 985
30.238Version 7.11.3 . . . 985
30.239Version 7.11.2 . . . 985
30.240Version 7.11.1 . . . 985
30.241Version 7.11.0 . . . 986
30.242Version 7.10.17 . . . 990
30.243Version 7.10.16 . . . 990
30.244Version 7.10.15 . . . 991
30.245Version 7.10.14 . . . 991
30.246Version 7.10.13 . . . 991
30.247Version 7.10.12 . . . 991
30.248Version 7.10.11 . . . 991
30.249Version 7.10.10 . . . 991
30.250Version 7.10.9 . . . 992
30.251Version 7.10.8 . . . 992
30.252Version 7.10.7 . . . 992
30.253Version 7.10.6 . . . 992
30.254Version 7.10.5 . . . 992
30.255Version 7.10.4 . . . 992
30.256Version 7.10.3 . . . 993

30.257Version 7.10.2 . . . 993
30.258Version 7.10.1 . . . 993
30.259Version 7.10.0 . . . 994
30.260Version 7.9.12 . . . 1001
30.261Version 7.9.11 . . . 1001
30.262Version 7.9.10 . . . 1001
30.263Version 7.9.9 . . . 1002
30.264Version 7.9.8 . . . 1002
30.265Version 7.9.7 . . . 1002
30.266Version 7.9.6 . . . 1002
30.267Version 7.9.5 . . . 1003
30.268Version 7.9.4 . . . 1003
30.269Version 7.9.3 . . . 1003
30.270Version 7.9.2 . . . 1003
30.271Version 7.9.1 . . . 1004
30.272Version 7.9.0 . . . 1004
30.273Version 7.8.19 . . . 1013
30.274Version 7.8.18 . . . 1013
30.275Version 7.8.17 . . . 1014
30.276Version 7.8.16 . . . 1014
30.277Version 7.8.15 . . . 1014
30.278Version 7.8.14 . . . 1014
30.279Version 7.8.13 . . . 1014
30.280Version 7.8.12 . . . 1015
30.281Version 7.8.11 . . . 1015
30.282Version 7.8.10 . . . 1015
30.283Version 7.8.9 . . . 1015
30.284Version 7.8.8 . . . 1016
30.285Version 7.8.7 . . . 1016
30.286Version 7.8.6 . . . 1016
30.287Version 7.8.5 . . . 1016
30.288Version 7.8.4 . . . 1016
30.289Version 7.8.3 . . . 1017
30.290Version 7.8.2 . . . 1017
30.291Version 7.8.1 . . . 1017
30.292Version 7.8.0 . . . 1017
30.293Version 7.7.8 . . . 1025
30.294Version 7.7.7 . . . 1025
30.295Version 7.7.6 . . . 1025
30.296Version 7.7.5 . . . 1025
30.297Version 7.7.4 . . . 1026
30.298Version 7.7.3 . . . 1026
30.299Version 7.7.2 . . . 1026
30.300Version 7.7.1 . . . 1026
30.301Version 7.7.0 . . . 1027
30.302Version 7.6.10 . . . 1030
30.303Version 7.6.9 . . . 1030
30.304Version 7.6.8 . . . 1030
30.305Version 7.6.7 . . . 1030
30.306Version 7.6.6 . . . 1031
30.307Version 7.6.5 . . . 1031
30.308Version 7.6.4 . . . 1031
30.309Version 7.6.3 . . . 1031
30.310Version 7.6.2 . . . 1031

30.311Version 7.6.1 . . . 1032
30.312Version 7.6.0 . . . 1032
30.313Version 7.5.11 . . . 1037
30.314Version 7.5.10 . . . 1037
30.315Version 7.5.9 . . . 1038
30.316Version 7.5.8 . . . 1038
30.317Version 7.5.7 . . . 1038
30.318Version 7.5.6 . . . 1038
30.319Version 7.5.5 . . . 1038
30.320Version 7.5.4 . . . 1038
30.321Version 7.5.3 . . . 1039
30.322Version 7.5.2 . . . 1039
30.323Version 7.5.1 . . . 1039
30.324Version 7.5.0 . . . 1039
30.325Version 7.4.8 . . . 1045
30.326Version 7.4.7 . . . 1045
30.327Version 7.4.6 . . . 1046
30.328Version 7.4.5 . . . 1046
30.329Version 7.4.4 . . . 1046
30.330Version 7.4.3 . . . 1046
30.331Version 7.4.2 . . . 1046
30.332Version 7.4.1 . . . 1047
30.333Version 7.4.0 . . . 1047
30.334Version 7.3.5 . . . 1053
30.335Version 7.3.4 . . . 1053
30.336Version 7.3.3 . . . 1053
30.337Version 7.3.2 . . . 1055
30.338Version 7.3.1 . . . 1055
30.339Version 7.3.0 . . . 1055
30.340Version 7.2.7 . . . 1060
30.341Version 7.2.6 . . . 1060
30.342Version 7.2.5 . . . 1061
30.343Version 7.2.4 . . . 1062
30.344Version 7.2.3 . . . 1062
30.345Version 7.2.2 . . . 1063
30.346Version 7.2.1 . . . 1063
30.347Version 7.2.0 . . . 1063
30.348Version 7.2.0 . . . 1067
30.349Version 7.1.3 . . . 1067
30.350Version 7.1.2 . . . 1068
30.351Version 7.1.1 . . . 1068
30.352Version 7.1.0 . . . 1069

31 System Requirements **1073**
31.1 Hardware Requirements User Workstations . . . 1073
31.2 Software Requirements User Workstations . . . 1073
31.3 Software Requirements Single Sign On . . . 1073

32 Accessibility **1075**
32.1 Statement of Accessibility . . . 1075

In this documentation, we will answer your questions and give advice on how to work with BIC Process Design. Discover the possibilities of the new user interface to achieve the optimum in modeling, analyzing and simulating your business processes. The new user interface is constantly extended by new functionality. You can always read about the current state here!

CHAPTER

ONE

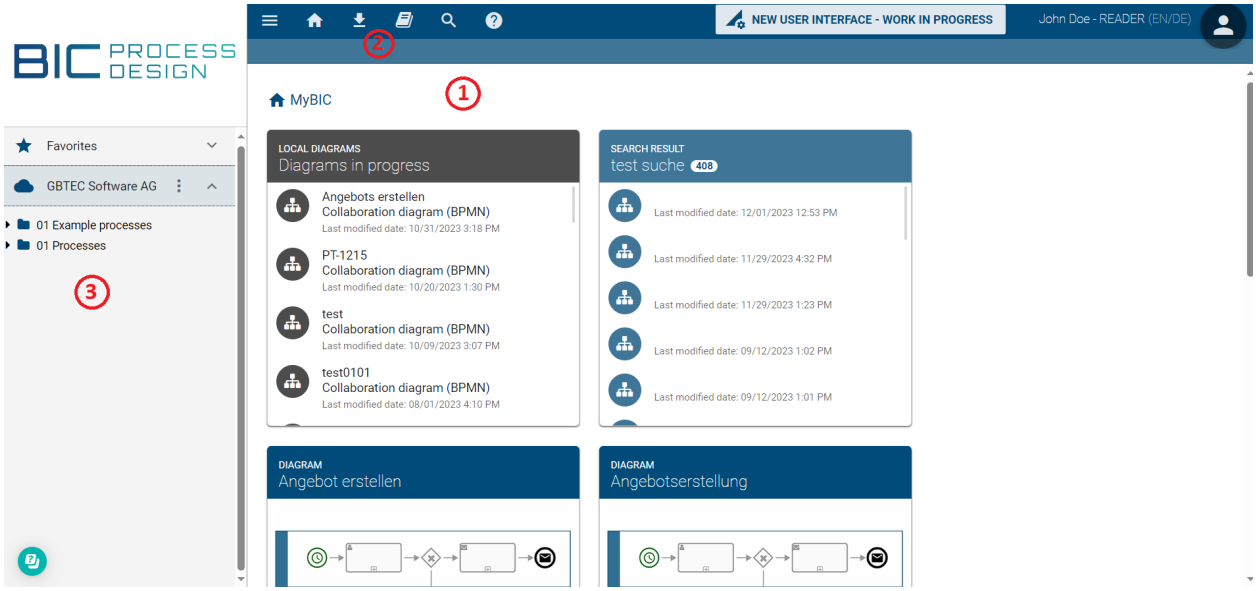
DISCOVER THE NEW USER INTERFACE

To make the transition from the old to the new interface smoother for you, this chapter lists the essential functions.

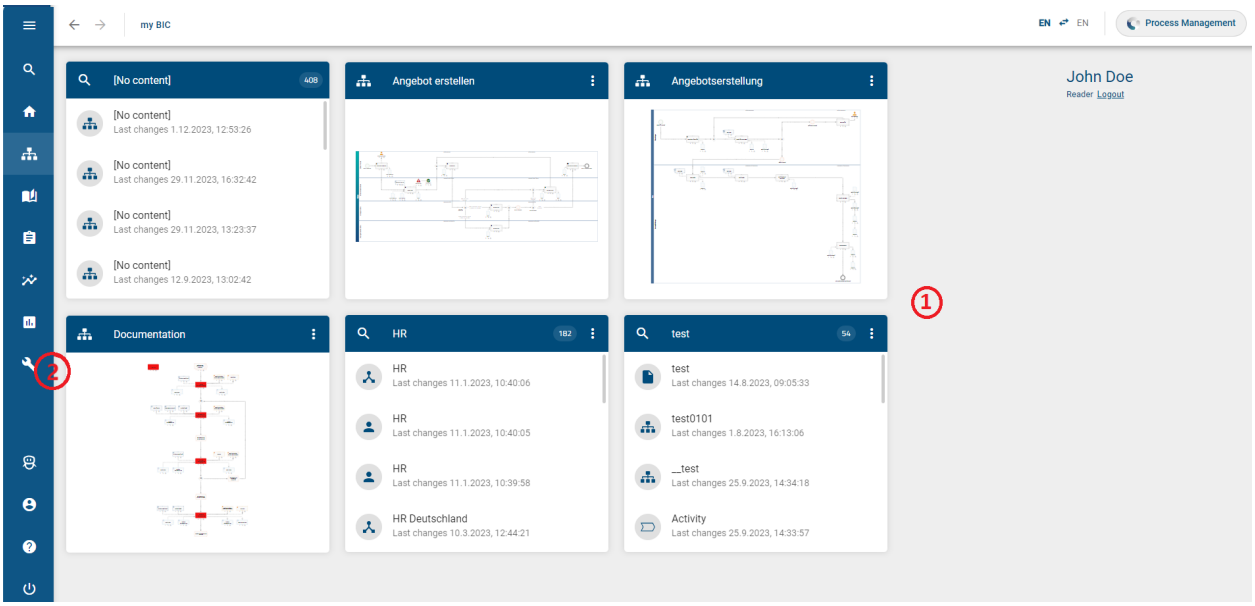
1.1 Welcome Screen

In transitioning between interfaces, notable differences are observed in the welcome screen. The key distinctions are now presented to you.

Old Interface:



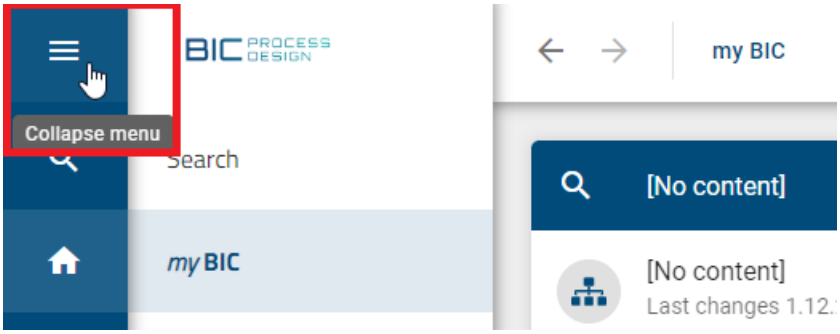
New Interface:



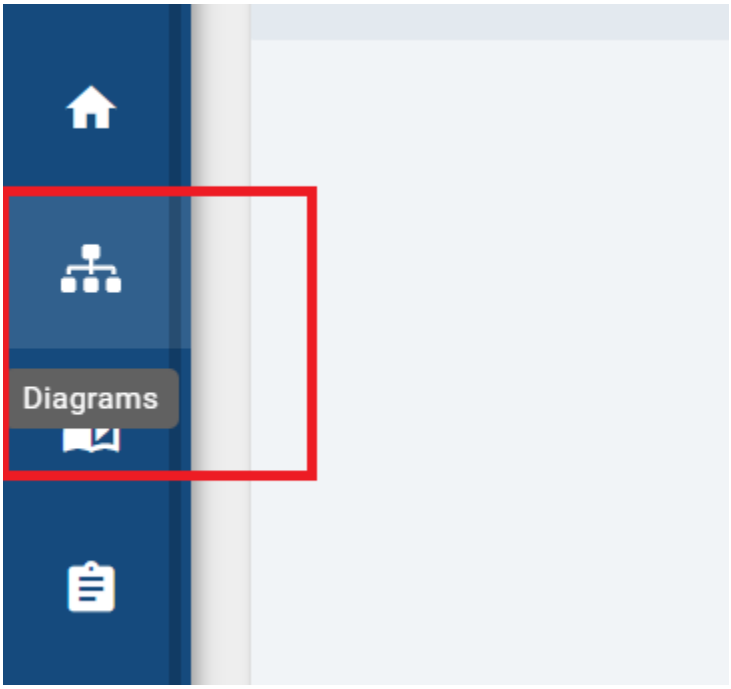
(1) **Homepage**: In the main area, you will find your *myBIC* page. Additionally, you can now rename the tiles of your favorite charts, catalog entries, and search results, and delete them directly from the *myBIC* page. The *myBIC* page is now displayed by default for every role.

(2) **Menu Bar**: In the new interface, the menu bar is now located on the left side of the screen. Additionally, you can now access your diagrams and profile and log out through the menu bar. Downloading reports is no longer done through the menu bar but through the respective *Options* in a section. In the header, you can see which section you are in.

To get a better overview of the menu bar, you can collapse and expand the menu as needed using the button in the top left corner.



(3) **Diagrams & Repository**: In the old interface, you could access your diagrams and repositories through the left sidebar. In the new interface, you need to navigate to the *Diagrams* section for this.

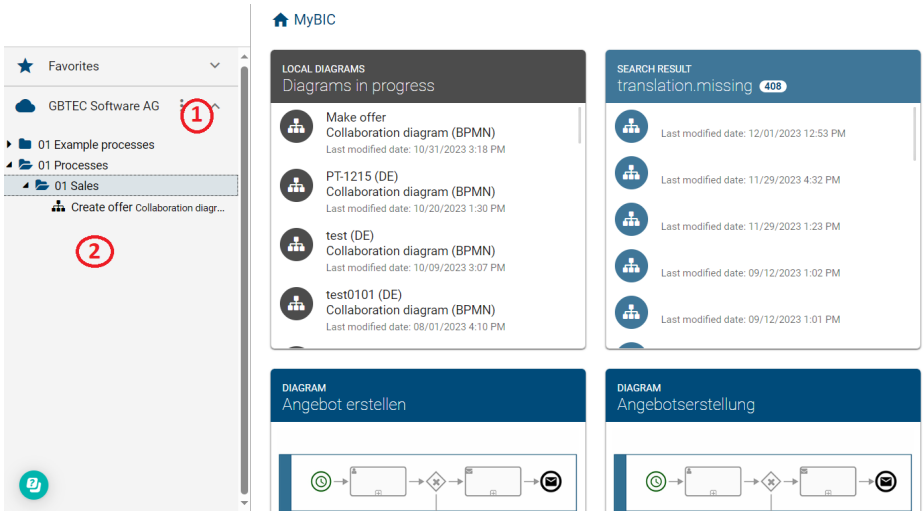


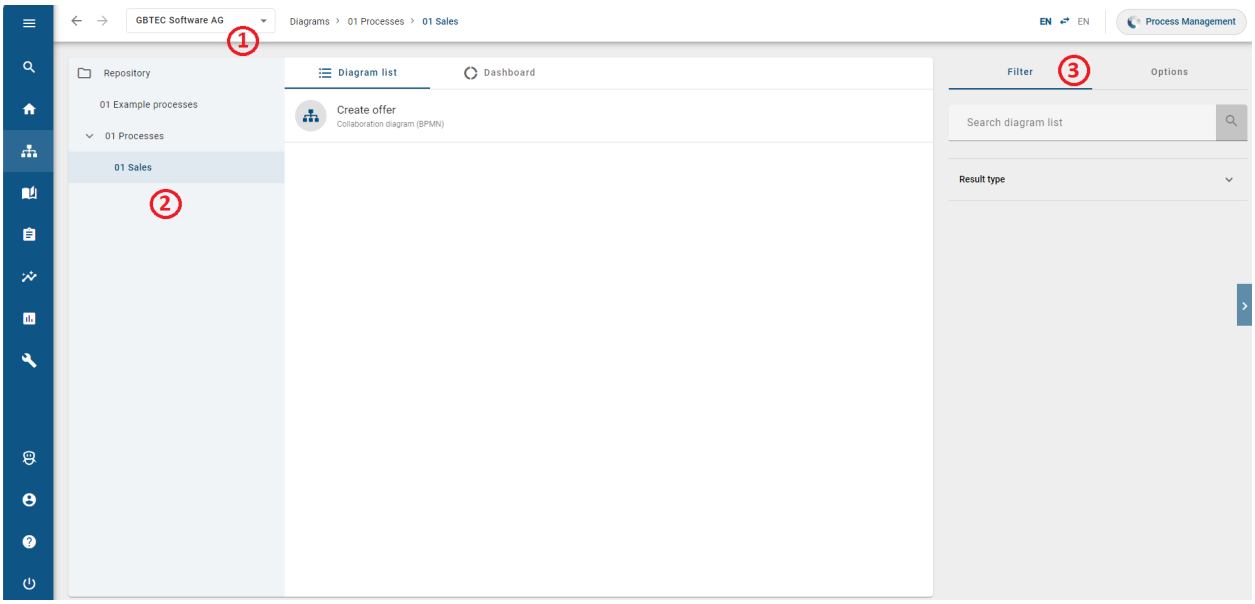
In the new interface, navigation is done both through the menu bar and the arrows in the header. To return to your welcome screen, click on *myBIC* or the *Home* icon in the menu bar.

1.2 Diagrams & Repository

To get an overview of your diagrams and repositories or to create a new diagram in the new interface, you need to go to the *Diagrams* section. This area affects all roles.

Old Interface:



New Interface: 

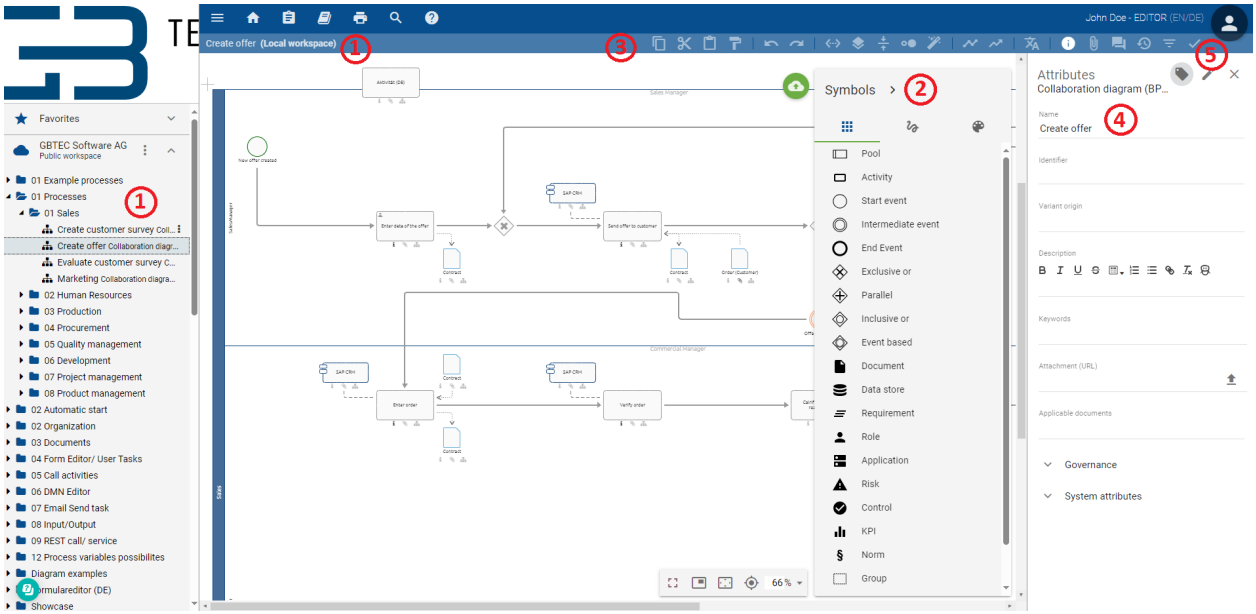
(1) **Switching Repository:** In the old interface, you had to click on the repository's context menu to select a different repository. In the new interface, you can now do this directly in the header.

(2) **Category Tree:** The category tree is structurally similar to the old interface. Additionally, your current path is displayed in the header. In contrast to the old interface, diagrams are now presented in a list view. You will see only the diagrams from the selected category.

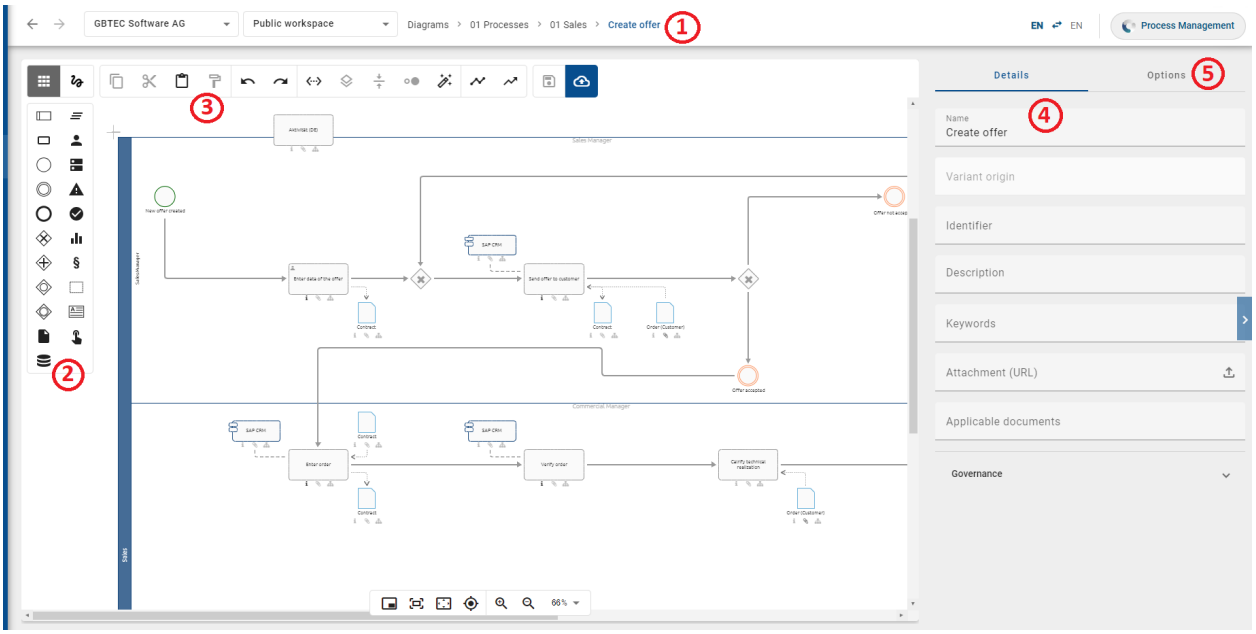
(3) **Filter & Options:** In the new interface, you can filter diagrams based on specific criteria or search for specific diagrams in advance. You can also create a matrix report or export the data to Excel through the *Options*.

1.3 Modeling

This area affect all roles that can model diagrams.

Old Interface: 

Neue Interface:



(1) **Diagram and Stage:** In the old user interface, you will no longer see your checked-out diagram in the category tree and menu bar. Instead, in the new user interface, you can see the checked-out diagram in the header and change the repository and/or stage of necessary.

(2) **Symbol palette:** The symbol palette in the new user interface has been redesigned to be more compact and user-friendly. It is now located as the first item in the editor. Hover over a symbol to view more information about it.

(3) **Menu bar:** The functions within the menu bar have been transferred to the new user interface in the same form and only adapted graphically. You will also find the function within the editor.

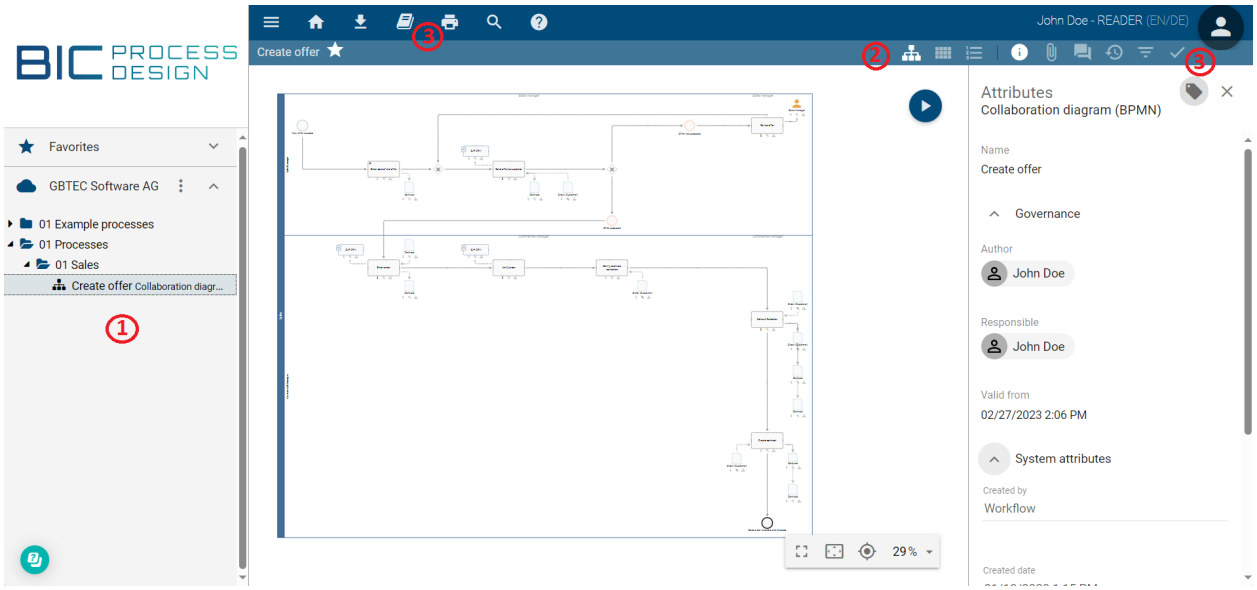
(4) **Details:** The details are displayed by default in the new user interface. However, the system attributes are no longer displayed during modeling.

(5) **Options:** Options such as Versions or Validation, which you could find in the menu bar in the old user interface, are now displayed in the *Options* panel.

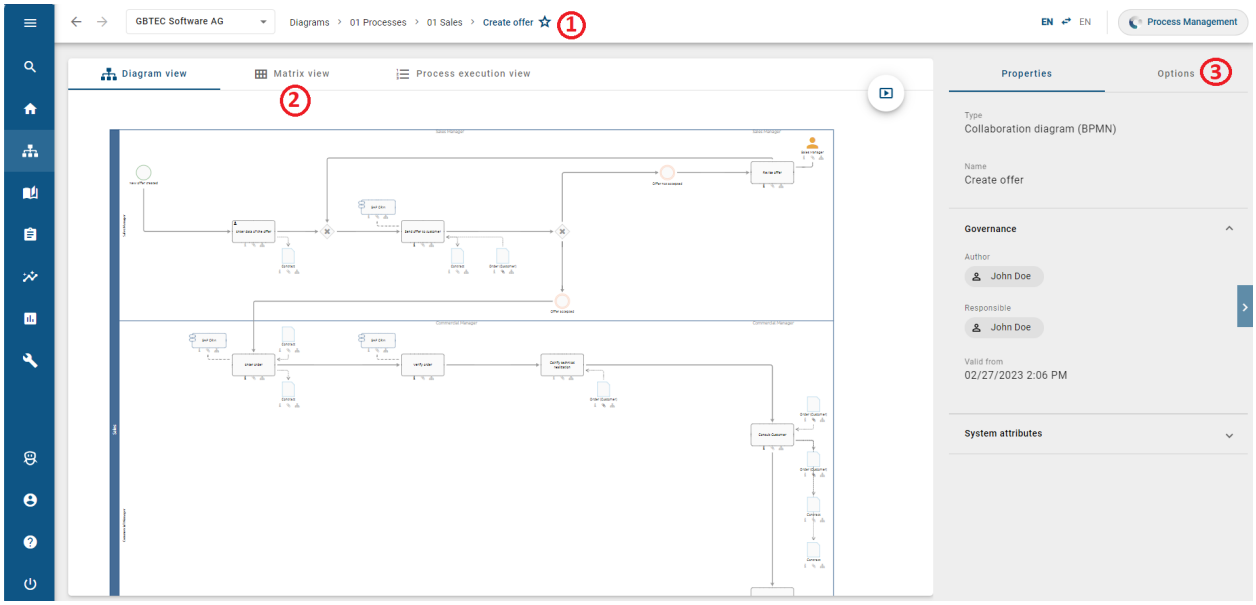
1.4 Diagram view

This area affects all roles.

Old Interface:



New Interface:



(1) **Category Tree:** In the new interface, the category tree is no longer presented in the same form as in the old interface. Instead, you can now navigate back to your categories through the header. Additionally, you have the option to change your repository at any time through the header.

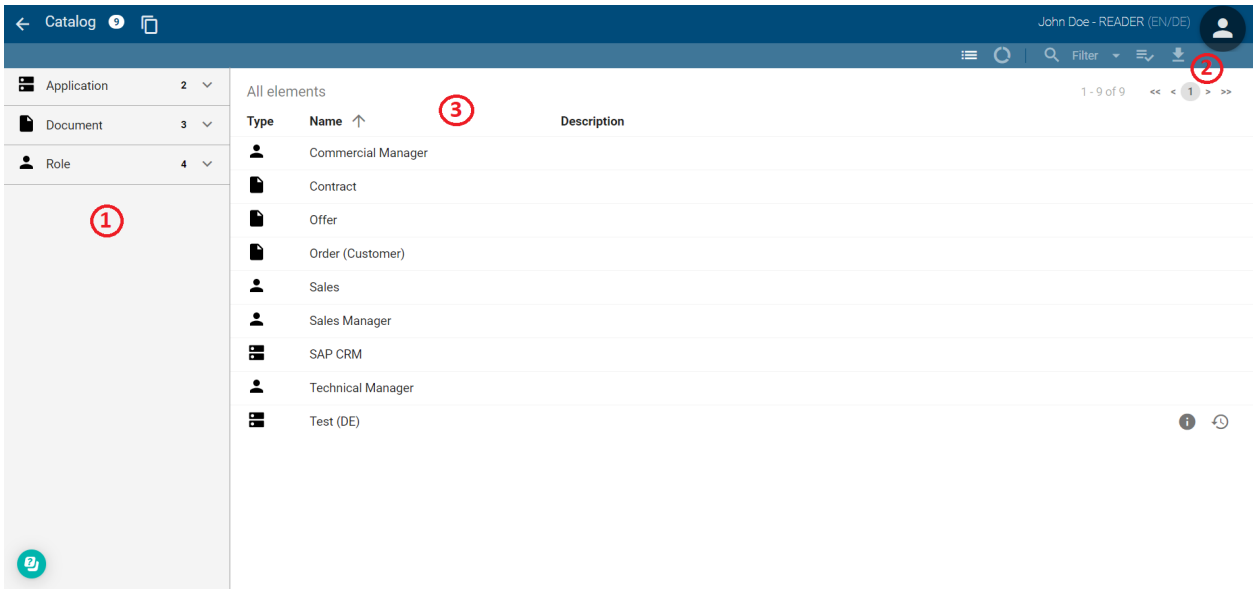
(2) **Alternative Views:** Navigation to the matrix view and process execution view is now directly above the diagram and no longer in the toolbar.

(3) **Options:** The previous functions, such as comments or printing, which were located in the toolbar and menu bar in the old interface, can now be found under *Options* in the new interface. Additionally, the attributes of the diagram or an individual entity can now be found under *Details*.

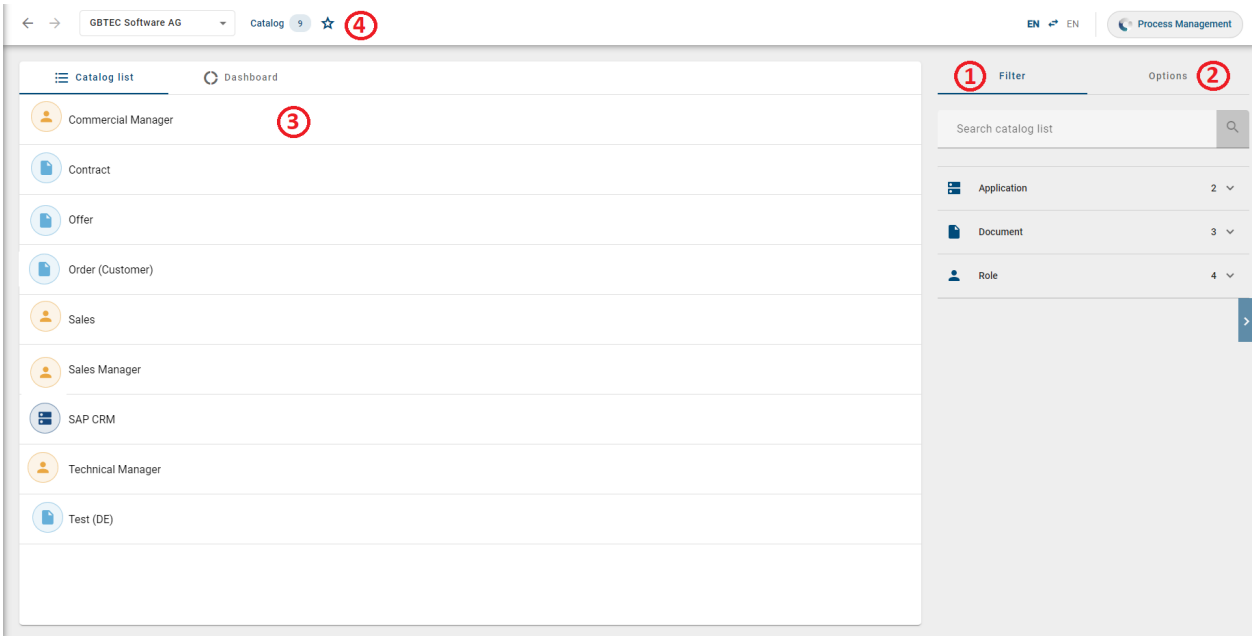
1.5 Catalog

This area affects all roles.

Old Interface:



New Interface:



(1) **Filter:** In the new interface, you will find the filter area and search functions in the right sidebar.

(2) **Download Report:** The function to download a report, which was located in the toolbar in the old interface, can now be found under *Options* in the new interface.

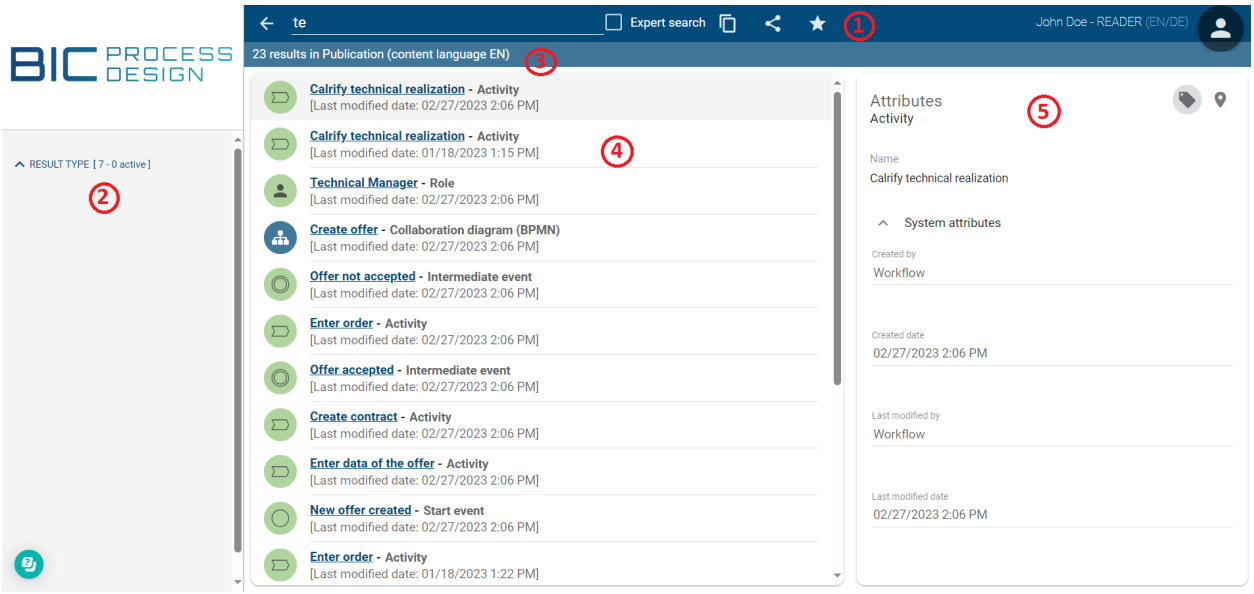
(3) **Catalog List:** The catalog list in the new interface is structurally similar to the old interface. The description of a catalog entry is now displayed below the catalog name and no longer beside it.

(4) **Switching Repository & Marking as Favorite:** In the new interface, you now have the ability to switch the repository within the catalog. Additionally, you can mark (filtered) catalog lists as favorites, which will then be saved on your *myBIC* page.

1.6 Search

To initiate a search in the new interface, you need to navigate to the *Search* section through the menu. This area affects all roles.

Old Interface:



New Interface:

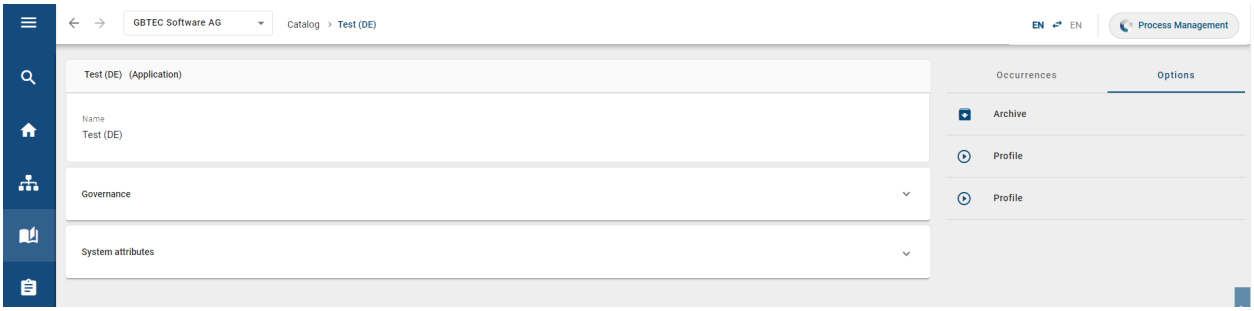
(1) **Search:** In the new interface, the search no longer takes place in the header but in the main area of the *Search*.

(2) **Filter:** In the new interface, you will find the filter area in the right sidebar.

(3) **Number of Search Results:** In the old interface, you could see the number of search results for the publication using the toolbar by default. In the new interface, these results are now displayed in the header bar. Additionally, you can change your repository here to expand the search.

(4) **Search Results:** In the new interface, you will only find the names of matching catalog entries and diagrams in the current content language in the search result list. Hovering over the icon provides information about whether it is a catalog entry or a diagram.

(5) **Details of Search Results:** While in the old interface, the details of the corresponding search result were displayed in the right sidebar, in the new interface, you need to click on the respective search result.

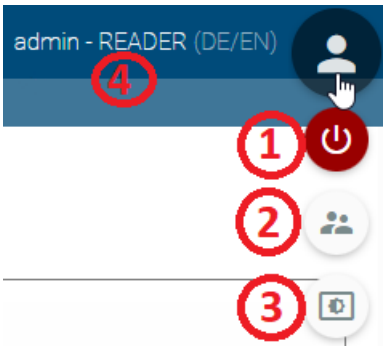


Subsequently, you will be directed straight to the corresponding diagram/catalog entry and will no longer be in the *Search*. This information is also available in the header. Here, you can view all details of the corresponding search result and, if needed, download the archive or the report.

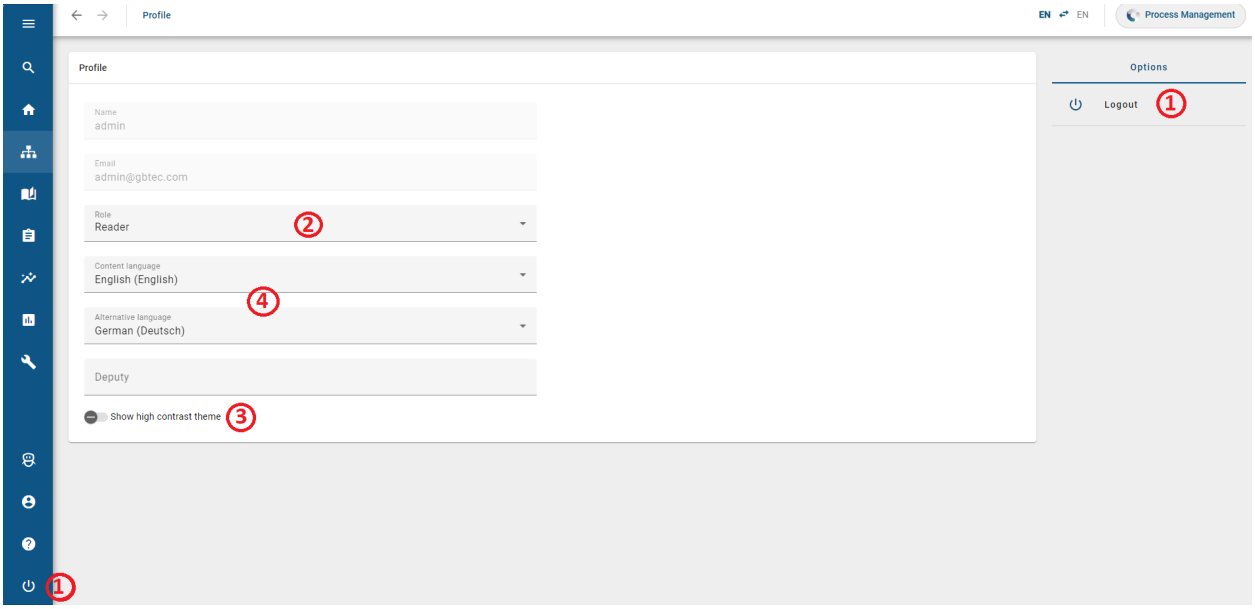
1.7 Profile

In the new interface, the profile is now displayed as a separate menu section. To access it, go to the *Profile* section. This area affects all roles.

Old Interface:



New Interface:



(1) **Logout:** In the new interface, you will find the *Logout* button both on the profile page in the right sidebar and consistently at the bottom of the menu bar.

(2) **Change Role:** The role can be adjusted on the profile page, provided that you have an appropriate role assigned in the user management.

(3) **High Contrast:** The high contrast mode is now more prominently marked on the profile page and can be toggled on and off as needed.

(4) **Change Language:** You can still adjust the language setting consistently in the header. Additionally, you can now set this on the profile page as well.

Furthermore, you can access your short profile from all areas. To do this, click on *Profile* in the menu bar.

Here, you have the option to change your role and switch to high contrast if needed. To view your complete profile, click on the *Open complete profile* button located at the top right within the short profile.

CHAPTER

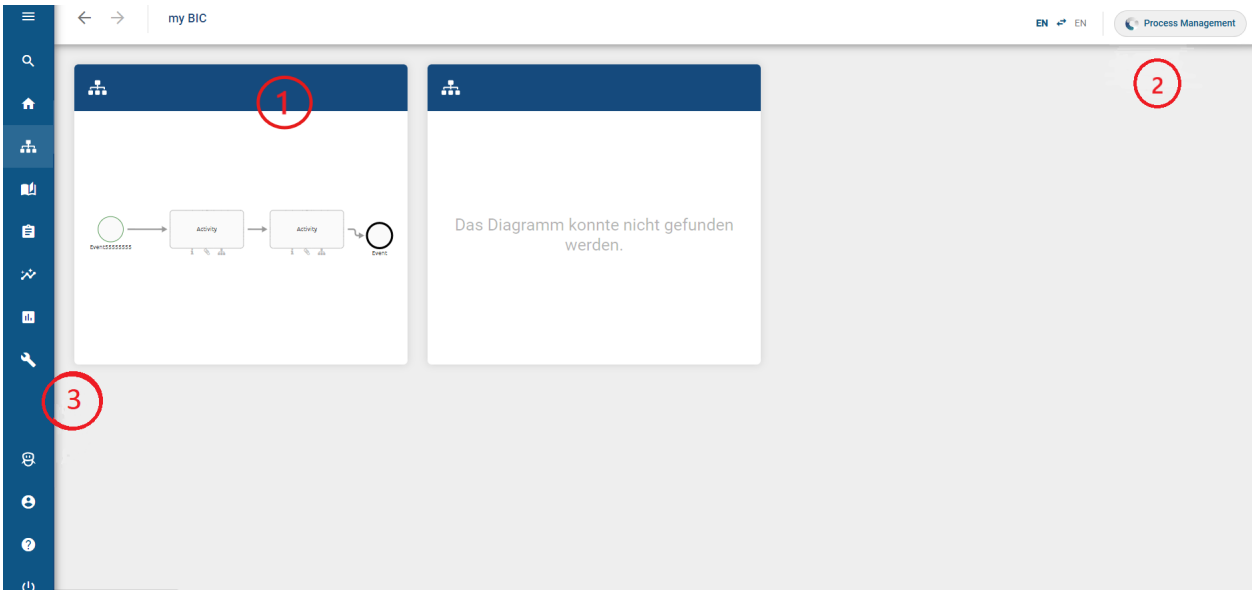
TWO

QUICKSTART

Welcome to the BIC Process Design help.

Welcome screen

After you have logged in, you can see your welcome screen. Details may vary, but the general structure is the same.



It consists of different elements and options.

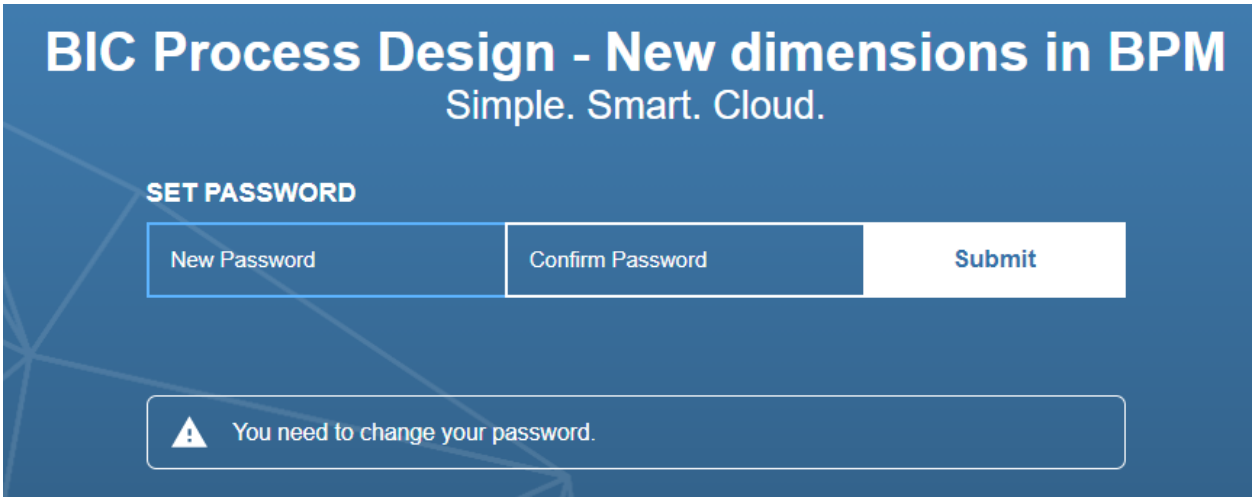
(1): In the middle you can see your *MyBIC* site.

(2): In the top-right corner you have the possibility to swap your *content and alternative language*.

(3): In the left sidebar you can see the different functionalities of BIC Process Design such as the *catalog* or the *governance cockpit*.

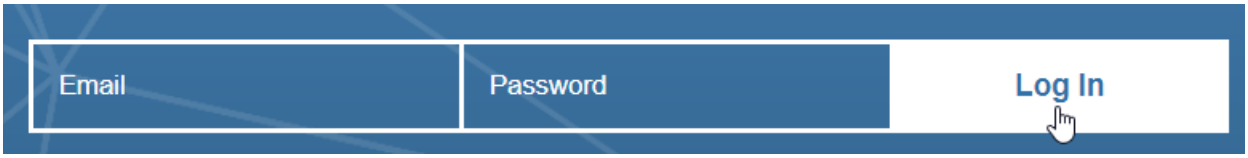
2.1 How do I sign in?

As soon as you are registered as a user in BIC Process Design, you will receive an email with a link to set your password. Open this link and set a password.



If you confirm via *Submit*, you are logged in to the application.

When you have registered successfully once, you can always log in to your BIC Process Design by entering your email address and the password on the login page.



After successful login you will be informed about a software update and new features of BIC Process Design if applicable.

Warning: Do not log in to the system at the same workstation and the same browser and different credentials (without clearing the cache). This type of operation can lead to inconsistencies and data loss in the worst case. It is not supported by the software.

As an SSO user, you are directly logged in to BIC Process Design by opening the application if you are logged in to you SSO-system. The login page of the application is no longer usable. Your login data are managed by the SSO-system and you do not receive any emails with links to set your password from BIC Process Design. Therefore, you can only change your password in the external system. In addition to SSO users, "normal" users can have access to the application and the login page in the same tenant using the corresponding URL parameter.

Hint: If you are in BIC Process Design and a new version is available, the system checks when loading the application whether the server version differs from your local version and whether cached data needs to be updated. If so, a dialog appears whether you must update all cached data by clicking the *Reload now* button. Please note that the version check is only performed when the application is loaded to avoid possible conflicts with unsaved changes.

2.2 How is the login lock configured?

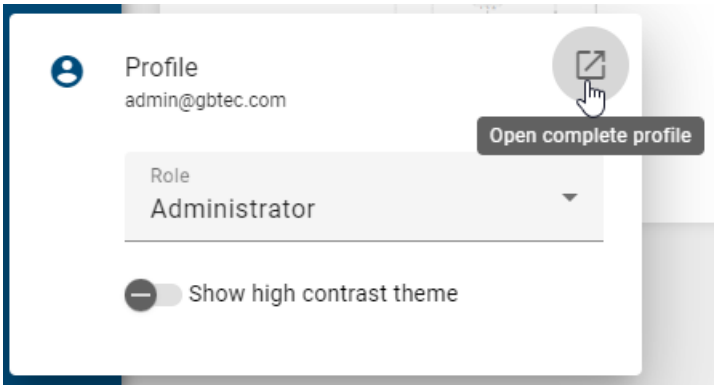
If you make ten consecutive failed login attempts, the account will be locked for one minute. During this lockout period, each login attempt will receive the message *Invalid username or password*. If further failed login attempts are made after the lockout period has expired, the waiting time until the next attempt will be incrementally increased, with a maximum waiting time of up to fifteen minutes.

The login attempt counter is reset every twelve hours or after a successful login. In addition, a one-minute lockout occurs if the time between two consecutive failed login attempts is one second or less.

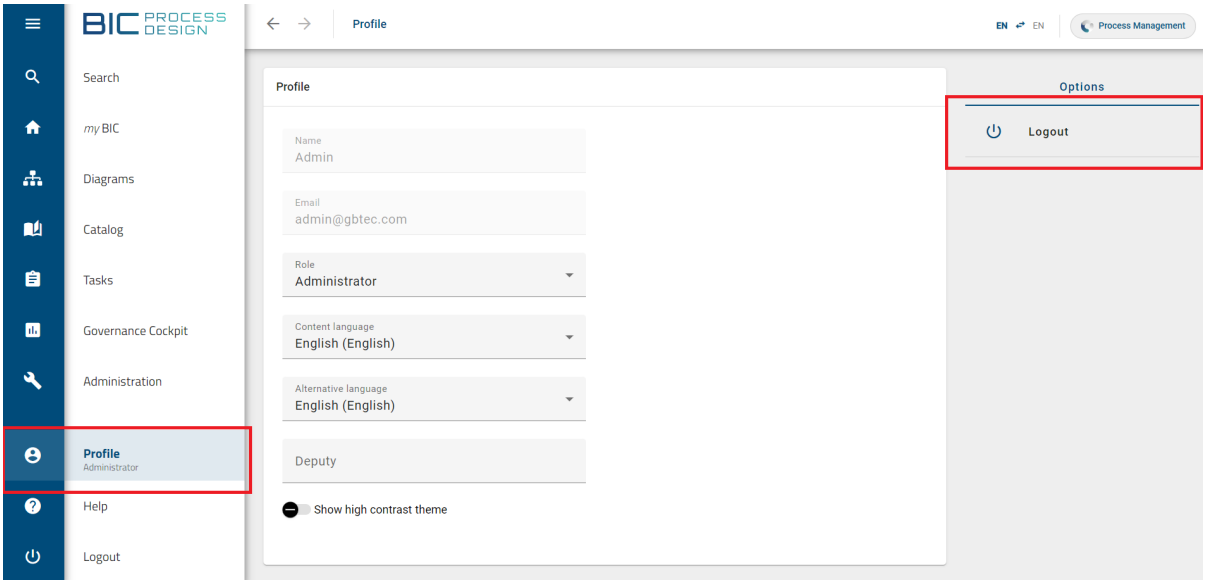
2.3 How do I sign out?

We recommend you to sign out after finishing your work with BIC Process Design.

Select *Profile* on the left sidebar, and click *open complete profile*.



In the right sidebar you will see the *Logout* option. Clicking on this button will take you to the logout page.



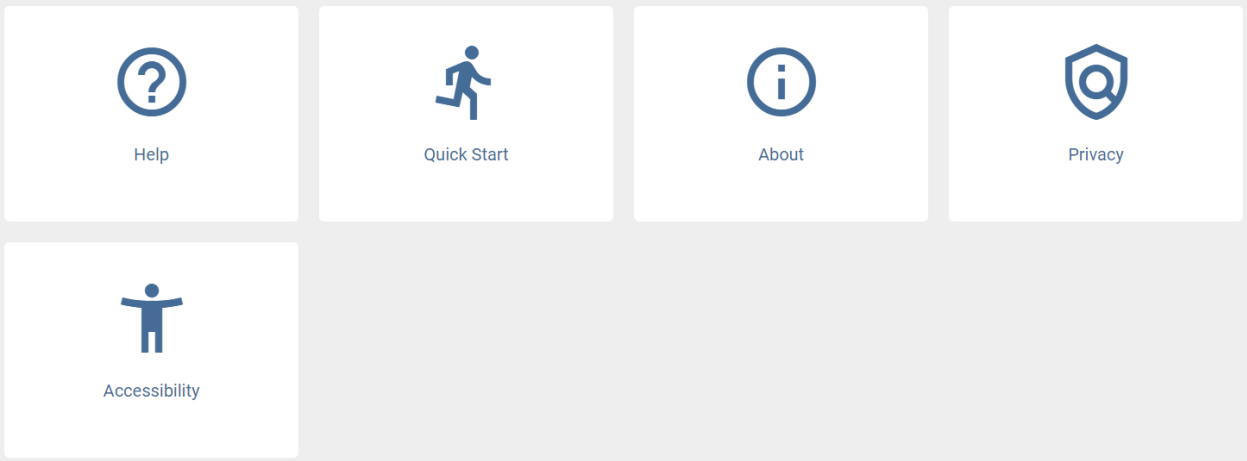
If you have checked out diagrams, you will be notified with a dialog. Please keep in mind that local workstations are stored in the “Local Storage” of your browser. According to your browser settings, it is thus possible that local workstations are rejected by closing the browser. Therefore, always check in your changes to unlock the diagram for further processing. Subsequently you are logged out and are forwarded to the logout page of BIC Process Design.

During your next login, BIC Process Design will redirect you to the repository you have worked in last.

Note: Your session will expire if you are inactive for at least 30 minutes by default. Five minutes before your session expires, you will receive a notification within the application asking you to extend your session. If you remain inactive after the five-minute notification, the application will automatically log you out and ask you to log in again.

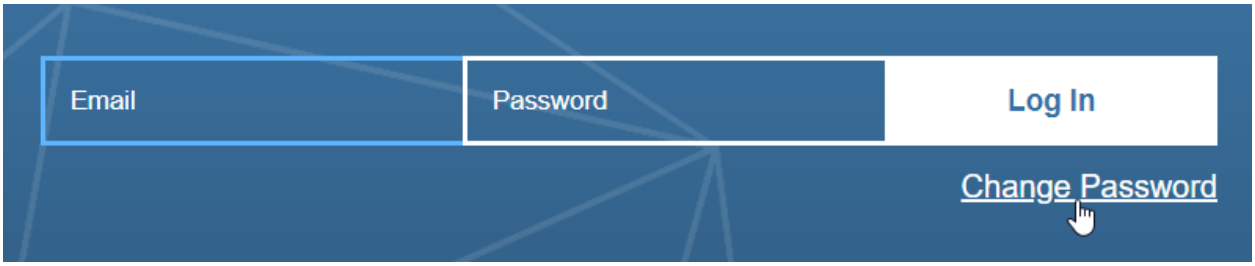
2.4 Where can I find the help?

On the left menu click on the button *Help*. There you can click the option *Help* to get the full documentation of BIC Process Design. Alternatively, you cann click the option *Quick Start* to navigate to the quickstart of BIC Process Design (which is this chapter).

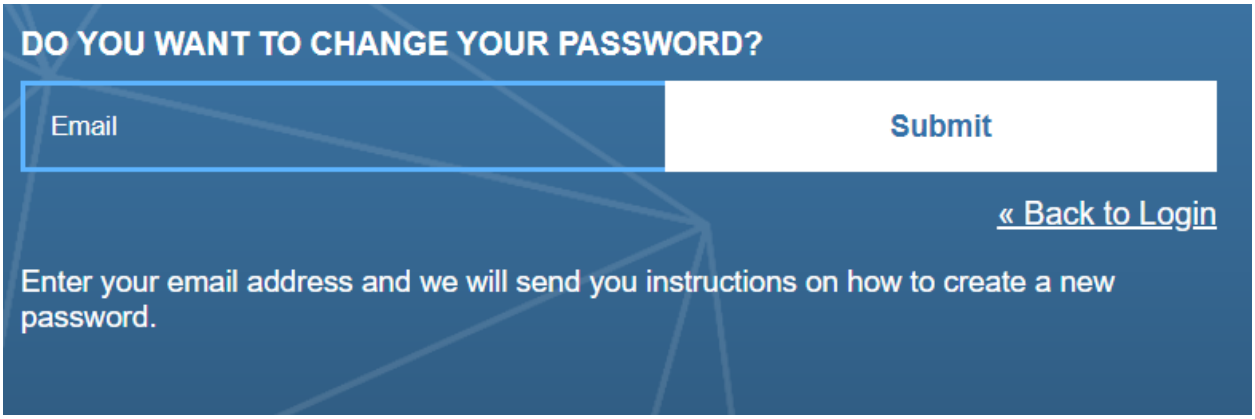


2.5 How do I change my password?

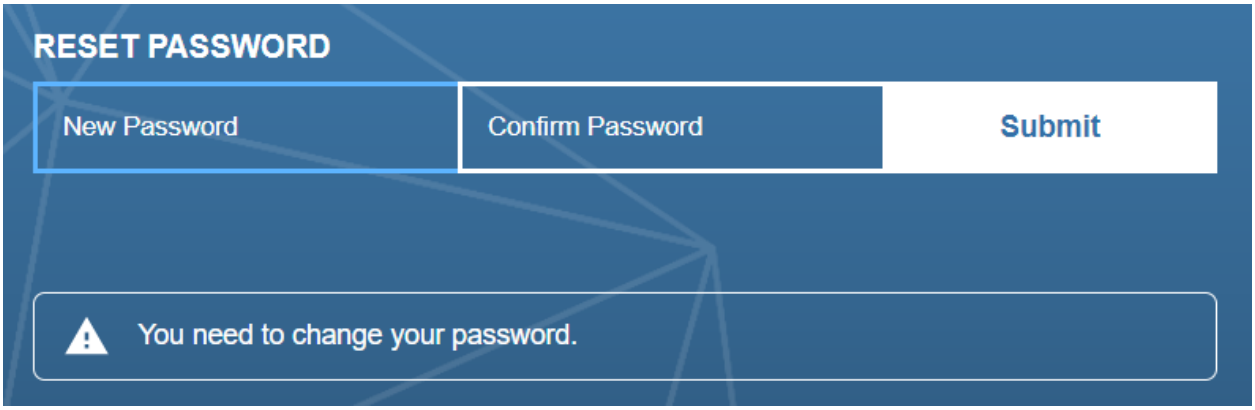
You can change your password on the login screen. Log out if you are already logged in. If you have forgotten your password, you can also reset it by following the steps. To do this, click on *Change password* on the login page.



You can then enter your registered email address and click *Submit*.



You will receive an email with a link to set your new password. The link is valid for 5 minutes. Follow this link to the corresponding page where you can enter your new password.



Confirm your input by clicking on *Submit* and your new password will be saved.

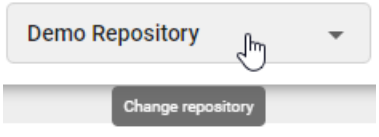
Alternatively, administrators can send a link to change the password to every user in the administration area of the old user interface.

Note: Your new password must be at least twelve characters long, contain one number, one special character, one lowercase and one uppercase.

2.6 How can I view different repositories?

If you are working with several repositories, you can switch between them in the top bar. The name of the current repository is displayed as first entry of the top bar.

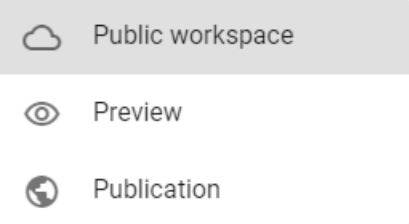
To display another repository, click the name of the current repository to open an alphabetically sorted list of available repositories. If necessary, scroll until the desired repository is displayed.



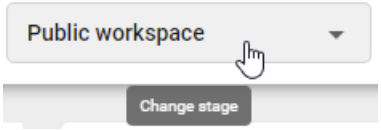
Select the desired repository by clicking its name. You are directed to the myBIC page and eventually see the diagrams of the selected repository.

2.7 How can I change my stage?

You have the opportunity to change your stage according to your *assigned user role*. The different stages are *Public Workspace, Preview* and *Publication*.



To change your stage, click on your current stage and select the stage you want to go to.

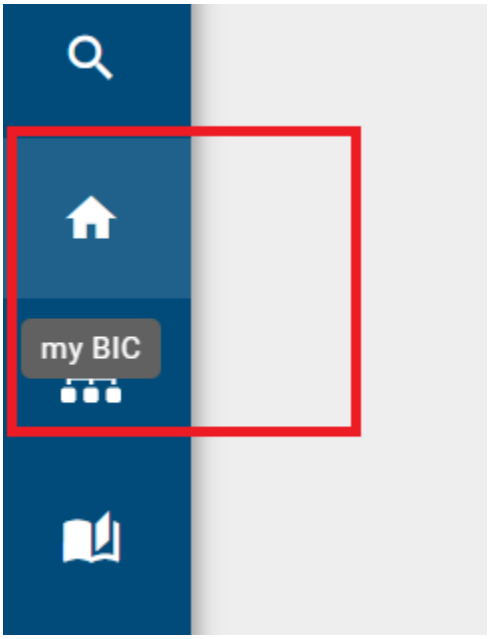


Afterwards you can navigate within the *menu bar* and view the associated content of your current stage.

2.8 How can I navigate through the BIC Process Design menu?

In the left sidebar, the menu items are represented by icons for each application area.

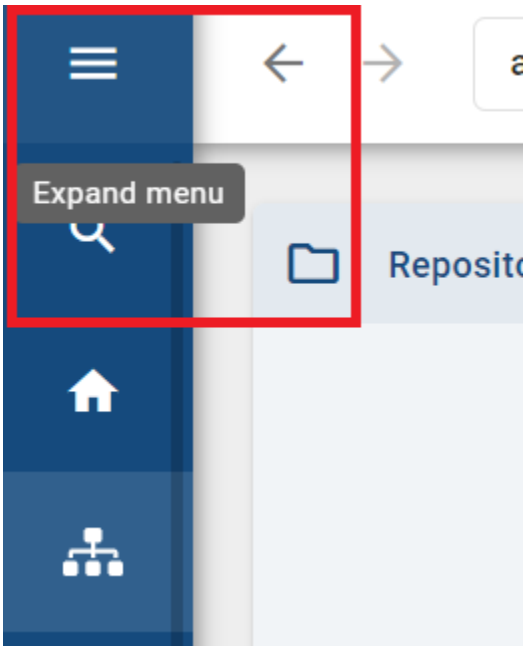
You can move the cursor over a menu icon to display a tool tip for this icon. The corresponding application area opens by clicking the respective *menu icon*.



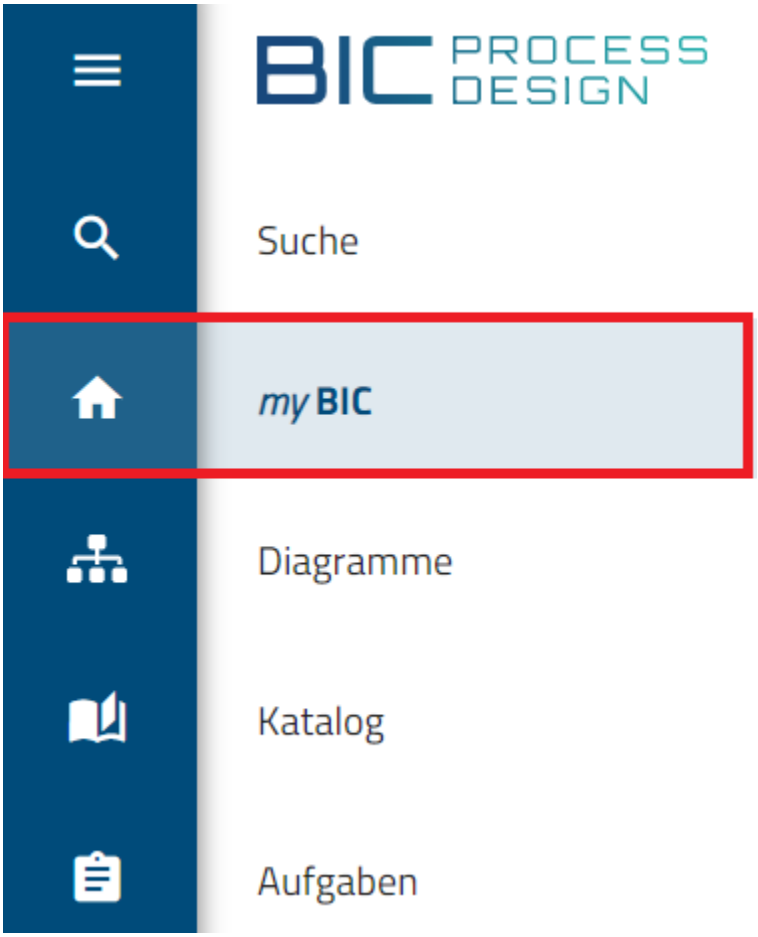
Hint: In the *Tasks* menu item, the number of open tasks is also shown.

2.9 How can I see the descriptions of the menu icons in the sidebar?

After you log in, you will see the collapsed menu reduced to the icons on the left side of the home page. You can expand the menu by clicking on the top icon.



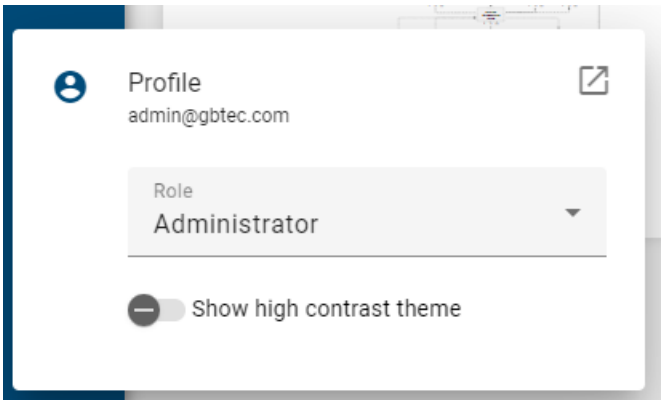
The side menu will expand and you will see the descriptions of the menu icons.



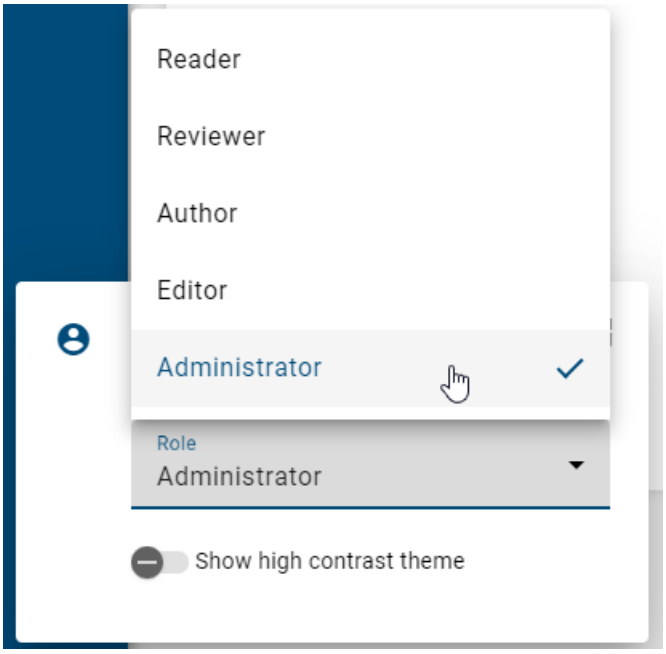
2.10 How can I change my user role?

Users who have more than “Reader” rights can switch their active role in the system. This makes it easier for you to put yourself into the role of other users and to view the system from the perspective of your employees.

If you click on the profile icon in the collapsed menu, the short profile will appear. The short profile shows your email address, your active user role and the switch to (de-)activate the high contrast theme.

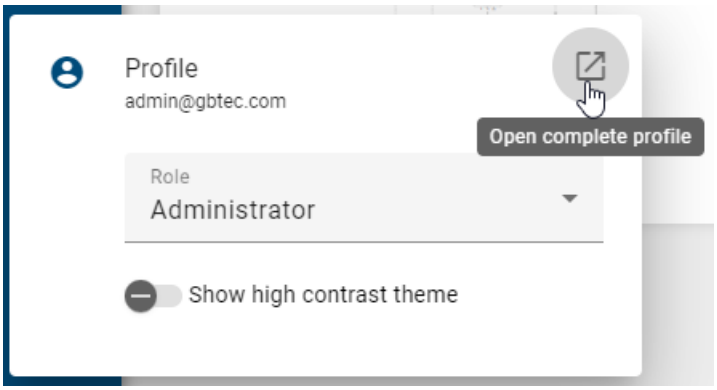


Click on your active user role to select the new desired role in a drop-down menu.



These settings remain until you explicitly change back your active role. This also applies to a new login, which means that the role will not be changed to your highest role automatically.

In the short profile, you can also navigate to the *Profile* area via the button *Open complete profile* to view and adapt further settings for your user, for example determine a deputy.



Hint: Changing the user role does not change the rights of your user role, but rather the user interface is displayed according to the selected user role. This means that you can still use functions that are available to higher roles even though you changed your user role to one with less rights. For example, if you have selected the user role *Author* as an *Administrator*, you can still check out diagrams for which you have not been set as "Author" within the *governance attributes*.

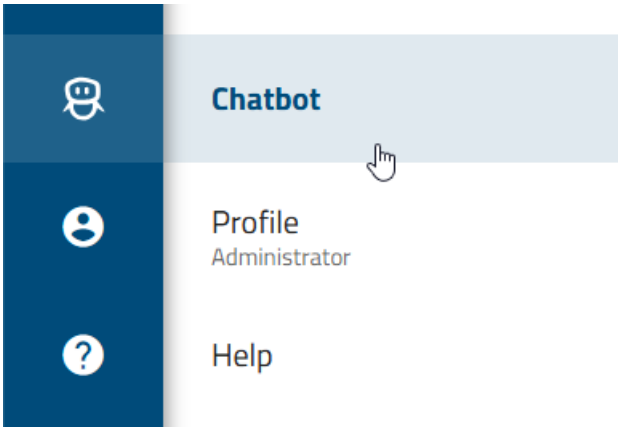
CHAPTER

THREE

CHATBOT

Arty is the name of our AI-based assistant, with which you can interact through the chatbot and is specialized in real-time consulting. Within the chatbot, you can ask Arty your questions and receive an automated response in no time. For example, you can get assistance with using features in BIC Process Design or ask questions about your published processes.

To use the chatbot, all that is required is to activate the necessary license. After that, all users will find the *Chatbot* menu item in the left menu bar and can interact with the chatbot.

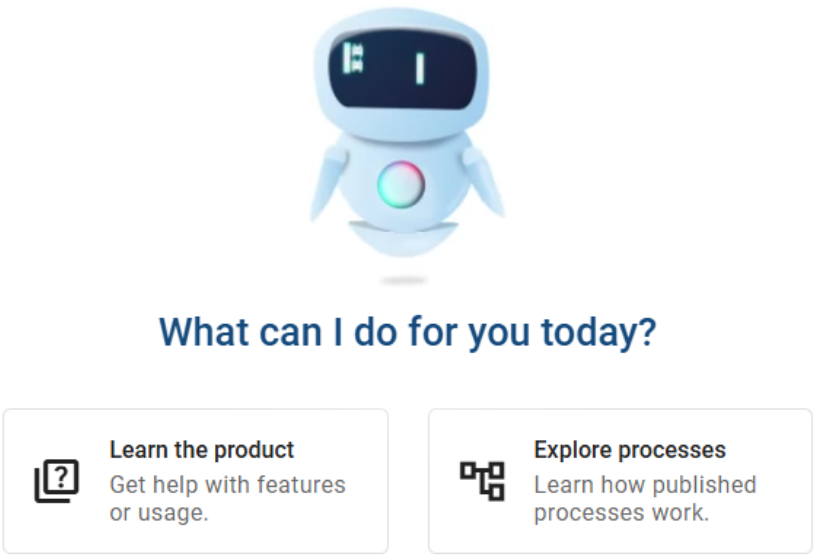


Hint: Please note that a separate license is required to use this feature. Also, please refer to the *guidelines for using the AI feature*.

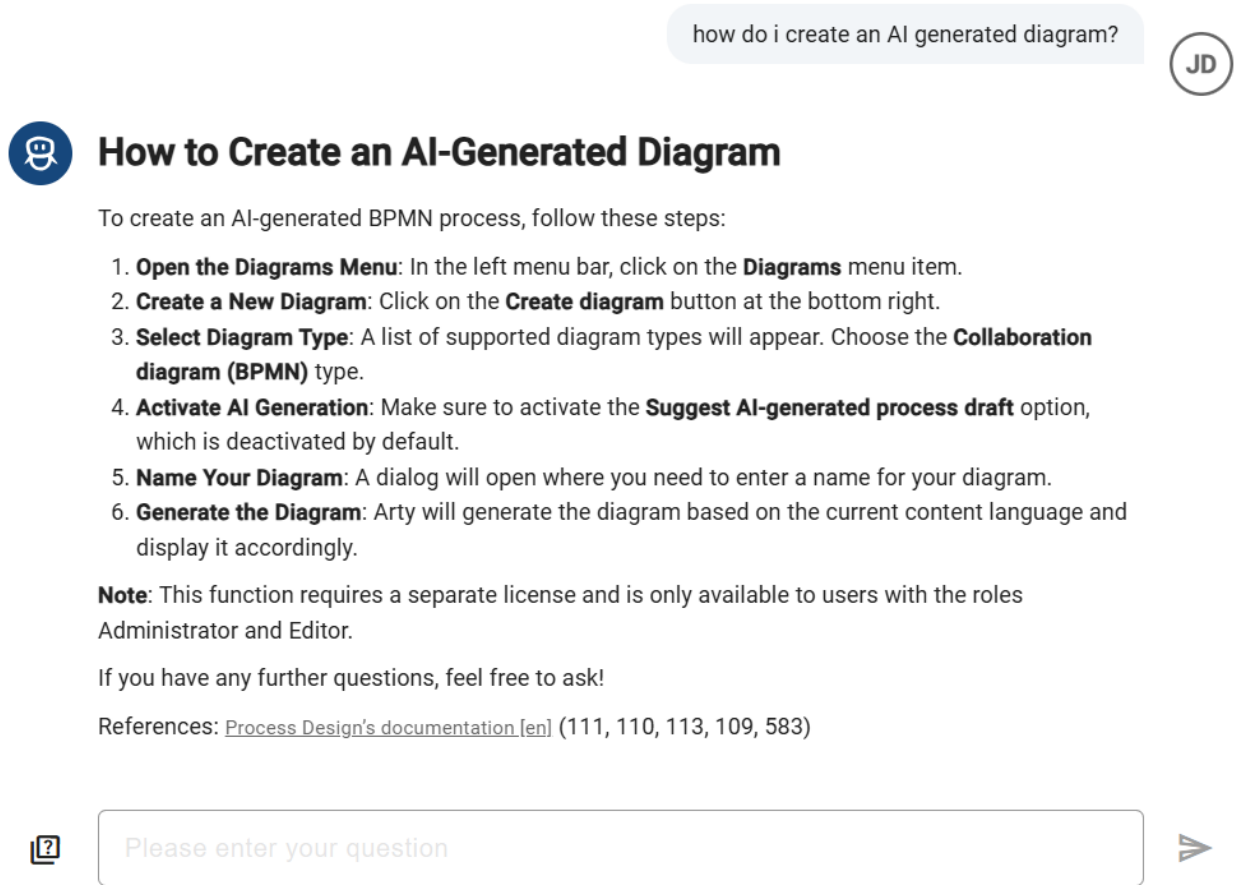
3.1 How does the chatbot work?

When you click on the *Chatbot* menu item in the left menu bar, the chatbot will open. You will be greeted by our AI-based assistant, Arty, in your browser's language. Below the greeting, you will find two different options to help you get more specific answers to your questions. These options are as follows:

- **Learn the product**: If you select the *Learn the product* option, you can ask questions about the features of BIC Process Design. The online documentation, which is also referenced as a hyperlink when you receive an answer from Arty, is used as the data source for the response.
- **Explore processes**: If you select the *Explore processes* option, you can ask questions about your published processes in BIC Process Design. Only the modeled data from the *Publication* stage will be used as the data source, and the published processes referenced are linked in the answer. If you click on a linked process, you will be redirected to the corresponding diagram in the *Publication* stage.

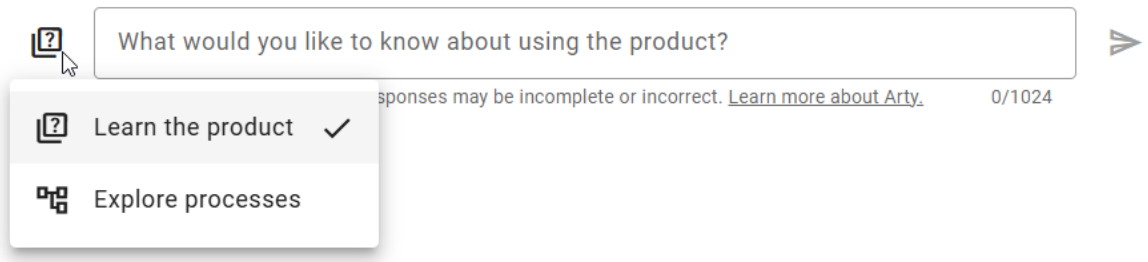


After selecting an option, you can enter your question in the input field. Once you have entered at least one character in the input field, the send option will be enabled. You can send your question to *Arty* by clicking the *Send* button to the right of the input field or by pressing the Enter key. Within a few moments, you will receive an answer to your question.



Hint: Please note that the input field is limited to 1024 characters. A counter at the bottom right of the input field shows how many characters you have entered. Once the limit is reached, further input is blocked and no additional characters are accepted.

If you want to ask a question about a different option at a later time, click the icon to the left of the input field that shows the icon of the currently selected option.



Hint: Please note that your chat history will be deleted after changing the option.

You also have the option to learn more about *Arty*. To do this, click the link below the input field. The documentation with *notes on the use of AI features* will open in a new tab.

3.2 Is the chat history saved during the session?

The chat history is only stored for the duration of the active session. At the end of the session, the entire history is deleted and is no longer available for new chats. Similarly, the chat history is not retained if the chat window is closed and reopened, such as by clicking on another menu item.

Warning: Our chatbot works without memory and starts from the beginning with every new message. This means that it does not store any information from previous messages. To receive an accurate answer, it can be helpful to provide additional context to a question, as *Arty* treats each request as independent.

3.3 How to talk to Arty

To receive accurate and precise answers from *Arty*, it is important to follow a few basic guidelines. Arty understands your input best when you formulate it clearly and explicitly state which information or results you need. The more specific your request is, the more effectively Arty can respond and support you in your tasks.

3.3.1 How should I model my processes for Arty?

To ensure that you receive the most accurate and helpful answers from Arty, there are several points you should keep in mind. If a single object contains a very large amount of information or too many attributes, this may confuse Arty and reduce the quality of the answers. The same applies to custom attributes you have defined and were set up by an administrator. If these are not named clearly, Arty may struggle to interpret their meaning. Very large processes, for example, processes with activities that have many (e.g., > 50) attached satellite files, may also prevent Arty from providing a complete answer.

Arty currently processes the following diagram types most reliably: BPMN diagrams, VCD, Application Context diagrams, and Business Capability Context diagrams and maps. Arty is familiar with the key elements of these diagram types because it can interpret the concepts of these notations. Arty can also evaluate other diagram types; however, this is done using a generic approach, which may result in greater variation in answer quality.

If you use terms that have different meanings in different contexts, this may lead to misinterpretations. In such cases, you should briefly clarify the context, choose a simpler formulation, or use an unambiguous alternative term so that Arty can correctly interpret your request. In addition, you should avoid combining multiple questions within a single message. Asking your questions one at a time allows Arty to respond more precisely and retrieve the relevant information more reliably. This helps Arty provide clear, complete, and accurate answers.

3.3.2 How should I phrase my questions for Arty?

For Arty to provide precise and helpful answers, your questions should always include the complete context. The more specific and self-contained a question is, the better Arty can understand it. A question such as “When does the Hiring process at the Berlin location expire?” is much easier to answer reliably than a shortened question such as “When does the process expire?”, which lacks the necessary reference to a specific process. If you want to clarify multiple questions, you should not combine them into a single message. Instead, ask each question separately so that Arty can clearly assign the information and determine the correct answer. Be sure to provide the full context with each question, as no chat history is stored.

Terms such as “production process” instead of “process” or “credit institution” instead of “bank” reduce misunderstandings and help Arty interpret your input correctly. Short explanations of context-specific terms or replacing ambiguous expressions with clear alternative terms can also help Arty understand your request correctly. This applies not

only to questions in the chat but also to your modeling itself, as clear object and attribute names further support Arty's responses.

Questions generally lead to better results than statements or purely descriptive text. Open or incomplete statements carry the risk that Arty might focus on aspects you did not intend or that important information may be missing. If you formulate your requests as precise questions, Arty can respond more accurately and provide exactly the information you need.

3.3.3 How does Arty process the entered data?

Since Arty does not store any chat history, follow-up questions without repeated context cannot be answered reliably. For example, if you first ask "Who is responsible for the Hiring process?" and then follow up with "Which activities does the process have?", Arty cannot correctly interpret the second question because it is unclear which process you are referring to. In such cases, you should always restate the reference so that Arty can interpret the information unambiguously.

Please also note that uploaded files or links within modeled processes cannot currently be taken into account. If you ask questions that refer to the content of attached files, Arty cannot evaluate this information.

Sequence information, such as the exact order of activities, events, or gateways in a modeled process, is also not currently included in Arty's answers. Therefore, it does not matter how closely a model follows typical BPMN conventions. However, Arty can reliably answer questions about attributes stored on entities, such as the roles, risks, files, or links assigned to an activity. To avoid misunderstandings, you should always explicitly state the relevant process so that Arty can clearly identify which model your question refers to.

CHAPTER

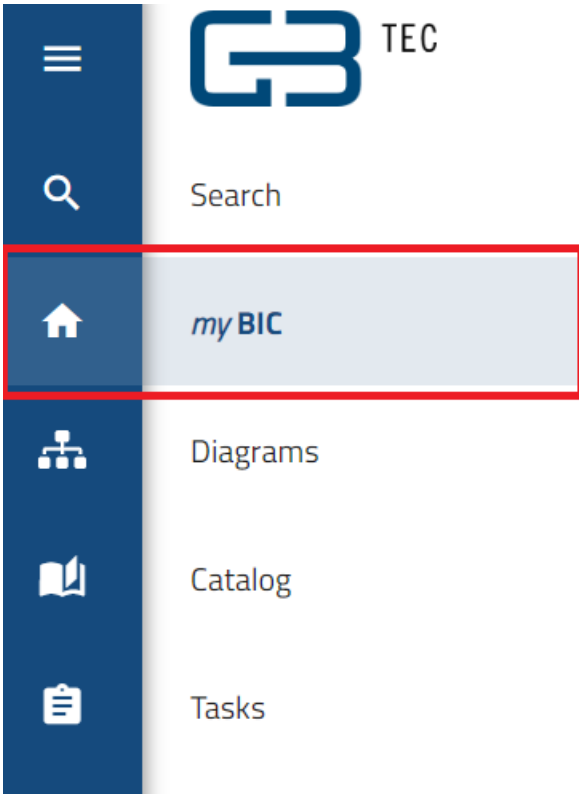
FOUR

MYBIC

The myBIC page can be reached via the menu item named *myBIC*. The following questions arise for myBIC.

4.1 Which tiles do I see in myBIC?

Click on the entry with the same name in the menu to display *myBIC*.



Then you can see the following different tiles:

Start diagram: This tile is displayed, if a company-wide start diagram is set, and shows the preview of this diagram.

Default favorites: Default favorites are tiles that the administrator can create for the users in the *administration area*. Note that these cannot be removed independently by the user themselves. The display of the default favorites is sorted alphabetically.

Checked out diagram: If you are assigned the role of *Author*, *Editor*, or *Administrator*, any diagram you have checked out will appear in the "Checked out by you" tile. This includes both locally created diagrams that have not yet been

checked in and existing diagrams that have been checked out but not yet checked back in. The diagrams are sorted in descending order by the date of the last modification. Diagram names and their associated repositories are displayed in your content language. If a diagram has been renamed locally, the updated name will not be shown in the tile, instead, the original diagram name remains visible.

> **Warning:** Diagrams you have checked out are locked for other users. If an *Administrator* unlocks and deletes your checked out diagram, it will still be available in your local workspace and visible in the "Checked out by you" tile. However, attempting to check the diagram back in will result in an error.

Favorites: The "Favorites" tile is displayed as soon as you have marked at least one *diagram as a favorite*. This tile lists all marked diagrams in alphabetical order. For each diagram, the name and the associated repository are shown in the current content language. Using the context menu of an entry, you can customize the displayed name to label your favorites more intuitively, remove a diagram from the list, or enable notifications to be automatically informed of any changes.

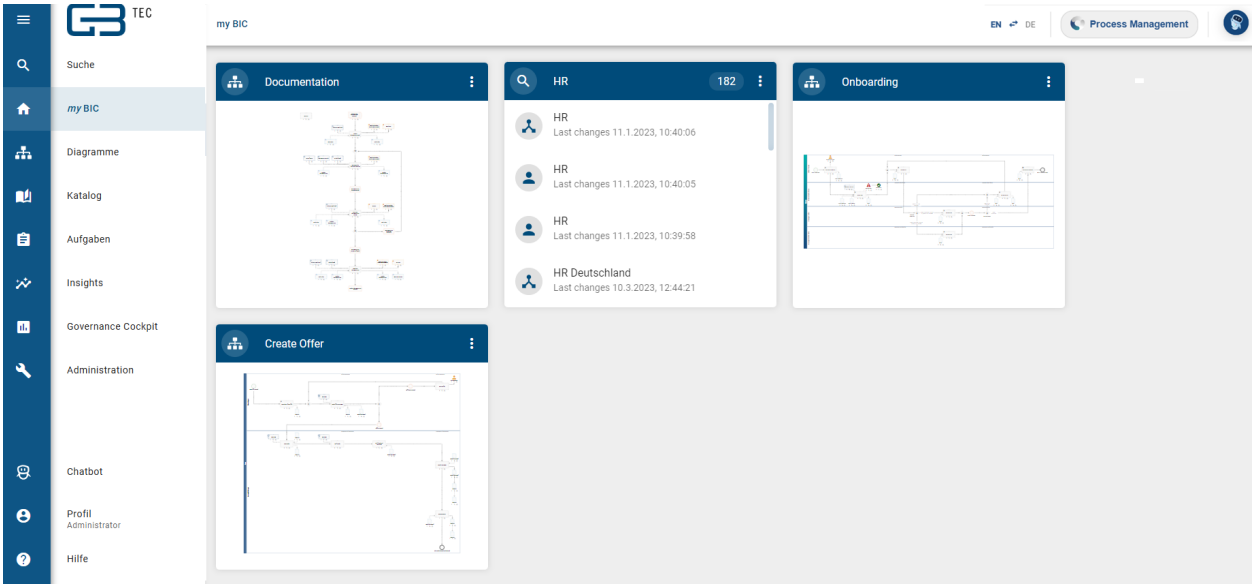
Catalog list: For each catalog list favorite, a separate "Catalog list" tile is displayed, named according to your chosen name. The favorites are sorted alphabetically by name. The number of catalog entries is displayed, and the corresponding catalog entries are listed within the tile. If there are many catalog entries, a scroll bar appears within the tile, allowing you to see all the entries. For each entry, you see the name, the icon of the entry type, and the time of the last change.

Dashboard: For each dashboard favorite, a separate "Dashboard" tile is displayed, named according to your chosen name, which includes the dashboard as a preview. The favorites are sorted alphabetically by name. The icon of the tile is assigned based on the one of the diagram or catalog in which you marked the dashboard as a favorite.

Search result: For each search favorite, a separate "Search result" tile is displayed, named by the favorite. The favorites are sorted alphabetically by name. The number of search results is displayed, and the corresponding results are listed within the tile. If there are many search results, a scroll bar appears within the tile, allowing you to see all the results. For each result, you see the name, the icon of the result type, and the time of the last change.

If no tiles are available, this is noted accordingly. However, if tiles are available, they are sorted according to the checked out diagrams, start diagram and the favorites. The favorites can be divided into default favorites and personal favorites (diagram, catalog list, dashboard, search result). The tiles are displayed in a fixed order, starting with the checked out diagrams, followed by the start diagram, the default favorites, and ending with the personal favorites.

In the tiles, that represent diagrams and dashboards, you can navigate to the respective diagram or dashboard by clicking on the tile or the tile header. If you click on a checked out diagram, you will be taken to the corresponding diagram in the local workspace, where you can edit it or check it back in. Moreover, you can click on a diagram or object list entry of the search results to be redirected to the respective diagram. If the objects in the search results are catalog items, you can access the detailed view in the catalog by clicking on them.



In the mobile view, you get a list instead of tiles. By clicking on a diagram or dashboard in the list entry, you will be forwarded directly. For a catalog list favorite or search favorite, all catalog entries or search results are first listed with one click and can then be opened as described above.

Hint: Please note that favorites are focus-dependent. Content that has been marked as a favorite is only displayed within the focus in which it was marked. If required, the same content can be saved as a favorite in multiple focuses.

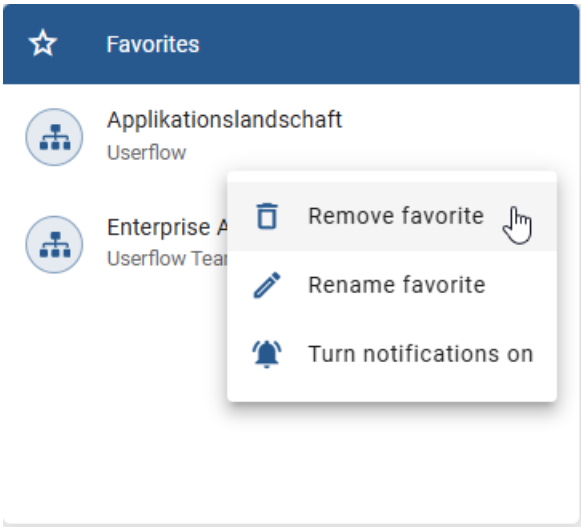
Hint: Please note that the titles of the *MyBIC* tiles depend on the language set in the browser, while the content of the *MyBIC* tiles depends on the language of the respective content.

Note: A diagram-specific preview is available if the diagram has been changed since version 5.3.0 and if it is in preview or publication stage. Otherwise, a preview will be displayed for the respective diagram type.

4.2 How can I remove a favorite from my myBIC page?

If you select the menu item *MyBIC* in the left-hand menu bar, you will be taken to your personal overview page. There you will find tiles in which all the diagrams, catalog lists, dashboards and search results you have marked as favourites are clearly displayed.

If you want to remove a *favorite catalog list, a favorite dashboard* or a *favorite search result* from your favorites tile, move the mouse pointer over the header of each individual tile. A context menu will then appear.



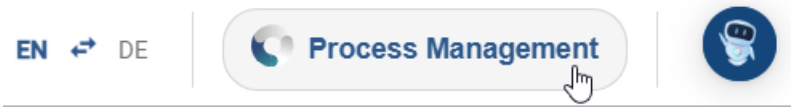
Select the option *Remove favorite* there. The tile disappears from your myBIC page directly.

Note: The tiles defined in the administration for *Default favorites*, the tile for checked out diagrams and the favorites tile cannot be removed independently by the user. For this reason, no context menu is displayed on these tiles.

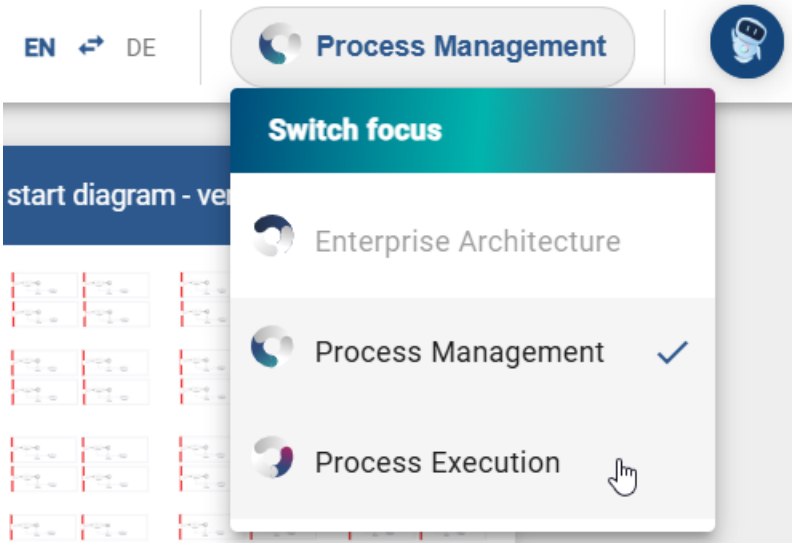
4.3 How can I change my focus and customize my myBIC?

When you select the *myBIC* item in the left menu, you will reach your personal overview page. In the top right of the user interface, you can use the *focus drop-down* menu to select the currently active focus. A focus determines which content is displayed on your *myBIC* page, in particular which favorites, tiles, and diagrams are visible.

By default, the focus stored in your user preferences is displayed. If no focus is set, *Process Management* is automatically used as the default.



To switch the focus, click the *drop-down menu*, which lists all available focuses, including *Process Management*, *Enterprise Architecture*, and *Process Execution*.



When you select a focus *BIC Process Design* or *Enterprise Architecture*, the display is switched to the chosen focus and your user preferences are updated accordingly. The start page for the selected focus is then automatically loaded. Favorites that have been marked in a specific focus are displayed only in that focus on your *myBIC* page. This allows you to view individually saved favorites and content in each focus area without affecting other focuses.

If you select the focus *Process Execution*, you are redirected to *Process Execution*. The focus switch then shows *Process Execution* as the current focus and your user preferences are not changed.

Warning: Please note that clicking the *focus drop-down menu* shows all focuses available in BIC. Only the focus areas your company has purchased can be selected, while all other focuses are greyed out and unavailable.

Warning: If a focus is saved that can no longer be used (for example, because the associated product is no longer purchased), it will be automatically replaced at login. In this case, BIC sets the default focus to *Process Management* to ensure that every user has a valid and usable focus after logging in.

Tip: You can switch the focus at any time, regardless of which menu item you are currently in. It is not necessary to be on the myBIC start page to change the focus.

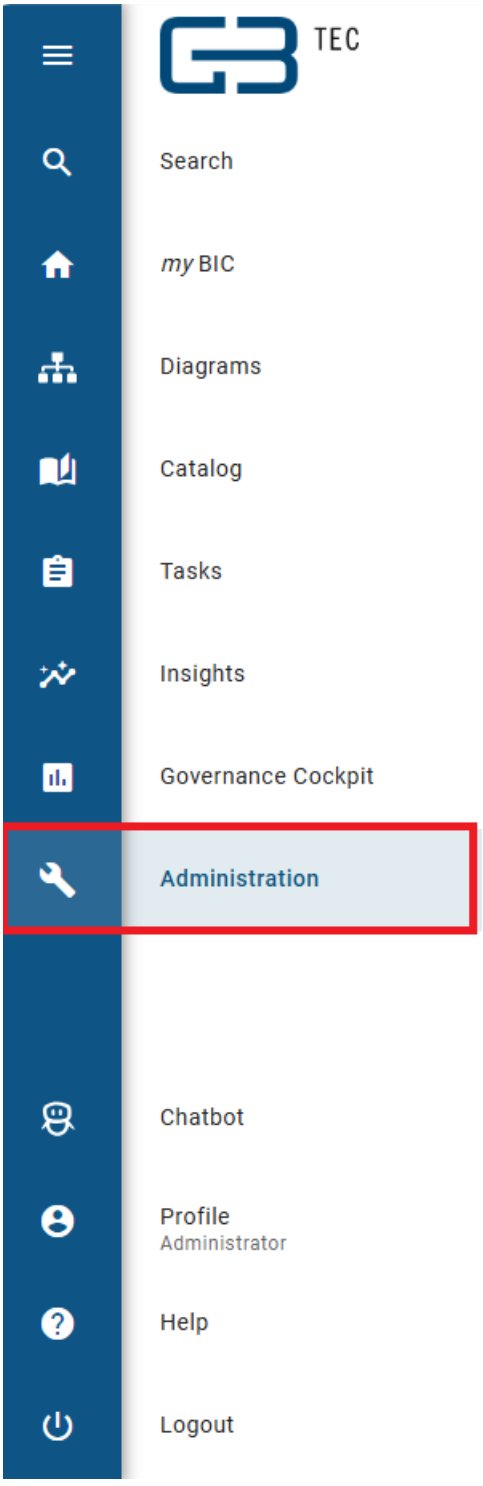
Note: Please note that a *company-wide start diagram*, if one is set, is always displayed on your *myBIC* page regardless of the selected focus.

CHAPTER

FIVE

ADMINISTRATION

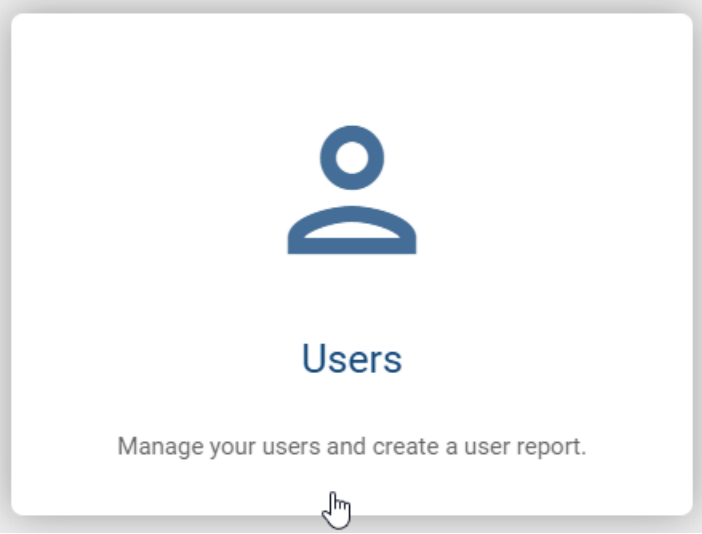
The administration can be reached via the menu item named *Administration*.



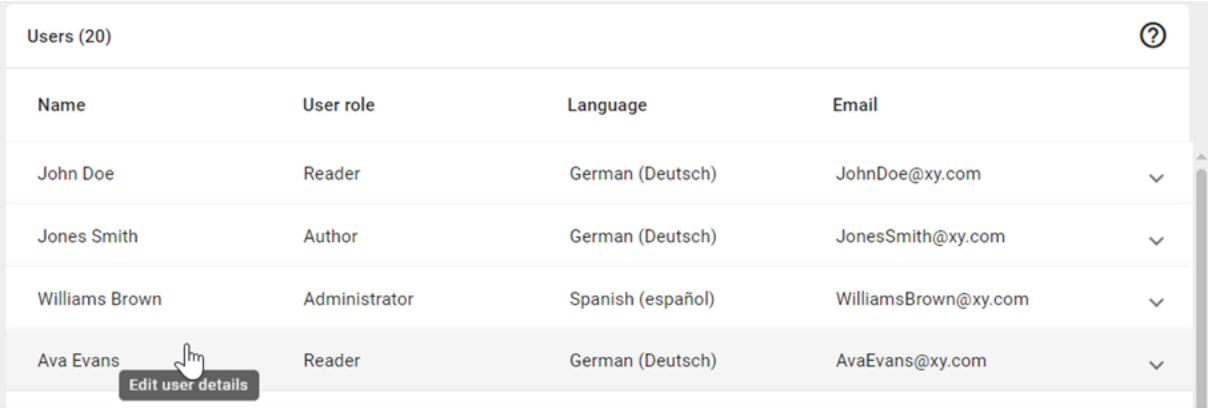
You can use the breadcrumb navigation in the administration. If you have opened a tile of the administration, you can switch to the start page of the administration via the header bar.

5.1 Users

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the first tile, *Users*, you will find an overview of all existing users.



This overview contains the user name, the BIC Process Design user role, the set user language and the email of the respective user. If required, you can also *edit the user details* of a user, *delete a user* or *reset the password of a user*.



In the right sidebar, you will find the *Filters* and *Options* panel. In the *Filters* panel, you can search for specific users and filter the users by their BIC Process Design user role. Via the *Options* panel, you have the option to *create a user* and *create a user and license report*.

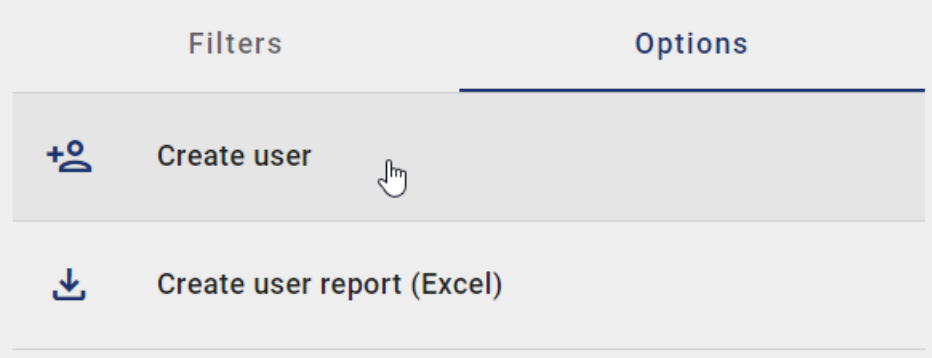
Further information on the respective functions can be found in the linked sections.

Hint: Please note that the functions of the *Users* tile are not available in the mobile view.

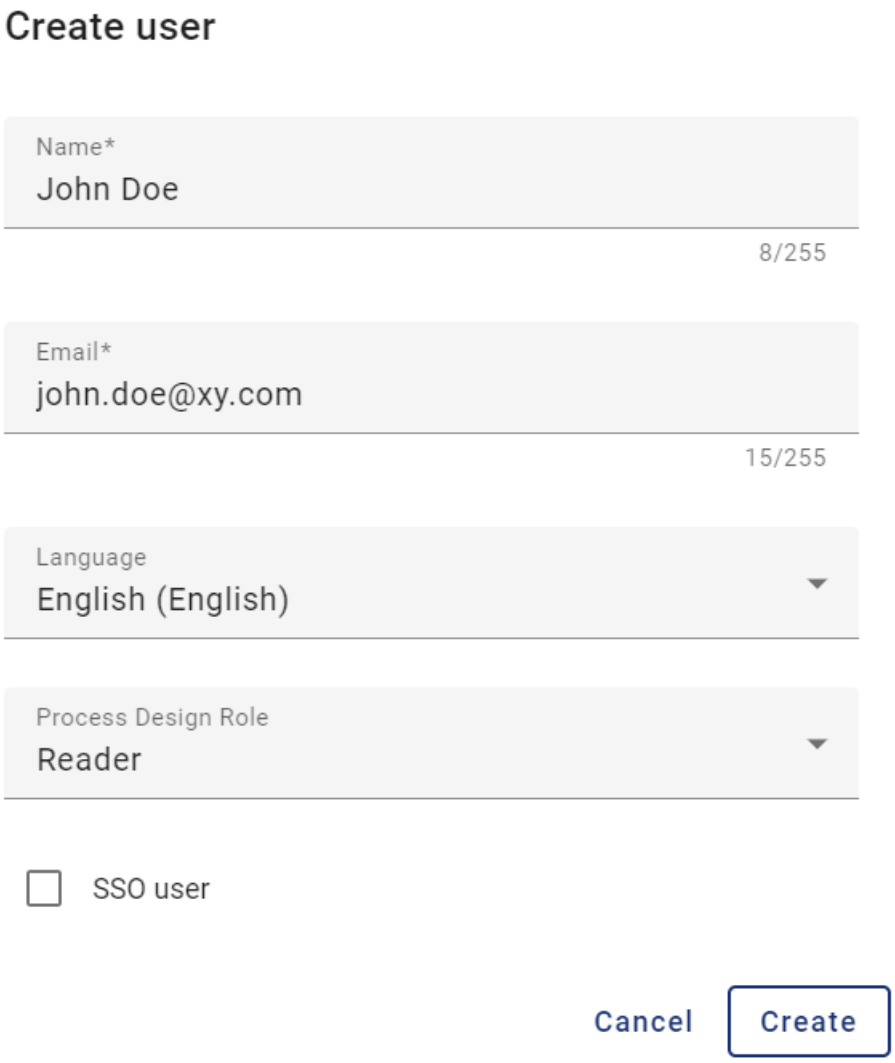
5.1.1 How can I create a user?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *Users* tile, you have the option to create new users.

To create a new user, switch to the *Options* panel in the right sidebar and click on the *Create user* option.



This will open a dialog where you need to enter the user's name and email address. Additionally, you have the option to set the user's language and assign the *BIC Process Design role*. Furthermore, there is an option to create the user via SSO.



To create the user, click on the *Create* button. Alternatively, you can discard the entry using the *Cancel* button.

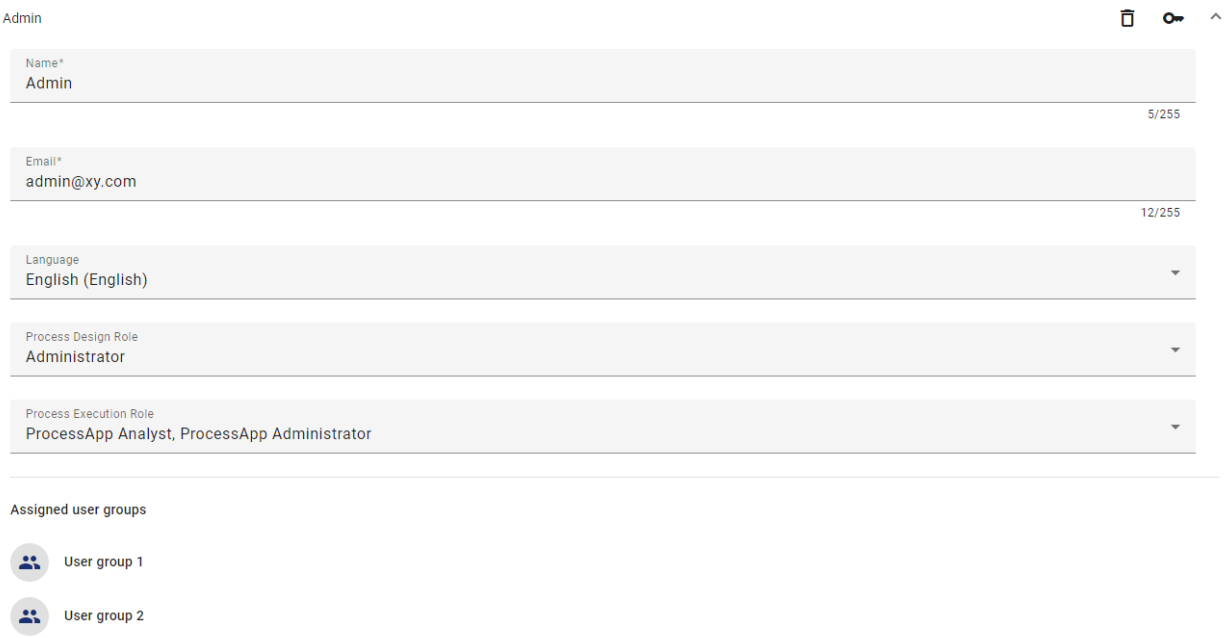
The new user will now be displayed as the first entry in the list. Upon reloading the page, the user list will be displayed in alphabetical order.

5.1.2 How do I edit a user's details?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *Users* tile, you have the option to edit the user details of a user.

By clicking on a user in the list view, you can view, define or change their user details. This includes *Name, Email, Language, Process Design Role, Process Execution Role*, and the *Assigned user groups*. You can find out which permissions the BIC Process Design and BIC Process Execution roles have *here*.

Navigate to the list of users and select the user whose details you want to edit to view their user-specific information.



You can define or change the user details in the respective input fields. The fields *Name* and *Email* are mandatory fields and must always be filled in.

After making a new setting, it will be saved directly, and you will receive a success message. If the saving fails, you will receive an error message.

Note: Please note that you cannot edit a user's assigned user groups here. You can find out how to *add a user to a user group* or *remove a user from a user group* in the linked sections.

Hint: Please note that the language set is the content language in which the application is displayed to the user by default. The emails from the application will also be displayed in this language.

5.1.3 Which user roles are available and which permissions do they have?

In general, you have five different user roles for Process Design, with different authorizations that build on each other. Your active user role is displayed on the MyBIC page under your name or in the *profile*.

Reader: Readers can only select and search the *Publication* stage. In this area, they can view published diagrams and the attributes, symbols, catalog entries, and documents associated with these diagrams using the user interface. The *Publication* stage also provides them with functions for creating comments and reports, as well as a print preview. In addition, they can add diagrams to their favorites.

Reviewers: Reviewers can select and search the *Publication* stage and have the same functions there as readers. In addition, reviewers can select and browse the preview stage and view and edit governance tasks assigned to them (publication, depublication, resubmission), provided they are designated as the review authority for a specific diagram or catalog item. However, reviewers cannot initiate a governance workflow themselves.

Author: Authors have essentially the same rights as Reviewers. They also have access to the public workspace. This allows them to see all catalog entries and diagrams in the public workspace. This generally allows them to model diagrams and automatically generate catalog entries. To use these features, users with the Author role must be entered

as *Author* in the attributes of the corresponding diagram or object. This allows Authors to be used specifically for modeling individual diagrams or editing individual objects.

Editor: Similar to authors, the role of Editor is used to edit and create diagrams. Unlike authors, Editors do not have to be set within the diagram attributes to model a diagram. Additionally, editors have the ability to make cross-diagram changes. This means users with the role of Editor have the right to manually create, edit, or delete catalog entries and are authorized to accept or decline catalog entries. Furthermore, editors have the ability to assume administrative tasks for governance workflows. They have the authority to view and manage all governance workflows. In the governance cockpit, editors have the same rights as administrators, which means they can delegate or cancel workflows.

Administrator: Administrators have all the rights that other user roles have. In addition, they have special administration rights. These include access to the administration area, the right to create, delete, and rename repositories, as well as the ability to unlock diagrams.

Accessible workspaces	Administrator	Editor	Author	Reviewer	Reader
Public workspace	navigable	navigable	navigable	not navigable(*)	not navigable(*)
Preview	navigable	navigable	navigable	navigable	not navigable(*)
Publication	navigable	navigable	navigable	navigable	navigable

(*)Individual diagrams in the public workspace can be accessed in read-only mode via a direct browser link, regardless of defined :ref: *access restrictions <restricted-access-diagrams>*. (view *share diagram from public workspace*)

If you use BIC Process Execution, you have the possibility to set the user's role for this application as well.

ProcessApp Administrator: As a *ProcessApp Administrator*, you have access to the administration area and can manage all available options.

ProcessApp Analyst: As a *ProcessApp Analyst*, you have access to the monitoring dashboard and can monitor all processes.

ProcessApp Creator: As a *ProcessApp Creator*, you can model executable processes in Process Design. If you want to further edit a diagram and you have this role, you have the possibility to open the editor by right-clicking an activity in the context menu. Alternatively, you can also open the editor by selecting the activity and choosing the *Editor* section from the *Details* menu. There, you will find a button that allows you to open the editor. Only users with the *ProcessApp Creator* role have the option to use the *Test ProcessApp* button in the preview stage or in the public workspace within the diagram view in Process Design and work on tasks.

ProcessApp User: As a *ProcessApp User*, you can initiate processes and see how far along they are. You can use the *Create Case* button in the diagram view of Process Design at any stage and work on tasks if you have the *ProcessApp User* role.

ProcessApp Participant: As a *ProcessApp Participant*, you can have active tasks and work on them, but you cannot initiate tasks.

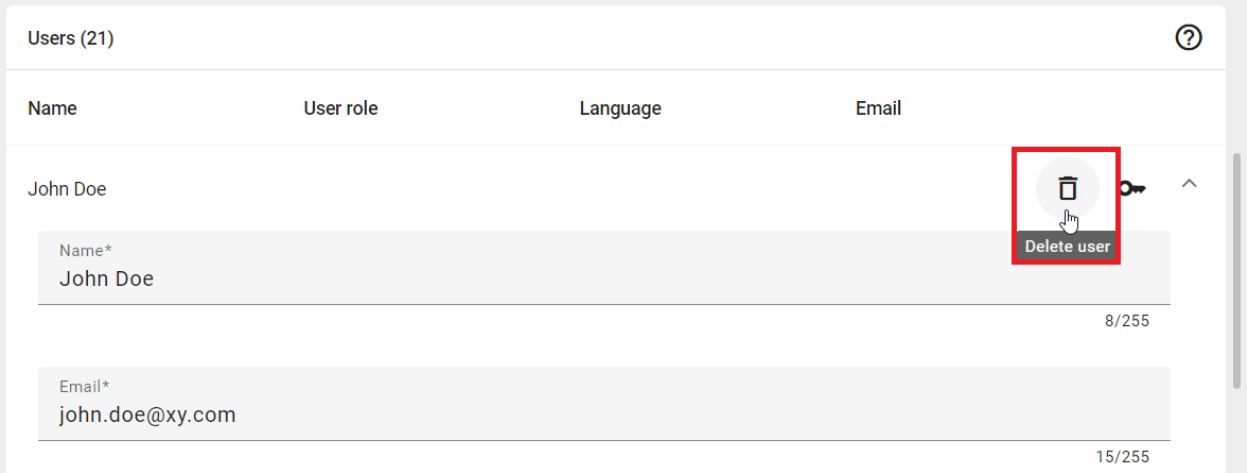
Warning: Please note that both the *ProcessApp User* role and the *ProcessApp Participant* role are currently required to edit and manage tasks.

Hint: Please note that these roles are not hierarchical. This means that if, for example, you are assigned the role of *ProcessApp Administrator*, you do not automatically have access to the rights of other roles. To obtain additional rights, you need to select multiple checkboxes of the *Process Execution roles*.

5.1.4 How can I delete a user?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *Users* tile, you have the option to delete existing users.

To delete a user, at least one user must exist. Click on the desired user in the list to expand their user details. You will then see the option *Delete user* at the top right.



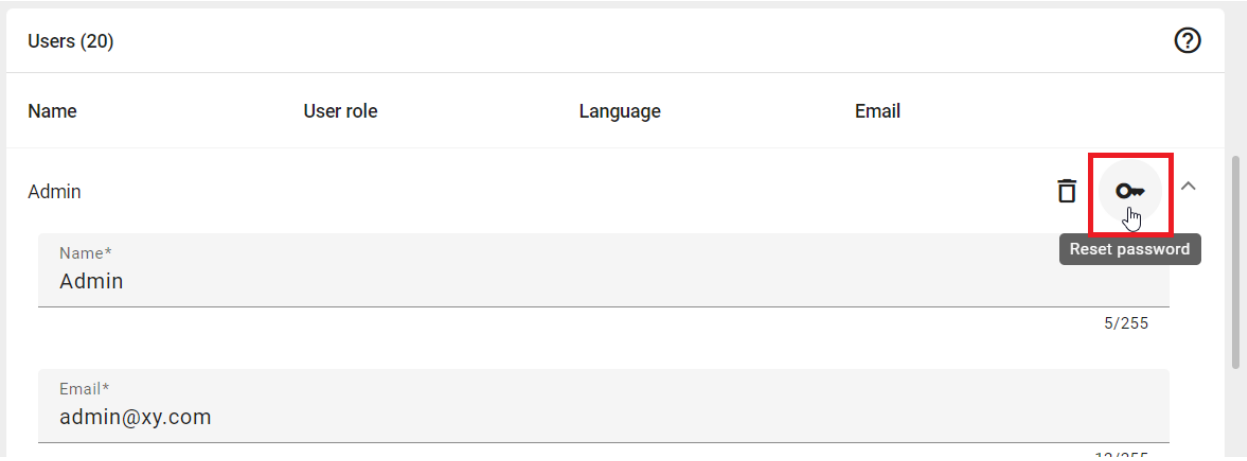
Then, a dialog opens, asking you to confirm the deletion. Click on the *Delete* button to finally confirm the deletion or on the *Cancel* button to cancel the deletion.

Afterward, the user will be permanently deleted and removed from the list.

5.1.5 How can I reset a user's password?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *Users* tile, you can reset a user's password.

To reset a user's password, navigate to a user in the list and expand their user details by clicking on the user. You will then see the option *Reset password* at the top right.

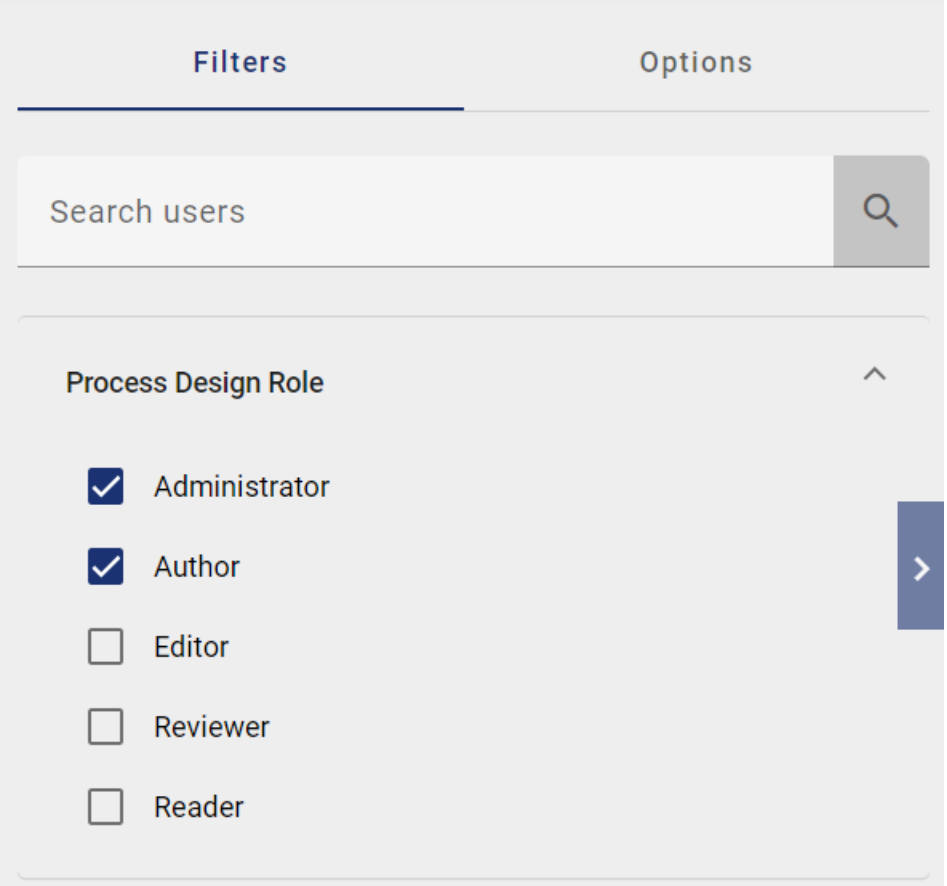


After you clicked the option, a dialog appears. Click the *Reset* button in the dialog to automatically send an email to the selected user with instructions on how to reset the password. If you wish to cancel the process, click the *Cancel* button.

5.1.6 How can I filter by user roles?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *Users* tile, you have the option t filter the list of users by their *user roles*.

In the right sidebar you will find the *Filters* panel by default. The *Process Design Role* filter is displayed there, and you can select which user role you want to filter by. You also have the option of searching for specific users using the search field.



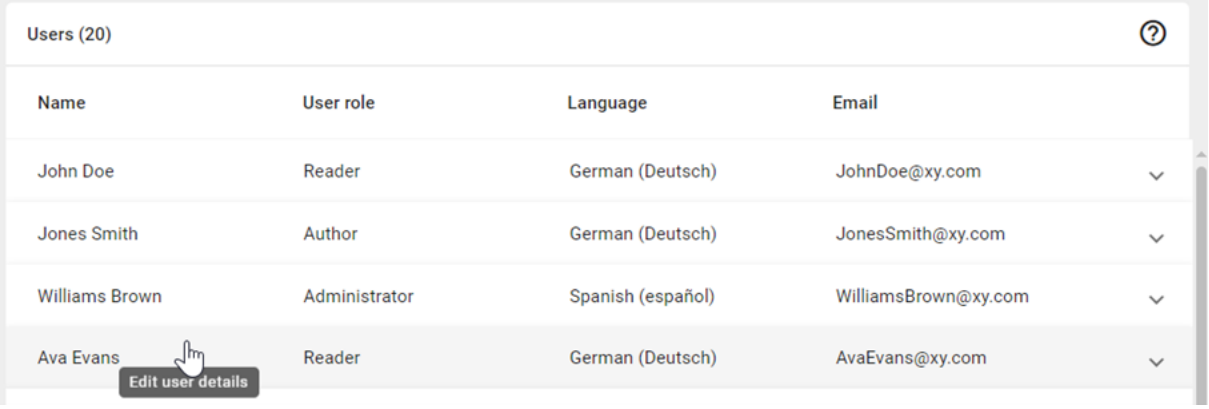
If you have clicked on at least one user role in the Process Design Role filter, all users with the selected user role are automatically displayed in the overview. To return to the original overview of users, click on the previously selected user role again in the Process Design Role filter.

Note: If the user list is already filtered, a new search further reduces the list based on the selected filter options

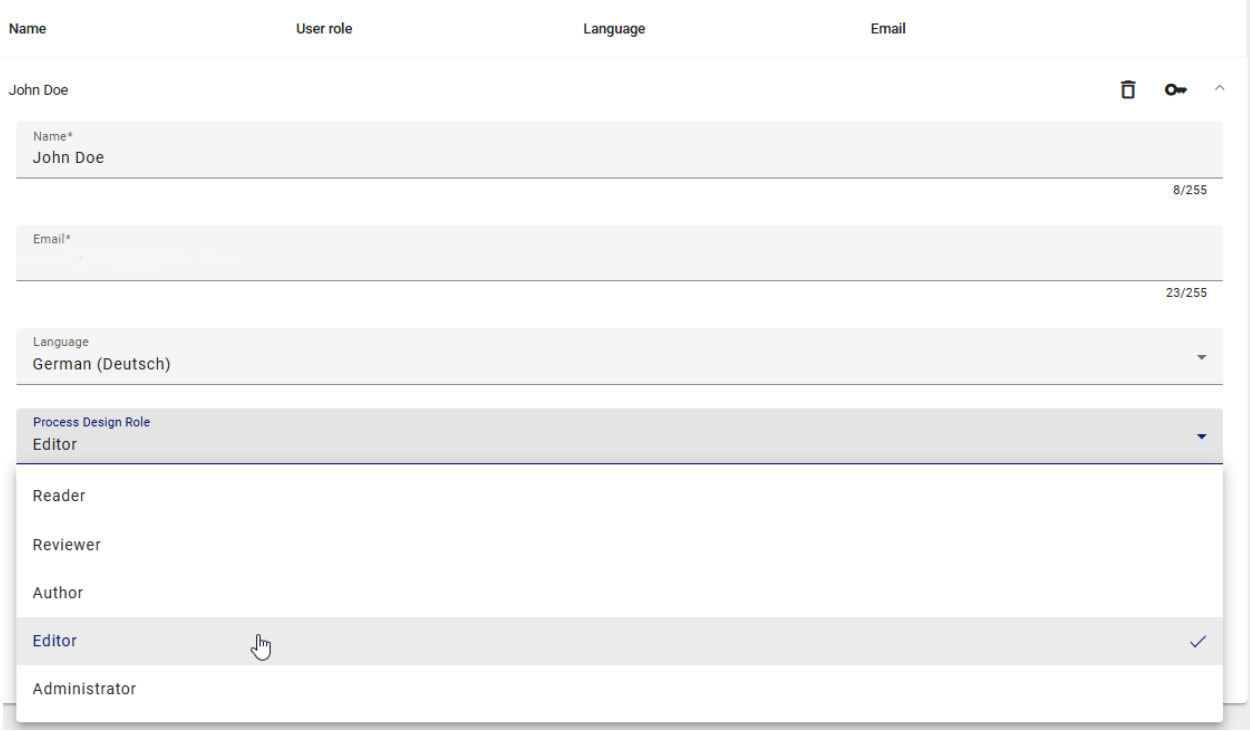
5.1.7 How do I change the role of a user?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *Users* tile, you have the option to change the role of a user.

If you click on the first tile *Users*, you will find an overview of all existing users. This overview contains the user name, the BIC Process Design user role, the set user language and the email of the respective users.



By clicking on a user in the list view, you can view, define or change their user details. To change the user role for BIC Process Design, click on the *Process Design Role* field. To change the user role for BIC Process Execution, click on the *Process Execution Role* field. This will open the available user roles for that application.



Select the appropriate user role. For BIC Process Design, the user roles Reader, Reviewer, Author, Editor and Administrator are available. For BIC Process Execution, the user roles ProcessApp Participant, ProcessApp User, ProcessApp Creator, ProcessApp Analyst, and ProcessApp Administrator are available, where multiple user roles can be select. The permissions fpr the BIC Process Design and BIC Porcess Execution roles can be found *here*.

After selecting a BIC Process Design role, you will receive confirmation that your changes have been saved. The user concerned is then automatically informed of the change to their user role by email.

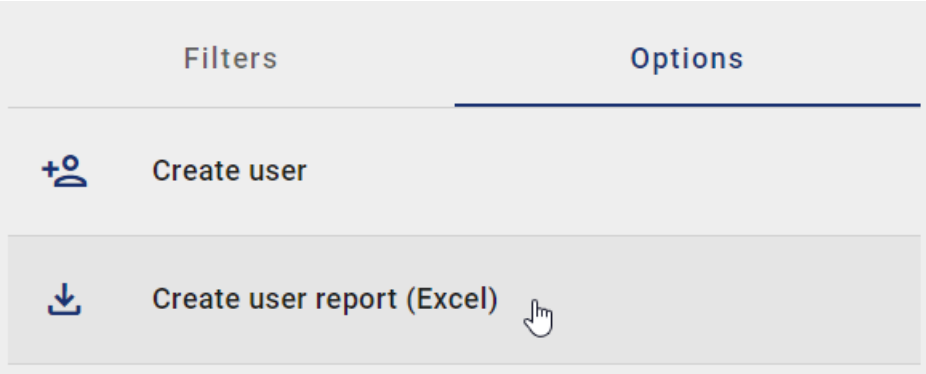
If you have upgraded the rights of a user, he will still be in his old BIC Process Design role at the next login. This ensures that users know their rights. If a user wants to use his new rights, he needs to *change his role* in the application himself.

Note: If you downgrade the rights of a user, the BIC Process Design role will change immediately.

5.1.8 How do I create a user report?

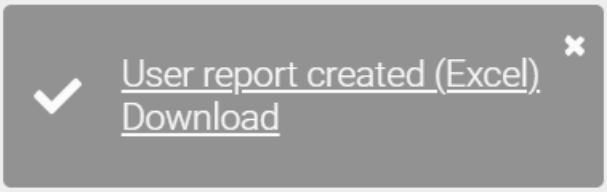
If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *Users* tile, you have the option to create a user report.

To create a user report, go to the *Options* panel in the right sidebar and click the *Create user report (Excel)* option.



After you have clicked the option, the user report is created. When the creation process is complete, you will receive a message at the bottom right of the screen. This message contains a download link that you can use to download the user report.

The user report is provided in English and contains several spreadsheets about the users and licenses. All the information you see in the overview of the users is also contained in the user report.



5.1.9 How can I assign a user to a person?

Users need to be linked to a catalog entry of the type person, to be able to use them later on for the respecting diagram attributes. The assignment is created via the e-mail address.

Create a person in the catalog or diagram. Enter in the attribute e-mail address exactly the address that the wanted user has in BIC Process Design. Then save your changes.

Alternatively, this catalog entry with the corresponding name and e-mail address is automatically created by selecting a user in *attributes*, if it does not already exist.

5.2 User groups

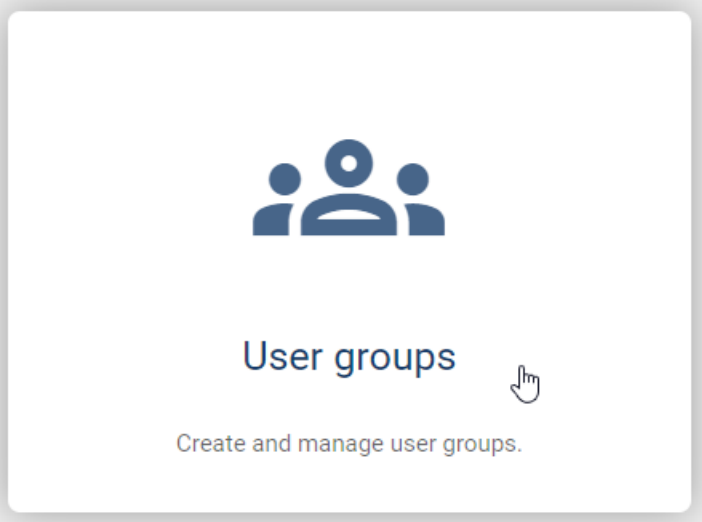
In addition to role-based authorization, a group-based authorization is also available to facilitate the administration of users in different areas of your company.

Group-based authorization can be used to enable groups of multiple users to model diagrams or objects, or to restrict the access to those diagrams. Further you can use this system to notify user groups about version changes, or to incorporate them directly into the publishing process.

This authorization is possible by *assigning user groups to specific diagram- or object attributes*. The assignment of user groups works via *organizational units*.

5.2.1 How can I administrate user groups?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *User groups* tile, you can create and manage user groups.



After clicking on the tile, an alphabetically sorted list of all existing user groups will appear. This overview contains the names of all existing user groups. If required, you can *rename a user group*, *delete a user group*, *add a user to a user group*, or *remove a user from a user group*.

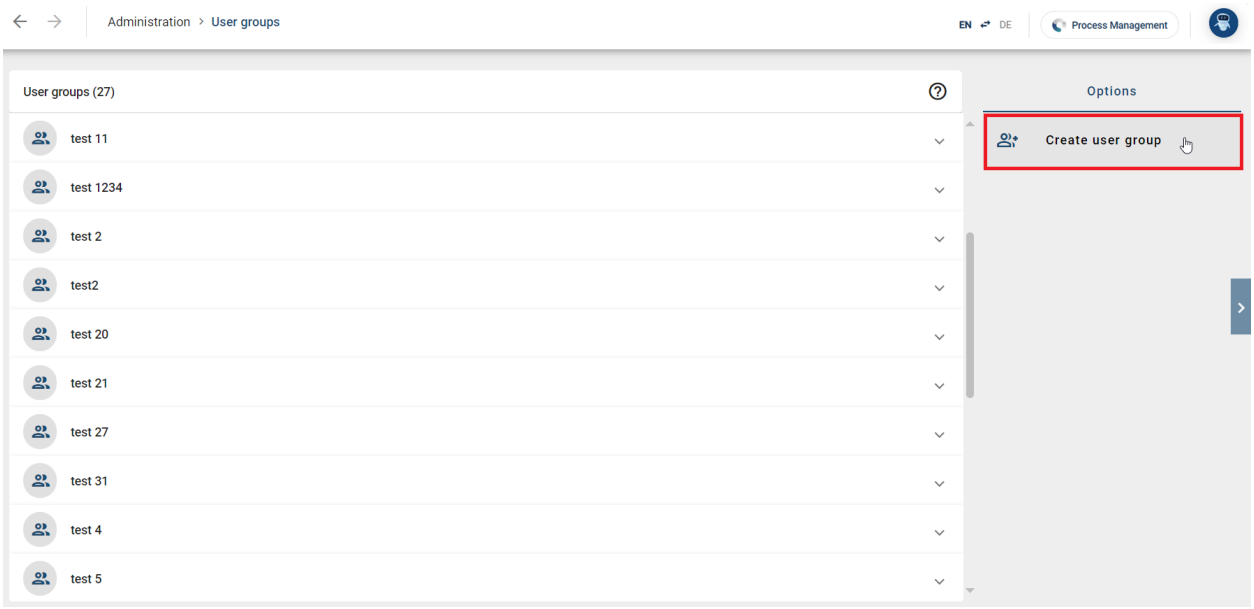
In the right sidebar you will find the *Options* panel. There you have the option to *create a user group*. Further information on the respective functions can be found in the linked sections.

Hint: Please note that the functions of the *User groups* tile are not available in the mobile view.

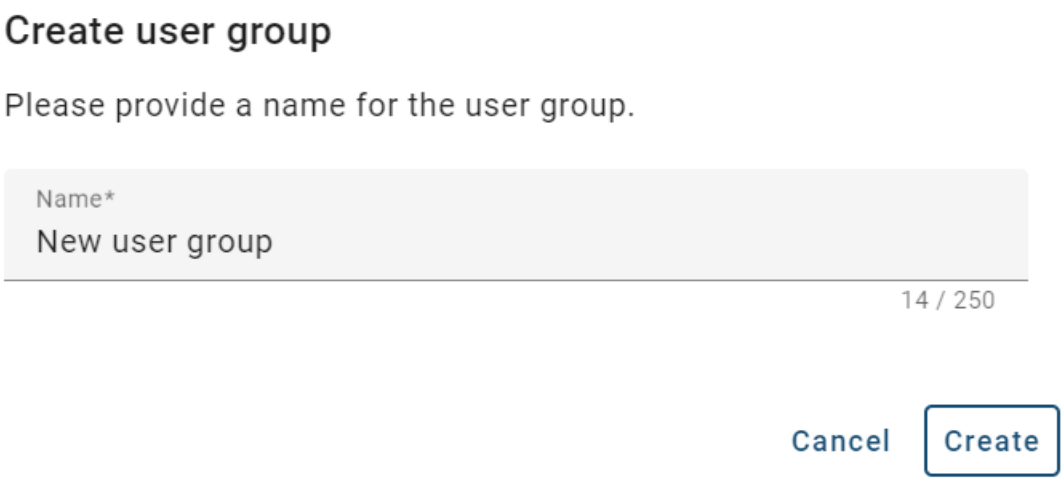
5.2.2 How can I create a user group?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *User groups* tile, you have the option to create a user group.

To create a user group, click the *Create user group* button in the *Options* panel in the right sidebar.



This will open a dialog where you need to enter the name for the new user group.



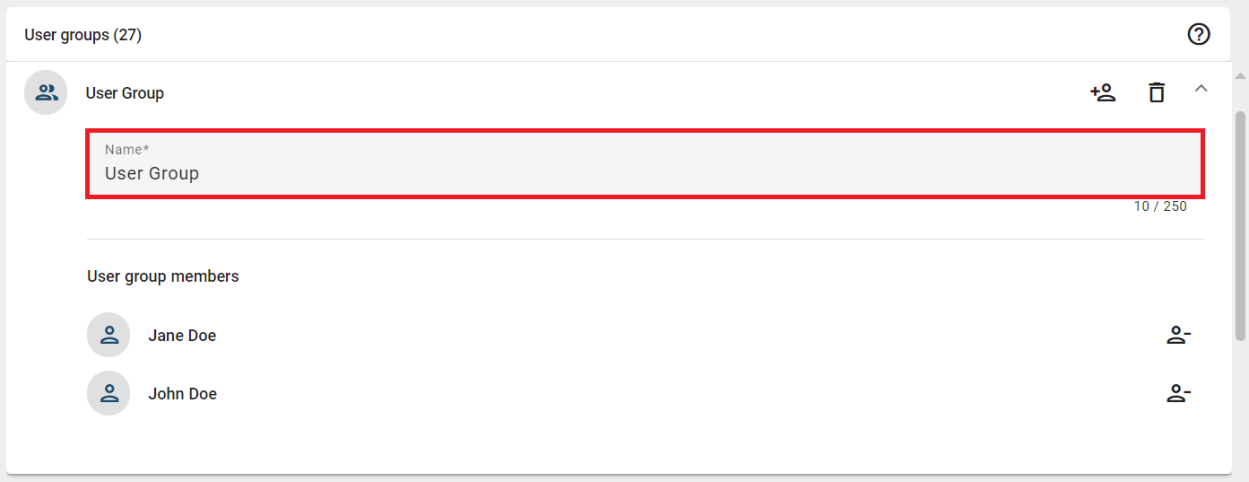
To create a new user group, at least one letter or number must be entered. Only then can you click on the *Create* button to create the user group. Alternatively, you can click the *Cancel* button to discard the entry.

The new user group will now appear as the first entry in the list. Upon reloading the page, the user group will be displayed in alphabetical order.

5.2.3 How can I rename a user group?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *User groups* tile, you have the option to rename a user group.

To rename a user group, at least one user group must exist. Click on the desired user group to expand its details. You will then see an input field with the current name of the user group.

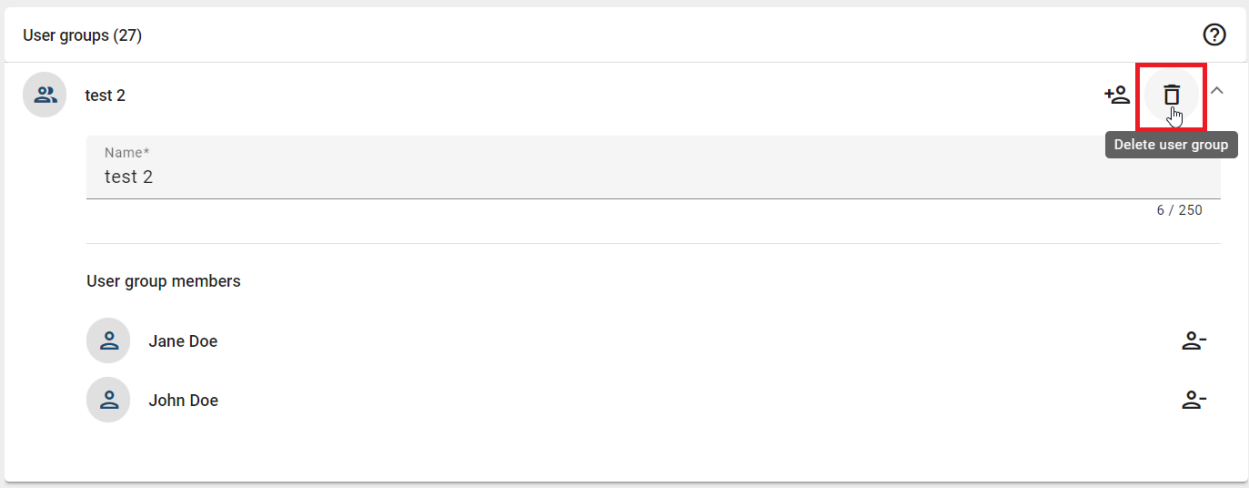


The input field is not read-only, and you can change the name as many times as you want, as long as at least one letter or number is present. Once you add, change, or delete at least one letter or number, your changes are immediately saved and visible to other users.

5.2.4 How can I delete a user group?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *User groups* tile, you have the option to delete an existing user group.

To delete a user group, click on the desired user group in the list to expand its details. You will then see the *Delete user group* option at the top right.



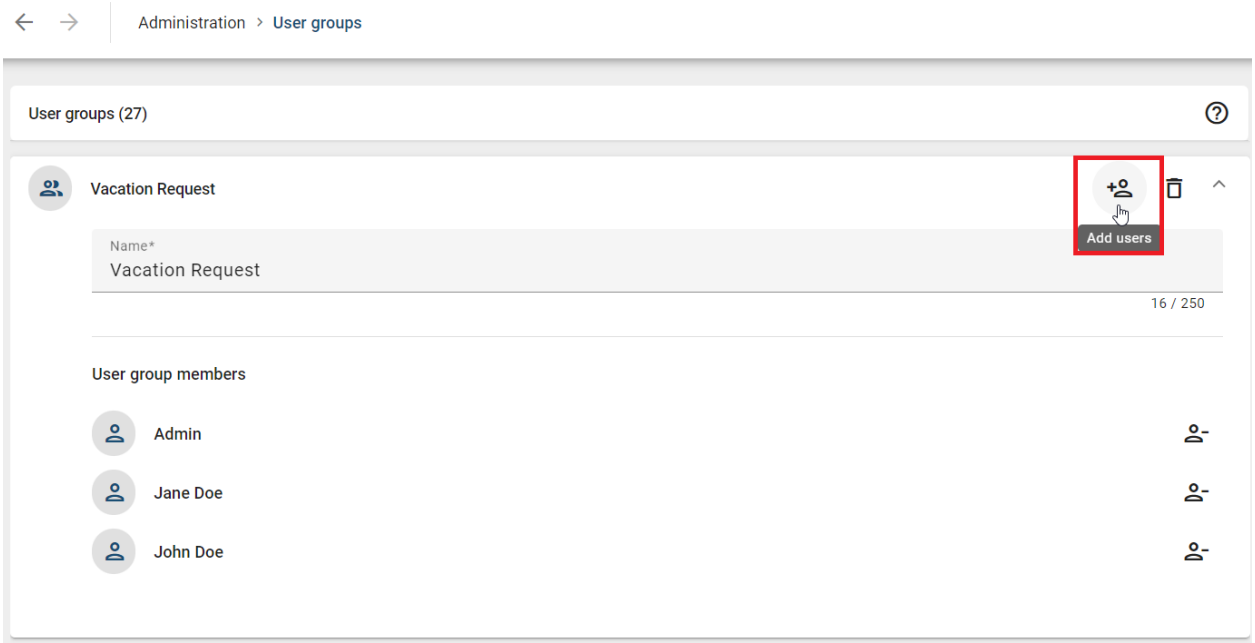
A dialog then opens in which you must confirm the deletion. Click on the *Delete* button to finally confirm the deletion or on the *Cancel* button to cancel the deletion.

Subsequently, the user group will be permanently deleted and removed from the list.

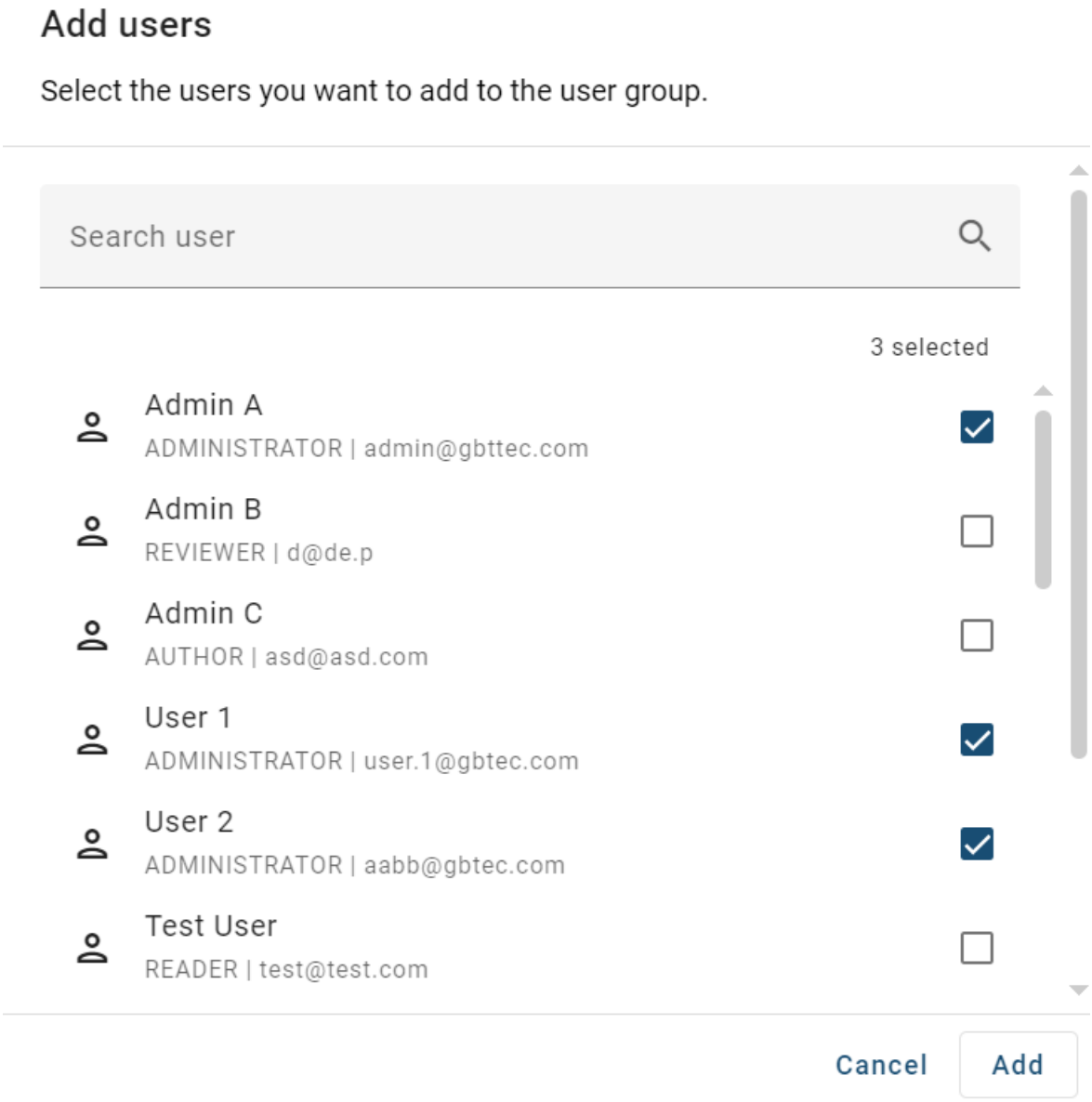
5.2.5 How can I add a user to a user group?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *User groups* tile, you have the option to add a user to a user group.

If at least one user group exists, you can add users to it. Click on the desired user group in the list to expand its details. You will then see the option *Add users* at the top right.



A dialog will then open. There you will see a search field and an alphabetically sorted list of users who are not in the user group. You can search for users in the search field above or use the list of displayed users to select the users you want to add to the user group. The list displays the name, the BIC Process Design user role and the email address of the users.



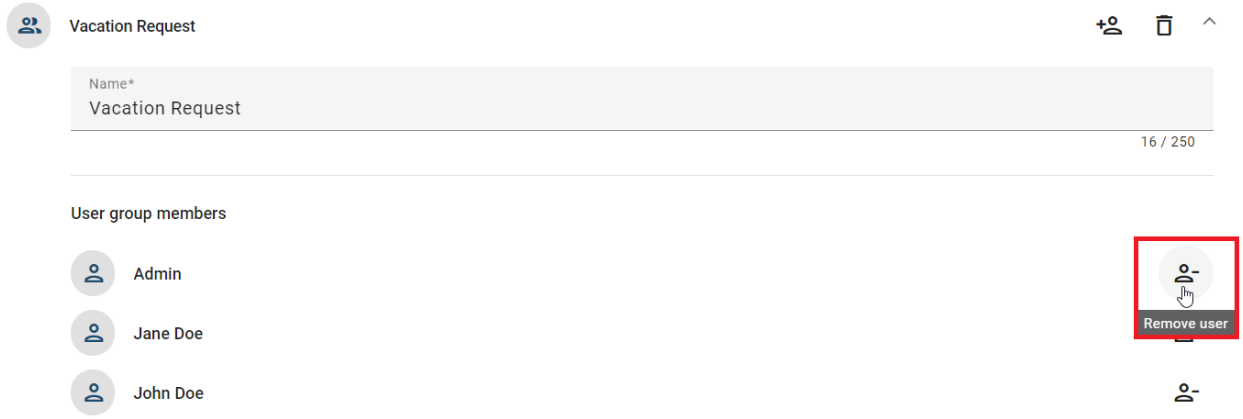
Once you have selected at least one user, you can click on the *Add* button below to add the users to the user group. To discard the selection, click on the *Cancel* button.

The newly added users are then displayed in the user group.

5.2.6 How can I remove a user from a user group?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *User groups* tile, you have the option to remove a user from a user group.

If there is at least one user group with at least one user in it, you can remove a user from the user group. Click on the desired user group in the list to expand its details. You can then remove the user by clicking on the *Remove user* button next to the user's name.



The user is then removed from the user group. If required, you can *add users back to the user group*.

5.2.7 How can I assign a user group to an organizational unit?

The assignment of a user group to different attributes of a diagram is done via organizational units. Create an organizational unit in the catalog and enter the name of the corresponding user group in the attribute *Identifier*.

Alternatively, this catalog entry with the corresponding *Name* and *Identifier* is automatically created by selecting a user group in *attributes*, if it does not already exist.

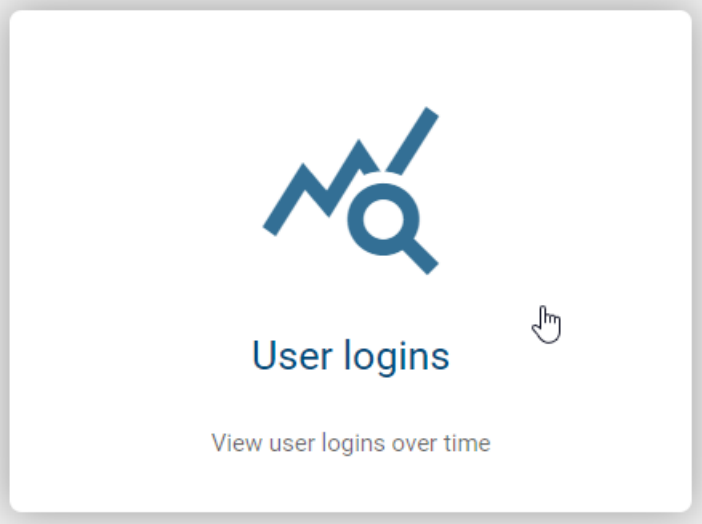
Tip: Give the organizational unit the same name as the assigned user group to clearly recognize it.

Tip: The new user group name can simply be updated in the catalog so that you do not have to change the occurrences manually. Alternatively, it is also possible to create a new group and then replace it.

5.3 User logins

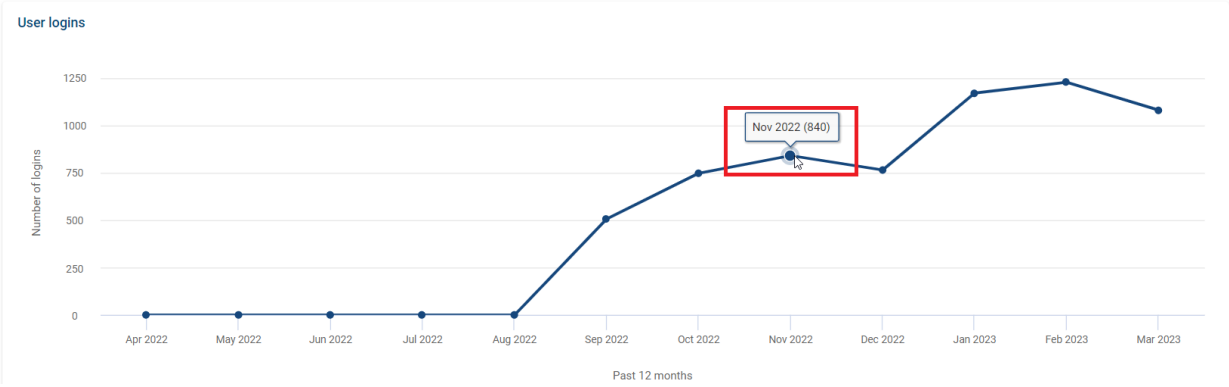
5.3.1 How can I analyse the system usage?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. The third tile, *User logins*, will give you an overview of the number of user logins in the last 12 months.



When you click on the tile, a diagram appears that graphically displays the number of user logins over the last 12 months. This visualization of user logins allows you to check how often the application is actually used by a user.

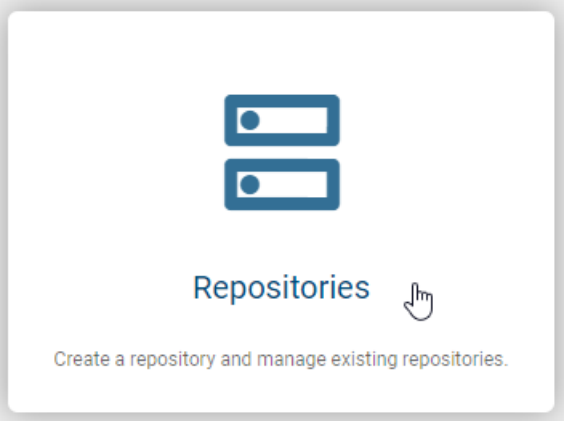
By hovering over the graph, you can see the exact frequency of logins for a particular month.



Hint: The number of logins can be higher than the number of users in a company because every single login of a user is counted. That means that if, for example, a user logs in to the system several times in one day, each login is counted.

5.4 Repository

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, a collection of predefined tiles will be displayed. By clicking on the fourth tile, *Repositories*, you will see an overview of all existing repositories and have the option to create, edit, delete, publish, and export new or existing repositories.



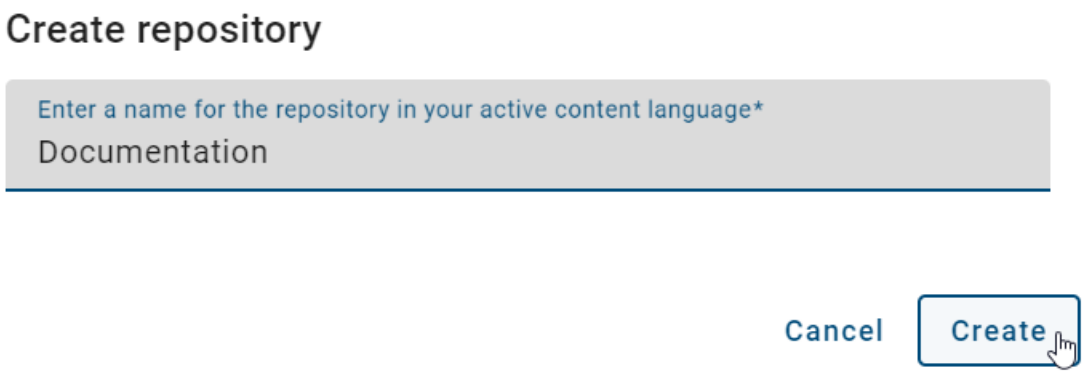
After clicking on the tile, you will see an alphabetically sorted list of all existing repositories in your active language. The alphabetical order of the repositories varies depending on the selected language.

Hint: Please note that the access restrictions set for a repository may prevent navigation to the contents of a repository within the user interfaces. To reliably control access to individual content in a repository, it is recommended that you apply access restrictions specifically to content elements such as *diagrams* and *catalog items*.

5.4.1 How can I create a new repository?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, a collection of predefined tiles will be displayed. By clicking on the fourth tile, *Repositories*, you will see an overview of all existing repositories and have the option to create new repositories.

To create a new repository, click on the *Create repository* button in the bottom right corner. A dialog will appear in which you must assign a name to the new repository. Once you have entered at least one letter or number, you can click on the *Create* button. If you select the *Cancel* option instead, your entry will be discarded and no new repository will be created.



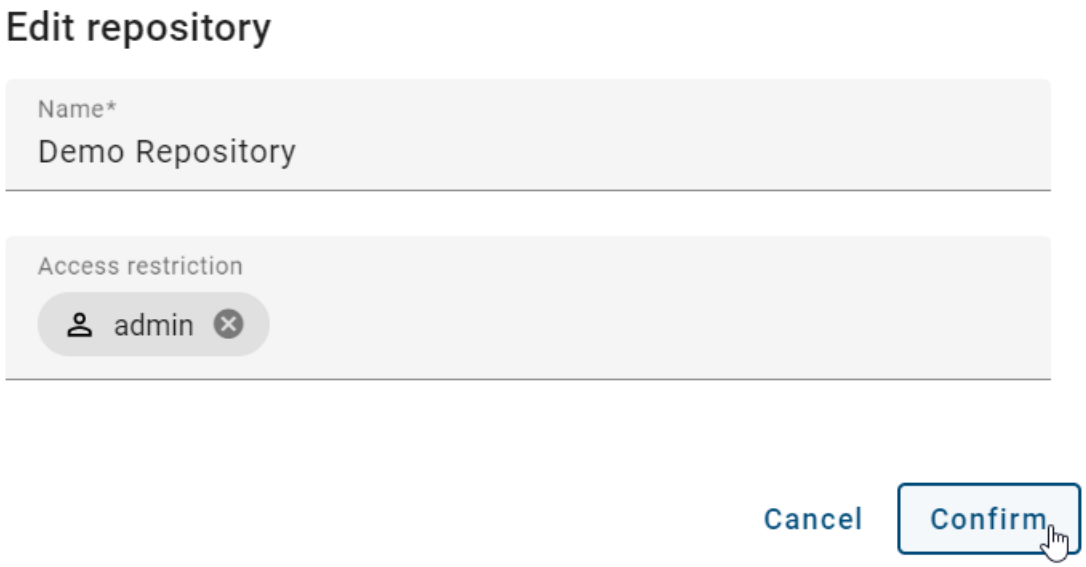
Your new repository will now appear as the first entry in the list in your current language. After refreshing the page, the repository will appear in the correct position in the alphabetical order.

You can now select the new repository from the drop-down menu under *Diagrams* and *Catalog*.

5.4.2 How can I edit a repository?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, a collection of predefined tiles will be displayed. By clicking on the fourth tile, *Repositories*, you will see an overview of all existing repositories and, if at least one repository is available, you will have the option to edit its properties. This includes renaming the repository and adjusting access restrictions.

To edit a repository, click on the corresponding list entry. Alternatively, you can select the *Edit properties* option in the context menu (three dots) on the right. of the corresponding repository. This opens a dialog where you can make the desired changes.



If you want to restrict access to a repository to specific users, user groups, persons, or organizational units, you can enter the corresponding name in the *Access restriction* field. This entry is optional and therefore not mandatory.

Then select the *Confirm* option to apply the changes or discard them by clicking the *Cancel* button.

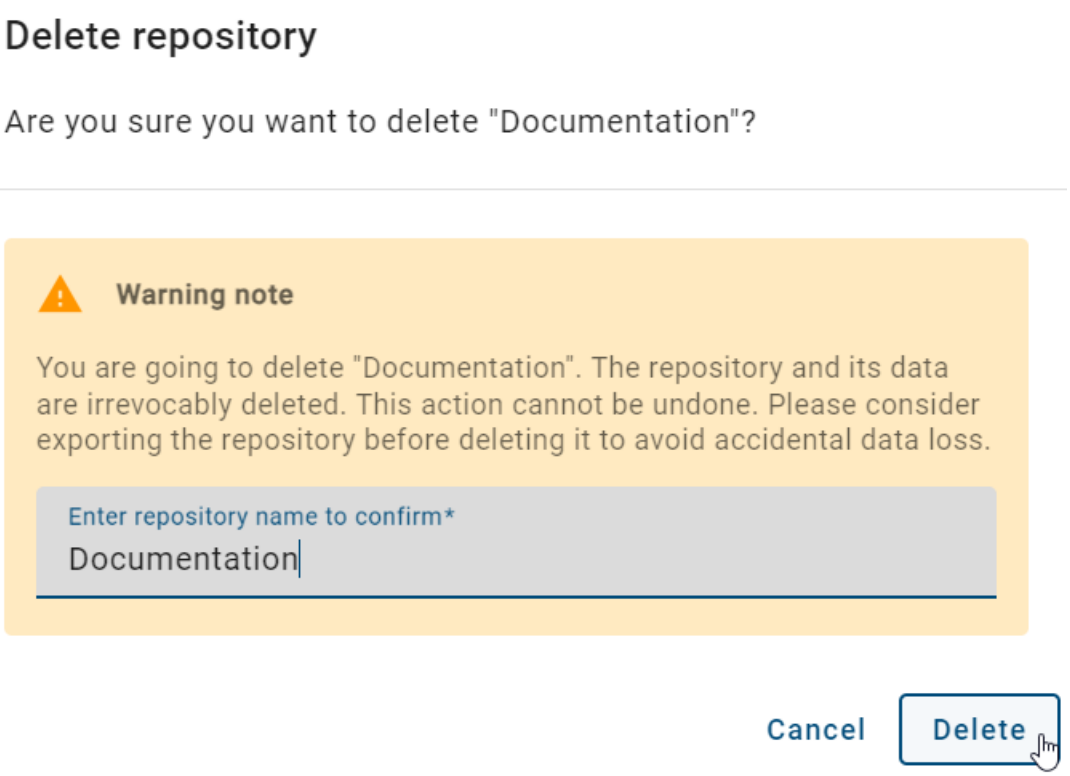
Hint: Please note that the access restrictions defined for a repository can prevent navigation to the content of a repository within the user interfaces. In order to reliably control access to individual contents of a repository, it is recommended to apply the access restrictions specifically to the content elements such as *diagrams* and *catalog items*.

5.4.3 How can I delete a repository?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, a collection of predefined tiles will be displayed. Click on the fourth tile, *Repositories*, to see an overview of all existing repositories. If at least one repository is available, you have the option to delete a repository.

To delete an existing repository, open the context menu (three dots) of the corresponding repository on the right and select the *Delete* option.

A dialog will then appear in which you must enter the name of the repository to be deleted for confirmation. Once you have entered the name correctly, you can click the *Delete* option. If you want to cancel the deletion process, click on the *Cancel* option.



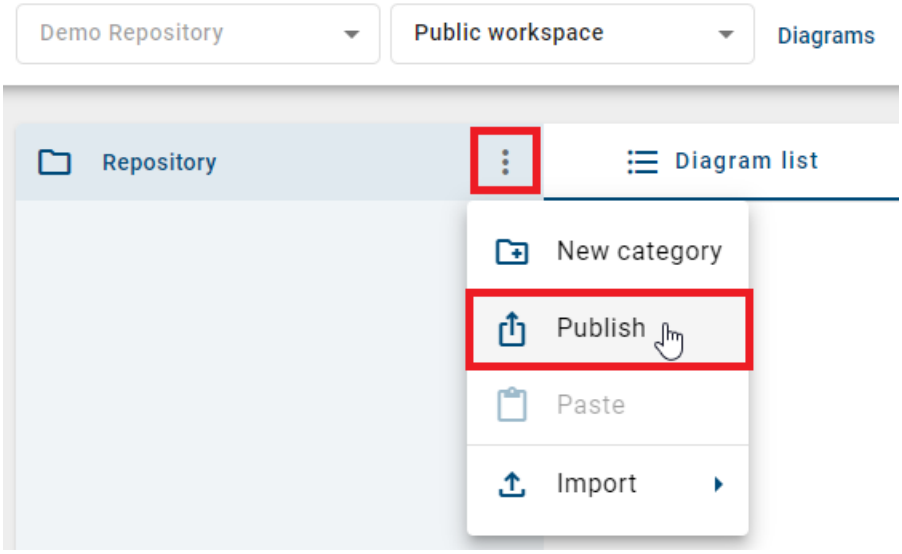
Hint: Please note that the input is case insensitive.

The repository will then be successfully deleted and will no longer be displayed in the list.

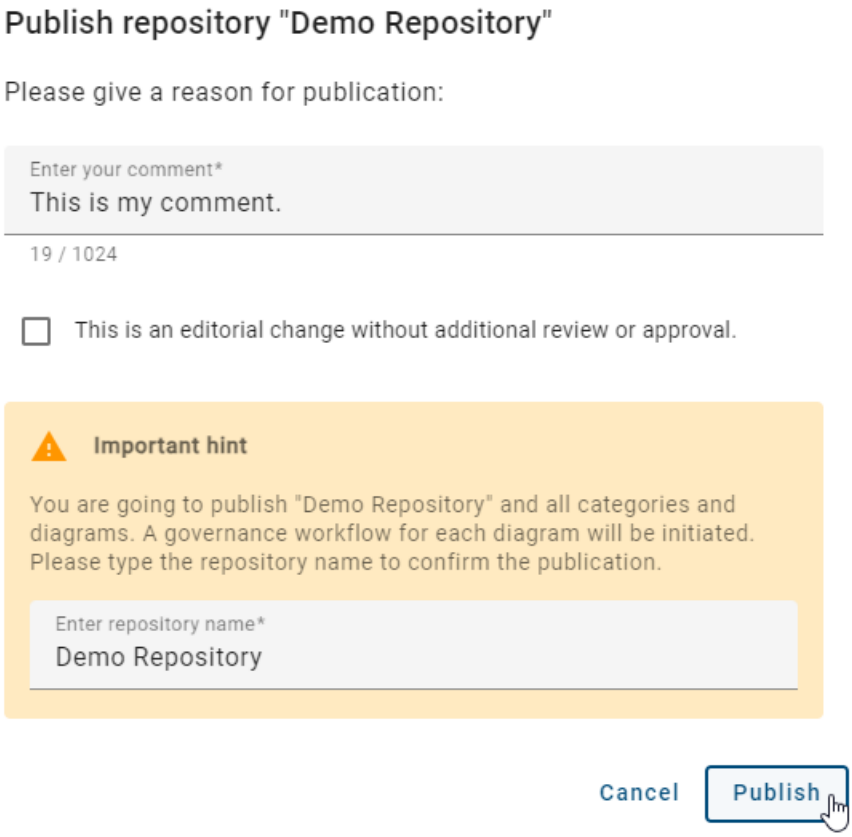
5.4.4 How can I publish a repository?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, a collection of predefined tiles will be displayed. Click on the fourth tile, *Repositories*, to see an overview of all existing repositories. If at least one repository is available, you have the option to publish a repository and make it available for all users.

To publish a repository, go to the *Diagrams* menu item and click on the context menu next to **Repository** in the category tree. Select the *Publish* option.



A dialog will appear in which you must enter a comment and the name of the repository to be published.



Hint: Please note that the input is case insensitive.

To finally publish your repository, click on the *Publish* option. Alternatively, you can cancel the process by clicking the *Cancel* option.

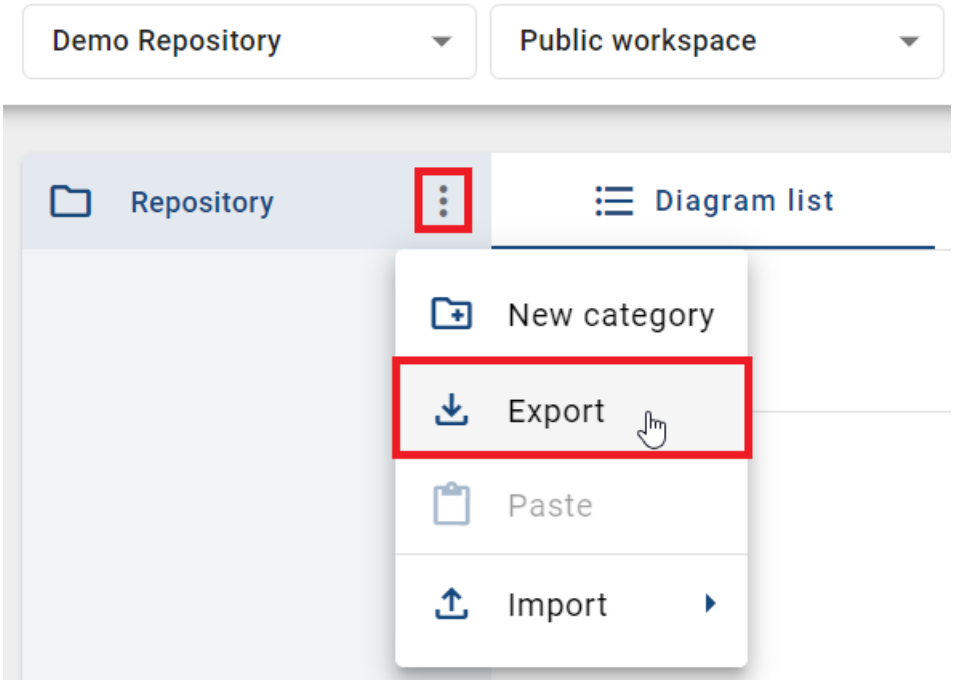
After successful publication, you will receive a notification at the bottom right corner of the screen. If the publication

fails, you will receive an appropriate error message.

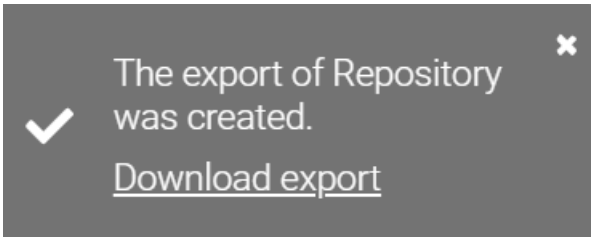
5.4.5 How can I export a repository?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, a collection of predefined tiles will be displayed. Click on the fourth tile, *Repositories*, to see an overview of all existing repositories. If at least one repository is available, you have the option to export a repository.

To export a repository, go to the *Diagrams* menu item and click on the context menu next to **Repository** in the category tree. Select the *Export* option.

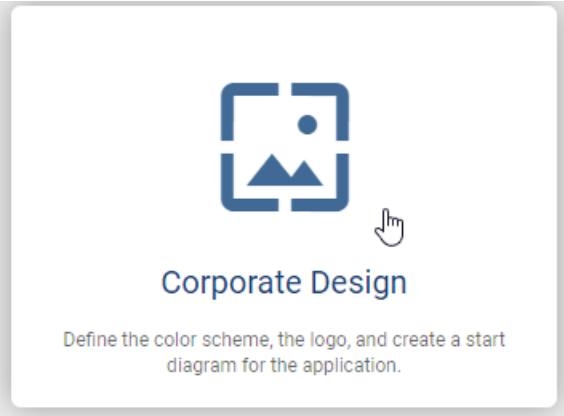


Afterward, a notification will appear at the bottom right corner of the screen, indicating that the export is being created. Once the export is completed, you can download the repository archive using the provided link in the notification.



5.5 Corporate Design

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Corporate Design* tile, you have the option to adjust the color scheme of the application, upload a company logo, and create a start diagram.

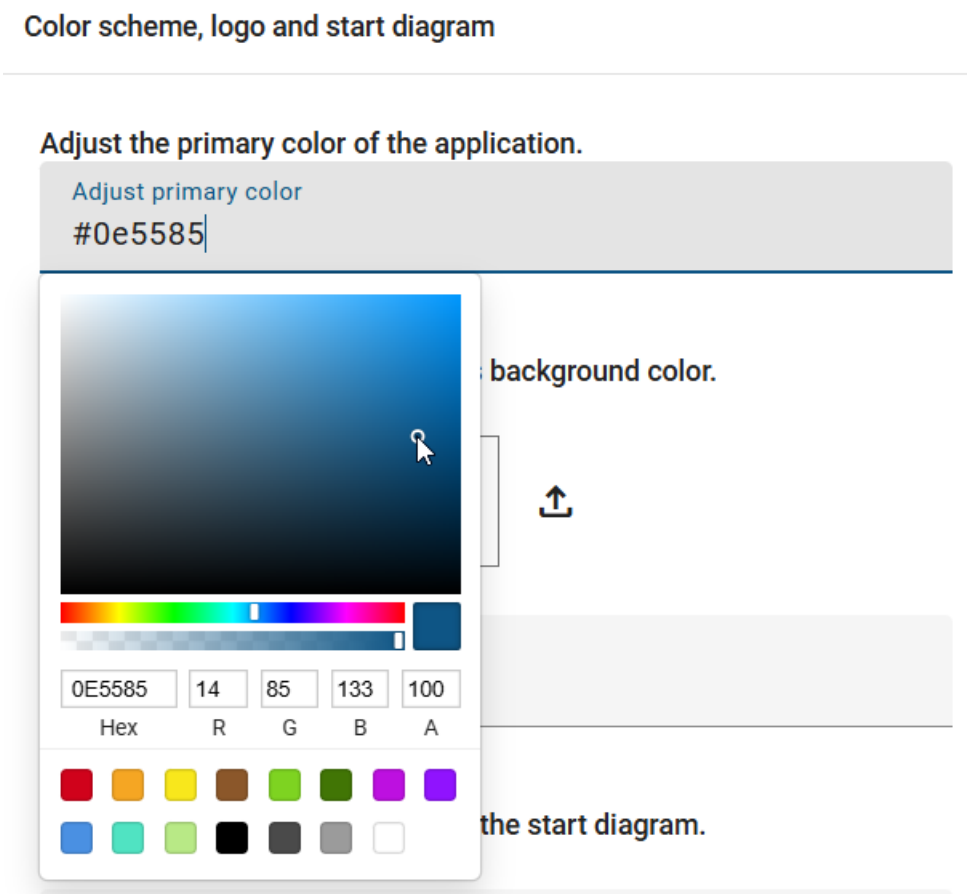


Hint: Please note that the functions of the *Corporate Design* tile are not available in the mobile view.

5.5.1 How can I adjust the color scheme of the application?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Corporate Design* tile, you have the option to adjust the color scheme of the application.

After clicking on the tile, you can select the primary color of the application. You may either enter a HEX code manually or pick a color from the palette.



Once you have made at least one change, it will be automatically saved and applied. These changes will be applied to all users after reloading BIC Process Design.

Note: The set color scheme will also be applied for BIC Process Execution.

Hint: Please note that the functions of the *Corporate Design* tile are not available in the mobile view.

5.5.2 How can I set a company logo?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Corporate Design* tile, you have the option to set a company logo.

After clicking on the tile, you can click on the button for uploading an image file and select your company logo.

The change is applied to all users after reloading BIC Process Design. The set logo now appears at the top left corner of the page when the left menu bar is expanded.

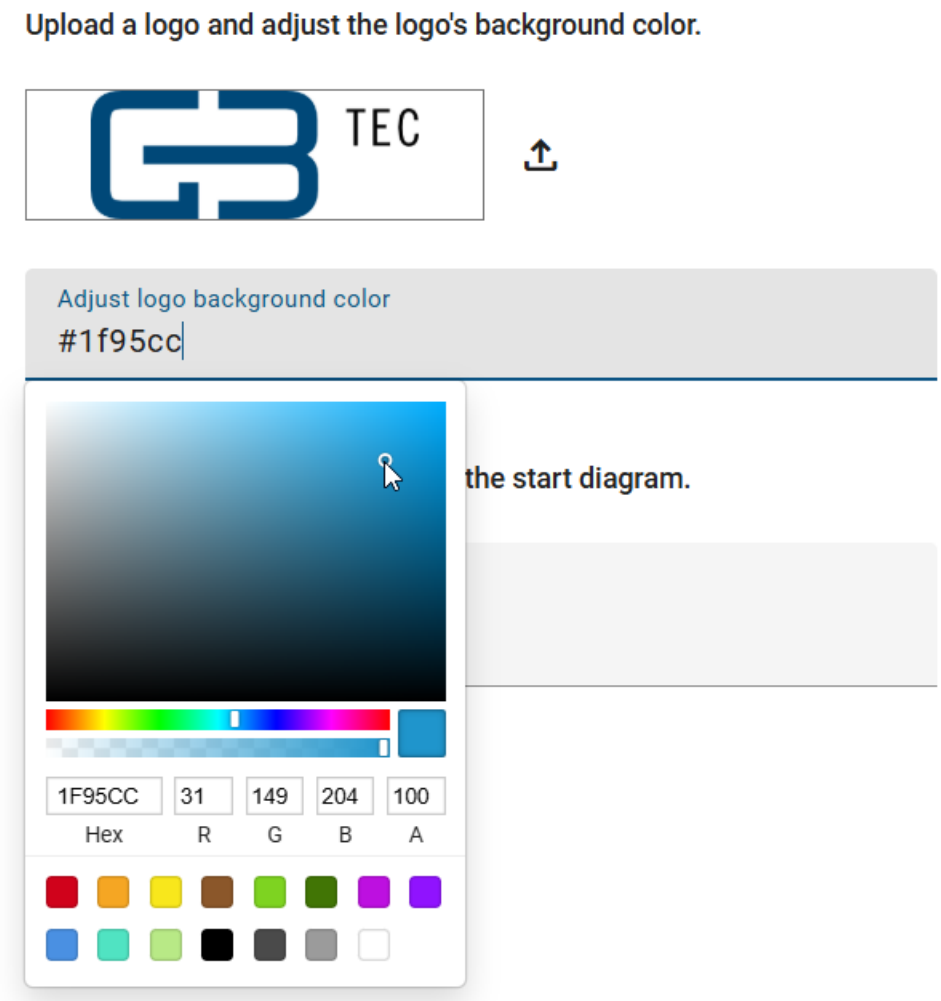
Note: The company logo set here is also displayed in BIC Process Execution.

Hint: Please note that the functions of the *Corporate Design* tile are not available in the mobile view.

5.5.3 How can I adjust the background color of the company logo?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Corporate Design* tile, you have the option to adjust the background color of your company logo.

After clicking on the tile, you can select the background color for the logo located below your logo. When selecting a color, you can either enter a HEX code manually or choose a color from the color palette.



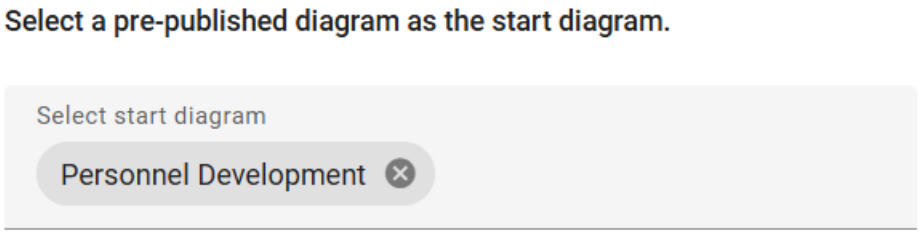
The changes will be applied to all users after reloading BIC Process Design. If a transparent logo is used, the background color will be visible in the top left corner of the page when the left menu bar is expanded.

Hint: Please note that the functions of the *Corporate Design* tile are not available in the mobile view.

5.5.4 How can I set a company-wide start diagram?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Corporate Design* tile, you have the option to set a company-wide start diagram.

After clicking on the tile, you can select a published diagram in the *Select start diagram* input field. Enter the name of the desired diagram in the input field and select if from the list of suggestions.



After reloading BIC Process Design, the set start diagram is displayed for all users on the *myBIC* page.

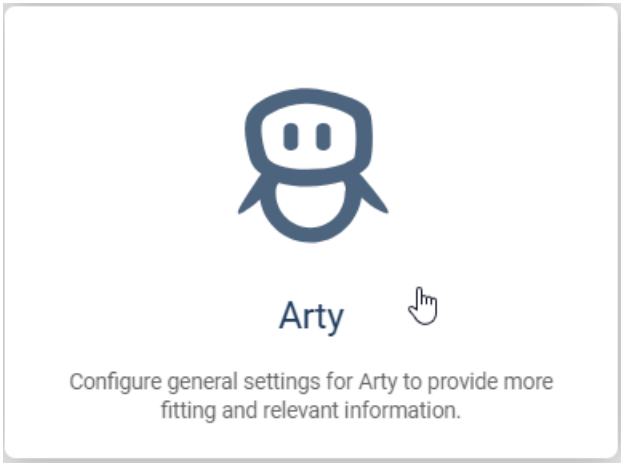
Hint: You can only set one start diagram. You can adjust the start diagram at any time if needed.

Hint: Please note that the functions of the *Corporate Design* tile are not available in the mobile view.

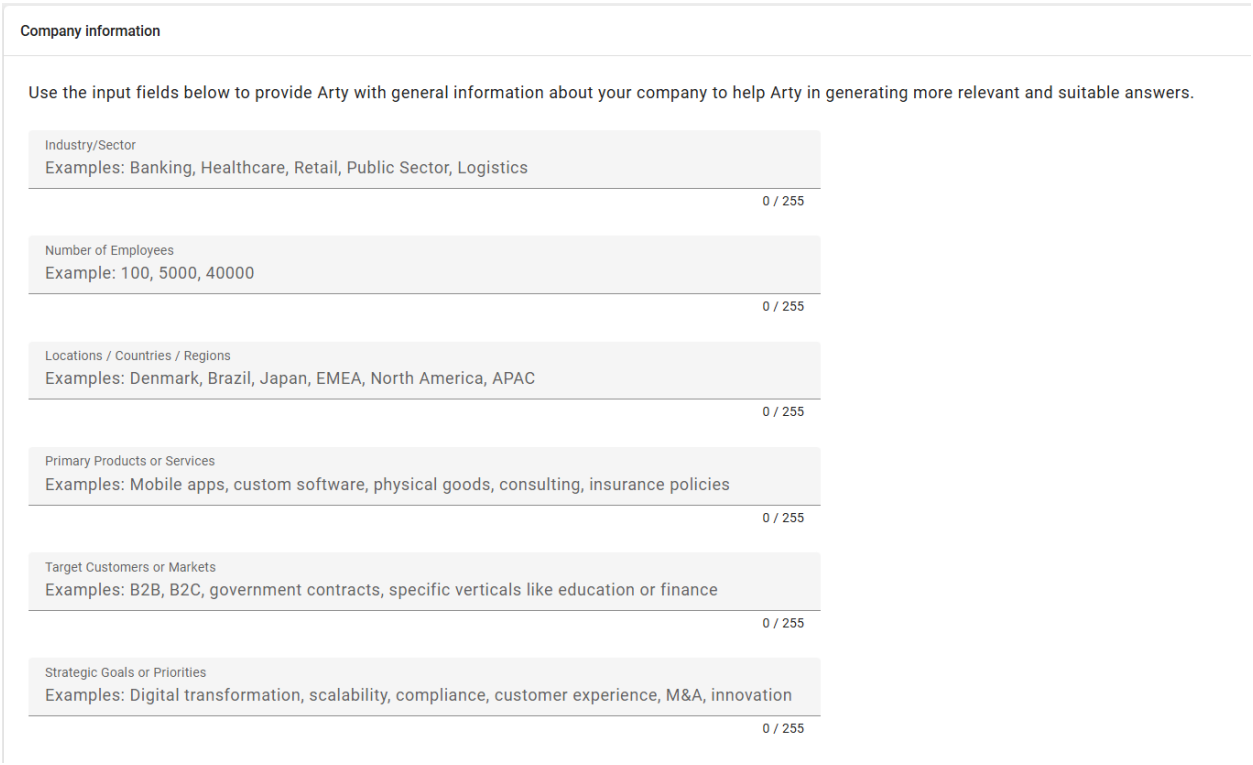
5.6 Arty

5.6.1 How can I define general information about my company for Arty?

When you open the *Administration* menu in the user role *Administrator* in the left menu bar, a collection of predefined tiles will be displayed. By clicking on the *Arty* tile, you have the option to provide *Company information* so that *Arty* can deliver more relevant results when answering questions as well as when creating diagrams or objects.



To provide general information about your company, select the *Arty* tile. Once the tile is selected, several input fields will appear where you can enter data about your company. Enter information regarding *Industry/Sector*, *Number of Employees*, *Locations/Countries/Regions*, *Primary Products or Services*, *Target Customers or Markets*, and *Strategic Goals or Priorities*. *Arty* can use this information to generate more precise and relevant answers, diagrams, or objects.



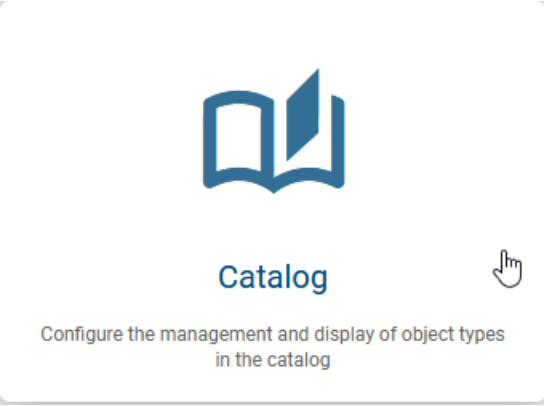
All changes you make in an input field are automatically saved as soon as you leave the field. **No** additional save button or confirmation step is required. Each entry can be modified at any time. After each change, a confirmation notification appears in the bottom right corner of the screen when you leave the field, clearly indicating that your changes have been successfully saved.

Once your changes have been saved, the information provided by you is immediately available to *Arty* and can be taken into account when generating responses.

Hint: Please note that a separate license is required to use this feature. Please also refer to the *Notes on using the AI feature*.

5.7 Catalog

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Catalog* tile, you have the option to edit catalog object types and set attributes as filters for them.

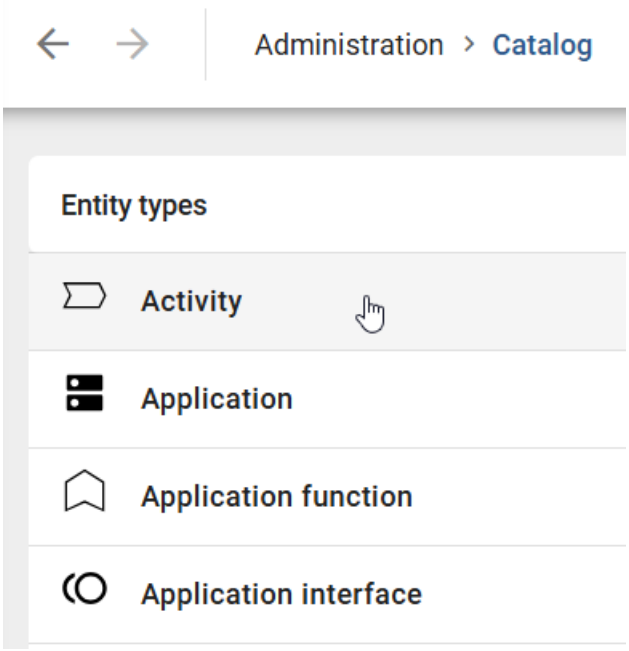


Hint: Please note that the functions of the *Catalog* tile are not available in the mobile view.

5.7.1 How can I edit the details of catalog object types?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Catalog* tile, you have the option to edit catalog object types.

Once you have clicked on the tile, you will be directed to the details page by default, where all object types are listed in alphabetical order according to the browser language. Each entry in the list shows the name and symbol of the object type.



If you click on an entry in the list, you will be taken to the object type settings, where you can make various settings for the respective object type.

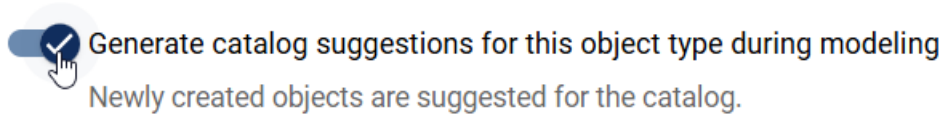
Hint: Please note that the functions of the *Catalog* tile are not available in the mobile view.

5.7.2 How can I define whether catalog suggestions are generated automatically during modeling?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Catalog* tile, you have the option to define whether catalog suggestions are generated automatically during modeling.

Once you have clicked on the tile, you will be directed by default to the details page, where all object types are listed alphabetically based on the browser language. Clicking on an entry in the list will take you to the settings for that object type.

Here you can click the toggle switch next to *Generate catalog suggestions for this object type during modeling* to define whether catalog suggestions should be generated automatically during modeling. The selected behavior only applies to newly created objects and is displayed as a subtitle of the button.



For example, if you deactivate the “Application” catalog object, applications will no longer be displayed as a suggestions in the catalog during modeling. However, you can still manually create them in the catalog and reuse them in the diagram.

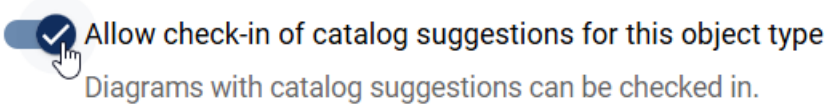
Hint: Please note that the functions of the *Catalog* tile are not available in the mobile view.

5.7.3 How can I define that diagrams can only be checked in with existing catalog objects of a type?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Catalog* tile, you have the option to define that diagrams can only be checked in with existing catalog objects of a type.

Once you have clicked on the tile, you will be directed to the details page by default, where all object types are listed in alphabetical order according to the browser language. If you click on an entry in the list, you will be taken to the object type settings.

Here, you can use the toggle switch next to *Allow check-in of catalog suggestions for this object type* to specify whether diagrams can only be checked in with existing catalog objects of that type. The selected setting is displayed as a subtitle below the switch.



If the switch is deactivated, diagrams with non-existing catalog objects **cannot** be checked in. This ensures that only existing objects are used for modeling, thus preventing redundancies.

Hint: To perform validation, the *"Generate catalog suggestions for this object type during modeling"* option should be enabled.

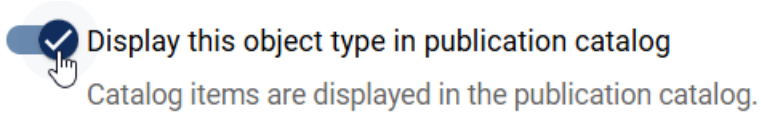
Hint: Please note that the functions of the *Catalog* tile are not available in the mobile view.

5.7.4 How can I define that catalog objects are displayed in the publication?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Catalog* tile, you have the option to define that catalog objects are displayed in the *Publication* stage.

Once you have clicked on the tile, you will be directed to the details page by default, where all object types are listed in alphabetical order according to the browser language. If you click on an entry in the list, you will be taken to the object type settings.

Here you can click the toggle switch next to *Display this object type in publication catalog* to define whether the selected catalog object is allowed to be displayed in the publication. The selected behavior is displayed as a subtitle of the button.

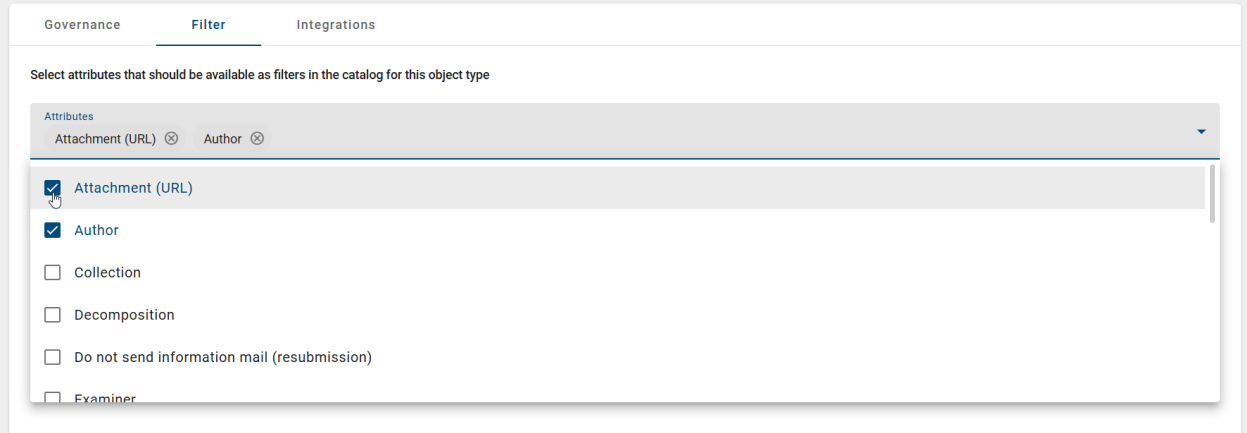


Hint: Please note that the functions of the *Catalog* tile are not available in the mobile view.

5.7.5 How can I set filters for specific catalog object types?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. If you click on the *Catalog* tile, you have the option to select attributes for specific catalog object types. Once selected, they are available as filters for that object type. To do this, select an object type from the list and click the *Filter* tab next to the *Governance* tab.

You can then select all available attributes from a drop-down list, which are automatically enabled upon selection and are available as filters for that object type. To remove attributes as filters, click the attribute in the drop-down list again.



Note: A maximum of 127 facets can be selected for a catalog object type. The facets are displayed according to the selected attributes.

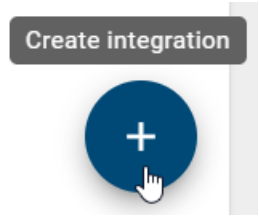
Hint: Please note that the functions of the *Catalog* tile are not available in the mobile view.

5.7.6 Integrations

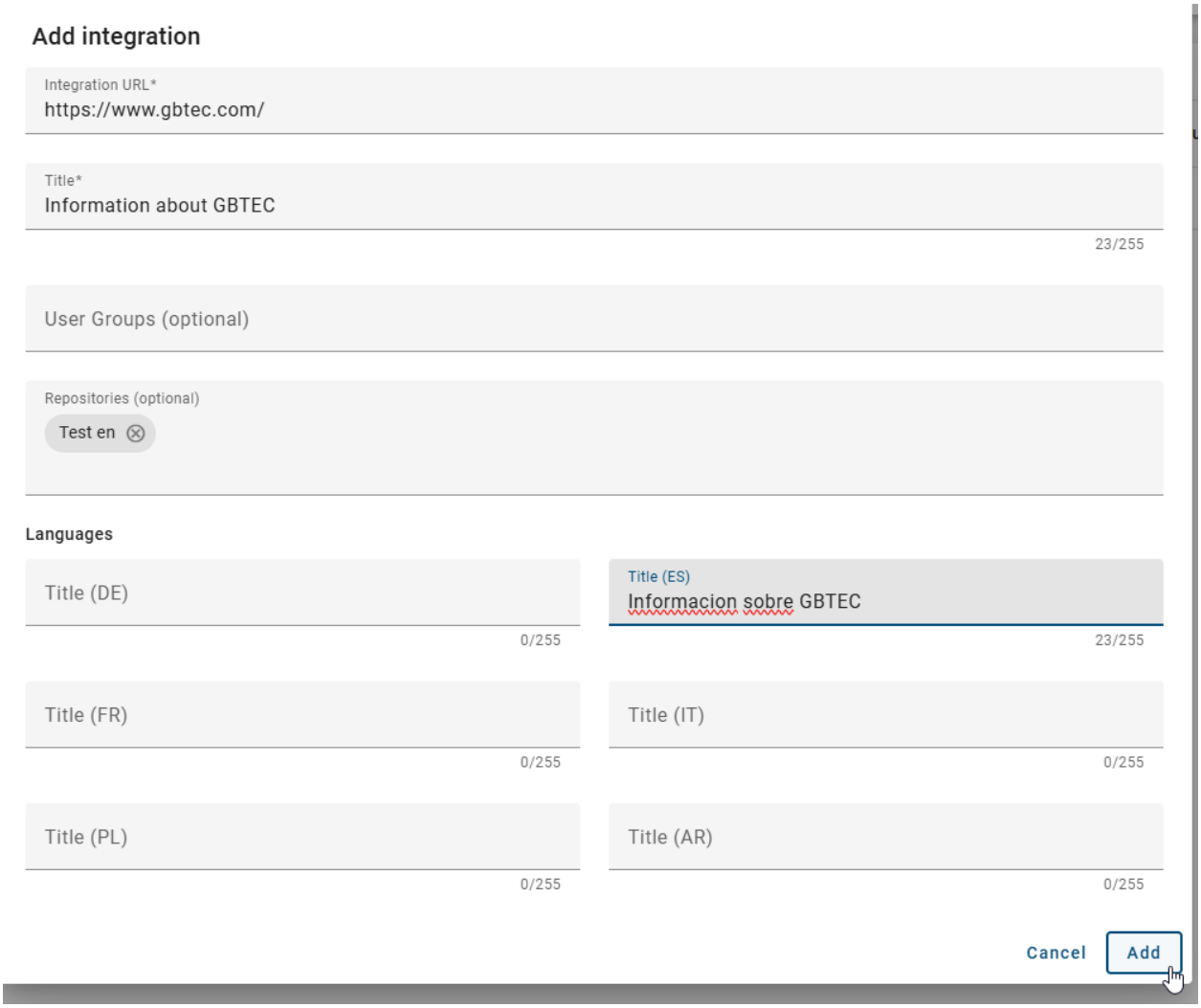
How can I integrate websites into a new tab in the catalog for a specific catalog object type?

As an *Administrator*, you have the option to integrate websites into a new tab in the catalog for specific catalog object types. This allows you to integrate content from other websites into BIC without being redirected to another website as a user. Additionally, integrations can be used to reference other content within BIC. To do this, go to the *Administration* menu item in the left menu bar and click on the *Catalog* tile. You will see a list of all available catalog object types.

After selecting a catalog object type, you will see the *Integrations* tab next to the *Filter* tab. Here, you can configure so-called integrations that will be displayed as a separate tab in the catalog for the selected object type. To configure an integration, click the *Create integration* button at the bottom right of the screen.



This opens a dialog where you need to enter a URL and a title for the integration. Entering the title in your default language is mandatory. Providing the title in additional languages is optional. You can also optionally add user groups or repositories that should have access to the integration in the catalog. If you do not add any user groups, all users will have access to the integration.



You also have the option of adding one or more repositories in the corresponding dialog when creating or editing an integration. An additional field is displayed in the dialog in which you can select or enter the desired repositories. If exactly one repository is stored, its name is displayed. If several repositories are assigned, the number of repositories is displayed instead. If no repository has been defined, the field remains empty.

As soon as at least one repository has been added, the *Integration* tab is displayed in the catalog if you are in one of the stored repositories. You can access this tab using the left sidebar in the catalog. The integration is displayed there as a separate tab with the name that you have previously defined in the *Administration* area.

Note: Please note that the Integration tab is only displayed if you belong to one of the user groups defined for the integration or if no user groups have been defined. You must also be in a repository that has been released for the integration or no repository has been defined. If these requirements are not met, the tab is hidden in the catalog.

Note: The title and foreign language titles are limited to 255 characters. The number of user groups is limited to 100.

When you create or edit an integration as an *administrator*, you can use specific placeholders in the URL field. The placeholders `{{tenantId}}`, `{{repositoryId}}`, `{{stage}}`, `{{language}}` are automatically replaced with the appropriate values when the integration is later executed. For example, if you enter the URL ex-

ample.com/tenants/{{tenantId}}, the variable `{{tenantId}}` will automatically be replaced with the ID of the currently selected tenant when this integration is opened in the catalog. The placeholder then becomes something like //example.com/tenants/123. This allows you to dynamically link to tenant-specific, language-specific, or other context-sensitive content.

Once you have entered at least the URL and a title for the integration, you can add it by clicking the *Add* button. The integration will then appear in the Administration in the *Integrations* tab for the selected catalog object type.

The integration will also appear as a new tab in the catalog, displayed in content language, when you filter by the selected catalog object type. If your content language is not maintained, the integration will be displayed in your default language.

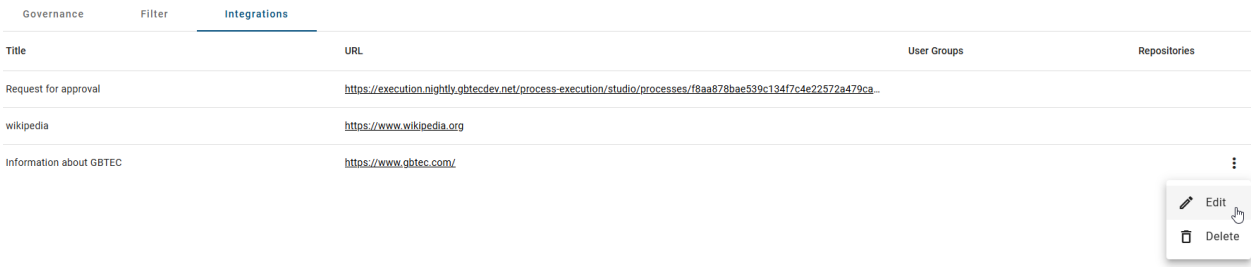
Hint: Please note that the use of integrations requires a separate licence, which you must purchase.

Note: If you enter a URL to a published ProcessApp in the "Integration URL" input field, no new tab will be created. Instead, for catalog objects of the selected type, an additional option will be displayed in the *Options* panel that allows you start a new case for the linked ProcessApp. Further information can be found *here*.

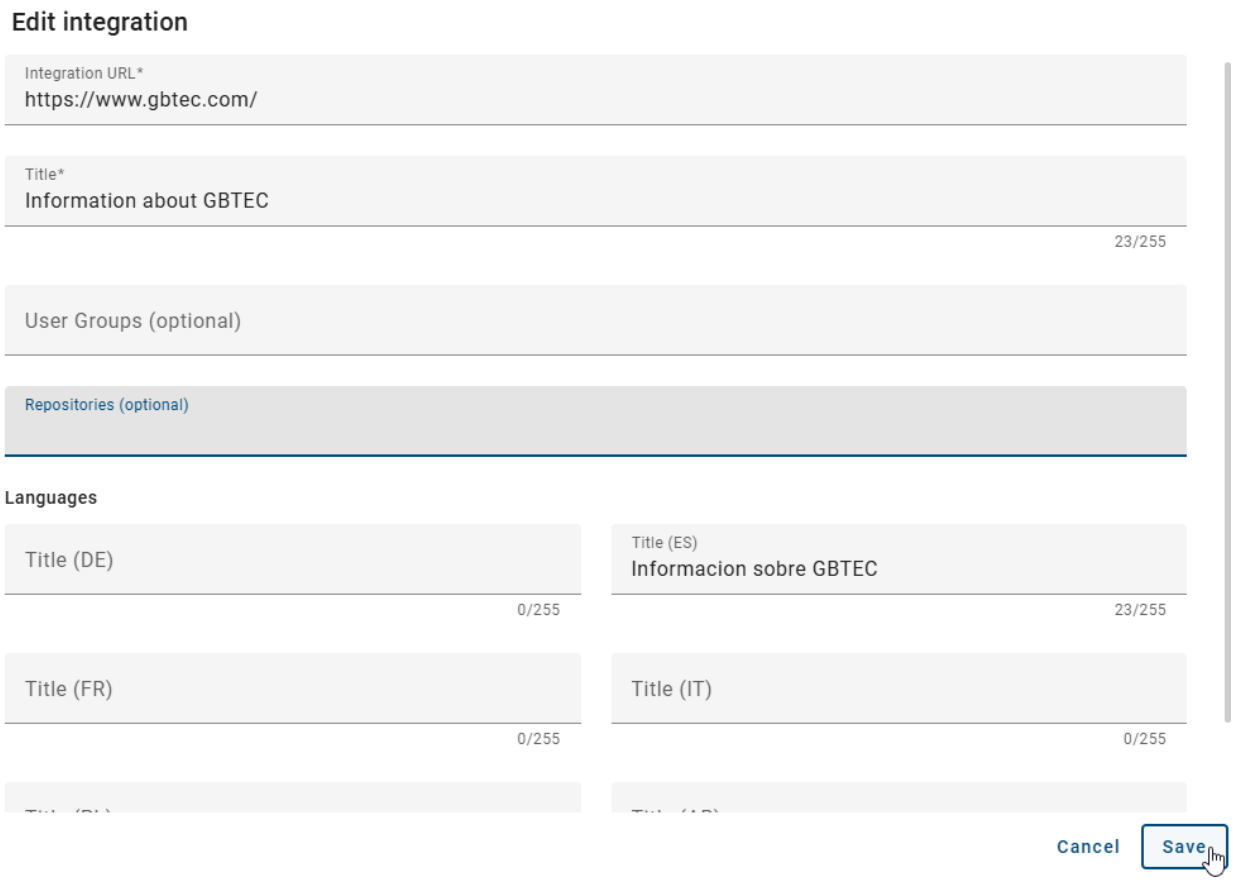
How can I edit an existing integration?

If you open the *Catalog* tile in Administration as an *Administrator*, you will see the *Integrations* tab after selecting a catalog object type. Here you will see a list of the already *configured integrations*, if any have been configured for this catalog object type.

To edit an integration, select an integration and open its context menu. When you click the *Edit* button, a dialog opens. This shows the current data and allows you to make and save changes.



As soon as the dialog for an existing integration is opened, all mandatory fields (Integrations-URL and TItle) must be filled in when editing. Only then can you click the *Save* button, which accepts the entered data and updates the list of integrations. If not all mandatory fields are filled in, the *Save* button will remain deactivated to prevent an incomplete integration.

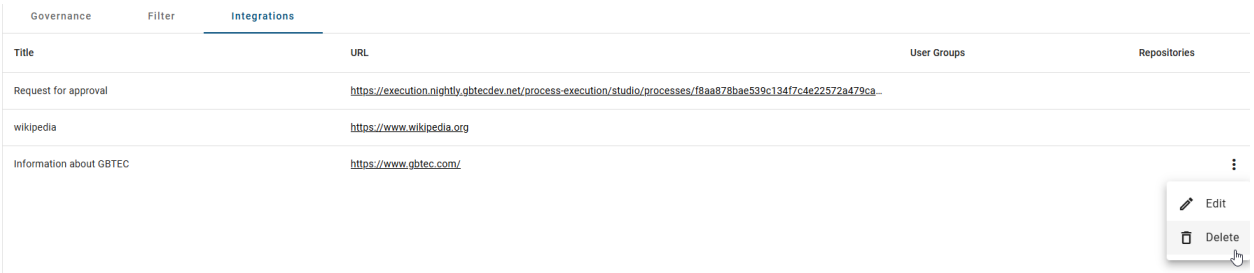


Hint: Please note that the use of integrations requires a separate license and must be purchased by you.

How can I delete an integration?

When you open the *Catalog* tile in the Administration as an *Administrator*, you will see the *Integrations* tab after selecting a catalog object type. A list of already *configured integrations* is displayed here, if any have been configured for this catalog object type.

To delete an integration, select the integration and open the context menu. When you click the *Delete* button, a hint appears stating that the deletion is final and cannot be undone. Click the *Delete* button again to remove the integration for the selected catalog object type.



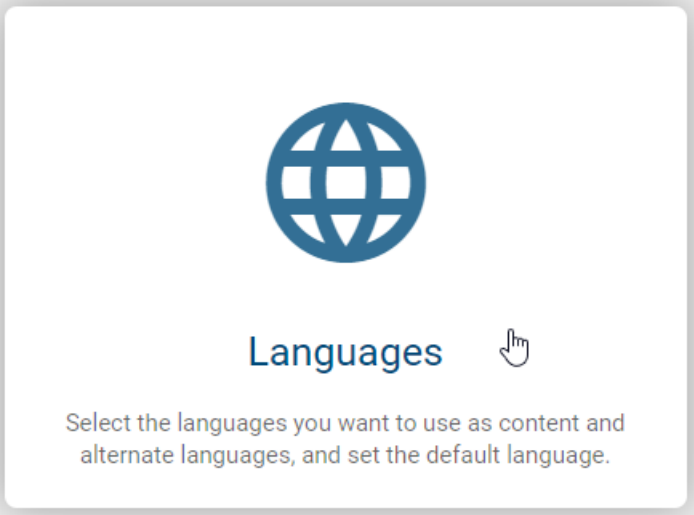
The list of remaining integrations is then updated automatically.

Hint: Please note that the use of integrations requires a separate licence, which you must purchase.

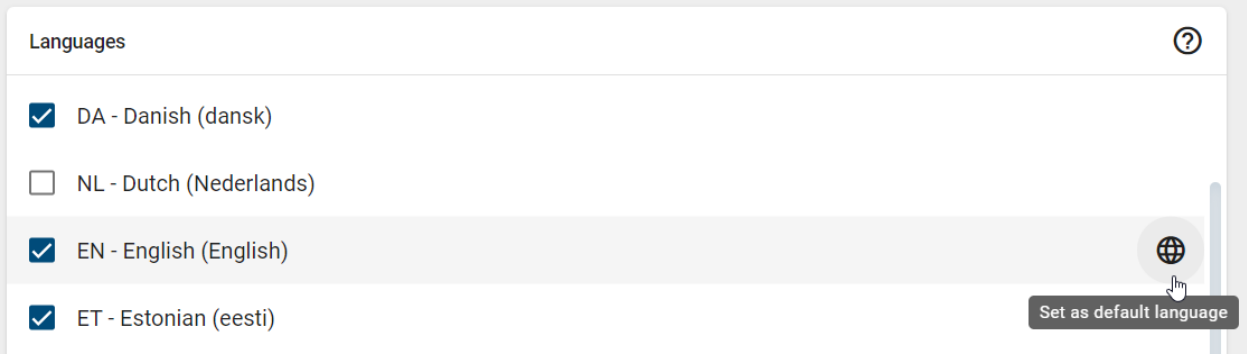
5.8 Languages

5.8.1 How can I define languages for my users?

In the tile *Languages*, you can set the default languages as well as additional content and alternate languages for your users.



After clicking on the tile, an alphabetically sorted list of all languages supported by BIC will appear. By clicking on a selected language, you can define the content and alternate languages. To set a language as the default, click on the *Web* icon within the language entry. The default language is the language that is automatically displayed after logging in.



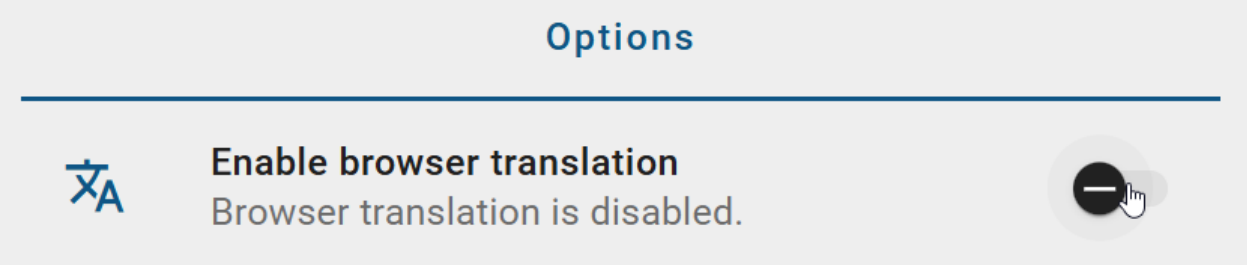
Hint: Please note that the functions of the *Languages* tile are not available in the mobile view.

Hint: Please note that when switching to the alternative language, process names, descriptions and forms are displayed in this language if a translation is available. Otherwise, the content remains in the original content language. The user interface and system messages remain unchanged and continue to be displayed in your browser language.

5.8.2 How can I enable the browser translation for my users?

As a user with the *Administrator* user role, you can enable or disable browser translation for your users. To do this, go to the *Administration* menu item in the left menu bar and select the *Languages* tile.

After selecting the *Languages* tile, an alphabetically sorted list of all languages supported by BIC will open. In the right sidebar, you can enable the *Enable browser translation* slider by clicking on the *Options* panel. The slider is disabled by default.



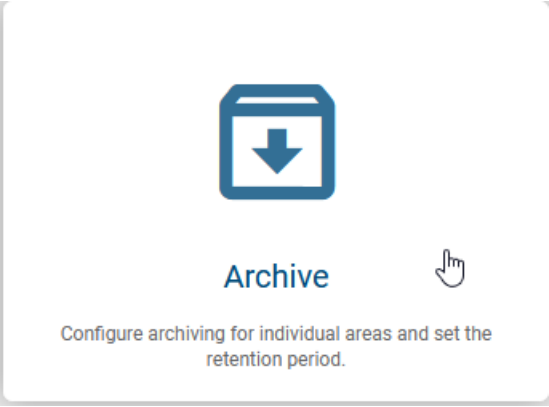
As soon as you toggle the slider, you will receive a confirmation message. Afterwards, browser translation becomes available to your users, allowing content to be displayed automatically and more quickly in their preferred language.

Your change will be applied immediately, but it will only be visible to users who are already logged in after they refresh the page. Users who log in after the change will see the setting immediately, provided their browser supports translations.

Hint: Please note that some browsers offer the option of automatically translating content into other languages. This function is provided by the respective browser and is beyond our control. If browser translation is activated, data may be transmitted to the browser provider or its translation service. We accept no responsibility for the quality or completeness of automatic translations and are not responsible for the associated data processing.

5.9 Archive

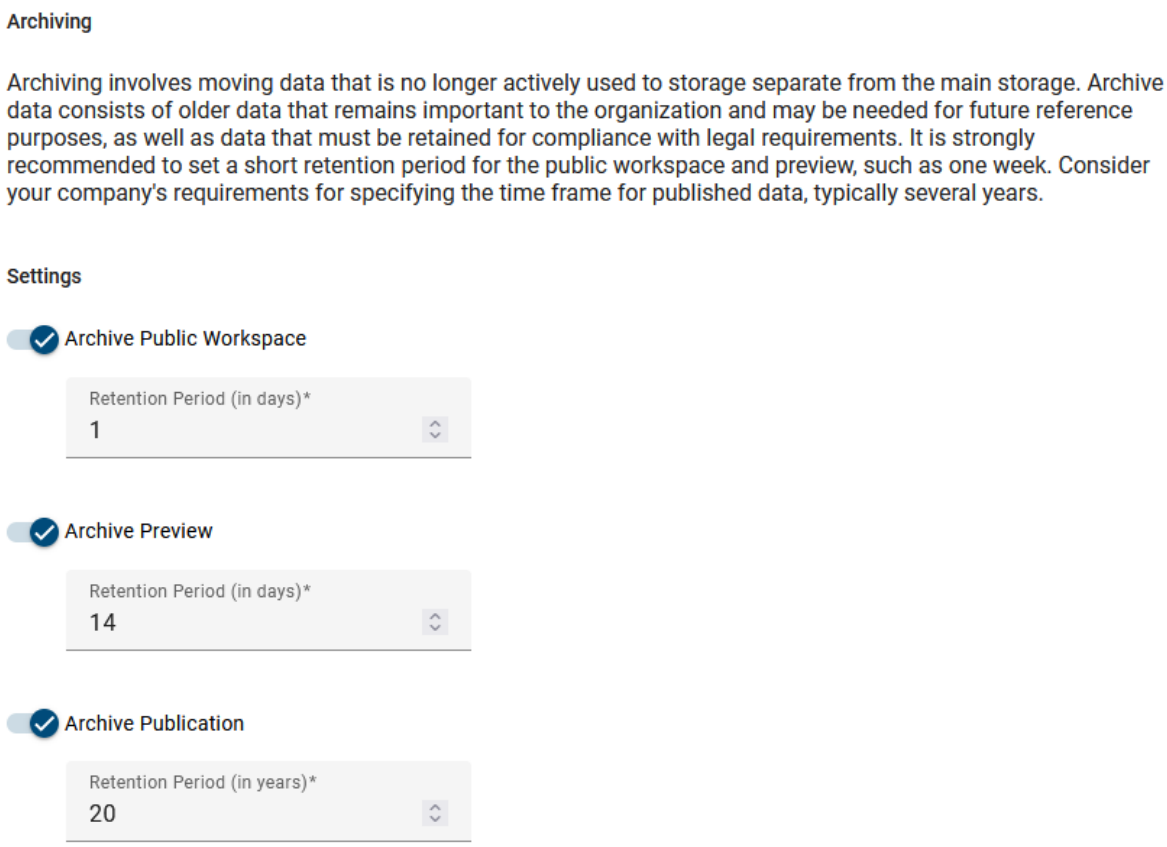
In the *Archive* tile, you can configure the settings for the archive and define the access permission for *Reader*.



Hint: Please note that the functions of the *Archive* tile are not available in the mobile view.

5.9.1 How can I change archive settings?

As an administrator, you have the option of customizing the settings for the archive in the *Public workspace*, *Preview*, and *Publication* areas across all diagrams. In addition to activating or deactivating the archive, it is also possible to configure the retention period individually.



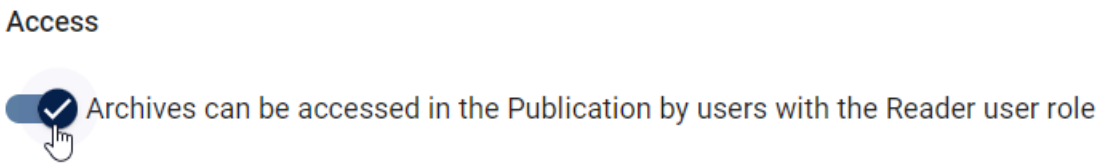
The archiving status can be activated or deactivated using the toggle switch. If you activate archiving, the input field becomes active and can be edited. If archiving is deactivated, the input field remains locked, and the corresponding value is displayed in read mode.

If archiving is activated, you can use the input field to change the retention period as required. Any changes are saved immediately, and a notification of the successful changes appears at the bottom right-hand side of the screen.

5.9.2 How can I set access permission for Reader?

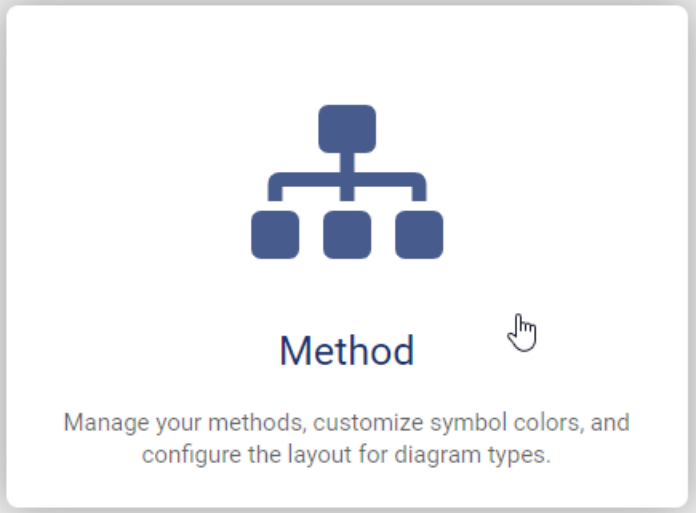
In the archiving settings, you can set access permissions to archives for the *Reader* user role. If you have disabled access, *Reader* **cannot** access or compare archived versions of diagrams and objects in the publication.

To set access permissions, scroll down to the bottom of the archiving settings and toggle the switch under *Access*.



5.10 Method

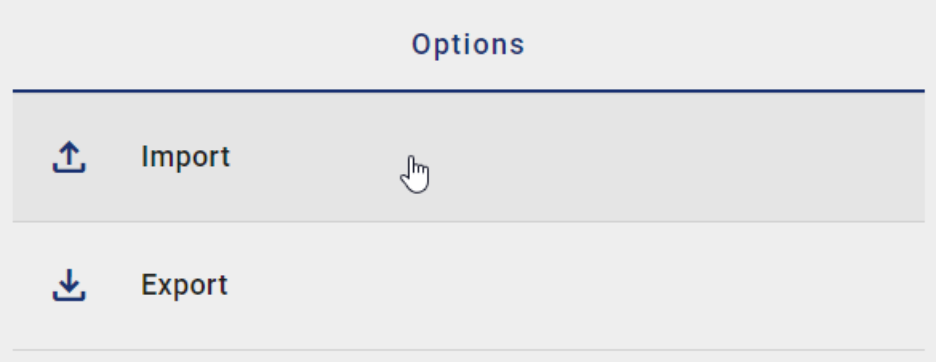
In the *Method* tile, you can manage your methods, customize the colors of the symbol types and configure the diagram layout.



Hint: Please note that the functions of the *Method* tile are not available in the mobile view.

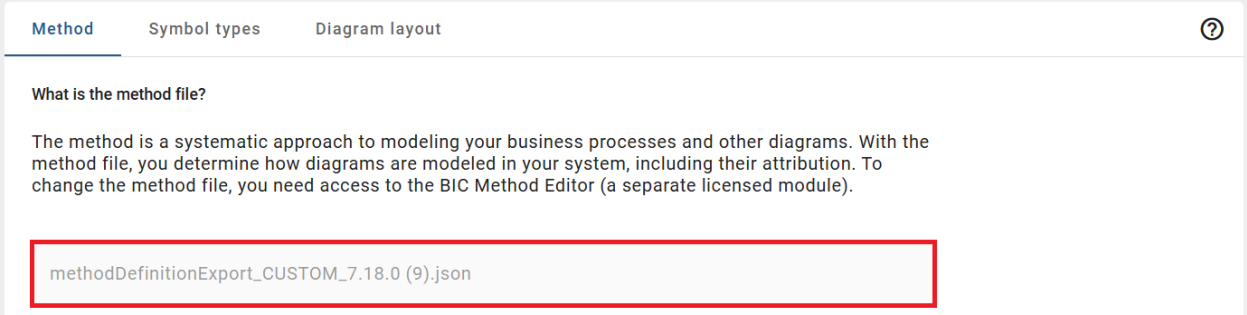
5.10.1 How can I import a method?

When you open the *Method* tile, you will find the *Options* in the right sidebar. To import a method, click on *Import*.



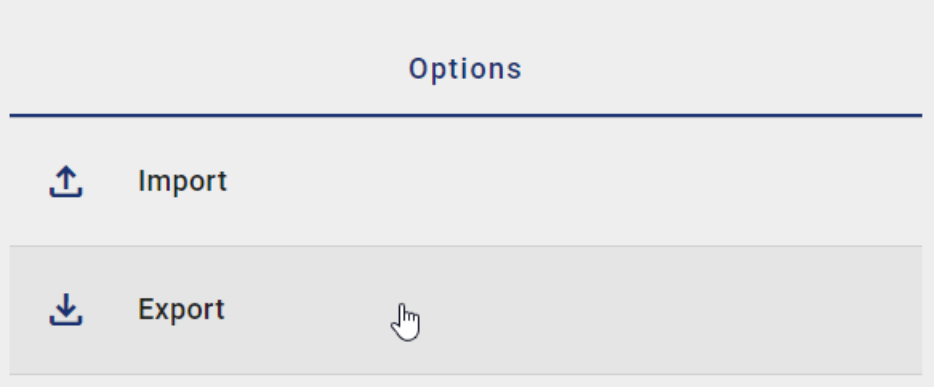
You can then select and import a JSON file from your local storage.

If the import was successful, you will receive a corresponding message and can view the current method in the read-only field.



5.10.2 How can I export a method?

When you open the *Method* tile, you will find the *Options* in the right sidebar. To export your current method, click on *Export*.



The current method will be exported directly as a JSON file.

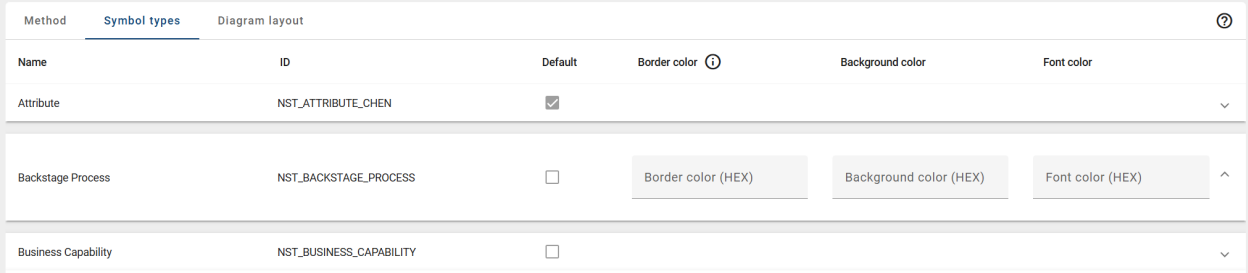
5.10.3 How can I configure the standard colors of the symbols?

You have the option to set the color scheme of a symbol type to a personal standard for all stages of your BIC Process Design. Diagrams from the archive will always be displayed with the current color settings. For each symbol type, you can set the border, background, and font color.

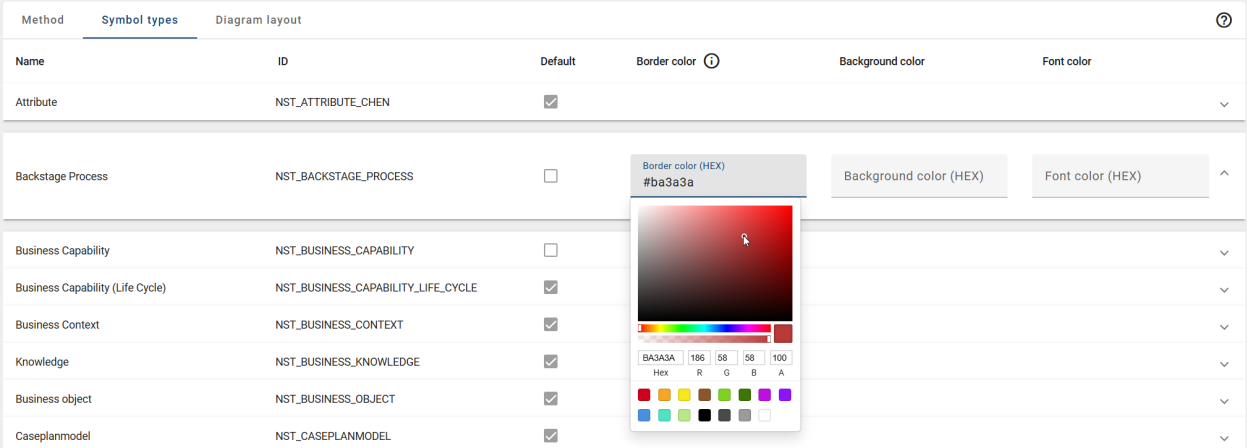
> **Warning:** Please note that the colors you choose here will affect all stages, including **diagrams in publication**. Also, please consider the notes on *configuring certain symbol types*.

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *Method* tile, you have the option to adjust the method file, change the default color of the symbol types, and set the layout of the diagram types.

After clicking the *Method* tile, navigate to the *Symbol types* tab. Here, you will find a list of all configurable symbol types in your current method. The *Default* column next to each symbol type indicates whether it is set as the default for the corresponding object type. If the checkbox is selected, the symbol is defined as the default. To adjust the color of a symbol type, simply select it.



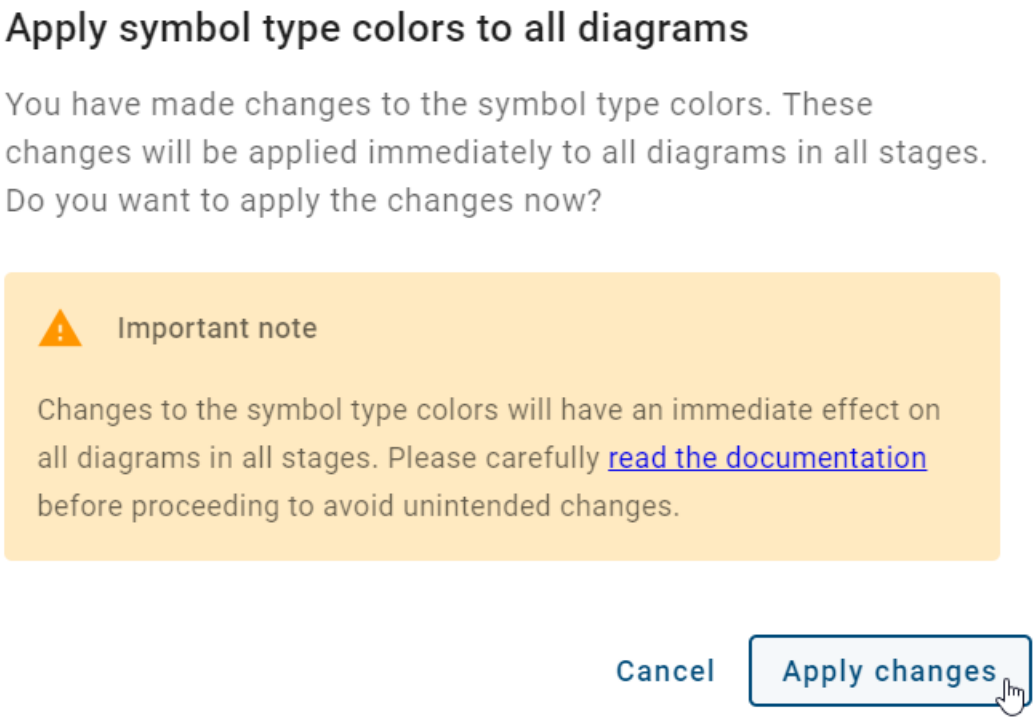
Once you have clicked on a symbol type, click on the corresponding color field that you want to adjust. You can select a color value from the color palette or enter a HEX code.



Note: Please note that the color specified in the *Border color* column is also used for coloring the corresponding object type in various areas of the application, including the catalog list, search, and attributes.

Note: Please note that if no color is set, the symbol will be displayed in BIC Process Design's default color. If you have set a color value and want to return to the default color, please clear the input field.

After configuring the symbol type colors, select the *Mass application* option in the *Options* panel in the right sidebar. This will open a dialog where you need to confirm your changes.



To apply your color changes to all diagrams in all stages, click on the *Apply changes* button. To cancel the process, click on the *Cancel* button.

Your changes will then be visible in all diagrams after a refresh.

Note: It is also possible to *format individual symbols using the symbol palette*. The color formatting done there will be applied to all stages and will not be overwritten by later changes to the general color configuration explained here.

5.10.4 How can I import or export symbol colors?

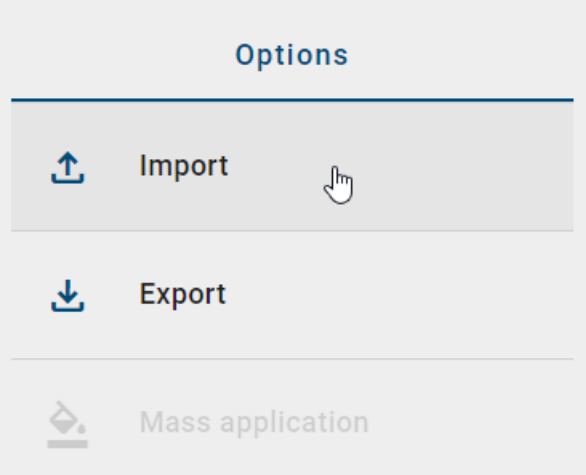
You can import and export your own color settings for symbol types. This allows you to switch between different symbol colors.

Hint: Please note that changing the symbol colors will affect **all** diagrams in all stages.

To import or export your symbol type colors, open the *Method* tile and navigate to the *Symbol types* tab. In the right sidebar, you will find the respective options.

Import:

If you have edited your symbol type color settings externally or want to re-upload and use previous versions, select the *Import* option.

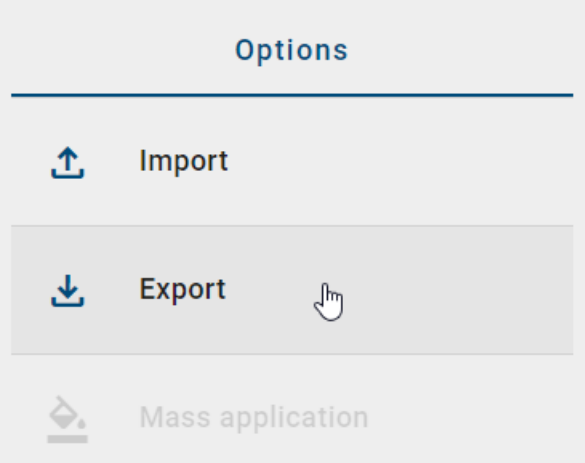


Select a JSON file and click on the *Mass application* option to apply the color settings.

Warning: Please note that if you upload your own JSON file, all symbol IDs you use in it must be correct and present in your method. If you use symbol types that are not present in the currently used method, this may result in unexpected behavior.

Export:

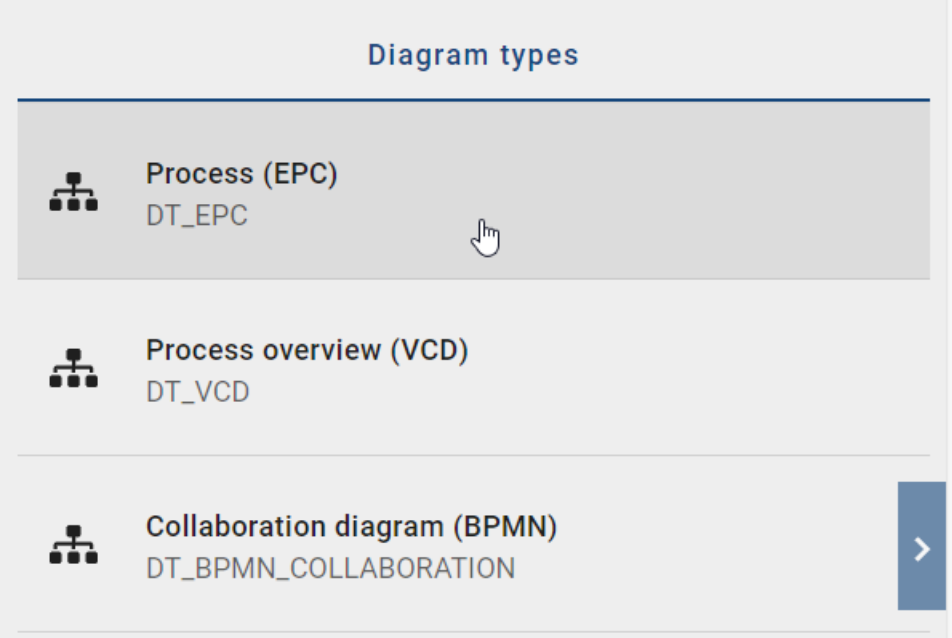
To export your current color settings as a JSON file, click on *Export*.



5.10.5 How can I set the layout of a diagram type?

The layout assistant is designed to assist you in arranging the process flow, focusing on sequence flow and activities. You can configure and customize the EPK, WKD, and BPMN diagram types by default.

When you open the *Method* tile, navigate to the *Diagram layout* tab. In the right sidebar, you will find a list of the available diagram types and their corresponding diagram IDs. To edit the layout of a diagram, click on a diagram type.



In the main section, you will find the settings for the selected diagram type, which are described in detail below:

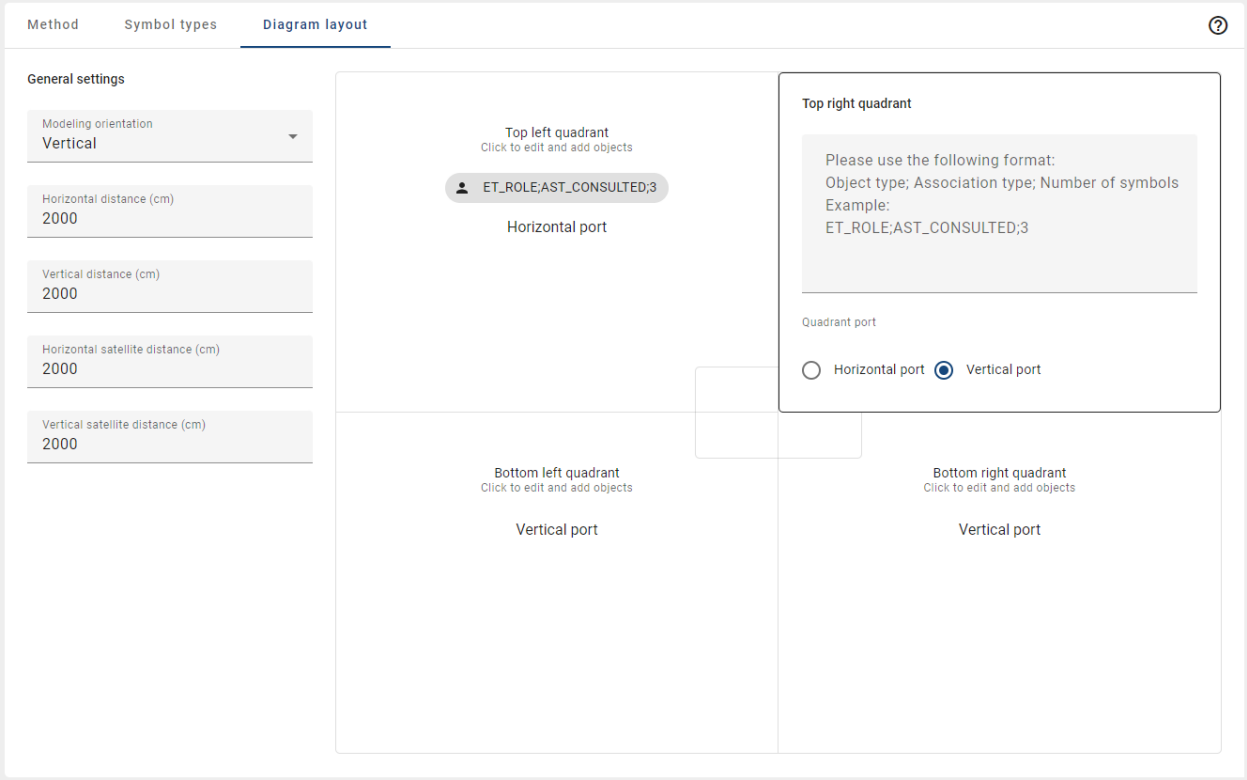
Modeling orientation: Here, you can choose between *Horizontal* and *Vertical* to determine the alignment of the layout assistant. The direction refers to the process flow, represented by, for example, sequence and message edges between activities.

Horizontal/Vertical distance (cm): This defines the distance in the process flow by entering numbers. It represents the horizontal and vertical distance in centimeters between two symbols connected by a sequence or message edge.

Horizontal/Vertical satellite distance (cm): This input defines the horizontal and vertical distance between satellites in centimeters.

Satellite positioning: To set the position of satellites, click on the corresponding quadrant and edit the input field. Specify which object type with which relationship to the activity should be automatically placed here during layouting. You can also set the maximum number of symbols arranged vertically above each other. If the number exceeds during layouting, a new column of vertical arrangement will be created. Once you've saved your input by pressing the Enter key, it will be displayed as a chip in the quadrant. If needed, you can remove the chip by clicking on the quadrant.

Quadrant Ports: Quadrant ports correspond to the edge ports of the satellites of an activity. By clicking on a quadrant, you can choose between two selectable ports - *Horizontal* and *Vertical*. Your selection is saved immediately.



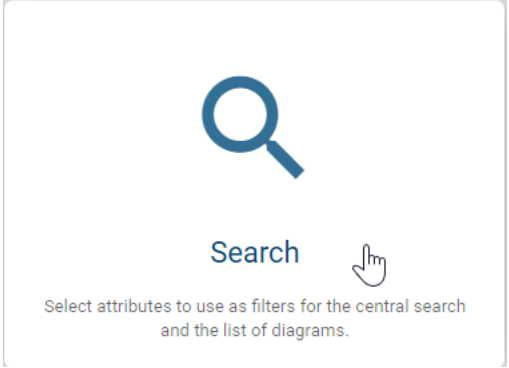
The default settings defined for the layout assistant will be overridden with this configuration. If no individual behavior is defined, the *layout assistant uses the default*.

Note: Chips can only be generated for object types that exist in the method. There is no further validation of your input. Note the existing *object types and association types*.

5.11 Search

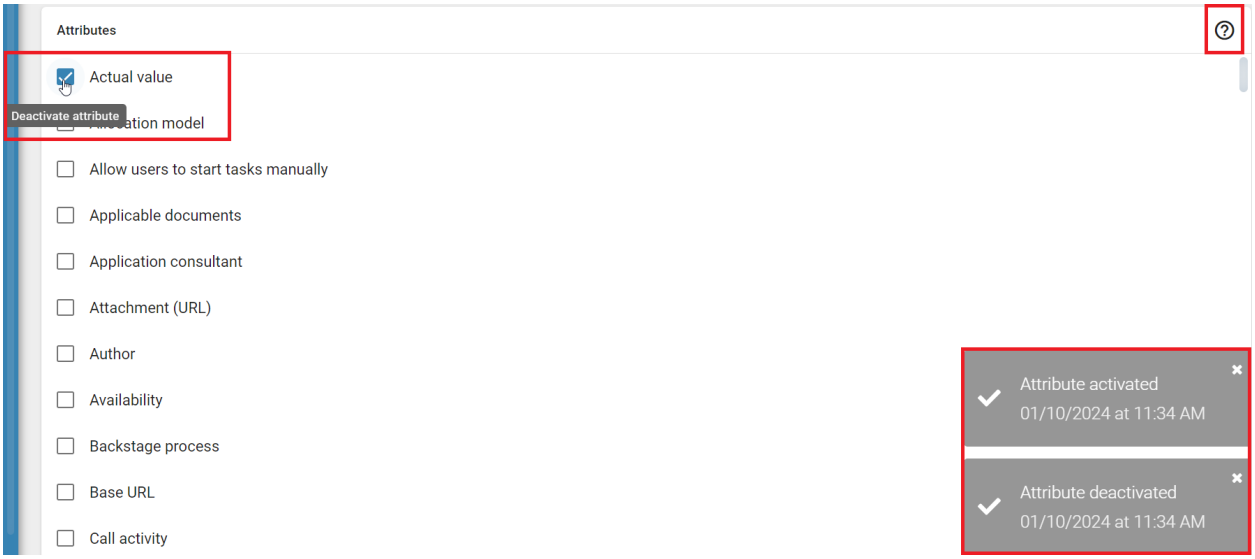
5.11.1 How can I select attributes as search facets?

In the *Search* tile, you can select attributes as search facets to set filters for the central search and the list of diagrams.



Click on the *Search* tile to access the details page. The alphabetically sorted list displays all attribute types from the current method.

By clicking on an attribute, you can activate or deactivate it. As an administrator, you have the option to remove an attribute type as a search filter or save an unselected attribute type as a search filter.

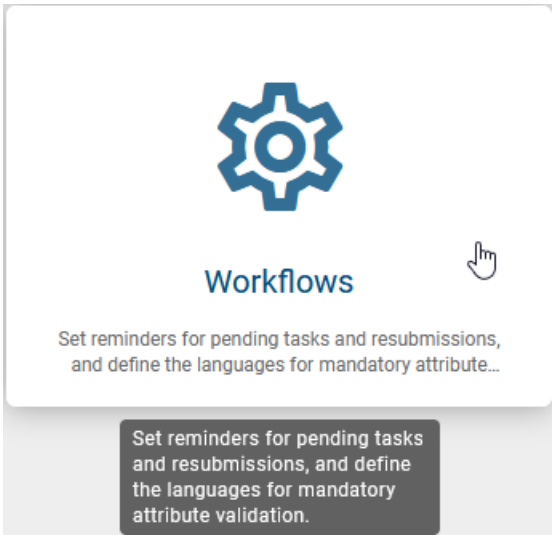


Hint: Please note that the functions of the *Search* tile are not available in the mobile view.

5.12 Workflows

5.12.1 How can I set the validation scope for language-dependent mandatory attributes?

In the *Workflows* tile, you can configure the validation scope for mandatory attributes to specify the languages to be checked.



After selecting the tile, you can choose the validation scope for mandatory attributes from the available options:

Arbitrary content language: The mandatory attribute must be maintained in at least one content language.

Example: If the mandatory attribute is maintained in at least one of the available content languages, for example English or Spanish, publication works as expected as long as at least one valid value is present. If the English content is missing, publication can still proceed if the content is maintained in Spanish. If the mandatory attribute is not maintained in any of the available languages, the field is considered empty and publication **cannot** proceed.

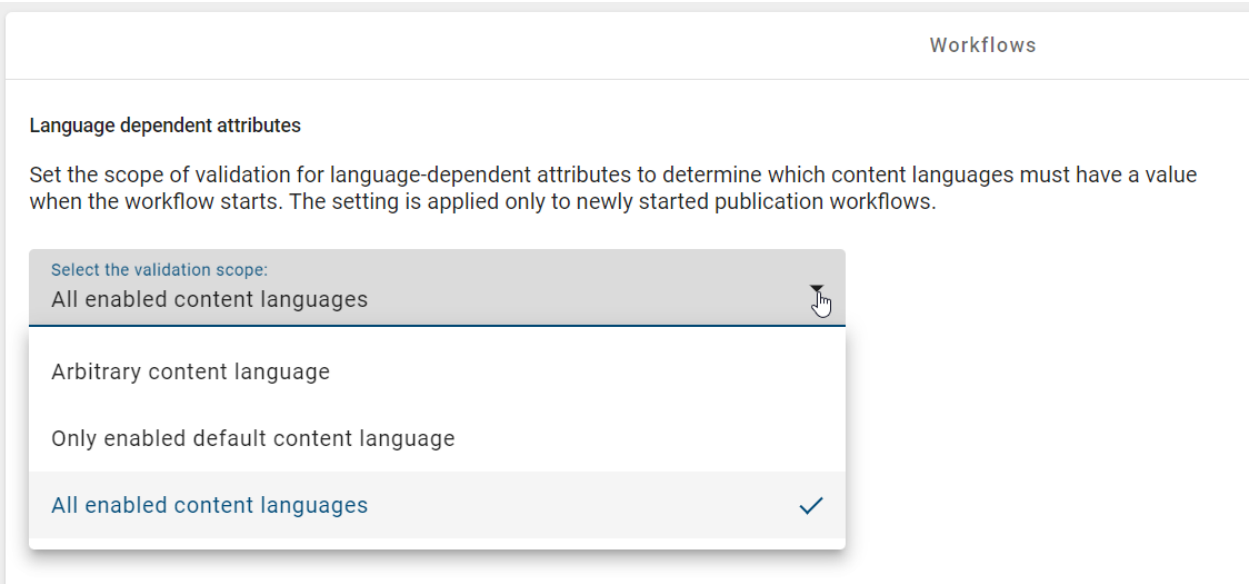
Only enabled default content language: The mandatory attribute must be maintained in the activated default content language, even if it has been maintained in other languages.

Example: If English is defined as the default content language, publication works as expected when a value is provided in English. If the English content is missing, the field is considered empty and publication **cannot** proceed. Content maintained in another language, such as Spanish, is not sufficient if English is defined as the default content language. If the mandatory attribute is not maintained in any of the available languages, the field is considered empty and publication **cannot** proceed.

All enabled content languages (default setting): The mandatory attribute must be maintained in all enabled content languages.

Example: If the mandatory attribute is fully maintained in all activated content languages, for example English, German, and Spanish, publication works as expected. If the value is missing in any of the active languages, for example English, the field is considered unfilled and publication **cannot** proceed. If the mandatory attribute is not maintained in any of the available languages, the field is considered empty and publication **cannot** proceed.

Note: You can define the *default and content languages* in the administration.



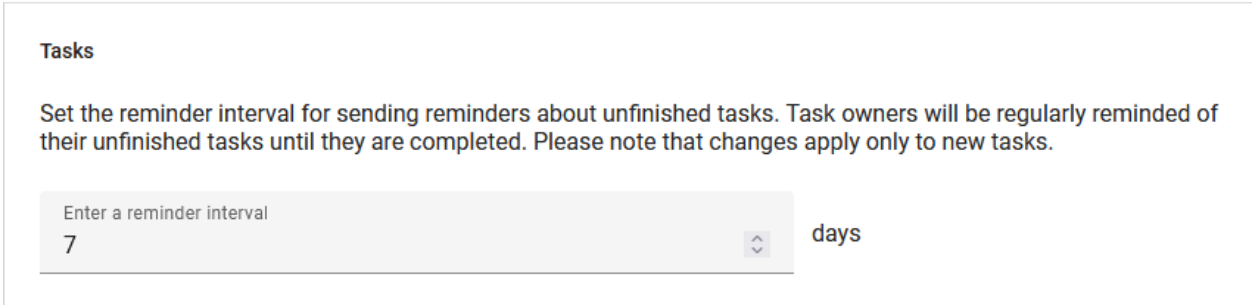
When a new validation scope is selected, the publishing workflow verifies that all mandatory language-dependent attributes for entities and diagrams comply with the selected scope.

Note: Please note that the new validation scope will only apply to a publishing workflow that has been started after the change was made.

Hint: Please note that the functions of the *Workflows* tile are not available in the mobile view.

5.12.2 How can I set the workflow task reminder?

You can also configure a reminder interval for unfinished tasks in the *Workflows* tile. Therefore, click on *Reminders* to display the setting options for *Task reminders*.

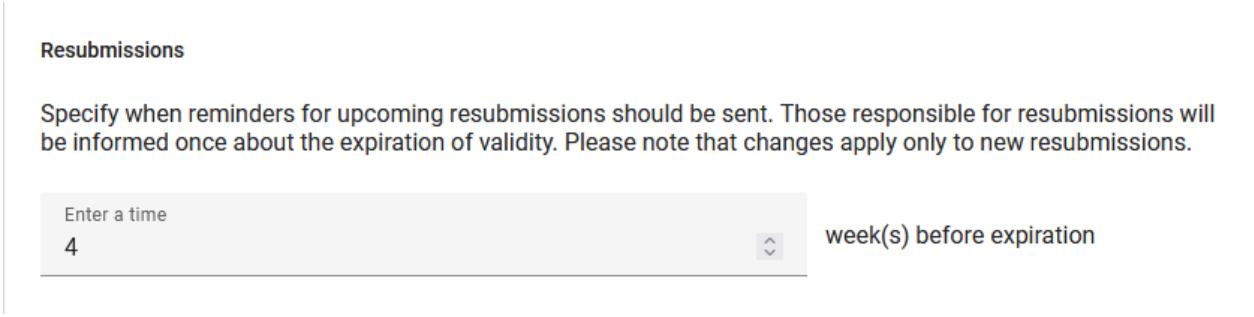


This section allows you to set the reminder interval (in days) for open, unfinished tasks. The default interval is 7 days, meaning that users with open tasks will receive reminders once within this timeframe. You have the flexibility to customize the interval by entering your preferred number of days in the corresponding field. The changes to the reminder interval take effect immediately and will be applied to all new tasks. A notification confirming the successful changes will appear at the bottom right of the screen.

Hint: Please note that the functions of the *Workflows* tile are not available in the mobile view.

5.12.3 How can I set the resubmission reminder?

In the *Workflows* tile, you as an administrator can configure when reminders for upcoming resubmissions should be sent. To do this, click on *Reminders* to display the setting options for *Resubmissions*. As an Administrator, you can set the default resubmission interval that applies to all diagrams. In addition, you can decide whether modelers are allowed to change this default value for individual diagrams. To enable this option, the resubmission interval attribute must be made visible in the *method file*.

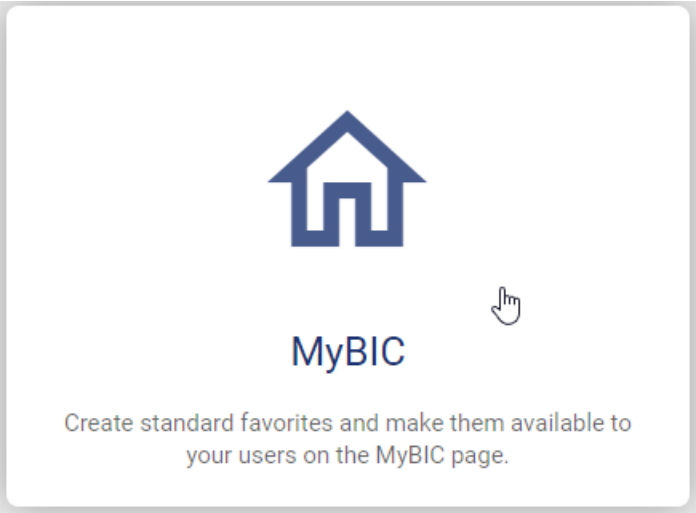


The time (in weeks) for resubmission reminders is specified here. The respective responsible individuals receive a one-time notification at the chosen time regarding the remaining validity period. Changes are saved instantly, and a notification confirming the successful update is displayed at the bottom right of the screen. This update applies to all new resubmissions.

Hint: Please note that the functions of the *Workflows* tile are not available in the mobile view.

5.13 MyBIC

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, you will see a collection of predefined tiles. In the *MyBIC* tile, you can create standard favorites and make them available to your users on the *MyBIC* page.



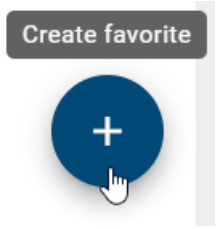
After clicking on the tile, a list will appear sorted in descending order based on the creation date. This list displays the names of the standard favorites and the assigned user groups. If the name is not available in your browser language, a corresponding hint will be provided.

Hint: Please note that the functions of the *MyBIC* tile are not available in the mobile view.

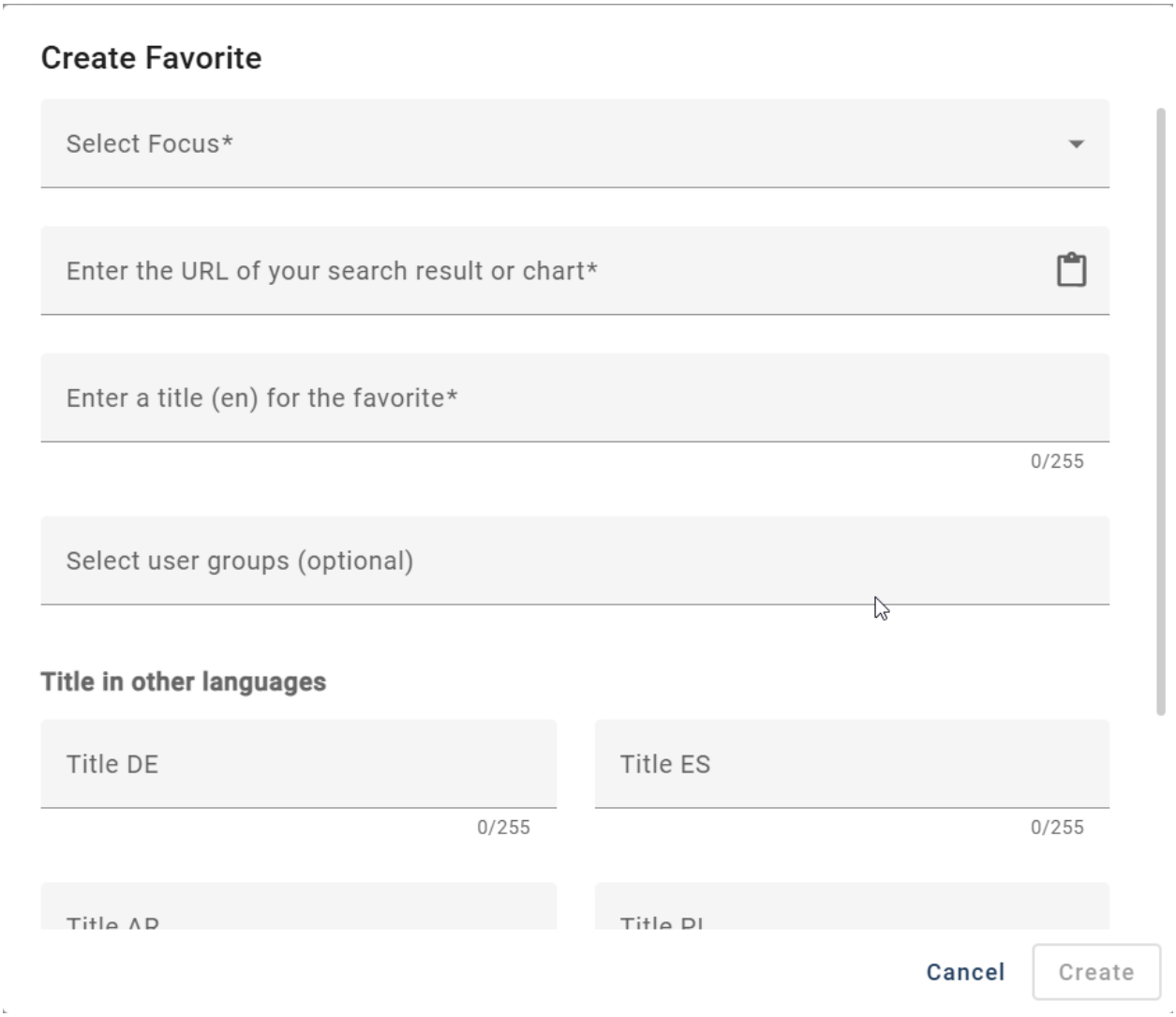
5.13.1 How can I create a new standard favorite?

When you open the *Administration* menu item in the left menu bar as an *Administrator*, a collection of predefined tiles is displayed. In the *MyBIC* tile, you can create standard favorites and make them available to users on the *focus-specific myBIC page*.

After clicking on the *myBIC* tile, a list of existing standard favorites will be displayed in descending order by creation date, if available. You can create a new standard favorite using the *Create favorite* button at the bottom right.



This will open a dialog in which you must select a focus, enter the URL of the search result or diagram for the standard favorite, and enter a name. Use the *Select focus* selection field to specify on which focus-specific myBIC page the standard favorite should be displayed. Optionally, you can also enter user groups and the name in other languages.



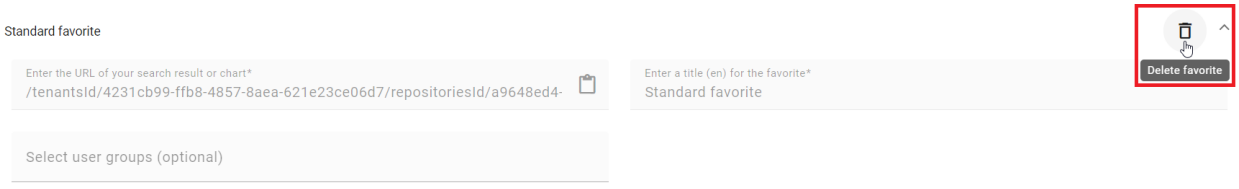
Once you have filled in at least all the mandatory fields, you can create a new standard favorite by clicking the *Create* button. The newly created standard favorite will then appear as the first entry in the list in the language of your browser and user interface. To discard your input, click the *Cancel* button.

5.13.2 How can I delete a standard favorite?

If you are an *Administrator* and open the *Administration* menu item in the left menu bar, a collection of predefined tiles will be displayed. In the *MyBIC* tile, you can delete existing standard favorites.

To delete a standard favorite, there must be at least one standard favorite. Click on the standard favorite you want to delete in the list to expand it.

You will then see the option to delete the standard favorite at the top right of the entry.

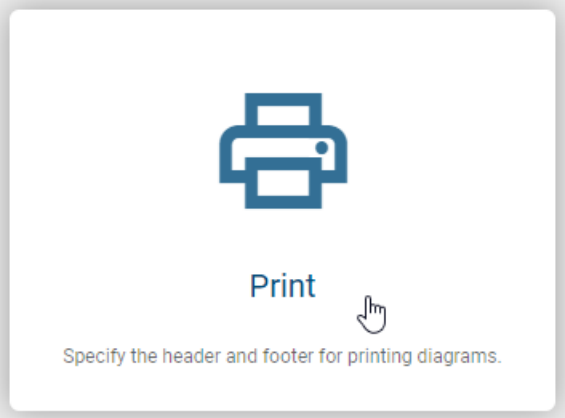


After clicking on the *Delete favorite* option, the standard favorite will be deleted **immediately** and removed from the list.

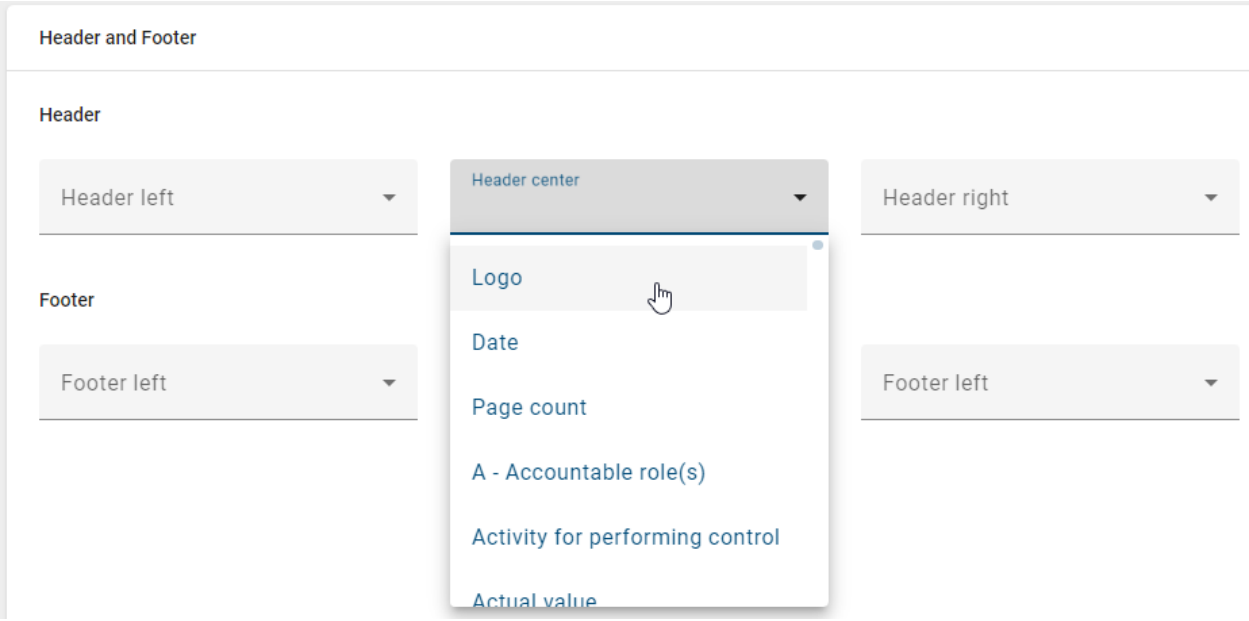
5.14 Print

5.14.1 How can I configure the default settings for the header and footer?

In the *Print* tile, you have the option to configure the header and footer by default for each printout.



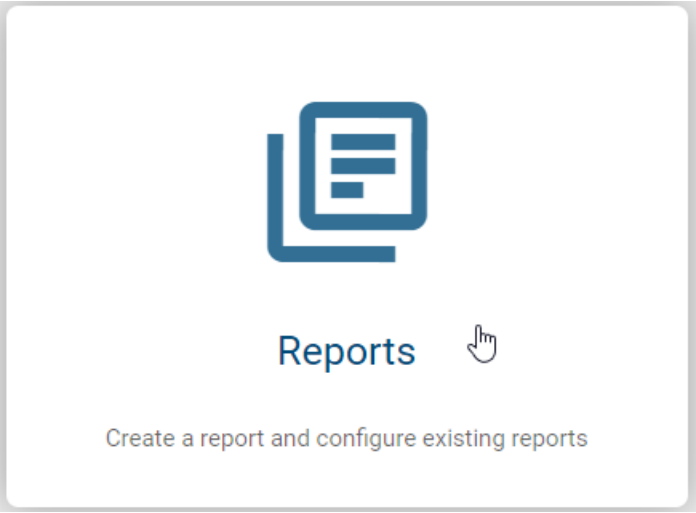
After clicking on the tile, three selection fields for the header and footer will be displayed. Here, you can specify what information should be displayed on the left, centered, and/or right side of the header and footer. For example, you can choose the logo, date, or page number, with many other options available.



Hint: Please note that the functions of the *Print* tile are not available in the mobile view.

5.15 Reports

In the *Reports* tile, you can create reports and configure existing reports.



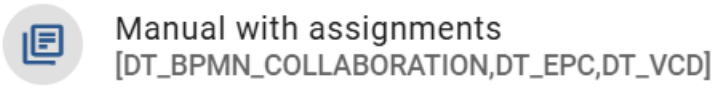
After clicking on the tile, a list of all existing reports is displayed.

Hint: Please note that the functions of the *Reports* tile are not available in the mobile view.

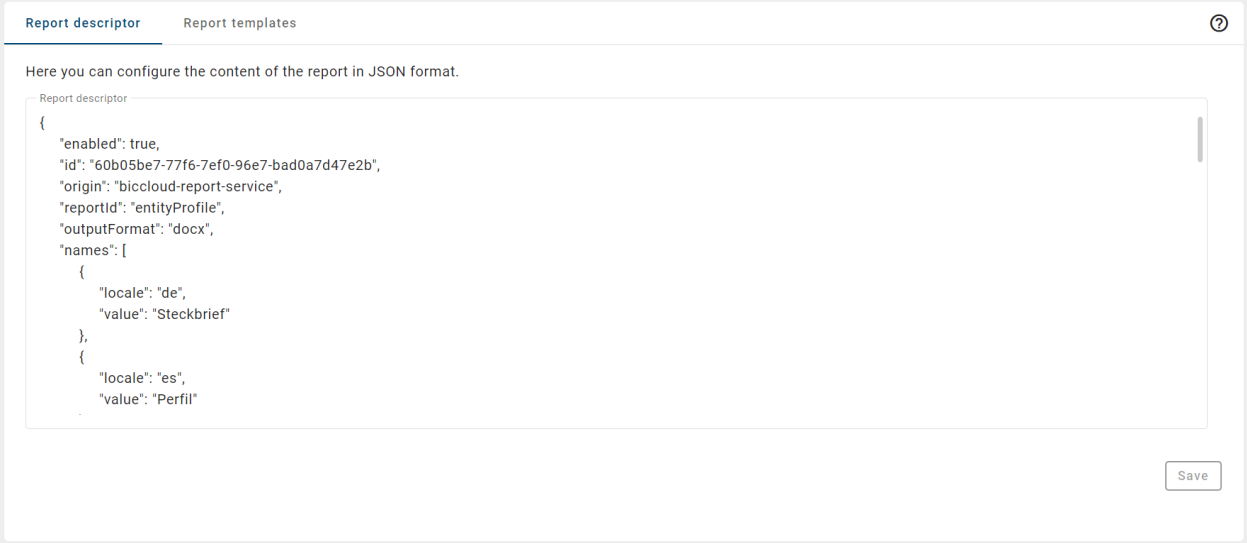
5.15.1 How can I view my available reports?

BIC Process Design provides various reports on diagrams, categories, and catalog items. You can export these reports if needed. As an *Administrator*, you can manage these reports via the report descriptors.

To do so, navigate to the *Administration* menu item in the left menu bar and click the *Reports* tile. All currently available report descriptors will be displayed. If a descriptor restricts reporting to specific diagram or object types, the IDs of those types will be shown below the report's name.



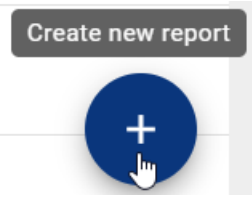
Once you select an entry, you will be taken to the editing area, where you can configure the report or create report templates as needed.



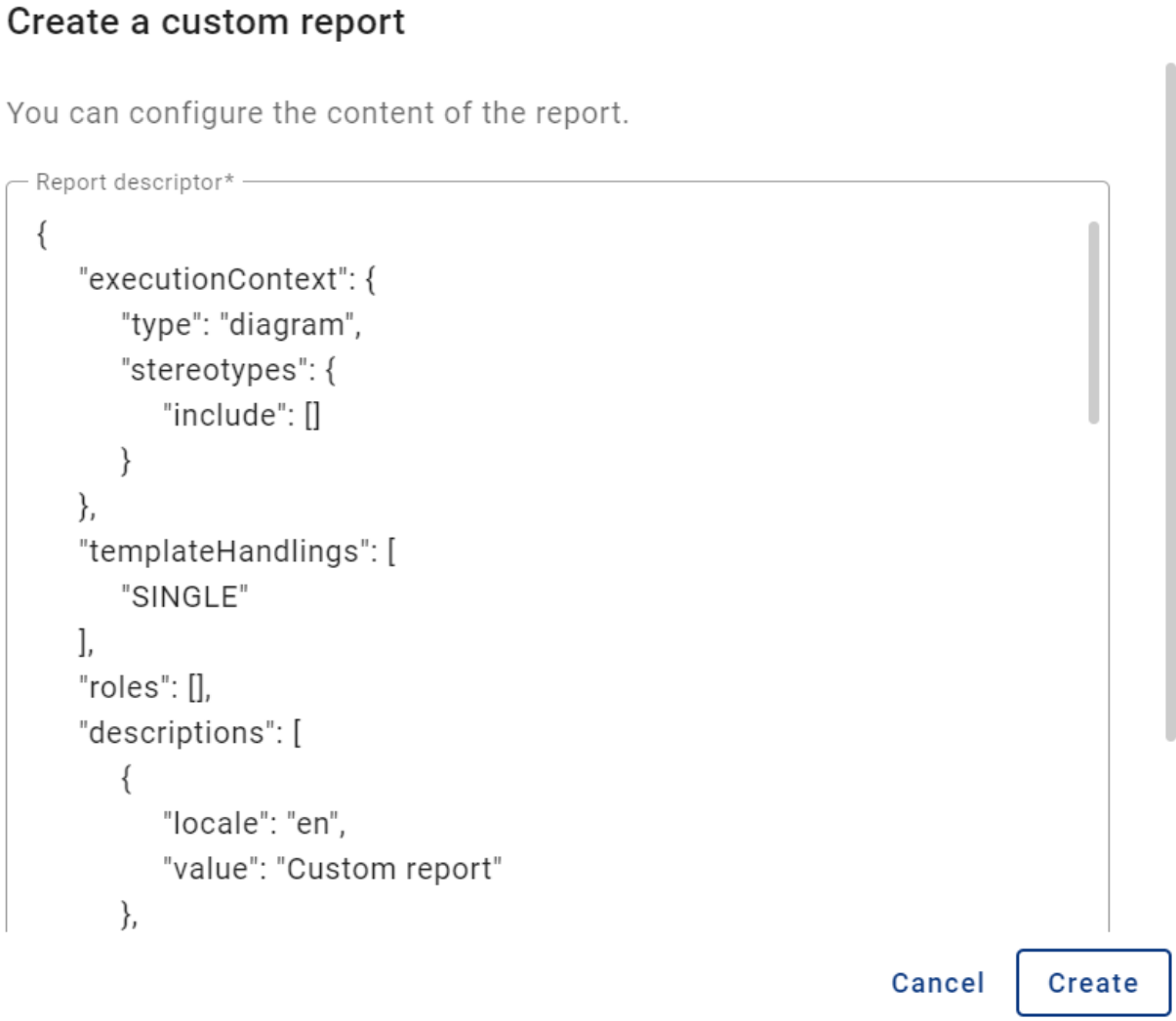
Hint: Please note that the functions of the *Reports* tile are not available in the mobile view.

5.15.2 How can I create a new report?

After clicking on the *Reports* tile, you will find the button *Create new report* located at the bottom right corner of the screen. Click on it to create a new report.



This will open a dialog where you can configure the report's content in JSON format.

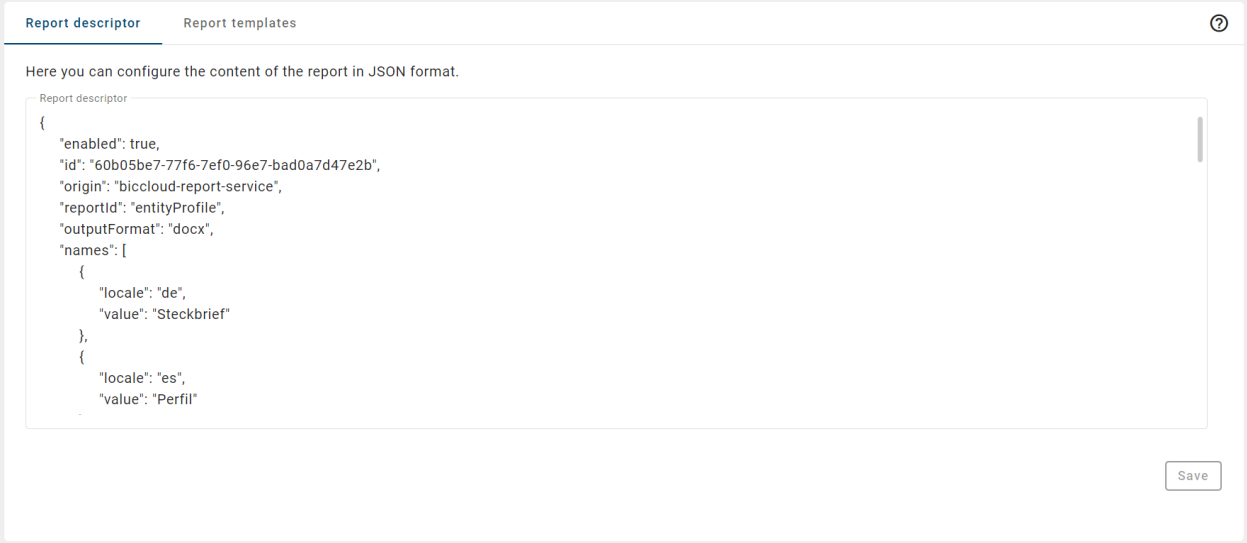


Click on *Create* to create your custom report. To cancel the process, click on *Cancel*.

Once the report is created, you will be redirected to the details page of the new report, where you can further configure the report as needed.

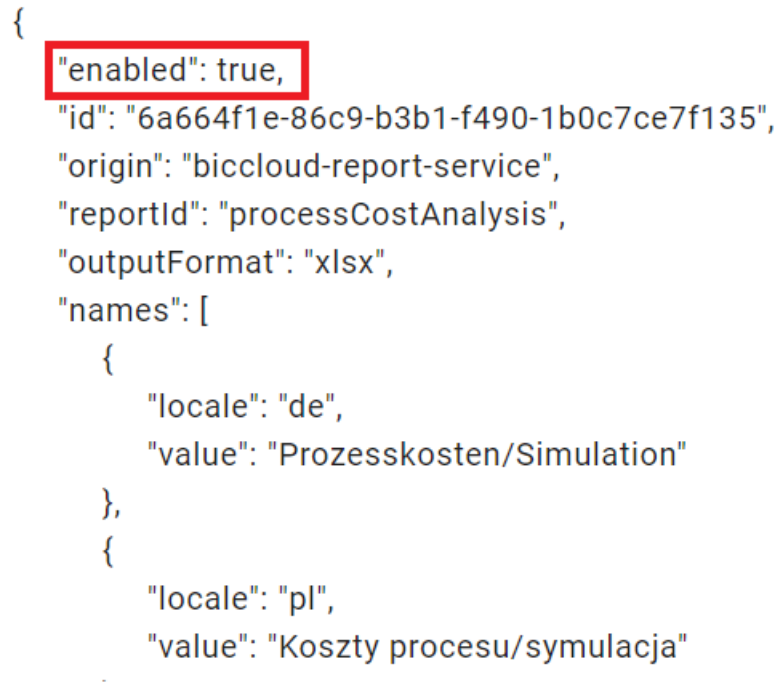
5.15.3 How can I configure an existing report?

To configure an existing report, there must be at least one report in the list. When you click on a report, you will be taken to the report descriptor where you can configure the report in JSON format.



In the descriptor editor, you can change the following settings:

1. *Availability*: You can activate or deactivate a report for diagrams or categories for BIC Process Design by using the variable *enabled*. The report is activated if the value is set to "true". To deactivate the report you have to change the value to "false".



2. *Format*: You can use the *outputFormat* variable to specify the format of the output of the report. The following formats are supported for the respective reports:
   - Profile (diagram): *docx*, *pdf*, *pdfa*, *pdfa2b*
   - Profile (catalog entry): *docx*, *pdf*, *pdfa*, *pdfa2b*
   - Manual: *docx*, *pdf*, *pdfa*, *pdfa2b*, *html*, *mhtml*, *txt*, *odt*, *rtf*
   - Manual with assignments: *docx*, *pdf*, *pdfa*, *pdfa2b*

- Matrix Report: *xlsx*, *pdf*, *pdfa*, *pdfa2b*
- Process costs/Simulation: *xlsx*, *pdf*, *pdfa*, *pdfa2b*

Here *pdfa* corresponds to the "PDF/A-1b" format and *pdfa2b* to the "PDF/A-2b" format.

Note: The format *pdfa* does not support images with transparency. Therefore it is recommended to use *pdf2b* if images and icons should be present in the report.

```
{
    "enabled": true,
    "id": "6a664f1e-86c9-b3b1-f490-1b0c7ce7f135",
    "origin": "biccloud-report-service",
    "reportId": "processCostAnalysis",
    "outputFormat": "xlsx",
    "names": [
        {
            "locale": "de",
            "value": "Prozesskosten/Simulation"
        },
        {
            "locale": "pl",
            "value": "Koszty procesu/symulacja"
```


3. *Names*: The variable *names* specifies the displayed name of the report within the user interface of BIC Process Design. For each language that is supported by BIC Process Design you can set a different value. This difference can be seen as soon as the browser language has been changed.

```
{
    "enabled": true,
    "id": "6a664f1e-86c9-b3b1-f490-1b0c7ce7f135",
    "origin": "biccloud-report-service",
    "reportId": "processCostAnalysis",
    "outputFormat": "xlsx",
    "names": [
        {
            "locale": "de",
            "value": "Prozesskosten/Simulation"
        },
        {
            "locale": "pl",
            "value": "Koszty procesu/symulacja"
```


4. *User roles*: With the *roles* variable you can define the user roles which are authorized to export the respective reports.


```
            "locale": "ar",
            "value": "تكاليف العملية/المحاكاة"
        }
    ],
    "roles": [
        "AUTHOR",
        "ADMINISTRATOR"
    ],
    "templateHandlings": [
        "NONE"
    ],
    "executionContext": {
        "type": "diagram",
        "stereotypes": {
            "include": [
```


5. *Context*: Here you can specify whether the report is available in the context of a diagram or a category. You can do so by setting the value of the variable *type* to “diagram” or “category”. Within one descriptor, there can only be one value for the context variable. Therefore, there are two different descriptors for reports that should be available in both contexts. These can be edited separately.

Hint: Please note that the entire report template for "category" must be adjusted. Otherwise the report template will always fail.

```
        "NONE"
    ],
    "executionContext": {
        "type": "diagram",
        "stereotypes": {
            "include": [
                "DT_BPMN_COLLABORATION",
                "DT_EPC",
                "DT_VCD"
            ]
        }
    },
    "domainObjectType": "ReportExecutionDescriptor"
}
```

6. *Stereotypes*: For reports that are available in the diagram or catalog entry context, you can define which diagram or object types are allowed to use this report. This is possible by writing the IDs of the respecting diagram/object types into the *include* variable. The report is available for all types if no value has been set for this variable or if the variable contains the value "all".

```
        "NONE"
    ],
    "executionContext": {
        "type": "diagram",
        "stereotypes": {
            "include": [
                "DT_BPMN_COLLABORATION",
                "DT_EPC",
                "DT_VCD"
            ]
        }
    },
    "domainObjectType": "ReportExecutionDescriptor"
}
```

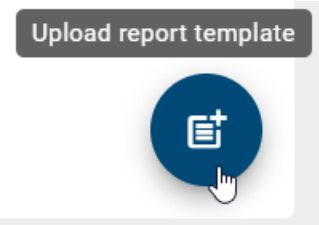
Once you have made changes and adhered to the JSON format, you can click on *Save*. Your changes will then be

saved immediately.

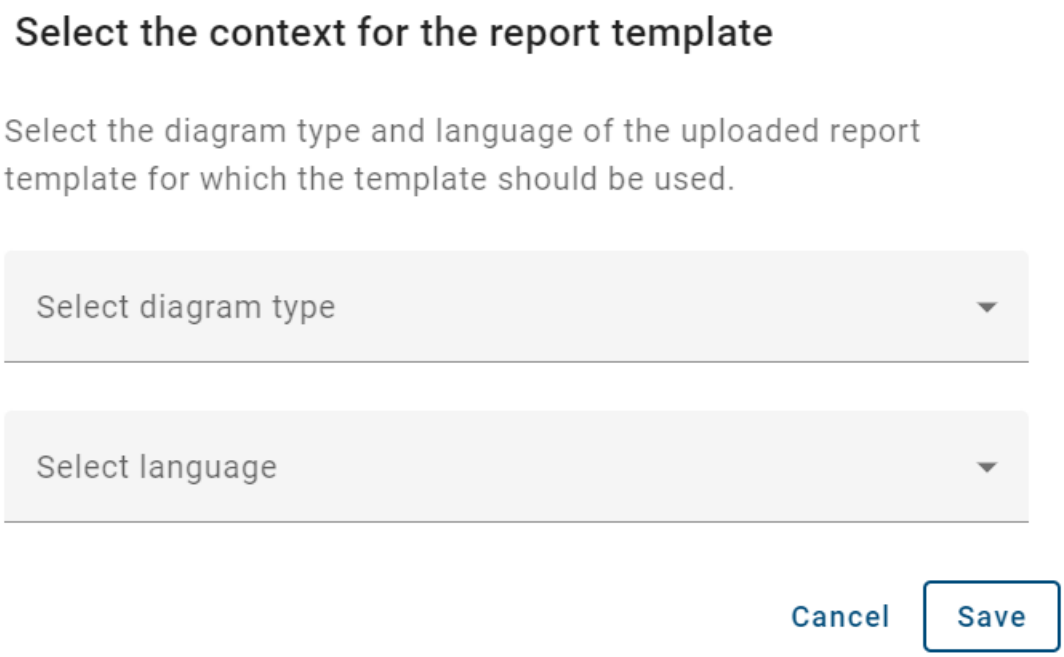
If you want to exit the report descriptor without saving your changes, you will receive a notification.

5.15.4 How can I upload a new report template?

To upload a new report template, there must be at least one report in the list. Click on a report to access its details, then select the *Report templates* tab. From there, you can find the *Upload report template* button located at the bottom right of the screen.



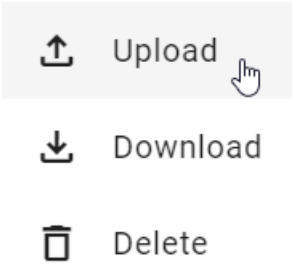
Once you click on the button, you can select and open a file from your local storage. A dialog will open where you can select the diagram type and language for the uploaded file. All diagram types of the current method and all content and alternate languages defined in the administration are available for selection.



Click on *Save* to upload the report template. The uploaded report template will then appear in the list, sorted alphabetically by file name. To cancel the process, click *Cancel*.

5.15.5 How can I update an existing report template?

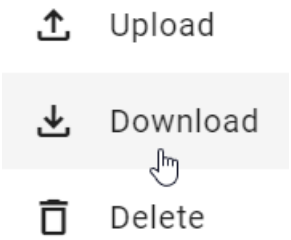
To upload a new report template, there must be at least one report in the list. Click on a report to access its details, then select the *Report templates* tab. If there is at least one report template available, click on the context menu (three dots) of the report template to be updated and select *Upload*.



Afterward, you can select a new file from your local storage to update your report template. The file name will be adjusted according to the new file, while the diagram type and language will remain unchanged.

5.15.6 How can I download a report template?

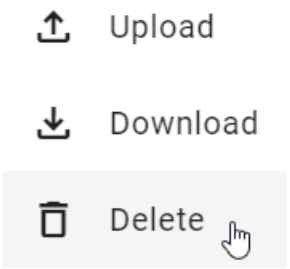
To download a new report template, there must be at least one report in the list. Click on a report to access its details, then select the *Report templates* tab. If there is at least one report template available, click on the context menu (three dots) of the report template to be updated and select *Download*.



The report template will then be downloaded immediately.

5.15.7 How can I delete a report template?

To upload a new report template, there must be at least one report in the list. Click on a report to access its details, then select the *Report templates* tab. If there is at least one report template available, click on the context menu (three dots) of the report template to be updated and select *Delete*.



The report template will then be immediately and irreversibly deleted.

Note: Please note that only custom report templates can be deleted. If you have *updated* a standard template and want to delete it, the report template will be reset to the standard template.

5.15.8 Which fonts are supported by the report engine?

Be aware that in the process of generating a .pdf file only certain fonts are supported by the report engine. If a font is used that is not supported, it will be replaced by a fallback font in the .pdf file. This can lead to formatting losses and a change in the total number of pages in your .pdf file. As an example this can be relevant for the *configuration of report templates* or the *provision of attachments in the publication as .pdf files*.

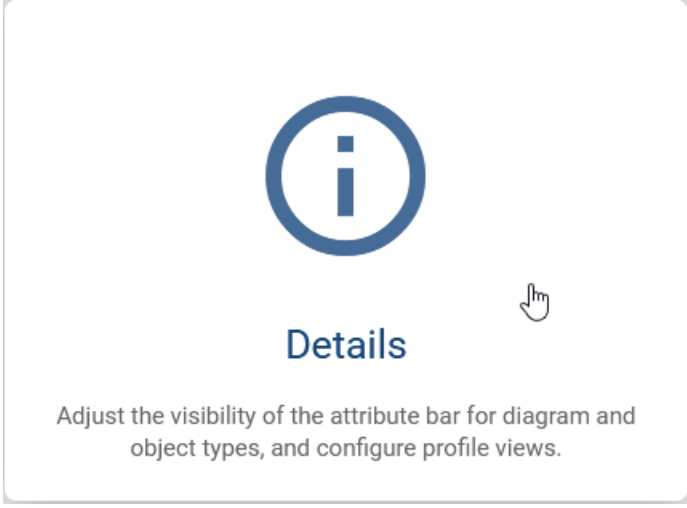
The supported fonts are listed below:

- Arial Black
- Arial (Bold, Italic, Bold Italic)
- Comic Sans MS (Bold)
- Courier New (Bold, Italic, Bold Italic)
- Georgia (Bold, italic, Bold Italic)
- Impact
- Times New Roman (Bold, Italic, Bold Italic)
- Trebuchet (Bold, Italic, Bold Italic)
- Verdana (Bold, Italic, Bold Italic)
- Webdings

Hint: If you would like to use fonts that are not listed here, please note that you can *embed the fonts used in your document*.

5.16 Details

In the *Details* tile, you can configure the profile for diagram and object types and set the visibility of the *profile* in the diagram view.



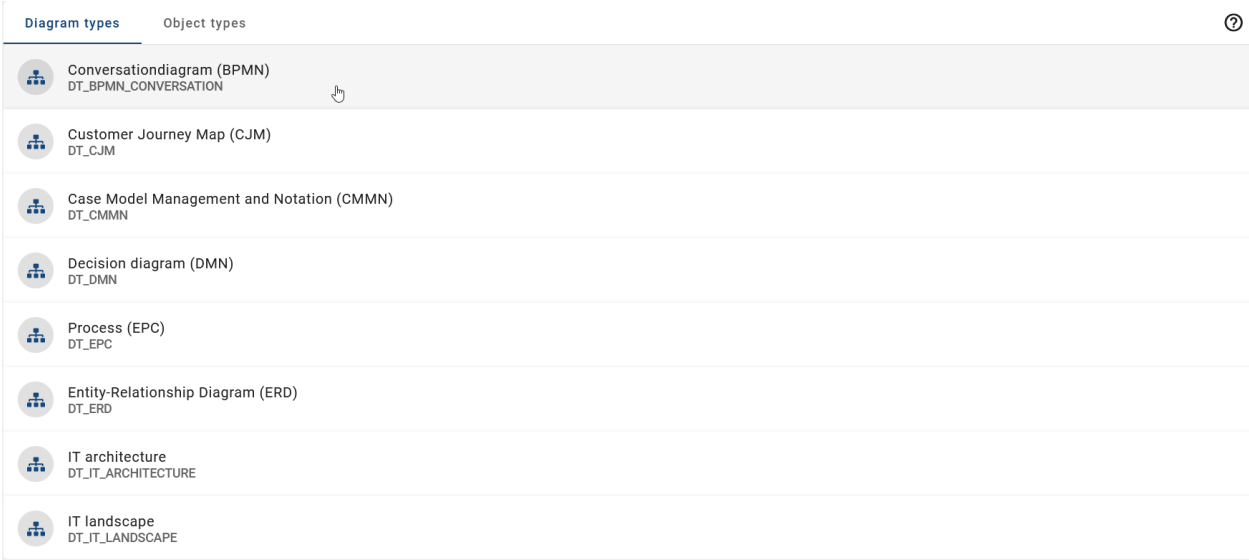
Hint: Please note that the functions of the *Details* tile are not available in the mobile view.

5.16.1 How can I display the attributes in a diagram?

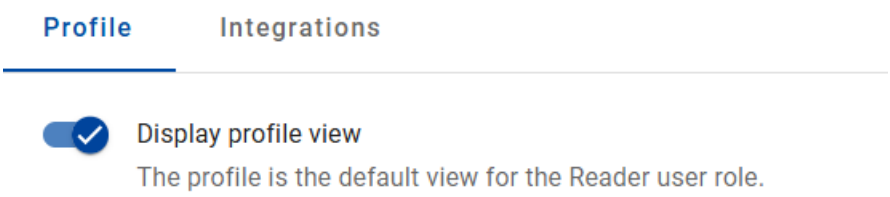
All attributes are displayed in the diagram in the *Details* tile in the *Administration* menu item, regardless of the *Profile configuration*. This also includes the setting of the *visibility of the profile*.

5.16.2 How can I change the visibility of the profile?

If you open the menu item *Administration* in the left menu bar as *Administrator*, a collection of predefined tiles is displayed. In the *Details* tile, you have the option to configure the profile for diagram and object types, as well as set the visibility of the *profile* in the diagram view. Click on a list entry for an object or diagram type to open its detailed settings.



The current visibility status is displayed in the *Display profile view* in the *Profile* tab. Click on the corresponding toggle switch to change the active setting. Your changes will then be applied directly.



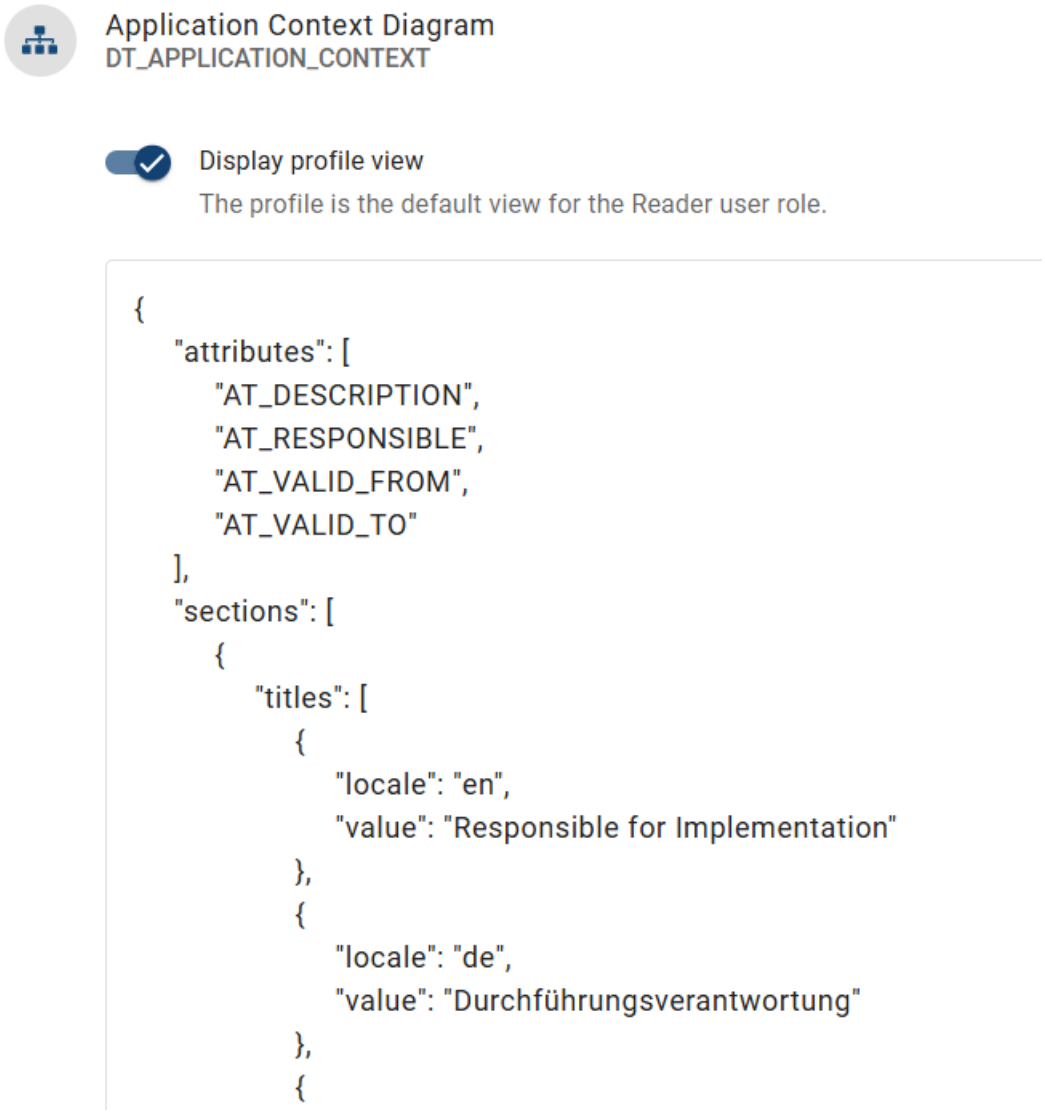
By clicking the left-pointing arrow in the top-left corner of the screen, you return to the overview. If the toggle switch is activated, the *Profile* is displayed for all users in the diagram view. If the toggle switch is deactivated, no details about the respective object or diagram type are shown in the *Profile*.

If you would like to return to the previously edited diagram, you can click the right-pointing arrow in the top-left corner of the screen. This takes you directly back to the last opened view.

5.16.3 How can I configure the profile?

In the *Details* tile, you can configure the profile for both diagram and object types. Initially, you will see the default settings, which you can then modify. This includes attributes such as description, as well as relationships to other object types like responsible and contributing roles, input, and output.

To modify the profile, click on a list entry to open its detail settings. If necessary, adjust the *visibility of the profile*. You can then view the existing configuration in the editing field and make any changes needed.



- **Attributes:** You can add or remove diagram or object attributes using the attribute type ID. In the following example, the object attribute "Name" is displayed next to the "Description". To do this, the attribute type ID must be added to the `"attributes"` section:

```
"attributes": [
              "AT_DESCRIPTION",
              "AT_NAME"
    ],
```

- **Associations and entities:** In `"sections"`, specific relationships to object types, selected association types or specific object types can be output individually. Its representation takes place in various subsections named `"titles"`, in which the issues and designations in the profile are defined. The following subsection example looks for "roles" contained in the diagram with "C - Consulted" the relationship to another entity. For this, the ID of the `"entityType"`, in this case `"ET_ROLE"`, and the `"associationType"`, here `"AST_CONSULTED"`, must be specified. These roles are then listed in the profile section named `"Cooperation"` in English browser language and `"Mitwirkung"` in German browser language.

```
{
```

(continues on next page)

(continued from previous page)

```
                    "titles": [
                            {
                                    "locale": "en",
                                    "value": "Cooperation"
                            },
                            {
                                    "locale": "de",
                                    "value": "Mitwirkung"
                            }
                    ],
                    "entityType": "ET_ROLE",
                    "associationType": "AST_CONSULTED"
},
```

If only one relationship type or entity type is requested, the other type should remain undefined by `""`.

To save your changes, click on the *Save* button located at the bottom right within the detail settings. You may need to scroll down to locate the button. Subsequently, the configuration will be validated, meaning the syntax of the JSON structure will be checked, and upon successful validation, it will be saved.

Clicking on the diagram or object type will return you to the overview.

The *profile* is also displayed in the diagram view under the *Details* panel in the right sidebar. All user roles can access the *profile*.

Hint: Please note that if the editing field of the diagram or object type is empty but the *Display profile view* button is activated, no details are displayed in the *Profile* in the diagram view for the diagram or object type.

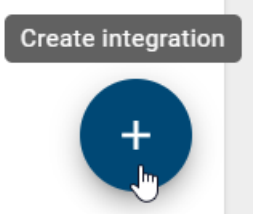
Tip: For a list of existing stereotypes and related IDs, see *this section*.

5.16.4 Integrations

How can I add a ProcessApp to a diagram type to configure it as an integration?

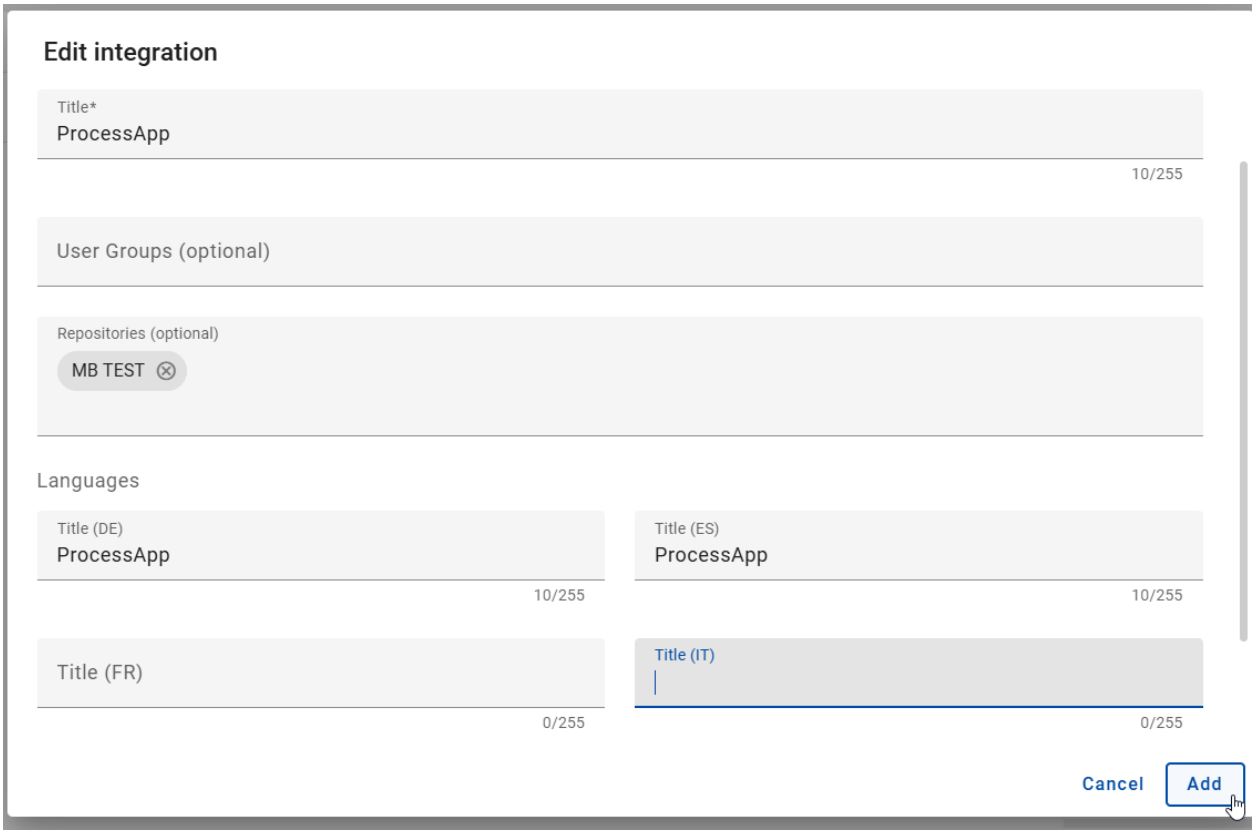
As a user with the user role *Administrator*, you can add a published ProcessApp to specific diagram types and configure it as an integration in the *Options* panel. To do this, select the menu item *Administration* in the left menu bar and click the *Details* tile. A list of all available diagram types is then displayed.

After selecting a diagram type, you will see the *Integrations* tab next to the *Profile* tab. Here, you can configure integrations that are later displayed in the *Options* panel in the right sidebar. To create a new integration, click the *Add integration* button in the lower right corner.



A dialog opens in which you must enter the run link of the published ProcessApp in the *Integration URL* field and a title for the integration. Entering the title in your default language is mandatory, while maintaining the title in additional

content languages is optional. You can also add user groups or repositories that are allowed to see the integration in the diagram. If no user group is added, all users have access to the integration.



Note: Please note that if no name is provided in the content language, the integration will be displayed in your default language.

Warning: Please note that for a successful integration, the run link of the published ProcessApp must follow the format `https://xxxx/process-execution/xxxx/processes/xxxx/run` and must refer to an already published ProcessApp. For more information, see *here*.

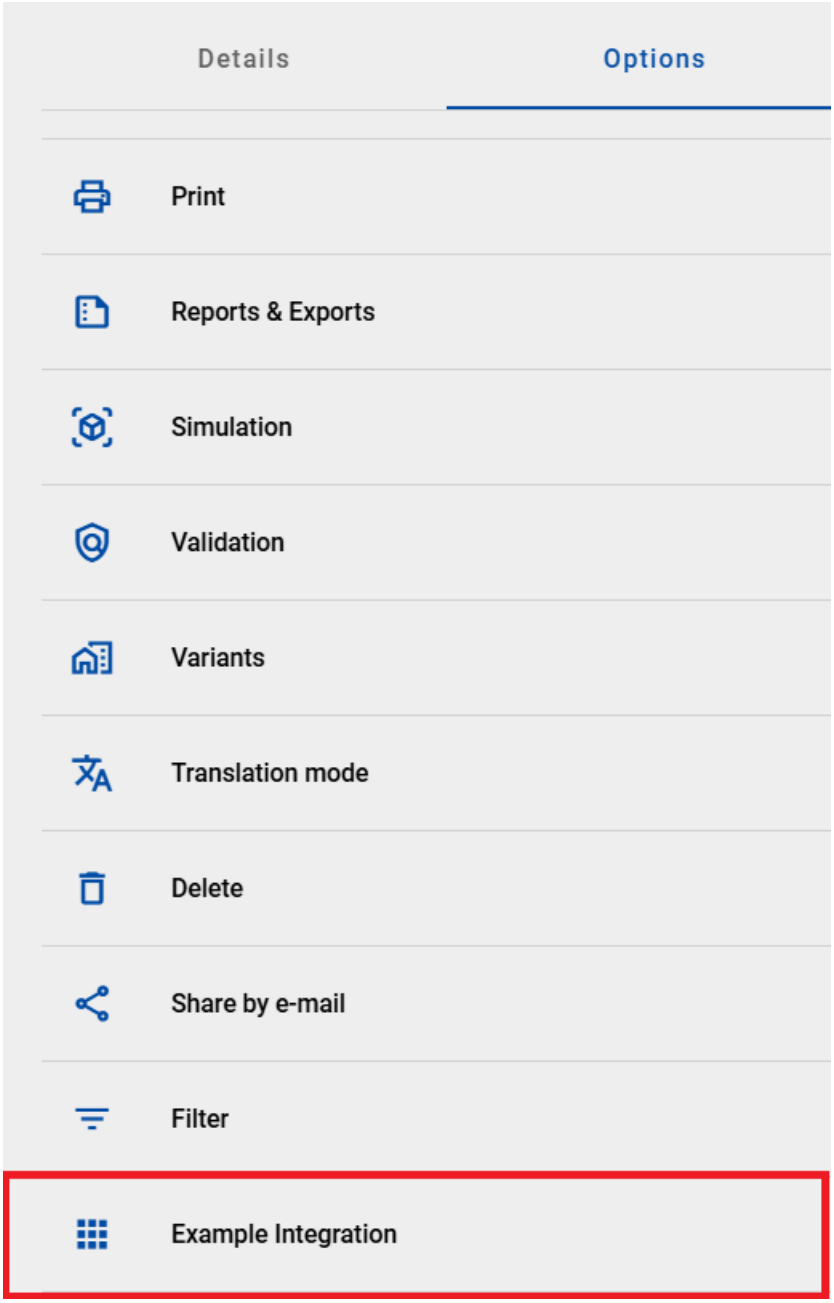
When creating or editing an integration, you can add one or more repositories in the dialog. In the corresponding field, you can select or enter the desired repositories. If exactly one repository is assigned, its name is displayed. If multiple repositories are assigned, the number of repositories is shown. If no repository is defined, the field remains empty. The integration is only visible to users who are working in one of the assigned repositories, or if no repository has been defined.

Note: Please note that the integration is displayed only if you belong to one of the user groups assigned to the integration, or if no user groups have been defined. In addition, you must be working in a repository that is enabled for the integration, or no repository must be specified. You must also provide a URL in the correct format. If these requirements are not met, the integration is not displayed in the diagram.

As soon as you have entered at least the run link of the published ProcessApp and a title for the integration, you can create the integration using the *Add* button. The integration is then displayed for diagrams of the specified diagram

types in the *Options* panel in the right sidebar, in your current content language. To cancel the process, click the *Cancel* button.

Select the menu item *Diagrams* in the left menu bar. There, you can either *create a new diagram* or *check out an existing diagram*. Then, click the *Options* panel in the right sidebar and select the desired integration. For example, if you click the *Example Integration* button, you are redirected to *BIC Process Execution*, where a new case is started for the connected ProcessApp.



Hint: Please note that the use of integrations requires a separate license and must be purchased by you.

Hint: Please note that if integrations are deactivated for all diagram types, the button with the name of your integration

is no longer displayed in the *Options* panel in the right sidebar. Previously configured integrations are not deleted. They remain stored in the system and become available again once the feature is reactivated.

How can I edit an existing integration?

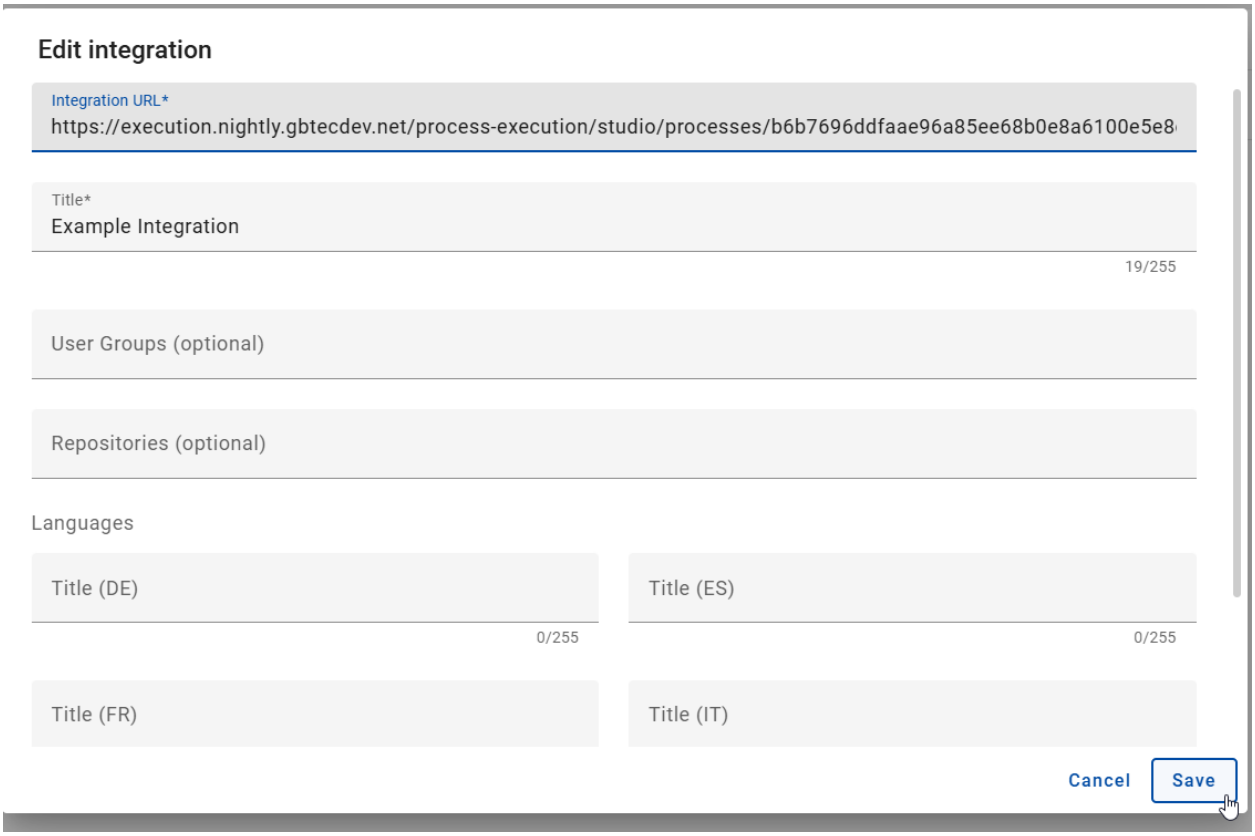
As a user with the role *Administrator*, select the menu item *Administration* in the left menu bar and then open the *Details* tile. After selecting a diagram type, you will see the *Integrations* tab. There you will find a list of the already *configured integrations*, provided that integrations have been configured for this diagram type.

To edit an integration, select the desired integration and open the context menu. When you click the *Edit* button, a dialog opens. This dialog displays the current data of the selected integration and allows you to make changes and save them.

Warning: Please note that for a successful integration, the run link of the published ProcessApp must follow the format `https://xxxx/process-execution/xxxx/processes/xxxx/run` and must refer to an already published ProcessApp. For more information, see *here*.

|diagramIntegration3_en|

Once the dialog for an existing integration is open, all mandatory fields (Integration URL and Title) must be completed during editing. Only then can you click *Save*, which applies the entered data and updates the list of integrations. If not all mandatory fields are filled in, the *Save* button remains disabled to prevent an incomplete integration from being saved.

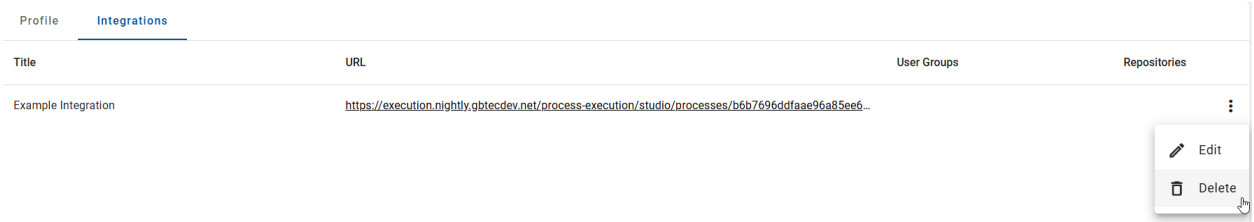


Hint: Please note that the use of integrations requires a separate license and must be purchased by you.

How can I delete an integration?

As a user with the role *Administrator*, select the menu item *Administration* in the left menu bar. After selecting a diagram type, you will see the *Integrations* tab. There you will find a list of the already *configured integrations*, provided that integrations have been configured for this diagram type.

To delete an integration, select the desired integration and open the context menu. Click the *Delete* button, after which a message is displayed informing you that the deletion is permanent and cannot be undone. Click the *Delete* button again to remove the integration for the selected diagram type.



The list of remaining integrations is then updated automatically.

Hint: Please note that the use of integrations requires a separate license and must be purchased by you.

5.17 Translation Service

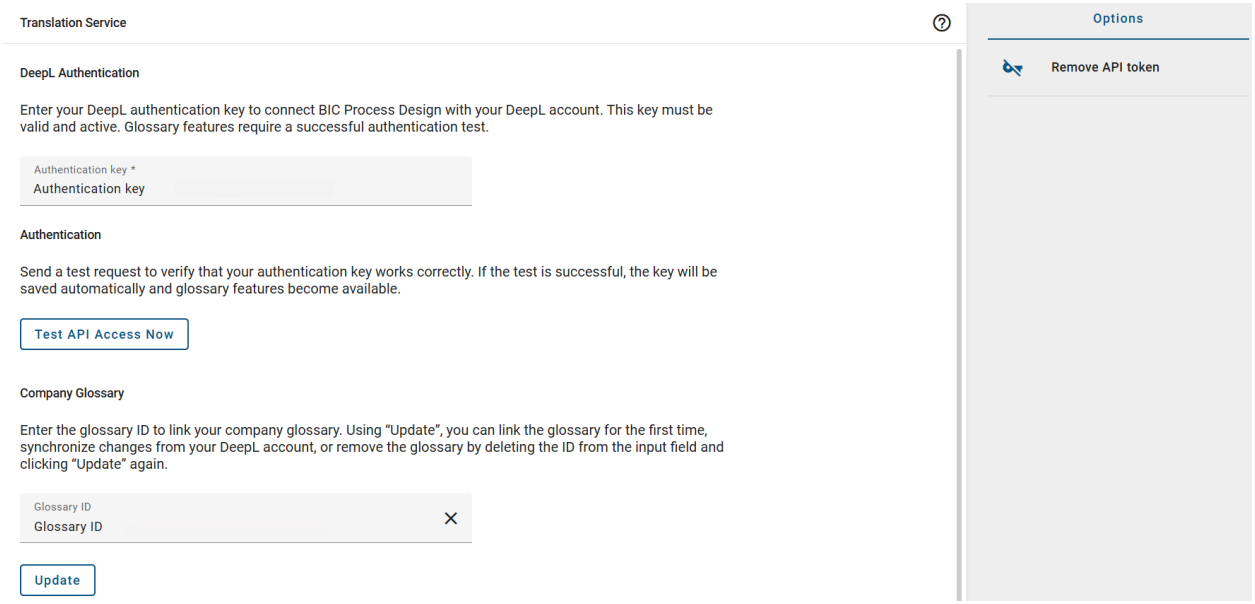
If you click on the menu entry for *Administration* in the menu bar, you will see the tile *Translation Service*.

You have the option to grant your users access to the translation service in the public workspace by linking your DeepL account. Your account must be created through DeepL.

5.17.1 How can I test my DeepL API configuration?

In the *Translation Service* tile, you have the option to enable or disable the Translation Service Connector.

Clicking on the tile will take you to the configuration page. Here, you can enter the API key from your DeepL account and test the access. If no API key has been entered, the option to test the configuration will be disabled at this point.



Note: With the test option enabled, you will send a test request to the DeepL translation endpoint. The entered API key will be used for authorization. If the authorization fails, you will receive an error message.

5.17.2 How can I remove my DeepL API configuration to delete my login data?

If your DeepL credentials are linked, you can delete the DeepL API configuration and login information.

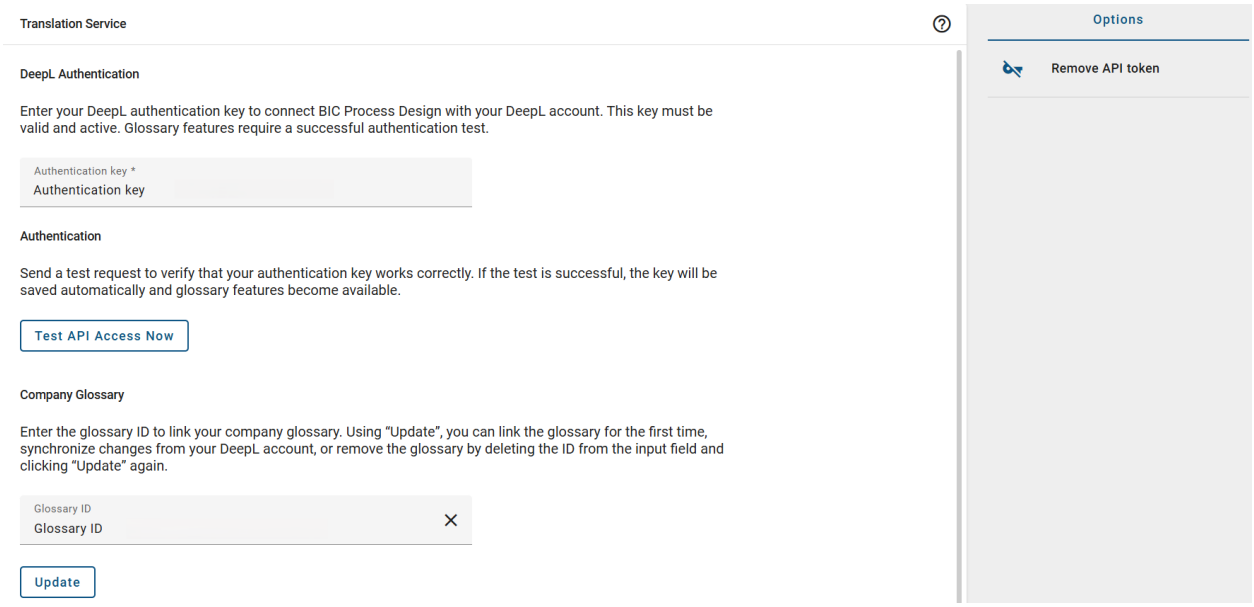
Deleting the login information will remove your access credentials from the database. After requesting deletion, you will receive either a success message or an error message indicating the current status.

Note: Please note that the option to delete the login information is disabled if no login credentials are linked.

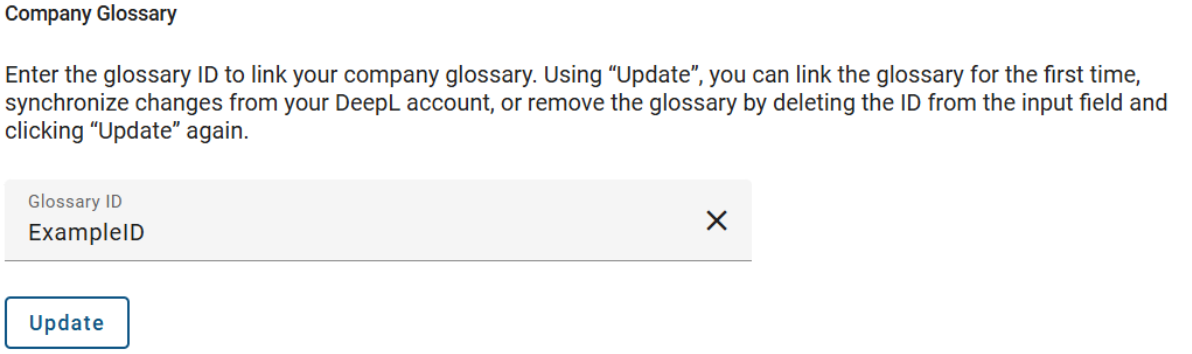
5.17.3 How can I configure the DeepL Glossary?

As a user with the user role *Administrator*, you can set up the DeepL *Translation Service* for your users, manage glossaries and enable glossary-based translations. To do this, go to the left menu bar, select *Administration* and then choose the *Translation Service* tile.

After selecting the tile, the section *DeepL Authentication* opens. Here you can enter a valid *DeepL Authentication key*. Once the *Authentication key* has been entered and saved, the input field for the *Glossary ID* and the *Update* button are activated. If no *Authentication key* is provided, both fields remain disabled.



Once the input field is active, you can enter a *Glossary ID*. By clicking the *Update* button, the language pairs are retrieved from your DeepL account and the glossary is immediately saved for your users. If you delete the *Glossary ID* and click *Update*, the glossary along with its language pairs is removed immediately.



A stored glossary is automatically applied to translations. Glossary terms are used wherever available. If no glossary is stored, the application uses the default DeepL translations. This applies to both diagrams and catalog items, depending on the defined directional language pairs.

All changes to the *Authentication key* or *Glossary ID* take effect immediately. For users who are already logged in, the changes become visible only after refreshing the view. Users who log in after the change will see the updated settings immediately.

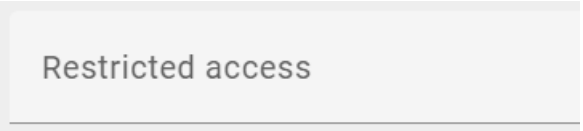
Note: Please note that translations are performed automatically using DeepL. We are not responsible for the accuracy or completeness of the translations or for any data processing carried out by DeepL.

Hint: If an issue occurs while retrieving the glossary or with the API key, the application displays a clear error message. The translation dialog remains open, and all previous settings are preserved. For temporary errors, you can try to execute the action again.

5.18 Access restrictions and scope definitions

5.18.1 How can I set access restrictions for diagrams?

As an *Administrator*, *Editor* or *Author* (if the author is specified in the diagram's *Author* governance attribute), you can define access restrictions for diagrams. To do this, click the *Diagrams* menu item in the left menu bar, select a diagram and check it out. In the *Details* panel on the right, you will find the *Restricted access* input field within the *Governance* attribute group.



Only members of the selected user group, selected users and governance participants have access to the respective diagram. These restrictions apply regardless of user roles, meaning administrators can also be excluded. If the input field is left empty, no access restrictions apply.

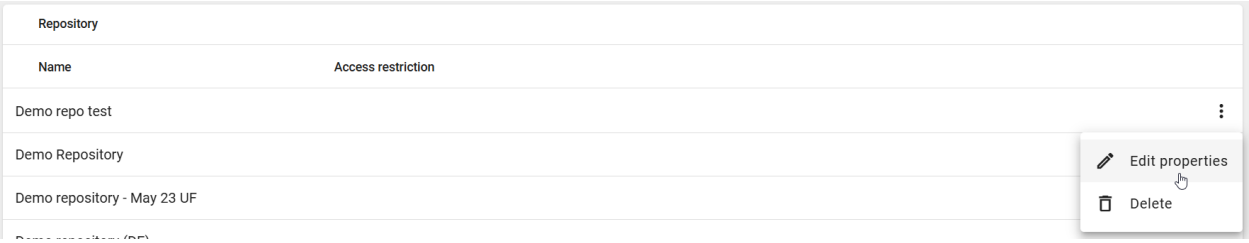
Diagrams with access restrictions are displayed in the digram list. However, if a user without access tries to open a restricted diagram, an error message will appear.

Hint: Please note that if you define an access restriction that excludes you, you will no longer have access to the diagram once it has been checked in.

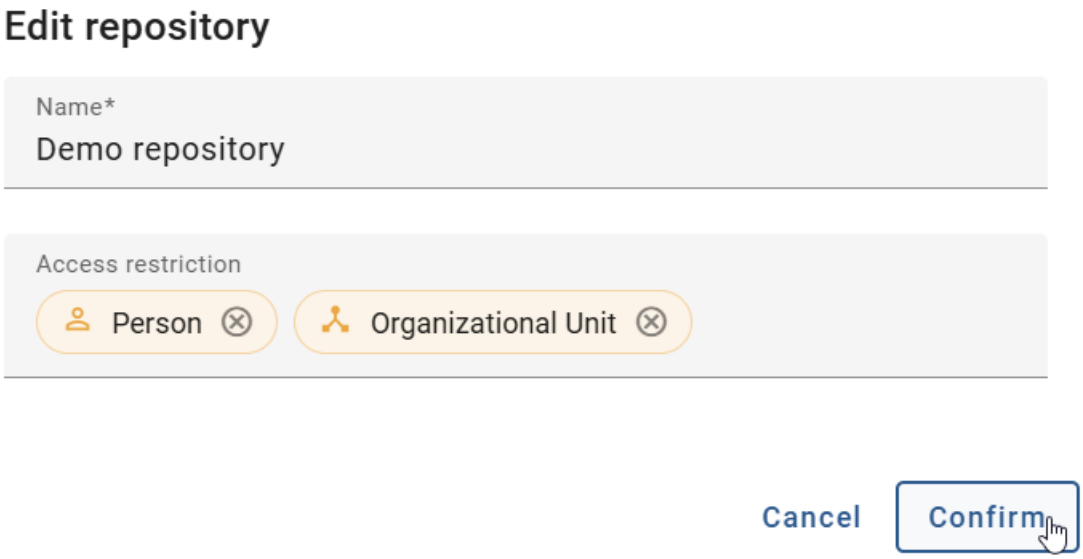
5.18.2 How can I set access restrictions for repositories?

As an *Administrator*, you can set access restrictions for repositories. To do so, click the *Administration* menu item in the left menu bar and select the *Repositories* tile. A list of all available repositories will then appear.

Open the context menu of an existing repository and select the *Edit properties* option.



A dialog then opens. There you can select different users and user groups via the suggestion list in the *Access restriction* input field. The corresponding catalog item *person* or *organizational unit* will then be set for the access restriction.



By clicking on *Confirm*, only the selected persons and organizational units representing users and user groups will have access to this repository. These restrictions apply regardless of user role, meaning administrators can also be excluded.

If the *Access restriction* field is empty, all users have access to the repository, depending on their respective *user role*.

Tip: You can also search for the user's e-mail address. If a user is selected from the list and is not linked to a catalog object of the type "person", a new catalog item will be generated with the name and the e-mail of the given user.

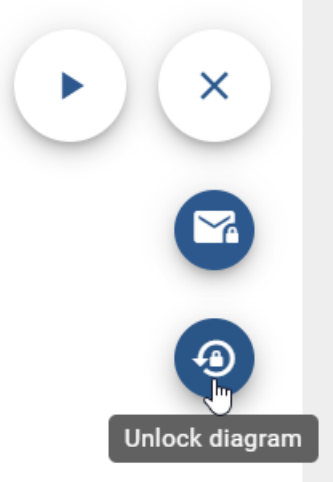
Hint: Please note that the access restrictions set for a repository can prevent navigation to the contents of a repository within the user interfaces. To reliably control access to individual repository contents, it is recommended to apply access restrictions directly to specific content elements such as diagrams and catalog items.

Note: If you have defined a restriction, which does not include yourself, you cannot access this repository any more as soon as your setting has been saved. Please be aware that such a case can also occur when renaming a user group.

5.18.3 How can I unlock a diagram?

The *Administrator* user role allows you to manually unlock diagrams. For example, you can use it if a user has not checked in a diagram and will be absent for a long time. However, this procedure may result in data loss because unsaved or checked-in changes by the locking user are not saved on the server but rather locally in the browser. Therefore, try *contacting the locking employee* first.

To do so, click on the *Diagrams* menu item in the left menu bar and select a locked diagram. Instead of the *Check out* button, a lock symbol will be displayed. Click on the symbol to find the *Unlock diagram* option. Select this option to manually unlock the diagram and make it available for other users to edit again.



Warning: The user who locked the diagram previously can no longer check it in. They must *discard their local changes* before checking out and edit the diagram again.

5.18.4 How can I define the scope?

With the attribute *Scope* you can allocate users and user groups of your enterprise to diagrams and catalog items. These units will then be informed as soon as the diagram or the catalog item has been published, a new version is available or if it has been depublished.

The scope also has an impact on modeling in the diagram. The suggestion list of catalog items and their attributes only contains entries, that have the same scope as this diagram or that have no scope at all. For a detailed description please refer to the *associated chapter*.

To use these functions you must first *connect* an user or a user group with the *diagram attribute* or *catalog item attribute Scope*.

Tip: You can find the attribute in the section *Governance*. Depending on the method settings, this attribute exists for objects and therefore catalog items. In general, a scope can be associated with multiple users and user groups.

..|diagramIntegration3_en| image:: /administration/diagramIntegration3_en.png

alt The screenshot shows the option to edit an integration.

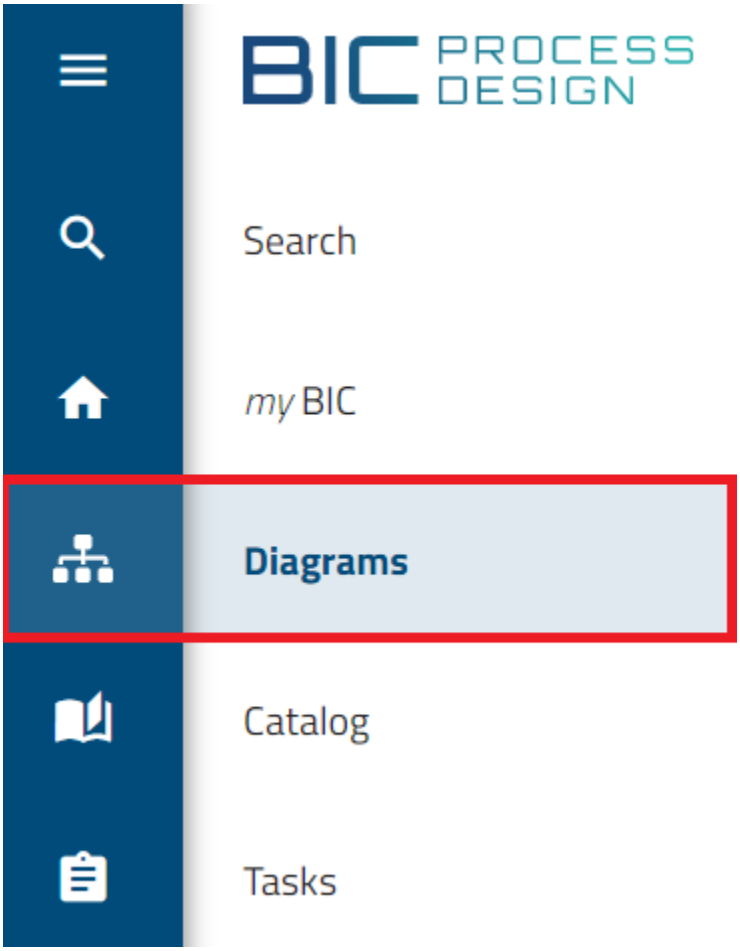
CHAPTER

SIX

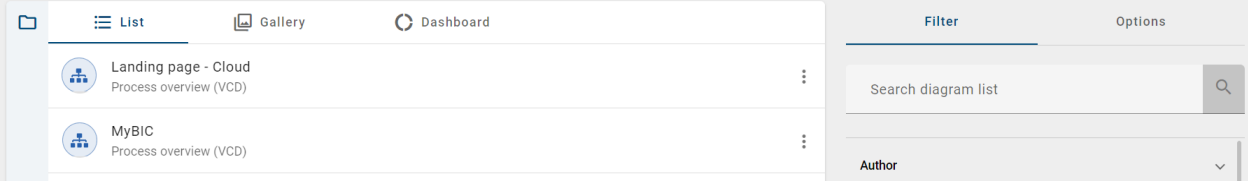
DIAGRAMS

6.1 Where can I find diagrams and categories?

Use the menu to navigate to the *Diagrams* section. In this section you will find all diagrams (possibly sorted in categories) of the current repository.



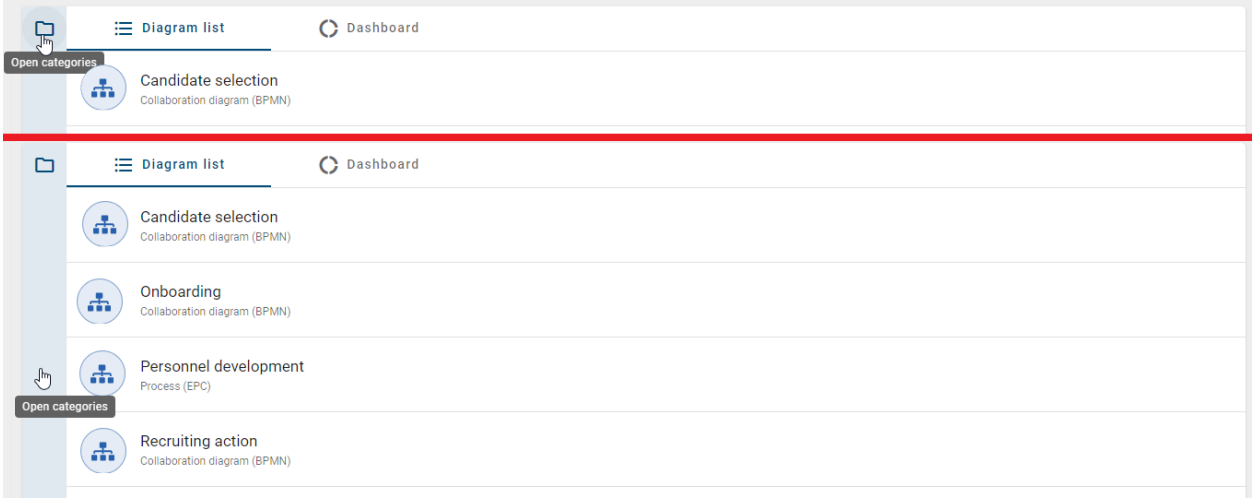
You can choose between the views *List*, *Gallery* and *Dashboard*. Initially, the diagram list is presented to you. Then the main area of your screen shows the categories and diagrams that have the current repository as their immediate parent category.



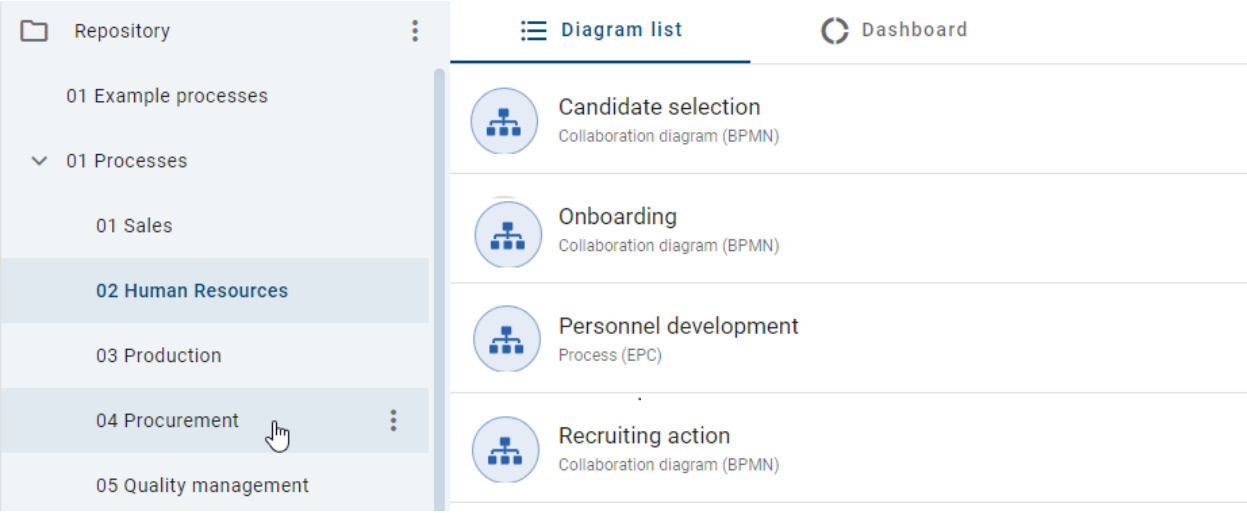
When you open the *List* tab, the diagrams contained are sorted in ascending alphabetical order according to their name in the current content language. The diagram name is displayed in the content language and the diagram type in the user browser language. Clicking on a diagram list entry takes you to its diagram view and from here you can access *alternative views*.

Hint: If you are in the public workspace and open an empty category, you will be directed to a default page explaining that there are no diagrams in this category yet. You can then either open subcategories, use the diagram search or click on the plus symbol to create a new diagram.

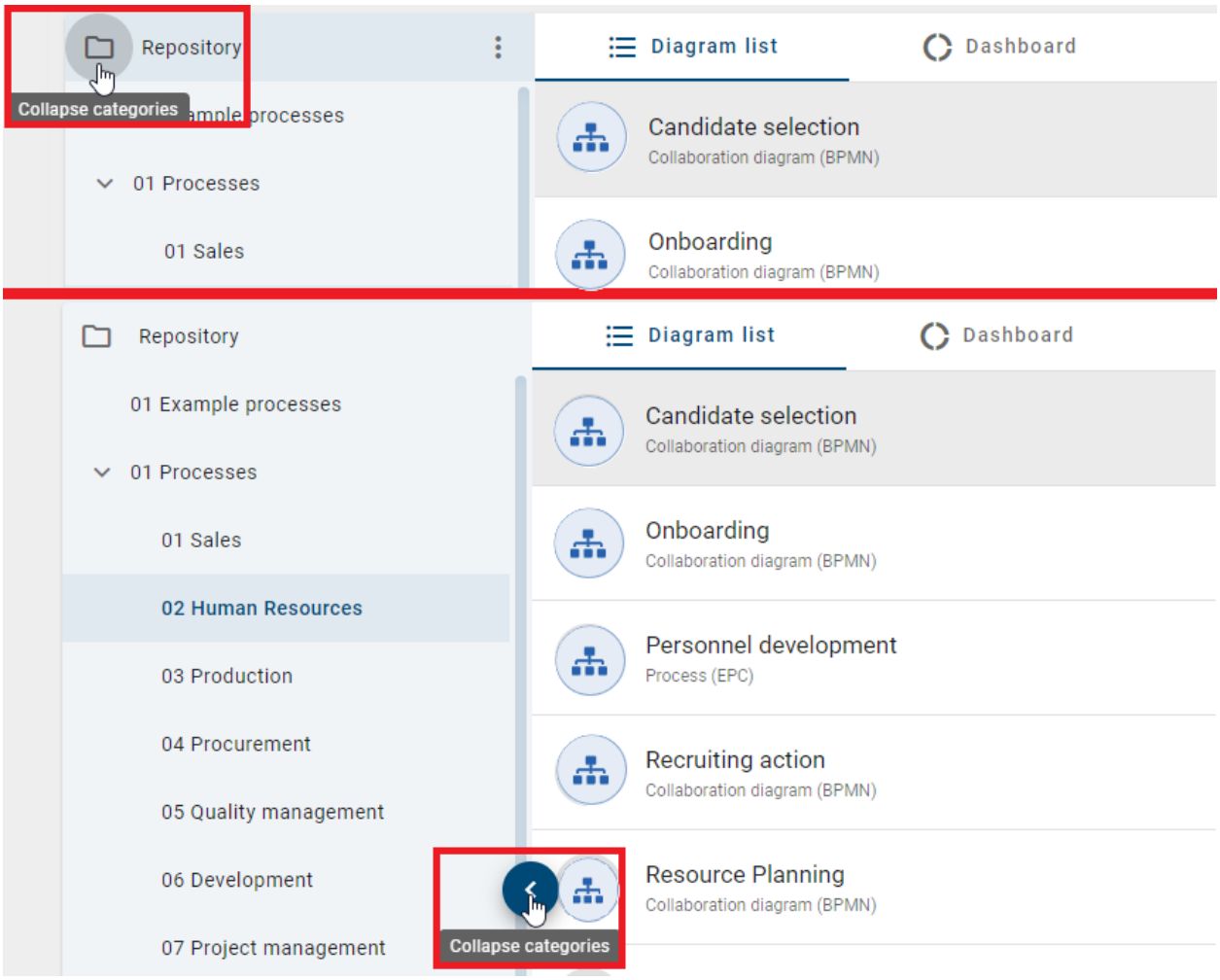
In the vertical bar on the left side of the main area, you can find the categories. Click *Open categories* to open the panel. You can either click on the *folder* icon or on the complete vertical bar.



Then all categories that are subordinated to the current repository are listed in an explorer menu. A category can be expanded by clicking on its name. The diagrams in this category will be listed in the main area now.

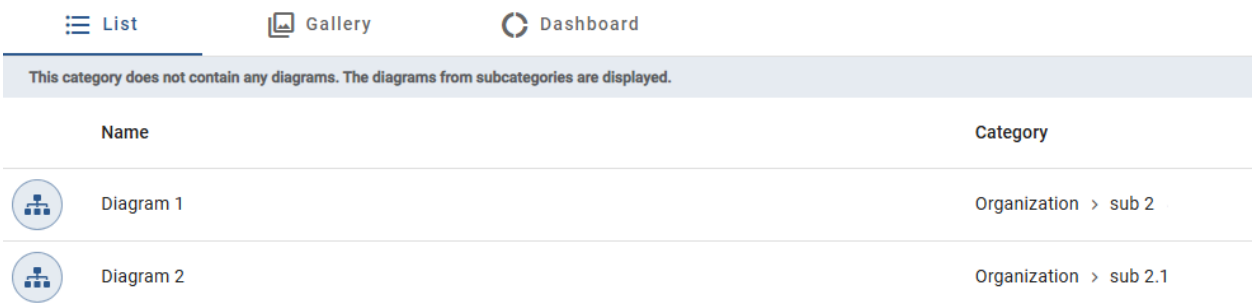


Categories can also contain subcategories which is indicated by an arrow next to the category name. A subcategory can be opened analogously by a click on its name or on the arrow next to its name. You can always navigate in the category tree using the *breadcrumb navigation* in the header bar. If you like to minimize the category explorer, select the *Collapse categories* button.

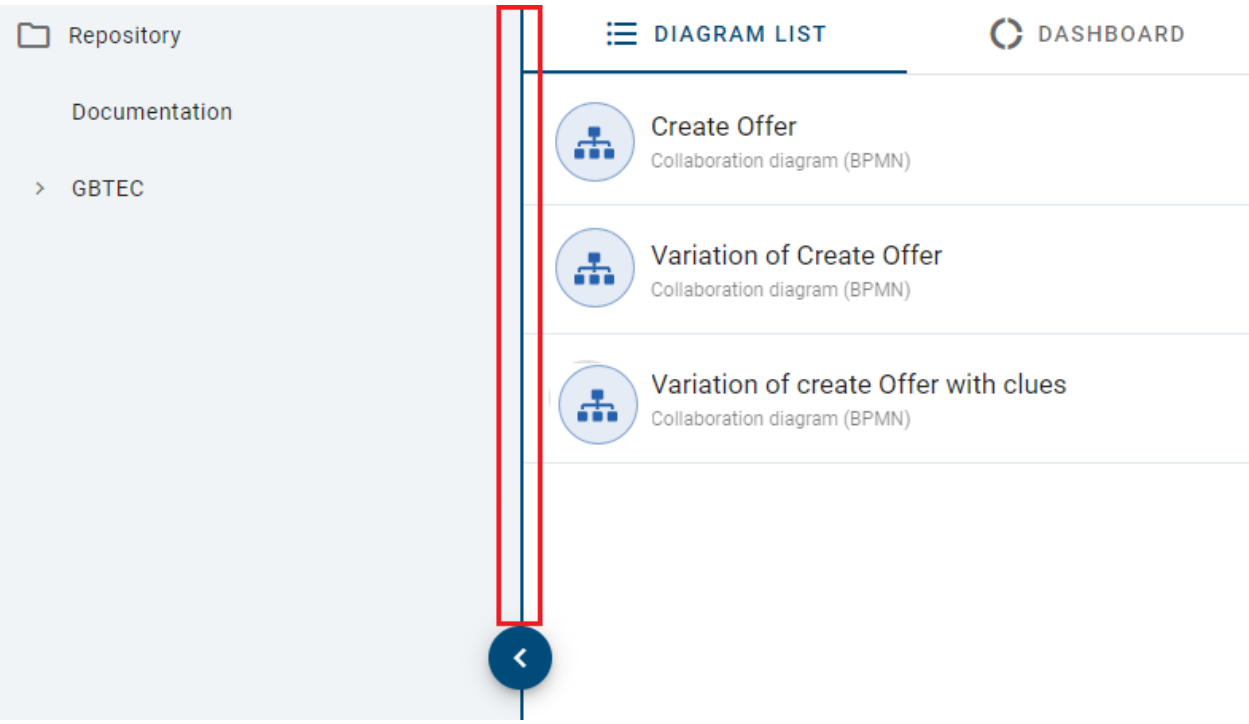


Tip: *Toggle the menu bar* to enlarge your main area.

If a category itself does not contain any diagrams but has subcategories with diagrams, all diagrams from the subcategories are displayed when the category is opened. The diagrams are grouped by their respective parent category and sorted in ascending order within each group. In addition, the note *This category does not contain any diagrams. The diagrams from the subcategories are displayed* is shown.



You have the opportunity to adjust the size of the category panel. Click with the mouse on the right border of the category panel. Then you can drag the blue upcoming line with the hold mouse to the left (minimize) or the right (enlarge).



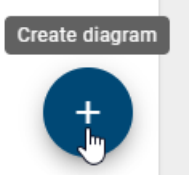
On the right side of the screen, the desktop view first shows the options and the *filters*. Different exports are currently offered as options. These functions generate Excel files for you with the content and additional information on all diagrams in the category. See the *Exports* chapter for more information.

6.2 Create diagrams

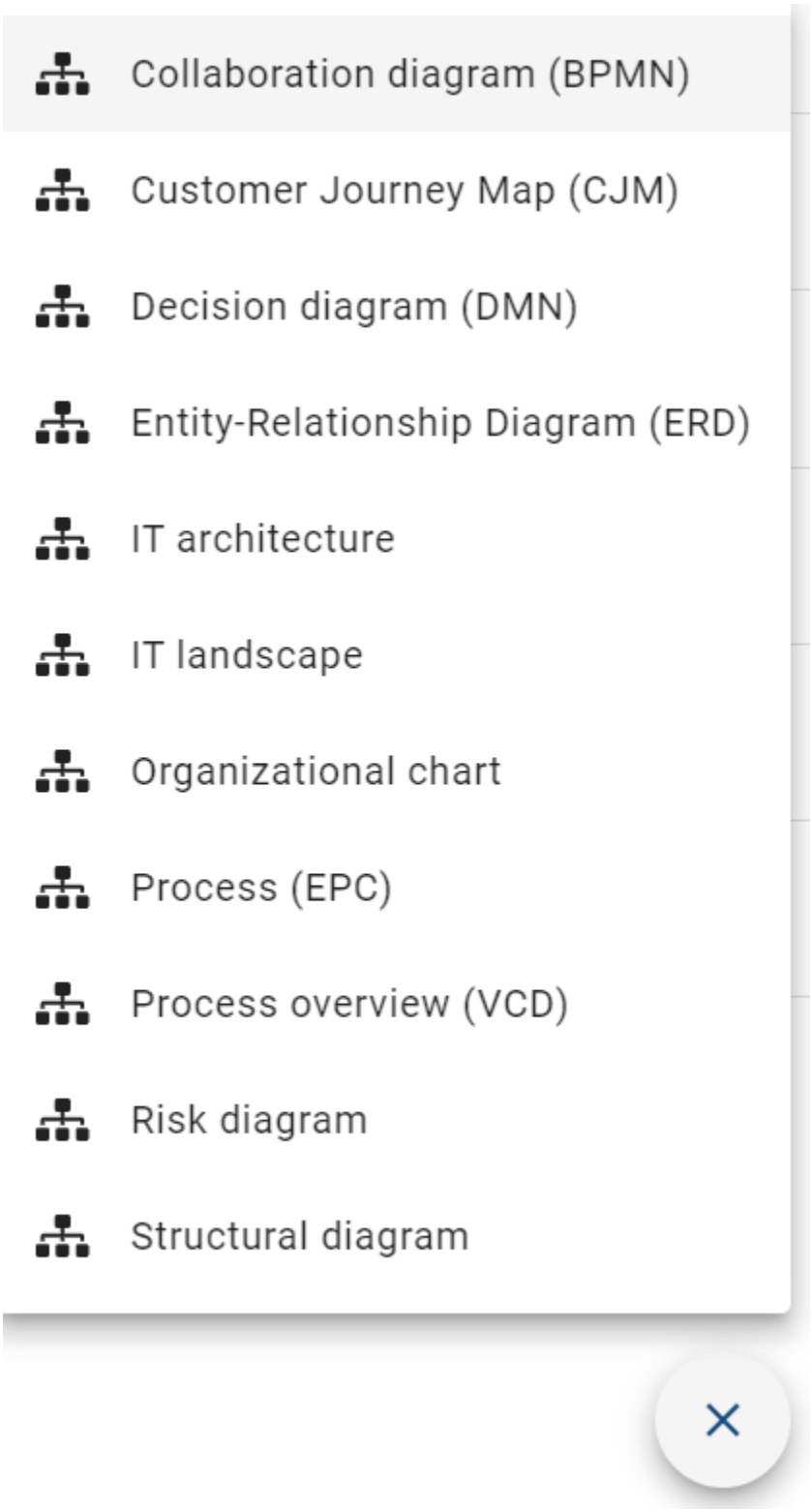
6.2.1 How can I create a diagram?

If you open the *Diagrams* menu item in the left menu bar, all diagrams that are stored in the current repository as a directly parent category are listed in the main area. If you have previously selected a subcategory, it will be saved and you will navigate to that category again the next time you open it. If you open the *Diagrams* menu item as an *Administrator*, *Editor* or *Author*, you also have the option of creating a new diagram.

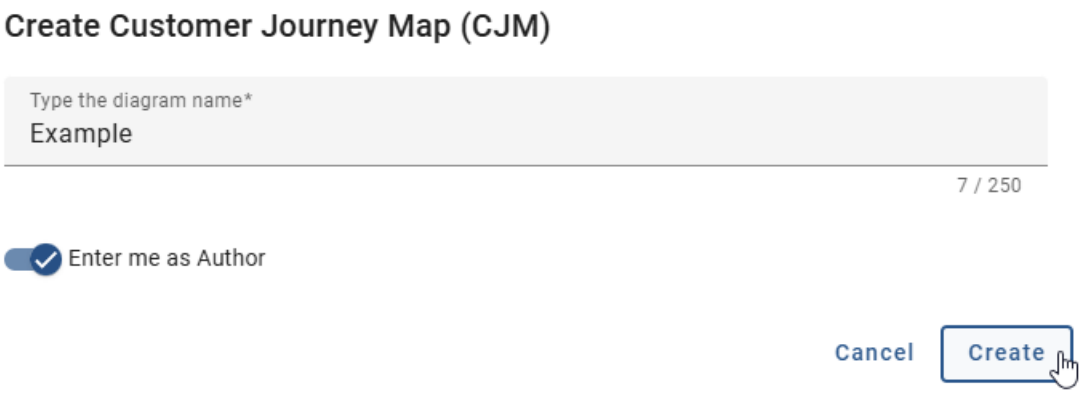
You can create a new diagram by clicking on the button at the bottom right corner of the diagram list.



Once you have clicked on *Create diagram*, a list of all supported diagram types will be displayed, from which you can select the desired diagram type. Should you wish to cancel the process prematurely, you can do so by clicking on the *X* button.



Once you have selected the desired diagram type, you will then have the option to name the diagram.

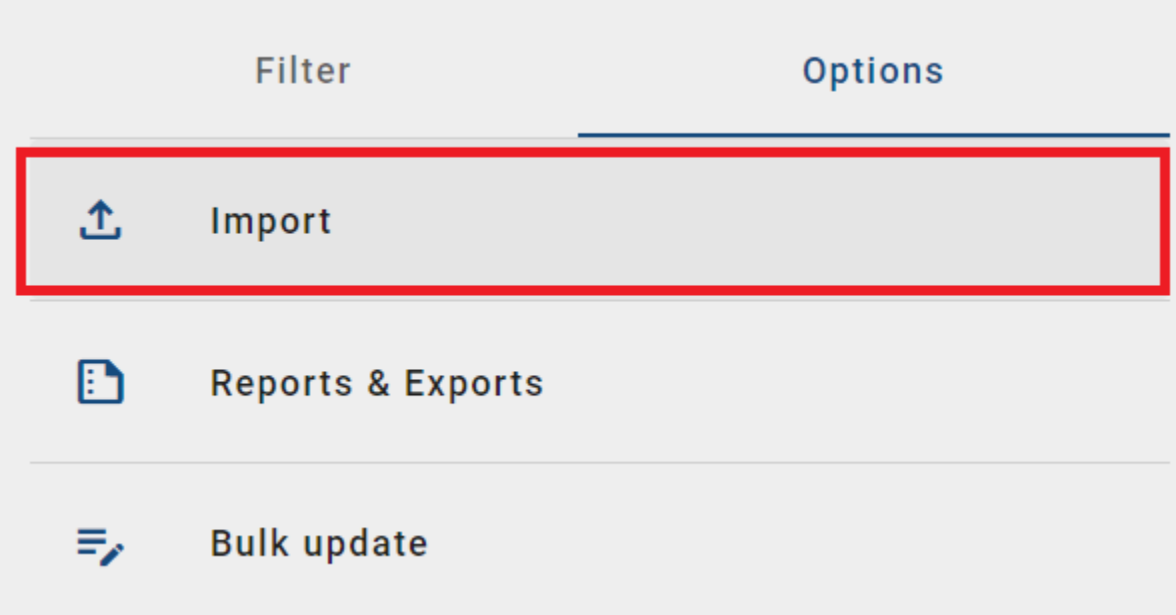


Then click on the *Create* button to display your new diagram.

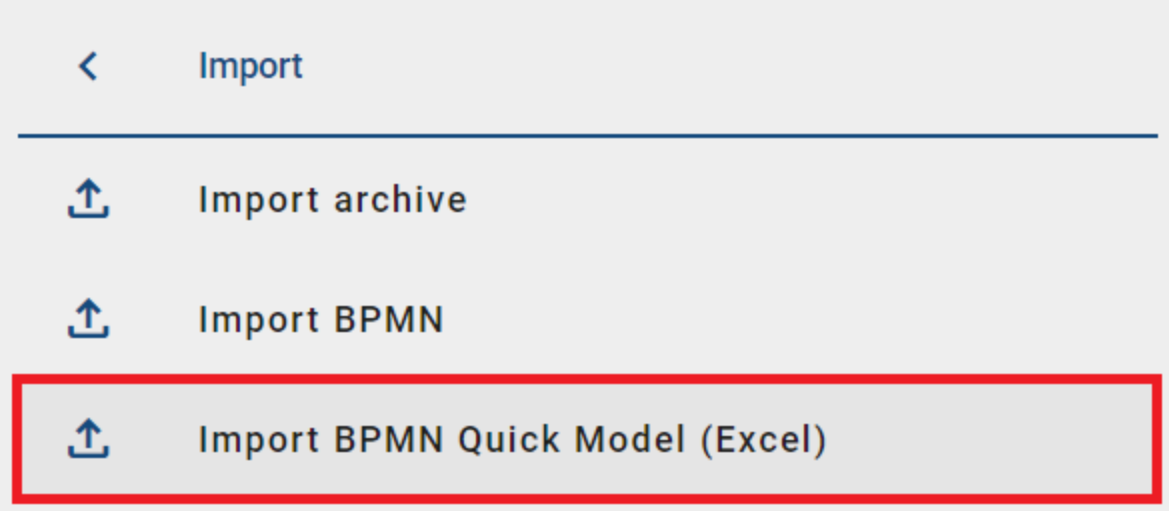
6.2.2 Quick Modeler

The Quick Modeler is an Excel file containing a table necessary for quick modeling. Within the Excel file, you will find a detailed introduction to the Quick Modeler, along with a template featuring an example.

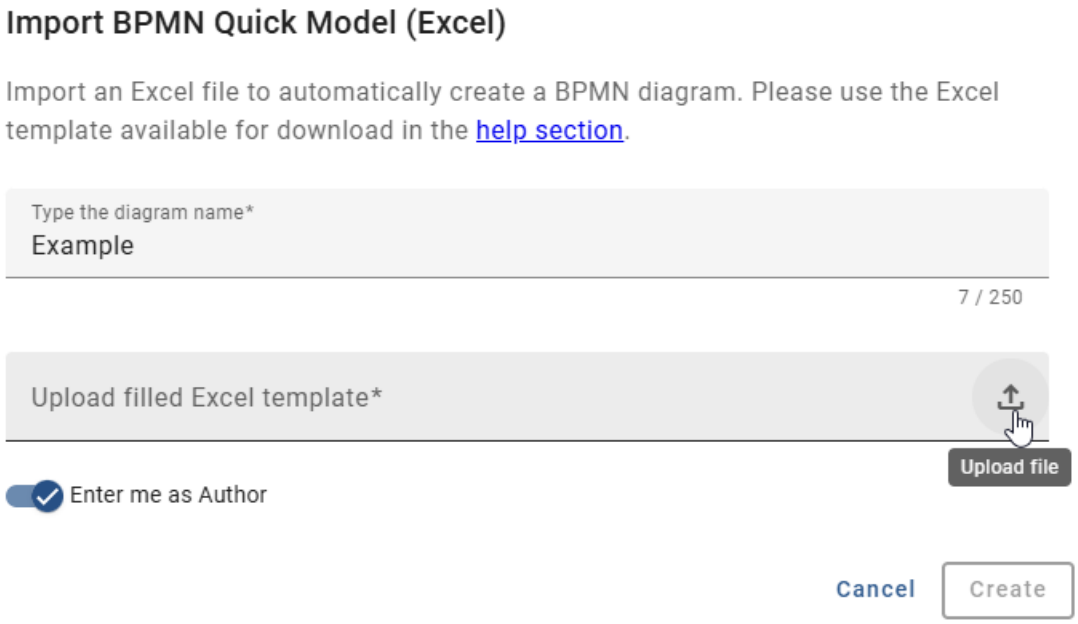
To use the Quick Modeler, navigate to *Options* in the right sidebar and select *Import*.



Then click on the *Import BPMN Quick Model (Excel)* option.



A dialog will then open, in which you must provide a name for the diagram and upload the previously completed `Quick Modeler Template (Excel)`.



Now you can create the diagram through the Quick Modeler.

Hint: Please be aware that the Excel file is currently available only in English.

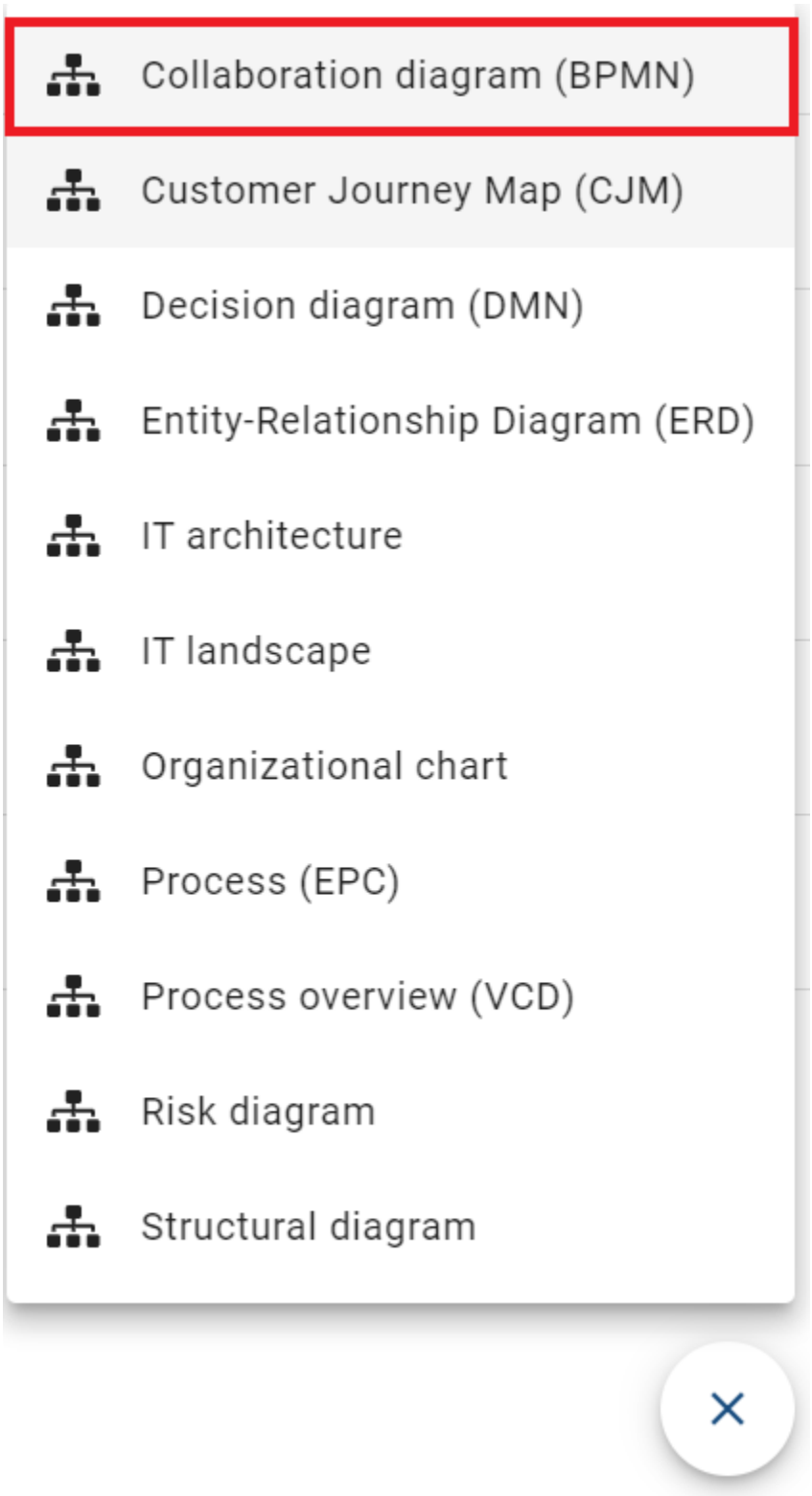
Note: Please note that only users with the roles *Administrator* and *Editor* can import an Excel file. Authors who normally do not have access to the created diagram are excluded from this import function.

6.2.3 AI-generated diagrams

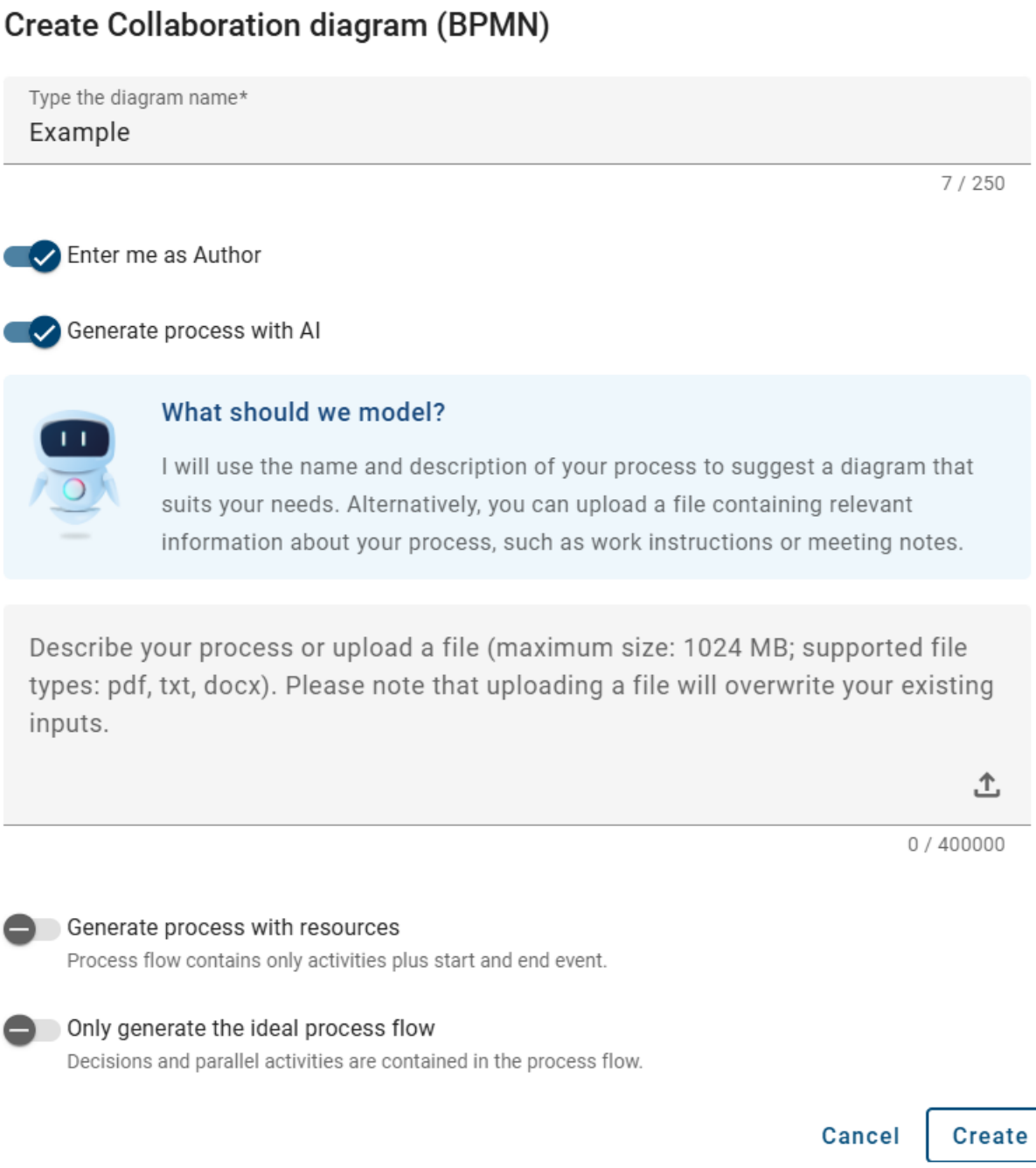
How can I create an AI-generated BPMN process?

If you open the *Diagrams* menu item in the left menu bar, all diagrams that are stored in the current repository as a directly parent category are listed in the main area. If you open the *Diagrams* menu item as an *Administrator*, *Editor* or *Author*, you also have the option of creating an AI-generated BPMN process.

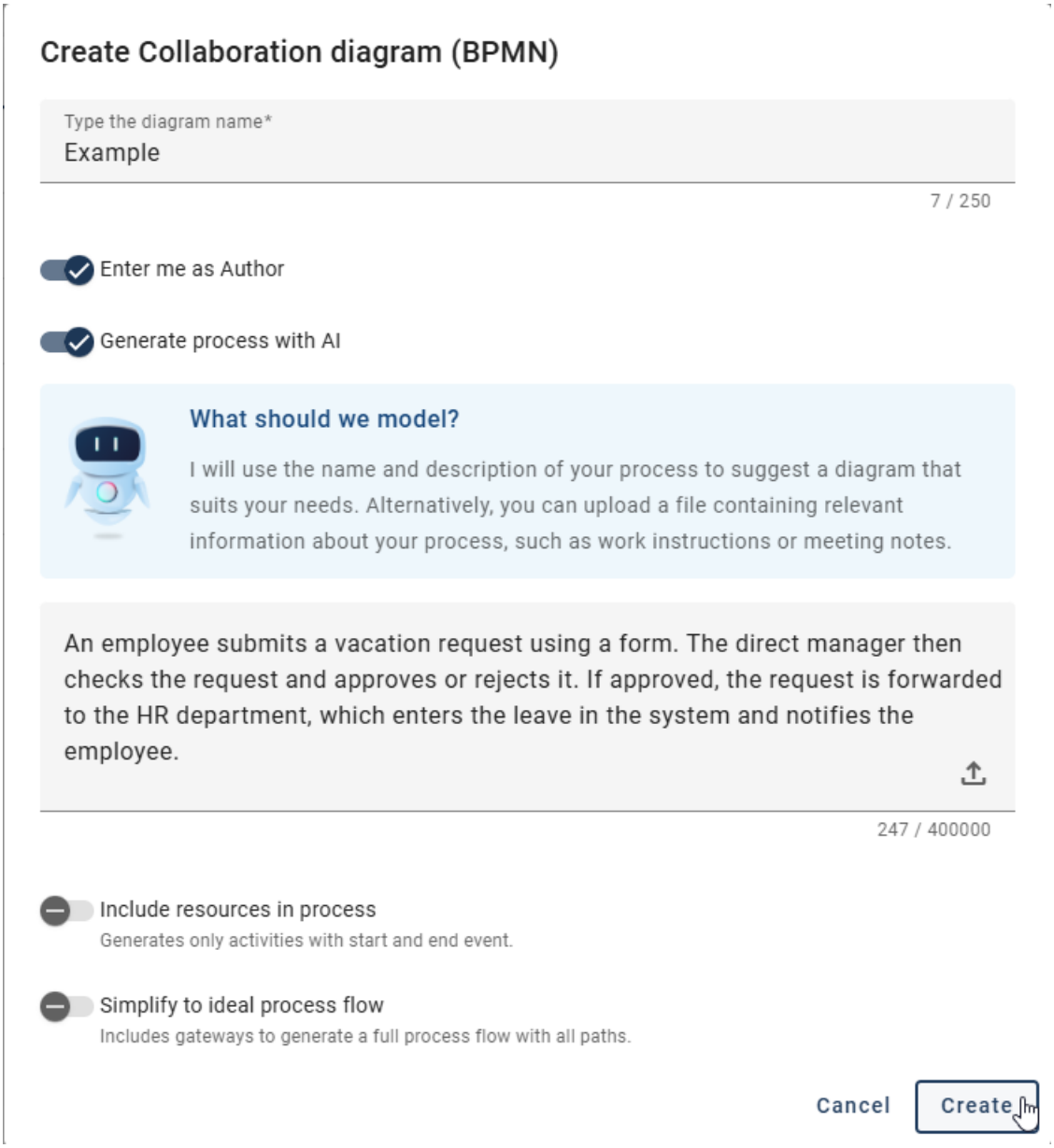
To create an AI-generated BPMN process, you need to create a new diagram. To do this, click on the *Create diagram* button at the bottom right. A list of all supported diagram types will then open. Select the *Collaboration diagram (BPMN)* diagram type. If you do not wish to proceed, you can cancel the dialog at any time by clicking the *X* button.



After selecting the *Collaboration Diagram (BPMN)*, a dialog will open. First, assign a name to the diagram. If you want to create an AI-generated BPMN process, activate the *Generate process with AI* option, which is deactivated by default.



Activating this option allows you to describe the process so that *Arty* can create a corresponding diagram based on your information. You can enter your description directly into the text field or *drag and drop* a text document into it.



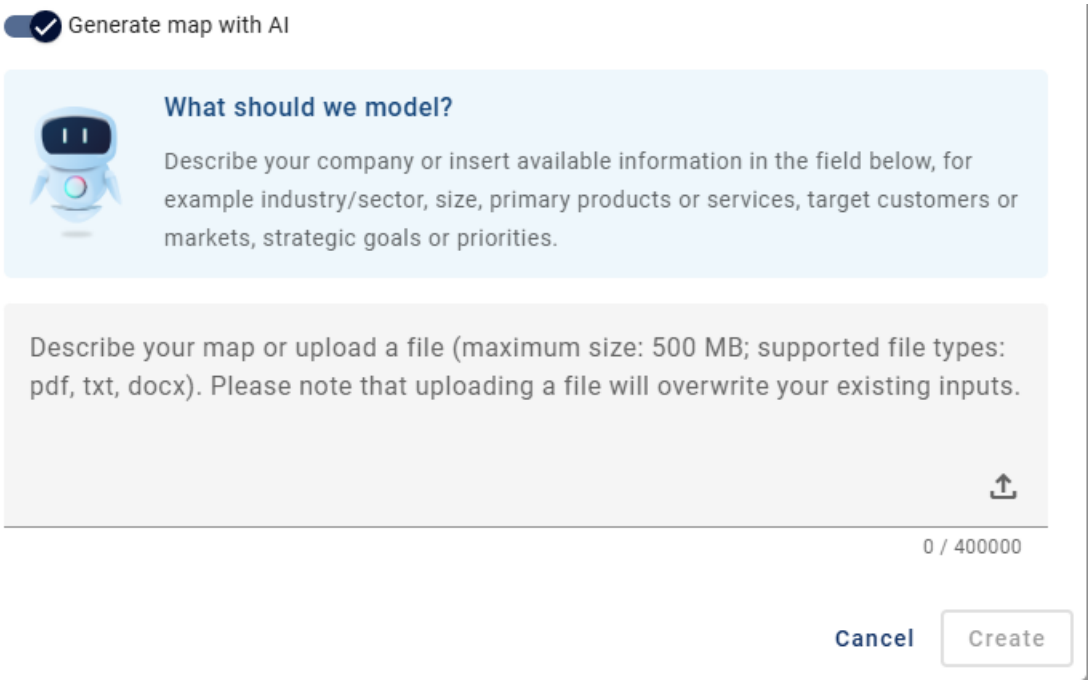
Click the *Create* button at the bottom of the dialog to generate the diagram in your current content language. Then, an illustration of Arty will be displayed while the diagram is being created. This process may take a few minutes. You will then either be automatically redirected to the diagram view, or you will receive an error message.

Note: Please note that when dragging a text document into the text field using *drag and drop*, only the text contained in the document is transferred. Structural elements such as headings or images are not taken into account.

Hint: This function is performed by Arty, our AI Modeler. Please note, that this function requires a separate license. Please also refer to the *notes on using the AI feature*.

How can I create an AI-generated Business Capabability Map?

If you open the *Diagrams* menu item in the left navigation as an *Administrator*, *Editor*, or *Author*, you also have the option to generate a diagram of the type *Business Capability Map* using AI. To do so, you must *create a new diagram*. After selecting the diagram type *Business Capability Map*, a dialog opens in which you must first enter a name for the diagram. To create an AI-generated Business Capability Map, additionally activate the option *Generate overview with AI*, which is disabled by default.



By activating this option, you can describe the desired overview so that Arty can create a corresponding diagram based on your input. You can enter your description directly into the text field or *drag and drop* a text document into it.

Then click the *Create* button to generate the diagram in your current content language. While the diagram is being created, an image from Arty will be displayed. This process may take several minutes. Afterward, you will either be automatically redirected to the Business Capability Map or receive an error message. To cancel the creation, click the *Cancel* button.

Note: Please note that when you *drag and drop* a text document into the text field, only the text it contains will be imported. Structural elements such as headings or images will not be taken into account.

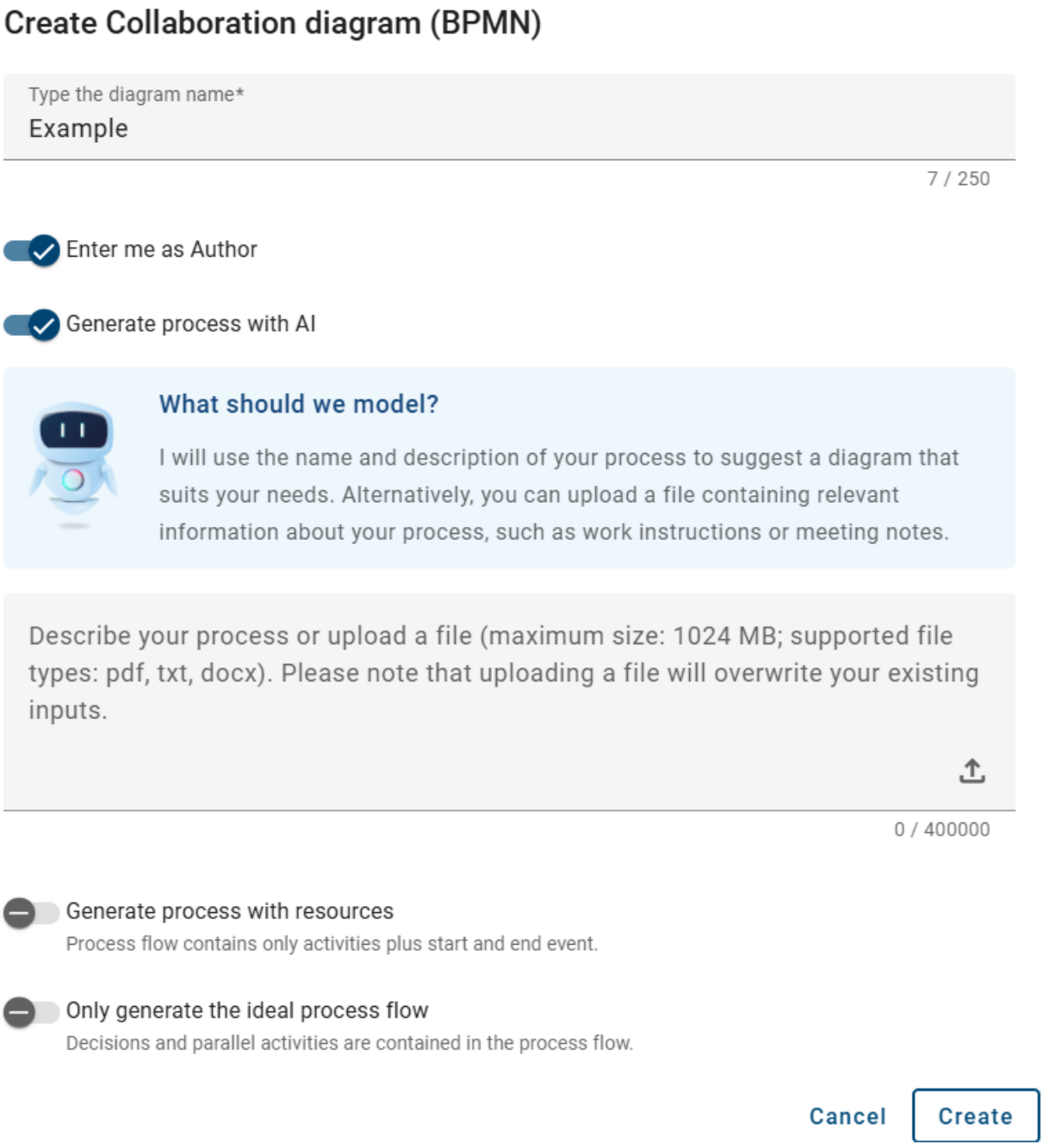
Hint: This feature is provided by Arty, our AI modeler. Please note that a separate license is required. Also be sure to observe the guidelines for using the AI functionality.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

How can I define the level of detail for an AI-generated BPMN process?

As a user with the *Administrator*, *Editor* or *Author* role, you have the option to define the level of detail for an AI-generated BPMN process. To do so, go to the *Diagrams* menu item in the left menu bar and click the *Create diagram* button at the bottom right. A list of all supported diagram types will then open. Select the *Collaboration diagram (BPMN)* diagram type.

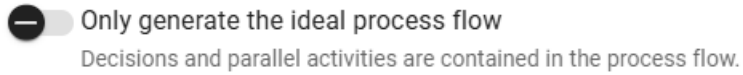
After selecting the *Collaboration diagram (BPMN)* diagram type, a dialog opens where you must first assign a name to the diagram. To define the level of detail, you must enable the *Generate process with AI* option, which is disabled by default.



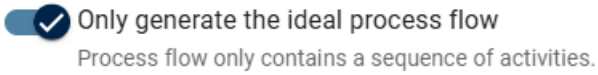
Once activated, the additional *Only generate the ideal process flow* option appears, allowing you to determine the level

of detail of the AI-generated BPMN process. Two variants are available, differing between a *full process flow* and an *ideal process flow*. By default, the *full process flow* is used, which includes all possible paths, decisions and branches relevant to the process. If you prefer a simplified representation, you can enable the *Only generate the ideal process flow* option. This will show only the typical flow and omit alternative paths, resulting in a clearer and more concise diagram.

Full Process Flow:



Ideal Process Flow:



After choosing the desired level of detail, click the *Create* button to generate the diagram in your current content language. An illustration of *Arty* will then appear while the diagram is being created. This process may take a few minutes. Afterwards, you will either be automatically redirected to the diagram view or receive an error message.

Afterwards, *Arty* generates the diagram based on the current content language and displays it accordingly.

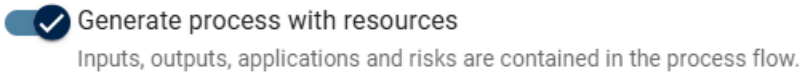
Hint: This function is performed by Arty, our AI Modeler. Please note, that this function requires a separate license. Please also refer to the *notes on using the AI feature*.

How can I request additional resources for an AI-generated diagram?

If you open the *Diagrams* menu item in the left menu bar, all diagrams that are stored in the current repository as a directly superordinate category are listed in the main area. If you open the *Diagrams* menu item as *Administrator* or *Editor*, you also have the option of creating an AI-generated BPMN process. When creating an AI-generated BPMN process, you can optionally request additional resources (documents, applications, risks).

After you have selected the diagram type *Collaboration diagram (BPMN)*, a dialog opens in which you must first assign a name for the diagram. To specify the level of detail, you must first activate the option *Generate process with AI*, which is deactivated by default.

In this dialog, you can also include additional resources such as documents, applications or risks. To do this, activate the *Generate process with resources* switch. This option is deactivated by default.



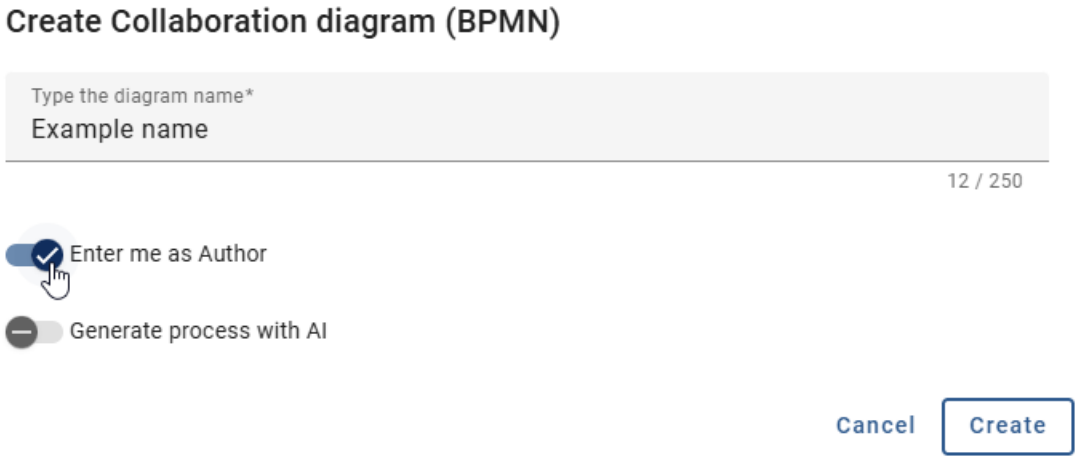
Additional resources can only be included in the modeling if the *Generate process with resources* option is activated.

Hint: This function is performed by *Arty*, our AI Modeler. Please note, that this function requires a separate license. Please also refer to the notes on using the *AI feature*.

6.2.4 How can I be directly assigned as an Author in a diagram?

If you open the *Diagrams* menu item in the left menu bar, all diagrams that are stored in the current repository as a directly parent category are listed in the main area. If you have previously selected a subcategory, it will be saved and you will navigate to that category again the next time you open it. If you open the *Diagrams* menu item as an *Administrator*, *Editor*, or *Author*, you also have the option of creating a diagram and directly assigning yourself to the *Author* governance attribute during the creation process.

To assign yourself directly to the *Author* governance attribute during the creation process, you must create a new diagram. To do this, click the *Create diagram* button at the bottom right. A list of all supported diagram types will appear from which you can select the desired type. Once you have selected a diagram type, a dialog will appear.



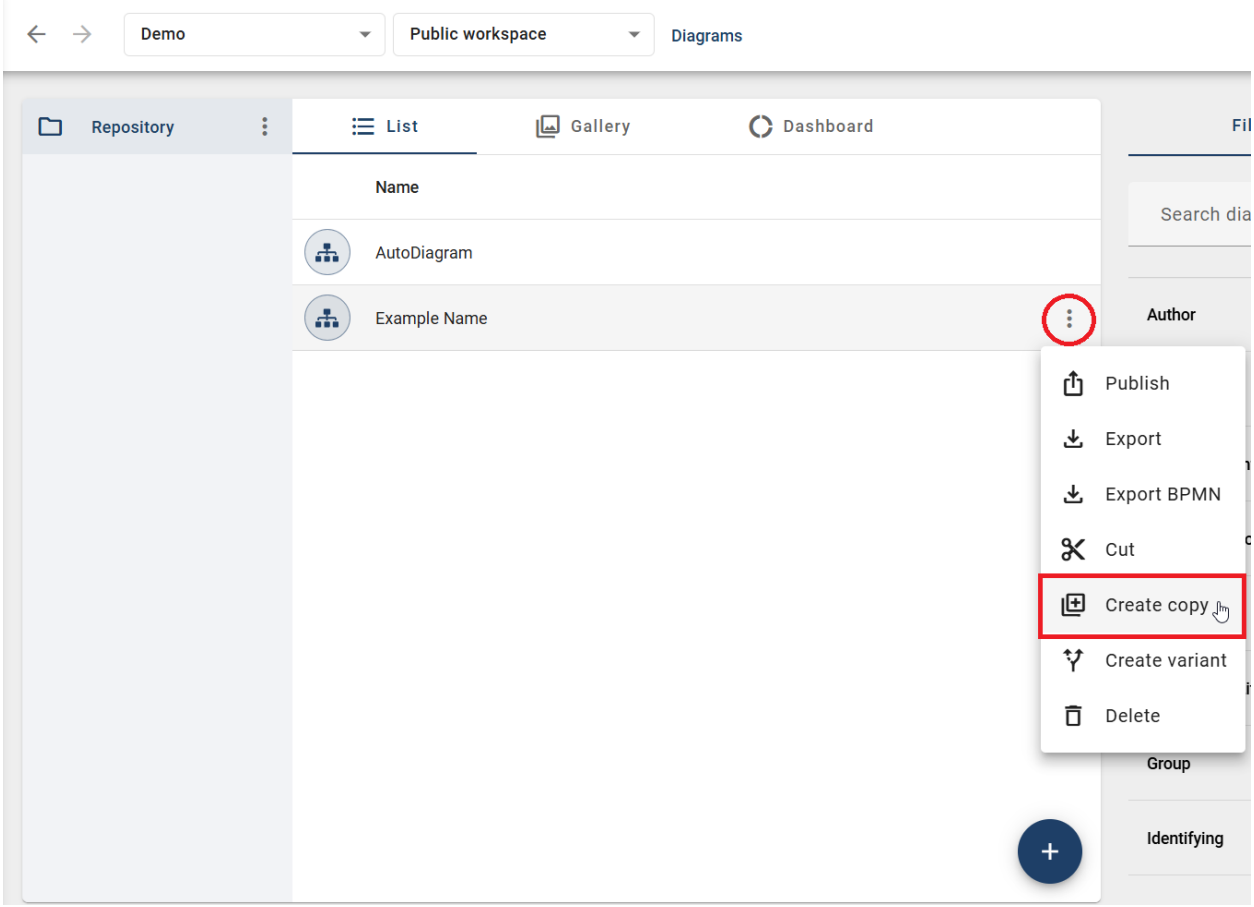
In this dialog, you can give the diagram a name and assign yourself to the *Author* governance attribute. The *Enter me as Author* option is activated by default. If you do not deactivate this option, you will automatically be entered in the *Author* governance attribute of the created diagram and, if not available, a catalog object of type "Person" will be created of you. If you do not want this, you can deactivate the option and create the diagram without assigning an author. Finally, click the *Create* button to complete the process.

Hint: Please note that the *Generate process with AI* option shown in the screenshot can only be displayed and activated if the corresponding feature is available. This function is performed by *Arty*, our AI Modeler. Please note, that this function requires a separate license. Please also refer to the *notes on using the AI feature*.

6.3 How can I create a copy of a diagram?

When you open the *Diagrams* menu item in the left menu bar, all diagrams stored in the current repository are listed in the main area. As an *Administrator*, *Editor*, or *Author*, you can copy diagrams in the *public workspace* to use them as a starting point for new diagrams without having to modify the original diagram.

By default, the *List* tab is displayed. All diagrams in the current content language are displayed in the main area. The *Copy* button is available using the context menu (three dots) of a diagram.



After clicking the *Create copy* button, a dialog will open where you can specify the name of the new diagram. If a name has already been entered for the original diagram in the current content language, this name will automatically be suggested. Otherwise, the input field will be empty and display a placeholder. You can also specify whether you want to be listed as the *Author* in the copied diagram.

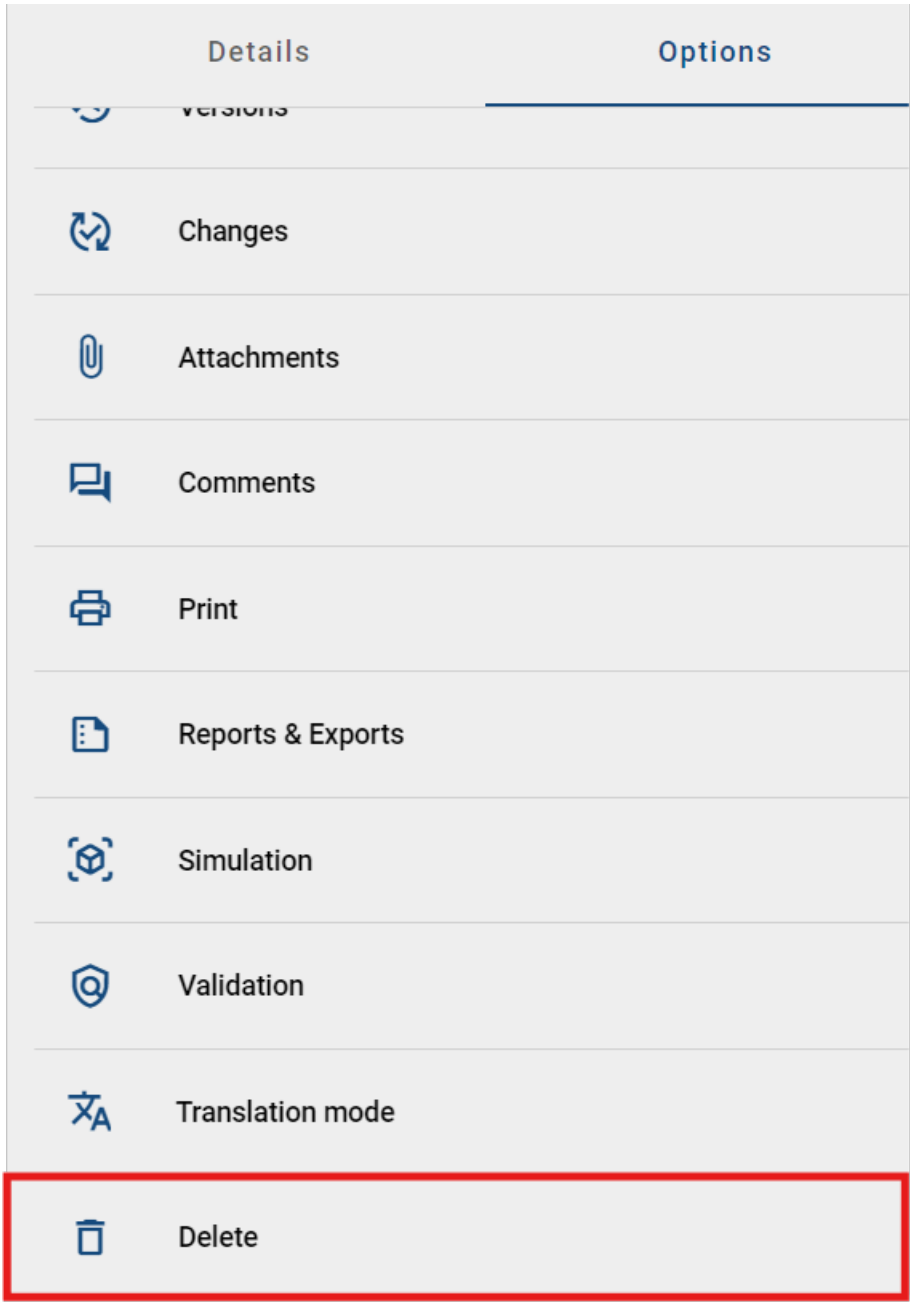
The copy can be saved using the *Create* button in the dialog. Once the copy has been successfully completed, the new diagram appears in the same category as the copied diagram and is displayed at the top of the diagram list. If the copy process is canceled using the *Cancel* button, the dialog closes and you return to the diagram list. In this case, no copy is created and the entries you have made are discarded.

Hint: Please note that when copying a diagram, the current version in the public workspace is used as the basis. It is not possible to copy a locally edited diagram that has not yet been checked in, as only the version available on the server is used.

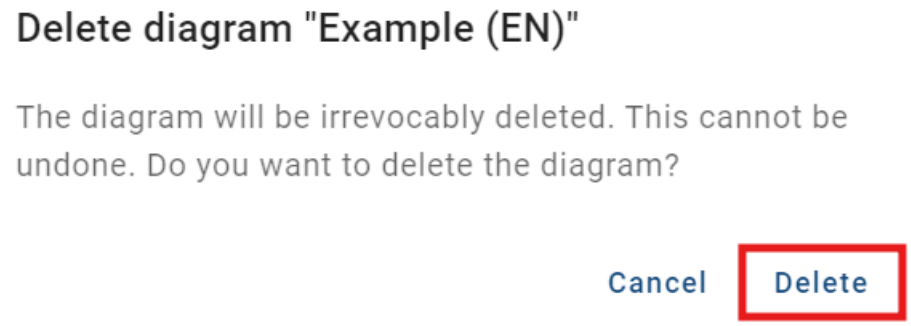
Note: Please note that the option to create a copy is only available if at least one character has been entered in the name field.

6.4 How can I delete a diagram?

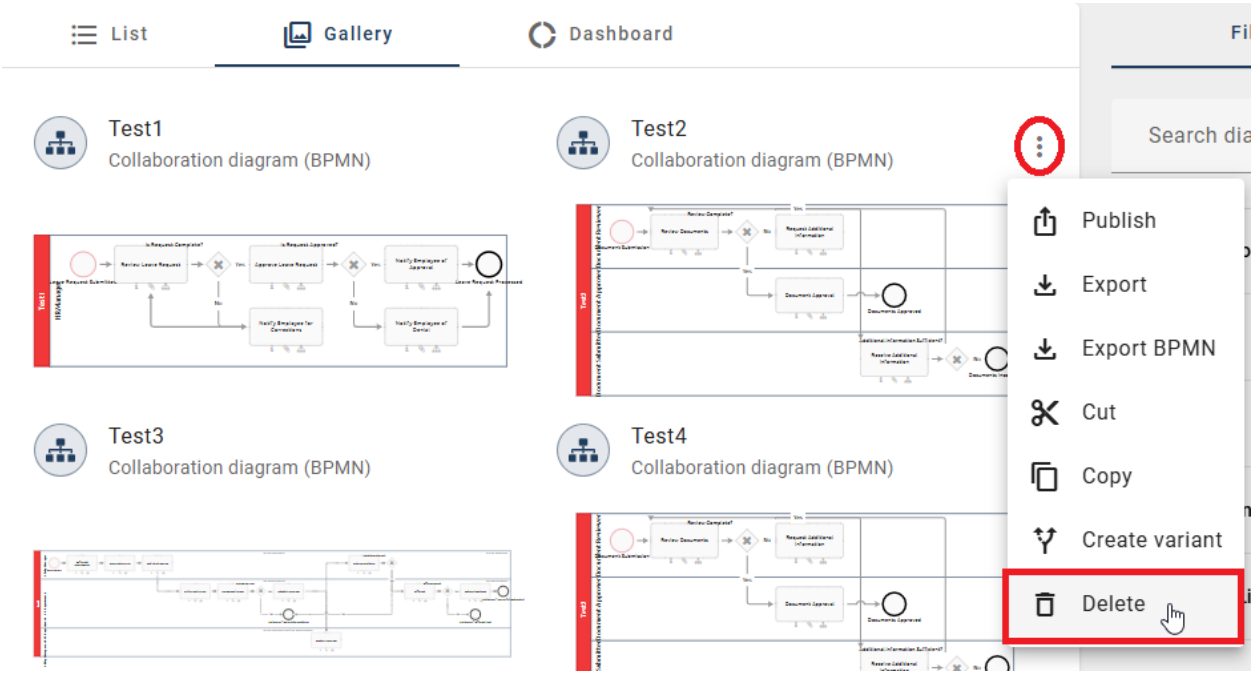
As an *Administrator*, *Editor*, and *Author* you have the ability to delete diagrams in the public workspace as needed. To do so, click on the *Delete* option in the respective context menu (three dots) of the diagram. Alternatively, you can find the option in the *Options* of the respective diagram after selecting it.



After you click on *Delete*, a dialog will appear informing you that the diagram will be irrevocably deleted. This action cannot be undone. You can confirm the deletion process by clicking the *Delete* button again. To cancel the process, click on *Cancel*.



You can also delete the diagram directly in the *Gallery*. To do this, click on the context menu (three dots) of the diagram and select the *Delete* option. Then, follow the same steps as mentioned above.



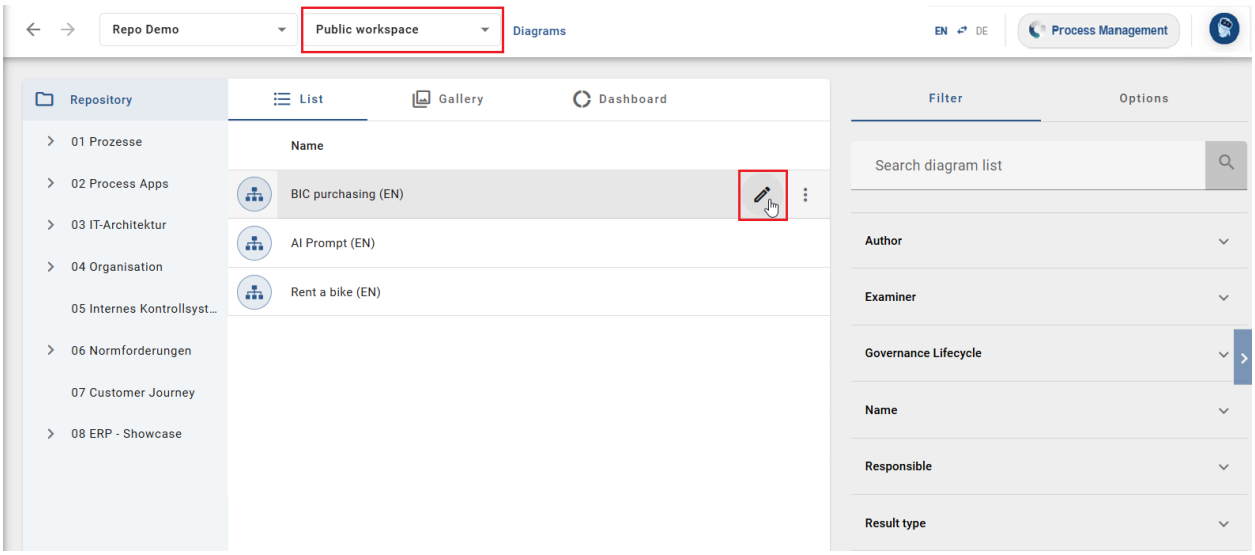
Hint: Please note that locked diagrams cannot be deleted.

6.5 How can I rename a diagram?

If you open the *Diagrams* menu item in the left menu bar, all diagrams that are stored in the current repository as a directly parent category are listed in the main area. As an *Administrator*, *Editor*, or *Author*, you have the option to rename diagrams in the *public workspace* as needed without checking them out.

The *List* tab is displayed by default. All diagrams with the current repository as a directly superordinate category are listed in the main area. For each diagram, you can see the name and the associated diagram type in the browser language set for the current content language.

To rename a diagram, hover the mouse pointer over an existing diagram in the list view. A pencil symbol will then appear that you can click to edit the name.



To save the new name, click the checkmark symbol. To cancel the process, click the X symbol. Alternatively, you can cancel by clicking on any free space outside the input field.

Note: Please note that you cannot rename a locked diagram. In this case, the name field will remain in *read-only mode*.

6.6 Functions in category explorer

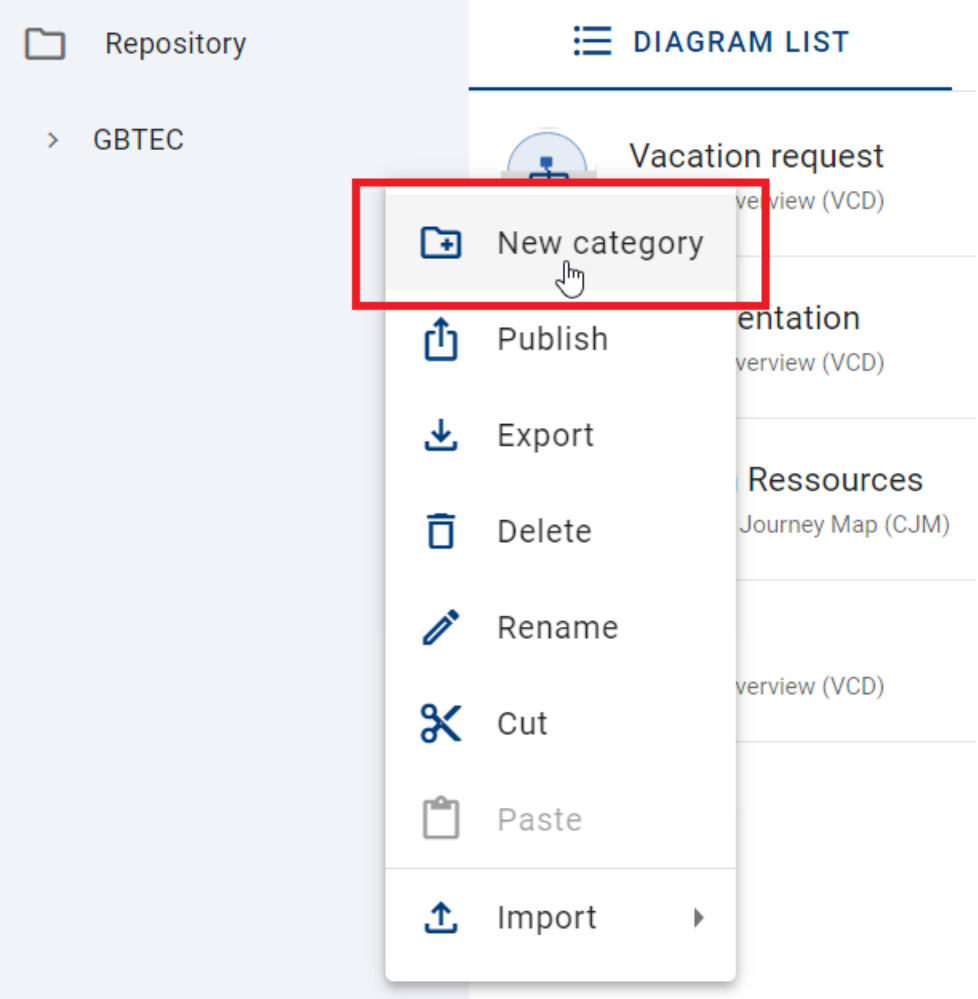
To select a function for a diagram category, you need to be assigned as an *Administrator, Editor* or *Author* *role* and be in *Public Workspace*. *Here* you can find how to change the stage. Below you will find an overview of the functions and the permissions of the roles.

	Author	Editor	Administrator
Create new category	Authorized	Authorized	Authorized
Publish	Not authorized	Authorized	Authorized
Export	Not authorized	Not authorized	Authorized
Import	Not authorized	Not authorized	Authorized
Delete	Authorized(*)	Authorized(*)	Authorized(*)
Rename	Authorized(*)	Authorized(*)	Authorized(*)
Cut	Authorized(*)	Authorized(*)	Authorized(*)
Paste	Authorized	Authorized	Authorized

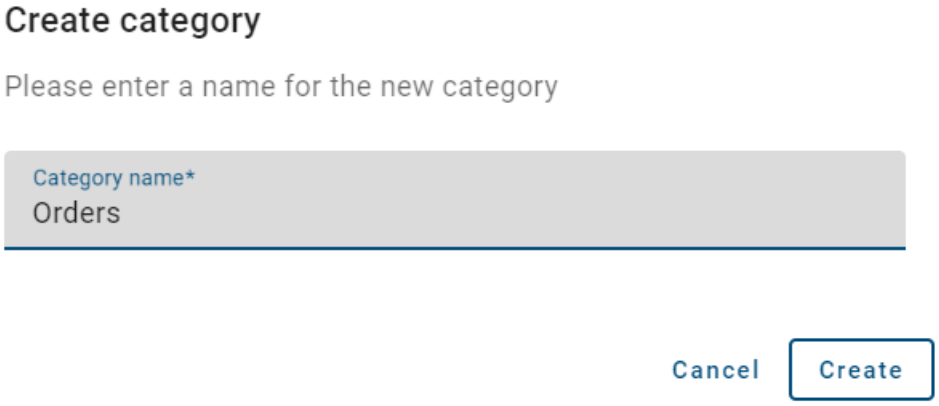
(*)The function can only be executed in the context menu for diagram categories and not for the repository.

6.6.1 How can I create diagram categories?

You can create diagram categories in the category explorer. Open the *explorer menu* and click on the context menu (three dots) next to your repository folder. Select the option *New category*.



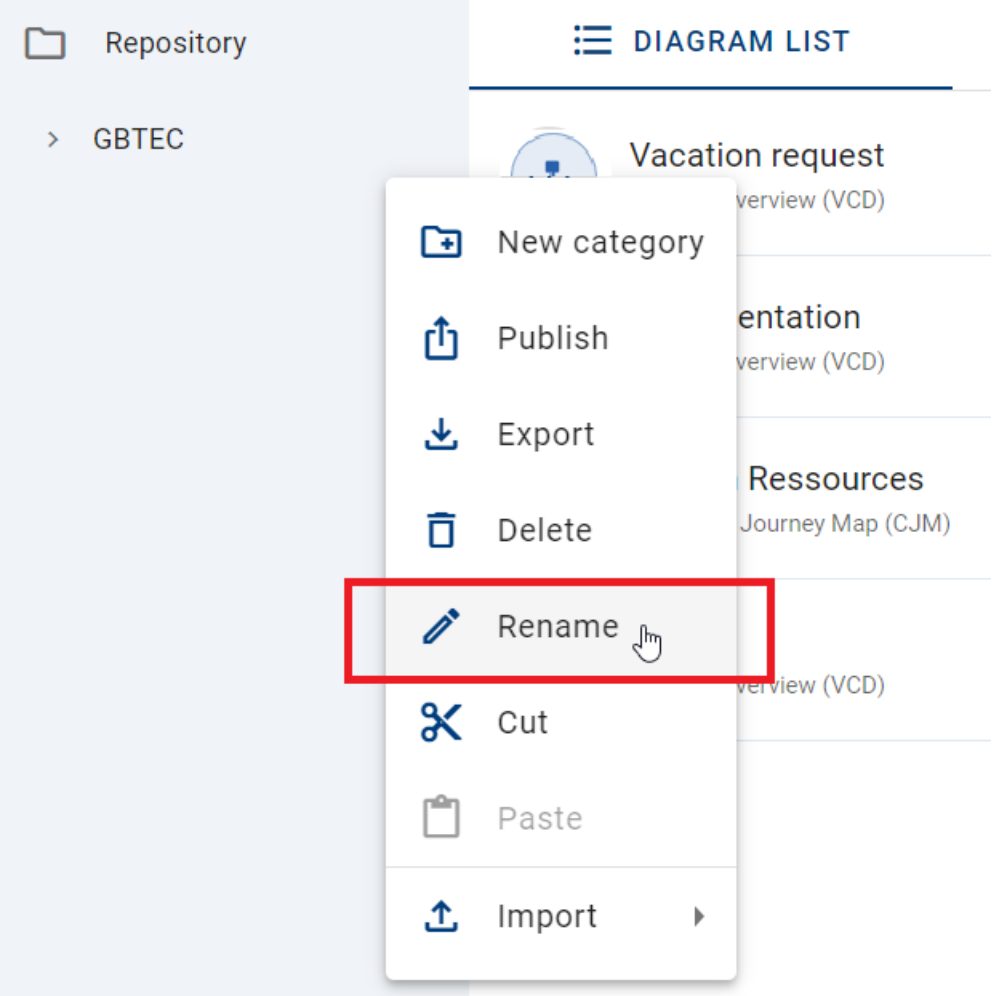
Enter the category name and confirm with *Create*. The diagram category will be shown in the category explorer alphabetically sorted.



Hint: You can also create subcategories for already existing main categories. Therefore you can click on the context menu next to the category name and repeat the process. The created categories will be listed as subcategories for the selected main categories.

6.6.2 How can I rename diagram categories?

If you want to rename a diagram category name, you need to click on the context menu (three dots) and select *Rename*.



In the upcoming displayed dialog, you can enter a new name for the selected category. Type the new name into the input field and select *Rename*. To discard the renaming, click the *Cancel* button.

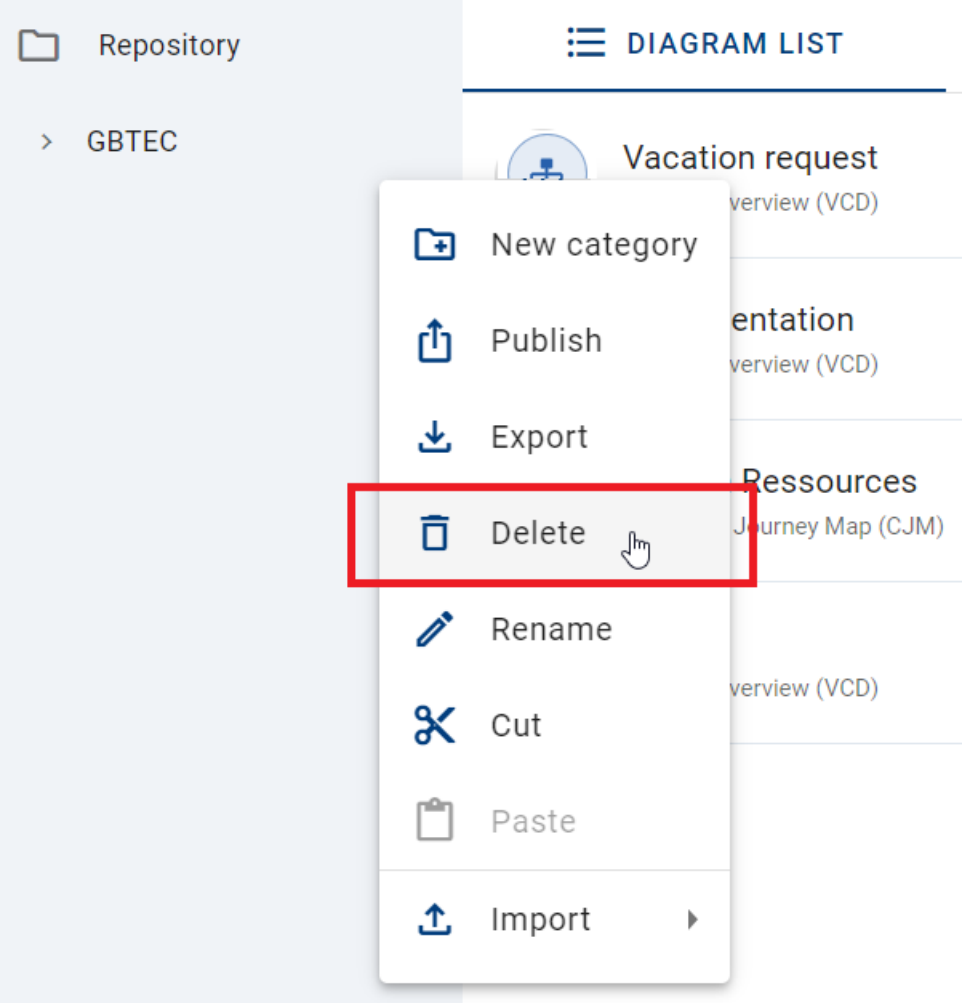
After the renaming is completed, the updated diagram category name is visible in the category explorer. Concurrent user need to refresh the view to see the made changes.

Note: You need to enter at least one character to complete the renaming.

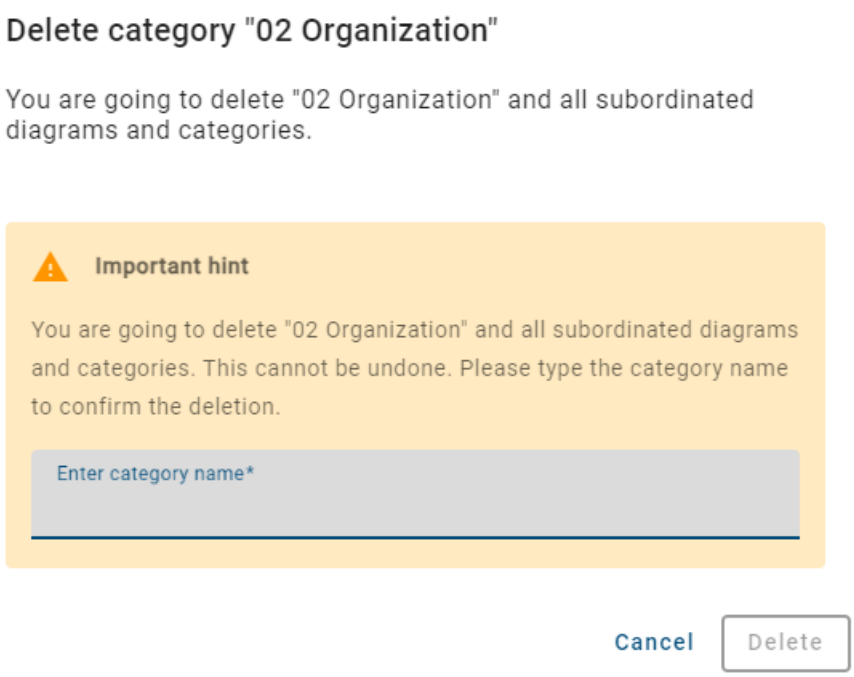
Note: The renamed diagram category will only be displayed in your *content language*.

6.6.3 How can I delete diagram categories?

You can delete main and subcategories according to your needs. Click on the context menu (three dots) next to the category name and select *Delete*.

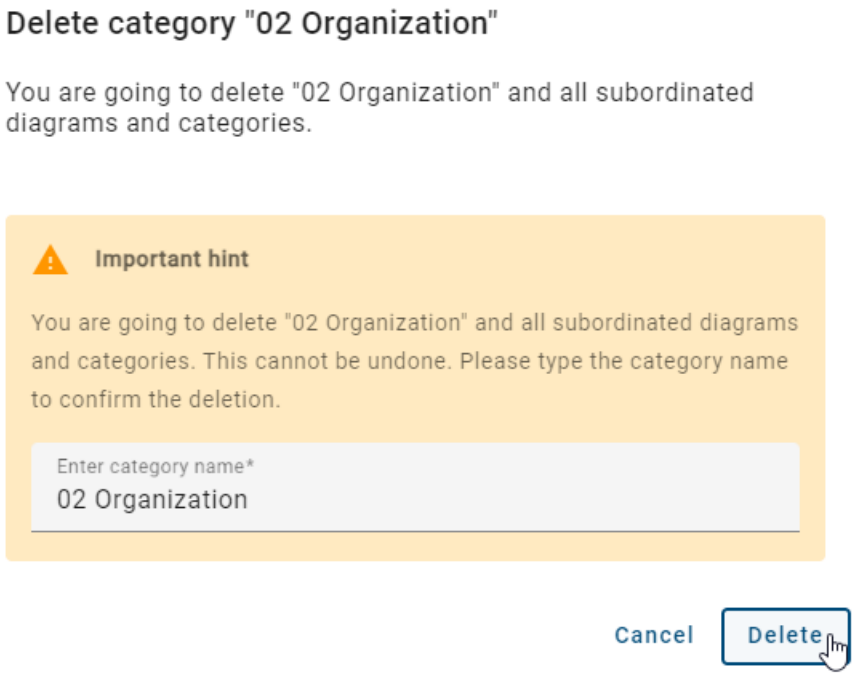


Then a dialog appears. If you do not want to delete the category, you can close the window by clicking on the *Cancel* button.



Hint: Please note that the input is case insensitive.

Enter the category name und click on *Delete* to complete your deletion.

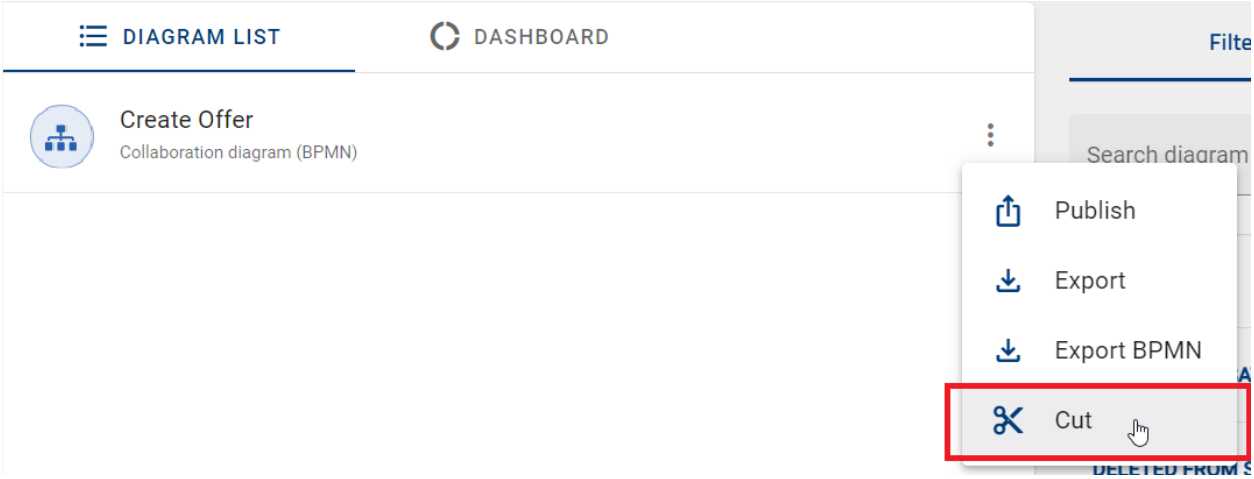


Hint: If the category contains subordinated diagrams and categories, they will be deleted as well. This cannot be undone.

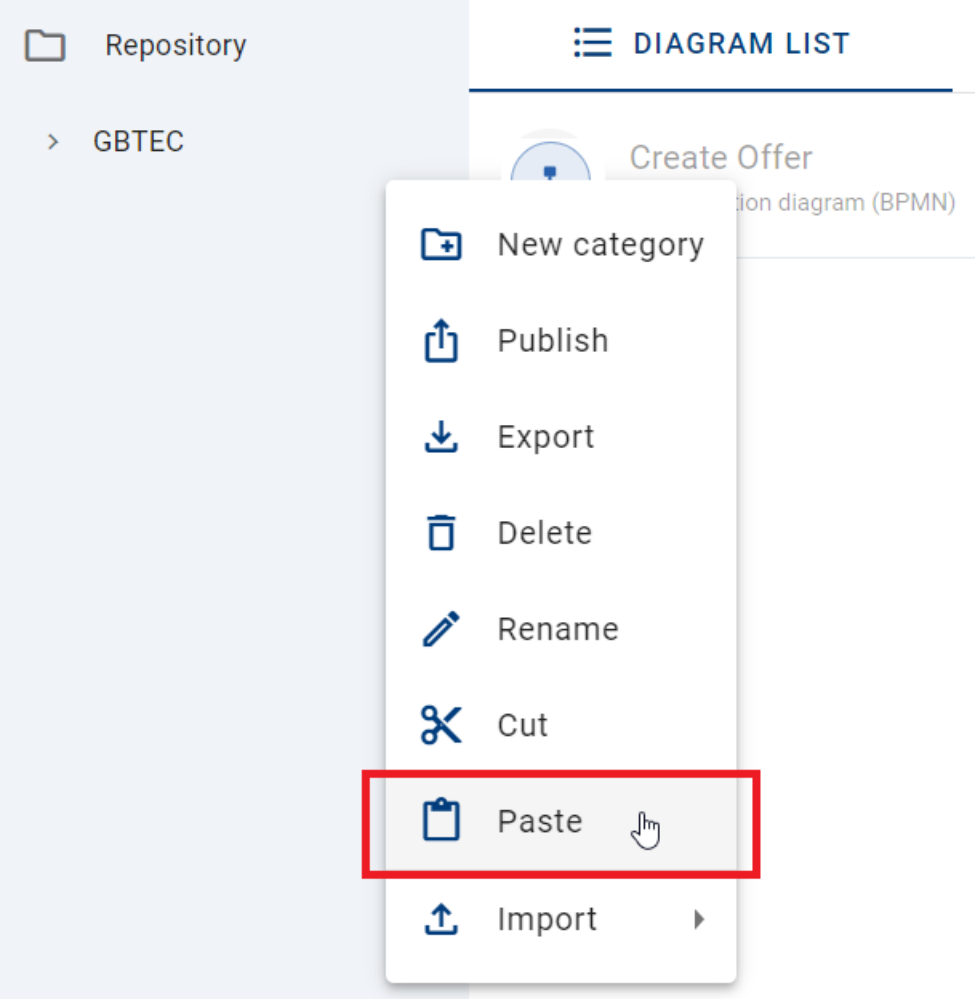
6.6.4 How can I cut and paste diagrams and diagram categories?

Cut and Paste diagrams

To insert a diagram from one diagram category to another diagram category, you can use the *Cut* function. Open the diagram category where the desired diagram is located. Click on the context menu (three dots) in the diagram list and select *Cut*.



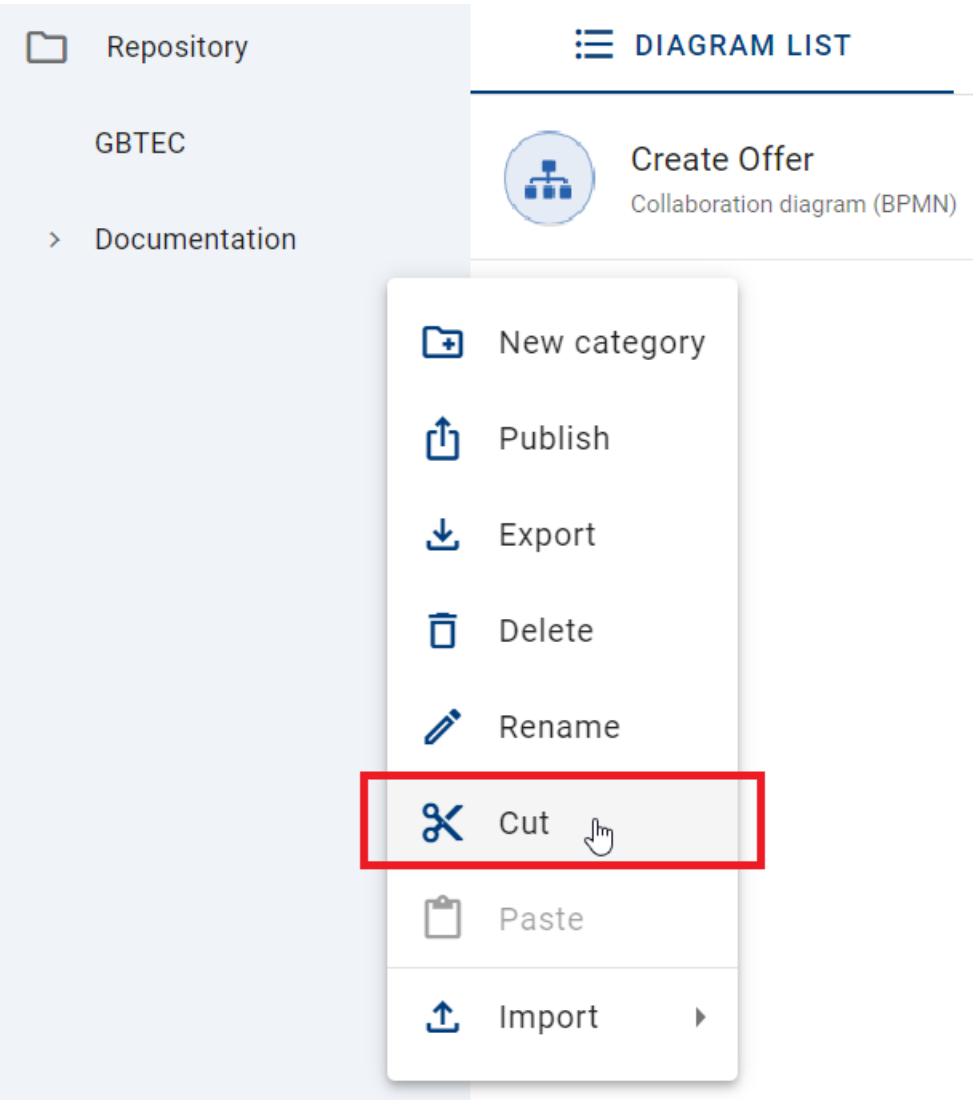
Select the diagram category in which you want to insert the diagram. This can be done for both main categories and subcategories. Click on the context menu of the category and select *Paste*.



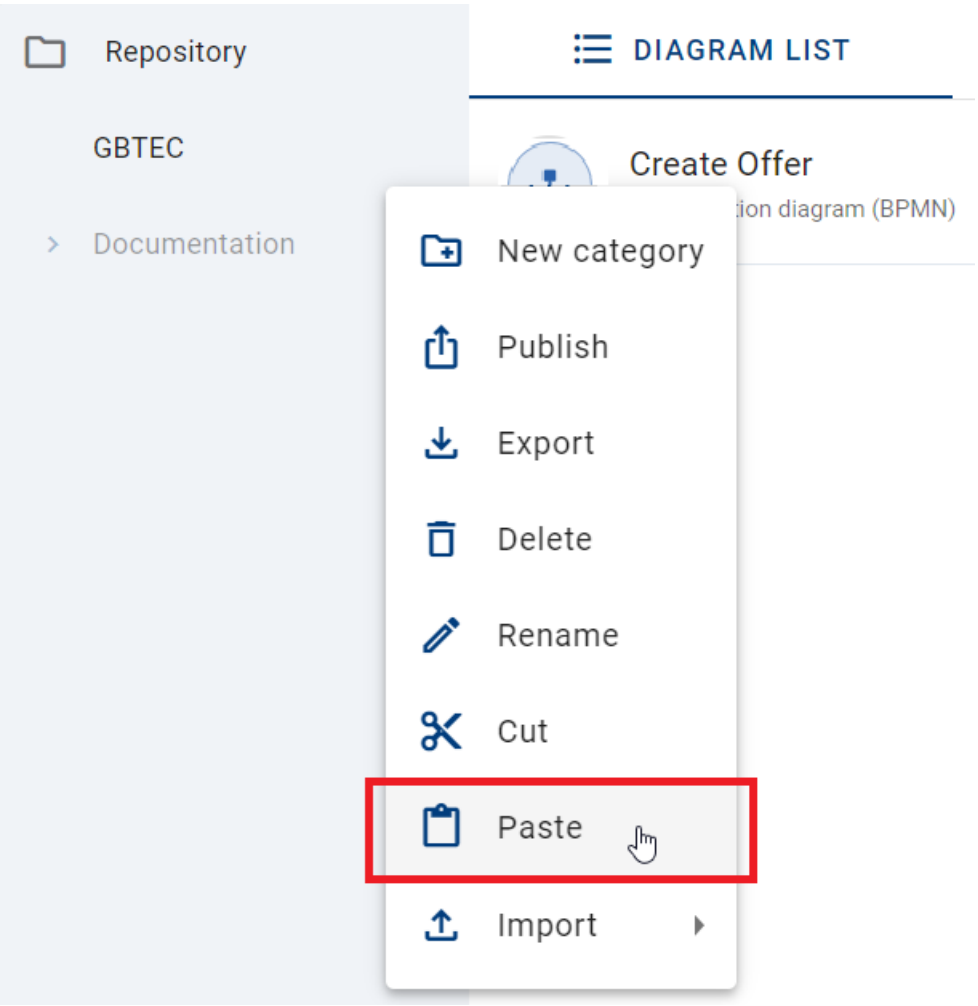
The selected diagram will then be removed from the original category and pasted into the selected category.

Cut and Paste diagram categories

To reorganize a diagram category, click the context menu next to the desired diagram category name and select *Cut*.



This will cut every subcategory (if any are provided) and all containing diagrams in the category as well. To paste the cut-out category, click on the context menu where you want to insert it and select *Paste*.

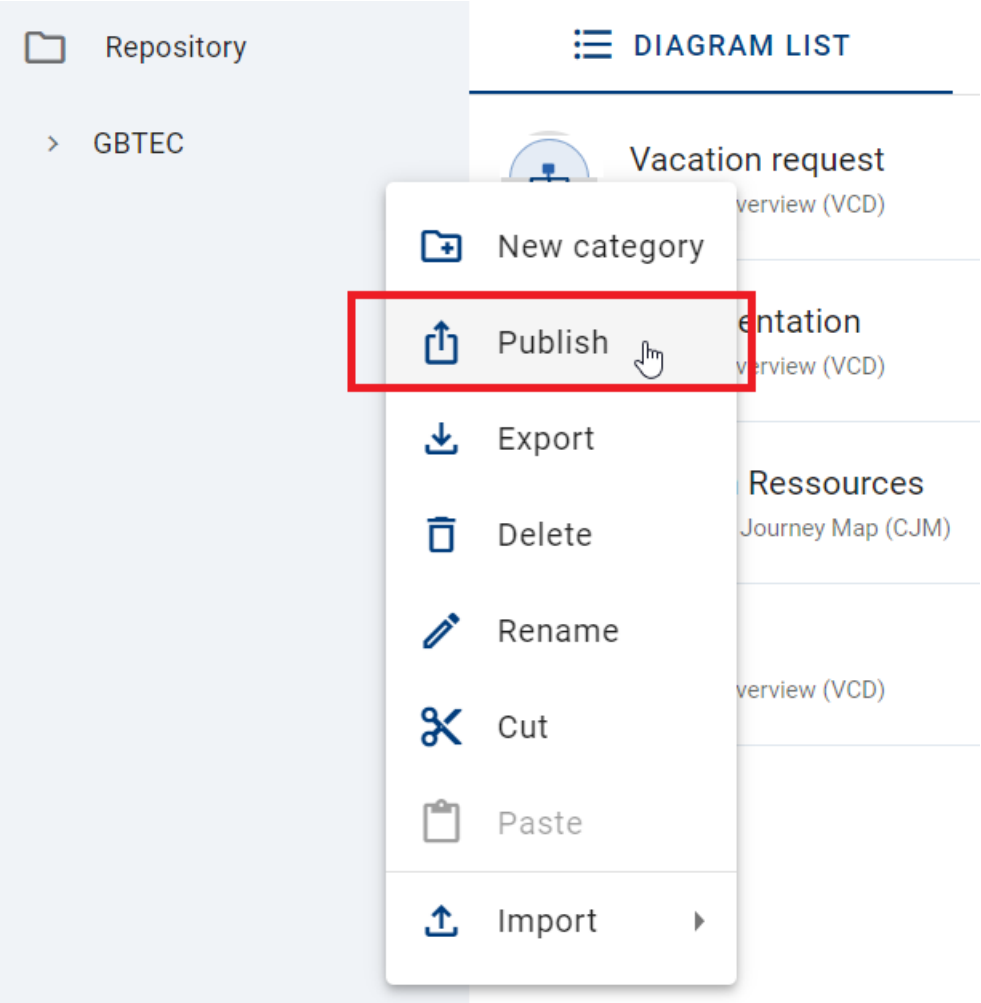


The procedure will be cancelled if you

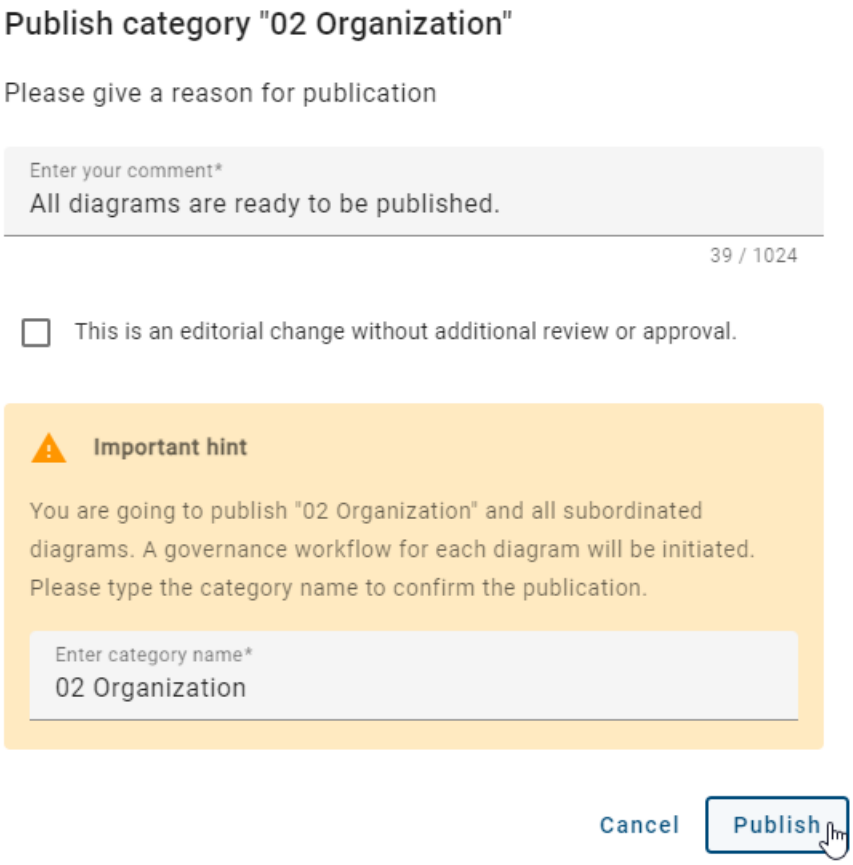
- cut out a new diagram,
- press the ESC key,
- refresh the page or
- change the repository.

6.6.5 How can I publish diagram categories?

To publish your diagram category, click on the context menu (three dots) next to name and select *Publish*.



In the upcoming dialog you have to enter the category name and the reason for the publication and click *Publish*. If you want to discard the publication, select *Cancel*.



Hint: Please note that the input is case insensitive.

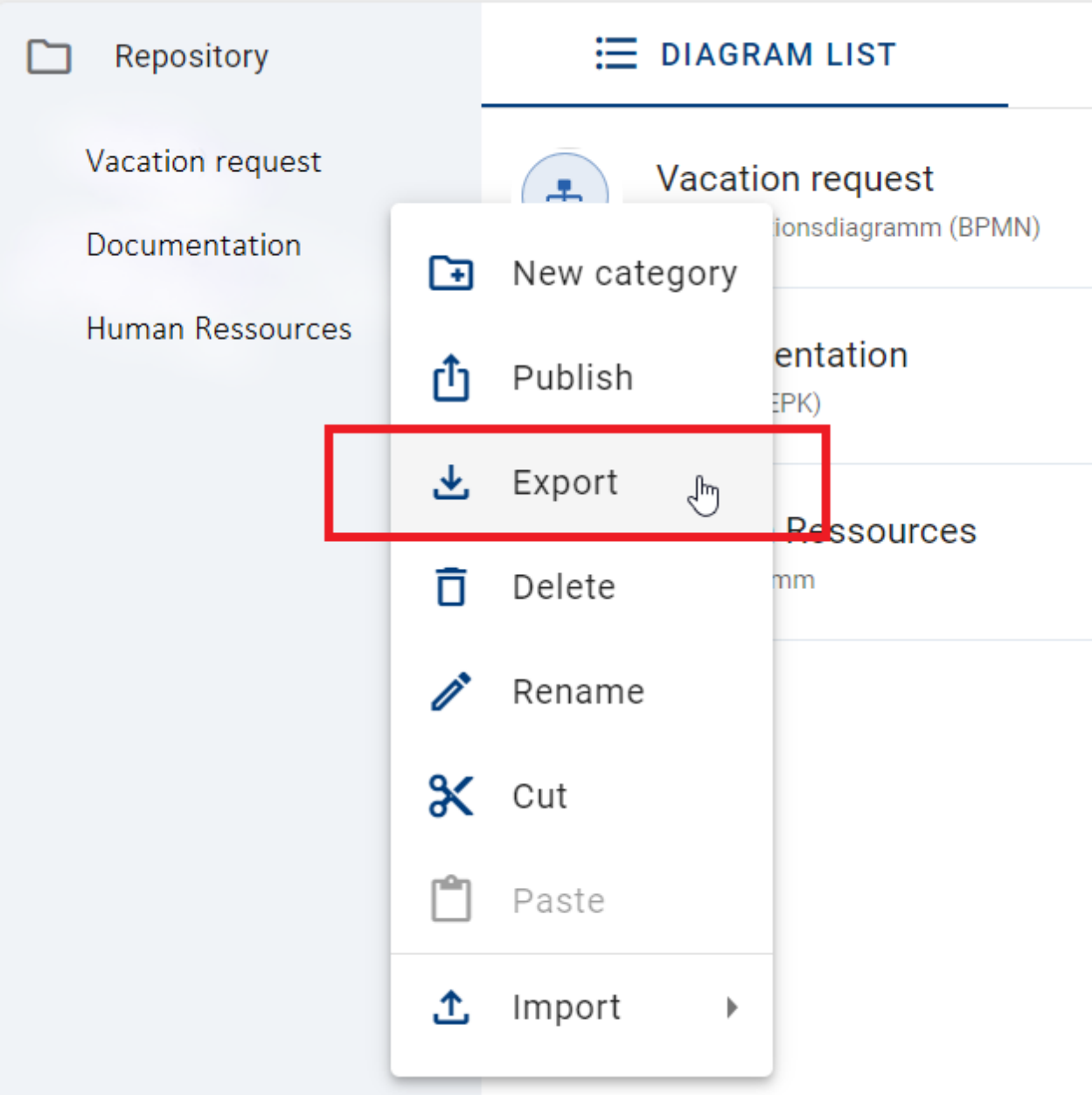
Hint: When you want to publish a diagram category, you are going to publish all subordinated diagrams as well. For each diagram a *workflow* will be initiated.

Note: You can also publish your repository. Select the context menu next to the repository and follow the same steps.

6.6.6 How can I export diagram categories?

Export in context menu (three dots)

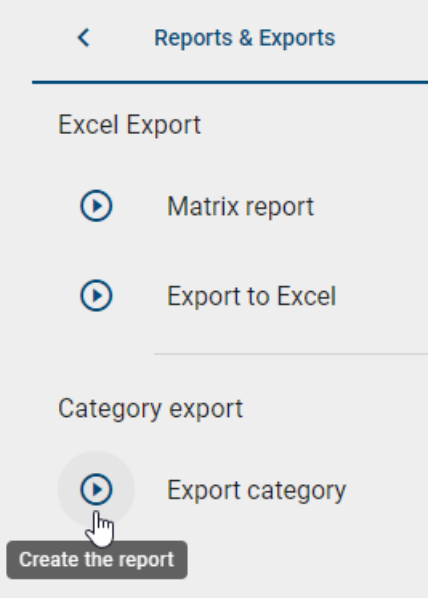
You can export diagram categories by clicking on the context menu and selecting *Export*.



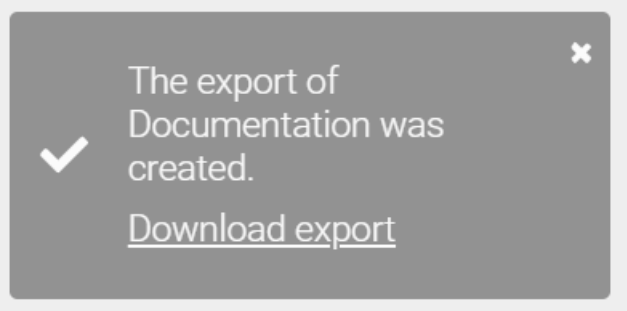
An archive of the diagram category will be created. The notification, which appears at the bottom right side of the screen, informs you about the start of the export.

Export in Options panel

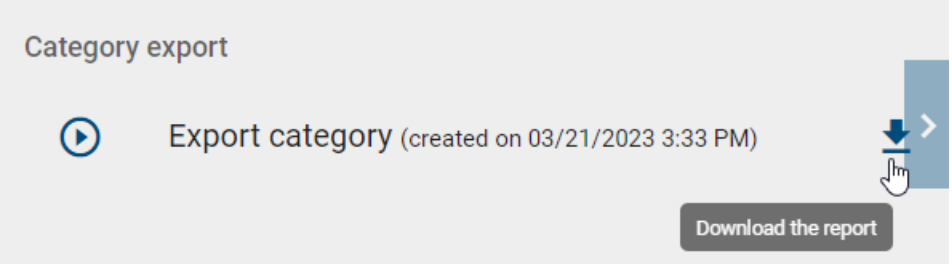
You can also export a diagram category in the *Options* panel. Click on *Reports & Exports* and select the *Create the report* button next to *Export Category*. The notification at the bottom right side of the screen informs you about the start of the export.



When the export is successfully completed, you will receive another message. This notification contains a link, that enables you to download the export.

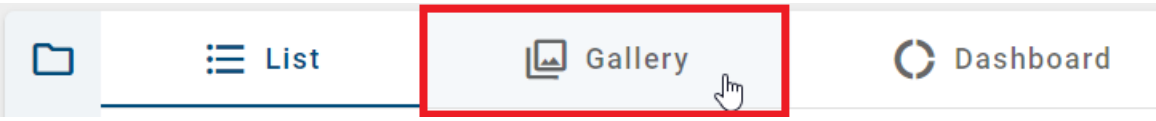


Once the export has been created, you will find a *Download the report* button in the *Reports & Exports* section of the *Options* panel. There, you can download the export.

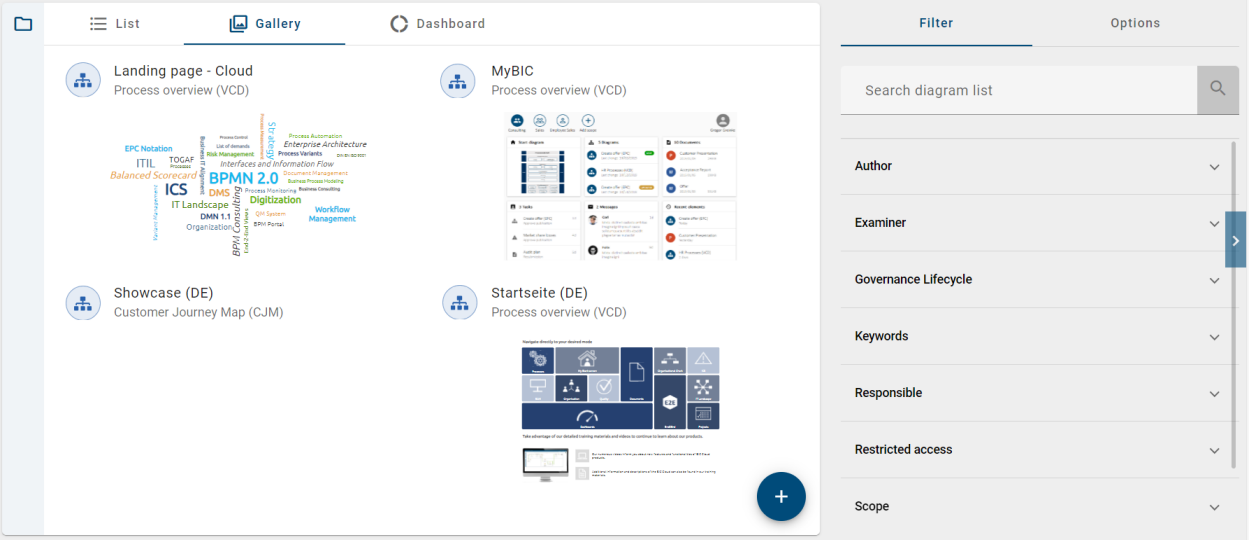


6.7 Gallery

When you open the *Diagrams* section from the menu, you can switch to the *Gallery* in the main area.



In the gallery, you have the option to preview all diagrams from a selected category. Furthermore, the diagram name in the current content language, the diagram type in the current browser language, and a preview image of the diagram are displayed. If the category explorer is open, you can close it to enlarge the diagram preview.



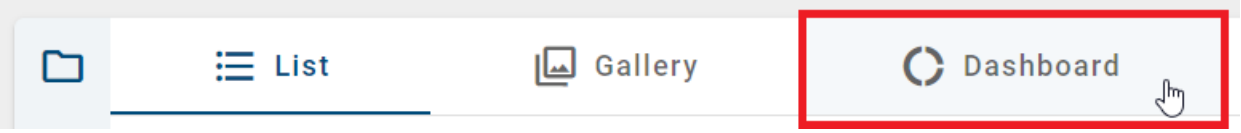
The right sidebar shows the *filter*. If you select one or more facets there, the charts will be updated to count only the diagrams which satisfy the filter criteria.

If you have activated one or more facets in the filter and switch to another view, the filter will remain active, and only the filtered diagrams will be displayed in the list.

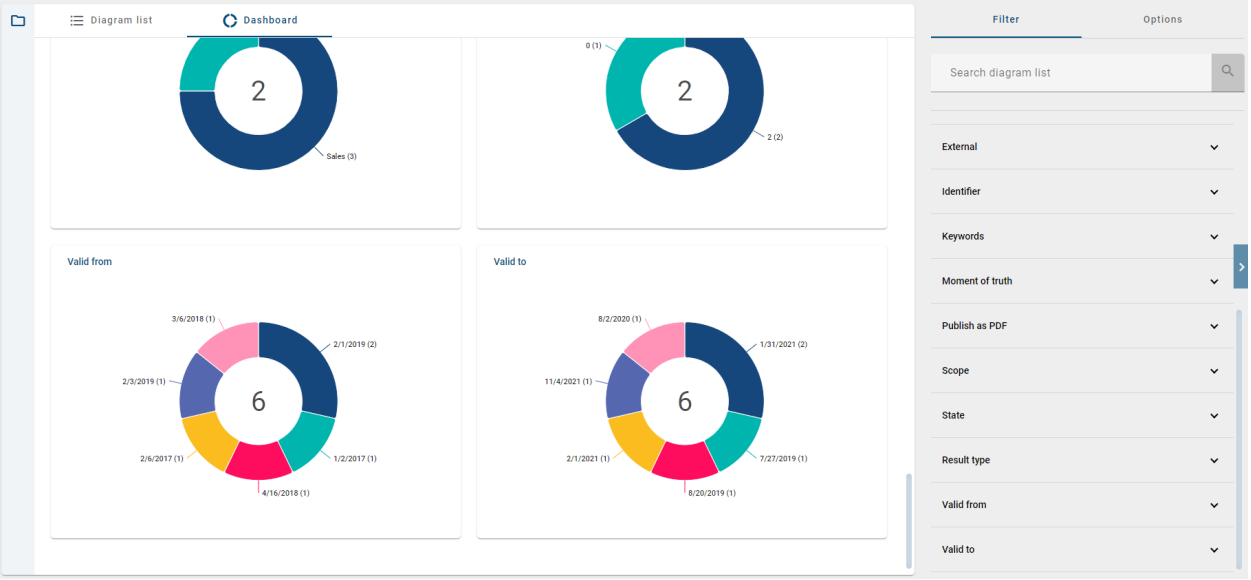
Hint: Please be aware that the options *Import* and *Bulk update* are not available in the *Gallery* view.

6.8 How can I analyze diagram attributes in the dashboard?

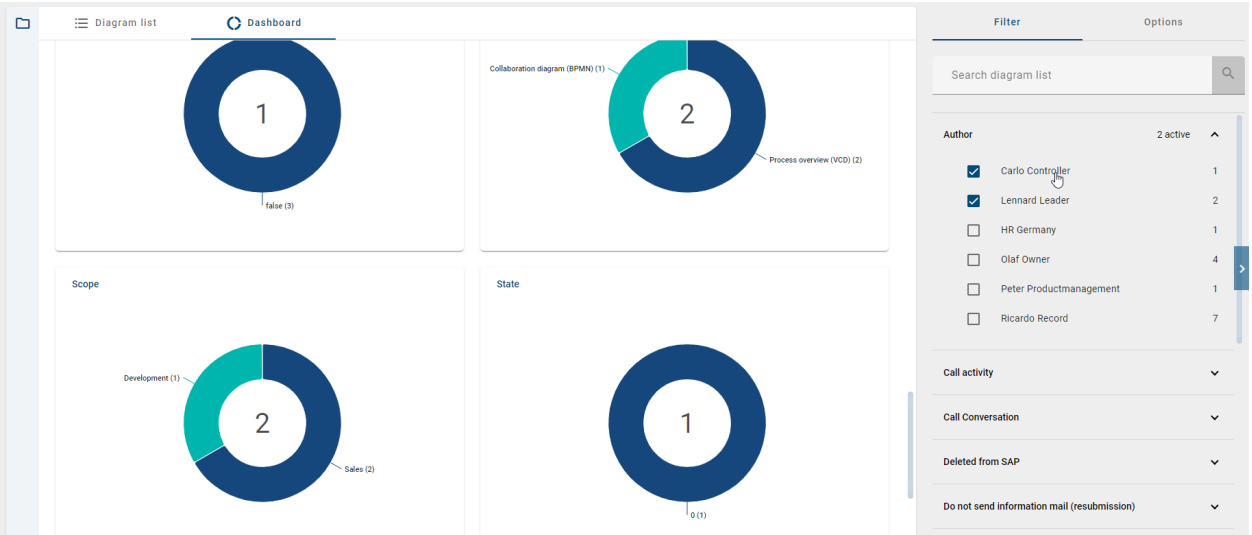
If you open the *Diagrams* section using the menu, you can switch to the *Dashboard* in the main are of your screen.



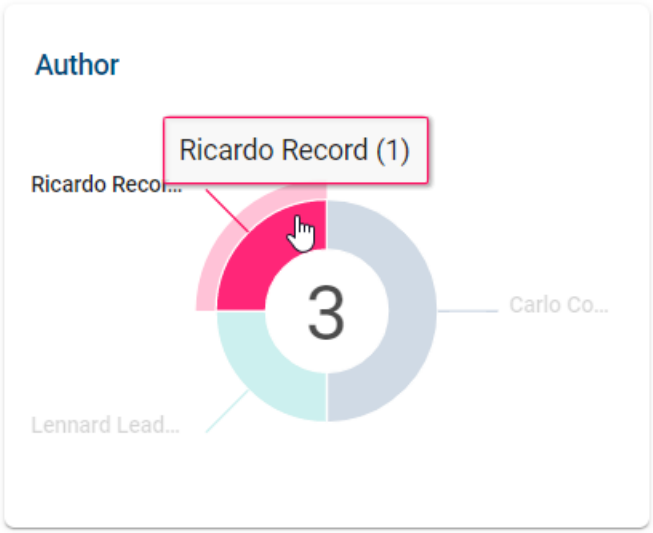
The dashboard view enables you to analyze the diagram attributes of all diagrams contained in your current repository. A donut chart is displayed for each available diagram attribute type. An attribute type is available as soon as it is set visible in the method and is maintained in at least one diagram. The number in the middle of a chart tells you how many different facets of the attribute are currently present in the repository.



The right sidebar shows the *filter*. If you select one or more facets there, the charts will be updated to count only the diagrams which satisfy the filter criteria.



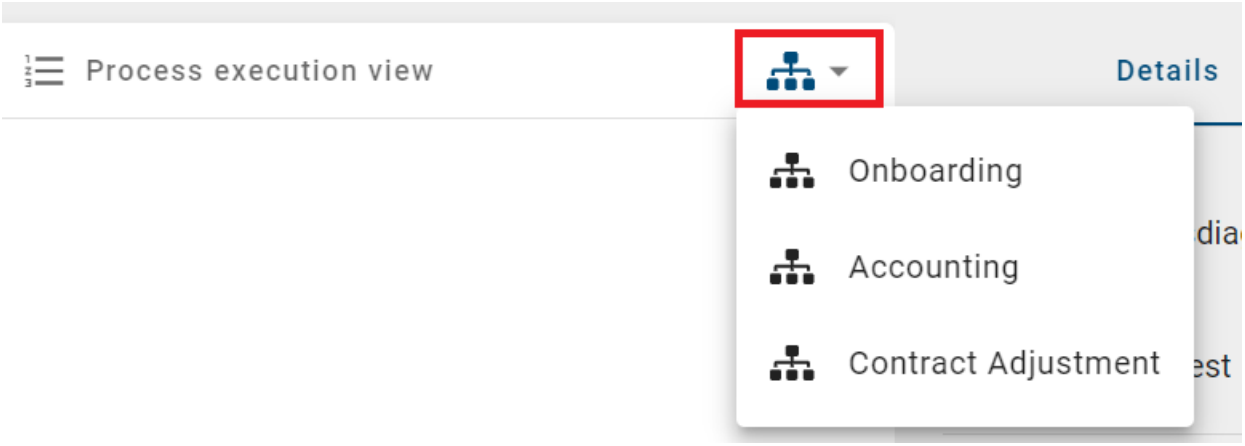
Vice versa, you can select one or more facets of a chart in order to filter for a characteristic.



If you activate one or more facets in the filter and switch to another view, the filter is still active and only the filtered diagrams are listed there.

6.9 How can I return to a recently opened diagram?

If you are in a *diagram view*, you can return to a recently opened diagram by clicking the option located to the right of the process execution view. This option is only available if you have previously opened at least one diagram.



The list of recently opened diagrams is sorted chronologically in descending order and is limited to a maximum of five entries. If you have opened more than five diagrams recently, the oldest entry is removed from the list and the most recently opened diagram is added.

After clicking on a recently opened diagram, you will return to this diagram in the stage you have last opened.

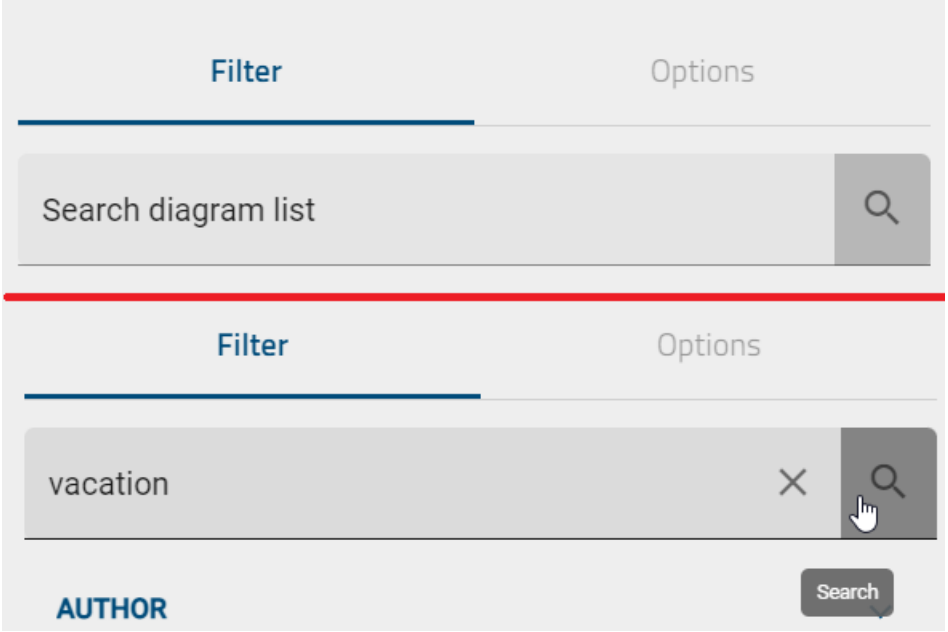
6.10 Search and filter diagrams

6.10.1 How can I search for diagrams?

If you open the *Diagrams* menu item in the left menu bar, all diagrams that are stored in the current repository as a directly parent category are listed in the main area. You have the option to search for diagrams by using the *search function* in the diagram list.

The search compares the term entered with the titles of existing diagrams and displays the corresponding results. The search results may also include access-restricted diagrams that you cannot open.

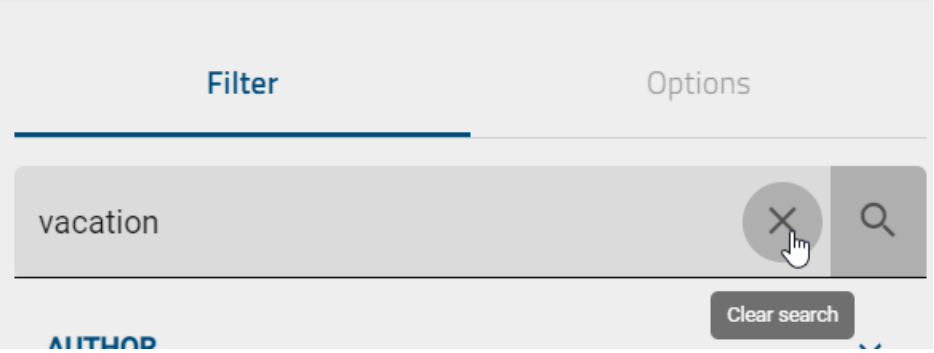
Click on the *Search diagram list* field in the *Filter* panel at the top right. Enter the search term and confirm by pressing the *Enter* key or clicking on the magnifier glass.



All search results containing the entered term will then be displayed in descending order of relevance.

If no matching diagrams are found for your search term, a message will appear in the main area along with the *Toggle language & search again* button. You can use this button to switch to the alternative content language and repeat the search.

To display the entire diagram list again, click *Clear search* next to the magnifying glass icon to reset the list.



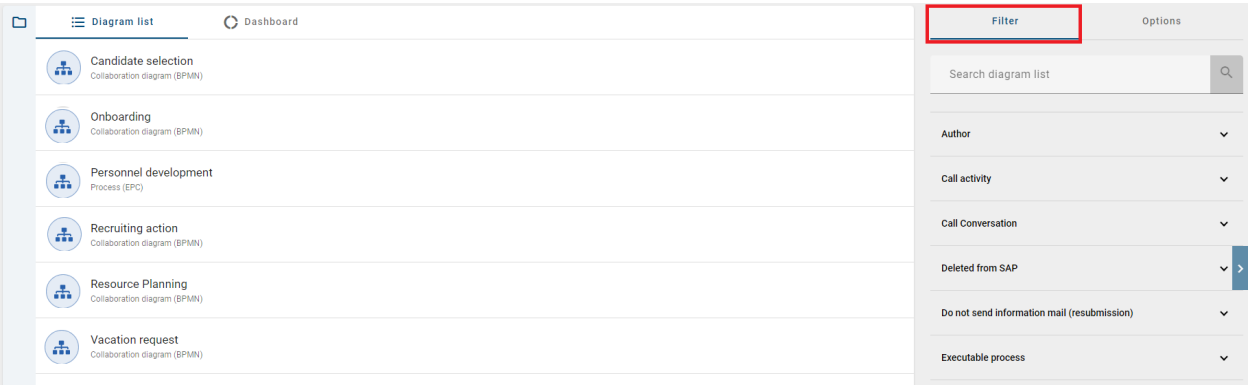
Hint: *Here* you can find an overview of the various options available for search terms.

Warning: Please note that searching for access-restricted diagrams or for catalog items within access-restricted diagrams is only possible for their governance participants. This also applies if you have the *Administrator* user role. Changes to users or user groups in the *Administration* may cause access restrictions to stop working correctly. Therefore, make sure that user and user group information in the administration and the catalog is maintained consistently.

Hint: Please note that even when using additional filters, the search results are still sorted according to their relevance. Only the diagrams that match the selected filter criteria will be displayed.

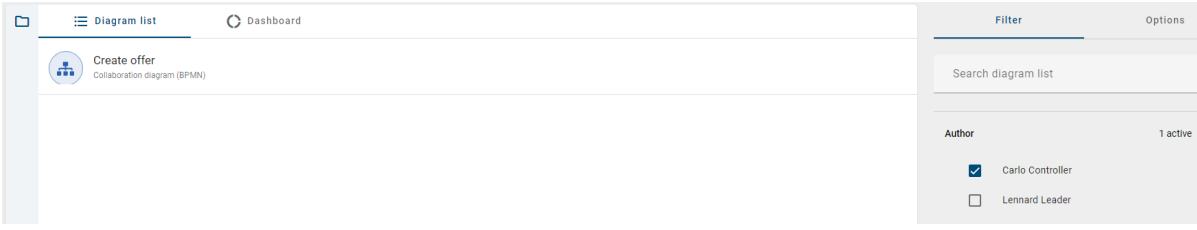
6.10.2 How can I filter the diagrams?

If you open the *Diagrams* menu item in the left menu bar, all diagrams that are stored in the current repository as a directly parent category are listed in the main area. You have the option of filtering the entries both in the *diagram list* and in the *dashboard*. If necessary, switch to the *Filter* panel in the right sidebar.



All attributes that you can filter for in the current repository are listed there. Click on an attribute to open all facets of the respective attribute. Here you can select which facets you want to filter by. You have the option of filtering for several facets at the same time. The diagram list or dashboard is updated immediately and shows the diagrams according to your selection in ascending alphabetical order by name in the current content language. If you have activated one or more facets and switch between the *List* and *Dashboard* view, the filter remains active and only the filtered diagrams are displayed in the other view.

Filtered diagram list:



Filtered dashboard:

If you remove all filters or click on the entry *diagram* again all diagrams will be displayed in the list resp. dashboard again.

Tip: If you have user rights *Reviewer* or higher, you can use the additional filter facet *diagram views*.

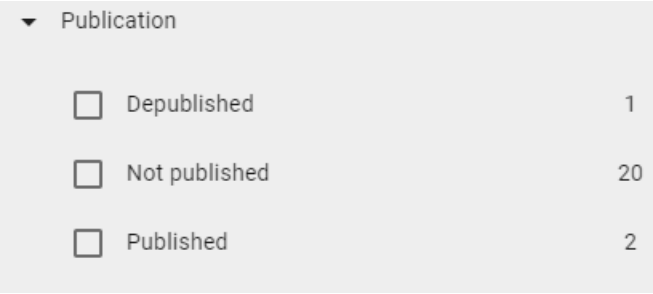
6.10.3 How can I filter diagrams by their current state?

With the *Governance Lifecycle* filter, you can filter diagrams according to their currently active workflow, their publication or their revision. This gives you a better overview of the status of the diagrams.

If you want to apply this filter, you must be in the *Public workspace*. In the *Filter* tab, you can open the *Governance Lifecycle* filter.

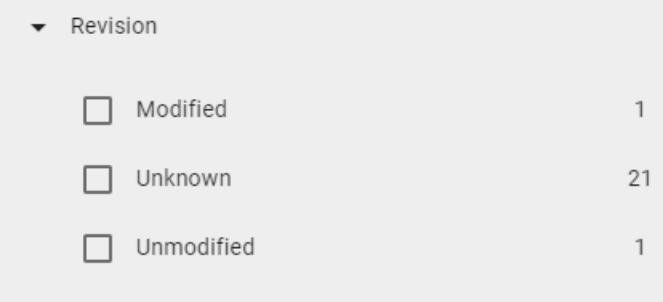
Publication

If you open the *Published* subfilter and at least one diagram has been published, you can filter for the corresponding diagrams by clicking on *Depublished*, *Not published* or *Published*.



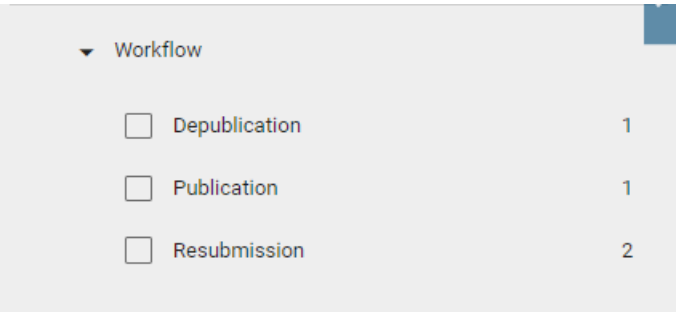
Revision

If the *Revision* subfilter is expanded and at least one diagram has a revision status, you can select a specific revision status as a filter. You can filter diagrams according to the following revision statuses: *Modified*, *Unmodified* and *Unknown*. Changes to a diagram cannot be displayed until it has been republished. Until then, it has the revision status *Unknown*.



Workflow

If you have expanded the *Governance Lifecycle* filter, you also have the option of opening the *Workflow* subfilter. Here you can then filter whether a workflow is active for the diagram. A distinction is made between *Depublication*, *Publication* and *Resubmission*.



You will then see a filtered list and a number of all diagrams that are in the corresponding area.

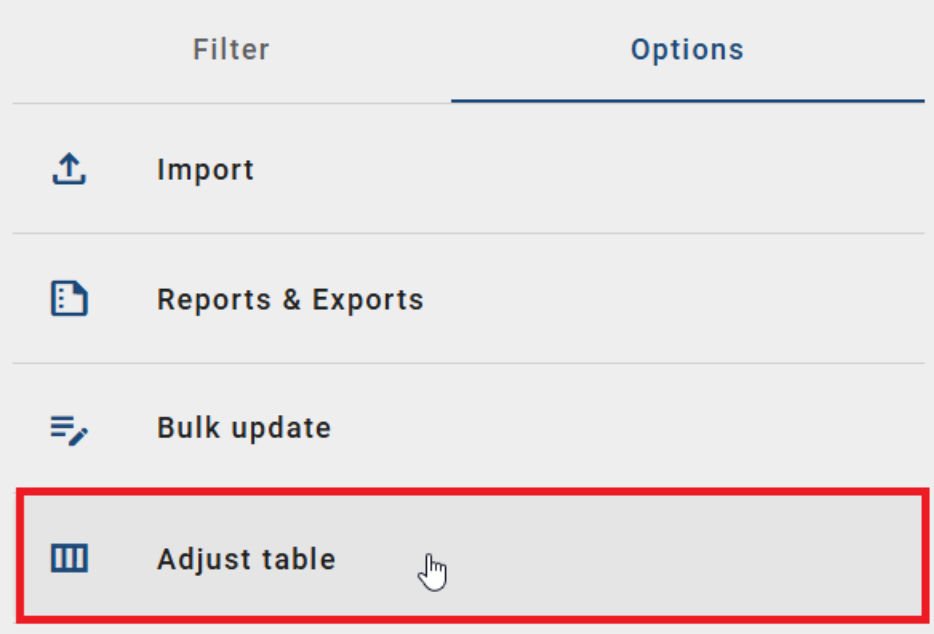
Hint: The *Governance Lifecycle* filter is available from version 7.14.0. To display all published diagrams in the filter, you must check the diagrams out and back in at least once.

Note: All filtered results are sorted alphabetically by browser language.

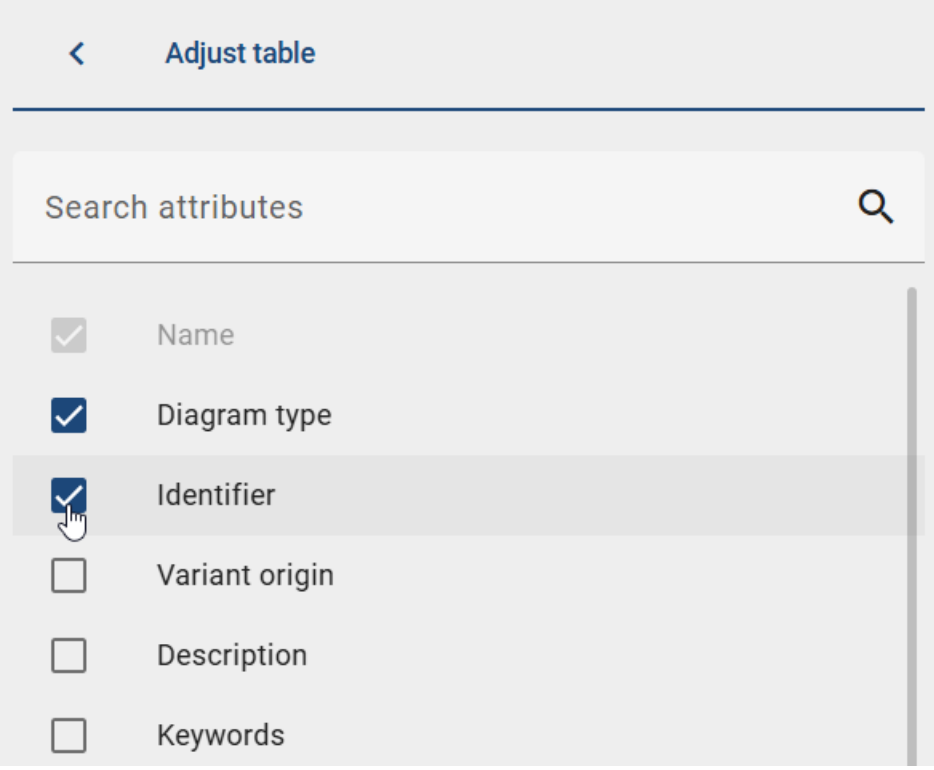
Hint: The *Governance Lifecycle* filter is also available to filter *catalog items* by their *Workflow*, their *Publication* or their *Revision*.

6.10.4 How can I add attributes to the diagram list view and get a table view?

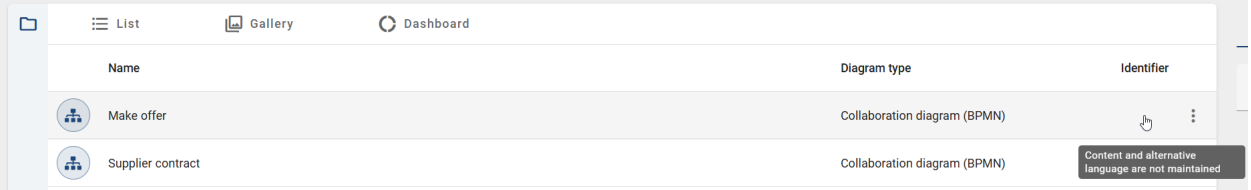
Each user has the ability to add attributes to the diagram list view to create a table view. To do this, navigate to the *Diagrams* menu item in the left menu bar and, if necessary, switch to the *Options* panel in the right sidebar. There, you will find the *Adjust table* option.



After clicking this option, a list of all available attributes sorted by attribute type will appear, which you can add to the diagram list view. A selected attribute will be marked with a checkmark. If you cannot immediately find a specific attribute, you can use the search bar to look for it. The search is not case-sensitive.



Once you have selected at least one attribute, it will immediately appear as a new column heading in the diagram list view in your active browser language. The content for each diagram will be displayed in the active content language. If an attribute value is only available in the alternative language while your content language is active, the content from the alternative language will be shown. If the attribute value is not available in any language, the content for the corresponding diagram will remain empty. Alternatively, the content will be empty if the attribute type is not assigned to this diagram type. To find out the exact reason for the empty content, hover your mouse over the empty entry.

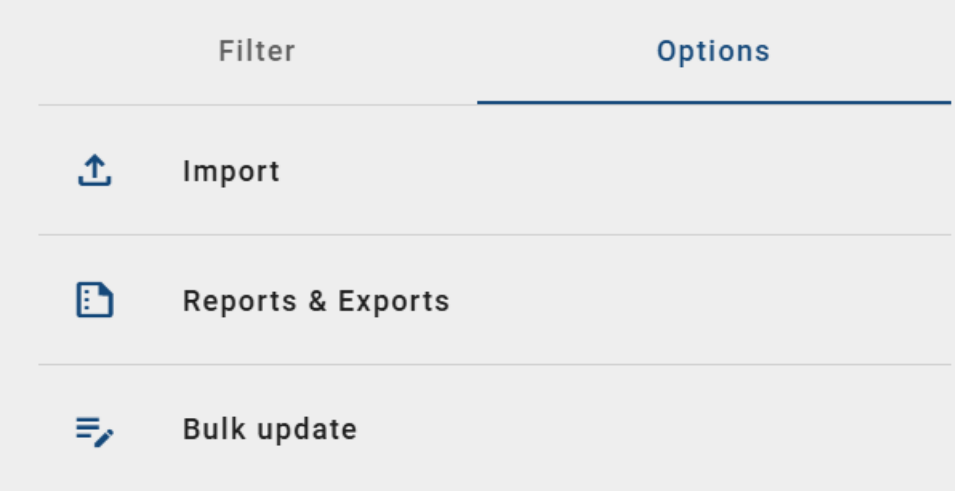


If the number of attributes displayed exceeds the capacity of the desktop view, a horizontal scrollbar will appear, allowing you to scroll through the various attributes. Your customized table view is saved and will be shown the next time you access the diagram list. You can modify the display of attribute values at any time.

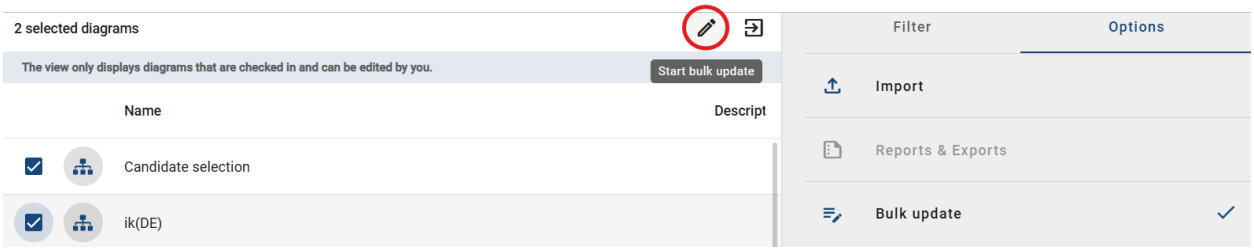
Note: The *Name* attribute is always displayed and cannot be changed.

6.11 Bulk Update

If you want to update the same type of attributes in multiple diagrams as an administrator or editor, you can do so using the *Bulk Update* feature. To do this as an editor, navigate to the *Options* of the diagram view while being in the *Public Workspace*. Alternatively, as an administrator, select any stage and select *Bulk Update*.



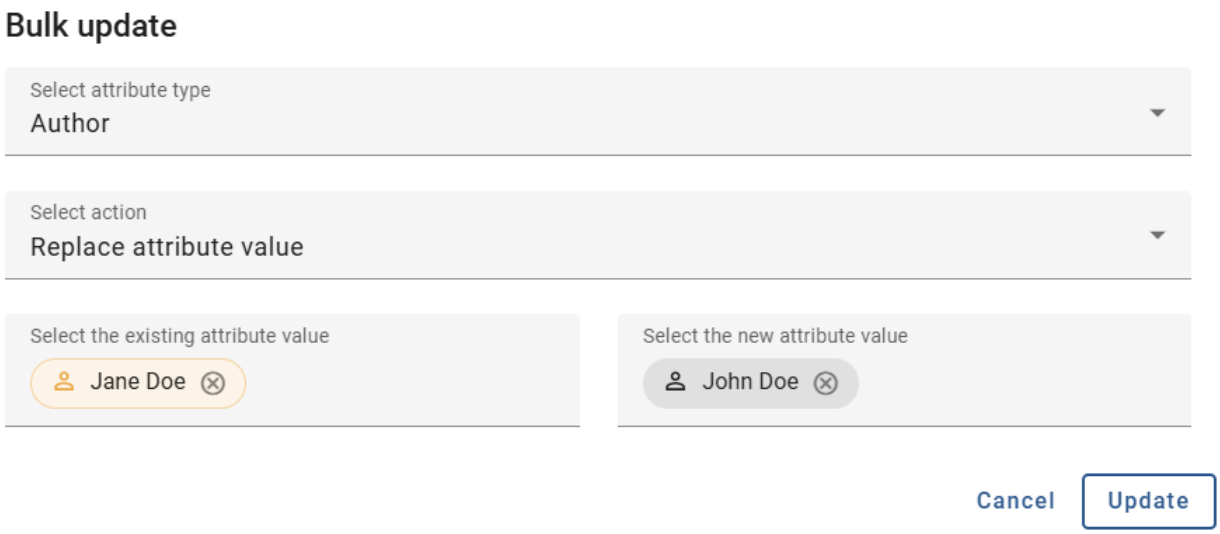
Subsequently, you will enter the Bulk Update mode for the respective category in which you are currently located. All (filtered) diagrams within the category will be displayed to you in a list view. Select the diagrams you want to edit, and click on *Start bulk update*.



This will open a dialog where you first need to choose the attribute type you want to edit. Once you have selected an attribute type, you can specify whether the attribute value should be *replaced*, *removed*, or *added*. Depending on the selected action, one or more input fields for the attribute value will appear. You can make an entry here, and the matches for the selected attribute type will appear in your current stage and be selectable.

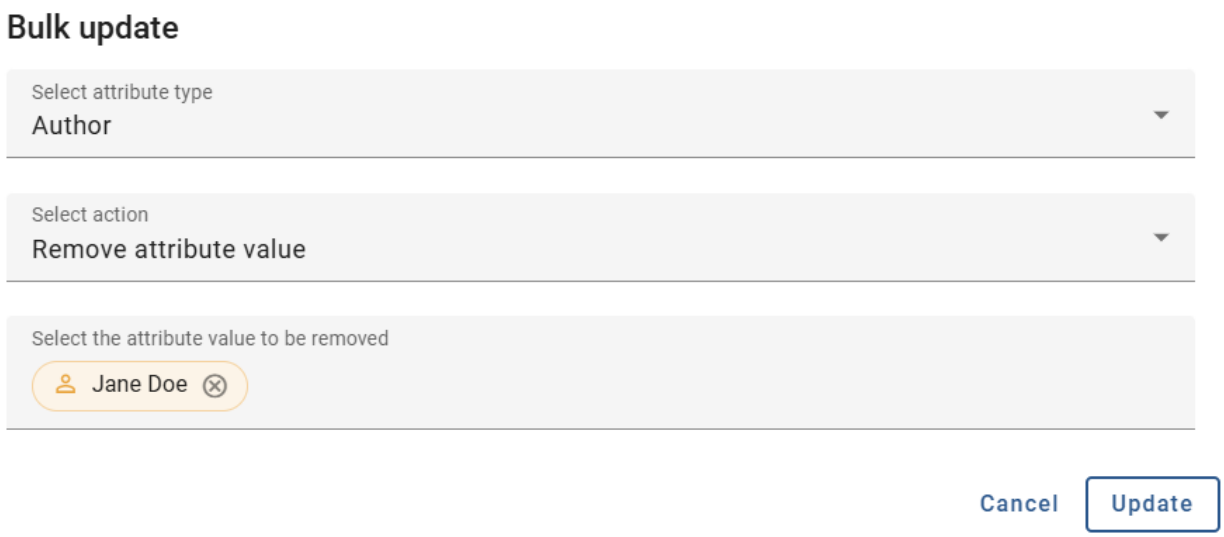
Replace an attribute value:

If you want to replace the attribute value, enter the existing and new attribute value to replace the existing one.



Remove attribute value:

If you want to remove the attribute value, specify the attribute value you want to remove.



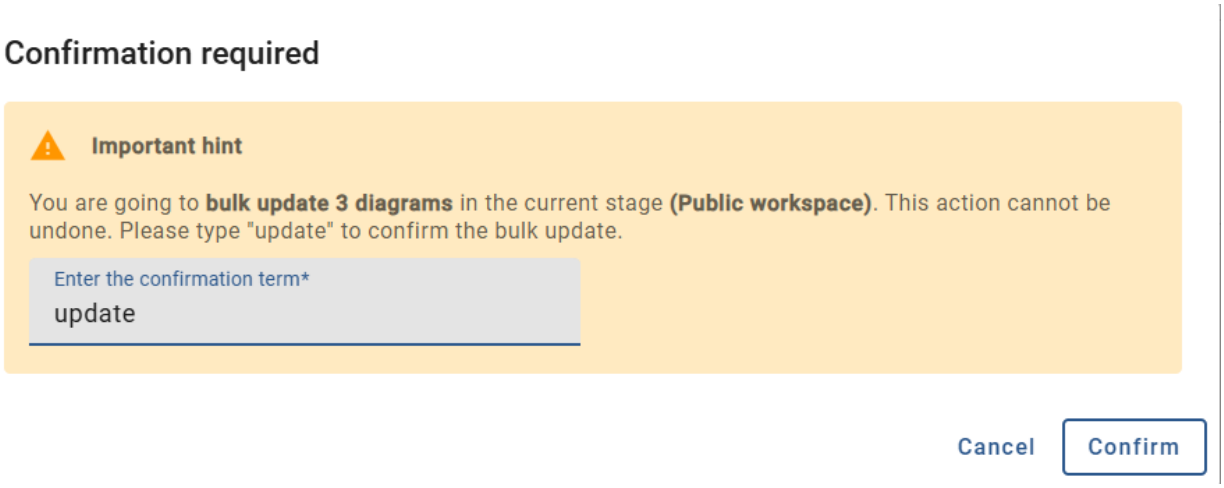
Add attribute value:

If you have selected a multi-value attribute and open the action menu, specify the attribute value you want to add.

Hint: Please note that if you add another attribute to a single value attribute type even though a value already exists, the affected diagram will be skipped during *Updating*. After the *Update*, you can download a JSON file from the bottom right corner of the screen. In the downloaded JSON file, the affected diagram appears under *Diagrams not updated*, including the corresponding diagram ID, the name in the content language you selected, and the specified reason.

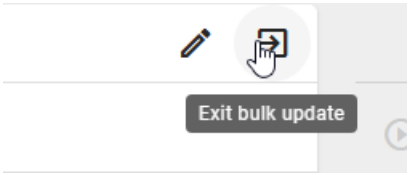
Click on *Update* to apply the changes, or on *Cancel* to discard any changes.

Once you click on *Update*, a confirmation window will appear. Here, you must enter the word *update* to confirm the bulk update.



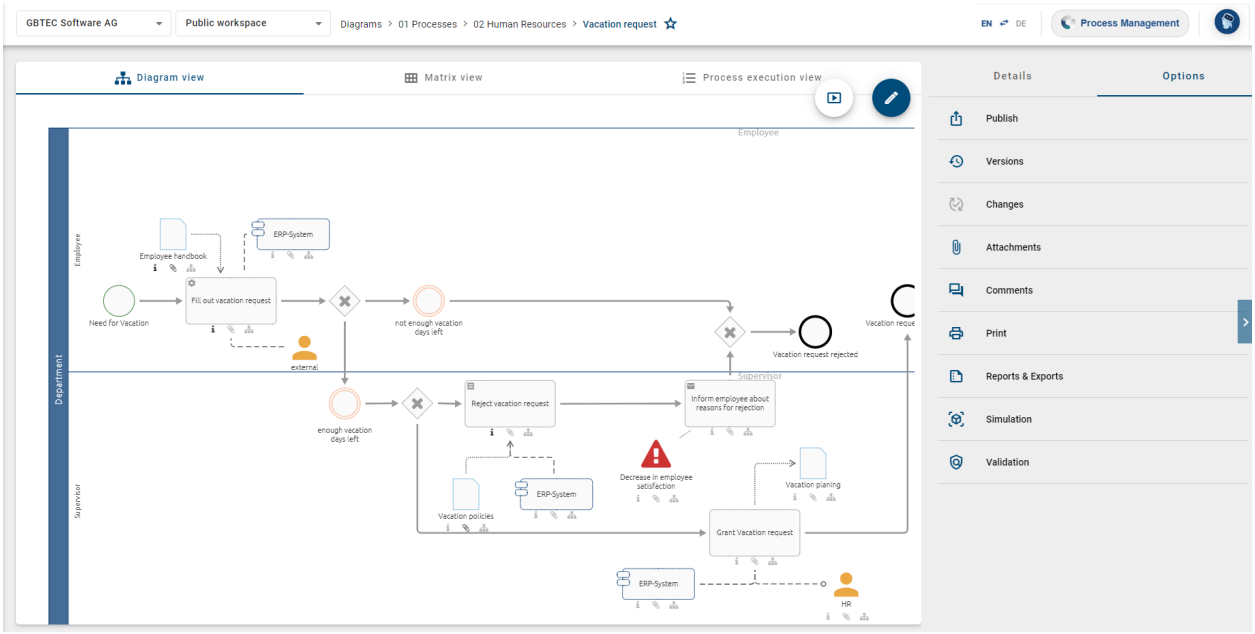
After successfully updating the corresponding attribute values in the selected diagrams, a success message will be displayed. The change workflow will be listed for diagrams in the *Preview* and *Publication* in the Governance Cockpit with the specified reason. If the update is unsuccessful, an error message will be shown.

If you want to exit the bulk update, click the *Exit bulk update* button.



6.12 Which alternative views on diagrams are available?

When you open a diagram, you first go to the diagram view. Here the diagram name is always displayed in the headline and the diagram version of the current stage is presented.



In addition to the diagram view, you can view the matrix (1) and the process execution (2) here for the diagram types *"Collaboration diagram (BPMN)"* und "Process (EPC)". The matrix is also available for the "Process overview (VCD)". All these alternative diagram views refer to the same diagram version. Depending on the current view of the diagram, you have different options, which you can find in the sidebar on the right.

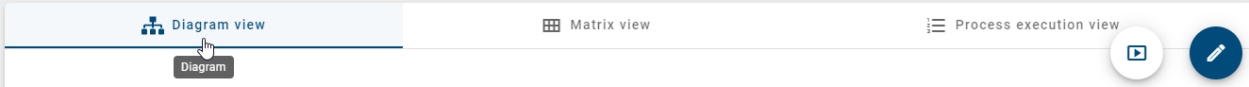
The different diagram views and their options are explained in more detail in the following chapters.

6.13 Diagram view

6.13.1 How do I get to the diagram view?

This view is initially set if you have opened a diagram and presents the diagram version of the selected stage. The graphical representation of the diagram is always svg-based.

If the diagram view is not opened, you can display it by clicking on *Diagram view*.



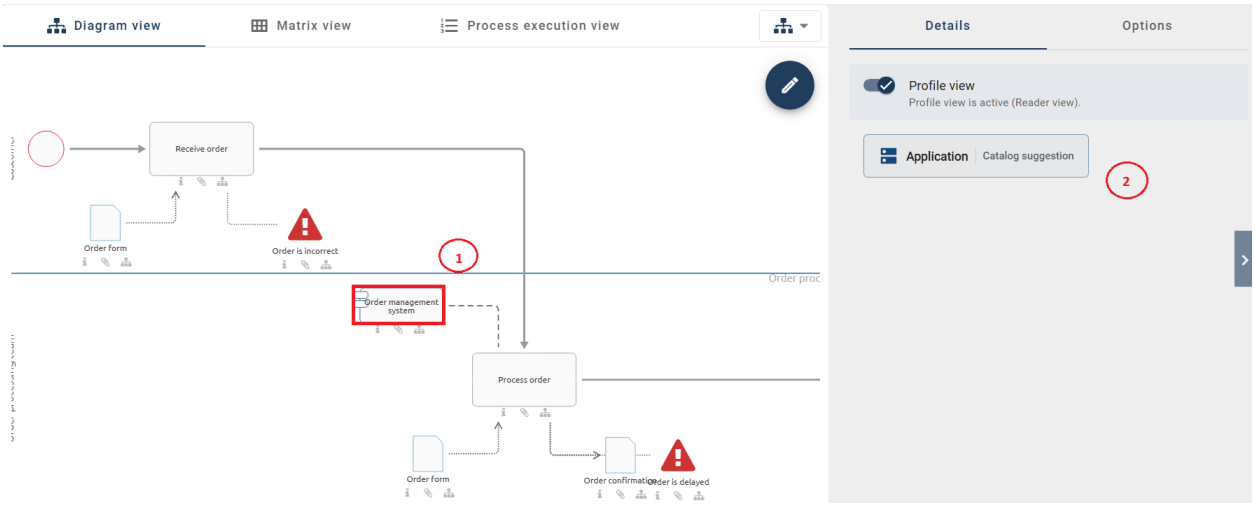
Note: The graphical diagram view offers you an easy handling over the left mouse button, known from Google Maps.

6.13.2 How can I view the details in the diagram view?

In the diagram view, you will see the *Details* of the diagram in the right sidebar by default. If these are not open, open the right sidebar if necessary and switch to the *Details*. Here you can choose between *Profile* and *Attributes*. By default, the *Attributes* view is open when you open the *Details* tab. However, you can activate the *Details* view by clicking on the slider.

- *Profile:*

The profile view shows information set by the *Administrator* for an object. First select an object from your diagram to display *Profile* panel in the right sidebar. All user roles have access to *Profile*.



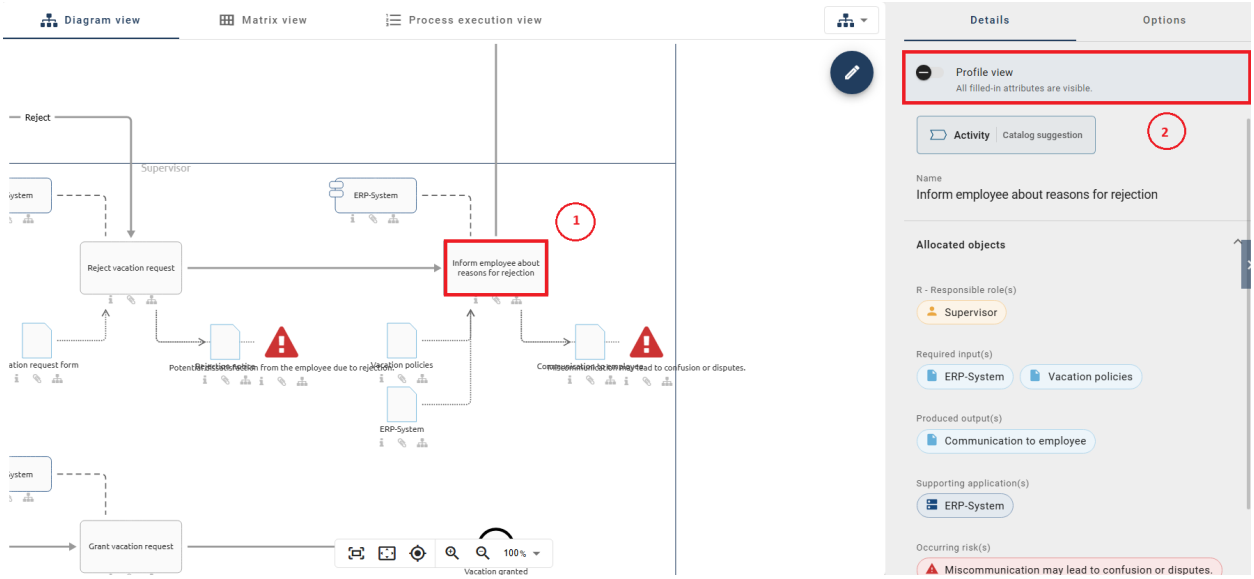
To *configure the profile*, you must navigate with the user role *Administrator* in the left menu bar to the *Administration* menu item and then to the tile *Details*. After you have clicked on the tile, switch to *Object types*. Select any object

type and expand its details by clicking on it. Then activate the *Display profile view* slider. All activated *Object types* are now added to *Profile* in the diagram view.

- *Attributes:*

The *Attributes* view displays all attributes of a selected object or diagram. All user roles, except the *Reader*, can access the *Attributes* tab.

If you want to view the attributes of an object, first select the object from your diagram to display the *Attributes* panel in the right sidebar. To view all the completed Attributes of the diagram, simply click on the *Attributes* panel without selecting any object first.



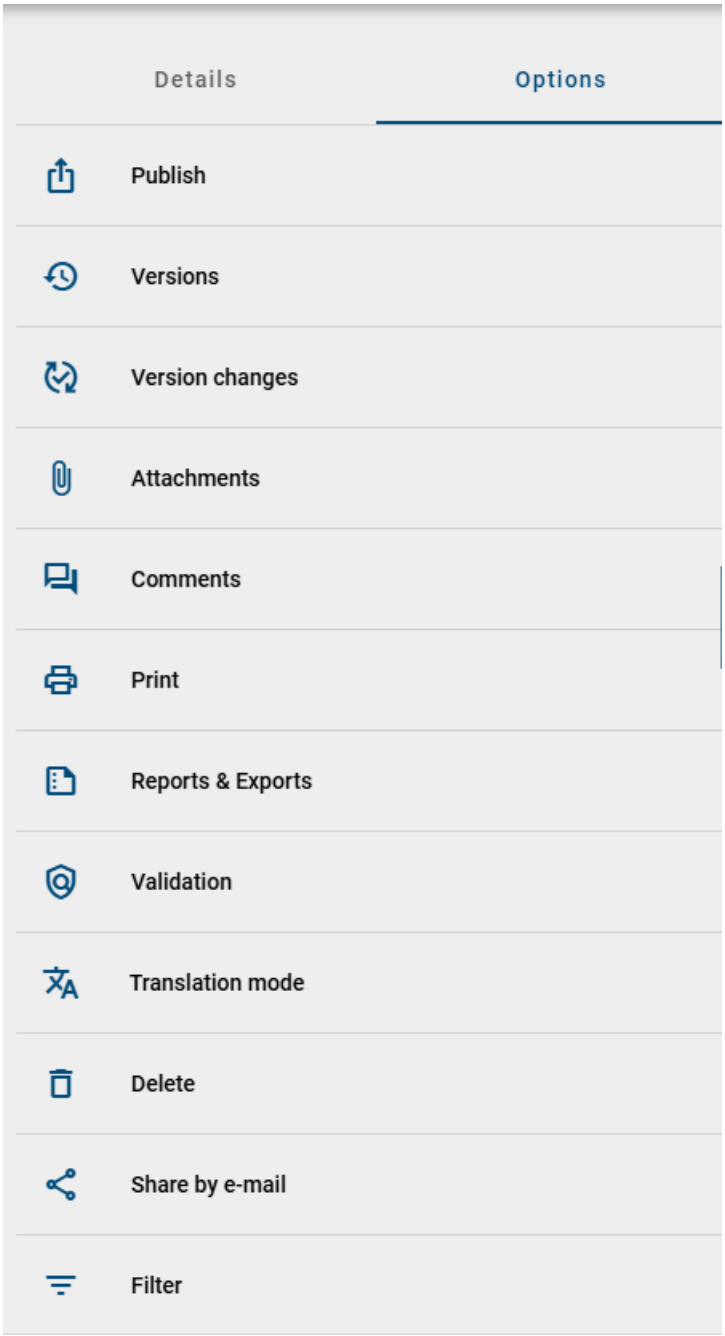
You can find an explanation of which contents are displayed to you as details in the *corresponding chapter*.

Hint: If you have opened the *Atrribute* tab, this view will be saved and displayed again the next time you log in.

Note: If the profile view is deactivated in *Administration*, all users will only be able to see the attribute view in the diagram details. If the profile view is activated in *Administration* but no profile has been configured, users with the *Reader* role will not have access to the *Details*.

6.13.3 Which options do I have in the diagram view?

To display the options of the diagram view, click on *Options* in the right hub.



The following options are now available for diagrams or symbols and the corresponding chapters are linked for further explanation:

- *Publish the diagram*
- *Occurrences* (only for symbols)
- *Versions*
- *Changes*

- *Attachments*
- *Comments*
- *Print*
- *Reports & Exports*
- *Simulation* (optional)
- *Translate*
- *Delete*
- *Filter*

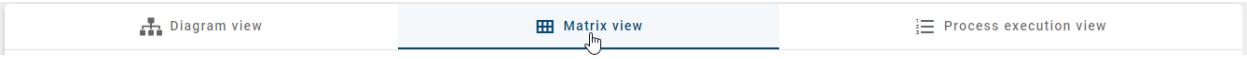
Once you have opened one of these options, you can use the *back* arrow in the sidebar to navigate back to the main options menu.

Tip: If a symbol has an attachment, you can also display it by double-clicking on the symbol.

6.14 Matrix

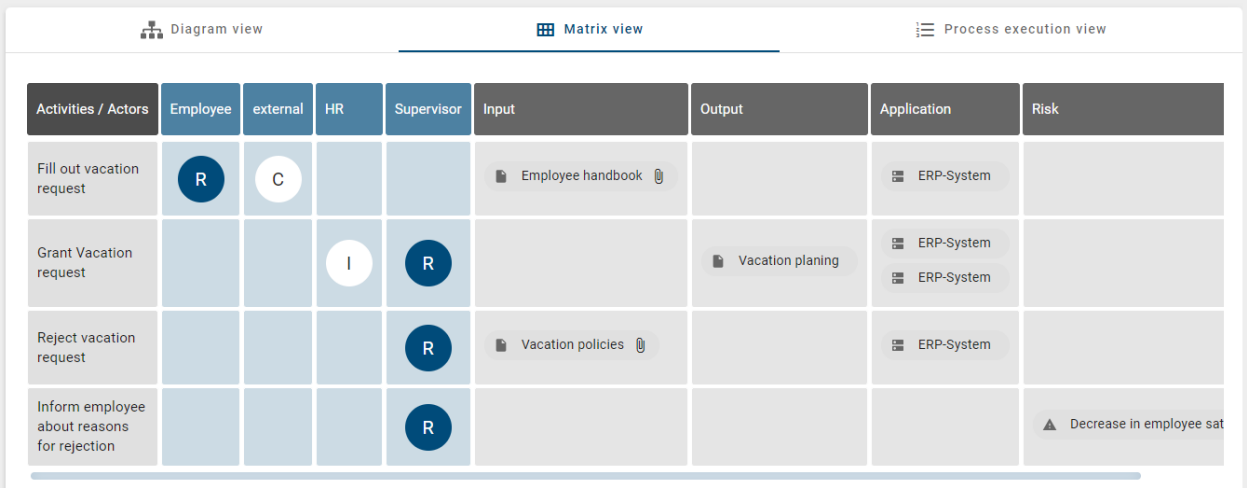
6.14.1 How do I get to the matrix?

You only have the option to display the matrix, if you have opened a VCD, EPC or BPMN diagram in the repository. Then click the *Matrix view* button.



Depending on the process flow (BPMN and EPC), or depending on the location on the diagram (VCD), the matrix displays all the activities of a diagram in rows. All actors, such as roles and responsible applications (e.g. pools), form the columns in alphabetical order. In the matrix cells, the association type between the activity and the resource is displayed (R-Responsible, I-Informed, C-Consulted, A-Accountable). The following columns are about inputs, outputs, applications and risks of the diagram. The objects associated with an activity are then listed alphabetically as chips in the corresponding field. If an attachment exists for an object, the chip contains a paper clip symbol. By clicking on this paper clip, attachments can be accessed directly. See the *profile* for a more detailed description.

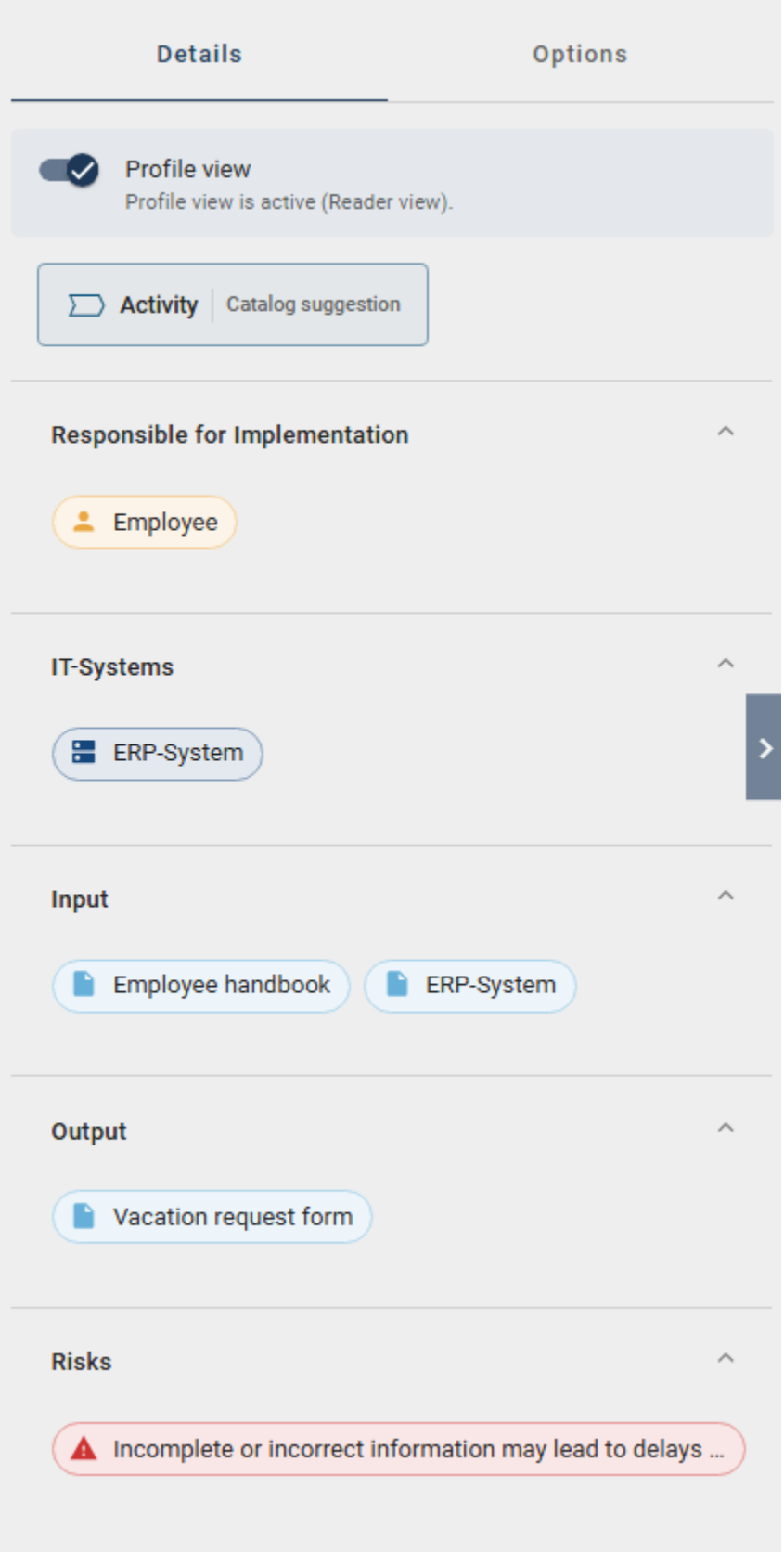
You also have the option of viewing all modeled relationships between a role and an activity in the matrix view. If the same role has several relationships to an activity, all of these relationships are displayed in the matrix view.



Note: The matrix is not available in the mobile view.

6.14.2 How can I view the details in the matrix?

In the matrix, the hub on the right shows the *Details* of the diagram by default. If they are not displayed, open the right sidebar if necessary and switch to the details.



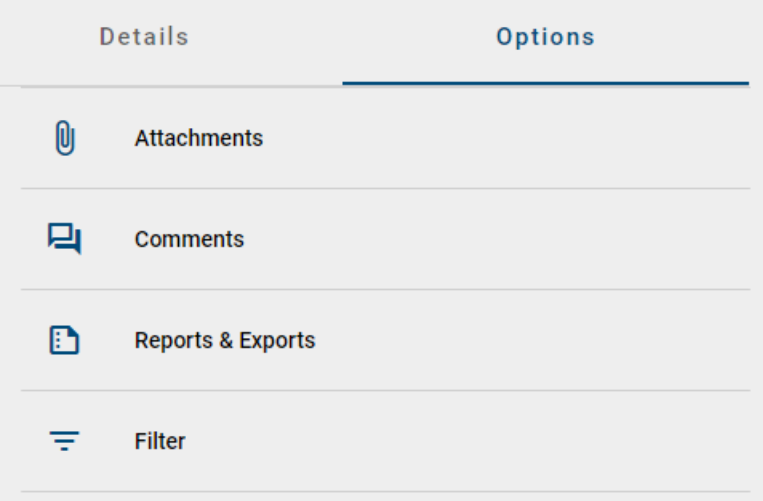
By clicking on activities or chips of the matrix, the associated details are automatically displayed in the options. Here

you can choose between *Profile* view and the *Attributes* view. This selection can be deselected in the desktop version by clicking again, so that you now see the details of the diagram.

You can find an explanation of which contents are displayed to you as details in the *corresponding chapter*.

6.14.3 Which options do I have for the matrix?

To display the options of the matrix, click on *Options* in the right hub.



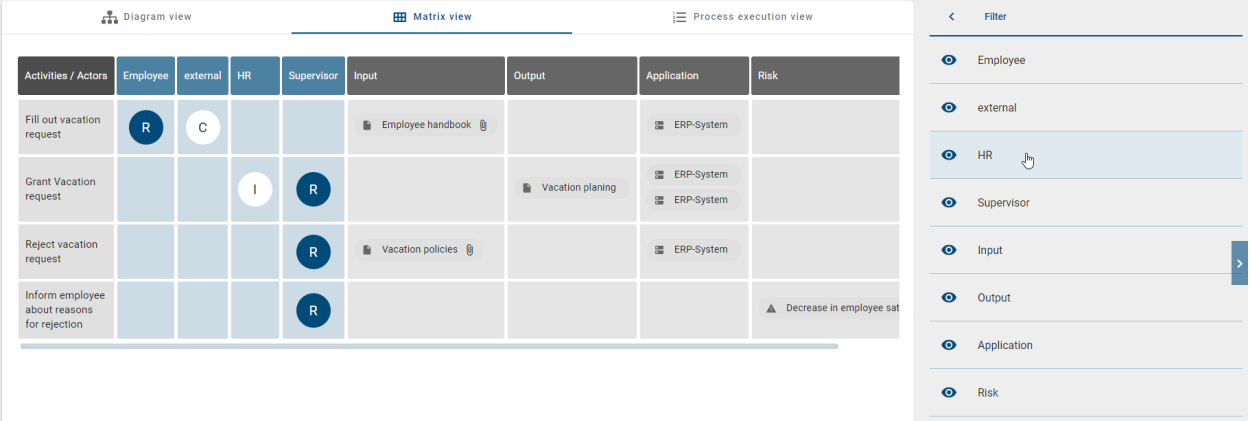
The following options are now available and the corresponding chapters are linked for further explanation:

- *Attachments*
- *Comments*
- *Reports & Exports*
- *Filter*

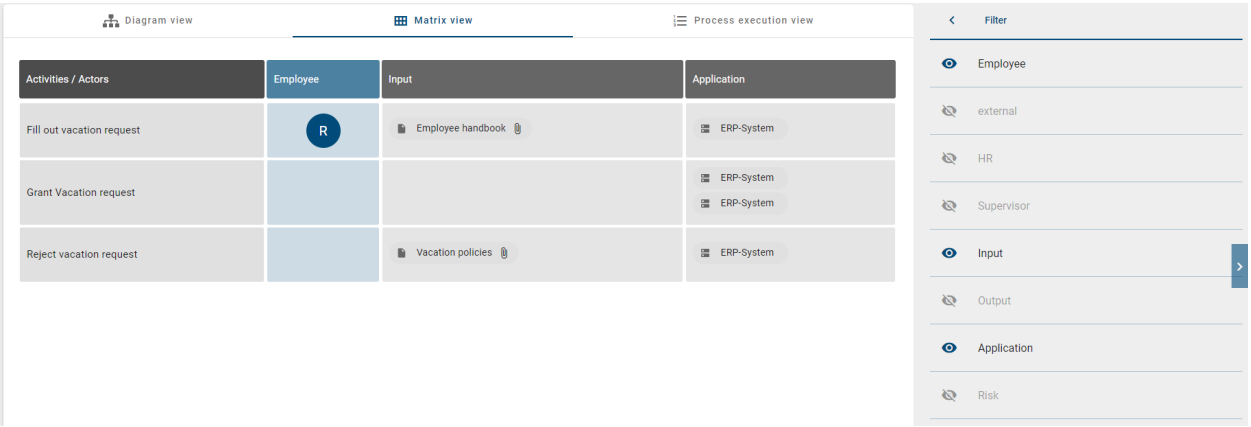
Once you have opened one of these options, you can use the *back* arrow to navigate back to the main options menu.

6.14.4 How do I filter the matrix?

Looking at your diagram in the matrix view you can use the *filter* option. If you click on *filter*, the column headers of the matrix are shown as filtering options. An eye icon on the left side of a column header displays its visibility. Every column is visible initially.



You can deselect a column of your matrix by clicking on the corresponding header. The column is not visible anymore and the header as well as the now crossed out eye icon are greyed out.

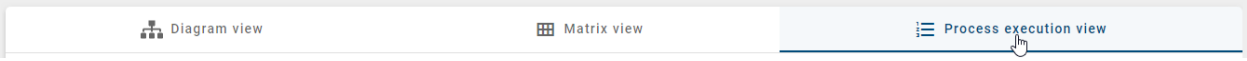


Another click on the column header enables the visibility again. If you navigate back to the main options menu using the *back* arrow, the filter is reset. All columns are displayed again.

6.15 Process execution

6.15.1 How do I get to the process execution?

You only have the option to display the process execution view, if you have opened an EPC or BPMN diagram in the repository. Then click the *Process Execution* button.



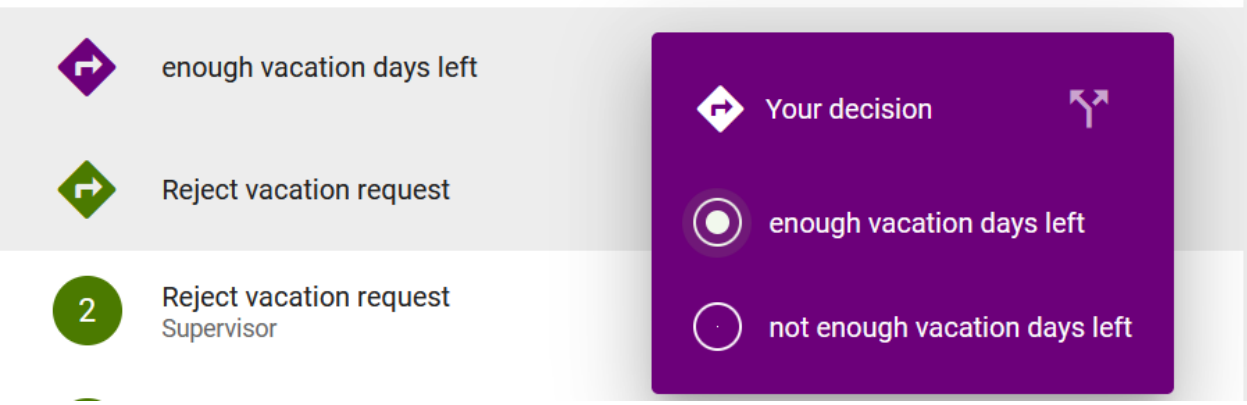
Based on your modeling in the Diagram view, you can now see the process execution in the middle of your screen. The activities, decisions and related events are listed here.

The activities represent the individual tasks in the process. Below each activity name, the responsible resource is displayed if it has been modeled in the diagram. When you select an activity, you can use the *options to display the details* and thus obtain more information about the task.

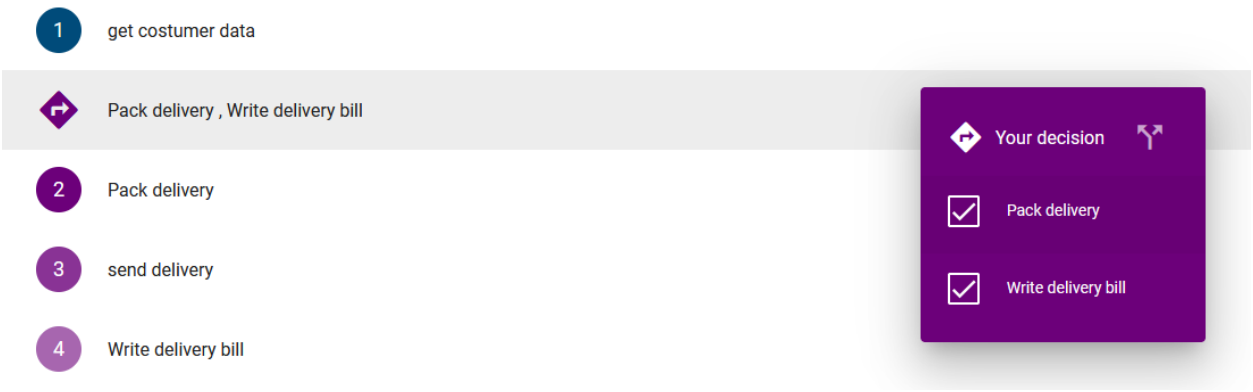
The process flow means the sequence of activities and is initially determined by the software for the user. The decisions corresponding to the gateways in the diagram are made based on the probability of the process flow. The most probable process flow is automatically displayed. You can maintain the *Probability* for each activity in its *attributes*. If no probability has been maintained, the position of the node is decisive instead. Loops are not considered for automatic decisions. Overall, only the sequence flow forms the basis for the path.

The process flow is thus divided by the decisions into segments or sections, in which successive activities are placed. The activities are consecutively numbered starting with 1. The segments displayed depend on the decisions made. Each segment has its own background color for the activity numbers. The respective segment can also be identified by its heading, which includes the name of the gateway and the sequence of the selected path in the process. If a gateway was not named there, only the name of the sequence is displayed. If the sequence also has no name, you will see the name of the subsequent activity at this point. In front of the heading, the route icon belonging to the segment will always be shown. On the right of the headline you will see the *Change decision* button with which you can decide on your own and thus influence the following tasks. This is how a gateway can be noticed in the process flow, whereby a distinction is made between the following gateways:

- *Exclusive or:* By clicking on *Change decision*, a menu shows you all possible decisions. Here you can only select one alternative, which adjusts the list of subsequent activities. The section of an "Or" decision ends with the last activity before the next gateway or the end of the process. The background color of the numbering does not change within this segment.

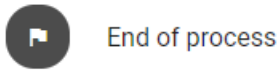


- *Inclusive or:* In this case, one possible path of the process is initially listed. By clicking on *Change decision* you can select another path or several paths at the same time. A path then corresponds to a subsegment. Within this segment, the numbering of each subsegment has the same background color in different transparency levels.
- *Parallel:* In the case of an "And" gateway, all parallel paths of the process are listed one below the other, since all paths are executed. One path corresponds to one subsegment. Within this segment, the numbers of each subsegment have the same background color in different levels of transparency. Nevertheless, a decision can be made here by clicking on *Change decision* to highlight individual segments.



Note: Multiple starting points for the path are also displayed as an exclusive gateway above all activities.

Overall, the numbering is continuous across all segments and subsegments. The end of the process flow is marked by the corresponding event and by a flag instead of a number. If there is no end event but an activity at the end of the process, the end is inserted virtually and named accordingly, as shown below.

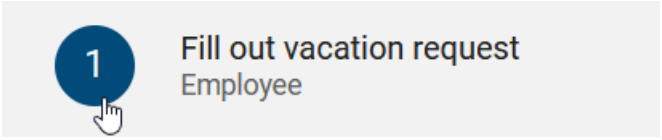


Further options to work with the process execution are described in the *following chapter*.

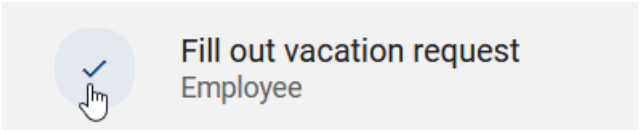
6.15.2 How can I perform process execution tasks?

To obtain an overview of the progress of a running process instance, you can mark the individual activities as completed in the process execution. This is only visible to you.

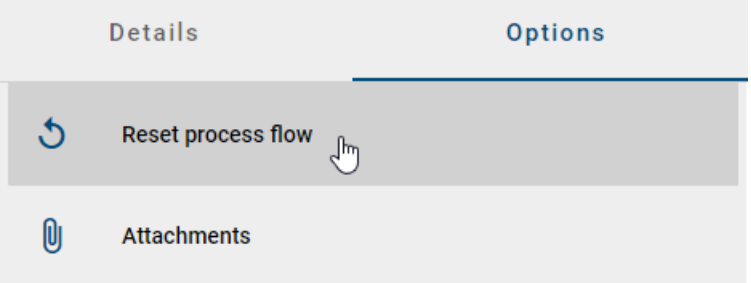
Navigate to the *Process execution* of the desired BPMN or EPC diagram. There you can see the activities to be executed and make decisions at gateways. For a detailed description please refer to the *associated chapter*.



If you have completed a task, you can mark it by clicking on the number in the corresponding activity. There you will then see a check mark for the status “Done”.



The tasks can be marked as completed in any order. To reset the status of the tasks, for example, after a complete run of the process, *navigate to the Options* and choose *Reset process flow*.

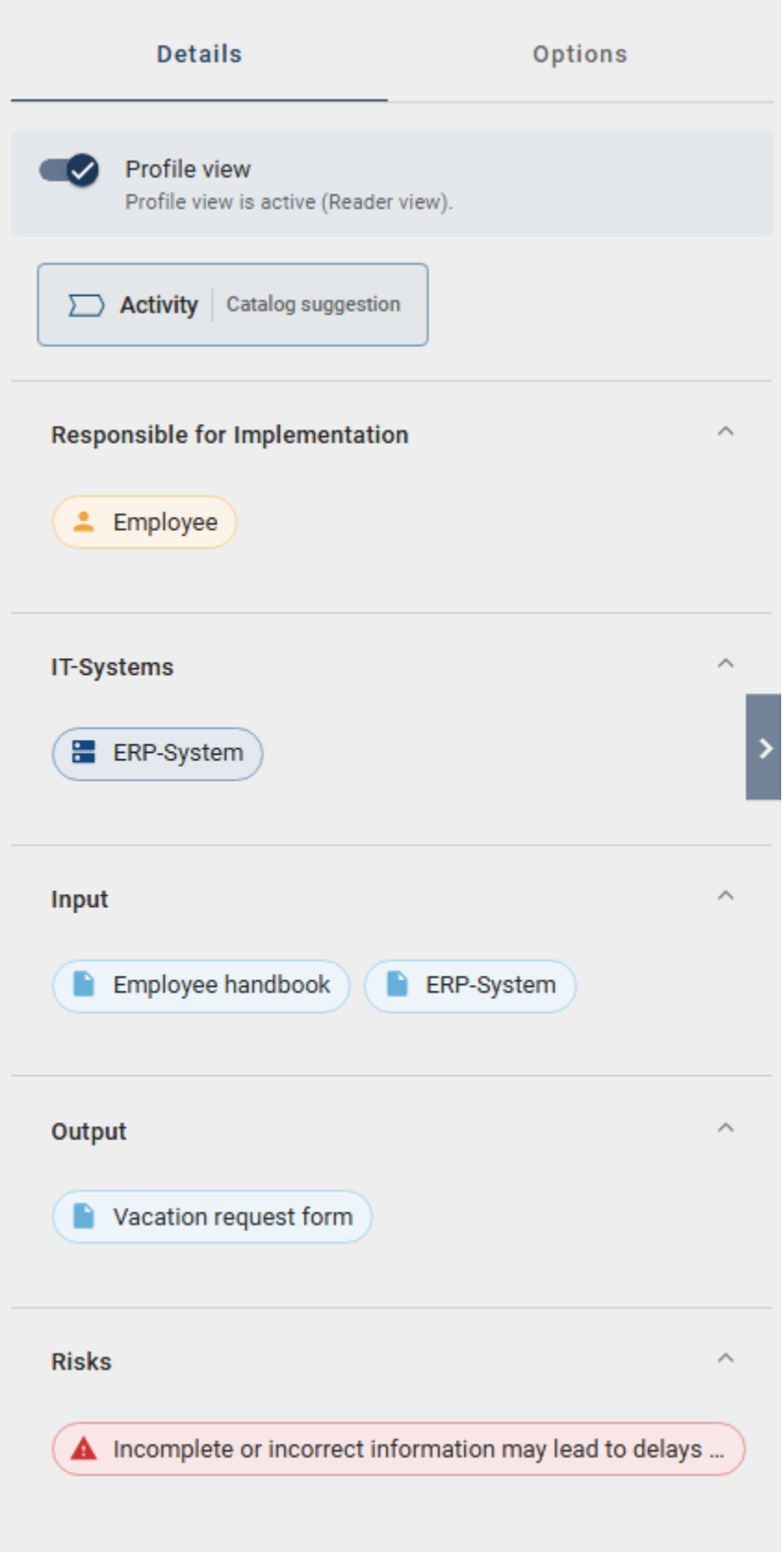


In addition, when a decision is changed in the process, the status of all subsequent and possibly already completed tasks is reset.

Tip: For an optimal work with process execution and extensive functionalities in dealing with process instances we refer to our product BIC Process Execution!

6.15.3 How can I display the details in the process execution?

In the matrix, the hub on the right shows the *Details* of the diagram by default. If they are not displayed, open the right sidebar if necessary and switch to the *Details*.



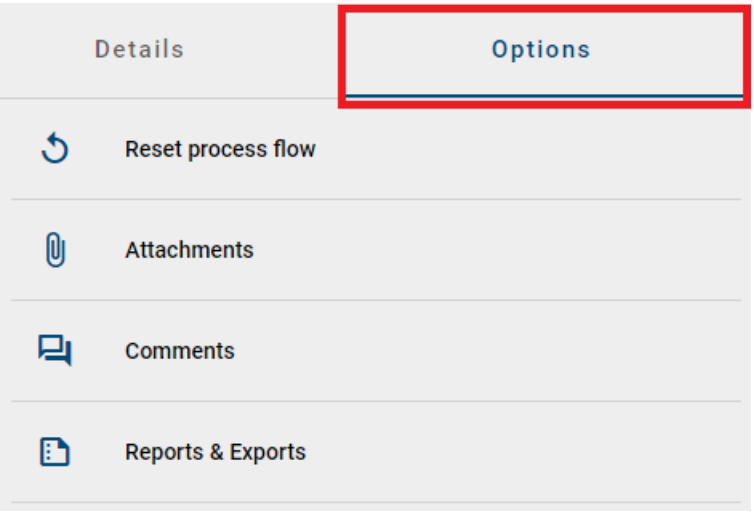
When you select a task in the process execution, the details associated with the task are displayed. Here you can

choose between *Profile+ and *Attributes*.

You can find an explanation of which contents are displayed to you as *Details* in the corresponding chapter.

6.15.4 What options do I have for the process execution?

To display the process execution options, open the right sidebar if necessary and click on the *Options* button.



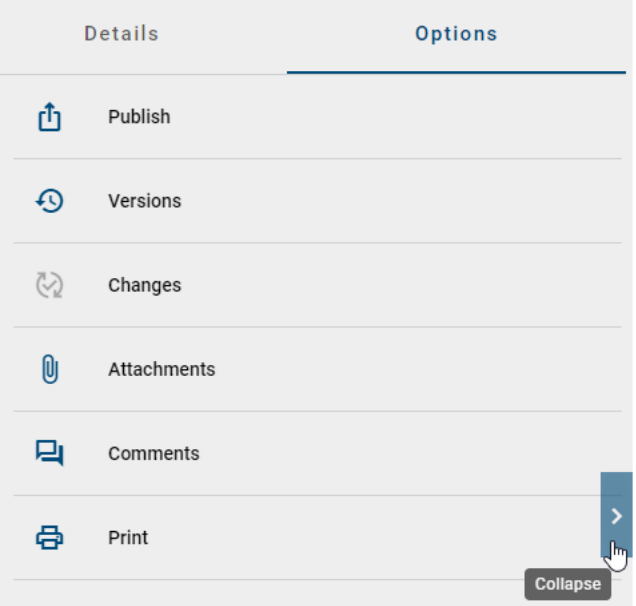
The following options are now available and the corresponding chapters are linked for further explanation:

- Reset process: As a result, the status of completed tasks is “Open” again and decisions made are reset to the default setting.
- *Attachments*
- *Comments*
- *Reports & Exports*

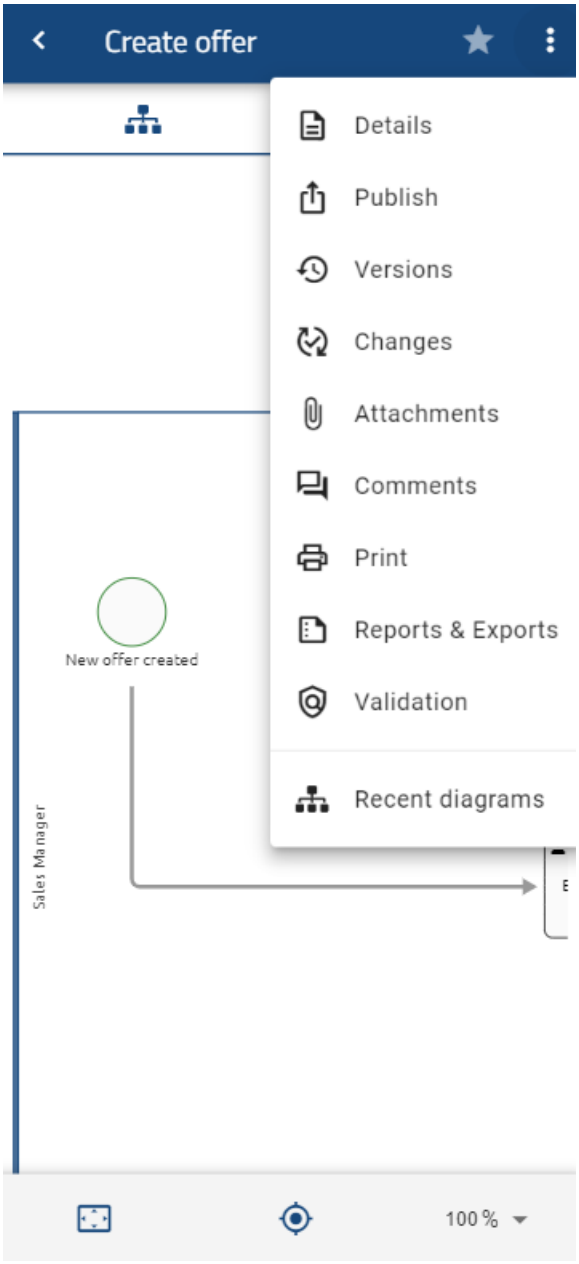
Once you have opened one of these options, you can use the *back* arrow to navigate back to the main options menu.

6.16 Options in a diagram

When you open a diagram, more *Options* are displayed by default in the hub on the right. A selected view in this bar remains in the desktop version after reloading. You can also *Collapse* and again *Expand* the sidebar. To do this, click on the button having the same name in the desktop version, which is located in the middle of the right edge of the screen. This setting is stored in your account, which means the hub will always remain closed or opened until you change it manually. This applies to any view changes, such as diagram switching or switching to *Matrix* or *Process Execution*.



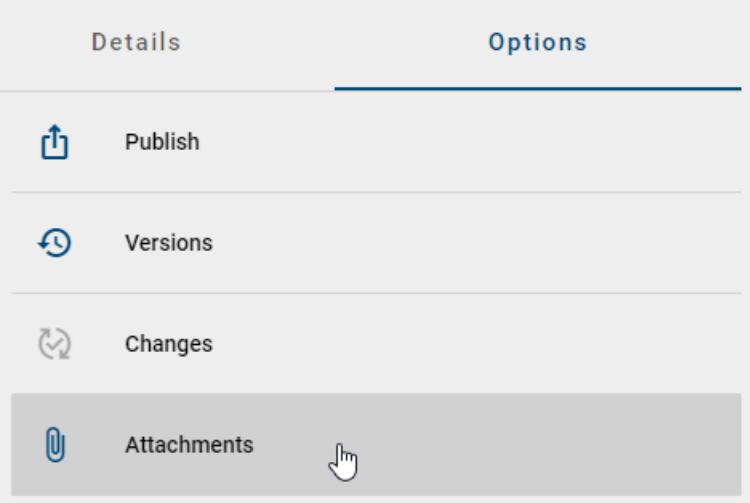
Instead, in mobile view, you will find a 3-dot context menu in the top right corner of the screen to display the options. After clicking on an option, it will be displayed full-screen on the screen. To return to the diagram, click the *X* icon in the top left corner.



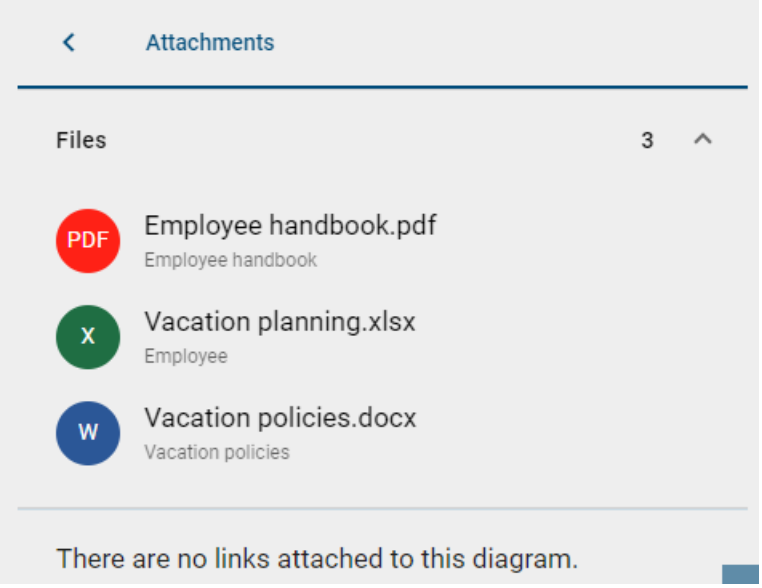
The options depend on the current view of the diagram. To find out which options are available in your open view and where you can see them, navigate to the corresponding chapter for the *diagram view*, *matrix* or *process execution*.

6.16.1 What is displayed in the diagram as attachments?

You have already navigated to the *Options* of a diagram in the hub on the right. There you can open the *Attachments*.



The attachments are divided into two different sections: Files and links. Both sections can be expanded and collapsed. In addition, the number of attachments listed is shown in the section header on the right.



The **Files** list all files added to the diagram alphabetically, using the diagram or object attribute named *Attachment (URL)*. For each list entry, you will see the title, if this has been assigned, or the name of the file instead. Below the title, the associated object in the diagram or the diagram itself, if the attachment is part of the diagram attributes, is named. For each entry you will also see a chip, which either displays the default file icon or highlights special file types, such as pdf and office files, for easier differentiation. With a click on a list entry you can download the corresponding file directly.

The **Links** list all URLs added to the diagram alphabetically via the diagram or object attribute named *Attachment (URL)*. For each list entry, the title of the attachment, if this has been assigned, or the URL is displayed here. The URL is also displayed below. With a click on a list entry the URL is opened automatically.

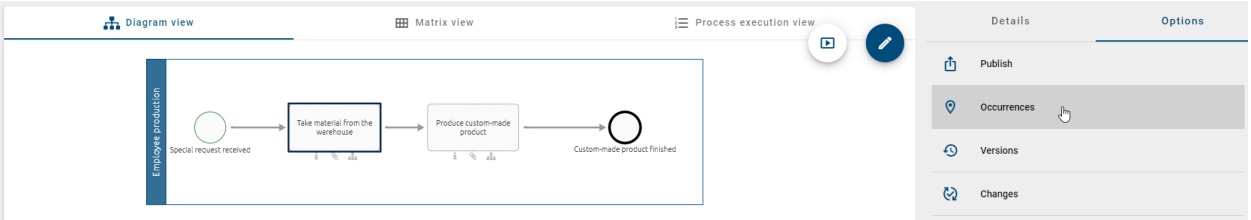
Attachments can also be displayed or accessed via chips in the *profile* or in the *matrix* view.

Hint: Please note that the *Attachment (URL)* attribute can be restricted by an individual method configuration. In this case, it is only possible to store links or URLs, while other file types cannot be maintained.

6.16.2 How can I view the occurrences of symbols in checked in diagrams?

If you have opened a checked in diagram and want to display the occurrences of a symbol, proceed as follows.

First select the desired symbol in the main area. Then, in the right sidebar, select the entry *Occurrences*.



A list will be displayed within the right sidebar, which contains an entry for every use of the given object.

By clicking on a list entry, you can then navigate to another diagram in which the object is reused, or display the occurrences in the current diagram.

Note: If you have purchased and activated BIC EAM, context diagrams can also be referenced. Depending on whether the context diagram was created in the catalog or modeled, you will be redirected to the corresponding catalog or diagram view.

Tip: You can also access occurrences of symbols in checked out diagrams. You can find more information towards this *here*.

6.16.3 How can I get a full list of occurrences in the diagram options?

Panel for new occurrences

When you open the occurrences view of a diagram, a list of one or more panels appear displaying the connections of the selected entity to other catalog or diagram entities. Each list entry includes numbers representing the count of sub-entries.

Panel for occurrences in catalog items

When the selected entity is assigned to another catalog entry, a sub-entry with the name of the respective catalog entry is displayed as the title. The subtitle contains the name of the associated attribute type, while the icon identifies the entity type.

Panel for occurrences in diagrams

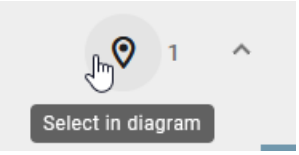
When the selected entity is used in another diagram as a diagram attribute, a subordinate list entry appears with the name of the relevant diagram as the title. The subtitle displays the associated attribute type name, and the icon represents the general diagram icon.

If the selected entity has an association with another entity in this diagram, a subordinate list entry appears with the name of the relevant entity as the title. The subtitle indicates the name of the associated entity type, and the icon displays an abbreviation of the association type.

If the selected entity is used in this diagram but has no association with another entity, a subordinate list entry appears with the entity's name as the title. The icon displays a generic symbol to indicate that there is no association with another entity.

6.16.4 How can I highlight an object with a comment to indicate its position in the diagram?

When you open the comment panel of a diagram, and there is at least one comment for an object, you can view all comments made for that object under its name. In this context, you have the option to highlight the corresponding object with the selected comment directly in the diagram.



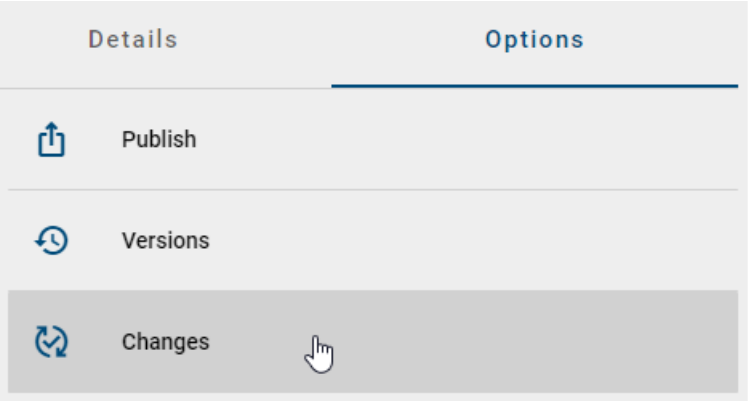
The object with the selected comment will then be highlighted in the diagram view.

Note: Please note that the selection of an object with its corresponding comment will be removed once you leave the comment panel, close the comment field of the selected object, choose another comment of an object, or the last comment of an object is deleted.

6.16.5 How can I track the changes in a diagram?

In the diagram view, you can display the changes in the diagram compared to its *other versions*. In the public workspace, this option gives you an insight on the changes that have been made in the diagram by the other modelers. If you view the changes of a diagram in preview or publication stage, you will notice what has been changed in the latest releases of the diagram.

To view the changes, switch to the *Options* panel in the right sidebar and select the entry *Changes*. There exists no previous versions of the diagram, if this entry is deactivated.



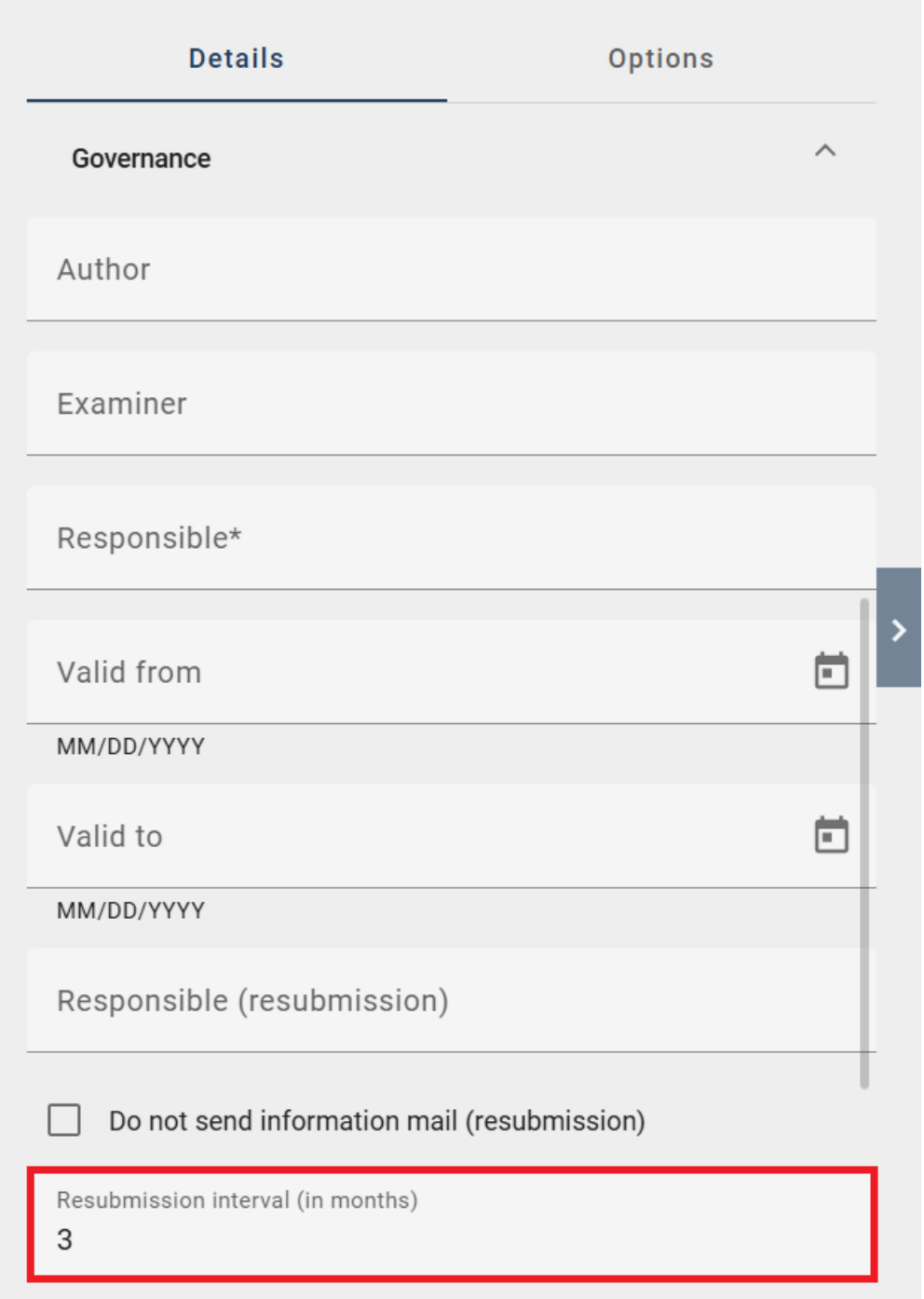
For a detailed insight of changes in a diagram, you can go to the chapter *Model comparison*.

6.16.6 How can I adjust the resubmission interval for a diagram?

Users with at least the *Author* user role who are entered in the *Author* attribute of a diagram and work in the *Public Workspace* can adjust the resubmission interval of a diagram within a checked-out diagram using the *Governance* attribute group. To do this, open *BIC Process Design* and select the *Diagrams* menu item in the left menu bar. There you can either *create a new diagram* or *check out an existing diagram*.

After creating a new diagram or opening an already existing one, check it out. Then navigate to the *Details* panel in the right sidebar and open the *Governance* attribute group. You will then have the option to assign a value to the *Resubmission interval (in months)* input field. This will override the default value set by the *Administrator* for this diagram. After the specified period has passed, the diagram will be rescheduled for review.

Warning: Please note that the Resubmission interval (in months) input field will only appear in your diagram if the method file has been adjusted accordingly. To modify the method file, you need access to the BIC Method Editor, which is a separately licensed module.

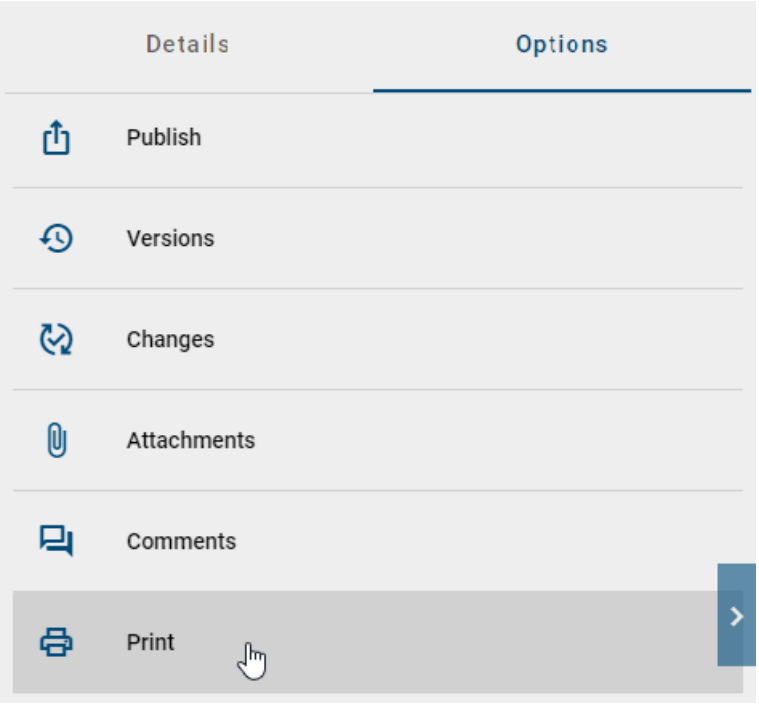


Hint: Assign a positive numerical value to the Resubmission interval (in months) input field so that the resubmission interval is applied correctly.

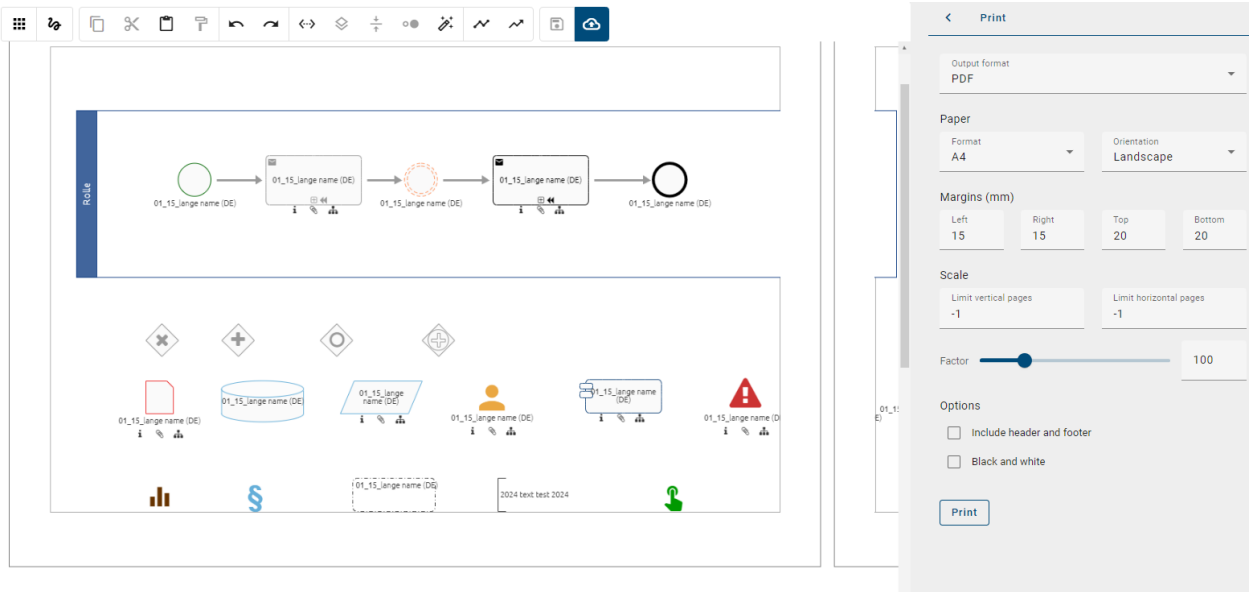
The change will be saved after you have *saved* and *checked out* your diagram.

6.16.7 How can I print the graphic of a diagram?

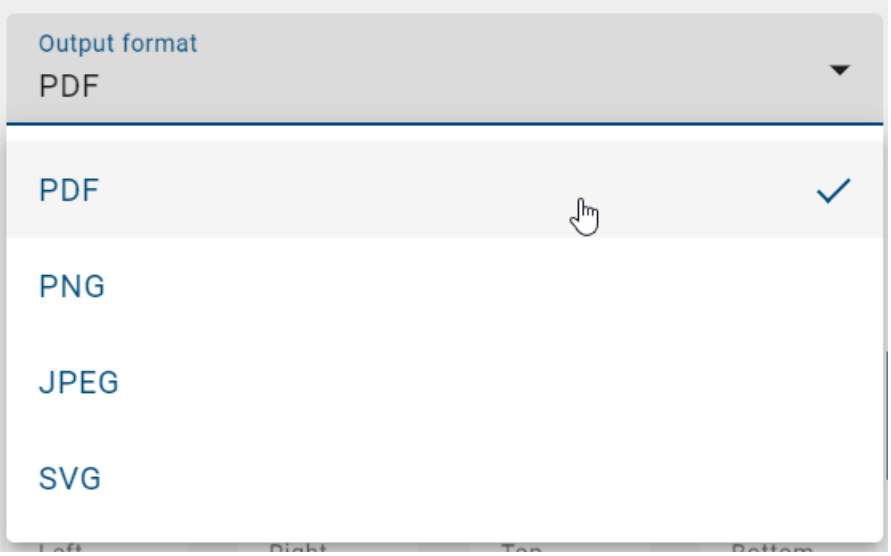
To print the graphic of a diagram, navigate to the *Options* and select the option *Print*.



In the preview, you will then see the print preview of the diagram with margins and the distribution of the graphic on the pages. The print preview also shows you the default settings, which you can adjust if necessary.



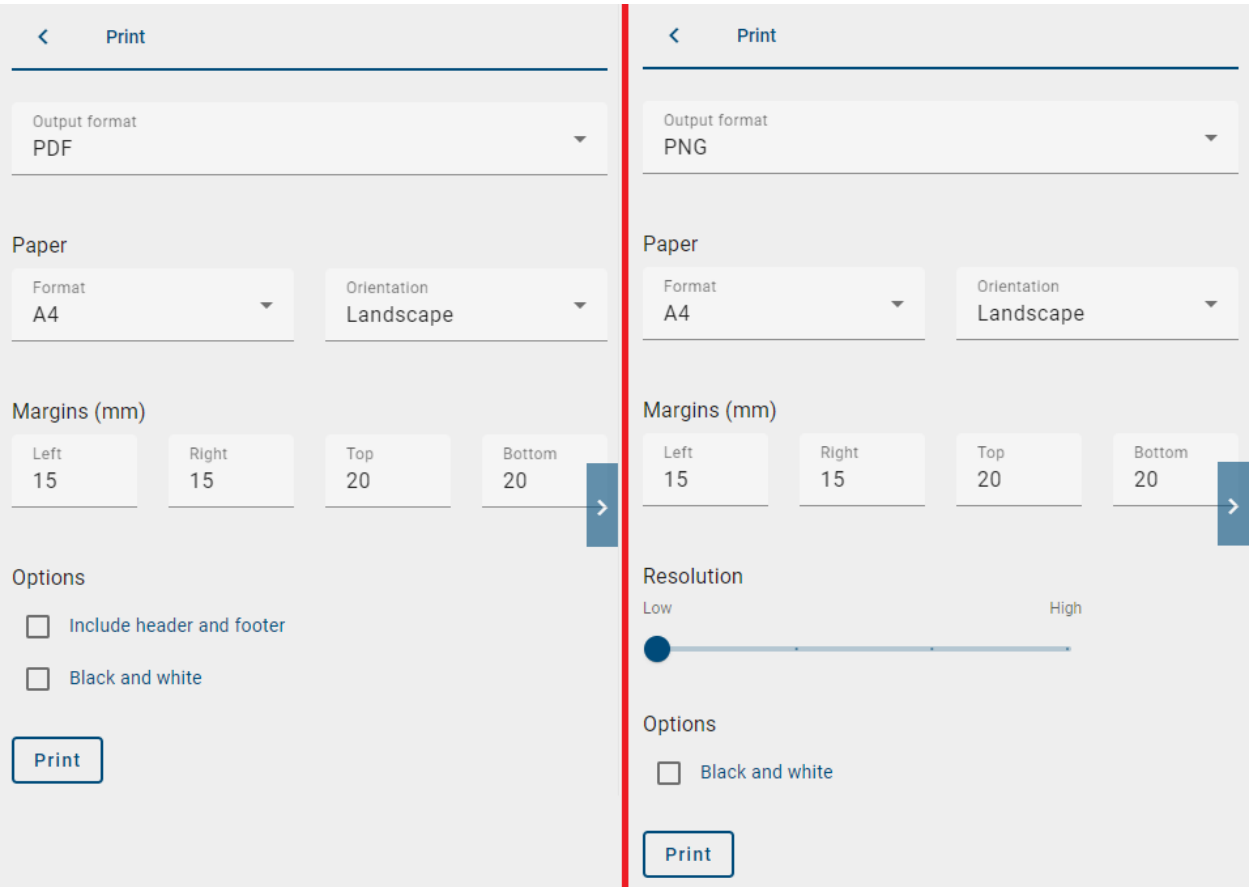
The choice of the output format is made through the dropdown menu, where you can set the preferred format for the graphic printing. You have the option to select from the formats PDF, PNG, JPEG, and SVG.



Note: Please note that SVG files do not support embedded fonts. The icons are based on the **Material Icons** and **Font Awesome** fonts and can only be displayed correctly if these fonts are installed on your host system. Otherwise, the missing icons will be displayed as rectangles, which is not a bug, but due to the SVG format. Our application includes all the necessary fonts to display SVG files correctly. However, if you need print output with embedded fonts, we recommend that you create a PDF file, as it contains all the necessary fonts for correct display.

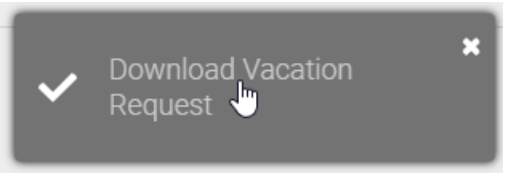
Furthermore, you can modify additional pre-settings in the print menu and customize the printing as desired:

- Paper format (A0, A1, A2, A3, A4, A5, B3, B4, B5, LEGAL, LETTER)
- Orientation (Landscape, Portrait, Automatic)
- Margins (positive integers)
- Resolution (only PNG and JPEG)
- Include header and footer (only PDF)
- Print in black and white



After configuring your print settings, click on *Print* and your graphic will be rendered. You will be notified with a message in the bottom right corner.

Once the rendering process is complete, a download link will be provided for you. Clicking on the link will initiate the download of a file with the diagram's name in your current content language.

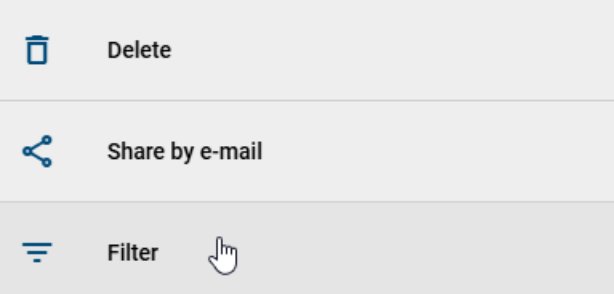


Tip: Please note that the print option is available for *checked-in* and *checked-out* diagrams.

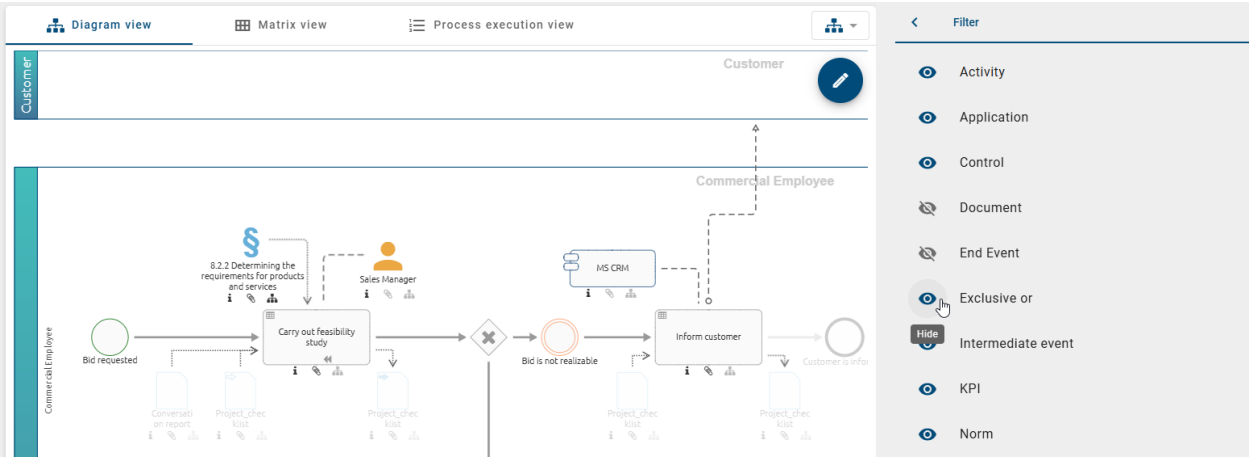
Hint: Please note that texts in the supported languages Arabic, Chinese, Greek, Hindi, Japanese, Korean, Persian, Thai, and Vietnamese may not be displayed correctly in the printed PDF document. For Greek and Vietnamese text, the *Roboto* font is used, while for all other listed languages the *Noto Sans* font is displayed. Additionally, please note that Cyrillic text may not be accurately rendered in the fonts *Handlee*, *Inconsolata*, and *Titillium Web* and in such cases, it will be displayed in the *Ubuntu* font.

6.16.8 How can I hide symbol types in a diagram?

Every user has the option to hide modeled symbols, including their connections, in the diagram view. To do this, select the *Diagrams* menu item in the left menu bar and open a diagram to access the diagram view. Then switch to the *Options* panel in the right sidebar and click on the *Filter* option.



After clicking on the *Filter* option, all modeled symbol types in the diagram are listed in your browser language in alphabetical order. If you have modeled a pool, this symbol type cannot be hidden. To hide specific symbol types including their connections in the diagram, click on the *Hide* option, represented by an eye icon to the left of the symbol type name. Hidden symbol types are indicated by a crossed-out eye icon. This way, you can always keep track of which symbols are currently visible and which ones you have intentionally hidden.



If you want to make a previously hidden symbol visible again, click on the crossed-out eye icon. This will make all occurrences of that symbol in the diagram fully visible again. If you have hidden all symbol types, you can leave the *Filter* option to display all symbol types again.

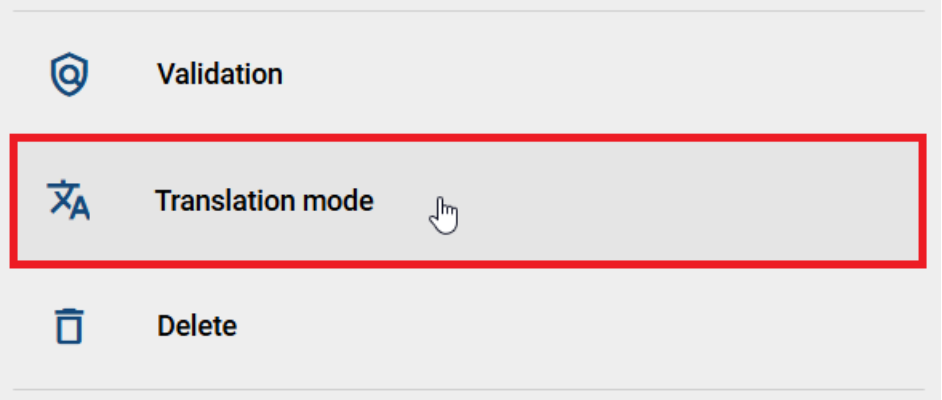
Hint: Please note that your selection of hidden symbol types is not saved. As soon as you leave the *Filter* option or the diagram, all symbol types will be displayed again.

6.17 Translate diagrams

As an *Administrator*, *Editor*, or *Author*, you have the option of making diagrams and their objects and connections available in other languages and receiving translation suggestions for diagrams and their objects and connections.

6.17.1 How can I make diagrams and their objects and connections available in other languages?

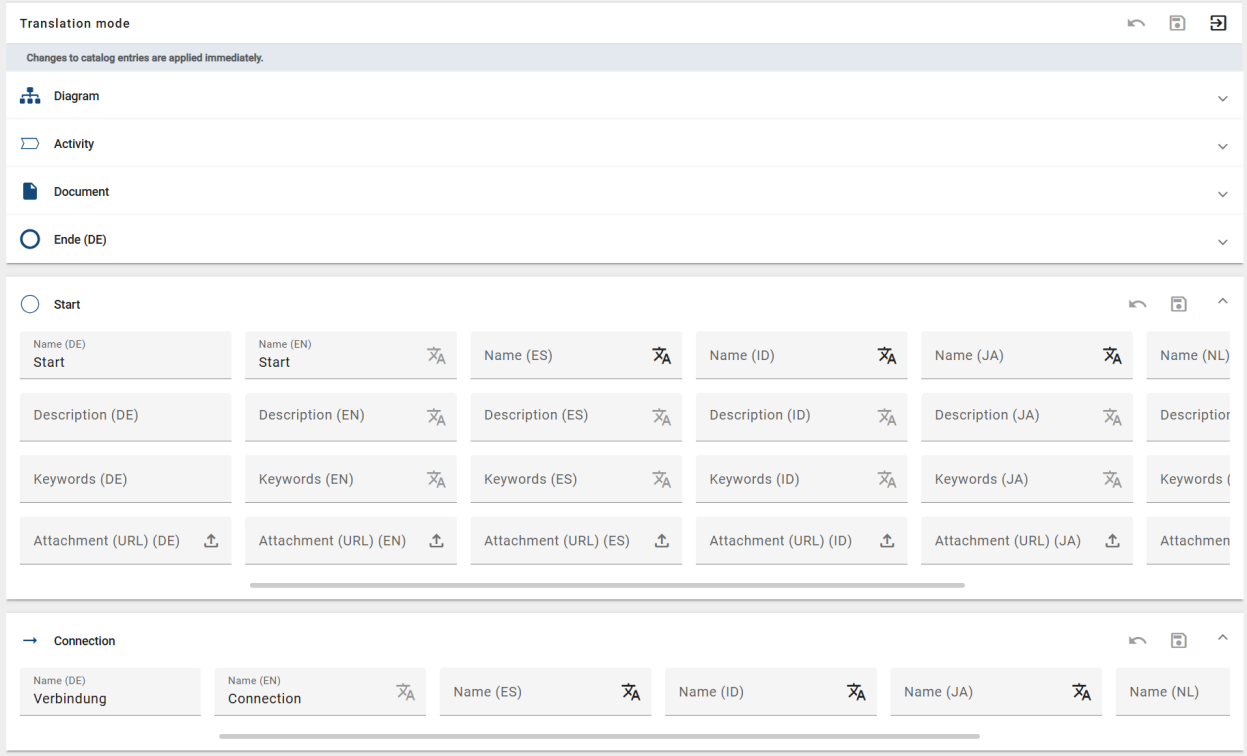
As an *Administrator*, *Editor*, or *Author*, you can translate diagrams, along with their objects and connections, into other languages supported by BIC. To do this, select the *Diagrams* menu item in the left menu bar and switch to the *Public workspace* stage if you are not already in this workspace. Then, select a diagram to open it in the diagram view. In the right sidebar, go to the *Options* panel and click on the *Translation mode* option.



Note: If the selected diagram is locked by another user, the *Translation mode* option is not available.

When you open the translation mode, a list appears showing the diagram along with all objects (activities, artifacts, events, gateways) and connections used in the diagram, displayed in your active content language. If the diagram, an object, or a connection has already been maintained in your alternative language, it will be shown in that language. By clicking on a specific list entry, you can translate the corresponding diagram, object, or connection into other supported languages.

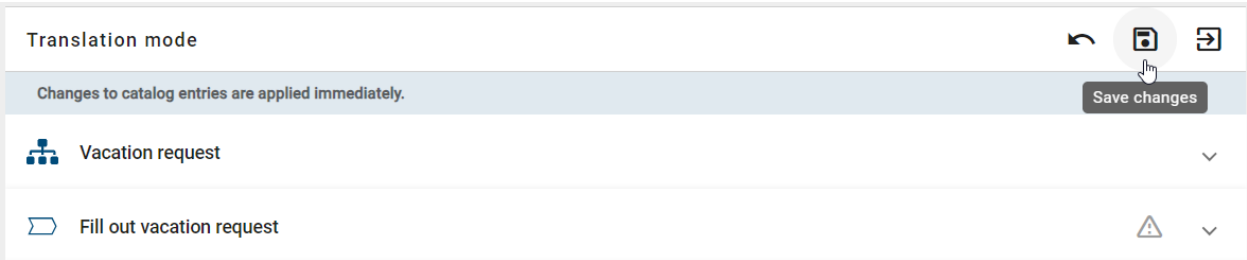
You can translate the names, descriptions, keywords, and attachments (URLs) for both the diagram itself and the objects it contains. Translating the diagram itself helps to ensure that the diagram appears in the diagram list of the corresponding language. For connections, only the connection name can be translated.



Note: If an objects does not contain a name, but other language-dependent attributes are maintained, the object name defined in the method is displayed in the list view in your browser language.

Hint: Please note that if a connection does not have a name in any language, that connection will not be displayed in translation mode.

Once you have completed the translations, you can save the changes by clicking the middle *Save changes* button in the upper right corner of the translation mode. Any changes to the catalog items will also be applied. To discard your translations, click the left *Discard changes* button in the upper right corner of the translation mode.



To exit the translation mode, click the *Leave* button in the upper right corner of the translation mode, or click on the *Translation mode* option in the *Options* panel in the right sidebar again. This will return you to the diagram view. If you attempt to exit translation mode with unsaved changes, you will be notified accordingly.

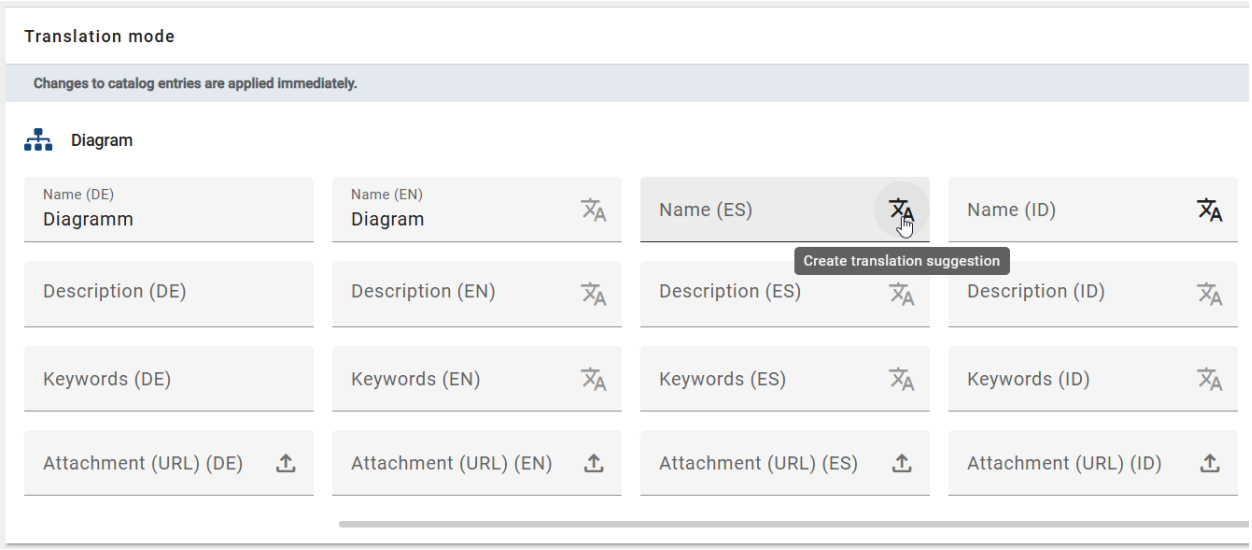
Tip: If you are translating multiple objects and connections, a warning icon (triangle with an exclamation mark) will appear next to the corresponding entry, indicating unsaved changes. To avoid losing progress, we recommend using the *Save changes* option within each list entry when performing numerous translations.

6.17.2 How can I get translation suggestions for diagrams and their objects and connections?

As an *Administrator*, *Editor*, or *Author*, you can get translation suggestions for diagrams, along with their objects and connections, into other languages supported by BIC. To do this, select the *Diagrams* menu item in the left menu bar and switch to the *Public workspace* stage if you are not already in this workspace. Then, select a diagram to open it in the diagram view. In the right sidebar, go to the *Options* panel and click on the *Translation mode* option.

If the *DeepL translation service* is enabled for you, you can also generate translation suggestions for other languages for the attributes. All you need to do is maintain a language-dependent attribute in the active content language that serves as the basis for the translation suggestion.

To request a translation suggestion for a language-dependent attribute, select the *Create translation suggestion* option in the corresponding input field. This will send a request to the DeepL API, which will automatically generate translation suggestions. If the input field already contains an input or the attribute is not maintained in the active content language, a translation suggestion cannot be generated.

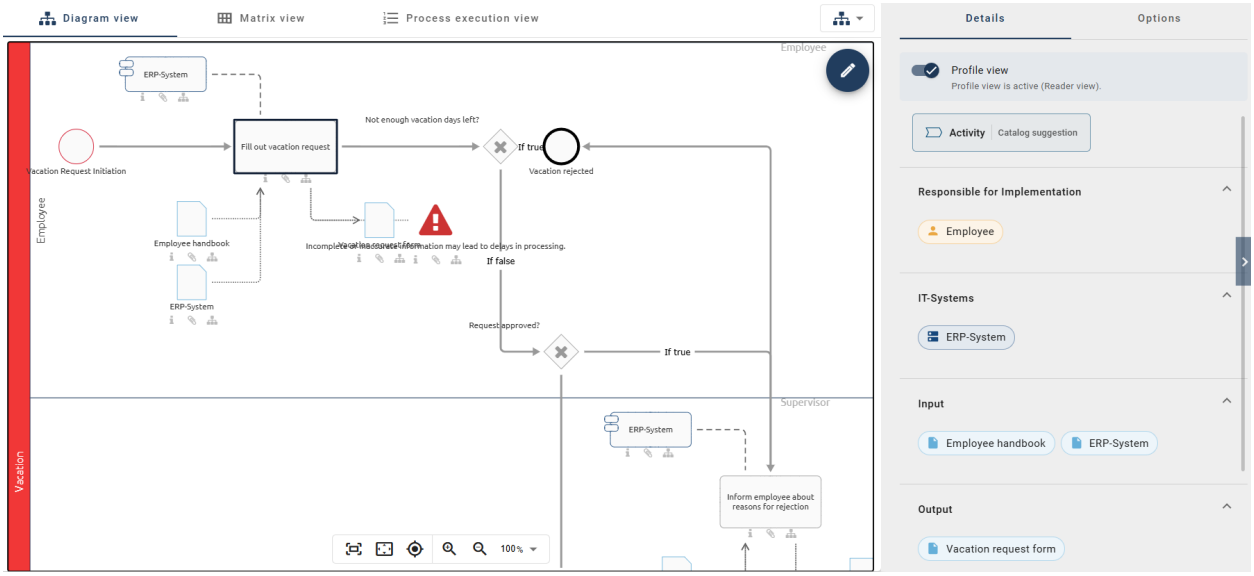


CHAPTER

SEVEN

DETAILS

When you open a diagram, the *Details* of the diagram are shown by default in the right sidebar. The *Profile view* toggle in the right sidebar controls how these details are displayed. When activated, it shows the summarized profile view. Otherwise, the attribute view is displayed. If you select an object within the diagram, the details of that object are shown in the sidebar. In addition to the details, you can also switch to the *Options* panel for the selected object or the diagram in the right sidebar. They are described in more detail *here*.



The details can show the *attributes* or the *profile* of the selected diagram or object, depending on the *administration setting*. Between those options you can choose by a click on the slider. Administrators can configure this for each diagram and object type. In the following, the default profile of an activity and a BPMN diagram is presented. However, administrators can also configure which information will be displayed in the profile of each diagram type (resp. object type).

The profile of the selected diagram or object is displayed, if it is activated for the respective type in the administration area. If the profile is deactivated, *all attributes maintained* for the selected diagram or object are shown in the details instead. However, note that it is possible to deactivate that attributes are shown in publication. This can be done for each diagram type (resp. object type) in the administration. Thus, you might not find any attributes in the details of (for example) specific object types in publication.

7.1 What is displayed to me in the profile?

Note the *conditions above* for displaying the profile. As part of the details, you can view the following contents in a profile by default, depending on the selection and diagram view. By clicking on a heading, you can hide/extend the corresponding attribute values.

Default diagram profile: By default, the profile view shows the description of the diagram, responsible and contributing roles, used IT systems, documents and business objects, as well as the risks and controls in a diagram. In addition, information about the responsible person as well as release and expiry dates are visible. The last group is always the *system attributes* group.

Default activity profile: The profile view of an activity contains the following information in default, if these are directly related to the selected activity in the diagram or are maintained in the attribute bar: type, name and description of the symbol, responsible and contribution roles, IT systems, inputs, outputs, risks and key performance indicators. The last group is always the *system attributes* group.

Note: If an entity is a catalog suggestion, you will be informed accordingly next to the symbol type.

Note: Please note that the "Profile" is only visible in the details, if this was specified in the *:ref: `administration <admin-details-profile>*. Furthermore, *the content of the profile* may vary depending on the configuration, object type and diagram type.

You can select the chips to navigate to a linked diagram resp. to view the details of the referenced object.

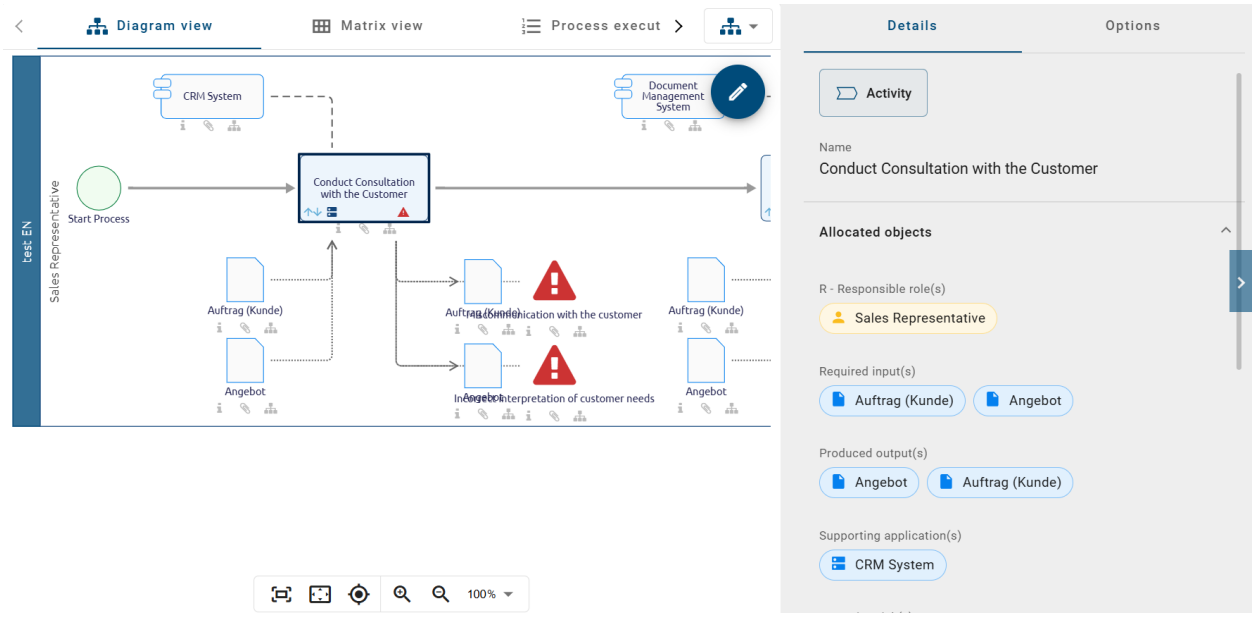
Tip: If the attribute *Keywords* is visible in the profile, you can start a *global search* for a keyword by selecting it. You will be navigated to the search results list.

Tip: If you have maintained a *description* of an object, the corresponding attribute symbol **i** is highlighted on the object. To see a preview as tooltip, hold the mouse over this symbol.

7.2 What is displayed to me in the attributes?

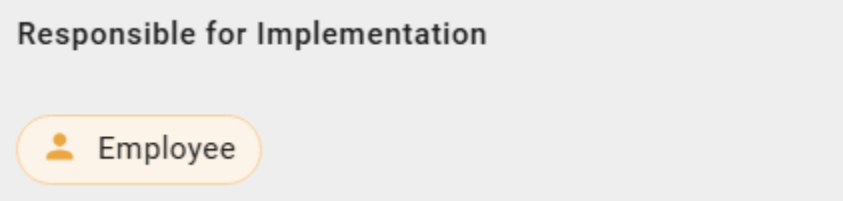
Note the *conditions above* for displaying details which can vary for the different diagram views and stages. As part of the details, you can view the diagram or object attributes by default, depending on the selection and diagram view, if the profile is not provided.

In this case, all attributes that are maintained in the selected content language will be displayed in the details. By default, further attribute groups, such as *Governance* or *System Attributes*, are hidden. By clicking on the respective heading, you can view those attributes.

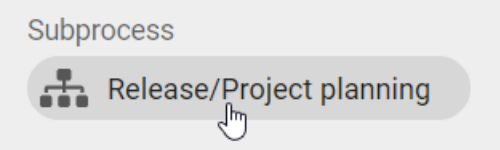


In the attributes, other objects or diagrams can be used.

Objects: When objects, such as person objects or roles, are maintained as attribute values, they are displayed as chips in alphabetical order in the Details view. By clicking a chip, you can navigate to the details of the corresponding object within the sidebar. There, you can edit the attributes of the catalog entry. You can return to the original view using the *Back* arrow at the top of the sidebar.



Diagrams: In the details, other diagrams can be linked and stored, for example using the attribute *Subprocess*. These diagrams are then displayed as chips in alphabetical order. With a click on this chip you can navigate directly to the *linked diagram*. The name of the current diagram is always displayed in the menu bar.



Tip: If the subprocess of an object is maintained, you can navigate to the linked diagram *by double-clicking* on the object.

Hint: Please note that diagrams accessed through a shared link can also be viewed by users who do not have read permission for that stage. In addition, limited navigation to other linked diagrams (e.g., subprocess, variants) is possible.

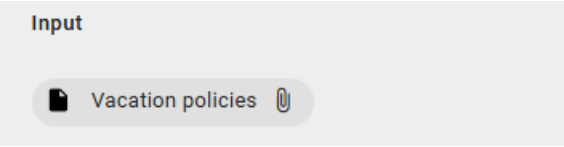
Tip: If the attribute *Keywords* is maintained, you can start a *global search* for a keyword by selecting it. You will be navigated to the search results list.

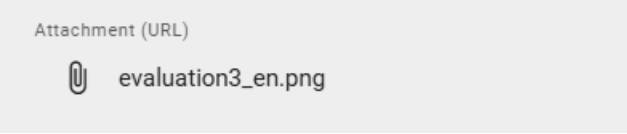
7.3 How can I access attachments in the details?

Attachments can occur in the details in two cases. On the one hand, the *attribute "Attachment (URL)"* can be listed alphabetically sorted for the selected diagram or object. On the other hand, objects that have maintained an attachment can also be displayed in the details of the selected diagram or object, for example when they are part of its profile. You can directly access these attachments without navigating to the referenced object.

If the attribute *Attachment (URL)* in *attributes* is displayed, you can open or download a linked attachment directly by clicking on the corresponding entry (picture (1) top screenshot). Note the possibility to *copy the link to the attachment* here.

In case that other objects are linked here, they are displayed in a chip. If this chip shows a paper clip, an attachment is present. This case can be found in *profile*. Clicking on the paper clip (picture (2) bottom screenshot) either opens the attachment directly or a selection menu instead, if there are several attachments. Links can then be opened and attachments can be downloaded.





Hint: If you click on the link to a PDF document with the shortcut *Ctrl + Click*, a new window will open with a preview of the PDF document using your browser's integrated PDF viewer. From there, you can download the PDF document by clicking on the Download button, which is located at the top center. Alternatively, you can click directly on the link to download the PDF document without a preview.

Hint: You can access attachments via the paperclip icon in the respective activity. Alternatively, in the diagram view, you can select the details of a diagram in the right sidebar and choose the corresponding file. If a file is not supported within the application, the download will start automatically.

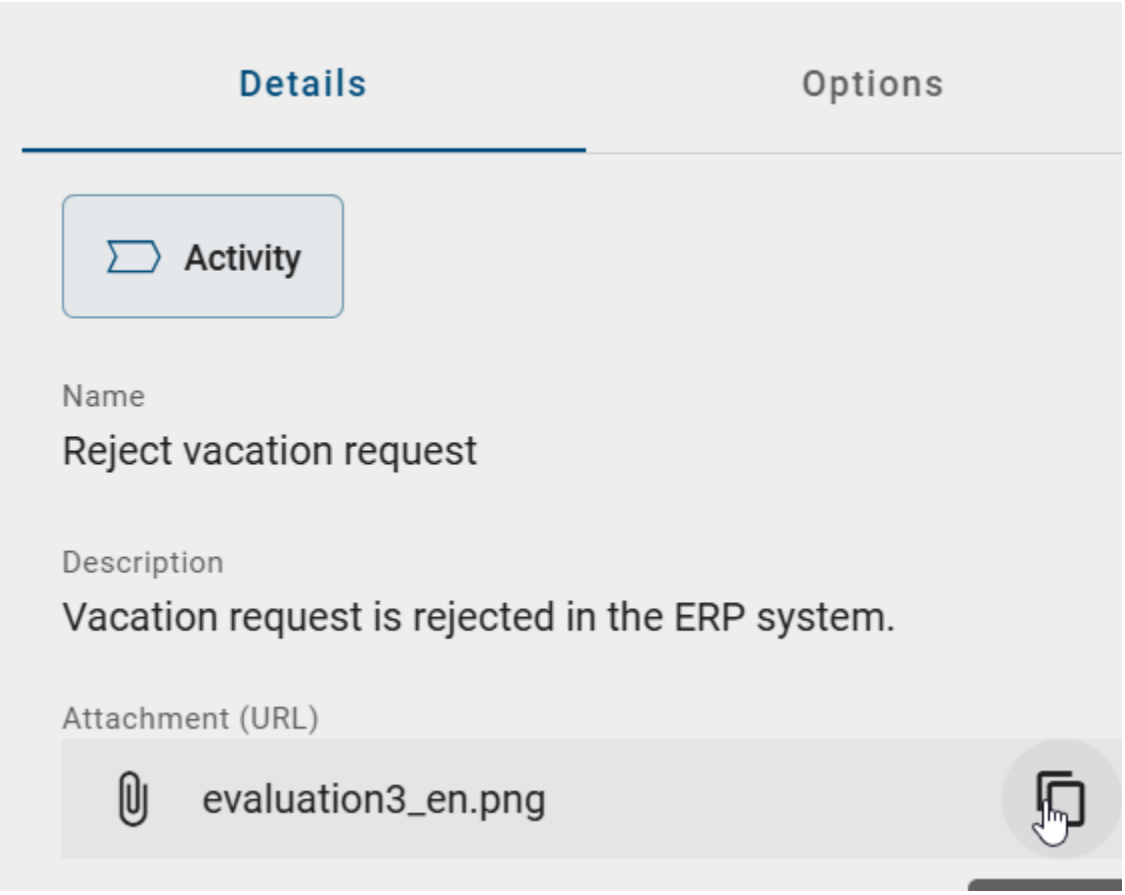
Tip: You can also use the options to display all attachments of the diagram.

Hint: Please note that the *Attachment (URL)* attribute can be restricted by an individual method configuration. In this case, it is only possible to store links or URLs, while other file types cannot be maintained.

7.4 How can I download files?

You have the possibility to *attach files to objects*. Then, the files can be downloaded in the details in the attribute view. To do this, open the diagram and click on the object containing an attachment. Then, the right sidebar shows the details of the selected object where the attachment is listed. A single click on the name of the attachment starts the download of the attached file.

Moreover, you have the possibility to copy a link with which you or other users can download the attached file directly. Simply click on the *Copy URL* button that is on the right of the attachment.



The link is now copied to the clipboard.

If you share this link and another user opens it, the attached file will be downloaded automatically.

Note: If the user was not logged in before it will send him to the sign in page. After a successful log-in the download will start automatically. This guarantees that no unauthorized person can download your files.

If the diagram or object is deleted the link does not work anymore.

Hint: Please note that permanent links to attached files will only work persistently if the title of the attachment remains unchanged. Once the title is changed, the link becomes invalid, and the attachment can no longer be accessed or downloaded using the generated link.

CHAPTER

EIGHT

MODELING

8.1 First steps

The modeling of a diagram is done in the new design interface.

You can check out your diagram to edit it. It is then locked for other users. After completing the editing, you have to *check in* the diagram again, so that other users can see the changes and continue to work on the diagram.

The design surface

The screen of the designer provides different functionalities and is divided into four areas.

Explorer: In the header you can see the Explorer in which your repository and the category containing the checked-out diagram is displayed.

Editor: The Editor represents your working area in which you can model and edit your diagrams as well as the necessary *symbol palette*.

Details and Options: This area allows you to edit the *details* of the diagram and *validate* the diagram.

Menu bar: On the left side of your screen you will see the menu bar, which allows you to navigate to other areas of the application.

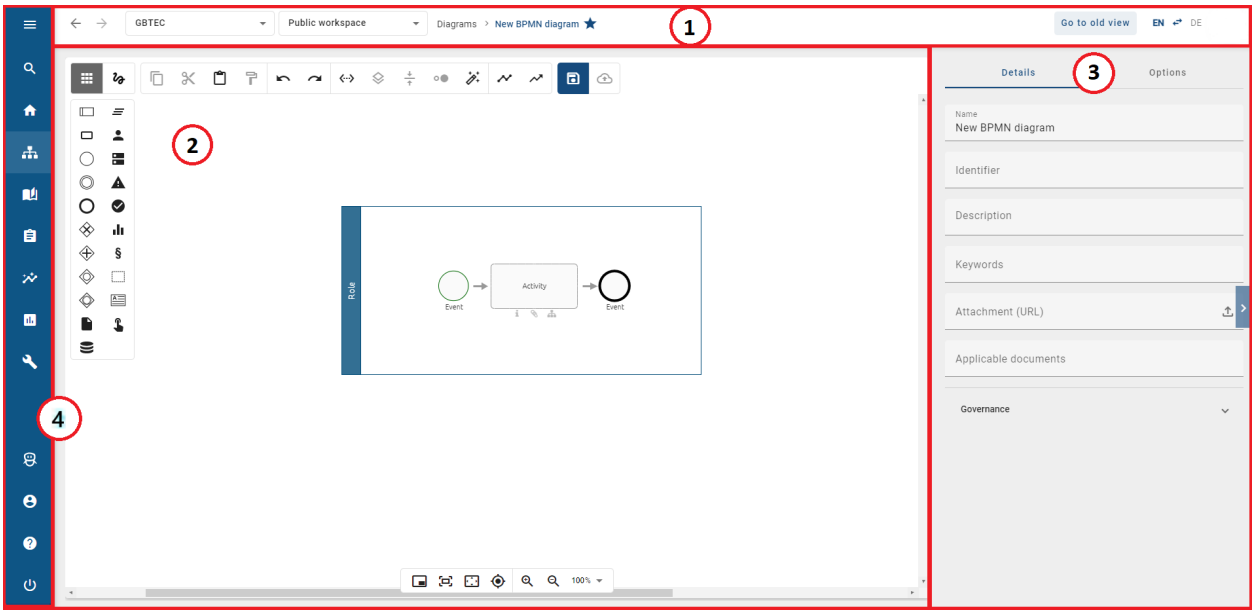
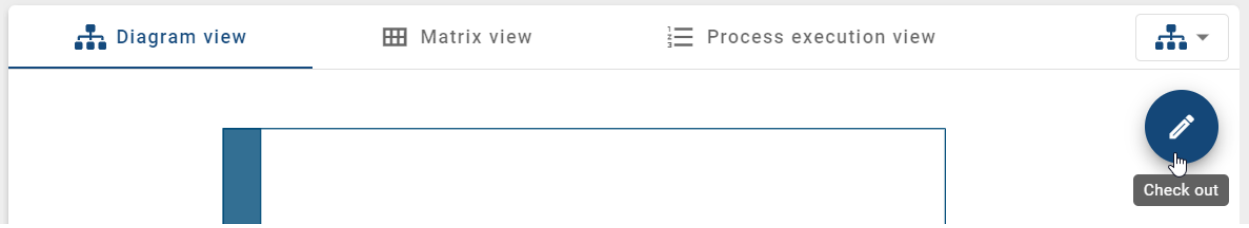


Figure: The surface of BIC Process Design is divided into Explorer (1), Editor (2), Details and Options (3), and Menu bar (4).

8.1.1 How do I edit/check out diagrams?

Authorized users (Administrators, Editors and assigned Authors) can access the new design interface in diagrams in the public workspace. If you open your diagram in *diagram view* and no other user has currently checked it out, the *Check out* button appears in the upper right corner.



A click on the *Check out* button opens the editor, whereas the diagram is locked for other users. This prevents the parallel editing of one diagram by different users. If you checked out the diagram before, a button to enter the edit mode is displayed which opens the diagram editor again.

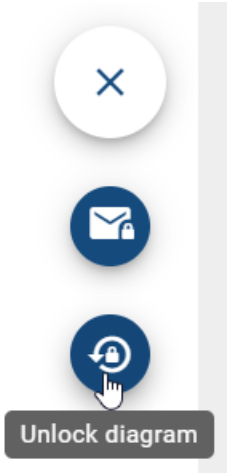
If the diagram has already been checked out by another user, a lock icon will appear instead of the *Check out* button.

To find out which user has locked a diagram, move the mouse over the lock icon. In the *following chapter*, you will find more information about possible actions you can take for locked diagrams.

8.1.2 How can I work with locked diagrams?

As a user with the *Administrator* role, open the *Diagrams* menu item in the left menu bar and first select a diagram from the list. After making your selection, you will automatically be redirected to the diagram view. There, you have the option to check out a diagram. However, some diagrams cannot be edited directly because they are locked.

If the diagram is locked, a lock icon will be displayed instead of the *Check out* button. When you click the lock, a selection menu with two different options will open. To unlock the locked diagram and be able to edit it, click the *Unlock diagram* option.



A dialog will open where you have to confirm the process with *Unlock*. The diagram can now be edited from the last saved version.

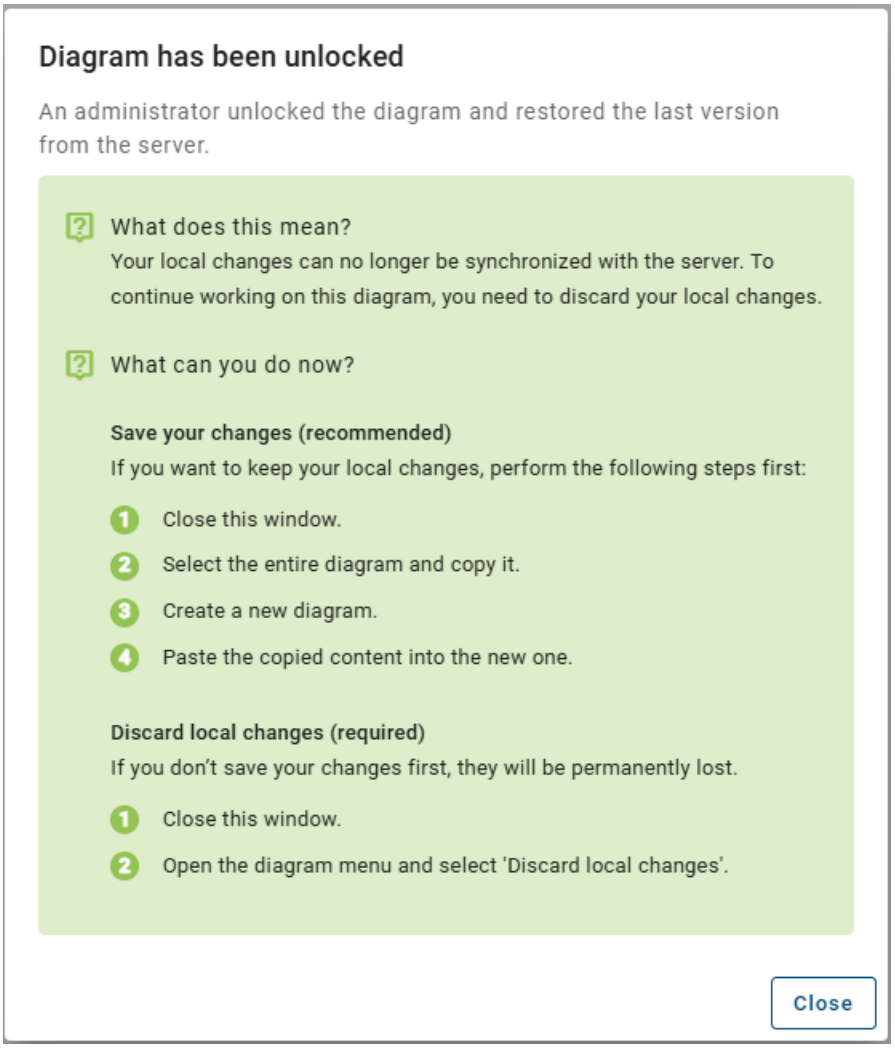
Warning: If you unlock the diagram while it is locked, the locking user will no longer be able to check in their local work status. To avoid unintentional data loss, contact the locking user first. Unlocking cannot be undone.

In addition to unlocking, you also have the option of contacting the locking user directly by email. Clicking on the *Contact [email]* option will open your local email program with the locking user's email address already entered in the recipient field and the diagram name in the subject line.

Note: If you have checked out a diagram and then work offline, you can continue editing it. As long as you do not close or refresh the browser tab, you can save and check in your locally made changes once the internet connection is restored.

Hint: Please note that if you click on a locked diagram with the *Editor* user role, you will only be shown the option to contact the user who locked it.

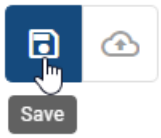
After a locked diagram has been unlocked and the latest version has been restored from the server, a dialog with the *Diagram has been unlocked* message will appear for the user who previously locked it as soon as they click on the diagram after it has been unlocked. This dialog provides information about the required next steps.



Once you click the *Close* button, please follow the instructions displayed in the dialog. To continue working with the diagram, you must discard the local changes via the *Discard local changes* option in the *Options* panel in the right sidebar.

8.1.3 How do I save changes?

The user can save the editing of a diagram, but the changes are not yet available for other modellers. They are stored in the "Local Storage" of the used browser.



By checking in, the current state is being transferred to the BIC Process Design server and is visible in the public workspace. The diagram is released now so that other authorized users can edit it.

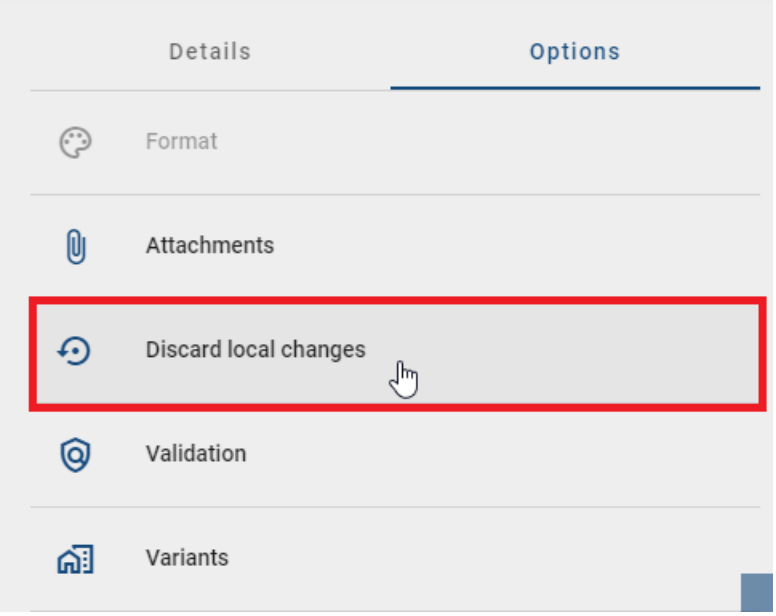
Warning: According to your browser settings, local workstations may be discarded when the browser is closed or by clearing browser data. Regular check-in is therefore highly recommended.

Hint: If *OCL rules* of the severity *blocker* (that are defined in the current method) are violated by the modeling, it is not possible to check-in the diagram. Moreover, the check-in is prevented if *not catalog suggestions* are used in the diagram. Further information can be found in the linked sections.

8.1.4 How do I cancel the editing of diagrams without saving?

If you changed a diagram, but you do not want to check in these changes and transfer them to the local workspace, you have the following option to discard the changes:

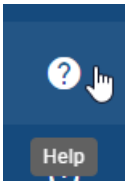
Open the options for the corresponding diagram and select the entry *Discard local changes*. Confirm the subsequent query to irrevocably delete your changes. The diagram is now unlocked to other users.



If a checked-out diagram is exited in the editor without *Saving*, a dialog appears as a warning. You can click *Cancel* to continue editing or *Discard and leave* to discard unsaved changes. When you discard your changes, the diagram is automatically checked in and is no longer locked for other users.

8.1.5 Where can I find help while modeling?

Click on the question mark in the menu bar, and then click on the *Help* tile. This will open the user documentation in a new browser tab. Then navigate to the **Modeling** chapter.



8.2 Objects

8.2.1 How do I add objects to a diagram?

Symbol palette

Objects can only be modeled in checked out diagrams. The symbols available for modeling vary for each diagram type. When you check out your diagram, you will see the symbol palette as the first item on the upper left corner of the editor. It contains all the symbols allowed for the respective diagram type.

You have several options to place symbols from the symbol palette into the editor.

Drag & drop: Select a symbol that you want to place in your model and drag & drop it into the editor. After placement, the text field of the symbol is automatically selected so that the symbol can be named individually. Also note the *rename* section when naming. Repeat this step for all desired symbols.

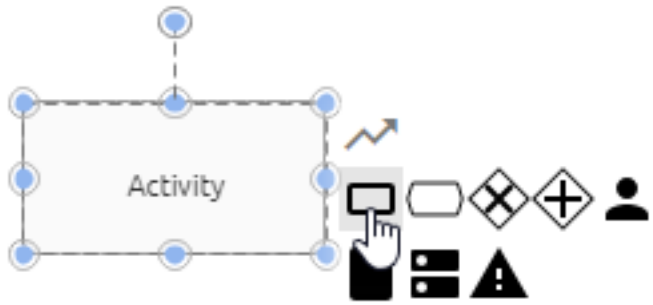
Stamp mode: You can use the stamp mode (the corresponding symbol is highlighted in the symbol palette), where you can create additional symbols of the same type. Select a symbol with a single click and place it by clicking into

the editor. You can exit the stamp mode by pressing the ESC key or by clicking on the symbol in the symbol palette again.

Mini symbol palette

As an alternative to modeling with the symbol palette, it is recommended to use the mini symbol palette which displays all objects that can be connected to your current symbol.

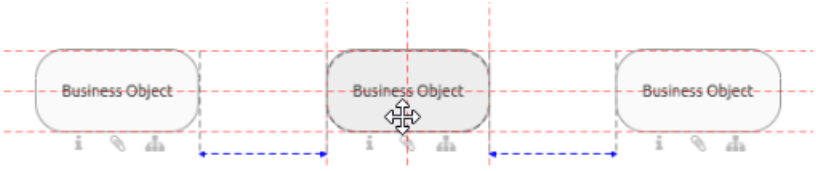
Place or select a symbol in the editor. On the right side of the symbol, some symbols will appear, that can be connected to the selected symbol.



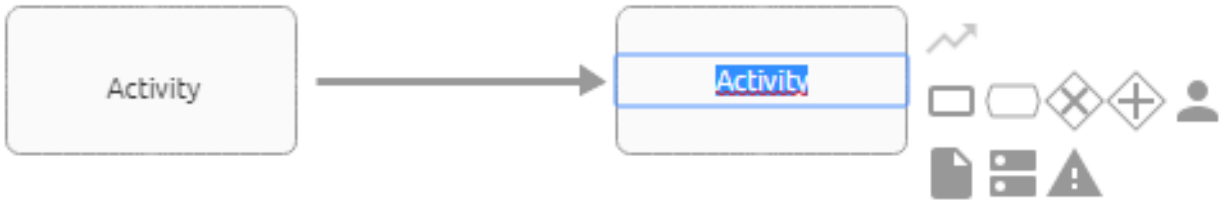
A connection between two symbols will be automatically created by placing a new symbol. The following options are now available. Also note the possible *shortcuts*.

Drag & drop: Select one of the symbols and place it in the editor while pressing the mouse button.

To ensure that the same distance is modelled between at least three symbols, you have the option of activating the function with the *ALT key*. An indicator is displayed that visualises the same distance. You can deactivate the function again at any time by pressing the *ALT key*.



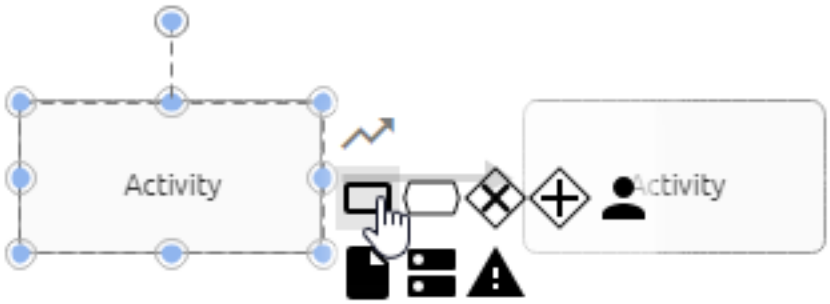
Releasing the mouse button creates the symbol including the connection.



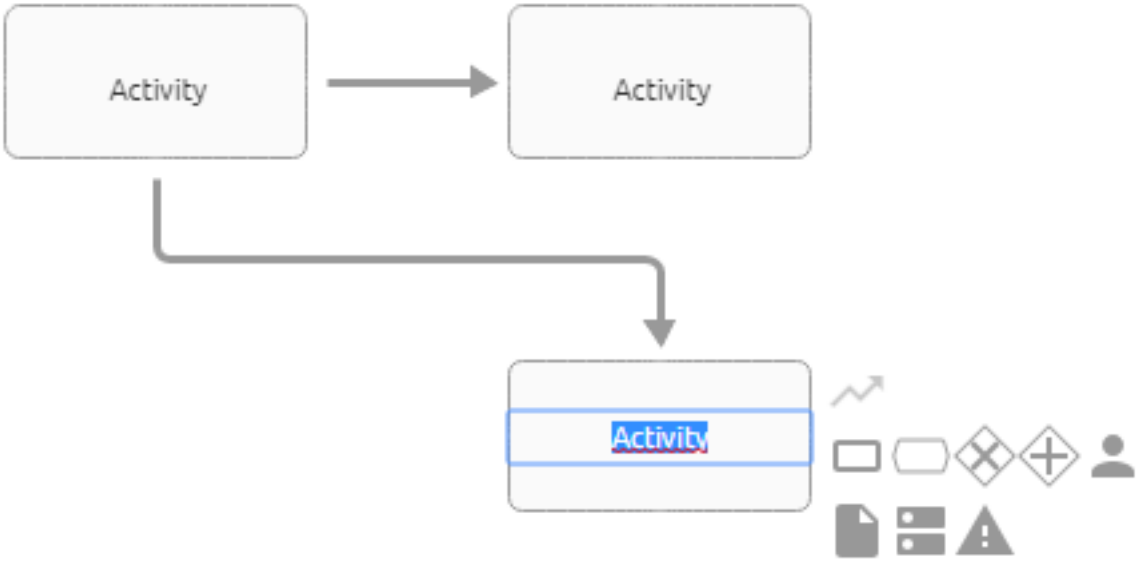
Quick Modeler: If the user simply clicks on an item in the mini symbol palette (no drag), a new object will be created immediately. The new node is placed centered at the same distance from the predecessor to the last symbol. The

direction depends on the predecessor, because the new node is placed on the opposite side of the predecessor. If there is no predecessor, then to the right of the node and at a preset distance.

You can create multiple descendants for a node.



These are automatically created among each other using the Quick Modeler. Since the connection is centered, which means at the center port in the middle of the icon, it may overlap other symbols.



You can then *reposition connections*. Successors of successors are modeled either one below the other or one after the other, depending on the maximum distance to the predecessor in the x- and y-direction of the editor. By changing the position of the symbols you can adjust the behavior of the Quick Modeler.

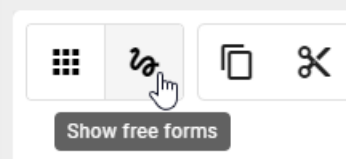
The text field of the new symbol is selected so that it can be named individually. Also note the *rename* chapter.

Hint: Please note that the same distance information only appears if the symbol is dragged out of the editor. If the symbol is dragged directly from the symbol palette, the distance information is not displayed. The symbol must be placed on the editor first.

Note: Depending on the symbol and the method, a selection menu for the automatically created edge may appear after placement from the mini symbol palette. To create the symbol, a selection must be made in this menu.

8.2.2 How do I create forms and graphical symbols?

Navigate to the free form symbols by selecting the second button in the editor.



Select a free form icon from the list and place it in the editor.

For example, the following free form symbols are available: rectangles, ellipses, text fields, triangles, cubes, arrows, and more. You can label free form symbols using the multilingual text field. Alternatively, after selecting a symbol, you can trigger the input field by double-clicking or pressing the F2 key. Additionally, free form symbols come with various attributes. You can search for these objects, enable catalog suggestions, and configure these settings through the free form object in the administration area of BIC Process Design. The line symbol is an exception, as it does not have these properties.

8.2.3 How do I move an object?

You can reposition an object by drag & drop. To do this, select the object with the left mouse button and keep it pressed while you navigate the mouse to the desired position. The object moves with your mouse. If the desired position is outside the current diagram section, you can also move the diagram view field by *pressing the right mouse button or using the scroll wheel* while holding the object with your left mouse button. When you release the left mouse button, your object is placed at the mouse position.

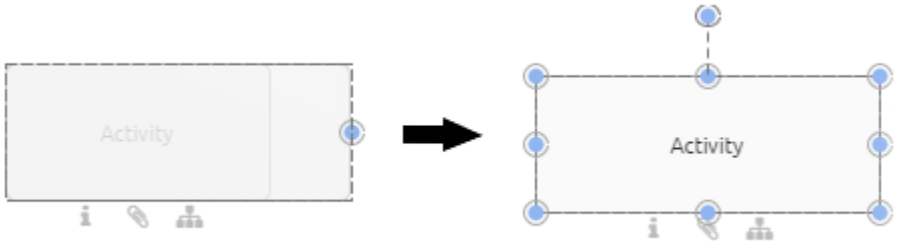
Optionally, you can use the arrow keys on your keyboard to move the object in all directions.

Note: You can also move a *multi-selection of objects* using this procedure.

8.2.4 How do I change the size of an object?

Select the object you want to change with a single click.

Press the left mouse button to alter the size of the object by using the blue points along the edge. Release the mouse at the desired position.

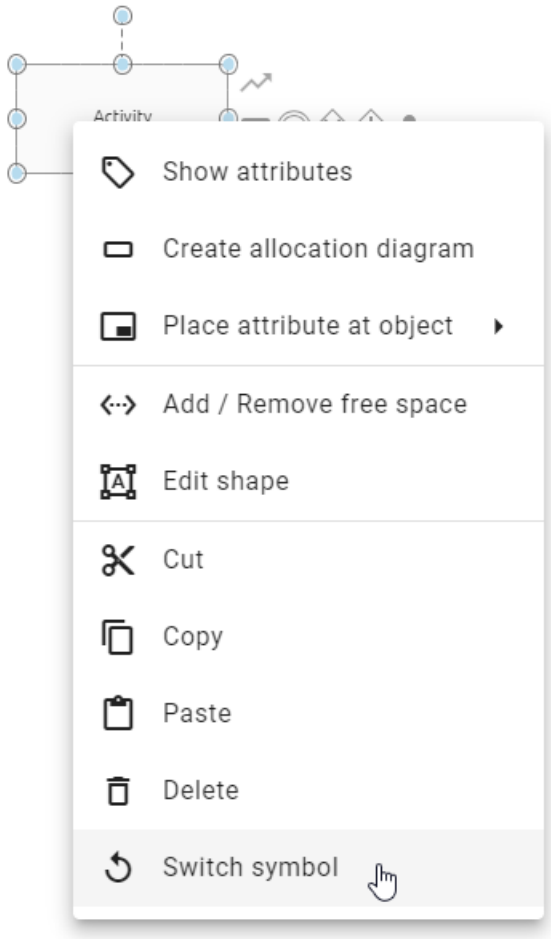


8.2.5 How can I switch the symbol of an object?

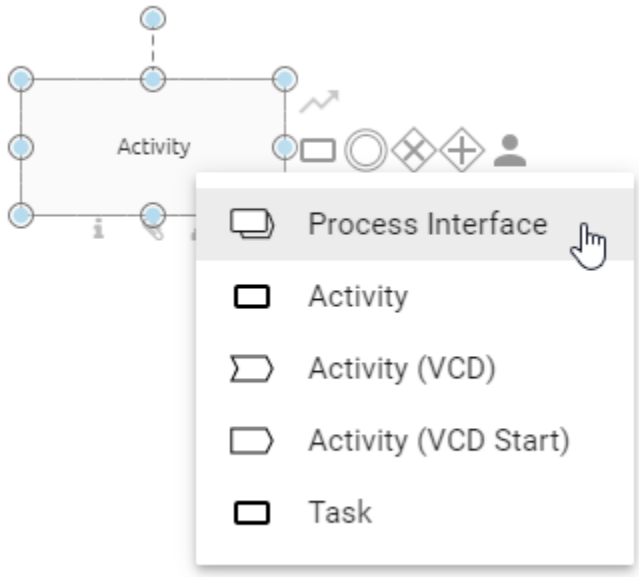
Within the modeling process of your diagram you have the possibility to change the symbol of an already modelled object. This can help you to dynamically change the view on single elements in your diagram according to your needs.

To change the symbol of an object within your diagram proceed as follows:

Right click on the symbol you want to change within the checked out diagram. The context menu for the object appears.



Select the entry *Switch symbol*. You will get a list of all symbol types, which are allowed for the given diagram type.



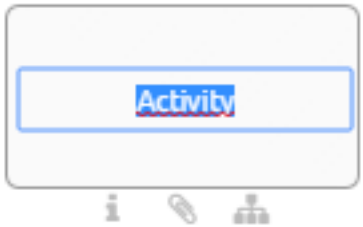
After you have selected the desired symbol type, it will be displayed in your diagram.

Symbols of container objects, such as pools, cannot be changed as soon as the object concerned already contains elements. In this case, the function for changing the symbol for this object is no longer available and is greyed out in the context menu.

Note: Symbols that are already part of a pool cannot be switched into the symbol type pool. By switching the symbol, *placed attributes* will be reset to their default. If no attributes are placed at the symbol by default, then no attribute will be placed after changing the symbol.

8.2.6 How can I label or rename objects in the editor?

Depending on the object, the writing area is either displayed directly after *modeling an object* or by double-clicking on the object. A suggestion list for all the catalog entries used in the diagram is displayed then. You can select a proposal with a mouse click or label the object. When labeling, you can also choose from a suggestion list with catalog items of the server that contain the entered term. Otherwise, end the entry with a single click in the editor.



Optionally select the object by clicking on it once and press *F2* so that the writing area is displayed.

You can also rename symbols using the *details*.

Note: Note some peculiarities when renaming and editing attributes of symbols in diagrams that are *catalog items*.

Hint: Please note that certain symbols, such as gateways, do not have a direct label when placed in the diagram. You can add a label manually by double-clicking on the symbol after placing it.

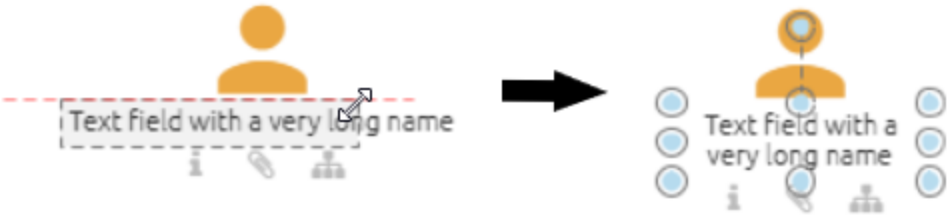
8.2.7 How do I change the size, line breaks and the position of text fields (labels)?

You can change the size of some text fields which contains the name of a symbol. For example, if the name is very long, you have the option to display it in two lines (by alerting the size of the label) and to shift automatic line breaks. Alternatively, you can add *manual line breaks*. The text field can be positioned as you like.

Change size

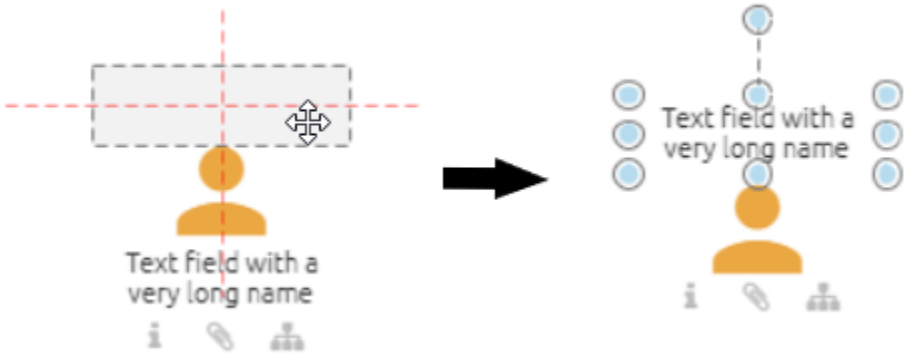
Select a text field by clicking on it.

Alter the size by using the blue points along the edge of the text field. Release the mouse button at the desired position.



Position

Select a label by clicking on it. Then click again, keep the mouse button pressed, move the field and release the mouse button (drag & drop).

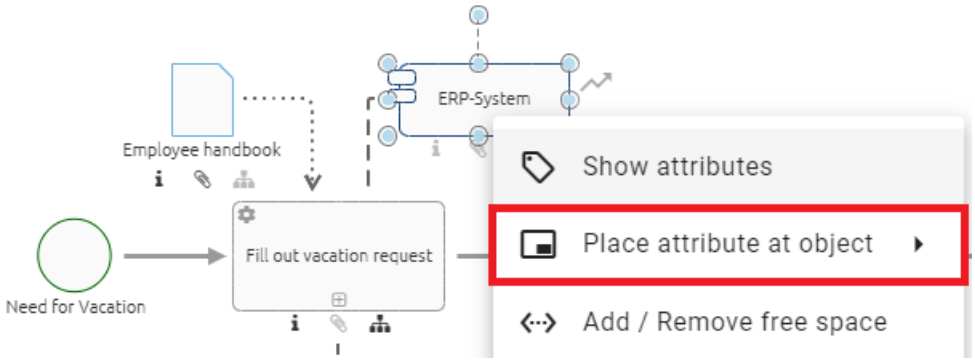


Note: Note that the size and position of the text fields of symbols with block form, such as activities, cannot be changed. For those symbols, the label is located in the respective symbol. Furthermore, manual line breaks cannot be seen in the catalog, but are visible in the reports.

8.2.8 How can I place attributes at objects?

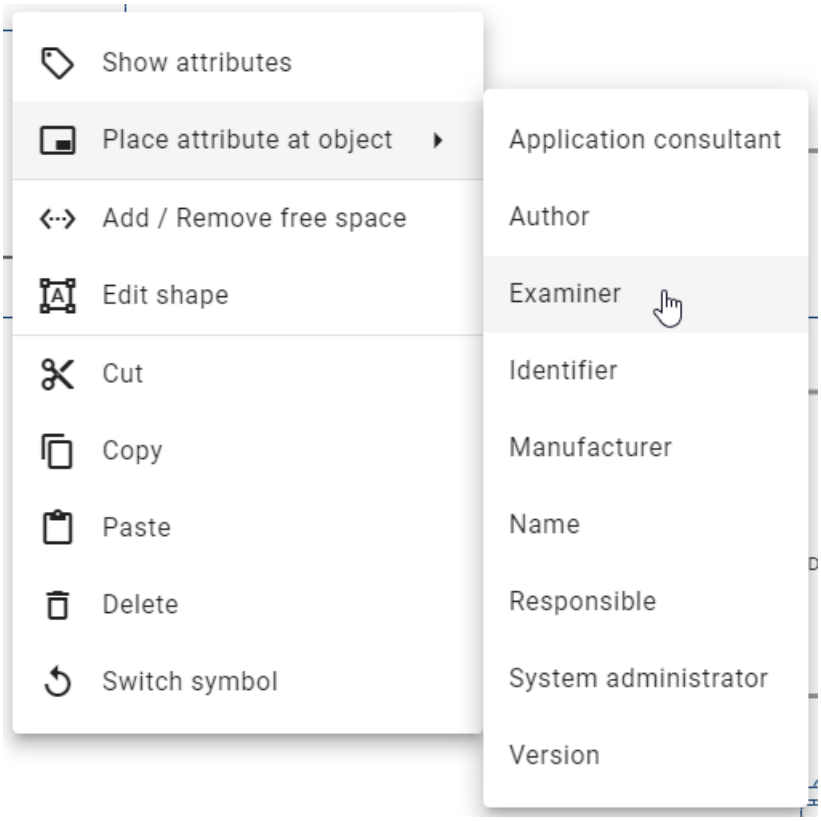
Some attributes of objects can be placed in the diagram. This includes all text attributes of the object that were maintained in the attribute bar.

Right-click on the symbol in the diagram to open the context menu and select *Place attribute at object*.

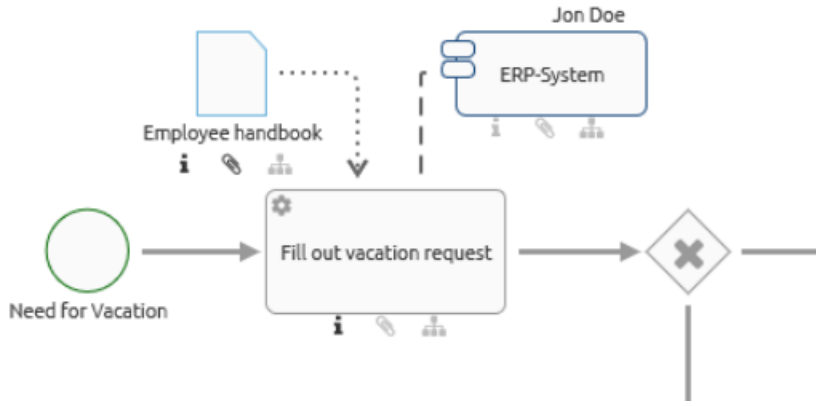


Next, select the desired attribute. All text and assignment attributes that are already maintained at the object are displayed here. If you want to select a text attribute that is not listed, you must first complete it in the attribute bar and

repeat the first step.



The selected attribute then appears at the bottom right of the icon. You can *change the position* and edit the text field by double-clicking it, if it is not an assignment. The changes are applied to the attributes of the object. The placement also gets updated, if the attributes are changed in the attribute tab. Assigned persons, organizational units and diagrams are displayed as text, with several assignments in an attribute separated by a comma.



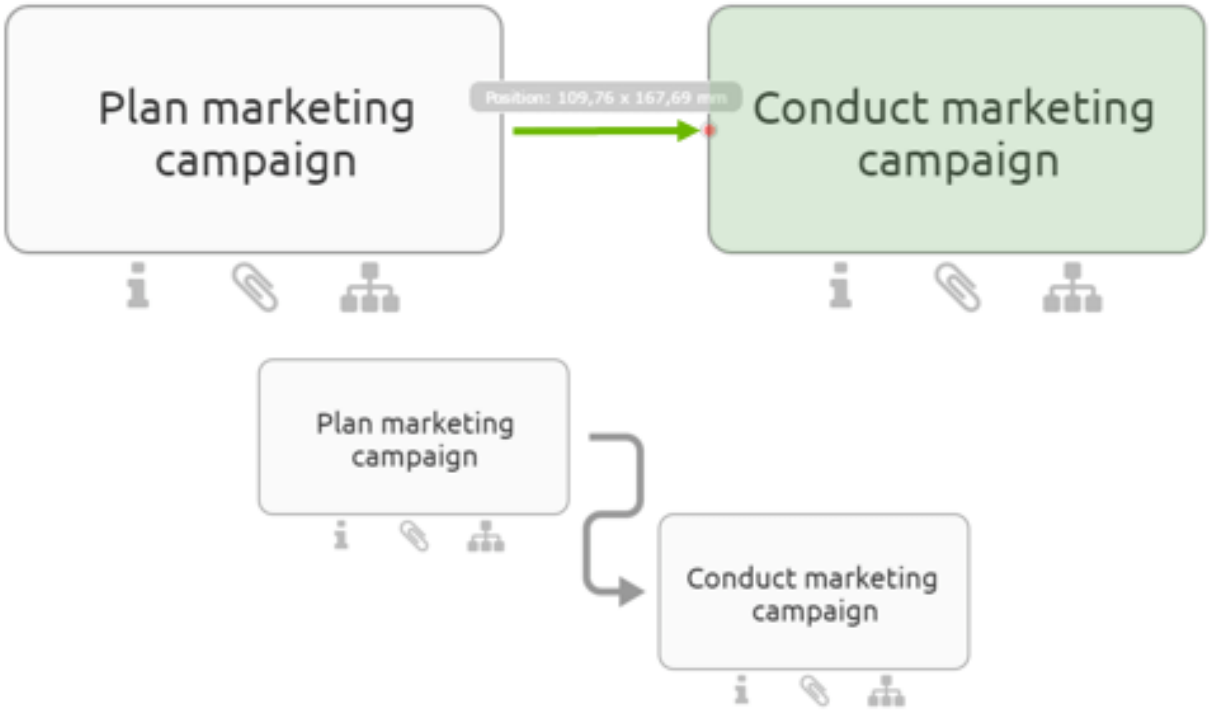
Note: Please note that tables you have used in the description attribute cannot be displayed in the diagram. In addition, the table border of a description is not rendered on mouseover pop-up when you move the mouse pointer over the *i-symbol* on the activity in the diagram.

8.3 Connections

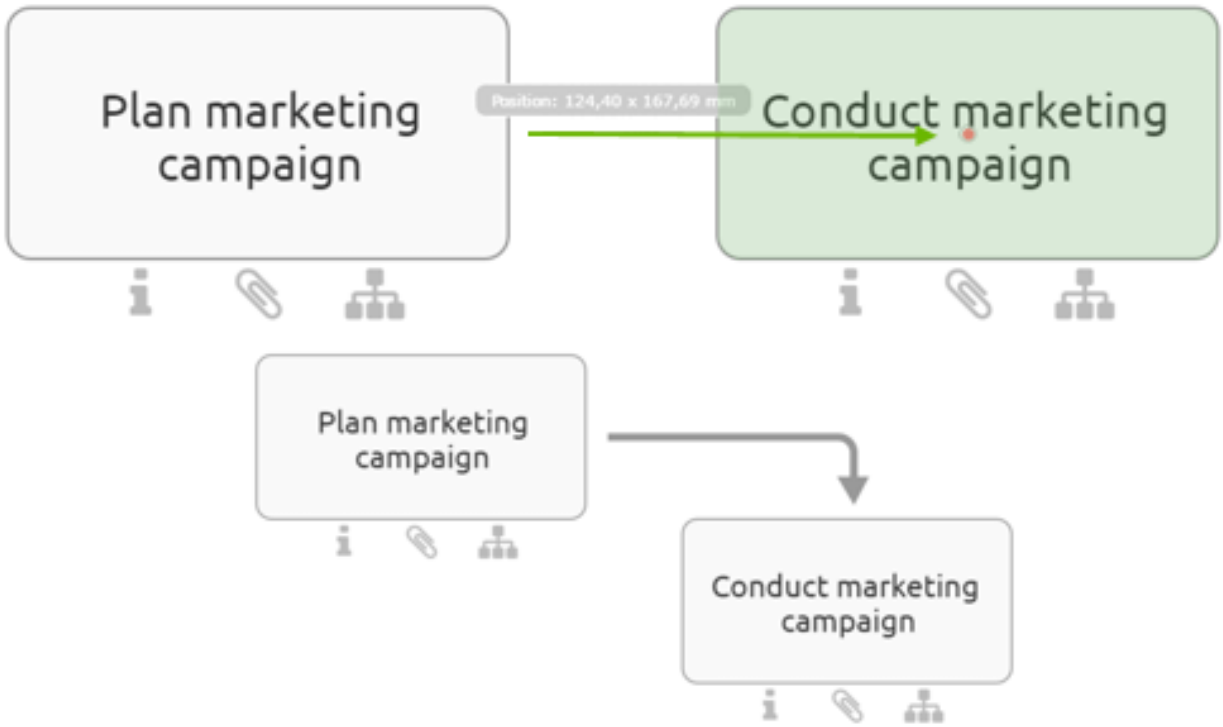
8.3.1 Where can I place a connection to an object?

All possible options for placing a connection are indicated with a red dot when you hold the connector with the mouse over different points of an object.

If you link objects using the **outer port**, the connector will stay fixed at that side of the object even when you shift it.



If you link objects using the **centerport**, the connector will move when you shift the object.

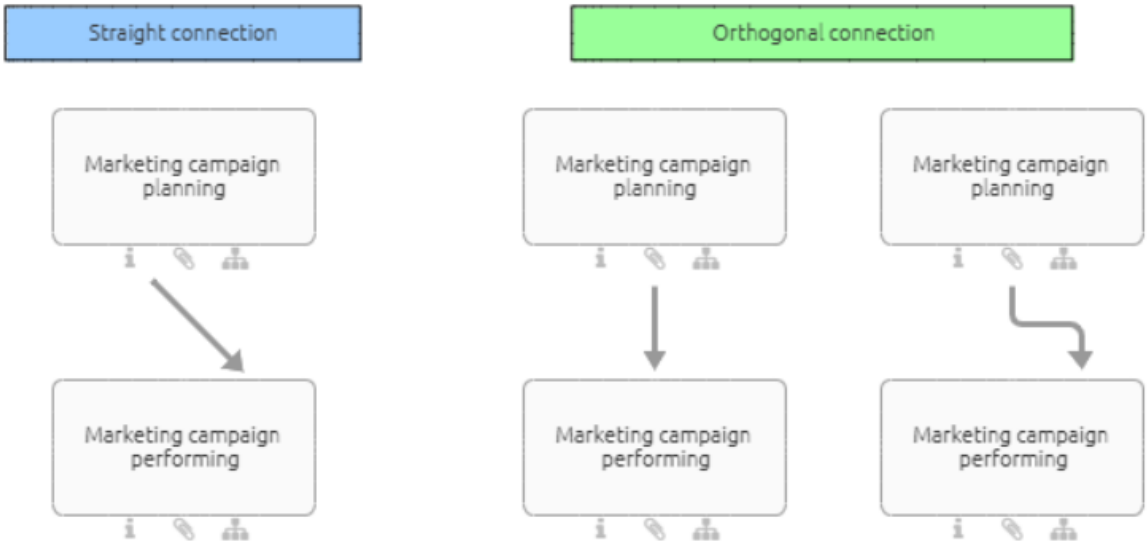


Connection can be added via drag & drop or by selecting the start and end ports (depending on the connection type). This is explained in the following.

8.3.2 How do I change the link type?

You can connect symbols using an *orthogonal* or *diagonal* connection. Orthogonal connections are horizontal or perpendicular resp. they are a combination of such lines. A connection of the type *diagonal* goes straight from the start to the end port without any bending. The active connection type is displayed in the editor as *Change link type* button. Select the button to change the type.

The symbol of the button changes accordingly: orthogonal - angled arrow, diagonal - straight arrow. If you draw a new connection between two symbols, the connection will be straight resp. orthogonal.



8.3.3 How can I connect symbols orthogonally?

You have the following options to add an *orthogonal* connection between two symbols. The *connection type* can be switched in the editor. If the connection type button shows an angled arrow, the connection will be *orthogonal*

Insert the desired two symbols into the editor or open a diagram with at least two symbols which can be linked (e.g. an event and an activity).

Connection icon

Select one of the symbols in the editor. A connection icon appears in the mini symbol palette (upper right corner next to the symbol).

Select the connection icon and afterwards a desired point at the other symbol. A sequence is added between the two symbols.

Connection Mode

If you activate the connection mode, you can add several connections. In the editor, click *Activate connection mode*. A red dot appears on the edge of the icon when you hold the mouse pointer over it. This dot shows the possible start points. Select the point where you like to start your connection.

Then hold down the mouse key over the second symbol and select the location where you want to place the end of the connection. A sequence is added between the two symbols. Deselect the symbol afterwards by a click on a free space. Then you can start a new connection.

To terminate the connection mode, click on *Deactivate connection mode* in the editor.

Port area

Hold the mouse over the edge of a symbol for a while without clicking it. The connection mode becomes active. Now you may add a new connection as described for the connection mode. The connection mode will be deactivated automatically after you added one connection.

8.3.4 How can I connect symbols diagonally?

You have the following options to add an *diagonal* connection between two symbols. The *connection type* can be switched in the editor. If the connection type button shows a straight arrow, the connection will be *diagonal*

Insert the desired two symbols into the editor or open a diagram with at least two symbols which can be linked (e.g. an event and an activity).

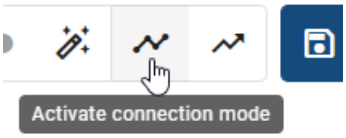
Connection icon

Select one of the symbols in the editor. A connection icon appears in the mini symbol palette (upper right corner next to the symbol).

Select the connection icon and draw a connection between the current symbol and another by using the drag & drop function.

Connection Mode

In the editor, click *Activate connection mode*. A red dot appears on the edge of the icon when you hold the mouse pointer over it. Click on one of the symbols where you want to start the connection.



Press and hold down the mouse key and move to the second symbol. Release the mouse key at the location where you want to place the end of the connection. Then click on the *Deactivate connection mode* to terminate the connection mode.

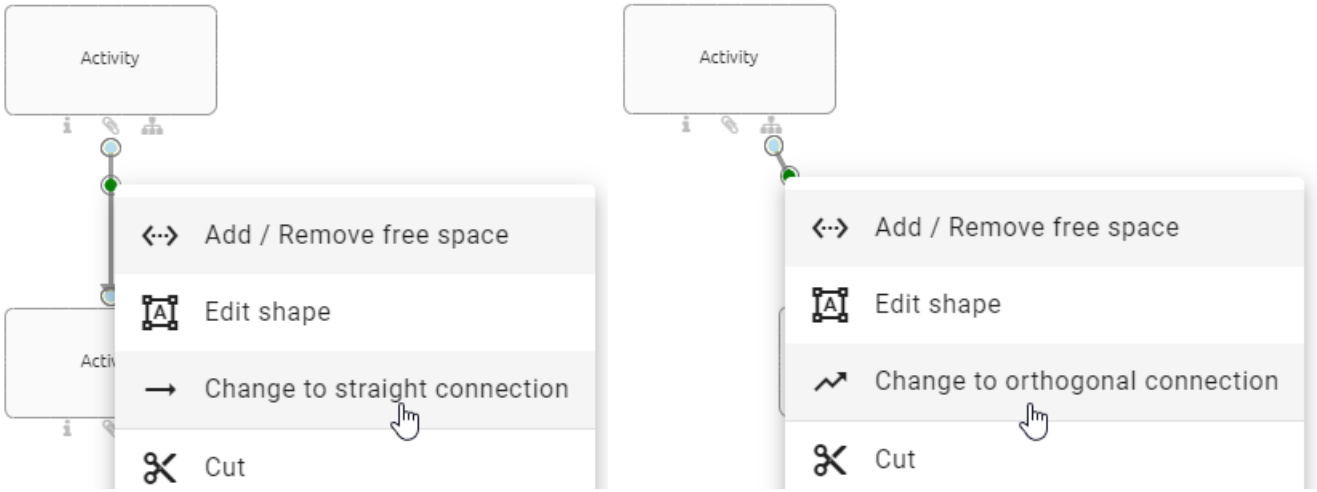
Port area

Hold the mouse over the edge of a symbol for a while without clicking it. The connection mode becomes active.

Now you may add a new connection via drag & drop as described for the connection mode. The connection mode will be deactivated automatically after you added one connection.

8.3.5 How do I change an existing link to another link type?

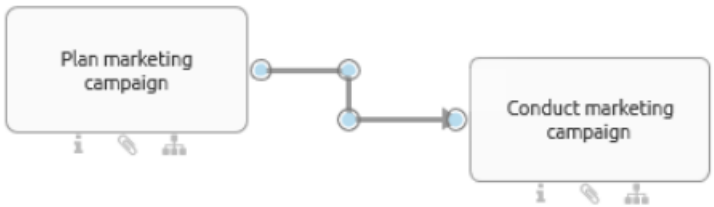
Select an existing connection between two symbols and open the context menu by right-clicking. After that select the *Change to straight connection* or *Change to orthogonal connection* entry. The connection is then changed.



8.3.6 How can I change an existing link?

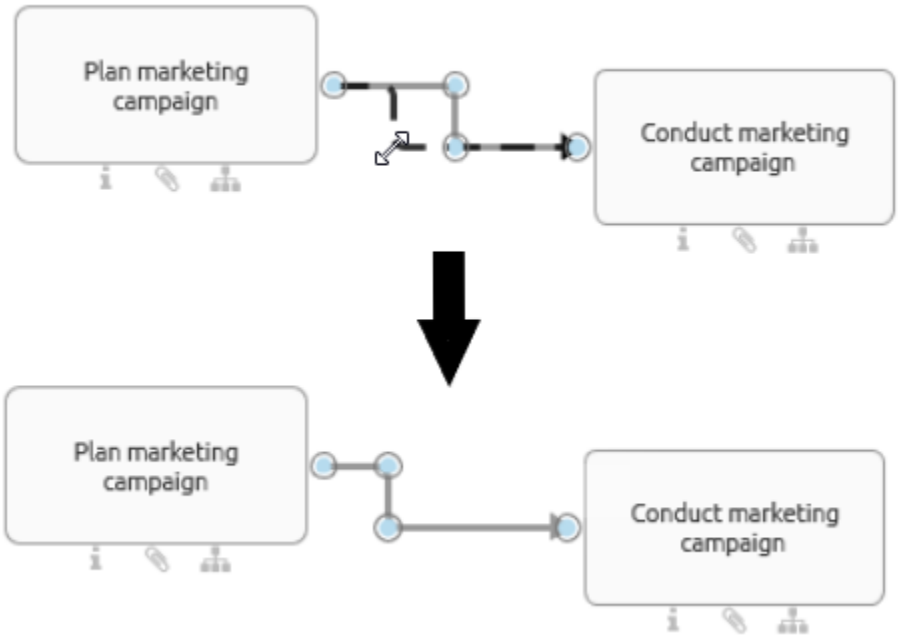
The connection sequences are created automatically when a connection is created. You can change both its path as well as the input and output.

Select the connection you want to change.



Change path

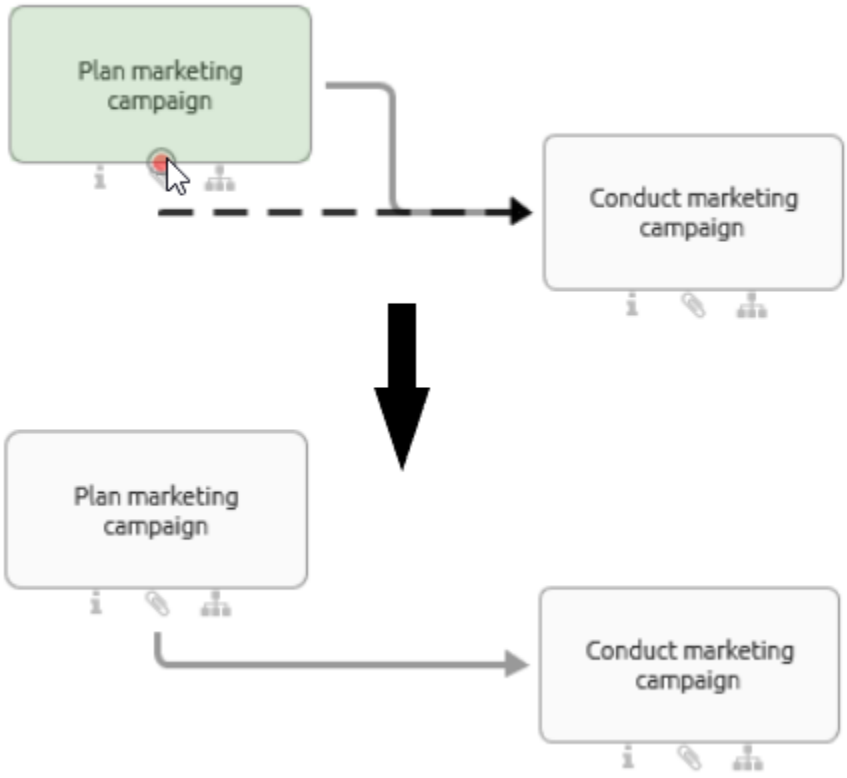
You can move the blue points of a connection by using the drag & drop function.



If you want to create a new nook, click on the desired location and drag a corner into the connection.

Change the port of an existing link

Use the blue points on an object to change the location of the connection on the same symbol. Simply drag & drop the existing link to another dot along the edge. Any possible inputs or outputs are indicated by red dots.

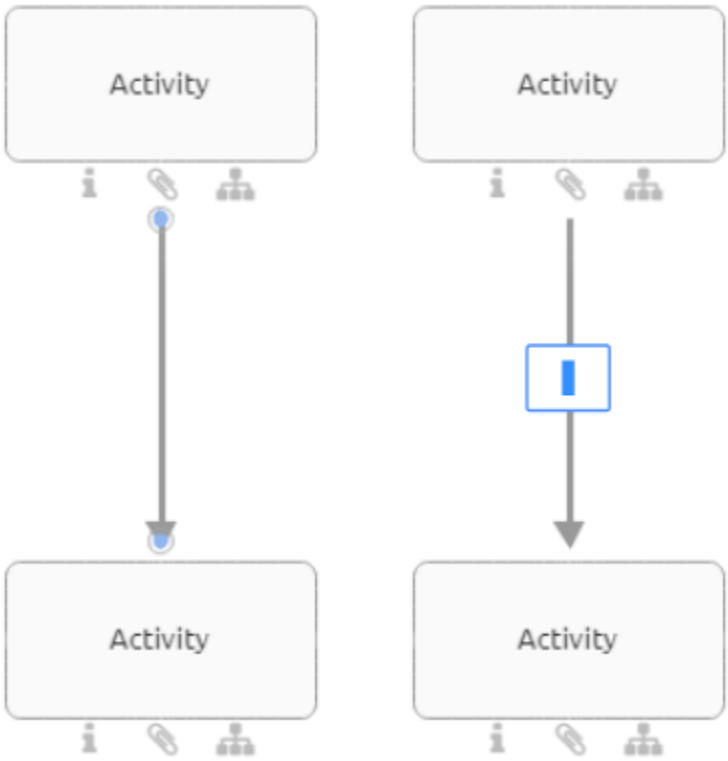


Note: Existing connections cannot be moved from one symbol to another symbol.

8.3.7 How can I label or rename connections?

The label is directly displayed by double-clicking on the connection. You can now label the object. Click somewhere within the editor to finish the entry.

Optionally select the connection by clicking on it once and press F2 so that the label is displayed.



8.3.8 How do I insert an object into a path?

You can insert an object into an existing path using Drag & Drop. The connection between the corresponding objects has to be defined in the method.

Drag a new object from the symbol palette or a free object from the editor to the desired edge. This edge must be of the type sequence flow. When it appears blue and dashed, you can drop the object.

The edge is exchanged by two new edges where the new object is an intermediate node in between the two former objects. All attributes and the optional label of the old edge are copied to the newly created edge where the placed node is the target node.

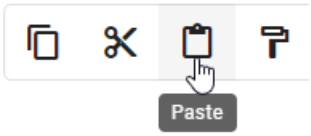
If you remove the new object, the edge returns to its previous state and connects the initial two objects. In case the object types do not allow a connection, the edge does not change its layout as described above. Dropping the new object will place it on top of the edge without any connection.

8.4 Copy, paste and more functions

8.4.1 How do I copy and paste symbols?

Select one or more symbols that you want to copy within a diagram or between diagrams. Then click the *Copy* button in the editor (alternatively CTRL+C).

Click on the *Paste* button in the editor (alternatively CTRL+V).



Optionally you can right-click on an object or in the editor to open the context menu and select Copy or Paste.

You can paste objects into another diagram of different type (e.g. EPC to BPMN) if the object is available in the target diagram type. When you copy several objects, each object is checked for this requirement and pasted when applicable. If you want to paste an object which is not allowed in target diagram it will not be pasted. Furthermore, Connections will only be pasted between two pasted objects, i.e. if an object could not be pasted its connections to other objects will also not be pasted. If an object is allowed in the target diagram but the symbol of the object is not, the object will be pasted with the standard symbol. If an element could not be pasted, you will be informed about the reason for that.

Note: Copying catalog items and symbols that are not part of the catalog differs. Regardless of the object type, copies of catalog items are always reused. This means that an expression copy is created and the object remains the same. Changes to this copy will also cause changes to the original if the catalog item has not yet been accepted. Objects that are not in the catalog are doubled, a *definition copy* is created. Changes to the copy are thus independent of the original.

There are also differences in copying connections. A copied connection is newly created if one of the connected and also copied objects is a definition copy; this is the case if one of the objects is not a catalog item. A connection is reused if the connected objects were occurrence copies; this is the case if they are both catalog items.

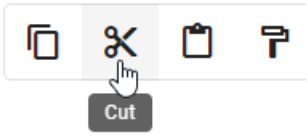
Note: Please note that when copying elements, relationship attributes are not automatically taken over. This means that if you copy an activity, for example, the associated role is not automatically copied as well. Make sure that you transfer relationship attributes separately if this is necessary.

Users with the *Administrator*, *Editor*, or *Author* role (provided the author is maintained in the *Author* governance attribute in the diagram) can copy objects from a diagram in read-only mode, such as the preview or published state. Select an object and copy it with the *Ctrl+C* key combination to copy it to the clipboard. Then, it can be pasted into another diagram in edit mode, provided that the object type in question is generally permitted there.

Note: Please also note that no individual formatting is transferred from the original diagram in this case. If, for example, colors or line types have been adjusted, this information will be lost when inserting.

8.4.2 How can I cut symbols from a diagram?

Click on a symbol that you want to cut. Now use the *Cut* button in the editor to select the desired symbol (alternatively *CTRL+X*).



Optionally you can right-click on an object to open the context menu and select Cut.

8.4.3 How can I delete symbols from a diagram?

Right-click on the symbol you want to delete to open the context menu and select *Delete*.

Optionally, you can delete selected symbols via the *Del* button on your keyboard.

If the object is connected with other objects via exactly one incoming and one outgoing edge of type *Sequence Flow*, a new edge of the same type is created. This connects the neighboring objects with each other in the same direction. The attributes of the previously incoming edge are adopted for the new connection.

Deleting symbols in the diagram does not automatically delete associated catalog items in the catalog. This creates unused catalog items, which can be *reorganized*.

Note: You can also use the *multi-selection* of symbols to delete several symbols at the same time. The new edge is also created here for the neighboring symbols, but without the transfer of attributes.

8.4.4 How can I undo or redo modeling steps?

To undo individual modeling steps, select the *Undo* button in the editor or alternatively *CTRL+Z*.

Use the *Redo* button to restore steps. Alternatively, press *CTRL+Y*.

The *Redo* button and *Undo* button can be used until the diagram has been changed.

8.4.5 How do I add images to a diagram?

When you open the *Diagrams* menu item in the left menu bar, all diagrams available in the current repository are displayed in the main area. If you open the *Diagrams* menu item as an *Administrator*, *Editor*, or *Author*, you can create a new diagram or open an existing diagram for editing. In edit mode, you can insert images directly into a diagram. The file formats *jpg*, *jpeg*, *bmp*, *png*, and *gif* (without animation) are supported.

To insert an image into a diagram, first open the desired diagram and check it out to activate edit mode. You can then insert image files directly into the diagram editor. To do this, you can either *drag and drop* from the file system or paste from the clipboard. To do this, copy an image from any source and paste it directly into the diagram editor using *Ctrl+V*. Both methods are supported.

Tip: The functions *Edit shape*, *Format* and *Change size* can be used for editing an image. For example, you can crop your picture or set a frame.

Note: Copying images between different browser tabs is not supported.

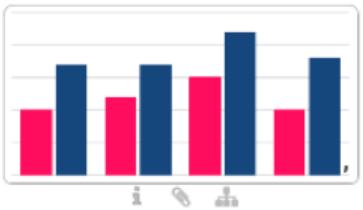
Note: Files stored in interlace mode, such as available for PNG files, are not fully supported. This includes the print preview. In this case, saving the affected file without interlacing and inserting it into the modeling is recommended.

8.4.6 How can I add an image to an activity?

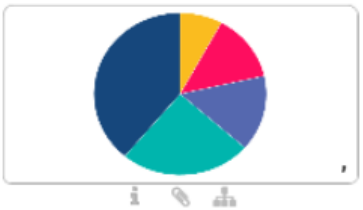
You can add an image to an activity (or any other object). This can be helpful, if you want to create navigation objects and want to highlight them.

To do that, you need to do the following:

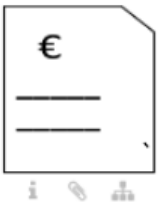
Check out the diagram in which you want to add the image. Copy the image which you want to add. Select the activity (or other object) that the image should have as background. Paste the image (*Ctrl+V*).



Create financial analysis



Create market analysis



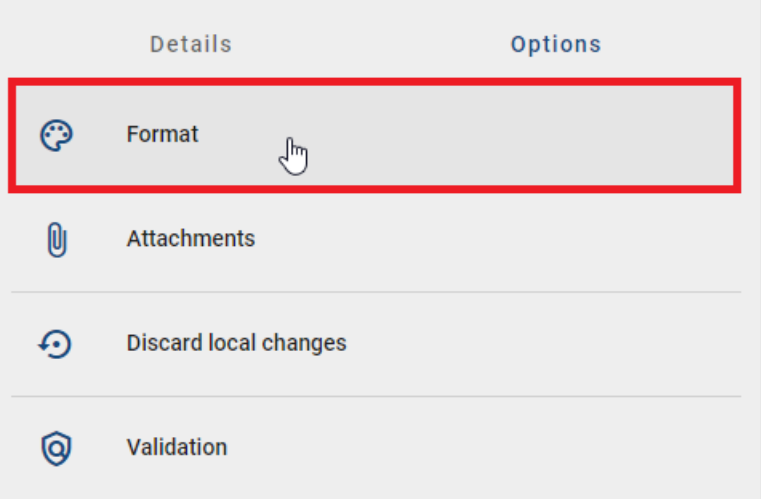
Write invoice

8.5 Formatting

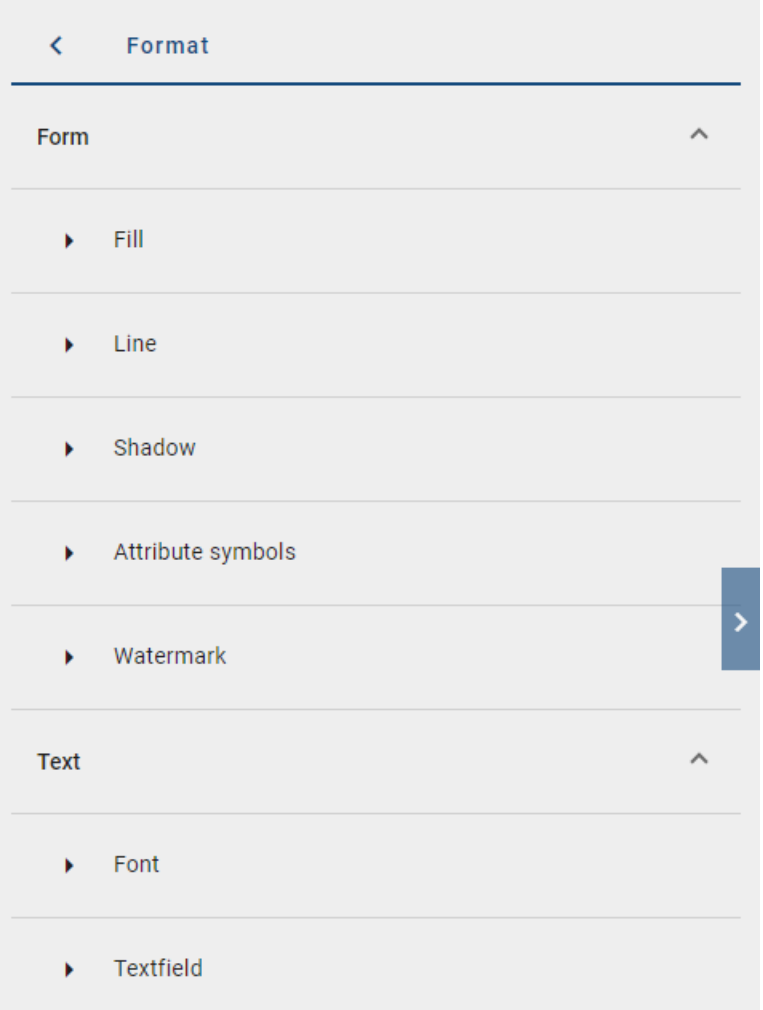
The different formatting options affect not only free-stream symbols but also symbols, such as activities and connections.

8.5.1 How do I change the format of symbol and diagram?

First, select at least one element on the canvas. Then, navigate to the format settings via the options.



You can now choose between *Form* and *Text*.



8.5.2 What options do I have to format objects?

Available settings for the form of symbols:

- **Fill:** You can choose between the following options for the filling of a symbol: None, Solid or Gradient. You can also adjust the color and transparency of the filling.
- **Line:** For the line of a symbol, you can select whether there is no line or a solid line. Furthermore, the transparency and the color can also be set. In addition, you can set the style of a line (for example: dotted line, etc.) and the line width. With open symbols, such as *connection* or the free form symbol *line*, you can change the edge shape as well as the arrow type. To adapt these characteristics the following options are available: *Line End*, *Line Join*, *Start Arrow Type* and *End Arrow Type*.
- **Shadow:** You can choose different shadow types for a symbol. The color can also be set here.
- **Attribute symbols:** You can enable or disable the display of attribute symbols for an object. *Attribute symbols* are the icons that appear below an object, for example when a description has been maintained.
- **Watermark:** You can enable or disable the display of watermarks and create them for symbols. In this case, there is a wide range of adjustment options, such as the adaptation of the size and color of the watermark.

8.5.3 What are the options to format text?

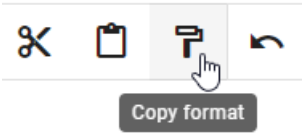
Available settings for the text in symbols:

- **Font:** The font, size, color and style of texts can be changed.
- **Text field:** Defines the behavior of the text field, e.g.: do not resize form. Furthermore, you can define the position of the text field. Your options are: at the left, right, upper and lower text margins.

8.5.4 How can I transfer a formatting?

The copying of a specific formatting is available to modelers as a functionality in the editor. This allows you to transfer *formatting* from one object to the next.

Select your formatted object by clicking on it once. Then select *Copy format* in the editor. Once you click on the button, you can transfer the format to another object. If you double-click, you can edit several objects.

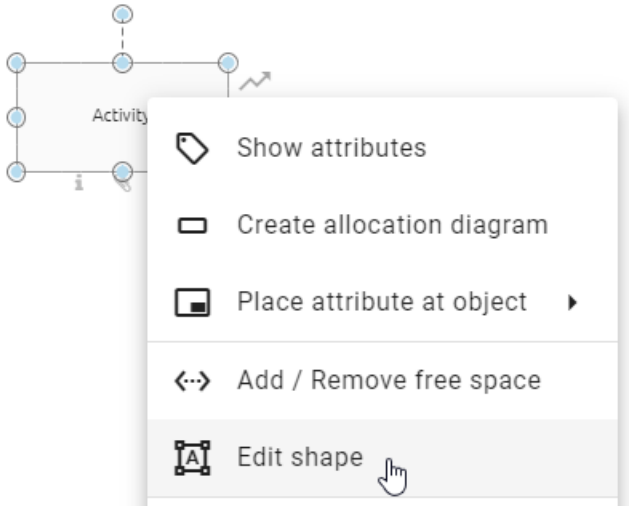


Click on the object to which you want to transfer the formatting. With a click somewhere in the empty editor or pressing ESC you can cancel/exit the *Copy format* mode.

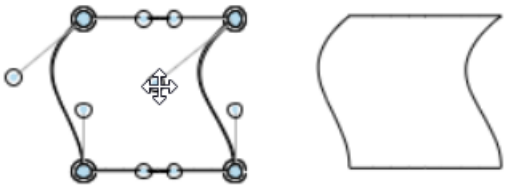
8.5.5 How do I change the shape of symbols?

You can change the shape of existing symbols.

Select a symbol in the editor that you want to modify and select *Edit shape* by right-clicking in the context menu. It is now possible to edit individual points of the symbol, which allows you to change the shape of the predefined icons.



Change the symbol by moving an editing point to a different position while holding down the mouse key. You can repeat this for further processing points. The editing mode is active until you click somewhere in the editor. The same processing also applies to *connections*.

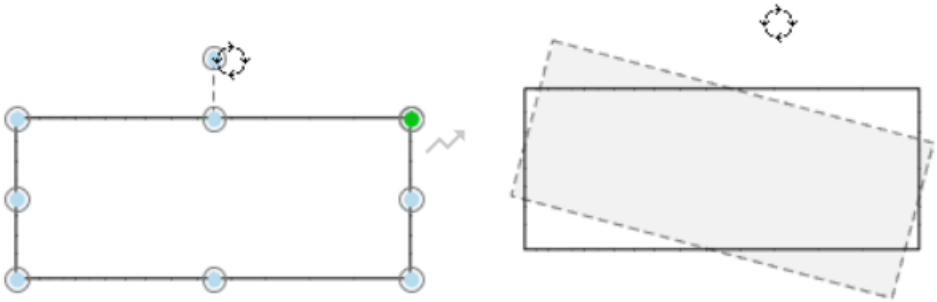


8.6 Support for visual adjustments

8.6.1 How do I rotate symbols?

You can change the orientation of symbols in the editor. That means it is possible to rotate symbols to any position you like. Analogous to the *position and size*, it is also possible to change the orientation of symbol names independently of the orientation of their symbols.

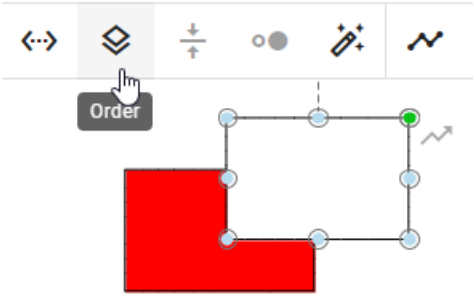
Click on a symbol in the editor. If you only want to change the orientation of the name, click on the symbol twice. A circle appears above the symbol. Select the circle above the symbol by mouse click and drag it to the left or right to change the orientation of the symbol. This allows you to rotate the symbol for example by 90 degrees.



8.6.2 How do I change the order of symbols?

You can define the order of overlapping objects in the editor. This applies to all objects you can use in the editor, including free forms and connections.

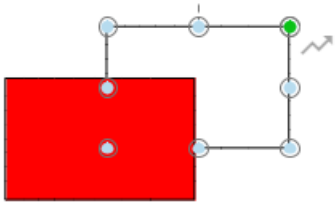
Select the object. Then navigate to the *Order* button in the editor.



Four options are available:

- *To foreground:* The selected object becomes the top level of the overlapping objects.
- *To background:* The selected object becomes the lowest level of the overlapping objects.
- *Move up:* The selected object is set one level higher.
- *Move down:* The selected object is placed one level lower.

Once one of the options is selected, the arrangement of the symbol changes accordingly.

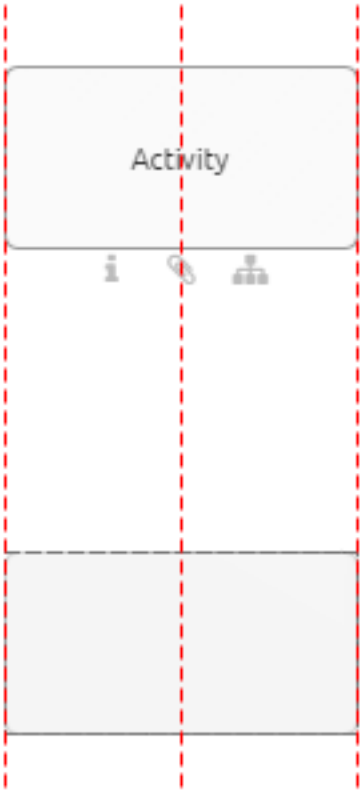


Note: Recently created objects always lie within the topmost plane of arrangement. This layer can still be changed later. Pools always lie within the lowermost plane of arrangement due to their technical meaning.

8.6.3 How do I use the alignment tool?

To simplify the positioning of symbols, you can use the alignment tool, both for existing symbols as well as for the creation of new symbols in the editor.

Open an existing diagram that contains symbols and drag a symbol from the symbols view into the editor. Afterwards, align the symbol with other symbols by placing it beneath another one. You will see that alignment lines are displayed. They can appear at the outer edges of symbols as well as through the center of a symbol, depending on the position to other symbols.



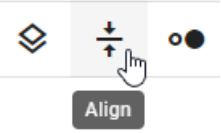
Tip: You can turn off the alignment tool by pressing the *Alt* key while positioning the symbol.

Warning: In the Google Chrome browser you can turn off the alignment tool with *Alt* and *Alt GR*. When using Internet Explorer, keep in mind that the *Alt* key opens the menu bar of the browser. So please only press *Alt GR* for turning off.

8.6.4 How do I align symbols to each other?

You can use an *Alignment* function to align symbols to each other.

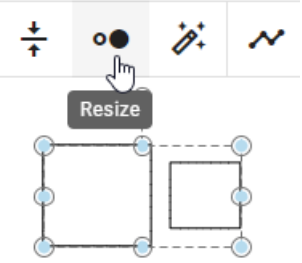
To do so open a checked out diagram that contains elements that you want to align to each other. Select several elements at the same time, either by dragging the mouse with pressed key over the area in which these elements are located, or by using the Shift key and clicking on the symbols. To finish, select *Align* in the editor and select an entry (for example, *Top align*). The elements are aligned to each other according to the first selected entry.



8.6.5 How do I match the size of symbols to each other?

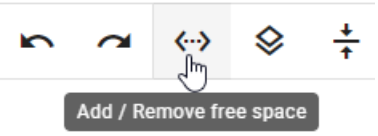
Open a checked-out chart that contains items whose size you want to match. Then, select several elements at the same time, either by dragging with pressed mouse key over an area in which these elements are located or by using the Shift key and clicking on the corresponding symbols.

Select *Resize* in the editor and select an entry (for example, *Fit to largest Shape*). The size of the elements is adjusted accordingly.

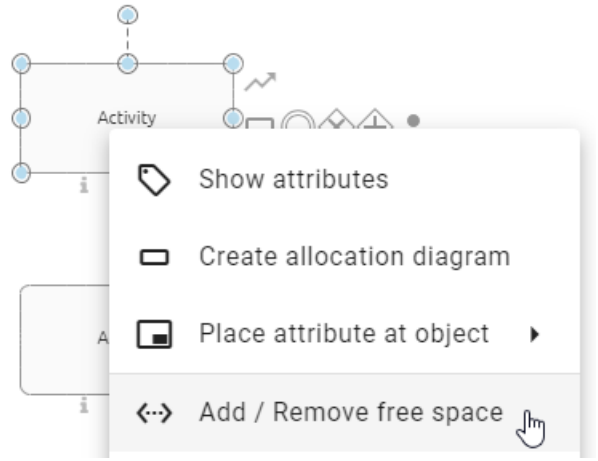


8.6.6 How do I add or remove space?

With the function *Add / Remove free space*, you have the option to insert or remove space between symbols.

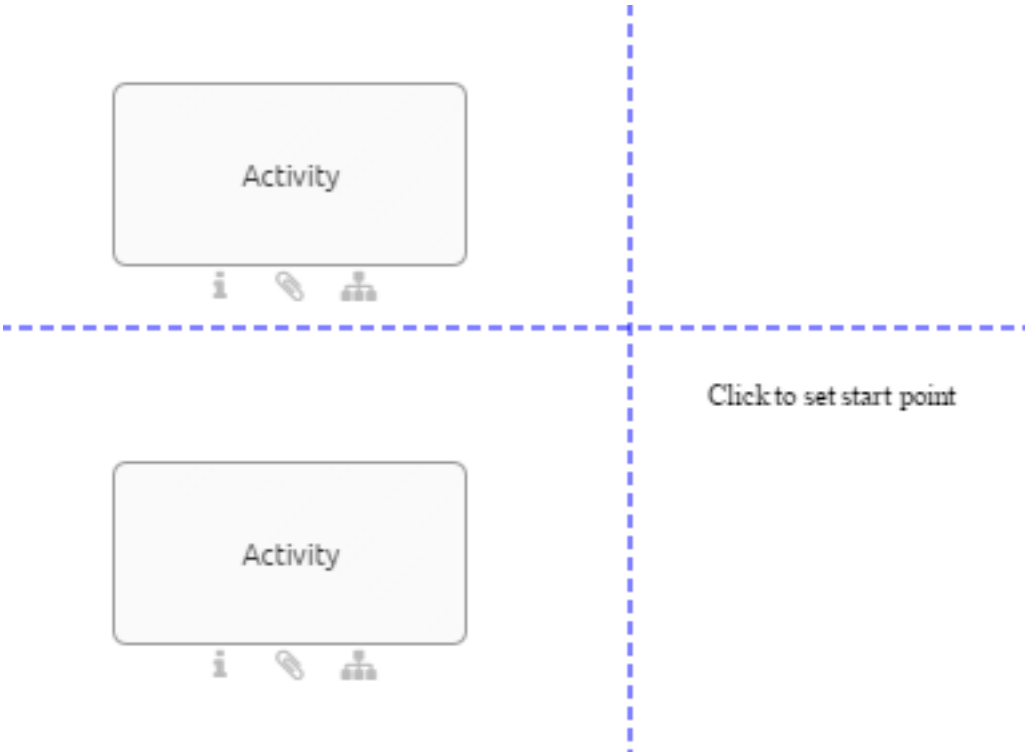


In your checked-out diagram, you can access the function by a click on the option *Add / Remove free space* in the editor. Alternatively, open the context menu by right-clicking in the editor and select the entry *Add / Remove free space* there.



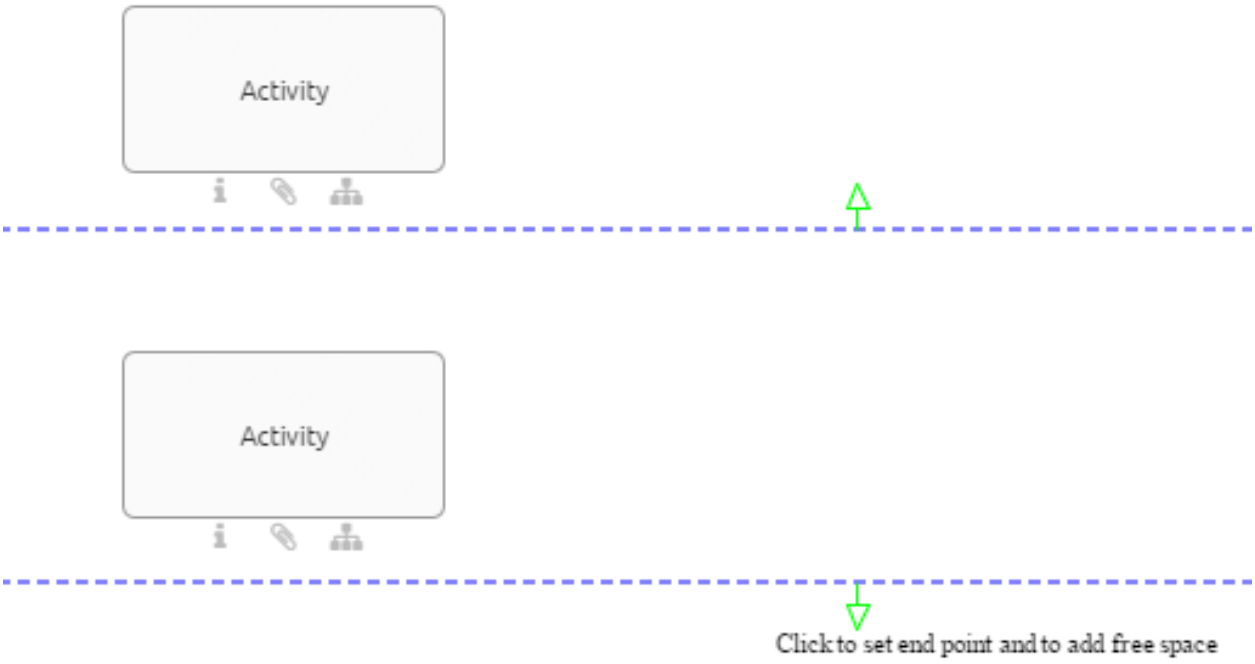
Two blue dashed lines appear, one running horizontally and the other vertically through the diagram.

Click on a point in the diagram to set the start point where you want to start removing or adding free space.



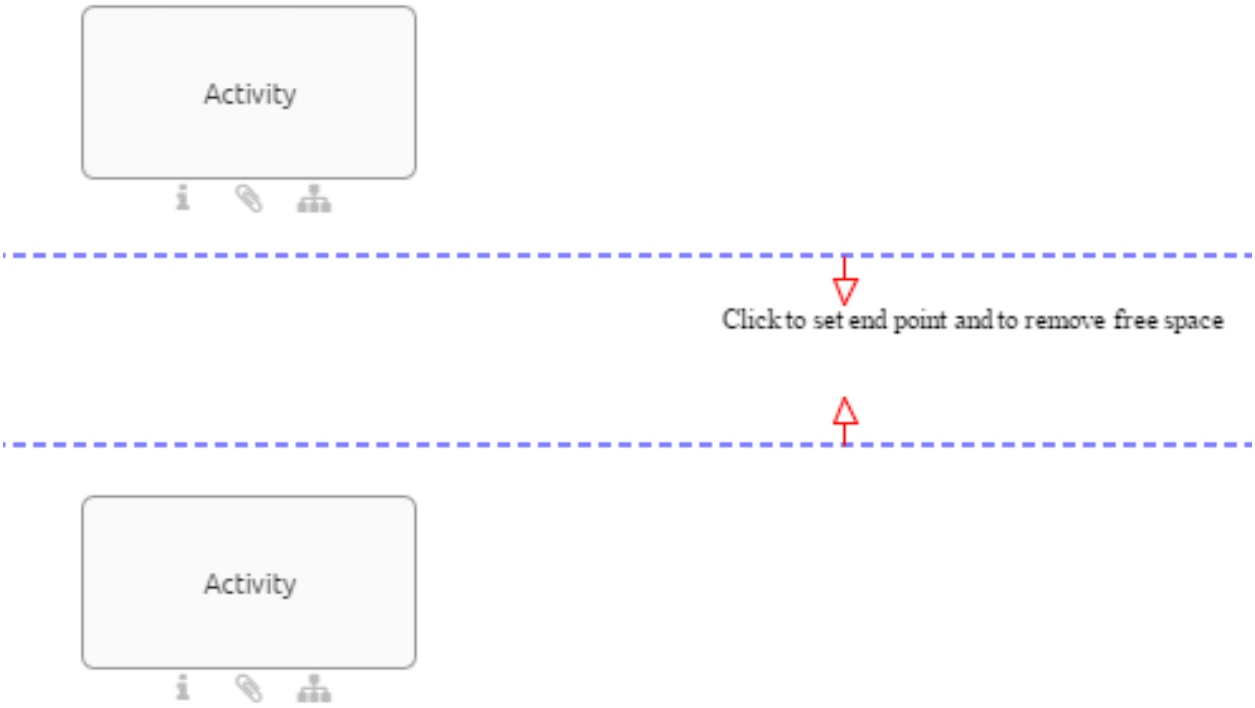
Add space

Click on a point in the diagram that is located on the right side or underneath the start point to add free space.



Remove space

Click on a point in the diagram that is located on the left side or above the start point to remove free space.



8.6.7 How do I use the layout assistant?

The layout assistant helps you to layout the process flow. This means that the sequence flow and activities are in the foreground. By default these are the diagram types BPMN, EPC and VCD. In edit mode of these diagrams you can layout the selection of a container object, multi-selections as well as the entire modeling. After layouting, the diagram is positioned at the 0/0 corner. In order to layout the whole modeling, you should not select anything in the diagram or select a symbol, which is not a container symbol. Your selection persists after layouting.

Click on *Suggest layout* in the editor. This will automatically layout the objects involved in the process. In the meantime, the editor is overlaid by the corresponding message. It is distinguished between satellites and sequence flow.

Satellites: The various satellites associated with an activity, such as roles and documents, are divided into quadrants according to their modeled position. Within this quadrant, the satellite is automatically positioned uniformly depending on the modeling. Furthermore, the edge ports are reassigned here. The arrangement of the edges in EPC diagrams takes place on the right and left side of activities. In BPMN diagrams, the ports are created at the top and bottom of activities.

Sequence flow: Mainly underlying activities are assigned to a column. In the same way, adjacent activities are assigned to rows. Within these rows and columns, the activities are arranged in a straight line using the layout assistant. An activity including satellites is considered as one related object. This affects the height and width of columns and rows. Sequence and message edges between activities are reassigned if necessary.

Note when layouting containers in the diagram:

- If you want to layout the whole diagram with a container in it, the size of the containers is adjusted in addition to the changes described. The containers thus keep a configured distance from the internal elements. When resizing, however, the header side of pools is excluded, so that no configured distance is kept there.
- If a container, such as a horizontal or vertical pool or lane, is selected, the layout assistant takes the symbols within this container into account. The layout of the elements in any container always follows the same rules, while the container size remains unchanged.

This chapter describes the default settings. The layout may behave differently, if the settings to a diagram types are adjusted in administration area of BIC Process Design.

Note: The layout assistant does not support the simultaneous use of horizontal and vertical pools within a diagram.

8.6.8 How can new symbols be layouted automatically?

The layout assistant is permanently activated by pressing *CTRL* -key and simultaneously clicking on *Layout*. The associated icon remains highlighted in the menu bar. When creating new symbols with one click via the mini symbol palette, the symbols are directly routed and placed in the corresponding position.

With *CTRL* and left mouse button, the permanent setting can be deselected again. A single click on *Layout* still corresponds to the *Layout described above*.

Note: The "Undo" and "Redo" modeling features exclude these layout assistant changes.

8.7 Details and Options

This section explains various display settings of diagrams and symbols used in diagrams. These options are each part of the details and options on the right side of the page and are directly linked to attributes of objects and diagrams. For each diagram, the details and options are open by default during modeling.

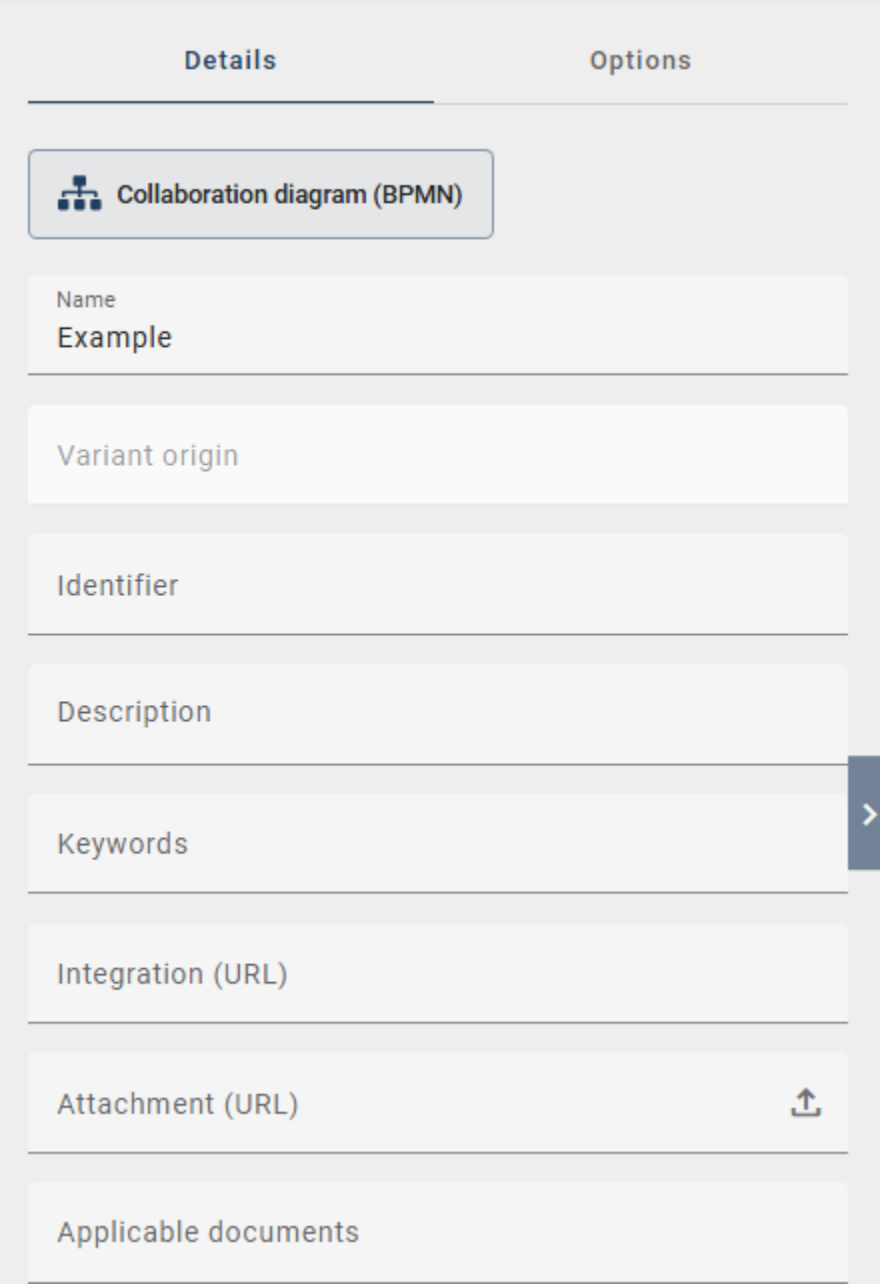
Depending on the *administration settings in BIC Process Design* the details and options can contain different *attributes*. In the publication, the details are displayed by default when you open a diagram.

8.7.1 Attributes

How do I display attributes in diagrams?

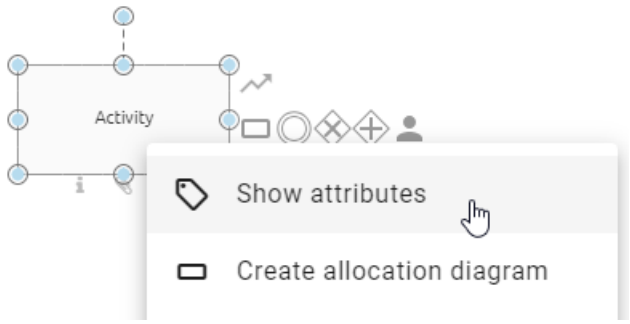
As a user, when you open the *Diagrams* menu item in the left menu bar, you can access all of the diagrams in the current repository, which can be sorted by category.

Once you have selected a diagram from the *Public workspace* stage, you can check it out as an *Administrator*, *Editor*, or *Author*. In the checked out diagram, you will find the diagram attributes in the *Details* panel in the right sidebar. The attributes may vary depending on the *administration settings in BIC Process Design* in the different areas.

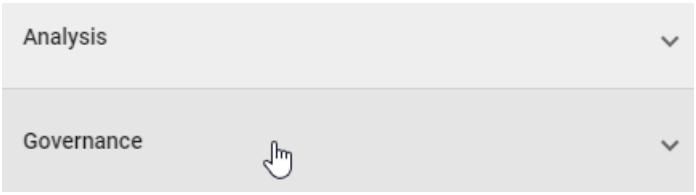


If you select an object in the diagram before or after opening the *Details* tab, the corresponding attributes are displayed in the right sidebar. For each modeled object, the object type in your browser language and the current catalog status (e.g., catalog suggestion) are displayed. The system attributes are displayed in your browser language and cannot be edited.

Optionally, you can right-click on a symbol and select the *Show attributes* option from the context menu that appears to display the attributes of the corresponding object. If you right-click on an empty area, you can display the attributes of the diagram.



In the Details, all attributes of the diagram or of the selected object are displayed. You can edit the attributes or set a new value if an attribute has not been maintained yet. But you should note the behavior when you *change a catalog object*. By default, further attribute groups, such as *Governance*, are hidden in the Details. By clicking on the respective heading, you can display those attributes.

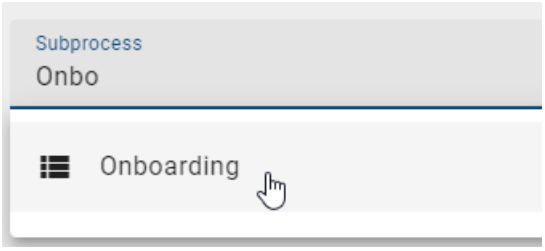


Hint: Please be advised that when multiple elements are selected in a diagram, the details of a single element cannot be displayed.

How do I create a link to another diagram?

You can place links to other diagrams to create subprocesses of diagrams. These subprocesses allow you to map diagram hierarchies.

Create an activity in a diagram and open the attributes of this activity. Then, in the attributes, click the *Subprocess* attribute. Afterwards insert the name of the diagram you want to save. You will receive a suggestion list of diagrams containing the entered term in the name.



Select the diagram from the suggestion list. The subprocess is saved and is made visible in the diagram by the attribute symbol showing up below the activity.

Note: Variants and *allocation models* can be linked in the same way. Only existing diagrams can be linked as they are added via the suggestion list.

Tip: If you also maintain the process type of the activity as *Call activity*, a *subcase in BIC Process Execution* will be

started for the subprocess.

Hint: Please note that diagrams accessed through a shared link can also be viewed by users who do not have read permission for that stage. In addition, limited navigation to other linked diagrams (e.g., subprocess, variants) is possible.

How can I connect users to diagrams and objects?

The attributes of diagrams and objects can be used to connect to users and user groups. This is possible using the *governance attributes* author, reviewer, responsible, *scope*, and restricted access for various functions.

Navigate to the appropriate attribute in the catalog or diagram. Then enter a term and you will get a suggestion list of all users or user groups that contain this term in their name. You can select a suggested user or user group by clicking on it. The corresponding *person* or *organizational unit* from the catalog will then be entered in the respecting attribute. Finally, save your changes.

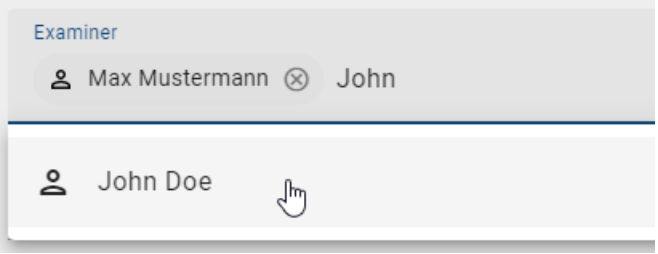
Tip: You can also search for the user's email address. If a user is selected from the list and is not linked to a *catalog* object of the type "person", a new catalog item will be generated with the name and the email of the given user. If more than one person exists with the email address you are looking for, the catalog item found first will be taken by selection of the user.

How can I maintain governance attributes?

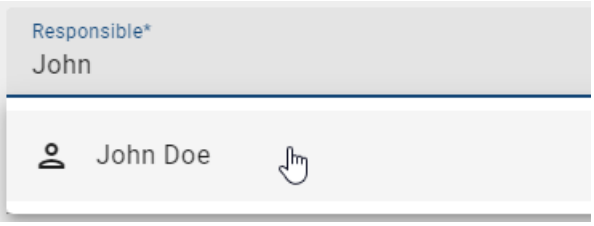
You can maintain governance attributes for diagrams and some catalog items. To do this, check out the affected diagram or navigate to the corresponding catalog item and open the attributes. In the *Governance* attribute group, you can use a suggestion list to select users and user groups. The corresponding catalog object *person* or *organizational unit* will be set for the attribute, when the user or user group has been selected from the suggestion list. When you save the catalog item or additionally check in the diagram, your changes are taken over. The different governance attributes and their functions are presented below.

Author: Users of the role *Author* only have the permission to edit diagrams if they are entered as author in the diagram attributes. This is possible for both users and user groups. In addition, you can enter authors in governance attributes of catalog items. Then not only creating and editing suggested catalog items is allowed, but registered authors can also edit accepted master data. An author of a published diagram or catalog item is (by default) *informed via email* about a resubmission.

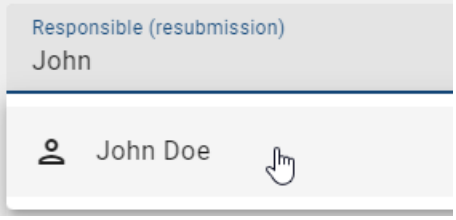
Examiner: Users who are registered in the attribute *Examiner* execute the release step of a publication and will be notified of the pending release step. The examiner role can be assigned to individual users as well as user groups per diagram and per catalog item. Per entry, that means per person and per organizational unit, one approval is required in the examine step to initiate the next workflow step. The first three examiners of a published diagram or catalog item are (by default) *informed via email* about a resubmission.



Responsible: A maximum of one user or user group can be entered in the *Responsible* attribute. This entry is required if a catalog item is to be published individually or the diagram is to be published. The responsible user or user group is finally notified at the release step of the publication and can confirm it. Moreover, they receive a notification and a *resubmission task* before the validity period of a diagram or catalog object is reached. The attribute *responsible (resubmission)* can be used instead. In this case, the responsible will receive the *information mail* about the scheduled resubmission.



Responsible (resubmission): The *Responsible (resubmission)* attribute is available for diagrams and catalog items. Either an individual user or a user group can be entered here. The responsible persons then receive the notification and a *resubmission task* before the validity period of a diagram or catalog item is reached. If this attribute is empty, the *Responsible* receives the corresponding task and notification.



Tip: You can also search for the user's email address. If a user or user group is selected from the list and is not linked to a catalog object of the type "Person" or "Organizational unit", a new catalog item will be generated. This will have the name and email of the corresponding user or the name of the user group as name and identifier.

Special retention period (in years): This attribute enables you to define an individual retention period for the archive entries of the concerning diagram or catalog item. The retention period determines for how long an entry is saved in the archive. A general setting can be made *in the administration*. In case the period of archive entries in *publication* stage should differ for your diagram or catalog item, you can set the desired value here. Maintaining an integer greater than zero leads to an archiving of new entries for the corresponding number of years whereas negative values will be ignored (i.e. the time set in the administration is applied). If no archive entries should be created for this object (in publication stage), simply enter the number zero.

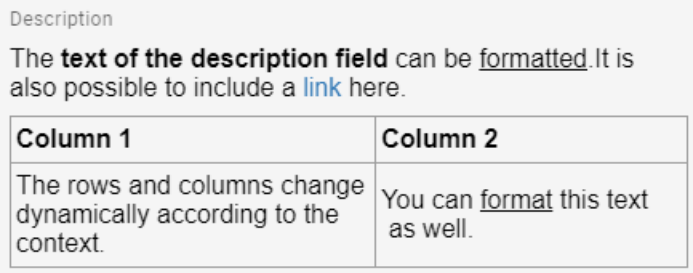
Hint: Please note that the attribute *Special retention period* is deactivated by default. If it should appear in the governance attributes, it can be activated in the method. However, the special retention period is only applied to a diagram or catalog item if the general archiving has been activated for the corresponding type *in the administration*.

Which functions are available for the attribute description?

Each symbol and diagram has a description attribute. When you edit the description attribute for an object, some object types show a description icon by default.

Click on the description attribute of a symbol (e.g. an activity). Various formatting options are available for the description attribute. These are:

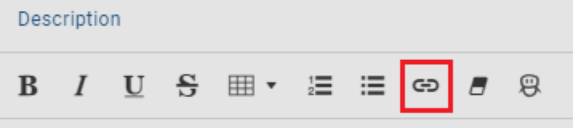
- Bold
- Italic
- Underline
- Strikethrough
- Table
- Numbered list
- Bulleted list
- Add links
- Remove format
- (Add AI-generated description)



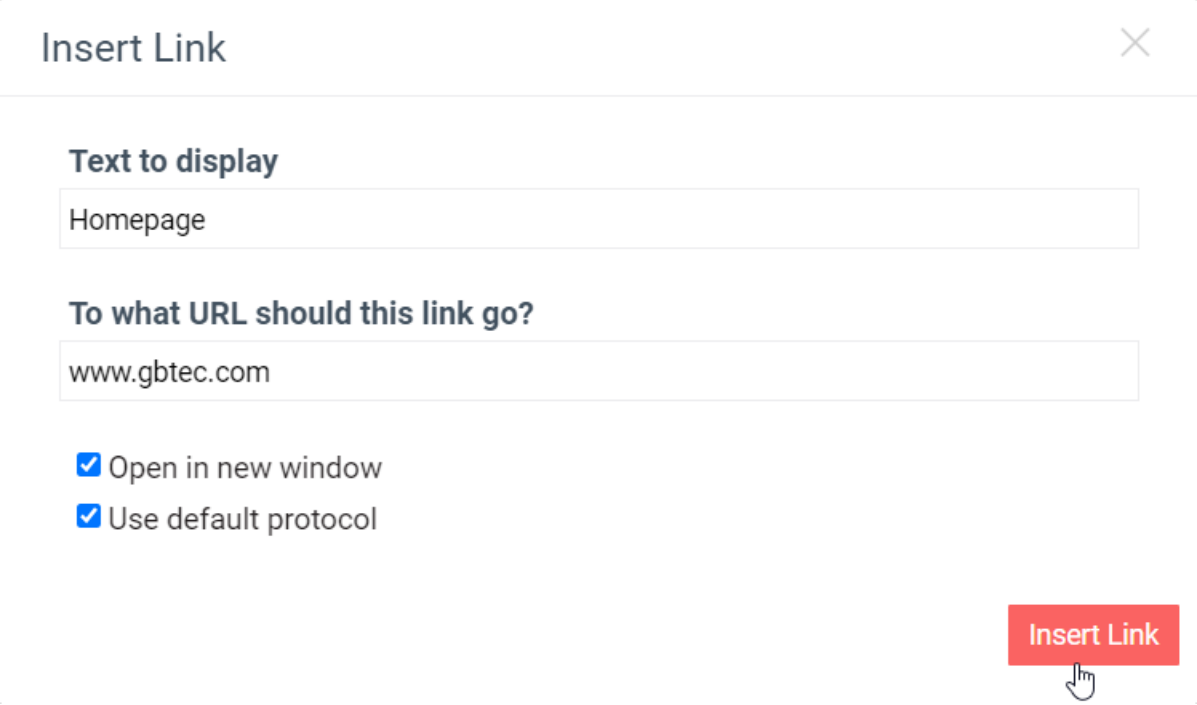
Set the formatting according to your requirements and finish the editing by clicking in the diagram.

Add a link:

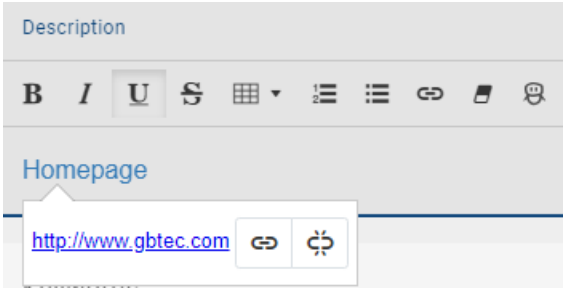
You have the possibility to link documents or URLs within the description field. To create a link, click on the link symbol.



A dialog opens where you can enter the link and optionally a title, i.e. a text which is displayed.



You can also mark a piece of text in the description field and click on the link symbol to fill the title automatically and attach the link to the existing text. In the dialog, you have two further options. First, you can choose whether the link is opened in a new tab (activate checkbox) or in the current tab when it is selected. If you select the second option, the default protocol `http://` is used for your URL. Deselect the checkbox in case you use another protocol, like `mailto://`. Both options are initially activated. When the configuration is implemented according to your wishes, select the button *Insert Link*. Your configuration will be saved and the dialog closes. To discard the data instead, close the dialog via the cross button in the upper right corner.



The title of the link is displayed in blue color afterwards. If you select it once, a pop-up will show the link and two buttons. Selecting the right one removes the link (the displayed text remains). The left button can be used to re-open the configuration dialog for further editing.

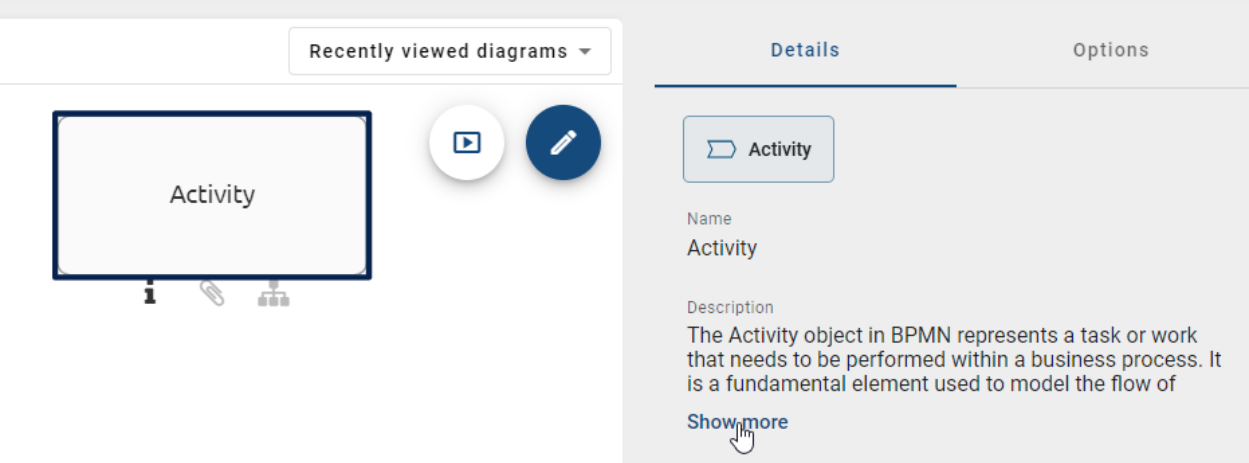
Table:

In order to insert a table, click the table icon to open a selection field. You can define the size of the table by hovering over the grid and confirming the desired columns x rows numbers by a click. The table is pasted into the description field. If you mark the table, you can move it to a desired place using drag & drop. To adapt the formatting of text inside the table, simply use the functions mentioned above. If you place the cursor in a cell, further functions are displayed to insert new rows and columns. You can also delete the current row/column. The bin icon enables you to remove the whole table. The table is removed instantly after selecting this function and there is no further confirmation necessary. Therefore, be sure about the deletion before selecting the function!

Note: Please note that if you use a description attribute that contains an HTML table and place it on the modeling canvas, the table borders will not be visible. In addition, when copying a table from PowerPoint, it may appear twice, once without formatting and once with formatting.

The maintained description attribute is indicated by an **i** under the symbol. Descriptions of your process steps and other symbols are displayed in a tooltip as soon as you move your mouse over the highlighted information icon of the object.

If you view descriptions of checked-in diagrams that contain more than 3 lines, they are displayed collapsed by default. You can see the entire description by clicking on *Show more* and minimize it by choosing *Show less*.



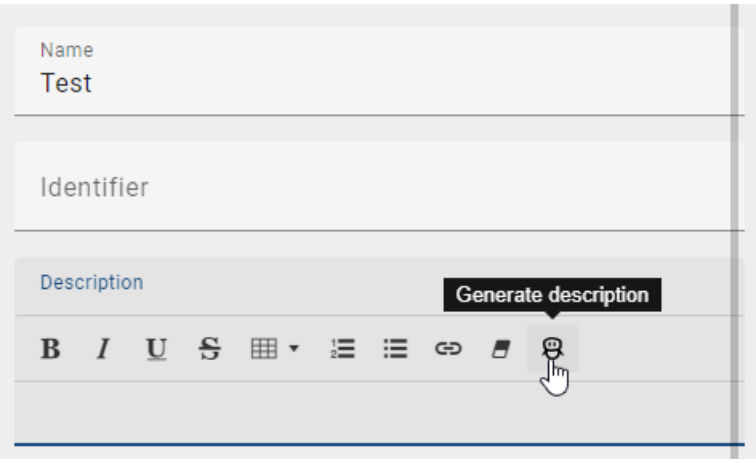
Note: For some object types the icon for maintained description attributes is not visible by default. It is possible to change this in the formatting options for a selected symbol.

Hint: The table formatting is not fully supported in exports. If you use a table in a description attribute, the content is still copied to the document as a table and appears in the defined formatting. But the table is displayed without a frame and border lines of the rows and columns.

How can I generate a description from AI?

Starting from version 7.13, the feature to generate an AI-generated description is available. For this, you need to be in the local workspace and check out the respective diagram.

To use this feature, the diagram or entity in question must have a name and not contain a description. Subsequently, the button for generating an AI-generated description will be activated.



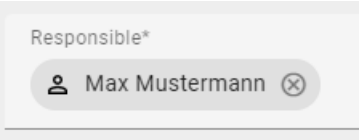
After clicking the button, you will receive a complete description of the diagram or entity within seconds, which you can adjust as needed at any time. Subsequently, the button deactivates and can be used again if the description is empty.

Hint: This function is performed by *Arty*, our AI Modeler. Please note, that this function requires a separate license. Please also refer to the *notes on using the AI feature*.

What is a mandatory attribute and how can I detect it?

In the attribute tab, an asterisk marks a mandatory attribute. This applies both to the attribute tab in the diagram view and to the object details in the catalog. Entering such an attribute is mandatory to publish the diagram resp. catalog object. If these are not maintained, you will get a corresponding message in the application when initiating the release workflow. If you create or edit an entity, you do not have to maintain the mandatory attributes yet. Attributes can be defined as mandatory in the method.

For example, the attribute *Responsible* always is a mandatory attribute.



Note: The following exceptions will be applied to mandatory attributes that are multi-valued or language localized when the release workflow is initiated. The workflow engine checks if at least one value has been maintained for all mandatory multi-value attributes. There is no further check about the amount of values. The check for language localized attributes is successful if a value has been maintained for at least the *default language* of the tenant. If this attribute value has not been set, the initiator of the release workflow receives a notification about the missing translation in the diagram resp. catalog object.

What are occurrence attributes?

If you have multiple copies of an object, typically, the value of an attribute (for example, the name of the object) is the same for each of these copies. In contrast, the values of occurrence attributes can be set independently for each copy. If an object is copied, initially each attribute value is identical to the original value. These can, however, be subsequently modified without the other copies / the original being altered.

BIC Process Design uses a small symbol to indicate whether it is an occurrence attribute (see figure below).

- Occurrence attributes are defined in the method and cannot be defined in the application itself.
- If the occurrence attribute has to be of identical type in all variants of the object, then it must be maintained individually for each object.
- The contents and the identifiers of the occurrence attributes are not included in the catalog.

How can I set the access restriction for objects?

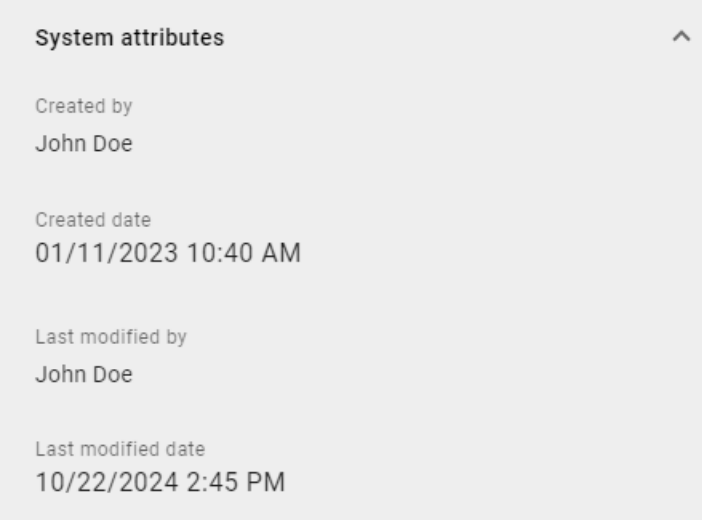
You can use the attribute *Restricted access* to restrict access to an object for certain users. To do this, you must edit the attributes of the object either *in the diagram* or *in the catalog*. This restriction applies if the object exists in the catalog. Only members of the selected user group, registered users and *governance participants* can see the object in the catalog or reuse it via the suggestion list. The access restrictions apply regardless of the user role, so even administrators can be excluded. If the access restriction attribute is empty, there are no restrictions.

Warning: Reuses of the catalog items with access restriction are still visible in diagrams despite access restrictions. This applies to the entire object, including all its attributes, such as attachments and files. Additionally, this data is included in the archived versions of the diagram.

What are system attributes?

System attributes give the user information about the creator, the person who last edited the diagram and the associated timestamps of the diagram. These attributes are generated by the system and users can only read them.

You can view the systems attributes when a diagram is checked in. Open the corresponding diagram and navigate in the *Details* to the attribute group *System attributes*. Click on the attribute group to see the associated information.



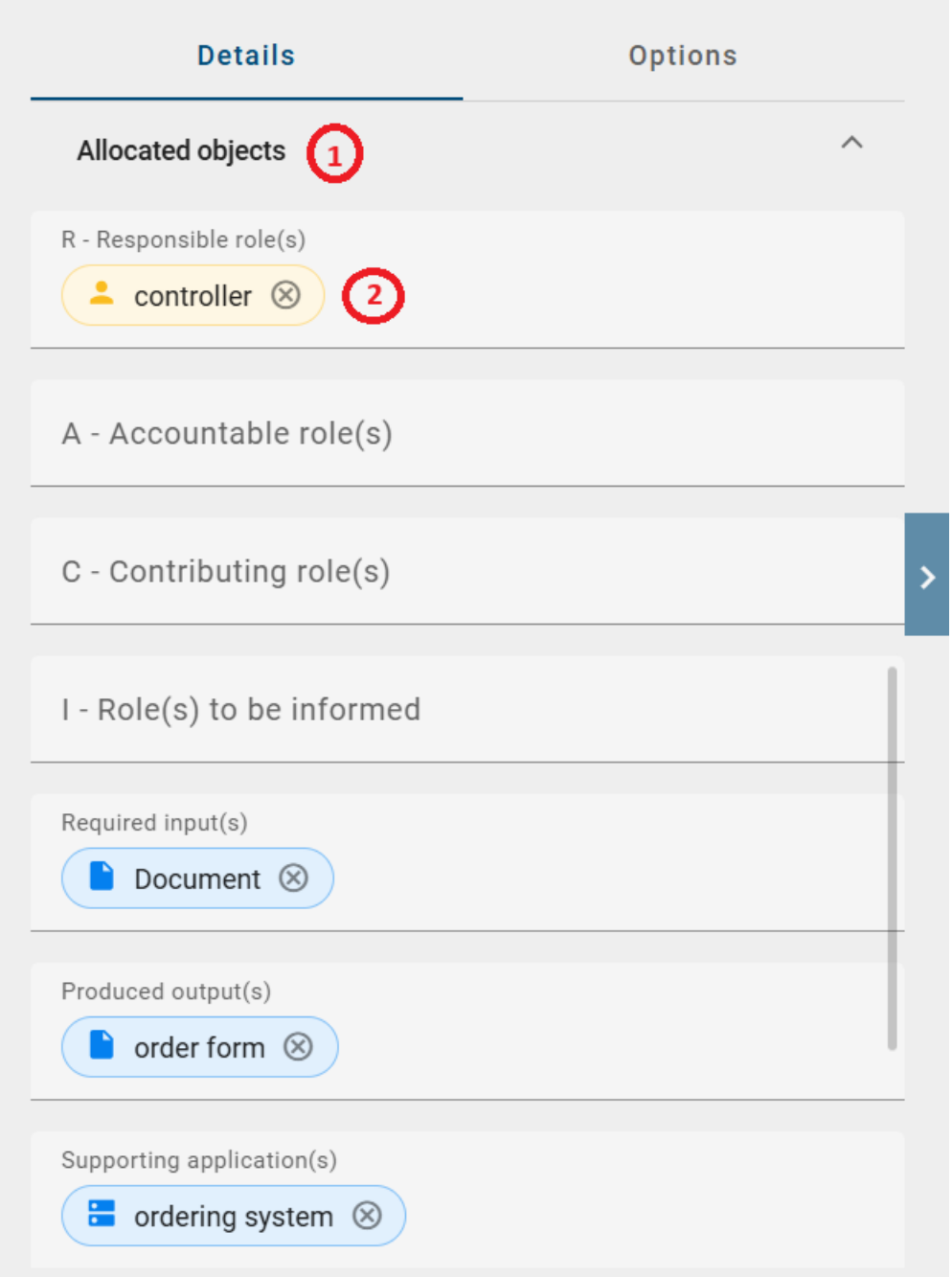
Note: As a user with at least *Reviewer* rights, you will find the *number of diagram visits* in the system attributes when viewing the diagram in *publication*.

Note: When the diagram is published by the workflow engine, the system attribute "Last Modified By" of the diagram is set to "Workflow" in all stages.

How can I switch directly between linked objects and edit them?

Users with at least the *Author* user role who are entered in the *Author* attribute of a diagram and work in the *Public Workspace* can navigate directly between linked objects within a checked-out diagram using attribute references and edit them. To do this, open *BIC Process Design* and select the *Diagrams* menu item in the left menu bar. There you can either *create a new diagram* or *check out an existing diagram*.

After opening the diagram, click on the desired object in the diagram. The assigned catalog objects are displayed in the *Allocated Objects* attribute group in the *Details* tab in the panel. These assignments are created, for example, by relationships between the selected object and the assigned catalog objects that you create via *connections* in the diagram, or by selecting a catalog object in a relationship attribute. Clicking on the chip of a catalog object opens its detail view directly in the panel.

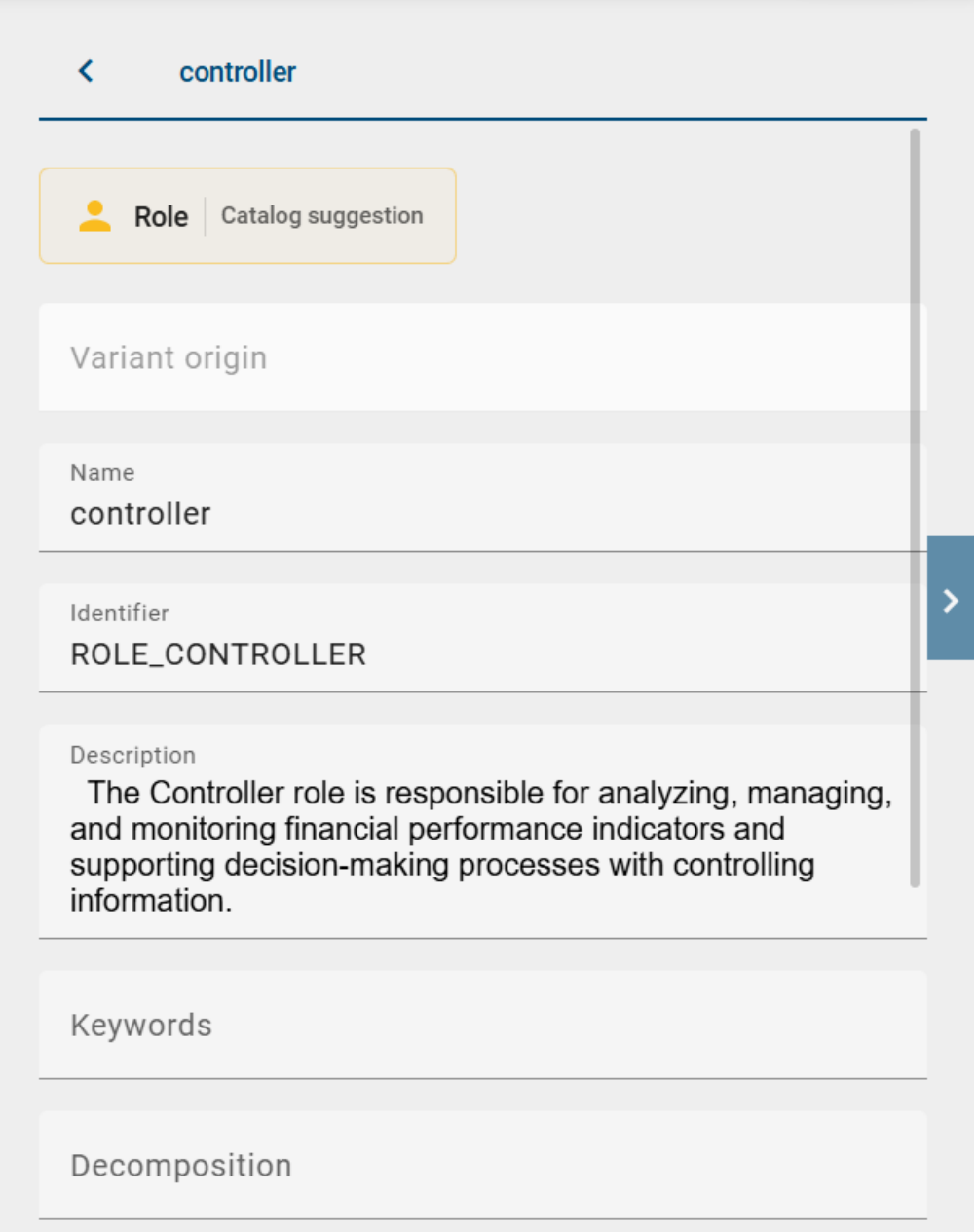


You can edit the selected object in the panel. All attributes displayed in the detail view are editable. Changes are immediately displayed in the user interface, but are only permanently applied once you *save* and then *check in* the diagram.

Hint: Please note that in edit mode, only objects that are directly related to each other (relationship attributes) are currently editable. Objects that are not directly related to each other (reference attributes) are currently not editable.

Note: Please note that when you edit attributes in the diagram, you are directly changing the underlying catalog

object. If this is a catalog object that has already been approved, a catalog suggestion is automatically created.



Use the arrow in the upper left corner of the panel to return to the previous object detail view.

8.7.2 Attachments and Integrations

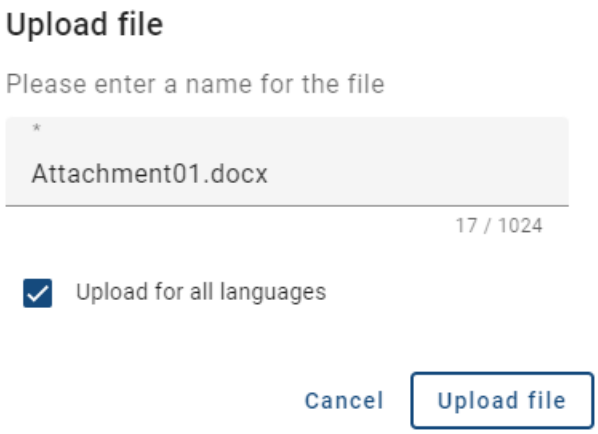
How do I attach files to objects?

Modelers have the option to upload their own files (up to max. 64 MB) and link them to an object in a diagram. The file can optionally depend on the users' language settings.

Navigate to the attributes of the object to which you want to attach a file. In the *Attachment (URL)* attribute, you can select a file from your folders by clicking on *Upload file*. BIC Process Design supports the following file formats:

- .ods, .xls, .xlsb, .xlsx, .xltm
- .pdf
- .potm, .potx, .pps, .ppsm, .ppsx, .ppt, .pptx
- .doc, .docm, .docx, .dot, .potm, .dotx, .odt

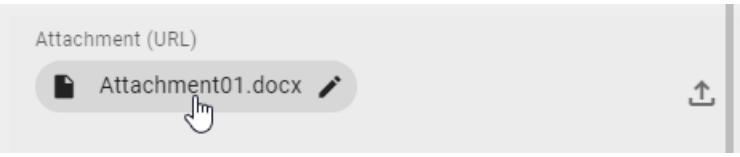
After you selected, a dialog opens where you can rename your file. Via the checkbox *Upload for all languages* you have to decide if the attachment is intended for all languages (select checkbox) or only for your current content language (unselect checkbox).



Click on *Upload file* to confirm your input and to attach the file to the object as a chip with the name of your input.

In case you uploaded an attachment only for your current language, you can *change your content language* and add an attachment for other languages as explained before. A clear administration of language dependent attachments is also recommended *in translation mode*.

The uploaded file can be downloaded by other users by clicking on the attribute entry whereas the linked file is depending on the users' content language. Another option for downloading these files is by *providing a link* for other users. Further options for downloading these files are also provided in the *Profile* and in the Matrix view, for example for inputs and outputs. Note that documents are *stamped in the process of publication*.



Optionally you can also insert your file into the attribute field *Attachment (URL)* of an object by using the drag & drop function and name it.

If you want to remove the attachment, click in the input field of the attribute, use the arrow keys to navigate to the chip (until it is highlighted) and press the backspace key on your keyboard to delete it.

Hint: Please note that permanent links to attached files will only work persistently if the title of the attachment remains unchanged. Once the title is changed, the link becomes invalid, and the attachment can no longer be accessed or downloaded using the generated link.

Tip: URLs like links to documents on network drives can also be added as attachments.

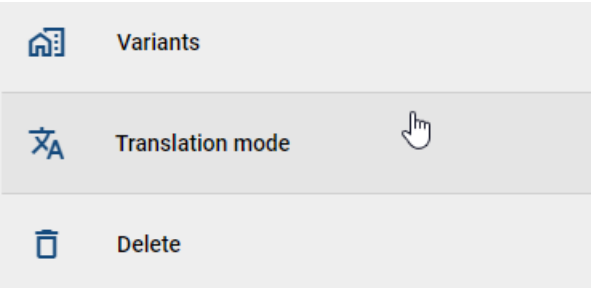
Note: "/" characters cannot be included in the file name and are automatically removed when uploading. Moreover, the same URL cannot be added twice.

Hint: Please note that entering URLs and uploading attachments may vary depending on the attribute configuration in the method editor. The *Upload file* button or drag & drop attachments are only available if the attribute configuration allows attachments to be uploaded. The same applies for entering URLs.

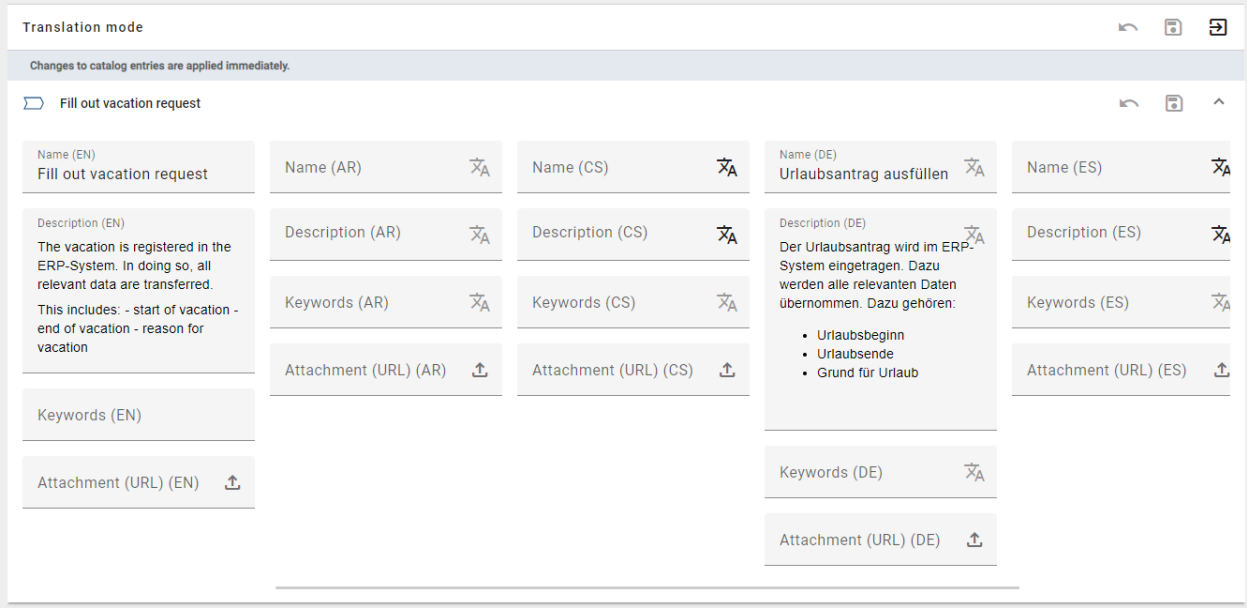
Hint: Please note that the *Attachment (URL)* attribute can be restricted by an individual method configuration. In this case, it is only possible to store links or URLs, while other file types cannot be maintained.

How can I maintain language dependent attachments?

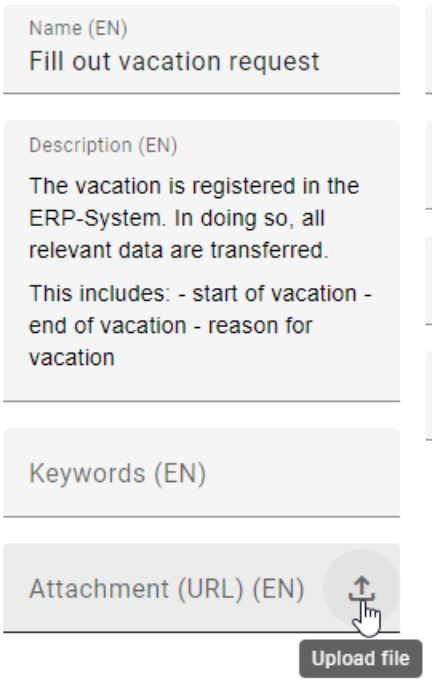
If you *upload a file*, you have the choice to link this file for your current content language or for all content languages which are selected in the administration. The translation mode offers a clear overview of the attribute *Attachment* compared in all content languages.



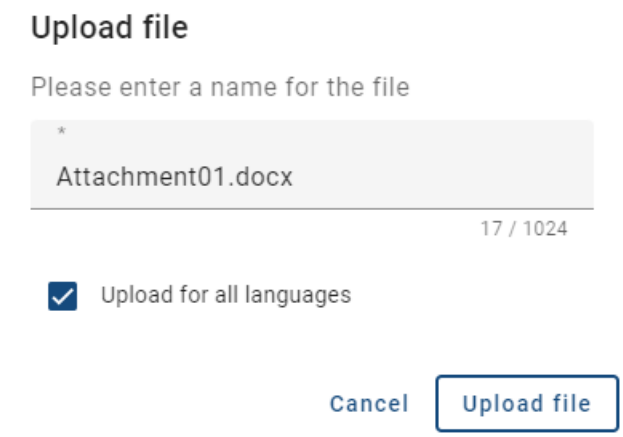
You can enter the translation mode when a diagram is checked in by clicking the option *Translation mode* in the options of the respective diagram.



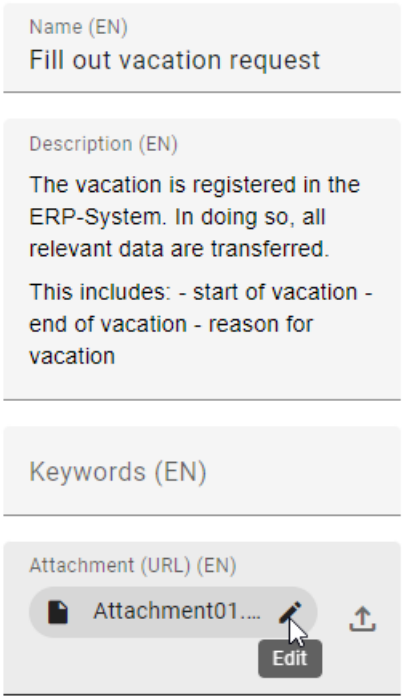
By a click on *Upload file* in the column of an arbitrary language, you can select and open a file as usual.



Via the checkbox *Upload for all languages* you can decide whether you want to link the file for all or only the selected language.



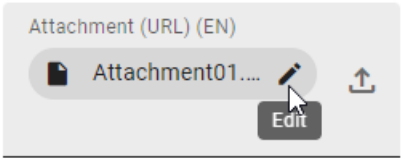
The function *Edit* enables you to change or rename the attachment also in translation mode.



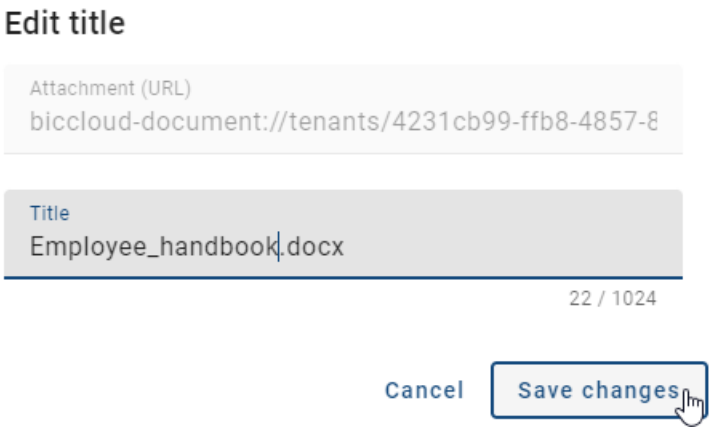
Note: If you import a diagram containing an attachment that is not linked to languages, the attachment is maintained in every content language. Therefore no data will be lost. In case you would like to link the attachment to only one content language, you can adapt this attribute afterwards, for example *using the translation mode*.

How can I rename attachments (URLs)?

If the attribute *"Attachment (URL)"* is maintained, you can rename the corresponding attached file or URL language-independently. Navigate to the attachment, represented by a chip, in the attributes of the desired object. At the right edge of the chip you can select the option *Edit*, represented by a pen symbol.



This will open the dialog *Edit title*. In the field *Attachment (URL)* the URL, or the BIC Process Design-internal file path, is displayed but cannot be edited. In the *Title* input field, you can rename the attachment. Click on *Save changes* to take over the new title and display it in the chip.



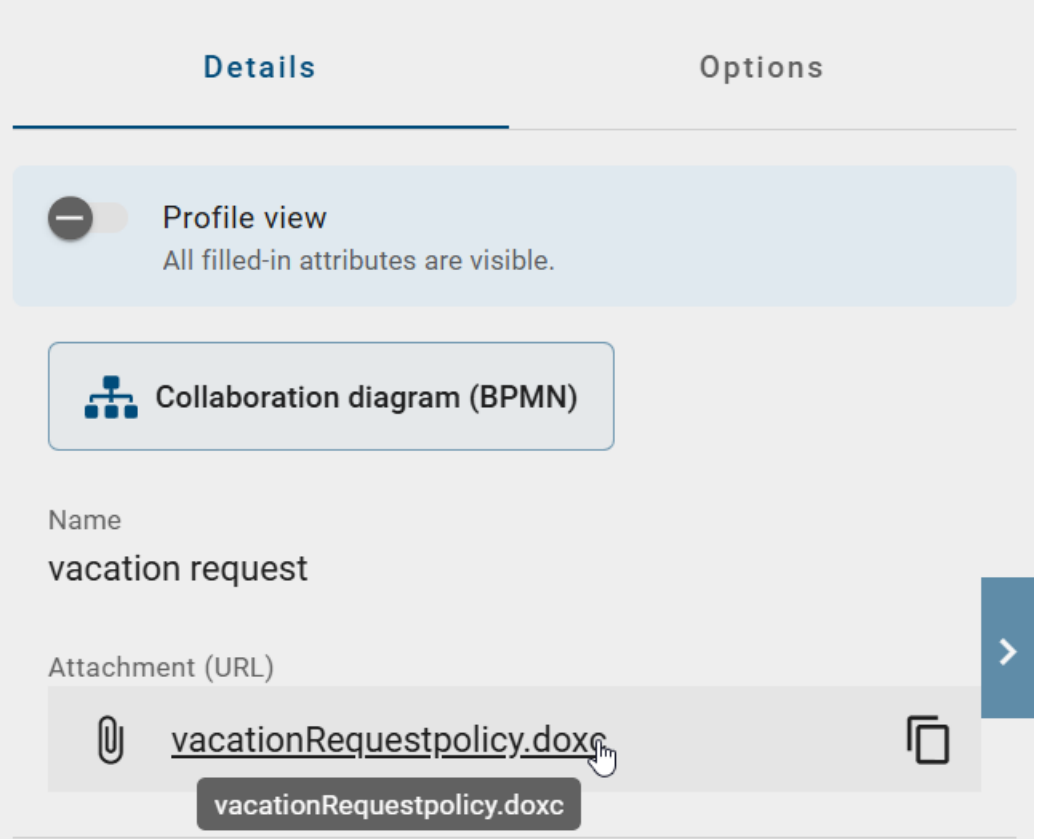
If you do not want to save your changes, click *Cancel*.

How can I access attachments of entries?

If you have maintained a file or URL in the *attribute "Attachment (URL)"* for an object, they can be accessed directly.

The sorted order of maintained files and/or URLs is alphabetical. If an object is not maintained in your active content language, it will be moved back in the list and labeled as *[no Content]*. If a diagram lists an object with restricted access or if an object differs from a specific stage, it will appear at the end of the list.

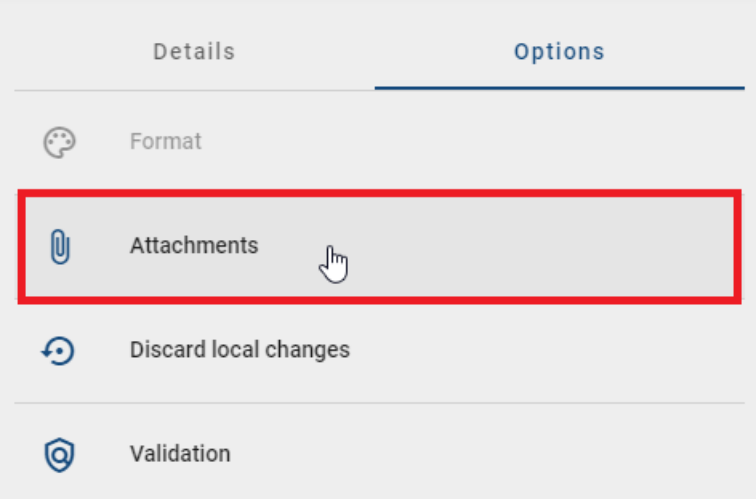
Navigate to the *Details* of a diagram or object. If the chip of an entry contains a paperclip, an attachment is maintained. Clicking on the paperclip opens the attachment directly or instead a selection menu if several attachments are available.



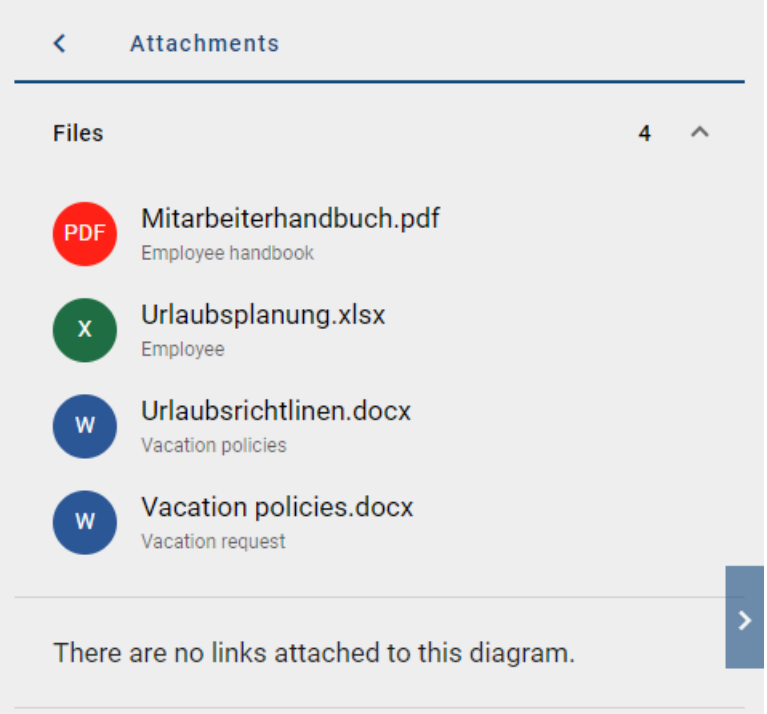
Hint: Please note that the *Attachment (URL)* attribute can be restricted by an individual method configuration. In this case, it is only possible to store links or URLs, while other file types cannot be maintained.

How can I access all attachments of a diagram?

If you want to access all previously maintained files or URLs in the diagram while modeling, navigate to the options and click on the *Attachments* entry.



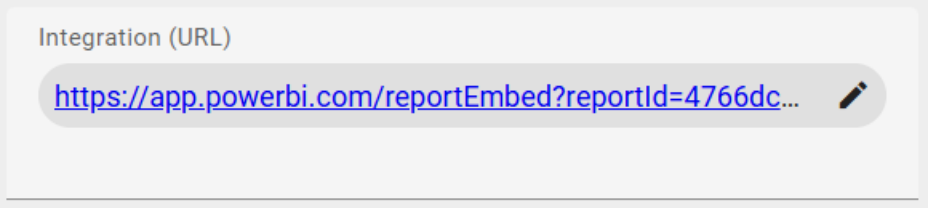
Whether you have selected an object or not, all maintained files and URLs in the diagram are now displayed and can be opended or downloaded.



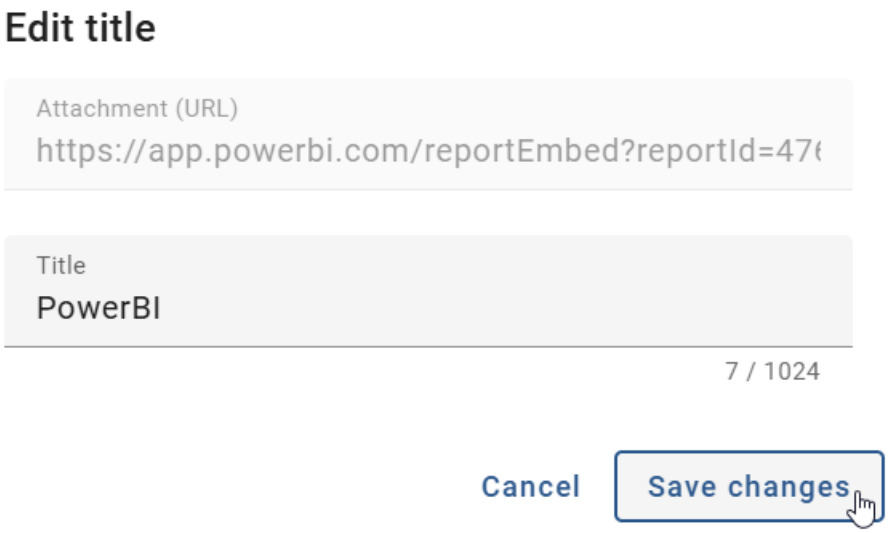
How can I integrate external content in a new tab in a diagram?

Users with at least the *Author* role (provided they are maintained in the diagram's *Author* attribute) can integrate external content into a diagram. This content will be displayed in a separate tab. To do so, click on the *Diagrams* menu item in the left menu bar and, if necessary, switch to the *Public workspace* stage. Then, select an existing diagram and check it out using the *Check out* button. If no diagram is available, you must first *create one*.

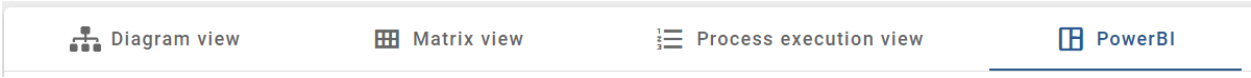
You will then see the *Integration (URL)* attribute in the *Details* panel in the right sidebar. Here, you can enter embeddable URLs whose content will be displayed in a new, separate tab. Only content from external websites that permit embedding and to which you have access can be displayed. If the URL is invalid, an error message will appear.



Once you have entered the embeddable URL, press *Enter* to confirm it. The integration will then appear as a chip containing the URL in all content languages. You can edit the integration title by clicking the *Edit* button. The title will be adjusted according to the currently active content language. To remove the integration, click the chip and press the *Backspace key*.



When you save and check in the diagram, a new tab will appear next to the *Process execution view* tab. This tab corresponds to the integration you provided and is visible to all users who have access to the diagram view. It will also be displayed when the diagram is published.



Hint: Please note that the use of integrations requires a separate licence, which you must purchase.

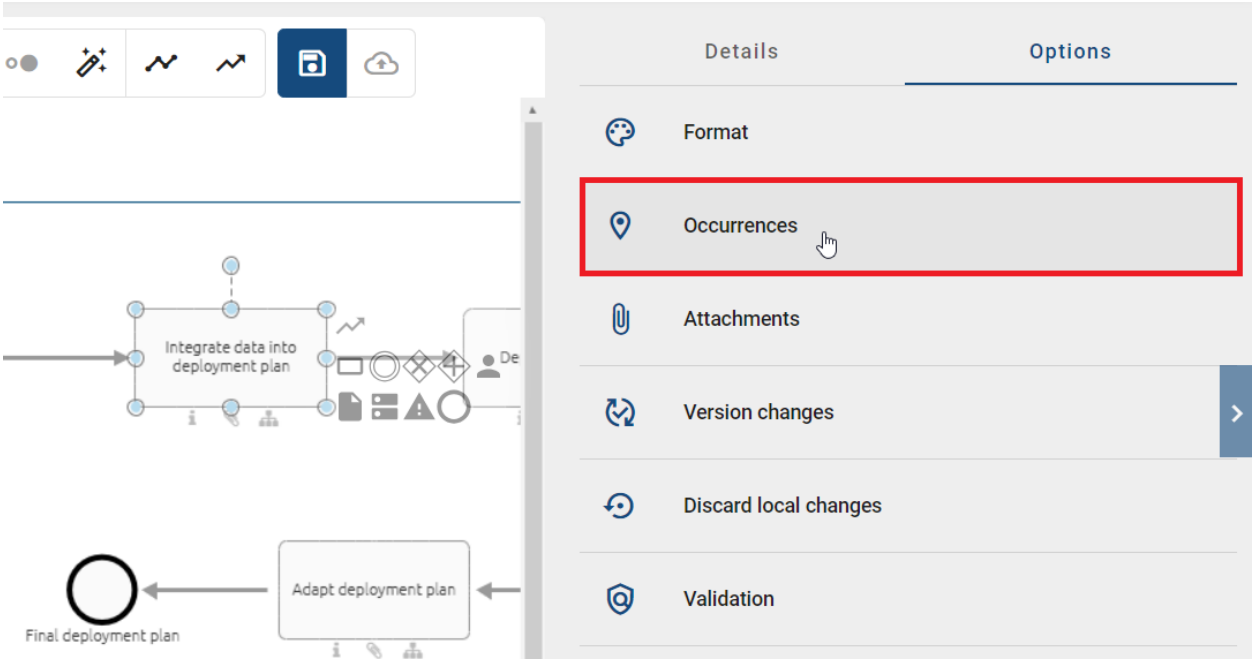
Note: You can add only one integration per diagram.

8.7.3 Occurrences

How can I view the occurrences of objects in checked-out diagrams?

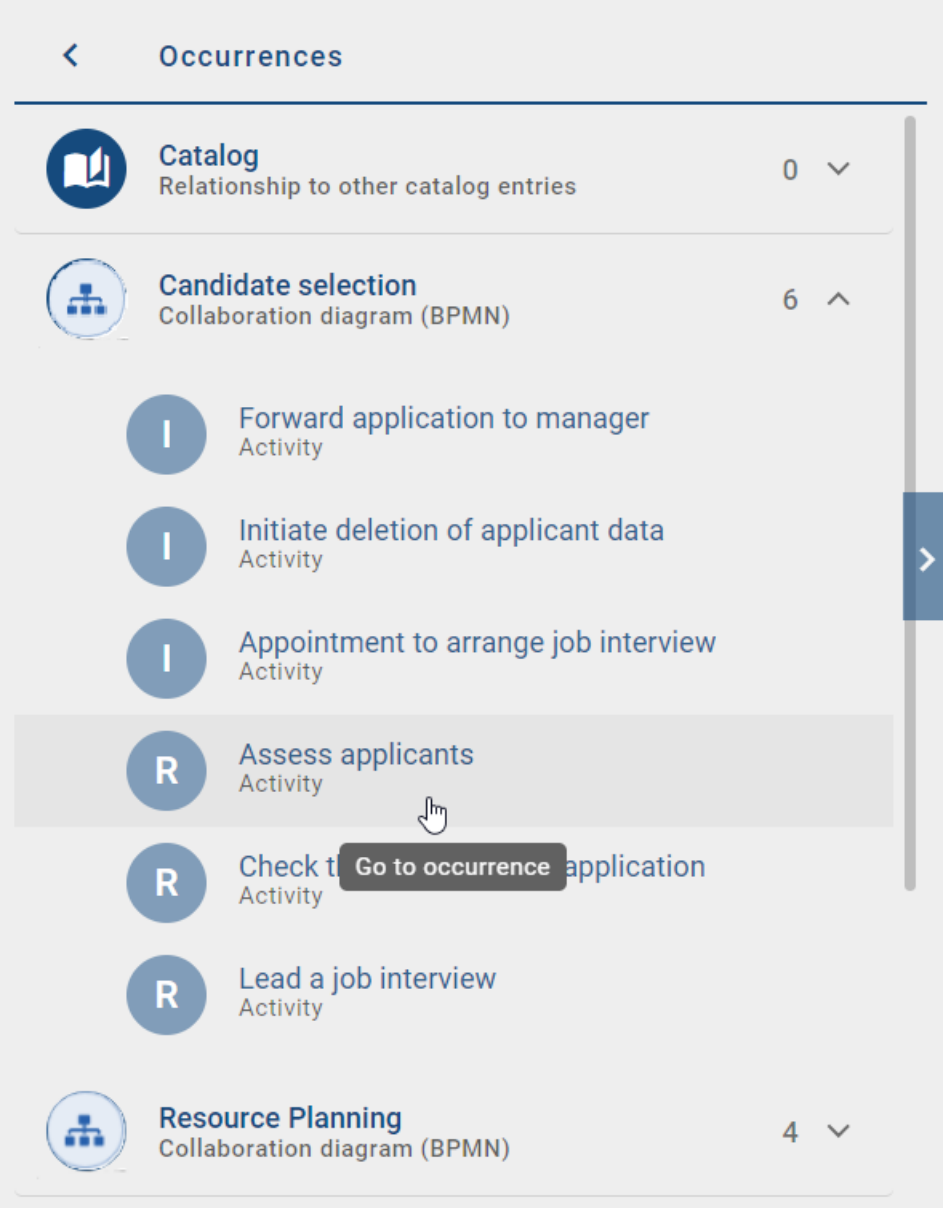
To view the occurrences of an object while modeling, do the following:

Click on the desired object and navigate to *Options* in the right sidebar. Select the *Occurrences* entry. A list of all occurrences of the object is displayed.



The list is divided into two main sections: Catalog and Diagrams. The *Catalog* section displays the relationship of the selected object to other catalog items. The *Diagrams* section lists all the diagrams in which the selected object is used.

By clicking on a list entry, you can then navigate to another diagram where the object is used again, or display the occurrences in the current diagram.



Tip: You can also check the *occurrences of an object while the diagram is checked in*.

8.8 BPMN Collaboration

This chapter explains the modeling of a BPMN collaboration diagram.

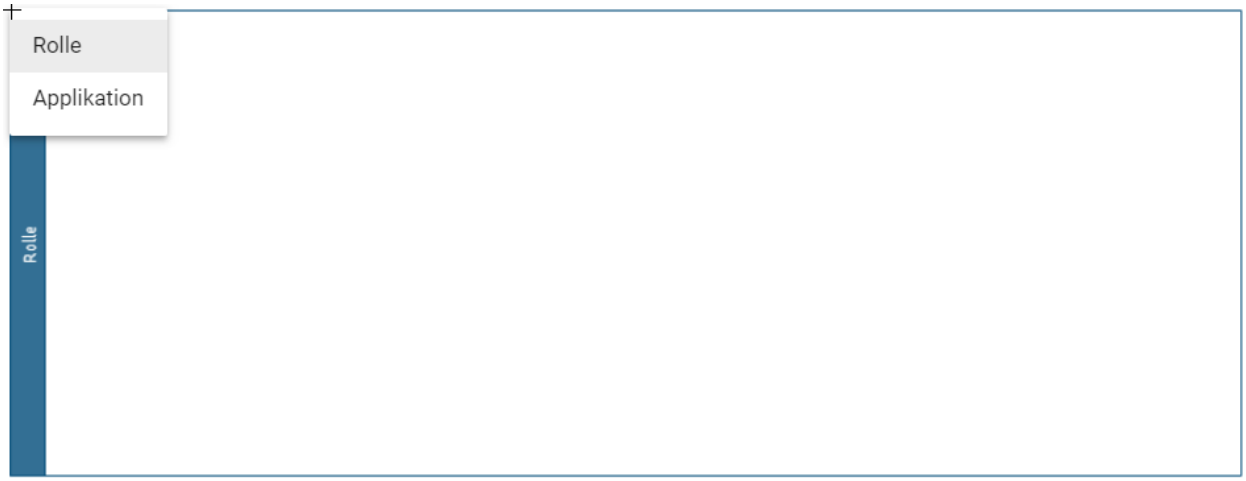
8.8.1 How do I work with pools and lanes?

In contrast to other objects, lanes are not dragged from the symbol palette into the editor, but can be generated via a pool. This prevents lanes from being loosely modeled (i.e., outside of pools), which is not allowed according to the BPMN standard of OMG.

Create a pool:

Open your BPMN diagram and check it out. Afterwards, use drag & drop or stamp mode to model a pool from the symbol palette.

A selection menu for the pool opens. In this case, you may decide whether the pool will represent a *Role* or an *Application*. Please note that this decision **cannot be changed afterwards**.



Create a lane:

Select the pool located in the editor (a further subdivision of lanes can be made accordingly). There are some icons at the top right-hand side of the object.

If you click on the two horizontal strokes, two lanes are generated in the object.

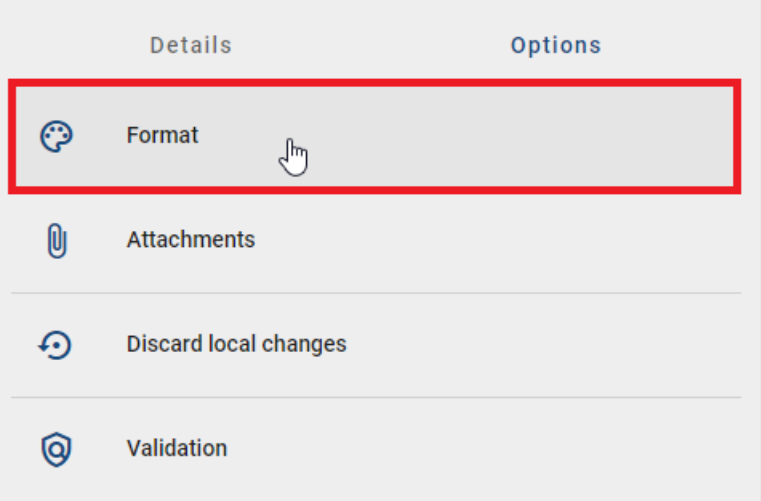
Select a lane with a left-click. If you click on the arrow pointing upwards or downwards on a horizontal line, you can insert additional lanes above or below.

To change the position of the selected lane, click on the up or down arrow. The lane is moved up or down.

Note: A pool which is containing lanes can be selected by clicking on the blue header.

8.8.2 How can I change the color of pools?

Users with the *Author* user role or higher can adjust the color of pools, provided the author is listed in the diagram's *Author* attribute. To do this, open a diagram from the *Diagrams* menu item in the left menu bar. Then, either add a new pool to the canvas or select an existing one. In the *Options* panel in the right sidebar, click the *Format* option.



Click on the *Fill* attribute within the *Form* attribute group. Here you can adjust the pool's color. Save the diagram to apply your changes.

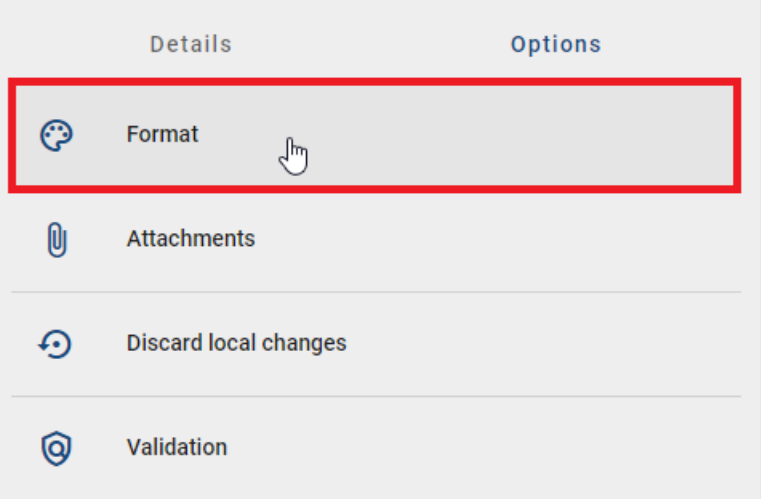
By default, pools are displayed in the color set by the administrator. This color is configured either in the *Method* tile or directly in the method. If the color is defined both in the method and in the administration, the color defined in the method takes precedence. If the color is reconfigured, it only applies to pools created after the change.

If you adjust the pool's color using the *Format* option during modeling, the new color will be applied to the diagram.

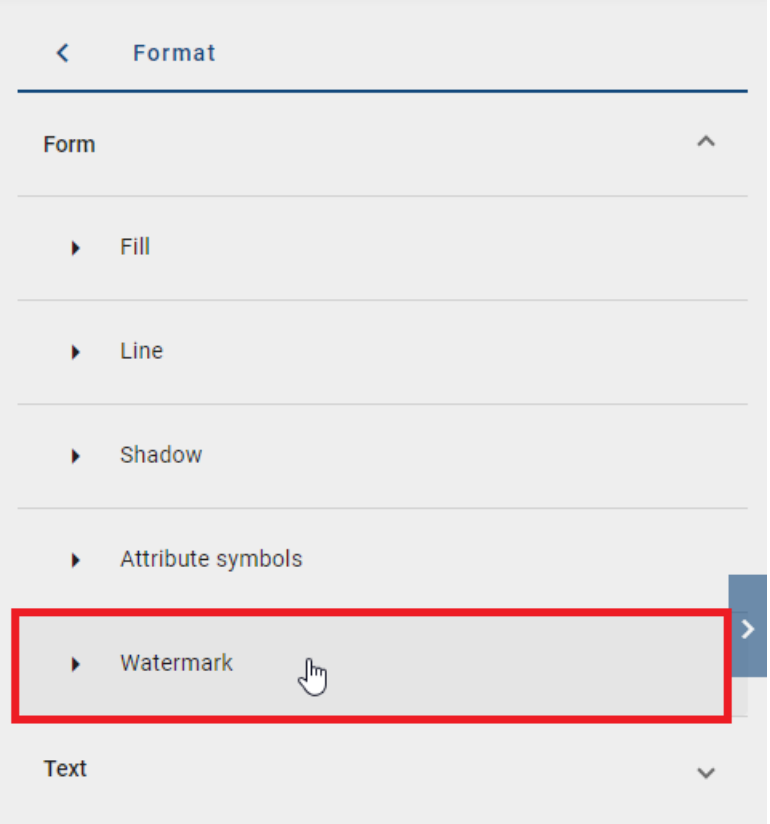
8.8.3 How do I change watermarks of pools and lanes?

Watermarks are visible by default in the background of pools and lanes. These watermarks are repeatedly shown from a certain width of the symbol and automatically display the name of the pool or lane in the selected content language. You can adjust the watermark yourself as follows.

Navigate to the format settings via the *Options*.



Select the pool or lane including the watermark you want to edit. Click the menu button *Form* and open the entry *Watermark*. There you can remove the watermark by deselecting the checkbox *Visible* or you can rename the watermark and adjust it to your needs. Customization options include font size and color, as well as the location of the watermark within the pool or lane.



Note: If you rename the watermark itself in the symbol palette in the *Text* field, it will no longer initially display the name of the object. To have the name of the object automatically adopted again, you only have to remove your input in the symbol palette under *Text* or leave the input field empty.

8.8.4 How can I model inside and between pools?

As soon as you want to connect two pools, the connection type *Message Flow* is selected automatically. This applies also for connections between activities and connections between activities and events, which lie in different pools.

If those objects are connected within a pool the connection type *Sequence* is automatically selected.

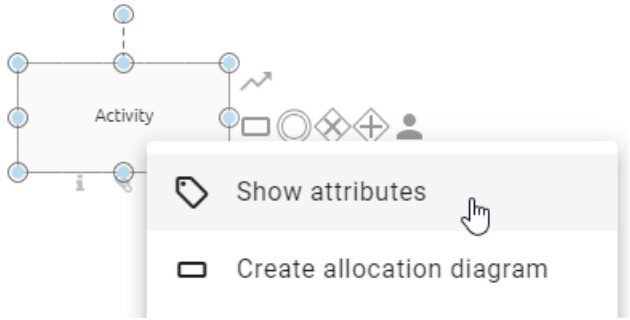
In addition, connections can be modeled using the *mini symbol palette*. When creating a new object from the mini symbol palette of an existing object that is in the pool, the following is considered: If the new object is placed outside the pool and not in another pool, the pool is automatically enlarged. Thus, the pool contains the new object, which is connected to the other object via the type *Sequence*. If the new object is stored within another pool, no connection is initially created. This can subsequently be modeled again as a *Message Flow* via the *connection symbol*.

Please note that the connection type does not change by moving an object from another pool into the pool of the connected entity. This may cause *validation errors*.

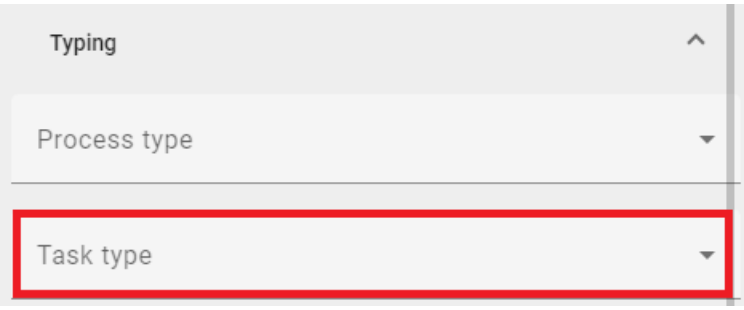
8.8.5 What kind of task types exist in a BPMN diagram?

You have the possibility to change the activity type of an activity in your BPMN diagram. This provides two advantages. Firstly, the selected activity type will be displayed with an icon, which makes your diagram more readable. Secondly, BIC Process Execution allows you to provide templates for the specific types that can reduce the workload of your users.

If you want to change the task type of an activity you need to select the corresponding activity first. After that go to its *attributes*.



In the group *Typing* you can change the attribute *Task type*. To do that change the type as desired using a selection menu. It opens by a click on the marked arrow. The changes are also noticeable at the object itself through different icons that show up.



You can choose from the following options. But be aware that some template editors only work in combination with BIC Process Execution. Therefore your process must be marked as *executable* as well.

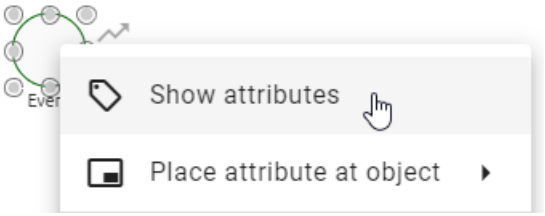
- **None**: This is the default type for an activity. It does not allow the creation of any additional templates.
- **Send**: This task type defines that an user has to send a message. BIC Process Execution allows the creation of an *email template* and the automatic sending of emails. It is symbolized by a filled envelope.
- **Receive**: This task type expects that your user will receive a message. It is symbolized by an envelope.
- **User**: A user task is a task which will be executed by one of your users (if necessary with software support). BIC Process Execution allows the possibility to define own *user forms*, where a user can input or calculate values and get output values.
- **Manual**: The task type manual is characterized by the fact that it must be performed manually by a user. Therefore, it has no form of integration with BIC Process Execution. It is symbolized by a hand.
- **Business Rule**: A business rule allows you to define certain rules and conditions to calculate an output value or to set a variable to a certain value. *This chapter* gives you more details about how to use the DMN editor. This type is symbolized by a table.
- **Service**: You can use a service task to use *REST Calls* in your process. This means you can integrate other software components or web services with BIC Process Execution. The symbol of this type is a gear.
- **Script**: With the help of a *script task* you can include your own scripts so this process step can run automatically. It is symbolized by a computer chip.

Tip: Further information about the usage of the different task types can be found in the user documentation of *BIC Process Execution*.

Note: In addition to the *Task type*, you also have the option of further typing your activities using the attribute selection fields *Process type* and *Multiple Instance Type*. With the *Process type* for example you can define a *call activity*. Through the function of *Multiple Instances Type*, you can, for example, mark activities as *parallel multiple instances*.

8.8.6 How do I change the event type in a BPMN diagram?

Select the event whose event type you want to change by a right click. Display the attributes.

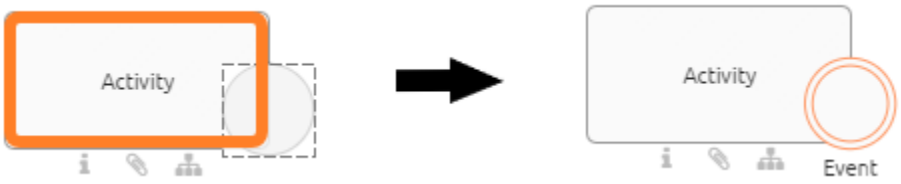


In the *Event type* attribute field, you can change the type as desired using a selection menu. To do this, click on the marked arrow. The changes are also noticeable at the object itself through different icons that show up. There are different event types available for the start, intermediate and end event, according to the OMG standard.

8.8.7 How do I attach an Intermediate Event to an Activity?

In BPMN diagrams you have the possibility to attach an intermediate event to an activity:

First, you need an activity. Then, drag & drop the intermediate event that you want to attach over the edge of the activity. The appearing orange edge means that you can attach the event to the activity. One half of the intermediate event is always placed inside the activity.



If you want to remove the intermediate event from the activity, simply drag & drop it back into the editor.

Note: When you move or change the size of the activity, the intermediate events remains attached to it.

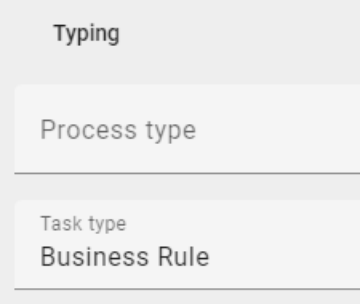
8.9 DMN Editor

The DMN Editor allows *Editors* the option to add business rules to their diagram. Based on these rules, business processes can determine what action should be taken in different decision making situations. The simulation of the evaluation of the results can then be performed by all users in all stages and views.

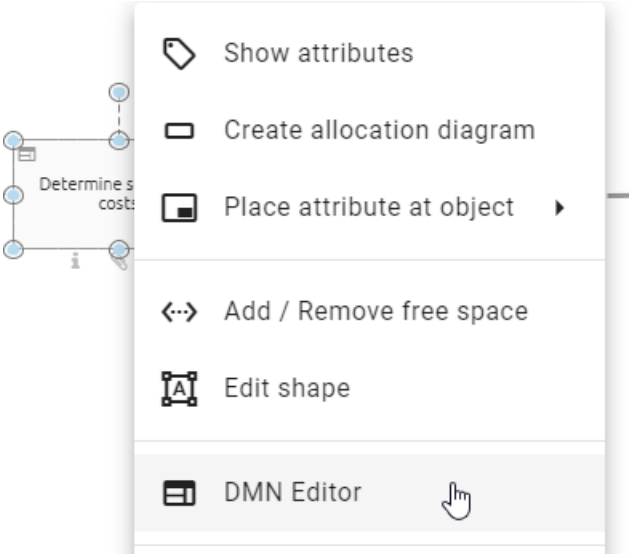
Note: Decision tables can be created for objects of the type decision or for activities.

8.9.1 Where do I find the DMN Editor?

In the relevant diagram, navigate to the decision or activity for which you want to set rules. The object must be of the *task type Business Rule*. You can find the *Task type* in the *Typing* attribute group within the *attributes* of the corresponding object.

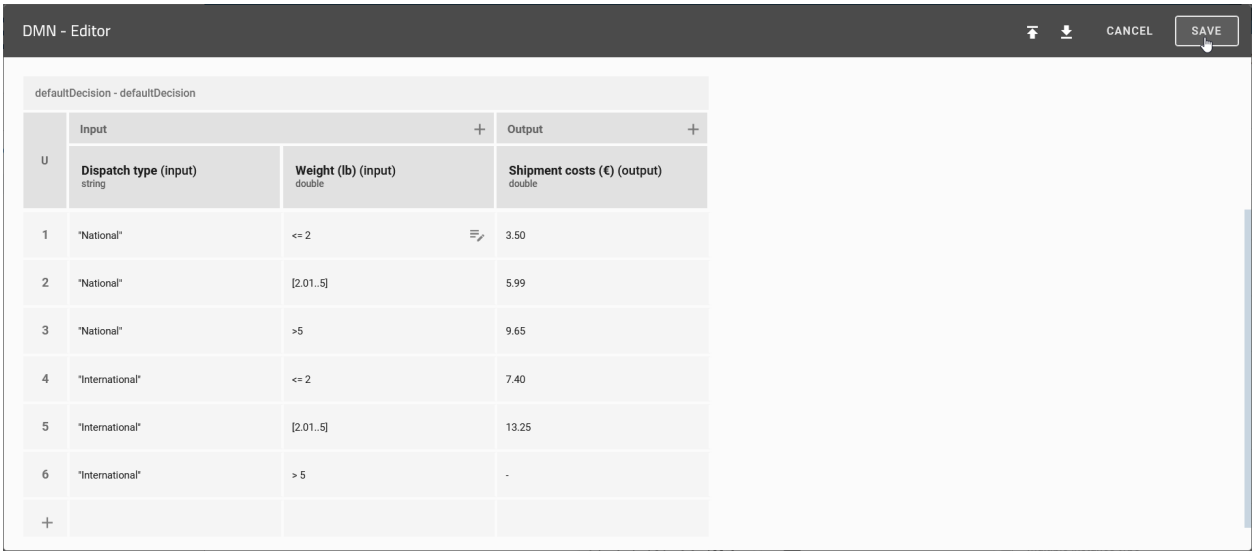


To run the DMN Editor, right-click the object to open the context menu. Select the entry *DMN Editor*.



Alternatively, you can open the editor by selecting the activity and choosing *Process Execution Editor* from the *Options*. There you will find the *Open editor* button. Select it and the DMN Editor opens.

The DMN Editor opens in the form of a table. Here you can set and edit rules, input and output values. Alternatively, you can *import* entire decision tables. To return to your diagram, choose *Save* in the upper right corner if you want to save your changes. If you do not want to save your changes, select *Cancel*.



8.9.2 How is the DMN Editor structured?

The available functions of the DMN Editor are arranged in a table. The table can be divided into the following sections:

1. *Hit Policy*: Here you can see the selected *hit policy*.
2. *Input/Output*: The *Input* column contains all possible input values to be considered by the user. Similarly, the *Output* column shows the output values of the defined rules.
3. *Rules*: This section contains all *decision rules* that will later be used to evaluate the respective decisions.

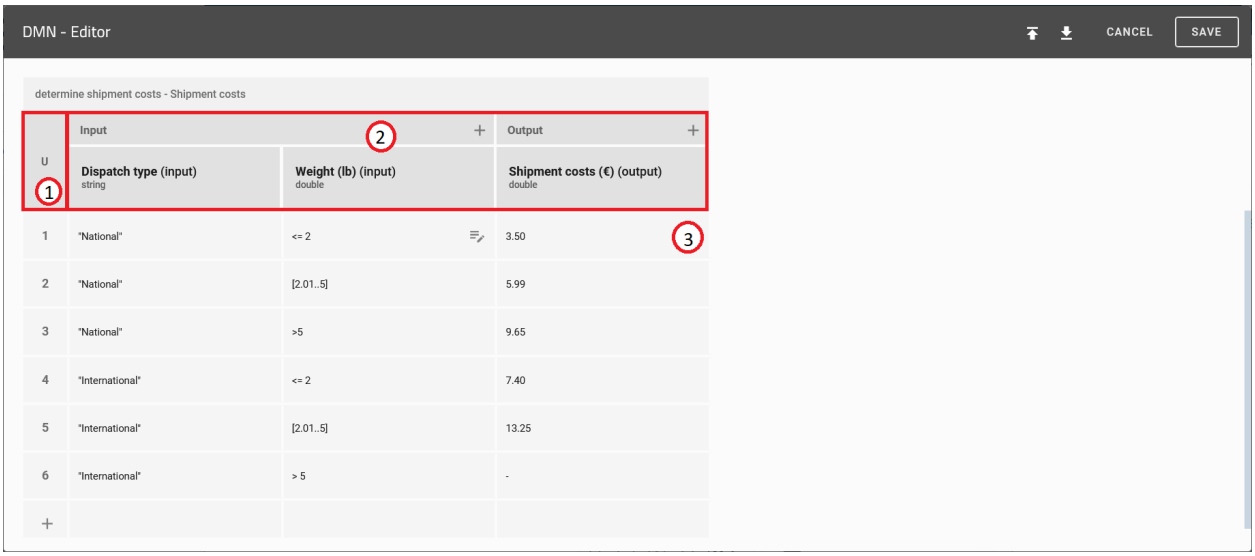


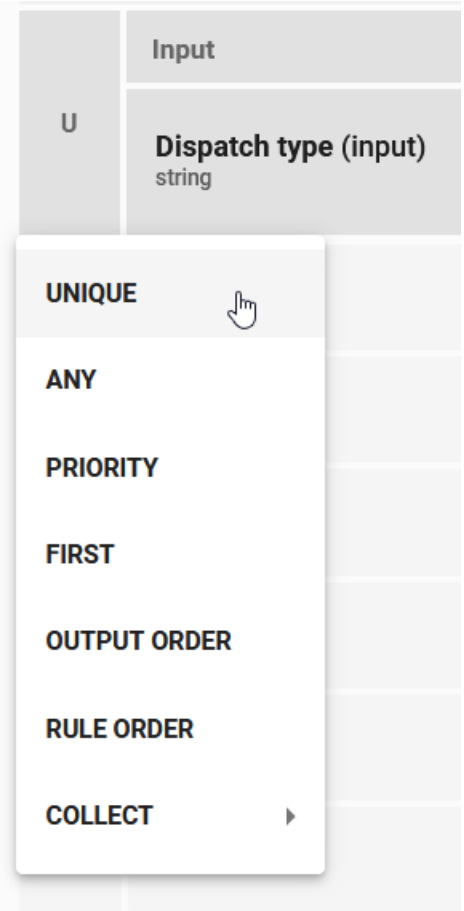
Figure: The DMN Editor can be divided in the sections hit policy (1), input/output (2) and rules (3).

8.9.3 How can I change the selected hit policy?

The hit policy lets you determine how your decision rules are executed. You can modify the policy by following these steps:

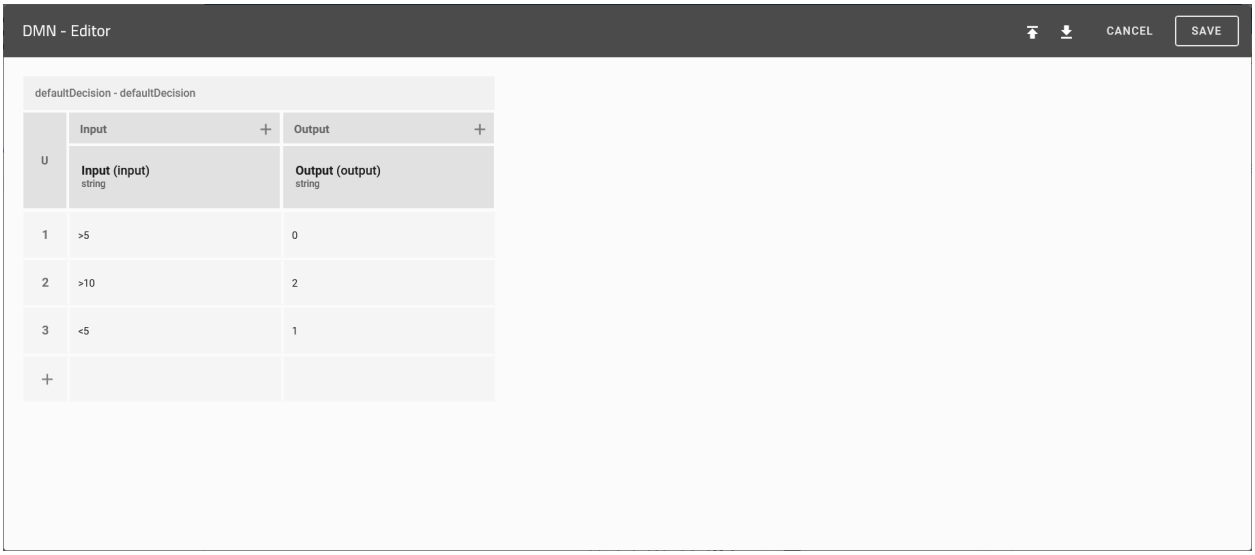
Navigate to the respecting business rule and *open the DMN Editor*. Then click on the field that displays *the current hit policy*.

A list of all available policies opens. Here you can select the desired hit policy.



8.9.4 Which hit policies exist and how can I use them?

The DMN Editor allows you to create rules that can overlap. An example is shown below. Hit policies are used to determine what output should be returned.



There are hit policies that return only one value and those that can return multiple values.

If you only want one output from your decision table, you can use the following hit policies:

- *UNIQUE*: Rules are not allowed to overlap. Only a single rule can be matched and return its output.
- *ANY*: Rules are allowed to overlap, but if they do, they will have the same output. Any match can be returned. If the outputs are not the same, an error will occur when using the decision table.
- *PRIORITY*: This hit policy is currently not supported.
- *FIRST*: Rules can overlap. If they do, the first rule that matches will return its output. This means that the order of the rules in the DMN Editor is important.

If you want to get more than one output, you can use the following hit policies:

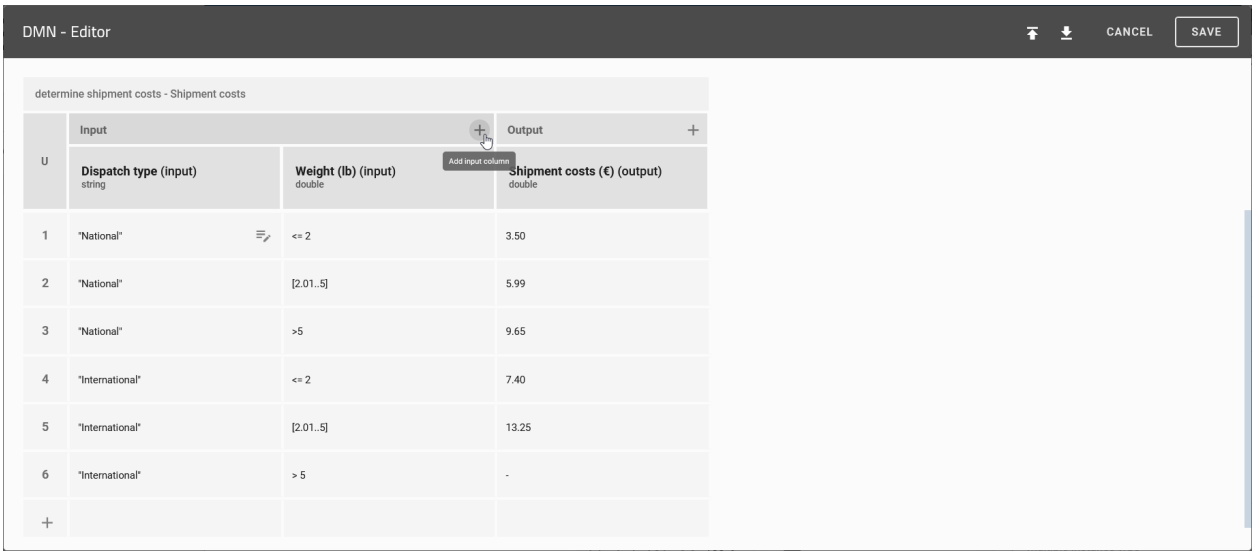
- *OUTPUT ORDER*: This hit policy is currently not supported.
- *RULE ORDER*: All outputs of matched rules are returned in the order of the rules in the DMN Editor. This means that the order in the DMN Editor is important.
- *COLLECT*: All outputs of matched rules are returned in any order. Optionally, you can add an operator to manipulate your result:
- *no aggregation*: All values are returned.
- *sum*: The sum of all numeric outputs are returned.
- *min*: The smallest value of all numeric outputs are returned.
- *max*: The biggest value of all numeric outputs are returned.
- *count*: The number of rules matched are returned.

8.9.5 How do I add input and output values to my decision table?

If you want to use additional input or output values for your decision rules, you can add them to your decision table by performing the following steps:

Open the DMN Editor of the respective activity.

Click on the plus button next to *Input* or *Output* in the *"Input/Output" section* to add a new input or output value to your table. The new input/output value will appear in the corresponding column.



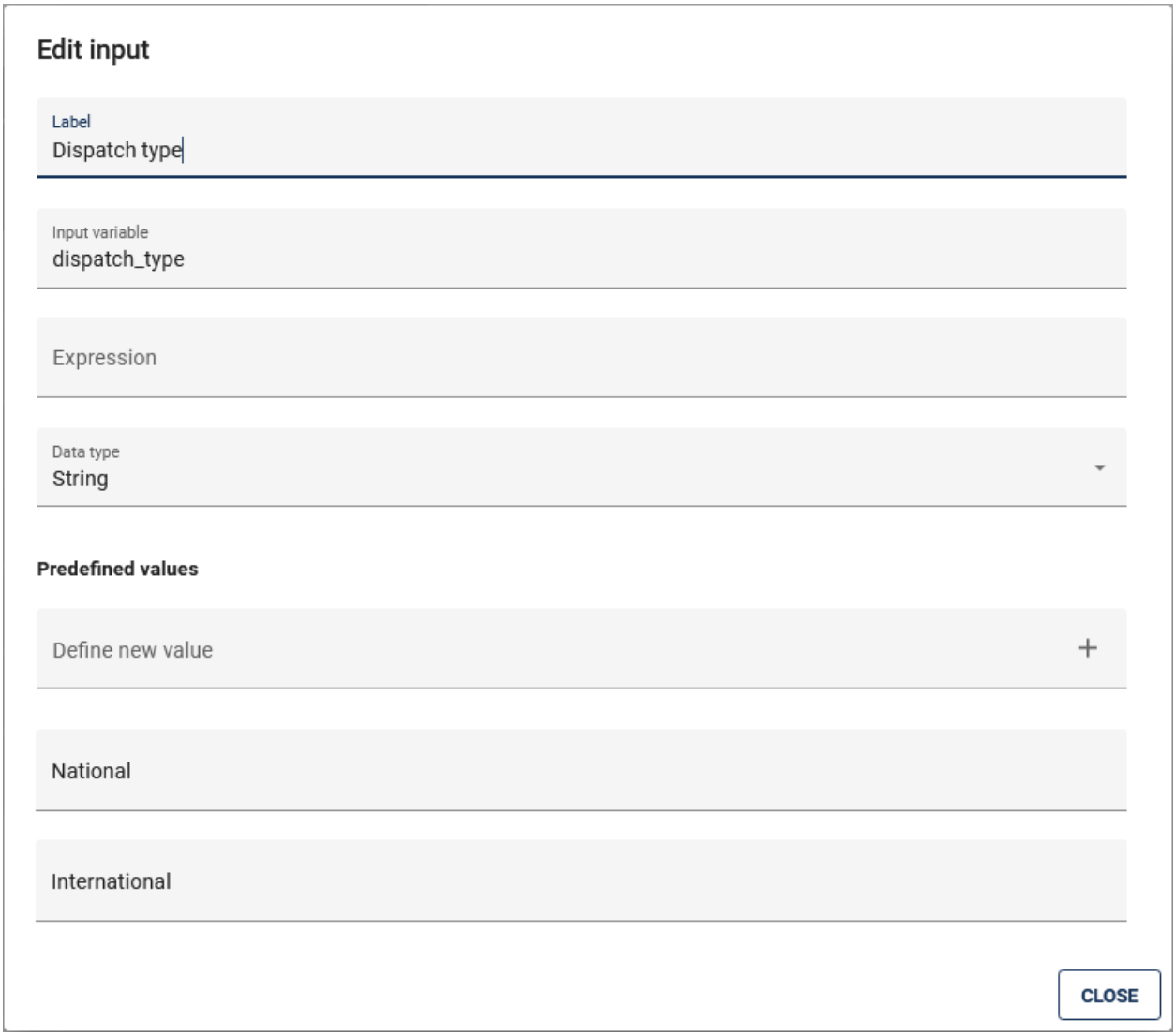
8.9.6 How can I edit the input values?

Within the decision table, you can edit the properties of your input values for all decision rules. To change these properties, *open the DMN Editor* of the desired object and then click on the input value in the *"Input/Output" section*. A dialog opens where you can adjust the selected input value.

You can edit the following properties:

- *Label*: Here you can specify the name under which the respective input value will be displayed in the *object's attributes*. If you do not specify a label, it will be generated automatically (e.g. Input 1).
- *Input variable*: As soon as you evaluate input values, they are stored in variables. These should have a unique identification for further processing by the DMN engine. The identification is defined in the *Input variable* property. Be aware that only a combination of the following characters is allowed for the value of the *Input variable*: lowercase and uppercase letters, underscores, and numbers. Numbers are only allowed as a following character. If no value is set, the DMN Editor automatically generates a value. This generated value is based on the given value set in the *Input label* property. You also can use predefined process variables here.
- *Expression*: This property allows you to define expressions for each input value. As a result, the input values of the decision rules can be additionally specified and modified.
- *Data type*: Use the drop-down menu to specify the data type for each input value. You can choose from the following data types: *string*, *boolean*, *integer*, *long*, *double* and *date*.
- *Predefined values*: You have the following options for input values of type String: Enter strings in the *Define new value* field and add them to the list of predefined values by clicking the *plus icon*. Existing list entries can be deleted using the *trashcan icon*. Finally, this list serves as a suggestion list of possible input values for the *evaluation of the decision*. The predefined values can therefore reflect the cells entered in the *"Rules" section*

for the respective input. Be aware that this list is only a suggestion list. Users can still enter different input values.



After you have completed your changes, you can save them by clicking the *Close* button.

Note: You can use the variables defined here in other activities, e.g. as a process variables in BIC Process Execution.

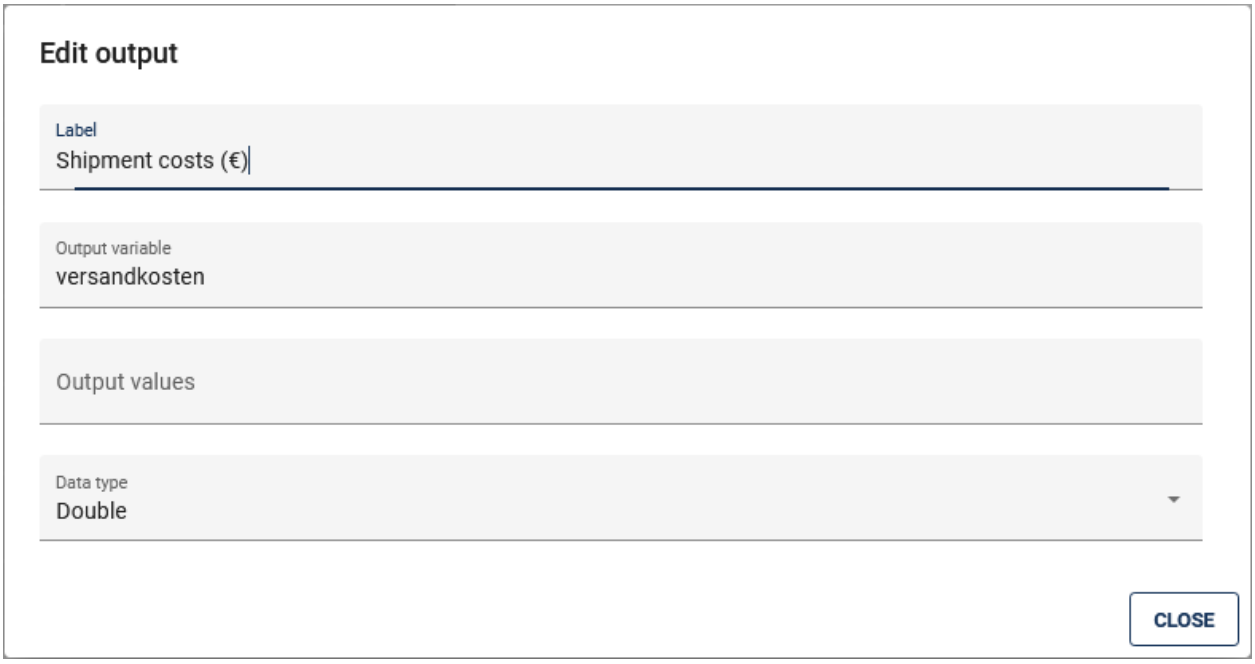
8.9.7 How can I edit the output values?

Within the decision table, you can edit the properties of your output values for all decision rules. To change these properties, *open the DMN Editor* of the desired object and then click on the output value in the *"Input/Output" section*. A dialog opens where you can adjust the selected output value.

You can edit the following properties:

- *Label*: Here you can specify the name under which the respective output value will be displayed in the *object's attributes* after the evaluation of the input values.

- *Output variable*: As soon as you evaluate the decision rules, the output values are stored in variables. These should have a unique identification for further processing by the DMN engine.
- *Data type*: Use the drop-down menu to specify the data type for each output value. You can choose from the following data types: *String*, *Boolean*, *Integer*, *Long*, *Double* und *Date*.



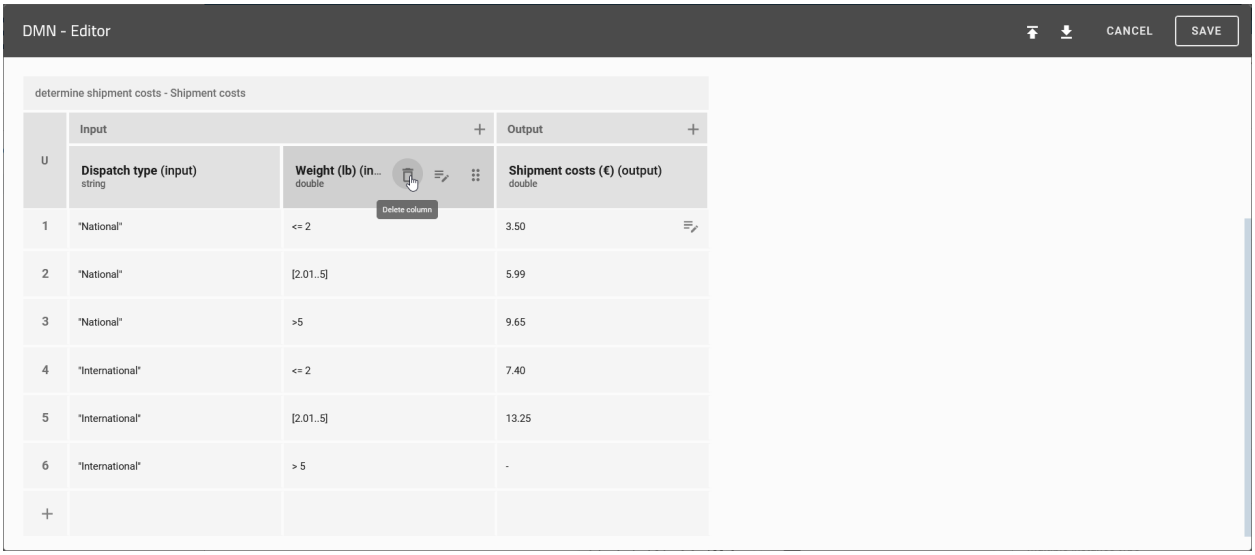
After you have completed your changes, you can save them by clicking the *Close* button.

Note: Possible functions of the property *Output values* are currently not supported.

8.9.8 How do I delete input and output values from my decision table?

To delete an input or output value, follow these steps:

Open the DMN Editor for the respective activity. Select the *Delete column* option for the column you want to delete. This option is indicated by a *trash can icon*.



Note: Note that there must always be at least one input or output value for each decision table. For example, if there is only one input value, it cannot be removed from the table.

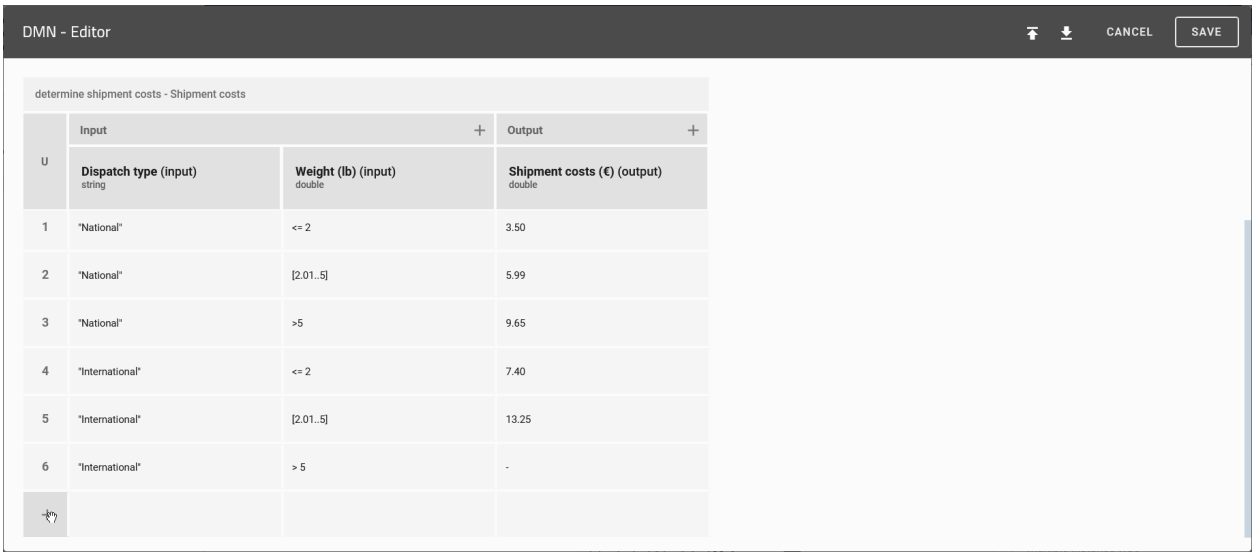
8.9.9 How do I administrate my decision rules?

In the *"Rules" section* of the DMN Editor, you will find all the decision rules for this decision. Each row represents a rule. It is defined by the specified input and output values. You can change these values by clicking on the cell containing the value you want to change.

You can use the following functions to administrate the the decision rules:

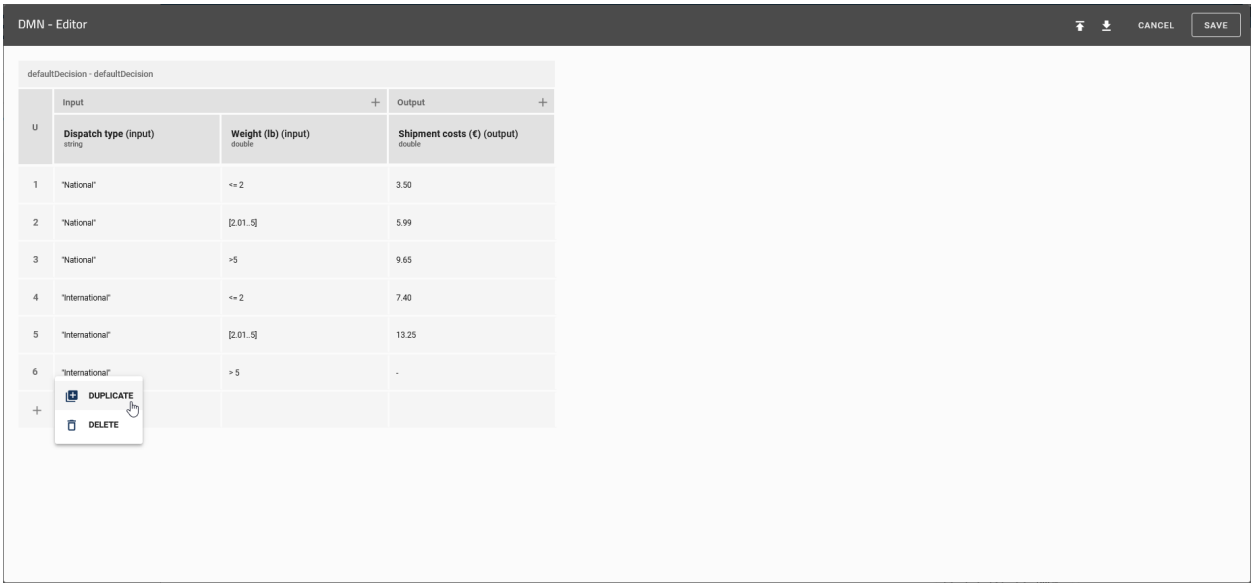
Add row

You can add a new rule to your table by clicking the plus sign below the last row.



Duplicate row

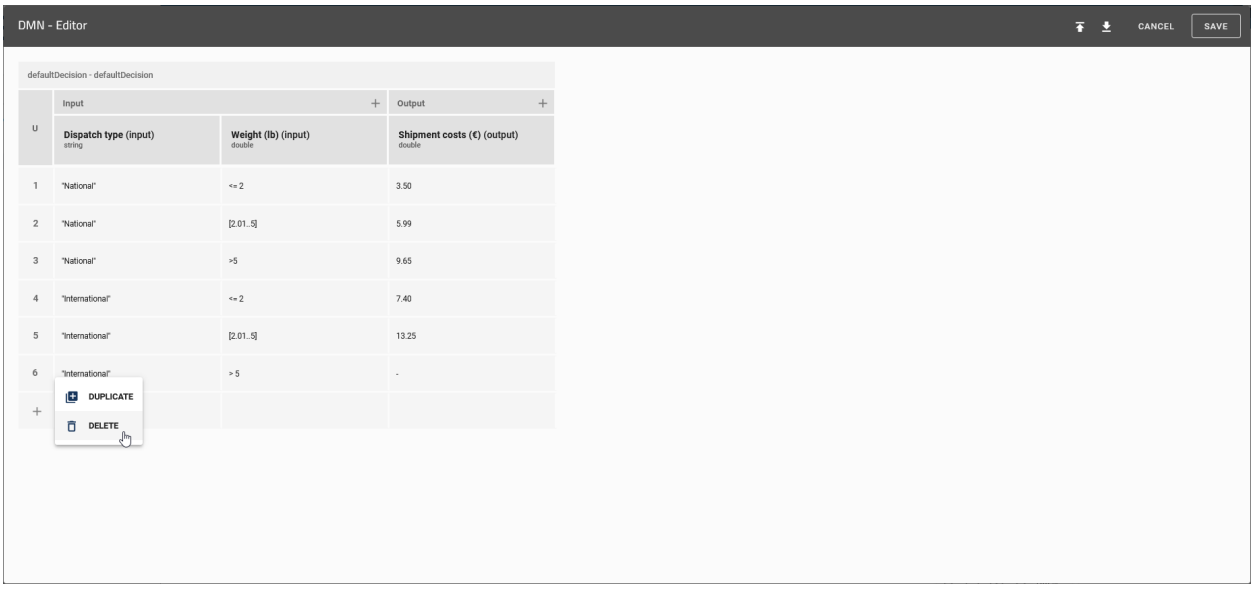
For ease of use, you can duplicate entire rows. To do this, click on the number of the rule you want to duplicate and select *Duplicate* from the context menu.



A new rule will be created under the selected row. The new rule will have the same values as the selected one.

Delete row

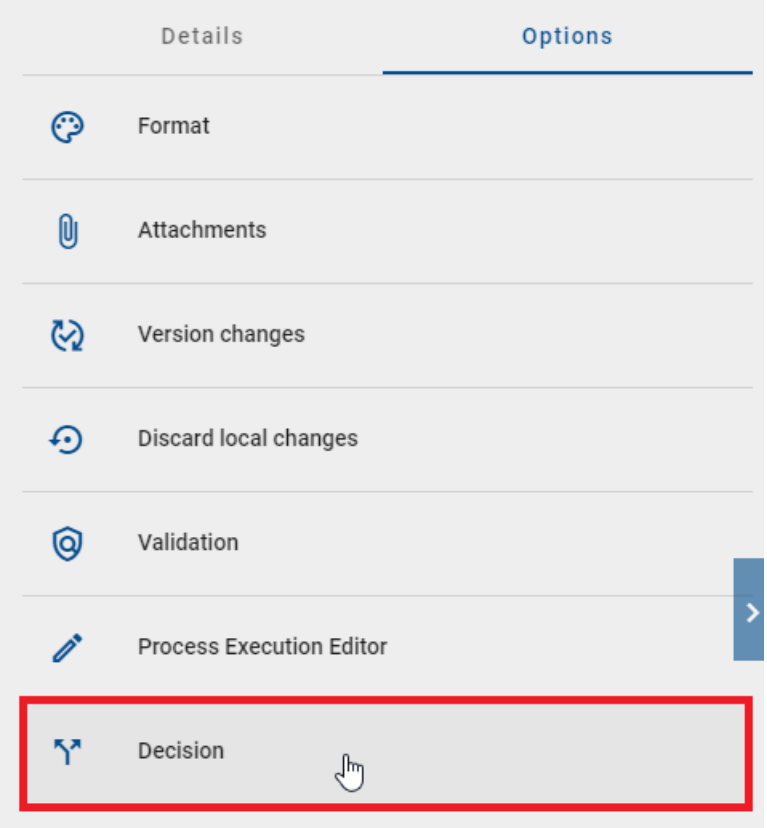
To delete a rule, click on the number of the corresponding row and select *Delete* from the context menu. The row will disappear from the table.



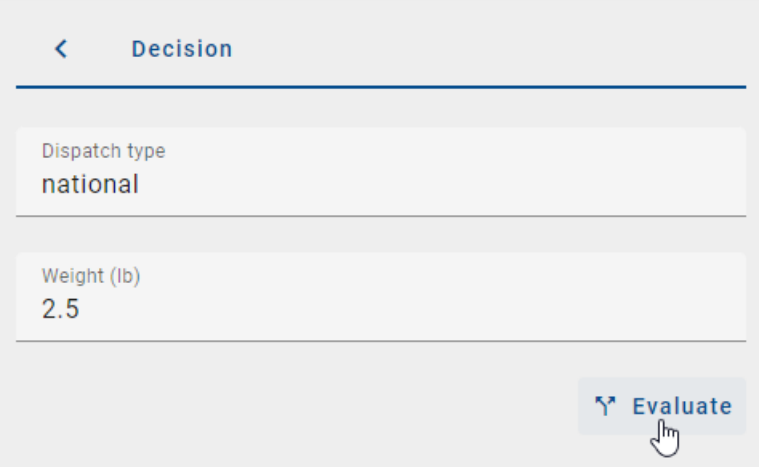
Note: The semantics of the defined values are based on the DMN standard FEEL ("Friendly Enough Expression Language").

8.9.10 Where can I use the decision tables?

To use a decision table, navigate to the options of the respecting object and click on the *Decision* button.



Here you can specify the specific input values. If *predefined values* have been previously maintained, a suggestion list is displayed when you click on the corresponding input field. Click *Evaluate* to start the evaluation. The results are displayed below the input values.



Note: Please note that the simulation of the evaluation of the results can be performed by all users in all stages and views.

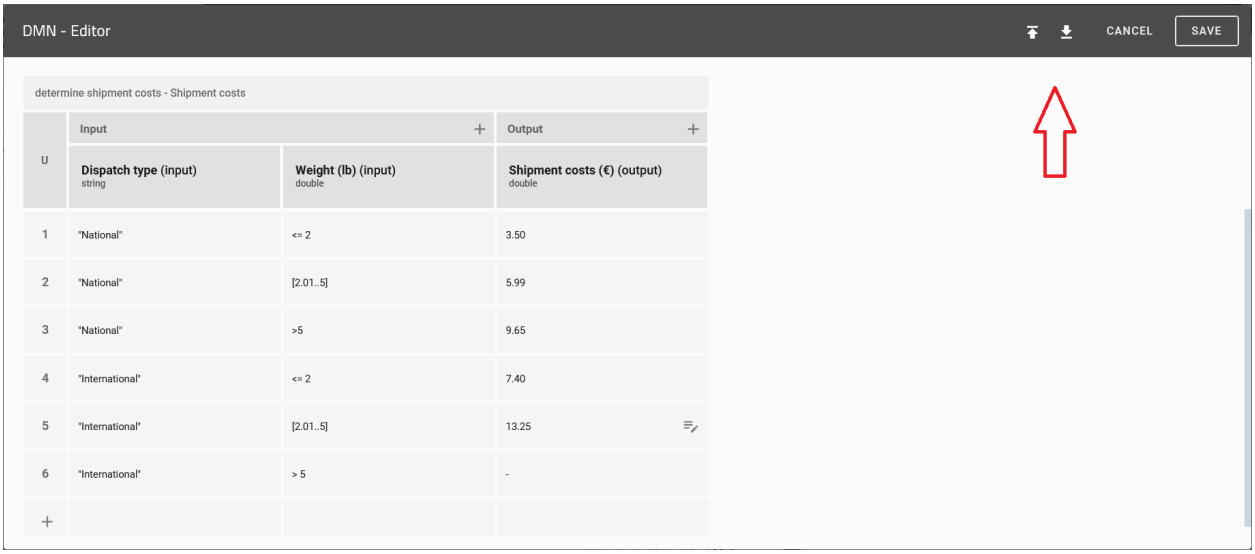
Note: When entering the values in a text field, pay attention to the capitalization!

Note: Please note that the simulation of the evaluation of the results can be performed by all users in all stages and views.

8.9.11 How can I import/export decision tables?

You can use the DMN Editor to import existing DMN tables or export DMN tables from BIC Process Design. Both options are described below. *Open the DMN Editor* for the activity.

Select the *Import* or *Export* option.



Import

If you select the *Import* option, a dialog opens where you can select the desired file. By clicking on *Open*, the file is imported.

Note: Note that the file, which should be imported, must be a .dmn file.

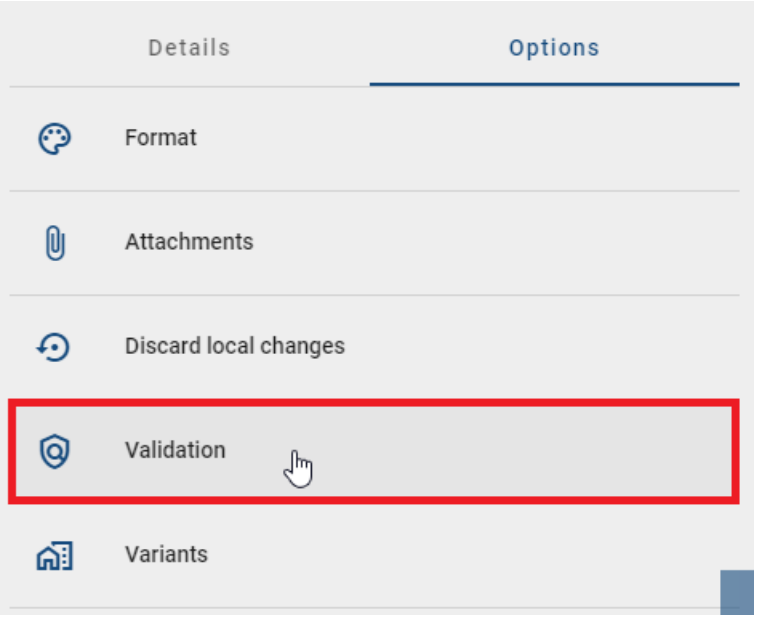
Export

Select the *Export* option. Your table will be exported as a .dmn file and automatically downloaded.

8.10 Validation

8.10.1 How can I validate my modeling?

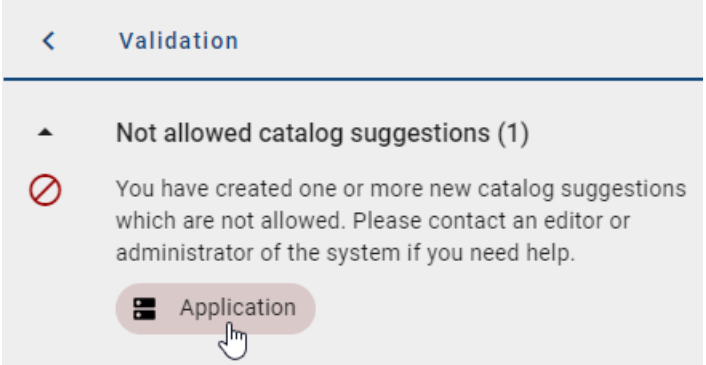
You can determine whether your modeling is valid for the settings selected by the administrator. To do this, open the *Validation* through the options on the right side.



You can see a list of *unapproved* or *not published* catalog items regarding this diagram or *entities for which check-in is prohibited* in the right sidebar. If *OCL rule violations* or *invalid sequence flows* are existing in the diagram, the corresponding list is displayed here, too. In addition, catalog items will be displayed if their *Valid to* date is reached. In the diagram, when clicking on a list entry, the associated symbols are highlighted in color. Furthermore, you can collapse the lists by clicking on the list header, which also shows the number of entries. At the top right you can *Close* the validation bar.

8.10.2 How do I handle not allowed catalog suggestions?

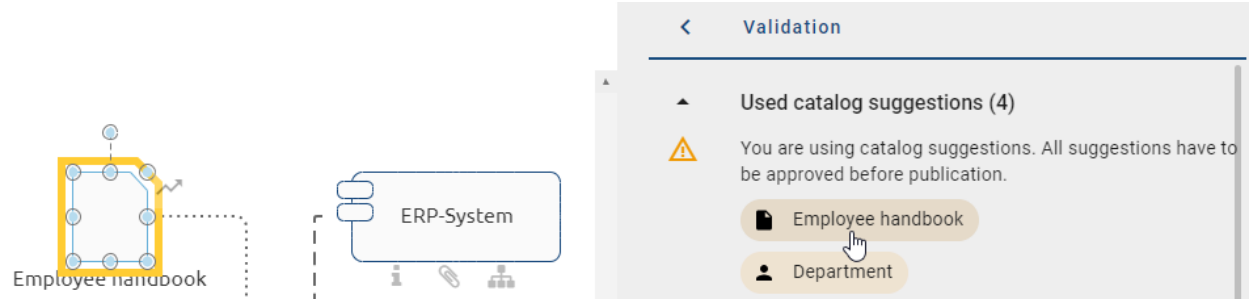
As long as some inadmissibility is displayed in the validation list *Not allowed catalog suggestions*, you will be not able to check in the diagram. The affected symbols that are additionally marked red in the validation should therefore be linked to an existing catalog items via the *suggestion list*. If no suitable catalog item exists, you can remove the symbol from the diagram. On the other hand, users can create a suitable new catalog item with the rights of an editor. As soon as no more inadmissibility exists after saving, check-in is possible.



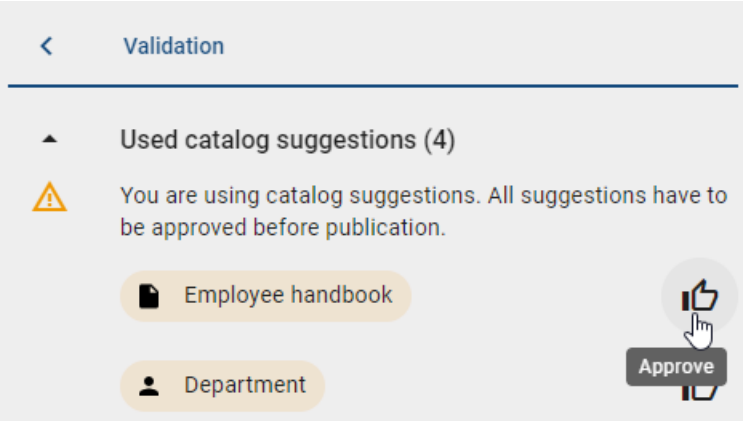
Note: Users who have the appropriate permissions can still *create objects* in the catalog for reuse in diagrams.

8.10.3 How do I deal with unapproved catalog suggestions?

In the validation you can see the list *Used catalog suggestions*. Entities in the opened diagram are listed here if they are not yet accepted in the catalog. This applies to newly created, existing symbols or symbols that are linked to catalog items via attributes. When the validation bar is open, modeled entities are listed in yellow and marked in the editor by clicking on the entry. Entities, that are accepted in the catalog but are linked to unaccepted entities in the attributes, are also marked. It is indicated by the addition *Object attribute* in the list entry. If this behavior also occurs in the diagram attributes, the listed entity is labeled with *Diagram attribute*.

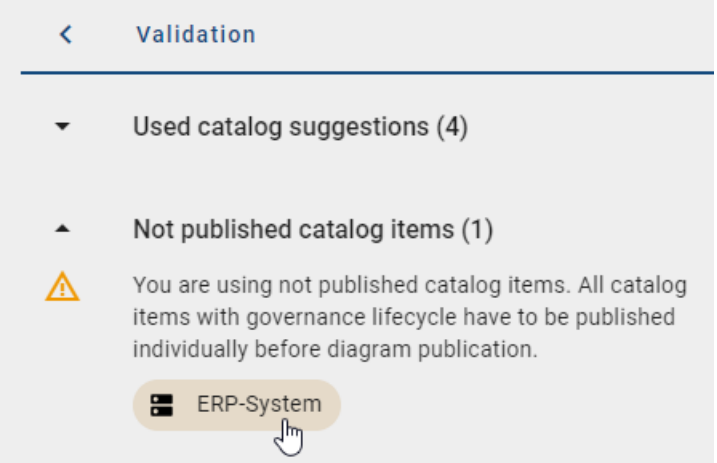


Check-in is not restricted by this feature. However, before publishing the diagram, the catalog suggestions listed here should be *approved in the catalog*. You can also do this in the option *Validation* of a checked-in diagram in the public workspace, using the *Approve* option to the right of the catalog item that has not yet been approved.



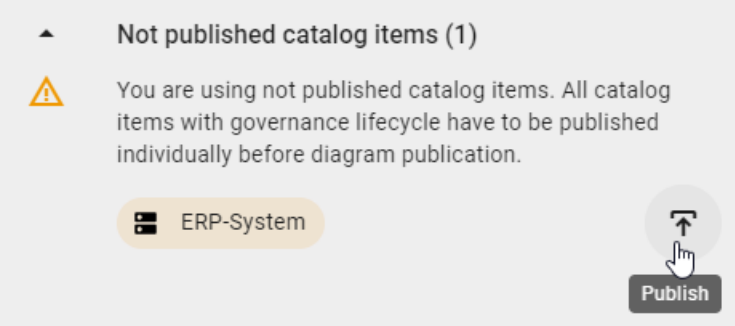
8.10.4 How do I deal with unpublished catalog suggestions?

In the validation, you can see the list of *Not published catalog items*. Entities of the selected diagram are listed here if they have their own responsible person (lifecycle) but have not been published yet.



This applies to newly created, existing symbols or symbols that are linked to catalog items via attributes. When the validation bar is open, modeled entities are listed in yellow.

The diagram can only be published in BIC Process Design once all contained catalog items with their own life cycle have already been published or their publication has been initiated. Users with author rights can publish the *catalog items in the catalog*. Alternatively you can do this in the option *Validation* of a checked-in diagram in the public workspace, using the *Publish* option to the right of the catalog item that has not yet been published.

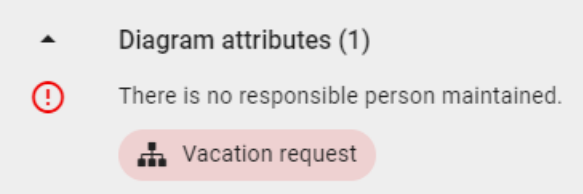


If the catalog items are in the preview stage but not confirmed by the person responsible, the diagram will be published containing a draft version of that catalog item. After confirmation the draft version is automatically replaced by the final version.

8.10.5 How are OCL rule violations displayed?

The OCL (Object Constraint Language) is supported on the method side and is also used for validating the model. This allows you to set various modeling restrictions that help users to design valid diagrams. Rules defined with OCL for modeling are checked during modeling and/ or afterwards (during check-in). Rule violations are displayed in the validation mode sorted by severity and can be defined in the method with appropriate notes for the modeler. Both connected and unconnected modeling objects can be validated. By clicking on the list entry in the validation, the corresponding object is marked in the diagram.

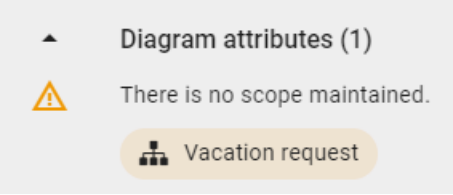
For example, in BPMN collaboration diagrams, this prevents a diagram from having missing mandatory attributes. In this case, the responsible person has not been maintained in the diagram attributes. This is not allowed by the method and is displayed as follows during validation.



Moreover, OCL rules concerning diagram attributes, so called *semantic checks*, can be defined in the method. Depending on the setting, the check is done when the diagram is modeled or when it is checked-in. For example, semantic checks can be useful to ensure that modellers always maintain a specific diagram attribute or set a meaningful validity period. If you model a diagram and a semantic check fails for a diagram attribute, you will be informed about it in the validation hub. The hint is - depending on the concerning method setting - either a *warning* (yellow), an *error* (red) or a *blocker*. If a modeled diagram violates a blocker, the check-in is not possible. You need to correct the modeling to be able to transfer the diagram from your local storage to the public workspace via the check-in.

Hint: Please be aware that users who utilize customized OCL rules do not receive the diagram attribute checks automatically. They need to integrate these manually into their customized method.

In the method of the following example, a rule has been defined which states that the attribute scope (AT_SCOPE) of a BPMN diagram should be maintained. In case of a violation, a customized message will be shown. A violation of this rule is estimated as a warning. Thus, the following warning hint is displayed to the modeller of the diagram "Vacation request" because the scope attribute is empty.



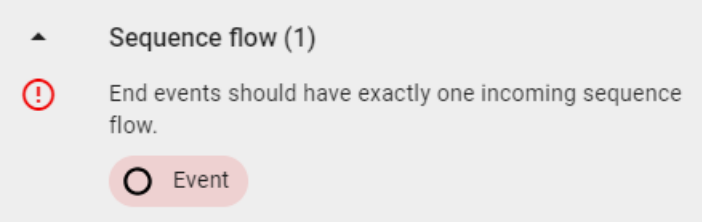
OCL rules can be adjusted in customizing.

8.10.6 How is an invalid sequence flow displayed?

In the validation of BPMN diagrams, objects with invalid sequence flows are listed under the heading *Sequence flow*, if these exist in your modeling. In the following cases you will receive a corresponding note in the validation bar:

- Intermediate events have no incoming and/or outgoing sequence flow
- Activities have no incoming and/or outgoing sequence flow
- Start events have no or more outgoing sequences
- End events have no or several incoming sequences
- Gateways have several incoming and outgoing sequence flows simultaneously
- Gateways have exactly one incoming and one outgoing sequence flow

As an example, the message for an end event without an incoming sequence is displayed here.



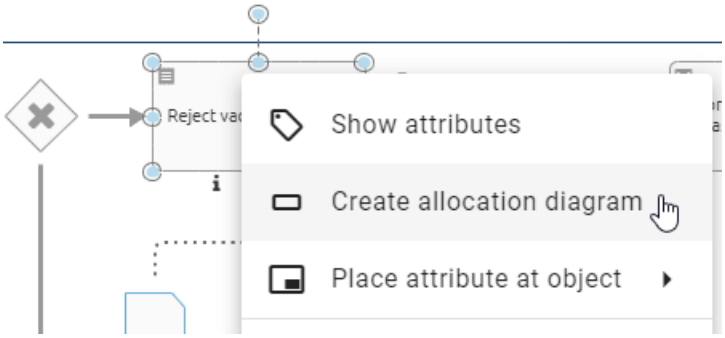
8.11 Allocation diagrams

Allocation diagrams allow you to add subgraphs to the main graph of your diagram. By using these allocation diagrams you can model subdiagrams in a manner, so that your main diagram is not overloaded with details.

Note: Allocation diagrams can only be created for activities because the resources used in this activity are represented in this diagram type. A diagram can contain multiple allocation diagrams, depending on the number of existing activities.

8.11.1 How can I create a new allocation diagram?

Open the context menu of the corresponding activity by right-clicking on the symbol. Select the option *Create allocation diagram*.



You will get to the editor of the allocation diagram where you will find the symbol of the respecting activity. Within this editor you can now model as usual.

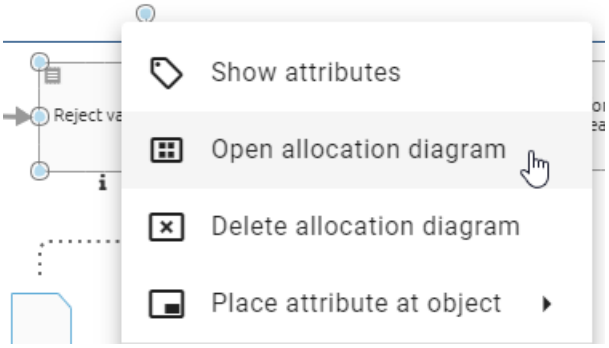
If you want to return to your main diagram click on the *Return to main diagram* button on the upper side of your editor. When changes have been made you must save first before you can use the *Return to main diagram* function. You will then see the main diagram at the same position with the same zoom settings as before and the corresponding activity is selected.

Note: Only one allocation diagram can be created per activity, as this ensures a clear assignment.

8.11.2 How can I edit an allocation diagram?

To open an allocation diagram for editing you have the following possibility:

Check-out the diagram in which the associated allocation diagram is located. Open the context menu of the corresponding activity by right-clicking on the symbol. Select the option *Open allocation diagram*.



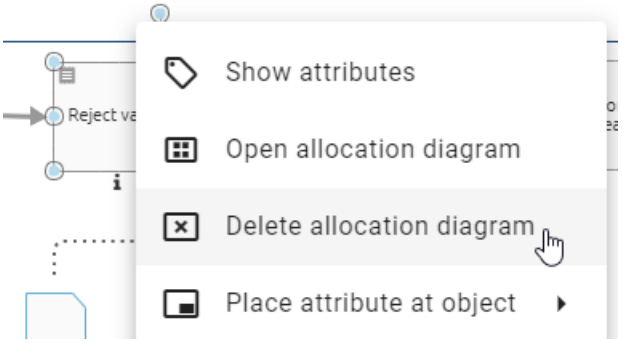
To apply the changes, click on the *Save* button on the upper side of your editor after editing your allocation diagram.

Note: Symbols created in the allocation diagram are only displayed there. Changes you make to the activity for which the allocation diagram was created are visible in the main graph and also in the corresponding allocation diagram. It does not matter if the changes have been made in the main diagram or the allocation diagram itself, or if there is a catalog item for this activity. Note that it is not possible to edit an activity with an allocation diagram using the suggestion list.

8.11.3 How can an allocation diagram be deleted?

To delete an allocation diagram execute the following steps:

Navigate to the diagram in which the the associated allocation diagram is located. Then, open the context menu of the corresponding activity by right-clicking on the symbol. Select the option *Delete allocation diagram*.

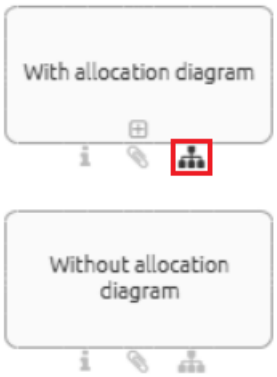


The allocation diagram has been removed and is no longer displayed in the explorer under the corresponding diagram.

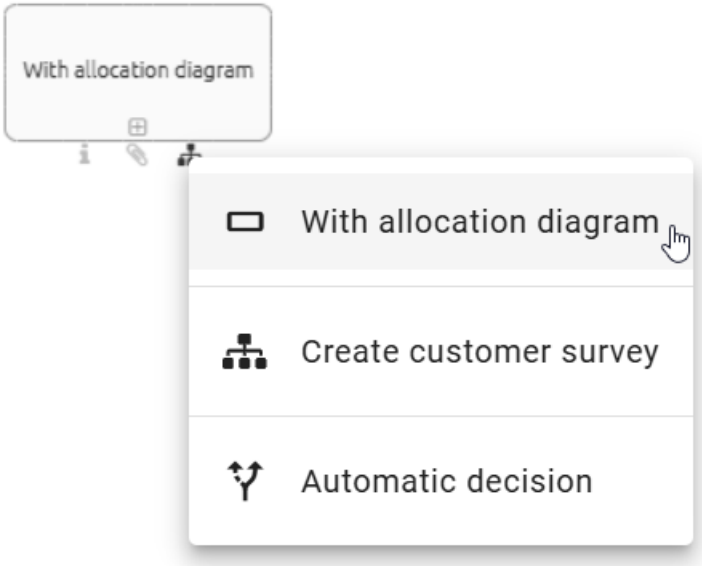
8.11.4 How can I recognize if an allocation diagram has been assigned to an activity?

Users with the *Author* role can create allocation diagrams for activities if the author is maintained in the diagram's *Author* attribute. For both checked-out and checked-in diagrams, you can identify from an activity whether an allocation diagram has already been assigned to it.

To do this, open any diagram from the *Diagrams* menu item in the left menu bar. For activities with an assigned allocation diagram, the diagram symbol below to the right of the activity is highlighted in black.



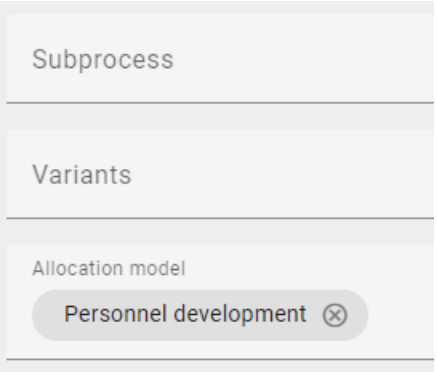
This symbol also indicates if other diagrams (variants, subprocesses, FAD) are assigned to the activity. When clicking on the diagram symbol in both checked-in and checked-out diagrams, you will be navigated to the assigned diagram if only one diagram is assigned. If multiple diagrams are assigned, a list of all assigned diagrams will be displayed.



After that, you can navigate to the corresponding diagram.

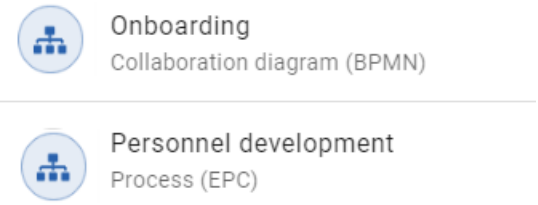
8.11.5 What are external function allocation diagrams (FAD) and how can I use them?

External function allocation diagrams (FDA) are analogous to *allocation diagrams* diagrams, which you can allocate to activities in order to describe a subordinated part of your diagram more precisely. Unlike the allocation diagrams, external FADs are not created via the context menu of an activity. An external FAD is an already existing diagram which is assigned to an activity in another diagram using the *Allocation model* attribute.



Analogous to the subprocess, simply *link a diagram* to an activity within its attribute *Allocation model* in order to assign the diagram to the activity as an external FAD.

The external FAD continues to exist as an independent diagram, which can also be seen from the arrangement in the repository.



However, analogous to the allocation diagram, all relevant objects of the external FAD are also listed in the reports of the diagram that contains the relevant activity with the assigned FAD. In addition, by simply clicking on the external FAD in the activity's attributes, you are automatically directed to the relevant diagram.

Note: Only one FAD can be created per activity, as this ensures a clear assignment.

8.12 Multilingualism

8.12.1 How can I model multilingually?

You can model diagrams in BIC Process Design in several content languages being supported by the *alternative language*. Translations of the content can be maintained within the diagram view or in the translation mode. In general, translations of existing objects that have already been *accepted in the catalog* should not be edited in the diagram view. If you maintain those changes directly in the diagram, new catalog items are created. The alternative way is to use the *Diagram translation mode*. Alternatively, you can use the *Catalog translation mode*.

Tip: For a clear view, which gives you a conclusion about which values have been maintained for which language, use the concerning translation mode. The chapters explaining these tools are linked above.

For direct changes within the diagram view *select the content language* you want to maintain the translation for. As alternative language, set the one for which the attributes have already been maintained.

Open your diagram in the designer. Now you can edit the corresponding *attributes*.

While editing, you can only see values of attributes that have been maintained for the selected content language. Therefore you can directly see if an attribute has not been translated yet.

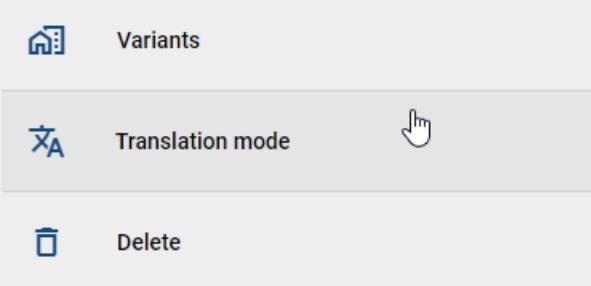
If you set a value for a language and the viewer sets this language as his alternative language, he will see this value in case the concerning attribute has not been maintained in his content language. This is marked by the abbreviation of the alternative language in brackets after the value.

Note: If you change an attribute which has only been maintained in the alternative language, this change only applies to the content language. If you only use one language, the content language equals the alternative language. Note, that some attributes are independent of the content and alternative language such as the email address.

Hint: Please note that when switching to the alternative language, process names, descriptions and forms are displayed in this language if a translation is available. Otherwise, the content remains in the original content language. The user interface and system messages remain unchanged and continue to be displayed in your browser language.

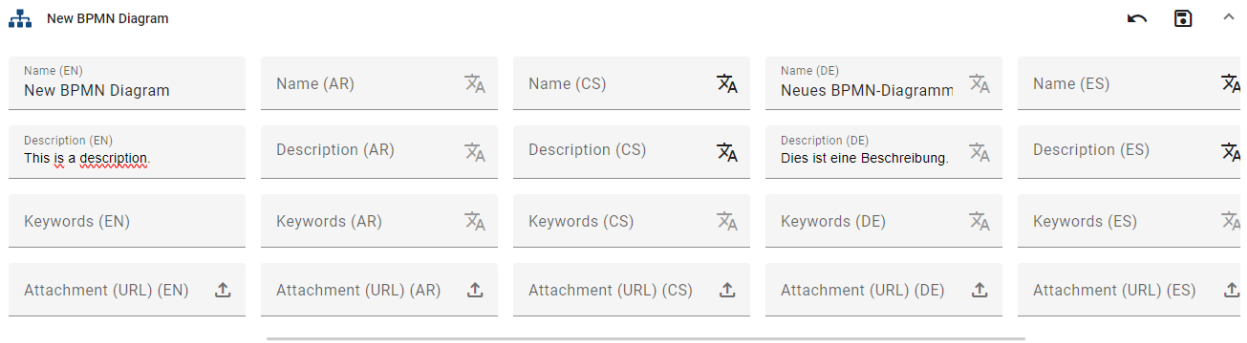
8.12.2 How do I translate a diagram?

When modeling diagrams, modelers can directly maintain the corresponding translation for the content languages selected in the administration. The navigation to the catalog is not necessary.

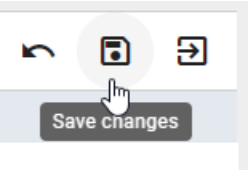


Navigate in a checked-in diagram through the options to the *Translation mode*. All elements of the diagram that have at least one maintained text attribute are listed here. In addition to the diagram itself, all modeled symbols can therefore be included. Several versions of the same catalog item are therefore listed several times. The diagram is always the first list entry. Below, the objects are grouped alphabetically according to their object types. The objects of each group are also sorted in alphabetical order depending on their object names in the current content language. If the name attribute is not maintained, you see the object type instead.

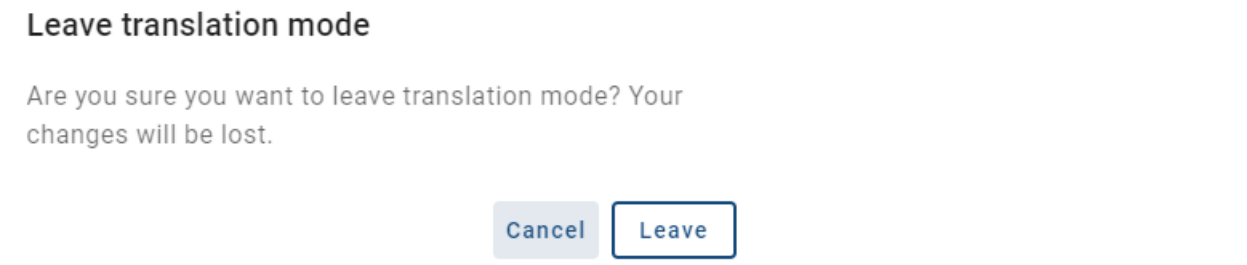
Click on a list entry to expand it and see all text attributes of this entry in the available content languages. The attribute type names are displayed in the UI language. You can now maintain your translations in the text fields.



Click on *Save changes* and then on *Leave* to save your changes and return to the diagram view. Note the hint on top of the list. As administrator and editor, your changes to catalog items will ne applied immediately. If you are an Author, your list will be filtered, so that the accepted catalog data used in the diagram is not listed and cannot be changed here.



If you do not want to apply your changes, you can click on *Discard changes* oe click *Leave* without saving and select *Leave* in the appearing dialog.

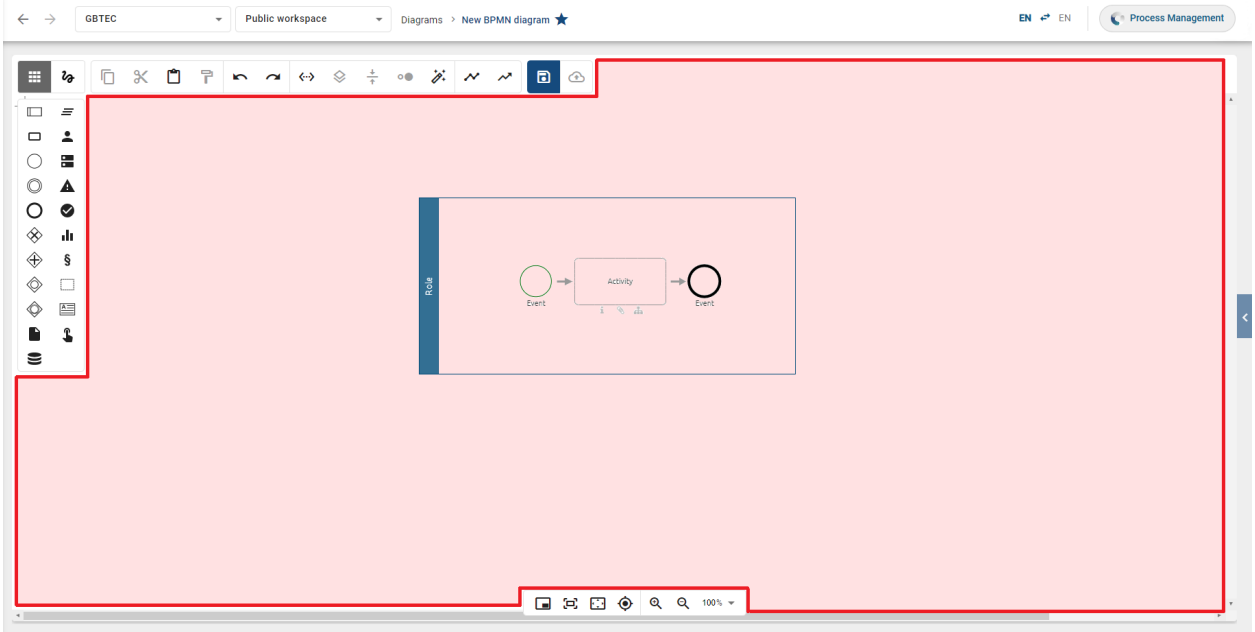


Note: While translating a diagram, accessing the editor or using other options are not possible.

8.13 Navigation

8.13.1 How can I zoom in the designer?

You can apply the zoom to the for modeling opened diagram or to the entire website. This depends on where you place your mouse while zooming. The selection can be made by placing the mouse outside (not color coded) or inside (color coded) the editor.



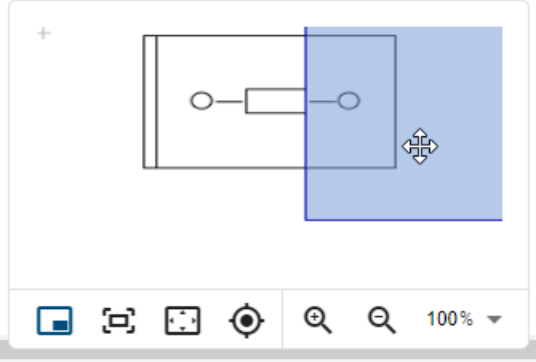
Now hold down the *Ctrl* key and scroll with the mouse wheel. Optionally, you can zoom the whole website by holding down the *Ctrl* key and pressing + to zoom in or - to zoom out.

8.13.2 How can I navigate the diagram while modeling?

In a checked-out diagram in edit mode, you can navigate by holding down the right mouse button or by scrolling and using the scrollbar.

Furthermore, there is a navigation bar at the right bottom of the editor, which offers the following possibilities:

Navigator: Click on the first entry to *Toggle diagram navigator*. It gives you an overview of the diagram and thus allows you to navigate easily by moving the transparent rectangle with the mouse. The size of the rectangle can be changed by dragging and dropping the edges, which corresponds to zooming in the diagram. Click again on the button to hide the navigator.



Fullscreen: If you click the second button, *Toggle fullscreen*, both the application and the browser will switch to full screen mode. A subsequent click on the button will exit fullscreen mode for both the application and the browser, returning you to the original view. Please note that the *ESC* key only exits the browser's fullscreen mode. This can interfere with the *ESC* functionality for other application features, such as deactivating stamp mode.

Adjust content to window size: By clicking on the third button, the diagram will be zoomed and scrolled, so that you can see the whole diagram in the editor.

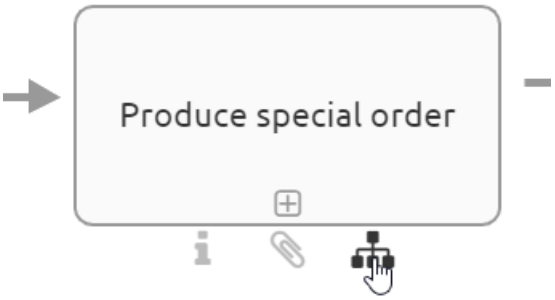
Scroll selection into view: A click on the fourth button scrolls the diagram to 0/0 position.

Zoom level: The fifth function allows you to set different zoom levels in percent. Preset levels appear when you click on the arrow. You can then select one of the zoom levels from the list. Furthermore, it is possible to set your own zoom level between 10% and 800%. To do this, click on the displayed number, enter a new percentage and confirm with the Enter key or click on the diagram.

8.13.3 How do I open a subprocess?

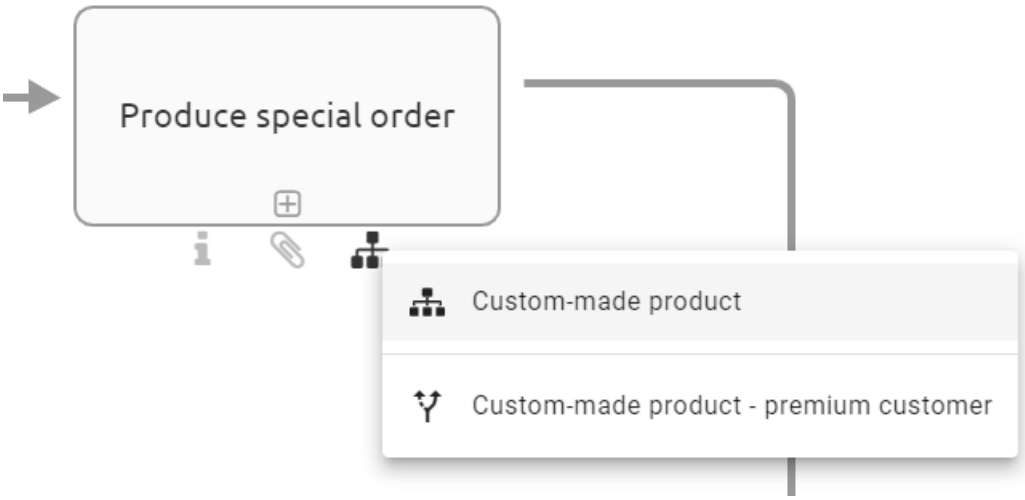
While modeling, you can jump directly from a diagram into a refined diagram which is maintained in the *subprocess attribute*.

If you have opened a diagram containing an activity with a subprocess diagram in the designer, you can click the highlighted diagram icon below the object. Alternatively, navigate to the attributes of the object and click on the diagram in *Subprocess*.



If you have also checked out the subprocess diagram, this diagram will be displayed in the designer. In case you have not checked out the diagram, the click opens the diagram in the public workspace of BIC Process Design. This happens in a new browser tab or if the application is running in another tab, you will be navigated to the diagram there.

In case there is more than one subprocess diagram available (i.e. one or more diagrams are maintained in the *Variants* attribute), an alphabetically sorted list of all subprocess diagrams is shown after selecting the diagram symbol. You can choose the diagram which you like to view.



Note: Subprocesses also display diagrams to which you have no access. If you navigate into these diagrams, you will get a *corresponding message* and can not see the content of the diagram.

8.13.4 How do I open a subprocess when multiple ones are maintained?

BIC Process Design offers the possibility to maintain *multiple variants within the attributes*. You can open them in the same way as *you can open one subprocess*. However, a simple click on the diagram icon under the object will give you an alphabetically sorted list of all the subprocesses. This gives you the opportunity to see at a glance which navigation options are available to you. The top entry reflects the *subprocess* field, followed by the variants. Select the required subprocess to follow the link as described above.

Note: If you have no access to a subprocess, the corresponding list entry is greyed out and you will not be able to select it.

8.14 Useful hints

In this section, you find some concluding tips that facilitate the modeling in BIC Process Design.

8.14.1 Which is the best position for the diagram?

Align your diagrams at the 0/0 position to ensure that they will be displayed optimally after checking-in.

8.14.2 How can I navigate the diagram more easily?

In addition to horizontal and vertical scrolling, you can move the diagram in the editor while pressing the right mouse button. In addition, the *navigator in the editor* is available.

8.14.3 How can I make a multi selection?

Select several elements at the same time, either by dragging with pressed mouse key over the area in which these elements are located or by holding the CTRL key and clicking on the corresponding symbols. Also note the possible *shortcuts*.

8.14.4 How can I deselect objects in a diagram?

If you have selected too many elements at the same time, you can remove individual objects from the selection by deselecting them. To do this, hold down the Shift key and click on the wrongly selected object.

8.14.5 How can I see the description of an object?

If you have maintained a *description* of an object, the corresponding attribute symbol "i" is highlighted on the object. Hold the mouse over this symbol. A tooltip with the description appears as a preview. Alternatively, you can also see the description of the object by clicking on the attribute symbol or by opening the attributes tab.

8.14.6 How can I deposit websites in the attachments?

In the attribute-tab, you can deposit websites in the *attachments* by typing in the URL and confirming with the "Return"-key.

8.14.7 How can I see the description of an object?

If you have maintained a *description* of an object, the corresponding attribute symbol "i" is highlighted on the object. Hold the mouse over this symbol. A tooltip with the description appears as a preview. Alternatively, you can also see the description of the object by clicking on the attribute symbol or by opening the attributes tab.

8.14.8 Should I always use the same browser for modeling?

After checking-out, your diagrams will be saved locally in the local storage of your browser. Therefore, you should always use the same browser.

8.14.9 What should I look for after modeling?

Please, save your diagrams regularly and check them in, to avoid data loss and to make them available for other users. A diagram is locked for other users, if you do not check it in. Note the information *at the beginning of this chapter*.

CHAPTER

NINE

VARIANT MANAGEMENT

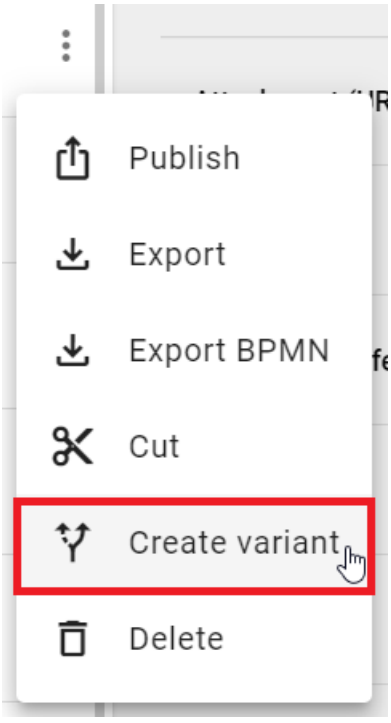
A variant is a direct copy of the original diagram or catalog object that can be edited as required. The variant is adopted in the maintained content languages of the original diagram or catalog object. This is helpful, for example, if a process is generally used in the company but adaptations are required in individual countries.

9.1 Diagrams

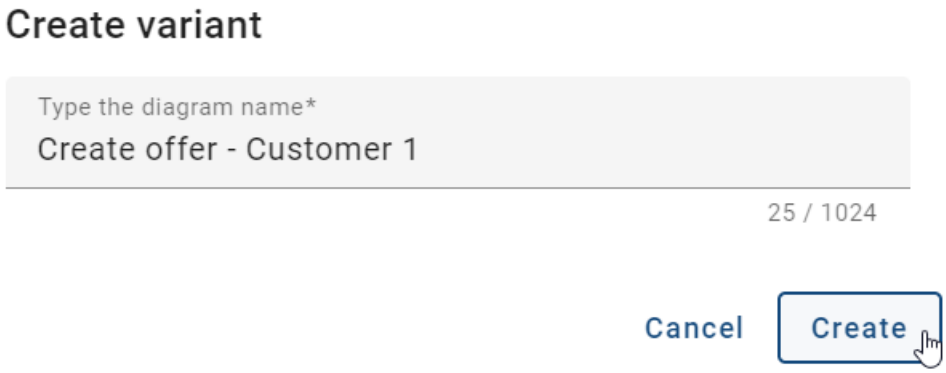
9.1.1 How can I create a diagram variant?

As an *Author*, *Editor*, and *Administrator*, you have the ability to create variants of checked-in diagrams in the *Public workspace*.

When you open the *Diagrams* menu item in the left menubar, all diagrams available in the current repository are displayed in the main area. To create a variant of a diagram, open the context menu of the desired diagram in this list and select *Create Variant*.

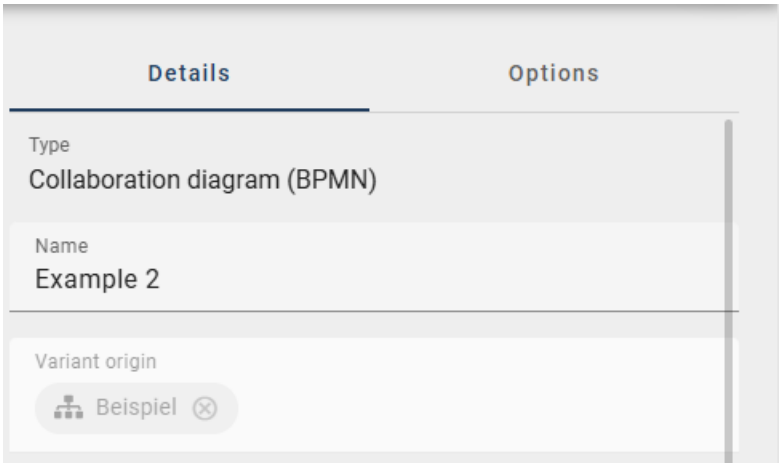


A dialog will open, where you can adjust the name of the diagram as required. The name of the original diagram will be displayed in the input field by default.



Then click the *Create* button to create a variant. If you want to cancel the operation, click the *Cancel* button. After the variant is created, the diagram is displayed as the top entry in the category you are in. To get an alphabetically sorted list, please refresh the page.

After creating the variant, you can find the *Details* panel in the right sidebar of a checked-out diagram. Within this tab, the attribute *Variant Source* refers to the base diagram from which the variant was created.



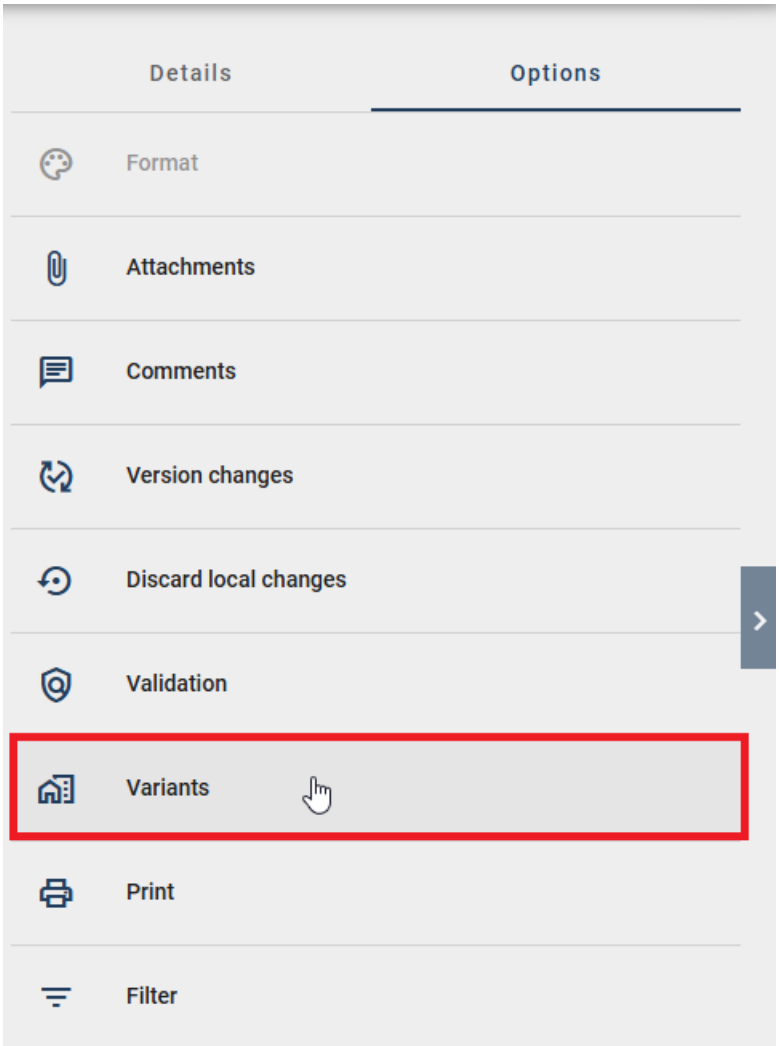
Once a variant is created, you are automatically entered as the author in the governance attribute, depending on whether you or one of your user groups is entered as the author in the original diagram. You can then check out the variant and edit it. This also applies if you are not yet stored as a person object in the catalog. In this case, the system will automatically create an accepted person object as a catalog item.

Note: It is also possible to create variants of variants.

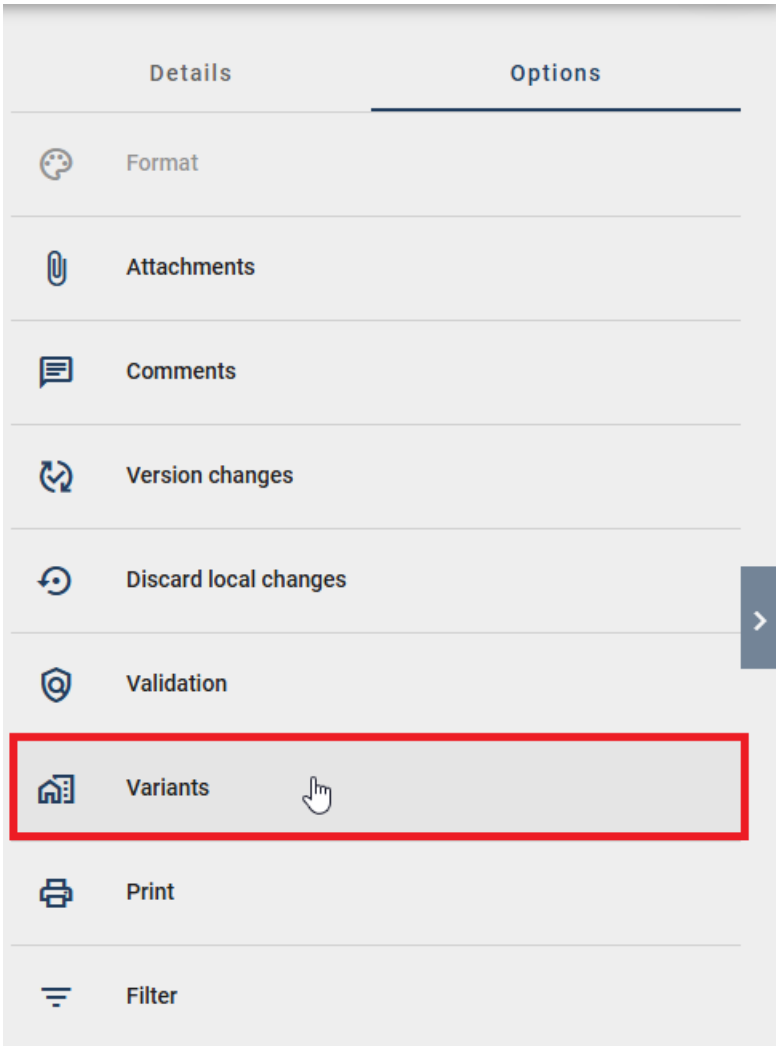
9.1.2 How can I compare diagram variants?

As an *Author*, *Editor*, or *Administrator*, you have the option to compare variants in the *Public Workspace*. You can compare the base diagram with a variant, as well as one variant with another variant.

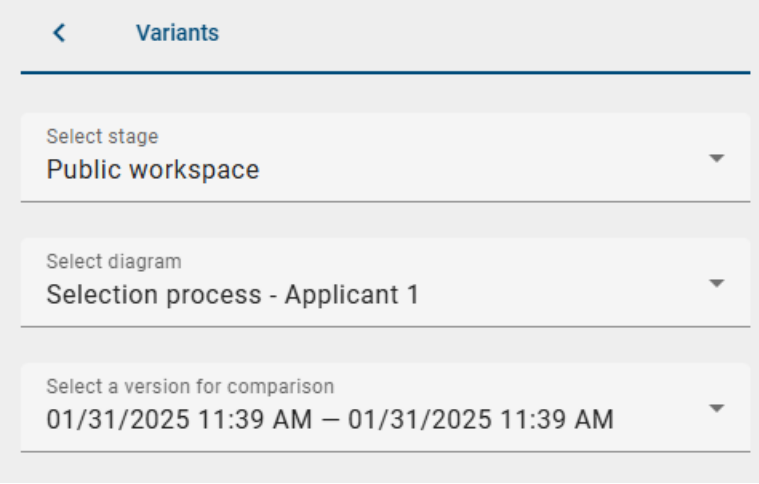
When you open the *Diagrams* menu item in the left menubar, all diagrams available in the current repository are displayed in the main area. To compare variants of a diagram with each other, select the desired diagram and navigate to the *Options* tab in the right sidebar of the checked-in or checked-out diagram, then select the *Variants* option.



When you open the *Diagrams* menu item in the left menubar, all diagrams available in the current repository are displayed in the main area. To compare variants of a diagram with each other, select the desired diagram and navigate to the *Options* panel in the right sidebar of the checked-in or checked-out diagram, then select the *Variants* option.



You can then select the desired area under the *Select Stage* button, choose a diagram variant under the *Select Diagram* button, and specify the version to compare under the *Select a Version for Comparison* button. After making your selections, the differences between the two diagrams are displayed automatically.



If the diagram being displayed contains at least one object that is different from the diagram variant, the object is listed

in one of the following sections:

- **Not included in displayed diagram**: The object is not included in the displayed diagram.
- **Only included in displayed diagram**: The object is included in the displayed diagram only.
- **Different attribute value**: The object has different attribute values in the displayed diagram.

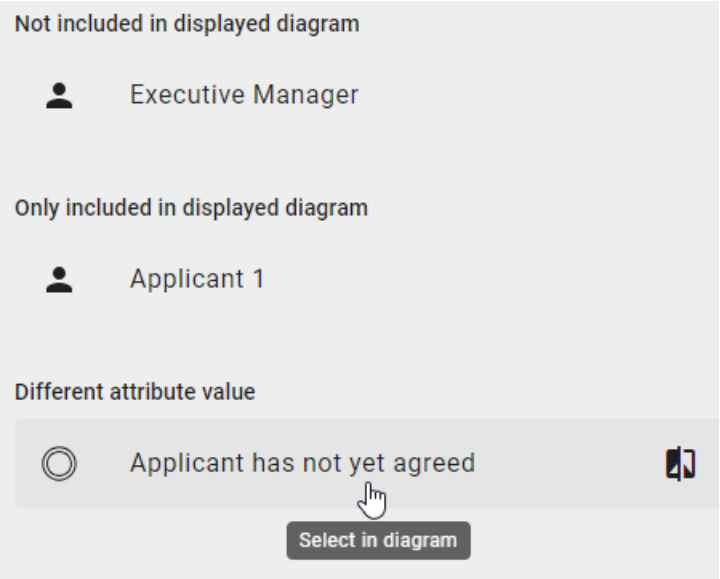
Tip: If an object has been translated into other languages and there are differences compared to your current language, a notification banner is displayed above the comparison view. This banner shows the affected languages as codes (e.g., *EN, FR, ES*). You can click on a language code to directly check the differences compared to your current content language and compare the translations in a targeted manner.

9.1.3 How can I highlight the differences between the diagram variants in color?

As an *Author*, *Editor*, or *Administrator*, you have the option to highlight differences between diagram variants using colors.

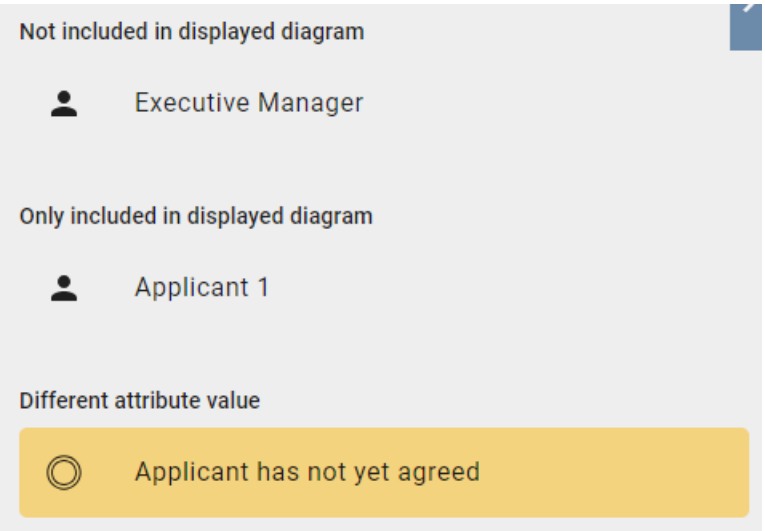
When you open the *Diagrams* menu item in the left menubar, all diagrams available in the current repository are displayed in the main area. To compare variants of a diagram and highlight the differences with colors, select the desired diagram. Then, navigate to the *Options* panel in the right sidebar of the checked-in or checked-out diagram and open the *Variants* section there.

To highlight a difference within the diagram variant, click on the corresponding object in the changes area.



Hint: Non-existent object **cannot** be colored in the diagram and appear only in the *Not included in displayed diagram* section.

The object is then highlighted in the section and in the displayed diagram. A green marker indicates *Only included in displayed diagram* and a yellow marker indicates *Different attribute values*.



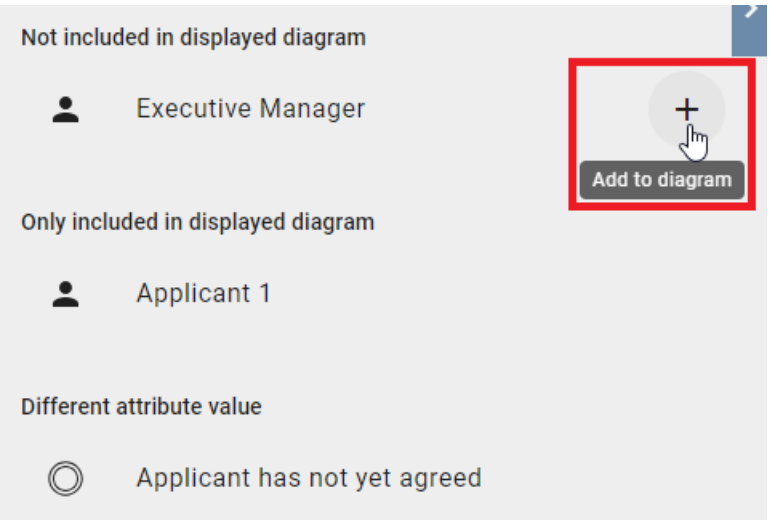
If **only** objects have been rearranged between the displayed diagram and the diagram variant, the diagram name has been changed, or no changes have been made, you are notified that no changes were detected during the comparison.

9.1.4 How can I add or remove objects when comparing diagram variants?

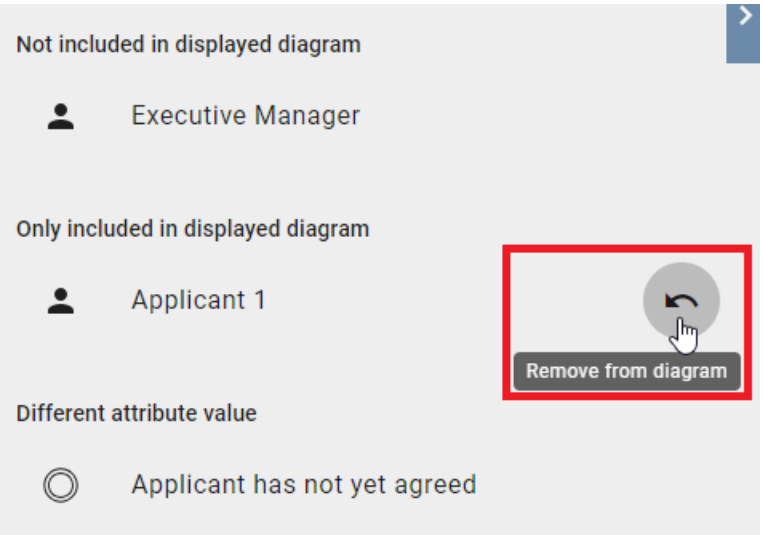
As an *Author*, *Editor*, or *Administrator*, you have the ability to add or remove objects while comparing a diagram variant with the displayed diagram.

When you open the *Diagrams* menu item in the left menubar, all diagrams available in the current repository are displayed in the main area. Select the desired diagram to compare variants with each other. Then navigate to the *Options* panel in the right sidebar of the checked-in or checked-out diagram and open the *Variants* section.

You can add or remove objects while comparing a diagram variant with the displayed diagram. Make sure that the displayed diagram is **checked out** for this purpose.



When you move the mouse pointer over the *Only included in displayed diagram* section, the *Remove from diagram* button appears. This allows you to remove the object from the diagram that is included in the displayed diagram but not in the diagram variant.



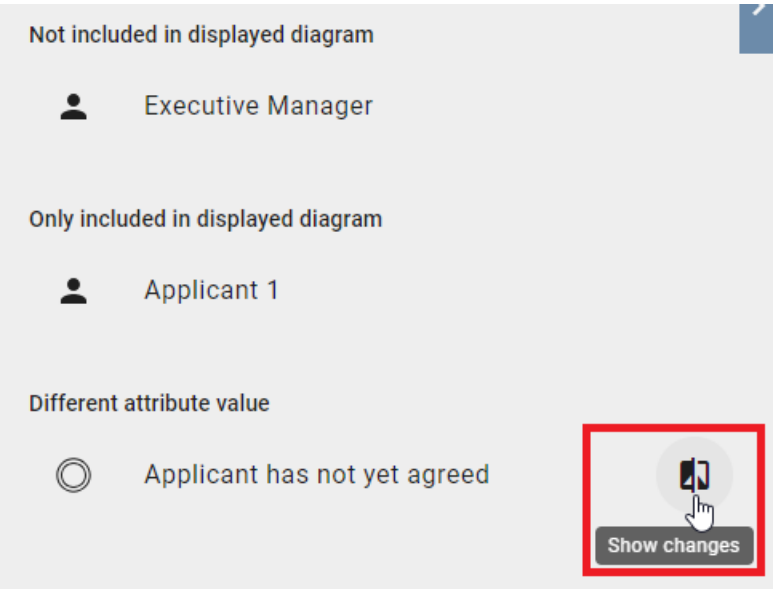
Clicking the respective button will execute the action immediately, and the change will no longer appear in the comparison. The only way to undo the action is to *discard the local changes* or click *Undo* (alternatively **CTRL+Z**) in the editor.

9.1.5 Where can I see and apply changes to attribute values between diagram variants?

As an *Author*, *Editor*, or *Administrator*, you have the ability to view and apply changes to attribute values between diagram variants while comparing a diagram variant with the displayed diagram.

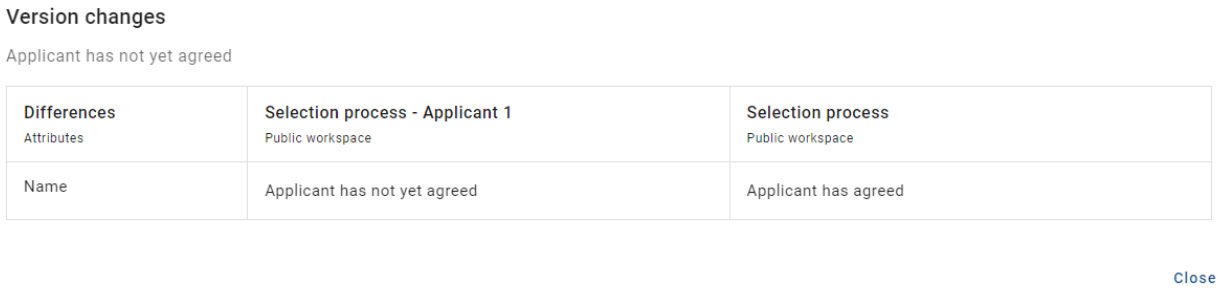
When you open the *Diagrams* menu item in the left menubar, all diagrams available in the current repository are displayed in the main area. Select the desired diagram to compare variants with each other. Then navigate to the *Options* panel in the right sidebar of the checked-in or checked-out diagram and open the *Variants*

To view the changes to the object's attribute values in the displayed diagram, move the mouse pointer to the *Different attribute values* section. This will display the *Show changes* button. Click this button to view the changes.



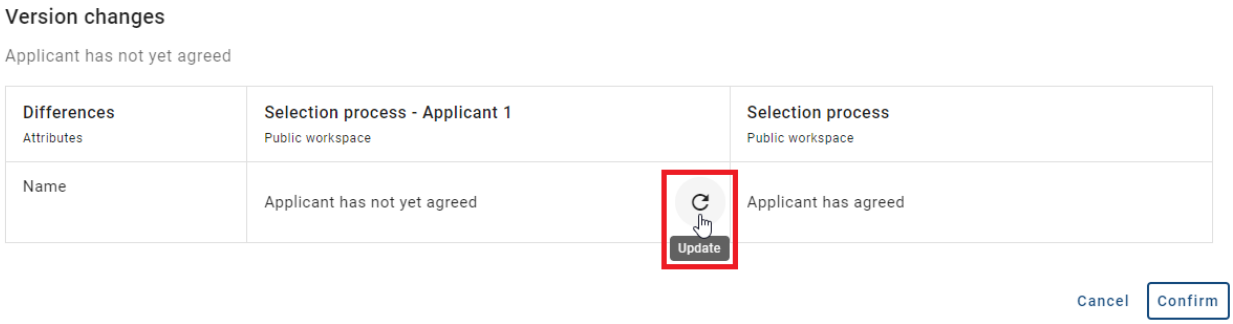
This opens a table showing the changes made to the selected object. The left column lists the changes made, while the

middle and right columns allow you to compare the differences between the displayed diagram (middle column) and the diagram variant (right column). To close the table, click *Close*.

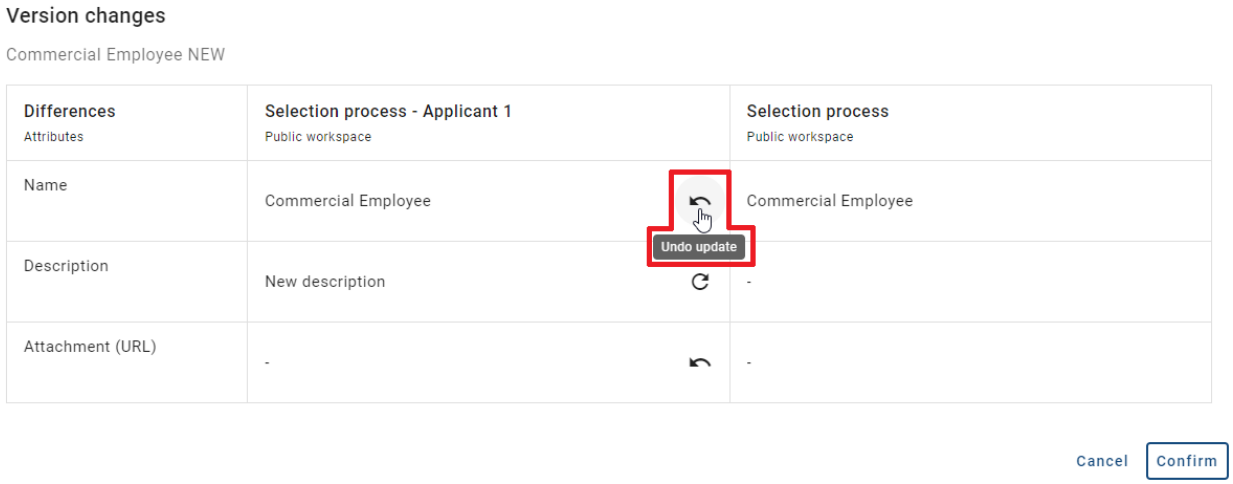


Hint: Please note that when comparing the current diagrams with a chosen diagram variant, the system attributes are also displayed, provided they have been changed.

If you have clicked on the *Show changes* button in the **checked-out** diagram, you will find an *Update* option in the displayed table. This allows you to apply the diagram variant's attribute value to the displayed diagram. Then click *Confirm* to finalize the change.



If you clicked *Update* for the wrong attribute value, you can undo it by clicking *Undo update*. To discard all changes, click *Cancel*.

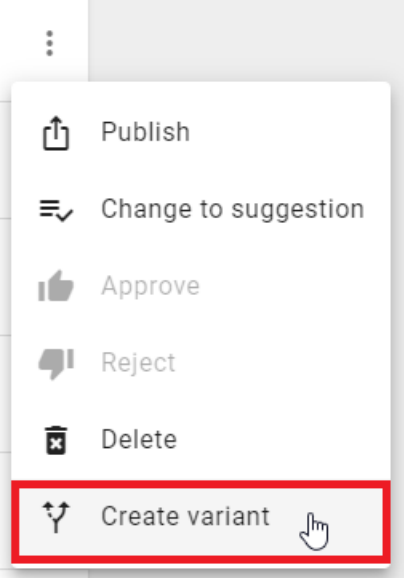


9.2 Catalog

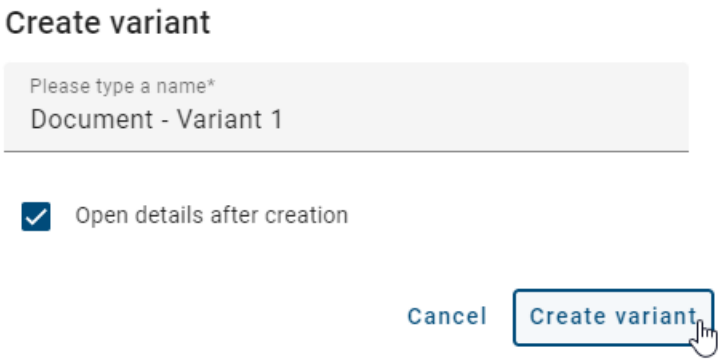
9.2.1 How can I create a catalog variant?

As an *Author*, *Editor*, and *Administrator*, you have the ability to create variants of catalog objects in the *Public workspace*.

When you open the *Catalog* menu item in the left menubar, all available catalog objects are displayed in the main area. To create a variant of a catalog entry, open the context menu of the desired catalog entry in this list and select *Create Variant*.

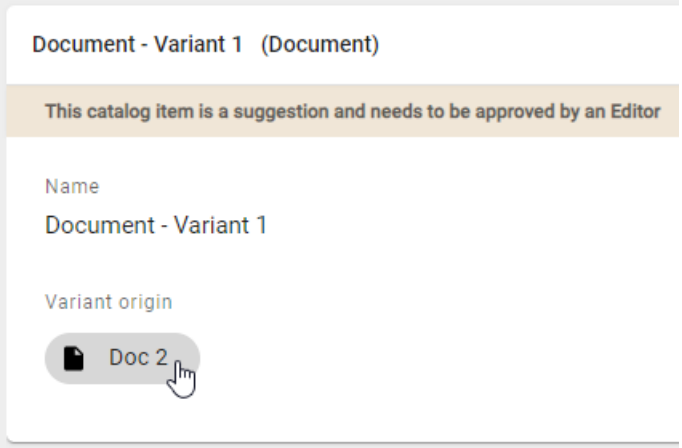


A dialog will open, where you can adjust the name of the catalog object as required. The name of the original catalog object will be displayed in the input field in the active content language by default.



Then, click on *Create variant* button to create a variant. If you want to cancel the process, click on *Cancel*. After the variant is created, the catalog object will be displayed as the top entry if the option *Open details after creation* is deactivated. To obtain an alphabetically sorted list, please refresh the page.

Once the variant has been created, you will be able to locate the attribute *Variant origin* in the *Details* when you open the catalog object. This will establish a reference to the base catalog object from which the variant was created.



Once a variant is created, you are automatically entered as the author in the governance attribute, depending on whether you or one of your user groups is entered as the author in the base catalog object. You can then edit the variant. This also applies if you are not yet stored as a person object in the catalog. In this case, the system will automatically create an accepted person object as a catalog entry.

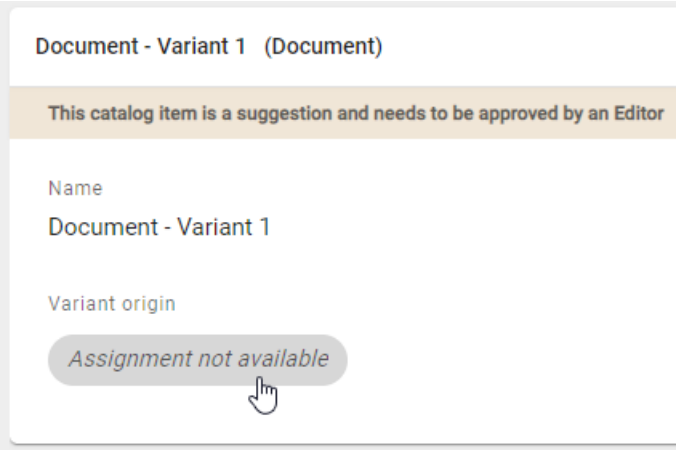
Note: It is also possible to create variants of variants.

Hint: Please note that Catalog variants and base catalog objects cannot be rejected if they are a catalog suggestion. However, they can be changed from an accepted catalog object back to a catalog suggestion.

9.2.2 What happens if the base catalog object is deleted?

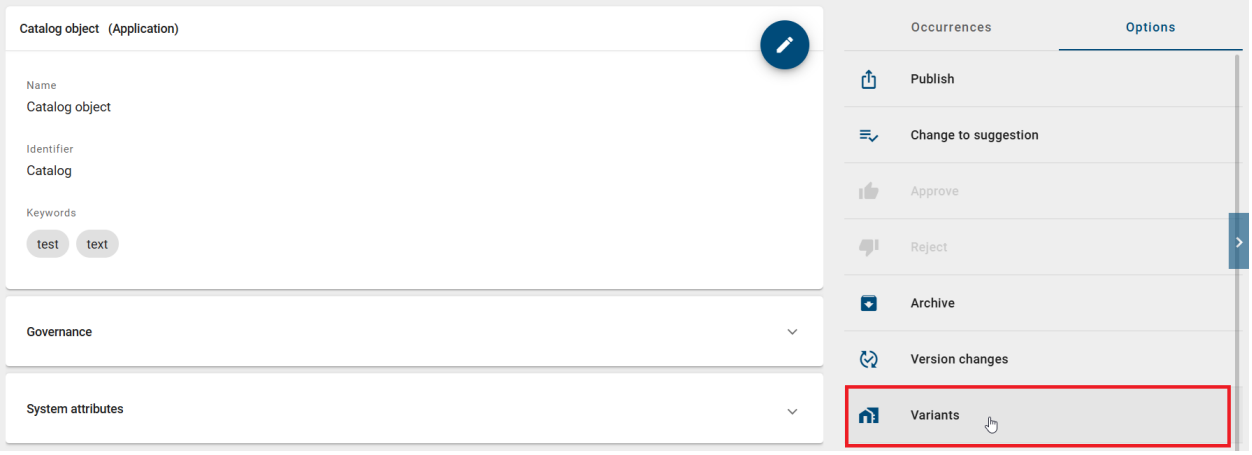
When you *delete* a base catalog object, another dialog appears asking you to confirm the deletion.

Once you confirm the deletion, the base catalog object no longer exists in the catalog and can no longer be displayed in the catalog variants. However, the catalog variants still indicate that the catalog variant is a variant.



9.2.3 How can I compare catalog variants?

As an *Author*, *Editor*, or *Administrator*, you have the ability to compare variants of catalog objects in the *Public Workspace*. For catalog objects that have a *catalog variant* or are themselves such a variant, all associated catalog variants can be compared across areas. To display the differences between a catalog object and its variant or base, first open the *Catalog* menu item in the left menubar and select a catalog object from the list that contains at least one variant. Then, in the right sidebar, click on *Variants* under the *Options* panel.



Hint: Please note that if the option is not displayed, there is no variant for the catalog object.

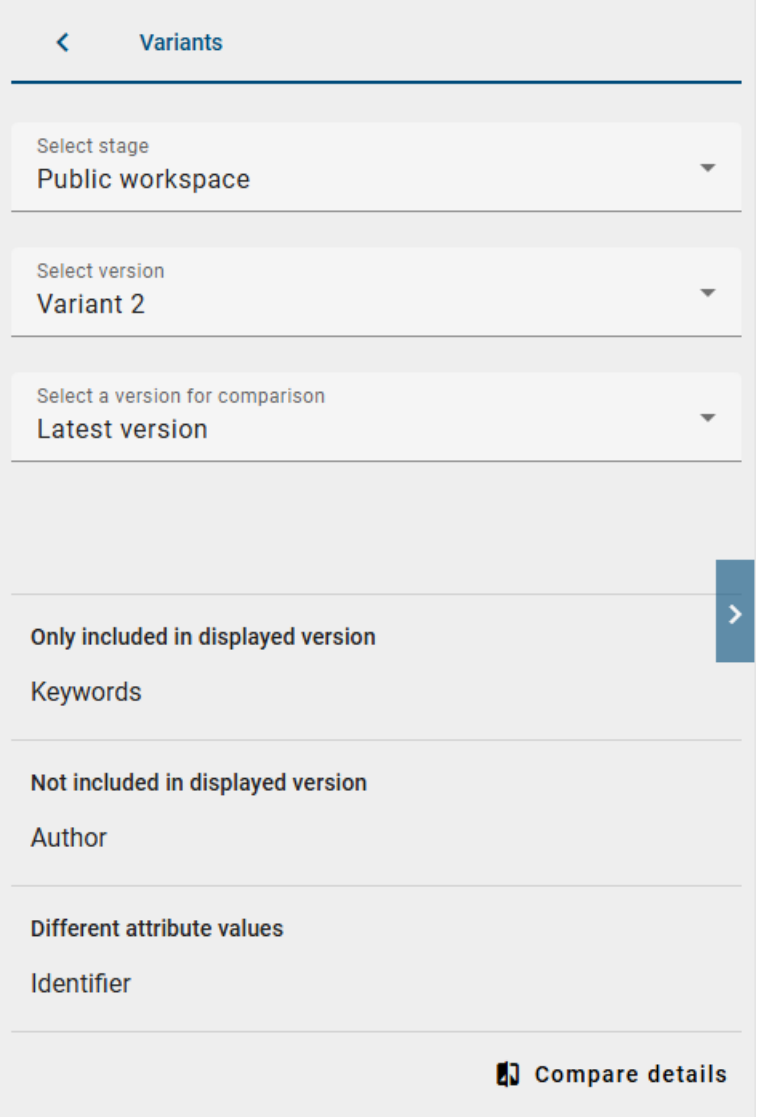
After clicking on the *Variants* option, you can select the stage, a catalog variant, base, or variant sibling of the selected catalog object, and a version you want to compare with the active catalog object. Access to the versions varies depending on your role:

- As an *Administrator*, *Editor*, or *Author*, you can select any stage, as well as any version of the selected catalog variant within those stages.
- As a *Reviewer*, you can select the *Preview* and *Publication* stages, as well as any version of the selected catalog variant within those stages.
- As a *Reader*, you can select the *Publication* stage as well as any version of the selected catalog variant within that stage if you have been granted *access permission*. Otherwise, you can **only** access the active version and the latest version of the catalog variant.

Note: If there are no changes in other stages or only one variant of the catalog object exists, you cannot change the catalog variant / version for comparison.

Once you have selected the stage, catalog variant, and version for comparison, click on the *Show differences* button. All differences between the selected catalog variant and the active catalog object will be listed. These differences are categorized as follows:

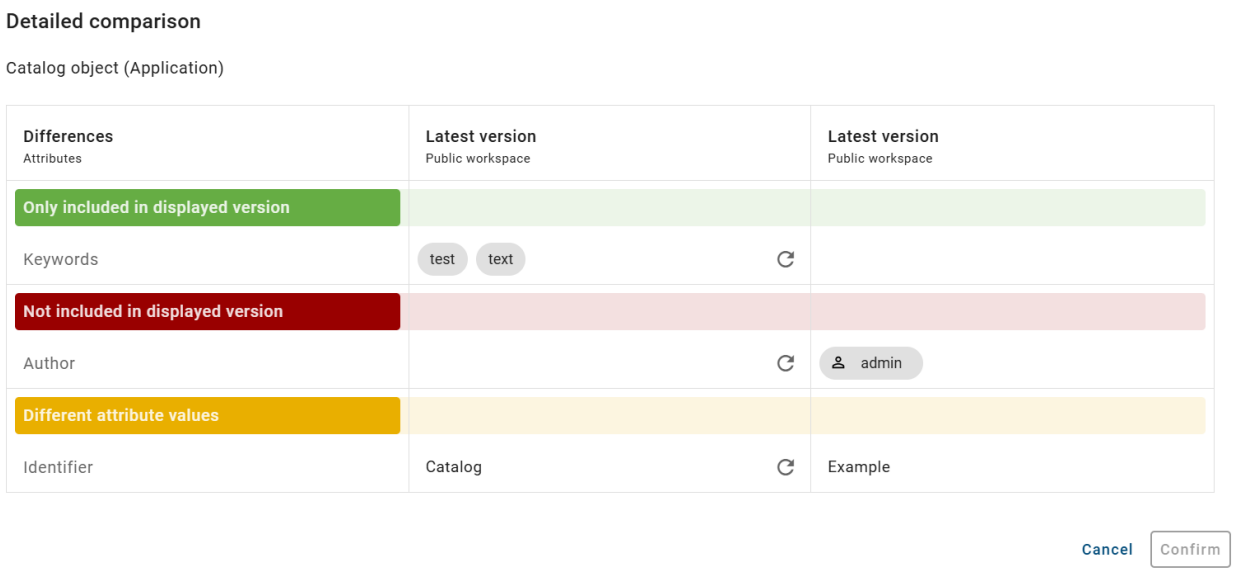
- **Only included in displayed version:** The attribute is available only in the active catalog object.
- **Not included in displayed version:** The attribute is not available in the active catalog object, but only in the selected catalog variant.
- **Different attribute values:** The attribute has different attribute values in the active catalog object compared to the selected catalog variant.



If there are no differences between the active catalog object and the selected catalog variant, you will be informed accordingly.

Only the names of the attribute types are displayed in the list. To get more detailed information about the differences, click the *Compare details* button. A table will then appear, showing a comparison of the differences between the listed attributes.

The left column highlights the differences by color, while the middle and right columns provide a comparison between the active catalog object (middle column) and the selected catalog variant (right column). To close the table, click *Cancel*.



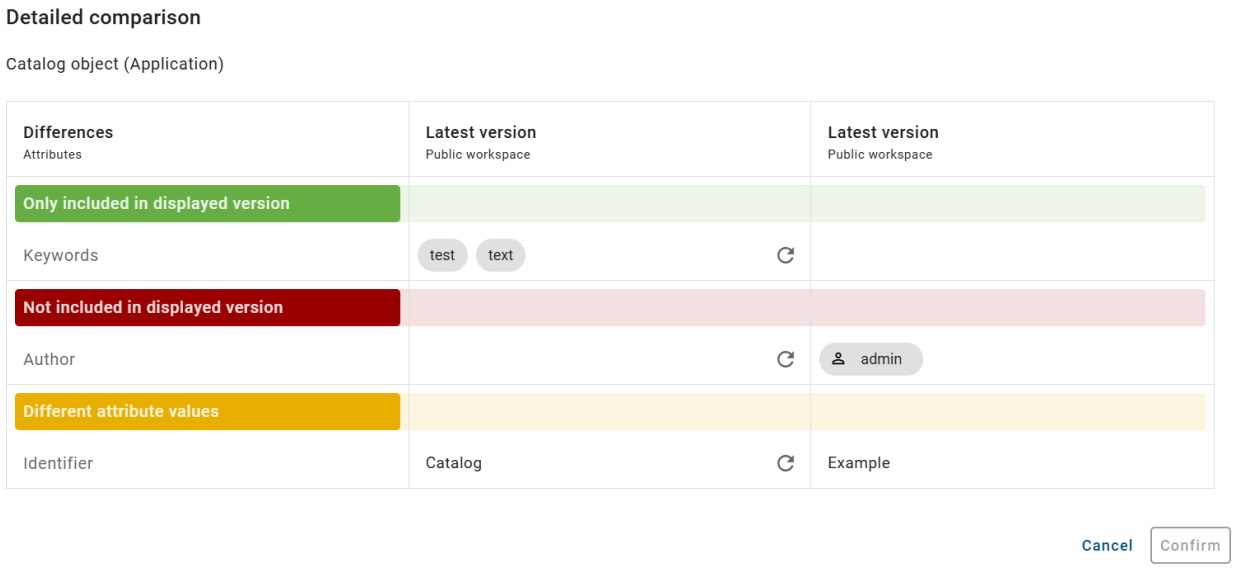
Hint: Please note that when comparing the the current catalog object with a chosen catalog variant, the system attributes are also displayed, provided they have been changed.

9.2.4 How can I apply changes from a catalog variant to the active catalog object?

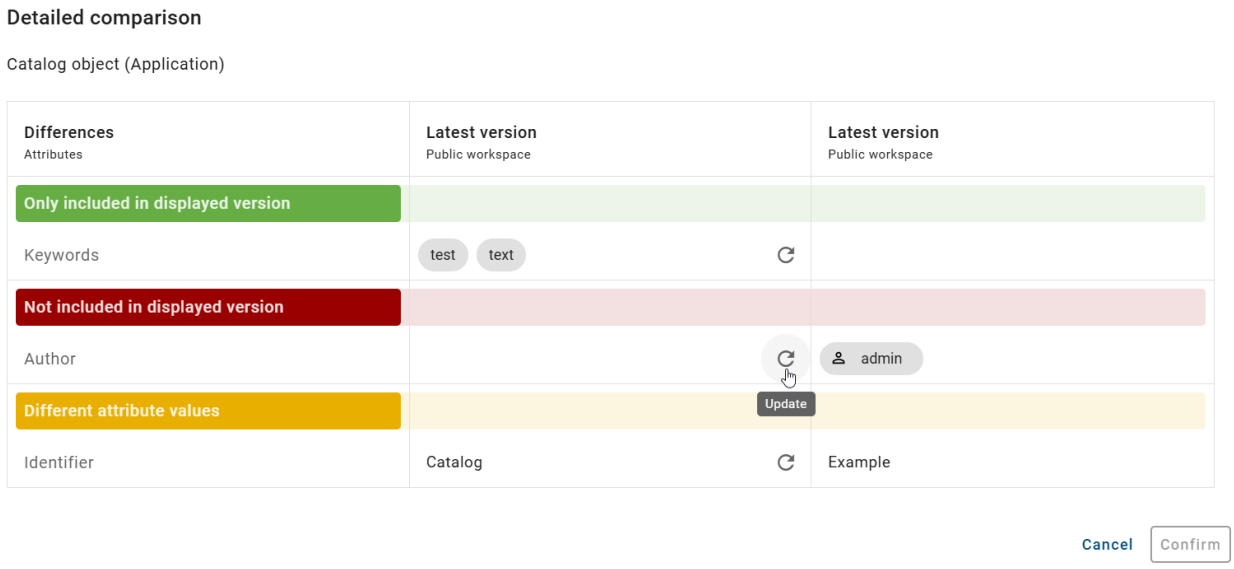
As an *Author*, *Editor*, or *Administrator*, you have the ability to apply changes from a catalog variant to the active catalog object. To apply the changes from a catalog variant to the active catalog object, first open the *Catalog* menu entry in the left menu and select a catalog object from the list that contains at least one variant. Then, in the right sidebar, click on *Variants* under the *Options* panel.

Hint: Please note that if the option is not displayed, there is no variant for the catalog object.

In the right sidebar, you can then select the area, a catalog variant of the selected catalog object, and a version, and display the differences by clicking the *Show Differences* button. Using the *Show Details* button, you can open a table that clearly presents the differences for the listed attributes.



To apply attribute values from the selected catalog variant to the active catalog object, you must have at least the *Author* user role and be working in the public workspace. You can then click the *Update* button next to the attribute value you want to apply. The active catalog object will now adopt the attribute value from the selected catalog variant.



To undo the change, click the button again, which is now be labeled *Undo update*. Alternatively, you can cancel the process by clicking *Cancel*. To save your changes, click the *Confirm* button.

Hint: Please note that changes can only be made if the *catalog object has been accepted* and you or your user group have been maintained as the author of the catalog object.

CHAPTER

TEN

ENTERPRISE ARCHITECTURE MANAGEMENT

BIC Enterprise Architecture Management is a separate module and license.

10.1 What is Enterprise Architecture Management?

Enterprise Architecture Management (EAM) is a strategic approach to the sustainable design, control, and development of a company's or authority's IT landscape. A good enterprise architecture considers more than "just" information technology. It provides a holistic view of the strategic, operational, and (information) technological relationships within an organization. Essentially, the following architectural areas are distinguished, which together enable a structured and comprehensive view of an organization:

1. Business Architecture

- **Business Strategy**: Definition of business goals and strategies.
- **Business Processes**: Documentation and optimization of core processes.
- **Organization**: Capture of structure and hierarchy of the organization.

2. Data Architecture

- **Information Structure**: Definition of information structures and their relationships.
- **Data Management**: Capture, storage, management, and use of information / data.
- **Data Quality and Security**: Ensuring the integrity, confidentiality, and availability of information / data.

3. Application Architecture

- **Application Portfolio**: Management and optimization of corporate applications.
- **Integration**: Capture and management of the integration of various applications.
- **Lifecycle Management**: Development, maintenance, and decommissioning of applications.

4. Technology Architecture

- **Infrastructure**: Hardware, networks, and base software supporting the IT environment.
- **Technology Standards**: Guidelines and standards for the deployed technologies.
- **Platforms**: Operating systems, middleware, and databases required for application operation.

EAM aims to represent the corporate structure and its strategic, professional, and (information)technological perspectives as comprehensively and transparently as possible.

The operational implementation requires these perspectives to be combined into a holistic picture. For this purpose, an enterprise architecture model is designed. An EAM model encompasses the systematic and structured representation

of the strategic, professional, and technological relationships within a company or public sector organization. It serves as a comprehensive basis for the planning, analysis, development, and management of the organization in question.

Goals and Benefits of an Enterprise Architecture Model

1. Transparency: Creating a clear overview of strategic, professional, and technological relationships.

2. Efficiency: Identifying redundancies and optimization points across various resources.

3. Flexibility and Agility: Supporting the ability to respond quickly to changes in the market or business requirements.

4. Strategic Alignment: Ensuring that the IT strategy is aligned with business strategies and goals.

5. Risk Management: Identifying and managing risks in the IT infrastructure and business processes.

6. Innovation: Promoting and supporting the implementation of new technologies and innovative solutions.

To create an enterprise architecture model, modeling objects are used to capture different areas of an organization and document their relationships. The resulting network enables analysis and optimization of the entire enterprise architecture, not just IT-related issues. Cross-cutting relationships enable the identification of interrelationships and potential for improvement across the enterprise, as well as the early recognition of impacts on all affected business areas (e.g., for upcoming IT transformations, digitization projects, or AI implementations).

The division into the above-mentioned architecture areas makes it easy to capture content, while at the same time understanding, interpreting and quickly reacting to cross-cutting relationships. Through sophisticated analysis and reporting, an integrated EAM model enables the optimal answer to the tasks and questions of different stakeholders.

10.2 Structure (Method)

10.2.1 Layers

The EAM modeling in BIC Process Design follows the general architectural views:

- **Business Architecture**:

  The focus of business architecture is the systematic analysis, design, and optimization of a company's business processes and organizational structures. It aims to translate business strategy and goals into efficient and effective processes to improve corporate or governmental performance. This includes the modeling of processes, the definition of roles and responsibilities, and ensuring that business processes are optimally supported by the IT infrastructure.

- **Data Architecture**:

  The focus of data architecture is the structured capture, organization, storage, and management of information within a company or public sector organization. It aims to ensure the integrity, consistency, and availability of data. With the help of data architecture, it is easy to ensure efficient data flow between systems and applications. Strategies for data quality, data integration, and data security are defined to optimize the use of information as a valuable resource.

- **Application Architecture**:

  The focus of application architecture is the planning, design, and management of an organization's software applications. It aims to develop a coherent and efficient application portfolio that optimally supports business processes. This includes the definition of application components, their interactions and integrations, as well as the establishment of standards and guidelines for the development, maintenance, and further development of applications.

- **Technology Architecture**:

> The focus of technology architecture is the design and management of a company's or public sector organization's technical infrastructure. It includes the hardware, networks, middleware, and fundamental software platforms that form the basis for applications and data management. The goal is to create a stable, scalable, and secure technical environment that efficiently supports business requirements and enables the use of new technologies.

To model the content, various object types are offered. Each object type is clearly assigned to an architectural level. By connecting objects - even across multiple architectural levels - a transparent, cohesive, and complete view of a company's or public sector organization's architecture is created.

10.2.2 Special Objects in EAM Modeling

To build the previously described architectural views, BIC EAM provides various catalog object types. The following table gives an overview of these objects along with their corresponding layer and a brief description:

Object Type	Architectural Layer	Description
Business Capability	Business Architecture	A **Business Capability** is the ability of a company or public sector organization to execute specific business processes or functions to achieve its strategic goals.
Business Context	Business Architecture	A **Business Context** describes the professional framework in which an operational business activity is performed. A Business Context object can be linked to existing process diagrams to create more detailed documentation.
Organizational Unit	Business Architecture	An **Organizational Unit** is a specific, structured group within a company or public sector organization that fulfills certain tasks, functions, or responsibilities. It is usually structured hierarchically.
IT Risk	Business Architecture	An **IT Risk** refers to the possibility that an application or IT component may have negative impacts on information processing, security, or availability due to threats or vulnerabilities. IT risks can include both internal and external factors and encompass potential damages or losses resulting from security incidents, system failures, data loss, or other IT-related issues.
Application	Application Architecture	An **Application** is a software application that supports and optimizes business processes and functions within a company.
Interface	Application Architecture	An **Interface** is a defined point of interaction between different software systems, hardware components, or combinations thereof. It enables data exchange and communication between different systems.
Data Object	Data Architecture	A **Data Object** is a specific, uniquely identifiable unit of data that represents information in a structured form and is stored, processed, or transmitted in an IT system. Data objects are the building blocks of data management and can include different data types and structures.
IT Component	Technology Architecture	An **IT Component** is a single, self-contained element of a company's or public sector organization's IT infrastructure that provides specific functions or services and can interact with other components. IT components can be hardware, software, network elements, or a combination thereof.
Provider	Technology Architecture	A **Provider** is a company or organization that provides services or resources to other companies, organizations, or individuals. In the context of IT and business, a provider often refers to suppliers of IT services, cloud services, internet access, software solutions, or other technology-based services.

A detailed description of the objects can be found *here*.

10.2.3 Diagrams

The above-listed EAM object types describe individual "building blocks" for modeling an enterprise architecture. To map the relationships between these building blocks, BIC EAM provides various diagram types that contain different content from the respective architectural layers. By linking the object types, a network of - sometimes cross-architectural-layer - content is created. The result is a comprehensive and transparent documentation of the enterprise architecture. The following diagram types are provided by BIC EAM:

Diagram	Description
Perspective:	*Business Architecture*
Business Capability Map	A **Business Capability Map** is a graphical representation of the various capabilities that a company or public sector organization needs to achieve its business goals. It provides a structured overview of the organization's key capabilities and shows how they relate to each other. This map is a central tool in Enterprise Architecture Management to support strategic alignment and operational excellence.
Perspective:	*Business and Application Architecture*
Business Capability Context Diagram	A **Business Capability Context Diagram** is a graphical representation that shows the interactions and relationships between a Business Capability, the affected stakeholders, and the key professional contexts (e.g., core processes). It also allows for the documentation of the business software applications required to realize a Business Capability.
Perspective:	*Business, Application, Data and Technology Architecture*
Application Context Diagram	An **Application Context Diagram** is a graphical representation that visualizes the interactions and relationships of a specific business software application with other applications, the interfaces, exchanged data objects, and required IT components. It also provides the opportunity to include additional relationships with business contexts, capabilities, risks, and organizational units. This diagram type enables a comprehensive depiction of the relationships within an enterprise architecture.
Data Object Diagram	In a **Data Object Diagram**, the hierarchical relationships between data objects are modeled through graphical nesting or tree-like connections. This makes it possible to create complex data structures (e.g., for modeling data products) in addition to the Entity Relationship Diagram.
IT Component Diagram	An **IT Component Diagram** is a graphical representation that shows the structure and relationships of IT components within a system or IT infrastructure. It visualizes how different software and hardware components are connected and what roles they play in the overall system. This diagram serves to understand, document, and plan the architecture and interaction of IT components.

A detailed description of the diagrams can be found *here*.

10.3 Objects

10.3.1 Business Capability

A *Business Capability* describes an ability that a company must possess to fulfill its business mission. It defines "what" a company does without specifying "how" it is done. The latter is usually described by modeling processes, which are referenced in the EAM modeling via business contexts. Detailed process modeling is typically performed within BIC Process Design.

Business Capabilities are the central element in the business architecture layer, as they represent the business area. Since they generally change infrequently, they describe fundamental areas of responsibility. By linking Business Capabilities with applications, it can be effectively shown which business applications are essential for which business capabilities.

10.3.2 Business Context

A *Business Context* defines, in abstract terms, "how" a company achieves its various tasks and goals. This description can be done in various ways, such as through a customer journey or traditional process modeling. By linking business contexts with Business Capabilities and applications, the specific relationship between fundamental capabilities, the professional activities required to realize them, and the necessary IT support can be depicted. For example, which application supports which business context, and which business context describes the specific implementation of which Business Capability.

Since BIC Process Design offers the modeling of various process details, it is possible to link existing diagrams with a Business Context object.

10.3.3 Organizational Unit

An *Organizational Unit* represents different organizational units, geographic regions, or user groups/teams within a company or public sector organization. In EAM modeling, they are linked with applications and Business Capabilities to show which Organizational Unit is involved in realizing a Business Capability or which applications it uses.

For clearer structuring, it is also possible to graphically depict hierarchies of Organizational Units in organizational charts.

10.3.4 Application

Applications are the central link between the architectural views. Through their use in various business contexts, they support the implementation of Business Capabilities. In the operation of (business) applications, data — often in conjunction with other applications — are processed and exchanged via interfaces. Furthermore, the use of applications often requires the availability of additional IT components (e.g., servers, cloud services) and corresponding providers.

In a company, there are various applications with different purposes: standard application software, SaaS, or microservices. Generally, it is advisable to focus on specific applications or use cases within the organization's EAM modeling.

10.3.5 Interface

The data exchange between applications can be represented through *Interfaces*. Here, an interface can be provided or used by an application. This allows for the modeling of both providing and consuming interfaces.

In addition to the pure connection between applications, a connection to data objects can also be depicted. This allows for very detailed modeling of individual application information flows, including the basic data operations (CRUD).

10.3.6 Data Object

A *Data Object* describes data processed by applications or exchanged via interfaces. They represent a data entity such as a customer, offer, or contract. For the corresponding exchange relationship (e.g., in connection with an interface), the data operations (CRUD) can be specified.

Consistent modeling of data objects allows for comprehensive and transparent tracking of individual data objects across various applications and provides targeted decision support for IT transformations or consolidation measures.

10.3.7 IT Component

IT Components are a central element of an IT architecture. They model structures that are necessary for the operation of applications. They are an essential component of IT transformation or IT cloud strategy projects.

Each IT Component can be assigned to a provider, which specifies in more detail who operates or provides an IT component. Generally, a provider does not model the manufacturer (except in the case of cloud services).

10.3.8 Provider

Providers typically model companies that provide or operate an IT component, rarely the actual manufacturer of an IT component. Especially when evaluating business relationships, valuable information can be gained by linking providers with IT components.

10.3.9 Strategy

A *strategy* allows for the specification of key attributes such as strategic relevance, current status, time horizon, and success KPIs. By modeling strategies in the catalog, users gain a structured way to align architectural decisions with business goals. This addition strengthens the platform's support for strategic planning and execution.

10.3.10 Initiative

An *Initiative* represents a planned change effort, such as a transformation or modernization, that drives strategic objectives within the organization. It consolidates essential management information, including type, priority, ownership, financials, progress, and strategic alignment, while maintaining links to affected architecture elements such as applications, interfaces, or business capabilities. By providing this holistic view, the Initiative object enables effective planning, governance, and impact analysis across both business and IT landscapes.

10.4 Diagrams

10.4.1 Business Capability Map

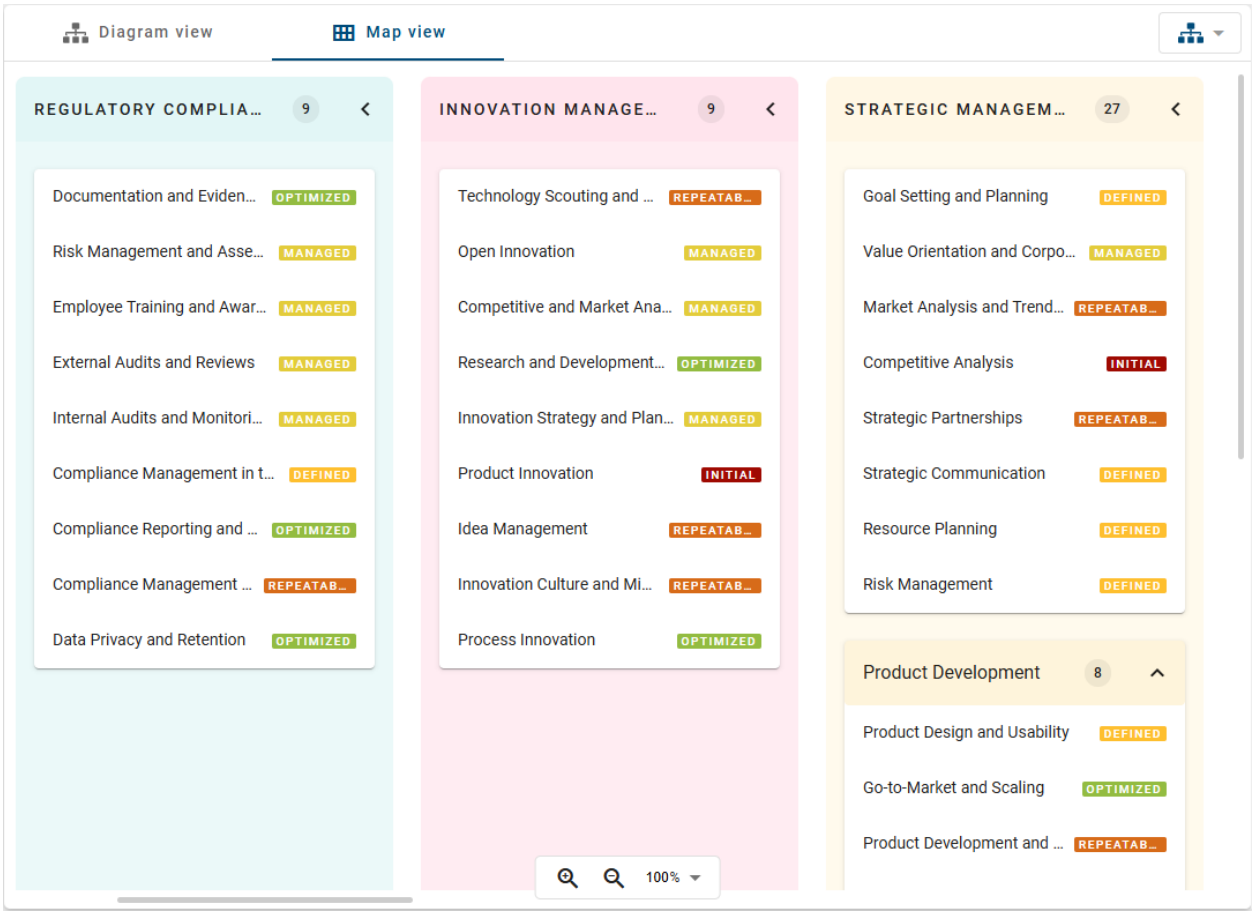
Business Capabilities are usually modeled within a Business Capability Map. In BIC EAM, the representation is done as a graphical hierarchy: In columns (ideally no more than 10) that each depict the core Business Capabilities such as “HR,” “Order Management,” or “Customer Management” and bundle subordinate Business Capabilities such as “Recruiting,” “Order Negotiation,” or “Contract Management.”

Through the nested modeling of Business Capabilities, an aggregation relationship is implicitly modeled, enabling a hierarchy of Business Capabilities.

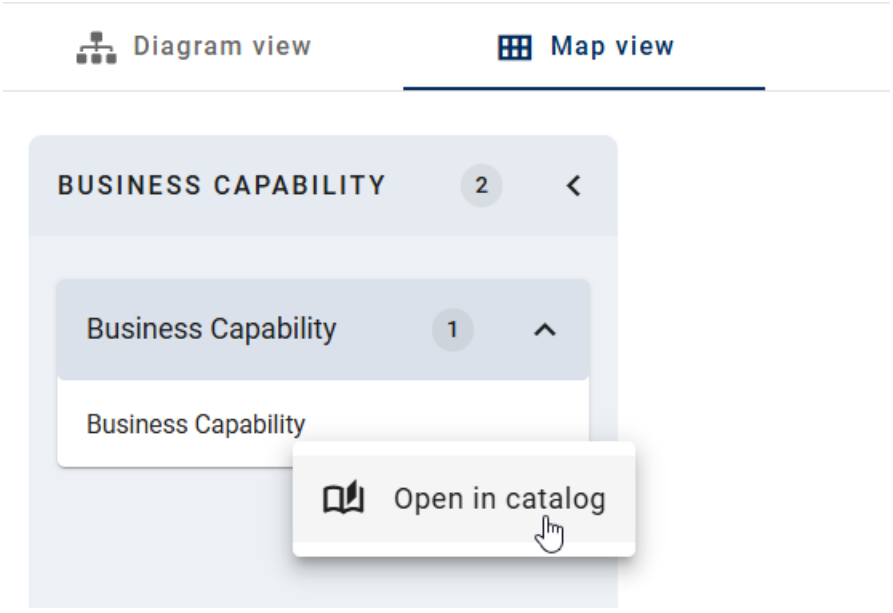
Hint: You also have the option of generating the Business Capability Map using AI. For more information, see here.

The diagram’s symbol palette provides two Business Capability symbols: **Business Capability** and **Business Capability (Lifecycle)**. While the first symbol represents the standard symbol of a Business Capability, the second symbol contains conditional formatting based on the value of the Business Capability’s “Lifecycle” attribute: Depending on the selected lifecycle phase, the symbol is colored accordingly. This makes the individual lifecycle phases directly visible.

There are also two different views available. While the *Diagram view* displays the traditional diagram, the *Map view* provides a clearer and more structured overview. Once you open a diagram that contains at least one modeled business capability, you can switch to the *Map view* tab. In this view, the modeled business capability hierarchy is presented in a column-based layout. Each column shows the number of subcategories it contains and lists them below. You can expand or collapse business capabilities by clicking the *Collapse* button. If a name is cut off within a column due to limited space, you can hover over it with your mouse to display the full name.

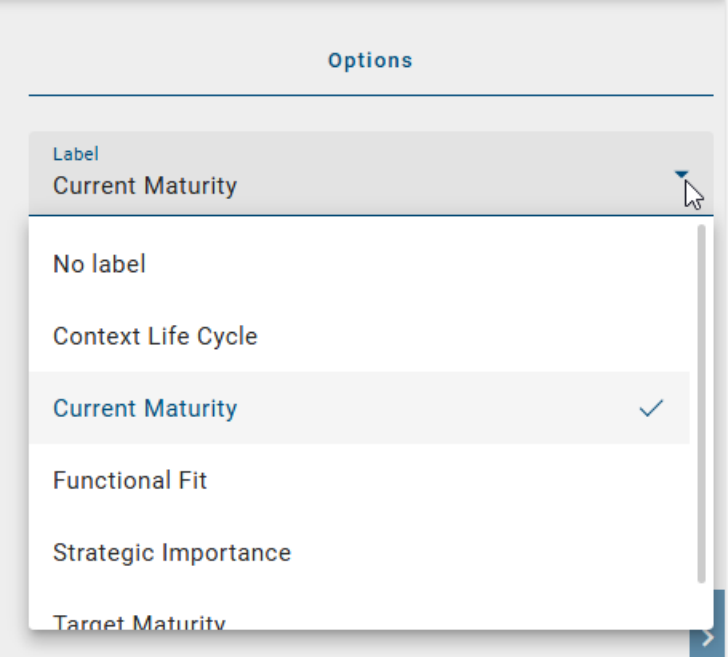


In the *Map view*, you can also open business capabilities directly from the diagram in the *Catalog*. To do this, right-click on a business capability to open the context menu and select the *Open in catalog* option.

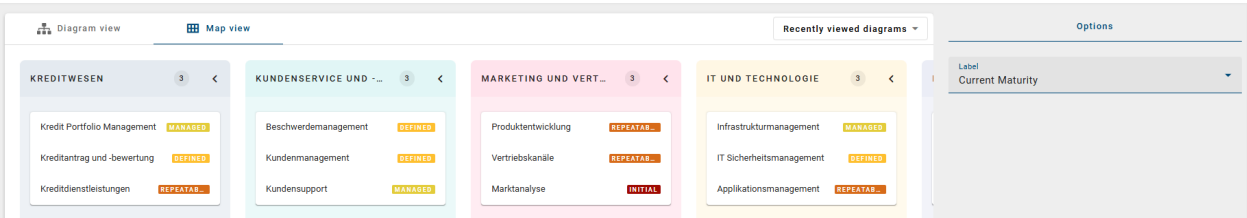


After selecting this option, you will be redirected to the corresponding object in the *Catalog*. There you can *edit the corresponding catalog suggestion* of the business capability, view further details, or make additional adjustments, depending on your permissions.

Additionally, in the *Map view* tab, you can display the *Options* panel in the right sidebar. There, under the *Label* option, you can view a drop-down menu with various attributes.



The option *Label* contains all business capability attributes used in the diagram for selection. You can choose between the attributes *Current Maturity Level*, *Functional Fit*, *Context Life Cycle*, *Strategic Importance*, and *Target Maturity*. By default, the *Current Maturity Level* attribute is preselected. If you do not want to display a specific attribute, select *No label*. For all business capabilities, the corresponding attribute value is displayed as a label next to the subcategory. If no value is stored for a subcategory, no label is displayed.



You can change the label at any time by selecting a different attribute in the *Label* option. As soon as you make a selection, all labels within the map view are updated.

You also have the option to zoom conveniently within a Business Capability Map. When the view is opened, a zoom bar appears at the bottom center, providing the familiar zoom functions known from diagrams. The view can be adjusted using the zoom buttons, the mouse wheel in combination with the *CTRL* key, or by dragging with the left mouse button pressed. Scroll bars are automatically displayed as soon as content lies outside the visible area due to the selected zoom level or the size of the map.

10.4.2 Business Capability Context Diagram

In this diagram, Business Capabilities are linked to applications, business contexts, and Organizational Units. The focus of this diagram is on depicting the relationship between applications and the professional modeling, specifically the relationships with Business Capabilities and business contexts. The modeling of interfaces or IT components is not intended in this diagram type (see Application Context Diagram).

It is generally recommended to use EAM objects with the highest hierarchy level possible to represent the most specific context.

10.4.3 Application Context Diagram

In an Application Context Diagram, the relationships between applications and other EAM objects are modeled for a context or use case defined by the modeler. A context can be, for example, the dedicated use of an application for a selected Business Capability and Organizational Units or the use of an interface for a specific business context. In principle, all EAM objects that are specifically related to each other should be modeled in their own context diagram. This makes it easy to see, for example, which business context supports which Business Capability with which application.

Specifically, applications can be linked with Business Capabilities, business contexts, Organizational Units, interfaces, data, IT components, and risks.

In addition, interfaces can also model other involved applications, as well as the data objects and associated risks used. It is important to note that in an Application Context Diagram, only one application is defined as the central object. Further developed applications are modeled on the respective diagram only to depict the relationship structures of the central application to these secondary applications.

Through appropriate extension attributes on the individual objects, context-specific properties can be set for the modeled context.

It is generally recommended to use EAM objects with the highest hierarchy level possible to represent the most specific context (e.g., SAP S4/HANA instead of ERP system).

10.4.4 IT Component Diagram

This diagram is used to represent relationships between various IT components. Essentially, aggregation relationships are captured, which can be modeled either through graphical nesting or through a corresponding edge relationship. In addition to aggregation, the relationship types composition, serviced, and realization can also be modeled through visual edges.

10.4.5 Data Object Diagram

This diagram is used to represent relationships between various IT components. Essentially, aggregation relationships are captured, which can be modeled either through graphical nesting or through a corresponding edge relationship. In addition to aggregation, the relationship types composition, serviced, and realization can also be modeled through visual edges.

10.5 Modeling Guide

10.5.1 What is the general modeling concept in BIC EAM?

BIC EAM combines intuitive modeling in diagrams with traditional EAM objects such as Business Capabilities, applications, or IT components, along with capturing comprehensive detail information through form-like input screens. As is customary with BIC Process Design, EAM objects are created as catalog objects and centrally managed. These elements can be related to each other through various diagrams in different modeling situations.

Essentially, EAM diagrams can be divided into two types:

- **Context Diagrams**:

  Business Capability Context Diagram and *Application Context Diagram* are used to model relationships between various EAM objects in freely definable scenarios (contexts).

- **Hierarchy Diagrams**:

  Business Capability Map, *IT Component Diagram*, *Data Object Diagram*, and *IT Architecture Diagram* are used to model hierarchical aggregation relationships for Business Capabilities, IT components, data objects, and applications.

The basic concept in modeling EAM objects and their relationships is context-based modeling. This means that for a specific context or use case, an EAM element is represented in a corresponding context diagram and linked with other artifacts relevant to the respective use case. For example, in a context diagram (e.g., "BIC Usage EMEA Australia"), it can be modeled intuitively that BIC Process Design is already used in the public cloud in the EMEA and Australia Organizational Units, while another system is still used in Canada for supporting Business Capability modeling in a different context diagram (e.g., "Modeling Tool Canada"). In each of these context diagrams, context-sensitive attributes like functional suitability can be set and evaluated.

Context-based modeling allows properties of individual EAM objects (especially for applications, Business Capabilities, IT components, and interfaces) to be specifically defined for each context. Many EAM attributes (e.g., functional or technical suitability, a TIME or 6R classification, or a criticality assessment) are extension attributes. These apply only to the specific extension of an object in a specific context diagram.

10.5.2 How do I start EAM modeling?

At the beginning, it is recommended to add the EAM elements to be modeled to the catalog. Depending on the focus and architectural view, different focal points emerge:

Business Architecture

The central component of business architecture modeling is the Business Capability. It describes the ability a company or public sector organization must have to achieve its goals. It is often helpful to group Business Capabilities by functional areas or departments. With the *Business Capability Map* diagram, Business Capabilities can be clearly displayed, providing a central view of the company's capabilities.

In an EAM model with a business focus, Business Capabilities can be linked with business contexts, organizational units, and applications. This creates a *Business Capability Context Diagram* that shows which business context (usually a process) supports which Business Capability, which Organizational Units are affected, and which applications are required. Depending on the desired level of detail, these relationships can be modeled generally or specifically for individual contexts, e.g., if different Organizational Units use different applications for a Business Capability. It is recommended to draft possible contexts before starting the modeling process.

Application Architecture

The application is at the center of application architecture. Similar to the Business Capability Context Diagram, the *Application Context Diagram* allows for the modeling of relationships between applications and other EAM objects. Here, an application serves as the link between business architecture and technology architecture. Specifically, this means that an application can be linked with Business Capabilities, business contexts, and Organizational Units, as well as IT components, interfaces, and data objects. Simplified, the Business Capability Context Diagram combines the "upward" view towards professional requirements with the "downward" view towards information technology. As with the Business Capability Context Diagram, the level of detail in the modeling is very flexible.

Data Architecture

Data architecture allows for the structured description of information / data processed within a company or public sector organization or data products that are created or processed within the organization. With the help of data architecture, it is easy to ensure efficient data flow between systems and applications. Strategies for data quality, data integration, and data security are defined to optimize the use of information as a valuable resource. It is recommended to initially capture and detail the essential data objects of the organization in the catalog. A consistent nomenclature is particularly helpful in ensuring the redundancy-free and contradiction-free use of data objects in the EAM model.

Technology Architecture

The *IT Component Diagram* and *IT Architecture Diagram* are used for the detailed modeling of existing IT resources. In these diagrams, hierarchies of IT components, data objects, and applications are primarily modeled. Additionally, relationships between IT components can be modeled using composition or association relationships in the IT Component Diagram.

As in many areas of BIC EAM modeling, the object types of technology architecture also have both entity attributes and extension attributes. While the entity attributes always apply to the object in every context, the extension attributes apply only to the specific instance of an object expressed in a diagram. This allows for context-specific attributes, such as the functional suitability of an object, to be defined with different values in different contexts when modeling in a context diagram.

10.5.3 How do I model the lifecycle of an EAM object?

Each EAM object has a lifecycle attribute as an extension attribute. This allows you to define the lifecycle of the respective object individually within the respective context, especially in the two context diagrams. Additionally, for applications, IT components, and providers, it is possible to define specific dates for the individual phases of the lifecycle as entity attributes.

10.5.4 Which hierarchy level should I use in context diagrams?

It is generally recommended to use EAM objects with the highest hierarchy level possible to represent the most specific context.

10.5.5 How do I set the validity of individual context diagrams?

The validity period of a context diagram can be defined through the governance attributes “Valid From” and “Valid To.” These attributes represent the chronological sequence of various context diagrams. Additionally, for Business Capability Context Diagrams and Application Context Diagrams, the “Predecessor” attribute is available, which also allows for the explicit documentation of the sequence of different diagrams.

10.5.6 How do I best manage variants of a context diagram?

There are several ways to manage different variants of a context diagram. Depending on the variety of contexts, different categories like “AS-IS” and “TO-BE” or diagram name prefixes can be used. Additionally, it is also possible to link the respective context diagrams through the “Predecessor” attribute or the variant management.

Hint: Each EAM model is individual, based on the company or public sector organization that created it. For this reason, it is recommended to conduct a best-practice alignment with GBTEC experts before beginning EAM modeling.

CHAPTER

ELEVEN

SIMULATION

BIC Process Design offers you the possibility to simulate your processes. This functionality can be used for all processes modeled in a BPMN diagram.

Process costs, cycle time and further KPIs for your process can be calculated in a simulation. The results can help you to estimate the effect of process changes without having to use actual resources of your organization. This helps you to determine the optimum of your process to reduce costs and support the efficient use of resources.

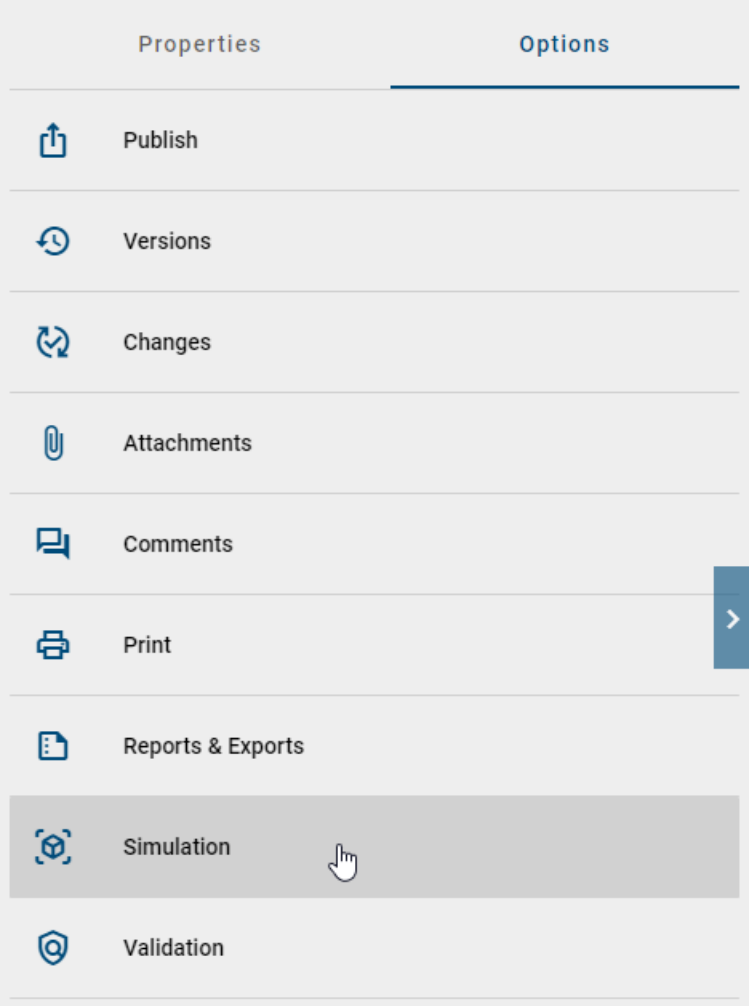
Create a *scenario* with hypothetical parameters defining how your process could be performed. A simulation executes the scenario according to your specification and provides results to analyze bottlenecks, cycle times and the costs of your processes. You can create different scenarios to analyze the maximum potential of your process and make it more cost and resource efficient.

Note: The process simulation is not available on mobile devices.

11.1 How can I start a simulation of my process?

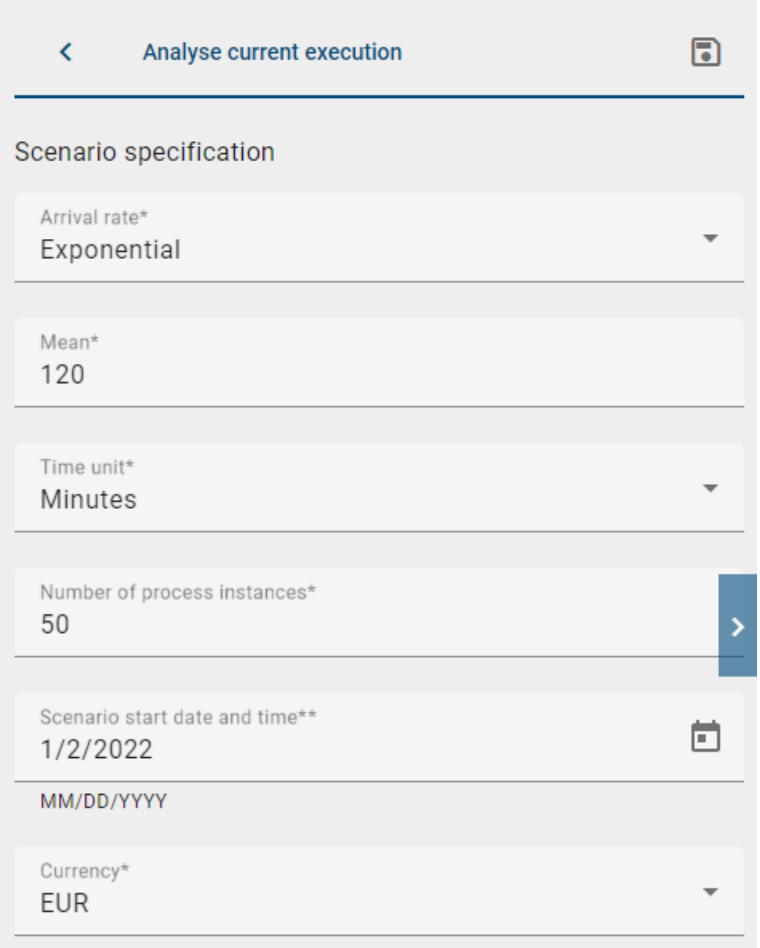
In order to simulate a process in BIC Process Design, you may create a concrete *scenario*. In a scenario, the number of process instances and the duration of the simulation can be defined. When all process steps (i.e. activities) and resources of the process are specified with hypothetical values, the simulation can be started.

To create a scenario, navigate to the diagram view of your BPMN diagram and select the option *Simulation*.



The form for the scenario specification opens in the sidebar. All fields can be edited after clicking them. At first, you can enter the name of your scenario. The following list describes the purpose of each field:

- **Distribution**: Depending on the selected distribution you will get different parameters. *Here* you can find details of the different distributions.
- **Time unit**: What is the time unit for the input fields.
- **Number of process instances**: How many process instances will be started in the simulation? A maximal number of 1000 instances is possible.
- **Scenario start date and time**: When does the simulation start?
- **Currency**: Which currency is used to calculate the total cost?



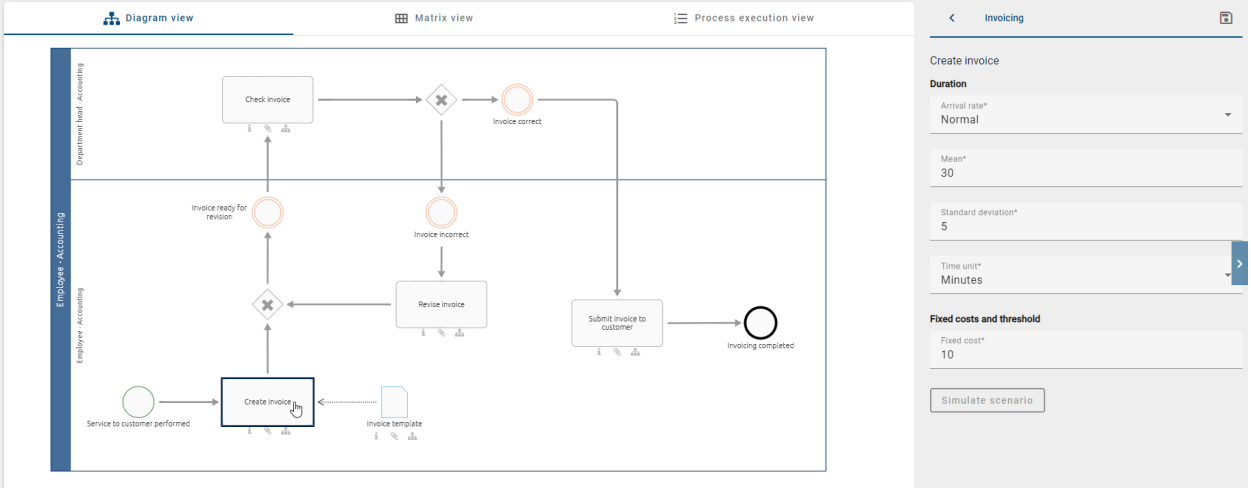
When creating a scenario, it is required to rate the financial and temporal expense of the single process steps (i.e. the tasks for participants of the process). Select an activity in the diagram to open the corresponding form in the sidebar. You may set the following parameters there:

1. **Duration**:

- **Distribution**: Depending on the selected distribution you will get different parameters. *Here* you can find details of the different distributions.
- **Time unit**: What is the time unit for the input fields.

2. **Fixed costs and threshold**:

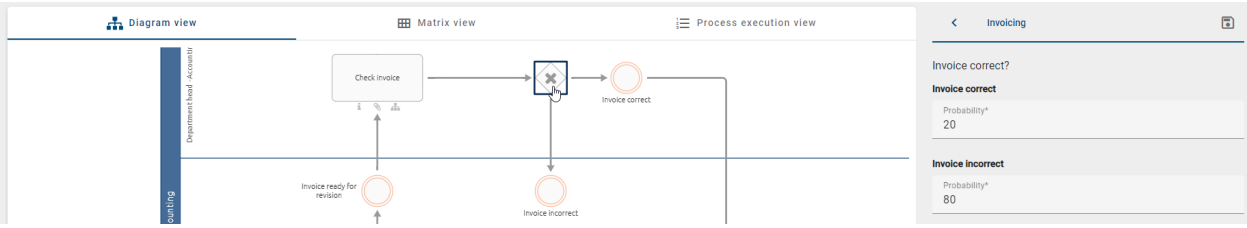
- **Fixed costs**: What are the costs for this process step?



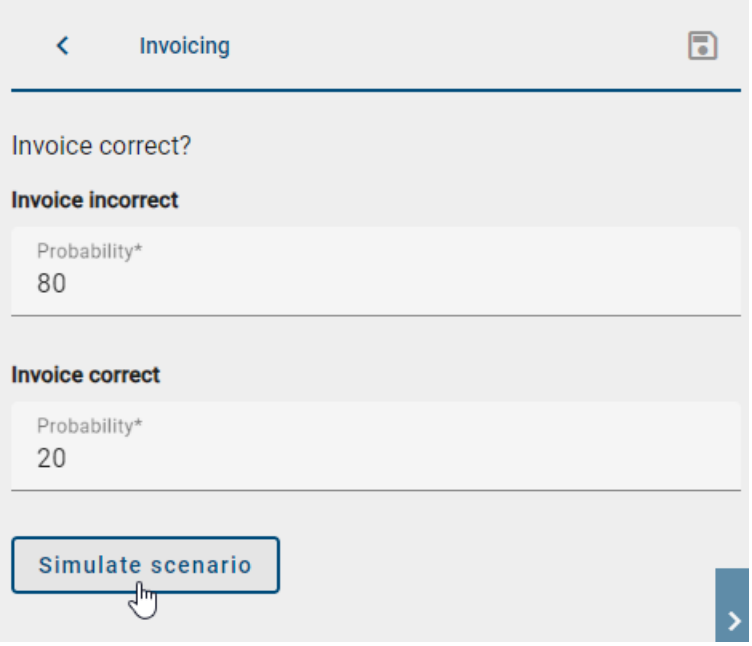
Define these parameters for each process step. You can switch to the scenario specification form by a click on an empty space.

If there are gateways modeled in the diagram, you have to set probabilities of the outgoing paths. This is required for XOR and OR gateways that have more than one outgoing path. You cannot set probabilities for a parallel gateway, all outgoing paths will always be executed. The sidebar will show the corresponding form when you select a gateway in the diagram. The form is a list of the directly following process steps with a field *Probability* for each. Enter the probability that the process step is chosen at the gateway in percentage between 0 and 100. The following logic applies to the different gateway types:

- **Exclusive or** (XOR): The sum of the probabilities of all following paths has to be 100%. In each process instance that is simulated, exactly one path is executed.
- **Inclusive or** (OR): The probability of each outgoing path can be between 0% and 100%. During the simulation of a process instance at least one path is executed and the total number is depending on your settings.



After all parameters are set, save the parameters and initiate the simulation by selecting the button *Simulate Scenario*.



11.2 How can I save my entered simulation parameter?

As a simulation user, you have the option of saving your entered simulation parameters in order to continue working on them later.

To start the simulation, click on *Simulate scenario*. Enter a name for the scenario in the corresponding input field and click on *Create scenario*. If you have made changes to the parameters, you can save them by clicking on *Save parameters*.

If no changes have been made, the corresponding button to save a parameter is disabled. Additionally, you will be notified with a hint about this.

Before you can start the simulation, you must enter and save the required parameters for the scenario. Appropriate input fields are provided for this purpose. If you want to return to the overview of saved scenarios, use the *Back to saved scenarios* button.

To exit the simulation and return to the diagram view, select *Back to options list*. You also have the option to open a single saved scenario. To do this, click on the tooltip *Open Scenario*. This will take you to the corresponding scenario with all the saved parameters.

Warning: As soon as changes are made to the diagram, a new scenario must also be created.

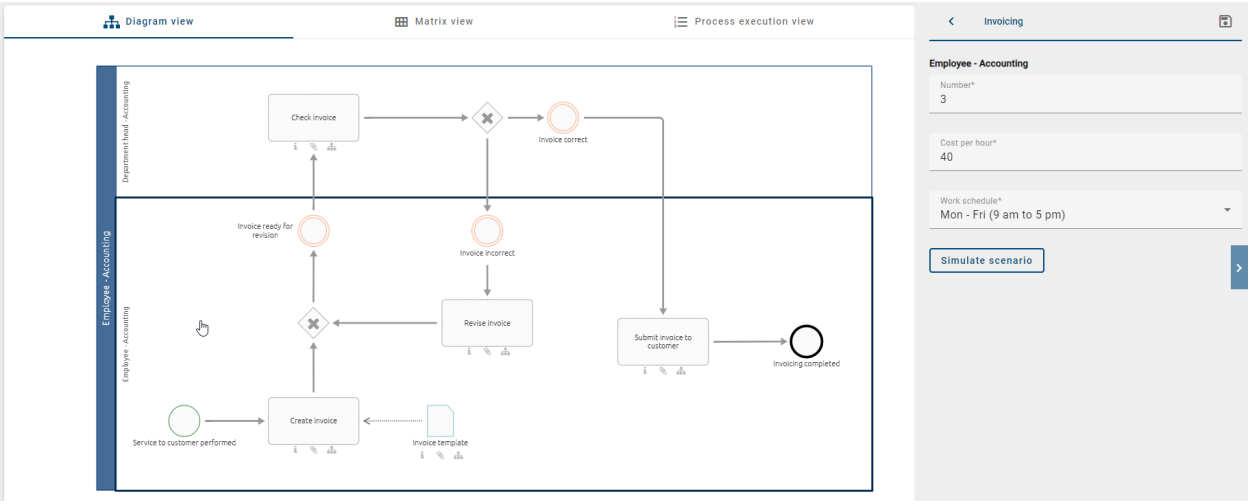
Hint: Please note that if you have made changes to the scenario parameters and want to exit the simulation without saving, you will receive a hint. You can choose whether you want to save the parameters or not. The dialogue offers you the options *Cancel* and *Save*.

11.3 How can I specify my resources in a simulation?

In a scenario, resources are very important. Mostly, a resource represents a concrete role in your company. In a BPMN diagram, it is modeled as a separate lane.

11.3.1 How can I change the details of my resource?

When you want to change the details of a resource in your process, you can click on the BPMN lane of the resource you want to change. On the right-hand side a window appears where you can change the details of your resource. You can see the name of your resource on the top.



Number: Here you can enter how many resources of this type are available. You can only enter integers. Mostly this number represents how many employees you got for a certain role.

Cost per hour: Here you can enter what the resource is costing you per hour. This can be the hourly wage of your employee.

Work schedule: Here you can select when the resource is available. By default you got two different options: *Mon-Fri (9 am to 5 pm)* and *24/7*. *Mon-Fri (9 am to 5 pm)* means that your resource is available from Monday to Friday from 9:00 am to 5:00 pm. *24/7* means that your resource is always available.

Note: Be aware that a resource can only work on **one activity at the same time**. That means it is not possible for a resource to work simultaneously on two different activities. Vice versa, an activity can also only be worked on by **one**

resource at a time.

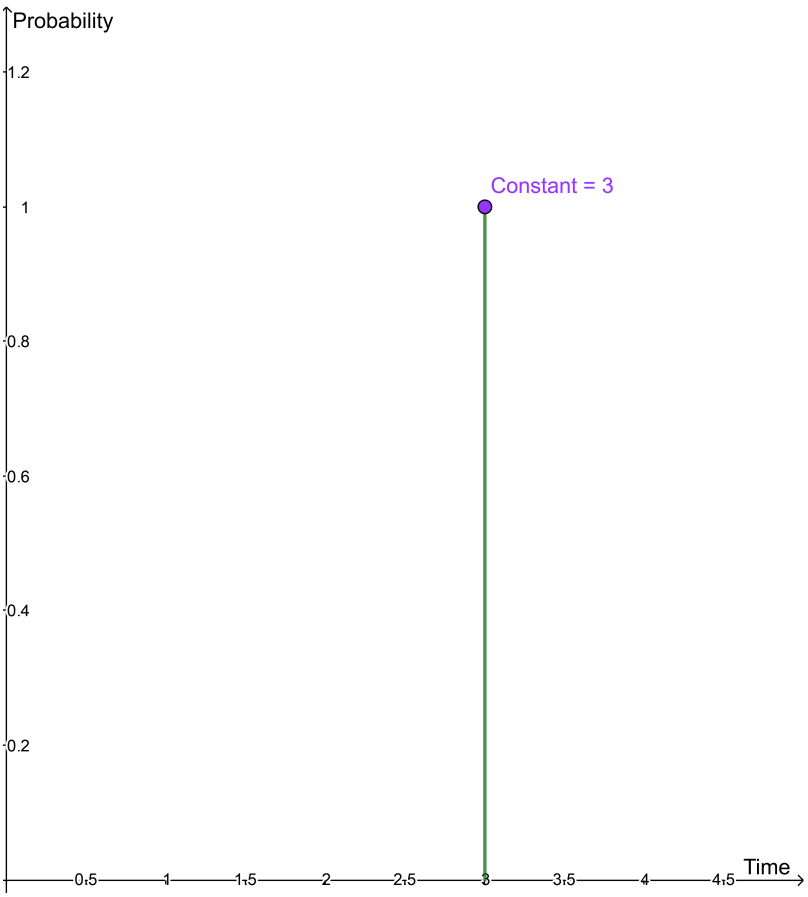
11.4 Which distribution types can I choose and what do they look like?

In the real world it is usually not common that an instance of a process always lasts the same time. Therefore you have the option to choose from different distribution types which will make your simulation more realistic. It is helpful to collect real process data to determine the best approximation for your distribution.

In the following chapter you will find an explanation of the different distribution types and their needed parameters. Also you will find a graph which shows the distribution. On the x-axis you can see the time, and on the y-axis the probability that a task will take this time.

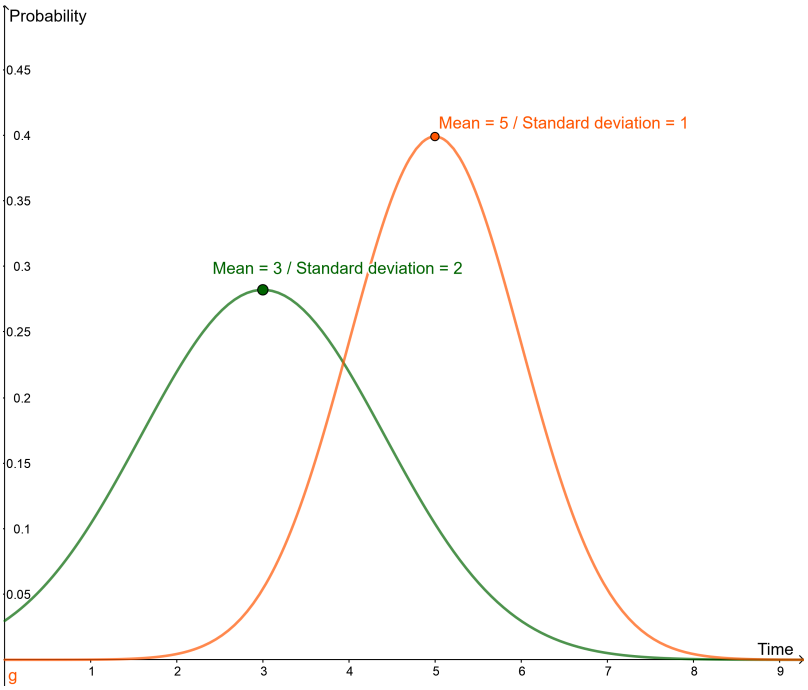
Fixed:

With the constant distribution you assume that your task takes a constant time. This distribution needs only one parameter *To*. Every task in the simulation will then need exactly this time. Therefore the probability is 100% for this exact time.



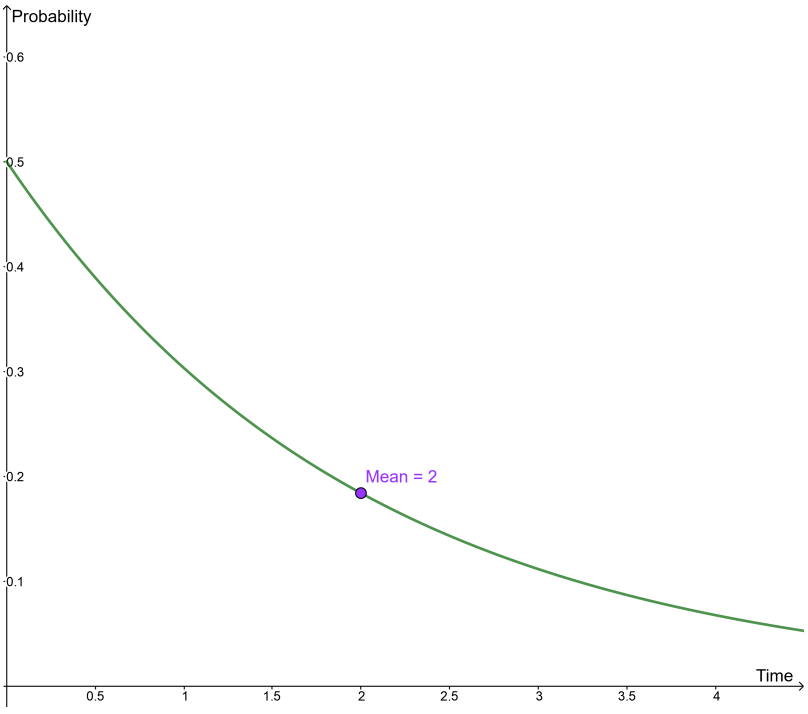
Normal:

With the help of this distribution function, deviations from the norm or the expected value can be modeled very well. The normal distribution requires the input parameters *Mean* and *Standard deviation*. The *Mean* represents the time with the highest probability. The *Standard deviation* describes the deviation from the *Mean*. If this value is bigger than 1, the deviation will be bigger. If the value is less than 1 the deviation will be smaller.



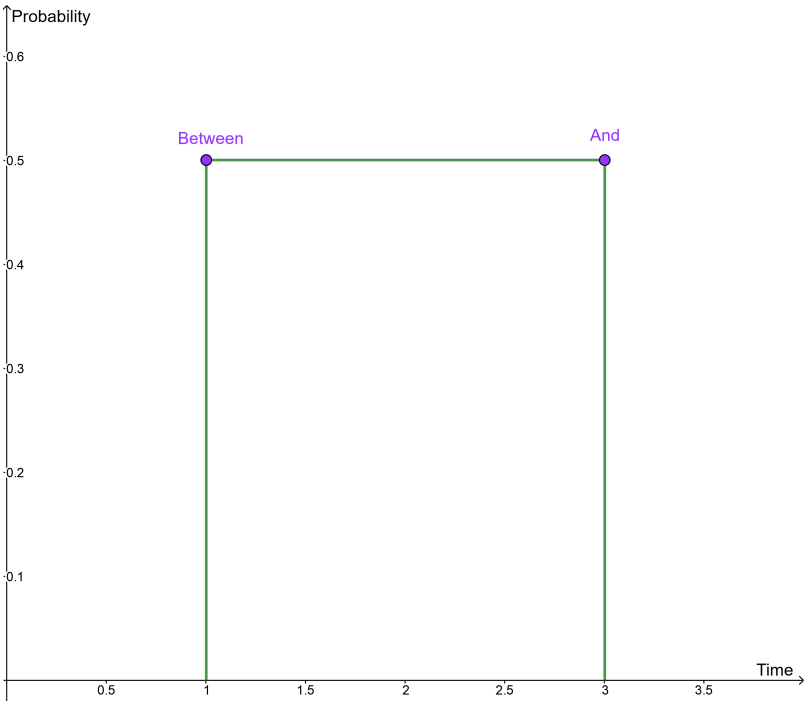
Exponential:

This distribution function allows a realistic approximation for different time intervals. The distribution only needs the parameter *Mean*.



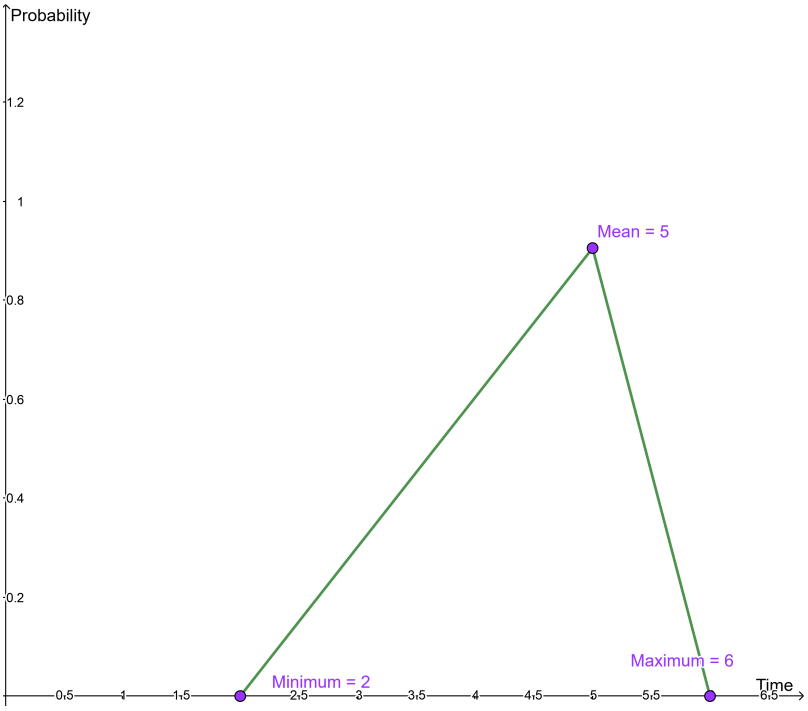
Uniform:

A uniform distribution that for every time between the given parameters the probability is the same. You need the parameters *Between* and *And* that indicate the time interval you want to use.



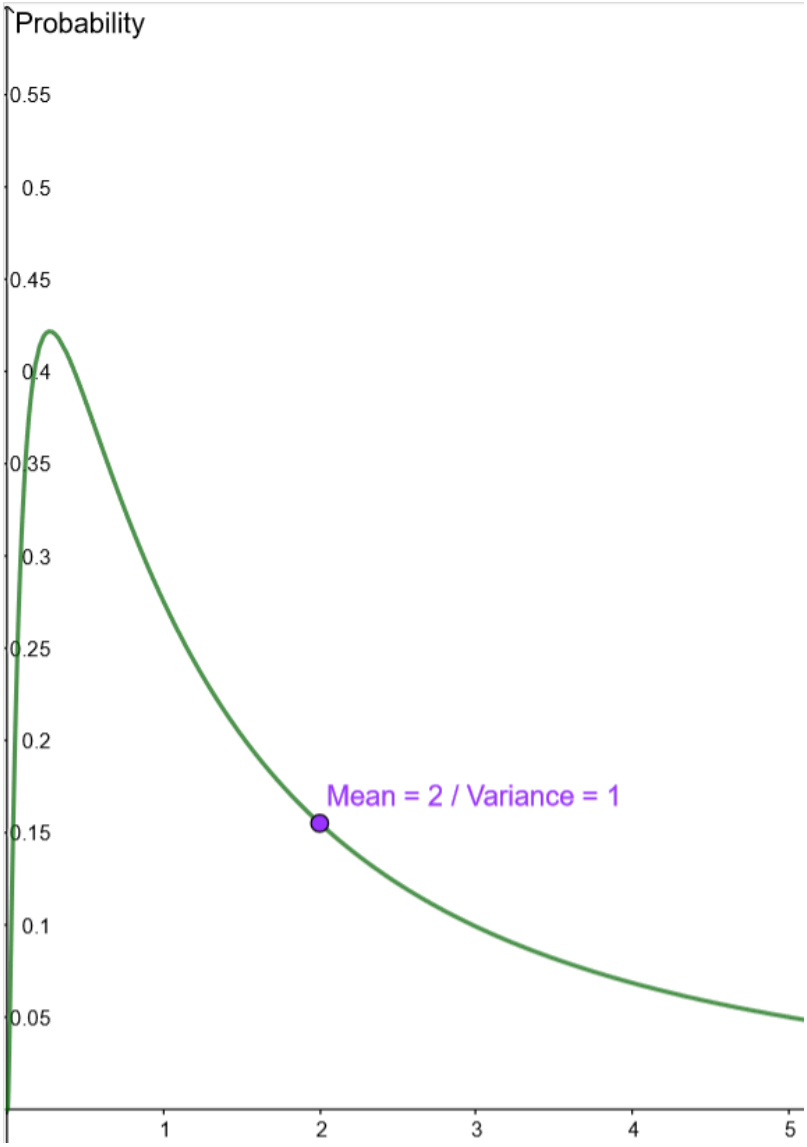
Triangular:

With the help of the triangular function it is modeled in a simplified way, after which time an event occurs at the earliest and at which time at the latest. Therefore you need a *Minimum (a)*, a *Maximum (b)* time and a *Mode (c)*.



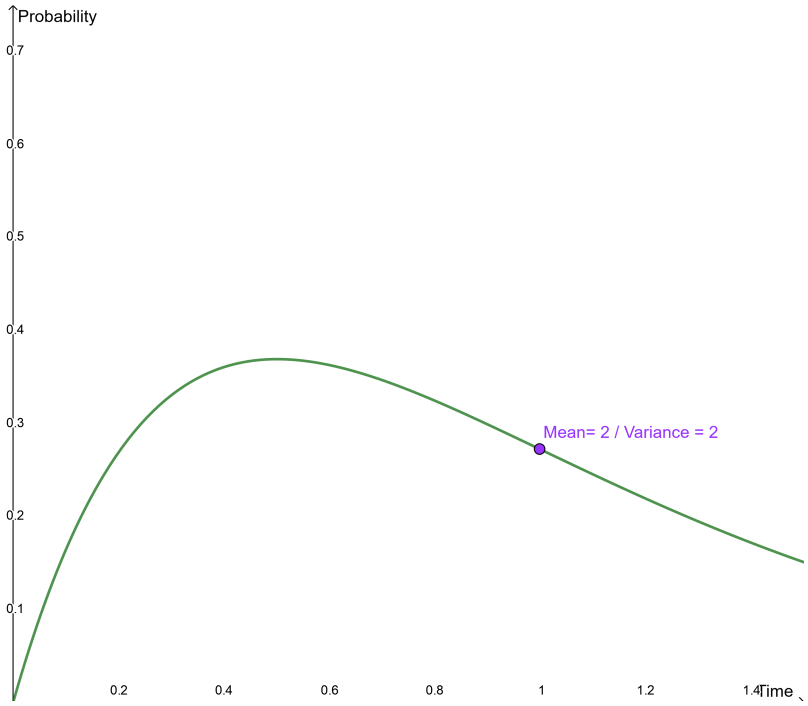
Log Normal:

The log normal distribution is relatively similar to the exponential distribution. Which of the two makes more sense in the particular case depends on the expected or measured data. The log normal distribution needs also two parameters *Mean* and *Variance*.



Gamma:

This distribution function enables a realistic simulation of a queue, a lifetime of a product or a repair time. For this, the input parameters *Mean* and *Variance* are required.



11.5 Which results do I get from the simulation of a scenario?

If you have requested a *simulation for a scenario*, you will get a numerical evaluation in the sidebar and a *heatmap* in your diagram. More information about the heatmap can be found in the linked section. The results in the sidebar include the following two parts:

General information

The KPIs of the scenario will be provided here. The total costs, the number of completed process instances and the elapsed time for the whole scenario will be displayed so you can estimate the duration and cost of the process.

Scenario statistics

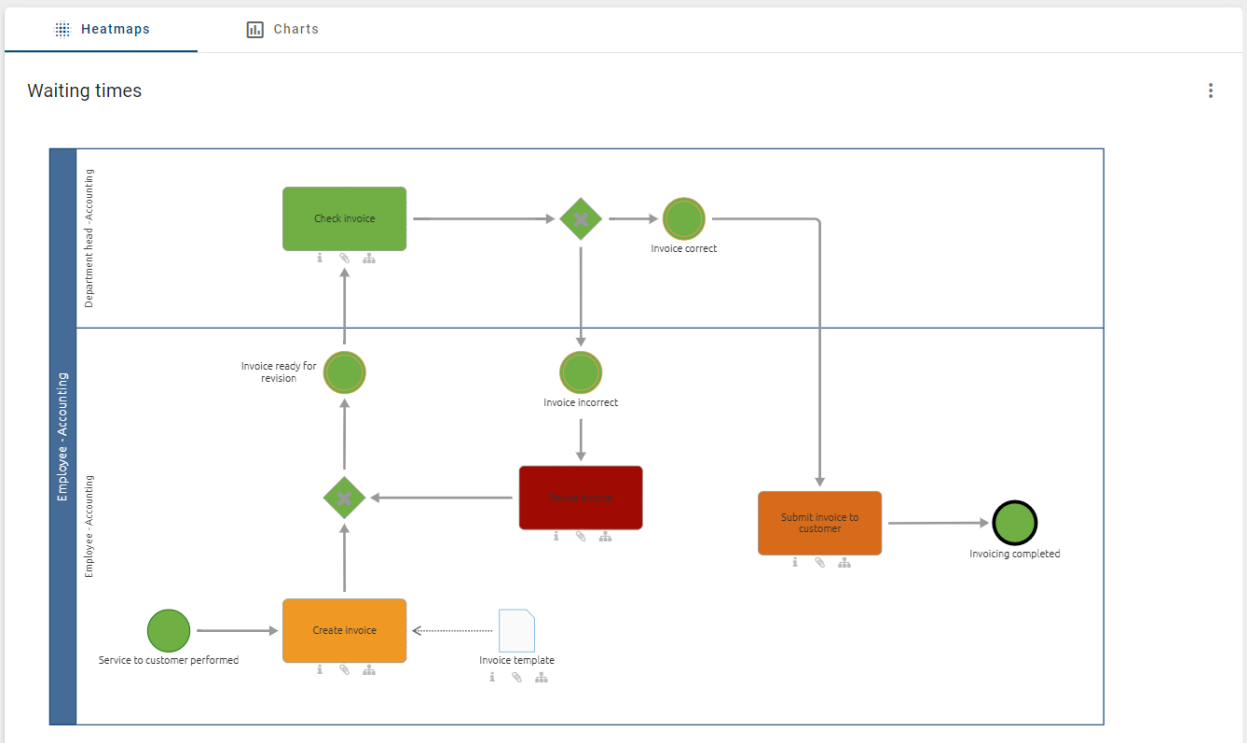
These statistics break down the costs of the process instances. There is a maximal, minimal and average value for the time and cost needed to execute the process in the scenario once. The *Process waiting times* show the time that a process instance is on hold in the scenario. The waiting time includes all time spans that are measured when a process step cannot be executed yet.

A click on the button *Back to options* redirects you to the options of the diagram view.

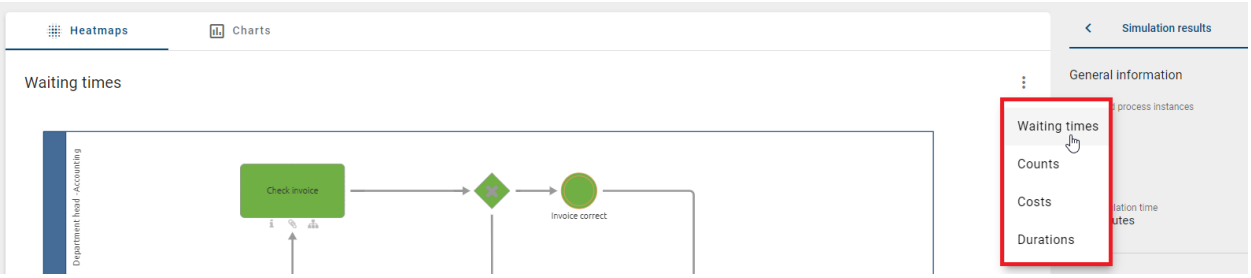
Warning: If you leave the page or the scenario, the simulation results is not saved. The specification of the scenario is *only* saved if you go back to the options list. If you like to see the results of this scenario, you have calculate them again.

11.6 What information is contained in the heatmap?

If you requested the simulation of a scenario, the diagram will be colored as a *heatmap* showing the *Waiting times* of each process step.



You can choose to view the heatmap for other KPIs in the context menu which is accessible via the three dots in the upper right corner. All views support you to analyze your process concerning the need for optimization.



- *Waiting times* The waiting time is the average time it takes for each process step (i.e. activity/task) to be started. It occurs when an activity has to wait for a free resource. Therefore, the heatmap displays where there is a delay in your process.
- *Duration*: The heatmap shows the average duration of each process step during the simulation.
- *Costs*: You can examine the costs that each process step caused on average during the simulation.
- *Counts*: The values indicate how often a process step has been executed when the demanded number of instances was simulated. If the process flow is dynamic (i.e. includes gateways), this map provides information about the frequency that the different paths have been executed.

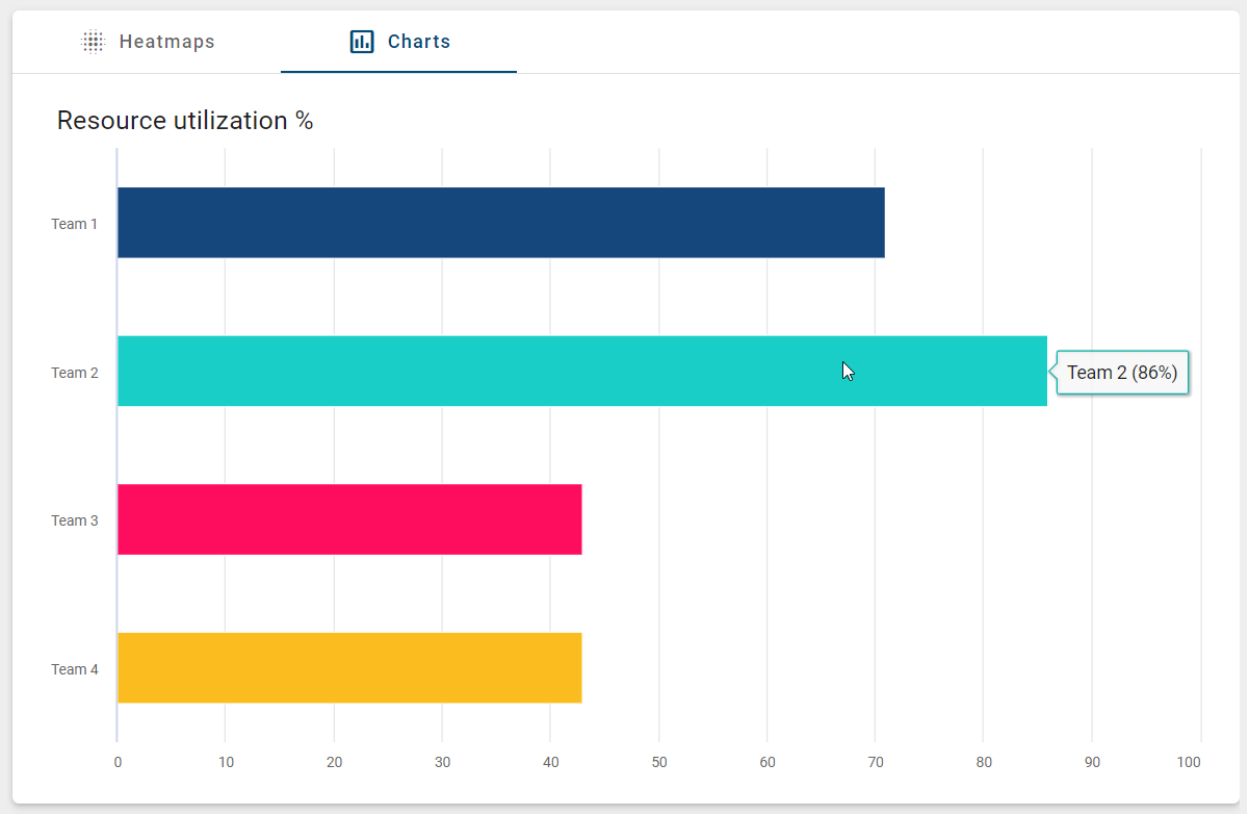
The following color scale shows the spectrum of the heatmap. The green color corresponds to relatively low values and the red color corresponds to the highest values.

If you hover over an element of the diagram, a pop-up appears which shows the KPI of this elements depending on the currently chosen heatmap. For the waiting time as well as the duration and cost, the average, minimal and maximal value measured for the process step are displayed. Moreover, in the heatmap based on *counts*, the value directly indicates how often a process step has been executed during the simulation of all instances.

11.7 What information is contained in the charts?

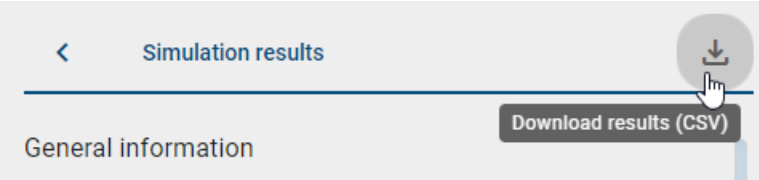
In addition to the *Waiting times* in the *Heatmap* view, you have the option of displaying the *Resource utilization in %* in a bar chart. To do this, move to the *Charts* tab.

A vertical bar chart will appear with the resource names and the utilization rate in percentage, with an interval from 0 to 100 %. To get the exact percentage of utilization of a resource, you can hover over the corresponding bar.



11.8 How can I download simulation results?

The simulation results can be downloaded as a CSV file via the *Download results (CSV)* button. Select the *Download* icon next to **Simulation results** after the simulation has been run.



The downloaded CSV file is named with the timestamp of the simulation run.

Note: The *download* option for the CSV file is not available for small screen sizes (e.g., in the mobile view)

CHAPTER

TWELVE

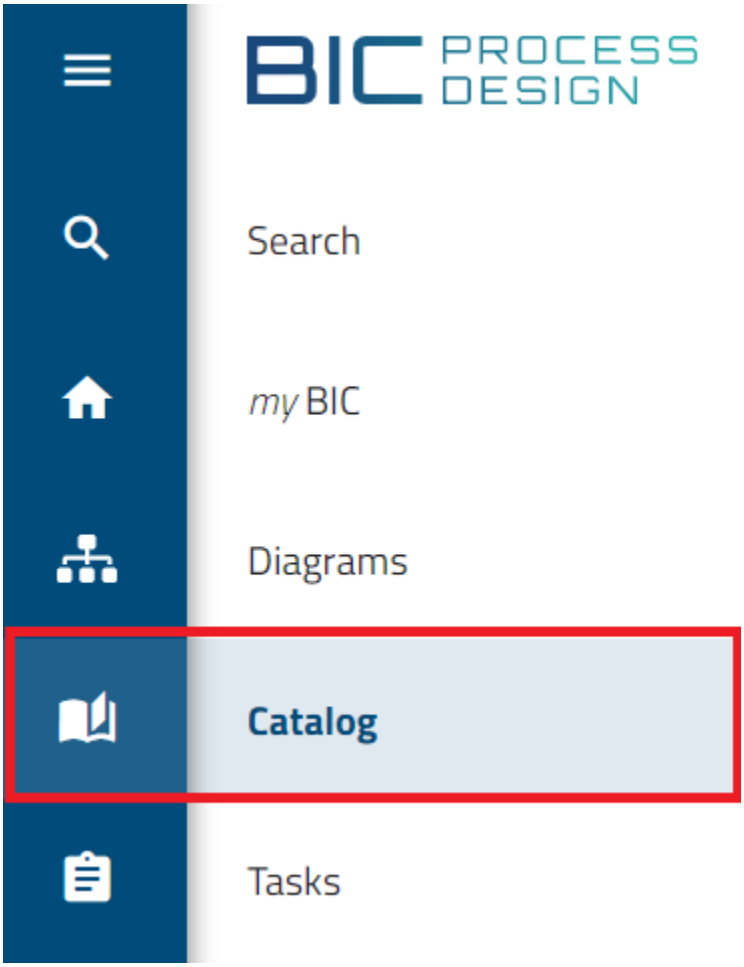
CATALOG

12.1 What is the catalog?

The catalog contains all master data from your diagrams that may be reused; such as roles and IT-Systems. The processing and quality assurance of catalog items is available for *users with administrator or editor rights* to support a central administration of master data.

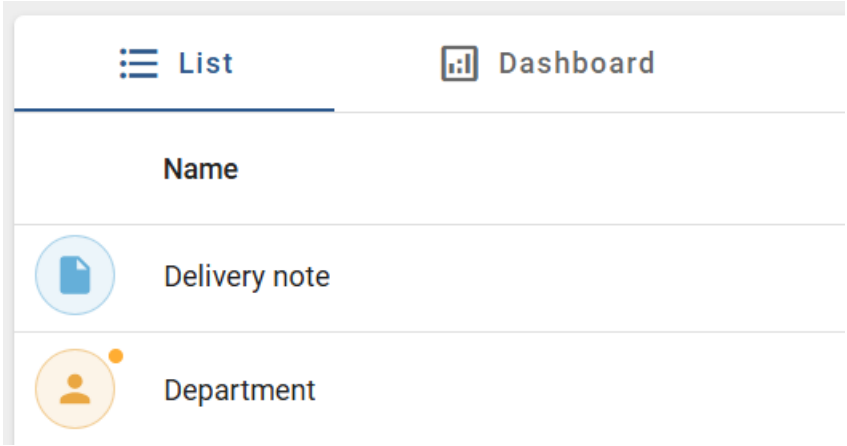
In modeling, suggested catalog items appear as usual in the modelers' suggestion list, but can be changed in the diagram. As soon as the administrator or the editor has accepted catalog items, they appear in the suggestion list and cannot be changed by modelers anymore. This reduces the risk of objects being accidentally changed in individual diagrams, which are reused elsewhere and thereby result in unintended side effects.

You can find the *Catalog* in the menu and open it with one click.



The catalog opens and a list of all catalog items, that *you can access*, is displayed. This includes the symbol of the type and the name of each catalog item here. In addition, the associated attributes and occurrences can be displayed. You can see the number of currently listed catalog items in the header next to the "Catalog". If a catalog item includes a description, it is displayed either below the name in the list or within the catalog item.

In the public workspace, accepted catalog items as well as suggested catalog items are displayed in the catalog. You can recognize a suggestion by an orange dot at the icon of the item.



In addition to the list of catalog items you can also use the *dashboard* to represent some of the data in your catalog

graphically.

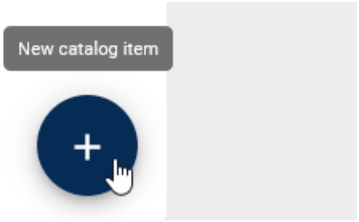
12.2 Create and edit catalog items

12.2.1 How do I create new catalog items?

Depending on your user role, there are three ways to create a new catalog item. First, they are created as *catalog suggestions*. If you want to publish a diagram, you must *accept* all catalog suggestions that are modeled in the diagram. The options available to you are described below.

Create catalog items directly in the catalog:

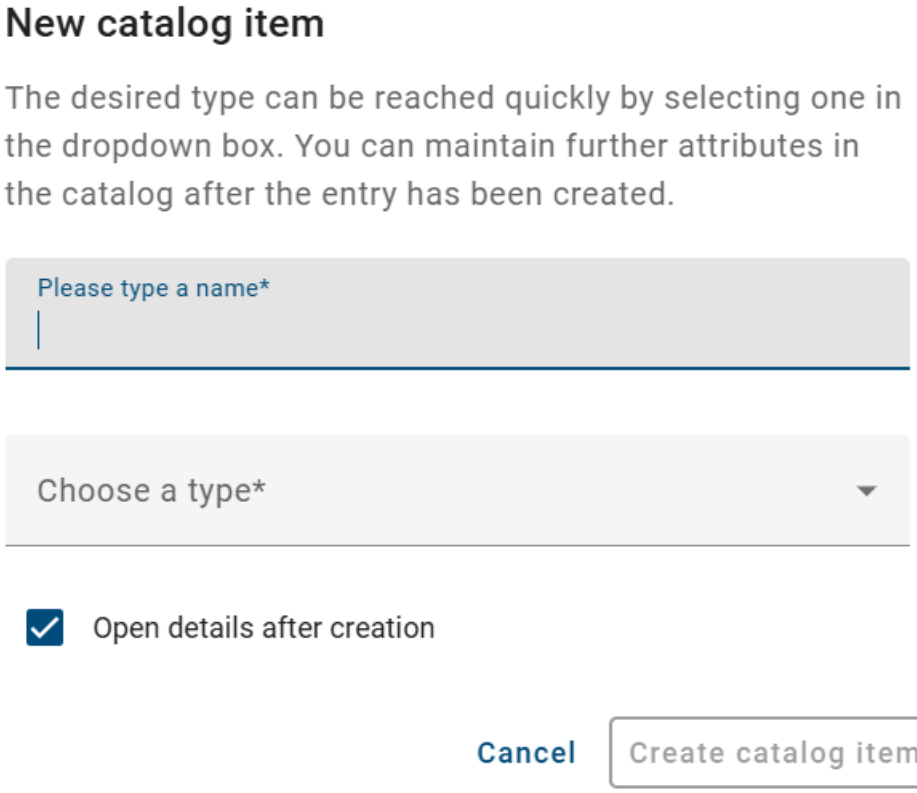
As an *Editor* or *Administrator*, you can create catalog items directly in the catalog. To do so, navigate to the *Catalog* menu item in the left menu bar and switch to the *Public workspace* if you are not already there. At the bottom right of the catalog view, you will see the *New catalog item* button.



When you click this button, a dialog opens where you need to enter a name and select the catalog object type. All available catalog object types are displayed in a drop-down list when you click the *Choose a type* field. Additionally, you will find a checkbox, which is activated by default, that will redirect you to the details of the catalog item once it has been created. If you do not want to be redirected, simply deactivate the checkbox.

If you have previously filtered the catalog items, the filtered object type appears in the *Choose a type* field when you create a new catalog item. For example, you can immediately see if an object is missing from your organization and create the missing catalog item using the *New catalog item* button.

To create the catalog item, click the *Create catalog item* button. To cancel the creation process, click the *Cancel* button.



If you activated the *Open details after creation* checkbox when creating a new catalog item, clicking the *New catalog item* button will redirect you to the edit mode of the details view of the new catalog item. Here you can define the attributes of the item (e.g., name, identifier, or description). Once you have made all your changes, you can save your changes and exit the edit mode by clicking the *Save changes* button in the upper right corner. If you do not want to make any changes, you can exit the edit mode directly by clicking the *Exit edit mode* button in the upper right corner.

Note: Once you have created a catalog item, it will appear at the top of the catalog list. When you reload the page, the catalog item appears in alphabetical order in the catalog list.

Adding catalog items by modeling:

As an *Author*, *Editor*, or *Administrator*, you can add catalog items by modeling a diagram. To do this, navigate to the *Diagrams* menu item in the left menu bar and switch to the *Public workspace* stage if your are not already there. Click

on a diagram and check it out using the *Check out* button in the upper right corner.

The new catalog items can be created by modeling new objects in the *diagram modeling process*. To do this, you must enable the *Generate catalog suggestions for this object type during modeling* option in the *administration area* for the object type.

Model a new object in the diagram that can be used in the catalog. These include reusable objects such as roles, risks, and more. Objects that are not available in the catalog by default are, for example, activities and events, as they are usually unique.

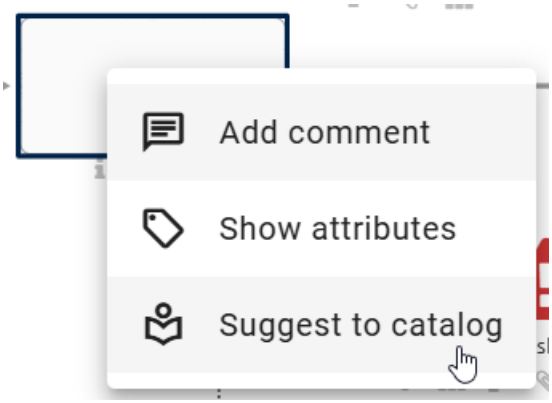
To make a modeled object available in the catalog, the diagram must be checked in. Once the diagram is checked in, a catalog item for the object is available in the catalog as a catalog suggestion.

Suggesting existing objects as catalog items:

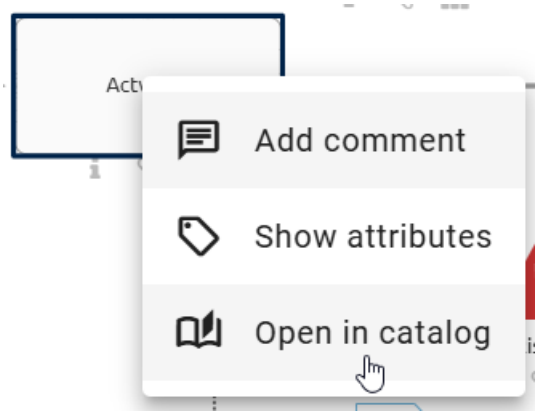
As an *Author*, *Editor*, or *Administrator*, you can suggest existing objects in the diagram for which no catalog item exists as a catalog item. To do this, navigate to the *Diagrams* menu item in the left menu bar and switch to the *Public workspace* stage if you are not already there. Click on a diagram to switch to the diagram view.

You can now create a new catalog suggestion for an existing object directly from the diagram. In this case, the *Type* section of the *Details* panel in the right sidebar will not display a corresponding label such as "Catalog suggestion" or accepted "Catalog item".

Open the context menu of an object in the selected **checked in** diagram and click the *Suggest to catalog* option.



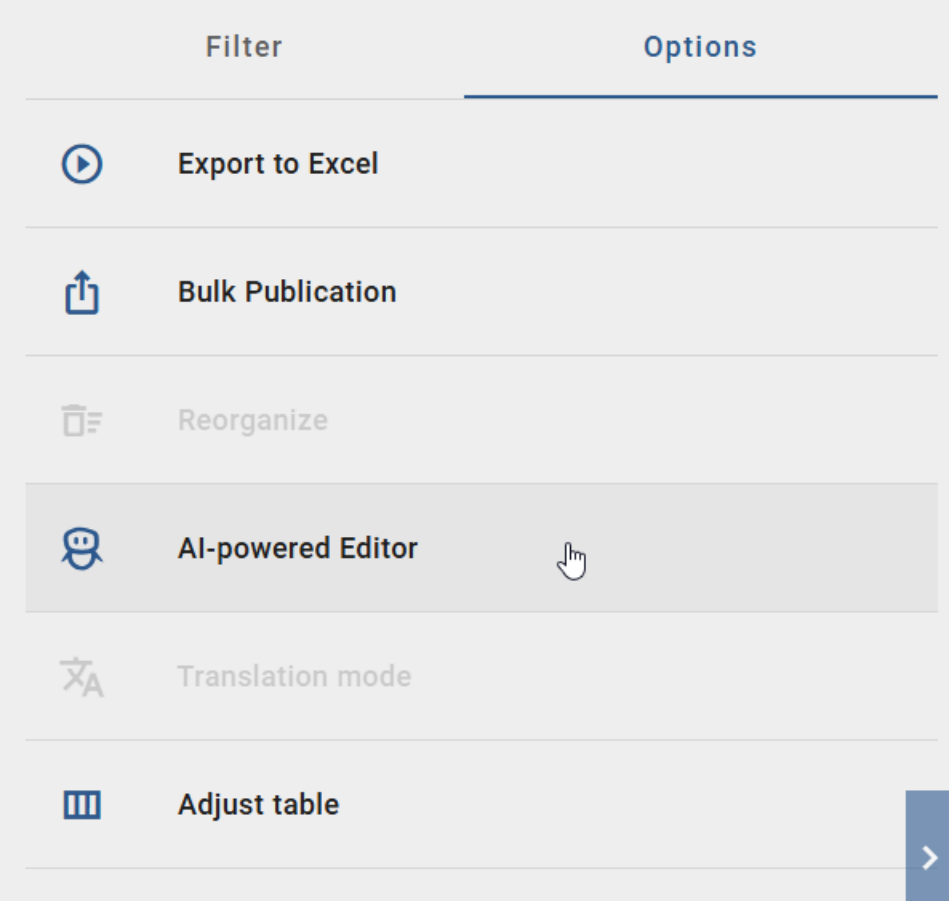
After clicking the option, you will see a confirmation that a catalog suggestion has been added. When you refresh the page, you will see the addition "Catalog suggestion" in the *Type* section of the *Details* panel in the right sidebar. If a catalog suggestion or an accepted catalog item already exists for the object in question, the *Open in catalog* option appears in the context menu.



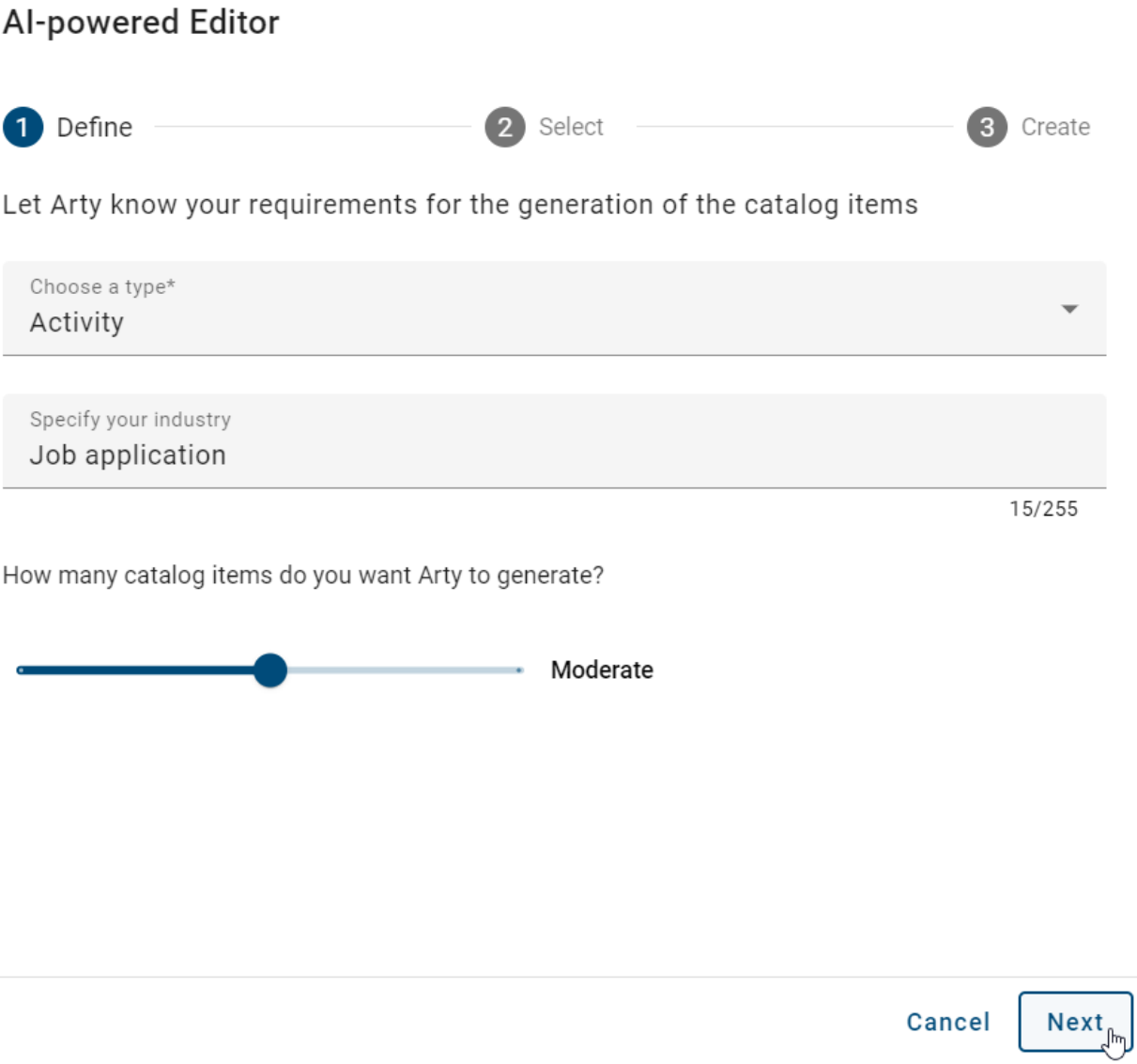
Clicking the *Open in catalog* option redirects you to the details view of the corresponding catalog item. Here you can make further changes and accept the catalog item.

12.2.2 How do I create new catalog items using AI?

As an administrator and editor, you have the option of generating catalog items using AI. To do this, navigate to the *Options* panel of the catalog and click on *AI-powered Editor*.

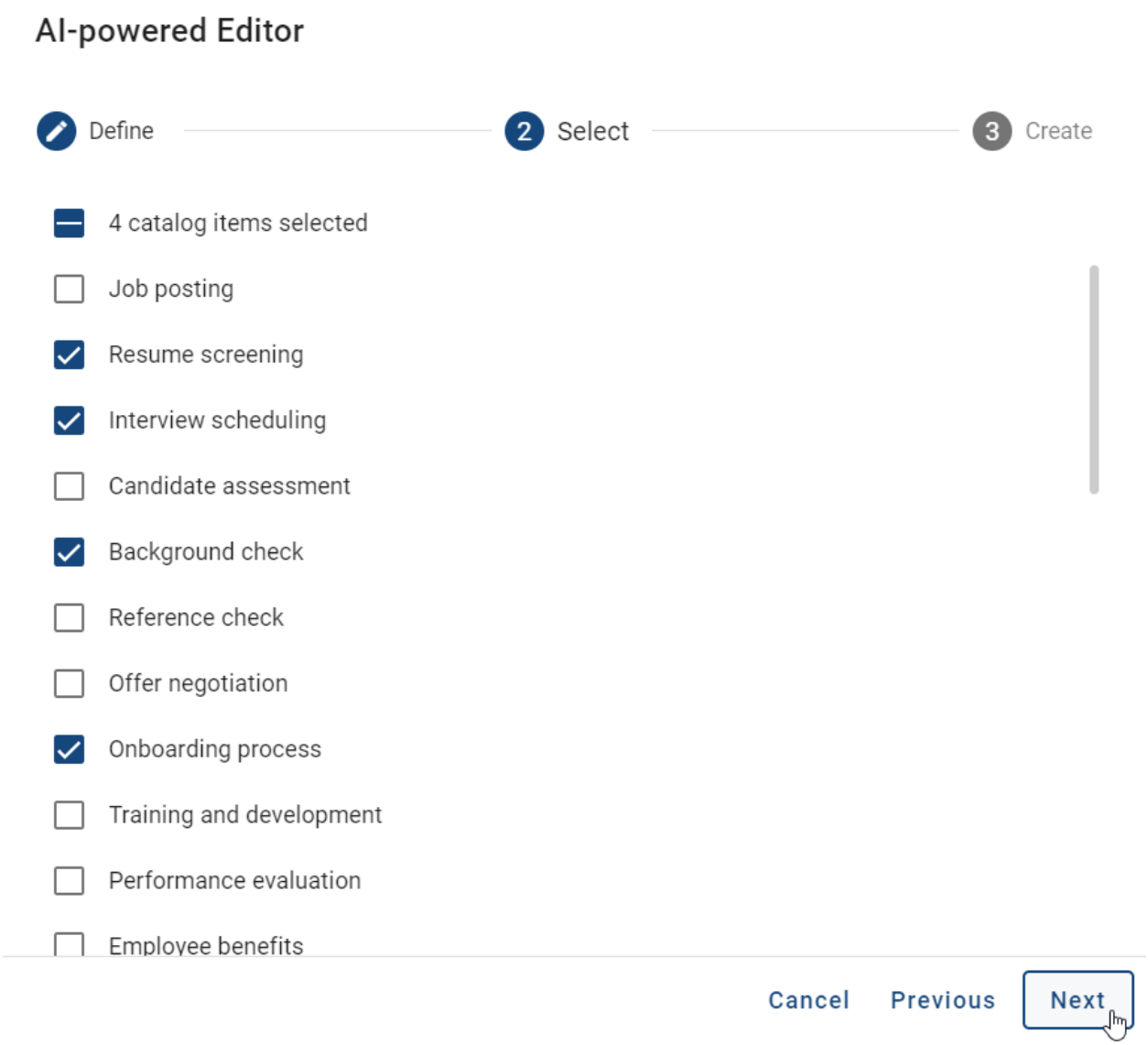


This will open a dialog window where you will need to follow three steps. First, you must inform our AI-powered editor, *Arty*, of the desired type of AI-generated catalog items. Additionally, you can specify the industry and the quantity of catalog suggestions. Click on *Next* to proceed to the next step.

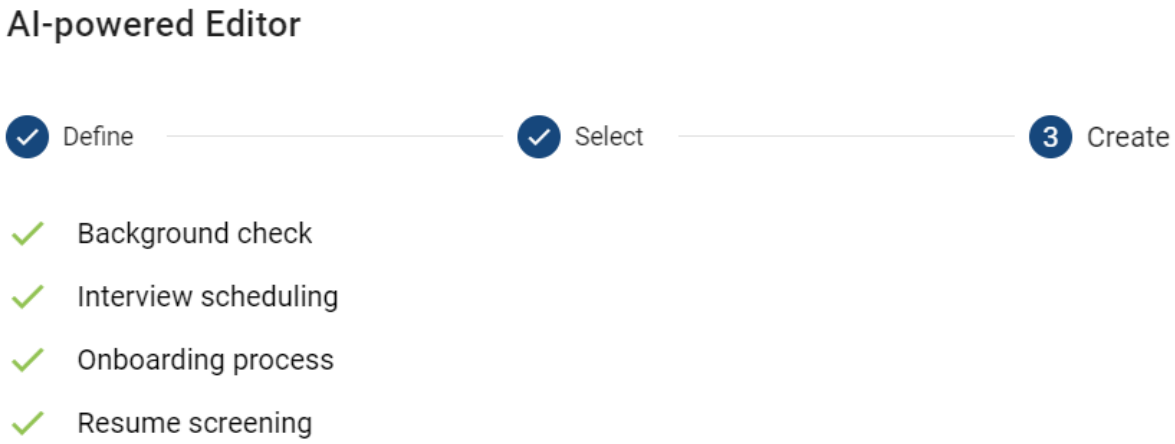


In the next step, Arty generates a range of catalog suggestions. Here, you can select which items meet your requirements. To select all AI-generated suggestions, please click on the top entry *Catalog items selected*. If you are dissatisfied with the suggestions, you can click the *Previous* button to adjust your input accordingly.

Once you have selected at least one suggestion, you can click on *Next* to proceed to the final step.



In the final step, you will see an overview of all catalog items generated by Arty. If no errors were identified, you will see a green checkmark next to the suggestions. To view the suggestions in the catalog list, please click the *Close* button.



The catalog items generated by Arty are now displayed at the top of the catalog list. Once you reload the page, the items will appear in alphabetical order. You can find information on how to edit catalog items *here*.

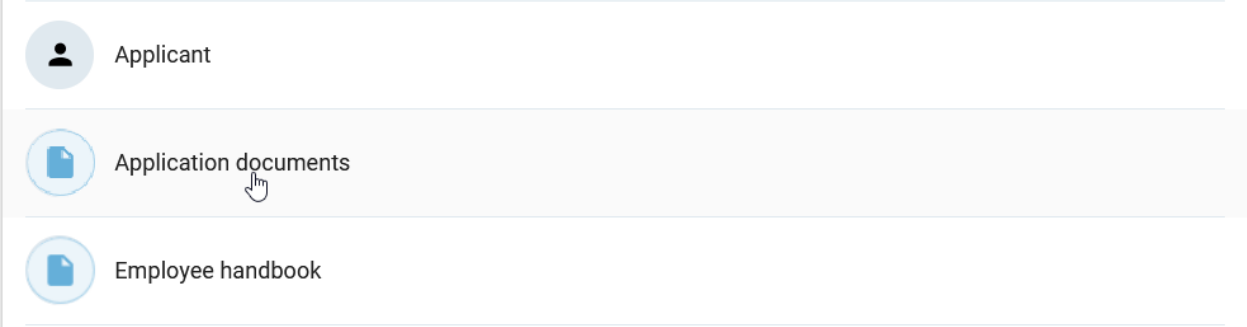
Note: Please be aware that the AI-generated catalog items are generated only in the current content language.

Note: The *AI-powered Editor* option is not available in the mobile view.

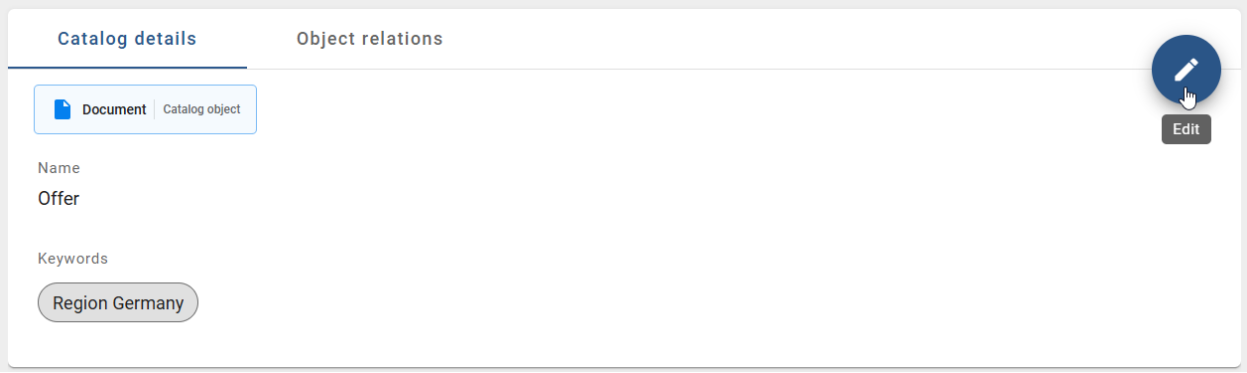
Hint: This function is performed by *Arty*, our AI Editor. Please note, that this function requires a separate license. Please also refer to the *notes on using the AI feature*.

12.2.3 How do I edit attributes of catalog items?

Navigate to the catalog in public workspace and search for a catalog item that you like to change. Select the item to open the details.



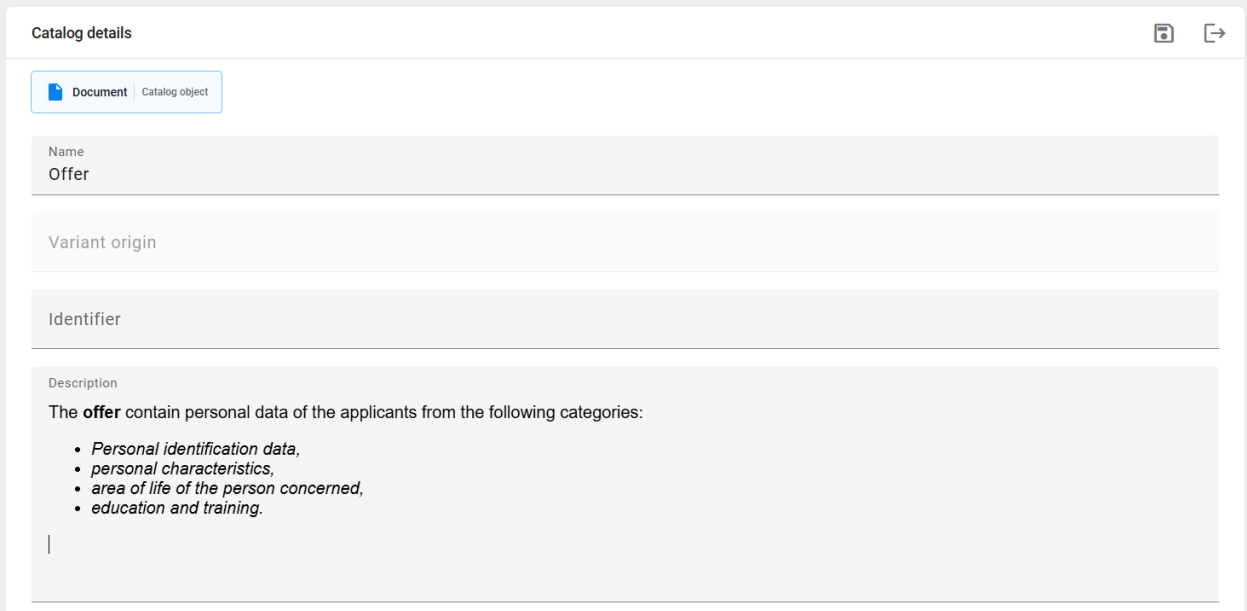
Click the *Edit* button to enter the edit mode.



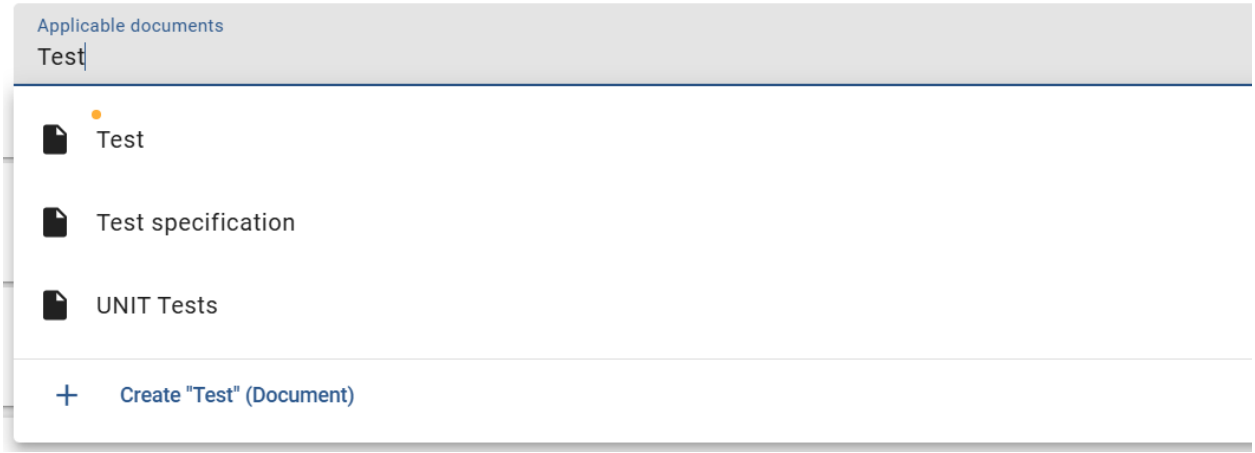
If you are editing a catalog item that is only a suggestion, a small banner at the top informs you about that.

Edit the attributes according to your wishes by changing, inserting or deleting values. Read-only and system attributes cannot be edited. You can add links and files in the attribute field *Attachment (URL)*, which are sorted alphabetically. Permanent links to attached files will only work persistently if the title of the attachment remains unchanged. Once the title is changed, the link becomes invalid, and the attachment can no longer be accessed or downloaded using the generated link. The attachments can be provided language dependent. An explanation for the functionality can be found in the chapter about the *attribute "attachment"*. Moreover, note the different *functionality to edit the attribute "Description"*.

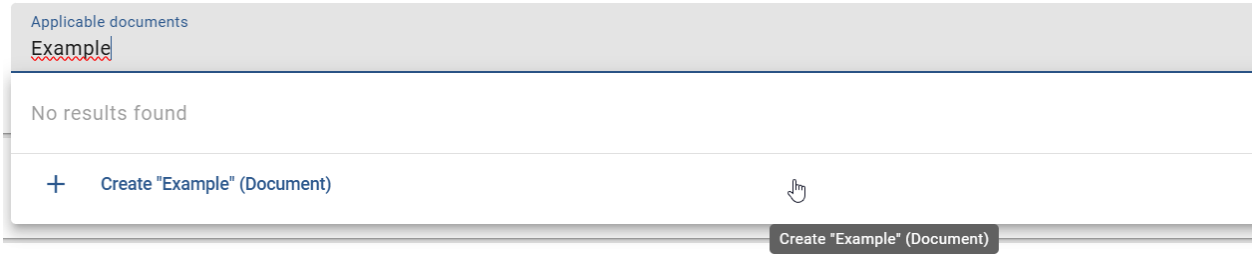
Hint: Please note that the *Attachment (URL)* attribute may be restricted by the individual method configuration. In this case, only links or URLs can be stored, and other file types cannot be used.



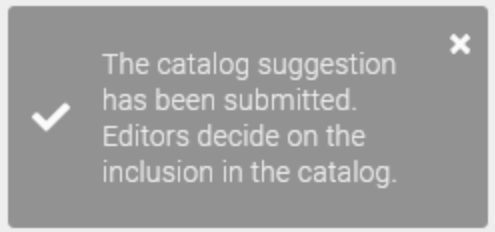
Organizational units, documents and norms can be created while editing the attributes of certain entities in the catalog. To do this, the attribute field must be selected. Suggestions of existing catalog items are shown after the the first letter is entered.



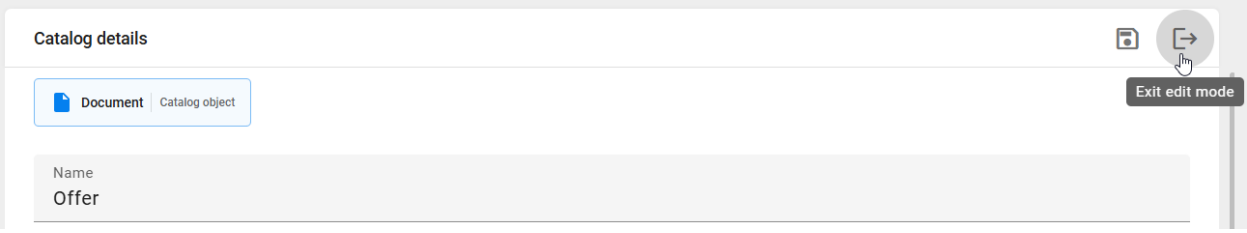
In addition, a new entity can be created and assigned directly. This is done by entering the desired name in the selected field and clicking “create” for the required entity type.



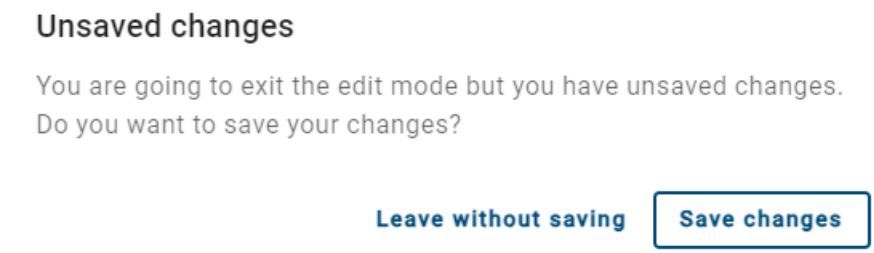
A notification will inform you that chosen entity has been created and added to the publishing workflow for catalog items.



Confirm your changes by selecting *Save*. You will be redirected to the original view of the catalog item. You can undo your changes via the button *Exit edit mode*.



If you are leaving the edit mode and there are unsaved changes, you will get a hint. You will have the possibility to save your changes or leave without saving. Alternatively, you can cancel leaving the edit mode by clicking outside of the pop-up window.



Regardless of editing in the catalog, entity attributes of referenced catalog items can also be *edited directly* from a diagram. If a diagram is in edit mode, editing is performed via the *Details* tab in the right sidebar.

Note: In the edit mode you can only see values of properties that have been maintained for the selected *content language*. Outside of the edit mode you will also see values that have been maintained in the alternative language but not in the content language. This behaviour enables you to be sure that when being in edit mode you will always set up values for the currently selected content language.

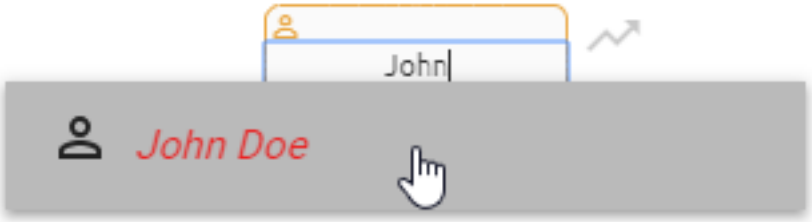
Hint: In the edit mode, all options except for **Delete** are deactivated. For example, no catalog suggestion can be approved or rejected during editing.

Tip: If a diagram or object has been added to the details of a catalog entry, you can navigate to the corresponding diagram or object by clicking on the chip.

12.2.4 What happens if I change symbol attributes in a diagram that are in the catalog?

If you change symbol attributes in an existing diagram when they have already been accepted in the catalog, a new catalog item is created for this symbol. This serves to prevent unwanted or accidental changes in the attributes of the same symbol. The creation of new items allows you to manage changes centrally in the catalog, for example, to decide whether the changes should also apply to other symbols.

Create a new symbol (for example, a role) and select a catalog item from the suggestion list. The symbol has the same properties as the selected catalog item. If you change the attributes of this symbol, for example, by renaming it, the following happens.



Accepted catalog item

A new catalog item containing the changed attributes is created by checking-in the diagram. Other symbols in the same diagram that previously referred to the same catalog item are also changed and then refer to the new creation mentioned before. However, the symbols of the catalog item that are used in other diagrams do not change and the reference remains. If you want to replace the selected catalog item with the newly created item for these symbols as well, you have to do it via the *Delete* option.

Proposed catalog item

Check in the diagram and the changes will be accepted for the existing catalog item without creating a new one. These changes also affect all other diagrams in which the proposed catalog item is used.

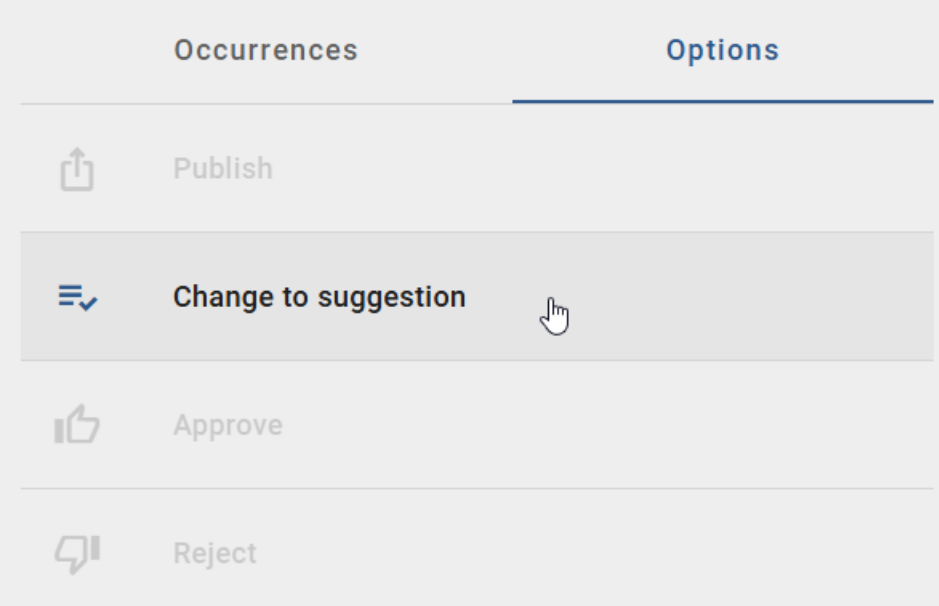
Note: Be aware that the *suggestion list of the server* will be updated after you check in your diagram. In other words, if a suggested catalog item is renamed, this item will still have the old name in the suggestion list of the server until you have checked in the diagram once.

12.3 Quality assurance in the catalog

12.3.1 How do I change the state of an accepted catalog item?

As administrator or editor you have the possibility to set accepted catalog items back to the status *catalog suggestion*.

To do that, open the details of the catalog item and open the options menu.



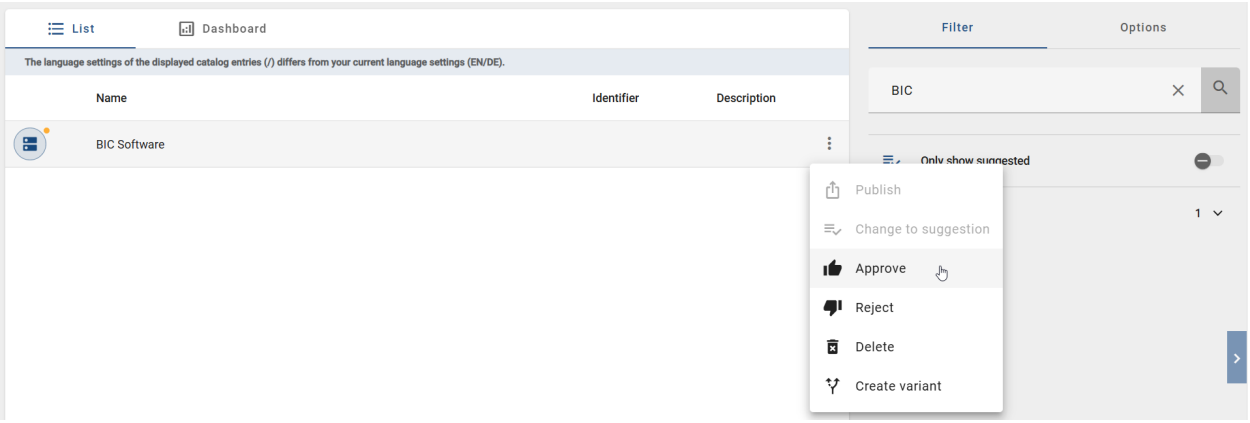
Choose the Option *Change to suggestion* to set the catalog item to the status of a catalog proposal.

12.3.2 How can I accept a catalog suggestion?

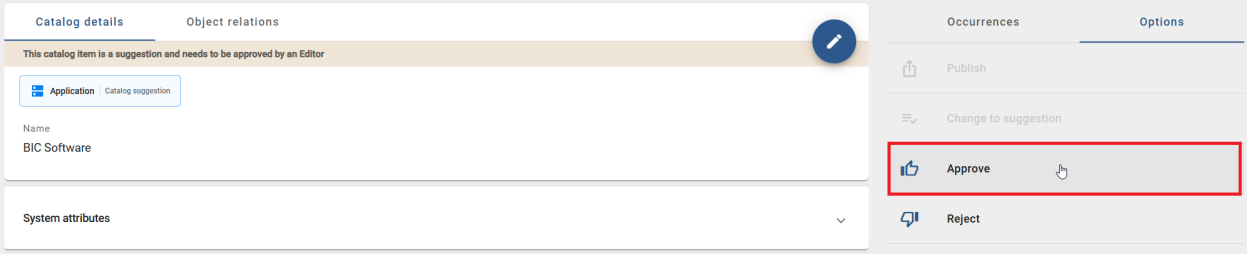
The user roles *Administrator* and *Editor* are authorized to manage catalog items and can therefore accept suggestions to include them into the catalog.

Navigate to an existing catalog item in the catalog list that has not yet been accepted. You can recognize such a *catalog suggestion* by an orange dot at the icon of the item.

You can directly accept the suggestion in the list. Open the context menu (three dots) of the item and select the option *Accept*.



Alternatively, you can find the same option in the detail view of the catalog suggestion. Click the item, then switch to the *Options* panel in the right sidebar and select *Accept*.



As soon as you accepted the suggestion, it will be added to the catalog and thus will be part of the master data of your repository.

If an object of the approved catalog item is changed in a diagram, the item in the catalog is not changed but a new catalog item is created instead. Changes for reuse of the accepted item can thus only be made via the catalog itself.

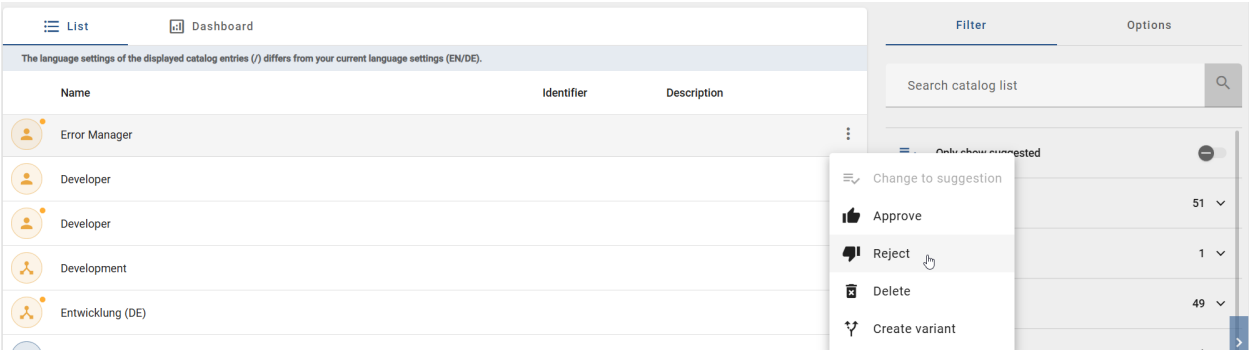
Tip: You can *filter suggested catalog items* in the catalog.

12.3.3 How can I reject a catalog suggestion?

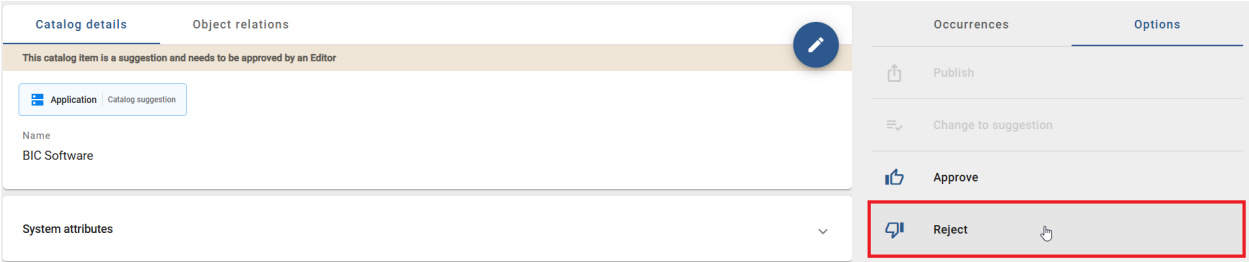
Items that have been rejected in the catalog are removed and no longer available for reuse in any diagrams (via the suggestion list). As an *Administrator* or *Editor* you can reject proposed items from the catalog as follows.

Navigate to an existing catalog item in the catalog list that has not yet been accepted. You can recognize such a *catalog suggestion* by an orange dot at the icon of the item.

You can directly reject the suggestion in the list. Open the context menu (three dots) of the item and select the option *Reject*.



Alternatively, you can find the same option in the detail view of the catalog suggestion. Click the item, then switch to the *Options* panel in the right sidebar and select *Reject*.

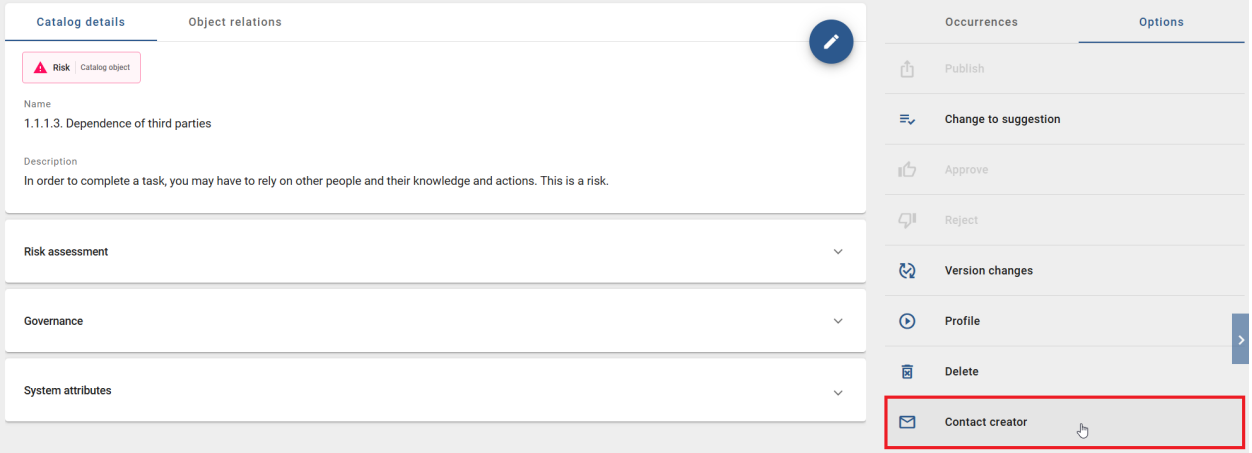


As soon as you reject the catalog suggestion, it will be removed from the catalog. Until the page is updated, the item will be displayed strikedthrough. This action cannot be undone.

12.3.4 How can I contact the creator of a catalog item?

As an *Editor* or *Administrator*, you can contact the creator of a catalog item to clarify any ambiguities. To do this, click on the *Catalog* menu item in the left menu bar and select a catalog item. You can choose from both catalog suggestions and accepted catalog items.

After clicking on a catalog item, you will be taken to the details view of the catalog item. In the *Options* panel in the right sidebar, you will find the *Contact creator* option.



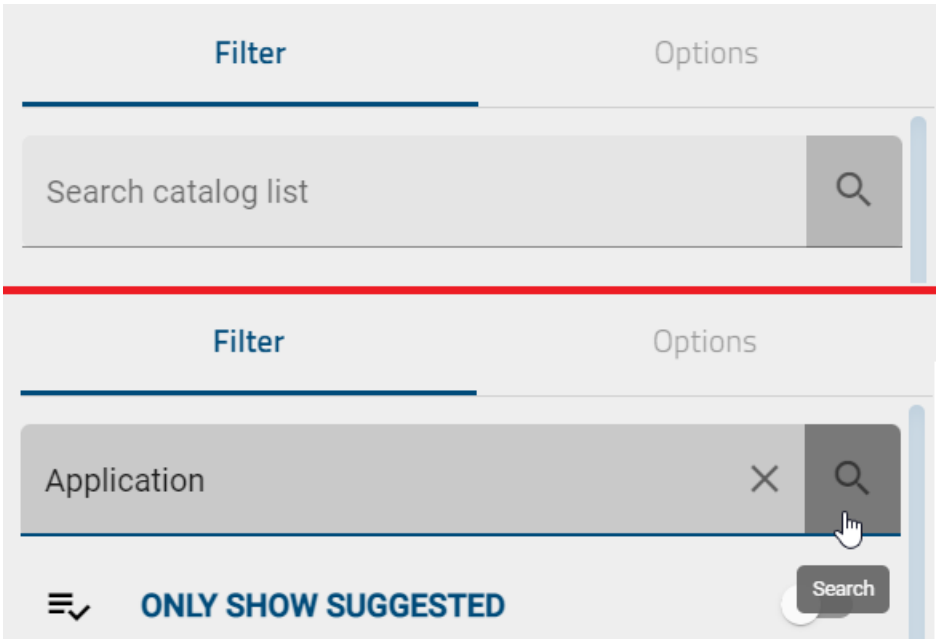
When you click the *Contact creator* option, your email program opens, allowing you to compose a new email. The creator's email address is automatically entered in the "To" email field, enabling direct contact. If no valid email address is available for the creator, you will receive an error message.

12.4 Search and filter catalog items

12.4.1 How do I search for catalog items in the catalog?

If you open the *Catalog* menu item in the left menu bar, all catalog items that are stored in the current repository are listed in the main area. You have the option of searching for items using the search function in the *Catalog* area.

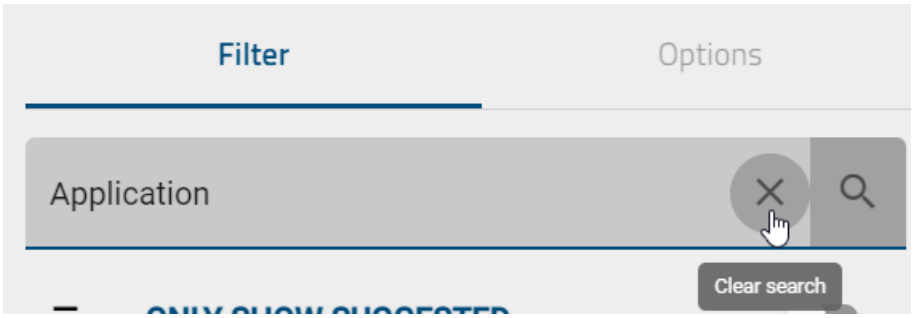
To search for specific catalog items, you must click on *Search catalog list* in the *Filter* tab at the top right of the catalog. To start a search, enter the name of the desired catalog item and confirm the entry with the *Enter* key or by clicking on the magnifying glass symbol.



You will then see all the search results that contain the specific name.

If there are no matching catalog items for your search term, the main area will show a corresponding hint as well as the button *Toggle language & search again*. You can select this button to set the alternative language as your content language and restart the search in this new content language.

If you want to display your entire catalog list again, click *Clear search* next to the magnifier glass icon to reset your list.



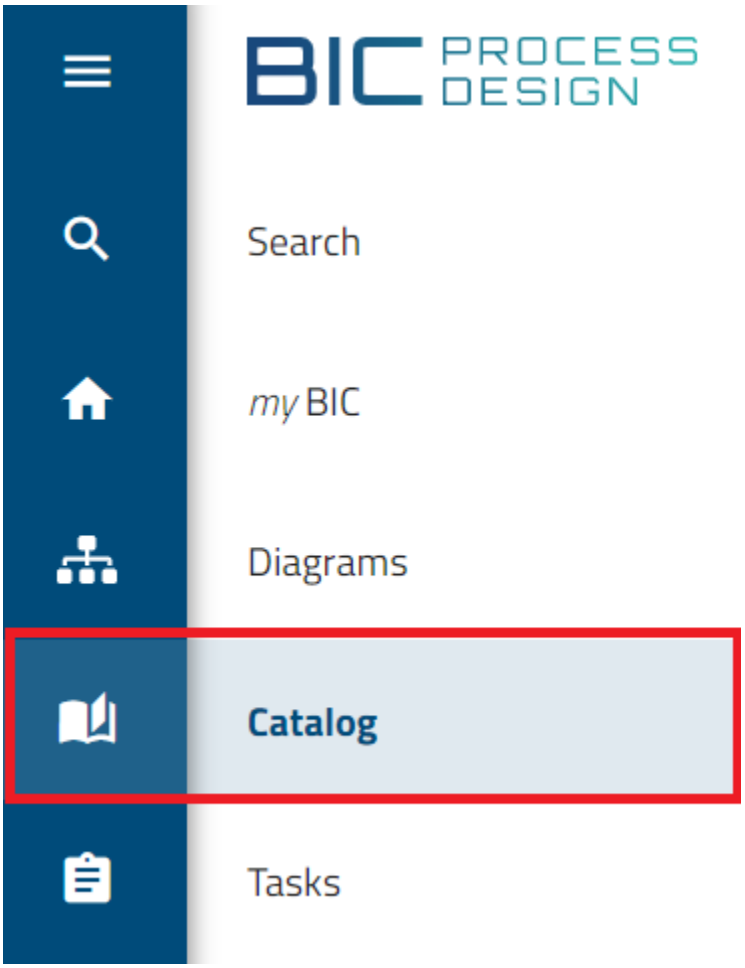
Hint: *Here* you can find an overview of the different options you have for search terms.

Note: The search results are sorted by relevance. Therefore, it is not possible to sort them by name.

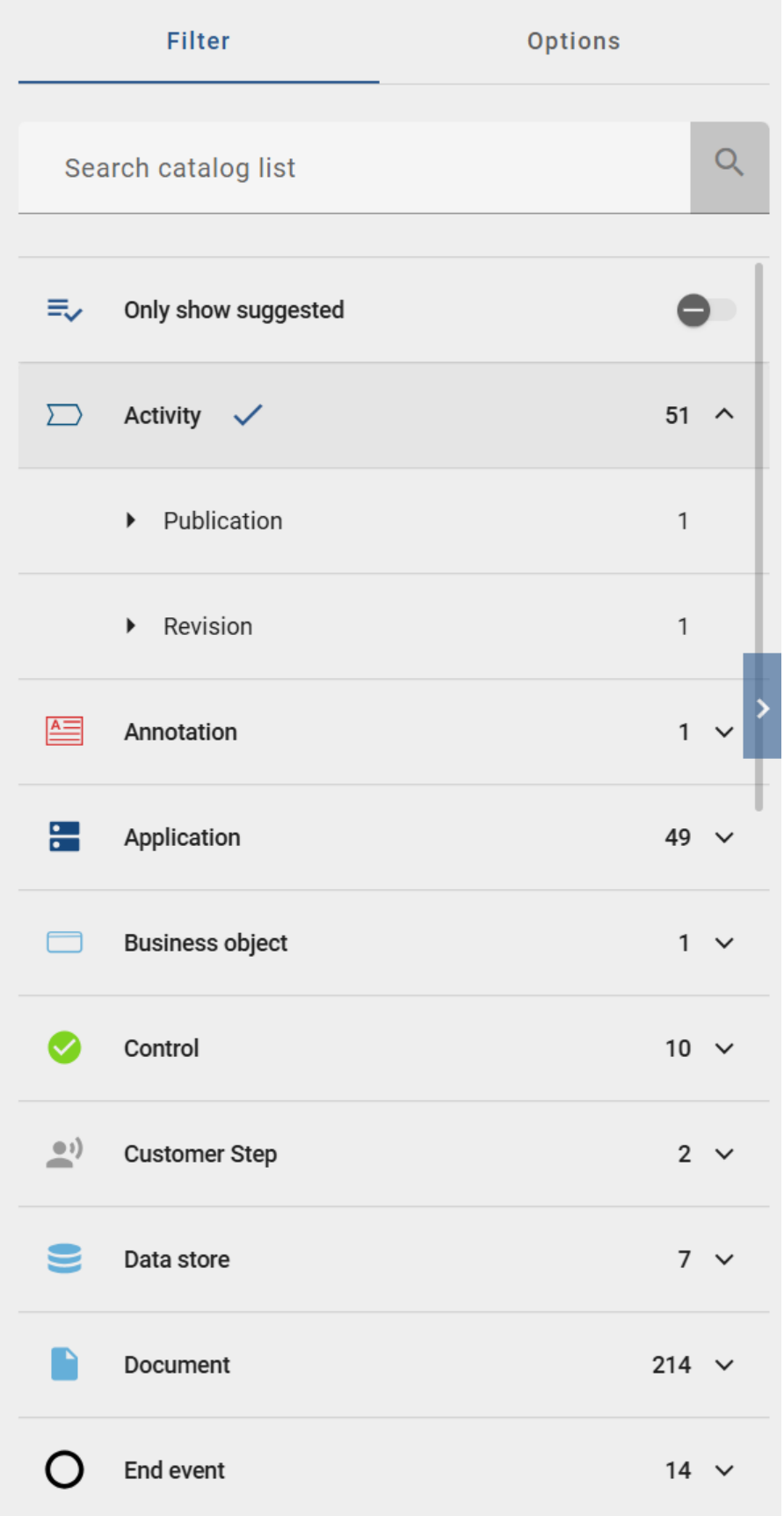
Warning: Please note that searching for catalog items within access-restricted diagrams is only possible for their governance participants. This also applies if you have the *Administrator* user role. Changes to users or user groups in the *Administration* may cause access restrictions to stop working correctly. Therefore, make sure that user and user group information in the administration and the catalog is maintained consistently.

12.4.2 How can I filter catalog items?

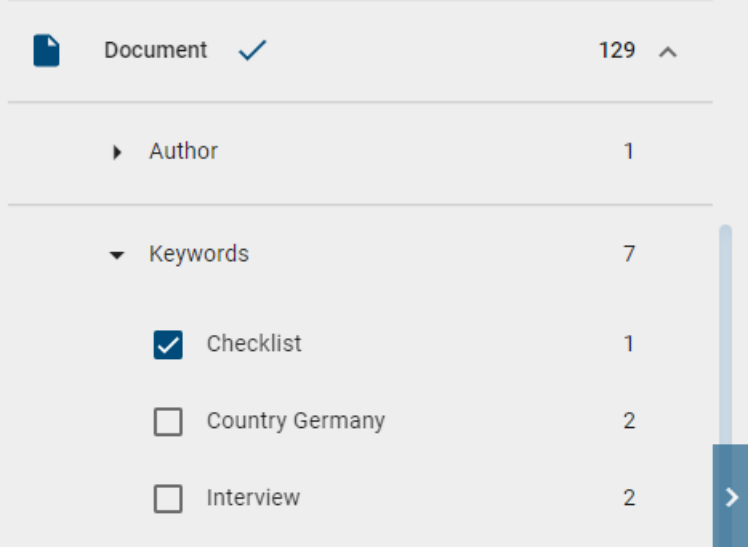
Navigate to the *Catalog*.



There, in the right sidebar you can choose between the panels *Filter* or *Options*. In case you are using a mobile device you can find the filters via the three dotted menu in the upper right corner. If the panel *Filter* has been selected, filters for all available object types in the catalog are listed. If you click on the desired filter, it will be expanded and automatically applied to the catalog. Additionally, the selected filter will be visually enhanced by a checkmark on the corresponding item.

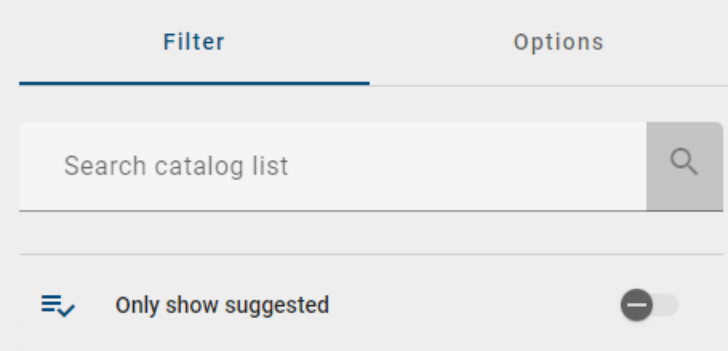

Filter
Options
Search catalog list
Only show suggested
Activity
51
Publication
1
Revision
1
Annotation
1
Application
49
Business object
1
Control
10
Customer Step
2
Data store
7
Document
214
End event
14

The catalog only displays items of the selected type, as you can see in the header of the catalog. After expanding the filter, individual facets are displayed for the selected entity type. A facet corresponds to an attribute type of the object type and is listed here as soon as it has been maintained on an object and *activated in the administration area*. The order is alphabetical. Attribute types that include checkboxes or assignments to persons are not taken into account here. The facets can also be expanded. The attribute values of the object type appear and are always listed dependently of a search term. Each attribute value has a checkbox and can be selected and deselected to limit the search to that value.



You can now select more facets, search within the filter, or remove the filter. By collapsing the filter or facet, all filter and facet settings are reset. Note, that you cannot select two filters at the same time.

As an administrator, editor or author you also have the possibility to filter only catalog suggestions. To do that, use the toggle button on the top of the right sidebar. Depending on the stage you are currently in, the button will be labeled differently and you will get different results. If you are in the public workspace, you will get *only suggested* catalog items. If you are in the preview stage, you will only see catalog items that *need approval*. It is possible to combine this filter with other filters.



Filters, which have no corresponding catalog items can be hidden within the administration area. To do so use the option to *automatically generate catalog items, when checking in*. In case this option is deactivated the affected filter will be hidden. This filter will then only be displayed if catalog items for this object type already exist or in case a new catalog item has been manually created in the catalog.

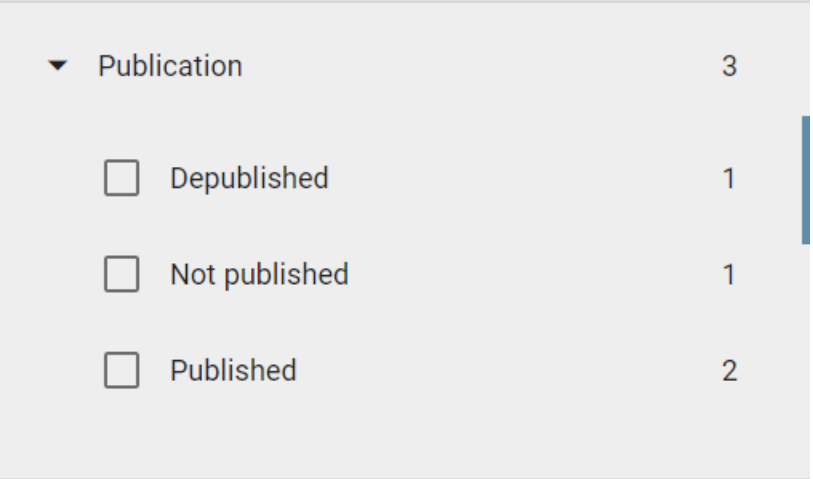
12.4.3 How can I filter catalog items by their current state?

With the *Governance Lifecycle* filter, you can filter catalog items according to their currently active workflow, their publication or their revision. This gives you a better overview of the status of the catalog items.

If you want to apply this filter, you must be in the *Public workspace*. In the *Filter* tab, you can open the *Governance Lifecycle* filter.

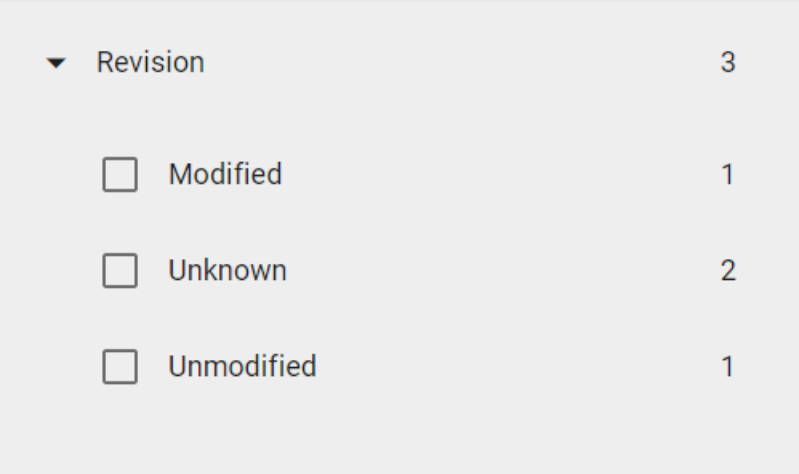
Publication

If you open the *Published* subfilter and at least one catalog item has been published, you can filter for the corresponding catalog item by clicking on *Depublished*, *Not published* or *Published*.



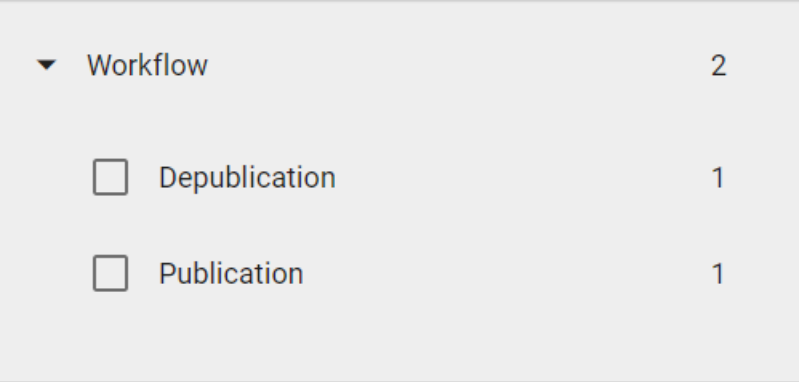
Revision

If the *Revision* subfilter is expanded and at least one catalog item has a revision status, you can select a specific revision status as a filter. You can filter catalog items according to the following revision statuses: *Modified*, *Unmodified* and *Unknown*. Changes to a catalog item cannot be displayed until it has been republished. Until then, it has the revision status *Unknown*.



Workflow

If you have expanded the *Governance Lifecycle* filter, you also have the option of opening the *Workflow* subfilter. Here you can then filter whether a workflow is active for the catalog item. A distinction is made between *Depublication*, *Publication* and *Resubmission*.



You will then see a filtered list and a number of all catalog items that are in the corresponding area.

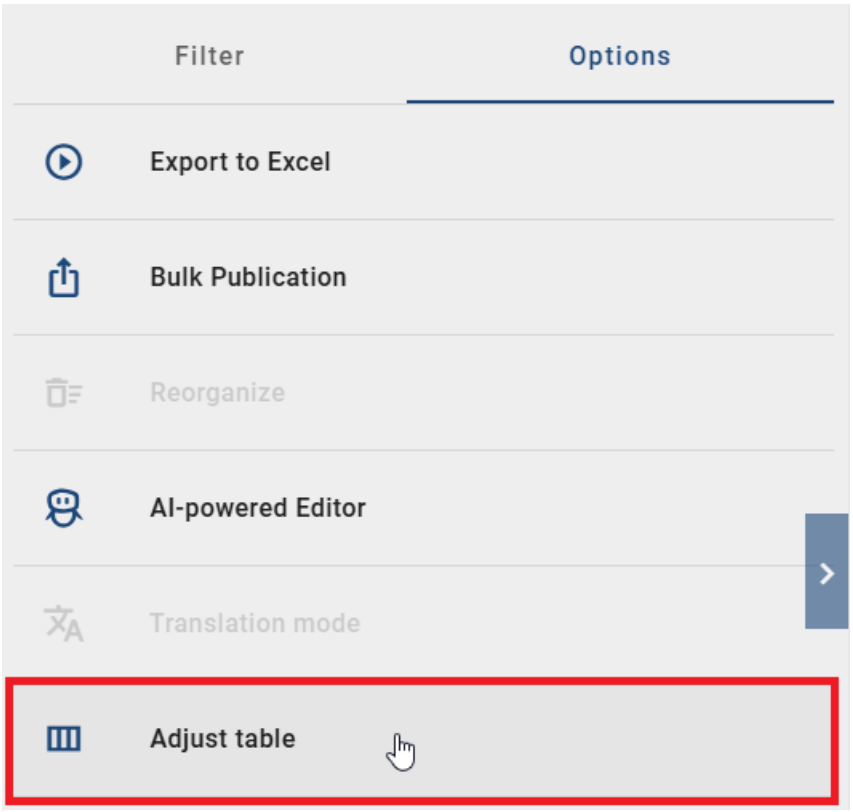
Hint: The *Governance Lifecycle* filter is available from version 7.14.0. To display all published catalog items in the filter, you must check the catalog items out and back in at least once.

Note: All filtered results are sorted alphabetically by browser language.

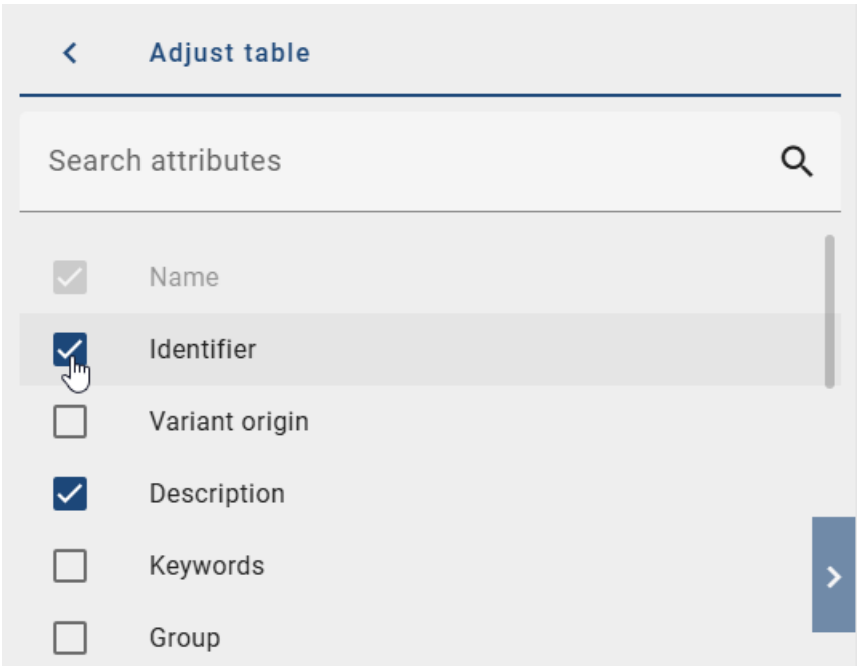
Hint: The *Governance Lifecycle* filter is also available to filter *diagrams* by their *Workflow*, their *Publication* or their *Revision*.

12.4.4 How can I add attributes to the catalog list view and get a table view?

Each user has the possibility to add attributes to the catalog's list view to create a table view. To do this, go to the *Catalog* menu item in the left menu bar and, if necessary, switch to the *Options* panel in the right sidebar. There you will find the *Adjust table* option.

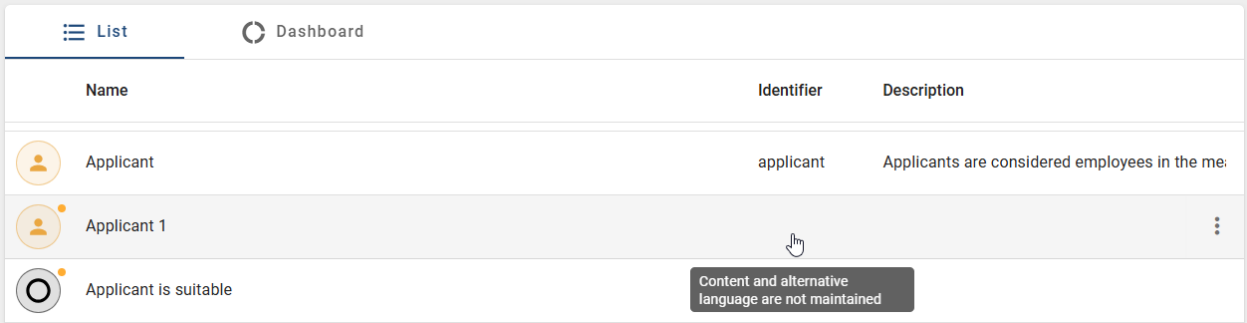


After clicking this option, you will see a list of all available attributes sorted by attribute type that you can add to the list view. A selected attribute is marked by a check mark. If you cannot find a specific attribute at first glance, you can use the search bar to search for it. The search is not case sensitive.



Once you have selected at least one attribute, it is immediately displayed as a new column heading in the list view in your active browser language. The maintained content for each catalog item will be displayed in the active content language. If an attribute value is only maintained in the alternative language while your content language is active,

the content from the alternative language will be shown. If the attribute value is not maintained in any language, the content for the corresponding catalog item remains empty. Alternatively, the content remains empty if the attribute type is not assigned to this object type. You can find out the exact reason for the empty content by hovering the mouse over the empty entry.



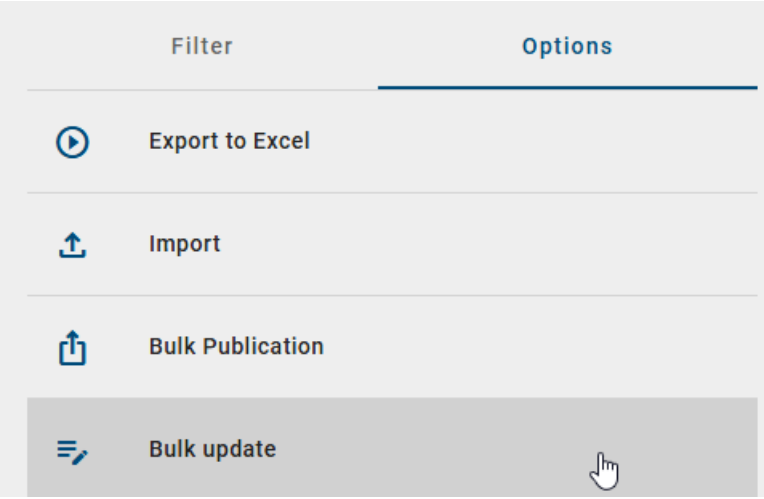
If the number of attributes displayed exceeds the capacity of the desktop view, a horizontal scrollbar will appear, allowing you to scroll through the various attributes. Your customized table view is saved and will be shown the next time you access the catalog. You can modify the display of attribute values at any time.

Note: The *name* attribute is always displayed and cannot be changed.

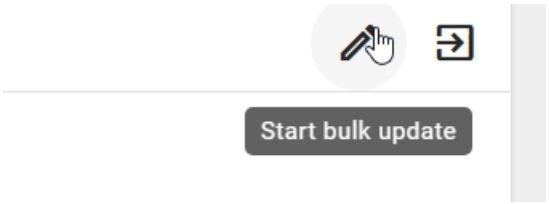
12.5 Bulk Update

When you open the *Catalog* menu item in the left menu bar, all catalog item in the current repository are displayed in the main area. If you want to edit several similar attributes in different catalog item at the same time, you can use the *Bulk Update* function. This feature is available for the *Editor* user role in the *Public Workspace* and for the *Administrator* user role in all areas.

To apply the bulk update function, first open the *Filter* tab in the catalog view and then *filter* for the desired object type. This updates the catalog list and displays only the filtered items in the currently set user interface language. Then switch to the *Options* panel on the right side of the catalog view and select the *Bulk update* option.



You will then be in bulk updating mode. All filtered catalog items will be displayed as a list view. Select the catalog items you want to edit and click *Start bulk update*.



After you have started the bulk update, a dialog opens in which you can configure the desired change. Now select the attribute type you want to edit. You can then specify which action should be applied to this attribute. The available actions are: *replace attribute value*, *remove attribute value*, or *add attribute value* to an existing value. Depending on the action you select, corresponding input fields will appear in which you can enter the desired attribute value. As you type, the system will display the available values for the selected attribute type from the current range, allowing you to select one directly.

Add attribute value:

If you have selected a multi-value attribute and open the action menu, specify the attribute value you want to add.

Hint: Please note that if you add another attribute to a single value attribute type even though a value already exists, the affected catalog object will be skipped during Updating. After the Update, you can download a JSON file from the bottom right corner of the screen. In the downloaded JSON file, the affected catalog object appears under *Catalog objects not updated*, including the corresponding entity ID, the name in the content language you selected, and the specified reason.

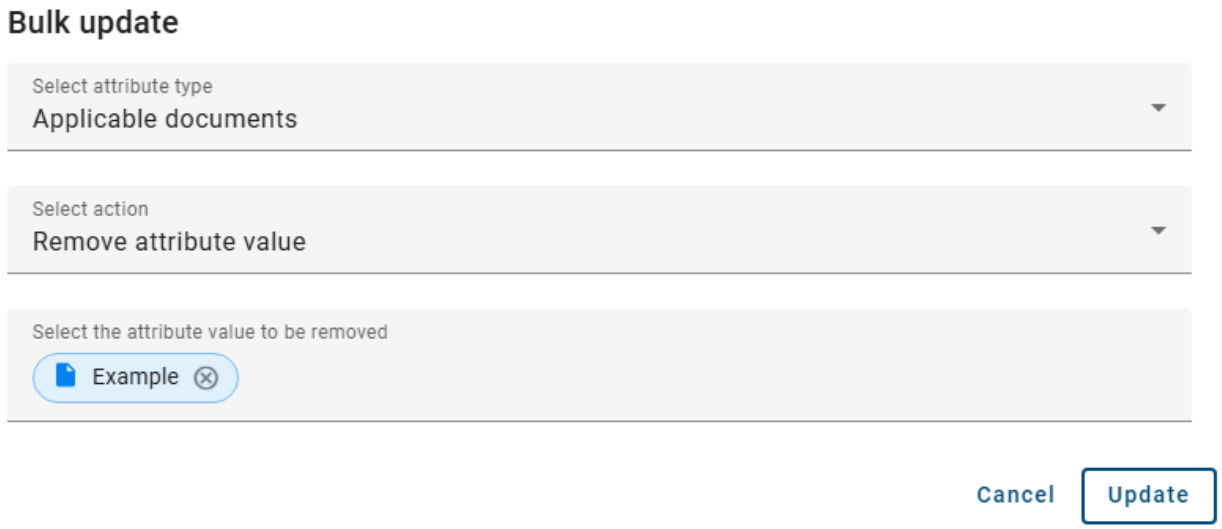
Replace an attribute value:

If you want to replace an attribute value, enter both the existing value and the new value.

Note: Please note that the attribute value is only replaced in the current content language.

Remove attribute value:

If you want to remove an attribute value, simply specify the value you want to delete.

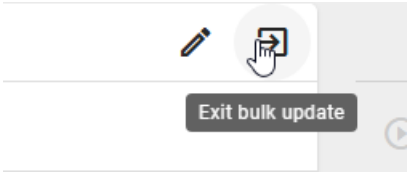


Then click *Update* to apply the changes or *Cancel* to discard them. If you want to remove your selected attribute value, click the *X* on the chip.

After clicking *Update*, a confirmation window will open. Enter the word *update* in the text field to confirm the bulk update.

After successfully updating the corresponding attribute values in the selected catalog objects, a message will be displayed showing how many of your selected catalog objects could be updated.

If you want to exit the bulk update, click the *Exit bulk update* button.



Hint: Please note that after the update, you can download a JSON file in the lower right corner of the screen. This file lists successfully updated catalog objects under *Catalog objects updated*. Objects that could not be updated appear under *Catalog objects not updated* and also contain the respective catalog ID, the name in the selected content language, and the reason for the failed update.

Note: Please note that you must have selected at least one object type for bulk updating.

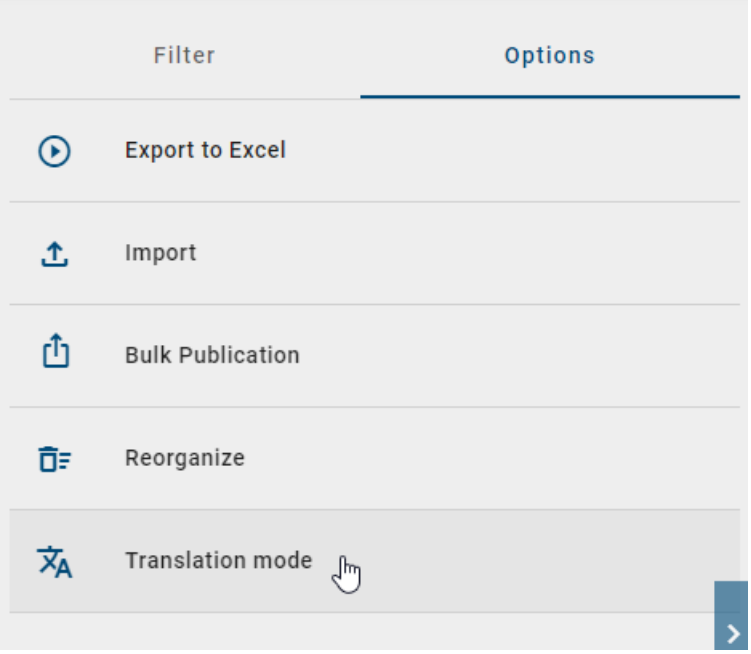
Note: Please note that only **one** attribute value can be added in bulk updating.

12.6 Translate catalog items

As an *Administrator* or *Editor*, you have the possibility of making catalog items available in other languages and receiving automatic translation suggestions for the catalog.

12.6.1 How can I make catalog items available in other languages?

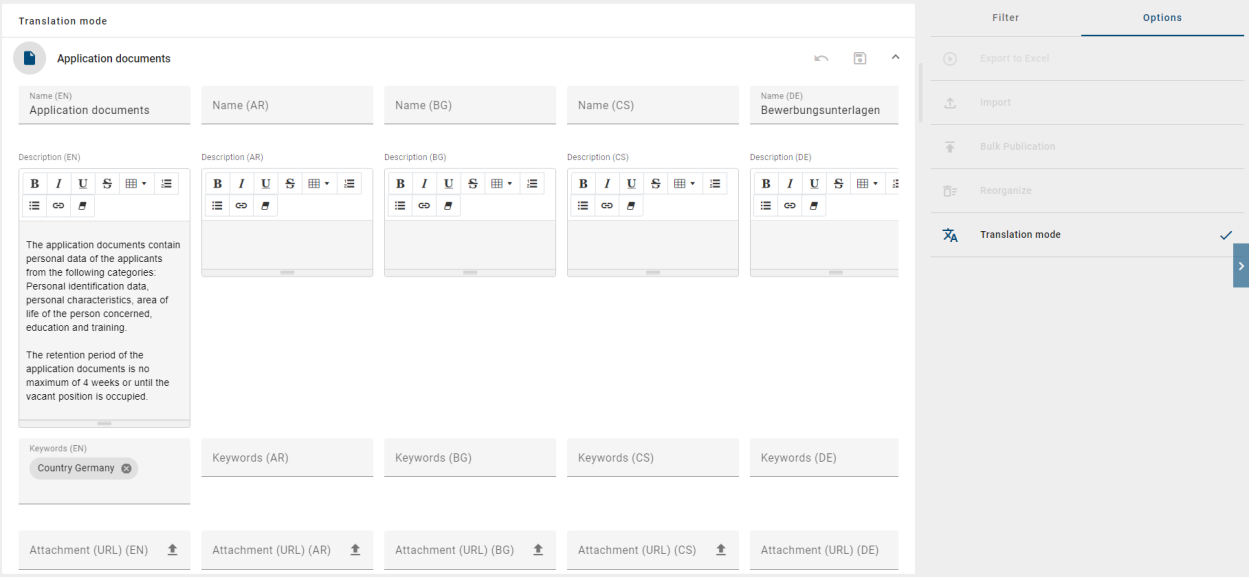
As *Administrator* or *Editor* you have the possibility to translate all catalog items. This is only possible if you have previously *filtered* the catalog list. As an *Author* you can only translate the filtered catalog items you are assigned to. To translate the catalog items, go to the option area and click *Translation Mode*.



Hint: The option *Translation Mode* will only be shown if you are in the *Public Workspace* stage.

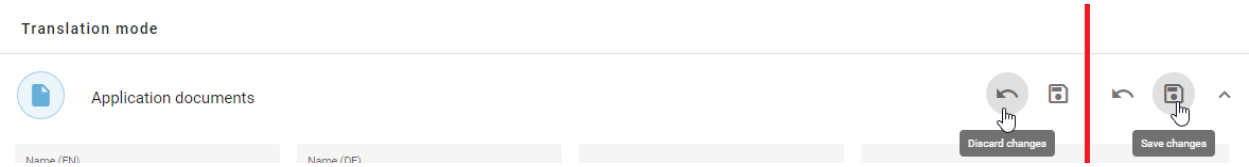
After selecting the *Translation Mode* option, the catalog items will be displayed in your *content language*. To now insert an *alternative language*, click on the catalog item in which you want to add a translation.

A list of filtered catalog items appears to translate the language-dependent attributes. After clicking on a catalog item, several text input fields appear where you can enter the name, description, and keywords in another language. The language codes (two-letter codes following **ISO 639-1**) indicate which text field the translation should be entered into. You can use the horizontal scroll bar to view all supported languages by BIC Process Design and provide translations.

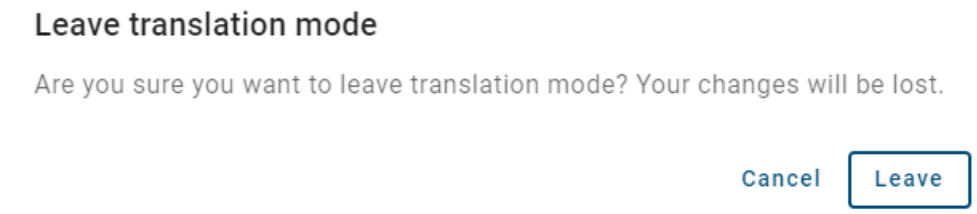


After entering the translations, you can either *save* or *discard* the changes by clicking on the *Save* icon or the *Discard* icon in the changed catalog item.

Hint: The function *save changes* is only available per entry and not for all entries together. This allows you to save changes or modifications to a single entry, but it is not possible to save all entries at once.



To leave the *Translation Mode*, you can either click on the *Translation Mode* option again or click on your next destination in the application. If you have unsaved changes, a dialog window appears with the according hint. You can decide if you want to discard the changes by clicking on the *Leave* button or go back to your modified catalog item and save the translation(s) by clicking on the *Cancel* button.



Note: The option *Translation Mode* is not available for small screen sizes (e. g. in the mobile view).

12.6.2 How can I automatically receive translation suggestions in the catalog?

As *Administrator* or *Editor* you have the possibility to get translation suggestions for all catalog items. This is only possible if you have previously *filtered* the catalog list. As an *Author* you can only translate the filtered catalog items you are assigned to. To translate the catalog items, go to the option area and click *Translation Mode*.

If the *DeepL translation service* is enabled, you can generate translation suggestions for attributes *Name, Description,* and *Keywords* in other languages. To do this, only a language-dependent attribute needs to be maintained in the active content language, which serves as the basis for the translation suggestion.

The option for the translation suggestions is automatically disabled if an input field already contains text. Conversely, the option is activated automatically when an input field's existing input is removed.

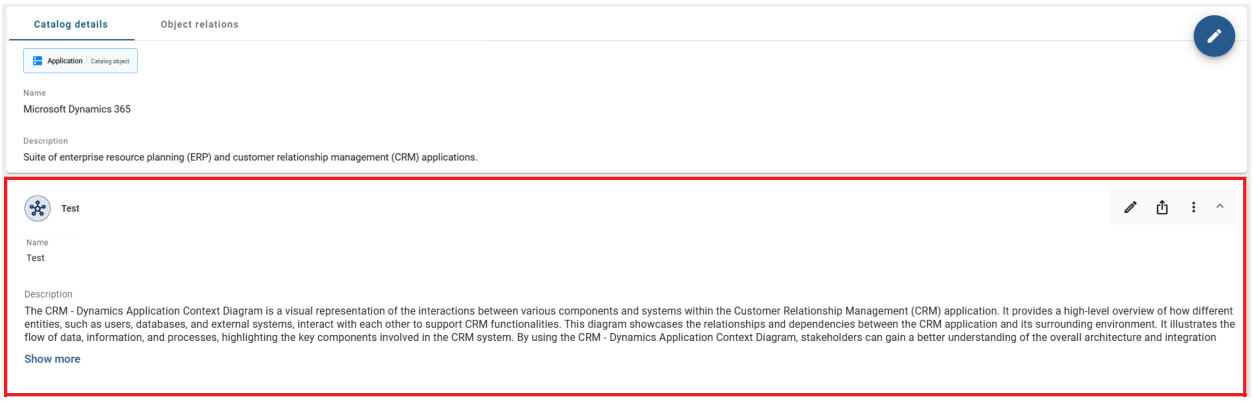
If you want to request a translation for a language-dependent attribute, select the *Create translation suggestion* option in the respective input field. This will send a request to the DeepL API, which will automatically generate translation suggestions.

12.7 EAM context reference

12.7.1 What is a EAM context reference and how can I view them?

If BIC EAM has been purchased and activated, all users can view EAM context references in the catalog. These are business capabilities or applications stored in a business capability context diagram or application context diagram as context references. How to store EAM context references can be found *here*.

If EAM context references exist, you can view them in the catalog. To do so, click the *Catalog* menu item in the left menu, then open a catalog item of the type "Application" or "Business Capability". If the item was previously stored as a context reference, an additional attribute group will appear in the details view. This attribute group is labeled with the name of the context diagram in your current content language. You can expand it by clicking on the attribute group.



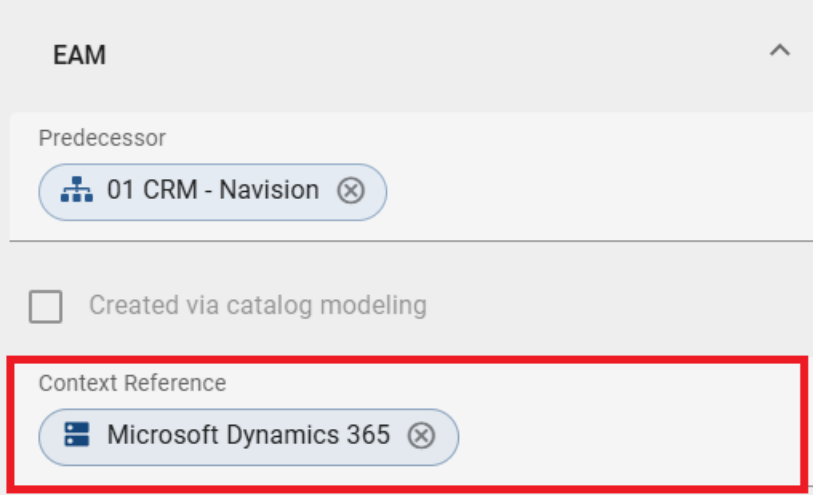
Once expanded, you will see both the details of the context diagram and the node attributes of the selected catalog item that was stored as a context reference.

Hint: If the context diagram has access restrictions, the attribute group will still be displayed, but an error message will appear when expanding the attribute group.

12.7.2 How do I store a EAM context reference?

If BIC EAM has been purchased and activated, users with at least the *Author* role (provided that the author is entered in the diagram's *Author* attribute) can store EAM context references in the catalog. To do so, select the *Diagrams* menu item in the left menu bar, open a business capability context diagram or application context diagram, and check out the diagram by clicking on the *Check out* button.

In the *Details* panel in the right sidebar, the *EAM* attribute group will be displayed. When you expand this attribute group, you will see the *Context Reference* input field. Here, you can assign a catalog object of the type "Business Capability" for business capability context diagrams or "Application" for application context diagrams.



After saving and checking in the diagram, an additional attribute group with the name of the context diagram in your current content language appears in the detail view of the stored catalog object. This attribute group includes both the context diagram's details and the node attributes of the stored catalog item.

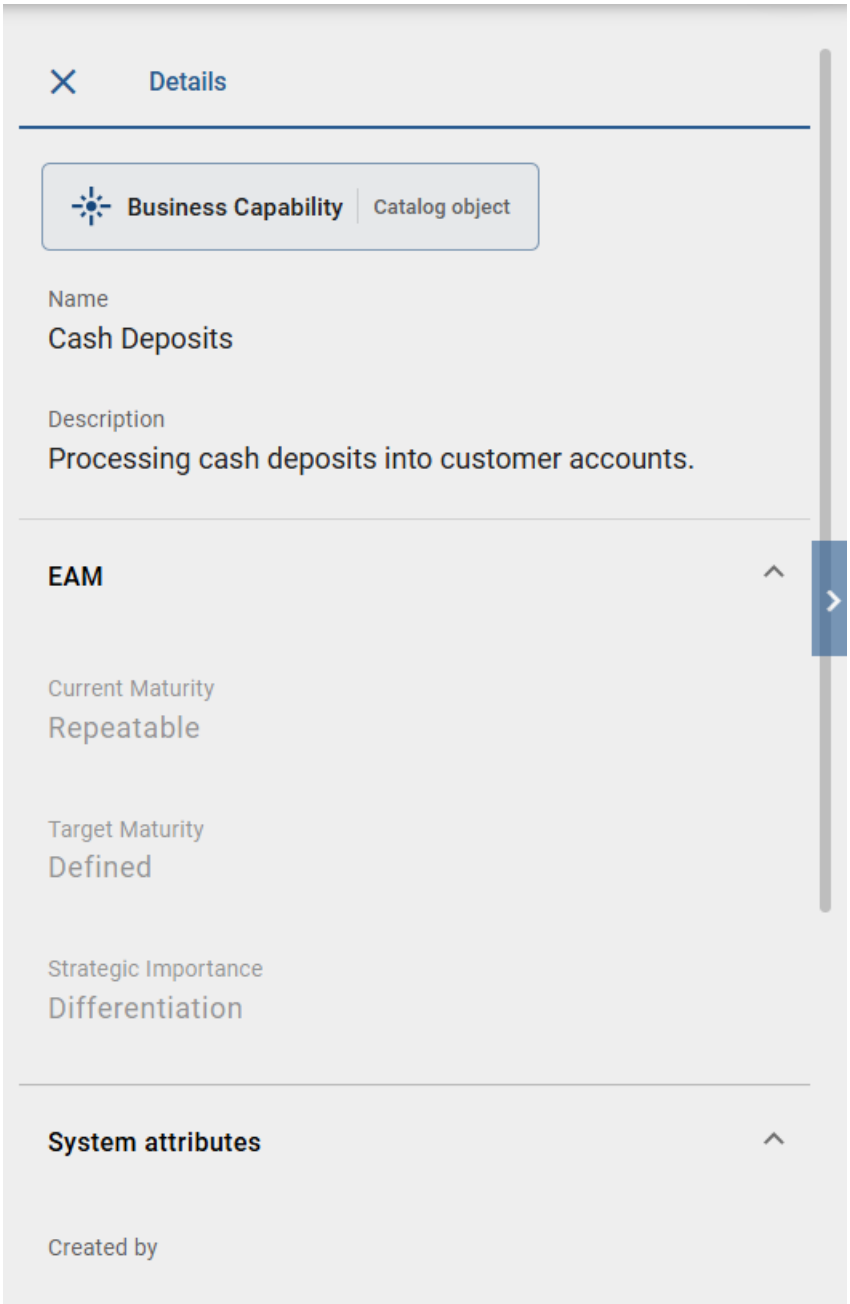
Hint: Please note that you can only store one context reference per diagram.

Hint: If the context diagram has access restrictions, the attribute group will still be displayed, but an error message will appear when expanding the attribute group.

12.7.3 How can I view the details of linked attributes of a context diagram?

If BIC EAM has been purchased and activated, users with at least the user role *Author* (provided the author is entered in the *Author* attribute of the diagram) can also view the attributes of related objects in the catalog.

To do this, go to the *Catalog* menu item in the left menu bar and open a catalog item of the "Application" or "Business Capability" type. If the catalog item was previously stored as a context reference or was created using the catalog, an additional attribute group with the name of the context diagram in your current content language appears in the details view. Expanding this attribute group displays all maintained attributes of the context diagram as object chips in relation to the catalog. Each of these chips represents an object linked to the context, for example a "Business Capability" or an "Application".



As soon as you click on an object chip, its details open in the right sidebar. This includes general attributes and, if available, node attributes. This view allows you to view the individual objects' details without leaving the catalog.

In the details view of the right sidebar, you also have the option to click on a linked object chip to display the attributes of the selected object. This allows you, for example, to view specific assignments or relationship attributes from the context diagram.

To close the attribute view, click the *Close details* option in the top left corner of the right sidebar.

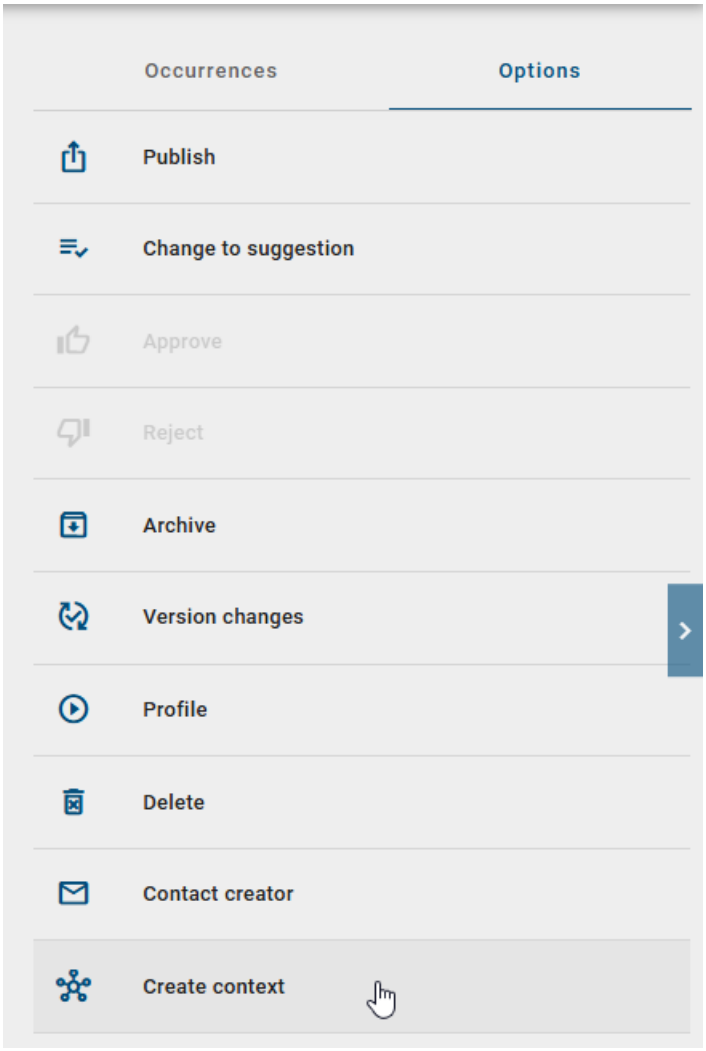
Tip: When displaying relationship attributes in the catalog view, you can navigate directly to a linked object by clicking on the corresponding object chip. This allows you to follow relationships step by step and move from one object to the next without having to return to the initial view each time. You can return to previous objects at any time

using the *Back* button in BIC Process Design or your browser's navigation.

12.7.4 How can I create an EAM context reference in the catalog?

If BIC EAM has been purchased and activated, users with at least the user role *Author* (provided the Author is entered in the *Author* attribute of the diagram) have the option of creating one or more context references for an application or a business capability in the catalog.

To do this, go to the *Catalog* menu in the left menu bar and open a catalog item of the "Application" or "Business Capability" type. After selecting an "Application" or "Business Capability" catalog item from the list, you will find the *Create context* option in the right sidebar on the *Options* panel.



As soon as you click on the *Create context* option, a dialog opens in which you have to enter a name for the new context diagram.

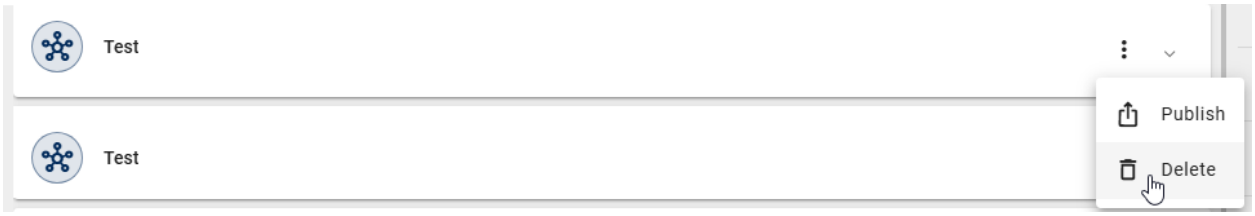
After entering the name and confirming its creation by clicking the *Create* option, a new application context diagram or business capability context diagram is automatically generated. This context reference is then displayed as a new attribute group in the details view of the catalog object.

Hint: When a new context diagram is created, the currently open application or business capability is automatically stored as the parent object in the system. At the same time, the diagram is marked as a context diagram created in the catalog.

12.7.5 How can I delete an EAM context reference?

If BIC EAM has been purchased and activated, users with at least the user role *Author* (provided the author is entered in the *Author* attribute of the diagram) have the option to delete EAM context references in the catalog.

To do so, go to the *Catalog* menu item in the left menu bar and open a catalog item of the "Application" or "Business Capability" type. If the item was previously stored as a context reference or was created using the catalog, an additional attribute group will appear in the details view. This attribute group is labeled with the name of the context diagram in your current content language. A context menu will appear on the right side of the attribute group. By clicking on the context menu, you can delete the EAM context reference using the *Delete* option.



After selecting the *Delete* option, a confirmation dialog will open in which you have to confirm the action. Clicking the *Delete* option again removes the context diagram and closes the dialog. Clicking the *Cancel* option cancels the process and closes the dialog without making any changes.

12.7.6 How can I edit an EAM context reference?

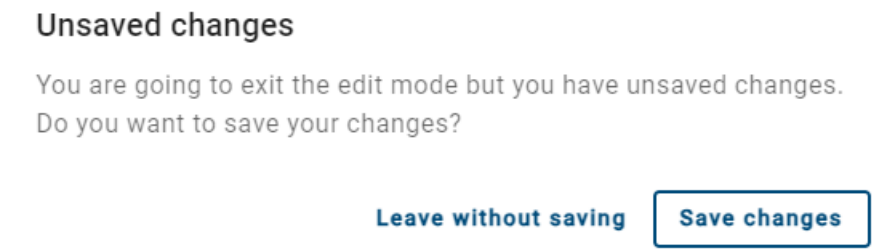
Once BIC EAM has been purchased and activated, users with at least the *Author* user role (provided that the author is entered in the *Author* attribute of the diagram) can edit EAM context references of applications and business capabilities in the catalog.

To do this, go to the *Catalog* menu item in the left menu bar and open a catalog item of type "Application" or "Business Capability". If a context reference has previously been stored for a catalog item or created via the catalog, an additional attribute group will appear in the details view with the name of the context diagram in your current content language.

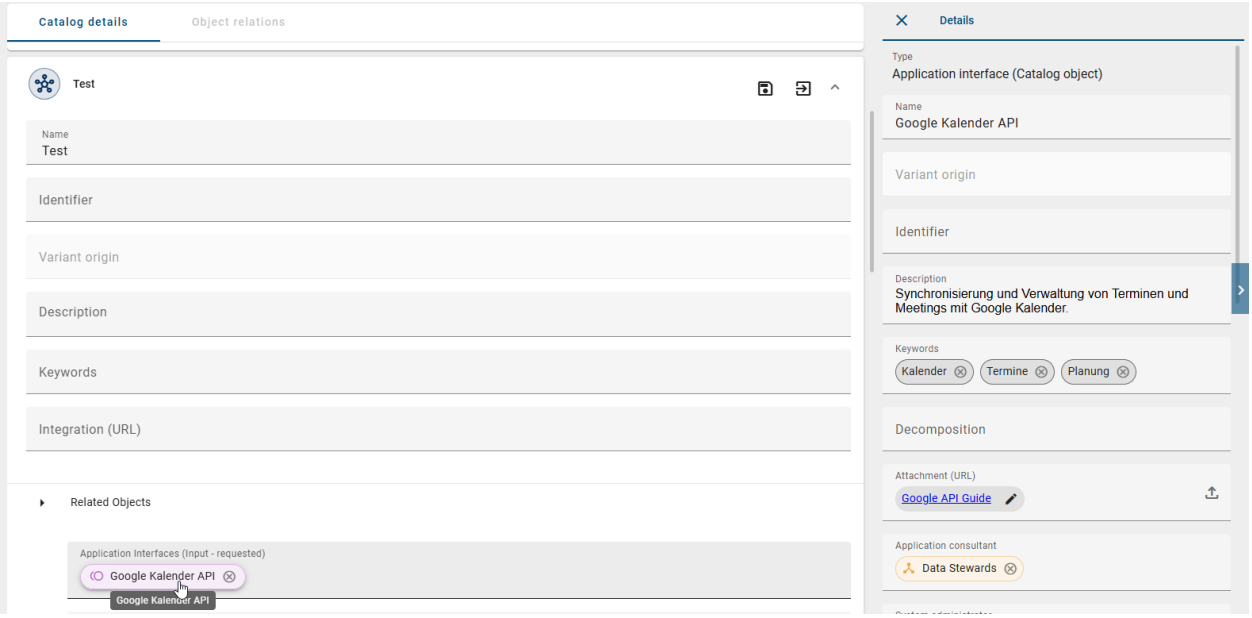
If the context reference was created via catalog modeling, you will find the *Check out* button on the right side when expanding the attribute group of the context reference and can check out the application context diagram or business capability context diagram. If, however, the context reference was stored via diagram modeling, the option to edit the diagram is not available. By checking out the diagram, it is locked for other users and released for you to edit. Only then can you make changes to the contents of the diagram.

While the diagram is checked out, you are in edit mode and can make all inputs and adjustments. By using the *Check in* option, your changes will be saved. At the same time, the diagram is automatically checked back in and is then available to other users.

If you want to leave the edit mode while unsaved changes are present, you will receive a notification. Here you can choose to save your changes via the *Save changes* button or leave the edit mode without saving via the *Leave without saving* button. If you do not save your changes, you will return to the details view and your changes will be lost. Alternatively, you can cancel leaving edit mode by clicking outside of the notification.



You also have the option of editing the attributes of objects that are linked to each other using relationship attributes in the checked-out context diagram. If you click on such a relationship attribute, the attributes of the associated object are displayed in the right sidebar under the *Details* panel and can be adjusted there directly. It is also possible to add further related objects to the objects already linked in the context reference. You can also view and edit their attributes by clicking on the chip of the linked object in the sidebar. The *Close details* button takes you back to the previous view.



Hint: Please note that the functions described only apply to objects that are linked to each other via relationship attributes. Other assignments, which are also displayed as chips, can be displayed but not edited.

Warning: Please note that when a linked object is deleted, all other linked objects are also deleted.

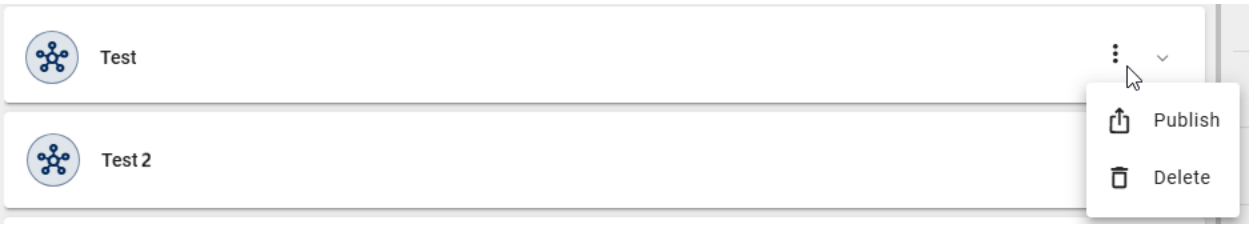
Note: If a context diagram is currently being edited by another user, it is locked for you. In this case, a symbol appears clearly indicating the locked state. If you hover your mouse over this symbol, the name of the user who has currently checked out the diagram will be displayed.

Tip: When displaying relationship attributes in the catalog view, you can navigate directly to a linked object by clicking on the corresponding object chip. This allows you to follow relationships step by step and move from one object to the next without having to return to the initial view each time. You can return to previous objects at any time using the *Back* button in BIC Process Design or your browser's navigation.

12.7.7 How can I publish an EAM context reference?

If BIC EAM has been purchased and activated, users with at least the user role *Author* (provided the Author is entered in the *Author* attribute of the diagram) have the option of publishing EAM context references in the catalog.

To do this, go to the *Catalog* menu item in the left menu bar and open a catalog item of the type "Application" or "Business Capability". If the catalog item was previously stored as a context reference or was created using the catalog, an additional attribute group with the name of the context diagram in your current content language appears in the detail view. You will find a context menu on the right side of the attribute group. By clicking on the context menu, you can publish the EAM context reference using the *Publish* option.



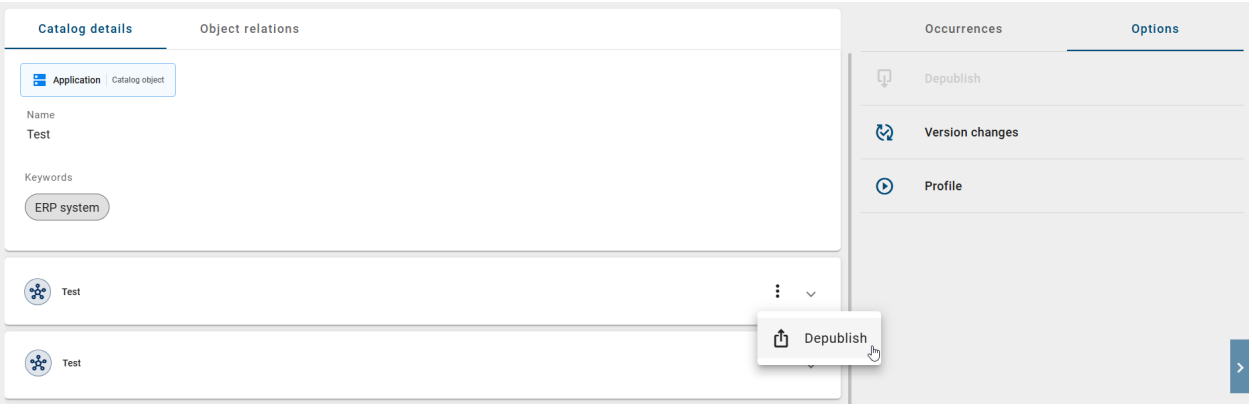
After clicking on the *Publish* option, a dialog opens where you must enter the reason for the publication and confirm the case. Click on the *Publish* option to publish the context diagram and close the dialog. If you click the *Cancel* option, the case is canceled and the dialog is closed without any changes being made.

Note: Please note that the context diagram can only be published if a responsible has been entered in the diagram and the associated catalog object is not a catalog suggestion. If this is not the case, you will receive an error message when you try to publish the diagram.

12.7.8 How can I depublish an EAM context reference?

If BIC EAM has been purchased and activated, users with at least the user role *Author* (provided the author is entered in the *Author* attribute of the diagram) have the option of removing EAM context references from the publication in the catalog.

To do this, go to the *Catalog* menu item in the left menu bar and open a catalog item of the "Application" or "Business Capability" type. If the catalog item was previously stored as a context reference or was created using the catalog, an additional attribute group with the name of the context diagram in your current content language appears in the details view. You will find a context menu on the right side of the attribute group. Click on the context menu to depublish the already published EAM context reference using the *Depublish* option.



After you have clicked on the *Depublish* option, a dialog opens. Here, you must enter the reason for depublication and

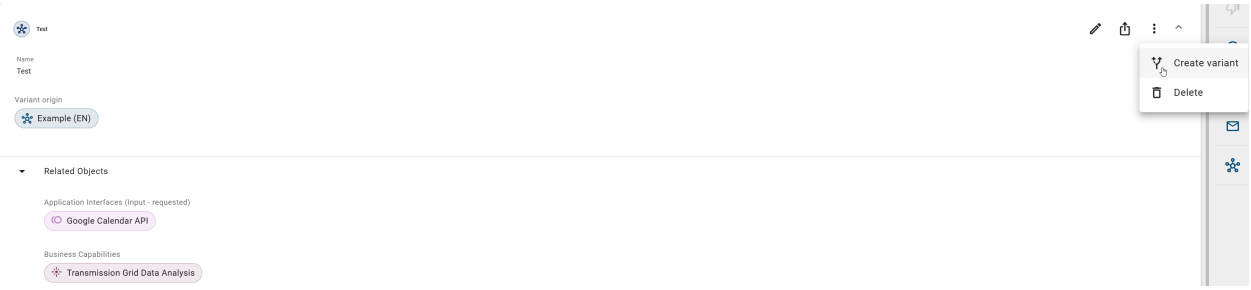
confirm the process. Clicking on the *Depublish* option again removes the context diagram from the publication and closes the dialog. Clicking the *Cancel* option cancels the process and closes the dialog without making any changes.

Note: Please note that you need to be in the *publication* stage in order to depublish a context reference.

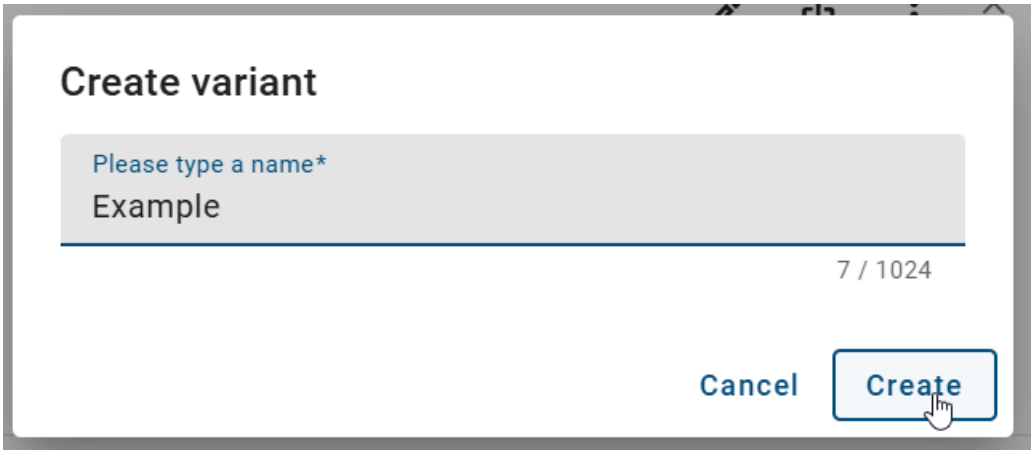
12.7.9 How can I create a variant from an EAM context reference?

If BIC EAM has been purchased and activated, users with at least the user role *Author* (provided the author is specified in the *Author* attribute of the diagram) have the option of creating variants from EAM context references in the catalog.

To do this, go to the *Catalog* menu item in the left menu bar and open a catalog item of the "Application" or "Business Capability" type. If the catalog item was previously stored as a context reference or was created using the catalog, an additional attribute group with the name of the context diagram in your current content language appears in the details view. You will find a context menu on the right side of the attribute group. Click this menu and select the *Create variant* option to create a variant of the EAM context reference.



After clicking the *Create variant* option, a dialog opens. Enter the name for the variant and confirm your entry by clicking the *Create* option. A variant of the context diagram is then generated, and the dialog closes. Clicking the *Cancel* option cancels the process and closes the dialog without making any changes.



After you click *Create*, a variant of the context reference is created and a confirmation message appears in the lower right corner of the screen. The new variant is shown as an additional, initially collapsed attribute group in the detail view and can be edited like any other context.

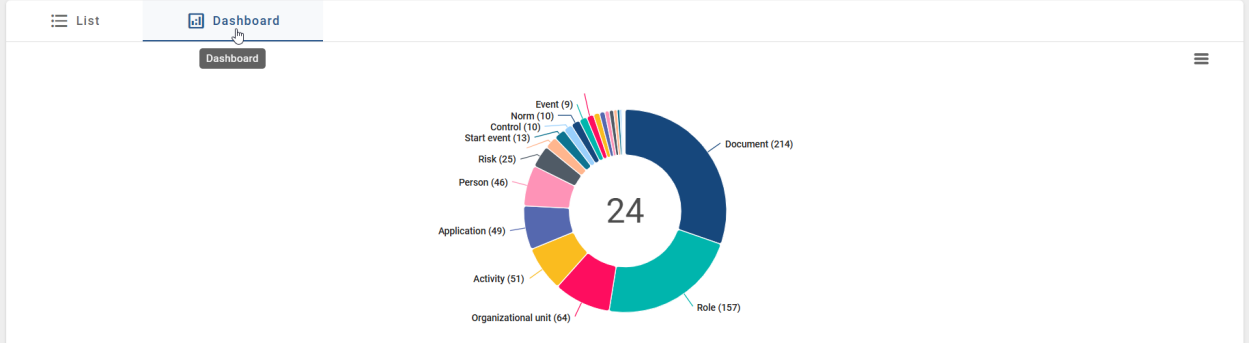
Note: Please note that creating a variant of a catalog item does **not** automatically create variants of the associated context references. Variants of context references must be created separately

Note: Please note that you must **not** be in edit mode when creating an EAM context reference variant.

12.8 Dashboard

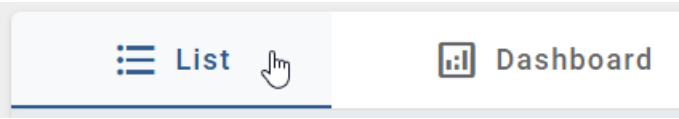
12.8.1 What is the dashboard and what options does it offer to display the data?

You can display all catalog items in a donut chart when using the dashboard. To open the donut chart select the tab *Dashboard* within the headline of the catalog.



The dashboard opens with a pie chart in which all catalog items are sorted according to the object types. You can highlight individual elements by moving the cursor over an element in the donut chart.

To return to the usual list-based view of the catalog items, select the *List* tab next to the *Dashboard* panel.

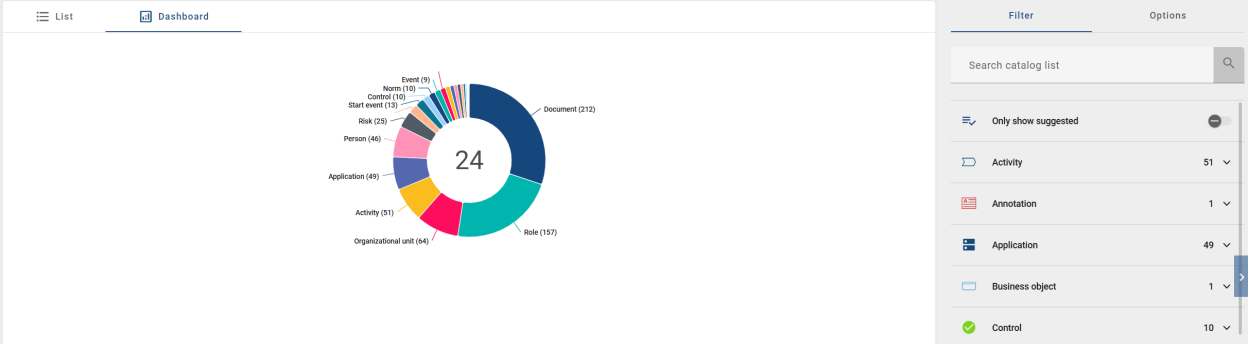


Tip: The number displayed in the center of the donut chart shows the the number of different entity types within the catalog.

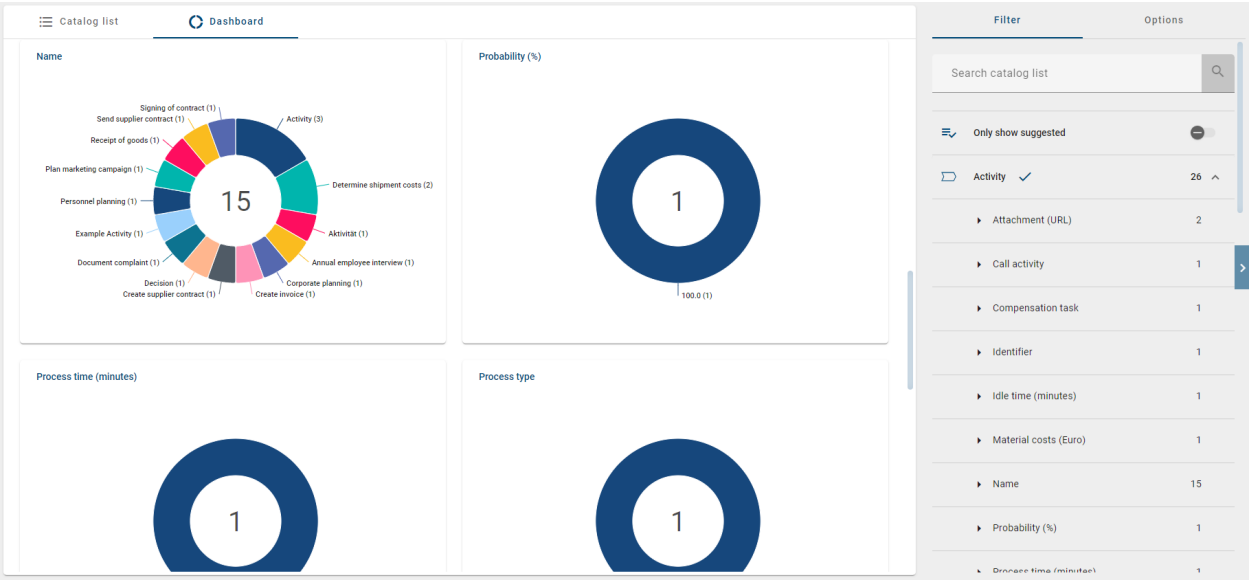
12.8.2 Which data is offered by the dashboard?

In the dashboard, you can decide whether you want to display an overview of all catalog items of all object types or all facet values of all catalog items that belong to a specific object type.

If you have not selected a filter in the catalog, all catalog items will be displayed, sorted by their object type. In parentheses after the name of the object type, the number of catalog items that exist for this type are shown.



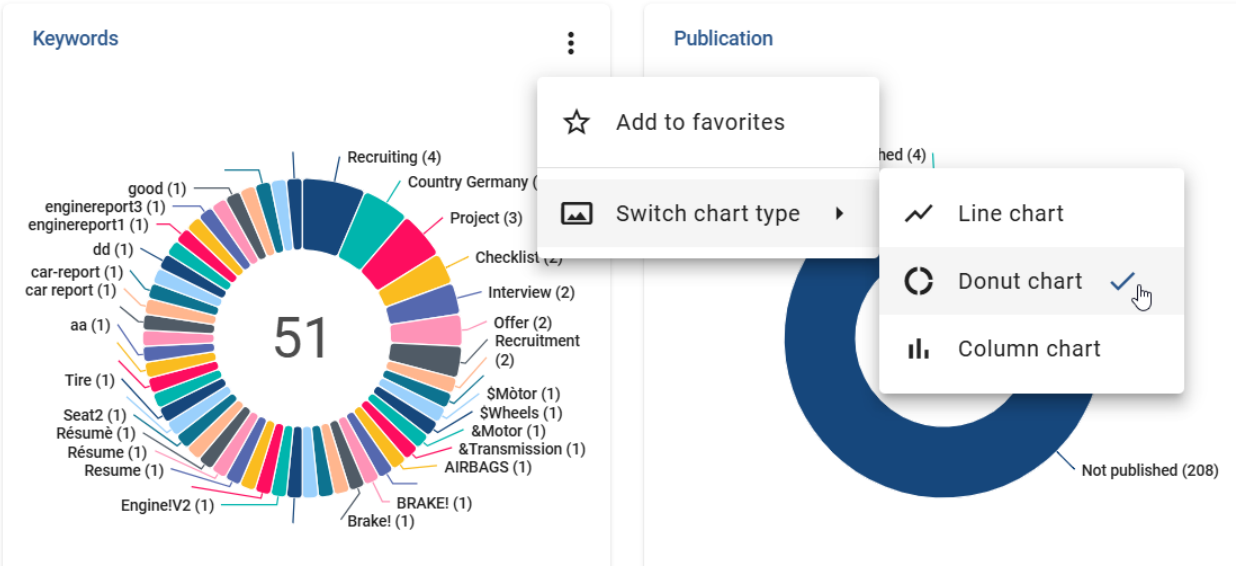
In case you have selected a filter, the facets and their values are displayed for the specific object type. A separate diagram is displayed for each facet. Each of these diagrams shows the different values that exist for the respective facet. Behind each of the values in parentheses you can see the number how often this value was given for the facet.



12.8.3 How can I change the chart type in the dashboard?

In the dashboard, you can adjust the chart type to suit your needs. To do so, select the *Catalog* menu item from the left menu and click the *Dashboard* tab. An overview of all catalog items, sorted by object type, will then be displayed in the form of a donut chart.

If you select at least one filter in the *Filter* panel in the right sidebar, a separate donut chart is displayed by default for each facet. You can change the chart type for any of these charts by opening the context menu and selecting the *Switch chart type* option. You can then choose between three chart types: **line chart**, **donut chart**, and **column chart**. The currently selected chart type is indicated by a checkmark next to its name.



Once you select a chart type, the display of the corresponding tile is updated immediately and the selection is saved automatically. When you reopen the dashboard at a later time, the previously selected chart type will be displayed for the respective tiles.

If you mark the dashboard as a favorite, the currently selected chart type will always be displayed on your myBIC page. For example, if you add the dashboard as a donut chart and later switch it to a line chart, it will also appear as a line chart on your myBIC page.

12.9 Lifecycle Roadmap

12.9.1 How can I define the life cycle of a catalog object?

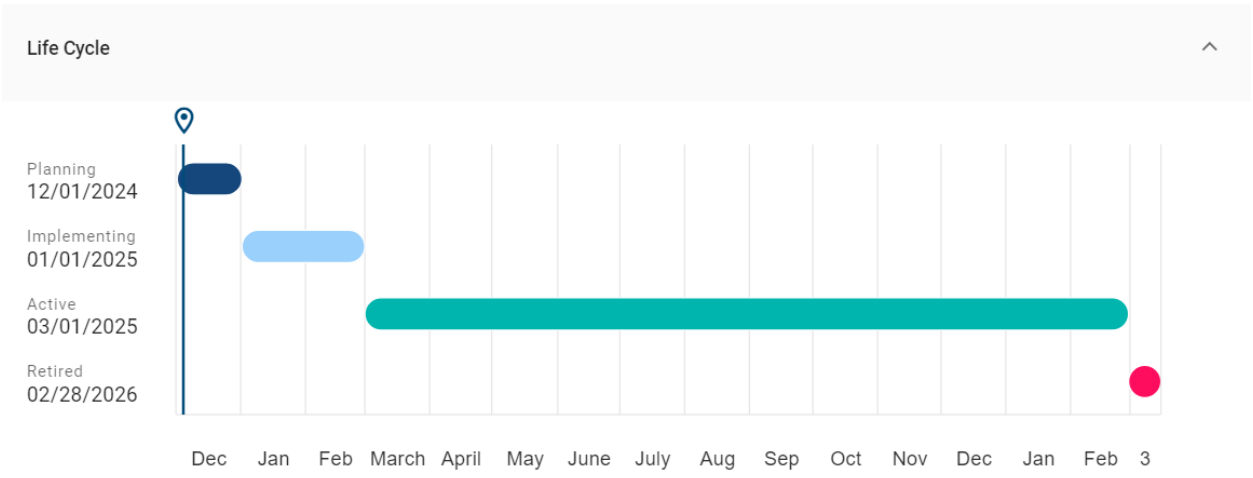
As an Administrator or Editor, you can define the life cycle of a catalog object. To begin, navigate to the public workspace and select a catalog object. Next, switch to edit mode.

In the edit mode, you will see the *Life Cycle* attribute group, where you can define a start date for various attributes.

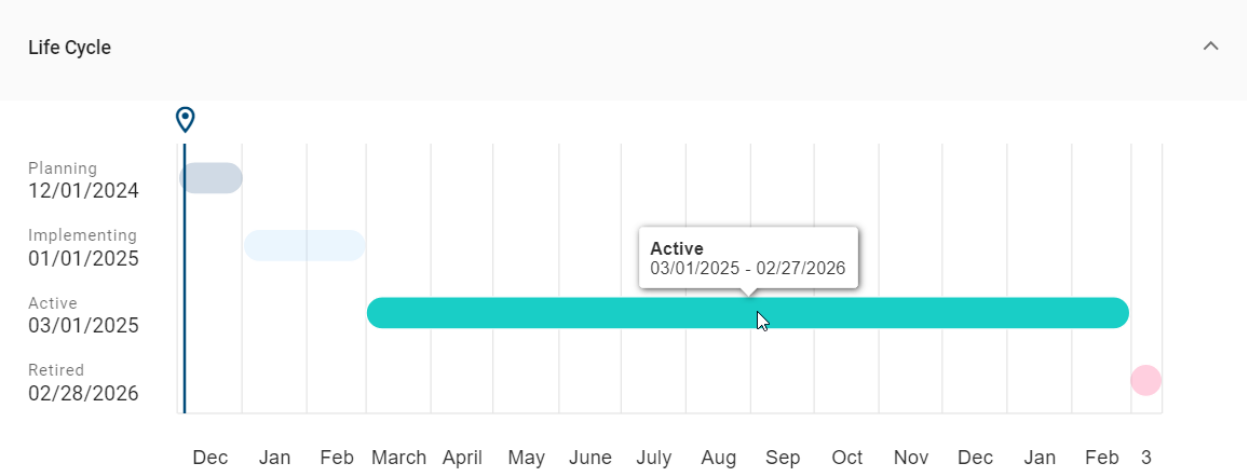
Once you have defined and saved the life cycle, and exited edit mode, the *Life Cycle* attribute group appears to all users as a timeline with the specified dates.

The different colors in the timeline represent the various phases of the lifecycle. Additionally, a marker indicates the current day to provide a clearer overview of the lifecycle. This marker may appear before, within, or after the timeline, depending on the lifecycle dates entered.

To get more detailed information about the life cycle, you can expand the *Life Cycle* attribute group.



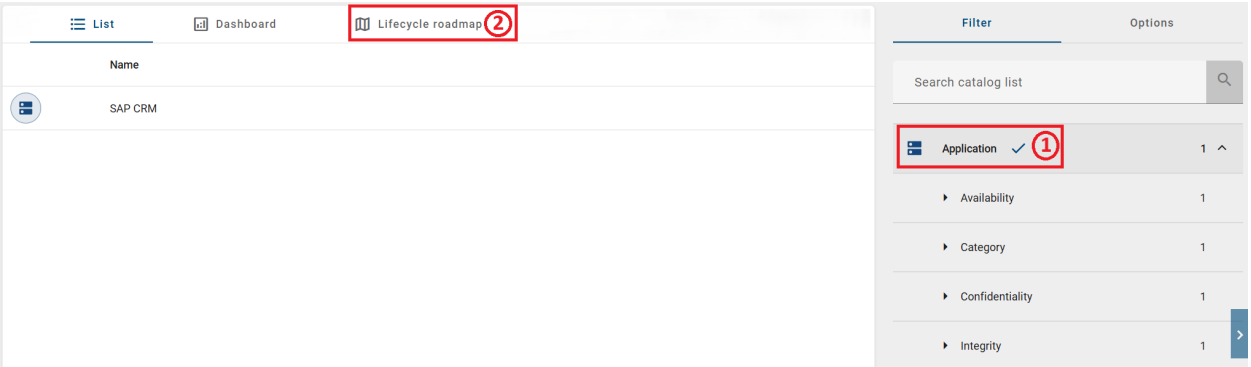
On the left, you will see all the dates entered for the life cycle, which are also displayed as a bar chart on the right. Hovering the mouse over each bar will show the name and exact dates of the attribute.



Hint: Please note that a separate license is required to use this feature.

12.9.2 Where can I view the Lifecycle Roadmap of catalog objects?

You can view the *Lifecycle Roadmap* of filtered catalog objects. To do so, ensure you are in the public workspace and have selected at least one filter in the right sidebar. When at least one filtered catalog object has the :ref: attribute group "Life Cycle" <lifecycle-catalog-entry>` maintained, the *Lifecycle Roadmap* tab will appear next to the *Dashboard* tab.

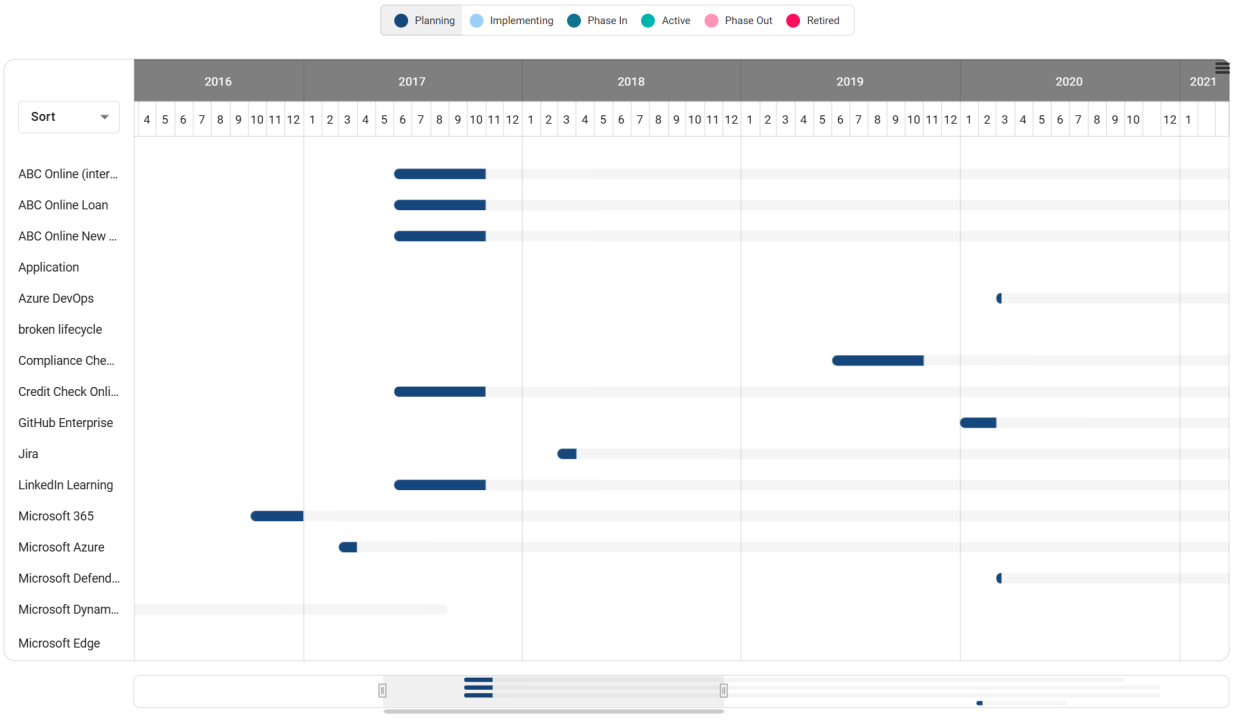


By clicking the *Lifecycle Roadmap* tab, a lifecycle roadmap will appear, visualizing the timelines of all catalog objects that match the currently selected filter criteria. The catalog objects are listed in descending alphabetical order.

At the top of the roadmap, the years are displayed to illustrate the progression of the lifecycle. On the left side, a sorting panel lets you sort the displayed catalog objects based on various criteria. Regardless of the selected sorting, all catalog objects that match the filter are shown along with their lifecycle. Below the roadmap is a resizable navigator, allowing you to navigate through the entire roadmap and customize its display.

The entire roadmap is displayed, with the currently selected range defaulting to a period of *-2 years* to *today* and *+3 years*. When the view is adjusted, a period of *five years* is shown by default.

Above the lifecycle roadmap, a legend explains the meaning of the different colors. Each color represents a phase in the catalog object's lifecycle: **Planning, Implementing, Phase In, Active, Phase Out,** and **Retired**. By clicking on a legend item, you can show or hide a corresponding phase in the roadmap. Hidden phases are grayed out in the roadmap.



Warning: Please note that a separate license is required to use this feature.

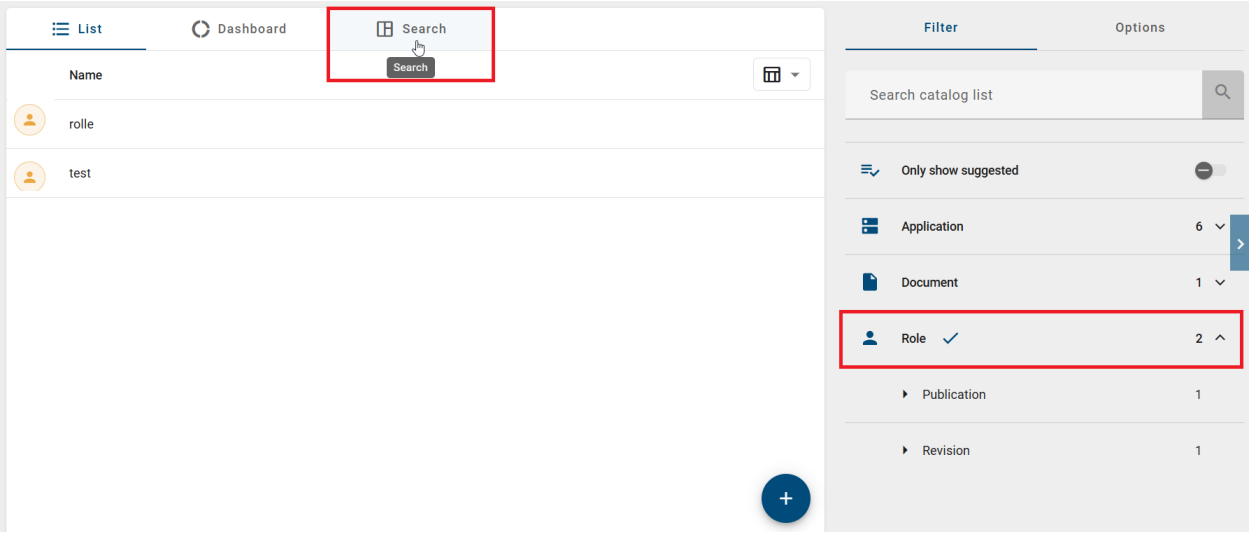
Hint: Please note that when you change the attribute filters for the selected catalog object type, the roadmap is updated to show only the catalog objects that match the new filter criteria.

12.10 Integrations

12.10.1 How can I view configured integrations in the catalog?

Users with the *Administrator* role can integrate so-called **Integrations** to the catalog. This allows them to embed websites into a new tab for specific catalog object types, displaying external website content within BIC without redirecting the user. Additionally, integrations can be used to reference other content within BIC. To learn how to configure integrations, click *here*.

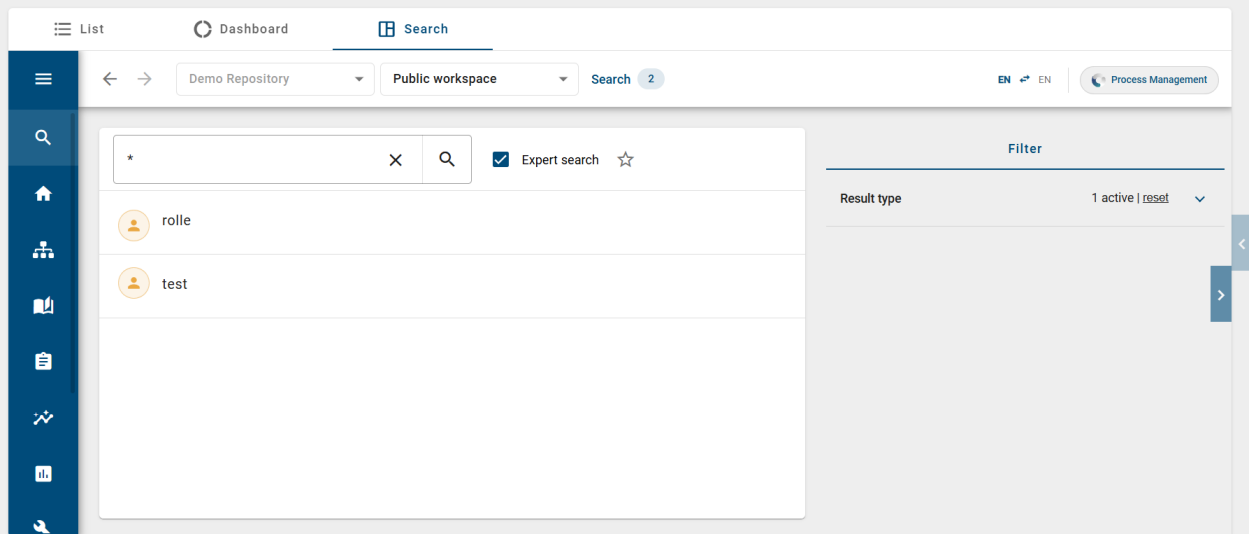
If integrations have been configured for specific catalog object types, you must first filter by those object types. You can find the filter option in the *Filter* panel in the right sidebar. Once filtered, all integrations configured for the selected catalog object type will appear as new tabs next to the default *List* and *Dashboard* tabs.



Integration titles are displayed in your browser's language. If a title is not available in your selected language, it will be shown in English.

Hint: Please note that you can only see the configured integrations if they are not restricted to specific user groups or if you are a member of the assigned user group.

You can then click on the configured integration to display the configured URL within BIC, allowing you to interact with it directly.



In this example, the search for all entries in the public workspace with the filtered result type “Role” has been linked.

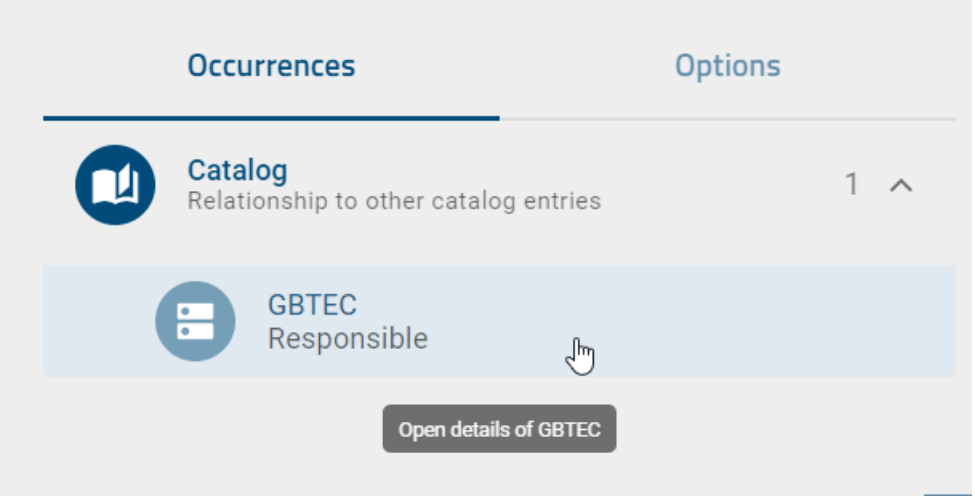
Hint: Please note that the use of integrations requires a separate licence, which you must purchase.

12.11 Occurrences

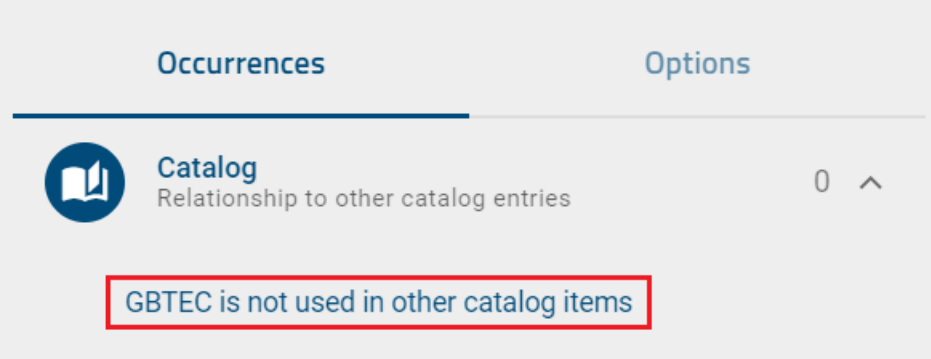
12.11.1 How can I view the relationship of a catalog item to other catalog items?

You can see in the respective details of a catalog item if this item is related to other catalog items. To do this, open a catalog item and select the *Occurrences* panel in the right sidebar. The appearing facet *Catalog* can be expanded to view its relationship to other catalog items.

If the catalog item is related to other catalog items, you can view its details by clicking on the corresponding item.



If the catalog item is not related to any other catalog items, you will be notified with the corresponding information.

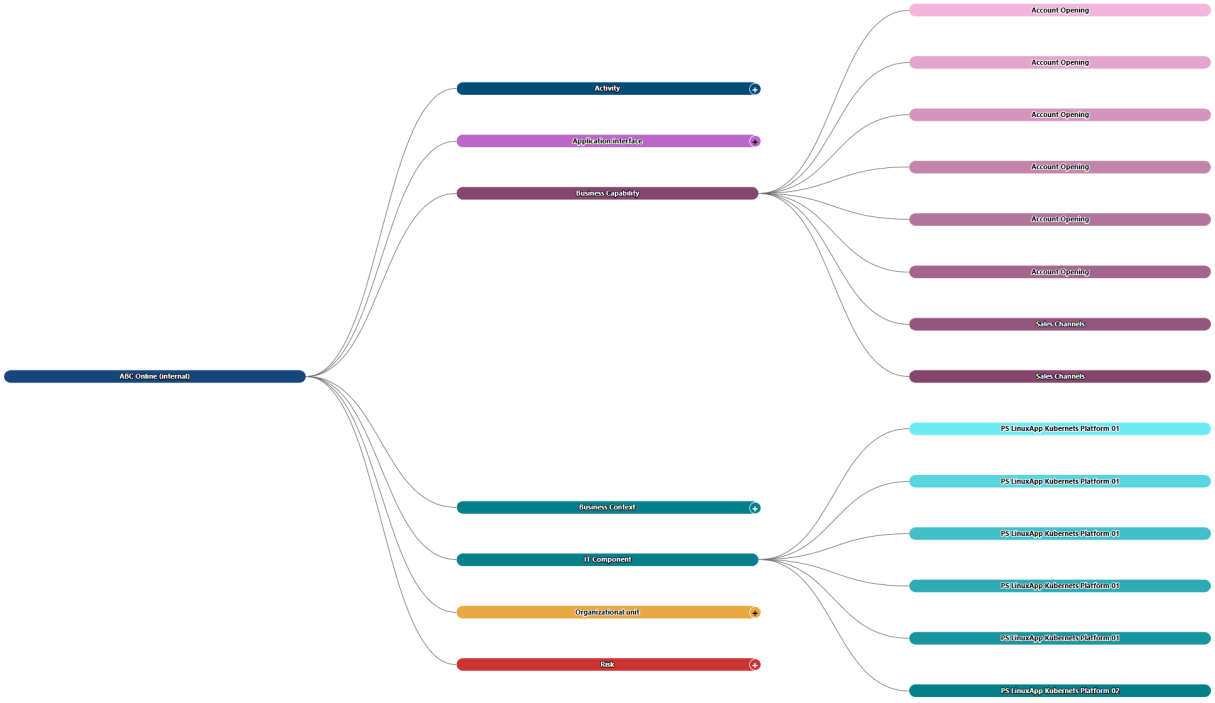


12.11.2 How can I graphically display the relationships of a catalog item to other objects?

Every user can graphically display the relationships of a catalog item to other objects in the form of a tree diagram. To do so, click the *Catalog* menu item in the left menu and select a catalog item. You will then be taken to the details view of the selected item. To visualize the relationships of this catalog item, switch to the *Object relations* tab in the header of the details view.

If there are no relationships to other objects for the selected catalog item, you will be informed accordingly. Otherwise, a tree diagram will be displayed, with the selected catalog item as the node at level 0 (left). All found relationships, categorized by object type, are shown as nodes at level 1 (center) and are colored according to the assigned object type colors from BIC.

To display the individual objects of an object type, click on the corresponding object type in level 1. All objects of that type that are related to the selected catalog item will then be displayed at level 2 (right).



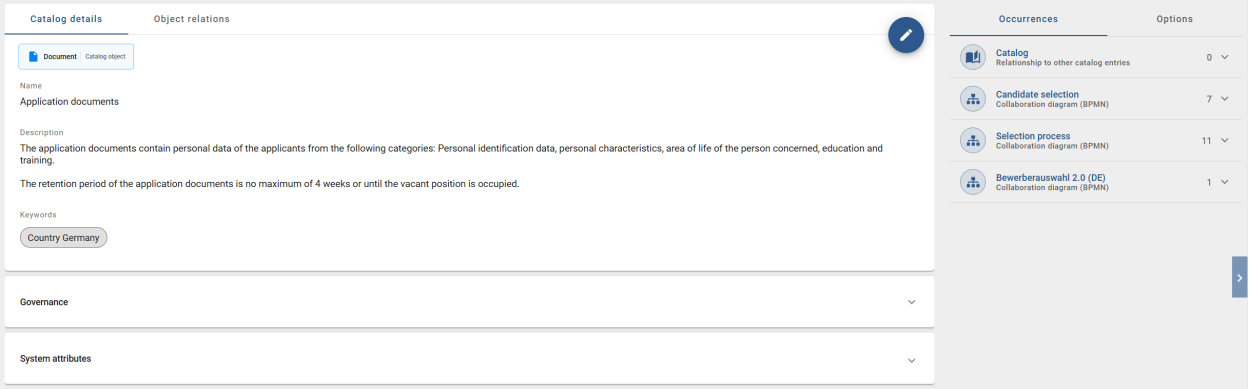
You can also view the most relevant information about an object by hovering your mouse over it in level 2. This information shows whether the object represents a relationship to a diagram or another catalog item, the name of the diagram or catalog item, and, if available, the type of relationship within the diagram.

Alternatively, you can right-click an object in level 2 and select the *Go to occurrence* button to be taken to the corresponding object in the diagram or catalog where it occurs and view all information about the object.

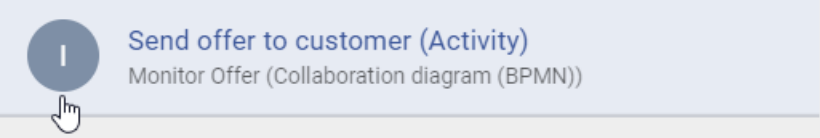
12.11.3 How can I view occurrences of catalog items in diagrams?

In the catalog, you have the option to view the occurrences of catalog items. In doing so, all occurrences will be displayed, in which diagrams they are used and the relations they have to other objects.

Select the *Catalog* item in the left menu bar. There select a catalog item to open the details of that item. Within the right sidebar you can see the *Occurrences* panel. In case it is selected a list of all the occurrences of the item will be displayed.



For occurrences with connections to other symbols, the name of the connected symbol and the name of the diagram are displayed. For objects without connections to other objects, only the diagram name is displayed.



Select an occurrence from the list. The diagram or allocation diagram that contains the occurrence will be opened and the symbol will be pre-selected.

You can also *display the occurrences of an object* in diagrams.

12.11.4 How can I see how a catalog item is used in a diagram?

When you navigate to the catalog list and have selected an item, you have the option *Occurances* under the details. This option allows you to see the relationships between other catalog items and diagrams.

If the corresponding item is used in a diagram, this diagram is listed in the occurrence list. The list is sorted alphabetically, with each item being an expandable field with the number of occurrences. When the diagram field is expanded, all occurrences of the item are listed. These are clearly presented in ordered groups, each with its own designation.

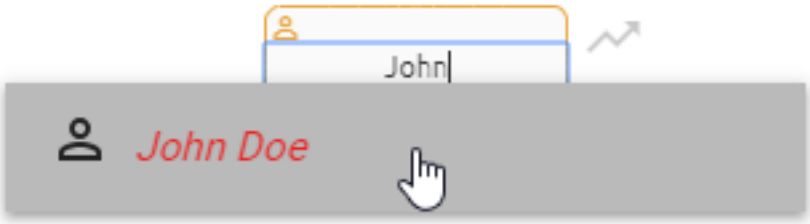
Hint: To navigate to a specific occurrence of an item, you need to click on that item.

12.11.5 How do I reuse catalog items in multiple diagrams?

You can reuse catalog items in multiple diagrams by using the suggestion list. It does not matter whether the items have already been accepted in the catalog or not ("suggested").

Create an object type that already exists in the catalog. Edit the name of the object by double-clicking or pressing F2 and type in at least one letter of the catalog item that you want to reuse. All catalog items, up to a maximum of five, appear in the suggestion list of the server containing the entered term. For example, the search term "manager" will also find "process manager". In addition, the suggestion list is prefiltered by the *diagram attribute "Scope"*:

- **Scope defined**: Only catalog items whose scope is not defined or which have the same scope as the diagram are found in the suggestion list. Scopes are considered to be the same as soon as an organizational unit exists in both scopes.
- **Scope not defined**: Only catalog items whose scope is not defined are found in the suggestion list.



Select the catalog item that you want to reuse from the suggestion list.

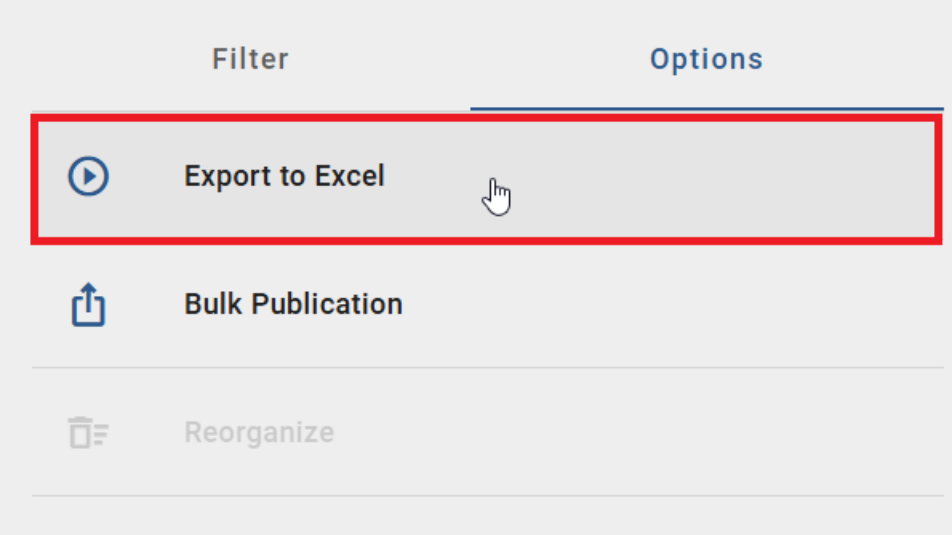
Note: The suggestion list for catalog items in the *attributes of an object* behaves in the same way. When reusing, note the *differences by editing* suggested and accepted catalog items.

12.12 Catalog Export and Import

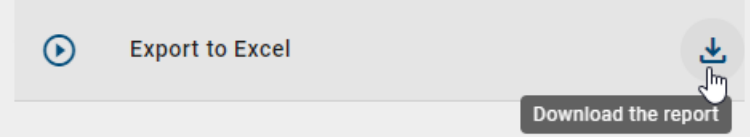
12.12.1 How do I create a Process warehouse export in the catalog?

The Process warehouse export contains all currently displayed catalog items in the form of an Excel table. This means that *filters, facets or search results* can limit the content of the catalog export.

In your menu bar, navigate to the *Catalog*. In the right sidebar click on the panel *Options*. There select the option *Export to excel*. The export will then be created according to the current filtering.



As soon as the report has been generated you get a popup notification which informs you about the successfully created report. There you also get the option to directly download the export. In addition, the function *Download the report* appears on the right side of the *Export to excel* function. Via those two options you can download the report.



In the export, the first visible row forms the header, that is, the heading of the following rows. In the first column, the unique identifiers of the catalog items are listed under the heading "Entity ID". The following columns relate to the attributes of the catalog item. The names of the attribute types represent the headings, for example the name, identifier, description, attachment, keywords, system attributes and the object type. The following rows specify the filled attribute values associated with the catalog items. Multi-value attributes, like keywords, are listed separated by a semicolon. In general, the attribute types are only part of the export if they have been maintained for at least one catalog item.

Hint: Please note that the *Process Warehouse* export for diagrams does not consider any filters that have been selected.

Hint: In older versions, all attribute types were exported, regardless of whether they were deactivated or removed within the method. From now on, only visible attribute types are exported.

Note: Attribute values exceeding 32767 characters will be automatically shortened. A notification will be provided at the end of the shortened value indicating it has been reduced.

Note: The *attribute type IDs*, which are defined in the method, are specified in the initially hidden first row. This allows you to *re-import* the exported data and make changes to catalog items. However, note the following restriction.

Note: Each cell of the column "Attachment (URL)" contains a comma-separated list of the links maintained in the corresponding attribute field. Maintained titles are specified at the corresponding URLs via URL encoding. If you edit

(or add) the title of a URL in the process warehouse, be sure to use URL encoding in order to update the catalog item successfully.

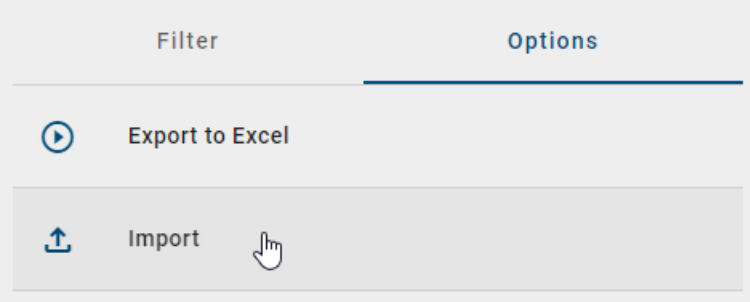
Note: The date information you find within your exports (e.g., "Valid from", "Valid to", "Created date", and similar) undergo conversion to the time zone of the currently active user. This ensures that the display of date information always aligns with the user's current time zone.

Hint: Please note that the *Attachment (URL)* attribute can be restricted by the individual method configuration. In this case, it is only possible to store links or URLs, while other file types cannot be maintained.

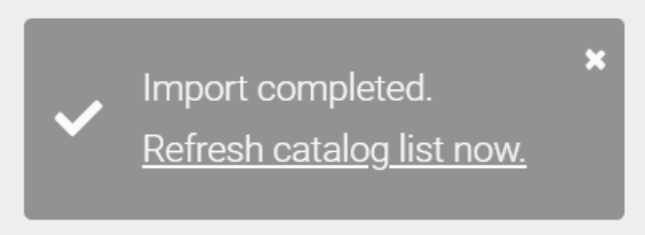
12.12.2 How can I import data into the catalog?

With the rights of the user role "Editor" you can import a (adapted) process warehouse export in csv or xlsx format into the catalog of the public workspace to add or change data. The data is always saved in the current content language.

Navigate to the *Catalog* via the menu bar and select the desired catalog filter. The catalog filter specifies the object type of the subsequently imported catalog items and must be active for the import. If there are no catalog items of the type you want to import in the current catalog list, please add a catalog item of the desired type to obtain the corresponding filter facet. After filtering for the desired type, switch to the *Options* panel in the right sidebar and select the entry *Import*.



Open the desired csv or xlsx file via the appearing file selection window. The import is carried out according to the current filtering, recognizable by a corresponding message at the bottom right of the screen. If the data has been imported successfully, you receive another message. Refresh the catalog by clicking on this message to display the imported items in the catalog list. Instead, if the import fails, you will receive a corresponding message without the refresh function.



Note: The date information you find within your imports (e.g., "Valid from", "Valid to", "Created date", and similar) undergo conversion to the time zone of the currently active user. This ensures that the display of date information always aligns with the user's current time zone.

Note: Note that the entries of the "Attachment (URL)" column have to be URL-encoded in order to be imported successfully. Thus, if you like to attach URLs with titles to a catalog item, the titles have to be URL-encoded.

Note: Note that attribute values represented by checkboxes are ignored during import.

Hint: Please note that the *Attachment (URL)* attribute can be restricted by an individual method configuration. In this case, it is only possible to store links or URLs, while other file types cannot be maintained.

Functionality:

The import process is explained using exported (customized) catalog items. The import file is then structured as follows: The initially hidden first row specifies the *attribute type ID* for each column, that is defined for an object type in the application and is taken into account for your import. The first visible row, which is the second row in the screenshot, specifies the header. The filled out rows below correspond to the catalog items. This structure basically applies to an import file. In the following example, three catalog items are created during import in the same order as in the file.

	A	B	C	D	E	F	G	H
2	Entity ID	Catalog state	Type	Name	Identifier	Description	Keywords	Attachment (URL)
3	3e53c557-cb96-4b74-81cc-81bda3f5aa03	SUGGESTED	Document	Checklist for an offer			Checklist; Offer	
4	af8206f8-7453-4000-8ae7-661b532eadb9	APPROVED	Document	Invitation of tenders		Development and optimization of complex software solutions in Java	Software;Job-ID-5546	https://www.gbtec.com/career/
5	75fea924-cf34-4b61-9a7d-2001b4b60284	SUGGESTED	Document	Vacation request	HR	- Specify the period - Request approval		
6								

Note: Accordingly, when importing in both csv and xlsx format, the catalog items are read in from the third row onwards.

Attributes listed in the import are adopted for the catalog items if the attribute is defined for the corresponding object type in the method: the attribute type and its data type. If this is not the case, the respective attribute type is ignored by the import. The system attributes are set or adjusted automatically at the start of the import and cannot be adjusted manually.

By default, the first column of the import file contains the ENTITY_ID if it is an export. However, if you modify the import file or create it yourself to update or create catalog items, adopt the structure described above and note the following functionality. If the first column of the **import file contains the ENTITY_ID or an attribute type ID of type Text** (as the header, see example above) and corresponding row entries,

- this column is regarded as identifying. It is used for the case-sensitive comparison with catalog items.
- the row of the file in the import is skipped if no *Universally Unique Identifier* (UUID) is used to define the ENTITY_ID. A UUID is a globally unique identifier of numbers and letters which is defined by time and location stamps. The use of an existing UUID or the generation of a new one is necessary for the import with ID and the update functionalities based on it. You can generate a new UUID using a generator (e.g. using the Online UUID Generator Tool).
- a new catalog item is created as a suggestion if the ID or text attribute does not already exist in the catalog.
- the existing catalog item with the exact same ID or text attribute is updated, that means the attribute types contained in the import are reset for the selected content language. Accordingly, empty or filled cells in the import delete or change the attributes of a catalog item. Attribute types that are not listed in the import remain unaffected in the catalog item. To update via the ID, the corresponding catalog item must be available in the filtered catalog.
  - If this is not the case for the **ENTITY_ID**, that means the same ID already exists for a catalog item of another object type, the affected row is skipped in the import.

- The adjustment using the **attribute type ID** does not take into account the existing objects of another object type. However, if the selected filter contains several objects with the exact same attribute text, the affected row is skipped in the import.

If several line entries of the identifying attribute have the same name in the import file, the contents of the first corresponding line entry are updated with the subsequent line entries. Note that using the ENTITY_ID only makes sense in the first column. If the **import file contains neither an ENTITY_ID nor a text attribute**, it will not be imported.

Format:

For certain attributes, you must note the format. These include date values that must be entered in the format of the current content language.

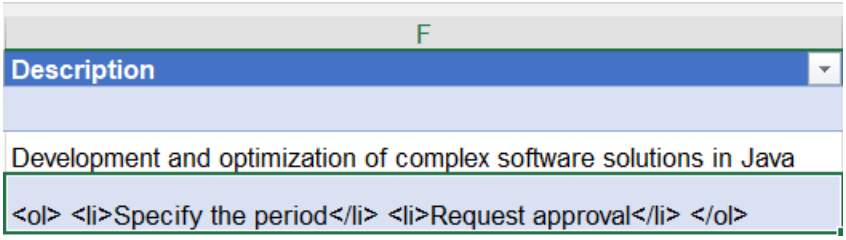
Note: When importing as an xlsx file or via Excel, it is recommended to format date values in Excel as "date". Importing as a csv file or as an xlsx file, in which date values are formatted as "text", allows the following formats per data type.

Attribute value for data type	Format
Date	yyyy-MM-dd
Datetime	yyyy-MM-dd HH:mm:ss
Time	HH:mm:ss

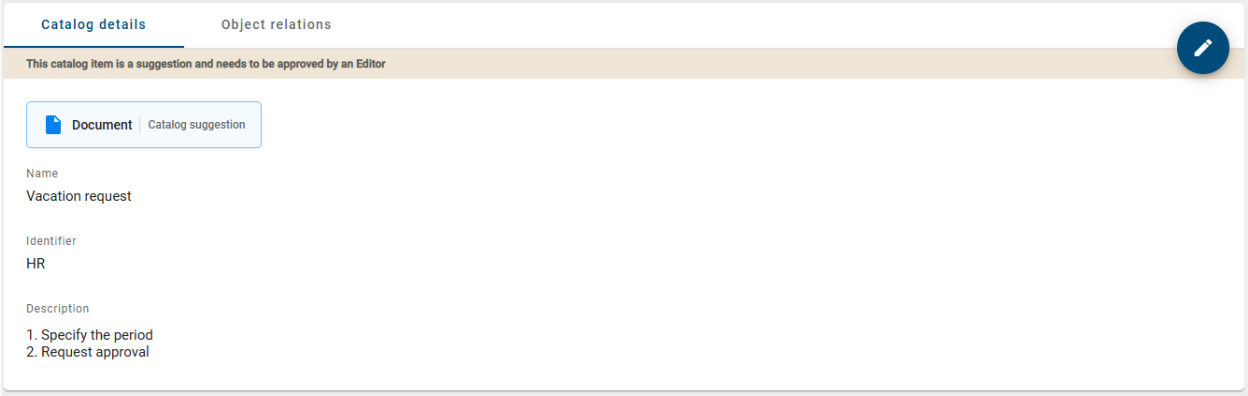
Also note that cell representation of numbers in scientific format, that means in exponential notation, is not supported by the import.

Note: The date information you find within your imports (e.g., "Valid from", "Valid to", "Created date", and similar) undergo conversion to the time zone of the currently active user. This ensures that the display of date information always aligns with the user's current time zone.

HTML tags which are used in the attribute *Description* will be interpreted during the import. The content of the attribute will then be displayed in the desired format after the file has been imported into the catalog. For example, you can specify the description of a document as shown below.

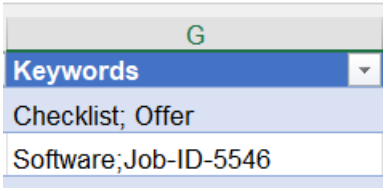


The content of the attribute is then displayed according to the given HTML format after the import into the catalog. Thus, the description attribute of the document "Vacation request" is maintained as follows:

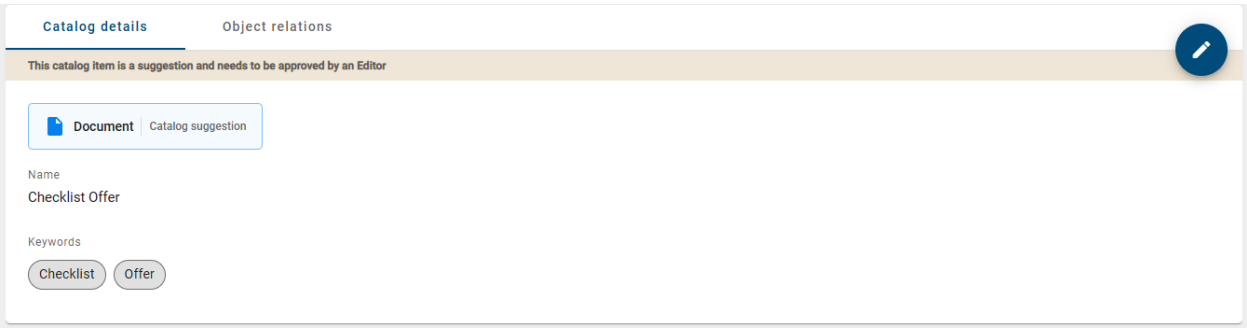


The possibility to convert HTML tags into the desired format only applies to the import. The *export* cannot process HTML tags and also the formatting is not converted into HTML tags.

Multi-value text attributes, such as keywords, and links are also supported. The individual attribute values must be separated by a semicolon in the import so that they can also be recognized as multiple values. A space before or after the semicolon is not adopted in the attribute value.



For example, the import above creates the two keywords “Checklist” and “Offer” for the “checklist for an offer” document and shows them in alphabetical order.

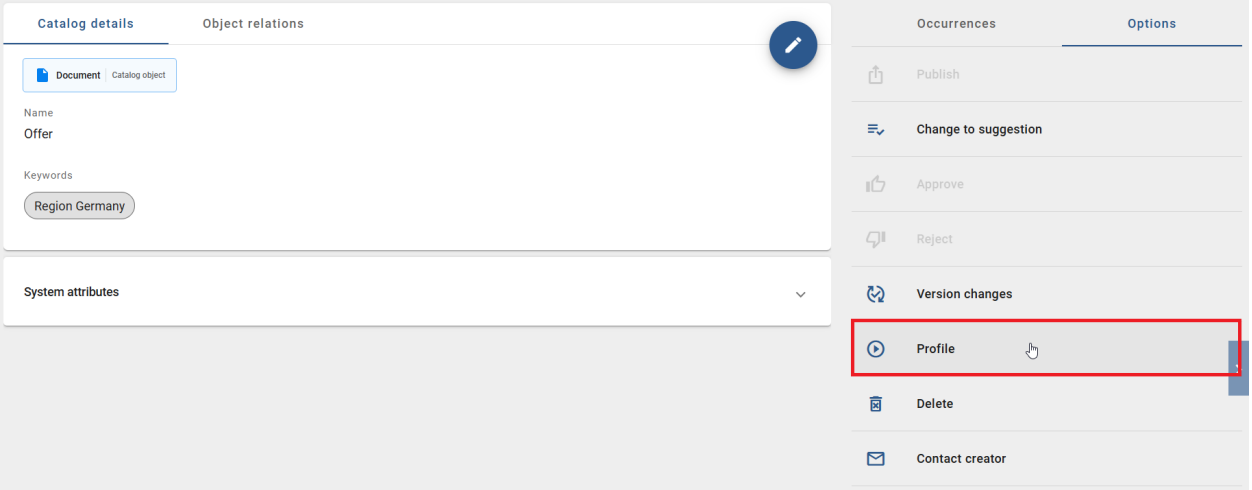


Note: Since all catalog items are created during the import as object types of the selected filter, the imported file should also contain only this object type. Furthermore, the files (xlsx, csv) should be UTF-8 encoded. When importing an xlsx file, only the first spreadsheet is taken into account.

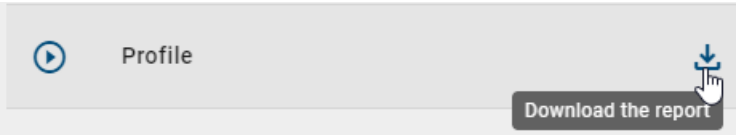
Hint: Please note that you cannot maintain or update assignments (like an assigned diagram in the subprocess attribute or person/ organizational units in the governance attributes author/examiner/responsible) via the catalog import. If you update existing catalog items via an import, the current assignments in BIC Process Design are not overwritten (and new ones are not added).

12.12.3 How can I export the profile of a catalog item?

Go to the *Catalog* and navigate to the catalog item for which you want to create a profile. With this you will enter the item's details view. There, in the right sidebar, navigate to the panel *Options* and select the *Profile* option. The creation will then be started.



As soon as the report has been generated you get a popup notification which informs you about the successfully created report. There you also get the option to directly download the profile. In addition, the *Download the report* function appears on the right side of the *Profile* entry. Via those two options you can download the docx file.



The profile is available in the catalog for the object types defined in the administration area. Administrators and Editors can retrieve it.

Note: In general, the availability for the profile depends on the configuration in the corresponding report descriptor.

It lists all attributes that have an attribute value and the corresponding value in alphabetical order and is created in the current content language of the application. You do not see the values of assignment attributes as titles, but the actual assignment, such as a URL.

Hint: Please note that a catalog item used as an attribute is not currently evaluated in the profile report for catalog items. Currently, only the occurrences and associations of a catalog item that are modeled in a diagram are displayed.

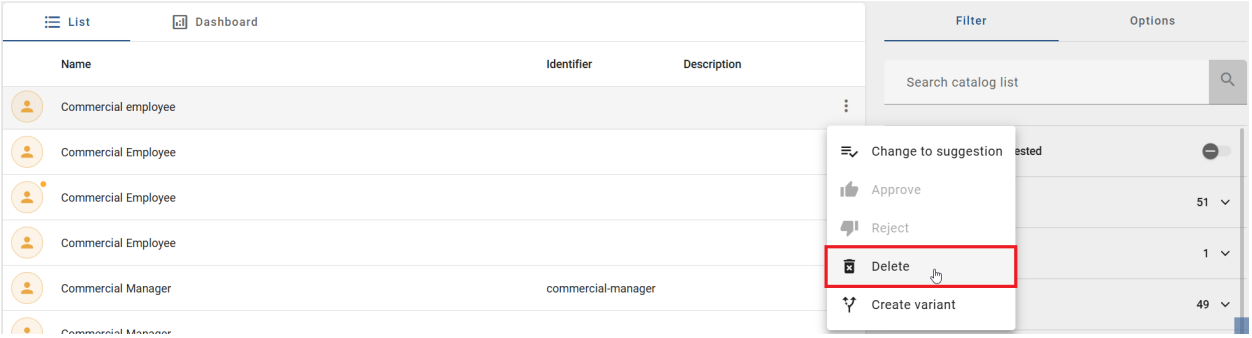
Hint: The date information you find within your exports (e.g., "Valid from", "Valid to", "Created date", and similar) undergo conversion to the time zone of the currently active user. This ensures that the display of date information always aligns with the user's current time zone.

Note: If the report template does not exist in the selected content language, the English template is used. The maintained attribute values remain in the content language.

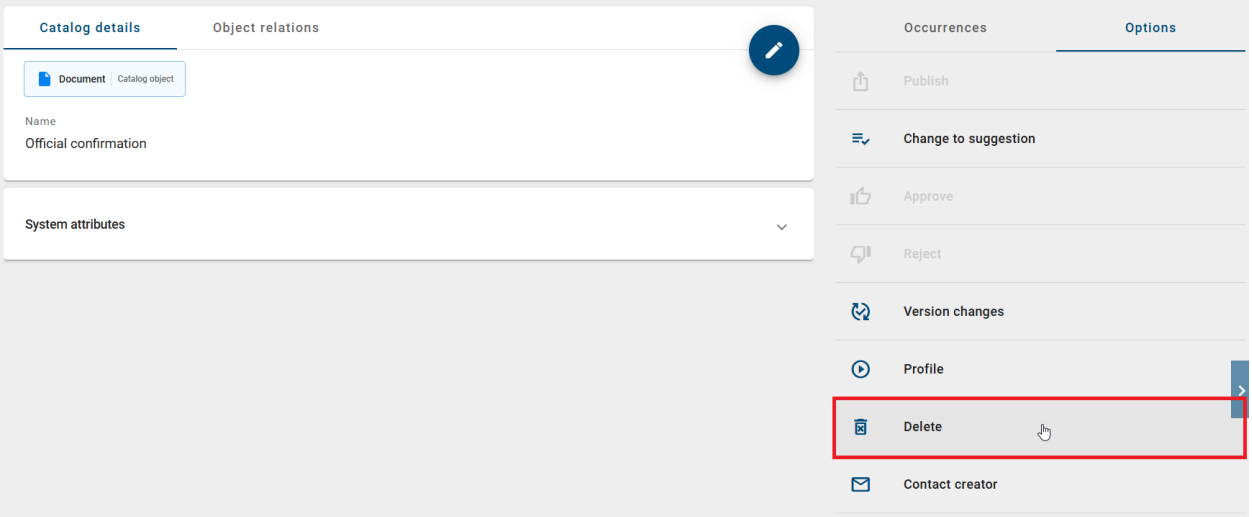
12.13 Delete catalog items

12.13.1 How do I delete a catalog item?

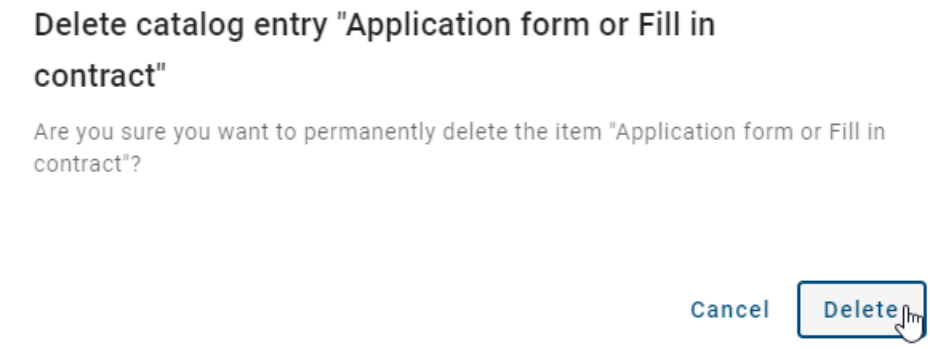
Catalog items which are no longer needed can be deleted from the catalog. This is possible for catalog suggestions and accepted catalog items. Deleting a catalog item is irrevocable! Navigate to the desired catalog item in the catalog list and open its context menu. Select the option *Delete* in the menu.



The option *Delete* is also available in the right sidebar if you open the catalog item (i.e. in its detail view).

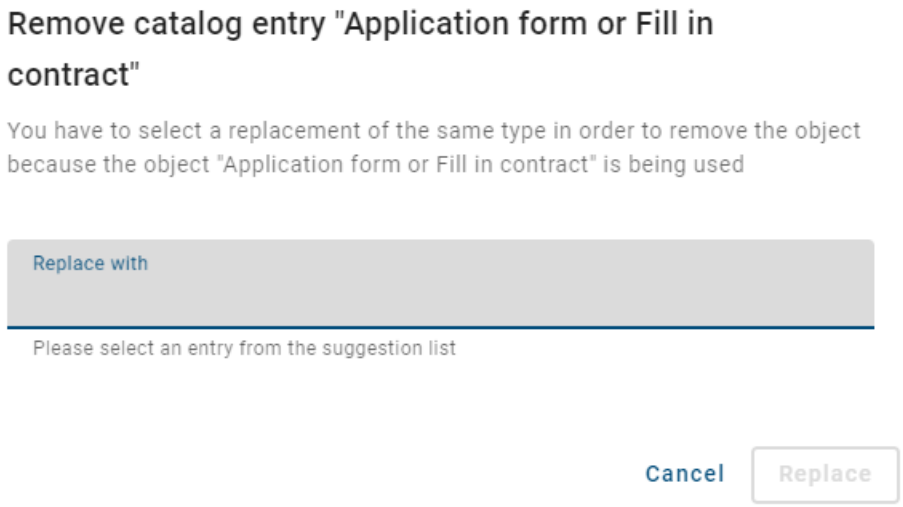


After selecting the option, a dialog window appears to confirm or cancel the deletion. If the catalog item is neither used as an object in a diagram nor assigned to an attribute, the item will be deleted directly.

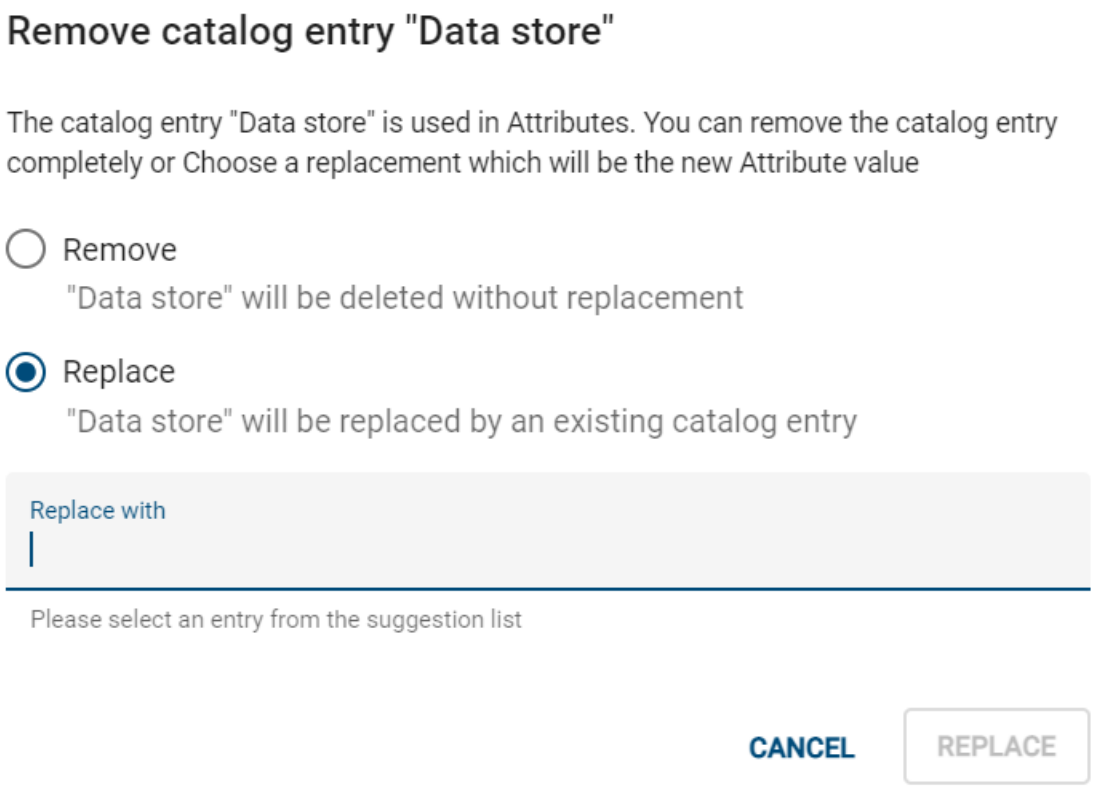


Catalog item in usage: If the catalog item has at least one *occurrence* in a diagram, an existing catalog item has to be

chosen as a replacement. A second dialog appears which includes an input field. Enter and select an existing item of the same type via the selection list. You can confirm the dialog via the *Replace* button as soon as you chose an item as a replacement.



Assigned catalog item: In case the catalog item is at least assigned to one attribute (but not in usage as an object), you can decide to remove or replace the item in a second dialog. For example, this might be *person objects in governance attributes*. Choosing the option *Replace*, you can enter and select an existing item of the same type via the selection list in the input field. This item will replace the deleted catalog item after you confirmed the button *Replace*. Alternatively, you can directly and irrevocably *Remove* the catalog item. The corresponding assignments in the attributes of other objects or diagrams will be deleted as well. This is executed as soon as you confirm the dialog.

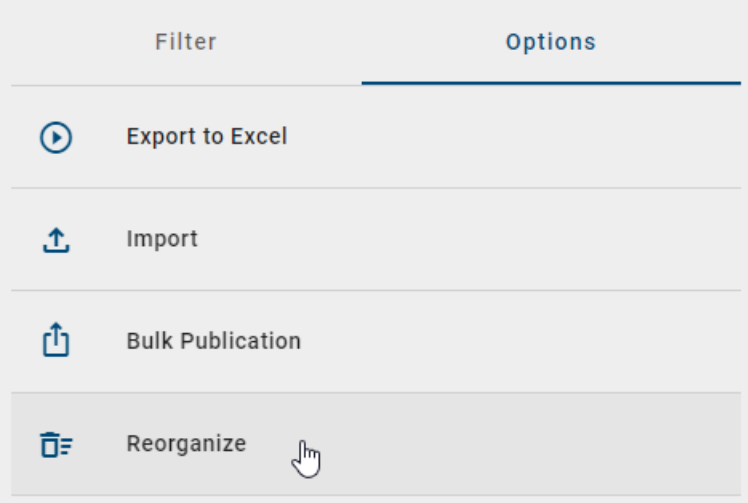


Afterwards, you will return to the catalog list. If an item was deleted in the catalog list, it is crossed and greyed out. When the page is updated, the item disappears from the list.

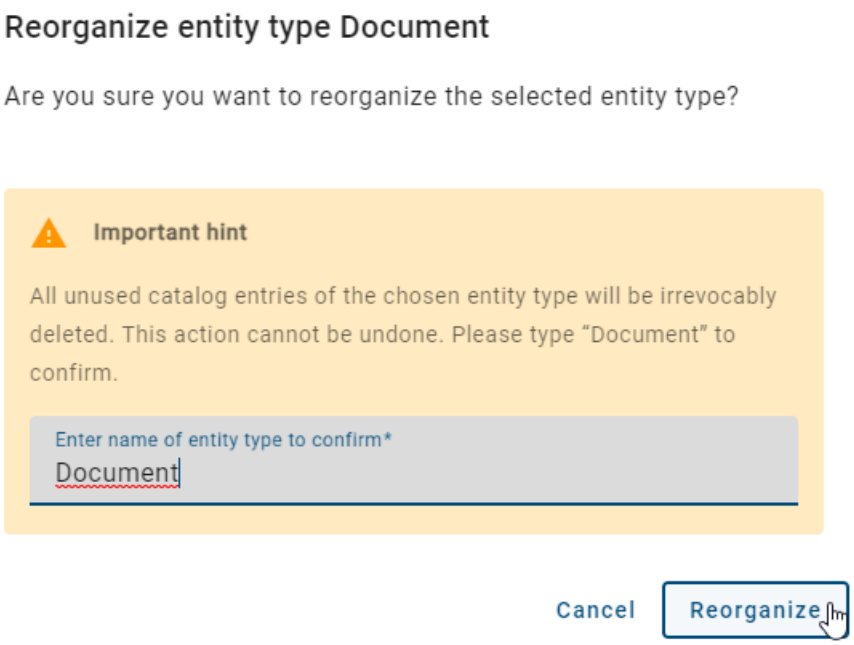
12.13.2 How can all unused catalog items be deleted?

With the function *Reorganize* all unused catalog items of a special object type can be deleted. This includes all catalog items that are neither modeled nor used in attributes as subprocesses. The user roles administrator and editor are authorized to delete catalog items.

Navigate to the catalog list. You can find the *Reorganize* option in the *Options* panel in the right sidebar. Reorganizing the catalog is only possible in combination with an active object type filter. Therefore select the *filter facet* of the object type, for which you want to delete unused items. Afterwards click the *Reorganize* option.



You have to confirm the reorganization in the appearing dialog. If you are sure that you want to delete all unused catalog items of the selected type, enter the name of the selected object type in the input field. Your input must match the type name from the current method in your current *browser language* (i.e. the UI language). Note that the check is case-sensitive. If your input is correct, you can confirm the reorganization of the selected type via the corresponding button.



Hint: Please note that the input is case insensitive.

All unused catalog items will be permanently removed from the catalog. Deleted items will be shown crossed out. When the page is updated, the item disappears from the list.

Warning: Please note that the "Reorganize" function affects all unused catalog items of an object type, regardless of which *facets were selected in addition to the filter*.

Note: The option *Reorganize* is not available for small screen sizes (e. g. in the mobile view).

CHAPTER

THIRTEEN

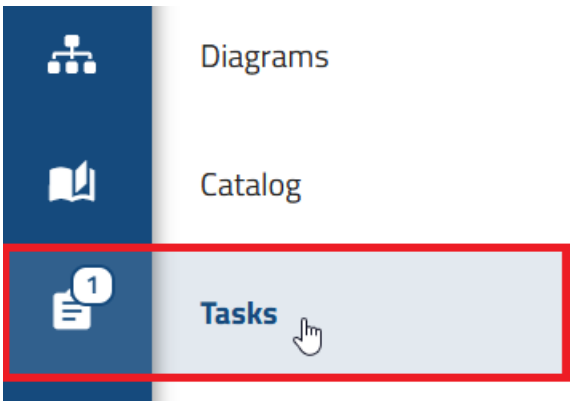
TASKS

Users who are maintained as “Examiner” or “Responsible” in the governance attributes of a diagram or catalog object can edit tasks in the *Tasks* menu item. This includes approving or rejecting a *publication* or *depublication*, and editing *resubmission tasks*. For more information on tasks, please refer to the linked sections.

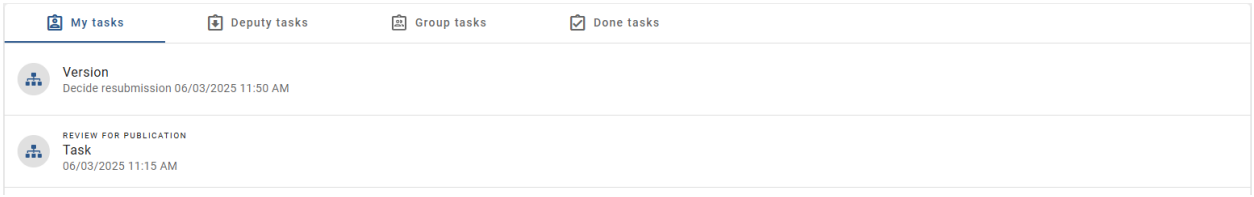
Governance participants can edit their tasks directly from the *Tasks* menu item or access the pending and completed (de-)publication tasks through the diagrams or the catalog. All user roles, except *Reader*, can view and edit assigned tasks if they are defined in the governance attributes of a specific diagram or catalog object.

13.1 How can I view my tasks?

To be able to view your tasks, you need at least the user role *Reviewer*. Please select the menu item *Tasks* in the left menu bar to obtain a complete overview of all your pending and completed tasks.



You can use the top bar to switch between different task views. In addition to your own open tasks, you also have access to tasks for which you are entered as a substitute, tasks from group assignments and tasks that have already been completed. The number of your open tasks is also displayed directly in the menu bar.

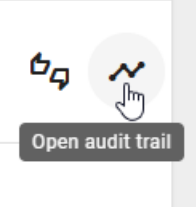


Each of these task lists sorts the entries in descending order by start date so that the most recent tasks are always displayed at the top. The name of the diagram or catalog object, the task description and the start date are displayed for each task. In the *Done tasks* tab, the start date and the end date are displayed.

To make it easier to distinguish whether a task refers to a diagram or a catalog object, the appropriate icon is displayed next to the name. Alternatively, you can click on the task to navigate to the corresponding diagram/catalog object.

Note: If you have purchased and activated BIC EAM, tasks related to context diagrams can also be assigned to you. When clicking on such a task, you will be redirected to the corresponding catalog or diagram view, depending on how the context diagram was created.

A context menu is displayed for each task in the right sidebar. When you click the *Audit trail* option in the context menu, a window opens with further details about the respective task.



In the audit trail, comments made by users in previous workflow steps are displayed next to the name of the diagram or catalog object. The first comment in the history always reflects the publishing or depublishing reason specified at initiation. Your current task is visible above the history. Additionally, the time of receipt is recorded for each task, and the time of completion is recorded for tasks that have been completed.

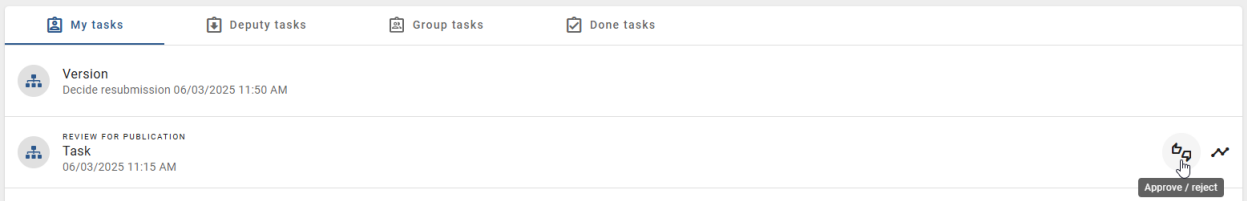
You can close the audit trail by clicking the *Close* button.

13.2 How do I work with my tasks?

As a user with at least the *Reviewer* user role, you can edit the tasks assigned to you. You can do this directly from the *Tasks* menu item in the left menu bar or from the diagram/catalog.

Completing tasks directly:

To complete tasks directly without navigating to the associated diagram or catalog object, you must first open the *Tasks* menu item in the left menu bar. You will then see a list of all your pending tasks. In the right sidebar, you will see the *Approve or reject task* button for each task.

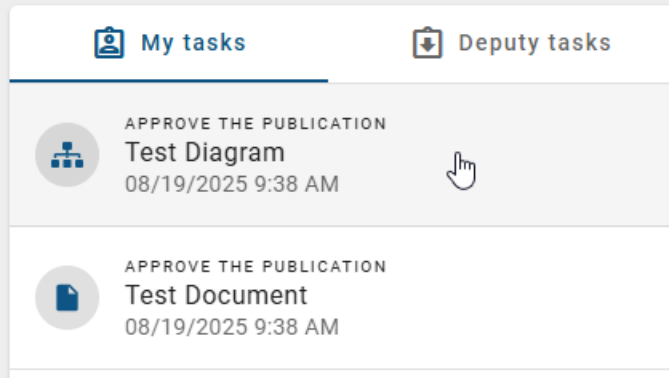


When you click on this button, a dialog opens where you can approve or reject the task and enter a comment. If you reject the task, the comment field becomes mandatory. You can then complete the task by clicking the *Confirm* button. To cancel the task, click the *Abort* button.

Once you have completed a task, it is removed from the task list and the governance participants are notified by email, depending on the outcome of the task. For more information, click *here*.

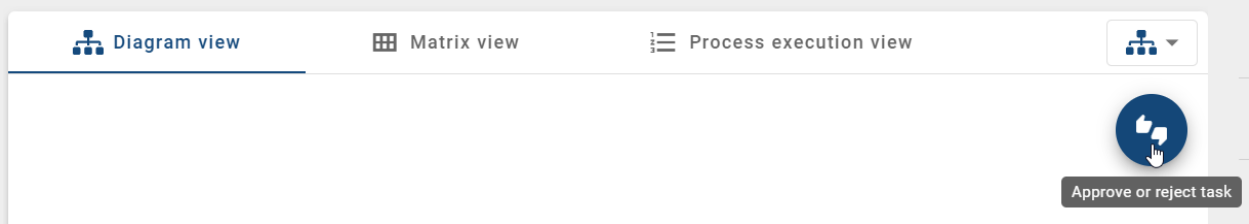
Completing tasks in the diagram or in the catalog:

To complete tasks in the diagram or catalog, you must first open the *Tasks* menu item in the left menu bar. You will then see a list of all your pending tasks. Clicking on a task will take you directly to the corresponding diagram/catalog object.



In the case of a publishing task, you see the diagram or catalog object in the preview. In the case of a resubmission or depublication task, you will see the published version of the diagram or catalog object.

In all cases, you now have the option to approve or reject the (re)publication or depublication using the *Approve or reject task* button. In the dialog that appears, you can make your selection for the task and optionally leave a comment. If you reject the task, the comment field becomes mandatory. You can then complete the task by clicking the *Confirm* button. To cancel the task, click the *Abort* button.



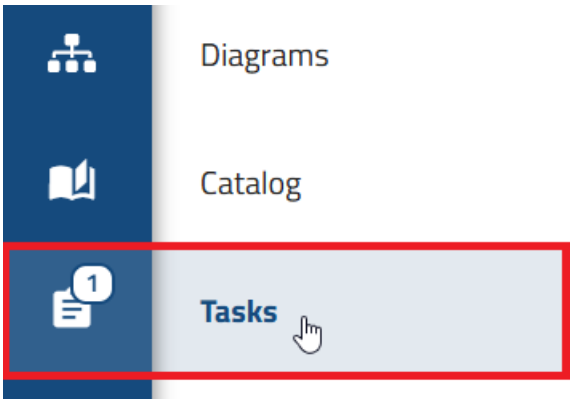
Once you have completed a task, it is removed from the task list and the governance participants are notified by email, depending on the outcome of the task. For more information, click *here*.

Note: Optionally, additional user authentication can be required when processing tasks. In this case, the user will have to confirm his identity again when, for example, a quality assurance task is processed as part of the process release. If you cannot enable additional authentication yourself, please contact us.

13.3 How will I be informed about my tasks?

When you are logged in to BIC Process Design, the *Tasks* menu item in the left menu bar will inform you of your pending tasks.

Here you can see at a glance all your open tasks, indicated by a number next to the task icon. If you receive new tasks during your login session, the number in the menu bar will increase.



If you are entered as the *Responsible* in the governance attributes of a diagram/catalog object, you will receive an immediate email when a task is approved or rejected final by you. If you are entered as an *Examiner* in the governance attributes of a diagram/catalog object, you will only receive an immediate email for approved tasks if the *Responsible* has also approved them.

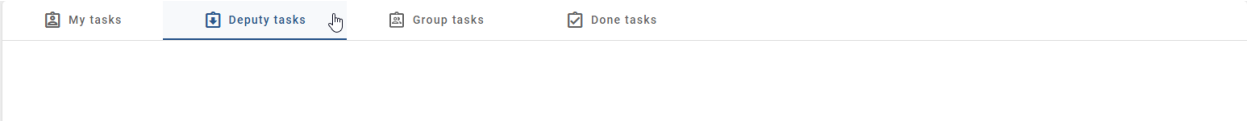
You will also receive an email the next day with a summary list of new tasks if one or more tasks have been assigned to you and have not yet been started.

By default, you will receive a reminder email about pending tasks every seven days. This can be *changed by the administrator*.

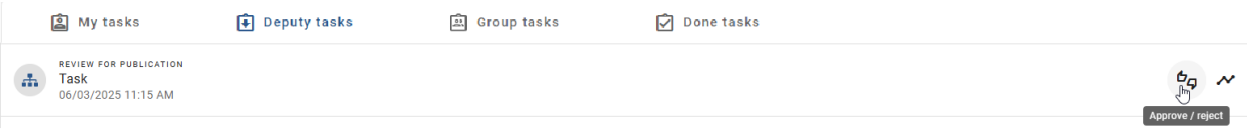
13.4 How do I work with my deputy tasks?

To work with deputy tasks, you must be *defined as a deputy* by another user in their profile. You can then accept and edit deputy tasks.

As a user with at least the *Reviewer* user role, navigate to the *Tasks* menu item in the left menu bar. In the header of the tasks, you will the *Deputy tasks* as the middle tab.



When you open the tab, you will see all the tasks for which you are assigned as a deputy. Deputy tasks that have already been claimed by another user will display their initials. This may occur if your user group has been assigned as a deputy. Hover your mouse over the initials to view the full user name. If a task has not yet been claimed, you can select the *Claim task* option.

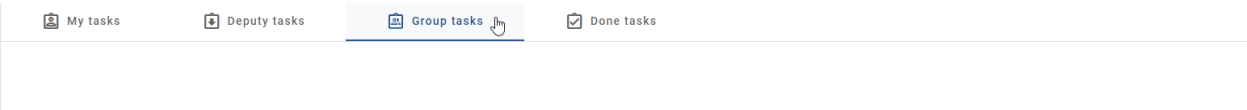


Then task will then show your initials and will appear in your task list in the left *My tasks* tab. There you can *edit the task* as if it were your own.

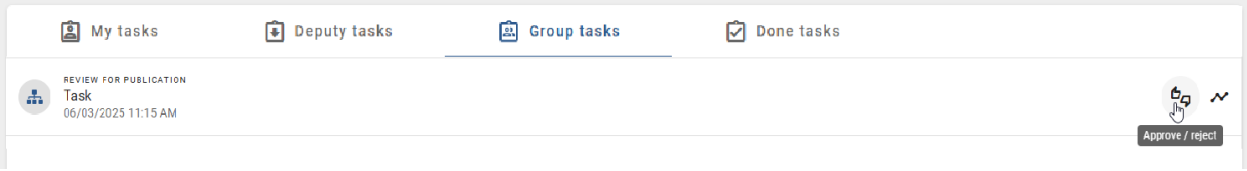
13.5 How do I work with my group tasks?

In addition to users, user groups can also receive a task if they are entered as an *Examiner* or *Responsible* in the governance attributes of a diagram or catalog object. In this case, any user who was a member of the group when the workflow started can see the corresponding workflow task in the right *Group tasks* tab.

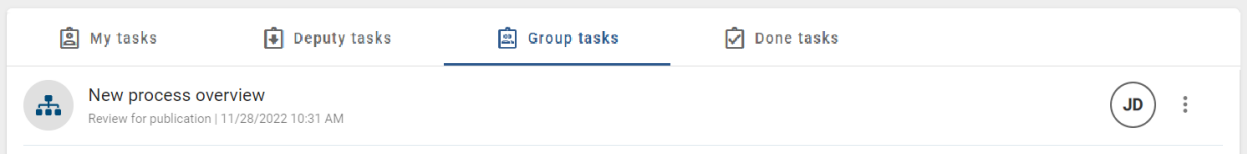
As a user with at least the *Reviewer* user role, navigate to the *Tasks* menu item in the left menu bar. Open the group task list by switching to the *Group tasks* tab on the right.



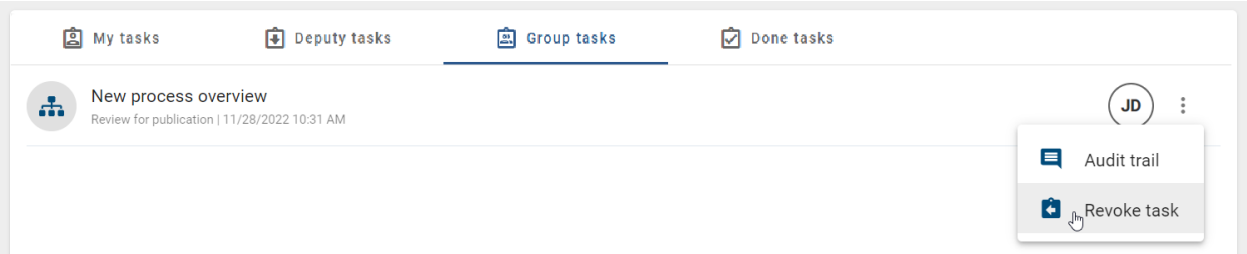
Here, you will see all your pending group tasks. Group members can claim the tasks and work on them. Group tasks that have already been claimed by a user are marked with their initials. Hovering over the initials will display the full name of the user. If a group task has not yet been claimed, you can select the *Claim task* option to claim it.



The claimed task will then appear in your task list in the *My tasks* tab on the left, where you can work on it. Your initials will also appear on the task in the group task list. This way the other group members can see that you are working on the task.



If you claimed a group task, you can undo this by selecting the *Revoke task* option in the context menu of the concerning task in the group task list. All users of the corresponding user group can then claim the task again.



When group tasks are completed, they disappear from the task list of all group members.

Note: If a user group has only one member, the corresponding workflow tasks do not appear in the *Group tasks*, but in the *Tasks* of the corresponding user (My tasks).

Hint: Please note that users who are subsequently added to a user group do not have access to group tasks that have already been started. Tasks are only displayed in the task list to users who were included when the group was created. Users added to the group later only see tasks that are generated after they were added. Existing tasks remain invisible to these users.

13.6 How do I work with resubmission tasks?

If a *diagram* or *catalog object* has a limited validity period, the *responsible user or user group* receives an examine task for resubmission. The affected users can see this in the task list.

As a user with at least the *Reviewer* role, first open the *Tasks* menu item in the left menu bar. A list of all pending tasks will appear. The resubmission task is marked with the task description *Decide resubmission* and is available for users who are entered as *Responsible* in the governance attributes of a diagram or catalog object. To edit the resubmission task, click the *Approve or reject task* button in the right sidebar.

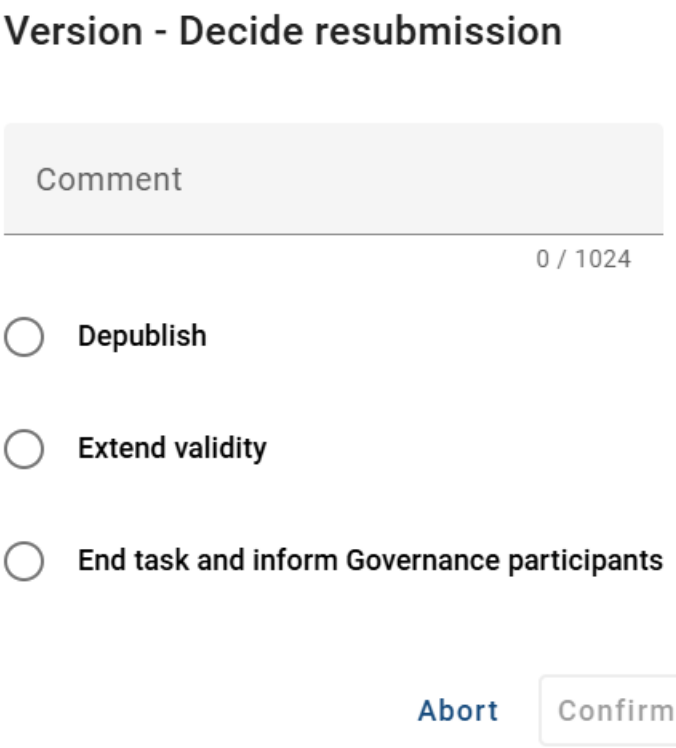
After you click the button, a dialog opens. The following options are available:

Depublish: Select this option to remove the diagram or catalog object from the publication and preview stages. A catalog object is depublished only if it is not used in any other diagram in publication stage. Unlike default depublication, no additional confirmation is required from the responsible user (group), as only they can work on the resubmission. The depublication is started as soon as the "Valid to" date of the diagram/catalog object is reached.

Extend validity: Select this option to extend the validity of the diagram or catalog object. The original expiration date, or "Valid to" date, will be extended by one year and will be updated in the publication immediately after confirmation. Additionally, archive entries will be created.

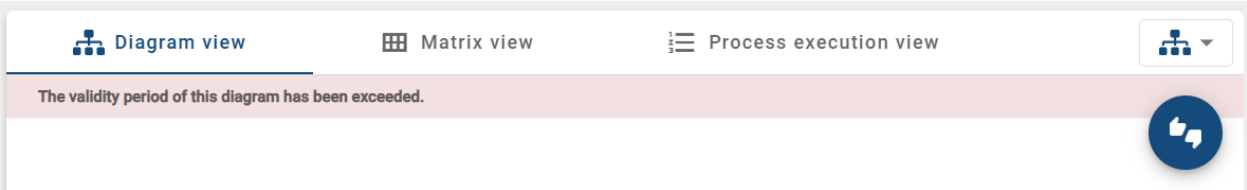
End task and inform Governance participants: Select this option to end the resubmission task and inform governance participants via email about your decision.

The *End task and inform Governance participants* option requires a comment. For the other options, entering a comment is optional. Then click *Confirm* to end the examination.



Afterwards, for the *Depublish* and *End task and inform Governance participants* options, an email is sent to all recipients maintained in the governance attributes of the diagram/catalog object. The email includes the selected option, the (optional) comment, and the responsible person.

Alternatively, you can click on the resubmission task to navigate to the corresponding diagram or the catalog object. This will also display the *Approve or reject task* button. If the validity period if the diagram or catalog object (or the catalog objects it contains) has already expired, a hint informs you of this (for each case).



If you consider a revision is necessary, contact the appropriate author and extend the validity of the diagram or catalog object to give the author time to revise. Of course, you can also depublish the object in the event of a revision, but this can create a process gap until the revision is published.

If the resubmission task is not processed, there is no automatic depublication. A diagram or catalog object can still be published or depublished while a resubmission workflow is active. In this case, the active resubmission process is canceled, including the resulting tasks that are still outstanding and now obsolete. This behavior is further explained *here*.

For a general detailed description of tasks, see *the corresponding section*.

Note: As an Administrator, you can also see all resubmission workflows within the *list of all workflows* in the *Governance Cockpit*.

13.7 What happens if I initiate a publication while a resubmission workflow is active?

When a resubmission workflow for a published object (diagram or catalog object) is active, the object can still be published. In this case, the active resubmission process including the resulting outstanding and now obsolete tasks will be terminated. Users will see the new version in publication stage as soon as the publication workflow is finished.

Note that the validity is not maintained automatically. This means: If the attribute "Valid to" of the object has not been updated manually before publishing the new version, another resubmission workflow will be started for the object. The *Responsible* receives a new resubmission task and the *corresponding notifications* will be sent. An extension of the validity for one year can be triggered by the responsible when working on the task.

Therefore, when a resubmission workflow is active for a diagram or catalog object and you update it manually by publishing a new version, consider the validation date to avoid the direct start of a resubmission workflow for the new version.

CHAPTER

FOURTEEN

INSIGHTS

To use the *Insights* functionality, the *Enterprise Architecture Management (EAM)* must be purchased and activated for the user. BIC Enterprise Architecture Management is a separate module and license.

Enterprise Architecture Management (EAM) supports companies answer key questions about the IT landscape, such as the application landscape, cost distribution or the criticality of providers. A proven way of presenting such analyses is a matrix-like view, which we refer to as Insights. This allows you to visually display dependencies between different objects and highlight relevant metrics in color.

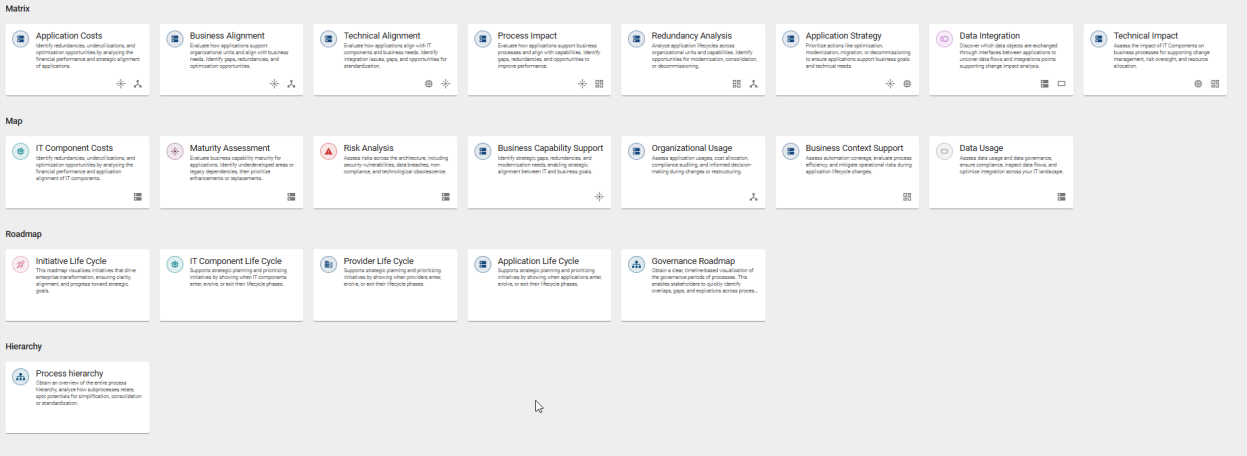
Initially, we offer predefined Insights that are specifically tailored to certain EAM-related issues. In the future, we plan to further expand the context and use of these insights and provide additional analytical views. Additionally, new sections has been added to the Insights where you can find all the lifecycle roadmaps supported by our standard method as well as display a process hierarchy of modeled processes.

Note: Please note, that the **Process hierarchy** Insight is displayed by default, even without the purchase of BIC EAM.

14.1 Where can I find the Insights?

Once BIC EAM has been purchased and activated, all users will be able to access Insights through the *Insights* menu item in the left menu bar.

After selecting the menu item, a collection of *Insight* tiles will be displayed. The Insights are divided into three sections: *Matrix*, *Map*, and *Roadmap*.



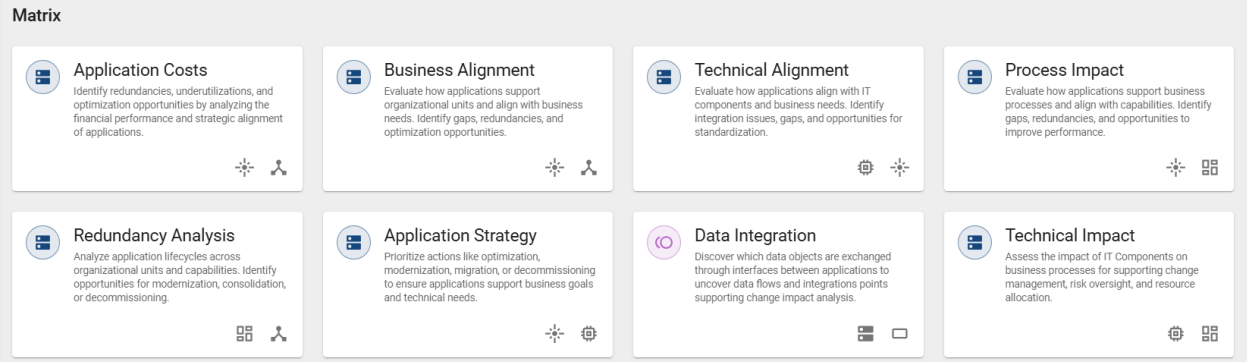
Each tile within the *Matrix* and *Map* sections provides technical notes on typical EAM-related questions. The tiles in the *Roadmap* section lead to the lifecycle roadmap of the selected catalog object type. More information about the individual Insights can be found *here*.

14.2 What insights are available, and what functions do they have?

Once BIC EAM has been purchased and activated, all users will be able to access Insights through the *Insights* menu item in the left menu bar. Here you will see a collection of predefined tiles, divided into the **Matrix**, **Map**, and **Roadmap** sections. Each Insight has its own function, which is explained in more detail below.

14.2.1 Matrix

The *Matrix* section displays eight Insights, focusing on comparative evaluations. Several architectural elements, such as applications, business contexts, and IT components, are correlated and evaluated using key figures, such as costs, suitability, and redundancy, and displayed in color. This allows patterns to be identified and well-founded decisions to be made.



Application Costs: The "Application Costs" Insight analyzes the financial performance and strategic alignment of enterprise applications. It displays the relationships between applications, business capabilities, and organizational units. This Insight helps identify redundancies, underutilization, and optimization opportunities. By default, the matrix is colored based on annual total costs.

Business Alignment: The "Business Alignment" Insight analyzes how applications support organizational units and align with business needs. It displays the relationships between applications, business capabilities, and organizational

units. This Insight helps identify gaps, redundancies, and opportunities for optimization. The matrix is colored by default based on functional fit.

Technical Alignment: The "Technical Alignment" Insight analyzes how applications align with IT components and business needs. It displays the relationships between applications, business capabilities, and IT components. This Insight helps identify integration issues, gaps, and opportunities for standardization. The default matrix coloring is based on technical fit.

Process Impact: The "Process Impact" Insight analyzes how applications support business processes and align with business capabilities. It displays the relationships between applications, business capabilities, and business contexts. This Insight helps identify gaps, redundancies, and opportunities to improve performance. By default, the matrix is colored based on functional fit.

Redundancy Analysis: The "Redundancy Analysis" Insight analyzes the lifecycle of applications across organizational units and business capabilities. It displays the relationships between applications, business contexts, and organizational units. This Insight helps identify opportunities for modernization, consolidation, or decommissioning. The matrix is colored by default based on lifecycle status.

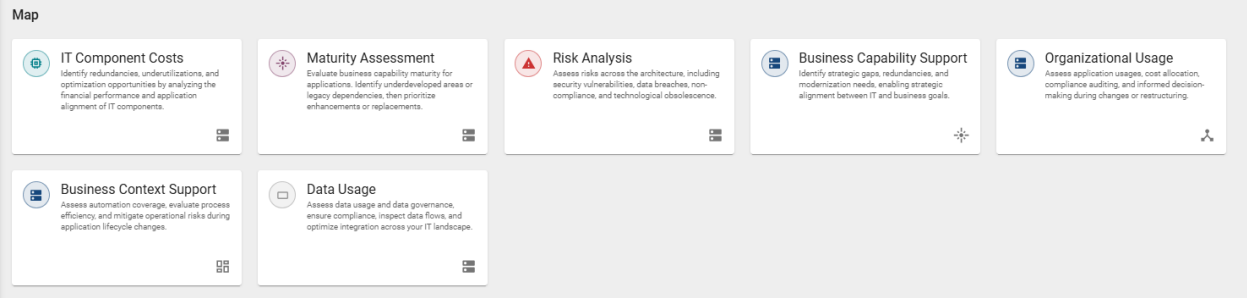
Application Strategy: The "Application Strategy" Insight supports the prioritization of actions such as optimization, modernization, migration, or decommissioning to ensure applications effectively support business objectives and technical requirements. It displays the relationships between applications, business capabilities, and IT components. This Insight helps surface strategic action needs. The matrix is colored by default based on the TIME classification.

Data Integration: The "Data Integration" Insight analyzes how applications are connected and how they exchange data. It displays the relationships between applications, application interfaces, and data objects. This Insight enables targeted impact analysis of changes to interfaces or data flows by transparently displaying dependencies between applications, interfaces, and data objects. The matrix is colored by default based on frequency.

Technical Impact: The "Technical Impact" Insight analyzes how IT components affect business processes. It displays the relationships between applications, IT components, and business contexts. This Insight supports change management, risk monitoring, and resource allocation. The matrix is colored by default based on technical fit.

14.2.2 Map

The *Map* section displays seven Insights that focus on understanding relationships within the architecture. These Insights show direct connections between two object types, such as applications and business capabilities or risks. They help uncover dependencies, usage contexts, and potential vulnerabilities.



IT Component Costs: The "IT Component Costs" Insight analyzes the financial performance and strategic alignment of IT components. It displays the relationships between applications and IT components. This Insight helps identify redundancies, underutilization, and optimization opportunities. By default, the matrix is colored based on annual total costs.

Maturity Assessment: The "Maturity Assessment" Insight analyzes the maturity level of business capabilities supported by different applications. It displays the relationships between applications and business capabilities. This Insight helps identify underdeveloped areas and legacy dependencies to prioritize improvements or replacements. The default matrix coloring is based on current maturity.

Risk Analysis: The "Risk Analysis" Insight analyzes the impact of risks within the architecture, such as security vulnerabilities, data breaches, non-compliance, or technological obsolescence. It displays the relationships between applications and risks. This Insight helps identify potential weaknesses and supports risk-based decision-making. The matrix is colored by default based on impact.

Business Capability Support: The "Business Capability Support" Insight analyzes how applications strategically support business capabilities. It displays the relationships between applications and business capabilities. This Insight helps identify strategic gaps, redundancies, and modernization needs to improve alignment between IT and business goals. The matrix is colored by default based on functional fit.

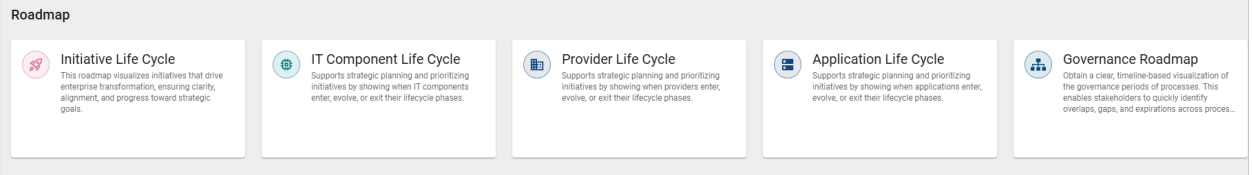
Organizational Usage: The "Organizational Usage" Insight analyzes the use of applications within the organizational context, for example with regard to cost distribution and compliance aspects. It displays the relationships between applications and business contexts. This Insight supports well-informed decisions during changes or restructurings. The matrix is colored by default based on functional fit.

Business Context Support: The "Business Context Support" Insight analyzes how applications impact organizational processes and their level of automation. It displays the relationships between applications and organizational units. This Insight evaluates automation coverage, process efficiency, and risks associated with changes in the application lifecycle. By default, the matrix is colored based on functional fit.

Data Usage: The "Data Usage" Insight analyzes how data is used and managed across the IT landscape. It displays the relationships between applications and data objects. This Insight supports reviewing data flows, optimizing integrations, and ensuring compliance. The matrix is colored by default based on the sensitivity of personal data.

14.2.3 Roadmap

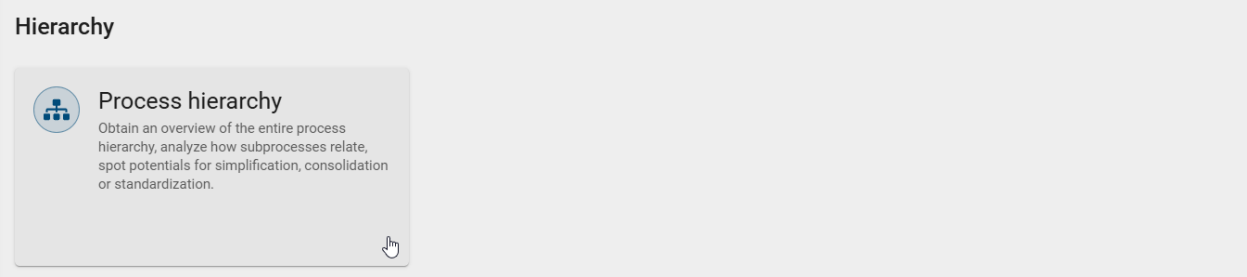
The roadmaps visualize the timeline and lifecycle status of catalog objects. They support strategic planning and the prioritization of initiatives by showing when objects enter, evolve within, or exit their respective lifecycle phases. The **Application Life Cycle** roadmap displays the timeline and lifecycle status of all applications, the **IT Component Life Cycle** roadmap covers all IT components, and the **Provider Life Cycle** roadmap shows the development of all providers over time. The **Initiative** consolidates key management information and enables its assignment to the relevant architectural elements.



For users with the *Administrator* or *Editor* user role, the **Governance Roadmap** Insight is also available in the *Roadmap* section. This Insight takes you to the *Governance Cockpit* menu item, where you can present validity periods of you current repository more clearly, identify overlaps or gaps, and proactively respond to expiring or upcoming processes. For more information, see *here*.

14.2.4 Hierarchy

For users with the *Administrator*, *Editor*, or *Author* user role, the *Hierarchy* section displays a visual representation of the modeled processes, showing how main processes are connected to their respective subprocesses. The **Process hierarchy** provides an overview by illustrating relationships between processes, linking main processes with their corresponding subprocesses in a structured and visual form. This allows you to analyze the interaction between subprocesses and identify potential opportunities for simplification, consolidation, or standardization.



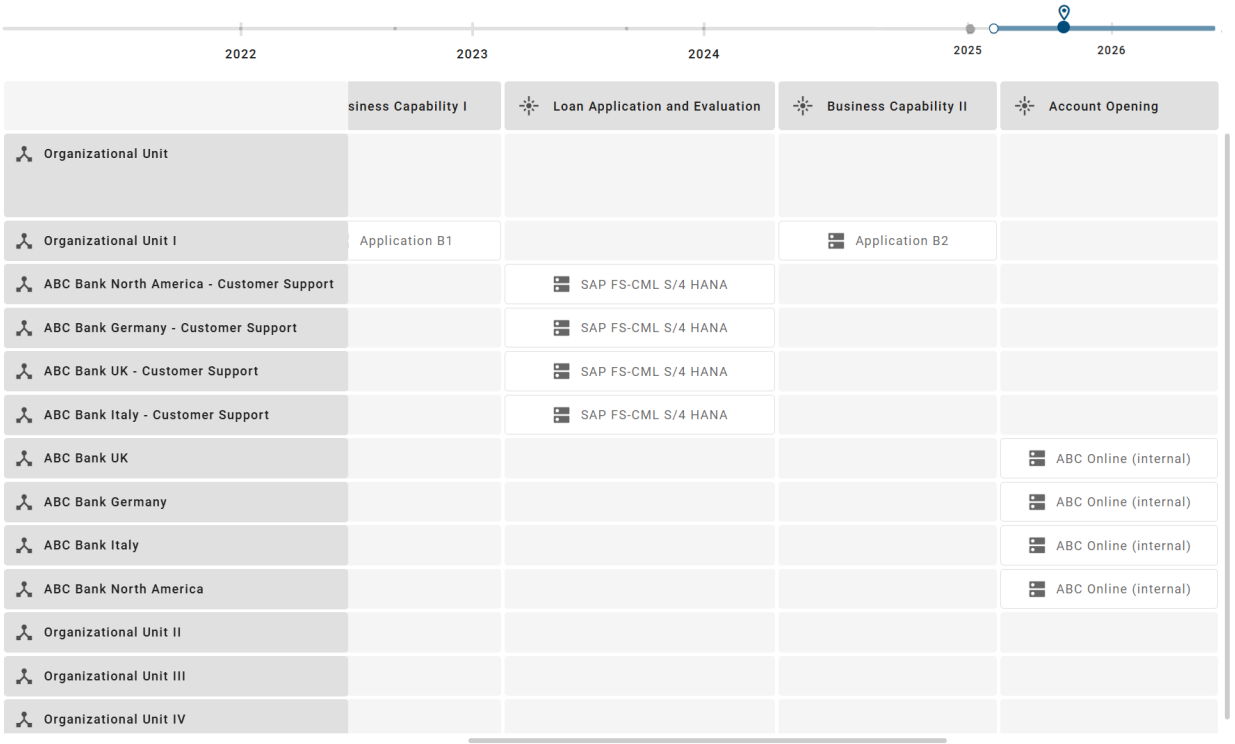
Note: The **Process hierarchy** Insight is displayed by default, even without the purchase of BIC EAM.

14.3 How are the Insights displayed?

Once BIC EAM has been purchased and activated, all users will be able to access Insights through the *Insights* menu item in the left menu bar. Here you will see a collection of predefined tiles which are divided into the **Matrix**, **Map**, and **Roadmap** sections. Selecting and opening a tile will display the relevant information.

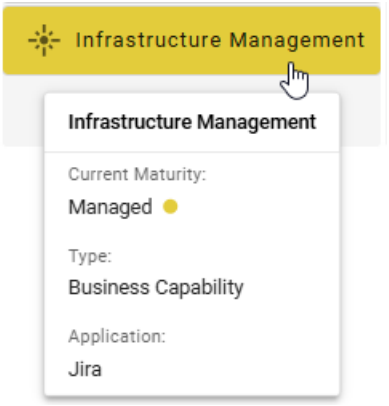
Matrix and Map sections:

Selecting an Insight in the *Matrix* or *Map* sections opens matrix layout that is often used for reports, diagrams, or overviews in the *Enterprise Architecture Management (EAM)*. Data from all diagrams in the selected repository and stage are extracted and related to the current day. If an *access restriction for diagrams* has been defined for you, these are excluded. This view helps to answer specific questions and gain insights.



In this matrix layout, so-called cell objects are displayed that are linked to one or two other objects. The main objects and axis objects can be filtered in the *Options* tab in the right sidebar. Additionally, you can color the main objects according to a specific attribute.

If you move the mouse over a cell object, an extended tooltip is displayed. In addition to the usual information, this also contains the names of the associated objects, for example the row and column headings such as “Business Capability: Infrastructure Management”. If a tooltip already exists, this information appears below the existing information.



If you opened an Insight with a matrix layout that requires horizontal and vertical scrolling, you can use your mouse to navigate within the matrix layout. Hold down the left mouse button within the matrix layout and move the mouse to the desired position. The matrix layout will remain at the respective position as soon as you release the mouse button.

Roadmap section:

When you select an Insight in the *Roadmap* section, you are directed to the corresponding lifecycle roadmap in the catalog. You can choose from roadmaps for the catalog object types “Application”, “IT Component”, and “Provider.” Then, you can track the development and lifecycle status of the respective catalog objects in detail.

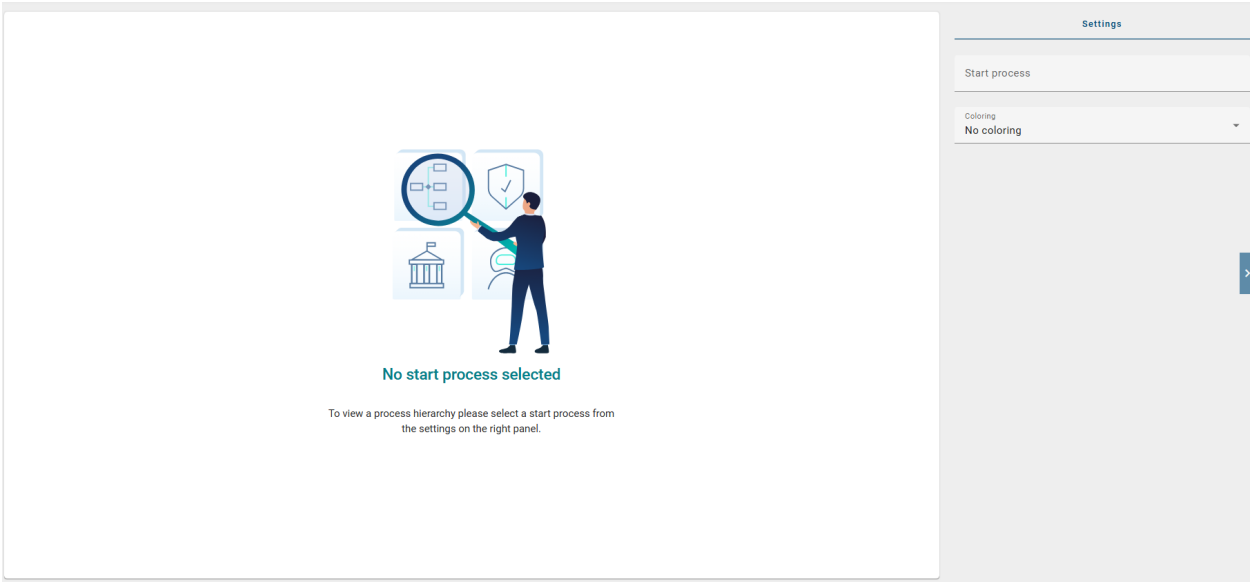
The different colors on the timeline represent the different phases of the lifecycle. Additionally, the current day is highlighted for easier overview. Depending on the lifecycle data entered, this marker can be located in front of, inside, or behind the timeline. In the *Filter* panel in the right sidebar, you can filter by the catalog object type specified in the title of the Insight in the *Roadmap* section.

Note: Previously, the lifecycle roadmaps could only be accessed via the *catalog* and were only visible if the corresponding “Life Cycle” attribute group was maintained for a filtered catalog object. However, since this display method

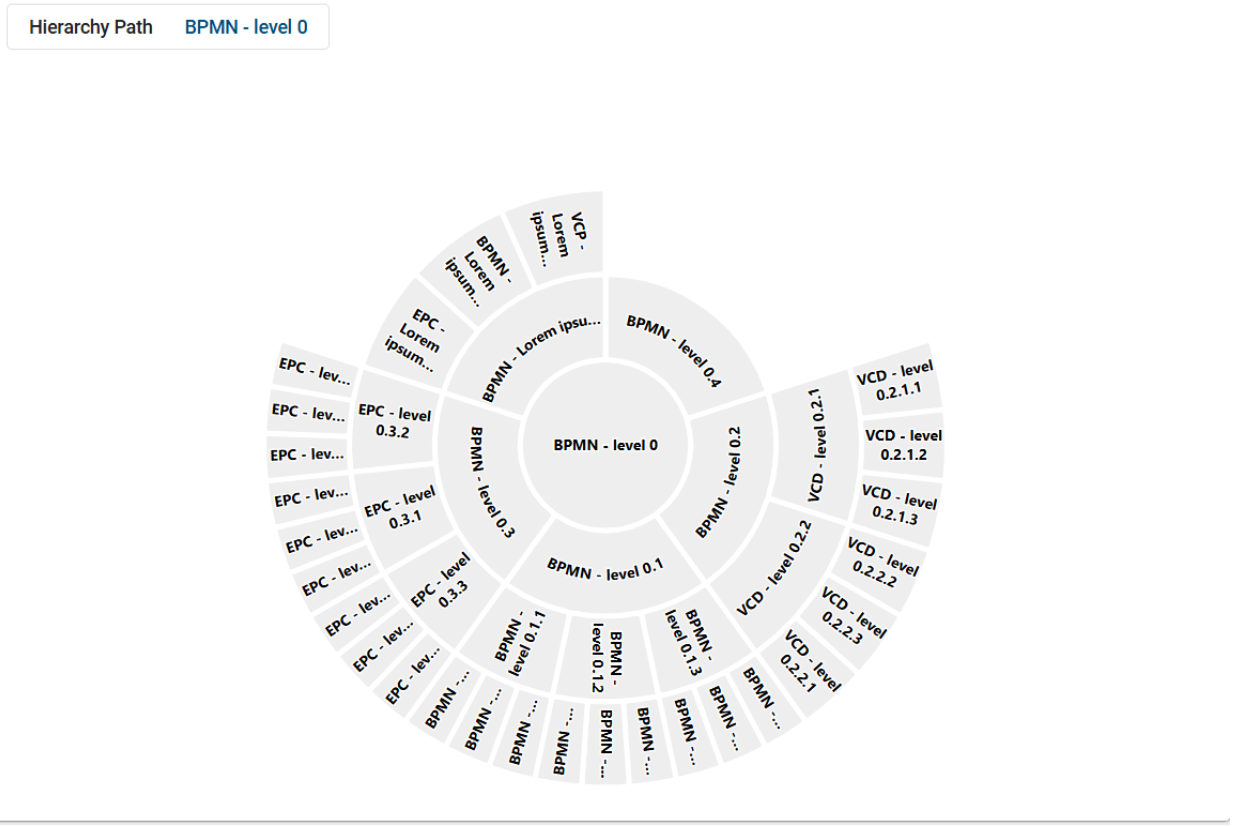
is not always easy to find, the roadmaps are now also available via the *Insights* menu item.

Hierarchy section:

When you select the *Process hierarchy* Insight in the *Hierarchy* section, a message will first appear instructing you to select a start process. In the *Settings* panel in the right sidebar, you can then choose any start diagram from your current repository and stage that will serve as the root of the process hierarchy. All diagrams for which no access restrictions exist are available to you.

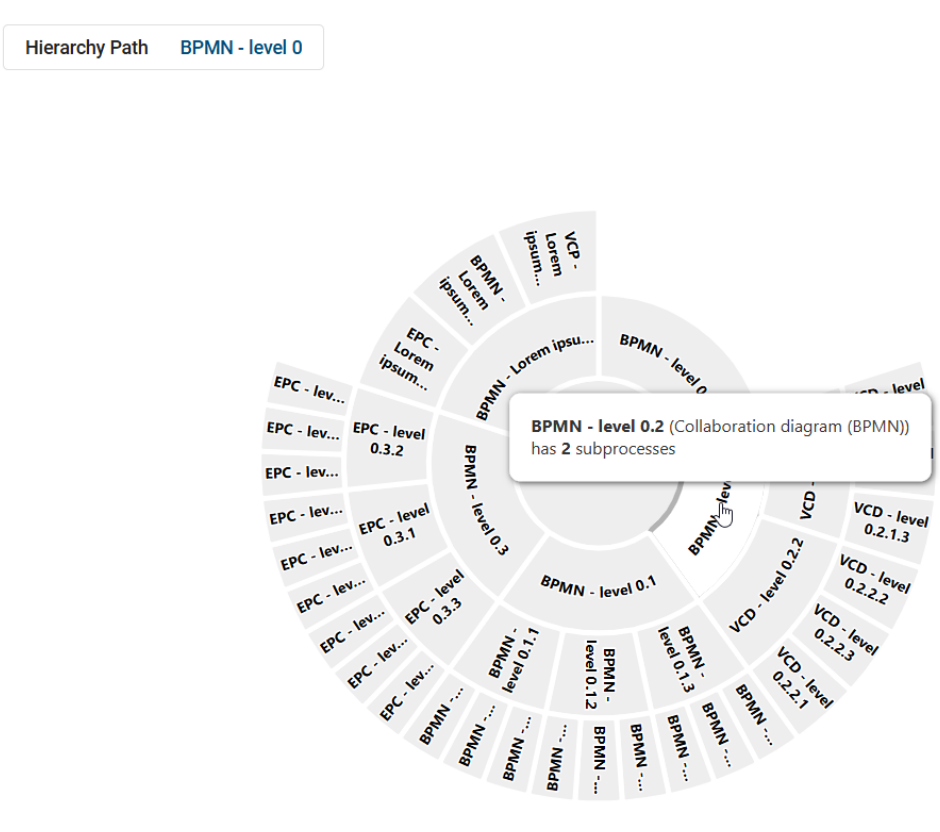


The start diagram you select must contain at least **one** subprocess and forms the center of the display. From this starting point, all referenced subprocesses (*VCD*, *BPMN*, or *EPC*) are automatically displayed in additional levels in the form of a sunburst diagram. Each level appears as a ring in the sunburst diagram, with the segments representing the respective diagrams they contain.



Note: If the selected start diagram does **not** contain any subprocesses, no process hierarchy can be displayed, and you will be informed accordingly.

By clicking on a segment in the diagram, you can navigate deeper into the hierarchy. The selected segment then becomes the new center, and its subordinate processes appear in the subsequent rings.



By clicking in the center of the diagram or using the breadcrumb navigation, you can move up one level at any time, right back to the originally selected start diagram.

Tip: When you hover your mouse over a segment in the sunburst diagram, the name of the process, the diagram type, and the current hierachy level are displayed.

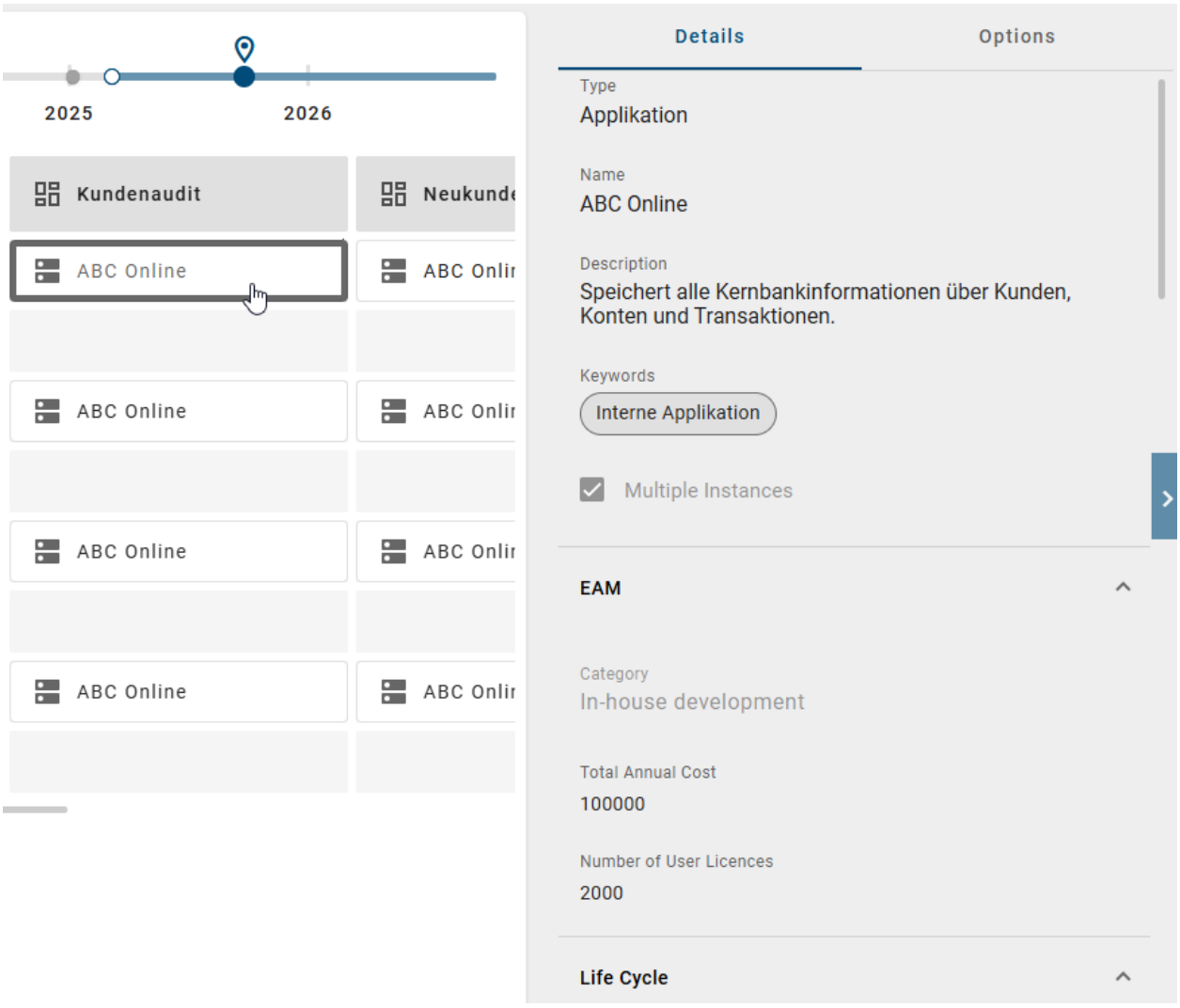
Note: Please note that a maximum of three rings are displayed at the same time to maintain clarity even in complex structures. Processes that are referenced in several higher-level processes appear multiple times at all relevant locations.

14.4 How can I view the details of an object used in an Insight?

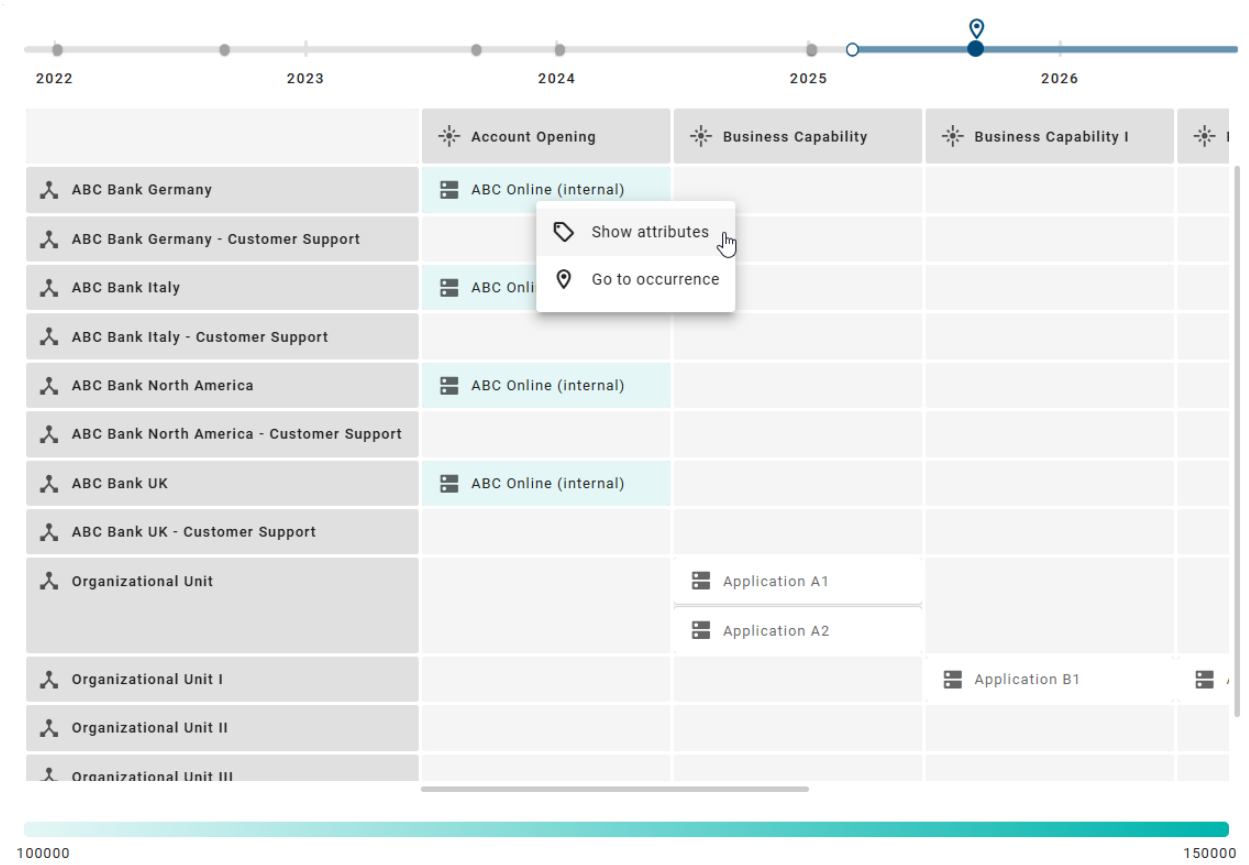
Matrix layout:

Once BIC EAM has been purchased and activated, all users will be able to access Insights through the *Insights* menu item in the left menu bar. Here you will see a collection of predefined tiles. If you click on an Insight within the *Matrix* and *Map* sections, the relevant information is displayed and shown in a matrix layout.

When you click on any object in the matrix layout, it will be highlighted. In the *Details* tab on the right sidebar, you will then see all available information about the selected object from your method.



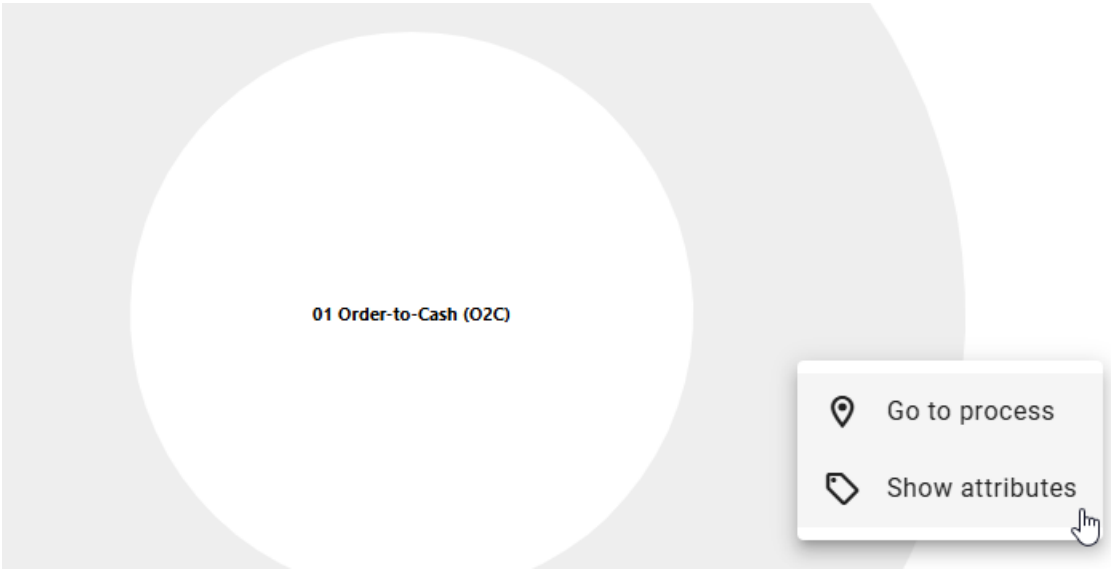
Alternatively, you can right-click on a main or axis object in the matrix layout. Then select the *Show Attributes* option to display the related object details in the right sidebar.



Process hierarchy (sunburst diagram):

Users with the *Administrator*, *Editor*, or *Author* user role, are able to access the process hierarchy through the *Insights* menu item in the left menu bar. When you click on the *Process hierarchy* Insight within the *Hierarchy* section and select a start process that contains at least one subprocess, the process hierachy is displayed in a sunburst diagram.

You can navigate directly to a displayed process. When you right-click any segment in the sunburst diagram, the *Show attributes* option will appear.

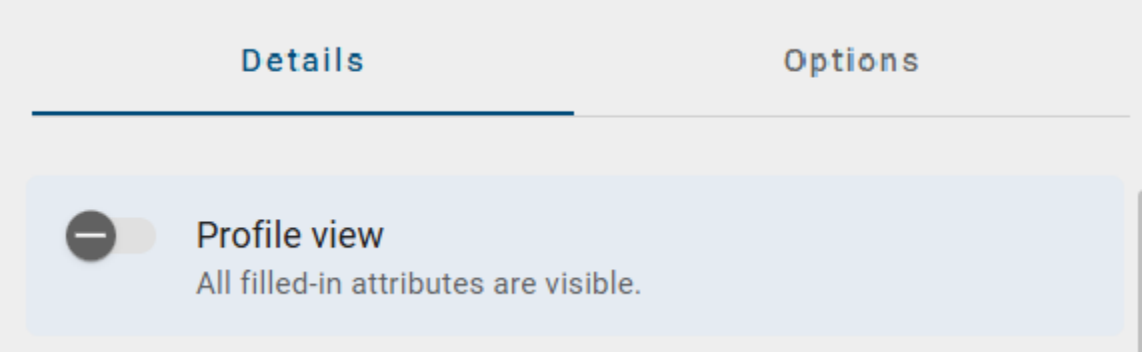


When you select this option, the *Details* panel opens immediately in the right sidebar. You can exit the details view by clicking on the *X* in the top left corner.

14.5 How can I switch between the profile view and the attribute view in an Insight?

Once BIC EAM has been purchased and activated, all users will be able to access *Insights* through the *Insights menu* item in the left menu bar. Here you will see a collection of predefined tiles. If you click on an Insight within the *Matrix* and *Map* sections, the relevant information is displayed and shown in a matrix layout.

When you click on an object in the matrix layout, it will be highlighted. In the *Details* tab on the right sidebar, all available information from your method related to the selected object will be displayed. You can use the slider to switch between the profile view and the attribute view.



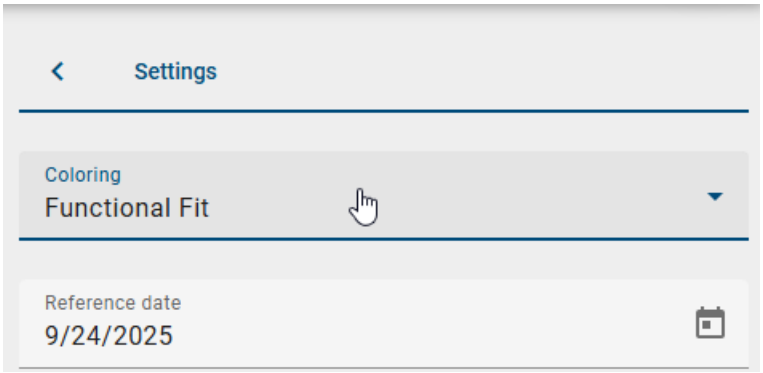
Note: To switch between the profile view and the attribute view using the slider, the *the visibility of the profile* must first be enabled by an Administrator in the *Administration* section.

14.6 How can I change the coloring of main objects in an Insight?

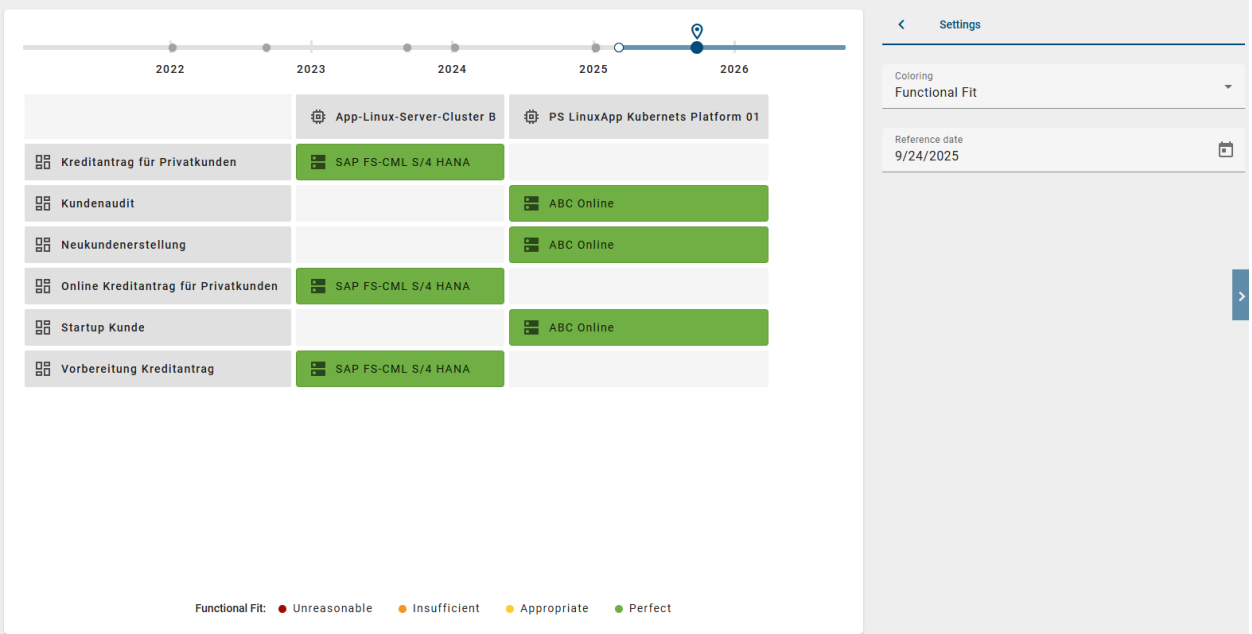
Once BIC EAM has been purchased and activated, all users will be able to access Insights through the *Insights* menu item in the left menu bar. Here you will see a collection of predefined tiles. If you click on an Insight within the *Matrix* and *Map* sections, the relevant information is displayed and shown in a matrix layout.

In this matrix layout, cell objects are displayed, each linked to one or two objects. You can filter the main and axis objects in the *Options* tab in the right sidebar. Additionally, main objects are colored based on a specific attribute. A legend at the bottom of the view explains the color assignment.

Each Insight has a default coloring for its main objects. To change the coloring of the main objects, click the *Settings* option in the *Options* panel in the right sidebar. This list contains all compatible attributes of the main object type.



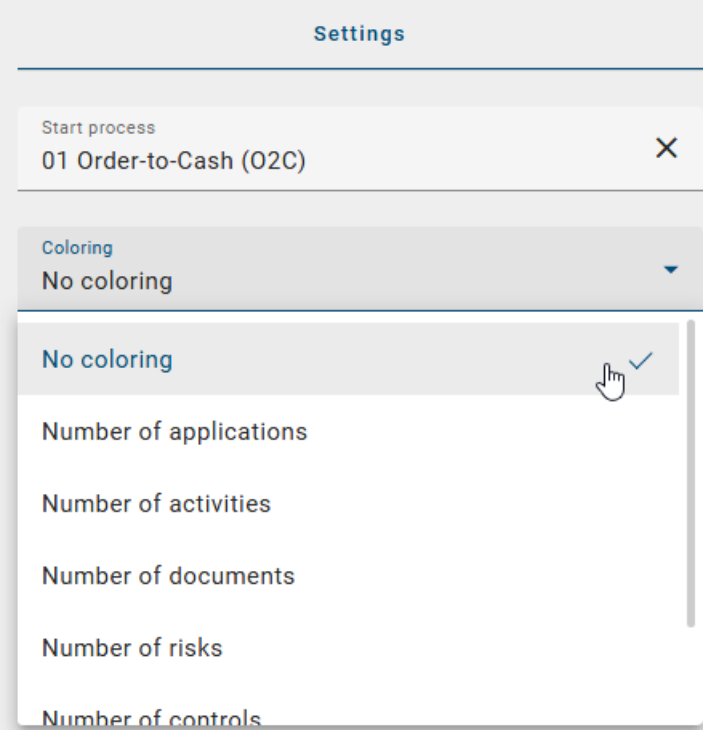
As soon as you select a new attribute for coloring under the *Coloring* option, the color display in the selected Insight automatically updates. The legend at the bottom of the view also adapts to the new attribute.



14.7 How can I color processes in the process hierarchy based on the number of contained objects?

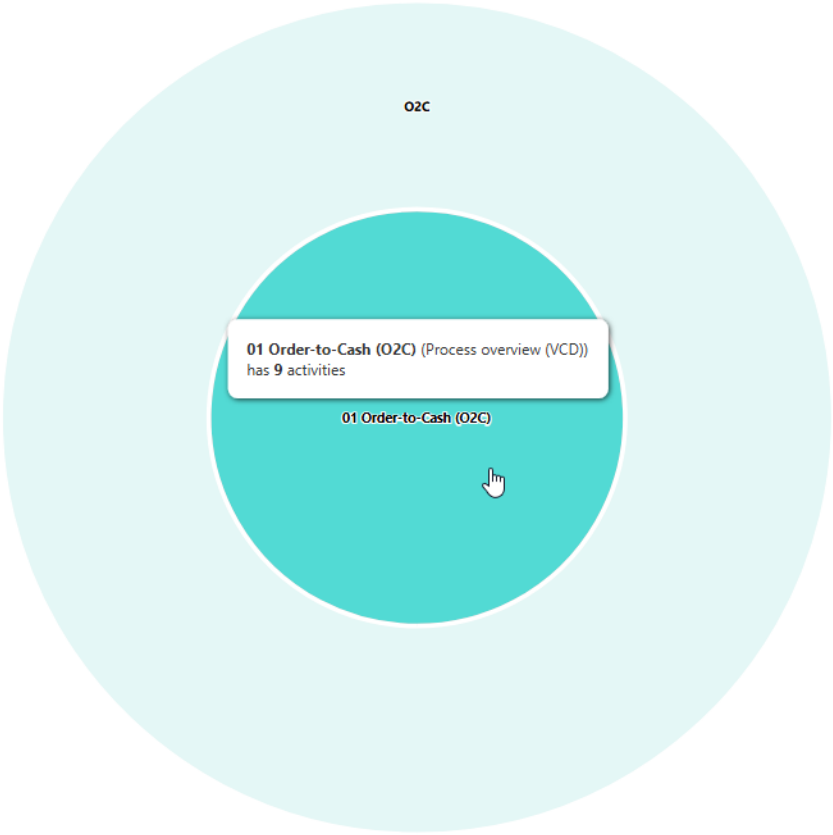
Users of all roles can access the process hierarchy through the *Insights* menu item in the left menu bar. When you click on the *Process hierarchy* Insight within the *Hierarchy* section and select a start process that contains at least one subprocess, the process hierarchy is displayed in a sunburst diagram. In this view, you can color the processes based on the number of specific objects.

After selecting a start process, navigate to the *Settings* panel in the right sidebar. In the *Coloring* option, you can choose from a list which object type should be used for the coloring. By default, no coloring is applied. The color representation is based on the number of objects of the selected type.



The following options are available for coloring the sunburst diagram: *No coloring*, *Number of applications*, *Number of activities*, *Number of documents*, *Number of risks*, *Number of controls*, and *Number of roles*. As soon as you select an option, the coloring is immediately applied to the sunburst diagram, and the legend below is updated accordingly. The legend shows the value range used for the applied coloring.

Additionally, you can display further information. When a coloring is active and you hover over a segment of the sunburst diagram, the exact number of colored objects for the selected process is shown.

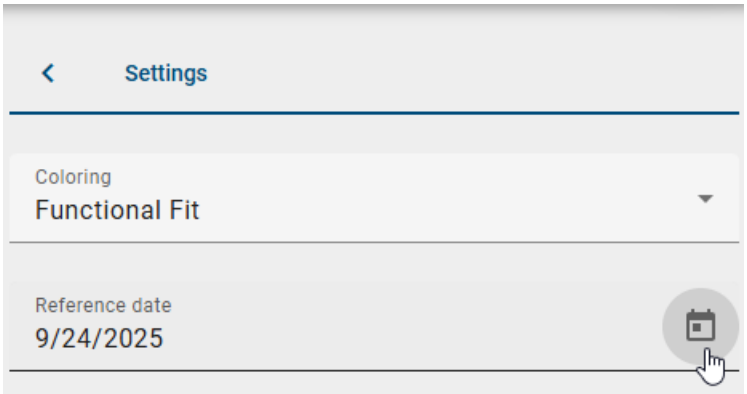


14.8 How can I change the reference date of the data for Insights?

Once BIC EAM has been purchased and activated, all users will be able to access Insights through the *Insights* menu item in the left menu bar. Here you will see a collection of predefined tiles. If you click on an Insight within the *Matrix* and *Map* sections, the relevant information is displayed and shown in a matrix layout.

In this matrix layout, cell objects are displayed, each linked to one or two objects. The data from all diagrams in the selected repository and stage is extracted and referenced to the current day. If an *access restriction for diagrams* has been defined for you, these are excluded. You can filter the main and axis objects in the *Options* tab in the right sidebar.

By default, the data displayed in the Insight is related to the current day. However, it is possible to relate the data to a past date or up to 1 year in the future. To change the reference date, click the *Settings* option in the *Options* panel in the right sidebar, which is displayed by default. You can enter the date manually or from the selectable calender under the *Reference date* tab.



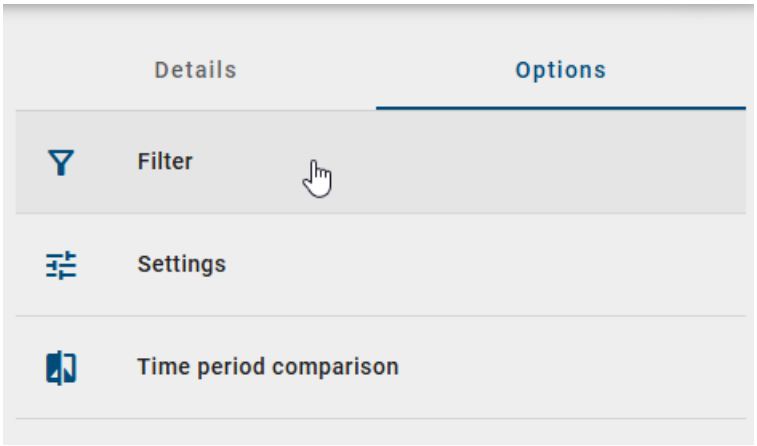
Alternatively, you can adjust the reference date using the timeline at the top of the view. The timeline displays years along with a marker for the current day. By moving the slider or clicking on the desired time period, you can navigate to the desired reference date, which is also displayed in the *Reference date* option within the *Settings* panel in the right sidebar.

Once you have changed the reference date, the data is immediately updated and the Insight is displayed accordingly. If you previously *colored the main objects*, this will be retained.

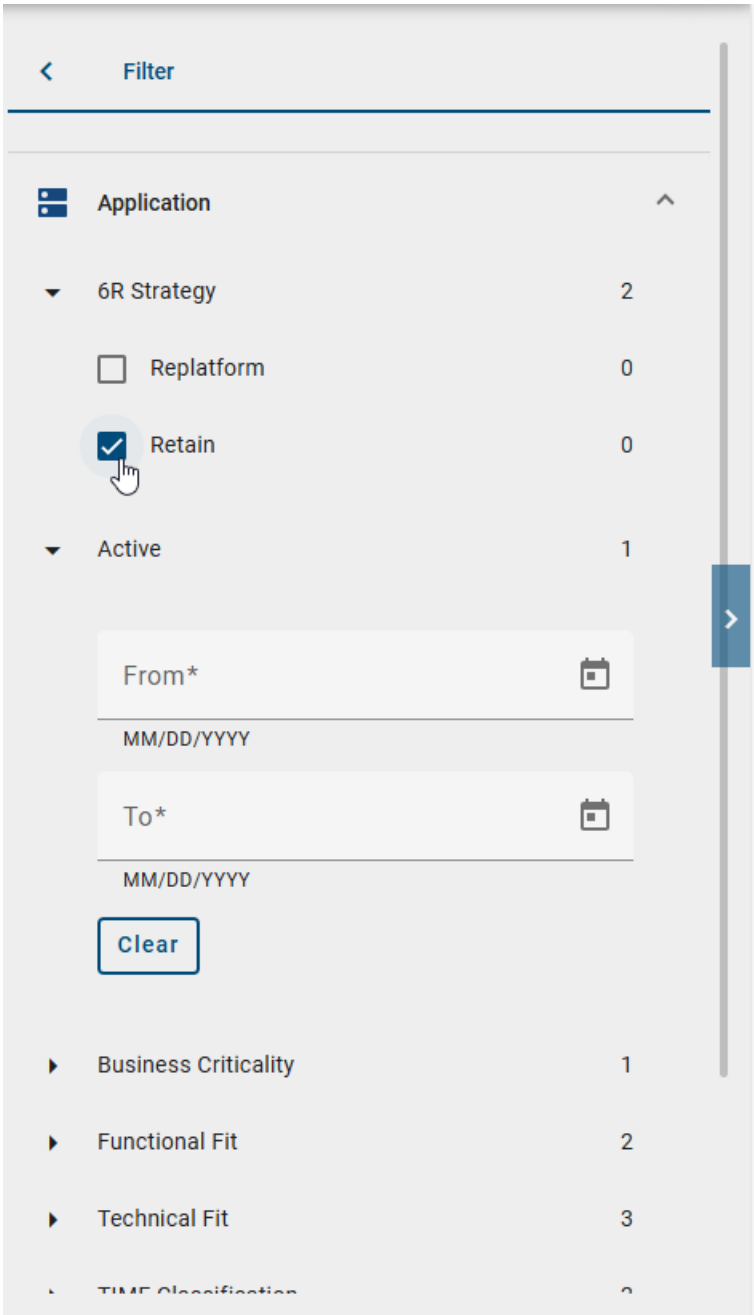
14.9 How can I filter node attributes, the main and axis objects?

If BIC EAM has been purchased and activated, all users can access the Insights via the menu item *Insights* in the left menu bar. Here you will see a collection of predefined tiles. If you click on an Insight within the *Matrix* and *Map* sections, the relevant information is displayed and shown in a matrix layout.

In this matrix layout, cell objects are displayed, each linked to one or two objects. You can filter the main and axis objects in the *Options* tab using the *Filter* button in the right sidebar.



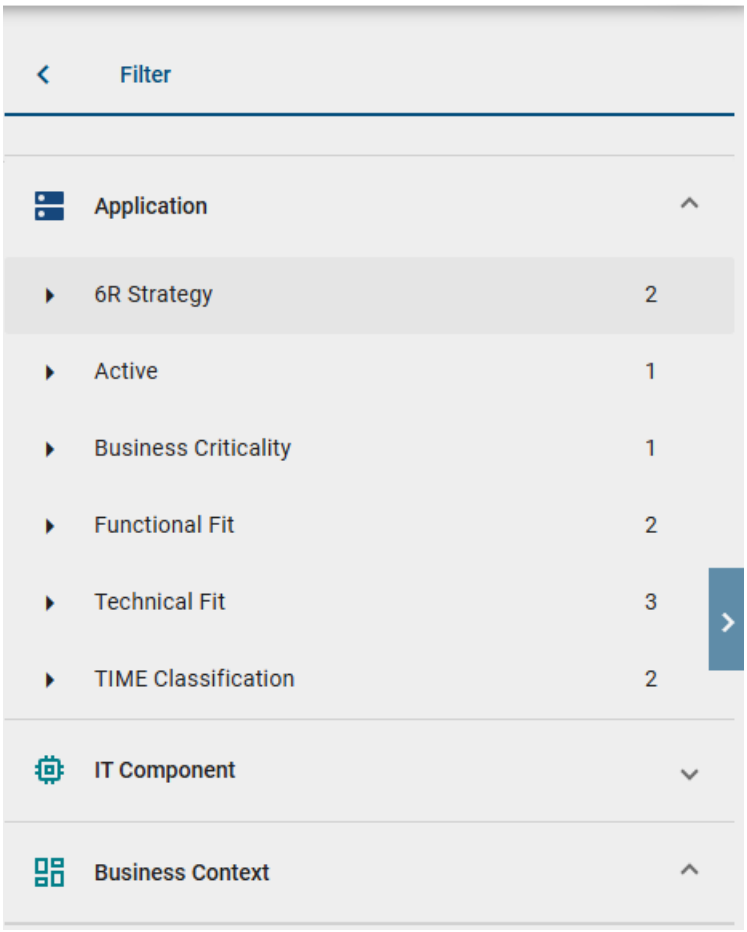
All main and axis objects used in the grid are displayed as filter facets in the right sidebar in the *Options* tab. To filter for specific objects, click on a filter facet. Further filter options for that object type will then be displayed.



Once you have selected one or more filters by activating the checkboxes, the main and axis objects are filtered accordingly and the matrix layout is redisplayed.

You also have the option of applying the filter functions to the node attributes. This allows you to narrow down the objects displayed in the cells of the matrix layout based on their attribute values.

When you open the filter options for the objects in the matrix layout, you will also see facets covering the node attributes, including the defined values. At the same time, the number of objects currently affected by the respective filter selection is displayed in the view.

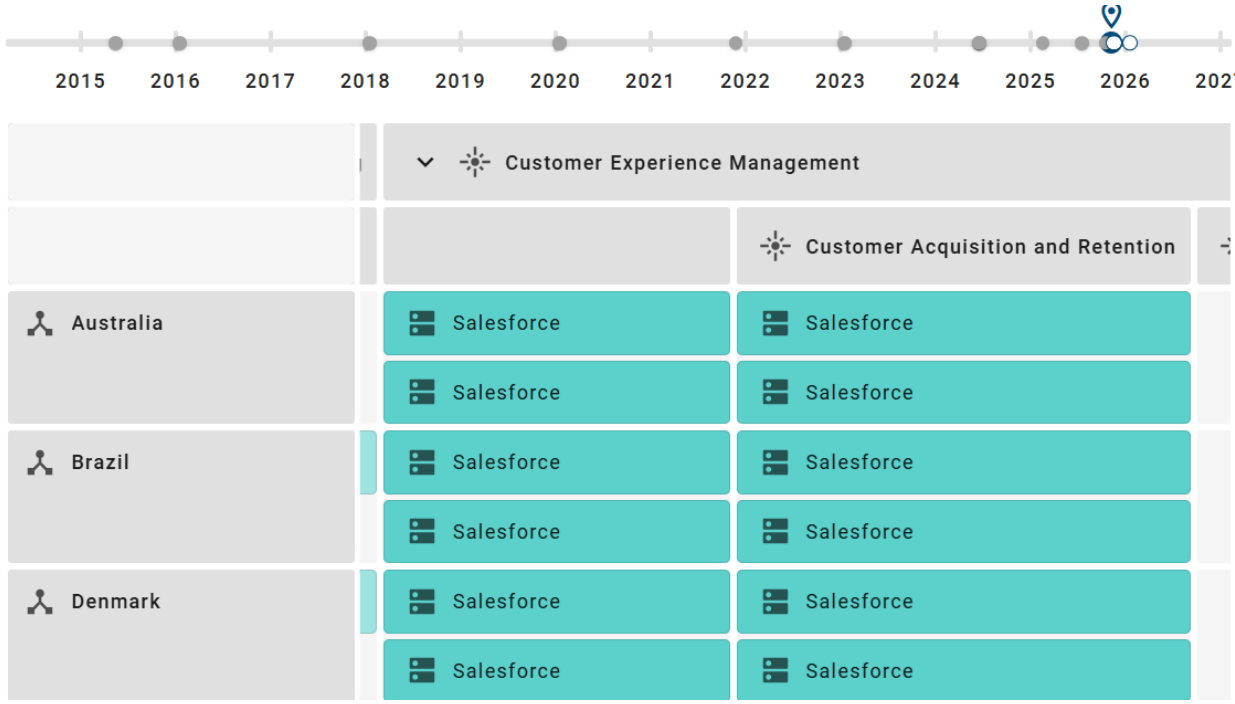


Once you have selected one or more filters by activating the checkboxes, the node attributes are filtered accordingly.

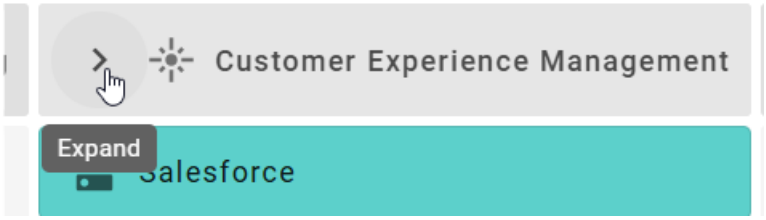
14.10 How can I group the content of an Insight by hierarchy levels?

If *BIC EAM* has been purchased and activated, all users can access *Insights* via the *Insights* menu item in the left menu bar. Here you will find a collection of predefined tiles. When you click on an Insight within the *Matrix* or *Overview* sections that can display modeled hierarchy levels, the corresponding information is displayed in a matrix layout.

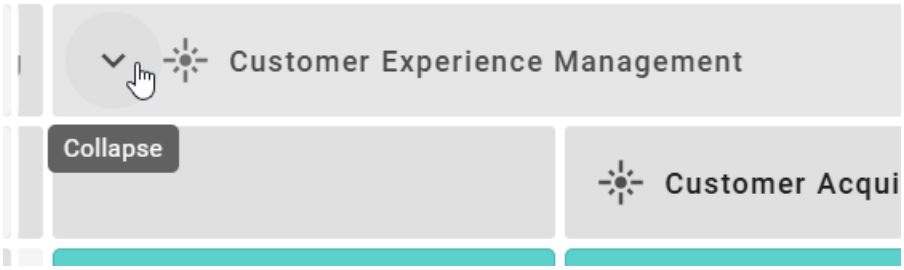
In this matrix view, the cells display objects that are connected to two other objects of a different type, represented as row and column headers. If the modeled column or row header objects are based on hierarchies, the object at the highest hierarchy level is initially displayed as the column or row header. The cells display all objects that are connected to this object or to a hierarchically lower object.



If a column or row header object has additional hierarchy levels, you can click the *Expand* button next to the respective heading. When expanding, the headers from the next hierarchy level are displayed below the original header. The grid cells are automatically rearranged so that all related entries are shown in the corresponding columns or rows of the next hierarchy level.



If you have expanded a column or row header object, you can minimize it again using the *Collapse* button next to the respective heading. This removes all row/column headers from the previously opened hierarchy level and redistributes the cells in the matrix accordingly.

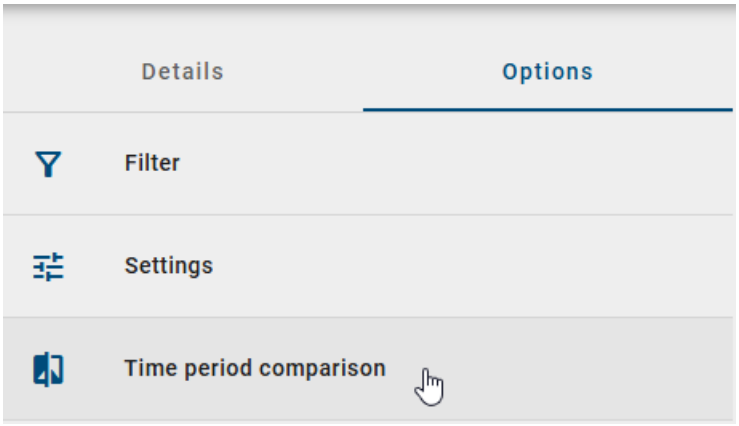


Hint: Please note that as soon as you change the filter values that affect the column headers, the filters are automatically applied to all hierarchy levels. The entire grid is then updated to display only the elements that match the applied filter criteria.

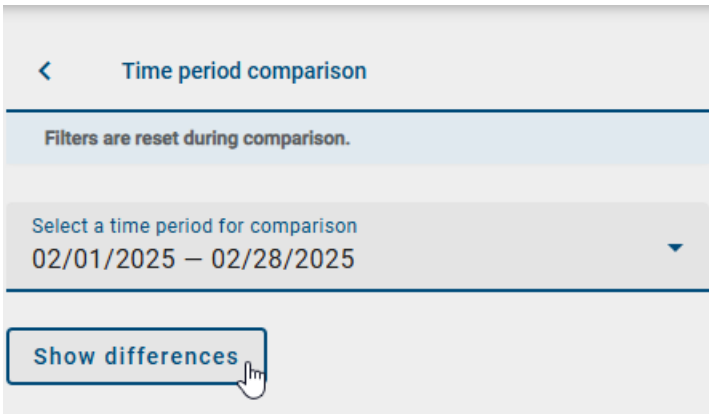
14.11 How can I compare changes within an Insight between two time periods?

If *BIC EAM* has been purchased and activated, all users can access *Insights* via the *Insights* menu item in the left menu bar. Here you will find a collection of predefined tiles. When you click on an Insight within the *Matrix* or *Overview* sections, the corresponding information is displayed in a matrix layout.

In this matrix layout, so-called cell objects are displayed, which are linked to one or two objects. Using the right sidebar in the *Options* panel, you can view all changes within a defined time period. To do this, click the *Time period comparison* option in the right sidebar.



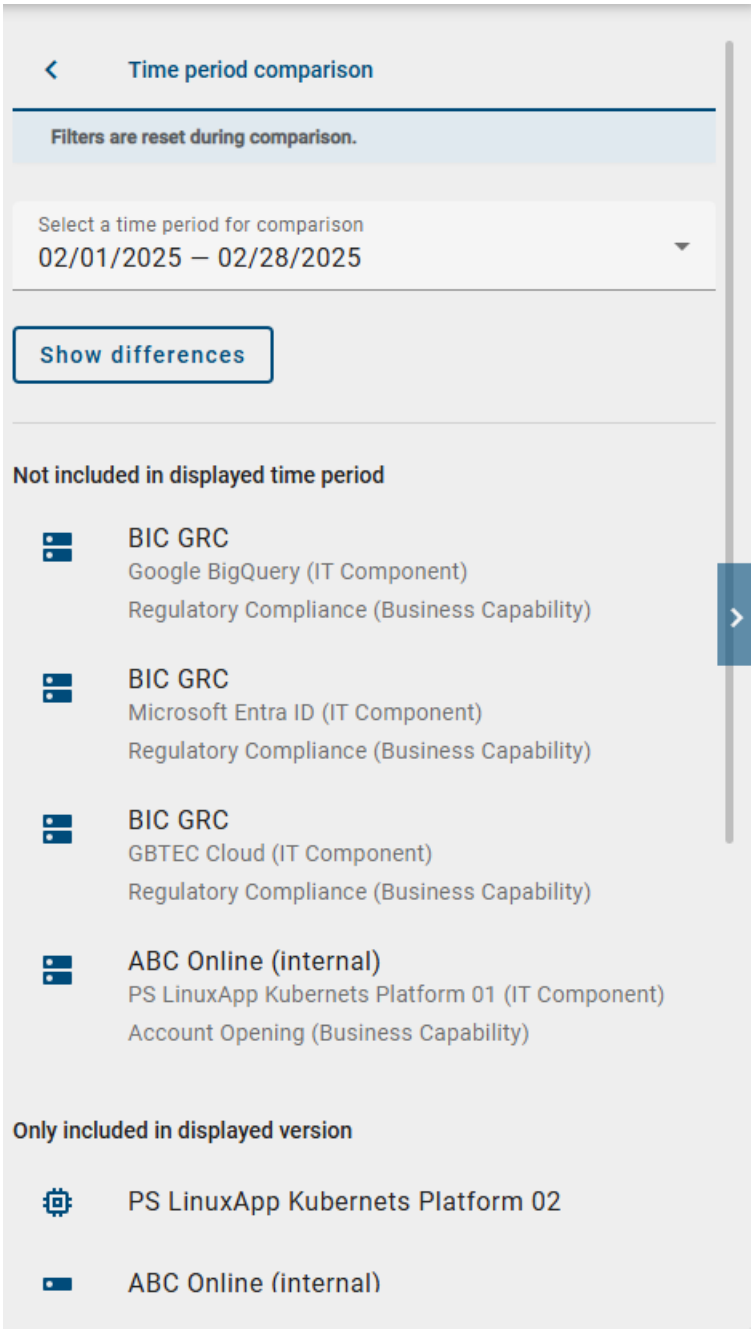
After selecting this option, choose the desired time period from the dropdown menu for which you want to view the changes, and then confirm your selection by clicking the *Show differences* button.



The differences between the selected time period and the grid currently displayed are then shown in an overview directly below the *Show differences* button.

The changes are divided into two sections. In the *Not included in displayed time period* section, you can see all objects that were present in the selected time period but are missing in the current grid. These include removed row or column header objects as well as removed cell objects. For cell objects, the associated row and column header objects are also shown, making it easy to identify the exact position in the grid.

In the *Only included in displayed version* section, you can see all objects that are present in the current grid but not in the selected time period. Here too, row or column header objects are shown with their icon and name. For cell objects, the associated row and column header objects are displayed in addition.



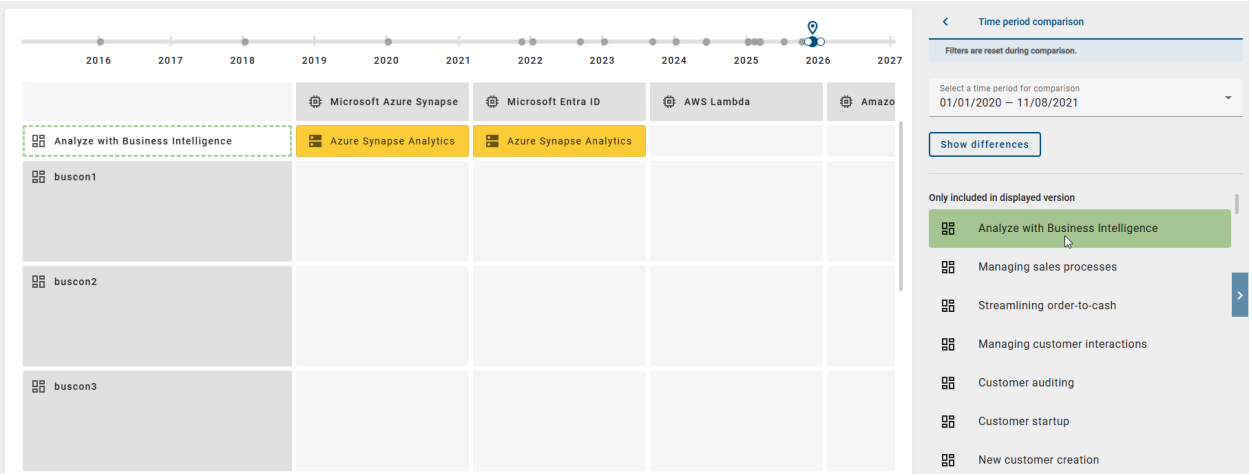
This gives you a detailed overview of all objects added or removed between two time periods, allowing you to track how the contents of the Insight have changed over time.

Hint: Please note that applied filters are not considered for the comparison. They are automatically deactivated.

14.12 How can I visually highlight a cell object in a time period comparison in an Inisght?

If *BIC EAM* has been purchased and activated, all users can access *Insights* via the *Insights* menu item in the left menu bar. Here you will find a collection of predefined tiles. When you click on an Insight within the *Matrix* or *Overview* sections, the corresponding information is displayed in a matrix layout. This matrix layout contains cell objects that can be visually highlighted with a click to improve clarity.

To access the time period comparison, click the *Time period comparison* option in the *Options* panel in the right sidebar. If you *compare two time periods* in the matrix layout and select a cell object from the *Only included in displayed version* section, the cell object is visually highlighted in both the overview and the matrix layout. As soon as you click on a cell object in the overview that is not currently visible in the matrix layout, it will be highlighted, and the matrix layout will automatically adjust so that the corresponding cell object becomes visible.



Note: Please note that previously selected cell objects are reset when a new cell object is selected, ensuring that only the currently selected cell object remains highlighted.

If you highlight a row or column header object that is currently collapsed, it will automatically expand so that the corresponding cell object becomes visible in the matrix layout. In this case as well, the cell object is highlighted in both the overview and the matrix layout.

If you click again on a cell object that is already highlighted, the highlighting will be removed in both the overview and the matirx layout. The highlighting can therefore be removed at any time by clicking the highlighted cell object again.

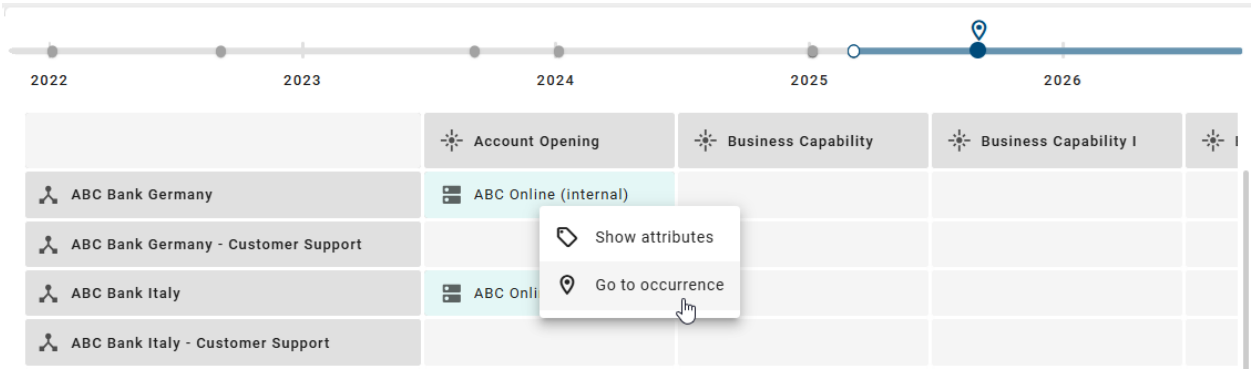
As soon as you exit the *Time period comparison* option, all currently highlighted cell objects are automatically cleared.

14.13 How can I navigate to the corresponding diagram of an object displayed in an Insight?

Matrix layout:

Once BIC EAM has been purchased and activated, all users will be able to access Insights through the *Insights* menu item in the left menu bar. Here you will see a collection of predefined tiles. If you click on an Insight within the *Matrix* and *Map* sections, the relevant information is displayed and shown in a matrix layout.

To better understand the context of a displayed object, right-click on any main or axis object within the matrix layout. The *Go to occurence* option will appear.



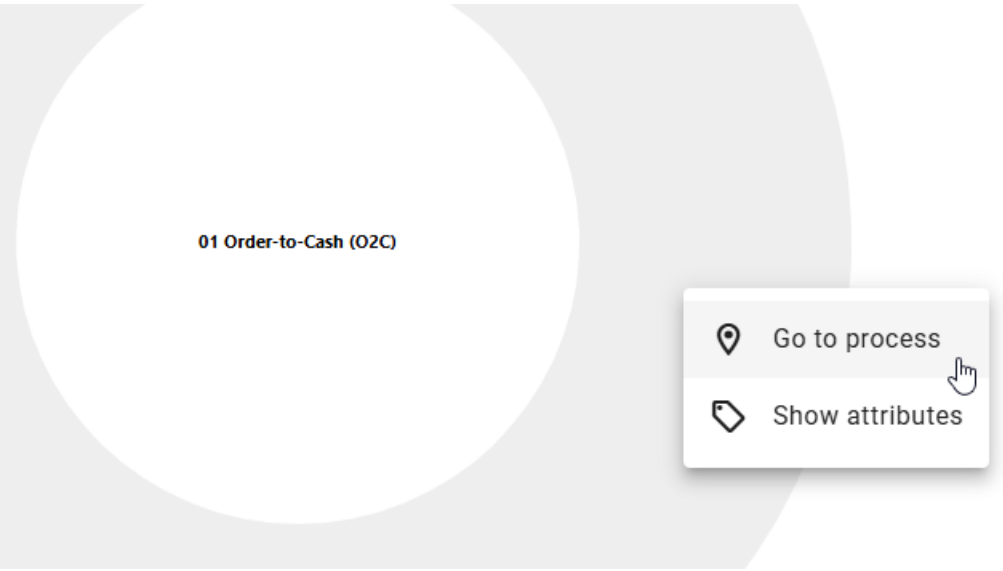
Clicking on this option will take you directly to the diagram where the selected object is used. Within the diagram, the object will be highlighted with a thick border and its details will be displayed in the right sidebar in the *Details* tab.

Hint: Please note that applied filters are not considered for the comparison. They are automatically deactivated.

Process hierarchy (sunburst diagram):

Users with the *Administrator*, *Editor*, or *Author* user role, are able to access the process hierarchy through the *Insights* menu item in the left menu bar. When you click on the *Process hierarchy* Insight within the *Hierarchy* section and select a start process that contains at least one subprocess, the process hierachy is displayed in a sunburst diagram.

You can navigate directly to a displayed process. When you right-click any segment in the sunburst diagram, the *Go to process* option will appear.



When you select this option, you will be taken directly to the corresponding process. The view will automatically open in the currently selected repository and stage.

CHAPTER

FIFTEEN

GOVERNANCE

Created, edited, and checked-in diagrams are available in the public workspace. These diagrams are only visible for users with access to this workspace, such as modelers and administrators. A model must be visible in the publication, so that other users, like Readers, are able to see them. This means they have to be published, which starts in the public workspace. The currently displayed version of the diagram is copied to the stages preview and publication using a release workflow. The different *versions of a diagram* are thus formed.

In general, you have two different releases for publishing diagrams: *editorial release* and publication via a *multi-level publication workflow*. By using the editorial release, a diagram is directly published without requiring an explicit approval. The publication via the multi-level release workflow requires confirmation by a responsible person. Optionally, a review by one or more examiners can be required in addition to the responsible, before a diagram becomes visible in the "Publication" stage.

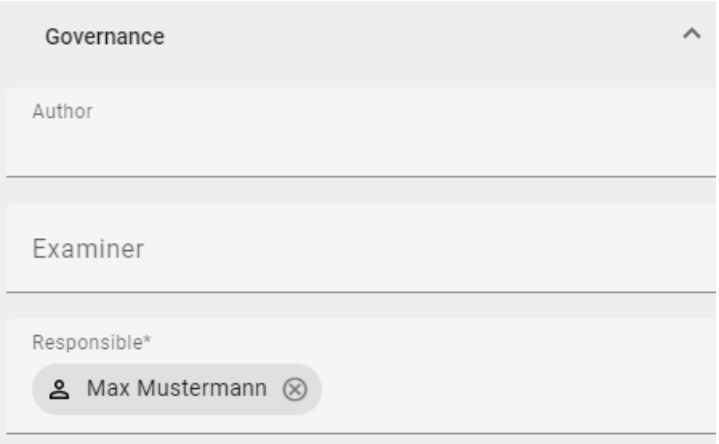
15.1 Diagrams

15.1.1 How can I publish a diagram?

The publication via the multi-level release workflow requires confirmation by a responsible person. Optionally, a review by one or more examiners can be required in addition to the responsible, before a diagram becomes visible in the "Publication" stage.

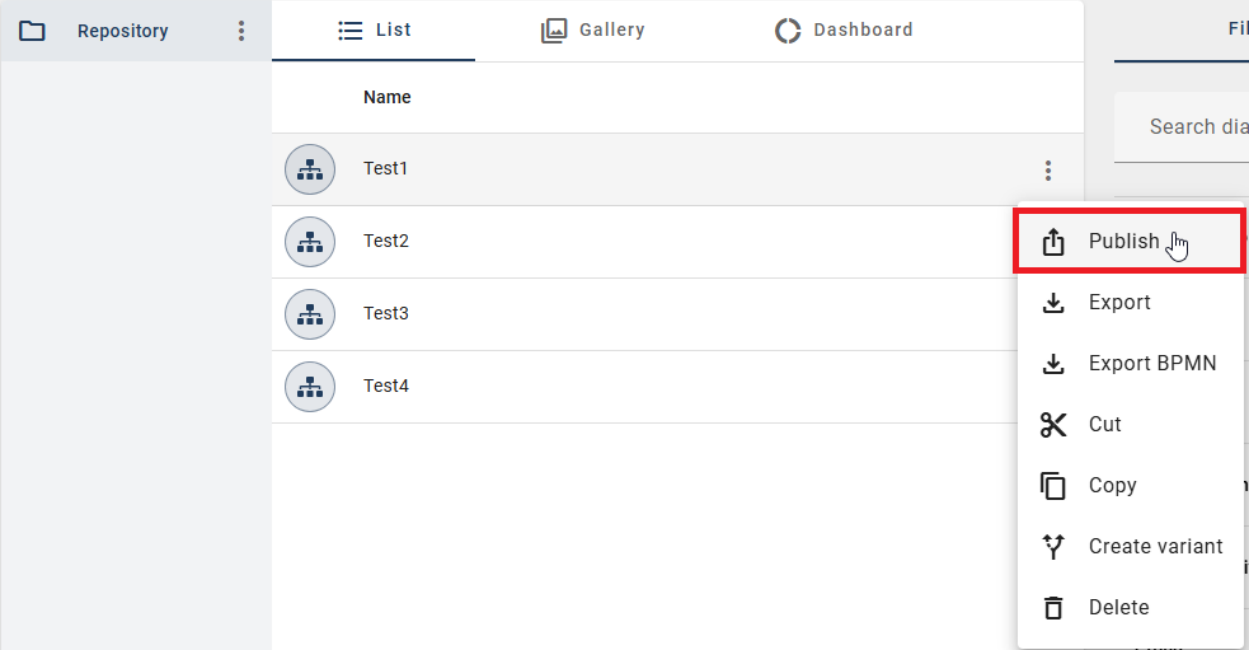
While modeling, users and user groups can be entered in the *attribute "Examiner"*, using their catalog item *person* or *organizational unit*. Per entry, that means per person and per *organizational unit*, only one approval is required in the examine step.

The attribute *Responsible* can only be set uniquely. Therefore, only a single person or organizational unit is eligible. This attribute is a *mandatory attribute* and has to be maintained for the publication.



Initiation

To start the publication workflow, open the context menu of the desired diagram in the diagram list and click the entry *Publish diagram*.



Alternatively (if you have opened a diagram), find the equivalent entry in the *Options* in the right sidebar.

Hint: Please note that you cannot publish locked diagrams.

Hint: Please note that users with the *Author* role are only permitted to publish diagrams if they are listed as reviewers in the governance attributes. Alternatively, they can forward diagrams for publication by maintaining the relevant governance attributes accordingly.

A dialog will open and request to provide a reason for the publication. Type in a reason and click *Publish*. For *various reasons*, it is possible that a workflow cannot be started. You will be notified by an error message in this case.

The publication always affects the version of the diagram at the time of the workflow start. Changes made to the diagram after initiation are not taken into account. This can lead to differences between the diagram in the public workspace and its version in the preview.

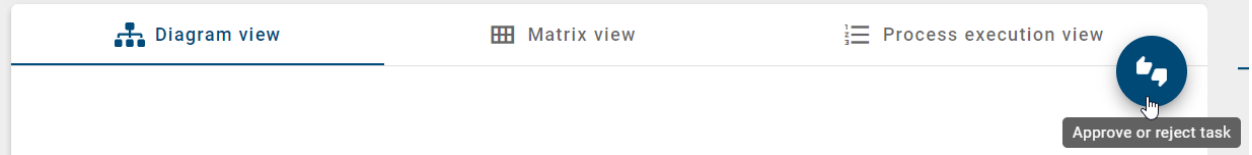
Examine step

The optional examine step is reached if at least one examiner has been set. After the release workflow has been

triggered, examiners receive a notification by email and in the application about the pending *examine task*, that can be done in the versions tab.

The examiner can reject or approve the diagram.

- If an examiner rejects the diagram, he must comment his rejection and the diagram will not be published. The initiator receives an email and *Task* about the *Rework* on this diagram instead. Then the publication can be aborted here, or the diagram can be edited and published again by clicking on the entry *Publish* in the versions tab.
- If the examiners approve the diagram, the responsible user or user group is informed by email and requested to check the diagram. To approve the examine step, all registered persons must approve the diagram. Furthermore, only one member of a registered organizational unit or user group must confirm the release.



Release step

The responsible user or user group also receives a *task*. The diagram can be approved or rejected. If a user group is entered, the processing of one group member is sufficient.

- If a responsible rejects the release of the diagram, he needs to write a suitable comment. Afterwards the initiator and examiner are informed by task and email that the workflow is terminated.
- If a responsible approves the diagram, for example the author and initiator are informed, the diagram is published (publication), and the publication workflow is terminated.

The symbols and catalog items contained in the diagram and in attributes are also published with the diagram. Catalog items with an own life cycle are an exception. These are not updated by the diagram publication, but exclusively via the *object publication independent* of this.

Warning: Depending on the validation scope defined for language dependent mandatory attributes, conflicts may occur that prevent publication. For more information, see *here*.

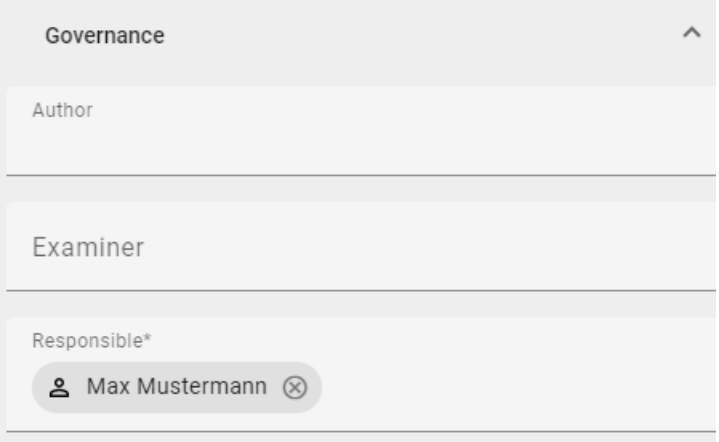
Note: The responsible and the examiner have to be assigned at least to the user role “Reviewer”, since they require access to the corresponding areas. Also note, that a new workflow can only be started if no publication is already running for the affected diagram.

Note: When the diagram is published by the workflow engine, the system attribute “Last Modified By” of the diagram is set to “Workflow” in all stages.

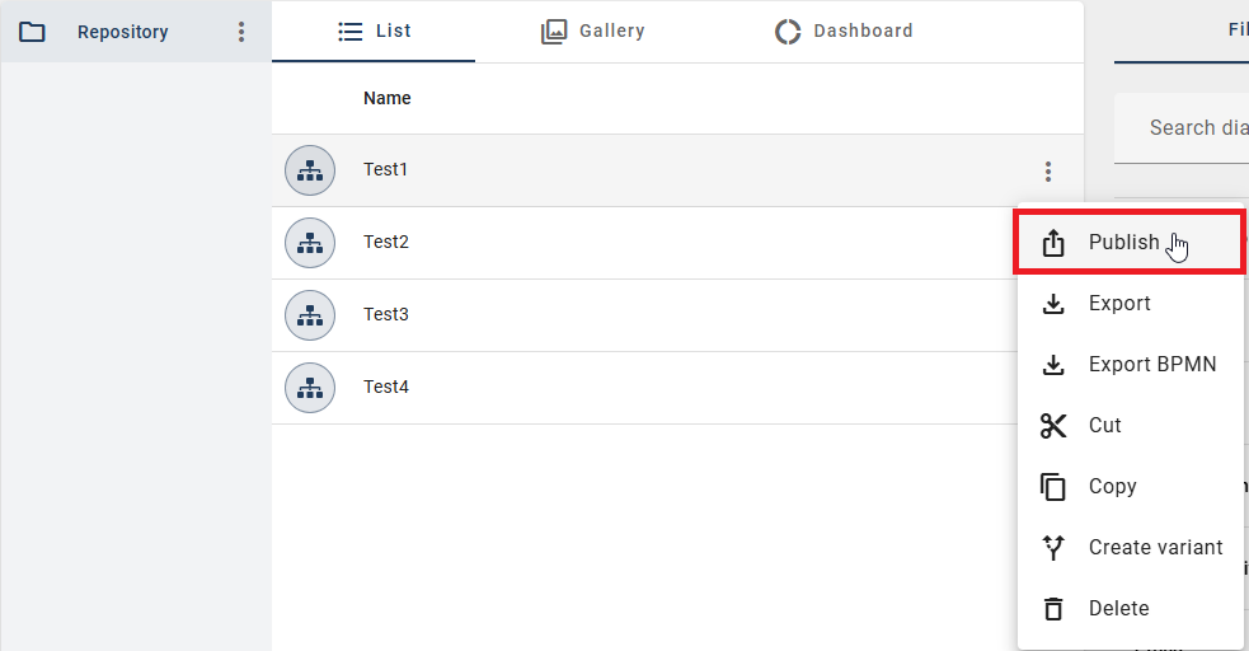
15.1.2 How can I directly publish a diagram?

In the case of the editorial release, a diagram is published directly without requiring an explicit approval by a responsible person or examiner. This workflow can be started by users with the role *Editor* or *Administrator*.

In order to be able to use the editorial release, the governance attribute *Responsible* has to be maintained. To set a responsible user or user group, you have to ensure that a *person* or *organizational unit* was created in the catalog and filled in the attribute. Please note that the names of the persons must be entered individually in all languages used when manually created.



To start the editorial release, open the context menu of the desired diagram in the diagram list and click the entry *Publish diagram*.



Alternatively (if you have opened a diagram), find the equivalent entry in the *Options* in the right sidebar.

Hint: Please note that you cannot publish locked diagrams.

A dialog will open and request to provide a reason for the publication. Type in a reason and select the checkbox *editorial release*. Then confirm via *Publish*. For *various reasons*, it is possible that a workflow cannot be started. You will be notified by an error message in this case.

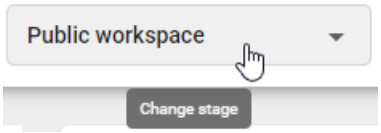
The diagram is now available in preview and in publication stage, without the need for acceptance by the responsible person. The responsible person and *other participants* receive *an optional email* informing them that the diagram has been published.

Note: Editorial release can be deactivated so that each publication must pass through the defined approval and release steps. If the checkbox is selected during publishing, the application will inform you that editorial publishing is not possible. To ensure governance, editorial release cannot be disabled by administrators. Please contact our Customer Support for further information.

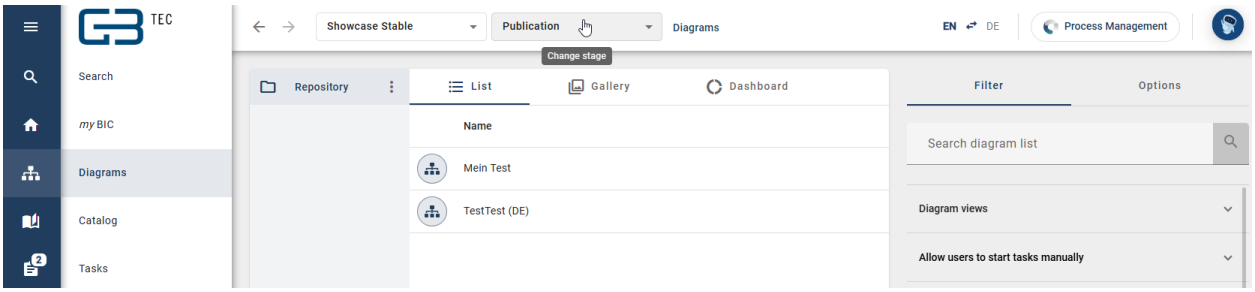
Note: When the diagram is published by the workflow engine, the system attribute "Last Modified By" of the diagram is set to "Workflow" in all stages.

15.1.3 How do I see which diagrams have already been published?

In order to view all published diagrams, navigate to the *stage Publication*. To do so, click the button in the header which shows the name of your current stage.

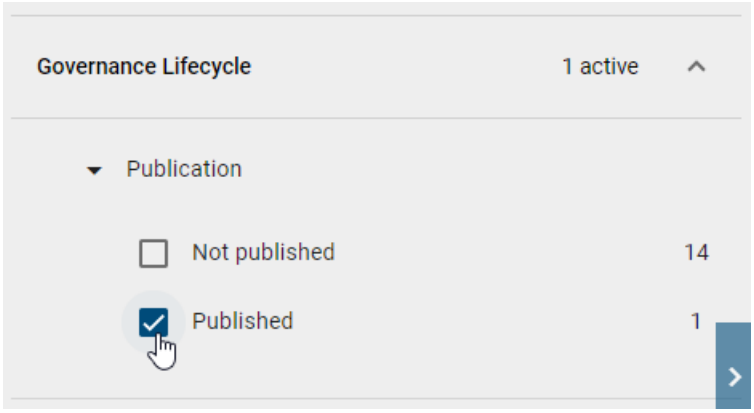


A list of available stages appears where you are directed to the stage *Publication* by a click. The name of the newly selected stage appears right next to the name of the repository. When you navigate to the *diagrams* now, you will see all diagrams and categories that have already been published.



Note: The same procedure applies to *diagram versions* in *Preview (in Release)*.

Alternatively, you can click the *Governance Lifecycle* attribute in the *Public Workspace* stage to filter by published diagrams and see all diagrams that have already been published.

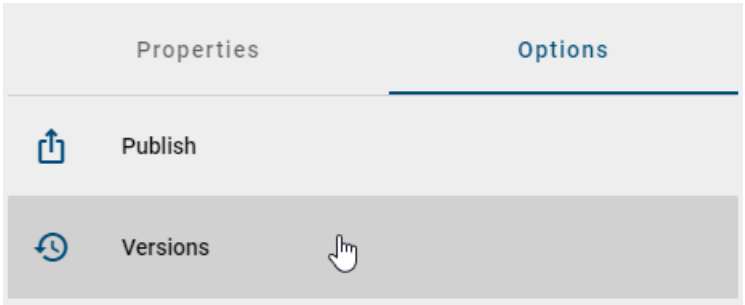


Note: If the *Published* facet is not displayed, no diagrams are currently published.

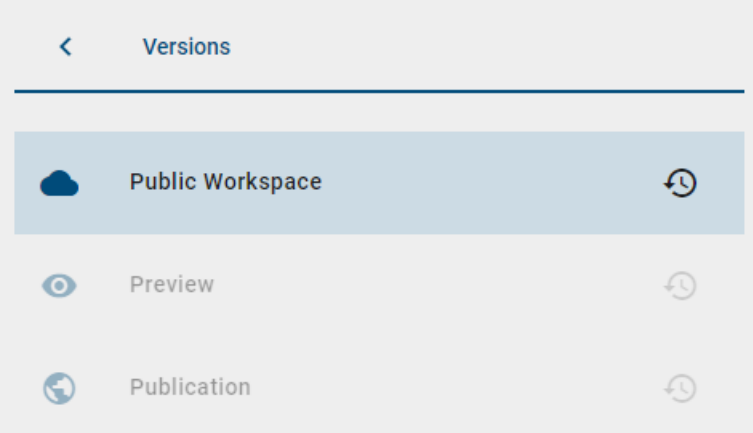
Hint: The attribute *Governance Lifecycle* is available from version 7.14.0. To view all published diagrams in this attribute, you must check the diagrams out and back in at least once.

15.1.4 How do I see if a diagram has been published?

Navigate to a diagram whose published version you want to check. Afterwards open the *options* and click the entry *Versions*.



If the diagram has already been published, you can select the entry *Publication*. Afterwards you see the published version of the diagram. The entry will be greyed out if the diagram has not been published yet. For the diagram of the example, the release has not even been started which is evident by the greyed out *Preview* entry:



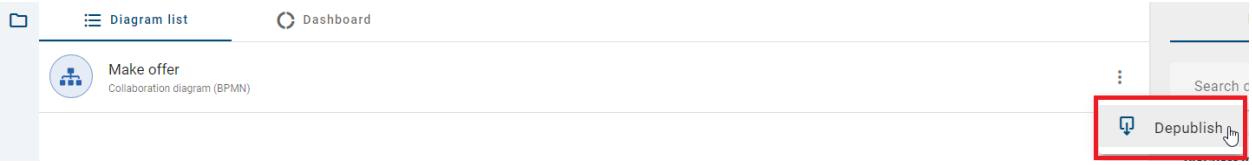
Note: The chapter *"Versions and History"* gives more information about the versions of a diagram.

15.1.5 How can I remove a diagram from the publication?

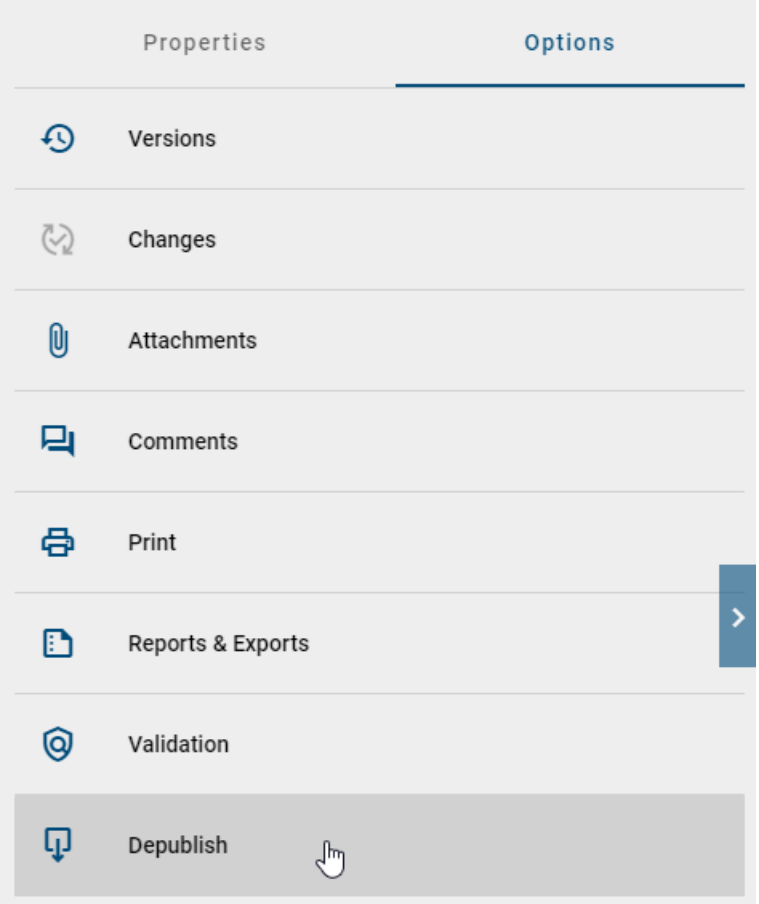
If you want to remove already published diagrams from the publication, you can use the "Depublish" function. The integrated workflow engine ensures a multi-level check. This workflow can be started by users with the role *Author*, *Editor* or *Administrator*. Your stage also needs to be in *Publication*.

Initiation

To start the publication workflow, open the context menu of the desired diagram in the diagram list and click the entry *Depublish*.



Alternatively (if you have opened a diagram), you can find the equivalent entry in the *Options* in the right sidebar.

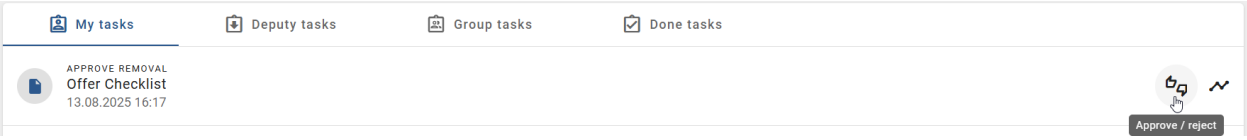


A dialog will open and request to provide a reason for the publication. Type in a reason and click *Depublish*. For *various reasons*, it is possible that a workflow cannot be started. You will be notified by an error message in this case.

Release step

The user or user group maintained as responsible receives a *task* or a *group task* in the system and is informed by email. The responsible can arrange the final depublication.

If you are responsible for a diagram and received such a task, navigate to your *tasks* and select the *Approve / reject* button.



In the upcoming dialog, you can make your decision.

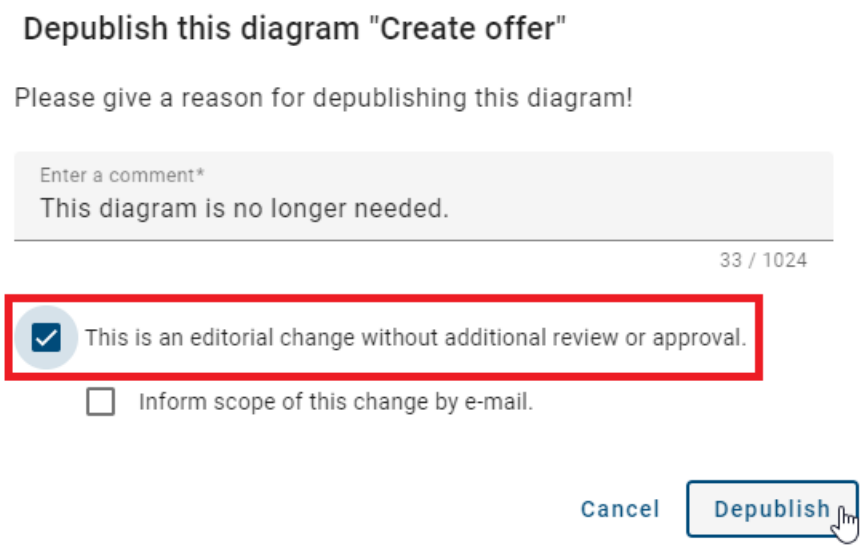
- If a responsible rejects the depublication of the diagram, he needs to write a suitable comment. Afterwards the initiator is informed by a task and an email that the workflow is terminated.
- If a responsible approves the depublication, e.g. the initiator is informed by email, the diagram is removed from publication, and the workflow is finished.

Catalog items without an own responsible person and which are only used in this diagram, are removed from catalog by depublication of the diagram. Entities with an own life cycle can be depublished using a *special workflow*.

15.1.6 How can I directly depublish a diagram?

With this editorial change, a diagram that has already been published is directly removed from the publication without explicit approval by a responsible person. This workflow can be started by users with the role *Editor* or *Administrator*.

Follow the steps of *initiation* from the *previous chapter*. Enter a reason for the depublication and activate the **checkbox** of the editorial change in the dialog with a mouse click.

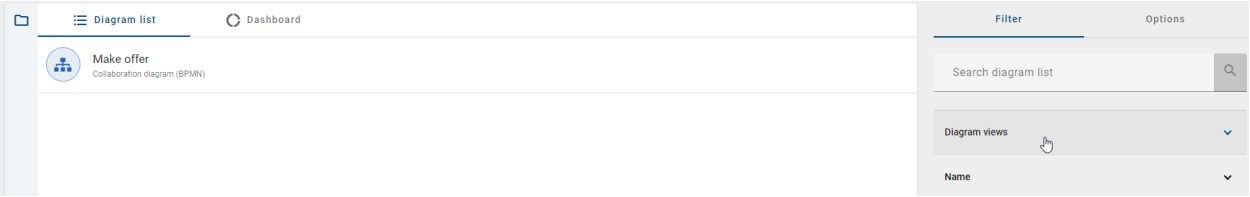


Some participants are optionally notified of this depublication by *an email.*

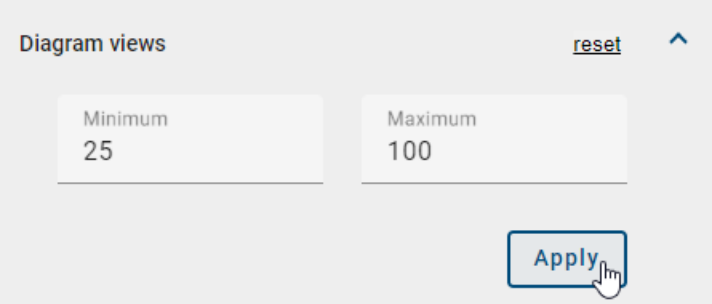
Hint: Please note that users with the *Author* role are only permitted to publish diagrams if they are listed as reviewers in the governance attributes. Alternatively, they can forward diagrams for publication by maintaining the relevant governance attributes accordingly.

15.1.7 How can I analyse the click rates of processes?

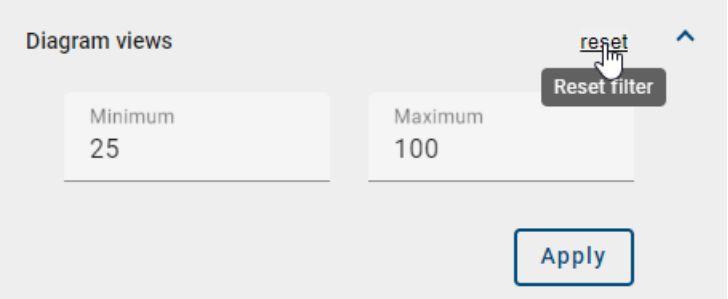
In the *diagrams section*, you can monitor the click rates of your published processes. As a *user with reviewer rights or higher*, you can find a *filter facet Diagram views* in the diagrams list.



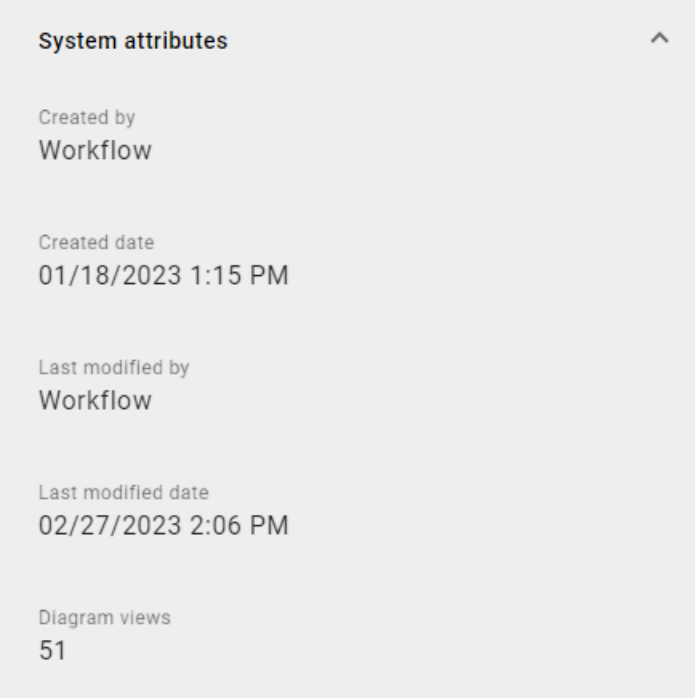
Open the facet by a click. Then you can enter a minimum and/or maximum value of click rates. After entering at least one value, you can click the *Apply* button. Then, the list shows all diagrams which have been viewed as frequently as specified.



As soon as you entered a value as minimum or maximum, a *reset* button appears which you can use to remove the input and the filter again.



If you open a diagram in *publication* stage, you can find the number of views in the system attributes group. These attributes are shown in the *details* which is the first tab of the right sidebar. Note that this information is not available for *Readers*.



Note: Please note that the diagram click rates are registered continuously, but the attribute *Diagram views* is updated only once a day (at midnight of your server time zone). Therefore, you filter for the click rates given by the last update which is at most 24 hours ago.

15.2 Catalog items

15.2.1 With which requirements can I publish a catalog item?

Administrators, editors and authors have the option to publish a catalog item independently of a diagram. This is useful for items changed in the public workspace, so that individual changes are also available in the publication. There are a few points to bear in mind.

You can only publish *accepted catalog items* of the public workspace. Furthermore, the catalog items must have governance attributes that are assigned to a responsible person or organizational unit and optionally one or more examiners.

Only if these criteria are fulfilled, it is finally possible to *Publish* a catalog item the catalog of the public workspace.

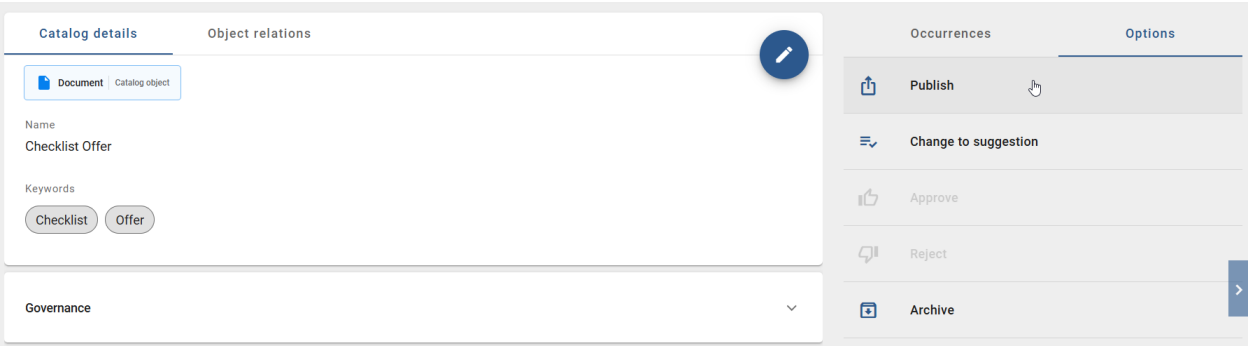
Also note the *general reasons* for failed publishing workflows.

15.2.2 How can I publish a catalog item?

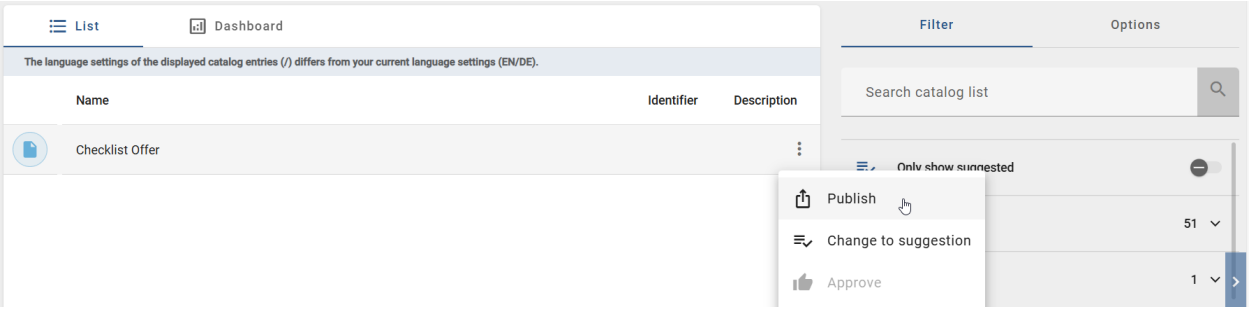
If an object is published via the multilevel release workflow, at least one review is necessary. This is always done by the responsible person. Optionally,a review by one or more examiners can be required. Only after successful verification the changed object becomes visible in the "Publication" stage. The requirements for publishing a catalog item are explained in more detail in this *section*.

Initiation

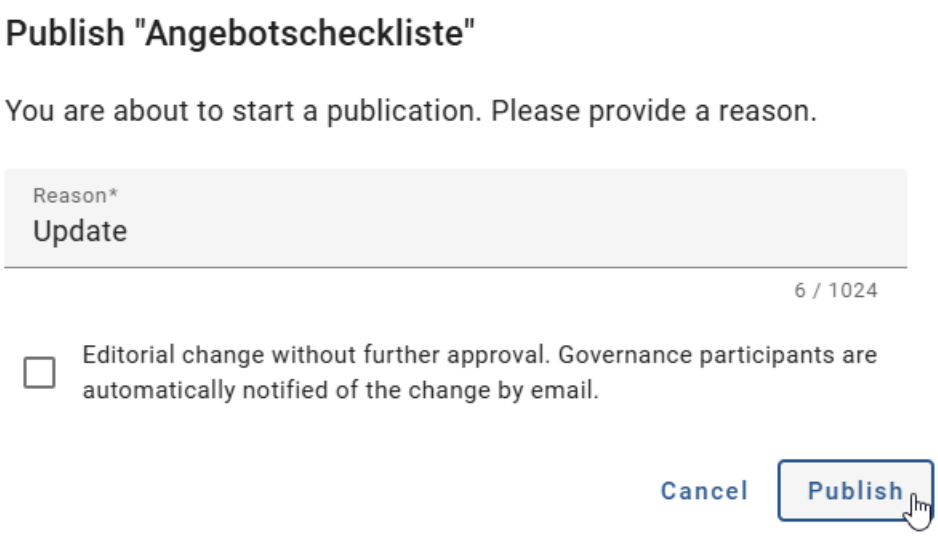
In the catalog, navigate to the item you want to publish. Select the item and open the register card *Options* in the right sidebar. Activate the function *Publish* of the catalog item to start the publication process.



Alternatively, you can start the publication via the context menu of the catalog item by selecting the option *Publish*. Note, that the *Responsible* attribute needs to be set to start the publication.



Then enter a reason for publication and click *Publish*.



The registered examiners and the responsible are then informed about the initiation and they can carry out their examine and release steps. The time of the workflow start determines the version of the catalog item to be published. Changes made to the object after initiation are not taken into account. This can lead to differences between the catalog item in the public workspace and its version in the *preview*.

If you receive an error message for initiating the workflow at this point, you will find the *possible reasons for this here*.

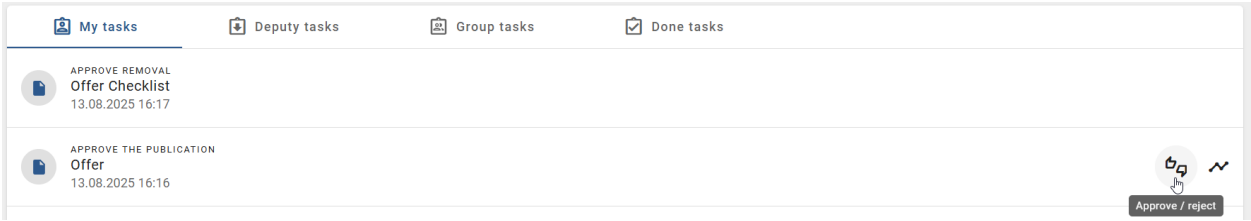
Hint: If the catalog item is not assigned to an entity type and therefore does not contain a *Responsible* attribute, the *Publish* option is not visible.

Examine and release step

The optional examine step is achieved if at least one examiner is set. After the release workflow has been triggered, the responsible examiners receive a notification by email and in the application about the outstanding review task.

Responsible persons or organizational units are informed by email of the pending release step after workflow initiation or after the accepted examine step.

By clicking on the notification, users can navigate to *their tasks* and can see the task here or in their *group tasks*. The new task is displayed there and can be edited.



- If the publication is rejected, the respective person must set an appropriate comment and the catalog item will not be published. The initiator is informed by email and the workflow is terminated.
- After approval in the examine step, the responsible is requested to perform a release check by email and task. All persons registered as examiners must approve the publication. Furthermore, only the release of one member of a registered organizational unit or user group is necessary.
- If the responsible person or a member of the organizational unit responsible approves the publication, for example the author and initiator will be informed by email, the catalog item will be published (publication) and the release workflow will be completed.

Warning: Depending on the validation scope defined for language dependent mandatory attributes, conflicts may occur that prevent publication. For more information, see *here*.

Note: Only after publication of the catalog item, the changes are applied to all diagrams in preview and publication in which this object is modeled. Catalog items, that have an own responsible, are not updated using diagram publication.

Tip: If you want to publish several catalog items, you can use the *bulk publication* to initiate the releases all at once.

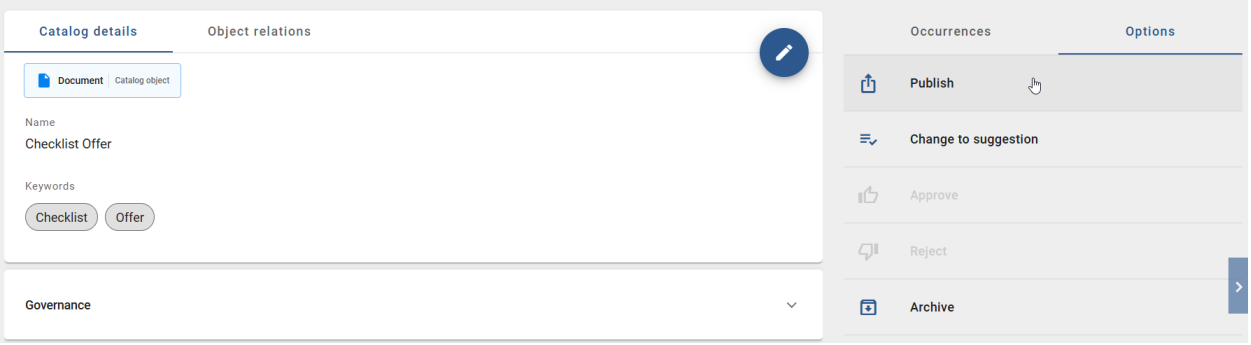
Note: Please note the hints when publishing catalog items with *word file attachments*.

Warning: Please note that catalog items containing a PDF file in PDF 2.0 format as an attachment cannot be published. PDF 2.0 does not support conventional document properties, but instead uses XMP metadata for user-defined properties, which are generally not displayed in standard PDF programs and therefore require advanced viewing tools.

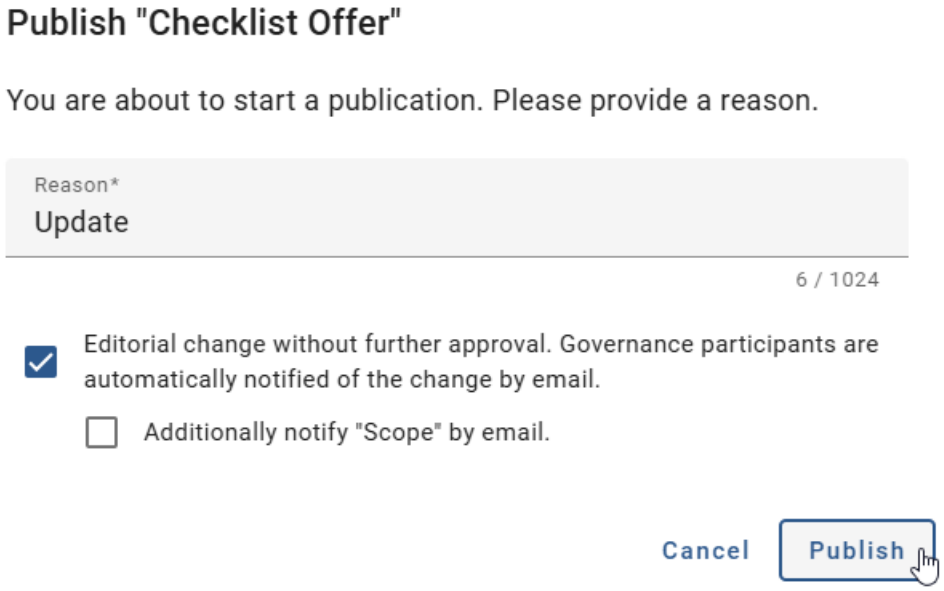
15.2.3 How can I directly publish a catalog item?

In editorial release, a catalog item is published directly, without explicit release confirmation by a responsible person or examiner. This workflow can be started by users of the role *Editor* or *Administrator*. Some prerequisites for publishing a catalog item are explained in this *section*.

In the catalog, navigate to the item you want to publish. Select the item and open the register card *Options* in the right sidebar. Activate the function *Publish* of the catalog item to start the publication process.



Enter a reason for publication in the provided text field and activate the checkbox “This is an editorial change. There will be no further approval requested.” below the input field. Confirm by clicking *Publish*.



You will then receive a notification about the workflow start in the application. The catalog item is now available in the preview and in the publication stage without the approval of examiners or the responsible. The initiator and other *workflow participants* receive the information by email that the catalog item has been published.

If you receive an error message for initiating the workflow instead, you will find the *possible reasons for this here*.

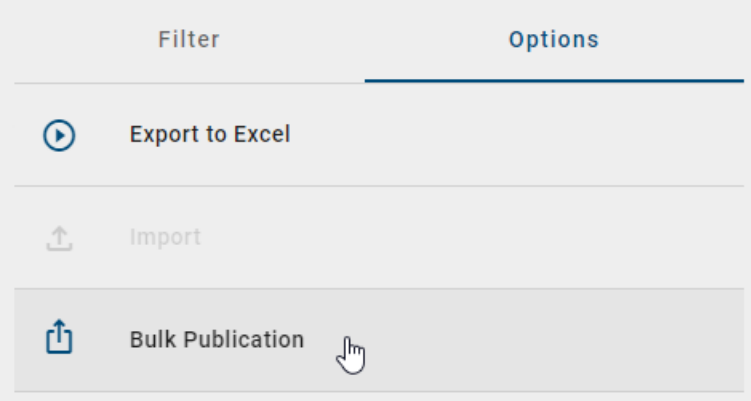
Note: Editorial release can be deactivated so that each publication must pass through the defined approval and release steps. If the checkbox is selected during publication, the application will inform you that editorial publication is not possible. To ensure governance, editorial release cannot be disabled by administrators. Please contact our Customer Support for further information.

Note: Please note the hints when publishing catalog items with *word file attachments*.

15.2.4 How can I start a publication for multiple catalog items at once?

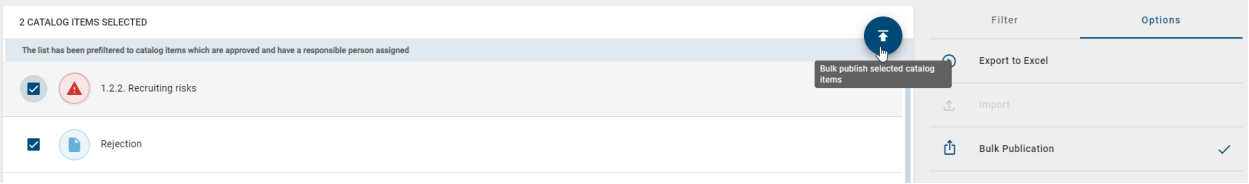
If you would like to publish multiple catalog items, you can use the bulk publication to speed up the process. The bulk publication starts a release workflow for each of your selected catalog items, so that you do not need to *initiate the release at each single item*.

Navigate to the catalog, open the *Options* panel in the right sidebar and click the bulk publication option. Note that the bulk publication is performed in the catalog list. If you view the dashboard when selecting the option, the application will switch to the list automatically.



The catalog list will be filtered for all accepted items where the attribute *Responsible* is maintained. If you have previously extended the list view of the catalog with *additional attributes*, this view is included in the bulk publication. Thus, the list shows the items that fulfill the *prerequisites for publication*. Moreover, each list entry comes up with a checkbox. Now you can select the catalog items you want to publish. In the header, you can find the number of selected items.

If you marked at least on catalog item, you can click the arrow button to start the multilevel (or editorial) release for your selection.



As soon as you click the button, a dialog appears. Firstly, you can enter a comment in the comment field. Secondly, you need to confirm the bulk publication by typing "Yes" in the field at the bottom and clicking *publish selection* afterwards.

In order to perform an *editorial release* for all selected catalog items, you can activate the checkbox *This is an editorial change*. Then, no further approval is requested from responsible or examiners and the catalog items are directly transferred to the publication stage where they are visible for all users (as far as there is no access restriction on the respective catalog items).

After confirmation, the dialog is closed automatically. If you initiated a multilevel release, a release workflow for each catalog item is started where the assigned examiners and responsible decide on the publication.

You can switch to the original catalog view by selecting the option *bulk publication* again. To prevent unwanted canceling of the bulk publication, you will be asked to confirm this step in a dialog. Click the *leave* button there.

Note: Please note that the bulk publication is only available in the desktop version.

Note: Editorial release can be deactivated so that each publication must pass through the defined approval and release steps. If the checkbox is selected during publication, the application will inform you that editorial publication is not possible. To ensure governance, editorial release cannot be disabled by administrators. Please contact our Customer Support for further information.

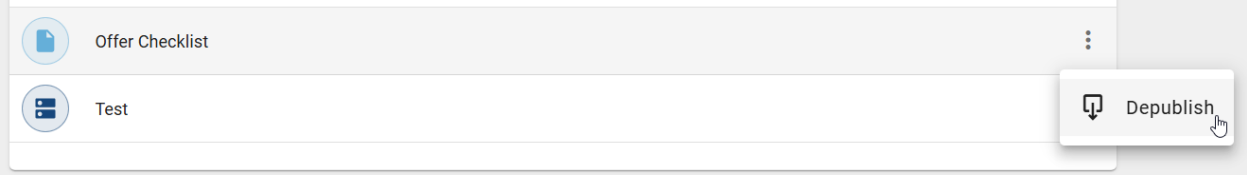
Note: Please note the hints when publishing catalog items with *word file attachments*.

15.2.5 How can I remove a catalog item from the publication?

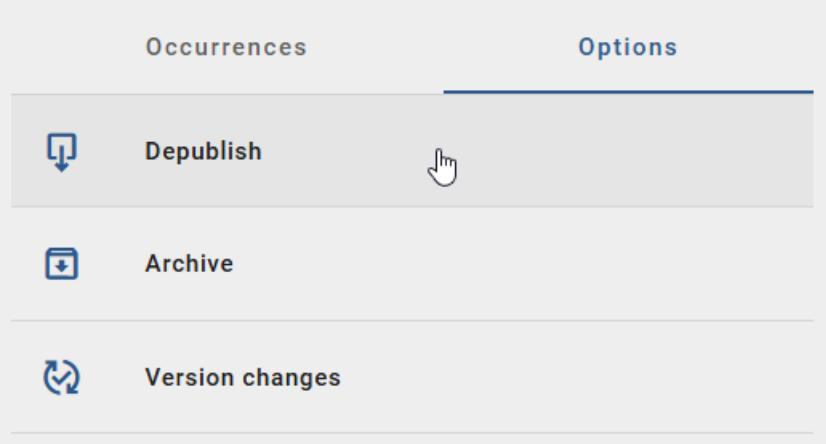
If you want to remove a catalog item from the publication, you can use the "Depublication" function. The integrated workflow engine ensures a confirmation step. Users of the roles *Author*, *Editor* or *Administrator* can start this workflow.

Initiation

Open the catalog in the "Publication" stage and navigate to the catalog item you want to depublish. Click on the context menu of the item and select *Depublish*.



Alternatively (if you have opened a catalog item), you can find the equivalent item in the *Options* in the right sidebar.



A dialog opens. Enter a reason for the depublication there and click *Depublish*.

Hint: If a catalog item has no responsible assigned, a depublication cannot take place.

Release step

The user maintained as "Responsible" receives a *notification in the system* as well as by email. With a click on the notification, users will be navigated to *his tasks* and can initiate the final depublication.

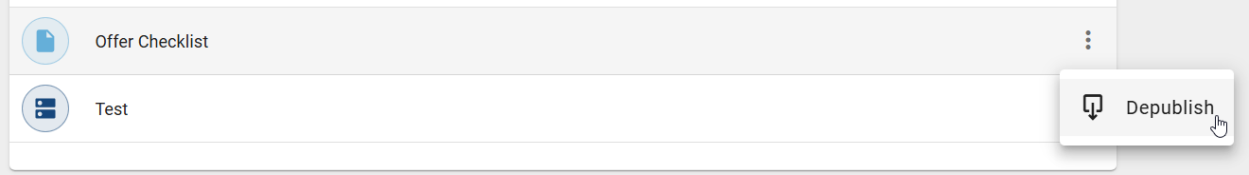
- If the person responsible rejects the depublication, a corresponding comment must be set. The initiator is informed by email and the workflow is canceled.
- If the responsible person approves the depublication, the initiator will be informed by email, the catalog item will be removed from the publication and the workflow will be finished.

Note: If the published catalog item is used in a published diagram, the depublication of the item is not possible.

15.2.6 How can I directly depublish a catalog item?

With this editorial change, a catalog item that has already been published is directly removed from the publication without explicit approval by a responsible person. This workflow can be started by users of the role *Editor* or *Administrator*.

Open the catalog in the "Publication" stage and navigate to the catalog item you want to depublish. Click on the context menu of the item and select *Depublish*.



A dialog opens. Enter a reason for the depublication there and activate the checkbox "This is an editorial change. There will be no further approval requested." below the input field. Confirm with a click on *Depublish*.

Then the catalog item is removed from the publication.

Note: If the published entity is used in a published diagram, depublication is not possible and the workflow will be canceled.

Note: Editorial change can be deactivated so that each depublication must pass through the defined release step. If the checkbox is selected during depublication, the application will inform you that editorial change is not possible. To ensure governance, editorial release cannot be disabled by administrators. Please contact our Customer Support for further information.

15.2.7 What do I have to consider when publishing items with word file attachments?

If you publish a catalog item with a word file attachment, unwanted changed might occur due to language-specific configuration in the table of contents. To prevent this, you should *not* format the TOC (Table of contents) field function using the `\t` switch. The configuration of the table of contents can be checked (and changed) as follows.

Select the table of contents and then press Alt + F9 to view the definition of the TOC field function. In the definition, you should use `\o` and `\u`. You can find more information on the switches and syntax in the TOC field function in this section of the Microsoft documentation.

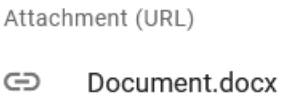
If you *convert the word file to a pdf file during publication*, only certain fonts are supported. The usage of not supported fonts can lead to formatting losses and a change in the total number of pages in your .pdf file. Here you will find a detailed list of the fonts, which are supported by the report engine. Moreover, note the possibility to *embed the used fonts in your document*.

15.2.8 How do I ensure that attachments in the publication are provided as pdf files?

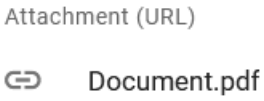
For catalog items with an own responsible person, you can specify that files attached in the *"Attachment (URL)"* attribute are only available in pdf format in the publication, even though they were added in a different format in the public workspace.

To do this, *edit* the catalog item and activate the checkbox of the attribute *Publish as PDF* in the governance attributes.

All attached files that are not in .pdf format in public workspace will be converted to .pdf files during the next object publication of this catalog item. In preview and publication, these replace the original file format, which remains for the respective attachment in the public workspace. The files keep their names in all stages. For example, you get this .docx attachment in the attributes of the catalog item in the public workspace,



while the corresponding .pdf file can be found in preview and publication stage:



In the section about the attribute *"Attachment (URL)"*, you can find a list of the file formats that are supported by the upload and pdf generation engine. If errors occur during the generation of the pdf file, the *publish workflow* will fail. This can be caused by invalid documents or protected documents.

Note: Be aware that only certain fonts are supported in the process of converting your file to a .pdf file. The usage of not supported fonts can lead to formatting losses and a change in the total number of pages in your .pdf file. Therefore note the possibility to *embed the used fonts in your document*.

Hint: Please note that documents with *extended rights* are not stamped during publication. Thus, the .pdf file in preview and publication stage does not include the details which are usually *transferred from the governance attributes*.

Note: The pdf conversion engine prints all worksheets from left to right. Each worksheet is printed from top to bottom and then from left to right. The generated pdf roughly corresponds to the defined print area of the Excel file, but page breaks can be slightly offset from the print preview. In principle, the paper format, margins and orientation

are taken into account when generating the pdf. However, please note that with larger documents there is an increasing misalignment and the preview does not correspond to the final pdf.

Note: Please note that although it is possible to mirror text along the x or y axis in Excel, the Aspose framework does not support keeping the mirrored text when converting to PDF.

Hint: Please note that the *Attachment (URL)* attribute can be restricted by an individual method configuration. In this case, it is only possible to store links or URLs, while other file types cannot be maintained.

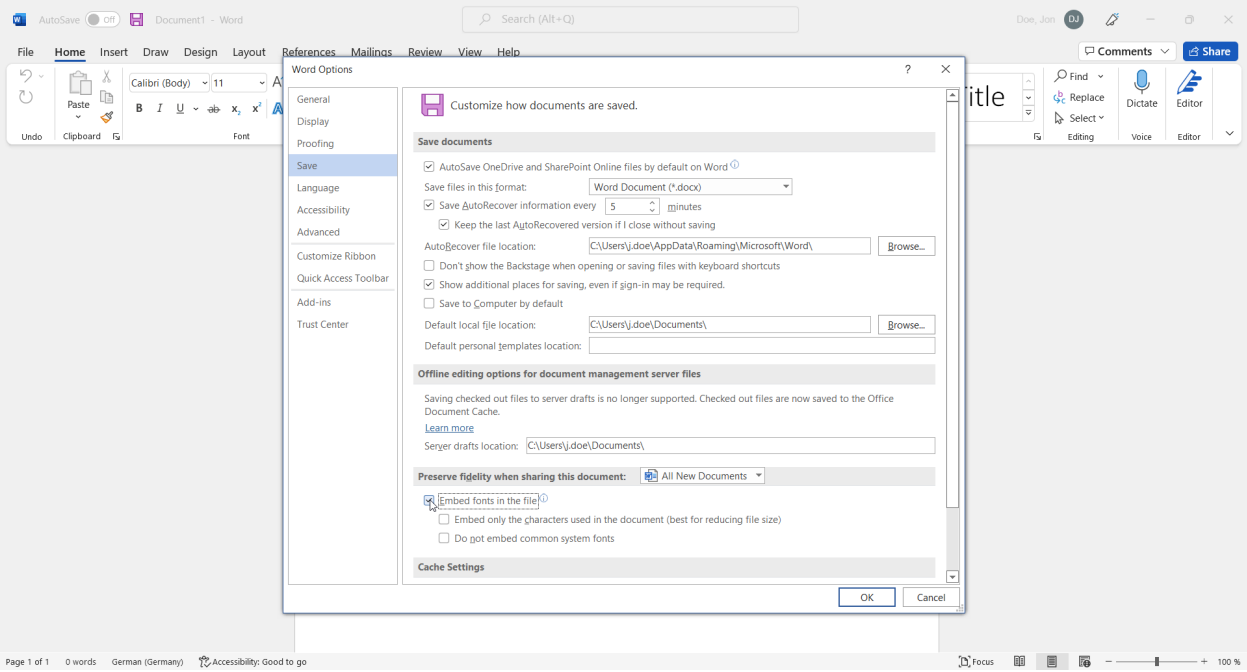
Warning: Please note that catalog items containing a PDF file in PDF 2.0 format as an attachment cannot be published. PDF 2.0 does not support conventional document properties, but instead uses XMP metadata for user-defined properties, which are generally not displayed in standard PDF programs and therefore require advanced viewing tools.

15.2.9 How can I ensure that all characters are preserved in the pdf conversion?

Only certain fonts are supported in the process of converting your file to a .pdf file. The usage of not supported fonts can lead to formatting losses and a change in the total number of pages in your .pdf file. *Here* you will find a detailed list of the fonts, which are supported by the report engine. Note that symbols of not supported fonts are usually used automatically for enumerations. We recommend to adapt the following option in Microsoft Word in order to prevent formatting losses.

It is possible to embed the used Microsoft fonts in your Word file. If the fonts are embedded in the document, the corresponding characters and symbols are correctly shown in the pdf file that is generated in the process of publication in BIC Process Design.

You can embed the fonts in the Word Options in the menu item *Save*. In the section “Preserve fidelity when sharing this document”, select the checkbox “Embed fonts in the file” and deselect the two below. Then choose the option “All New Documents” in the drop-down menu.



“Used with permission from Microsoft.”

All documents saved afterwards can be converted to pdf during publication in BIC Process Design whereas the original characters are used.

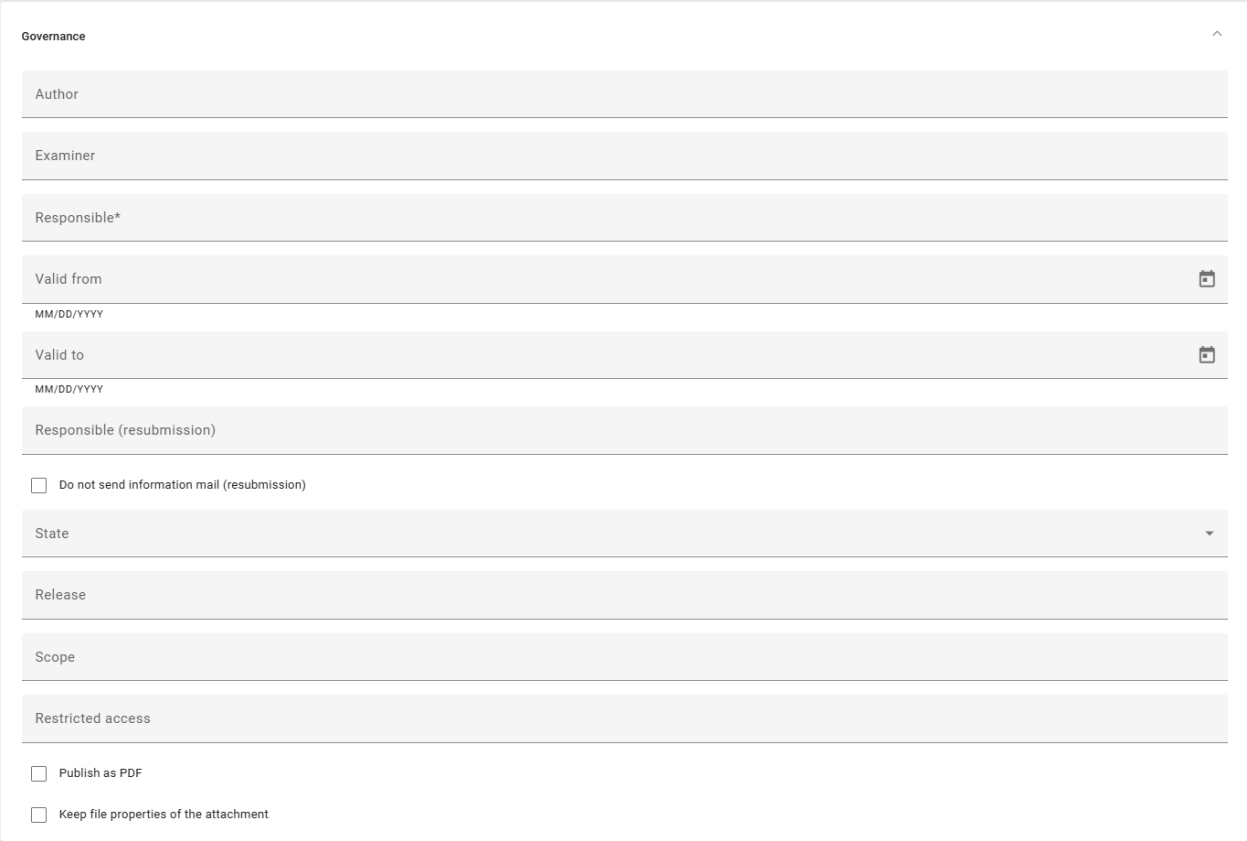
15.2.10 How can I transfer attributes to documents during publication?

In the process of publication, *attached files* can be stamped with some attributes of the associated catalog item if some requirements are fulfilled. The file has to be attached to a catalog item of the type *document* that also has its own responsible in order to be *published independently*. The option to stamp documents is enabled by default and can be disabled at the system level or for individual documents. To disable it for a single document, the *Keep file properties of the attachment* checkbox must be selected. Document stamping can be applied to all prepared files in .pdf, .doc, .docx, .xls, .xlsx, .ppt and .pptx format.

By default, the following attributes are stamped in the catalog details when publishing:

- Author (AT_AUTHOR)
- Examiner (first three) (AT_EXAMINER, AT_EXAMINER_2, AT_EXAMINER_3)
- Responsible (AT_RESPONSIBLE)
- Responsible (Resubmission) (AT_RESUBMISSION_RESPONSIBLE)
- Valid from (AT_VALID_FROM)
- Valid to (AT_VALID_TO)
- Release (AT_RELEASE)
- Scope (AT_SCOPE)
- Restricted access (AT_ACCESS_RESTRICTION)
- Identifier (AT_IDENTIFIER)
- State (AT_STATE)
- Publish as PDF (AT_PUBLISH_AS_PDF) (see the note)

- Keep file properties of attachment (AT_KEEP_ATTACHMENT_PROPERTIES)



Other attributes of the catalog item can also be stamped into the file if they are configured to do so. To do this, the desired attribute types can be added or adjusted directly in the *Catalog details* in edit mode, unless this has already been done by a previous publication. The corresponding stamp options are displayed in the *Governance* section of the *Catalog details* and can be selected and edited there by an authorised user. The name of the property must correspond exactly to the *attribute type ID*, for example 'AT_RESPONSIBLE' for the *Responsible*. The value can be any default value. For more information on viewing and changing file details in the applications in which you open your document, see the instructions for Microsoft Office products can be found here.

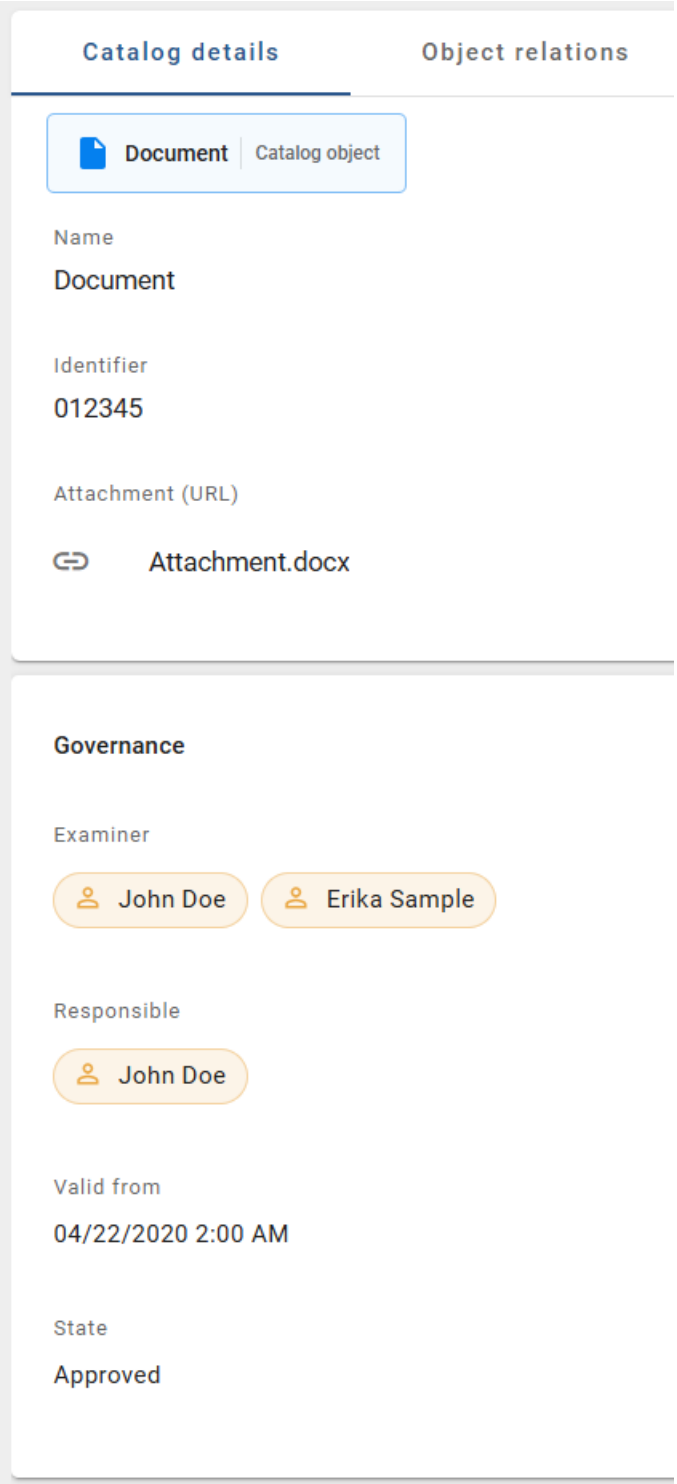
To stamp language-dependent attributes (i.e. attributes that have a local value depending on the content language), you need to add a locale suffix to the attribute type ID. For example, to get the English name of the corresponding catalog item you need to specify it as `AT_NAME_EN`. If you include a language localized attribute without a suffix, an error notification, that informs you about this, is maintained as the value of this property.

If the details are configured and the corresponding attributes are maintained for the catalog item, the attribute values will be transferred to the details of the file within the publication of the catalog item. The (default) values of the details are reset with the attribute value from the application. Then the details of the file version in preview and publication include the configured attributes. If an attribute is a multi-value assignment, such as the examiner, it is transferred as a comma-separated list. Details defined by attributes with the data type *enumeration* are filled with their numerical value. If such an enumeration attribute is also language-dependent, you need to specify a suffix at the detail as explained above.

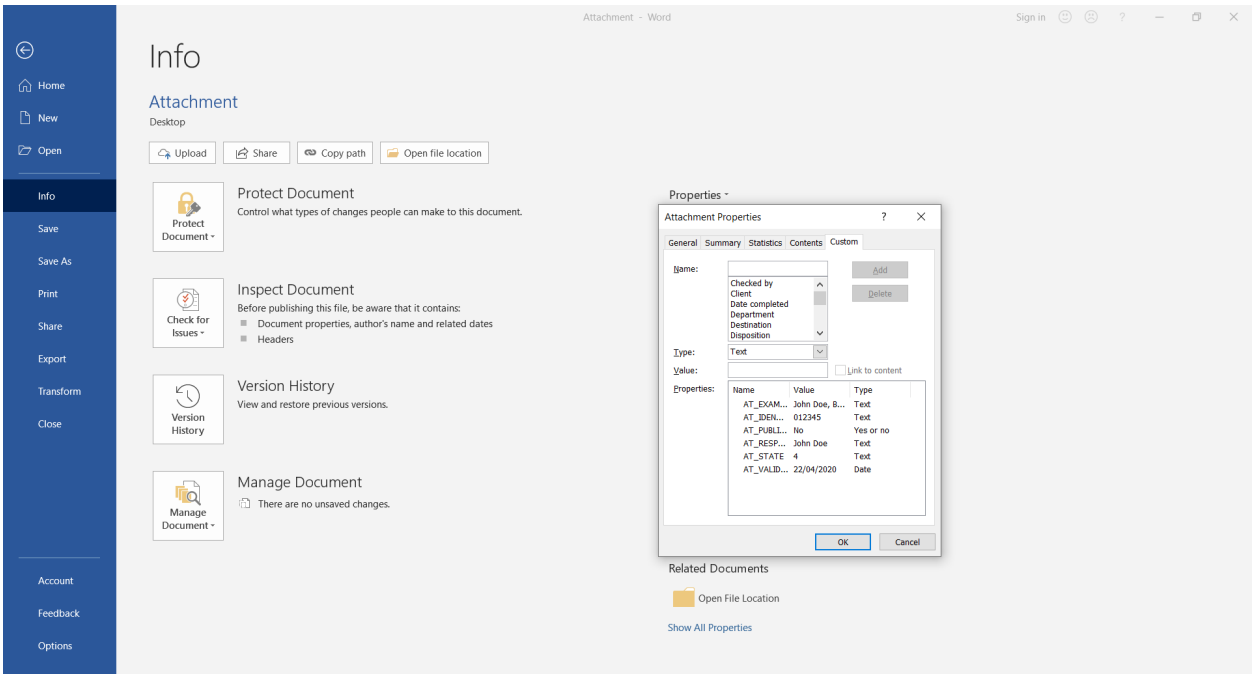
The details associated with the *state* attribute ("AT_STATE") is set with a numerical value according to the selected state. You can add a suffix (e.g. "AT_STATE_EN") in order to write out the string in the corresponding language (e.g. "On Hold" instead of "1") as the state property.

- 0 - None
- 1 - On Hold

- 2 - In Progress
- 3 - Needs Review
- 4 - Approved



For example, the governance attributes mentioned above are transferred to a docx file in Microsoft Word as follows.



"Used with permission from Microsoft."

It is possible, for example, to use the field function in the header or footer of a Microsoft Word document to access the detail values dynamically. You can select the name of a detail in the "DocProperty" field as a placeholder. At this point also note the reference to the Support of Microsoft Word. In order to use the attributes of the catalog item with the field function, they need to be defined in the file details. With the next publication, the attribute values are finally transferred to the details of the attached file. Thus also the values of the used placeholders will change.

Hint: If you want to use the values of the document details in your document, use the path *Insert* → *Quick Parts* → *Field* → *DocProperty* in Word to access the values. In Excel and PowerPoint, this function is not supported by Microsoft Office. However, you have the option to do this using the Visual Basic-Editor. For more information, please consult the official Microsoft Support homepage.

If errors occur while adding the details, the publication workflow will fail. This can be caused by invalid documents or protected documents.

Hint: Please note that your document is not stamped if its *extended rights* are activated.

Hint: Please note that if a PDF/A document is stamped, the long-term archiving functionality will be lost.

Note: Formatted text attribute values are not supported for stamping. If you stamp an attribute with formatted text, the text will be added to the details without formatting.

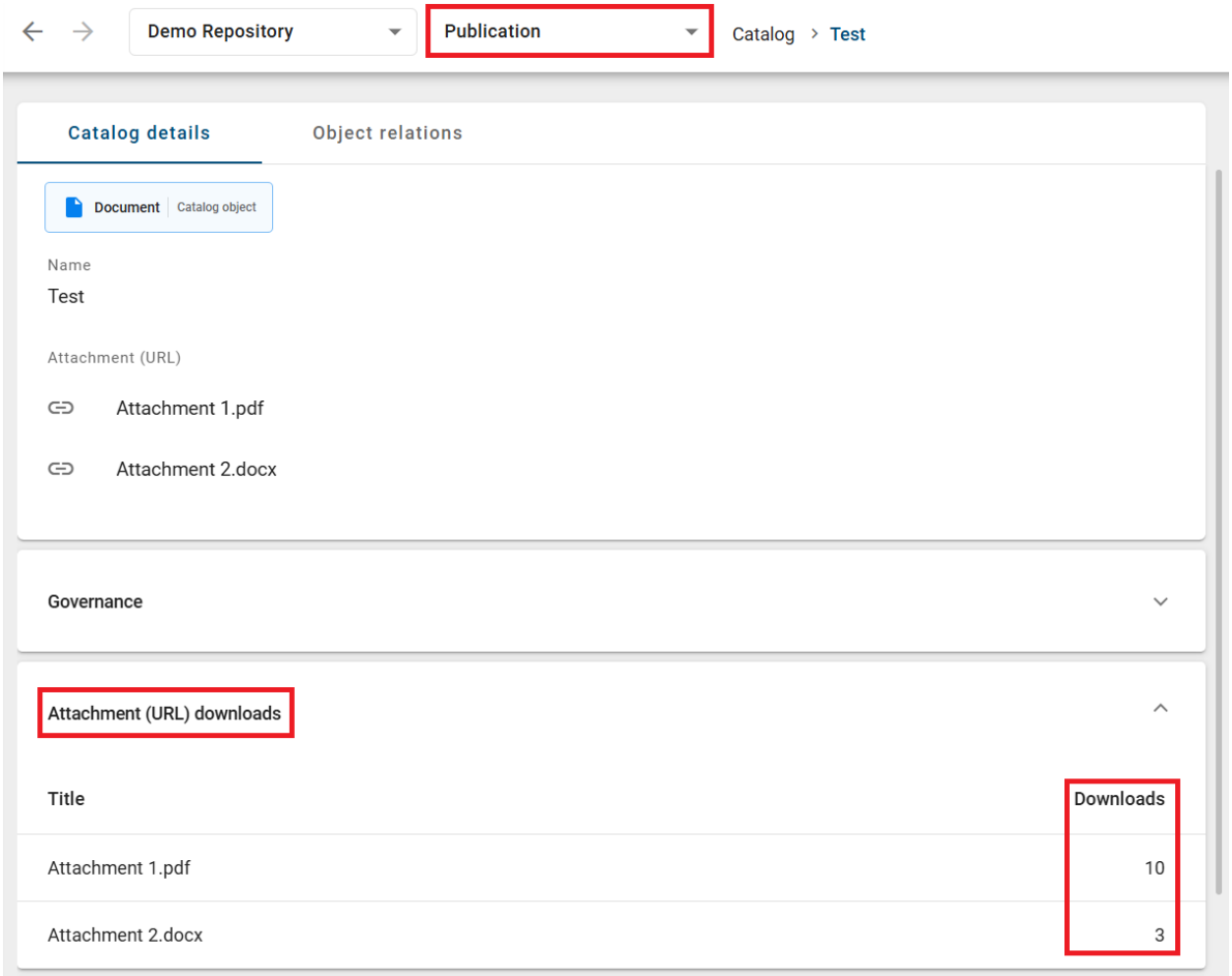
Tip: If a date that has been stamped (for example the attribute "Valid to", AT_VALID_TO) is printed in your word document using the field function, the date format can be specified by the author. Otherwise, the date format is taken from the language/locale of the server which is in most cases English. Therefore the date is printed with the delimiter slash as `MM/dd/yyyy`. In order to set the format, navigate to the definition of the field function - for example via

the quick part *Field* within the "Insert" tab. Select the field name *DocProperty* and mark the desired attribute. Then select the button *Field Codes*. Now you can add the format in the input line right after the attribute. Enter a space and the desired format via `\@ "<YOUR-FORMAT>"`. You can use the placeholders d (for day), M (for month) and y (for year). All possibilities to edit the date format are shown in this Microsoft Support page. For example, you can display the "Valid to" date with written month (e.g. "30 September 22") using the definition `AT_VALID_TO \@ dd MMMM yy`.

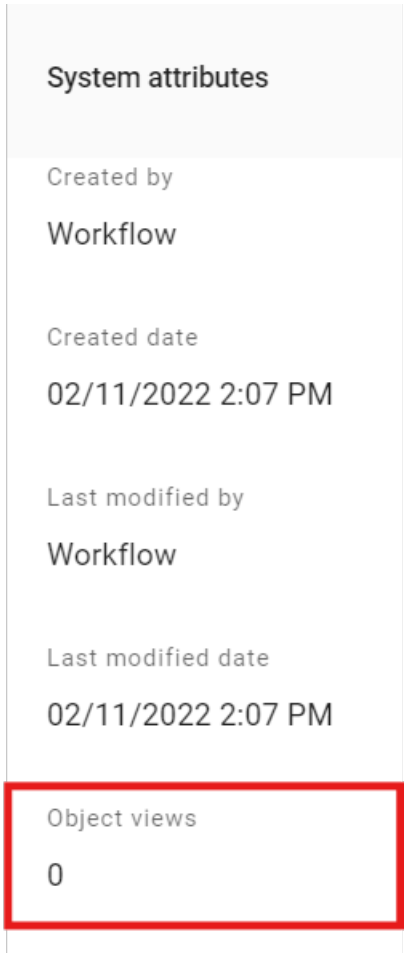
15.2.11 How do I see how often users have clicked on an object or downloaded an attachment?

As an *Administrator*, *Editor*, *Author*, or *Reviewer*, you have the ability to view the number of object views and, for attachments, the number of downloads. To do this, navigate to the catalog in the "Publication" section and click on a catalog object.

To view the number of downloads for an attachment, first open a published catalog entry with at least one attachment. There, you will find the attribute group Attachment (URL) Downloads, which you can expand by clicking on it. This will provide you with an overview of all available attachments in alphabetical order, along with the number of downloads for each attachment.



To view the number of object views, you need to expand the System Attributes attribute group. In the Object Views section, you can then check the click rates for the published catalog entry.



Hint: Please note that the number of object views does not update immediately upon access. By default, updates occur once a day at the start of each day (CET+1). Therefore, there may be discrepancies between the actual number of accesses and the number displayed in the system.

Warning: Please note that the number of downloads for an attachment is only tracked for *Attachment (URL)*. In the *Details* view of a catalog item, you can see how many times the file has been downloaded. Downloads for other link attributes are **not** tracked and will not be displayed.

Hint: Please note that the *Attachment (URL)* attribute can be restricted by an individual method configuration. In this case, it is only possible to store links or URLs, while other file types cannot be maintained.

15.3 Notifications

In BIC Process Design there exists a notification system with which users can be informed about changes that have been made during governance processes. A distinction is made between different cases, depending on which step of the governance process has just been carried out, whether this was successful and the role of the respective user in this process. In the following a few questions were listed with the help of which the different scenarios can be understood better.

Note: In general, every triggered email addresses up multiple users (up to 150 recipients per email). All users which have the same language set within their user settings will receive the same email. These notifications are send via Bcc emails.

15.3.1 Why does the publication or depublication fail?

As the initiator you should have at least the rights of the user role *Author*. More detailed explanations can be found in the following chapters.

In addition to the rejection or termination of the workflow by examiners or the responsible, the following situations can also prevent publication or depublication. Depending on the reason, you will also be informed about this in the application or by email.

General causes for not publishing or depublishing

- no *responsible* entered in the attributes of the diagram or object
- the *email address* of the responsible person is missing or does not match the address of the respective user in BIC Process Design
- a publication or depublication workflow is already running for the affected diagram or object
- predated publication for which the "Valid from" date has not been reached yet
- one or more *mandatory attributes* of the diagram resp. object are missing
- A *language localized* mandatory attribute has not been maintained in the *default language* of the tenant. You will receive a notification about the concerning attribute.

Causes for not publishing or depublishing a diagram

- the affected diagram is checked out
- *validation errors in the diagram*, such as *unaccepted catalog items* or *missing mandatory attributes*
- the diagram contains a *catalog item that is not published yet* and which has an own life cycle (means with its own responsible person). Catalog items with an own life cycle that are in the preview stage but not confirmed yet are an exception. Publishing is possible, but the catalog item is substituted by a draft version until the person responsible confirms it.

Causes for not publishing catalog item

- the *pdf generation of the attachment* of the catalog item fails
- adding *metadata details to attachments* of a catalog item fails

15.3.2 When will I be informed about a (de-) publication?

Users who have diagrams or catalog items within their scope will be informed by email when the diagram or catalog item is directly or indirectly published or depublished. In addition users, which have saved a diagram as a favorite diagram in Publication, will also be informed about the respecting changes.

In addition, workflow-related users will be notified by email and depending on the release workflow by a task. Users, who have *saved a diagram as favorite* in Preview, will be informed for workflow changes in this stage.

15.3.3 Who will be notified at a publication and depublication?

Below is shown who is notified by the system in which workflow step via email.

Publication

Notification	Initiator	Examiner	Responsible	Author	Scope*
Examine task	no email	email	no email	no e-ail	no email
Release task	no email	no email	email	no email	no email
Rejection of examine task	email	no email	no email	no email	no email
Rejection of release task	email	email	no email	no email	no email
Publication	email	email	email	email	email
Workflow error	email	no email	no email	no email	no email
Abort workflow	email	email***	email***	no email	no email

Depublication

Notification	Initiator	Examiner	Responsible	Author	Scope*
Depublication task****	no email	no email	email	no email	no email
Rejection of depublication task	email	no email	no email	no email	no email
Depublication**	email	email	email	email	email
Workflow error	email	no email	no email	no email	no email
Abort workflow	email	no email	email***	no email	no email

Emails informing about a (de)publication or workflow error are sent as soon as the system can initiate the last workflow step through a user interaction or a system error. Emails about release or examine tasks are not sent individually for each task assignment but gathered in a daily email.

Users can navigate to BIC Process Design using a link in the email. If the user has not been registered before, this must be done first. Then a second click on the link leads to the desired address.

An editorial change made notifies the same recipients as the *multi-level release* or *depublication* workflow.

*) All organizational units that are entered in the diagram- or catalog item attribute *Scope* receive a notification at the corresponding steps. In this process, *organizational units* are assigned to user groups of BIC Process Design.

**) The email is also sent to the second examiner, third examiner and the responsible for resubmission.

***) The user is informed if he or she has a pending or already completed workflow task.

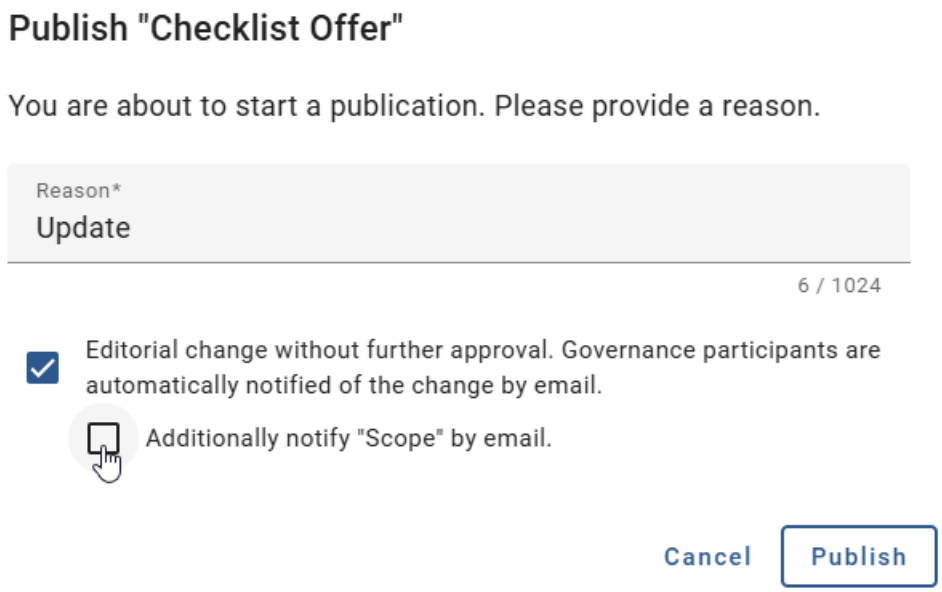
****) Depublication tasks may also be called release tasks since they demand the approval of the responsible to depublish the concerning entity.

Note: Users who have saved the *diagram as a favorite in Publication* or Preview stage will be notified of changes to diagrams in the respective stage. This includes, for example, the publication and depublication.

15.3.4 How can I decide whether the scope is notified of changes by email?

If you have logged in as an authorized user (editor, administrator) in the new user interface and opened the start dialogue for a workflow to depublish or publish a catalog entity or a diagram, a dialog box opens showing you options for sending scope notifications. You have the option of specifying whether this change is an editorial change that does not require additional review or approval. If you select this option, you will have the opportunity to notify the affected scope of this change by email.

Hint: Please note that without selecting the option *Editorial change without further approval. Governance participants are automatically notified of the change by email*, the option to inform the scope of the change will not be displayed to you.



If the option *Additionally notify "Scope" by email* has not been selected for a publication or depublication, you will receive an email stating that the scope will not be informed about the change.

If the option *Additionally notify "Scope" by email* has been selected for a publication or depublication, the scope will be informed about the change immediately.

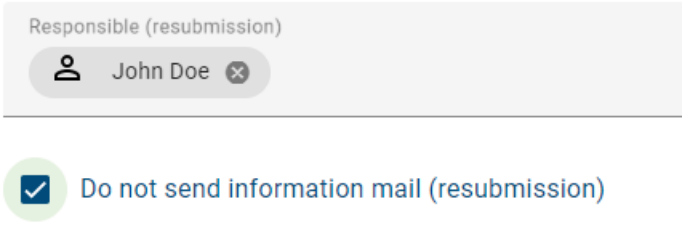
If the editorial change option is removed, the selection to send the notification is also automatically canceled. This will remove the option to send a notification of the change to the scope.

Note: Even if no scope has been specified for a chart or catalog entity, you will still receive a corresponding email notification. This email will still inform you whether the scope is notified of a change or not.

15.3.5 Who will be notified about a resubmission?

If a resubmission is initiated for a published diagram or catalog item, the responsible or (if the corresponding attribute is maintained) *responsible for a resubmission* receives a *resubmission task* and a notification.

In addition, an email is sent to inform about the resubmission. This information mail is addressed to authors, the examiner (as well as the second and third examiner if they are maintained in the method) and the responsible if the latter is not the owner of the resubmission task. The dispatch of the information mail can be blocked for each diagram or catalog item by selecting the checkbox “Do not send information mail (resubmission)” in the governance attributes.



Note: The email about a scheduled resubmission is sent independently of the task summary notification to the responsible or responsible (resubmission) user.

CHAPTER

SIXTEEN

REPORTS AND EXPORTS

In the detail view of a diagram you will find the option *Reports & Exports* with the following options (further information is linked in each case). Note that only useres with the user role *Administrator* can create exports of diagrams in the public workspace.

- *Excel Export*
- *Export a diagram*
- Create reports: *default reports* and customized reports

Moreover the *Excel exports of categories* and the *imports of archives and BPMN diagrams* are described in this chapter.

Additionally, you have the option to export the graphic of a diagram in various file formats. Further information can be found *here*.

16.1 How can I export the contents of a diagram as an Excel file?

Administrators and editors can create an Excel export containing the content of a diagram. By default, there is also the *Matrix report* for the diagram types VCD, EPC and BPMN. The exports can be configured and (de)activated in the administration.

Export to Excel: The exported Excel file (also called *Process warehouse*) includes the worksheets "Diagram" and "Object". In the worksheet "Diagram" all attributes of the diagram, the diagram ID and the name of the category above are listed. The "Object" sheet contains the object type, the symbol type and all the attributes of the objects that are contained in the affected diagram. This also includes the Entity ID and the Occurrence ID, which uniquely identify the object and its occurrence in the diagram. In addition, the diagram name and the diagram ID for the respective objects show the affiliation to a diagram. Overall, all attributes in this export are output in the content language selected in the system.

Hint: Please note that Excel displays an error in the export if the data type of an attribute does not match the current method definition. The export is still generated and can be downloaded. However, the content in these areas may be incorrect.

Tip: You also have the option to start an export directly from a previously filtered diagram list. In this case, the content of the exported Excel file is limited exclusively to the diagrams currently displayed by the filter. The applied filter criteria therefore determine which information is included in the worksheets "Diagram" and "Object". If no diagrams match the applied filters, the generated Excel file will be empty.

Hint: In older versions, all attribute types were exported, regardless of whether they were deactivated or removed within the method. From now on, only visible attribute types are exported.

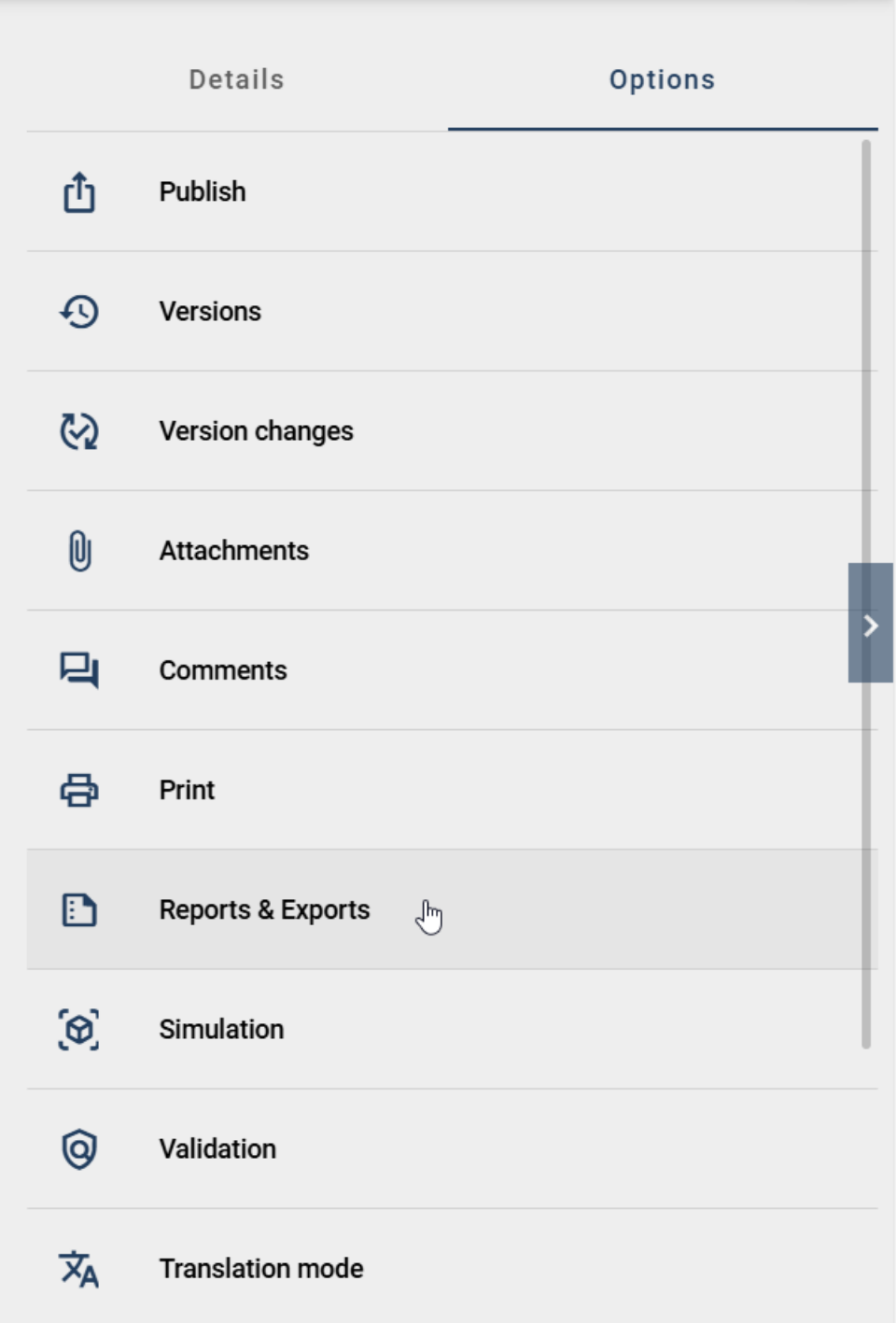
Note: Attribute values exceeding 32767 characters will be automatically shortened. A notification will be provided at the end of the shortened value indicating it has been reduced.

Matrix report: The .xlsx file (also called *Process matrix*) is divided into seven sheets. The first five sheets offer you pre-configured evaluations in form of pivot tables related to different entities. They offer evaluations about the "Application usage", "Document usage", "RACI mapping", "Risk occurrence" and "Diagram metrics". The "Data" sheet of the file contains some collected information. This includes some diagram information, all modeled activities and objects directly related to the activities, such as the so-called satellites. Among others, the Entity ID and the Occurrence ID, which uniquely identify the connected object and its occurrence in the diagram, are also listed here. Unconnected objects and objects that are connected to an activity via two corners, for example, controls of risks, are not taken into account. Furthermore, the report does not contain any information about the process flow. The last sheet "Matrix" includes a pivot table in which you can create various evaluations. For more information about how to handle pivot tables, see e.g. here or on this support website.

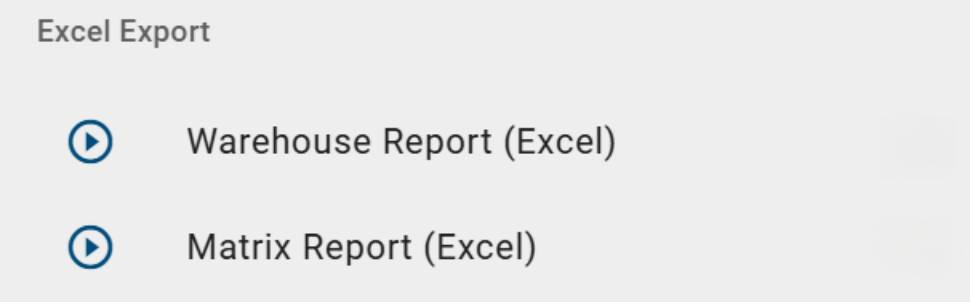
Tip: You also have the option to start an export directly from a previously filtered diagram list. In this case, the content of the exported Excel file is limited exclusively to the diagrams currently displayed by the filter. The applied filter criteria therefore determine which information is included in the worksheets "Diagram" and "Object". If no diagrams match the applied filters, the generated Excel file will be empty.

Hint: Please note that running a matrix report on a BPMN diagram with no sequence flows or message flows (i.e., containing only activities, events, or gateways, but no connections) will result in an empty Excel file. When you open the file and enable editing, a warning message will appear. This is expected behavior because the pivot table in the matrix report represents relationships between diagram elements. However, without sequence or message flows, no relationships are defined.

In order to create an Excel export, open your diagram in the diagram view of the public workspace. Switch to the *Options* in the right sidebar and select the entry *Reports & Exports*.

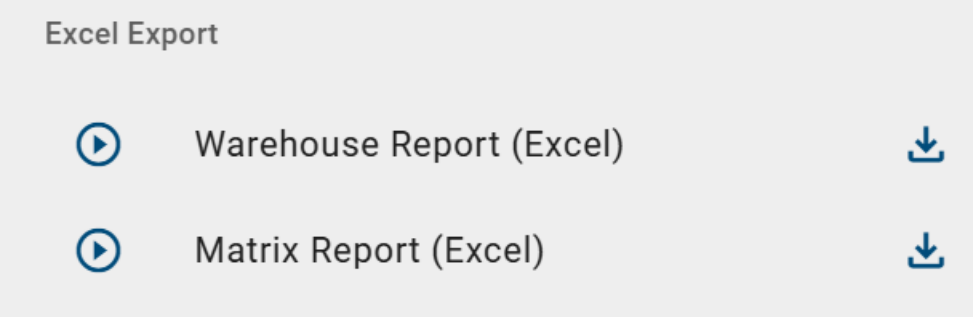


The *Excel exports* are shown as first group of exports.



Click the *Start* button at the desired export to create the file. You will receive a corresponding message. As soon as this is completed, you can download the export in a second message by clicking on the corresponding link.

Once the export has been created, you will also find a download button on the entry in the *Reports & Exports* section, where you can download the zip folder.



The *Download* button is no longer displayed if the diagram was changed after the export has been created. In this case, you can create a new export for the current state of the diagram and then download it again.

Note: Please note that all system-generated values, such as the names of symbol or object types, as well as column headers, are automatically displayed in your browser's language. In contrast, content that you can maintain yourself, such as diagram or activity names or text-based attribute values, is displayed in the currently selected content language. As a result, the Warehouse Report may show system-generated (browser-dependent) terms and user-maintained content in different languages at the same time.

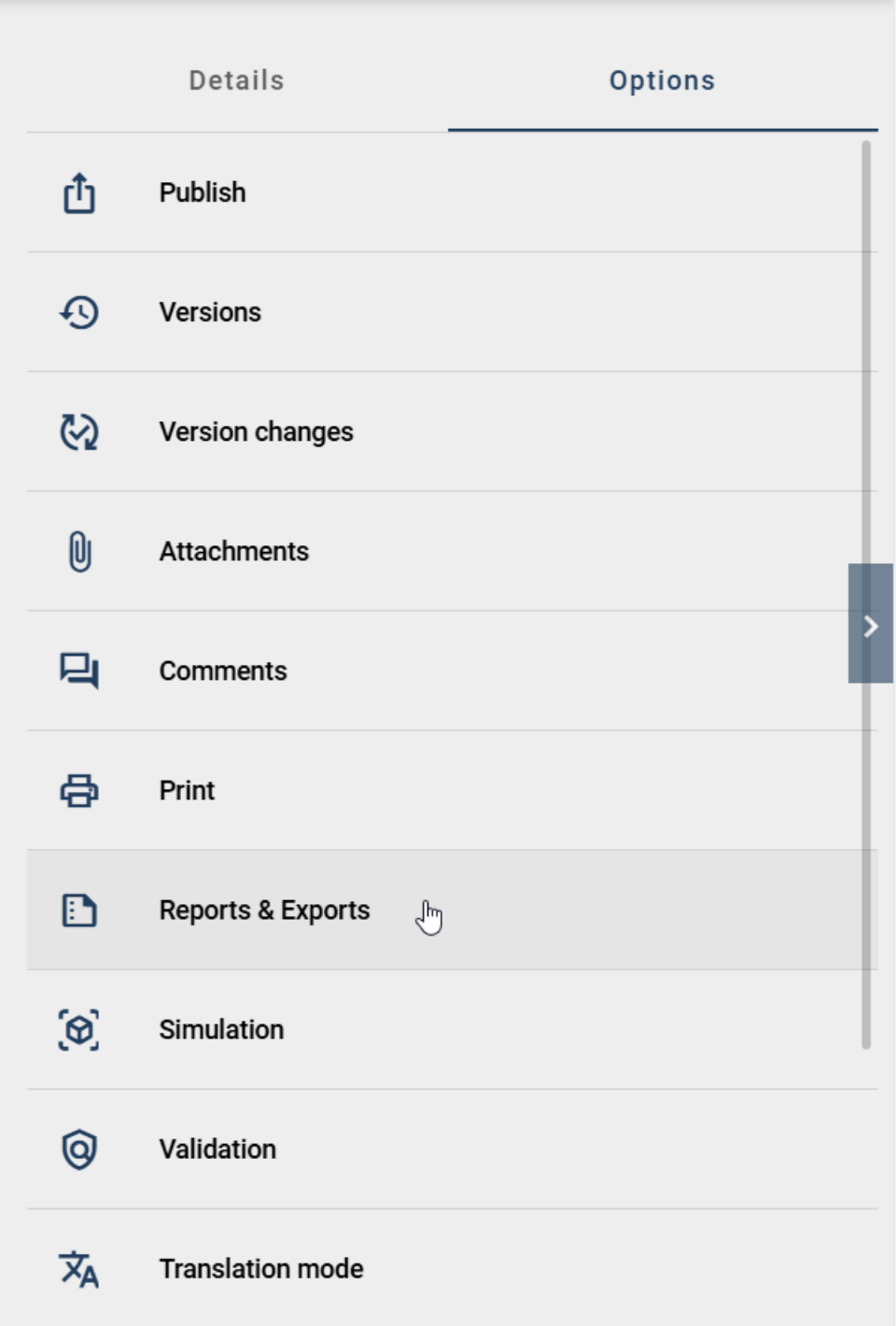
Tip: As part of the DSGVO action plan, you can filter the process warehouse for documents and activities to which "data protection" has been maintained. Another application possibility is filtering for "risk", which allows you to see the risk matrix.

Note: You can create *Excel exports of categories* in order to export the data of multiple diagrams in one file. Excel exports of *archived versions* can be created as well.

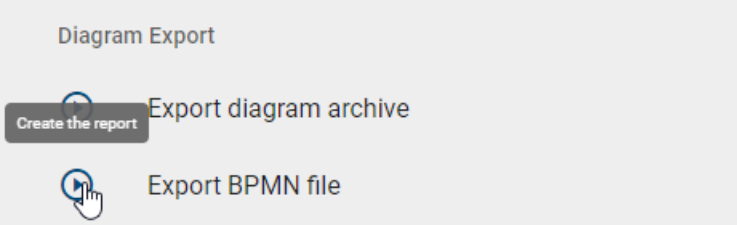
16.2 How can I export a diagram?

Users with the user role *Administrator* can export diagrams from the *public workspace, from the preview and from the* publication in order to save data or move it via a subsequent import. You can access the function both in the detailed view of the desired diagram and via its context menu in the diagram list.

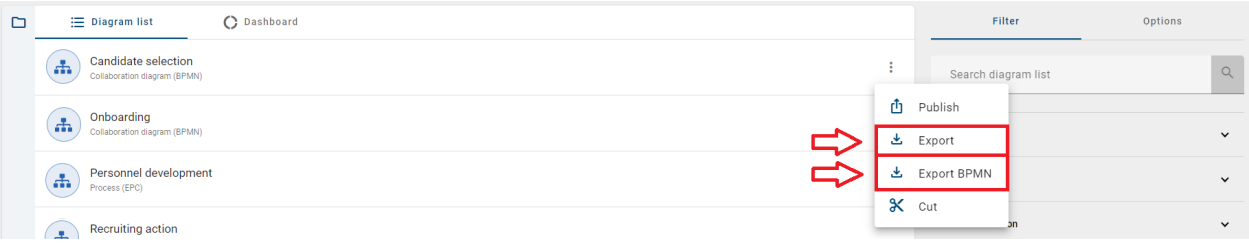
If you have opened the diagram view of your diagram in the public workspace, switch to the *Options* in the right sidebar and select the entry *Reports & Exports*.



Click the *Create the report* button at the entry *Export diagram archive* in the *Diagram exports* group, to create the export of the current state. Alternatively you can also *export a BPMN file*.

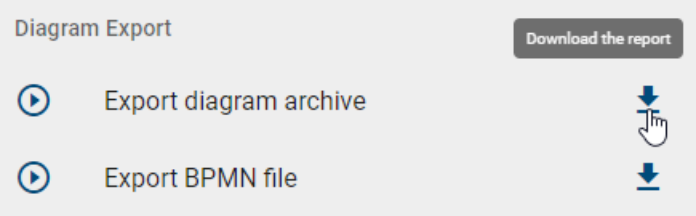


Alternatively, you can navigate to your diagram in the diagrams list and open its context menu (three dots menu). Then select *Export* or *Export BPMN* in the menu to generate the export.



In both cases, the export is created as a zip folder and you will receive a corresponding message. As soon as this is completed, you can download the export in a second message by clicking on the corresponding link.

Once the export has been created, you will also find a download button on the entry in the *Reports & Exports* section, where you can download the zip folder.



Hint: The *Download* button is no longer displayed if the diagram was changed after the export has been created. In this case, you can create a new export for the current state of the diagram and then download it again.

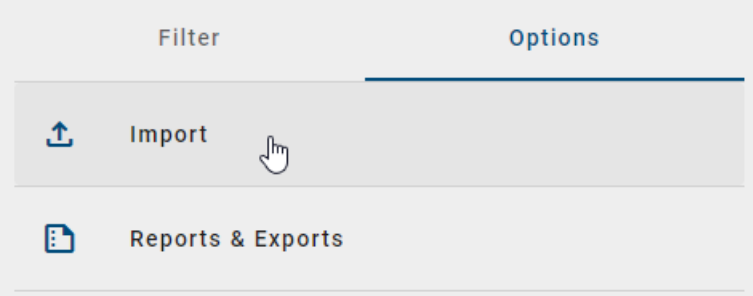
Note: Please note that if the latest version is outdated and a new version is synchronized with the release, the download for the export will be removed from the export option.

Note: Please note that with the user role *Editor*, this function only allows you to export a diagram archive.

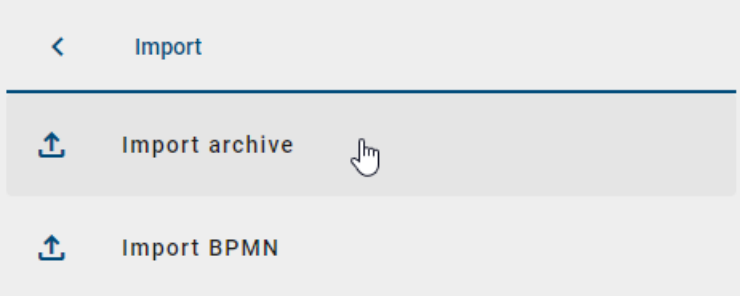
Warning: BIC offers the flexibility to extend the modeling notation beyond BPMN standards, allowing you to incorporate concepts such as customer journey mapping to enhance your process representation. However, it is important to note that the BPMN export functionality might not be supported when these extensions or custom extensions are utilized.

16.3 How can I import an archive or diagram?

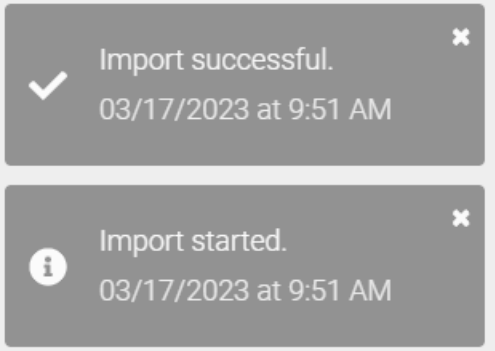
You have the opportunity to import an exported archive or BPMN diagram into your current repository. Go to the *Options* panel in the right sidebar and select *Import*.



You can select whether you want to import an archive or a BPMN diagram.



In the appearing file selection window, you can select the desired import. The import will then be executed, which can be recognized by a corresponding message on the bottom of the right side of the screen. If the import was successful, you will receive another message.



Hint: Currently only *Administrator* can use the *Import* function.

Hint: Please note that imports or uploads are technically limited to 1.000 MB in size.

Note: The date information you find within your imports (e.g., “Valid from”, “Valid to”, “Created date”, and similar) undergo conversion to the time zone of the currently active user. This ensures that the display of date information always aligns with the user’s current time zone.

If your imported archive already exists in your repository, the following aspects will be handled:

- Already existing diagrams with the same diagram ID of the imported archive will be archived and the imported diagram will become the active version.
- Already existing diagrams with the same diagram ID of the imported archive in a *category* are removed and imported into the selected category.
- Already existing categories with the same category ID of the imported archive remain.
- Already existing entities with the same entity ID of the imported archive are updated.

Note: Diagrams with the same diagram ID can only exist once in the repository.

16.4 Which reports can I download?

In the *Reports & Exports* section in the detail view of a diagram, you will find the standard BIC Process Design reports and the customized reports. Custom reports can be created in administration and further configured with templates. The following standard reports are available to you:

Manual: The manual report (.docx-document) can be executed on individual diagrams (BPMN and EPC) by default. The cover sheet contains the name of the diagram as well as some release dates. Furthermore, there is a process overview, a process graphic, an overview of the responsibilities in the process, a tabular representation of the process steps and a description of used resources. As standard the process overview contains responsible and consulted roles, inputs, outputs, IT systems as well as risks and KPIs. The tabular representation of the process steps includes a list of all existing activities and associated symbols such as inputs, outputs, systems, risks and KPIs.

Manual report with assignments: By default, this export can be executed on process overviews (VCD) and processes (EPC and BPMN), which contain subprocesses. It includes a comprehensive process description including all diagrams, which are shown behind the respective process and furthermore behind the stored diagrams.

Hint: Please note that Excel displays an error in the export if the data type of an attribute does not match the current method definition. The export is still generated and can be downloaded. However, the content in these areas may be incorrect.

Hint: The date information you find within your exports (e.g., “Valid from”, “Valid to”, “Created date”, and similar) undergo conversion to the time zone of the currently active user. This ensures that the display of date information always aligns with the user’s current time zone.

Note: In this export, all attribute types which use dates as values, will also have the data type *date* in the corresponding cell within the xlsx file. With this you can then process these values, e.g. to calculate time spans. This applies for all process warehouse exports, regardless of whether they are carried out for *repositories, categories, diagrams* or the catalog. The displayed date format in excel (e.g. 12/05/2019 or 12:05.2019) depends on the display language, which has been set within the Windows language settings.

Note: **Subprocesses** on start or end activities with the node symbol type *NST_INTERFACE* are explicitly excluded from the manual report with assignments.

Process costs/simulation: A comprehensive explanation of this export can be found in the *separate chapter*.

See *"Creating reports"* to know how to perform these exports.

Note: As an administrator, you can *change the basic settings of individual reports*, such as their availability. You can also customize the reports by using a report template.

16.4.1 Which reports sort activities based on the process flow?

Similar to the *matrix diagram view* activities are listed in certain reports according to the process flow of the diagram. This means that activities which are placed at the beginning of the process flow, will also be listed first in the corresponding report.

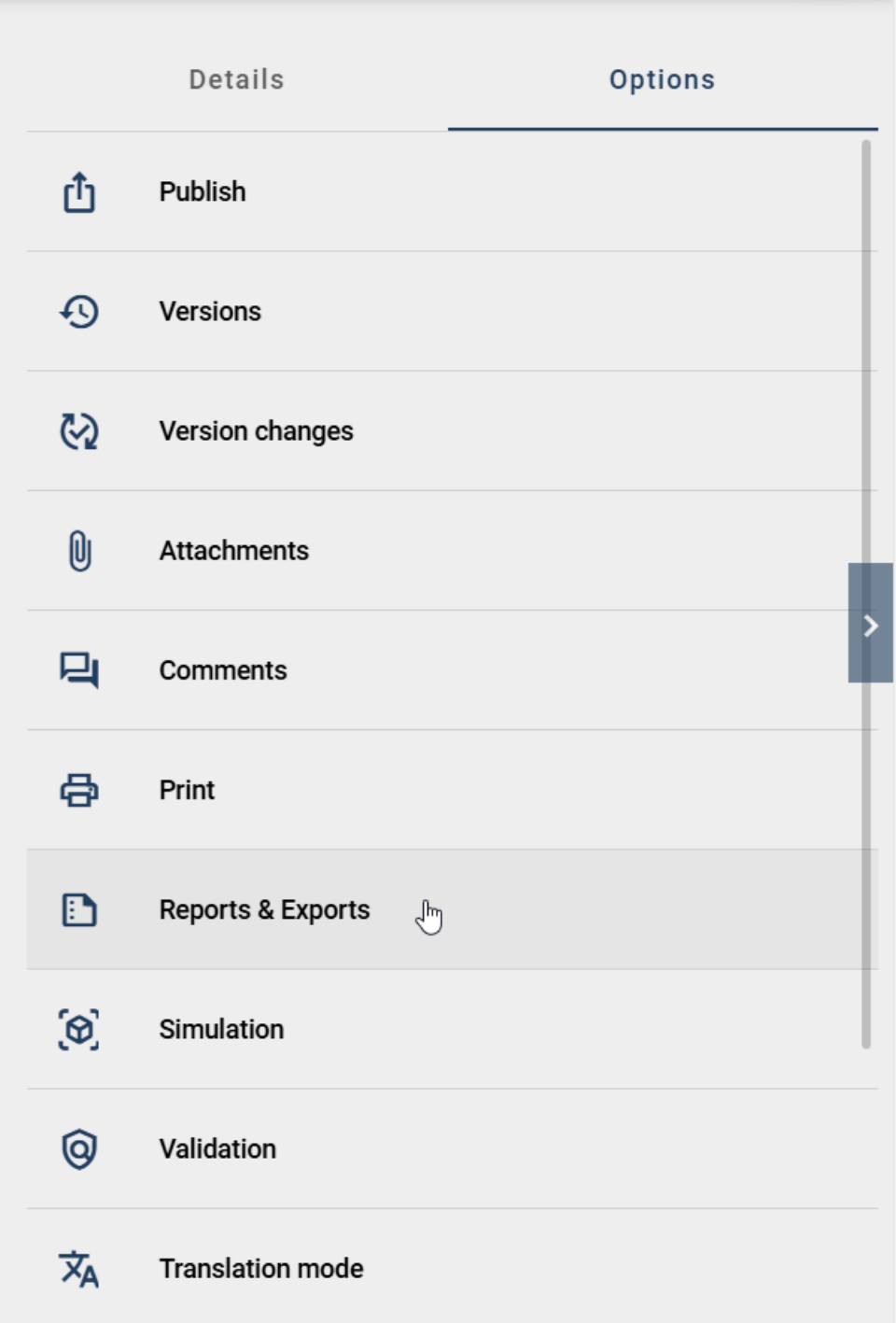
This sorting algorithm is available for all reports in .docx format. This effects by default the *Manual* and the *Manual report with assignments*. The affected diagram types are accordingly the collaboration diagram (BPMN), the process (EPC) and the process overview (VCD).

Note: When gateways or operators have been modeled in a process flow, then the activities probability will determine the order of those activities.

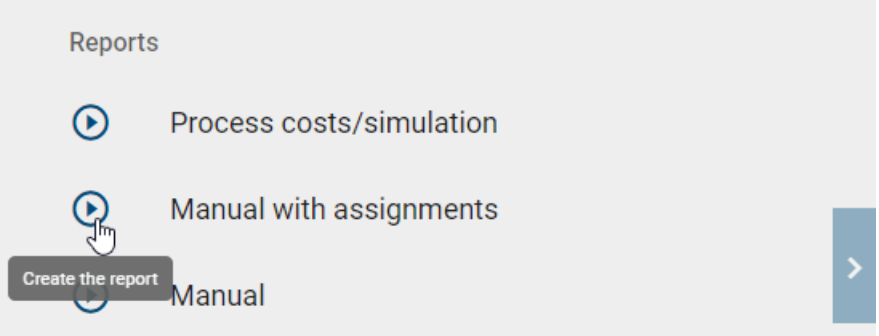
16.5 How can I create and download a report?

If you create a report, it is always based on the current diagram version, so pay attention to which area you are in and, if necessary, *change it* via the corresponding menu.

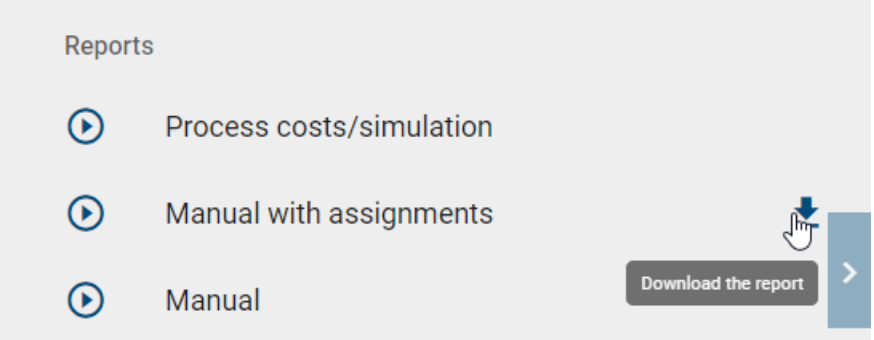
Navigate to the desired diagram in the diagram list and open it. Switch to the *options* panel in the right sidebar and select *Reports & Exports*.



In the group **Reports**, all *available reports* are listed. Create the desired report by clicking on the respective *Start* button.



Once the report has been generated, you will receive a message at the bottom of the screen allowing you to start the report download with one click. Alternatively, you can also download the report using the *Download* button that appears to the right of the entry once the report has been created.



Hint: Please note that an error message is displayed in an Excel report if the data type does not match the current method definition. The report is still generated and can be downloaded. However, the content in these areas may be incorrect. To resolve the issue, please contact your Administrator or GBTEC Support.

Note: The report language is always based on your current *content language*.

Note: You can also create reports of *opened archived versions*.

16.6 Process costs/simulation

The Process cost/Simulation (.xlsx file) can be executed on individual diagrams (BPMN and EPC). Downloading the report is described *here* in detail.

This report offers a detailed listing and calculation of different costs, times and capacity requirements on three worksheets. In principle, some *attribute input* are required in the affected diagrams of BIC Process Design for meaningful evaluation. These inputs affect not only the name of the resources and activities but also the attributes in the analysis attribute group. They are included in the report and are explained below in the respective subsections under the point of view “taken from the system”. The imported values can be adjusted manually in the report itself. Furthermore, multiple occurrences of resource objects in a diagram are recognized as one object in the report. Occurrences of activities and activities or resources with the same name are output individually in the report. Note that different objects should generally have different names, otherwise some calculations may be corrupted. In the following, the individual worksheets are explained in more detail in order to clarify the analysis procedure.

16.6.1 Table sheet “Activities”

This spreadsheet contains four different blocks. In the following, the functions and calculations are illustrated by the individual terms within the blocks.

Process costs: This block is essential for the further, automatically executed calculations of all times and costs. Except for the field *Currency*, the required fields are not filled in automatically when the report is created. Instead, they must be entered manually in the Excel file.

Process costs	
Date	01.01.2022
Period of calculation	Week
Instances per period	30
Currency	€

- *Date:* In the corresponding cell, you can enter any date, for example, the current date.
- *Period of calculation:* The entry of the calculation period is required in the corresponding cell. This could be “week” or “month”, for example. The period should be taken into account by entering values in BIC Process Design. Take care of consistency, so as not to distort some calculations. For example, the capacity of a resource (see *worksheet “Resources”*) depends on the selected period!
- *Instances per period:* Depending on the calculation period, the number of runs of this process must be entered here, e.g. 5. Further calculations are only performed automatically using this number.
- *Currency:* The cell associated with the currency displays the currency symbol for Euro (”€”) by default and is displayed accordingly on all worksheets. It is possible to change the currency to Dollar (“$”) by clicking on the cell and opening the dropdown list. The change will be automatically applied to all worksheets.

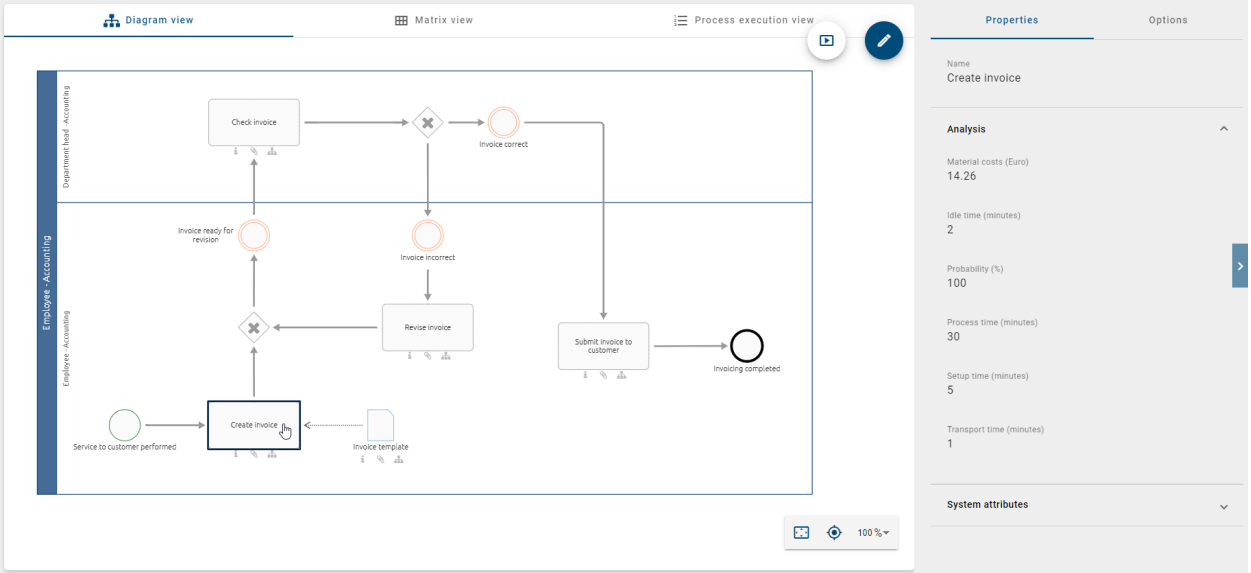
Activities of the process: This block offers a compact overview of the activities of the process, their frequencies and some total costs. These total costs are partly the result of subsequent calculations.

Activities of the process					Total MC	Total RC	Total costs
Activities		Frequency	Probability	MC			
[n]	[Text]	[n]	[%]	[€]	[€]	[€]	[€]
1	Create invoice	30	100%	14,26 €	427,80 €	675,00 €	1.102,80 €
2	Check invoice	30	100%	- €	- €	450,00 €	450,00 €
3	Revise invoice	7	25%	1,25 €	8,75 €	157,50 €	166,25 €
4	Submit invoice to customer	30	100%	1,90 €	57,00 €	112,50 €	169,50 €
				Sum	493,55 €	1.395,00 €	1.888,55 €

taken from the system:

- *Activities:* Number assigned when reading the process and name of the activity
- *Probability:* Probability with which this activity is performed in the process (in %)
- *Material costs (MC):* Cost of an activity (in €)

For example, the values for the activity “Create invoice” have previously been entered in the attributes in the system as follows:



Calculations in the report depending on the instances per period:

- *Frequency:* Probability multiplied by the number of runs; it indicates how often an activity is executed per period
- *Total material costs (Total MC):* Material costs multiplied by the frequency; corresponds to the material costs of an activity per period (in €)
- *Total resource costs (Total RC):* Sum of all costs of the resources involved in this activity per period (in €), calculated using the "Resources" block
- *Total costs:* Sum of total resource costs and total material costs per activity per period (in €)
- *Sum:* These three numbers each represent the sum of the Total MC, Total RC and Total Costs of all activities. They therefore correspond to the respective total costs of the period (in €).

Times: In this block some basic and total times are listed.

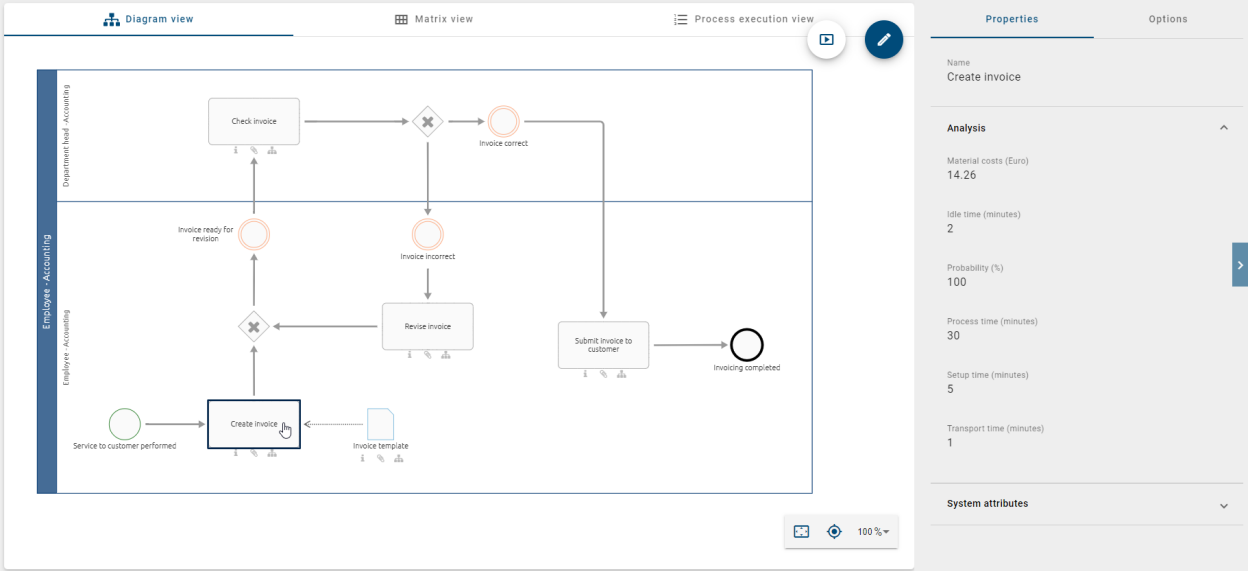
Times				Total time
PT	IT	TT	ST	
[min]	[min]	[min]	[min]	[min]
30	2	1	5	1140
15	10	0	10	1050
30	0	0	15	315
5	15	5	5	900
			Sum	3405

taken from the system:

- *Process time (PT):* Processing time of an activity (in minutes)
- *Idle time (IT):* Idle time of an activity (in minutes)
- *Transport time (TT):* Transport time of an activity (in minutes)

- *Setup time (ST):* Setup time of an activity (in minutes)

For example, the values for “Activity 1” have previously been entered in the attributes in the system as follows:



Calculations in the report depending on the instances per period:

- *Total time:* Sum of all times PT, IT, TT and ST multiplied by the frequency per activity (in minutes)
- *Sum:* Sum of the total times of all activities per period (in minutes)

Resources: This block is subdivided into further resource blocks, which are lined up and each four columns long. For each resource, the name and the values listed below, such as associated costs and times, are displayed here. The involvement of a resource in an activity is indicated by the existing numbers within a block in the respective row. Accordingly, the fields remain empty if a resource does not execute an activity. The calculation for “Total RC” finally takes place across resources and thus stands in the last column of the block. The resources listed correspond to the ones in worksheet “Resources”. The worksheets are linked and influence each other.

P	Q	R	S	T	U	V	W	X
Resources								
Employee - Accounting				Department head - Accounting				Total RC
PT	RC per instance	RC	Total PT	PT	RC per instance	RC	Total PT	
[min]	[€]	[€]	[min]	[min]	[€]	[€]	[min]	[€]
30	22,5	675	900					675
				15	15	450	450	450
30	22,5	157,5	210					157,5
5	3,75	112,5	150					112,5
Sum		945,00 €	1260	Sum		450,00 €	450	

taken from the system:

- *Process time (PT):* Time taken by a resource to process an activity (in minutes). This corresponds to the PT of

the activity if no separate entry per resource is possible in BIC Process Design. You can change the number yourself in the report.

Calculations in the report depending on the instances per period:

- *Resource costs per instance (RC per instance):* Cost rate of the resource (see "Resources" sheet) multiplied by the PT that the resource requires to process an activity (in €). It indicates how much a resource would cost if the activity is run once.
- *Resource costs (RC):* RC per instance multiplied by the frequency (in €). These are the costs per period that the resource causes by performing the activity.
- *Total process time (Total PC):* Frequency multiplied by the PT that the resource needs to process an activity (in minutes). It specifies how much time the resource needs to complete the activity per period.
- *Sum:* respective sum of RC, or PT. It indicates the total costs or total time the resource requires per activity per period (in € or minutes).
- *Total resource costs (Total RC):* Sum of all RC per activity. It specifies the amount of costs of an activity per period, caused by the resources involved (in €).

Note: Input values transferred from the system, such as names, probabilities, costs, times and capacities, can be subsequently adjusted in the report as required. The changes are useful for analysis root-attributes "Capacity" and "Cost rate" of the "Role" object, for example, if these values are activity-specific. In contrast to *occurrence attributes*, root attributes are adopted for each occurrence of an object. *Confirmed objects* should therefore only be changed in the catalog or in the file itself.

16.6.2 Table sheet "Resources"

This section contains the resource requirement calculation, which shows the capacities and costs of individual resources separately.

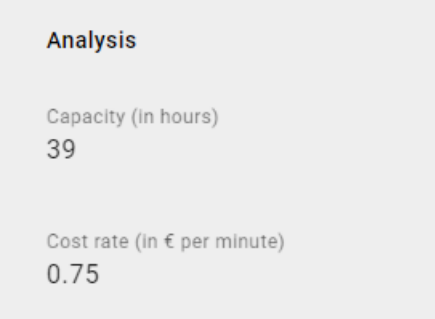
Capacity requirements calculation: In this block, some values of resources are listed separately. These values correspond to the entries in the system, are calculated separately in the worksheet "Activities" or in this worksheet.

Capacity requirements calculation						
Resources		Capacity	Cost rate	Total RC	Total time	**Capacity requirements**
[n]	[Text]	[h]	[€/min]	[€]	[min]	[n]
1	Employee - Accounting	39	0,75	945	1260	0,54
2	Department head - Accou	40	1	450	450	0,19

taken from the system:

- *Resources:* Number assigned when the process is read and name of the resources
- *Capacity:* Capacity of the resource (in hours)
- *Cost rate:* Cost rate of the resource (in € per minute)

For example, the values for the role "Employee - Accounting" were previously entered in the attributes in the system as follows:

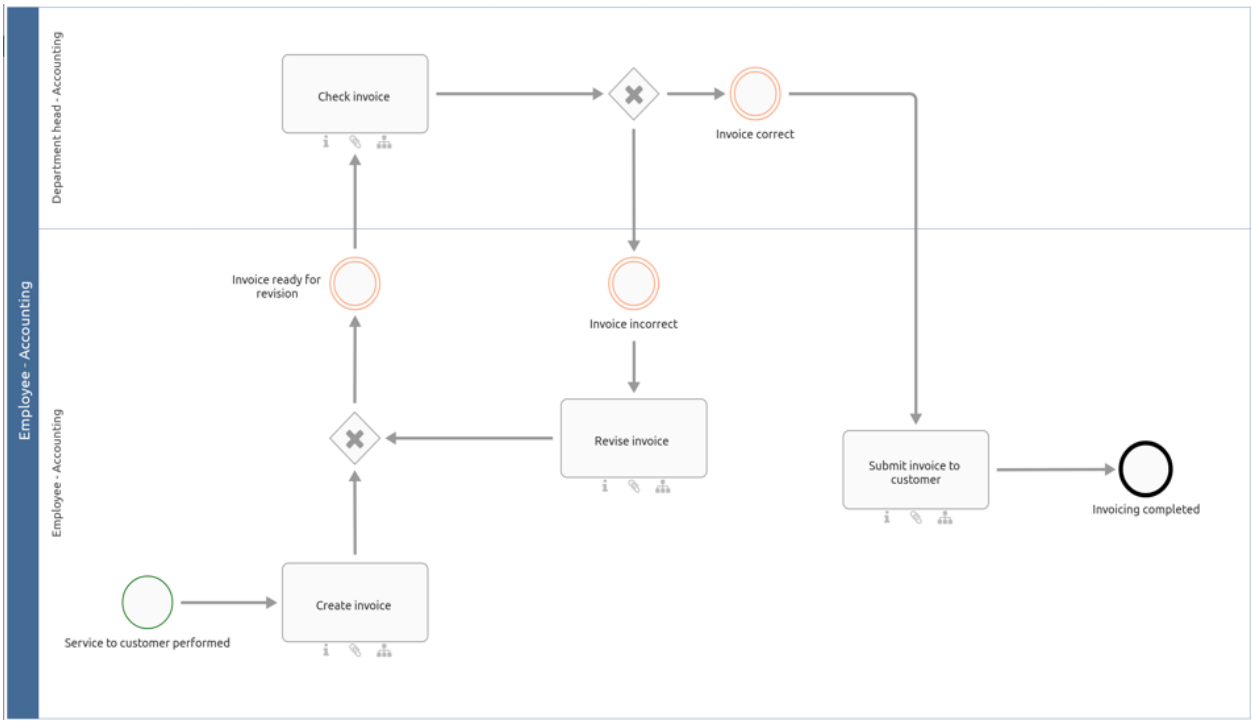


Calculations in the report depending on the instances per period:

- *Total resource costs (Total RC):* Sum of the cost of this resource in the selected period (in €); it corresponds to "Sum" from *worksheet "Activities"*, block "Resources"
- *Total time:* Sum of resource processing times over participating activities in the selected period (in minutes); it corresponds to "Sum" from *worksheet "Activities"*, block "Resources"
- *Capacity requirements:* Ratio of the total time required by the resource to perform the activities of this process to its available capacity. The value of the capacity requirements therefore indicates the extent to which a resource uses its available time or whether more time is needed. A distinction is made as follows.
  - Value greater than 1 (red X): The time required for the tasks exceeds the capacity of this resource for the selected process. There is a capacity requirement.
  - Value between 0.5 and 1 (green check mark): The capacity is equal to or half the processing time required for the activities. The resource has sufficient capacity.
  - Value less than 0.5 (yellow exclamation point): The capacity is more than twice as large as the processing time required for the activities. The resource still has a lot of capacity.

16.6.3 Table sheet "Diagram"

Here you can see a picture of the evaluated diagram.



16.7 How can I export all diagrams of a category (as an Excel file)?

If an export should not only contain the data of a single diagram, you can use the export options for categories (or repositories). You can choose (in the default setting from the administration area) between the *Matrix report* and the simple Excel export. The exports can be configured and (de)activated in the administration of the old user interface. The following content is exported as an .xlsx file:

Export to Excel: If this export (also called *Process warehouse*) is created for a category, the system will take all the diagrams of the category into account. The exported Excel file includes the worksheets "Diagram" and "Object". In the worksheet "Diagram" are listed all attributes of the involved diagrams, the diagram IDs and the name of the category above. The "Object" sheet contains the object types, the symbol types and all the attributes of the objects that are contained in the affected diagram. This also includes the Entity ID and the Occurrence ID, which uniquely identify the object and its occurrence in the diagram. In addition, the diagram name and the diagram ID for the respective objects show the affiliation to a diagram. Overall, all attributes in this export are output in the content language selected in the system.

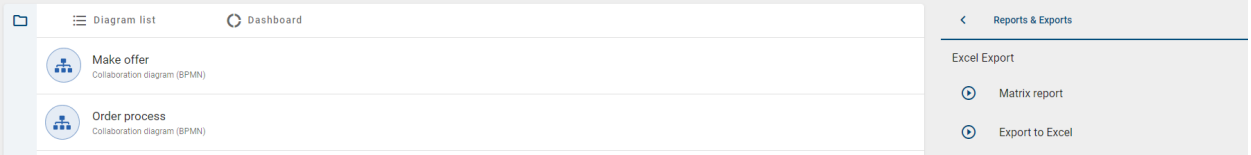
Hint: Please note that Excel displays an error in the export if the data type of an attribute does not match the current method definition. The export is still generated and can be downloaded. However, the content in these areas may be incorrect.

Hint: In older versions, all attribute types were exported, regardless of whether they were deactivated or removed within the method. From now on, only visible attribute types are exported.

Note: Attribute values exceeding 32767 characters will be automatically shortened. A notification will be provided at the end of the shortened value indicating it has been reduced.

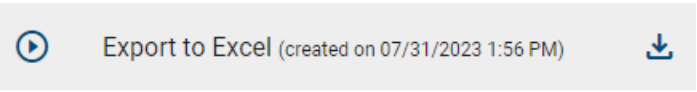
Matrix report: The created file (also called *Process matrix*) is divided into seven sheets. The first five sheets offer you pre-configured evaluations in form of pivot tables related to different entities. They offer evaluations about the "Application usage", "Document usage", "RACI mapping", "Risk occurrence" and "Diagram metrics". The "Data" sheet of the file contains some collected information. This includes some diagram information, all modeled activities and objects directly related to the activities, such as the so-called satellites. Among others, the Entity ID and the Occurrence ID, which uniquely identify the connected object and its occurrence in the diagram, are also listed here. Unconnected objects and objects that are connected to an activity via two corners, for example, controls of risks, are not taken into account. Furthermore, the report does not contain any information about the process flow. The last sheet "Matrix" includes a pivot table in which you can create various evaluations. For more information about how to handle pivot tables, see e.g. here or on this support website.

To create one of the exports, navigate to the desired category in the *Diagrams* area, open the *Options* in the right sidebar and click on *Reports & Exports*.



If you click on the *Start* button of the desired export, it will be generated and you will receive a corresponding message. As soon as this is completed, you can download the Excel file in a second message by clicking on the corresponding link.

Once the export has been created, you will also find a download button on the associated entry where you can download the export.



The *Download* button is no longer displayed if changes were made to a diagram after the export was created. In this case, you can create a new export for the current status of the category and then download it again.

Best Practice

With the process matrix you can quickly identify which satellites are connected to which activities. For example, if an application expires, you have an overview of the affected diagrams, the activities concerned and the other parties involved. For this purpose e.g., just activate the checkmarks for the PivotTable fields one at a time. You can then use Excel to filter the corresponding columns (for example, *Object Type*). You can also answer additional questions using the column fields and value fields of the pivot table.

Hint: The date information you find within your exports (e.g., "Valid from", "Valid to", "Created date", and similar) undergo conversion to the time zone of the currently active user. This ensures that the display of date information always aligns with the user's current time zone.

Note: You can also create *Excel exports of single diagrams*.

CHAPTER

SEVENTEEN

REPORT TEMPLATES

The reports (and PDF variants generated from them) are based on MS Word templates that you can modify. Here we explain the essential configuration options that are available to you in the report engine.

17.1 What general adjustments to the manual template are possible?

The fixed formatting and layouts, as well as the logos and texts that you can see in the headers and footers, for example, can be changed using the Word on-board resources. Simply open your template, edit it, for example by changing the logo at the desired position, and save the change in the file.

Pay attention to possible section changes between portrait or landscape pages in the document, as it is possible that after such a section change, repeated changes are needed in the headers and footers.

Note: If you want to change the font of your report template be aware that in the process of generating a .pdf file only certain fonts are supported by the report engine. The usage of not supported fonts can lead to formatting losses and a change in the total number of pages in your .pdf file. Therefore note the possibility to *embed the used fonts in your document*. Here you will find a detailed list of the fonts, which are supported by the report engine.

17.2 How do I output properties of a document?

In the context of a template, you have a diagram available by using the method `content.getSelection()`. If you have queried the diagram, you can, for example, output the properties of a document.

For example, if you want to have the author of your template, proceed as follows:

```
<<[content.getSelection().getDocument().getBuiltInProperty("Author").getValue()]>>
```

- `content.getSelection()` returns the graph. Then you can access and output certain information from the diagram.
- `content.getDocument()` returns the document. Then you can access and output information about default and custom properties from the document.
- `getBuiltInProperty()` gives you the possibility to access all default properties of the template file. The example above is about the property “Author” of the template.

The method `getBuiltInProperty()` returns an attribute. Then, there are other methods available to you:

- `getValue()` returns the formatted value of the property in the current content language.
- `getRawValue()` returns the value of the property in the current content language.

- `getName()` returns the name of the property in the current content language.
- `getType()` returns the type of the attribute in the current content language.

If you want to output custom property of your template, proceed as follows:

```
<<[content.getSelection().getDocument().getCustomProperty("Some name").getValue()]>>
```

- `content.getSelection()` returns the graph. Then you can access and output certain information from the diagram.
- `getCustomProperty()` gives you the possibility to access all custom properties for template file.

17.3 How do I output the diagram graphic in the template?

You have two possibilities to output a diagram as a graphic in reports. The method `getImage()` renders the diagram in a single graphic. Write this method into a text field to specify the size and position of the graphic. The tag `image` has to be set ahead of the method:

```
<<image [content.getSelection().getImage()]>>
```

The above code line should be inserted into a text field as follows:

Alternatively, you can use the method `getImageWithPrintSettings()` to output the diagram in multiple graphics. This method cuts the diagram in parts as defined in the *print settings* and outputs each part as a single graphic. It is recommended to use the `getImageWithPrintSettings()` method for larger diagrams to guarantee the readability in the report. You can include the method in your report template as follows. Note that the required tag is `doc` and the method must *not* be inserted into a text field.

```
<<doc [content.getSelection().getImageWithPrintSettings()]>>
```

17.4 How do I output attributes of a diagram?

In the context of a template, you have a diagram available, that you get with the method `content.getSelection()`. If you have queried the diagram, you can, for example, output the maintained attributes. For a list of the identifiers of these attributes, see *the appendix*.

For example, if you want to have the name of your selected diagram written on the title page, proceed as follows:

```
<<[content.getSelection().getAttribute("AT_NAME").getValue()]>>
```

- `content.getSelection()` returns the graph. Then you can access and output certain information from the diagram.
- `getAttribute()` gives you the possibility to access a concrete attribute. The example above is about the attribute *Name* of the diagram.

When you request an attribute with `getAttribute()`, there are other methods available to you:

- `getName()` returns the name of the attribute in the current content language.
- `getValue()` returns the value of the attribute in the current content language.
- `getRawValue()` returns the value of the attribute in the raw form.

If you like to output the description of the diagram (AT_DESCRIPTION), you need to add the tag `-html` at the end. This ensures that the text of the description is formatted correctly.

```
<<[content.getSelection().getAttribute("AT_DESCRIPTION").getValue()]-html>>
```

Additionally, you can also output the title of an attachment by using the tag `-html`. Doing this, the title of the attachment will be put out instead of the full URL. This is also possible, if more than one file or URL is attached.

Proceed as follows to output the titles:

```
<<foreach [title in content.getSelection().getAttribute("AT_ATTACHMENT").
↪getValuesAsList()]>><<[title]-html>><</foreach>>
```

Note: You can put the current name (`getName()`) of an attribute next to the value (`getValue()`). An advantage would be that even a changed attribute name remains up-to-date in the report. A disadvantage would be that the name can not be returned if the value was not maintained. Not maintained attributes are not made available to the report in their entirety. Alternatively, you can write the name of the desired attribute directly and thus statically into the template.

17.5 How can I specify the format of a date?

If you output the value of an attribute which is a date, you can specify the format. The attribute value has to be accessed via the `getRawValue()` method. Then you can add the format template by combining the special characters /, . or - and the abbreviations for the different time units. The following abbreviations can be used:

Character	Meaning (time unit)
YYYY or yyyy	year
yy oder YY	year in abbreviated format, e.g. “22” instead of “2022”
MM	month as a number
MMM	month as an abbreviation (first 3 English letters)
MMMM	month as string
dd	day in the month
EE	abbreviation of the week day (first 3 English letters)
EEEE	week day as string

In the following, some example formats are presented. Here, the governance attribute “Valid to” (“AT_VALID_TO”) is output and its value will be the 24th August 2022.

```
<<[content.getSelection().getAttribute("AT_VALID_TO").getRawValue()]:"yyyy.MM.dd">>
```

results in `2022.08.24`,

```
<<[content.getSelection().getAttribute("AT_VALID_TO").getRawValue()]:"dd/MM/YYYY">>
```

results in `24/08/2022`. If the month should be output as a text, you could use

```
<<[content.getSelection().getAttribute("AT_VALID_TO").getRawValue()]:"dd. MMMM yyyy">>
```

which gives `24. August 2022`. The day of the week can be templated by

```
<<[content.getSelection().getAttribute("AT_VALID_TO").getRawValue()]:"EEEE, d MMM yyyy
↪">>
```

to get `Wednesday, 24 Aug 2022`.

Dates that are output via the `getValue()` method are always written in the format `24. August 2022 UTC`.

The format of system attribute values (e.g., *lastModifiedDate*) cannot be changed and displays the date and time by default. However, if you want to display the date without the time in your application, you can use the following command:

```
<<var [dateTime = content.getSelection().getLastModifiedDate()]>><<var [date =␣
↪dateTime.substring(0, dateTime.lastIndexOf(“,”))]>><<[date]>>
```

This command extracts the date, for example, from the *system attribute* *lastModifiedDate* and formats it accordingly for the German date format.

Hint: Please note that this example is only suitable for the German date format.

17.6 How can I specify the format of the time?

If you output the value of an attribute which is a date, you can specify the format. The attribute value has to be accessed via the `getRawValue()` method. Then you can add the format template by combining the special character : and the abbreviations for the different time units. The following abbreviations can be used:

Character	Meaning (time unit)
h	hours (1-12)
HH or hh	hours (0-23)
mm	minutes
ss	seconds
SS	milliseconds
a	AM/PM marker
z	time zone
Z	ISO 8601 time zone (e.g., +0100)

In the following, some example formats are presented. Here, the governance attribute "Valid to" ("AT_VALID_TO") is output and its value will be 4:34 PM.

```
<<[content.getSelection().getAttribute("AT_VALID_TO").getRawValue()]:"h:mm">>
```

results in `4:34`,

```
<<[content.getSelection().getAttribute("AT_VALID_TO").getRawValue()]:"h:mm:ss:SS">>
```

results in `4:34:22:03`, while the seconds and milliseconds are fictitious. The according AM/PM marker will be templated as

```
<<[content.getSelection().getAttribute("AT_VALID_TO").getRawValue()]:"h:mm a">>
```

which results in `4:34 PM`. For the time zone, you can use

```
<<[content.getSelection().getAttribute("AT_VALID_TO").getRawValue()]:"h:mm a Z z">>
```

which results in `4:34 PM +0000 UTC`.

Note: Please note that you cannot change the format of system attribute values (e.g., the *lastModifiedDate*).

17.7 How do I output objects of a diagram in a list?

There are two different operations on the diagram to access its the elements:

- `getEntities()` returns the used objects of the diagram exactly once. If, for example, you have used the risk "completeness" multiple times, you only receive it once for output. Note that occurrence attributes on entities ("objects or catalog entries") are not available.
- `getNodes()` returns the occurrences in a diagram. These may be redundant or contain occurrence attributes. This means, the previous example risk "completeness" may be issued multiple times and the particular risk score (an occurrence attribute) may vary from use to use.

Of course, you can now decide which objects you want to view. This can be, for example, all objects of a certain type. In the following example, all risks of the diagram are considered and the maintained names are listed one below the

other. This can be done using a `foreach` loop and inserting a line break before the closing `foreach` to have a line break after each object name.

```
<<foreach [in content.getSelection().getEntities("ET_RISK")]>><<[getAttribute("AT_NAME
↪").getValue()]>>

<</foreach>>
```

If a diagram contains the risks A, B and C, the output generated from the above template code would be:

risk A
risk B
risk C

Alternatively, you can write a comma-separated list in one line.

- `indexOf()` allows the listing under consideration of a separator symbol (here `,`). In addition, the first (or zeroth) element is not preceded by a comma.

```
<<foreach [in content.getSelection().getEntities("ET_RISK")]>><<[indexOf() != 0 ? ",
↪" : ""]>><<[getAttribute("AT_NAME").getValue()]>><</foreach>>
```

Here, the following output is generated:

risk A, risk B, risk C

If you want to make an enumeration, you have to choose the first enumeration point yourself in Word. Then the `foreach` loop follows. Write the closing `<</foreach>>` in the next line, but without bullets. Then no bullet will be output additionally when your list has reached the end.

```
• <<foreach [in content.getSelection().getEntities("ET_RISK")]>><<[getAttribute("AT_
↪NAME").getValue()]>>

<</foreach>>
```

For example, the result would look like this:

- risk A
- risk B
- risk C

Alternatively, the enumeration can be templated as a numbered MS Word list via:

```
1. <<foreach [in content.getSelection().getEntities("ET_RISK")]>><<[getAttribute("AT_
↪NAME").getValue()]>>

<</foreach>>
```

Then, the result of the example diagram would look like this:

1. risk A
2. risk B
3. risk C

Furthermore, you can determine the order of the returned objects of the `getNodes()`-operation by adding the parameter `Sort.with(...)`. For example, an alphabetical sorting of all documents is generated by

`content.getSelection().getNodes("ET_DOCUMENTS", Sort.with("byName")).`

Analogically, the indication "byCoords" results in a sorting by the coordinates in the diagram and "byPath" in a sorting by their occurrence in the process flow.

17.8 How do I output connected nodes?

On a node in a set of `getNodes()` you can execute `getRelatedNodes()`. The nodes represent the occurrences of the objects in the diagram. These are typically connected to other nodes. The connections are usually a condition for output in separate lists or contexts.

- `getRelatedNodes()` returns the associated values. As a condition, you can filter the object type and/or the link type that you want to output or evaluate.

In the first example, all activities are written to a variable named `activity`. This is necessary to buffer the values, since a loop runs over this set. As the loop passes, the name of each activity is output. In addition, the system checks for each activity whether associated symbols of the type role and the connection `Responsible` exist. The output of the text `Responsible for Implementation:` and the maintained name of the role follows.

```
<<foreach [activity in content.getSelection().getNodes("ET_ACTIVITY")]>>

<<[activity.getAttribute("AT_NAME").getValue()]>>

<<foreach [in activity.getRelatedNodes("ET_ROLE","AST_RESPONSIBLE")]>>Responsible for␣
↪Implementation: <<[getAttribute("AT_NAME").getValue()]>>

<</foreach>><</foreach>>
```

The next example uses the method `getRelatedNodes()` twice. First, the same iteration as above is done for all activities of the diagram. Then, the associated risks are output. For the risks, a second variable `risk` is introduced. At last, the associated controls for each risk (resp. the name) are issued.

```
<<foreach [activity in content.getSelection().getNodes("ET_ACTIVITY")]>>

<<foreach [risk in activity.getRelatedNodes("ET_RISK")]>><<[risk.getAttribute("AT_NAME
↪").getValue()]>>

<<foreach [in risk.getNodeAccess().getRelatedNodes("ET_CONTROL")]>><<[getAttribute(
↪"AT_NAME").getValue()]>>

<</foreach>><</foreach>><</foreach>>
```

17.9 How do I output all attributes of an element?

The method `getAttributes()` can be executed on objects, nodes and just on the diagram.

- `getAttributes()` returns the set of available, maintained attributes. You could simply output or filter them further.

The following code contains a loop in a loop that outputs all the objects of the diagram with all their attributes:

```
<<foreach [entity in content.getSelection ().getEntities (".*")]>>

<<[entity.getAttribute("AT_NAME").getValue()]>>

<<foreach [attribute in entity.getAttributes()]>><<[attribute.getName()]>>

<<[attribute.getValue()] -html>>

<</foreach>><</foreach>>
```

Here a variable named `entity` is created, which contains all objects of the diagram. The name of each object is output. Then a new variable named `attribute` is created, in which all attributes of the object are written. The name and value of each attribute are then displayed below each other.

17.10 How do I output multivalued attributes of a diagram in a list?

The method `getAttributes().getValue()` returns the set of available, maintained attributes as a comma-separated list. The code

```
<<[content.getSelection().getAttribute("AT_EXAMINER").getValue()>>
```

generates the following output, for example:

Examiner 1, Examiner 2, Examiner 3

Using the `.replace(", ", "\n")` method, you can display the list with line breaks.

```
<<[content.getSelection().getAttribute("AT_EXAMINER").getValue().replace(", ", "\n")]>
↪>
```

Here, the following output is generated, for example:

Examiner 1
Examiner 2
Examiner 3

Note: Use a bullet point "•" or a numbering "1." before the code for enumeration.

17.11 How do I output my data in tables?

If you integrate tables into your template, the report engine will fill in objects and/ or attributes according to your definition. Simply use the Word tables and - for example - write the desired loop with methods that return the diagram attributes, contained objects or object attributes into the first row. The data will be formatted in the chosen table.

In the following example, one table row is created for each activity. The entire loop per activity covers the entire line. This is important because otherwise empty rows are not removed by the report engine if they are not needed. The rows are numbered and contain the risks, controls and KPIs.

Process step		Risk	KPI
1. <<foreach [activity in content.getSelection().getNodes("ET_ACTIVITY")]>>	<<[activity.getAttribute("AT_NAME").getValue()]>>	• <<foreach [risk in activity.getRelatedNodes("ET_RISK")]>><<[risk.getAttribute("AT_NAME").getValue()]>> • <<foreach [in risk.getNodeAccess().getRelatedNodes("ET_CONTROL")]>><<[getAttribute("AT_NAME").getValue()]>> <</foreach>> <</foreach>>	• <<foreach [in activity.getRelatedNodes("ET_KPI")]>><<[getAttribute("AT_NAME").getValue()]>><</foreach>>

You can combine the loops described above and execute them in a table. In the following example, a header line is inserted for each group. A row is created for each entry in the group:

<<foreach [group in content.getSelection().getEntities(".*").where(p => !"ET_ACTIVITY,ET_EVENT,ET_XOR,ET_OR,ET_AND".contains(p.getStereotypeName())).groupBy(p => p.getStereotypeName())]>><<[first().getStereotypeName()]>>	
<<foreach [in group]>><<[getAttribute("AT_NAME").getValue()]>><<if [getAttribute("AT_ATTACHMENT").getValue().toString().length()!=0]>>(<<[getAttribute("AT_ATTACHMENT").getValue()]-html>>)<</if>>	<<[getAttribute("AT_DESCRIPTION").getValue()]-html>><</foreach>><</foreach>>

Here, all the objects of the diagram are first written to a variable called `group`. They are filtered so that no activities, events or rules are included. Then they are grouped by the stereotype designation. After that, names and descriptions will be displayed. If there is an attachment, it is also output.

- `getStereotypeName()` returns the name of the stereotype of the element.
- `contains()` defines the contained elements as a condition.
- `first()` selects the first object from the list.

Condition for table

In addition, you can set entire tables in conditions so that a header of the table may not be displayed without additional content. This can be done using the methode `any()`.

- In the following example, `any()` compares whether elements of the type role (ET_ROLE) or application (ET_APP_COMPONENT) exist. Otherwise (`<<else>>`) the text `No more information.` is output instead of an empty table.

You could structure such a table as follows:

```
<<if [content.getSelection().getEntities(".*").any(p => "ET_RISK,ET_APP_COMPONENT".
↪contains(p.getStereotype()))]>>Here are the IT systems:
```

Process step	IT system
<<foreach [activity in content.getSelection().getNodes("ET_ACTIVITY")]>><<[activity.getAttribute("AT_NAME").getValue()]>>	• <<foreach [in activity.getRelatedNodes("ET_APP_COMPONENT")]>><<[getAttribute("AT_NAME").getValue()]>> <</foreach>> <</foreach>>

```
<<else>>No more information.<</if>>
```

Note: `foreach` loops only work within the same table or e.g. starting before and ending after a table. If the loop surrounds a table, a new table is created for each element in the `foreach` loop. However, if you start the loop outside a table and end it inside it, or vice versa, the loop does not work.

17.12 How do I output sorted lists with certain conditions?

You can configure the template in such a way that only objects satisfying certain conditions are read out. The following methods can be useful:

- `where()` selects all objects, that fulfill the condition.
- `orderBy()` sorts the nodes by the desired value. In this example, activities are sorted by their probability. To be able to sort these values, they must be converted into comparable numbers.

In the first example, the activities with an execution probability (attribute `AT_PROBABILITY`) higher than 75% are identified and displayed. At first, the activities are sorted by probabilities whereas the values are converted to the data type *double*. The double values can also be used for calculations, for example. Secondly, the condition for a probability greater than 75% is checked. Only corresponding activities are output in this loop.

```
<<foreach [in content.getSelection().getNodes("ET_ACTIVITY").orderBy(p => ((Double)(p.
↪getAttribute("AT_PROBABILITY").getRawValue())).where(p => ((Double)p.getAttribute(
↪"AT_PROBABILITY").getRawValue()) > 75)]>><<[getAttribute("AT_NAME").getValue()]>><</
↪foreach>>
```

Similarly, you can search for the longest processing times and output only these activities. In the next example, all activities are displayed that have a maintained processing time of more than 20 minutes.

```
<<foreach [in content.getSelection().getNodes("ET_ACTIVITY").orderBy(p => (Double)(p.
↪getAttribute("AT_PROCESS_TIME").getRawValue())).where(p => ((Double)p.getAttribute(
↪"AT_PROCESS_TIME").getRawValue()) > 20)]>><<[getAttribute("AT_NAME").getValue()]>><
↪</foreach>>
```

Note: Java code is generally possible in the report engine. Examples can be found here and in the report template of the system.

17.13 How can I change the output language in the template?

If you want to output another content language than the current one, the system needs a corresponding note. To do this, a value with the corresponding language abbreviation must be entered at `getValue()`. You can use the language abbreviations defined by the standard ISO-639-1.

The example returns the value of the diagram name which has been maintained in the content language English.

```
<<[content.getSelection().getAttribute("AT_NAME").getValue("en")]>>
```

The following list is an extract from the ISO standard.

Language code	Language
ar	Arabic
zh	Chinese
en	English
fr	French
de	German
it	Italian
es	Spanish

17.14 How do I use variables to store data?

The `<<var [...]>>`-tag is used to store data or objects in a variable. Any data type can be stored in variables. The name of the variables and the data type **cannot** be changed afterwards.

The following line declares the variable *i*. Initially, it holds the value "0".

```
<<var [i = 0]>>
```

If you want to change the value of an existing variable, use the same tag as in the definition of the variable. In the next code block, the new value "1" is assigned to the variable *i*. Then, the variable is increased by 1.

```
<<var [i = 1]>>
<<var [i = i+1]>>
```

Variables may store objects like an activity analogically:

```
<<var [activities = content.getSelection().getEntities("ET_ACTIVITY")]>>
<<var [activities = activities.concat(content.getSelection.getEntities("ET_ACTIVITY
↪"))]>>
```

A variable has the same functionality as the corresponding normal object.

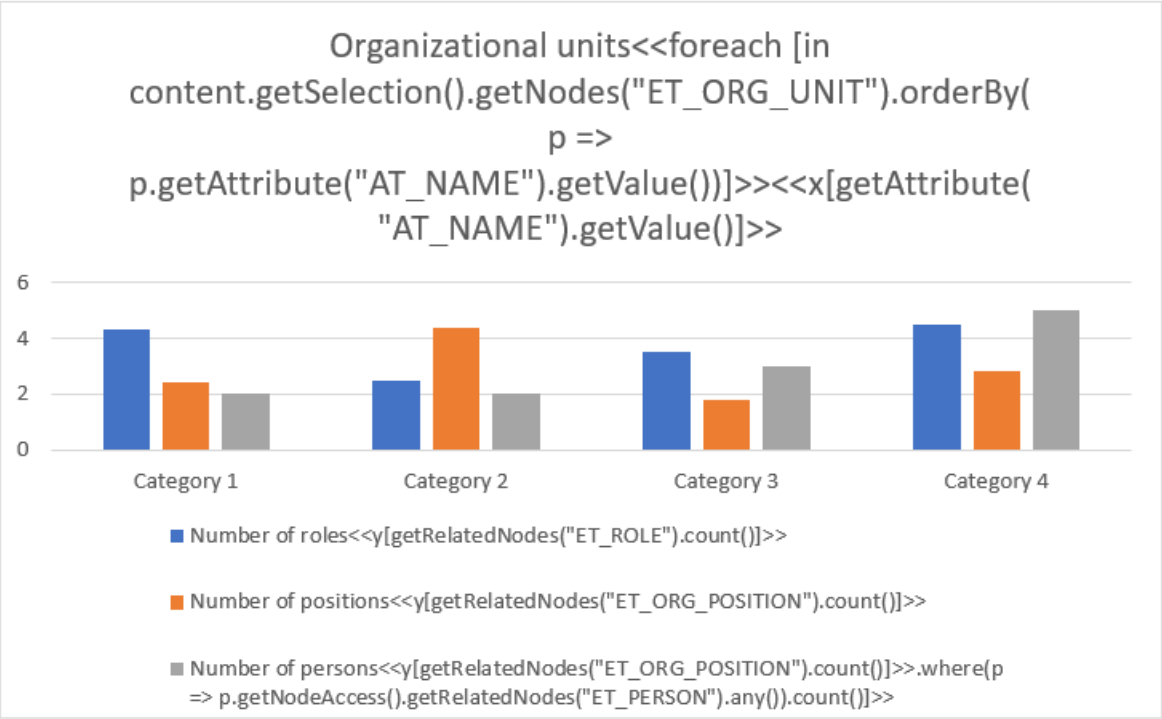
17.15 How do I use diagrams to visualize data?

The report also supports visual representation via a diagram. Simply use the Word diagrams and - for example - write the desired methods that return the diagram attributes, contained objects or object attributes into the first row. The data will be formatted in the chosen diagram.

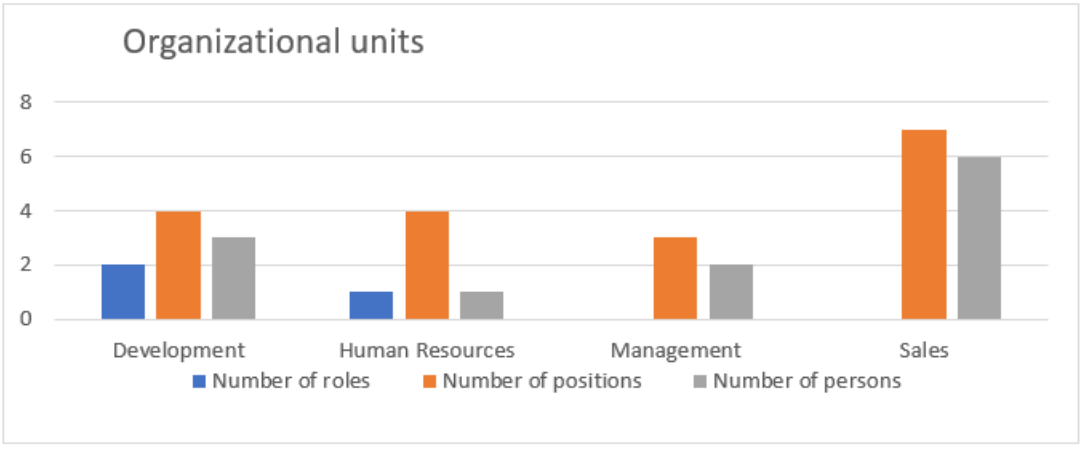
To do that, please note the following:

- Diagram header needs to start with a `<<foreach[...]>>` tag like any other loop.
- The `<<foreach[...]>>` tag can stay open.
- Diagram header needs to contain a `<<x[...]>>` tag to specify the x-axis marking.
- Diagram header needs to contain a `<<y[...]>>` tag to specify the y-axis marking.

The following example shows the template of a bar chart that compares the organizational units contained in a process diagram. In the title, the command `content.getSelection().getNodes("ET_ORG_UNIT")` gathers the categories of the bar chart (the organizational units) and they are sorted via `orderBy()`. For each category, the number of roles, positions and persons are visualized by different bars.



In a report of a BIC Process Design diagram containing the organizational units “Development”, “Human Resources”, “Management” and “Sales”, this leads to the following result:



17.16 How do I use numbers in my template?

Using the method `getValue()`, you can display the value of an attribute as a text in the current content language. `getRawValue()` gets the value as a number, but they need to be casted into the right type. This is possible by adding the data type in parentheses before the method call. In the example, the attributes are read out as `(Long)` resp. `(Double)`.

```
<<[(Long) content.getSelection().getNodes("ET_RISK").first().getAttribute("AT_RISK_
↪CATEGORY").getRawValue()]>>
<<[(Double) content.getSelection().getNodes("ET_ACTIVITY").first().getAttribute("ET_
↪PROCESS_TIME").getRawValue()]>>
```

Attributes can be casted in the following types:

Attribute type ID	Data type
AT_ACTUAL_VALUE	Long
AT_AT_CONFIDENTIALITY_REASON	String
AT_AT_CONFIDENTIALITY_REASON	String
AT_ATTACHMENT	String
AT_AVAILABILITY	Long
AT_AVAILABILITY_REASON	String
AT_CALL_ACTIVITY	Boolean
AT_CALL_CONVERSATION	Boolean
AT_CAPACITY	Long
AT_COLLECTION	Boolean
AT_COMPENSATION_TASK	Boolean
AT_CONFIDENTIALITY	Long
AT_CONTROL_EFFECT	Long
AT_DAMAGE_CONTROL_MEASURES	String (`<<[...]-html>>`)
AT_DATA_SOURCE	String
AT_DATA_STATE	String
AT_DATA_UNIT	String
AT_DATATYPE	Long
AT_DEFAULT_VALUE	String
AT_DESCRIPTION	String (`<<[...]-html>>`)
AT_DEVELOPMENT_COSTS	Double
AT_EMAIL	String
AT_END_EVENT_TYPE	Long
AT_EVENT_GATEWAY_TYPE	Long
AT_EVENT_TYPE	Long
AT_EXECUTION_INTERVAL	Long
AT_EXECUTION_TYPE	Long
AT_EXTERNAL	Boolean
AT_FOCUS_ON_TARGET	String (`<<[...]-html>>`)
AT_GATEWAY_INSTANTIATE	Boolean
AT_GROUP	Boolean
AT_HEADCOUNT	Long
AT_IDENTIFIER	String
AT_IDENTIFYING	Boolean
AT_IDLE_TIME	Double
AT_IMPACT_ON_OCCURRENCE	Long

continues on next page

Table 1 – continued from previous page

Attribute type ID	Data type
AT_INPUT_OUTPUT	Long
AT_INSTANCES	String
AT_INTEGRITY	Long
AT_INTEGRITY_REASON	String
AT_INTERMEDIATE_EVENT_TYPE	Long
AT_IS_WEAK	Boolean
AT_ITEM_COLLECTION	Boolean
AT_KEYWORDS	String
AT_LIFE_CYCLE	Long
AT_MANUFACTURER	String
AT_MATERIAL_COSTS	Double
AT_MULTIPLE_INSTANCE_TYPE	Long
AT_MULTIPLE_INSTANCES	Boolean
AT_NAME	String
AT_NON_INTERRUPTING	Boolean
AT_OCCURRENCE_PROBABILITY	Long
AT_OPERATION_REFERENCE	String
AT_OPERATIONAL_TIME_END	Long
AT_OPERATIONAL_TIME_START	Long
AT_ORG_RES_CAPACITY	Double
AT_PERSONAL_DATA	Long
AT_PHONE	String
AT_PRIMARY_KEY	Boolean
AT_PRIORITY	Long
AT_PRIVACY_BY_DEFAULT	Boolean
AT_PRIVACY_BY_DESIGN	Boolean
AT_PROBABILITY	Double
AT_PROCESS_TIME	Double
AT_PROCESS_TYPE	Long
AT_PROCESSING_CRITICAL_DATA	Boolean
AT_PROCESSING_PURPOSE	String
AT_RELEASE	String
AT_RES_COST_RATE	Double
AT_RISK_CATEGORY	Long
AT_RISK_MITIGATION_MEASURES	String (`<<[...]-html>>`)
AT_RISK_PROBABILITY	Double
AT_RISK_PROBABILITY_CLASSIFICATION	Long
AT_ROOT_CAUSE	String (`<<[...]-html>>`)
AT_SETUP_TIME	Double
AT_STAFF_CAPACITY	Double
AT_START_EVENT_TYPE	Long
AT_STATE	Long
AT_STRUCTURE_REFERENCE	String
AT_TARGET_VALUE	Double
AT_TASK_TYPE	Long
AT_TEMPORAL_BINDING	Double
AT_TRANSFER_THIRD_COUNTRY	Boolean
AT_TRANSPORT_TIME	Double
AT_UNIT_COSTS	Double

continues on next page

Table 1 – continued from previous page

Attribute type ID	Data type
AT_VALID_FROM	Long
AT_VALID_TO	Long
AT_VERSION	String

17.17 How can I access the case data when I create a report?

As part of a template, you have the option to output the maintained process variables of a case.

For example, if you want to display the name of the selected case, you can proceed as follows:

```
<<[case.getName()]>>
```

- `case.getName()` returns the name of the case.
- `case.getCreationDate()` returns the creation date of the case.
- `case.getDueDate()` returns the due date of the case.
- `case.getCreator()` returns information about the creator.

You receive the following information about the creator as follows:

- `case.getCreator().getType()` returns who created the case (e.g. user, timer, etc.).
- `case.getCreator().getId()` returns the ID of the creator.
- `case.getCreator().getName()` returns the name of the creator.
- `case.getCreator().getEmail()` returns the e-mail address of the creator.

Hint: If you use `case.getCreator()` without accessing a specific field, the name of the creator is used as a placeholder: `case.getCreator() ~ case.getCreator().getName()`

17.18 How can I access process variables in a form field for a case?

In the context of a template, you have the option to access process variables in a form field for a case by using the method `case.getVariable()`.

If you want to output the ID and value of a variable, for example, you can proceed as follows:

```
<<[case.getVariable("customer").getName()]>>: <<[case.getVariable("customer").
↪getValue()]>>
```

- `getName()` returns the ID of the process variable.
- `getValue()` returns the value of the process variable.
- `getRawValue()` returns the value of the variable without any formatting.

In your template, you also have the option of accessing process variables of the type array.

To get a comma-separated list of the values in the array, you can use the following procedure:

```
<<[case.getVariable("myArray").getValue()]>>
```

To get a list that returns the entire collection of arrays, so that you can iterate over it directly, you can proceed as follows:

```
<<[case.getVariable("myArray").asList()]>>
```

Alternatively, you can also have the variables displayed one below the other. This can be done using a `foreach` loop and inserting a line break before the closing `foreach` to have a line break after each object name.

```
<<foreach [field in case.getVariables()]>><<[field.getName()]>>: <<[field.getValue()]>
↪><</foreach>>
```

Hint: If you access a value of a non-existing variable, for example with `case.getVariable("nonExistingVariable").getValue()`, the template will still be created. In this case, the following message is displayed instead of the value of the non-existing variable: The variable "nonExistingVariable" is not available.

Warning: Only the *case* object is available. Attempts to use other undefined objects are not taken into consideration. Either nothing is displayed in the resulting template, or a corresponding error message appears.

17.19 How can I access the tasks within a case?

In the context of a template, you have the option to access the tasks within a case. The provided information includes both user tasks and automated tasks. Additionally, it contains both open tasks, which are pending and require editing, and completed tasks that have been successfully finished.

You can use the following code to output all information related to the tasks of a case:

```
<<foreach [task in case.getTasks()]>><<[task.getStatus()]>> <<[task.getName()]>><
↪<[task.getDescription()]>> <<[task.getStartDate()]>> <<[task.getEndDate()]>> <
↪<[task.getAssignee()]>><<[task.getDueDate()]>><</foreach>>
```

If a line break is used before the closing `foreach`, you can display the information one below the other. The tasks are displayed sorted by start date.

The following information is included:

- `task.getStatus()` returns the status of the task.
- `task.getName()` returns the name of the task in your configured default language.
- `task.getDescription()` returns the description of the task in your configured default language.
- `task.getStartDate()` returns the start date of the task.
- `task.getEndDate()` returns the end date of the task.
- `task.getAssignee()` returns the assignee for the task.
- `task.getDueDate()` returns the due date of the task.

17.20 What other options do I have with the report engine?

Further options are listed below:

- `all(Predicate)` outputs all objects that fulfill the condition.

```
<<foreach [in content.getSelection().getEntities("ET_ROLE").all(p => ((Boolean)p.
↪getAttribute("AT_EXTERNAL").getRawValue())]>><<[getAttribute("AT_NAME").getValue()]>
↪>
<</foreach>>
```

In this example, all external roles involved are output.

- `any()` checks whether an objects exists in the list and can be used as a condition.

```
<<[content.getSelection().getEntities("ET_ROLE").any()]>>
```

This example checks if there are any involved persons.

- `any(Predicate)` checks if an object exists in the list, that satisfies the condition.

```
<<[content.getSelection().getEntities("ET_ROLE").any(p => ((Boolean) p.getAttribute(
↪"AT_EXTERNAL").getRawValue()))]>>
```

The example checks whether an external person is involved.

- `average(Selector)` calculates the mean value of the transferred property.

```
<<[content.getSelection().getNodes("ET_ACTIVITY").average(p => ((Double)p.
↪getAttribute("AT_MATERIAL_COSTS").getRawValue()))]>>
```

In this example, the average of all costs of the process is calculated.

- `concat(Iterable)` combines two lists by appending the second list to the first one.

```
<<[content.getSelection().getEntities("ET_ROLE").concat(content.getSelection().
↪getEntities("ET_DOCUMENT")).count()]>>
```

In this example, the list of persons is linked to the list of documents.

- `union(Iterable)` concatenates two lists into one by appending the second one at the end of the first one.

```
<<[content.getSelection().getEntities("ET_ROLE").union(content.getSelection().
↪getEntities("ET_DOCUMENT")).count()]>>
```

In this example, a list of persons are connected with a list of documents.

- `count()` counts the items of a list.

```
<<[content.getSelection().getEntities("ET_ROLE").count()]>>
```

In this example, the persons involved are counted.

- `count(Predicate)` counts the objects in a list that fulfill the condition.

```
<<[content.getSelection().getEntities("ET_ROLE").count(p => ((Boolean)p.getAttribute(
↪"AT_EXTERNAL").getRawValue()))]>>
```

In this example, all external employees are counted.

- `first()` selects the first object from the list.

```
<<[content.getSelection().getEntities("ET_ROLE").first().getAttribute("AT_NAME").
↪getValue()]>>
```

In this example, the name of the first employee involved is displayed.

- `first(Predicate)` selects the first object that satisfies the condition from the list.

```
<<[content.getSelection().getEntities("ET_ROLE")first(p => ((Boolean)p.getAttribute(
↪"AT_EXTERNAL").getRawValue())).getAttribute("AT_NAME").getValue()]>>
```

In this example, the name of the first external employee is displayed.

- `groupBy(Selector)` sorts the objects into groups according to their properties.

```
<<foreach [type in content.getSelection().getEntities(".*").groupBy(p => p.
↪getStereotype())]>><<<[first().getStereotype()]>>

<<foreach [in type]>><<<[getAttribute("AT_NAME").getValue()]>>

<</foreach>><<</foreach>>
```

In this example, an enumeration is created in which all entities are listed sorted by stereotype.

- `last()` outputs the last object.

```
<<[content.getSelection().getEntities("ET_ROLE").last().getAttribute("AT_NAME").
↪getValue()]>>
```

In this example, the name of the last employee is displayed.

- `last(Predicate)` returns the last object with the property.

```
<<[content.getSelection().getEntities("ET_ROLE").last(p => ((Boolean)p.getAttribute(
↪"AT_EXTERNAL").getRawValue())).getAttribute("AT_NAME").getValue()]>>
```

In this example, the name of the last external employee is displayed.

- `max(ComparableSelector)` returns maximum value.

```
<<[content.getSelection().getNodes("ET_ACTIVITY").max(p => (Double)p.getAttribute("AT_
↪PROCESS_TIME").getRawValue())]>>
```

In this example, the longest process time is output.

- `min(ComparableSelector)` returns the minimum value.

```
<<[content.getSelection().getNodes("ET_ACTIVITY").min(p => (Double)p.getAttribute("AT_
↪PROCESS_TIME").getRawValue())]>>
```

In this example, the shortest process time is output.

- `orderBy(ComparableSelector)` sorts the objects in the list according to the parameter.

```
<<foreach [in content.getSelection().getEntities("ET_ROLE").orderBy(p => ((String) p.
↪getAttribute("AT_NAME").getValue()))]>><<<[getAttribute("AT_NAME").getValue()]>><<</
↪foreach>>
```

In this example, all employees are returned sorted by name.

- `skip(int)` skips n items in the list.

```
<<foreach[in content.getSelection().getNodes("ET_ACTIVITY").orderBy(p => ((Double)p.
↪getAttribute("AT_PROCESS_TIME").getRawValue())).skip(5)]>>

<<[getAttribute("AT_NAME").getValue()]>><</foreach>>
```

In this example, all activities except the first five are displayed.

```
<<[content.getSelection().getNodes("ET_ACTIVITY").orderBy(p => p.getAttribute("AT_
↪MATERIAL_COSTS").getValue().toString()).skip(2).first().getAttribute("AT_NAME").
↪getValue()]>>
```

In this example, the third most expensive activity in the process is output.

- `skipWhile(Predicate)` skips objects until the condition is no longer fulfilled.

```
<<foreach[in content.getSelection().getNodes("ET_ACTIVITY").orderBy(p => p.
↪getAttribute("AT_PROCESS_TIME").getValue().toString()).skipWhile(p => ((Double)p.
↪getAttribute("AT_PROCESS_TIME").getRawValue()) < 5)]>>

<<[getAttribute("AT_NAME").getValue()]>><</foreach>>
```

In this example, all activities are displayed that take at least 5 minutes to process.

- `sum(Selector)` sums the attributes of the objects in the list.

```
<<[content.getSelection().getNodes("ET_ACTIVITY").sum(p => ((Double)p.getAttribute(
↪"AT_PROCESS_TIME").getRawValue()))]>>
```

In this example, the total processing time is output.

- `take(int)` selects the first n objects from the list.

```
<<foreach [in content.getSelection().getNodes("ET_ACTIVITY").orderBy(p => ((Double)(p.
↪getAttribute("AT_PROCESS_TIME").getRawValue())).take(5)]>><<[getAttribute("AT_NAME
↪").getValue()]>><</foreach>>
```

In this example, the five activities with the shortest processing time are output.

- `takeWhile(Predicate)` selects objects until the condition is no longer fulfilled.

```
<<foreach [in content.getSelection().getNodes("ET_ACTIVITY").orderBy(p => ((Double)(p.
↪getAttribute("AT_PROCESS_TIME").getRawValue())).takeWhile(p => ((Double)p.
↪getAttribute("AT_PROCESS_TIME").getRawValue()) < 5)]>><<[getAttribute("AT_NAME").
↪getValue()]>><</foreach>>
```

In this example, all activities that have a processing time of less than 5 minutes are displayed.

- `where(Predicate)` selects all objects that satisfy the condition.

```
<<foreach [in content.getSelection().getNodes("ET_ACTIVITY").orderBy(p => ((Double)(p.
↪getAttribute("AT_PROCESS_TIME").getRawValue())).where(p => ((Double)p.getAttribute(
↪"AT_PROCESS_TIME").getRawValue()) < 5)]>><<[getAttribute("AT_NAME").getValue()]>><</
↪foreach>>
```

In this example, all activities are displayed that have a processing time of less than 5 minutes.

- `AT_PROCESS_TIME`, `AT_SETUP_TIME` and `AT_TRANSPORT_TIME` are needed to calculate the cycle time.

```
<<foreach [activity in content.getSelection().getEntities(”ET_ACTIVITY”)]>>

<<var[process = activity.getAttribute(“AT_PROCESS_TIME”).getRawValue().getClass().
↪getSimpleName().equals(“Double”)? (double) activity.getAttribute(“AT_PROCESS_TIME”).
↪getRawValue():0]>>

<<var[setup = activity.getAttribute(“AT_SETUP_TIME”).getRawValue().getClass().
↪getSimpleName().equals(“Double”)? (double) activity.getAttribute(“AT_SETUP_TIME”).
↪getRawValue():0]>>

<<var[transport = activity.getAttribute(“AT_TRANSPORT_TIME”).getRawValue().getClass().
↪getSimpleName().equals(“Double”)? (double) activity.getAttribute(“AT_TRANSPORT_
↪TIME”).getRawValue():0]>>

<<var[cycle =(double)process+(double)setup+(double)transport]>>

<<[activity.getAttribute(“AT_NAME”).getValue()]>>

<<[cycle]>>

<</foreach>>
```

In this example, the cycle time of an activity for each activity in a process is calculated.

- `<<if [...]>><</if>>` checks if a condition is true.

```
<<if [content.getSelection().getEntities("ET_ROLE").any(p => ((Boolean)p.getAttribute(
↪"AT_EXTERNAL").getRawValue()))]>>Process with external involvement.<<else>>No␣
↪external involvement.<</if>>
```

In this example, the system checks whether external roles occur. In this case, a corresponding message is output. Otherwise (`<<else>>`) the system displays that “No external involvement” was found.

- `equals(...)` checks if a boolean attribute was set.

```
<<foreach [activity in content.getSelection().getEntities(”ET_ACTIVITY”)]>>

<<[activity.getAttribute(“AT_NAME”).getValue()]>>

<<if [activity.getAttribute(“AT_COMPENSATION_TASK”).getRawValue().equals(true)]>>YES<
↪<else>>NO<</if>>

<</foreach>>
```

This example checks whether a boolean value has been set or not. Hence, a text (**YES/NO**) is displayed.

- `<<foreach [in ...]>><</foreach>>` applies the method to all objects in the data collection.

```
<<foreach [in content.getSelection().getEntities("ET_ROLE")]>><<[getAttribute("AT_NAME
↪").getValue()]>>

<</foreach>>
```

In this example, the names of all roles in the diagram are listed.

Hint: Please note that the use of the <<doc>> tag and access to content from other files within report templates is not supported.

Cast necessity

Since the attributes of the objects from BIC Process Design are exported as an object and previously all data types are formatted as strings, which are then formatted in objects, it is necessary for predicates to parse the attributes back into strings. To do this, a `(<data type>)` must be used. This reformats the objects back to the desired data type, making the comparison possible again.

CHAPTER

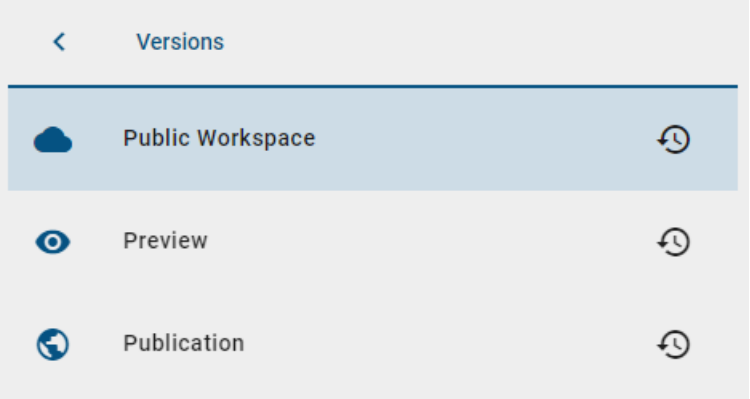
EIGHTEEN

VERSIONS AND HISTORY

18.1 Diagrams

18.1.1 Which diagram versions are available?

A diagram can be available in different work states or versions. For example, there may be one version per public workspace, preview and publication, which differ from each other. The membership of a particular user role determines which versions a user can see. You can get the information about which versions a certain user role can see, from *this chapter of the BIC Process Design user documentation*. Please note that in this chapter you will also find information on functions that relate to the handling of the old user interface and are not available in the new user interface.



Public Workspace: Diagrams in public workspace are located on the BIC Process Design Server and are visible to users with access to this stage. After the local version of a diagram has been saved and checked in within the modeling area of the old user interface, it becomes visible in the public workspace.

Preview: Diagrams from the public workspace, which are submitted in the release workflow for publication and still have to be approved or rejected by a responsible reviewer within the old user interface, can be found as preview version in the preview stage.

Publication: After the responsible person has released the diagram, this is accepted as the new published version. In the publication, you only see the last released diagram. The released version is the only version that a user with "Reader rights" can see.

Note: It can occur that symbols in the publication or preview are displayed without labels. In such a case the label is not maintained in *the selected content language or the selected alternative language*.

18.1.2 How do I change the stage?

The following stages exist for the new user interface: *Public Workspace*, *Preview* and *Publication*. Which stages you can see depends on your user role. If you have access to more than one stage, you can change the stage. The currently selected stage is displayed next to the name of the repository. *Here* you can find how to change the stage.

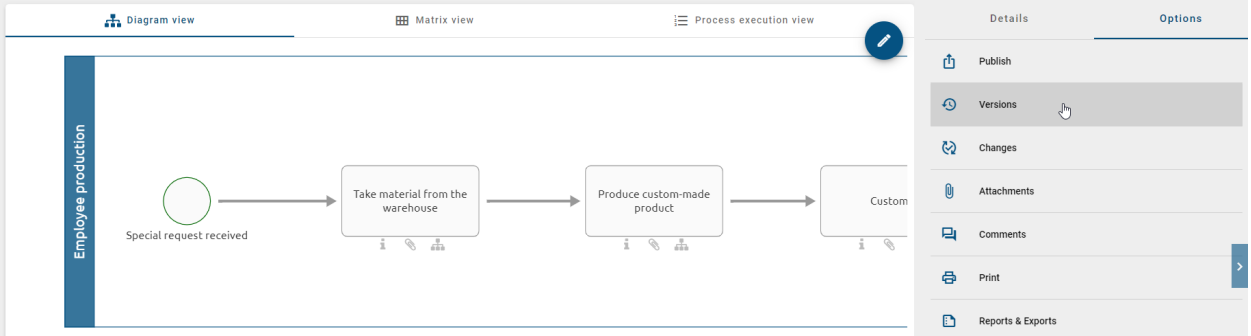
Depending on where you have been during the change of the stage, you will now see all elements that are available for that specific stage. For example, If are at the *Catalog*, you can see all items contained in the diagrams of the selected stage.

Note: It is possible that single stages are not displayed, caused by different user roles. If you only have access to Publication, there is no entry *Change stage* in the menu.

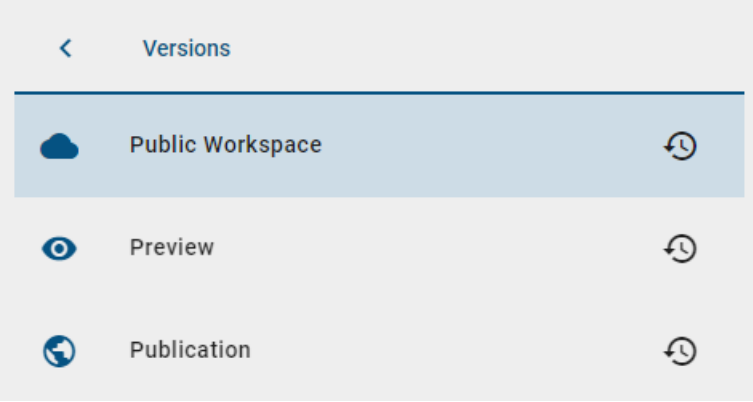
18.1.3 How can I see the different versions of a diagram?

As part of the versioning of diagrams, you have the option of displaying diagrams in the stages *Public workspace*, *Preview* and *Publication*, regardless of which *stage you have selected for your repository*. With this option you can quickly and easily view the different versions of a diagram in order to be informed of all changes.

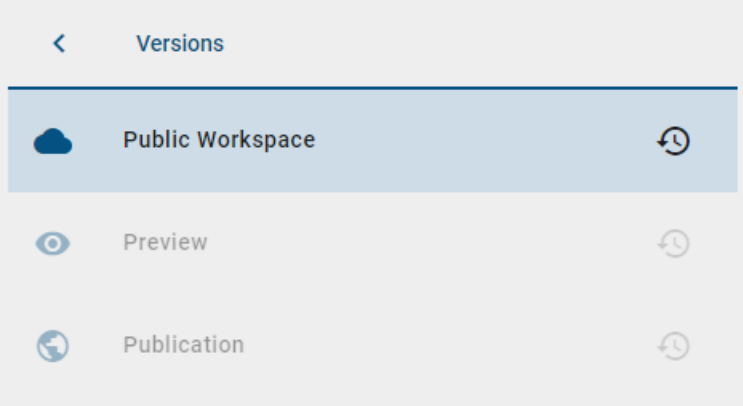
To change the displayed version of a diagram, first navigate to *the diagram view* of the corresponding diagram. Under *Options* select the entry *Versions*.



The three different stages between which you can switch are displayed here.



Stages where no current version of the selected diagram exists, are greyed out and can not be selected.



To access older versions of a current diagram you can use the *archive of the corresponding stage*.

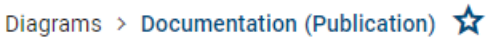
Note: *The available stages for a specific diagram depend on the rights of your user role*, analogous to the general stage selection within a repository. E.g. a user with the user role "Reader" can only see the stage "Publication".

Note: If archive access is disabled for the "Reader" user role in *Administration*, Readers will not be able to view versions of a diagram.

18.1.4 How can I differentiate the stage from the diagram version?

You can display different diagram versions of other stages without *changing the stage*. Changing diagram versions is explained in more detail *here*. As soon as the stage differs from the diagram version, this is noted in the menu bar behind the diagram name.

For example, you are in the public work area. This is displayed below the repository name. At the same time, however, you are looking at a diagram in the *Publication*. The addition "(Publication)" is then displayed behind the diagram name.

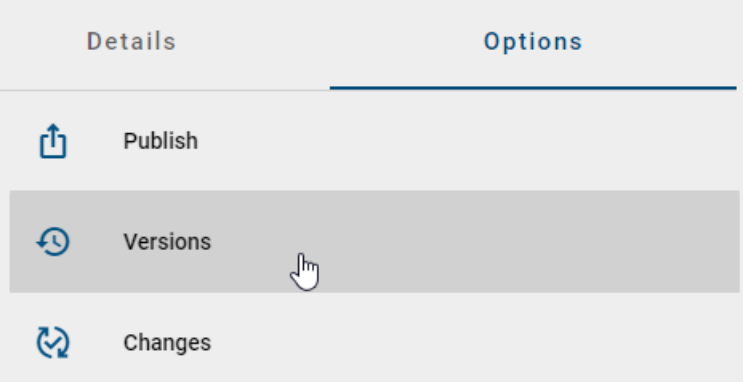


18.1.5 How can I view earlier versions of a diagram?

You have the option of viewing previous versions in the archive. Whether and how long an archive entry exists for *Public workspace*, *Preview* and *Publication* can be set via the *administration*. Thus, for example, after each publication, the previous diagram version is saved in the archive of the publication. This therefore contains the history of all published versions for a diagram. The actual diagram version will be registered in the archive after publication.

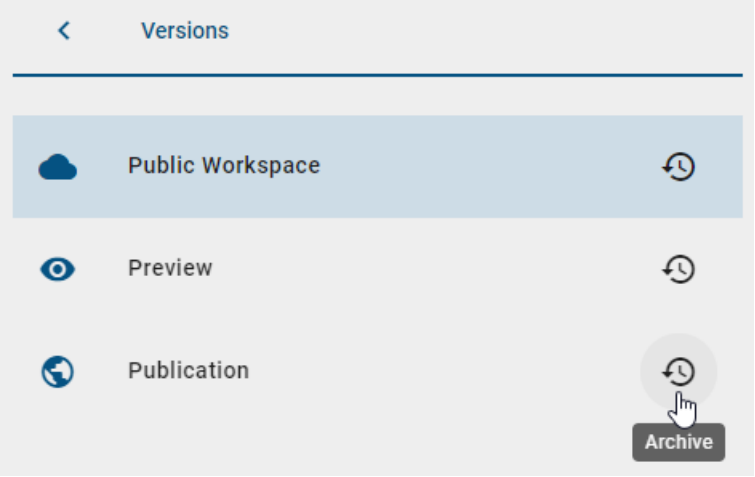
Note: In the public workspace, new archive entries are also created when catalog items are changed in the catalog and when importing. All archive entries are created in the languages in which content is maintained on your diagram.

To access the archive of a diagram, first navigate to its *Options*. Then select the entry *Versions* in the sidebar.

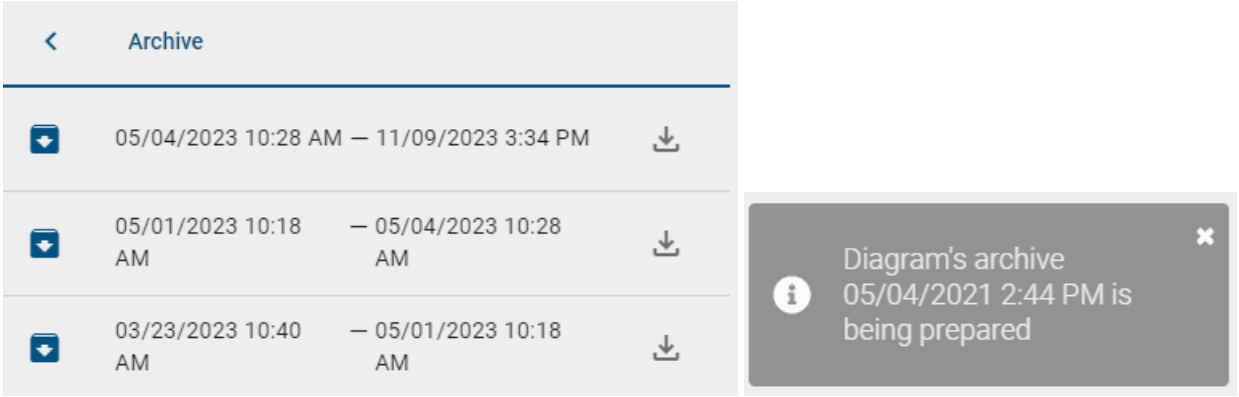


Note: If archive access is disabled for the "Reader" user role in *Administration*, Readers will not be able to view versions of a diagram.

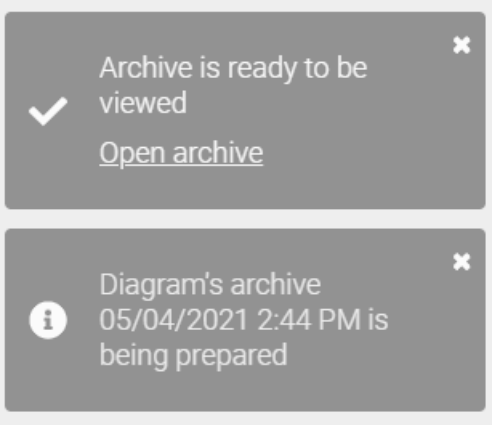
In addition to the archive function, you can view the current version of the selected diagram in the different workspaces. In order to get to the archive of the desired stage (e.g. *Publication*), select the function *Archive* on the right side of the corresponding entry.



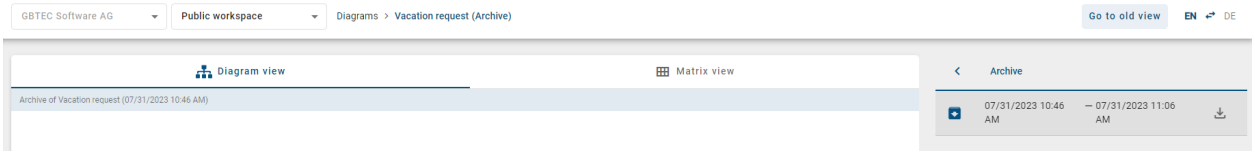
The archive opens and a list of previously archived diagram versions shows up. Each archive entry is named by the time that this version was relevant. In order to view an archived version, click on the desired archive entry. A message that the version is being loaded for you will appear at the bottom right edge of the screen.



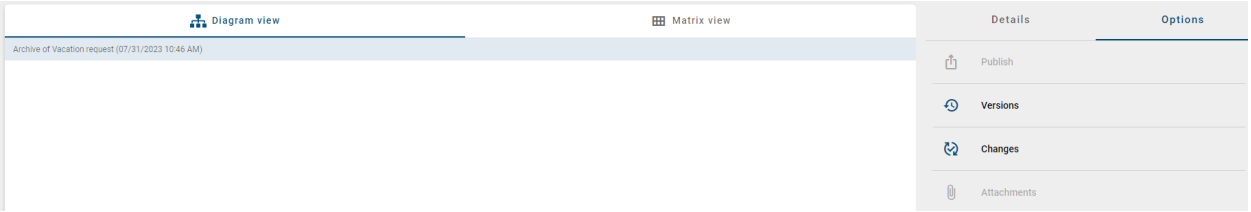
As soon as the archived diagram is loaded, you receive a second message containing a link to open it.



Note: If this archive of the diagram was viewed in the last two weeks, it does not have to be loaded again. You will be redirected to the archive version right after you select this version.



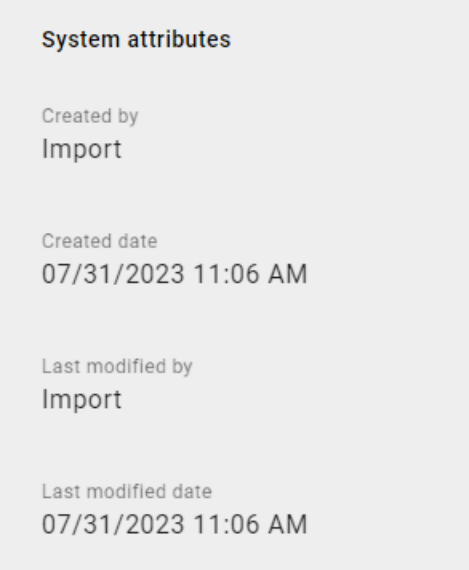
The archived version of you diagram is displayed in diagram view. You get the information that you are seeing an archived version in the top bar as well as in the diagram itself. Note that you can also access the matrix view but not the process execution view. Just like as you were viewing an actual diagram, you can navigate to the *Details* and *Options* of the archived diagram by clicking the *Back*-button twice. The archived diagram supports only the option *Versions* and *Changes* which contains the same archive entries as the actual diagram.



Note: When you view an archived diagram you can look at it but not all options of viewing an actual diagram are supported. Note that you can *download* the archived version and import it in BIC Process Design if this version shall be reused.

Tip: You can use the option *changes* to view all new, changed and removed objects in the opened version of the diagram in comparison to its previous version. You can find more about this in the chapter "*model comparison*".

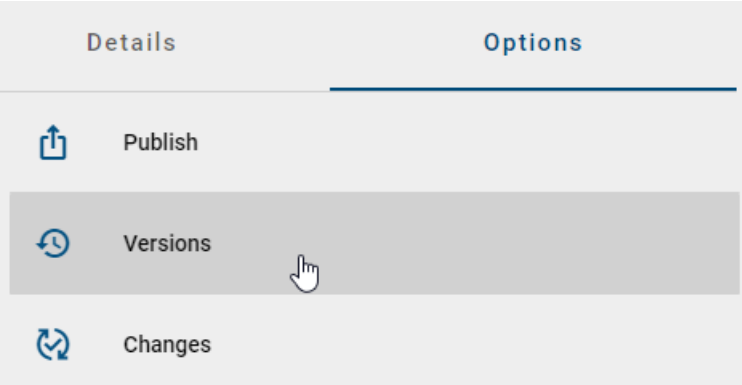
If you click on the details in the archived diagram, under *System Attributes* you will neither see the name of the creator nor the name of the person who last modified in the diagram. The names are automatically changed to "Import".



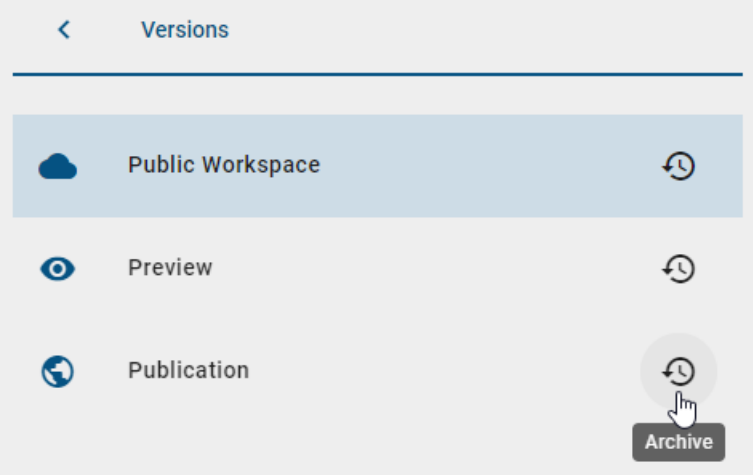
18.1.6 Where can I download earlier versions of a diagram?

You have the option of downloading previous versions in the archive. Whether and how long an archive entry exists for *Public workspace*, *Preview* and *Publication* can be set via the administration in the old user interface. The individual diagram versions can be downloaded as ZIP archive.

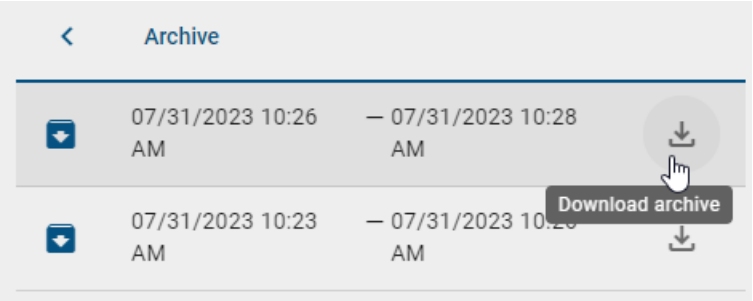
To access the archive of a diagram, first navigate to its *Options*. Then select the entry *Versions* in the sidebar.



In order to get to the archive of the desired stage (e.g. *Publication*), select the function *Archive* on the right side of the corresponding entry.

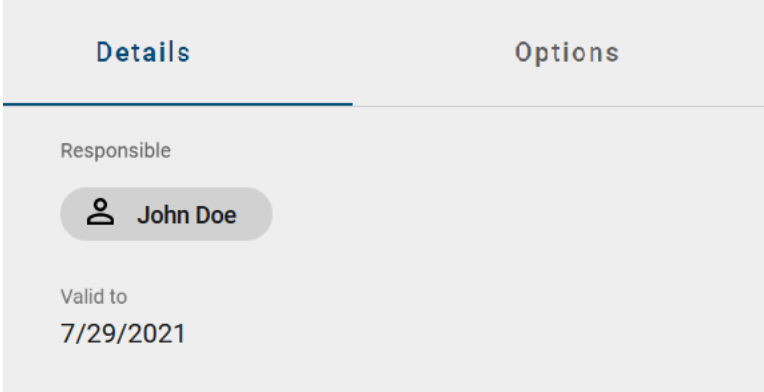


The archive opens and a list of previously published diagram versions shows up. The release date and time are displayed, as well as a button for downloading the archived version.



18.1.7 What is the effect of limiting the validity of a diagram?

Within the *governance attributes* you have the option to maintain responsibilities as well as a validity period for the diagram. The validity is displayed *in the details* of the diagram.



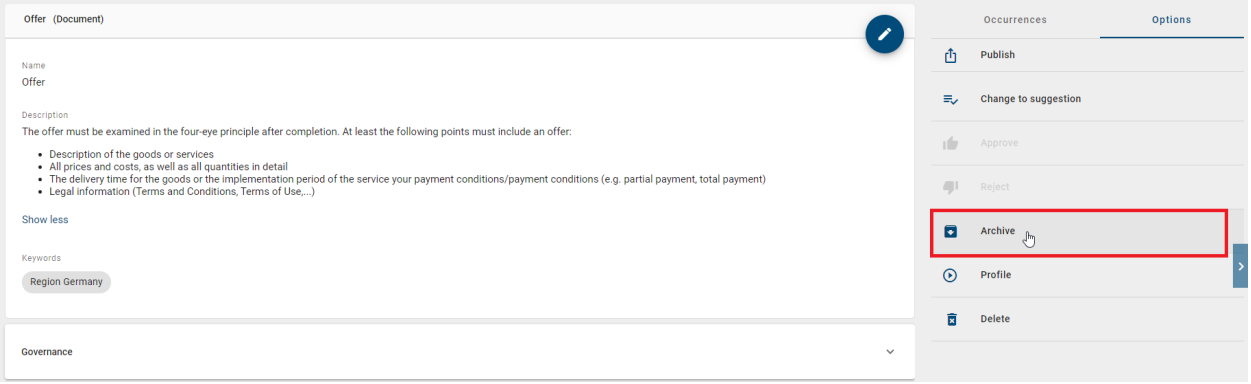
As soon as the diagram is only valid for less than 4 weeks (default setting), the responsible user or user group will be informed by email about the expiration and receives a *resubmission task*. If the end date in the *Valid to* attribute is reached, the diagram will of course continue to exist. Users viewing the diagram in the publication stage get a warning, that the validity period has been exceeded. This is intended to prevent your employees from adopting outdated processes.

Note: The default setting of 4 weeks can be adjusted by the administrator in the BIC Process Design administration.

18.2 Catalog

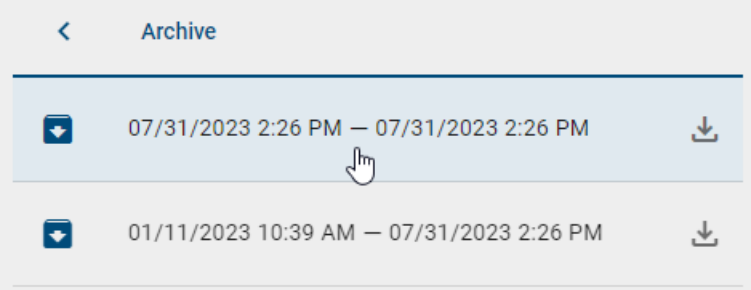
18.2.1 Where can I find earlier versions of catalog items?

Catalog items, that have an *own responsible* person or user group, have the *Archive* option in all stages. When you select the desired items in the catalog to enter the details, you will find the *Archive* in the right sidebar.

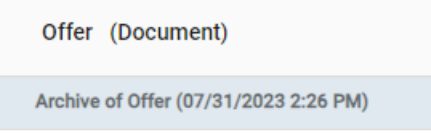


Note: If archive access is disabled for the "Reader" user role in *Administration*, Readers will not be able to view the archives of a catalog entry.

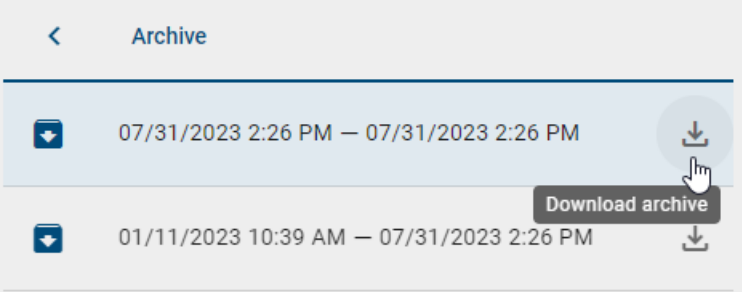
Archive items are created when catalog items are changed. The archive lists all obsolete versions, starting with the latest version. Each archive item is named by the time that this version was relevant. The current version of the catalog object is not listed in the archive.



You can click each item to view the attributes in the main area. The version of the selected archive item is displayed on top.



Additionally, it is possible to download the individual versions of the catalog item as a ZIP file. Select the *Download* button at the desired archive item to do so.

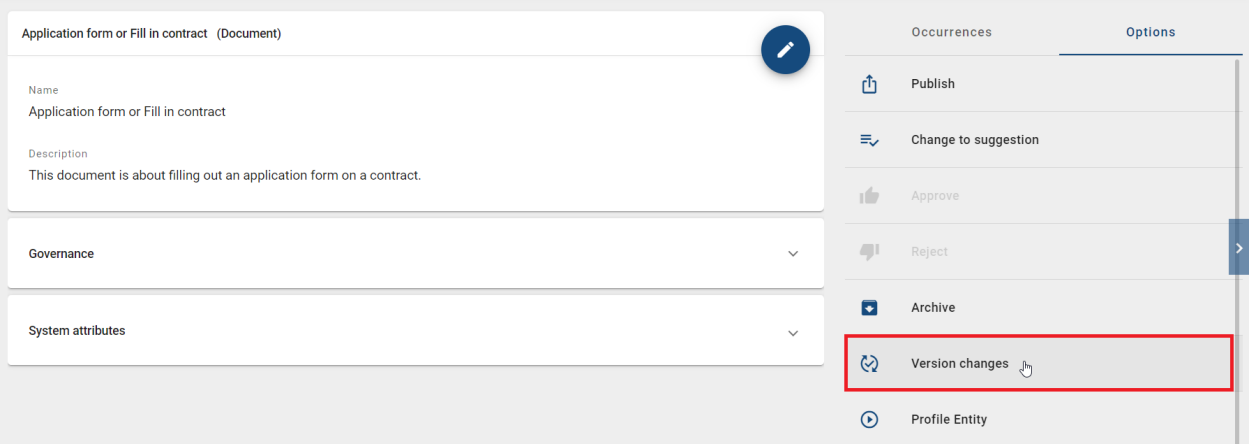


Via the *Back* button you can return to the details view of the current status.

18.2.2 How can I track version changes to a catalog item?

For catalog items that have their *own responsible*, version changes can be tracked in all stages. This also applies to catalog items that already have an existing archive, even after the *responsible* has been removed from the catalog item.

To view the version changes on a catalog item, first navigate to the catalog and select a catalog item. Then, go to the *Options* panel in the right sidebar and click on *Version changes*.



Hint: Please note that if the option is not displayed, there is no archive of the catalog item or no responsible for the catalog item has been assigned.

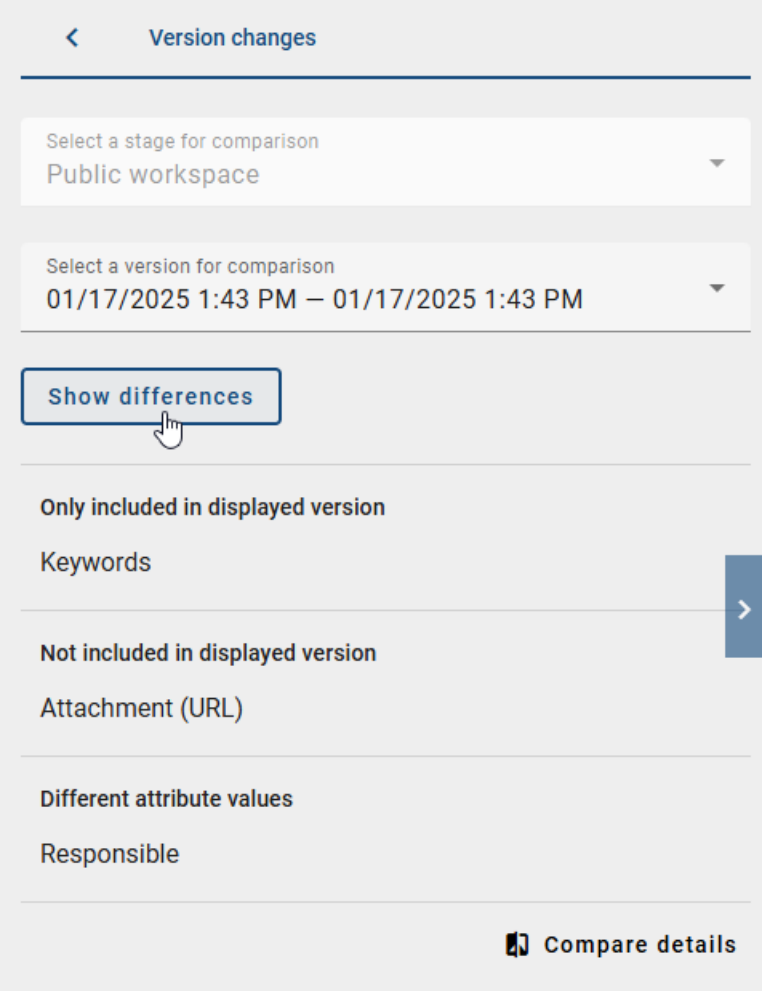
After clicking on the *Version changes* option, you can select the stage and version you want to compare to the active version. Access to the versions varies depending on your role:

- As an *Administrator*, *Editor*, or *Author*, you can select any stage, as well as any version within those stages.
- As a *Reviewer*, you can select the *Preview* and *Publication* stages, as well as any version within those stages.
- As a *Reader*, you can select the *Publication* stage as well as any version within that stage if you have been granted *access permission*. Otherwise, you can **only** access the latest version.

Note: If there are no version changes in other stages or only one version of the catalog item exists, you cannot change the stage or version.

Once you have selected the stage and version for comparison, click on the *Show differences* button. All differences between the selected version and the active version will be listed. These differences are categorized as follows:

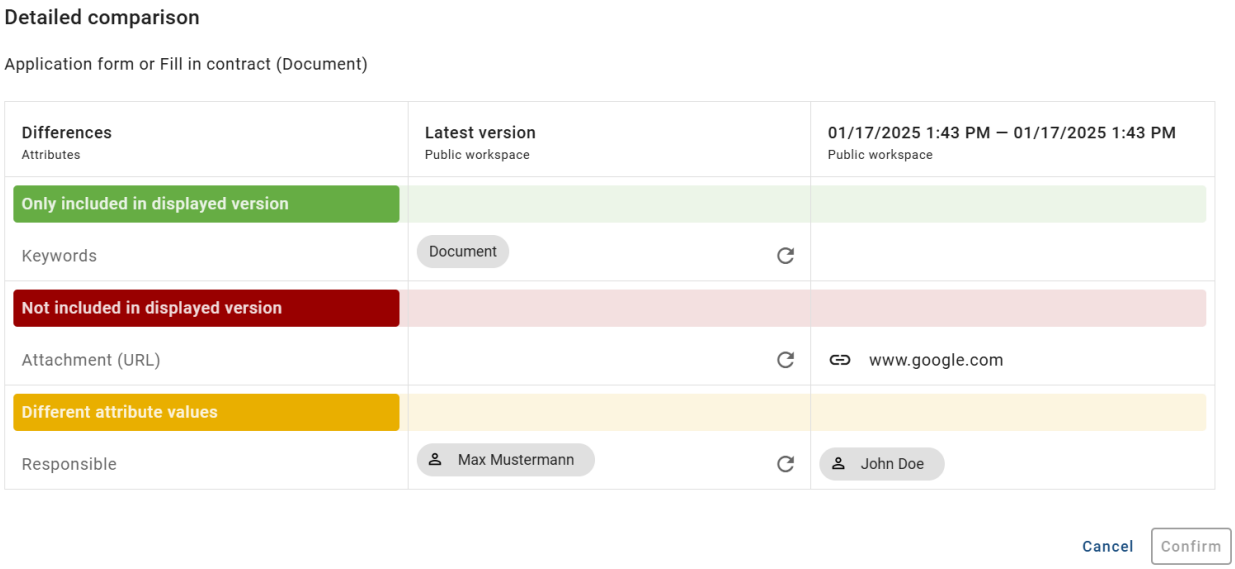
- **Only included in displayed version:** The attribute is available only in the active version.
- **Not included in displayed version:** The attribute is not available in the active version, but only in the selected version.
- **Different attribute values:** The attribute has different attribute values in the active version compared to the selected version.



If there are no differences between the active and the selected version, you will be informed accordingly.

Only the names of the attribute types are displayed in the list. To get more detailed information about the differences, click the *Compare details* button. A table will then appear, showing a comparison of the differences between the listed attributes.

The left column highlights the differences by color, while the middle and right columns provide a comparison between the active version (middle column) and the selected version (right column). To close the table, click *Cancel*.

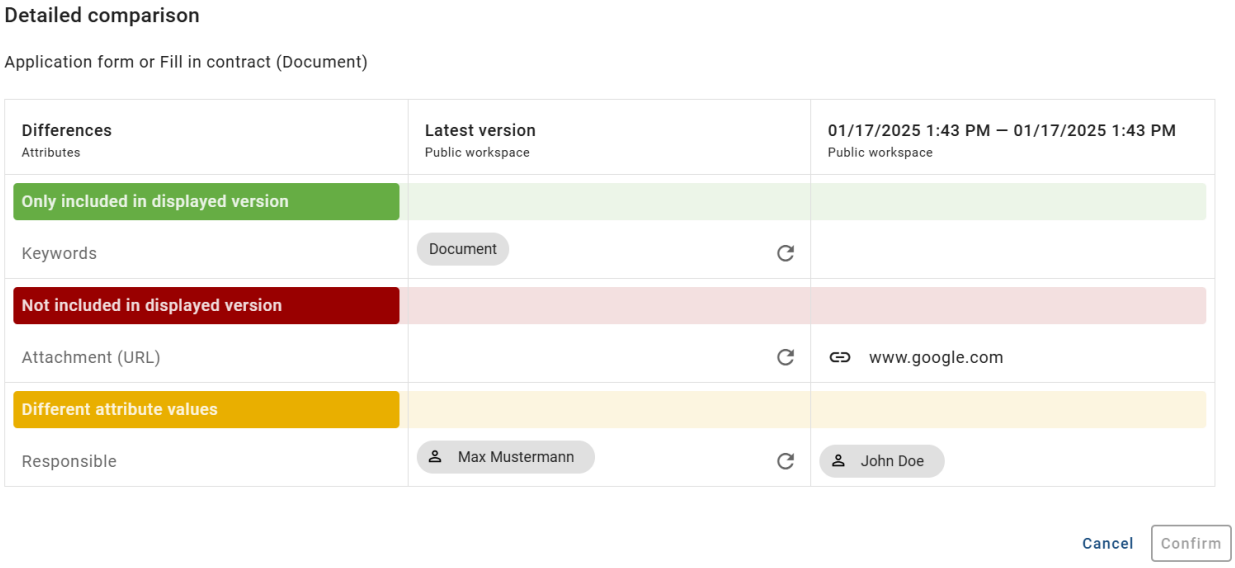


18.2.3 How can I apply version changes from a catalog item to the active version?

To apply version changes from a catalog item to the active version, first go to the catalog and select a catalog item. Then, go to the *Options* panel in the right sidebar and click on *Version changes*.

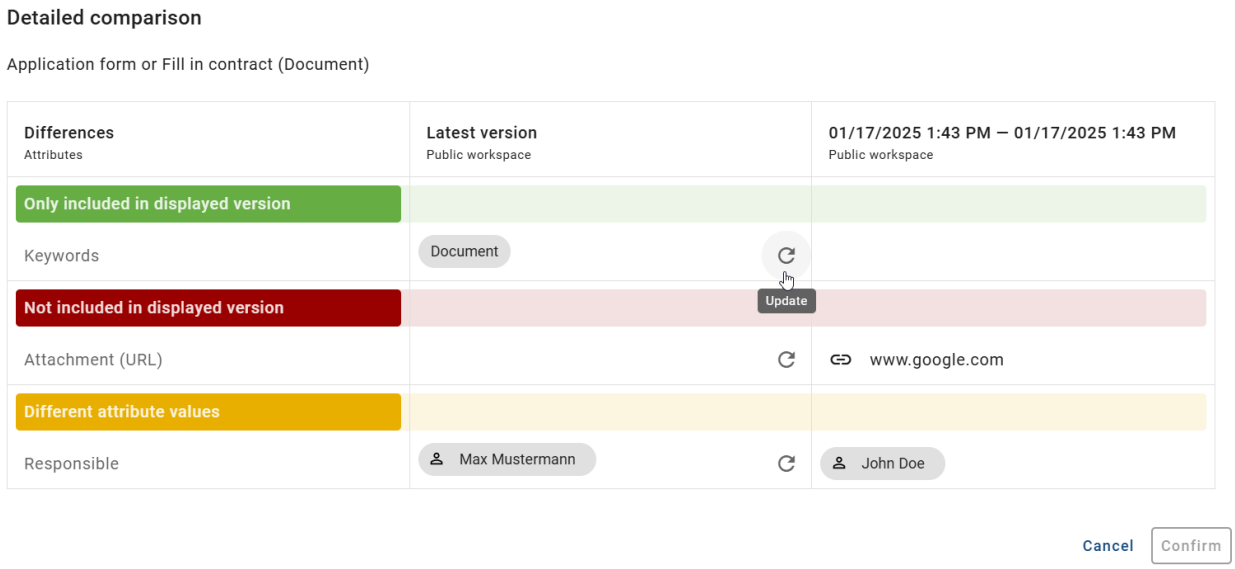
Hint: Please note that if the option is not displayed, there is no archive of the catalog item or no responsible for the catalog item has been assigned.

Next, you can select a stage and a version to compare with the active version. Click the *Show differences* button to view the differences. By clicking *Compare details*, you can open a table that clearly presents the differences in the listed attributes.



To apply attribute values from the selected version to the active version, you must have at least the *Author* user role and be working in the public workspace. Then, click the *Update* button next to the attribute value you want to apply.

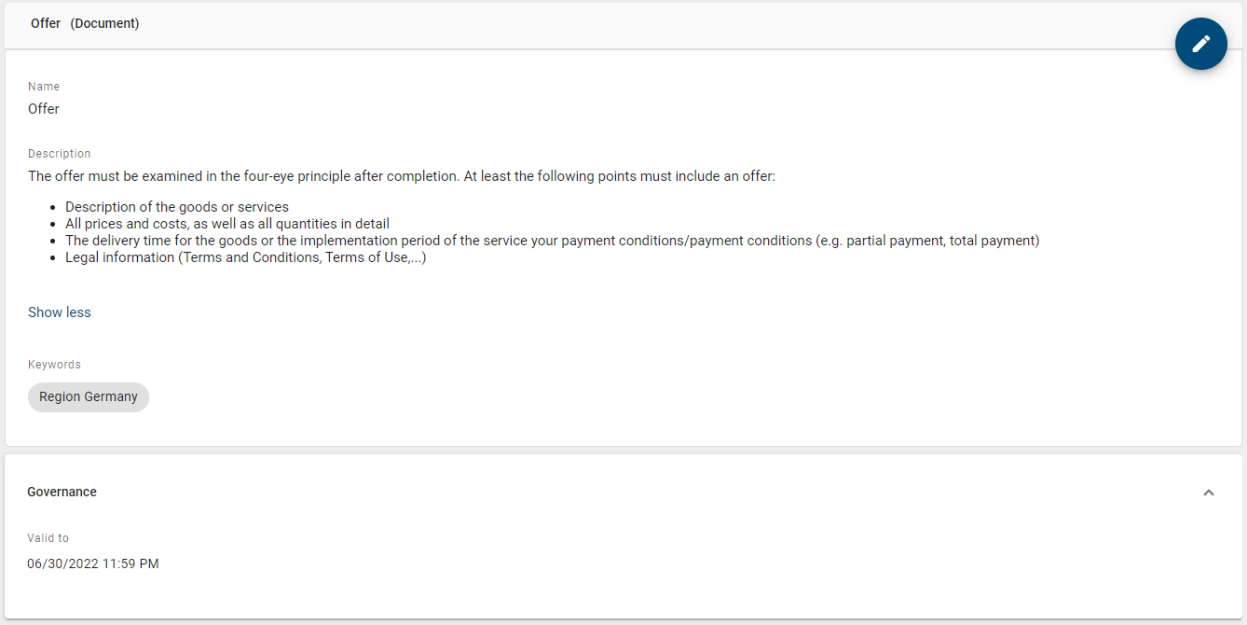
The active version will now adopt the attribute value from the selected version.



To undo the change, click the button again, which is now labeled *Undo update*. Alternatively, you can cancel the process by clicking *Cancel*. To save your changes, click the *Confirm* button.

18.2.4 What is the effect of limiting the validity of a catalog item?

Within the *governance attributes* you have the option to maintain responsibilities as well as a validity period for the catalog item. Users can see the validity in the details.



As soon as the catalog item is only valid for less than 4 weeks (default setting), the responsible user or user group will be informed by email about the expiration and receives a *resubmission task*. If the end date in the *Valid to* attribute is reached, the catalog item will of course continue to exist. In publication stage, users who view the item in the catalog or who view a diagram containing the item, will get a warning. The warning points out that the validity period has

been exceeded and is intended to prevent your employees from adopting outdated processes. Furthermore, the user will get a note in the *validation hub* if expired catalog items are used.

Note: The default setting of 4 weeks can be adjusted by the administrator in the *BIC Process Design administration*.

CHAPTER

NINETEEN

MODEL COMPARISON

The model comparison provides a clear graphical representation of the changes made in previous versions of a diagram. For instance, you can compare your local workspace with the published version of the selected diagram or compare two archived versions of the same diagram.

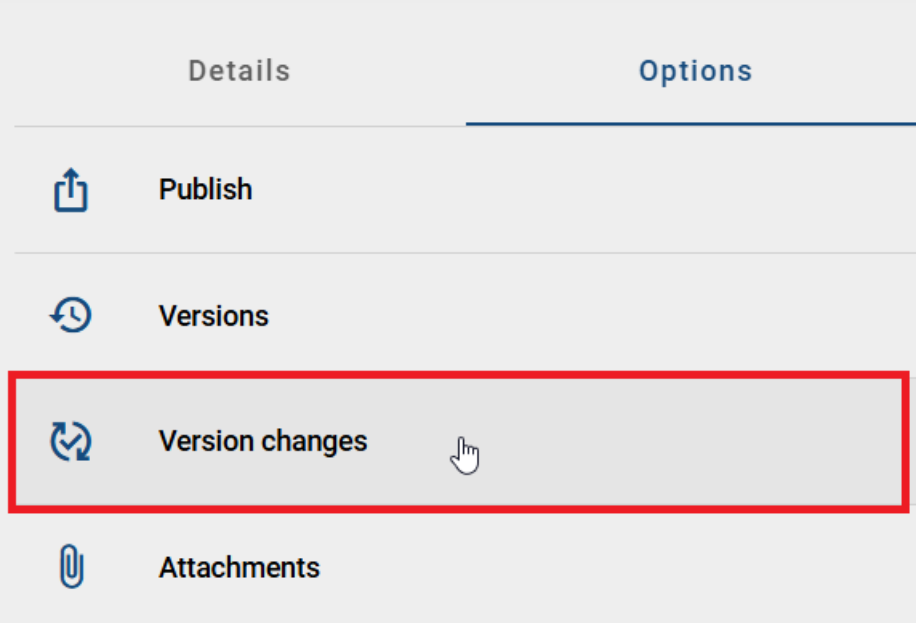
There are different options available for the *user roles* when using the model comparison:

- **Reader**: As a *Reader*, you can **only** view and compare changes to diagrams in the *Publication* stage if you have been granted *access permission*. Otherwise, you can **only** compare the diagram to its direct previous archive.
- **Reviewer**: As a *Reviewer*, you can **only** view and compare changes to diagrams in the *Preview* and *Publication* stages.
- **Author, Editor and Administrator**: As an *Author*, *Editor*, or *Administrator*, you can view and compare changes to diagrams in all stages.

Depending on your user role, you can also *add or remove objects* from a previous version or from the current working state, or *apply attribute values of an object from previous diagrams versions* to the current working state.

19.1 Where can I find the model comparison?

To use the model comparison, start by opening the *Diagrams* menu item in the left menu bar. Depending on your user role, the diagrams will be displayed at different stages. Select the diagram of your choice to open the diagram view and switch to the *Options* panel in the right sidebar. Here you will find the *Version changes* option.



Tip: As an *Author*, *Editor*, or *Administrator*. you will also find the *Version changes* option in the *Options* panel when you check out a diagram.

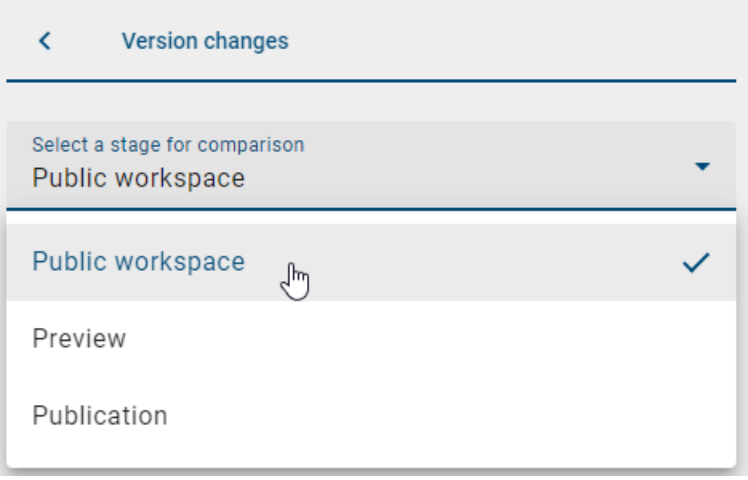
19.2 How can I compare diagram versions?

To compare diagram versions with each other, you must first open the *Diagrams* menu item in the left menu bar. Depending on your user role, the diagrams will be displayed in different stages:

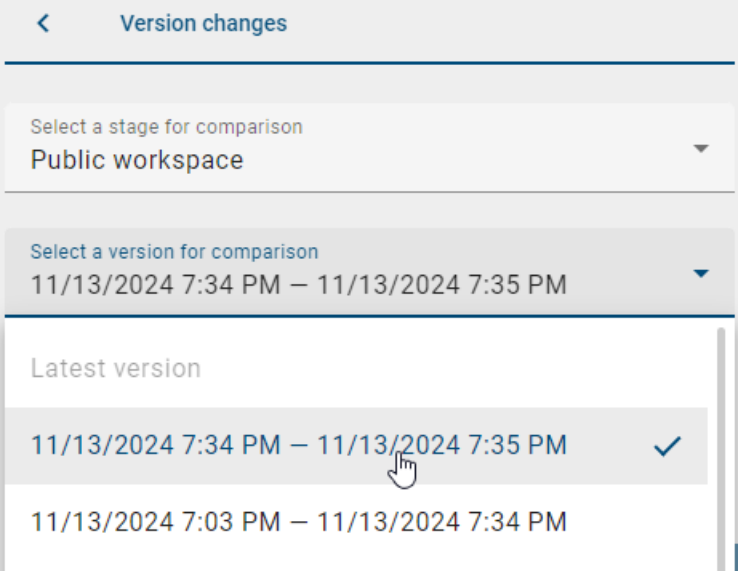
- **Reader**: As a *Reader*, you can **only** view and compare changes to diagrams in the *Publication* stage if you have been granted *access permission*. Otherwise, you can **only** compare the diagram to its direct predecessor.
- **Reviewer**: As a *Reviewer*, you can **only** view and compare changes to diagrams in the *Preview* and *Publication* stages.
- **Author, Editor and Administrator**: As an *Author*, *Editor*, or *Administrator*, you can view and compare changes to diagrams in all stages.

Open the diagram of your choice to access the diagram view and switch to the *Options* panel in the right sidebar. Here you will find the *Version changes* option.

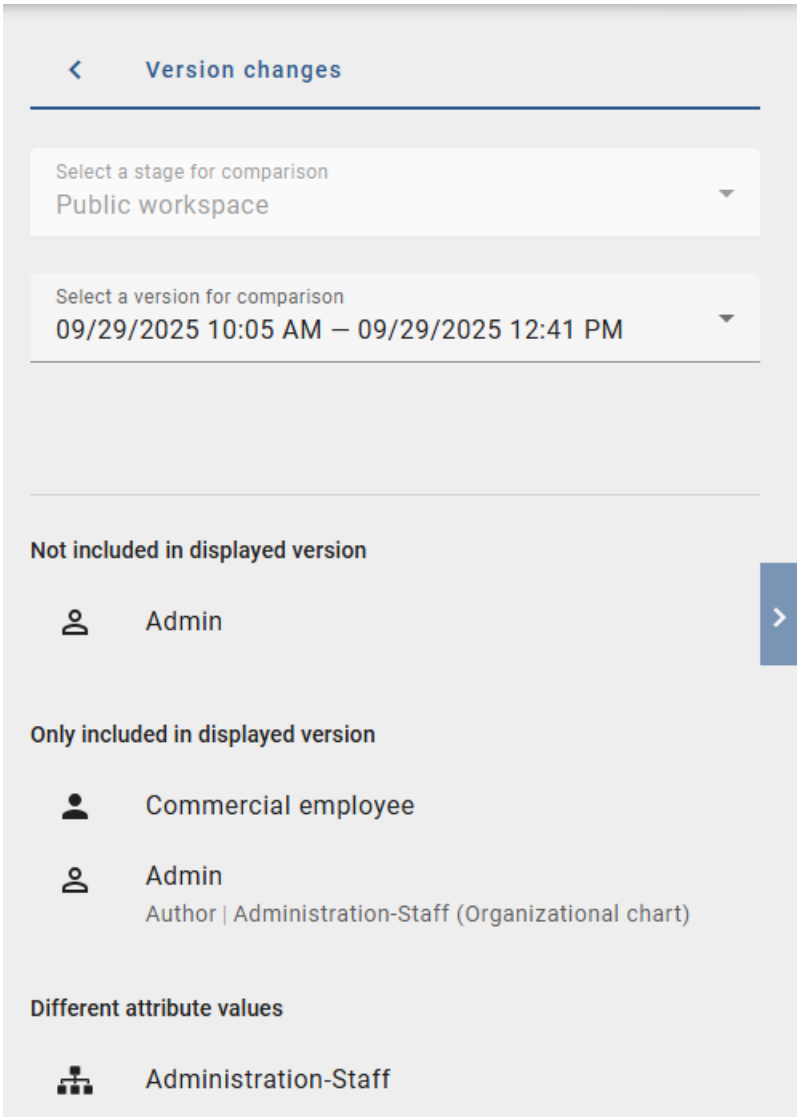
After clicking the option, you can select the stage (depending on your user role) and a version of the diagram you want to compare with the active version. You can also select a *version from the archive* to see the changes in that version.



When selecting a version to compare from the previously selected stage, you can choose the *Latest version* option. However, this option is only available for stages that are **not** your current stage. You cannot select the *Latest version* option in your current stage, as it represents the active version.



After selecting the area (depending on your user role) and the version to compare, a list of all objects is displayed that are either **not** included in the displayed diagram compared to the active version, appear **only** in the displayed diagram, or have differing attribute values.



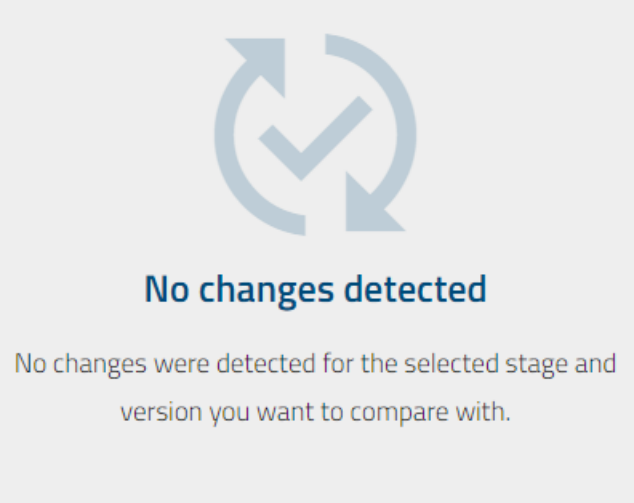
The list is divided into three sections:

- **Not included in displayed version**: The object does not exists in the active diagram version, but only in the selected diagram version.
- **Only included in displayed version**: The object exists only in the active diagram version.
- **Different attribute value**: The object has different attribute values in the active and selected diagram versions.

The list displays the object names in your content language. If the name of the object is not maintained in your content language, it will be displayed in your alternative language. If the object is listed with the note "no content", the object name has not been maintained in your content and alternative languages. See the *Multilingualism* chapter for more information.

Tip: If an object has been translated into other languages and there are differences from your current language, a notification banner will be displayed above the comparison view. This banner shows the languages affected as codes (e.g., *EN, FR, ES*). You can click on a language code to directly check the differences in comparison to you current content language and thus compare the translations in a targeted manner.

If you check out a diagram and then check it back in after only rearranging the objects, this version is also stored in the archive as a comparison version. However, when you compare this version to the active version, you will see that no changes have been made.



Hint: Please note that for objects containing other objects in relationship or assignment attributes, changes to these contained objects will **not** result in a new diagram version. If you have made only such changes, they will be shown in the most recently existing diagram version.

19.3 How can I highlight an object in color?

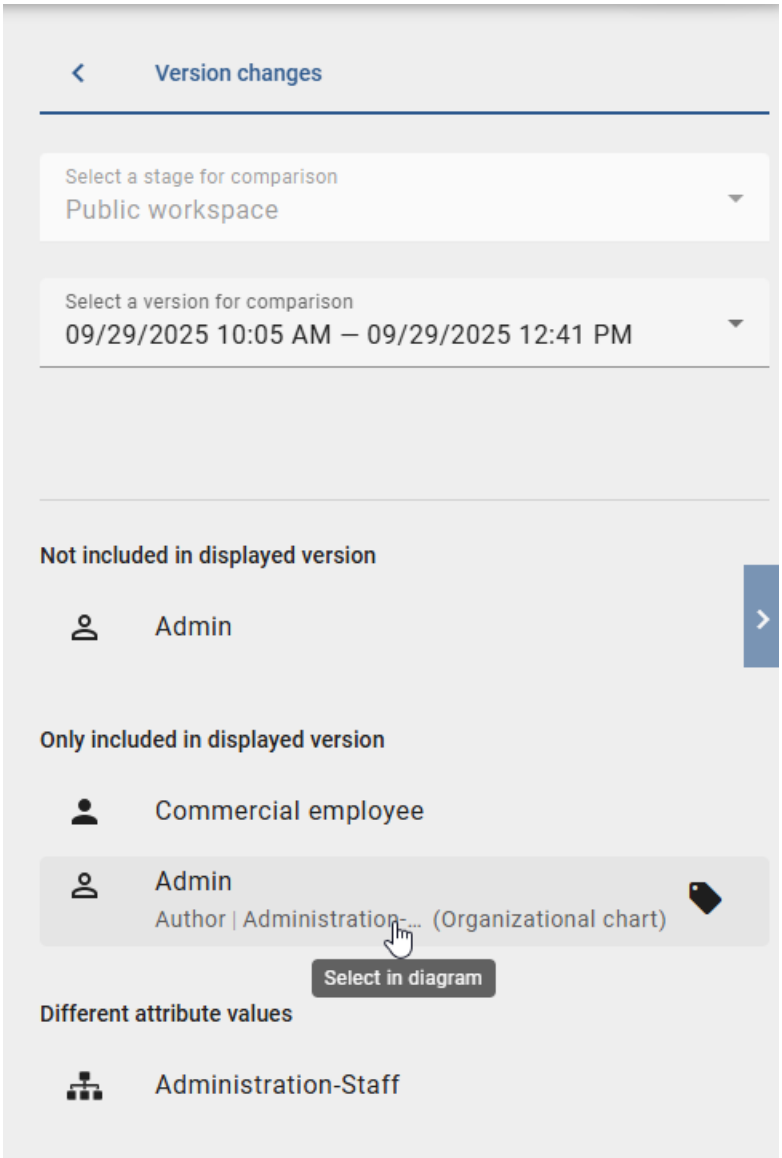
When using the model comparison, you can highlight changes in the diagram in color. To do this, first open the *Diagrams* menu item in the left menu bar. Depending on your user role, the diagrams will be displayed at different stages:

- **Reader**: As a *Reader*, you can **only** view and compare changes to diagrams in the *Publication* stage if you have been granted *access permission*. Otherwise, you can **only** compare the diagram to its direct predecessor.
- **Reviewer**: As a *Reviewer*, you can **only** view and compare changes to diagrams in the *Preview* and *Publication* stages.
- **Author, Editor and Administrator**: As an *Author*, *Editor*, or *Administrator*, you can view and compare changes to diagrams in all stages.

Open the diagram of your choice to access the diagram view and switch to the *Options* panel in the right sidebar. Here you will find the *Version changes* option.

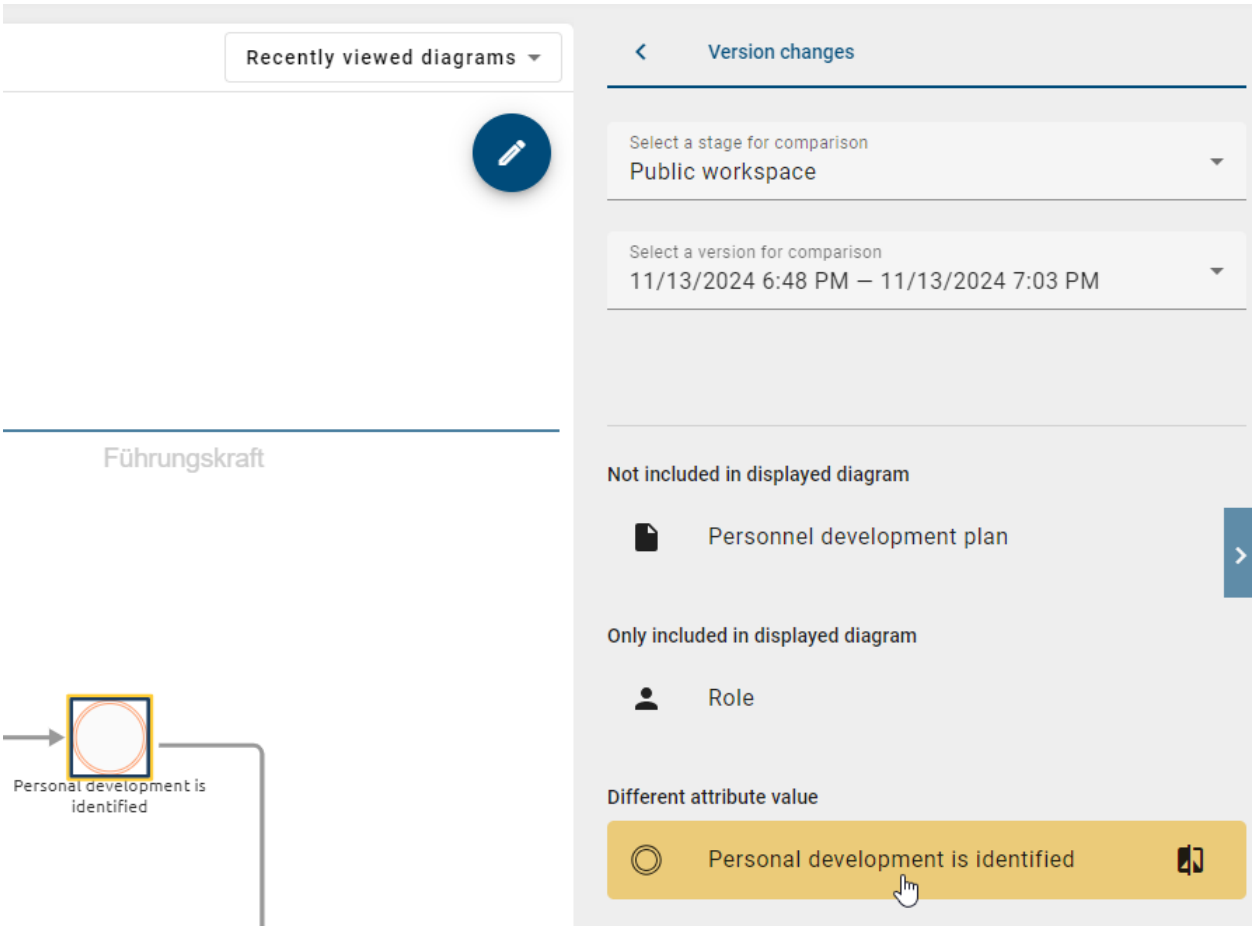
After selecting the option, you can choose the area (depending on your user role) and a version of the diagram to compare with the active version in order to display the changes in a list.

You can then click on the objects in the list to highlight the changes in color in the selected version compared to the active version in the diagram.



After you click on an object in the list, the object is highlighted in color in both the list and the diagram. The colors have different meanings:

- A green highlight indicates objects that are *only included in the displayed version*.
- A yellow highlight indicates that the object has *different attribute values* between the active version and the selected version.



Note: Objects that are *not included in the displayed version* cannot be highlighted or displayed in the diagram. These objects can **only** be found in the list.

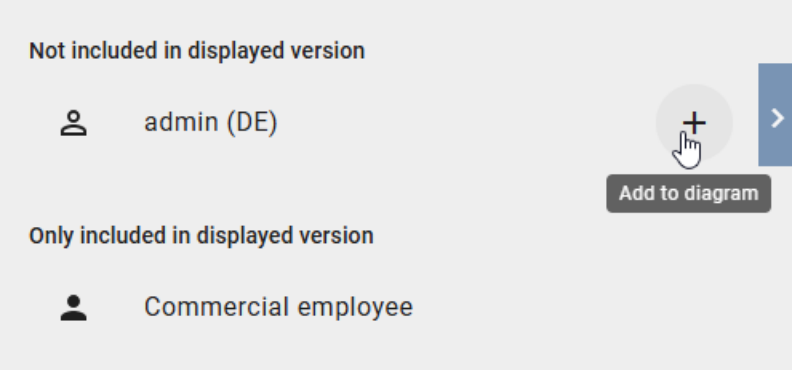
19.4 How can I add or remove objects from the active version?

To add or remove objects from another diagram version to the active diagram version, you must be assigned the *Author*, *Editor*, or *Administrator* user role. First, click the *Diagrams* menu item in the left menu bar. Open the diagram of your choice to access the diagram view and **check out** the diagram. Then, switch to the *Options* panel in the right sidebar and click on the *Version changes* option.

After clicking this option, you can select the area and a version of the diagram to compare with the active version. The changes are then displayed in a list.

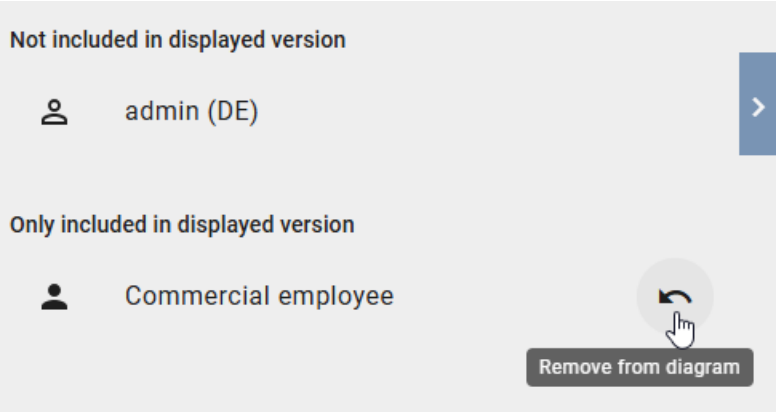
Add object to the active version:

When you move the mouse over the *Not included in displayed version* section, the *Add to diagram* button appears. This allows you to add the object to the diagram that is included in the selected diagram version but not in the displayed diagram.



Remove object from the active version:

When you move the mouse over the *Only included in displayed version* section, the *Remove from diagram* button appears. This allows you to remove the object from the diagram that is included in the displayed diagram but not in the selected diagram version.



Clicking the respective button will execute the action immediately, and the change will no longer appear in the list. The only way to undo the action is to *discard the local changes* or click the *Undo* button (alternatively **CTRL+Z**) in the editor.

Hint: Please note that undoing a change does not restore any previous connections between objects.

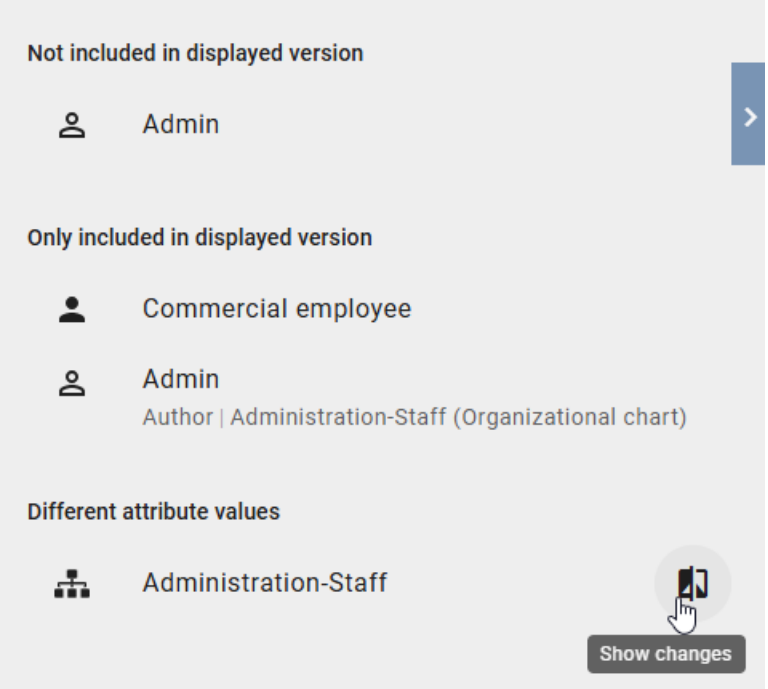
19.5 How can I see which attribute of an object have been changed?

To view the changed attribute values of an object, first open the *Diagrams* menu item in the left menu bar. Depending on your user role, the diagrams will be displayed at different stages:

- **Reader**: As a *Reader*, you can **only** view and compare changes to diagrams in the *Publication* stage if you have been granted *access permission*. Otherwise, you can **only** compare the diagram to its direct predecessor.
- **Reviewer**: As a *Reviewer*, you can **only** view and compare changes to diagrams in the *Preview* and *Publication* stages.
- **Author, Editor and Administrator**: As an *Author*, *Editor*, or *Administrator*, you can view and compare changes to diagrams in all stages.

Open the diagram of your choice to access the diagram view and switch to the *Options* panel in the right sidebar. Here you will find the *Version changes* option.

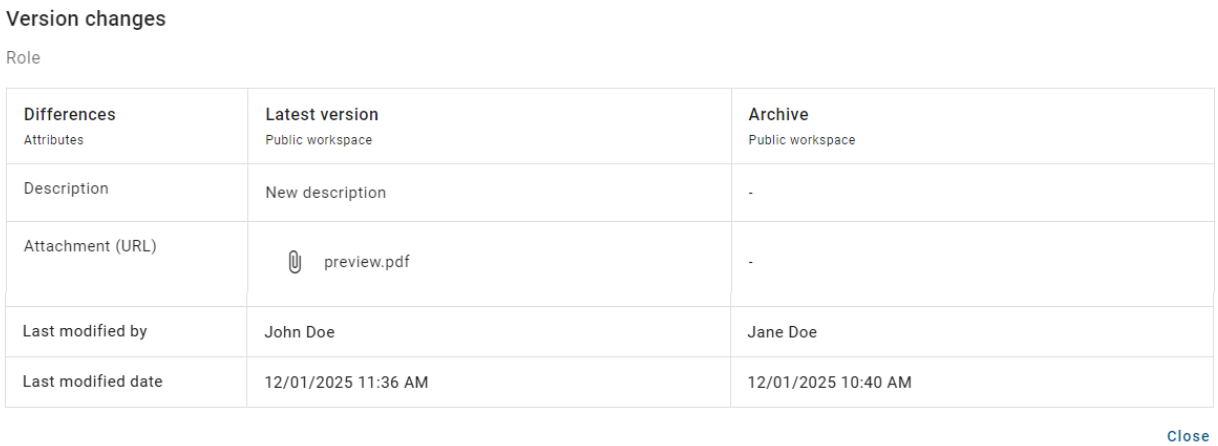
After selecting the option, you can choose the corresponding area depending on your user role, as well as a version of the diagram to compare with the current version. The differences between the two versions are then displayed in a list.



Note: The *Show changes* button appears **only** for objects that have already been changed. If an object has been added or deleted, the button is not displayed.

Note: Changes in *external function allocation diagrams* will not appear, only changes in *internal allocation diagrams* will be considered.

After you click the *Show changes* button, a table appears showing the differences between the listed attributes. The left column lists the attribute names for which a change has been made. The middle and right columns allow you to compare the differences between the active version (middle column) and the selected version (right column) in detail. To close the table, click the *Close* button.



Hint: Please note that when comparing the current diagram version with an archived version, the system attributes are also displayed, provided they have been changed.

19.6 How can I view changes in relationship and assignment attributes?

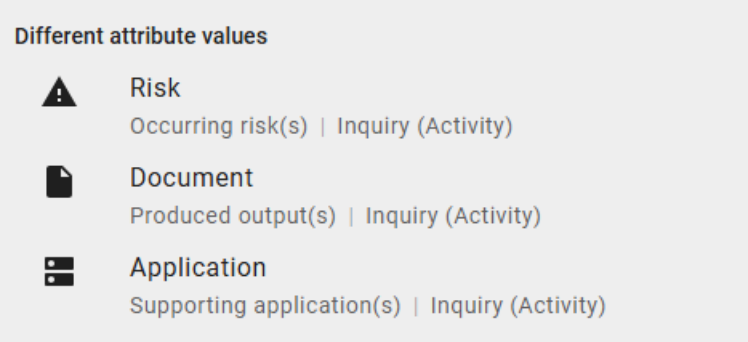
To compare changes to parent objects that are contained within the relationship or assignment attributes of other objects, first open the *Diagrams* menu item in the left menu bar. Depending on your user role, the diagrams will be displayed at different stages:

- **Reader**: As a *Reader*, you can **only** view and compare changes to diagrams in the *Publication* stage if you have been granted *access permission*. Otherwise, you can **only** compare the diagram to its direct predecessor.
- **Reviewer**: As a *Reviewer*, you can **only** view and compare changes to diagrams in the *Preview* and *Publication* stages.
- **Author, Editor and Administrator**: As an *Author*, *Editor*, or *Administrator*, you can view and compare changes to diagrams in all stages.

Open the diagram of your choice to access the diagram view and switch to the *Options* panel in the right sidebar. Here you will find the *Version changes* option.

After selecting the option, you can choose the corresponding area depending on your user role, as well as a version of the diagram to compare with the current version. The differences between the two versions are then shown in a list.

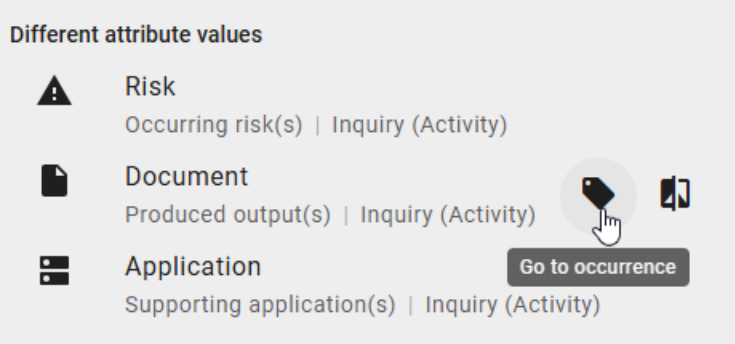
If changes have been made to the relationship or assignment attributes of a parent object that reference other objects, these changes will appear in the *Different attribute values* section. The name of the referenced object is displayed in the content language or, if unavailable, in the alternative language, the attribute type name is shown in the browser language, followed by the name and type of the parent object.



You can then click the *Show changes* button to display a table that clearly presents the differences between the listed attributes.

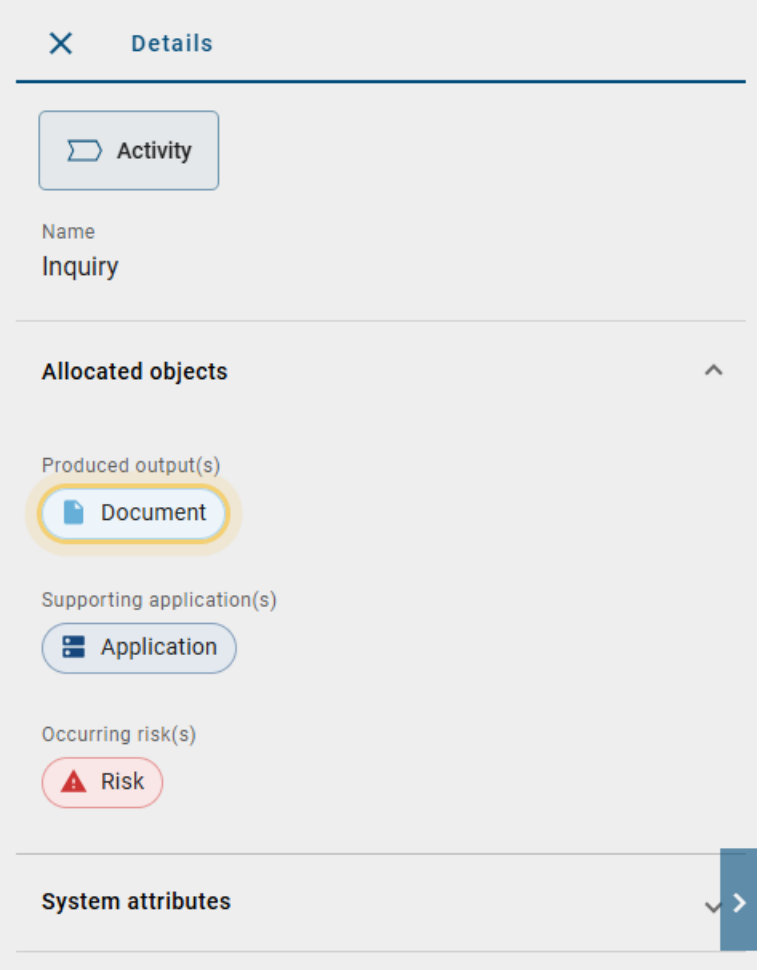
Hint: Please note that changes to relationship or assignment attributes contained in other objects are displayed in the *Different attribute values* section only if a diagram version already exists. If no previous diagram version exists and only changes have been made to the relationship or assignment attributes of another object, **no** new diagram version will be created, and the changes will therefore not be visible.

By clicking the *Go to occurrence* button, you can view the details of the parent object as well as its position in the diagram, provided the parent object exists in the diagram. If the parent object is not present in the diagram, only its detail view will open.



Relationship and assignment attributes are displayed in all sections of the model comparison. For these attributes, the *Go to occurrence* button is also available in all sections, allowing you to navigate directly to the corresponding occurrence in the diagram.

After clicking the button, the *Details* panel will open in the right sidebar, displaying all information about the parent object with the selected object highlighted. To return to the model comparison, you can close the panel by clicking the *X* button in the upper-left corner.



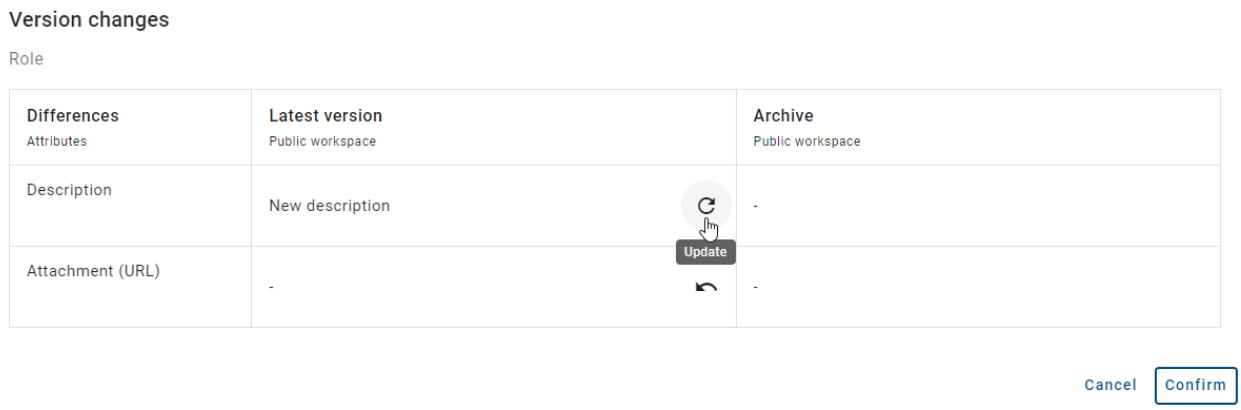
19.7 How can I apply attribute values from other diagram versions?

To apply attribute values from another diagram version to the active version, you must be assigned the *Author*, *Editor*, or *Administrator* user role. First, click the *Diagrams* menu item in the left menu bar. Open the diagram of your choice to access the diagram view and **check out** the diagram. Then, switch to the *Options* panel in the right sidebar and click the *Version changes* option.

After clicking the option, you can select the stage and a version of the diagram you want to compare wit the active version. To view the changes, click the *Show differences* button. The changes are displayed in a list.

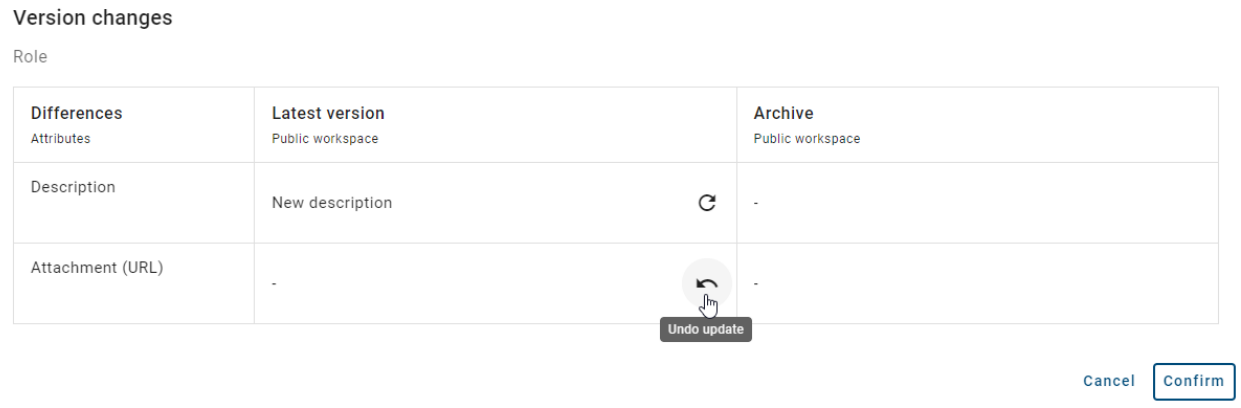
When you hover over the *Different attribute values* section, the *Show changes* button will appear. Click this button to view the changes. A table will open, displaying the differences between the listed attributes. The left column shows the attribute names that have been changed. The middle and right columns allow you to compare the differences between the active version (middle column) and the selected version (right column) in detail. To close the table, click the *Close* button.

In the middle column, the *Update* option appears next to the listed changes. YOu can use this option to apply the archive's attribute value to the current version. The click the *Confirm* button to finalize the change.



Hint: Please note that when comparing the current diagram version with an archived version, the system attributes are also displayed, provided they have been changed.

If you clicked the *Update* option for the wrong attribute value, you can undo it by clicking the *Undo update* option. This option appears automatically when you click the *Update* option. To discard all changes, click the *Cancel* button.



CHAPTER

TWENTY

GOVERNANCE COCKPIT

Users with the *Reviewer* role or higher can access their release workflows (publication and depublication) via the *Governance Cockpit* menu item in the left menu bar. The release workflows are displayed in a list, where you can click individual entries to view details and *download the related archive*. In the right sidebar, you can use the *Filter* panel to *search for specific workflows* or *apply filters* to narrow down the workflows based on certain criteria.

If you have the *Administrator* or *Editor* role, you have access to all workflows (publication, depublication, resubmission) as well as the views *Analysis* and *Roadmap*. In addition, you can *export all workflow tasks*, *abort workflows*, and *delegate workflows* to other users.

20.1 What information can I get from the Governance Cockpit?

The Governance Cockpit displays a list of release workflows for users with the *Reviewer* role or higher. This list includes all publication and depublication workflows in which you are currently involved or were involved in the past. A workflow will also appear if you were previously involved but delegated the corresponding task to another user.

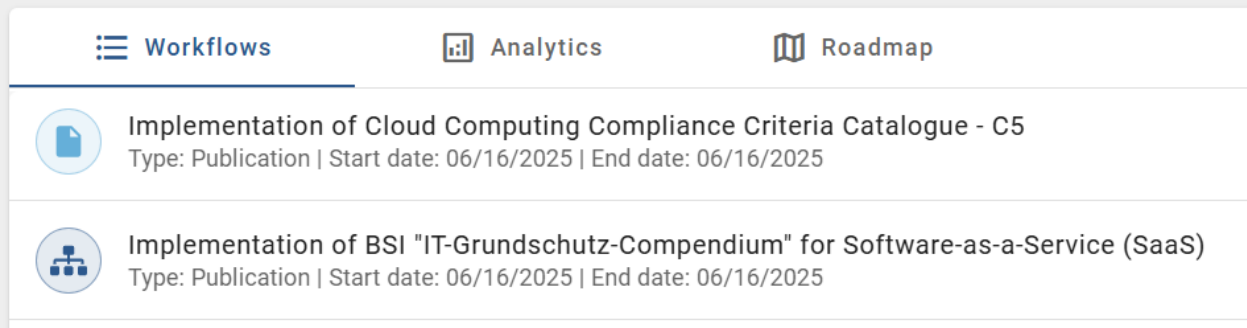
For users with the *Administrator* or *Editor* role, the Governance Cockpit displays **all** workflows, including resubmission workflows. In addition, change workflows are shown that were performed as part of the bulk update for diagrams in the *Preview* or *Publication* stage.

To access the list of release workflows, navigate to the *Governance Cockpit* menu item in the left menu bar.

For each entry, you can see the workflow name, workflow type, as well as the start and end dates. For change workflows resulting from bulk updates, the number of updated diagrams is displayed instead of the workflow name. The icon to the left of each entry indicates whether the workflow is related to a catalog object or a diagram. Diagram workflows are represented by a diagram icon, while catalog object workflows are represented by the corresponding object icons.

The start date of a workflow refers to the time when the workflow was initiated. Resubmission tasks are initiated by the system and begin before the *Valid to* date specified in the attributes of the respective diagram or catalog object.

The end date refers either to the *Valid from* date of the diagram or catalog object, or to the date when the workflow was completed, whichever occurs later.



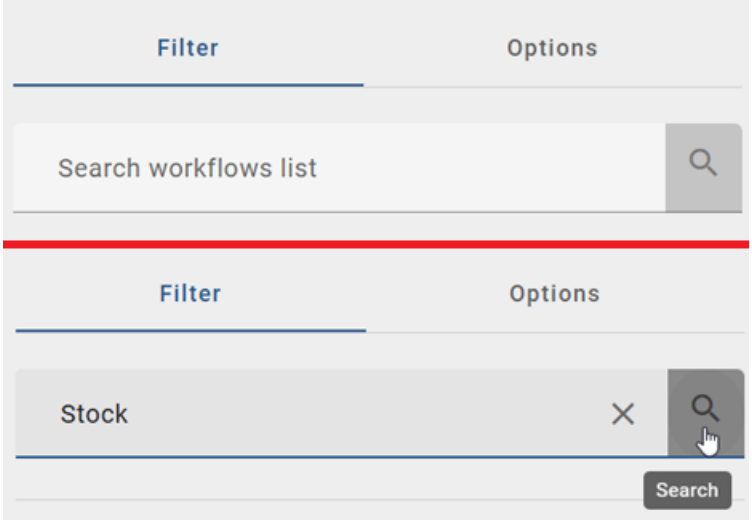
To view more information about a workflow, select an entry from the list of release workflows. You will then be redirected to the *audit trail* of the selected workflow. The audit trail provides detailed information about the workflow's progress and allows you, via the *Options* panel in the right sidebar, to open the corresponding diagram or catalog object and download the archive. Users with the *Administrator* or *Editor* role can also delegate a pending workflow task directly from the audit trail or manually abort the workflow.

20.2 Workflows

20.2.1 Search and filter workflows

How can I search for workflows?

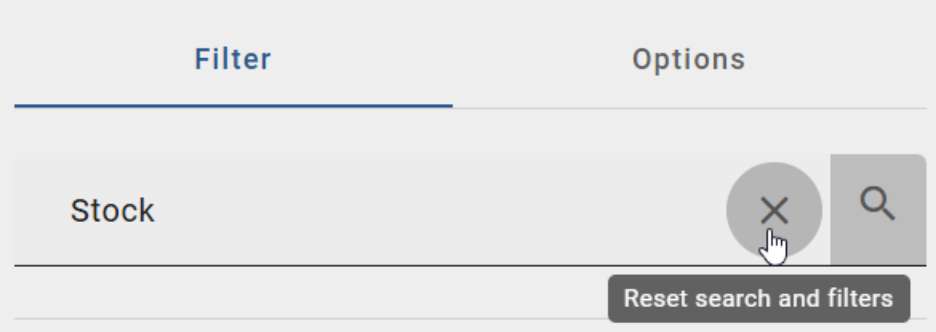
Every user can search for specific workflows in the list of available workflows. To do so, navigate to the *Governance Cockpit* menu item in the left menu bar. In the *Filter* panel in the right sidebar, you will find the *Search workflows list* input field. Enter your search term and start the search by pressing the Enter key or clicking the *Search* button. The search term can include the name of a diagram or catalog object, as well as the username or email address of an initiator or user who had or currently has a workflow task.



Note: *Here* you can find an overview of the available options when using search terms.

After starting the search, a workflow list filtered by your search term is displayed. Please note that the list may still be restricted based on your user role or access restrictions. If no results match your search term, a corresponding message is shown.

If you want to reset your search, click the *Reset search and filters* button. The full workflow list will then be displayed again.

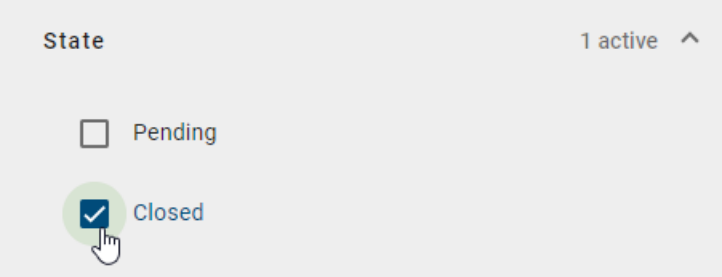


Hint: In addition to the search term, you can also apply specific filters. Please note, however, that clicking the *Reset search and filters* button will also remove any filters you have applied.

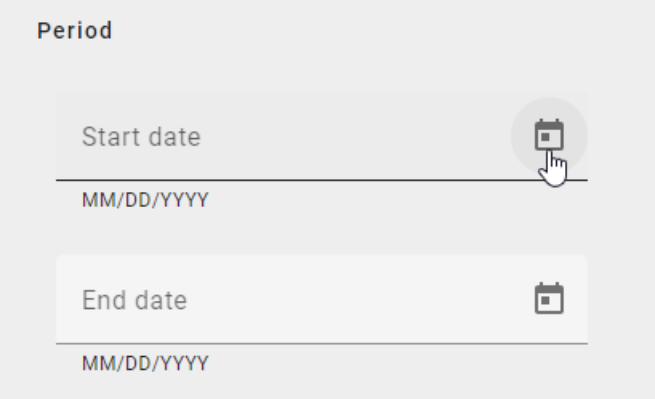
How can I filter workflows?

Every user has the option to filter the workflow list to quickly locate the workflow they need. To do this, navigate to the *Governance Cockpit* menu item in the left menu bar. In the *Filter* panel in the right sidebar, you will find various options to filter the workflow list. Please note that the filtered list may still be restricted based on your user role or access restrictions. The available filters are explained below.

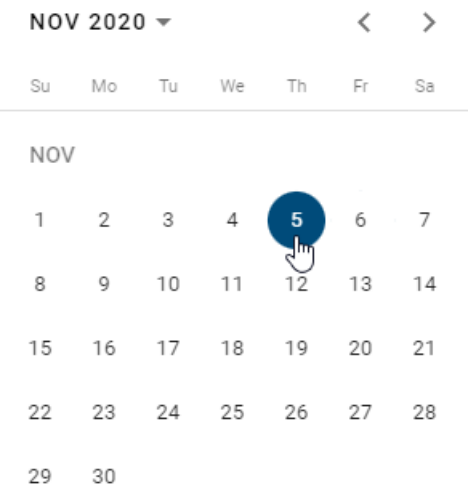
State: You can filter the list by the state of the workflows. By default, both open and closed workflows are displayed. A workflow is considered *Open* if it has not yet been completed. Workflows that have been finished or aborted are considered *Closed*. By selecting the corresponding option in the right sidebar, the current list is filtered according to the chosen criterion.



Period: With this filter, you can narrow down the time period by selecting a start and end date. You can either enter the start and/or end date directly into the input field or select the desired date using the calendar view. To open the calendar view, click the calendar icon on the right side of the regarding input field.

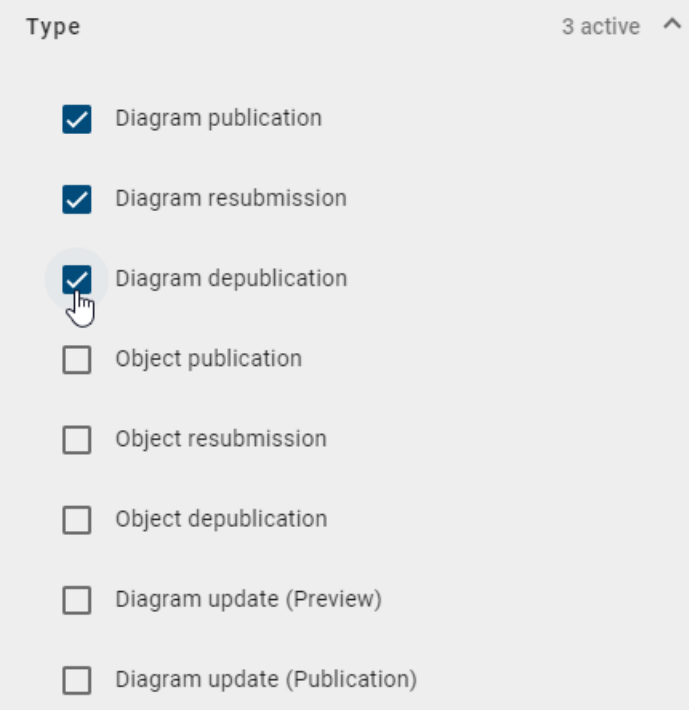


Next, select the desired date using the calendar. Clicking on a date will insert it into the corresponding input field.

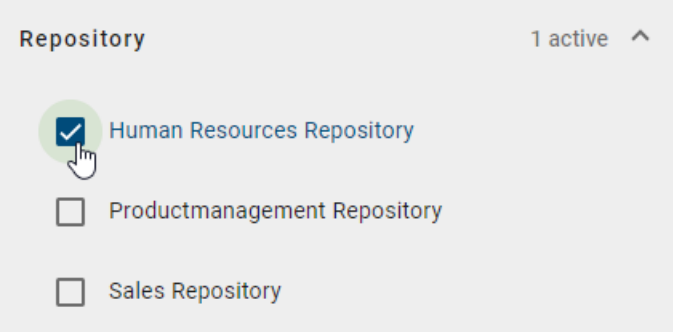


The workflow list will then be filtered automatically. The date is displayed in the format of your *selected content language*. If only the start date is set, all workflows that started after this date are shown. If only the end date is set, all workflows that ended before this date or are still pending are shown. If both start and end dates are set, all workflows that started and ended within this period are listed.

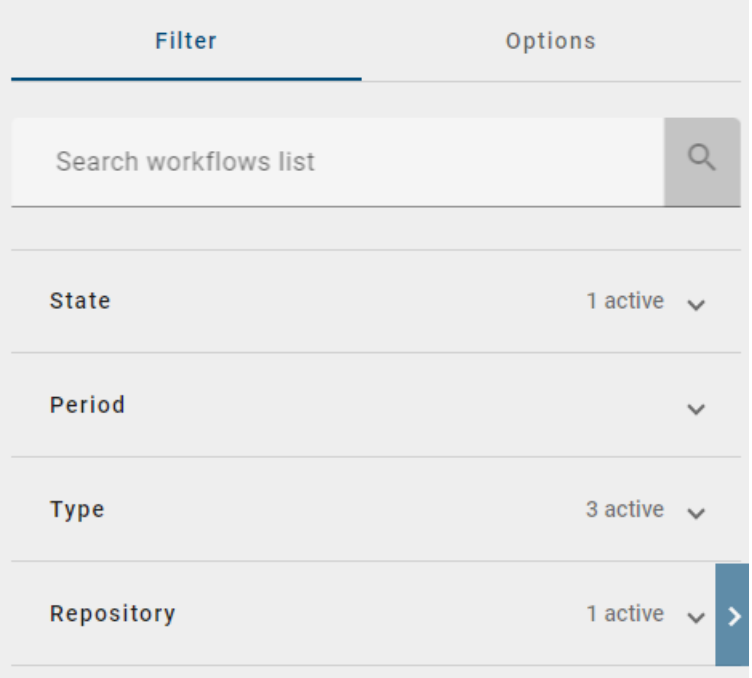
Type: You can filter workflows for both diagrams and catalog objects by the workflow types *Publication*, *Depublication*, *Resubmission*, and *Update*. You can select one or more types. Once you have made your selection, only the workflows of the chosen types are displayed.



Repository: This filter shows you the names of all repositories you have access to. If a repository does not have a value in your current content language, the alternative language is used if available. Once you select a repository, only workflows related to diagrams or catalog objects from this repository are displayed. You can also filter by multiple repositories simultaneously.



As soon as at least one filter is applied to a filter facet, the number of active filters is displayed next to the facet. This allows you to see at a glance how many filters are active, even if the facet is collapsed.



As an alternative to filtering, you can also *search* directly for individual workflows. You can further narrow down your search by applying filters.

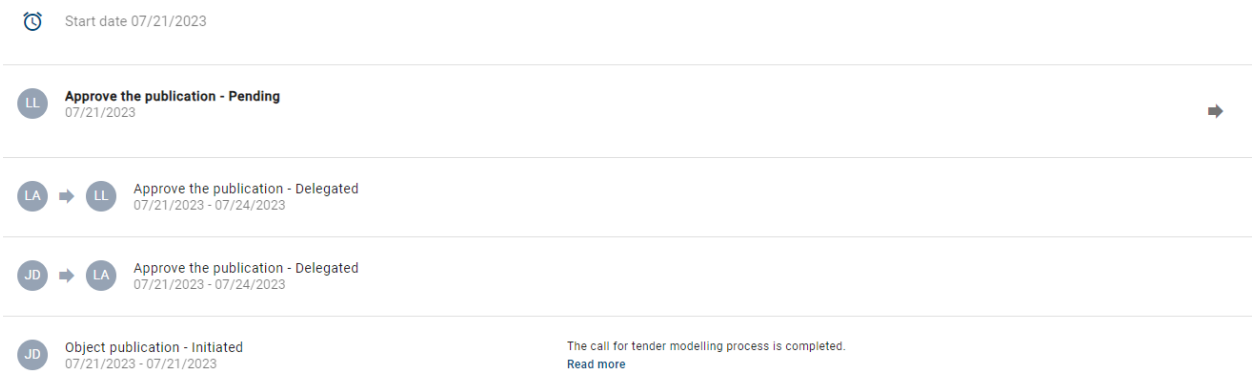
20.2.2 Audit trail

What information does the audit trail of a workflow provide?

The audit trail of a workflow provides a chronological record of all activities within the process, allowing you to trace who performed which action, when, and why. To view the audit trail of a workflow, navigate to the *Governance Cockpit* menu item in the left menu bar. Click on a workflow in the workflow list to open the audit trail for the selected workflow.

The audit trail displays both the start date and the individual steps of the workflow in chronological order, arranged from bottom to top. The first step is always the initiation of the workflow.

On the left side of each step, a chip displays the initials of the user who performed that step. Hovering your mouse over the chip reveals the full name of the user. If the workflow is a resubmission, the chip shows an Android symbol. Hovering over it displays the name *Resubmission assistant*. To the right of each step, the associated comment is also shown if one was provided.

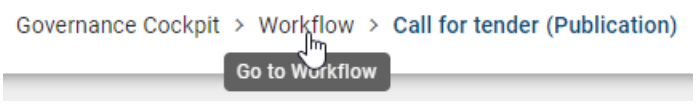


Hint: If a participating user is marked as *inactive* in the Governance Cockpit, that user has been deleted. The name of a deleted user is only marked as inactive if they were deleted starting from version 7.9.0. Please note that users deleted before version 7.9.0 cannot be displayed.

For change workflows carried out as part of the bulk update of diagrams in the *Preview* or *Publication* stages, you can view all update information in the audit trail. If some diagrams could not be updated successfully, the reason will be shown in the *diagram(s) not updated* section.

In addition to the information provided in the audit trail of a workflow, the *Options* panel is available in the right sidebar. Further details can be found *here*.

To return to the workflow list, click the *Go to Workflow* option in the header next to the workflow name, or click the back arrow in the header.



What options do I have in the audit trail of a workflow?

To view the options in the audit trail of a workflow, first navigate to the *Governance Cockpit* menu item in the left menu bar. Click on a workflow in the workflow list. The audit trail of the selected workflow will then open. After that, the *Options* panel will be available in the right sidebar.

In the *Options* panel in the right sidebar, three options are displayed, depending on your user role or the workflow type. First, you can open the relevant object (diagram or catalog item) directly. To do this, select the *Open diagram* or *Open catalog item* option.

The system will then always display the relevant object in the appropriate stage. The stage depends on the workflow type. Please note that access to the object may be restricted depending on your user role or access restrictions.

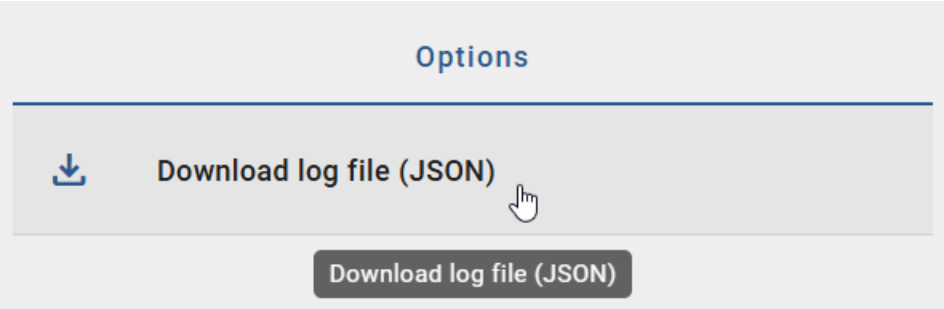
- For completed publications as well as when accessed from an audit trail, a resubmission, or a depublication, you are taken to the relevant object in the **Publication** stage of the corresponding repository.
- For pending publications or when a reviewer has requested a revision of a diagram, you are taken to the relevant object in the **Preview** stage of the corresponding repository.

Note: If BIC EAM has been purchased and activated, workflows of context diagrams can also be displayed. Depending on whether the context diagram was created via catalog modeling or diagram modeling, you will be redirected to the respective catalog item or diagram view.

In addition, two further options are displayed in the *Options* panel of the right sidebar, depending on your user role or the workflow type. Explanations of these options are linked below:

- *Abort workflow*
- *Download archive*

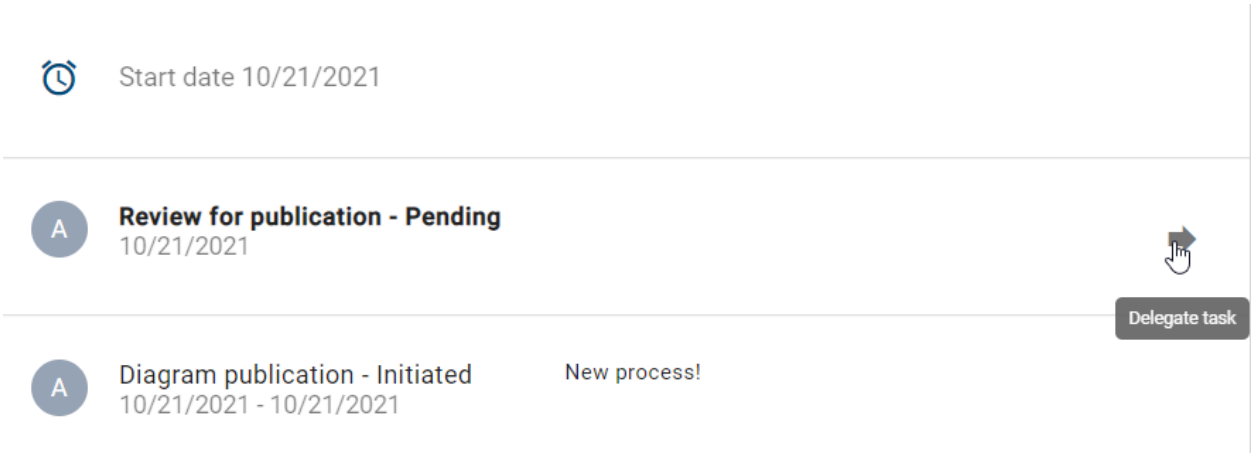
For change workflows carried out as part of the bulk update, you can download the log file (JSON). In this case, the *Options* panel will only display the *Download log file (JSON)* option.



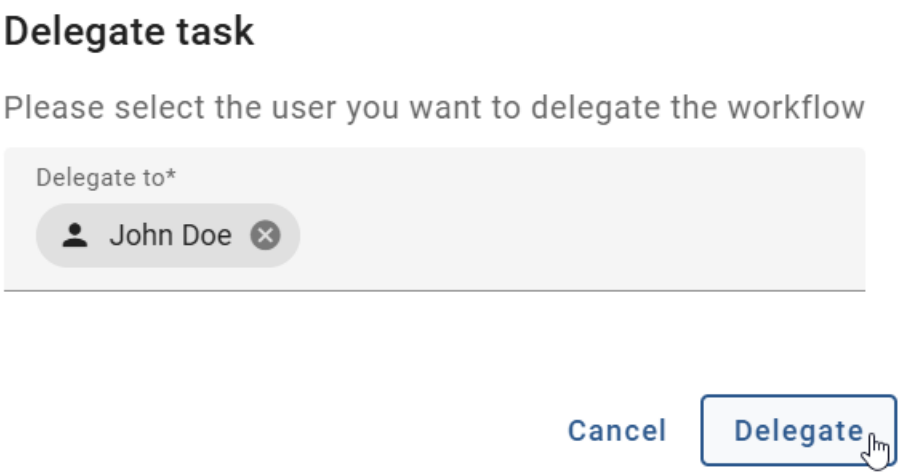
20.2.3 Delegate and abort workflows

How can I delegate a workflow task?

As a user with the *Administrator* or *Editor* role, you can delegate pending workflow tasks to other users. To do this, go to the *Governance Cockpit* menu item in the left menu bar and open a workflow with a pending end date from the workflow list. The audit trail of the selected workflow will then open. The pending task is listed at the top. By clicking the *Delegate task* button on the right side of the task, you can delegate it to another user.

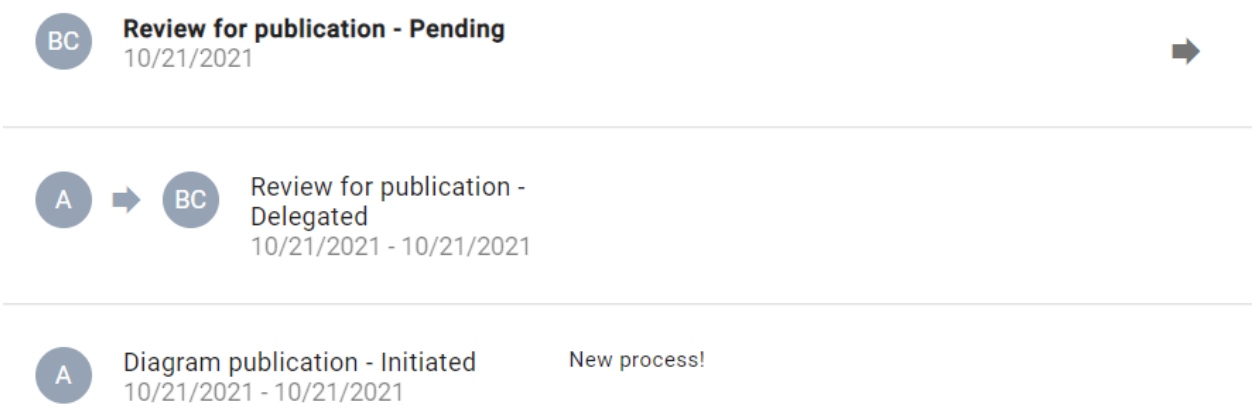


When you click the *Delegate task* button, a dialog opens where you can enter the name of the desired user and select them from the suggestion list. Clicking the *Delegate* button assigns the task to the selected user, and it appears in their *task list*, while it is removed from the previous task owner's list. To cancel the delegation, click the *Cancel* button.



Hint: Please note that you cannot delegate a task to users with the *Reader* role, as this role lacks the necessary permissions to work on a task.

Once you have delegated the task to another user, this action is documented in the audit trail of the associated workflow and is visible to all users.

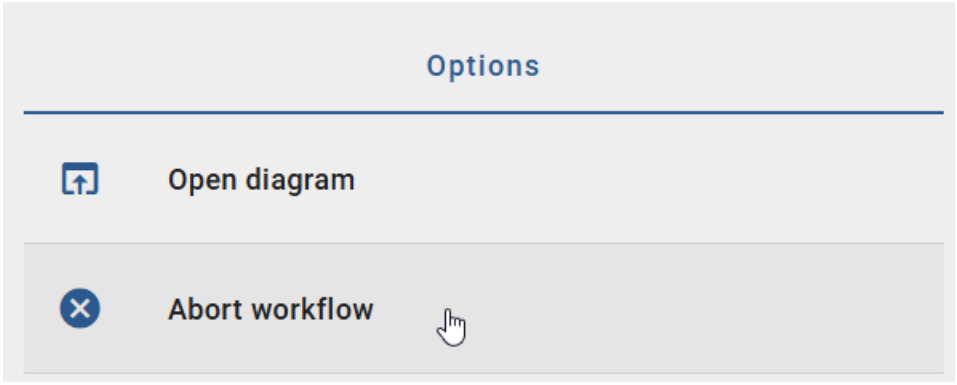


Note: If a workflow is closed (i.e., completed or *aborted*), tasks can no longer be delegated.

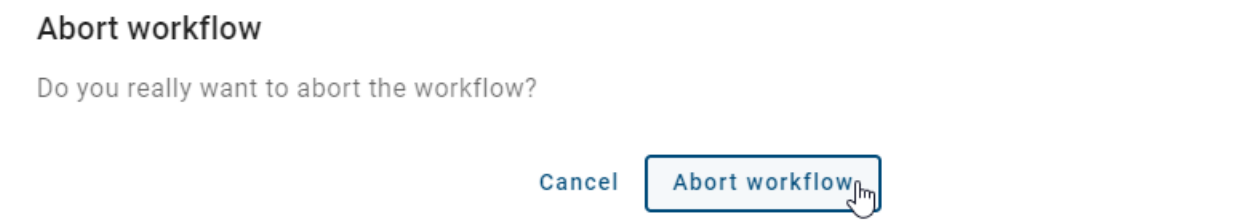
How can I abort a workflow?

Users with the *Administrator* or *Editor* role, as well as workflow initiators, have the option to abort workflows before completion. This option is only available while a workflow task is still pending. To abort a workflow, go to the *Governance Cockpit* menu item in the left menu bar and open a workflow with a pending end date from the workflow list. The audit trail of the selected workflow will then open.

In the right sidebar, in the *Options* panel, the *Abort workflow* option is available. If you have a different user role or the workflow has already been completed, the option will appear grayed out.



When you click this option, a security prompt will appear to confirm the termination of the workflow. Click the *Abort workflow* button again to permanently abort the workflow. This action cannot be undone.



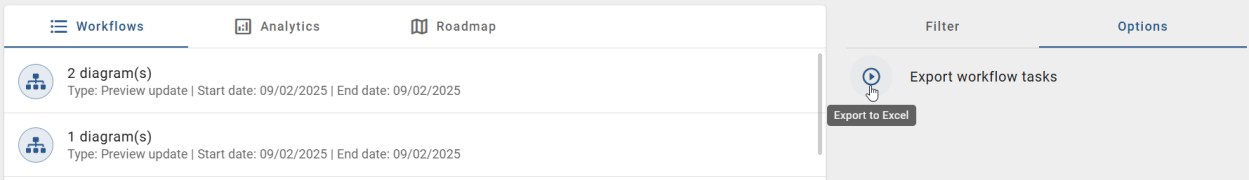
The workflow is then aborted, and the usual process of publication or depublication is stopped. No further users will

receive a task. The initiator and *any involved users* are informed about the termination by email. The version of the diagram or catalog item remains in the stage it was in at the time of the abortion. For example, after aborting a publication, the *Preview* stage will still contain the diagram that was originally intended for publication.

20.2.4 Export and download workflows

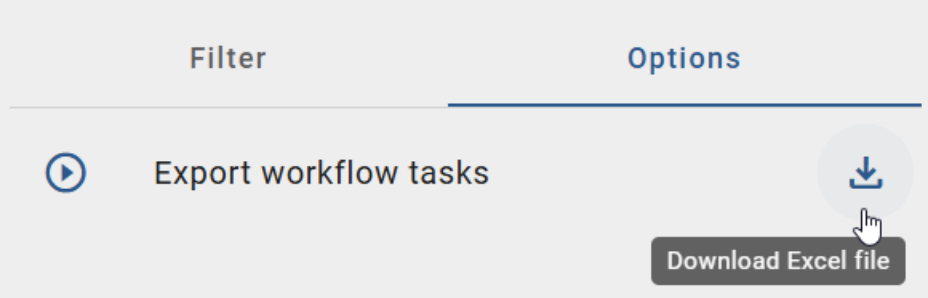
How can I export all workflow tasks as an Excel file?

Users with the *Administrator* or *Editor* role can export all workflow tasks as an Excel file. The workflow tasks to be exported can first be narrowed down by applying filters in the *Filter* panel.To do this, go to the *Governance Cockpit* menu item in the left menu bar and switch to the *Options* panel in the right sidebar while in the *Workflows* tab. There, you will find the *Export workflow tasks* option, which can be executed by clicking the *Export to Excel* button.



After clicking the button, a notification will appear at the bottom right of the screen indicating that the Excel file is being generated. Once the generation is complete, another notification appears with a link to download the export. When you click the link, the Excel file will be downloaded.

Alternatively, a new button *Download Excel file* will appear to the right of the *Export workflow tasks* option, allowing you to download the Excel file at a later time as well.



After downloading the Excel file, the following data is provided in the “workflow_export” sheet:

Workflow information

- Workflow ID
- Workflow type (Publication, Depublication or Resubmission; either for an object or a diagram)
- Name of the related entity and its type
- Start date of the workflow
- End date of the workflow

Task information

- Task ID
- Task type ((De-)Publication (initiation), approve publication or removal, review for publication or resubmission)
- Task owner (email address for users, user group name for groups)
- Date of task assignment

- Date of task completion (empty for open tasks)
- Task status

Hint: The dates included in your exports (e.g., "Valid from," "Valid to," "Created date," and similar) are converted into the time zone of the currently active user. This ensures that date information is always displayed in accordance with the user's current time zone.

Hint: If a participating user is marked as *inactive* in the Governance Cockpit, the user was deleted. The name of a deleted user is only marked as inactive if the deletion occurred starting with version 7.9.0. Please note that users deleted before version 7.9.0 cannot be displayed.

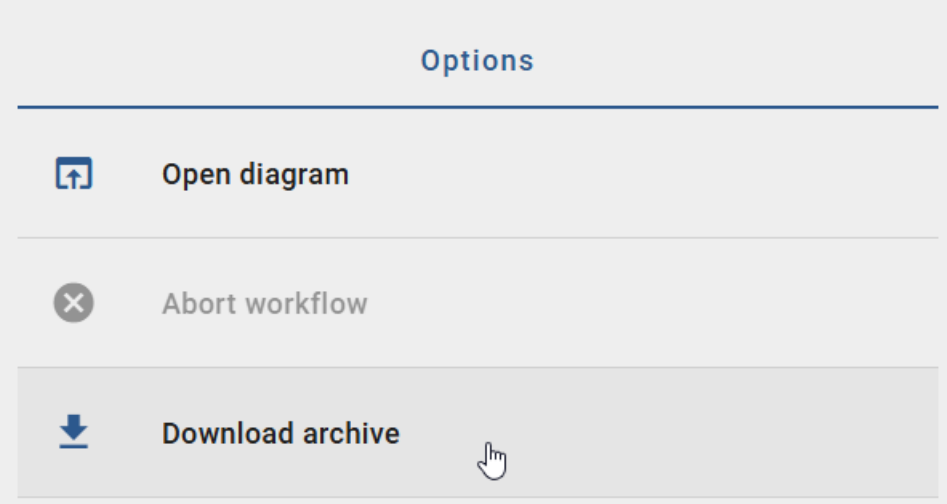
How can I download the archive of a workflow?

Every user has the option to download the archive of a workflow, provided that all required conditions are met. These conditions include:

- The workflow must be of the type **Depublication** and must have been completed with approval, and
- there must be no active workflow for the respective object (diagram or catalog item).

To download the archive of a workflow, click on the *Governance Cockpit* menu item in the left menu bar and open a completed workflow of type *Depublication* from the workflow list. The audit trail of the selected workflow will then open.

In the right sidebar, in the *Options* panel, the *Download archive* option will be displayed. By clicking this option, the archive will be downloaded as a .zip file. If the option is shown as grayed out, not all required conditions are fulfilled.

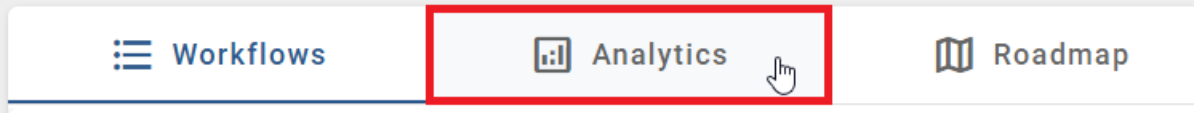


Hint: Only the archive of the most recent depublication of a workflow is available. For example, if a workflow has been depublished multiple times, you will only have access to the archive of the last depublication.

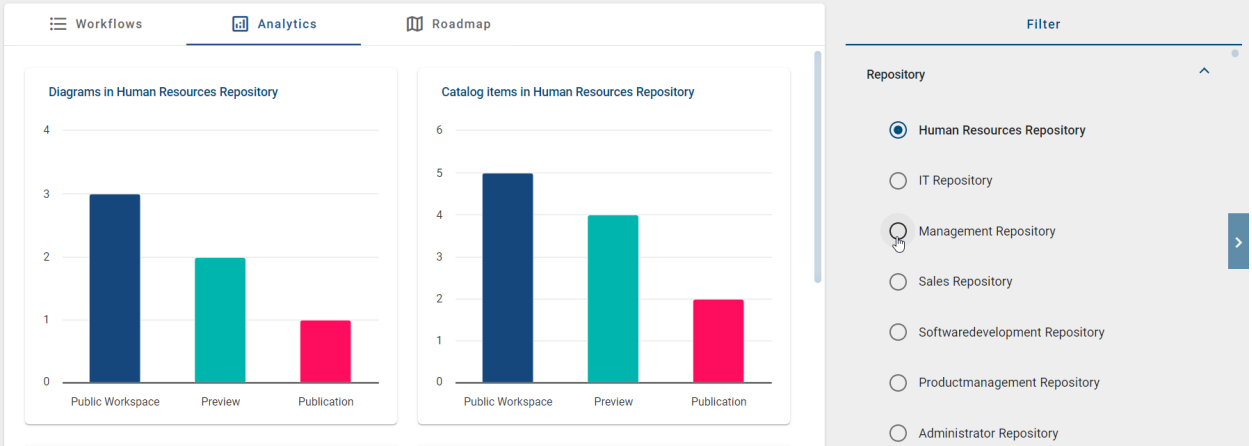
20.3 Analytics

20.3.1 What information is displayed in the “Analytics” view?

Users with the *Administrator* or *Editor* role can gain a comprehensive overview of unpublished diagrams and catalog items, upcoming resubmissions, and completed publications of a specific repository. To access this view, click on the *Governance Cockpit* menu item in the left menu bar and switch to the *Analytics* tab in the header of the main area.



In this view, the diagrams and catalog items contained in the current repository are summarized in various bar charts. To display data from a different repository, use the *Filter* panel in the right sidebar to select the desired repository. Only repositories for which you have access and no restrictions have been defined will be displayed.



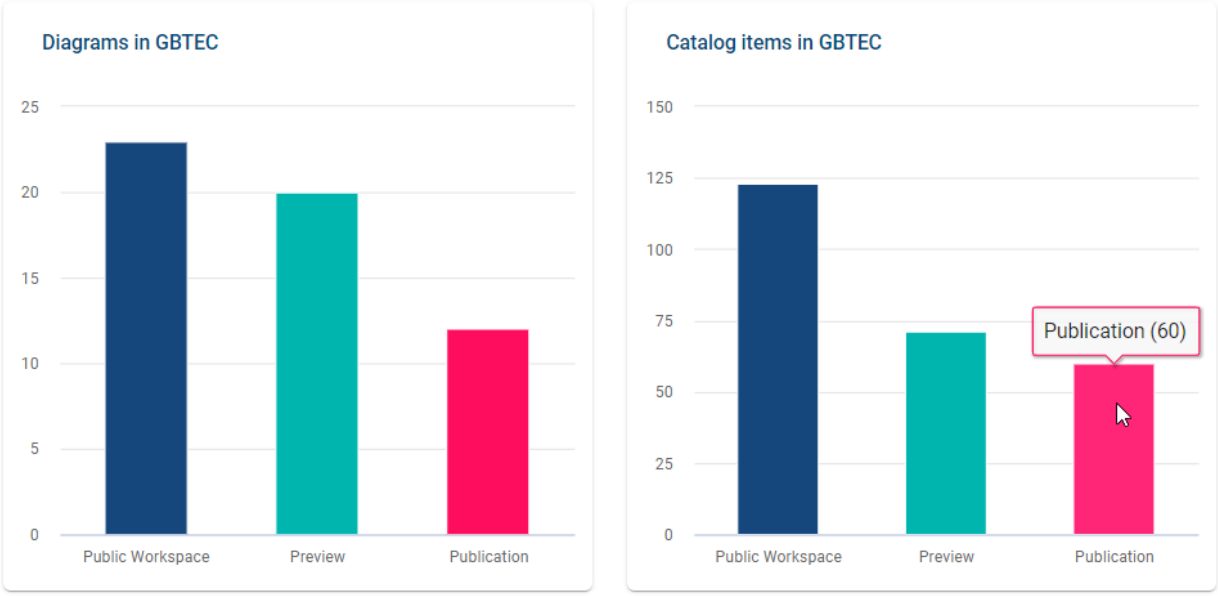
The *Analytics* tab provides the following views, which are explained in more detail below:

- Diagrams (catalog items) in the selected repository
- Upcoming diagram (catalog item) resubmissions in the selected repository
- Finished publications of diagrams (catalog items) in the selected repository

Diagrams (catalog items) in the selected repository:

These bar charts compare the number of diagrams (catalog items) in the three stages *Public Workspace*, *Preview*, and *Publication*. If you hover over a bar with the mouse, the number of diagrams (catalog items) in the corresponding stage is displayed.

This view allows you to immediately see how many diagrams (catalog items) are currently modeled but not yet available to all users in the published version. If the number of diagrams (catalog items) in the *Preview* stage is significantly higher than in the *Publication* stage, this indicates that many release workflows are still open and need to be processed.

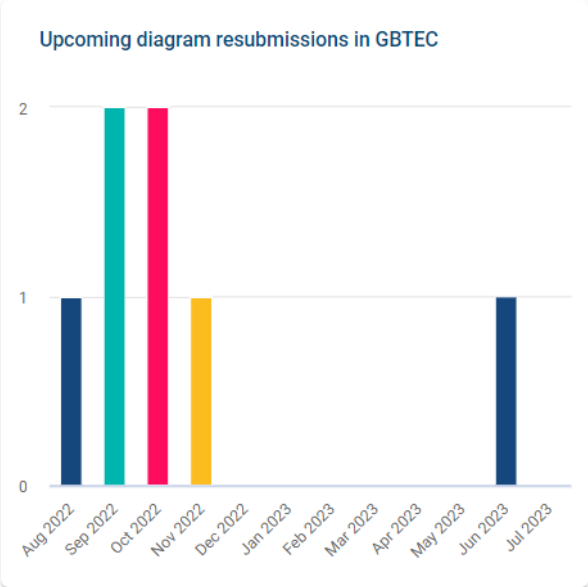


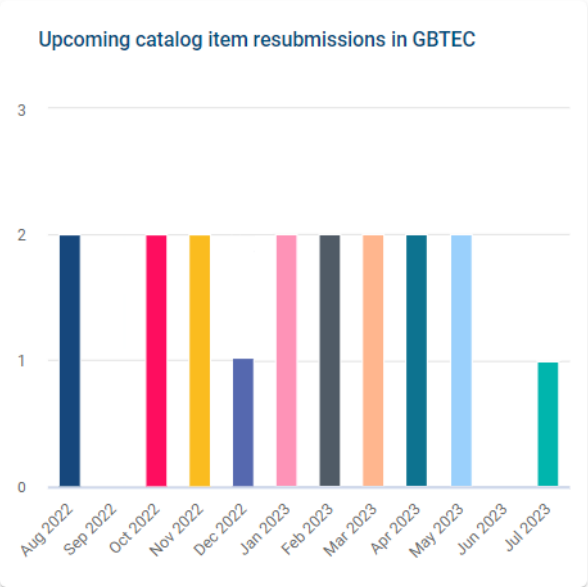
Note: The number of catalog items displayed in this bar chart for the *Publication* stage (red bar) may differ from the number shown in the catalog list. This happens if the visibility of certain catalog object types has been disabled in the Administration. Catalog items of these types no longer appear in the list but are still counted as published catalog items in the bar chart. For more information on catalog item visibility, see *this section* of the documentation.

If you click on a bar representing a stage for diagrams (catalog items), you will be redirected to the *Dashboard* tab of the *"Diagrams"* menu item or the *"Catalog"* menu item and placed in the selected stage. Navigation occurs within the currently selected repository. An explanation of these views can be found in the linked sections.

Upcoming diagram (catalog item) resubmissions in the selected repository:

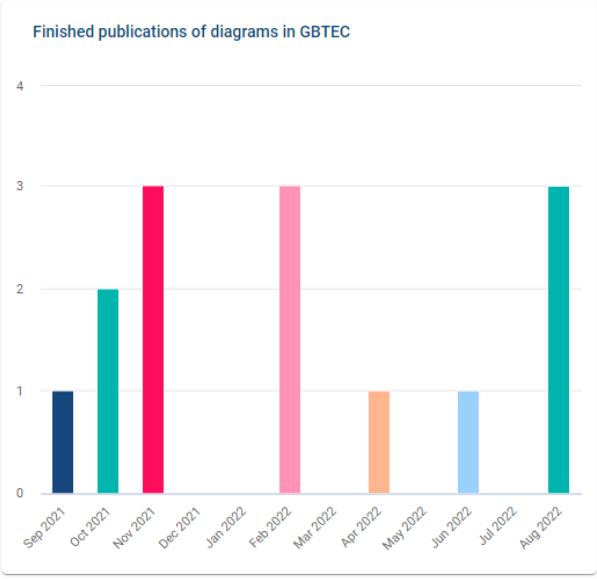
These bar charts display the number of upcoming resubmissions of all diagrams (catalog items) in the selected repository for the next year. The timeline starts with the current month and year. Each bar represents all diagrams (catalog items) whose validity period expires in the respective month. This provides an early estimate of the workload for quality assurance of your processes. Hovering over a bar with the mouse shows the exact number of upcoming resubmissions for that month.

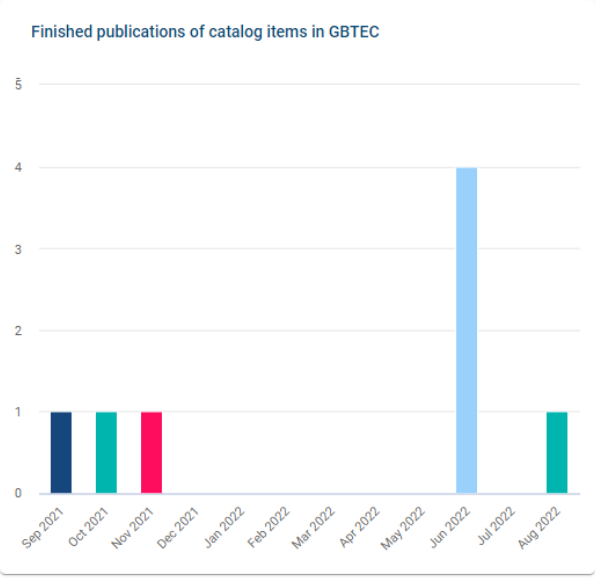




Finished publications of diagrams (catalog items) in the selected repository:

To provide an overview of the finished publications in the selected repository, these bar charts summarize the published diagrams (catalog items). For each month of the past year, a bar shows the number of diagrams (catalog items) for which a release workflow was completed in that month. The last bar represents the number of already published diagrams (catalog items) in the current month. If you hover over a bar with the mouse, the exact number of completed publications for the selected month is displayed.



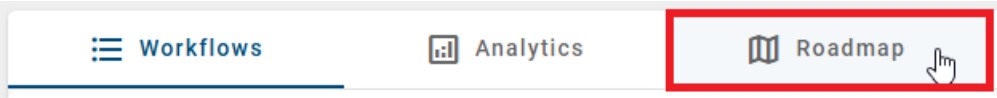


Hint: Please note that upcoming resubmissions and finished publications of diagrams and catalog items are based on validity dates. Unlike in the workflow list, the data refers to the *Valid to/Valid from* date and not the *Start and End date*.

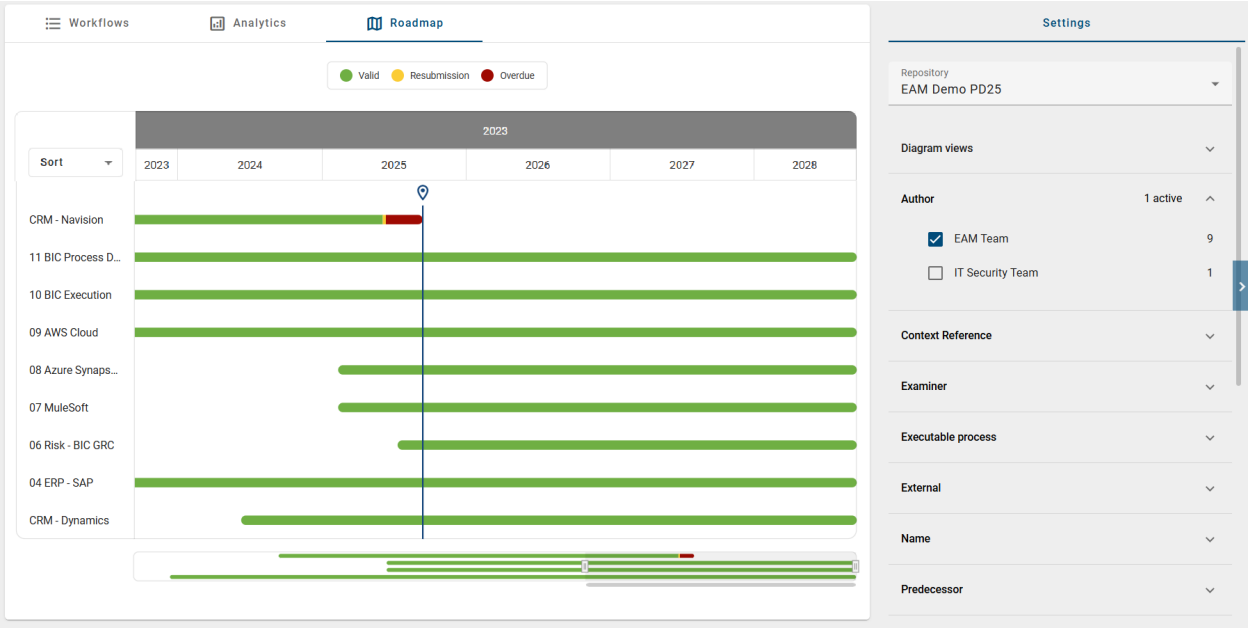
20.4 Roadmap

20.4.1 What information is displayed in the “Roadmap” view?

Users with the *Administrator* or *Editor* role can gain a comprehensive overview of the validity periods of published processes in the current repository. To do this, click on the *Governance Cockpit* menu item in the left menu bar and switch to the *Roadmap* tab in the header of the main area.



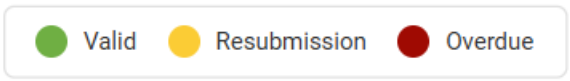
To display an overview of the validity periods of published processes, the current repository must contain at least one published diagram with a valid validity period. Next, you need to select at least one filter in the *Settings* panel in the right sidebar. Once a filter has been selected, the roadmap will appear in the main area.



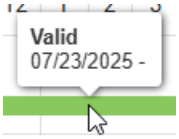
On the left side of the roadmap, the names of the published diagrams are listed alphabetically according to the current content language of the selected repository and in line with the selected filter criteria. If a *diagram access restriction* has been defined for you, these diagrams will not be displayed in the roadmap. Below the roadmap is a navigator whose width can be adjusted. This allows you to navigate through the entire roadmap and customize the view.

Above the roadmap is a legend representing the phases in the roadmap. By clicking on a phase in the legend, you can show or hide it in the roadmap. Hidden phases are grayed out in the roadmap. In addition, the phases are distinguished by color:

- **Valid (green)**: The period during which the published diagram is valid.
- **Resubmission (yellow)**: The period shortly before the validity date expires. This period corresponds to the *configured resubmission reminder* in the Administration and can be adjusted at any time by the administrator.
- **Overdue (red)**: The period during which the published diagram is no longer valid.



For each diagram, the roadmap shows the period with start and end of validity. If no validity end date is defined, the roadmap displays a fictitious end date of *+3 years* to indicate that the diagram remains valid for a longer period. For more detailed information about the validity period, hover your mouse over the respective phase.



Tip: For a meaningful representation of the roadmap, we recommend defining the validity periods of diagrams during diagram modeling.

Using this roadmap, you can present the validity periods of your current repository more clearly, identify overlaps or gaps, and respond early to expiring or upcoming processes.

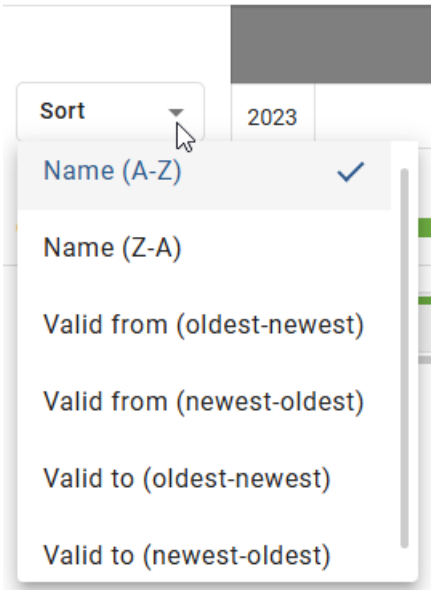
Note: Please note that the roadmap can display a maximum of 500 published processes.

20.4.2 How can I sort diagrams by name or validity period?

Users with the user role *Administrator* or *Editor* can sort the diagrams displayed in the roadmap by name or by validity period. To do this, click on the menu item *Governance Cockpit* in the left menu bar and switch to the *Roadmap* tab in the header of the main area.

To display a roadmap of the validity periods of published processes, the current repository must contain at least one published diagram with a valid validity period. Next, you need to select at least one filter in the *Settings* panel in the right sidebar. Once a filter has been selected, the roadmap will appear in the main area.

On the left side of the roadmap, the published diagrams are listed alphabetically according to the current content language of the selected repository, taking into account the activated filter criteria. To make the display clearer, you can determine the order of the displayed diagrams yourself. To do this, navigate to the left side and click on the *Sort* button.



Here you can select whether the diagrams are to be sorted alphabetically or according to their validity period. When sorting alphabetically, you can choose between an order from *A to Z* or from *Z to A*. When sorting by time, you have the option of sorting the diagrams according to the *Valid from* or *Valid to* date, either from oldest to newest or from newest to oldest.

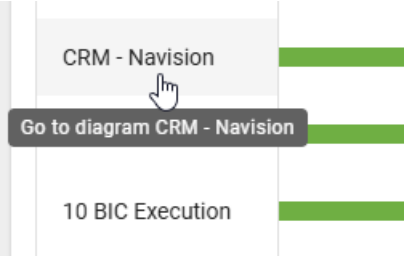
As soon as you select a sorting option, the list of diagrams displayed is automatically adjusted. Diagrams without a *Valid to* date are taken into account by an automatically assigned date so that they are sorted correctly.

20.4.3 How can I navigate directly to the corresponding diagram from the roadmap?

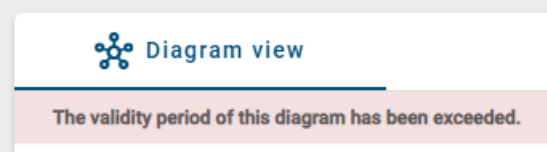
Users with the *Administrator* or *Editor* role can navigate directly to the corresponding diagram from the roadmap. To do this, go to the *Governance Cockpit* menu item in the left menu bar and switch to the *Roadmap* tab in the header of the main area.

To display a roadmap of the validity periods of published processes, the current repository must contain at least one published diagram with a valid validity period. Next, you need to select at least one filter in the *Settings* panel in the right sidebar. Once a filter has been selected, the roadmap will appear in the main area.

On the left side of the roadmap, the names of the published diagrams are displayed in alphabetical order according to the current content language of the selected repository and the applied filter criteria. If a *diagram access restriction* has been defined for you, these diagrams will not be displayed in the roadmap. To navigate to a specific diagram, click the corresponding diagram name on the left side of the roadmap.



After clicking on a diagram name, you will be taken to the corresponding diagram in the *Publication* stage. If the diagram's validity period has already expired, a notification will be displayed.



CHAPTER

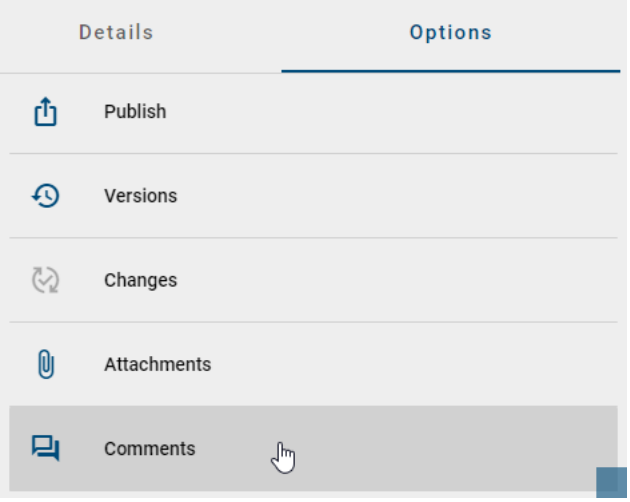
TWENTYONE

COLLABORATION

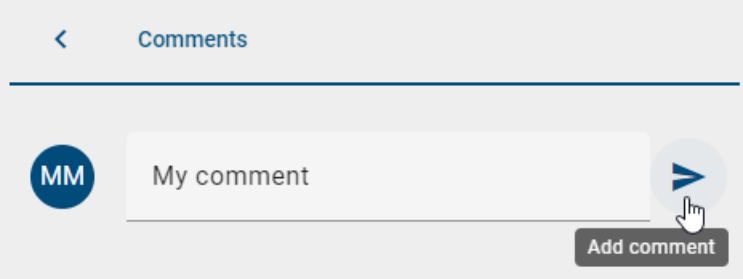
21.1 Comments

21.1.1 How can I comment on a diagram?

The *Comments* of a diagram are available in the *Options* for *every diagram view*.

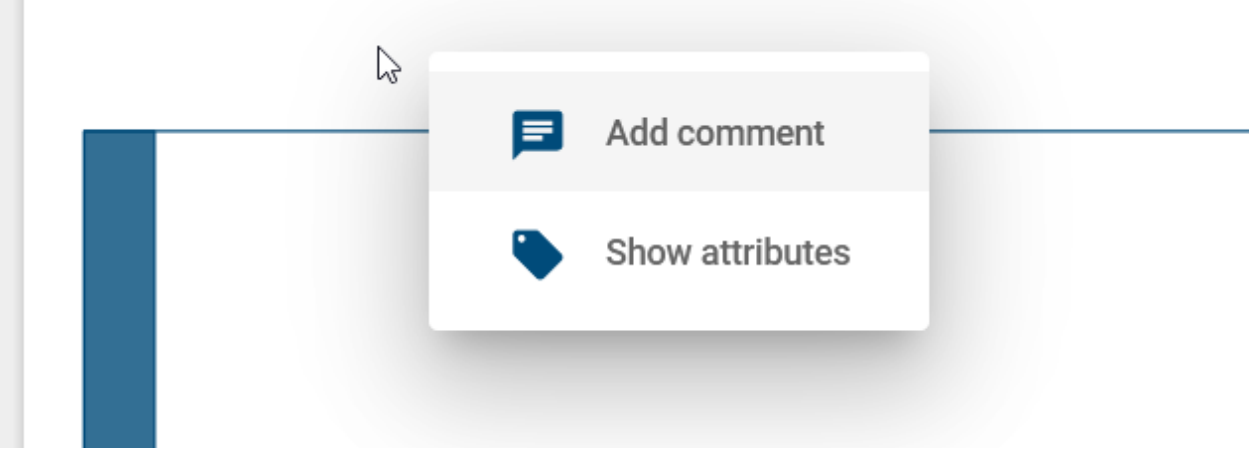


By clicking on the *Comment* entry, the comment bar opens on the right-hand side. In the comment bar you can now see comments on the diagram on top - if already submitted. If *comments on objects* of the diagram are existing, they are grouped below.

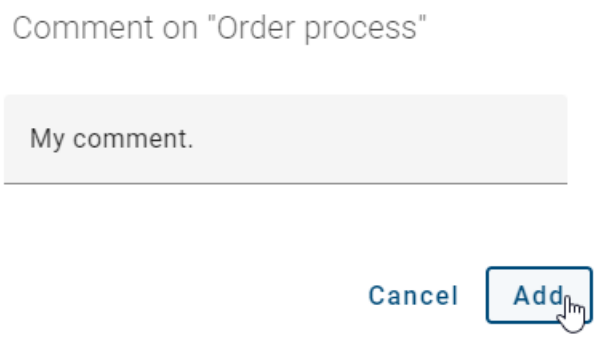


Click on the *Enter comment to diagram* field to write a new comment. Once confirmed by clicking the *Add comment* button, your comment will appear in the comment bar. Each comment is displayed with the submission date and the commentator's name as a chip.

Alternatively, you can also add a comment to the diagram via the context menu. This appears by a right-click in a free space of the diagram.



Choose the entry *Add comment* to enter and *add* a comment by a click on the equivalent button.



Some users receive an email notification of the new comment. This is described for each stage in the following:

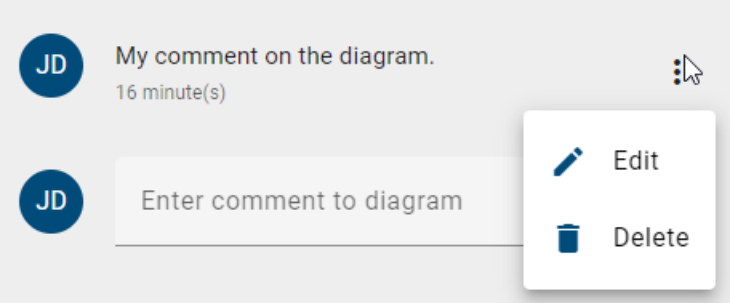
- **Public Workspace**: A notification is sent to the *Author* and to users involved in the conversation.
- **Preview**: A notification is sent to the *Examiner* and to users involved in the conversation.
- **Publication**: A notification is sent to the user or user group mentioned in the attribute *Responsible* and to users involved in the conversation.

Note: Please note that you do not receive notifications about your own comments.

Note: Comments depend on the area. This is caused by different work states and versions in each area. For example, users in the publication cannot see comments from the public workspace.

Note: Please note that the comment function is available for both *checked-in* and *checked-out* diagrams.

You can *edit* or *delete* a comment by a click on the desired entry in the context menu of your comment.



Warning: Deleting comments is done immediately when you select the function. You will not be asked for confirmation again.

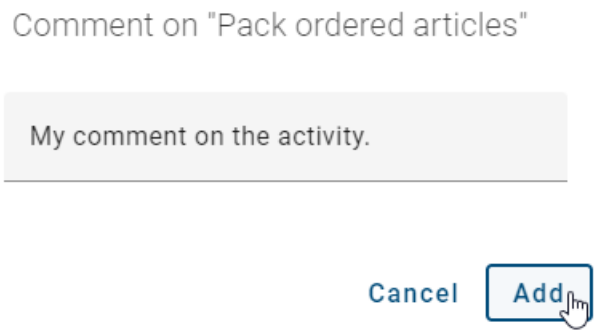
Note: Administrators and Editors are able to edit or delete all comments. All other user roles can use these features only for their own comments.

21.1.2 How can I comment on an object?

Objects can be commented on independently in each version of a diagram. These comments are specific to the diagram version and do not overlap across different diagrams.

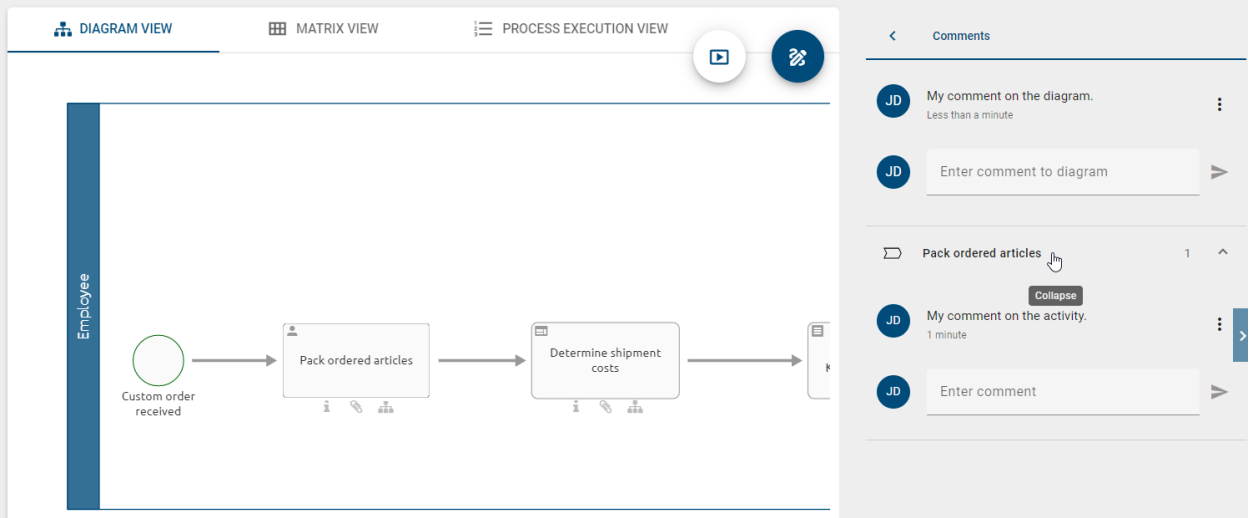
Right-click on the object you want to comment on and select *Add comment* from the context menu.

A dialog window opens. Here you can *Add a comment* in the equivalent field and confirm by a clicking the *Add* button.

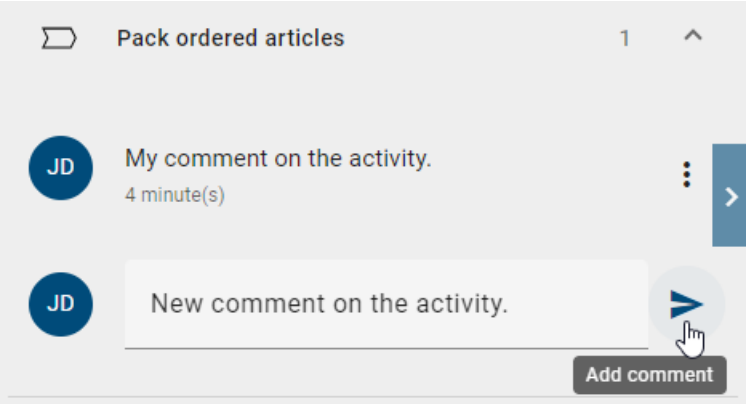


If you do not want to submit the comment, cancel the process with a click on the equivalent button or outside the dialog window. Alternatively, you can use the *ESC* key.

After you confirm the process, your comment becomes visible in the comment bar for all users who have access to the stage. You can view the comment bar by selecting the Comments entry in the options. If a comment has been submitted for an object, the object's name will appear in the bar, and you can view the comment by clicking on the name.



In case an object has already been commented, you can alternatively *enter a comment* in the corresponding field. Confirm the input by a click on *Add comment*.



Some users receive an email notification of the new comment. This is described for each stage in the following:

- **Public Workspace**: A notification is sent to the *Author* of the diagram and to users involved in the conversation.
- **Preview**: A notification is sent to the *Examiner* of the diagram and to users involved in the conversation.
- **Publication**: A notification is sent to the user or user group mentioned in the attribute *Responsible* of the diagram and to users involved in the conversation.

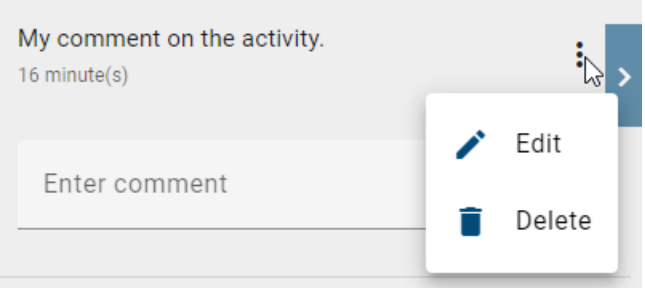
Note: Please note that you do not receive notifications about your own comments.

Note: Comments depend on the stage. This is caused by different work states and versions in each stage. For example, users in the publication can not see comments from the public workspace.

Each user can edit and delete his own comments. Furthermore, administrators can also make these changes to **all** existing comments.

Open the comments through the options. Navigate to the comment you want to edit or delete by clicking on the list entry for the corresponding object.

In the context menu you have the option to *Edit* or *Delete* the comment.



The editing needs to be saved to apply the changes.

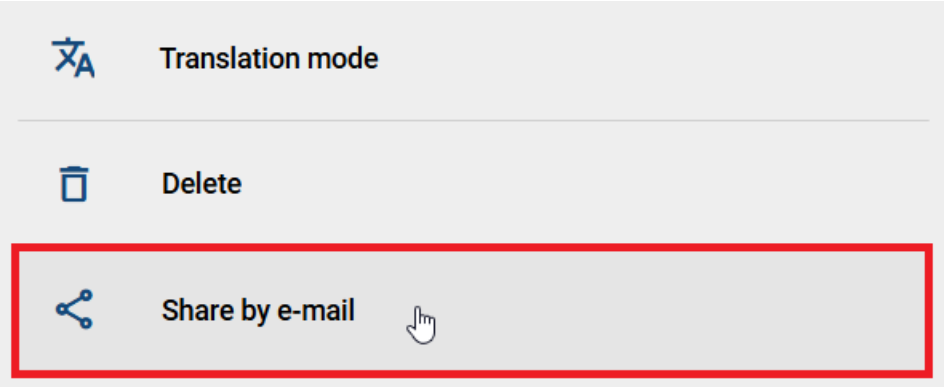
Warning: The deletion of comments is executed right after you click this option in the context menu. You will not be asked for further confirmation.

21.2 Share links

21.2.1 How can I share the link to a diagram with other users?

As an *Author*, *Editor*, or *Administrator*, you can share a link to a diagram in the *Public workspace* with other users. To do so, click the Diagrams menu item in the left menu bar and switch to the *Public workspace* stage if necessary. Then, select a diagram from the list. If no diagram exists yet, you must first *create*.

Once you have selected a diagram, switch to the *Options* panel in the right sidebar and click on the *Share by e-mail* option.

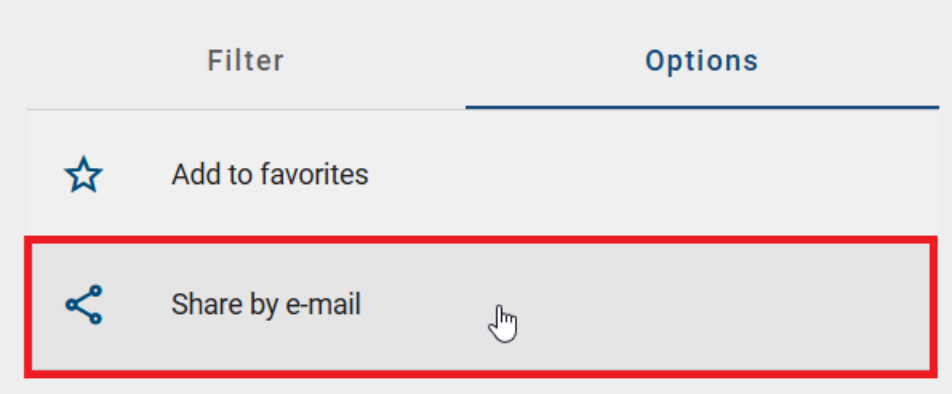


When you click this option, your email program will open and you can write a new email. The subject and body with the link to the diagram in the public workspace will automatically be filled in, which you can customize if you wish. To share the diagram with another user, enter the user's email address in the "To" email field.

Once you send the email with the link to the diagram, other users will be able to access and work with it. If you share the diagram with users assigned the *Reviewer* or *Reader* role who normally do not have access to the public workspace, they will still be able to view the diagram. However, their permissions will be limited to *commenting* only.

21.2.2 How can I share my search results with other users?

Every user can share the link to a search result with other users. To do so, click on the *Search* menu item in the left menu bar and enter the desired term in the search field. Start the search by pressing Enter or clicking on the magnifying glass icon. Then, switch to the *Options* panel in the right sidebar and click on the *Share by e-mail* option.



When you click this option, your email program will open, allowing you to write a new email. The subject and body, along with the link to the search result, will be automatically filled in and can be customized if necessary. To share the search result with another user, enter their email address in the "To" email field.

Once you send the email with the link to the search result, other users can access the search result and make additional search adjustments. If you share a search result from a stage (e.g., public workspace) with users who do not have access to that stage, they will be redirected to a page informing them of the access denial.

CHAPTER

TWENTYTWO

FAVORITES

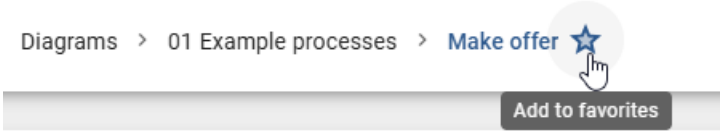
Favorites are used to quickly find diagrams and catalog lists, which are often edited or important for another reason.

22.1 How do I add diagrams, dashboards and catalog lists to my favorites?

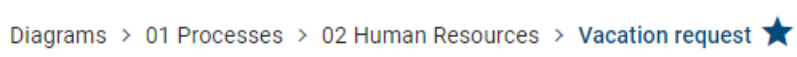
Favorites are used to quickly find diagrams, dashboards and catalog lists, which are often edited or important for another reason. You can mark those as favorites. Diagrams, catalog lists and dashboards marked as favorites can be found on your individual myBIC page, depending on your *focus*. Your personal favorites are not stored in the browser and are therefore available to you independently of the browser used. Pay attention to the *stage* in which you are located, because the favorites are stage-dependent. So you can favor a diagram, a catalog list and a dashboard in several stages.

Favorites are focus-dependent. This means that each favorite is always assigned to the focus in which it was marked. Which favorites are displayed on your individual myBIC page therefore depends on the currently selected focus. For example, a favorite marked in the *Process Management* focus is only visible in this focus. However, if necessary, you can also mark the same favorites separately in several focuses.

Mark diagram as favorite: . . . note:: Please note that BIC Enterprise Architecture Management is a separate module and requires its own license. Navigate in the left menu bar to *diagrams*, then click onto the desired diagram in the diagram list and open it by clicking on the entry. In the header will now appear the menu area, the diagram name and the favorite star.



If the diagram in this area is not yet a favorite, the star button is called *Mark as favorite* and only the frame of the star is visible. Click on the star symbol to add the diagram to your favorites. A confirmation message then appears at the bottom right of the screen.

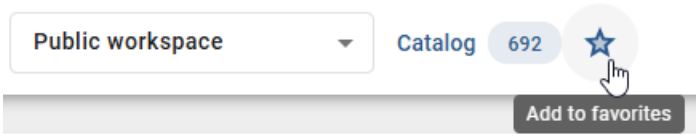


The star is now filled. Depending on the stage in which you have added the diagram to your favorites, you will always be notified by email about changes to the diagram in this stage. This also applies to indirect changes to the diagram through modified and potentially reused catalog items. For example, in the public workspace, you receive a notification if the diagram is deleted or if changes are checked in.

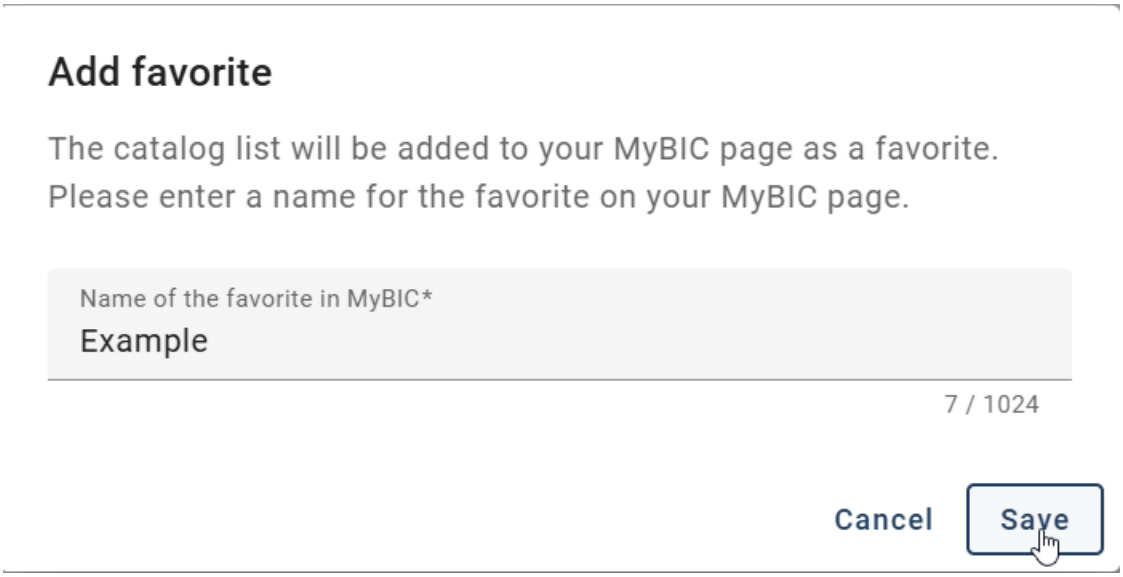
Note: Only checked-in diagrams can be added to or removed from your favorites.

Mark catalog list as favorite:

Navigate in the left menu bar to catalog. If you have at least one catalog entry in your list, a star will appear in the header. If the catalog list is not yet a favorite, the star button will say *mark as favorite*, and only the outline of the star will be visible. By clicking on the star, you will finally add the catalog list to your favorites. Additionally, the stage where you can mark the catalog list as a favorite will be displayed.



If you have applied at least one filter to your catalog list and would now like to save it as a favorite, a dialog appears. Here you must enter a favorite name under which you would like to save the catalog list. A confirmation message then appears at the bottom right of the screen and your favorite catalog list is displayed with the name you entered and the number of existing entries on your individual myBIC page in the selected focus in your content language.

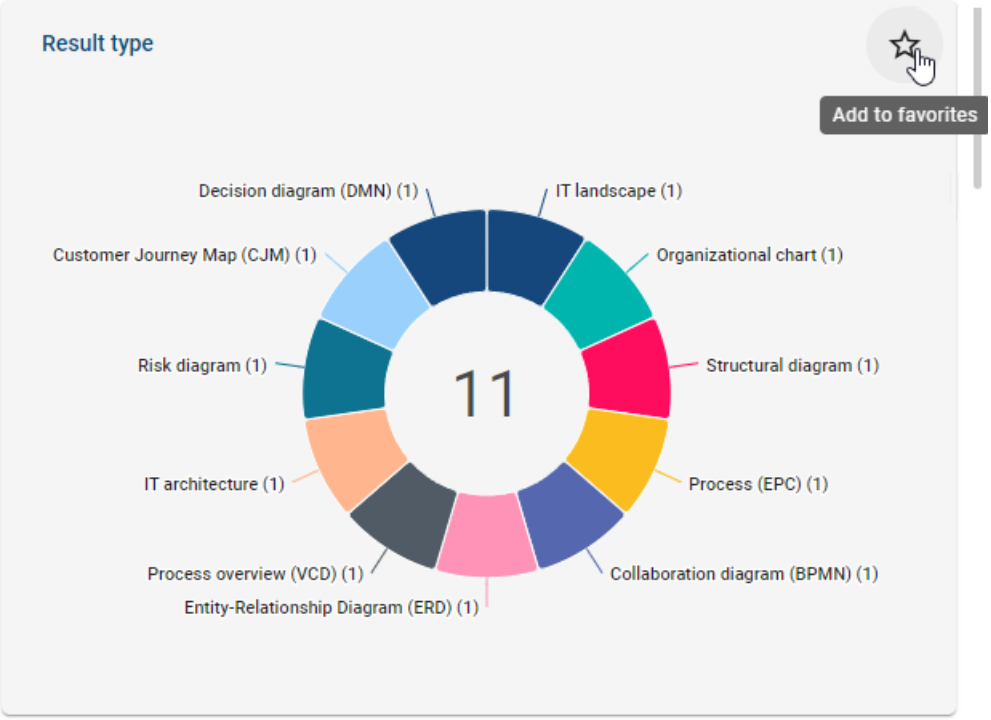


Hint: Your already favored filtered catalog list will be updated when a catalog entry with corresponding filters is added or removed in the same stage.

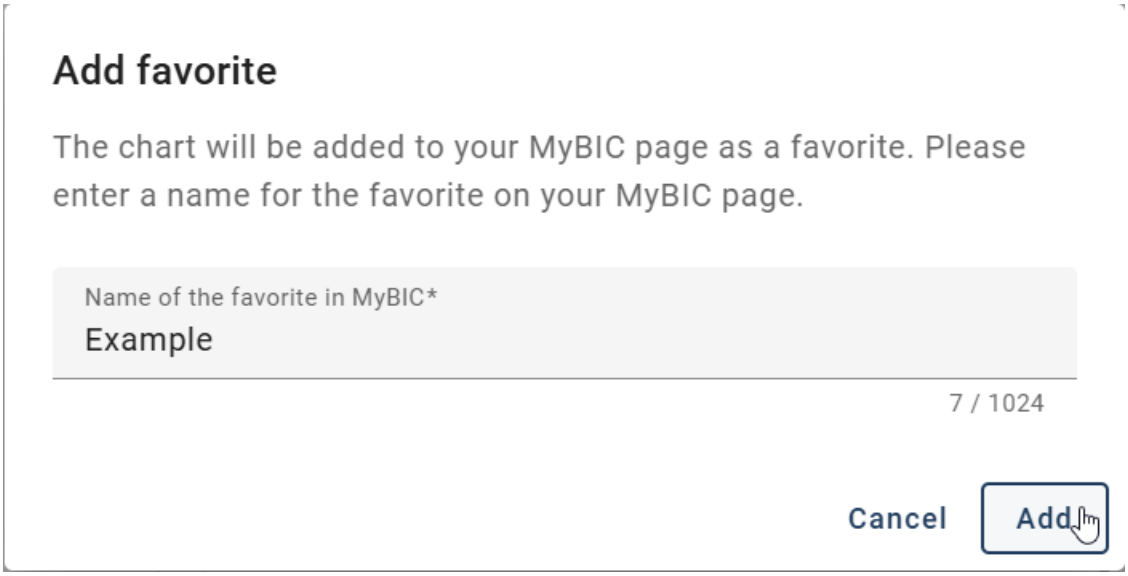
Hint: When you navigate to the catalog from your favored catalog list, the results are displayed in the language in which the catalog list was favored. If your current language settings differ from those of the displayed catalog entries, you will get a hint.

Mark dashboard as favorite:

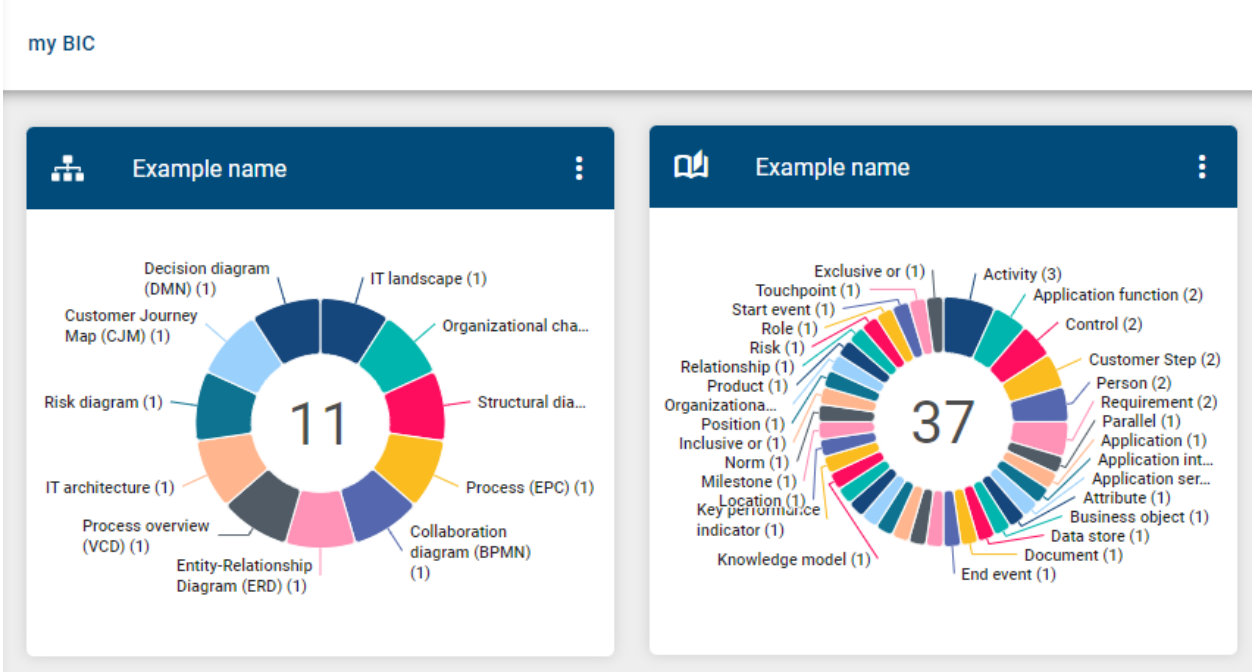
Navigate in the lft menu bar to *Diagrams* or *Catalog* and navigate to dashboard. When you hover over a dashboard tile, an outline of a star will appear in the top right corner of the tile, if the dashboard is not yet a favorite. The star button will say *mark as favorite* when you hover over it. By clicking on the star, you will finally add the catalog list to your favorites. Click on the star to add the dashboard tile to your favorites.



After clicking on the star, a dialog will appear asking you to enter a name for the favorite.



Click on the *Add* button to add the dashboard to your favorites. A confirmation message will then appear at the bottom right and this will now be displayed on your individual myBIC page together with your other personal favorites in alphabetical order for the selected focus.



Additionally, your favored dashboards will be sorted alphabetically and displayed at the top of the corresponding dashboard.

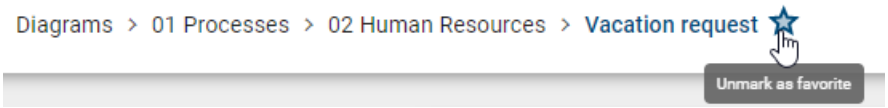
Note: You can *rename* your personal favorites if necessary.

Note: Favorites can be customized in any user role.

22.2 How do I remove a favorite?

For diagrams, navigate in the left menu bar to *Diagrams*, select the desired diagram list entry, and open it with a simple click on the entry. For catalog lists, navigate navigate in the left menu bar to *Catalog* and apply filters (if used). For the dashboard, navigate to the corresponding menu entry to *Dashboard*.

Alternatively, you can also access the diagram favorites or the favored catalog list through the corresponding tile on your individual myBIC page. In the header, you will now see a filled favorite star next to the chart name or the catalog list. In the dashboard, it will appear in the favored dashboard tile.



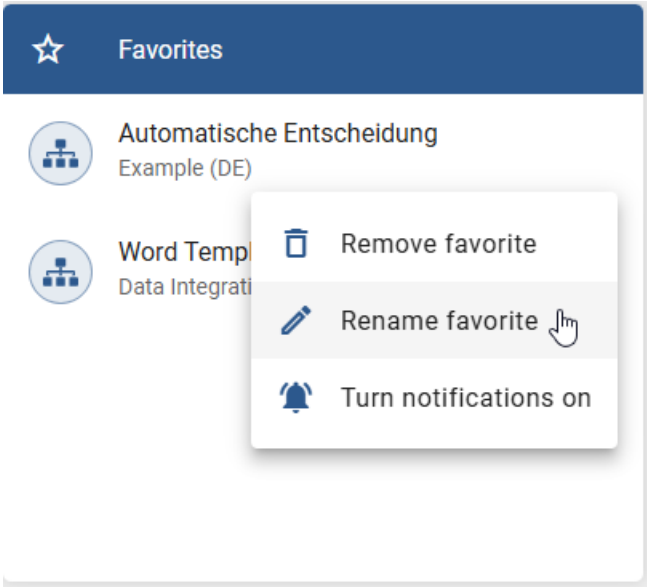
Click on this star called *Remove from favorites*. This will cause a confirmation message to appear at the bottom right of the screen and the diagram, catalog list or dashboard will be successfully removed from your favorites and the star will only be displayed in a frame.

Note: Alternatively, you can *remove a diagram, a catalog list or a dashboard from your favorites on the individual*

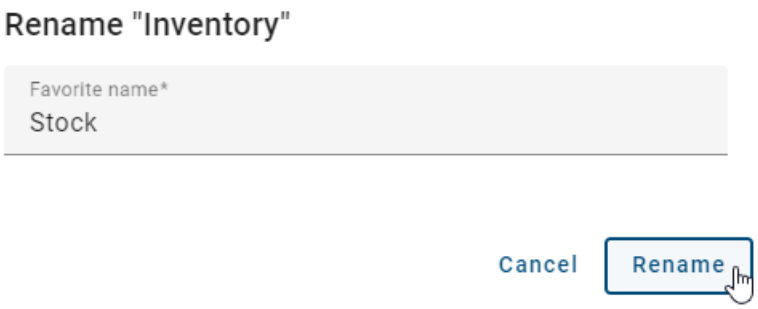
myBIC page.

22.3 How can I rename a personal favorite?

When you are on the individual myBIC page, you can view your personal favorites for the selected focus. When you open the context menu of a personal favorite, you will have the option to rename the favorite.



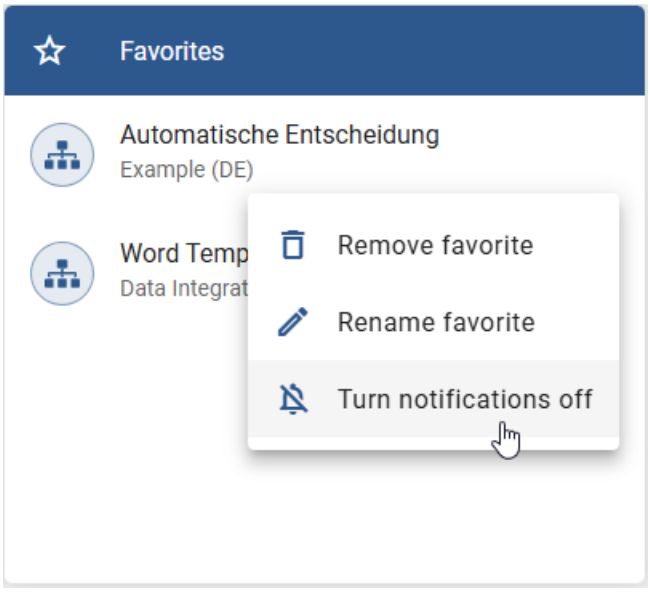
By selecting this option, a dialogue box appears which contains an input field with the current name, a *Cancel* option and a *Rename* option.



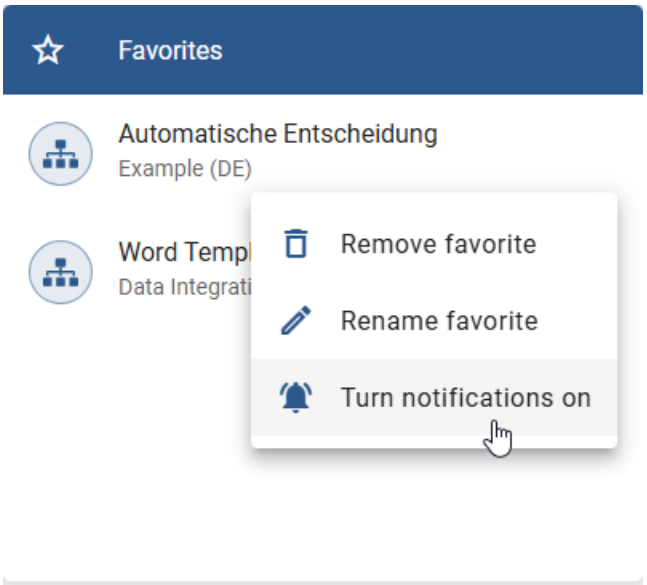
To update the name, you can click in the input field and enter the desired name. If you change your mind, you can cancel the changes at any time by selecting the *Cancel* option. This will not save the changes you have made and the favorite will keep its original name. However, if you select the *Rename favorite* option again, the updated name changes will be applied to the favorite. This takes into account the change in the user's active content language. The dialogue box is then closed and the updated name of the favorite is immediately visible on the tile.

22.4 How can I activate/deactivate notifications for favorites?

When you mark a diagram as a favorite, you will receive email notifications regarding any changes made in the stage where the diagram is favored. To deactivate notifications, go to your individual myBIC page in the corresponding focus and open the context menu of your personal diagram favorite within the *Favorites* tile. Click on the *Turn notifications off* option to stop receiving email notifications.



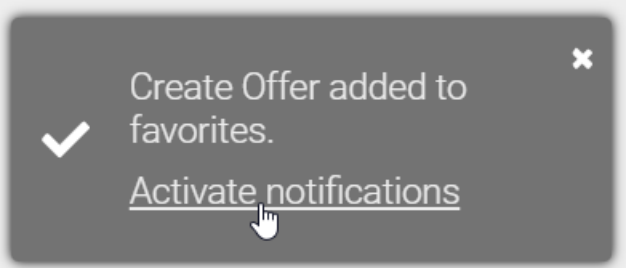
If you want to reactivate the notifications, click on *Turn notifications on* on the new user interface in the context menu of your personal diagram favorite. This will allow you to receive email notifications again about new changes in the diagram.



Note: Please note that you will not receive notifications about changes in the diagram that were made while the notifications were deactivated.

Additionally, there is an option to deactivate notifications by default when marking a diagram as a favorite. However,

if you want to receive email notifications about changes, you can activate this through the hint at the bottom right corner of the page.



Hint: You cannot deactivate notifications for default favorites.

CHAPTER

TWENTYTHREE

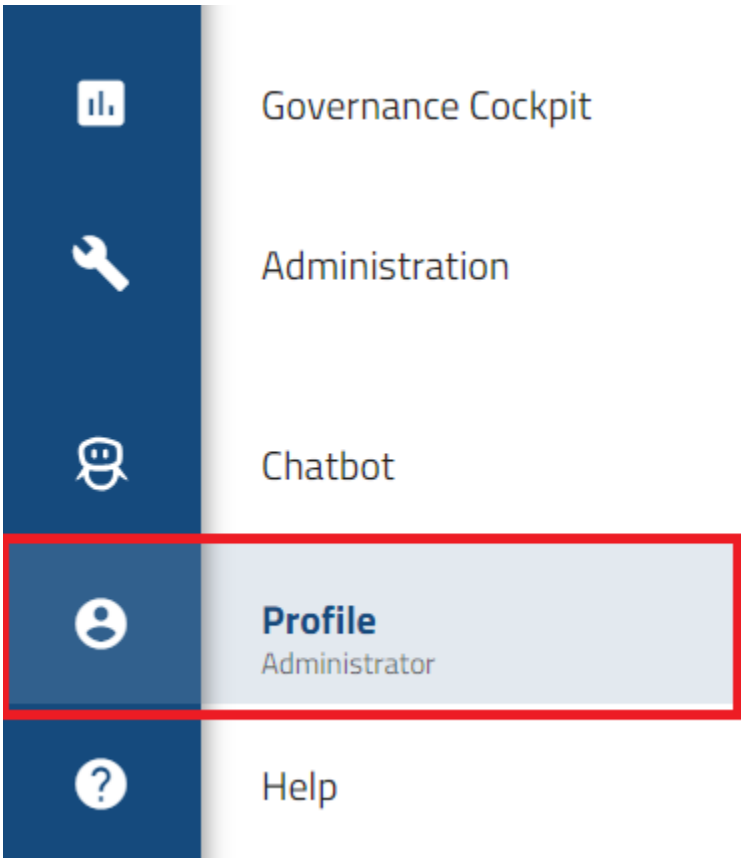
PROFILE

You can access the *Profile* via the menu entry of the same name. The following questions arise for your user profile.

23.1 How do I find my user profile?

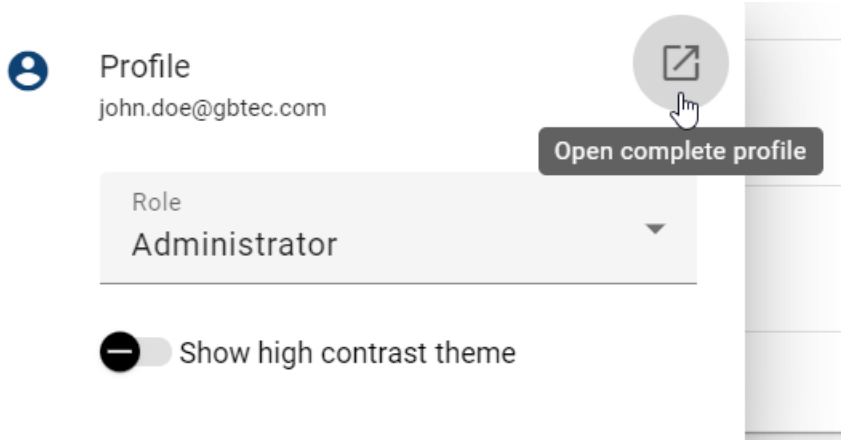
In the user profile you will find your personal information. This includes your user name and the set email address. You can also make some adjustments to your role, content and alternative language and set the high contrast.

Click on the *Profile* entry in the menu.



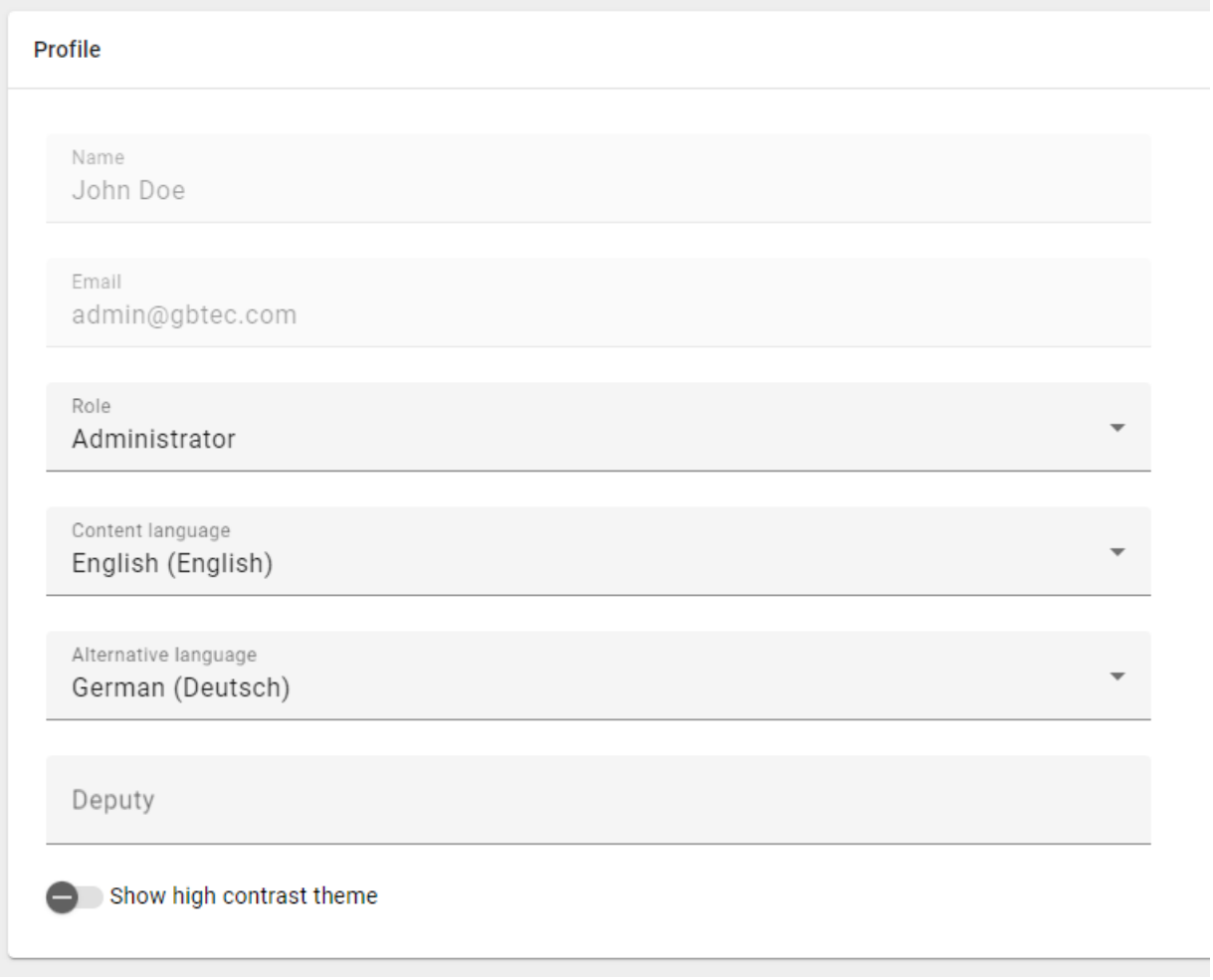
Your profile information is now displayed in the middle of your screen. You have read-only access to your name and email address, but you can change the user role and languages and set the high contrast.

When your menu is collapsed, your *short profile* will be displayed, showing your email address, active user role, and the switch to toggle high contrast on or off. If you have more than *Reader* rights, you can change your active role in the system to better understand and view it from other users' perspectives.



Click on *Open complete profile* to open your user profile and make additional profile settings.

All your profile information is now displayed in the middle of your screen. You have read-only access to your name and email address, but you can change the user role and languages, as well as set a deputy and the high contrast.



23.2 Which user roles are available and which permissions do they have?

In general, you have five different user roles with different authorizations that build on each other. You can find information about your active user role either in the short profile or in the full user profile via the *Profile* menu entry.

Reader: Readers only have access to the publication stage. This means these users are able to see published diagrams and all attributes, symbols, catalog items and documents which are associated with these diagrams. In the publication area readers can create comments and reports and also use the print preview function. In addition they can add diagrams to their favorites.

Reviewer: Reviewers have similar access to the publication stage as Readers and possess the same permissions. Additionally, Reviewers have access to the preview stage and can view and work on assigned governance tasks (publication, depublishing, resubmission) if they are designated as a reviewing authority for a specific diagram or catalog item. However, Reviewers are unable to initiate a governance workflow themselves.

Author: Authors have essentially the same rights as Reviewers. They also have access to the public workspace. This allows them to see all catalog entries and diagrams in the public workspace. This generally allows them to model diagrams and automatically generate catalog entries. To use these features, users with the Author role must be entered as *Author* in the attributes of the corresponding diagram or object. This allows Authors to be used specifically for modeling individual diagrams or editing individual objects.

Editor: Similar to authors, the role of Editor is used to edit and create diagrams. Unlike authors, Editors do not have to be set within the diagram attributes to model a diagram. Additionally, editors have the ability to make cross-diagram changes. This means users with the role of Editor have the right to manually create, edit, or delete catalog entries and are authorized to accept or decline catalog entries. Furthermore, editors have the ability to assume administrative tasks for governance workflows. They have the authority to view and manage all governance workflows. In the governance cockpit, editors have the same rights as administrators, which means they can delegate or cancel workflows.

Administrator: Administrators have all the rights that other user roles have. In addition, they have special administration rights. These include access to the administration area, the right to create, delete, and rename repositories, as well as the ability to unlock diagrams.

Accessible workspaces	Administrator	Editor	Author	Reviewer	Reader
Public workspace	entitled	entitled	entitled	not authorized(*)	not authorized(*)
Preview	entitled	entitled	entitled	entitled	not authorized(*)
Publication	entitled	entitled	entitled	entitled	entitled

(*)Read-only access can be granted to individual diagrams in the public workspace (view *share diagram from public workspace*)

Hint: If you use BIC Process Execution, you have the option to specifically set the user role for *Process Execution in the administration*.

Tip: You can *connect persons* or user groups with diagrams and objects. With that their rights and duties can be enhanced. In addition access restrictions can be set for single diagrams or repositories so that only defined users or user groups can access them.

23.3 How can I change my user role?

Users who have more than “Reader” rights can switch their active role in the system. This makes it easier for you to put yourself into the role of other users and to view the system from the perspective of your employees.

Tip: In the *short profile* of the collapsed menu, you can change your active role quickly and from an arbitrary area within the application.

In the profile, your active role is displayed under *Change role*. Click on your active role or on *Change role* to open a drop-down menu.

This opens the selection of user roles, which you can select with a single click and thus change the active role.

The selected settings remain until the user explicitly changes back his or her role. This also applies to the new login: the role set by the administrator is not automatically used.

23.4 How can I set my deputy?

In the *complete profile*, you can set a deputy for your tasks, who can take over your tasks when you are not available for a longer time. This is possible for users who have more than “Reader” rights.

To set a deputy, navigate to the *Profile* via the menu and find the input field *Deputy*.

Hint: When you navigate to the profile in the collapsed menu, click *Open complete profile* in the short profile to see the input field.

Enter the desired user name and/ or select him from the suggestion list. Subsequently, the selected user has access to your tasks in his *deputy tasks*.

If you want to remove the deputy, select the *delete* cross at the user name chip.

23.5 How do I change the content language and the alternative language?

You have the possibility to select a content language as well as an alternative language to display your diagrams. Attributes of the diagrams and objects are displayed according to the content language. The alternative language can be set to display a different language if an attribute or label is not maintained in the content language. You will see any attributes, including names and labels, without content if they have not been maintained in either the content language or the alternative language. Further information about the handling of languages is written in the chapter *Multilingualism*. The multilingual modeling is explained *here*.

In order to change the languages open the *Profile* in the side menu and select in the *content* or *alternative language* using the respective drop-down menu.

Hint: When you navigate to the profile in the collapsed menu, click *Open complete profile* in the short profile to select the content or alternative language.

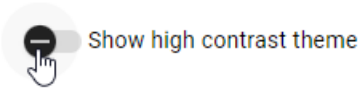
A more detailed description can be found in *this chapter*. Your changes will also be visible in the upper right corner next to your user name. Here you will find the abbreviations for the content and the alternative language in brackets, e. g. (EN/DE).

Hint: Please note that when switching to the alternative language, process names, descriptions and forms are displayed in this language if a translation is available. Otherwise, the content remains in the original content language. The user interface and system messages remain unchanged and continue to be displayed in your browser language.

Hint: Please note that notifications and emails are displayed in the content language even if you have switched to the alternative language.

23.6 How can I turn on high contrast?

In the profile, you can find the *Toggle high contrast theme* button. Activate the button to display the application in a more contrasting view.

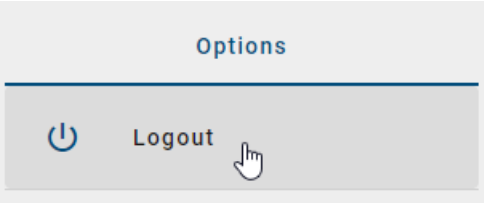


You can switch off this view in the same way. Moreover, you can always toggle the high contrast theme using the short profile within the collapsed menu where you can *change your active user role*. This can be done from all areas of the application.

23.7 How do I sign out?

We recommend you to sign out after finishing your work with BIC Process Design.

Open the *Profile* via the menu. In the desktop view, you will find the *Options* in the right sidebar. Click on *Logout*. Alternatively, you can use the *Logout* button from the last menu entry in any area of the application.



In the mobile view, you will find the option *Logout* via the corresponding button in the top right corner of the header.

You will then be redirected to the logout page. During your next login, BIC Process Design will redirect you to the repository you have worked in last.

Note: Your session will expire if you are inactive for at least 30 minutes by default. Five minutes before your session expires, you will receive a notification within the application asking you to extend your session. If you remain inactive after the five-minute notification, the application will automatically log you out and ask you to log in again.

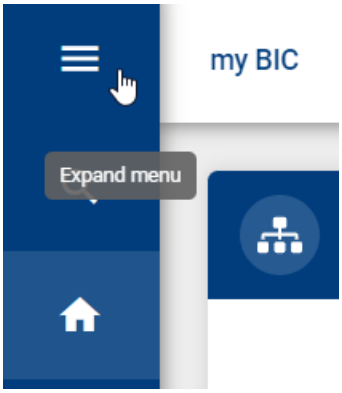
CHAPTER

TWENTYFOUR

NAVIGATION

24.1 How do I hide and show the sidebar?

By clicking the *Toggle sidebar* button in the left upper corner, you can always hide the sidebar on the left side. This function is accessible in every functional area, e.g. from *MyBIC*, *Diagrams* or the *Catalog*.



To show the sidebar, click the same button again.

24.2 How can I zoom?

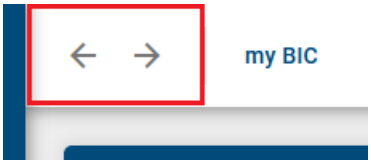
In the new user interface of BIC Process Design you can apply the zoom on the whole window by holding down the *Ctrl* key and scrolling with the mouse wheel. Optionally, you can make the entire page larger or smaller. To do this, hold down the Ctrl key and select + or -.

If you view a diagram, you can zoom the diagram simply by scrolling with the mouse wheel. The mouse has to be placed in the diagram and its position determines the focus of the zoom.

24.3 How can I navigate through my browsing history?

In BIC Process Design, you can navigate through your browsing history. To use this feature, you need to log in to portal. The header includes an option to browse the browser history, with the *Back* and *Forward* buttons typically disabled.

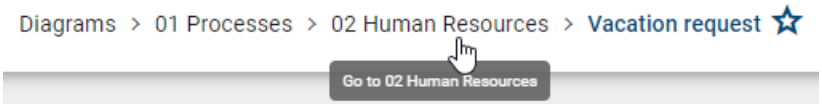
When you navigate through elements in BIC Process Design, the *Back* button becomes enabled. This allows you to go back in the browser history, subsequently activating the Forward button. The *Forward* button then enables you to navigate forward in the browser history after having gone back. Both buttons respond to user actions and adapt to the browsing history.



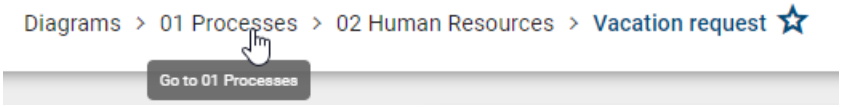
At the end of the session, the entire history, both backwards and forwards, is removed from the browsing history in BIC Process Design.

24.4 How can I navigate in the list of categories and diagrams?

In the *list of categories and diagrams* you can display the content of a category or diagram by a single click. The current path is shown in the head bar. Having navigated into a sequence of categories, you can navigate to a higher category by clicking on its name in the head bar.



In the same way, you can change to a higher category when viewing a diagram.



24.5 How can I open a diagram in a new browser tab?

All users have the ability to open diagrams via a browser shortcut in a new browser tab. This allows you to work with several diagrams at the same time without leaving the current view in the main application.

To do this, navigate to the *Diagrams* menu in the left menu bar. This will open a list of all existing diagrams in your repository. To open a diagram in a new browser tab, at least *a diagram must exist in the application*. Otherwise there are no shortcuts that can be opened in this way.

To open a diagram via a browser shortcut, hold down the *Ctrl* key and click on the desired diagram, or use the middle mouse button. The diagram will open in a new, separate browser tab. The URL of the diagram will be the same as the one used when opening it within the main application. The original browser tab will remain unchanged, retaining all unsaved changes and existing filter settings.

Note:

It is possible to open a diagram in a new browser tab from different areas of the application. These include for example

- the diagram list,
- assigned diagrams within an attribute,
- assigned diagrams displayed on the canvas with associated menus,
- assigned diagrams in SVG views with corresponding menu options,
- the task list,
- the audit trail of a workflow in the Governance Cockpit,
- the occurrences list or
- the myBIC area.

Hint: Please note that a diagram opened in a new browser tab behaves exactly the same as a diagram opened in the main tab. All interactions take place as usual, without any limitations in functionality or user experience.

24.6 How can I navigate the diagram?

In the *diagram view* you can navigate by holding down the left mouse button. As known from Google Maps, scrolling here corresponds to zooming and no scrollbars are displayed.

Furthermore, there is a navigation bar at the right bottom of the editor in diagram view, which offers the following possibilities:

Adjust content to window size: By clicking on the first button the diagram will be zoomed and scrolled, so that you can see the whole diagram in the editor.

Scroll selection into view: If you have selected a symbol, clicking on the second button places the diagram so that the symbol is displayed in the upper left corner. If no symbol is selected, this function scrolls the diagram to 0/0 position.

Zoom level: The third function allows you to set different zoom levels in percent. Preset levels appear when you click on the arrow. You can then select one of the zoom levels from the list. Furthermore, it is possible to set your own zoom level between 25% and 800%. To do this, click on the displayed number, enter a new percentage and confirm with the Enter key or click on the diagram.

24.7 Which keystroke combination can I use?

Navigation in the application

Navigation in the application via your keyboard is possible as follows.

Shortcut	Action
Tab	Focus in application changes to the next button.
Enter	Selection of the button on which the focus is located.
Shift + Tab	Focus in application changes to the previous button.
Arrow keys in Explorer	Focus in application switches between diagrams, categories and favorites in Explorer. For this, the focus must first be in the respective area of the Explorer.

For a stronger emphasis of the focus you can toggle the high contrast theme.

Diagram view

These functions are available if you look at a diagram in *diagram view*. For example, they help navigate large diagrams.

Shortcut	Action
Mouse wheel	*Zoom in*, *Zoom out*
Pressed left mouse button	Diagram scrolling

Navigation in the designer

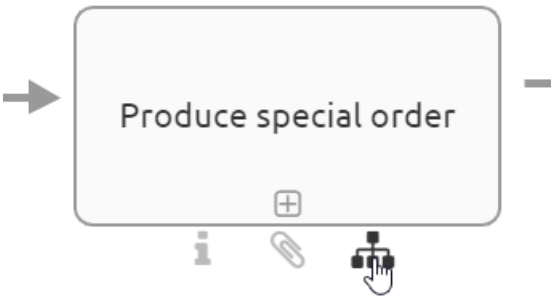
These functions are available for a checked-out diagram in edit mode. For example, they help navigate large diagrams and facilitate fast modeling without a mouse.

Shortcut	Action
Ctrl + + or Ctrl + Mouse wheel	*Zoom in* the whole page
Ctrl + - or Ctrl + Mouse wheel	*Zoom out* the whole page
Pressed right mouse button	Diagram scrolling
Ctrl + A	*Select* all objects
Shift + left mouse click	Select several objects one after the other
Ctrl + C	*Copy selected objects*
Ctrl + pressed left mouse button	Copy selected objects and paste by releasing mouse button
Ctrl + V	*Paste selected objects*
Ctrl + X	*Cut selected objects*
Del	*Delete selected objects*
Ctrl + Z	*Undo* the last modelling step
Ctrl + Y	*Redo* the last undo
Shift + pressed left mouse button	Move selected object only vertically or horizontally
Alt + pressed left mouse button	Move selected object when alignment lines are disabled
Arrow keys	Move selected object
Shift + Arrow key	Move selected object in big steps
Alt key	Indicator for the visualization of the same distance when at least three objects are being moved
Ctrl + B	*Description* bold
Ctrl + I	Description italicize
Ctrl + U	Description underlined
Ctrl + Enter	Create the first element of the *mini symbol palette* of a selected object (inplace edit not active)
Ctrl + <number from 1 to 9>	Create the corresponding element of the mini symbol palette of a selected object (inplace edit not active)
F2	Access to the *text field* of a selected object (inplace edit)
Alt + Enter	Insert a line break in the text field of a selected object (inplace edit active)
Enter	End edit mode in text field with saving (inplace edit active)
Esc	Cancel edit mode in text field without saving (inplace edit active)
Ctrl + S	Save and then check in the modeling

24.8 How do I open a subprocess?

You can jump directly from a diagram into a refined diagram which is a maintained in the *subprocess attribute*.

Open a diagram containing an activity with a subprocess diagram. Then, click the highlighted attribute symbol below the object. Alternatively, the stored diagram also opens by double-clicking on the activity.



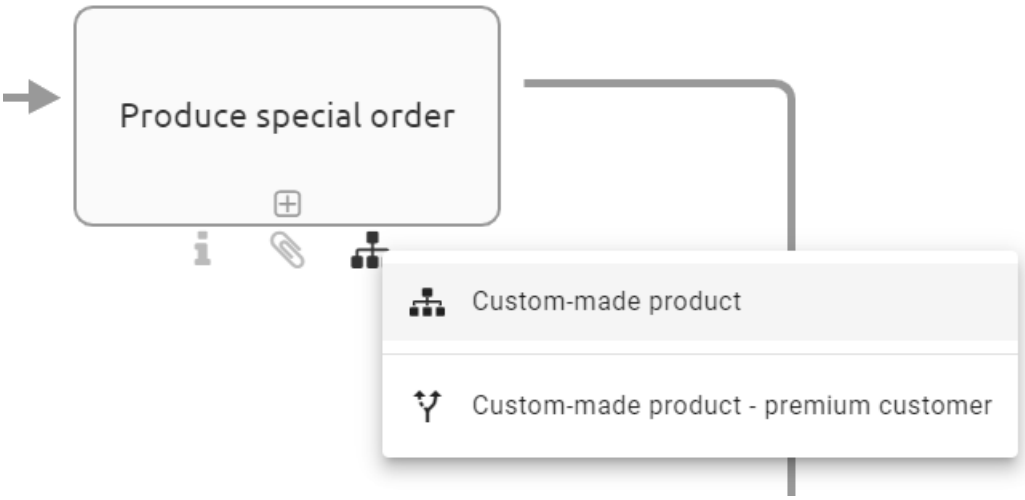
Note: The actual stage is Public Workspace and you have opened the diagram version Publication. If you want to change the diagram by clicking a subprocess or variants the stage will be changed to Publication. Published diagrams and categories are exclusively shown in the explorer. If the subprocess is not published, you will receive a *corresponding message*.

Note: Subprocesses also display diagrams to which you have no access. If you navigate into these diagrams, you will get a *corresponding message* and can not see the content of the diagram.

Tip: If no subprocess and no attachment has been maintained for a symbol, the attribute tab opens by double-clicking on the symbol.

24.9 How do I open a subprocess when multiple ones are maintained?

BIC Process Design offers the possibility to maintain *multiple variants within the attributes*. You can open them in the same way as *you can open one subprocess*. However, a simple click on the diagram icon under the object will give you an alphabetically sorted list of all the subprocesses. This gives you the opportunity to see at a glance which navigation options are available to you. The top entry reflects the subprocess field, followed by the variants. Select the required subprocess to follow the link.



Note: A similar list is also displayed in a checked-in diagram when you double-click the object, provided you have maintained several *subprocesses and variants*. This allows you to quickly see which links have been set and to navigate through them accordingly.

24.10 How can I edit a locked diagram?

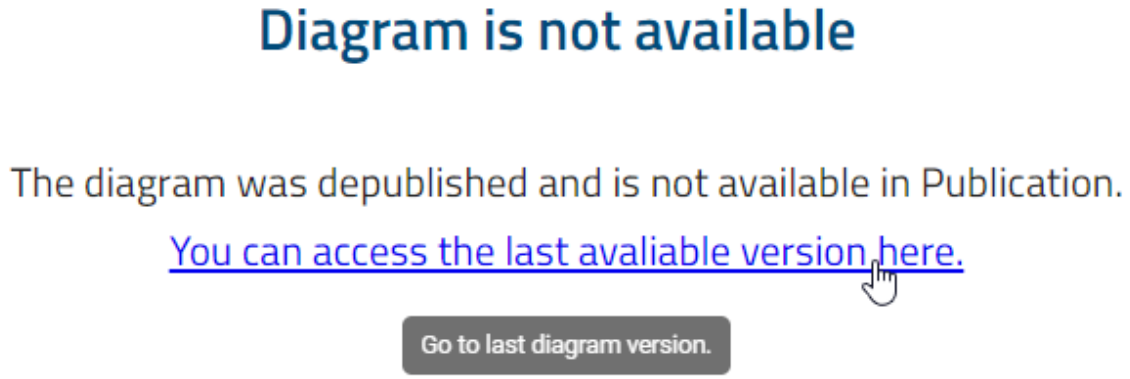
In general, you cannot edit diagrams that have been checked out by another user. These diagrams are marked with a lock symbol.

However, you can contact the editor by email. Click on the lock symbol and select the *Contact [email]* option. Your email client will then open with the blocking user's email address pre-filled. You can let them know that you would like to work on the diagram.

Note: Your administrator can *unlock diagrams* for editing, for example, if a modeler did not check in diagrams before their holiday and another user needs to edit them during their absence. This procedure can cause data loss and is therefore permitted only for administrators.

24.11 What happens if a diagram is not available?

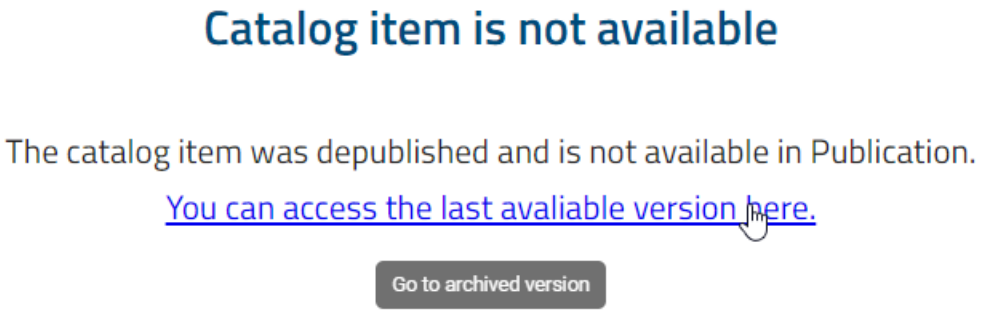
If you navigate to a diagram which is not available (for you) in the current stage, the following message will be displayed. In case there is an archived version of the diagram in the current stage, you can choose to navigate to the latest version.



Diagrams may not exist in single areas for different reasons. For example, you receive this message while following a subprocess in the publication to another diagram, which itself has not been published yet. When *navigating via deposited diagrams*, you switch to publication if you are not already there.

24.12 What happens if a catalog item is not available?

If you navigate to a catalog item which is not available (for you) in the current stage, the following message will be displayed. In case there is an archived version of the catalog item in the current stage, you can choose to navigate to the latest version.



CHAPTER

TWENTYFIVE

MULTILINGUALISM

25.1 Which language settings can be made?

The following language settings are distinguished for the multilingualism of the application.

User interface language (UI language): This is the language of the user interface, which depends on your browser settings. The user interface includes all displayed dialogs, the administration interface, buttons, context menus and the displayed names of diagram, object and attribute types. The UI language depends on the first language in the list of preferred languages in the respective browser settings. Depending on the browser these lists can be found at different places:

- *Internet Explorer*: Section "Preferred Language" in the Windows language settings
- *Mozilla Firefox*: Section "Choose your preferred language for displaying pages" in the browser language settings
- *Google Chrome*: Section "Order languages based on your preference" in the browser language settings

User language: The user language defines the language in which you receive your emails from the application. This language is set per user in the *administration of BIC Process Design*.

Content language: The content language refers to the representation of the contents of diagrams and attribute values. The content in the content language the displayed in the diagram itself, in the attribute bar, in reports and in the catalog in the form of catalog items. The content language is set *in the application* and can therefore differ from the UI language.

Alternative language: The *alternative language* can be set to display another language if an attribute has not been maintained in the content language. In this case, the attribute in alternative language and its abbreviation are displayed in brackets. The content remains empty if it was not maintained in the selected content language or the selected alternative language. This behavior applies to the public workspace, the preview and publication stage.

Note: While editing a diagram, you can only see values that have been maintained for the selected content language within the details of an object or the diagram. You can receive further information *here*.

25.2 What languages are displayed for the content language and the alternative language when logging in for the first time?

When you first log in to BIC Process Design, the default language set by the administrator at that time is displayed as the content language by default. The alternative language will correspond to the language of your browser (UI language).

You have the option to *adjust* your content language and alternative language at any time.

Hint: If your browser language is not activated as a language in the administration, the alternative language corresponds to the default language.

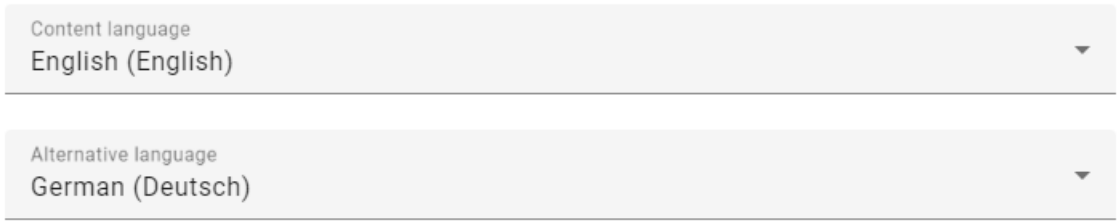
25.3 How do I set the content language and the alternative language?

In the profile, you have the possibility to select a content language as well as an alternative language to display your diagrams. You can also change the content and alternative language at any time using the *Toggle languages* button in the header.

To set a language in the *profile*, navigate to the *profile* via the menu. The current content language is displayed below *Content language*.

With a click on the button, a list of available content languages appears from which you can select a language. You can also click on the displayed language under *Alternative language*.

A list of available alternative languages appears. Select a language. Now you have set your content and alternative language and the selected changes are displayed.



Your changes are also visible in the top right-hand corner of the header in your desktop version. The abbreviation for the content language and the alternative language are displayed here, with the content language in bold.

You can simply click on the arrows *Toggle languages* in the header to swap the content and alternative language directly. This function is always available in the header of the desktop version. Moreover, by clicking on your content and alternative language you can open a drop-down menu where you can select a new language.

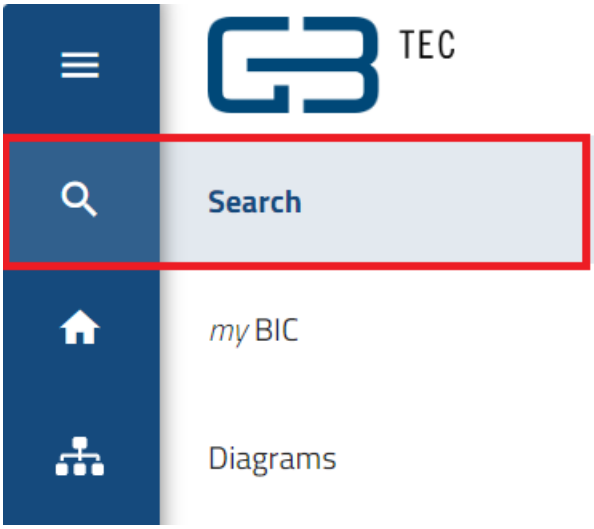
CHAPTER

TWENTYSIX

SEARCH

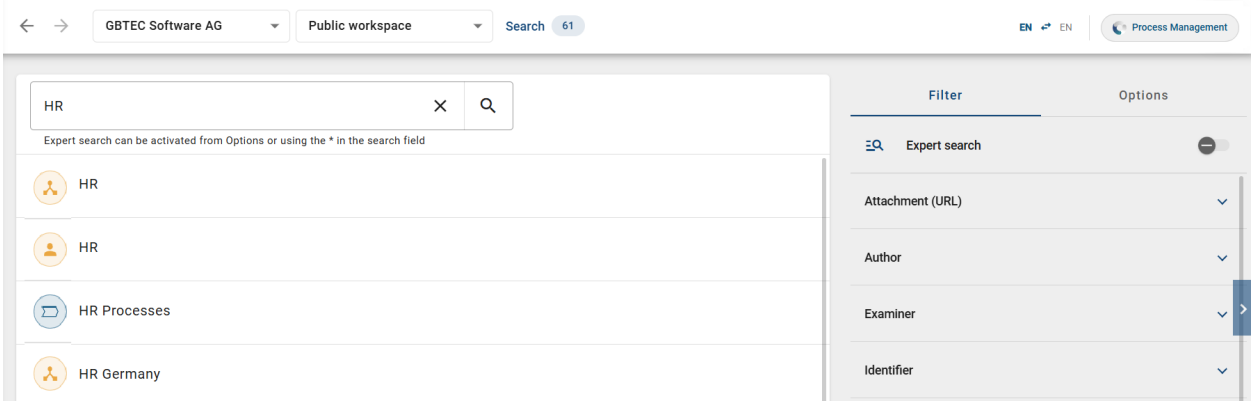
26.1 How can I use the Search in BIC Process Design?

You have the possibility to use a global search in BIC Process Design. To do that, choose the menu item *Search* in the left menu bar.



The search results depends on the current repository, stage and currently selected content language. Enter the search term into the search field and confirm by pressing the Enter key or the magnifier glass.

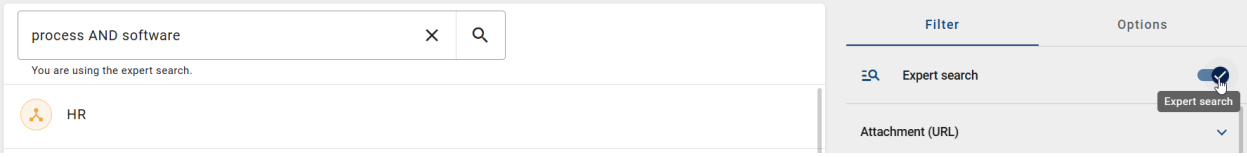
It is searched in the currently opened repository. The search results are displayed in a list sorted by relevance for the search term. In the top bar, the number of results is shown.



The search results thereby include all entities (diagrams and catalog items) in BIC Process Design. By clicking on the respective search result, you will be redirected to its details page.

Note: If you have purchased and activated BIC EAM, context diagrams can also be displayed as search results. Depending on whether the context diagram was created in the catalog or modeled, you will be redirected to the corresponding catalog or diagram view.

In order to specify and adapt your search, you can activate the *Expert search* option in the *Filter* panel in the right sidebar. If you use an asterisk (*) in the search term, the expert search is activated automatically. The expert search enables you to include Boolean operators, wildcards or special characters in your search query. You can find a list of all expert search possibilities in the section about the *options of the search*.



Moreover, you can *filter* the search results.

Warning: Please note that searching for access-restricted diagrams or for catalog items within access-restricted diagrams is only possible for their governance participants. This also applies if you have the *Administrator* user role. Changes to users or user groups in the *Administration* may cause access restrictions to stop working correctly. Therefore, make sure that user and user group information in the administration and the catalog is maintained consistently.

26.2 How can I search for specific content in BIC Process Design?

You can also search in BIC Process Design for specific entities. You currently have the possibility to use the search function, next to the central search, in the *diagram list*, the *catalog* and the *Governance Cockpit*.

A search always depends on the selected stage and content language. The stage does not change by navigation. If you are searching in the stage *Publication* and English is your content language, all objects and diagrams maintained in this language and existing in the publication will be listed.

In all three functional areas, the search field is displayed in the *Filter* panel in the right sidebar.

Enter the search term into the search field and confirm by pressing the *Enter* key or the magnifier glass.

It is searched in the currently opened repository. The search results are displayed in a list sorted by relevance for the search term. In the top bar, the number of results is shown.

Click the X icon to cancel the search and view all entries of the list again.

Tip: In case the search entry is a diagram you can open it directly with a click on the name.

Warning: Please note that searching for access-restricted diagrams or for catalog items within access-restricted diagrams is only possible for their governance participants. This also applies if you have the *Administrator* user role. Changes to users or user groups in the *Administration* may cause access restrictions to stop working correctly. Therefore, make sure that user and user group information in the administration and the catalog is maintained consistently.

26.3 What options do I have to search for specific terms?

Always keep in mind the search functions described below:

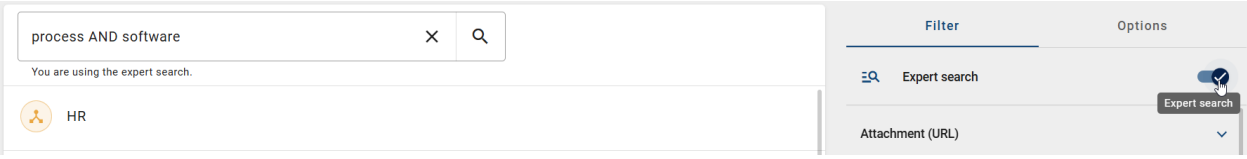
- The search is not case-sensitive.
- Line breaks and successive blanks are treated as one single blank.
- Phrase search: If the search term is enclosed in quotation marks, the search term is not changed, e.g. “process implementation”. Here the search term must occur exactly in the searched data, and no wildcards characters are interpreted.

The following options are available for the search terms in the simple search.

- Search for one word: If the search term does not contain wildcard characters, the search term will be searched at every position, e.g. a search for “Process” will find “Process model” as well. Process is virtually expanded to Process* and then used to search the content.
- Search for several words: If two or more words are searched for, the words are concatenated using or. So it is sufficient, if one word exists. Here are also wildcards (*) added, e.g. process implementation is searched as process* OR implementation*.

Expert search:

In the central search, you can enable the expert search. Then you can use the following search options.

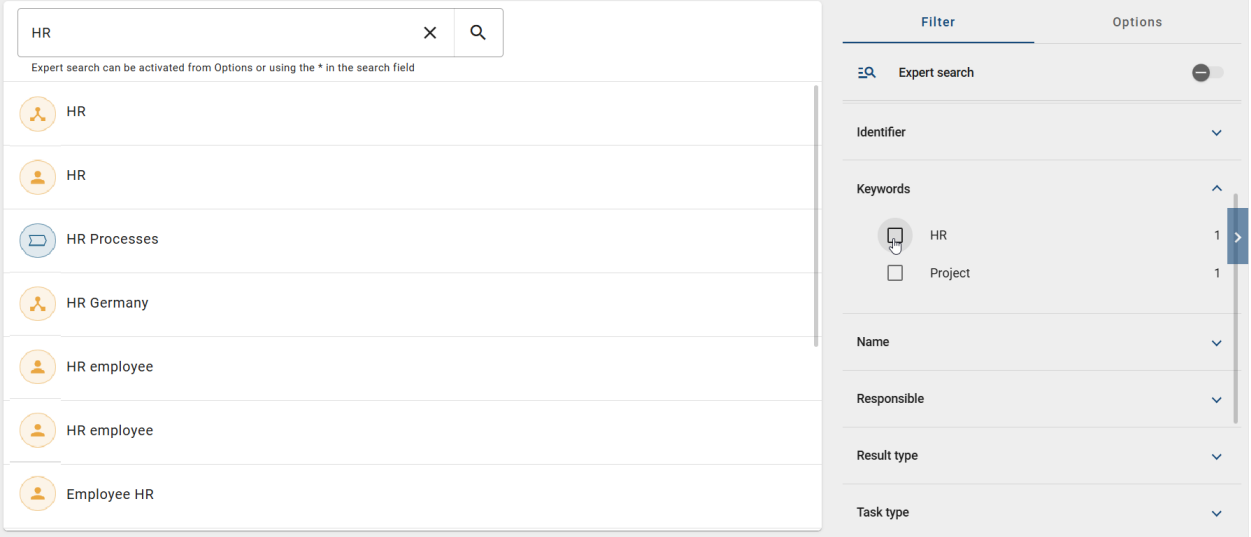


- Search with special words: The search knows special words, which are interpreted, if they are part of the search term: AND, OR and NOT
  - AND concatenated words must both exist in the results, e.g. development AND software
  - OR concatenated words can appear in the results, but do not need to. It is sufficient, if one of the words exists.
  - A NOT concatenated search word must not exist in the results, e.g. development NOT software
  - **Note**: Do not mix up with the search for several words (see above), since wildcards are added there. This is not done, if one of the special words occurs.
  - You can use "!" or "-" instead of NOT (without the quotes).
- Search with special characters: The search knows special characters, which are interpreted, if they are part of the search term: +, - and !
  - These characters are not allowed at the beginning of a search term.
  - If a + precedes a search word, this word must exist in the results, the first search word is optional, e.g. development +software.
  - If a - or a ! precedes a search word, this word must not exist in the results, e.g. development -software or development !software.
  - Search words with NOT, - and ! give the same results.
- Search term with wildcard characters: These characters serve as placeholders in resp. at search terms to find more relevant results. By using a wildcard, the search term is expanded by an arbitrary number of characters. You can manually add wildcards to your search term. By default BIC Process Design automatically searches with wildcards at the end of every word.
  - The star * stands for none, one or more characters, e.g. "*process" will find "process" and every data that ends with "process", like "default-process"
  - The question mark ? represents exactly one character, e.g. implement?tion
- Group terms to form partial queries: The search recognizes round brackets in the sense of grouping clauses. This allows you to control the Boolean logic of a query.
  - For example, the query "a AND (b OR c)" will search for "a AND b OR a AND c". If the brackets are not set, "a AND b OR c" is interpreted as "(a AND b) OR c".

26.4 How can I filter search results?

In the central search, you can filter the search results using the filter in the right sidebar. If you have received search results, you will see the types and available attributes of the results as facets. By clicking on the facet headings, they can be expanded and collapsed.

Expand a facet to see all filter options listed that correspond to the attribute values or result types. By setting a check mark for a filter, the search results are filtered according to this attribute value or result type. Multiple filters can be set simultaneously.

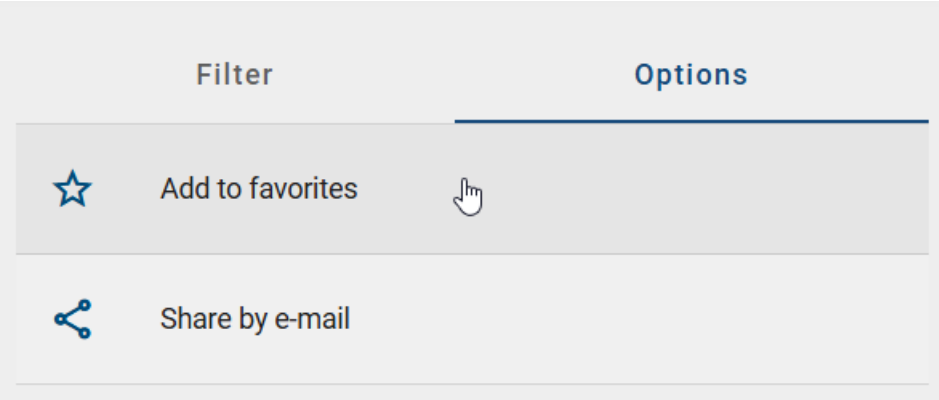


Available filters can be set via the *administration*.

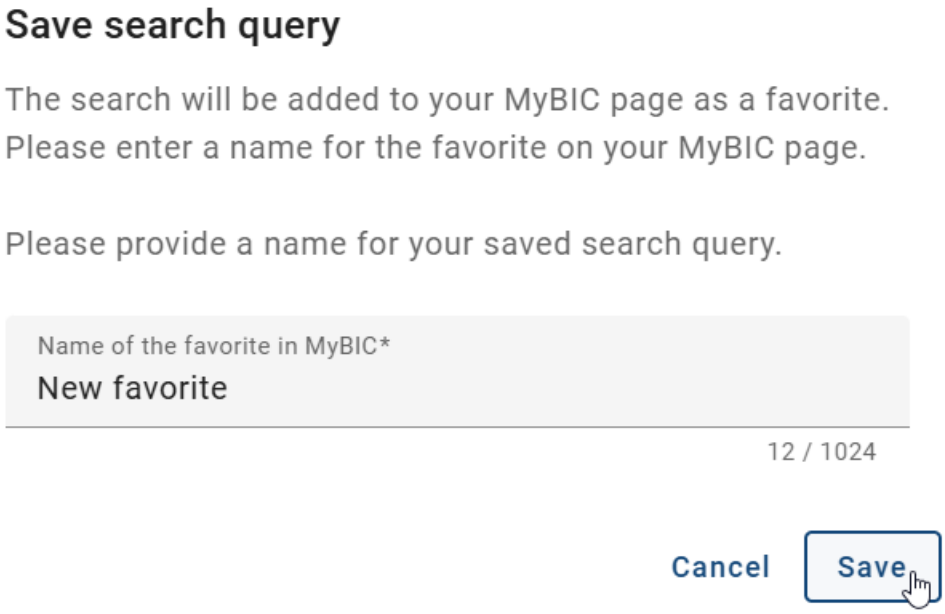
26.5 How can I save a search as favorite?

To make it easier to access a frequently used search and its results, each user can save the search, including search settings, as a personal favorite, depending on the stage. These favorites will appear on the user's *myBIC page* as a tile. To do this, proceed as following.

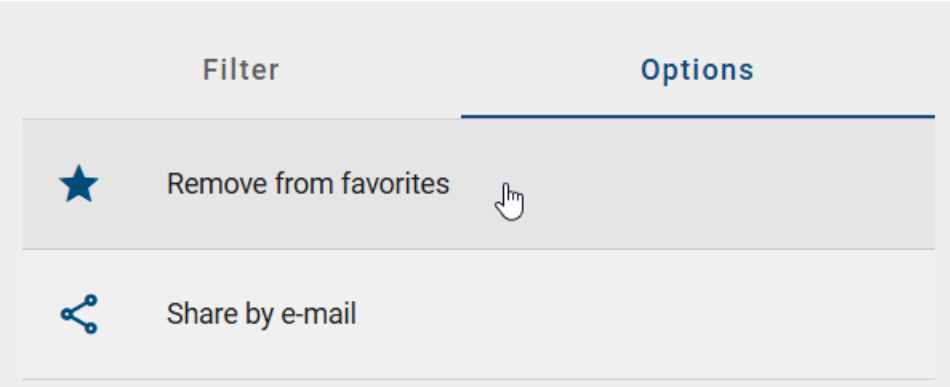
Click on the *Search* menu item in the left menu bar and enter the desired term in the search field. Start the search by pressing Enter or clicking the magnifying glass icon. Then switch to the *Options* panel in the right sidebar and click the *Add to favorites* option.



After you click this option, a dialog will open asking you to name the search query. Once you have assigned a name, the *Save* button is enabled and you can add the query as a favorite. Alternatively, you can cancel the process at any time using the *Cancel* button.



Once you have added the query to your favorites, the *Add to favorites* option in the *Options* panel in the right sidebar will change to *Remove from favorites*. Clicking this option allows you to remove the saved search from your favorites.



Your search favorites now appear as tiles on your myBIC page. Clicking on a search favorite tile will take you directly to the corresponding search results in the central search.

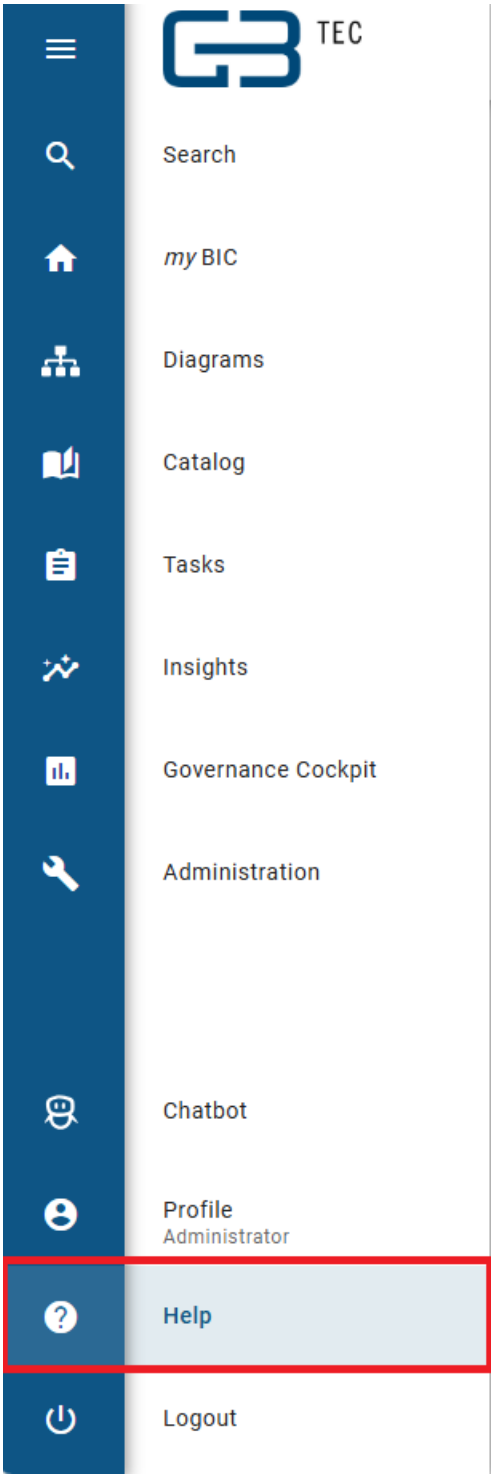
Note: In the mobile view, you can find the option to save (resp. remove) a search as favorite in the context menu (three dots menu).

CHAPTER

TWENTYSEVEN

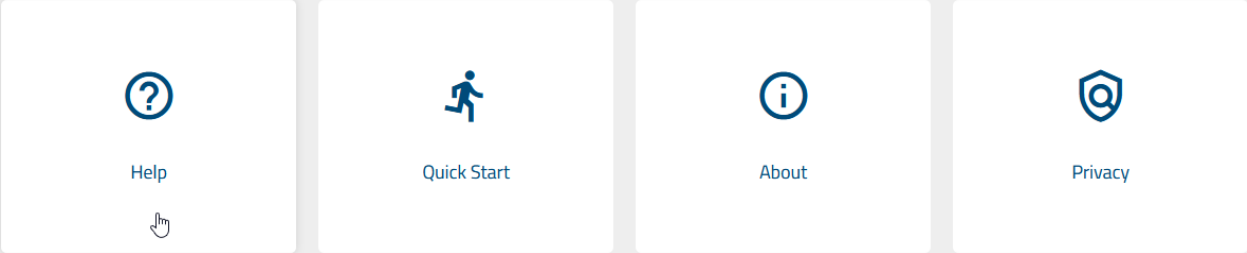
HELP

The help menu can be reached via the menu item named *Help*.


TEC
Search
my BIC
Diagrams
Catalog
Tasks
Insights
Governance Cockpit
Administration
Chatbot
Profile
Administrator
Help
Logout

27.1 Where can I find the help?

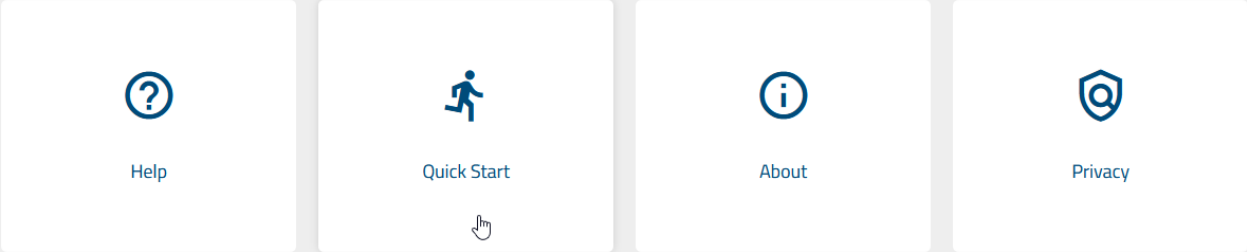
Open the *help* menu. In the main area of your screen you will then find the option *Help*. By clicking on it, you can open the user documentation in a new tab.



Note: You are currently reading the user documentation.

27.2 Where can I find the quick start?

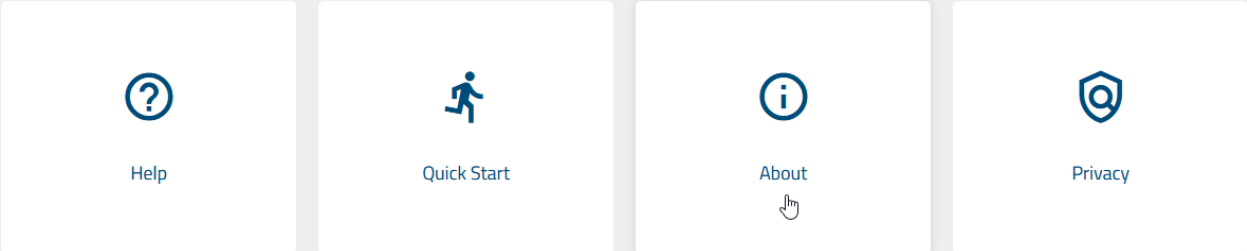
Open the *help* menu. In the main area of your screen you will then find the option *Quick Start*. Click on it to open the Quick Start in a new tab. This also gives you the opportunity of providing your own document here as part of Customizing.



Note: The quick start of the user documentation can be found *here*.

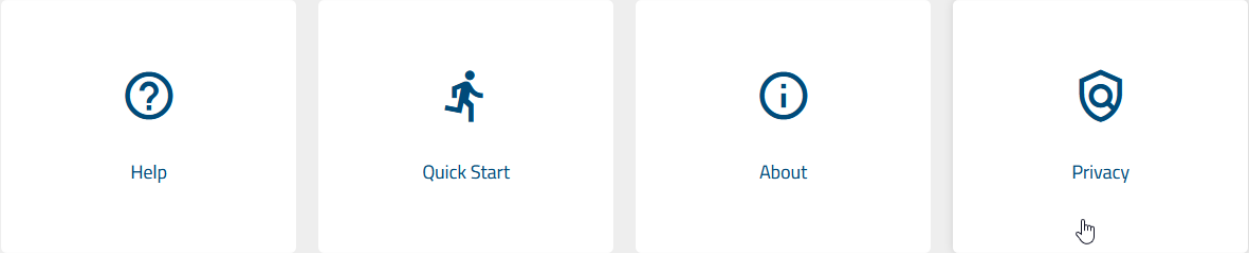
27.3 Where can I find information about the version of the application?

Open the *help* menu. In the main area of your screen you will then find the option *About*. Clicking it opens a dialog that provides more information about your version of BIC Process Design and the current UI build.



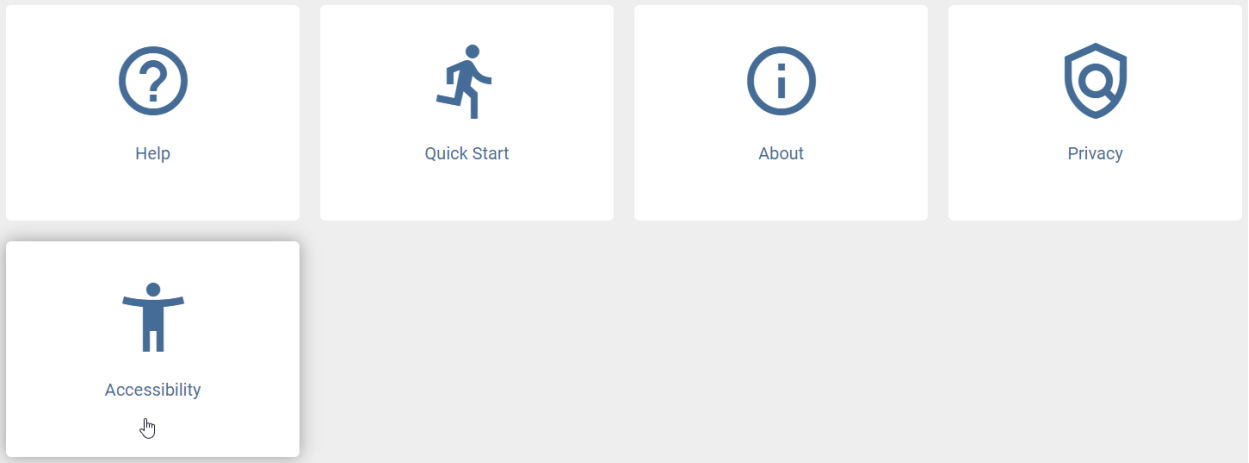
27.4 Where can I find the Data protection policy?

Open the *help* menu. In the main area of your screen you will then find the option *Privacy*. Clicking it redirects you to the GBTEC data privacy site. This will give you an overview on how we process your personal data.



27.5 Where can I find the Statement of Accessibility?

Open the *help* menu. In the main area of your screen you will then find the option *Accessibility*. Clicking it takes you to the *corresponding chapter in documentation* and provides information about the current status of accessibility.



CHAPTER

TWENTYEIGHT

APPENDIX

28.1 Which stereotypes exist by default?

The following are lists that give you an overview of the default diagram, object attribute and symbol stereotypes and their IDs:

Diagram type name	Diagram type ID
Customer Journey Map (CJM)	DT_CJM
Entity-Relationship Diagram (ERD)	DT_ERD
Decision diagram (DMN)	DT_DMN
IT architecture	DT_IT_ARCHITECTURE
IT landscape	DT_IT_LANDSCAPE
Collaboration diagram (BPMN)	DT_BPMN_COLLABORATION
Organizational chart	DT_ORGANIZATIONAL_CHART
Process (EPC)	DT_EPC
Process overview (VCD)	DT_VCD
Risk diagram	DT_RISK
Structural diagram	DT_STRUCTURAL

Object type name	Object type ID
Activity	ET_ACTIVITY
Annotation	ET_ANNOTATION
Application	ET_APP_COMPONENT
Application function	ET_APP_FUNCTION
Application interface	ET_APP_INTERFACE
Application service	ET_APP_SERVICE
Attribute	ET_ATTRIBUTE
Business object	ET_BUSINESS_OBJECT
Control	ET_CONTROL
Data store	ET_DATA_STORE
Document	ET_DOCUMENT
End event	ET_END_EVENT
Entity	ET_ENTITY
Event	ET_EVENT
Event based	ET_EVENT_BASED_GATEWAY
Exclusive or	ET_XOR
Free form object	ET_FFO
Group	ET_GROUP

continues on next page

Table 1 – continued from previous page

Object type name	Object type ID
Inclusive or	ET_OR
Intermediate event	ET_INTERMEDIATE_EVENT
Key performance indicator	ET_KPI
Knowledge model	ET_KNOWLEDGE
Location	ET_LOCATION
Milestone	ET_MILESTONE
Norm	ET_NORM
Organizational unit	ET_ORG_UNIT
Parallel	ET_AND
Person	ET_PERSON
Position	ET_ORG_POSITION
Relationship	ET_RELATIONSHIP
Requirement	ET_REQUIREMENT
Risk	ET_RISK
Role	ET_ROLE
Start event	ET_START_EVENT

Attribute type Name	Attribute type ID
Actual value	AT_ACTUAL_VALUE
Allocation model	AT_ALLOCATION
Applicable documents	AT_APPLICABLE_DOCUMENTS
Application consultant	AT_APPLICATION_CONSULTANT
Attachment (URL)	AT_ATTACHMENT
Author	AT_AUTHOR
Call activity	AT_CALL_ACTIVITY
Call Conversation	AT_CALL_CONVERSATION
Capacity (0 = unlimited)	AT_CAPACITY
Capacity (in hours)	AT_ORG_RES_CAPACITY
Collection	AT_COLLECTION
Compensation task	AT_COMPENSATION_TASK
Control effect	AT_CONTROL_EFFECT
Cost rate (in € per minute)	AT_RES_COST_RATE
Damage control measures	AT_DAMAGE_CONTROL_MEASURES
Data source	AT_DATA_SOURCE
Data state	AT_DATA_STATE
Data type	AT_DATATYPE
Data unit	AT_DATA_UNIT
Subprocess(Decomposition)[1]	AT_SUBPROCESS (AT_DECOMPOSITION)[1]
Default value	AT_DEFAULT_VALUE
Description	AT_DESCRIPTION
Development costs (€)	AT_DEVELOPMENT_COSTS
Email	AT_EMAIL
End of operational time	AT_OPERATIONAL_TIME_END
Event type	AT_END_EVENT_TYPE
Event type	AT_EVENT_TYPE
Event type	AT_INTERMEDIATE_EVENT_TYPE
Event type	AT_START_EVENT_TYPE
Examiner	AT_EXAMINER

continues on next page

Table 2 – continued from previous page

Attribute type Name	Attribute type ID
Executable process	AT_EXECUTABLE_PROCESS
Execution interval	AT_EXECUTION_INTERVAL
Execution of control	AT_EXECUTION
Execution type	AT_EXECUTION_TYPE
External	AT_EXTERNAL
Focus on target	AT_FOCUS_ON_TARGET
Group	AT_GROUP
Identifier	AT_IDENTIFIER
Identifying	AT_IDENTIFYING
Idle time (minutes)	AT_IDLE_TIME
Impact on occurrence	AT_IMPACT_ON_OCCURRENCE
Input/Output	AT_INPUT_OUTPUT
Instances	AT_INSTANCES
Instantiate	AT_GATEWAY_INSTANTIATE
Keywords	AT_KEYWORDS
Life cycle	AT_LIFE_CYCLE
Manufacturer	AT_MANUFACTURER
Material costs (Euro)	AT_MATERIAL_COSTS
Multiple instance type	AT_MULTIPLE_INSTANCE_TYPE
Multiple Instances	AT_MULTIPLE_INSTANCES
Name	AT_NAME
Non interrupting	AT_NON_INTERRUPTING
Occupation	AT_OCCUPATION
Occurrence probability	AT_OCCURRENCE_PROBABILITY
Phone	AT_PHONE
Primary Key	AT_PRIMARY_KEY
Priority	AT_PRIORITY
Probability (%)	AT_PROBABILITY
Process time (minutes)	AT_PROCESS_TIME
Process time (Days)	AT_TIME_TO_PROCESS
Process type	AT_PROCESS_TYPE
Publish as PDF	AT_PUBLISH_AS_PDF
Release	AT_RELEASE
Responsible	AT_RESPONSIBLE
Responsible (definition)	AT_RESPONSIBLE_4_DEFINITION
Responsible (resubmission)	AT_RESUBMISSION_RESPONSIBLE
Responsible (survey)	AT_RESPONSIBLE_4_SURVEY
Restricted access	AT_ACCESS_RESTRICTION
Risk category	AT_RISK_CATEGORY
Risk mitigation measures	AT_RISK_MITIGATION_MEASURES
Risk owner	AT_RISK_OWNER
Risk probability (%)	AT_RISK_PROBABILITY
Risk probability (classification)	AT_RISK_PROBABILITY_CLASSIFICATION
Root cause	AT_ROOT_CAUSE
Scope of application	AT_SCOPE
Setup time (minutes)	AT_SETUP_TIME
Source	AT_SOURCE
Start of operational time	AT_OPERATIONAL_TIME_START
State	AT_STATE

continues on next page

Table 2 – continued from previous page

Attribute type Name	Attribute type ID
System administrator	AT_SYSTEM_ADMINISTRATOR
Target	AT_TARGET
Target value	AT_TARGET_VALUE
Task type	AT_TASK_TYPE
Temporal binding (in minutes)	AT_TEMPORAL_BINDING
Transport time (minutes)	AT_TRANSPORT_TIME
Type	AT_EVENT_GATEWAY_TYPE
Unit costs (€)	AT_UNIT_COSTS
Valid from	AT_VALID_FROM
Valid to	AT_VALID_TO
Value range	AT_VALUE_RANGE
Variants	AT_VARIANTS
Variants	AT_VERSION
Weak	AT_IS_WEAK

[1]Please note that the term *Decomposition* is only used for VCD diagrams. In all other areas of the application, it is referred to as Subprocess.

Association type Name (EN)	Association type ID
A - Accountable	AST_ACCOUNTABLE
acts as	AST_ACTS_AS
Aggregates	AST_AGGREGATES
Aggregation	AST_AGGREGATES_CONTROL
Aggregation	AST_AGGREGATES_DATA
Aggregation	AST_AGGREGATES_KPI
Aggregation	AST_AGGREGATES_RISK
annotate	AST_ANNOTATE
Assigned to	AST_ASSIGNED_TO
Association	AST_ASSOCIATION
Attribute link	AST_ATTRIBUTE_LINK
C - Consulted	AST_CONSULTED
Composes	AST_COMPOSES
contains	AST_CONTAINS
Controls	AST_CONTROLS
counteracts	AST_COUNTERACTS
covers	AST_COVERS
depends on	AST_DEPENDS_ON
Ends measuring	AST_ENDS_MEASURING
I - Informed	AST_INFORMED
inherits from	AST_INHERITANCE
Input	AST_INPUT
Is superior	AST_IS_SUPERIOR
measures	AST_MEASURES
Message Flow	AST_MESSAGE_FLOW
occupied by	AST_OCCUPIED_BY
occurs	AST_OCCURS
Output	AST_OUTPUT
R - Responsible	AST_RESPONSIBLE
Realizes	AST_REALIZATION

continues on next page

Table 3 – continued from previous page

Association type Name (EN)	Association type ID
realizes	AST_REALIZES
Relation link	AST_RELATIONSHIP_LINK
Sequence Flow	AST_SEQUENCE_FLOW
Serving	AST_SERVING
Specialization	AST_SPECIALIZES
Starts measuring	AST_STARTS_MEASURING

Diagram type ID	Object type ID	Symbol type ID
DT_BPMN_COLLABORATION	ET_ROLE	NST_POOL
DT_BPMN_COLLABORATION	ET_APP_COMPONENT	NST_POOL
DT_BPMN_COLLABORATION	ET_ACTIVITY	NST_TASK
DT_BPMN_COLLABORATION	ET_START_EVENT	NST_START_EVENT
DT_BPMN_COLLABORATION	ET_INTERMEDIATE_EVENT	NST_INTERMEDIATE_EVENT
DT_BPMN_COLLABORATION	ET_END_EVENT	NST_END_EVENT
DT_BPMN_COLLABORATION	ET_XOR	NST_XOR
DT_BPMN_COLLABORATION	ET_AND	NST_AND
DT_BPMN_COLLABORATION	ET_OR	NST_OR
DT_BPMN_COLLABORATION	ET_EVENT_BASED_GATEWAY	NST_GATEWAY_EVENT_BASED
DT_BPMN_COLLABORATION	ET_DOCUMENT	NST_DOCUMENT_BPMN
DT_BPMN_COLLABORATION	ET_DATA_STORE	NST_DATA_STORE
DT_BPMN_COLLABORATION	ET_REQUIREMENT	NST_REQUIREMENT_BPMN
DT_BPMN_COLLABORATION	ET_ROLE	ST_ROLE_BPMN
DT_BPMN_COLLABORATION	ET_APP_COMPONENT	NST_APP_COMPONENT_BPMN
DT_BPMN_COLLABORATION	ET_RISK	NST_RISK_BPMN
DT_BPMN_COLLABORATION	ET_CONTROL	NST_CONTROL_BPMN
DT_BPMN_COLLABORATION	ET_KPI	NST_KPI_BPMN
DT_BPMN_COLLABORATION	ET_NORM	NST_NORM_BPMN
DT_BPMN_COLLABORATION	ET_GROUP	NST_GROUP
DT_BPMN_COLLABORATION	ET_ANNOTATION	NST_ANNOTATION
DT_BPMN_COLLABORATION	ET_TOUCHPOINT	NST_TOUCHPOINT
DT_EPC	ET_ACTIVITY	NST_PROCESS_INTERFACE
DT_EPC	ET_EVENT	NST_EVENT
DT_EPC	ET_ACTIVITY	NST_FUNCTION
DT_EPC	ET_XOR	NST_XOR
DT_EPC	ET_AND	NST_AND
DT_EPC	ET_OR	NST_OR
DT_EPC	ET_ROLE	NST_ROLE
DT_EPC	ET_ORG_UNIT	NST_ORG_UNIT
DT_EPC	ET_DOCUMENT	NST_DOCUMENT
DT_EPC	ET_BUSINESS_OBJECT	NST_BUSINESS_OBJECT
DT_EPC	ET_APP_COMPONENT	NST_APP_COMPONENT
DT_EPC	ET_REQUIREMENT	NST_REQUIREMENT
DT_EPC	ET_RISK	NST_RISK
DT_EPC	ET_CONTROL	NST_CONTROL
DT_EPC	ET_KPI	NST_KPI
DT_EPC	ET_NORM	NST_NORM
DT_EPC	ET_ANNOTATION	NST_ANNOTATION
DT_EPC	ET_TOUCHPOINT	NST_TOUCHPOINT

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Table 4 – continued from previous page

Diagram type ID	Object type ID	Symbol type ID
DT_CJM	ET_JOURNEY_STAGE	NST_JOURNEY_STAGE
DT_CJM	ET_CUSTOMER_STEP	NST_CUSTOMER_STEP
DT_CJM	ET_TOUCHPOINT	NST_TOUCHPOINT
DT_CJM	ET_FFO	NST_FFO_TEXT
DT_DMN	ET_ACTIVITY	NST_FUNCTION
DT_DMN	ET_DOCUMENT	NST_KNOWLEDGE_SOURCE
DT_DMN	ET_BUSINESS_OBJECT	NST_INPUT_DATA
DT_DMN	ET_KNOWLEDGE	NST_BUSINESS_KNOWLEDGE
DT_DMN	ET_ANNOTATION	NST_ANNOTATION
DT_ERD	ET_ENTITY	NST_ENTITY_CHEN
DT_ERD	ET_RELATIONSHIP	NST_RELATIONSHIP_CHEN
DT_ERD	ET_ATTRIBUTE	NST_ATTRIBUTE_CHEN
DT_ERD	ET_ANNOTATION	NST_ANNOTATION
DT_IT_ARCHITECTURE	ET_APP_COMPONENT	NST_APP_COMPONENT
DT_IT_ARCHITECTURE	ET_APP_FUNCTION	NST_APP_FUNCTION
DT_IT_ARCHITECTURE	ET_APP_SERVICE	NST_APP_SERVICE
DT_IT_ARCHITECTURE	ET_APP_INTERFACE	NST_APP_INTERFACE
DT_IT_ARCHITECTURE	ET_ENTITY	NST_DATA_OBJECT
DT_IT_ARCHITECTURE	ET_ACTIVITY	NST_FUNCTION
DT_IT_ARCHITECTURE	ET_LOCATION	NST_LOCATION
DT_IT_ARCHITECTURE	ET_RISK	NST_RISK
DT_IT_ARCHITECTURE	ET_CONTROL	NST_CONTROL
DT_IT_ARCHITECTURE	ET_DOCUMENT	NST_DOCUMENT
DT_IT_ARCHITECTURE	ET_BUSINESS_OBJECT	NST_BUSINESS_OBJECT
DT_IT_ARCHITECTURE	ET_NORM	NST_NORM
DT_IT_ARCHITECTURE	ET_ANNOTATION	NST_ANNOTATION
DT_IT_LANDSCAPE	ET_APP_COMPONENT	NST_APP_COMPONENT
DT_IT_LANDSCAPE	ET_RISK	NST_RISK
DT_IT_LANDSCAPE	ET_CONTROL	NST_CONTROL
DT_IT_LANDSCAPE	ET_ANNOTATION	NST_ANNOTATION
DT_ORGANIZATIONAL_CHART	ET_ORG_UNIT	NST_ORG_UNIT
DT_ORGANIZATIONAL_CHART	ET_ORG_POSITION	NST_ORG_POSITION
DT_ORGANIZATIONAL_CHART	ET_ROLE	NST_ROLE
DT_ORGANIZATIONAL_CHART	ET_PERSON	NST_PERSON
DT_ORGANIZATIONAL_CHART	ET_ANNOTATION	NST_ANNOTATION
DT_VCD	ET_ACTIVITY	NST_FUNCTION_VCD_START
DT_VCD	ET_ACTIVITY	NST_FUNCTION_VCD
DT_VCD	ET_ACTIVITY	NST_FUNCTION
DT_VCD	ET_ROLE	NST_ROLE
DT_VCD	ET_ORG_UNIT	NST_ORG_UNIT
DT_VCD	ET_BUSINESS_OBJECT	NST_BUSINESS_OBJECT
DT_VCD	ET_DOCUMENT	NST_DOCUMENT
DT_VCD	ET_REQUIREMENT	NST_REQUIREMENT
DT_VCD	ET_APP_COMPONENT	NST_APP_COMPONENT
DT_VCD	ET_RISK	NST_RISK
DT_VCD	ET_CONTROL	NST_CONTROL
DT_VCD	ET_KPI	NST_KPI
DT_VCD	ET_NORM	NST_NORM
DT_VCD	ET_MILESTONE	NST_MILESTONE

continues on next page

Table 4 – continued from previous page

Diagram type ID	Object type ID	Symbol type ID
DT_VCD	ET_TOUCHPOINT	NST_TOUCHPOINT
DT_VCD	ET_ANNOTATION	NST_ANNOTATION
DT_RISK	ET_RISK	NST_RISK
DT_RISK	ET_CONTROL	NST_CONTROL
DT_RISK	ET_ACTIVITY	NST_FUNCTION
DT_RISK	ET_APP_COMPONENT	NST_APP_COMPONENT
DT_RISK	ET_ORG_UNIT	NST_ORG_UNIT
DT_RISK	ET_ANNOTATION	NST_ANNOTATION
DT_STRUCTURAL	ET_DOCUMENT	NST_DOCUMENT
DT_STRUCTURAL	ET_BUSINESS_OBJECT	NST_BUSINESS_OBJECT
DT_STRUCTURAL	ET_KPI	NST_KPI
DT_STRUCTURAL	ET_NORM	NST_NORM
DT_STRUCTURAL	ET_PRODUCT	NST_PRODUCT
DT_STRUCTURAL	ET_ANNOTATION	NST_ANNOTATION

28.2 Which exceptions and particularities occur when configuring the symbol type color?

If you configure the symbol type coloring in the administration, the definition of the border, background and font color is not clear for all types. Parts of some types cannot be colored. In the following, you can find a list of these symbol types as well as an explanation about the individual color configuration.

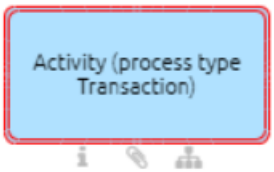
Intermediate Event (NST_INTERMEDIATE_EVENT): The symbol in the middle (depending on the chosen event type) is is colored in the border color. The example shows the configuration

- Border color: red
- Background color: light blue
- Font color: black

Tip: If the border color is not applied to the inner symbol, the symbol definition is outdated. You can update the symbol type in each diagram where it appears by using the *"Switch symbol"* function.

Task, process type transaction (NST_TASK): If you configure an activity as task type *transaction*, the border color specifies the color of both lines edging this symbol. The example shows the configuration

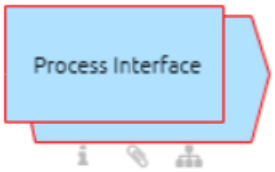
- Border color: red
- Background color: light blue
- Font color: black



Tip: In an obsolete version of this symbol type, the border color only applied to the outer line. In this case, you can change the symbol type using the *"Switch symbol"* function in your diagram to the update your symbol.

Interface (NST_PROCESS_INTERFACE): The border color defines the complete line structure of this symbol type. The example shows the configuration

- Border color: red
- Background color: light blue
- Font color: black



Tip: If the border color only applies to the outer border, the symbol definition is obsolete. You can update the symbol type using the *"Switch symbol"* function in each diagram it occurs.

Pool (NST_POOL, NST_VERTICAL_POOL): The font and background color only applies to the head of the pool and not to included lanes. The border color defines all borders of the lanes but not the border of the pool head. The example shows the configuration

- Border color: red
- Background color: light blue
- Font color: blue

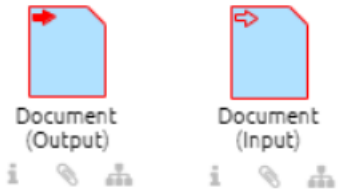
Warning: Please avoid changing the colors of your corporate design configuration after modifying your pool colors. Doing so may cause undesired behavior. To prevent this, always update your corporate design configuration colors first and only then adjust your pool colors.

Role, Norm, Risk, Control (ST_ROLE_BPMN, NST_NORM_BPMN, NST_RISK_BPMN, NST_CONTROL_BPMN): Set the border color to configure the color of the symbol. Neither the exclamation mark of the risk symbol nor the check mark of the control symbol is changeable. The example shows the configuration

- Border color: blue - *no effect*
- Background color: red
- Font color: black

Document, type Input/ Output (NST_DOCUMENT_BPMN): If you model a document *in the attribute group* "Typing" as *Input* or *Output*, the border color also specifies the color of the arrow in the left upper corner. The example shows the configuration

- Border color: red
- Background color: light blue
- Font color: black



Tip: In an obsolete version of this symbol type, the border color does not apply to the arrow. In this case, you can change the symbol type using the *"Switch symbol"* function in your diagram to receive the coloring shown above.

Note: Please note that the arrow only appears when you maintain the attribute as above. The arrow is not in relation to the chosen connection type (input/ output) when adding the document object via the *mini symbol palette*.

Annotation (NST_ANNOTATION): The font color can be changed exclusively. The example shows the configuration

- Border color: red - *no effect*
- Background color: black - *no effect*
- Font color: blue

Touchpoint, KPI (NST_TOUCHPOINT, NST_KPI_BPMN): Since the symbol color is conditional on each object, you can only change the font color of these symbol types. The example shows the configuration

- Border color: red - *no effect*
- Background color: black - *no effect*
- Font color: blue

Risk, Control (NST_RISK, NST_CONTROL): The risk resp. control icon in the upper left corner is excluded from the configuration. The example shows the configuration

- Border color: red
- Background color: light blue
- Font color: blue

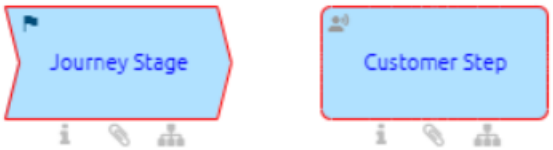
Product (NST_PRODUCT): The border color applies to the complete line structure. The example shows the configuration

- Border color: red
- Background color: light blue
- Font color: blue

Tip: If the border color only applies to the outer border, the symbol definition is obsolete. You can update the symbol type using the *"Switch symbol"* function in each diagram it occurs.

Journey Stage, Customer Step (NST_JOURNEY_STAGE, NST_CUSTOMER_STEP): The flag resp. person icon in the upper left corner is excluded from the configuration. The example shows the configuration

- Border color: red
- Background color: light blue
- Font color: blue



Group (NST_GROUP): The border color can be changed exclusively. The example shows the configuration

- Border color: red
- Background color: light blue - *no effect*
- Font color: blue - *no effect*

28.3 Notes on the use of AI features

The AI features integrated in BIC offer users innovative support in the creation and optimisation of business processes. However, it is important to be aware of the following potential risks and limitations:

1. **Accuracy of generated content:** AI generates content based on algorithms and existing data. Incompleteness, misunderstandings or content errors may occur, resulting in inaccurate or inappropriate content. The user is responsible for the final review and adaptation of the content.
2. **Lack of context sensitivity:** The AI may not understand the specific context or industry-specific requirements. This can lead to the generated content being either too general or not tailored to the specific situation.
3. **Cultural and legal sensitivity:** The AI may not consider all legal, regulatory or cultural specifics that are important in certain situations. It is the user's responsibility to ensure that the generated content complies with all relevant legal requirements.

4. **Plagiarism and intellectual property:** In individual cases, it is possible that generated content may unintentionally show similarities with existing works. Depending on how it is used, copyright issues may arise. It is recommended to check the generated content for copyright infringements and to adapt it if necessary.

5. **Technical erros and failures:** Despite the high reliability of our AI features, technical errors or failures may occur that affect the quality or completeness of the generated content. In rare cases, this can also lead to no results being delivered

6. **Results in another language:** The AI attempts to deliver content in the preferred language. However, there may be instances where content is generated in a different language, particularly if the information accessed by the AI is predominantly available in that language. In such cases, the user may need to manually translate and modify the content as needed.

7. **Unsuitable content for critical processes:** In safety-critical or highly regulated processes, the generated content should only be used as a suggestion. A comprehensive review by qualified professionals is essential.

The AI features for generating process content provide valuable support in creating business processes. However, it is the user's responsibility to thoroughly review and adjust the generated content to ensure it meets the specific requirements of the company as well as legal and ethical standards. Additionally, there may be instances where no results are provided, results are incomplete or inaccurate, or content is not available in the preferred language.

Hint: Please note that GBTEC is not responsible for the legality, accuracy or completeness of the content generated.

28.4 An overview of all email notifications

The following lists provide an overview of the standard email notifications that are available:

Publication

Notification[5]	Initiator	Examiner	Responsible	Author	Scope[1]
Examine task	no email	email	no email	no e-ail	no email
Release task	no email	no email	email	no email	no email
Rejection of examine task	email	no email	no email	no email	no email
Rejection of release task	email	email	no email	no email	no email
Publication	email	email	email	email	email
Workflow error	email	no email	no email	no email	no email
Abort workflow	email	email[3]	email[3]	no email	no email

Depublication

Notification[5]	Initiator	Examiner	Responsible	Author	Scope[1]
Depublication task[4]	no email	no email	email	no email	no email
Rejection of depublication task	email	no email	no email	no email	no email
Depublication[2]	email	email	email	email	email
Workflow error	email	no email	no email	no email	no email
Abort workflow	email	no email	email[3]	no email	no email

[1] All organizational units that are entered in the scope of a diagram or catalog entry receive a notification when the corresponding actions are performed. Organizational units in BIC Process Design are assigned to specific user groups.

[2] The email is also sent to second reviewers, third reviewers, and the person responsible for resubmission.

[3] The user is informed if he or she has a pending or already completed workflow task.

[4] Depublication tasks are also approval tasks, as they require the approval of the person responsible for depublication.

[5] As a general rule, once emails are triggered, they are sent to multiple recipients (up to 150 users per email). All users who have the same language specified in their user settings receive the same email. Notifications are sent as Bcc messages.

Resubmission Information

Notification	Initiator	Examiner	Responsible	Author
Published diagram	email[1]	email	email	email
Published catalog object	email[1]	email	email	email

[1] An email is sent to the initiator, provided that they are not already the owner of the resubmission.

Resubmission task

Notification	Initiator	Reviewer	Responsible	Author
Published diagram	No email	No email	email[1]	No email
Published catalog object	No email	No email	email[1]	No email

[1] If the corresponding attribute is maintained, the person responsible and the person responsible for the resubmission task receive a notification.

Diagram comment

Notification	Reviewer	Author	Responsible
Public workspace	No email	email	email[1]
Preview	email	No email	email[1]
Publication	No email	No email	email[1]

Object comment

Notification	Reviewer	Author	Responsible
Public workspace	No email	email	email[1]
Preview	email	No email	email[1]
Publication	No email	No email	email[1]

[1] A notification is sent to the user or user group entered in the *Responsible* attribute of the diagram.

Changes to a diagram or catalog object

Notification	Administrator	Editor	Reviewer	Author	Reader
Change to a diagram or catalog object created by me	No email	No email	[1]	No email	[1]
Change to a diagram or catalog object marked as a favorite by me	No email	No email	No email	No email	No email

[1] It is not possible to create diagrams in the role of *Reader* or *Reviewer*.

Diagram publication/depublication

Notification	Initiator	Reviewer	Responsible person	Author
Publication of a diagram	No email	email[1]	No email	No email
Depublication of a diagram	No email	email[1]	No email	No email

[1] The user or user group specified in the *Responsible* attribute will receive an email notification. You will also be notified as soon as new versions are published.

Tasks

Notification	Reviewer	Responsible	Governance participant[1]
Completed task	No email	email	email
Approval of a task	email	email	email
Rejection of a task	No email	email	email
Pending task[2]	No email	email	email
New tasks[3]	No email	email	email
Failed task[4]	No email	email	email
upcoming task[5]	No email	email	email
Overdue task[6]	No email	email	email

[1] Governance participants can be any user role except *Reader*.

[2] By default, you will receive a reminder email about pending tasks every seven days. This can be changed by the *Administrator*.

[3] You will receive an email containing a summary list of new tasks if one or more tasks have been assigned to you and have not yet been started.

[4] As the assigned user of an automatically executed task, you will receive an email if it fails in BIC Process Execution. For group-assigned tasks, the notification is sent to the first group member in priority order.

[5] As an *external user*, you will receive an email reminder about outstanding tasks at the beginning of the week and on the due date.

[6] As an *external user*, you will receive an email notification about overdue tasks.

Error message: Publication of diagram failed

Notification	Initiator[1]	Responsible
No responsible person	email	No email
Missing email address	email	No email
Mandatory attributes not maintained	email	No email
Unconfirmed catalog entries	email	No email
Language-dependent mandatory attribute not maintained[2]	email	No email
Publication or de-publication where the workflow is already pending	email	No email
Pre-dated publication	email	No email

[1] To do this, your role must have access to the *Public Workspace* area, with the exception of *Authors*, who must also be maintained in the governance attributes.

[2] You will receive a notification indicating which attribute is missing a translation.

CHAPTER

TWENTYNINE

BIC PROCESS EXECUTION

Welcome to the BIC Process Execution Documentation! BIC Process Execution is an application which is used to execute processes that have been defined and published within BIC Process Design. It allows you to actively implement modeled processes and make them available to your users for execution.

BIC Process Execution is a Progressive Web App (PWA) and therefore available on all end devices. In addition to the desktop version, you can also access the mobile view, for example, via an icon on your tablet. The mobile view is optimized and differs slightly from the desktop version, but is similar in its operation. This documentation mainly describes the desktop view to avoid redundancy. In some sections the mobile view is also discussed when the differences between the mobile view and the desktop view are relevant to your use.

29.1 Quickstart

29.1.1 BIC Process Execution content structure

Your BIC Process Execution application contains processes that have been modeled in your BIC Process Design. Cases can be created for each of these processes. Cases are concrete forms of a process flow. They contain executable *tasks* that represent the process steps of the corresponding process. The tasks can be executed automatically or manually by assigned, responsible users or user groups.

The processes for the productive work with BIC Process Execution are available to all users (unless restricted). This is because the processes are based on the published version of the corresponding diagrams. In accordance with the different stages of BIC Process Design, BIC Process Execution provides authorized users with *multiple environments* to follow the development of a process.

29.1.2 First steps

How do I log in?

To be able to use BIC Process Execution, you must be *a registered user of BIC Process Design*. Once this requirement is met, you can log in to BIC Process Execution at any time.

Logging in to BIC Process Execution is the same as logging in to *BIC Process Design*. After launching BIC Process Execution and completing the login, you will be automatically directed to *your tasks*.

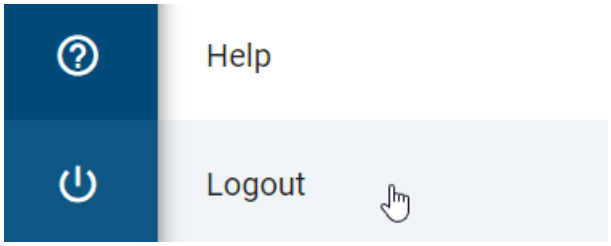
If you do not have any active tasks, you will be redirected to the *process overview*.

Tip: To make the simultaneous use of BIC Process Design and BIC Process Execution as convenient as possible, single sign-on is used. This means that a single login to one of the two applications is sufficient to be automatically logged in to the other application. This means that you do not have to log in again when you start the other application.

Warning: Please note that you will receive a notification if you attempt to access the application with an unsupported browser. The message will inform you that your browser is not compatible. It is important to note that only Internet Explorer is currently not supported.

How do I log out?

You can find the *Logout* function in the *menu*



After using this function, you will be logged out of the BIC Process Execution application.

Note: The *single sign-on function* automatically logs you out of BIC Process Design after you sign out of in BIC Process Execution.

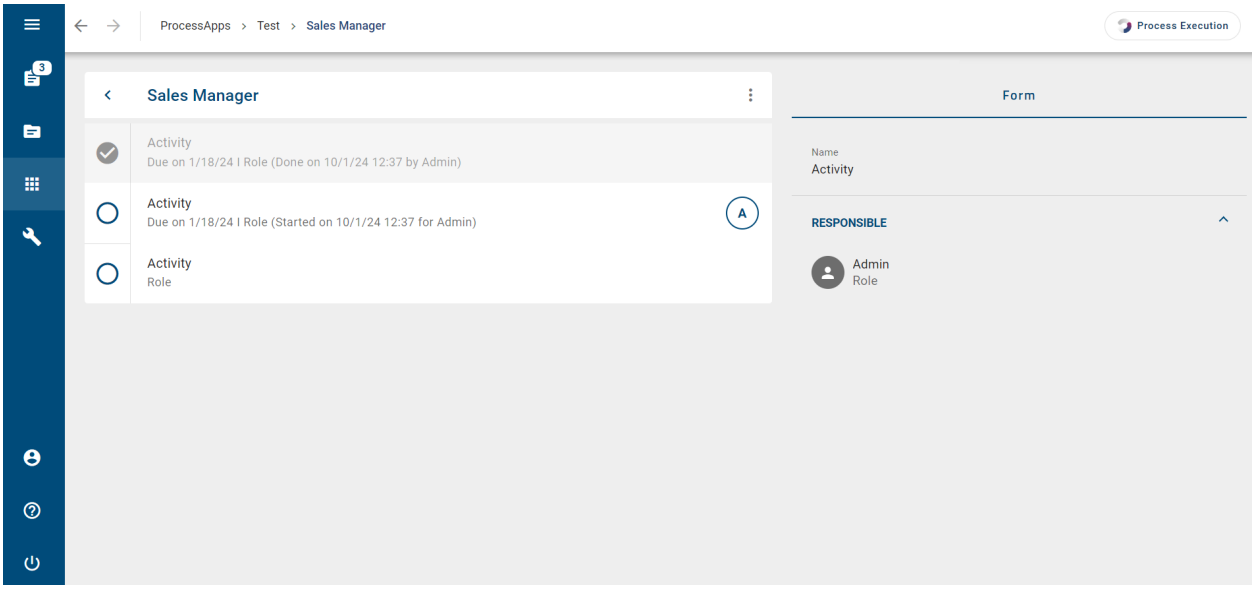
How is the interface of BIC Process Execution structured?

The BIC Process Execution interface can be divided into three parts:

Header: The header shows the area that is currently displayed. In addition, you will find some basic functionality such as the burger menu icon, which is used to show or hide the menu sidebar. In the mobile view you will also find, for example, the *back* arrow, which is used to navigate back through the different layers.

Main area: This is the central area where you can, for example, work on tasks, view processes or check the progress of the cases.

Sidebars: Navigation elements and functions, such as the menu, are provided through the sidebars of your desktop. By default, the sidebar is shown or hidden depending on your current screen size, your zoom setting and the level you are currently at. You can expand or collapse the menu as needed by clicking the *menu* icon in the top left corner.



How can I navigate through BIC Process Execution?

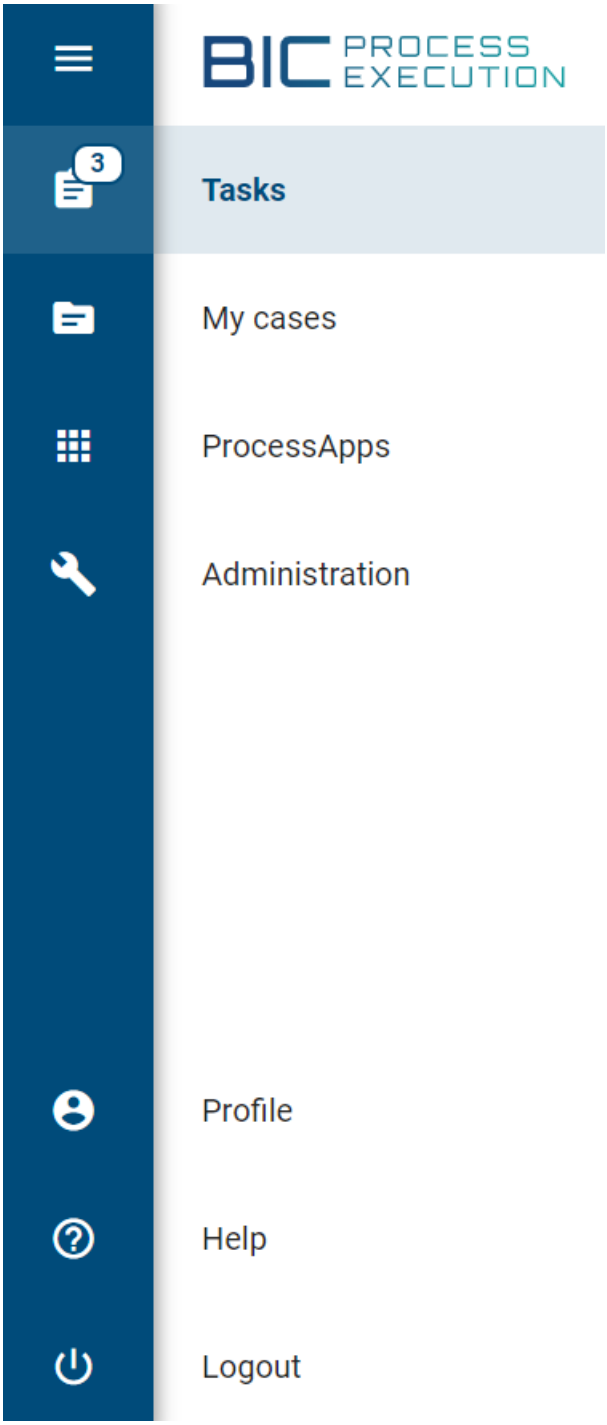
The fundamental navigation structure in BIC Process Execution is the *menu*. It is located on the left side of your screen in the form of a sidebar. The menu entries navigate you to the main areas of BIC Process Execution. For example, the menu contains the following main areas:

Tasks: Here you will find a list of all tasks from all cases that are currently outstanding for you as the person responsible or member of the responsible user group. This allows you to access your tasks collectively and clearly arranged.

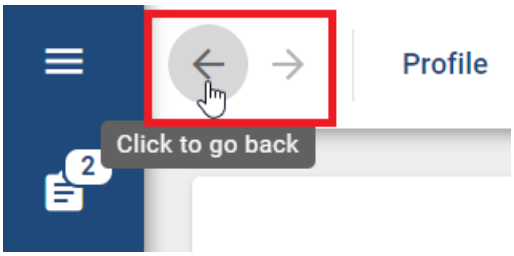
My cases: This area displays all cases which you have created and are therefore registered as the creator. This gives you a quick overview of the progress of the cases that are most relevant to you.

ProcessApps: This area contains all the processes you can use in your BIC Process Execution application. For more information on what processes are available in BIC Process Execution, click *here*.

(*Administration*: As a *ProcessApp Administrator*, you will also find the *Administration* in the menu. In this section, you can manage your API keys, configure ProcessApps, and define global variables. This allows you to better manage BIC Process Execution.)

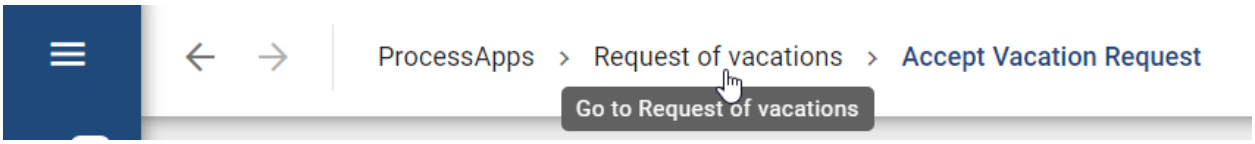


Use the arrows to move back and forth through your history.

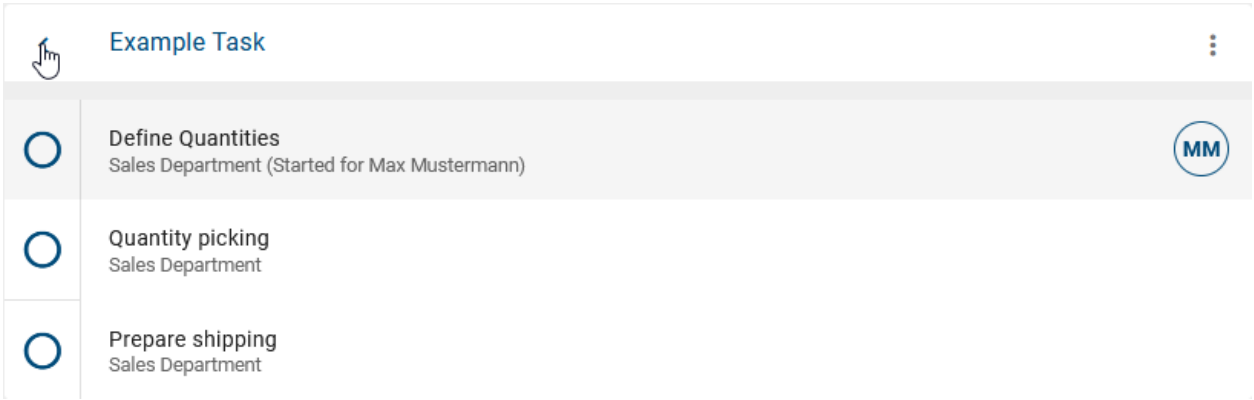


Note: To disable the arrows when moving outside of BIC Process Execution, we recommend using the **Chrome, Opera, Edge** and **Samsung** browsers. The navigation arrows **only** work when moving within BIC Process Execution.

The header contains the breadcrumb navigation. Selecting the desired name will take you from a case or case list to the higher level.

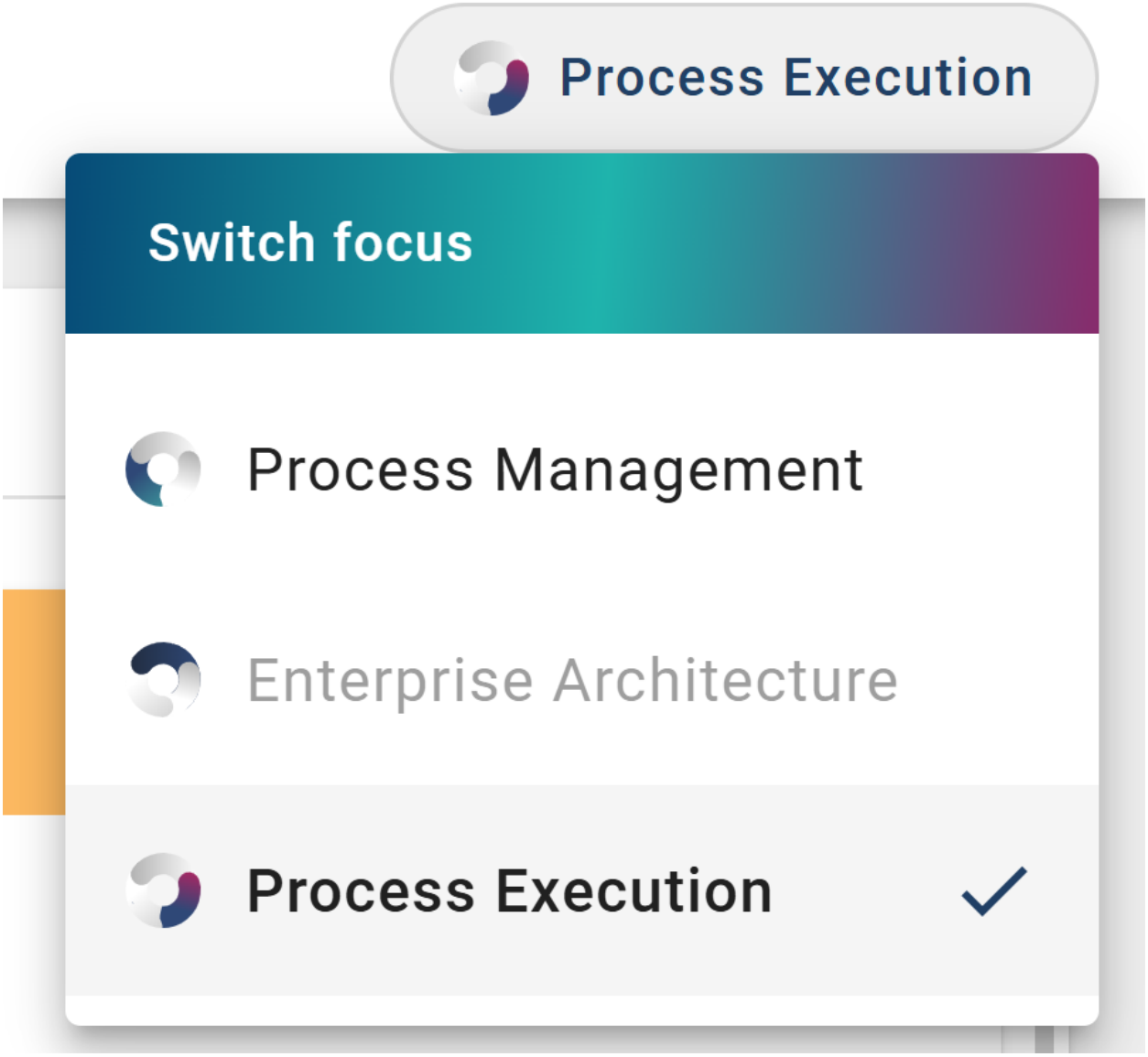


You can also use the *Up* button in the process flow of a case to navigate to the case list of the respective ProcessApp. Using the *Up* button in this list, you can go to the ProcessApps (Collections).



Tip: The menu can be hidden or shown by using the burger menu in the upper left corner of your screen. If your screen does not have enough space to display of the main area and the menu (for example, in the mobile view), the menu will be hidden by default.

In addition to navigating within *BIC Process Execution*, you can use the *focus drop-down menu* in the header to switch between the applications *BIC Process Execution*, *BIC Process Design*, and *Enterprise Architecture*.



When you select a focus *BIC Process Design*, *BIC Process Execution* or *Enterprise Architecture*, the display is switched to the chosen focus and your user preferences are updated accordingly. The start page for the selected focus is then automatically loaded. Favorites that have been marked in a specific focus are displayed only in that focus. This allows you to view individually saved favorites and content in each focus area without affecting other focuses.

Warning: Please note that clicking the *focus drop-down menu* shows all focuses available in BIC. Only the focus areas your company has purchased can be selected, while all other focuses are greyed out and unavailable.

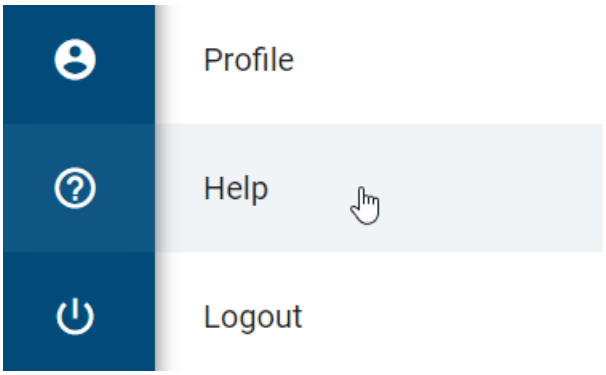
Warning: If a focus is saved that can no longer be used (for example, because the associated product is no longer purchased), it will be automatically replaced at login. In this case the default is set to *Process Management* to ensure that every user has a valid and usable focus after logging in.

How can I install BIC Process Execution as PWA on my device?

You can install BIC Process Execution as a Progressive Web App on your mobile device or desktop computer. This give you faster access to the application and allows you to receive *push notifications* on your mobile device even when the application is closed. The PWA installation process may vary depending on the operating system and browser on your device. For detailed instructions on how to install a PWA on your device, please refer to the corresponding help. For example, instructions for an Android device using the Google Chrome browser can be found here.

Where can I find the help?

In the *menu*, click on the question mark to open the help. Here you can view the user documentation.



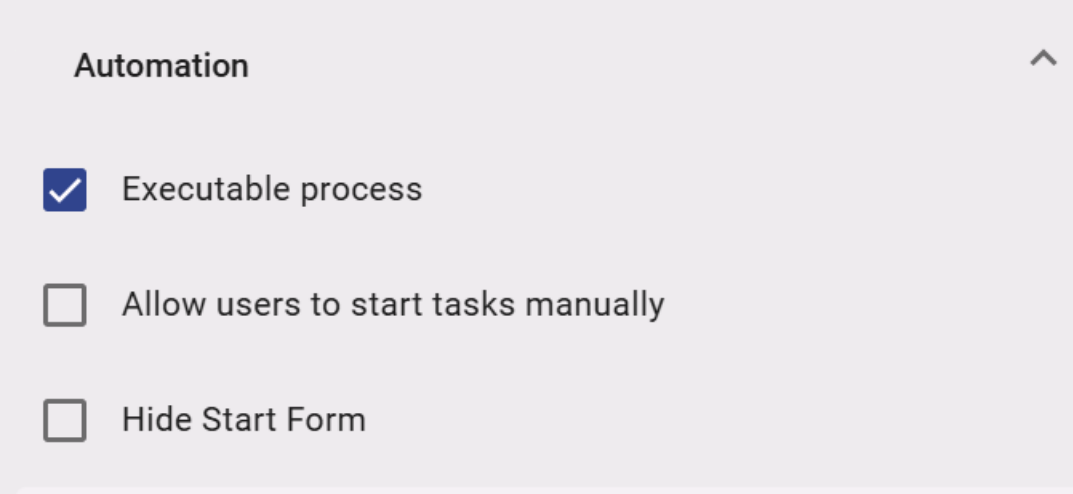
29.2 Modeling

If you use *BIC Process Execution*, *BIC Process Design* will allow you more possibilities than before. You can enhance *send tasks with an email template* or configure user tasks with an individual form to help users accomplish their tasks. Moreover, you can automate process steps by defining *REST calls* or *script tasks*.

By using the *focus drop-down menu* in the header, you can directly switch from *BIC Process Execution* to *BIC Process Design*. If you model a process in *BIC Process Design*, you can *test it in BIC Process Execution* before you publish it.

29.2.1 Which processes are displayed in BIC Process Execution?

BIC Process Execution is directly connected to BIC Process Design. Processes that are displayed and can be executed in BIC Process Execution, have previously been defined as such in BIC Process Design. This can be done using the diagram attribute *Executable process* within the attribute group *Automation* of the diagram types **Business Process Model and Notation (BPMN)** and **Event-Driven Process Chain (EPC)**. This checkbox has to be activated to declare the process as executable. How to display the attributes of a diagram is explained in *this chapter*.

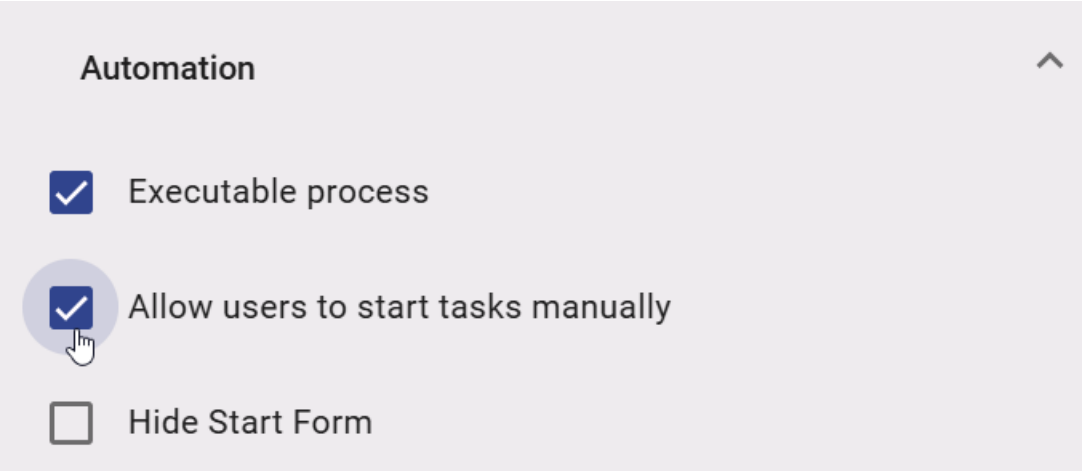


In the productive environment, you will only see processes in BIC Process Execution as long as the corresponding diagrams in BIC Process Design are available in the *publication*. If so, the process will be available within BIC Process Execution within the *ProcessApps*. When you depublish a diagram in BIC Process Design, you cannot create new cases of the associated process. As long as there are running or archived cases of that process, the ProcessApp will continue to be available. The associated ProcessApp will be completely removed once all cases are deleted in accordance with the configured retention period. After every change that has been made to a diagram, it has to be published again to make these changes also visible in the corresponding process of the productive environment.

Hint: In the *development und test environment* of BIC Process Execution, a process can already be tracked during its development. This reflects the modeling of the corresponding diagram in BIC Process Design.

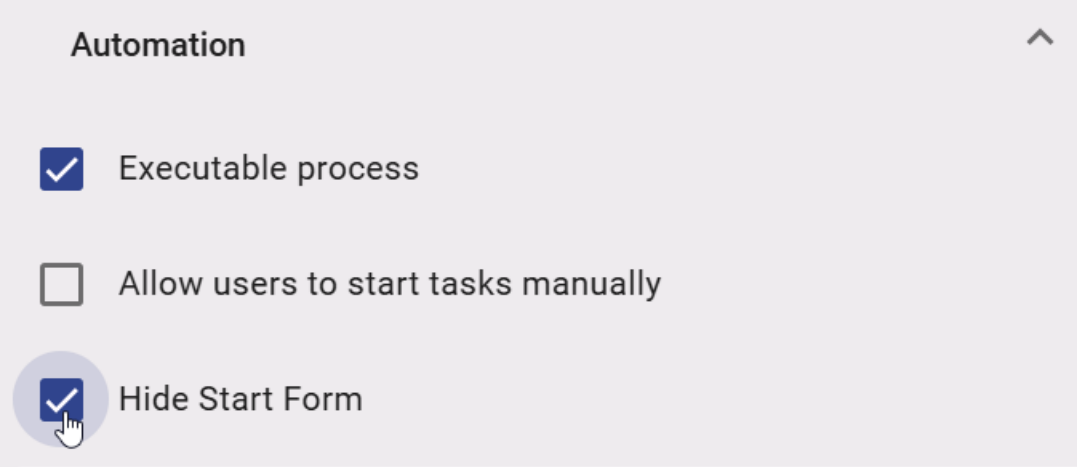
Note: Note that *access restrictions*, defined in BIC Process Design, will also effect the visibility of processes in BIC Process Execution. This means that diagrams which have an access restriction in BIC Process Design, will only be visible to you as a process in BIC Process Execution, if you are part of the corresponding access restriction.

Additionally, ProcessApp Administrators have the option to determine whether other user groups are allowed to start tasks manually. To do this, the checkbox *Allow users to start tasks manually* can be activated. This enables the initiation of previously unstarted active segments of a task.



By selecting the option *Hide Start Form*, you can configure that when *creating new cases* for the process, you will be

redirected directly to the process flow view, skipping the case start form. The new case will be named based on the process name and the timestamp.



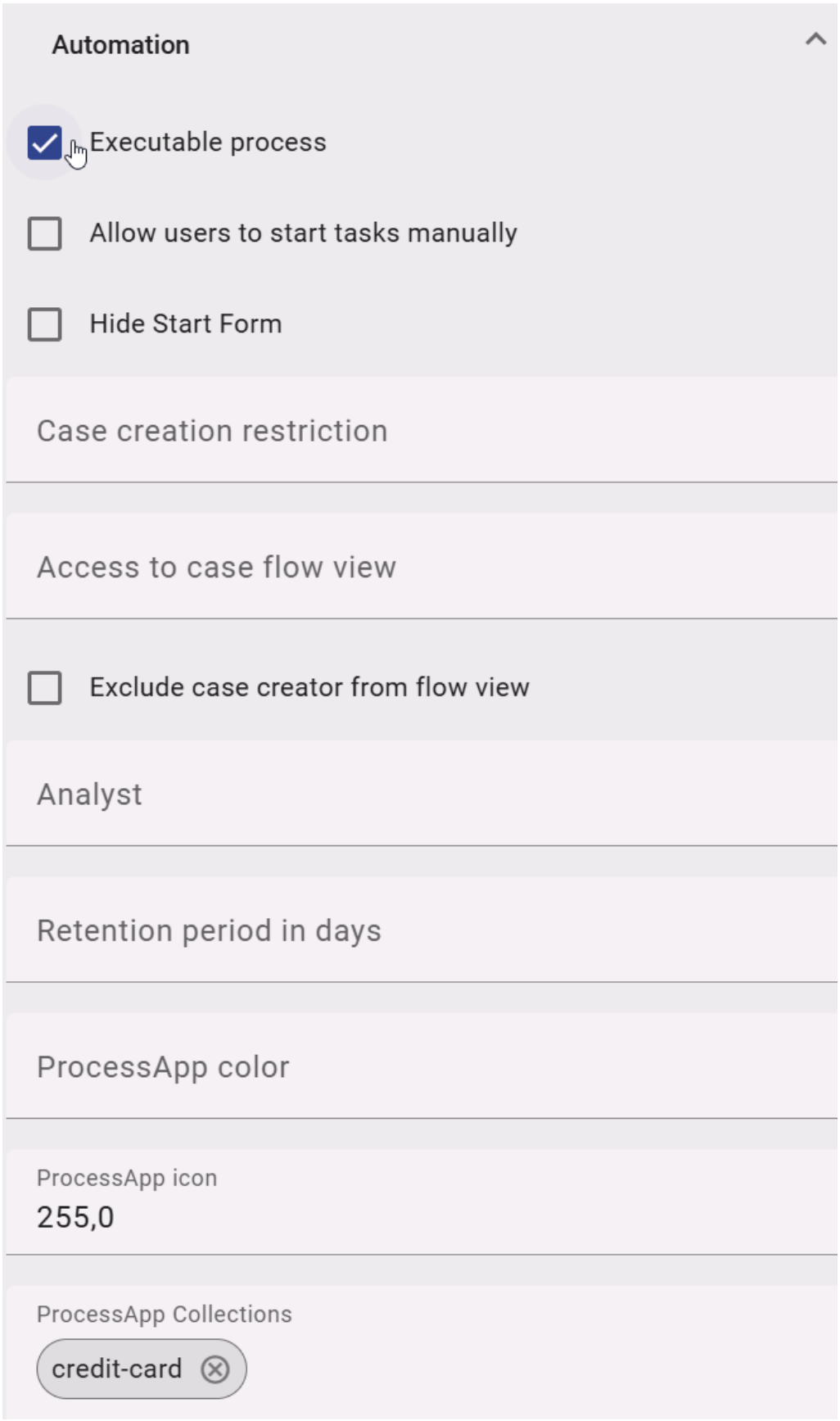
29.2.2 How can I configure my ProcessApp icons?

The icon used to display your process in the *ProcessApp* area in BIC Process Execution can be customized in the attributes of the corresponding diagram in BIC Process Design. To configure an icon, navigate to the details of the relevant diagram in BIC Process Design. Here you will find the attributes *ProcessApp color* and *ProcessApp icon* under the attribute group *Automation*.

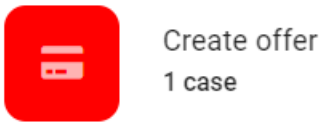
You can use the *ProcessApp color* attribute to specify the icon's color. As value enter the RGB color code of your desired color, for example red via 255,0,0. You can also use HEX codes, such as #FF0000 for red, or the corresponding color names. The task icon is always the same color as the ProcessApp.

The icon can be defined via the attribute *ProcessApp icon*. You can choose an icon provided by Font Awesome (v6.5.1), which is available for free. Enter the name of the icon as the value of the attribute.

An example could be as follows:


Automation
Executable process
Allow users to start tasks manually
Hide Start Form
Case creation restriction
Access to case flow view
Exclude case creator from flow view
Analyst
Retention period in days
ProcessApp color
ProcessApp icon
255,0
ProcessApp Collections
credit-card

The result will then be displayed like this:



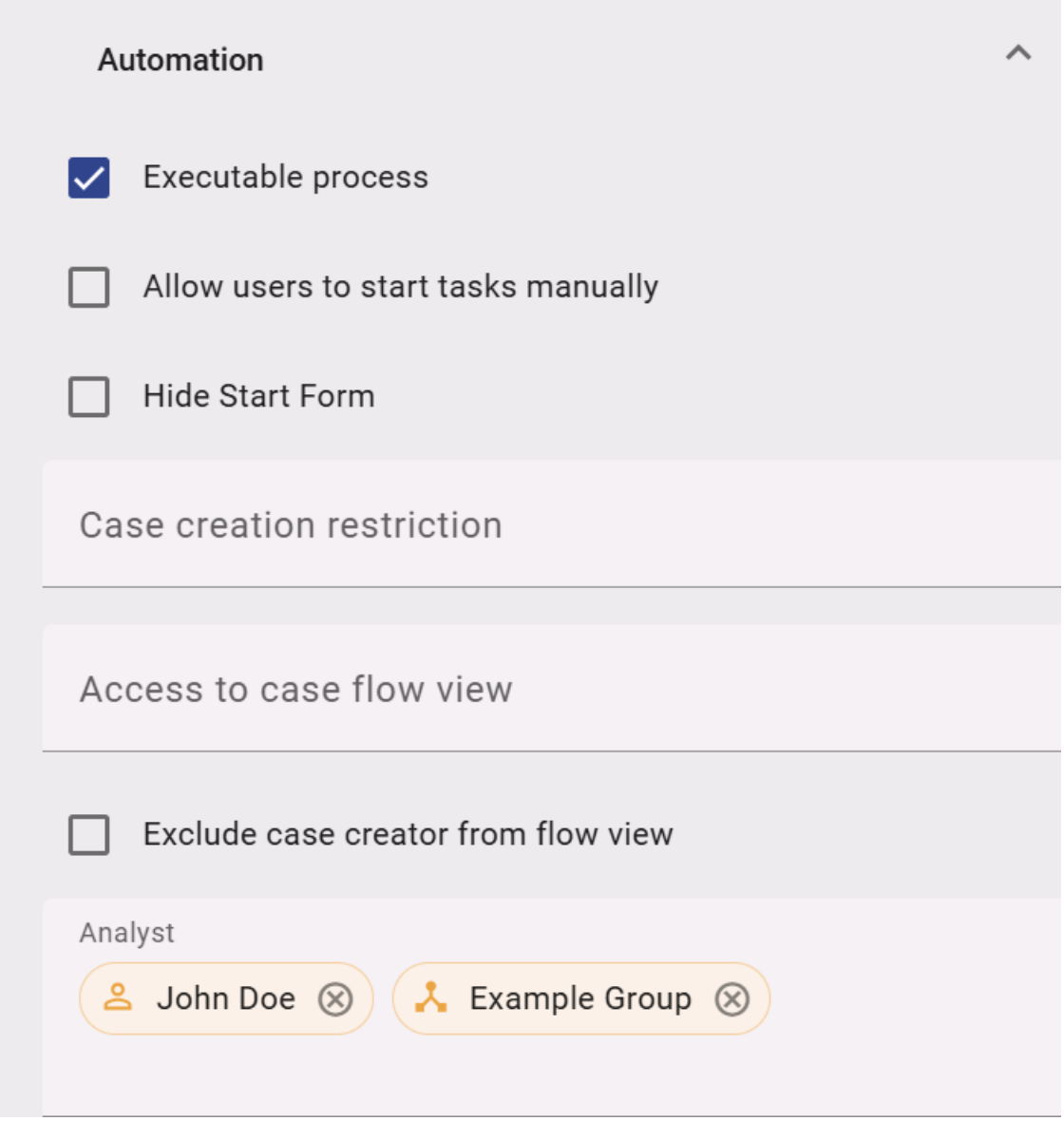
The default icon for undefined processes is a diagram icon.

Note: You can choose from all Font Awesome icons in version 5.15.4 except the trademark-protected ones.

29.2.3 How can I restrict the visibility of all cases in the ProcessApp?

If you want to restrict the visibility of processes within the *ProcessApp* section of BIC Process Execution, you can do so during modeling. Navigate to the details of the regarding diagram in BIC Process Design. Here, under the *Automation* attribute group, you will find the *Analyst* attribute.

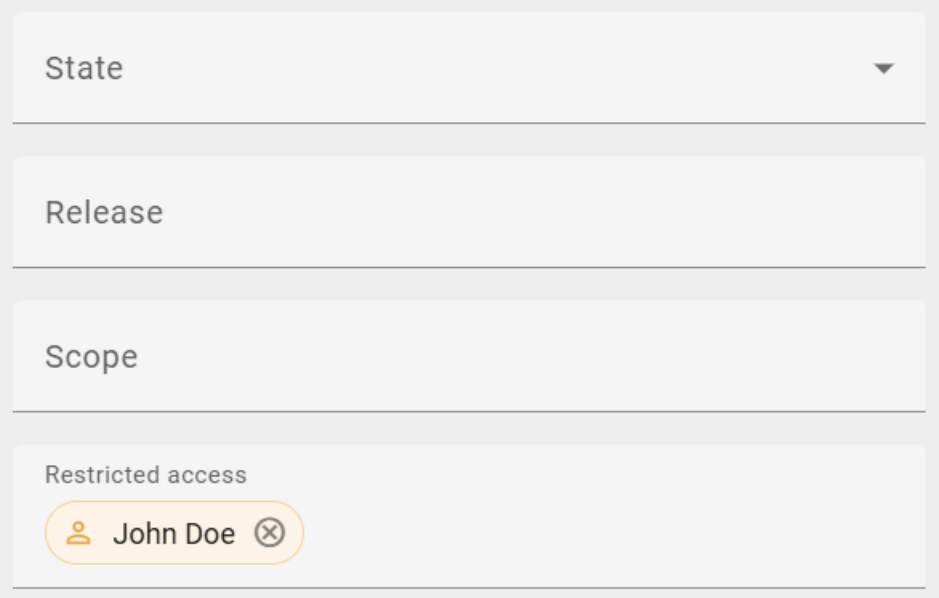
The *Analyst* attribute allows you to maintain multiple users or user groups that can view all cases within the ProcessApp after the process is published. It is important to note that users must be assigned to the *ProcessApp Analyst* role. All other users will only be able to see the cases assigned to them within the ProcessApp.



If you change the users or user groups in the *Analyst* attribute, previously maintained users and user groups will no longer have access to all cases within the ProcessApp.

29.2.4 How can I restrict access to a ProcessApp and its cases?

As a *ProcessApp Creator*, you have the option to restrict access to a ProcessApp and its cases. To do this, go to BIC Process Design, check out a diagram, and click an empty space on the canvas. Then, in the *Details* panel in the right sidebar, open the *Governance* attribute group. In the *Restricted access* field, you can enter users and/or user groups that have access to the process.

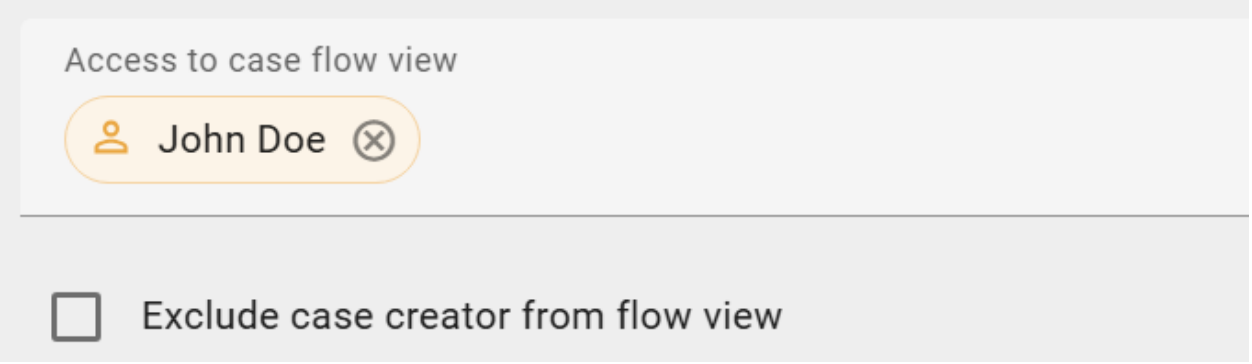


All unmaintained users and/or user groups will not have access to the modeled process and will not be able to initiate cases or view the associated ProcessApp.

Note: Users with the *ProcessApp Administrator* role can view access-restricted ProcessApps in both the *ProcessApps* area and in the *Administration* menu item. However, archived cases will **not** be shown.

29.2.5 How can I restrict access to the case flow view?

As a user with the *ProcessApp Creator* user role, you can restrict access to the flow view of cases. To do so, open a diagram in BIC Process Design, check it out, and click on an empty space on the canvas. Then, in the *Details* panel in the right sidebar, open the *Automation* attribute group. In the *Access to case flow view* input field, you can enter users and/or user groups who should have access to the flow view of the associated cases.



The maintained users will then have access to the flow view of both their own cases and those of other users. All users and/or user groups not maintained can only access the flow view of their own cases.

You can also enable the *Exclude case creator from flow view* option. When this option is enabled, users and/or user groups not maintained can only initiate cases for this process and work on its tasks. However, they will not have access to the flow view of any cases for this process.

After you have applied a restriction to the case flow view, you must check in and publish the diagram. The restriction

only applies to initiated cases in the *Publication* stage.

Hint: Please note that maintained users and/or user groups are not affected by the access restriction when the *Exclude case creator from flow view* option is enabled, even if they have initiated their own cases.

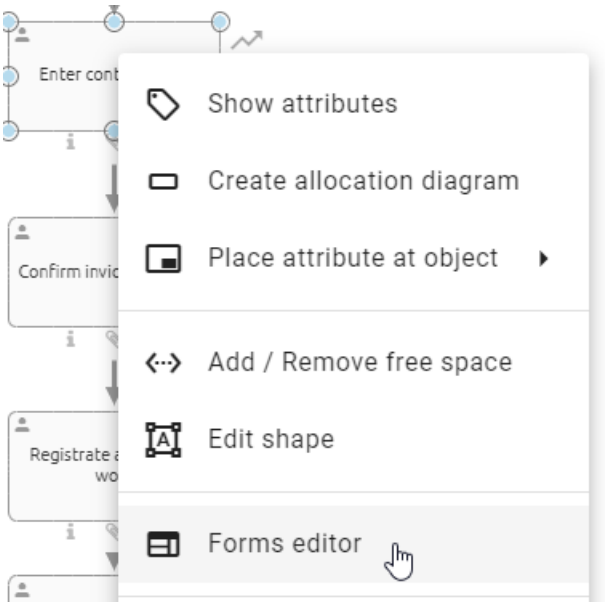
29.2.6 Form Editor

With the form editor, you can create the form of a *user task*. You can configure different form fields that will be displayed in the *form of the task* when the process is executed. The responsible of the task can fill the fields when completing the task.

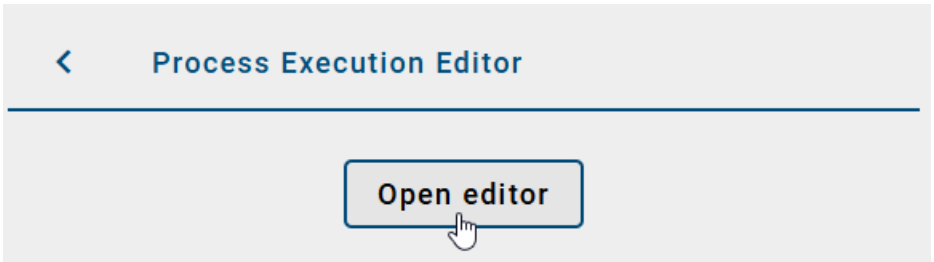
How can I create and configure my own form?

In order to use the form editor, your diagram has to be marked as *executable process* in the attributes. The *activity type* of the task has to be *User*.

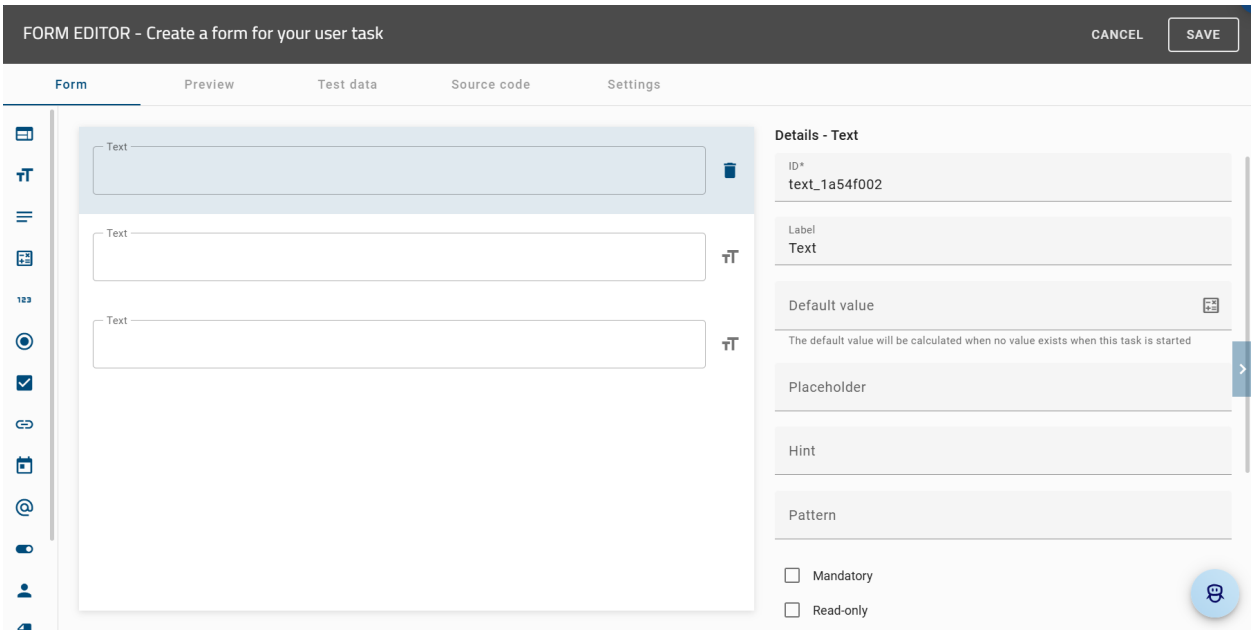
Now you can open the form editor. To do so first open the context menu of the activity with a right click on it. There select the entry *Forms editor*.



Alternatively, you can open the form editor via the *options* of a task. To do that, select the activity and open the options on the right side. There you can find the *Open editor* button in the *Process Execution Editor* option. Select this button and the form editor will open.

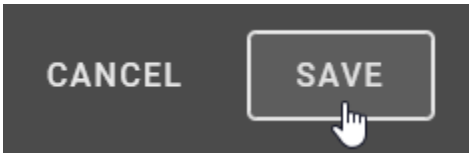


The form editor opens in a new dialog. On the left side of the form editor you will find all available form fields that can be added or configured. In the middle of the editor you can see a preview of the form which contains all elements that have already been added to your form. If one of those elements has been selected you can see its details on the right side of the dialog.

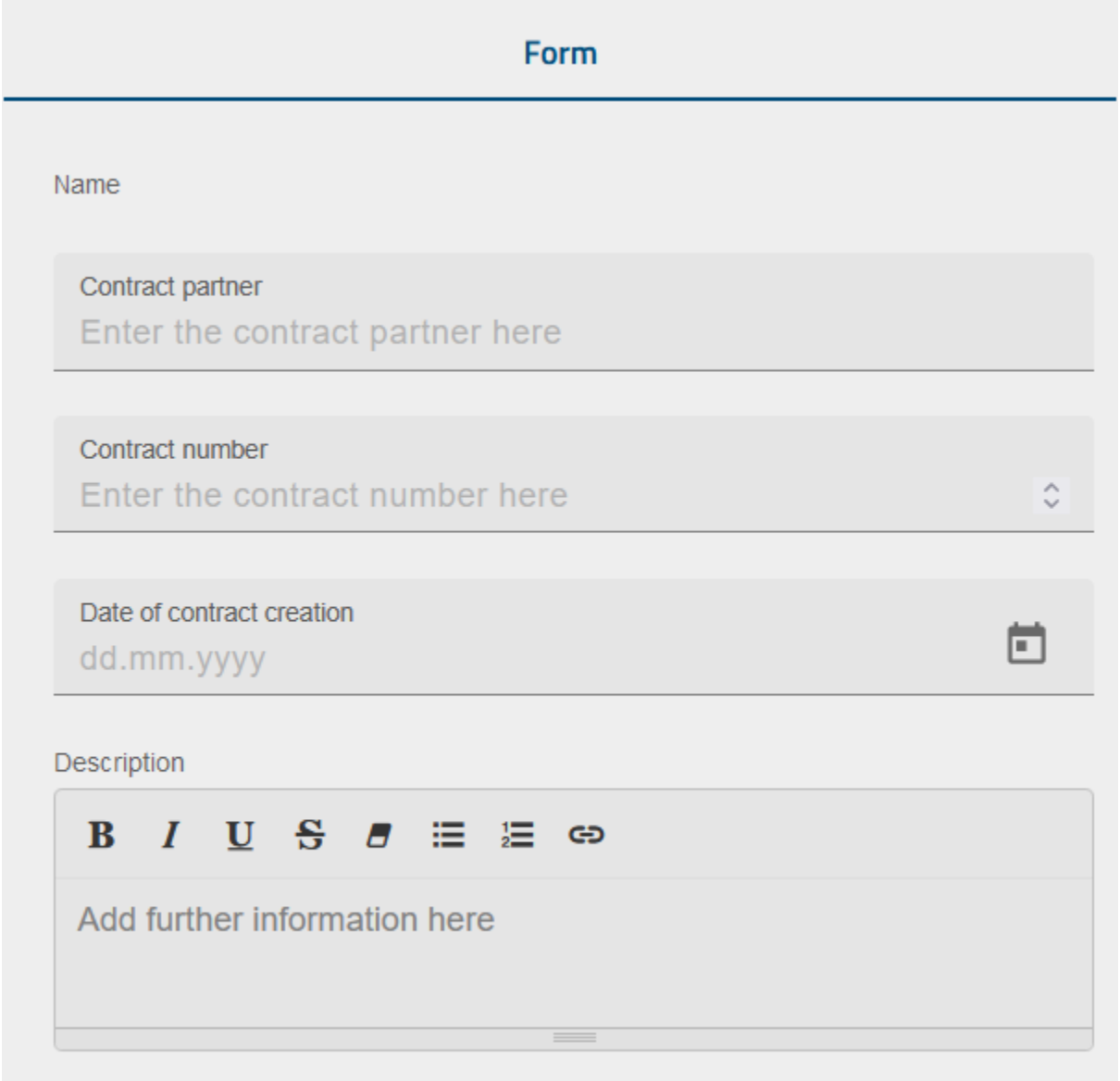


Within the form editor, you can *add new elements to your form*, *adjust the position of the different form fields* within the form, change their attributes, or *remove single form fields* from the form.

To apply your changes, confirm your entries by pressing the *Save* function in the top right corner of the form editor. With *Cancel* you can leave the form editor and the changes will be discarded.



As soon as you have saved your changes and the corresponding *diagram meets all requirements to be displayed as a process in BIC Process Execution*, your form can be found in addition to the automatically generated form fields of the task.



Note: Please note that in order for your form to be editable in a case's process flow, the appropriate task must be assigned to a user.

You can use *process variables* in your form. They need to be enclosed by two curly braces (e.g., `{{variableName}}`). If you received a data object via a *rest call*, you can use that as well in your form. The following example shows a JSON file with the data object 'address'. To use the zip-code as a variable, you need to use `address.zip`. You can nest as many data objects as you like.

```
{
  "firstName": "John",
  "lastName": "Doe",
  "address":{
    "street": "Examplestreet",
    "number": 13,
    "zip": "44801"
  }
}
```

Hint: If a data object is named with a dot in the JSON file without a nested structure, it will be replaced with an underscore. In this example, if *address.zip* is not nested, the name will automatically be renamed to *address_zip*. After the replacement, you need to use the underscore(s) to continue using the variable(s).

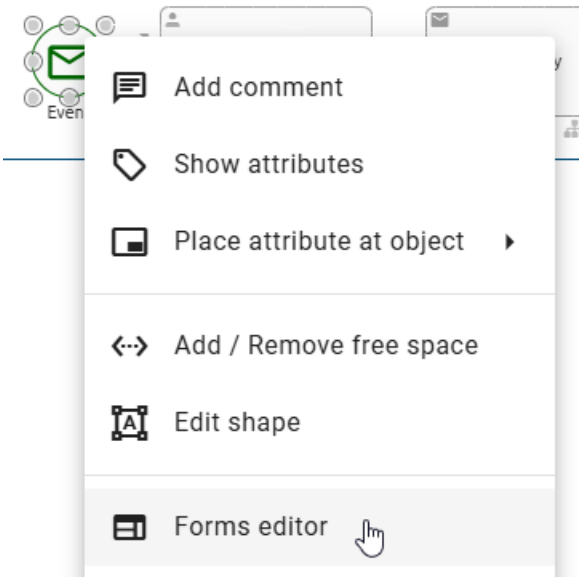
Warning: Remember to also save the diagram, after you have applied changes within the form editor. Otherwise your changes will be lost when leaving the diagram.

Note: If you have errors in your task form, the form will not close after saving. You will see an error icon on fields with errors. After solving them, the task form can be saved and closed.

How can I create a start form?

As a *ProcessApp Creator*, you can create a start form using the form editor. To do this, you need to type the start event as a *Message* during modeling in BIC Process Design. You can find this option in the *Details* of the start event in the right sidebar.

You can then open the form editor by right-clicking on the start event and selecting the *Forms editor* option from the context menu. Alternatively, you can open the editor through the *Process Execution Editor* option in the *Options* panel in the right sidebar.



After clicking the option, the form editor opens. Here, you can configure your form by adding new elements and editing the field properties. This enables you to define relevant process information directly in the start form and start the process immediately.

Once you have saved your configured form and executed the process, your form will appear in the automatically generated task form in BIC Process Execution.

To display the start form when *creating new cases*, the *Hide Start Form* option in the *Details* panel of the right sidebar must be deactivated. When you create a new case with a start form, it will be displayed as a user task. After filling out the form and clicking the *Create* button, a notification will appear in the bottom right corner of the screen with a link to the corresponding case, allowing you to switch directly to the process flow.

If you cancel the creation of a new case using a start form, you will be redirected to the case list of the associated ProcessApp.

Note: Please note that the start form can only be displayed in only **one** start event has been modeled in the process.

Warning: Please note that the *File* form field is not displayed in start forms **with repetitive sections** and is therefore not available in the task form in the process flow view.

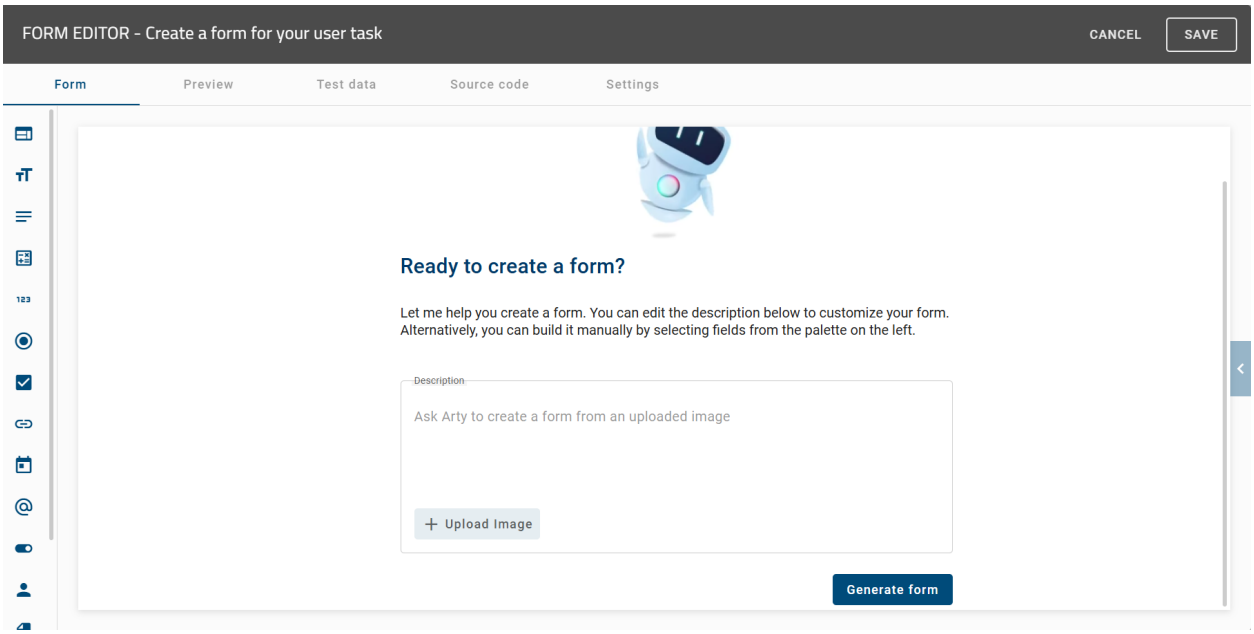
How can I create an automatically generated form?

As a *ProcessApp Creator*, you have the option of creating an automatically generated form with the help of our AI assistant *Arty*. To do this, select the *Diagrams* menu item in the left menu bar in BIC Process Design and open a diagram from the desired repository. After opening, *check out the diagram* so that you can edit it. Then select an activity in the diagram and type it as a task type *User* in the *Details* in the right sidebar. You can then open the form editor by right-clicking on the selected activity or using the Process Execution Editor in the *Options* in the right sidebar.

If the AI-supported functions of Arty are activated for you and no form exists yet for the activity, the form editor offers you the option of having a form created automatically. Before the form is generated, you will see an input field that can be prefilled based on the description of the activity. This input field serves as the basis for the AI and can be freely

customized. You can find out how to best communicate with Arty *here*. Once you have confirmed the input, click on the *Generate form* button to start the creation process.

As a *ProcessApp Creator*, you also have the option of using the *Upload image* button to upload a file containing the information that you want to store in the process later on. Arty automatically recognizes the data contained in the file and transfers it to the form fields.



Your request will then be processed and you will receive the automatically generated form within a short period of time. Here, you can make further changes, such as adding relevant process information or *rearranging the position of individual form fields*.

Finally, save your form by clicking the *Save* button. To discard the form, click *Cancel*.

Tip: You also have the option of automatically linking form fields to existing process variables. Arty recognizes process variables that already exist in the process variable list and, if desired, automatically inserts them into the current form. The selection or instruction is made directly in the chat, so no manual assignment is necessary. Existing variables are reused, and new variables can be generated automatically as needed.

Hint: Please note that the AI-supported features of Arty are not included in the standard licence. Please contact your representative for more information. Please also refer to the notes on using the *AI feature*.

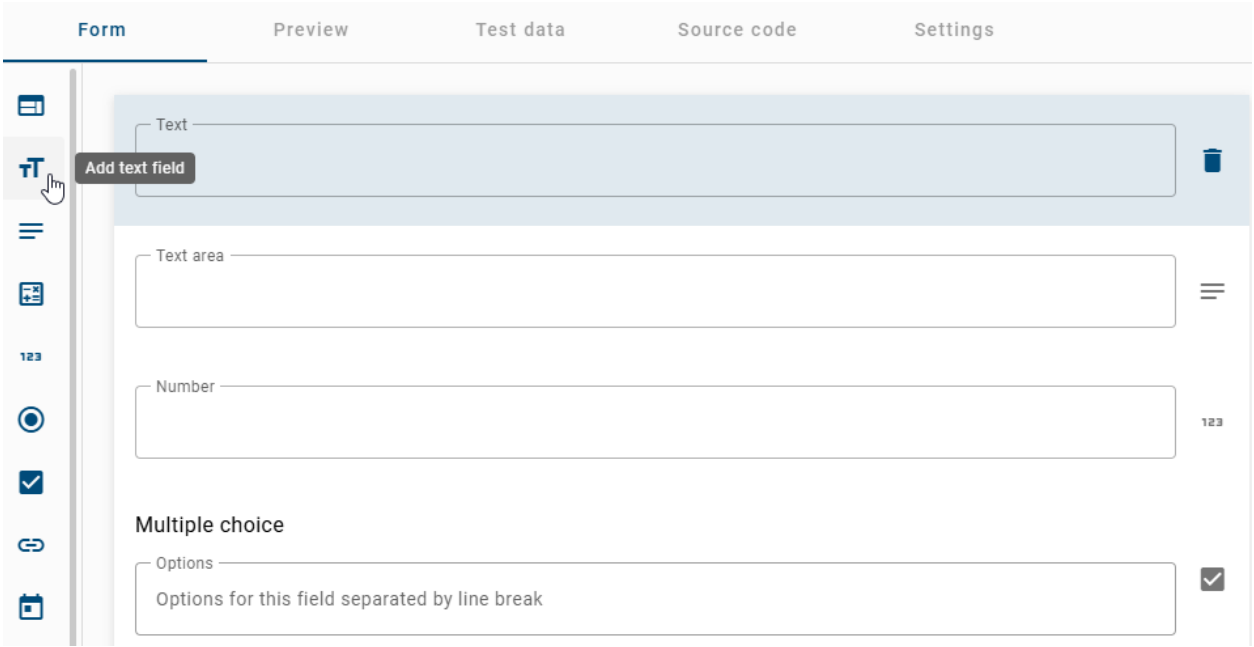
Tip: To generate a more accurate form for your process, we recommend that you provide the relevant information in the description of the activity.

Which form fields exist and how can I add a new form field to my form?

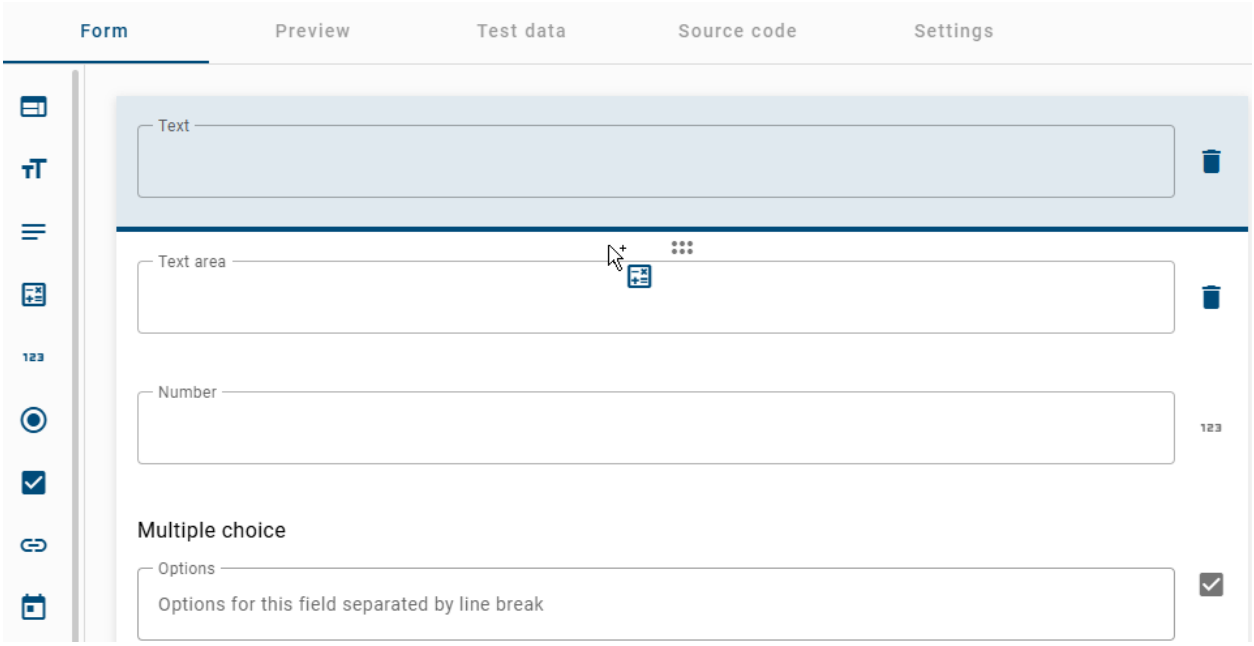
You have the possibility to add these form fields into your form:

- *Variable List*: *A list of all variables you have created* to display and add existing process variables as form fields so that you can reuse them without redefining them.
- *Text*: A simple *text* field for the in- and output of alphanumeric strings.
- *Text area*: *Text field* for the input of longer text such as descriptions and comments, which also allows formatting the text.
- *Formula*: *Formula* for calculating numeric or logical values.
- *Number*: Field for the in- and output of numeric values. Can store *numbers* with decimal places.
- *Single choice*: *Choice field* where a user can choose exactly one option of several predefined options. This can be configured as a list or drop-down menu.
- *Multiple choice*: *Choice field* where a user can choose one or more options of several predefined options. This can be configured as a list or drop-down menu.
- *Date*: Field for the in- and output of *dates*.
- *Boolean*: Field with a *binary decision*.
- *Email*: Field where a user can enter an *email address* or get an email address as output to write an email.
- *URL*: Field for the in- and output of *web addresses*.
- *Users/User groups*: Field to add a *user or user group*.
- *HTML*: You can use the *HTML field* to display clear and helpful instructions to help you fill in the form. These include text formatting, integrating links and the use of simple HTML tags.
- *File*: Field to upload *files*.
- *Section*: Field to define the arrangement of *multiple columns* in a form.

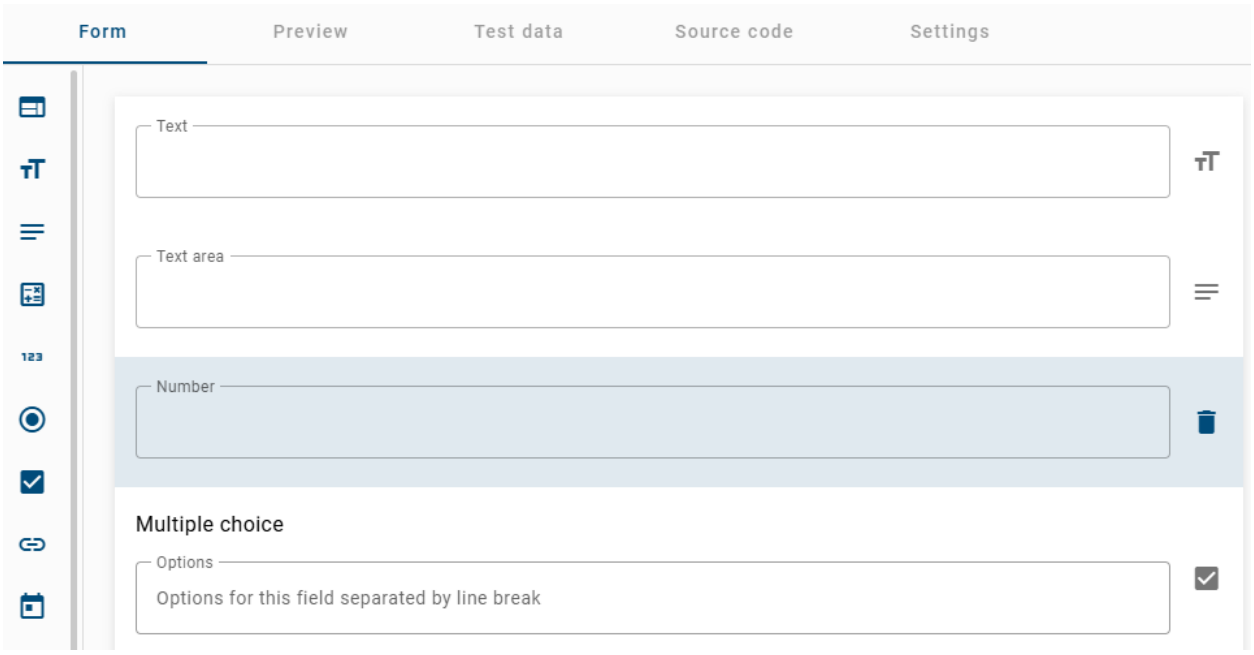
To add a new form field into the form, first open the form editor at the corresponding activity. In the left sidebar, select the desired form field that you want to add to your form.



A new entry will be created at the bottom of the form preview. If you select the new entry you can edit the form field according to your needs. Every form field has different attributes which are explained in the following sections. Alternatively you have the option to add a form field via drag & drop into the designated position.



The field will be inserted underneath the blue line.



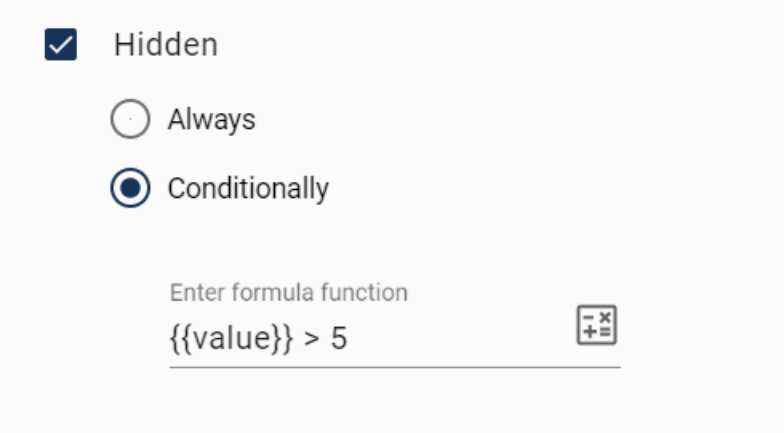
Which attributes does a form field have?

With attributes, you can configure your form fields in the right sidebar individually. For every form field there is a set of commonly available attributes:

- *ID*: If you add a new form field it automatically gets an ID. This ID is available as a *process variable* in your process and is necessary if you want you can change the ID of your form field. This can be helpful if you want to use your input again. Furthermore you have the option to use already existing *process variables* as ID's. In this way you can get the current value of the corresponding variable in your process.
- *Label*: With the label you enter a name for your form field which will be displayed to the user in the form field at the top left.
- *Placeholder text*: Here you enter a text which explains what kind of input is expected (for example, a short description or an example).
- *Mandatory*: If this checkbox is activated, the user needs to make an input before being able to continue.
- *Read-only*: Values of form fields which have activated this attribute cannot be changed by the user in BIC Process Execution. This means the corresponding process variable cannot be changed via this form field.
- *Hidden*: This attribute can be used, if you do not want the user to see the form field. When a field is *Hidden*, no validations (e.g., mandatory, minimum length, etc.) are performed.
- *Repetitive*: [Only for the "Section" form field] When this attribute is activated, the configured section field repeats as many times as defined when the process is executed.
- *Hint*: This attribute can be used to display a hint below the input field for the user.
- *Default value*: This attribute can be used to define a default value. You can decide whether you use a value or a formula that needs to be evaluated. Process variables must be enclosed by two curly braces.

With some attributes you have the possibility to choose whether they should always behave as specified or just in some cases. You have this option on the form fields *Hidden*, *Mandatory*, and *Read-only*. There are two different options possible for this. *Always* ensures that the corresponding form field always behaves as specified. *Conditionally* lets you type in a *formula* which decides whether the attribute is applied or not.

In the following screenshot you can see an example where the field will be *Hidden* if the variable *value* is bigger than 5.



After editing the attributes you can confirm your changes by using the function *Save*.

Note: Please note that the values of the properties apply to all content languages and cannot be defined individually for each.

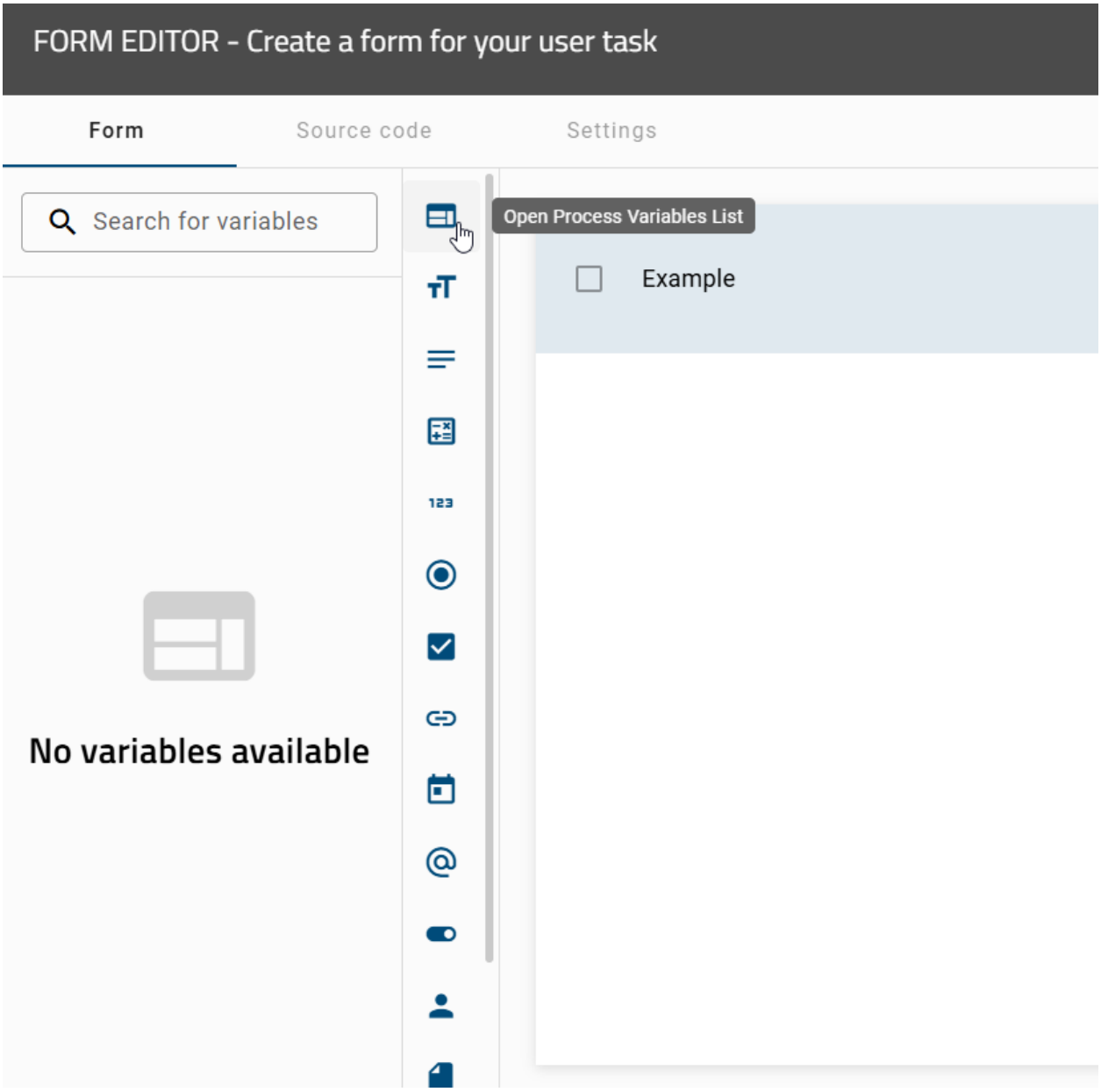
The following sections explain which additional attributes each form field has.

Variable List

As a user with the *ProcessApp Creator* role, you can directly access the list of available process variables in the form editor. Clicking the *Open Process Variable List* icon opens a side panel displaying all unused variables in alphabetical order. At the same time, the details view in the form editor automatically closes.

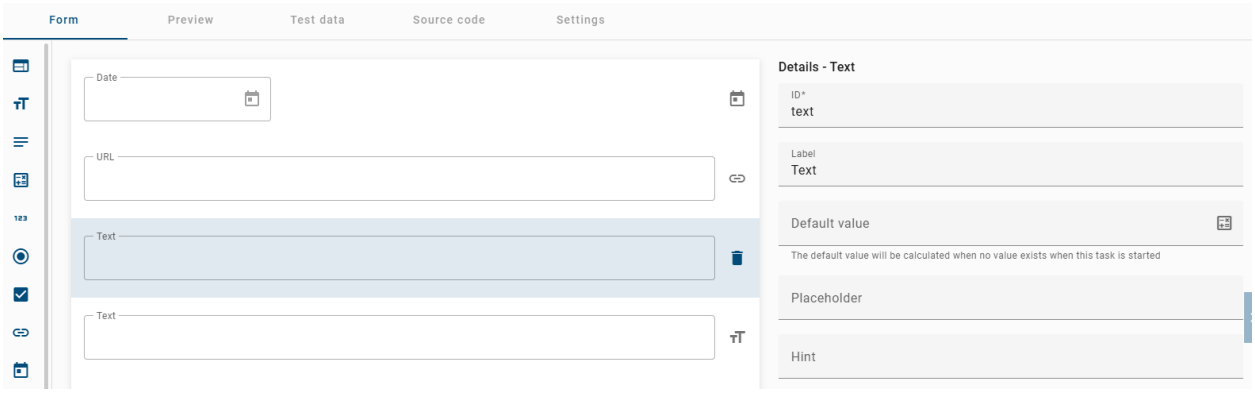
Each variable displayed in the list can be used as a form field and added to the form by clicking or dragging and dropping it. Once a variable has been added, it appears grayed out in the list and can no longer be added again. However, if the ID of the variable is changed within the form, it becomes available again in the list. If multiple variables share the same ID, only one instance of that variable is displayed in the list.

Using the search field above the variable list, you can search for specific variable names. While typing, the list updates automatically in real time, showing only the variables whose names match your input.



Note: Please note that *Arty* does not interact with the list of process variables.

Text field



The simple text field can be used for the in- and output of short alphanumeric strings.

It has the following additional attributes:

- *Pattern*: Enter a regular expression the input must match in order to be valid.
- *Size*: This value indicates how wide the input field is (measured in characters).
- *Min length*: This value defines the minimum of characters needed to make a valid input.
- *Max length*: This value defines the maximum of characters needed to make a valid input.

Hint: An example for a pattern could be `([a-z]\d\d)+`. This regular expression indicates that a combination of a lowercase letter followed by 2 digits is valid. Those can be repeated several times. An example for a valid input would be `a14b22` or `q41c96b74e44`. Other inputs like `A54b41` or `1d23` would not be valid.

The basics of a regular expression are demonstrated below:

A regular expression (RegExp) is a pattern that is searched for in character strings.

- Syntax: `/pattern/flags`
- Pattern: The character string that is being searched for.
- Flags: Modifiers such as `g` (global), `i` (ignore case), `m` (multi-line).

Permitted patterns:

Character classes:

- `.`: Any character except line break
- `\d`: digit (0-9)
- `\w`: Alphanumeric character and underscore
- `\s`: White space character (space, tab, etc.)

Groupings and alternatives:

- `(...)`: Grouping
- `|`: Or operator

Quantifier:

- `*`: 0 or more

- `+`: 1 or more
- `?`: 0 or 1
- `{n}`: Exactly n
- `{n,}`: At least n
- `{n,m}`: Between n and m

Anchor:

- `^`: Start of the input
- `$`: End of the input

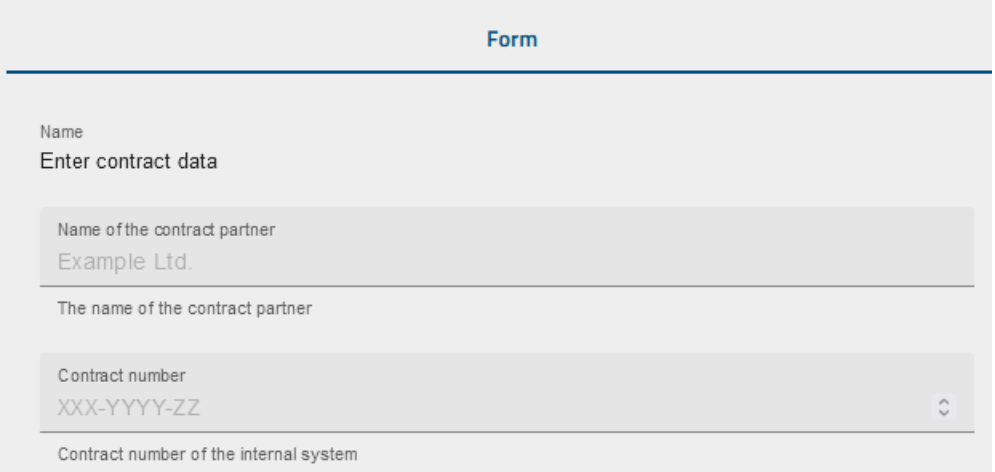
Examples:

- `^\d{5}$`: Five-digit number
- `^(https?|ftp)://`: URL that starts with http, https or ftp
- `^[a-zA-Z]+$`: Only letters (upper and lower case)

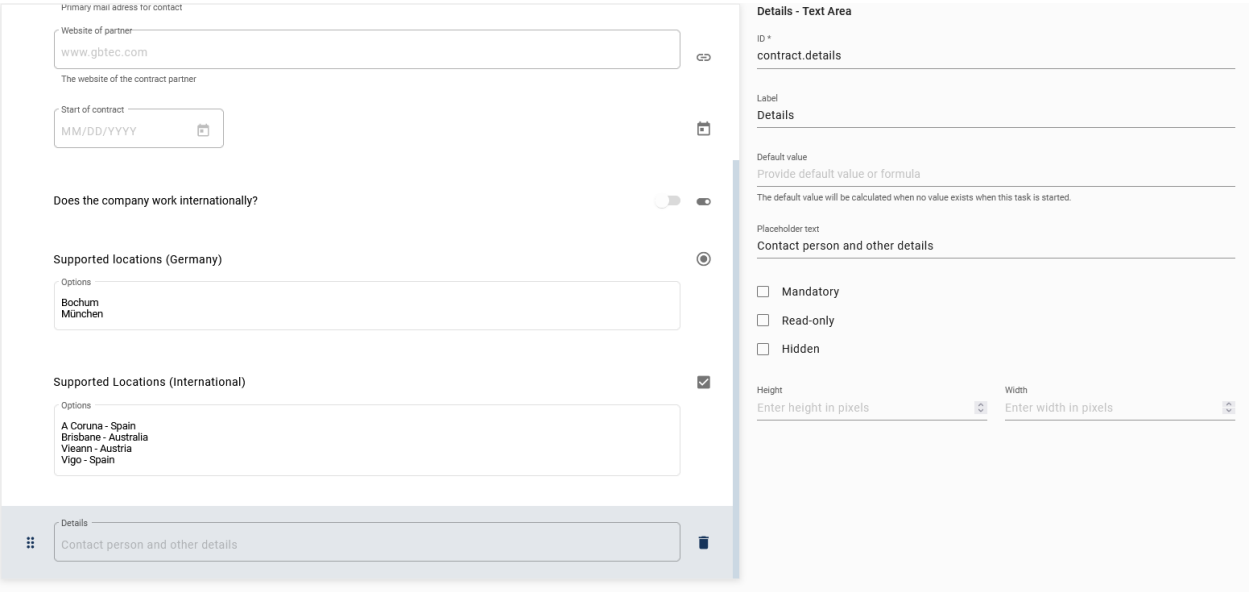
The following links allow you to view details about the RegExp class used, which the browser uses in the background for pattern checking, as well as the corresponding online tester for RegExp:

- RegExp - JavaScript | MDN
- RegExr: Learn, create and test RegEx

In a running case, the text field above results in:



Text area field

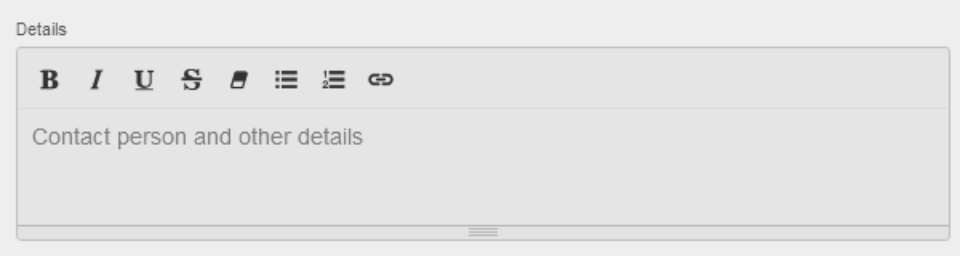


The text area field can be used for longer alphanumeric strings. For example, it could be used to save or show descriptions or comments. It also allows to format the input (e.g. bold, italic, etc. . .).

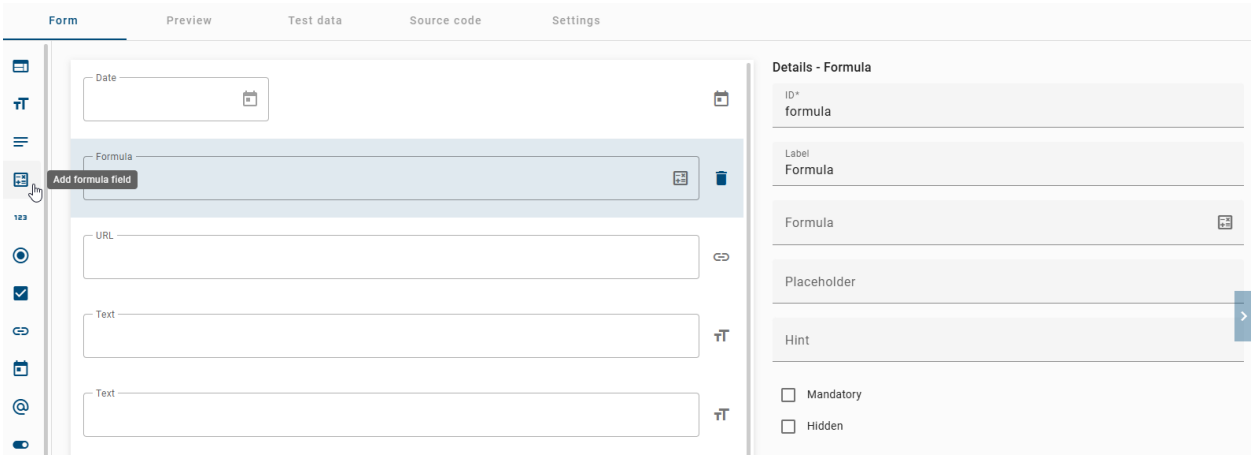
It has the following additional attributes:

- *Height*: This value indicates how high the text area is (measured in pixels).
- *Width*: This value indicates how wide the text area is (measured in pixels).

In a running case of the example above, the text area is displayed as follows:



Formula field



The formula field can be used to calculate a variable. It can be a numeric or logical value, even calculations with date values are possible. You can get an overview of all available formulas in *this chapter*.

It has the following additional attribute:

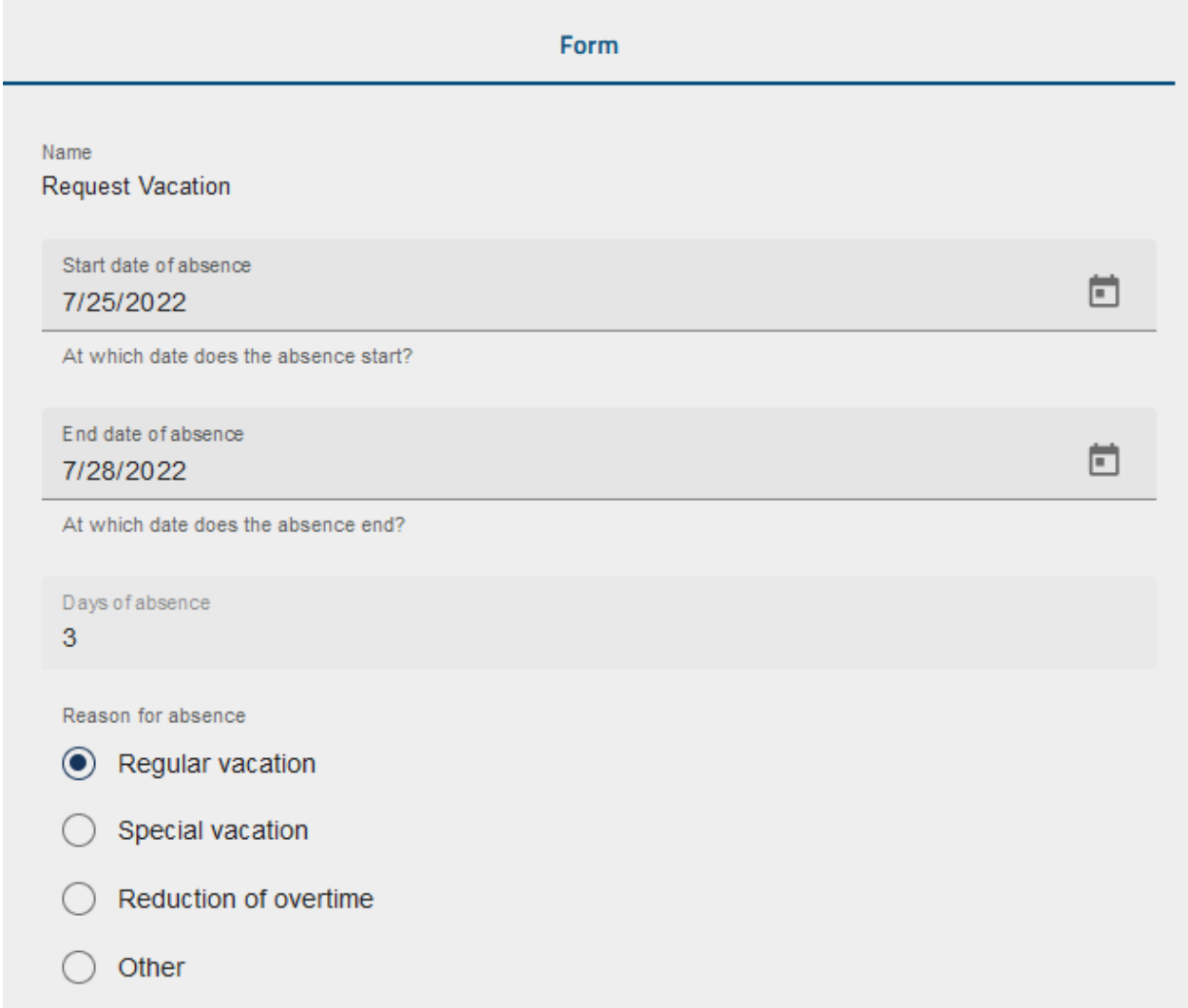
- *Formula*: Here you select the formula you want to use. Possibly one or more parameters are necessary to calculate your formula.

Note: Please be aware that the attribute *read-only* is **always** active for the formula field.

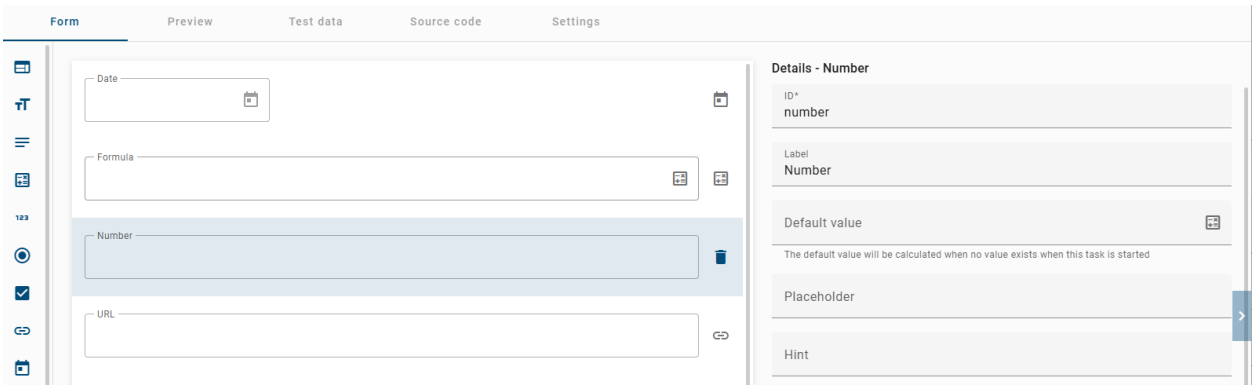
When entering your formula, you must pay attention to the following:

- The formula needs to be written in capital letters.
- Parameters have to be in braces and need to be separated by a comma.
- If you want to use earlier defined *process variables*, you need to put them between two curly braces (e.g., `{{VariableName}}`).
- Other parameters do not need to be enclosed by curly braces.

In the example above, the formula computes the number of absence days. This is done in a running case as soon as both start and end date have been entered:



Number field



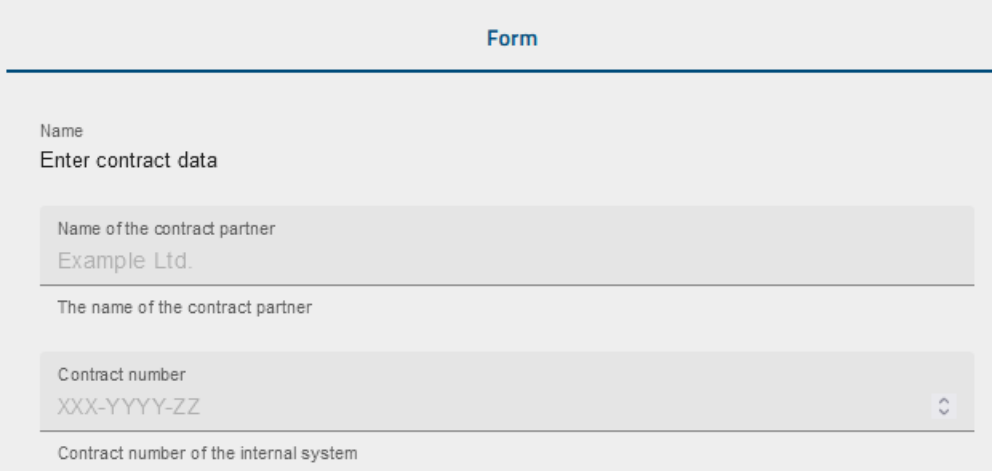
The number field can be used to save or show numeric values. The use of decimal numbers is also possible.

It has the following additional attributes:

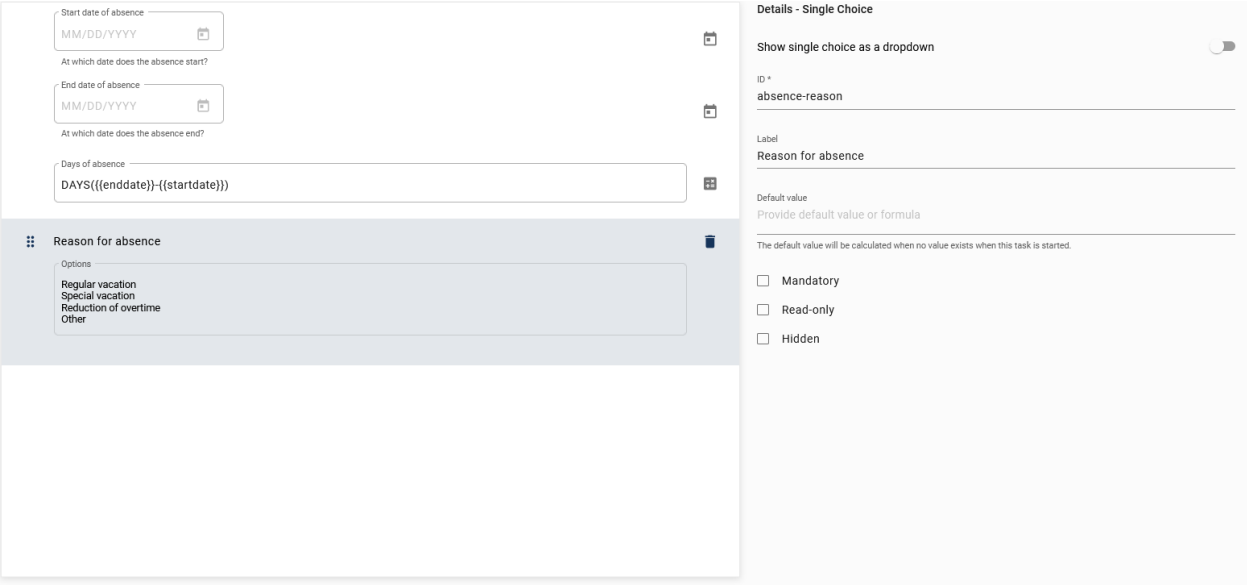
- *Min value*: Enter a value here which is the lower limit for the user input.

- *Max value*: Enter a value here which is the upper limit for the user input.
- *Step*: This value defines by how much the input value increases or decreases when using the input form. The standard step is 1. Regardless of the step size, the user can enter their own values as long as they are between the min and the max values.

In the example above, the attributes min and max value of the number field “Contract number” are maintained in such a way that the user must specify a four digit number.



Single choice field

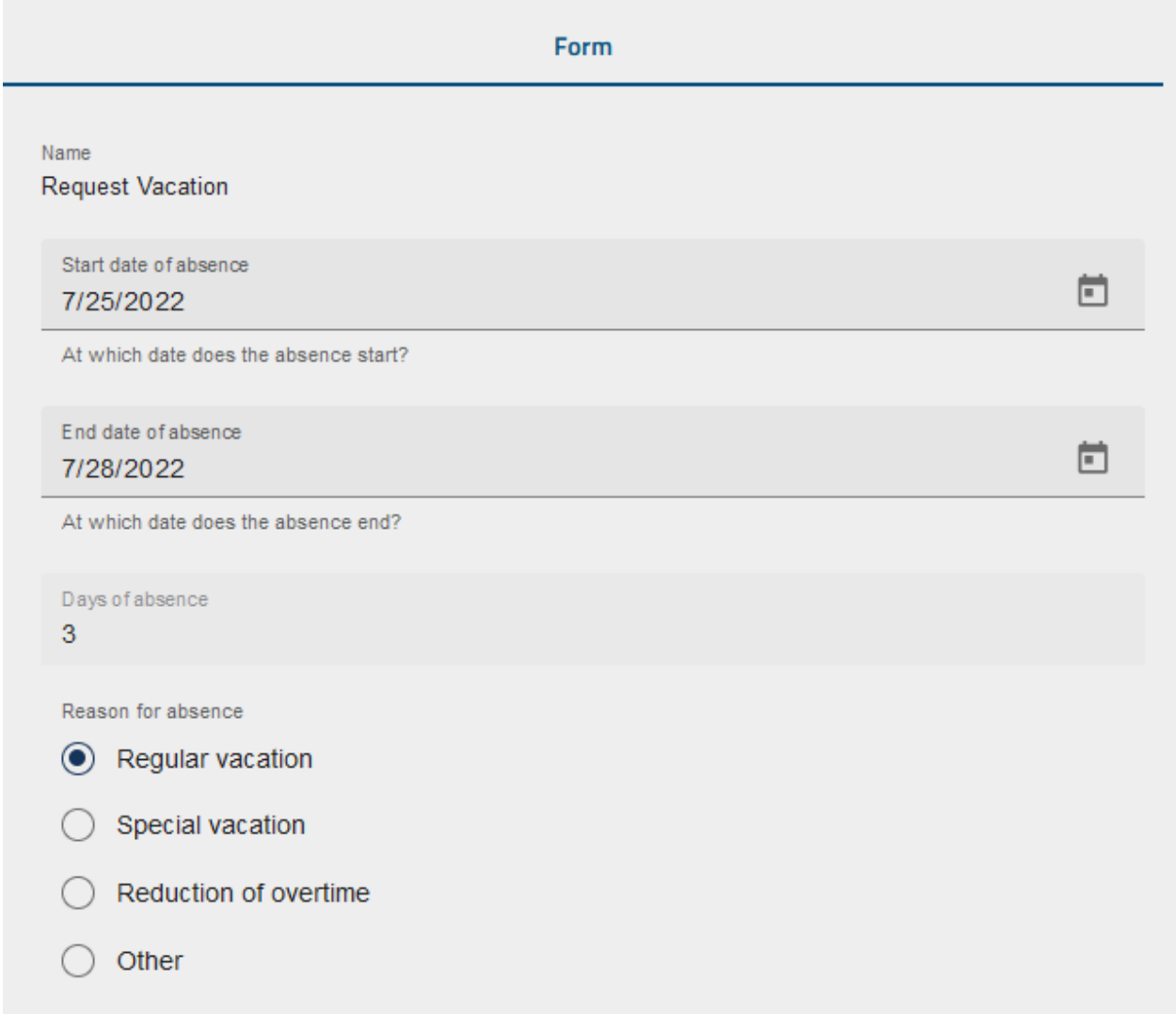


The single choice field can be used when the user needs to choose exactly one of several predefined options.

It has the following additional attributes:

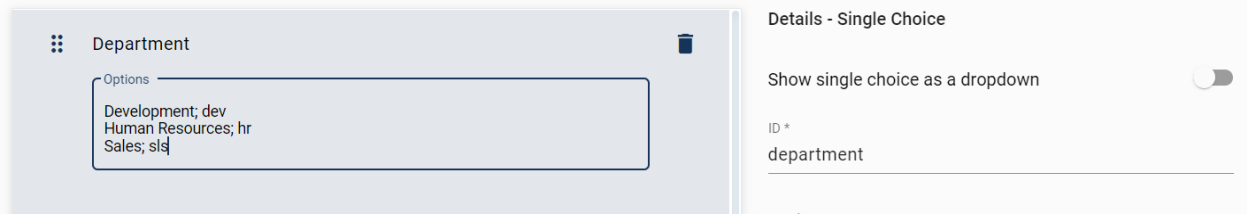
- *Options*: A list of available options from which the user can choose. The options are separated by a line break.
- *Show single choices as a dropdown*: If you activate this attribute, the user can select the desired option from a drop-down menu. These can be selected with a mouse click or entered manually. When the user makes an input, the number of choices is reduced to match the input. If the input does not match any option, no options are displayed. Deactivating the attribute will lead to a presentation of the options in a list.

The single choice field “Reason for absence” in the example above is configured as a drop-down menu. In the following, the option “vacation” has been chosen:



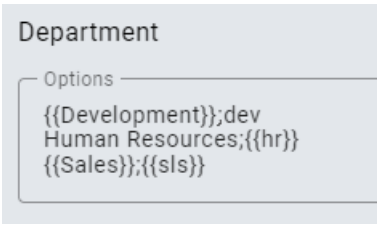
Keys

You can define a key for each option that is stored as the value of the process variable instead of the actual option. You can add the key to the respective option using a semicolon as separator. If an option itself contains semicolons, the last one is detected as separator. For example, the form field “Department” will have the option-key pairs *Development* - `dev`, *Human Resources* - `hr` and *Sales* - `sls`:



If the option *Development* is selected by a user in a case, the process variable “Department” is saved with the value `"dev"`.

You can also make the selection options dynamic. In this case, the options can come from process variables that can change.



The **{{...}}** notation is used as a placeholder and is replaced by the value of the corresponding process variable.

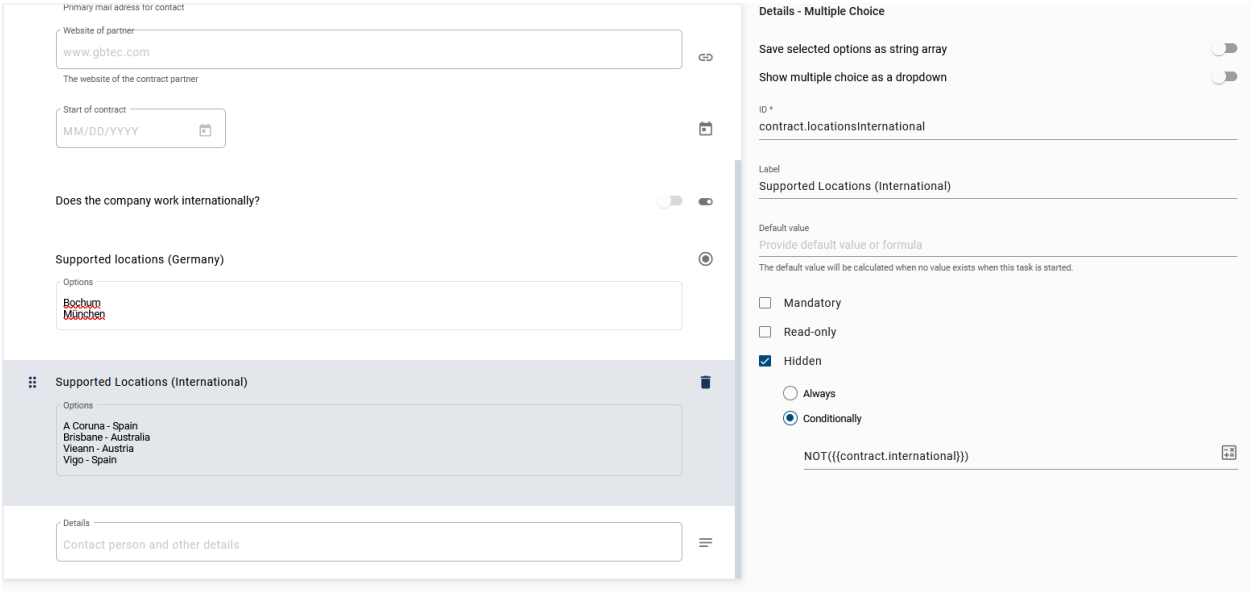
If the value of the process variable used as a placeholder is a comma-separated string, the string is split by the comma. Each split element is then displayed as an independent option that can change depending on other variables.

In this example, `{{MultipleDevelopments}}` is specified as an option, which is a comma-separated string. The task form now displays all the options contained in the process variable.

Warning: Please note that selection fields with multiple selections should not contain duplicate or identical entries. If, for example, the same key such as `"EU"` is listed several times or different selection options such as `"Germany;EU"`, `"Austria;EU"` and `"Spain;EU"` are internally assigned to the same key, this can lead to unexpected behavior. To ensure correct use, all selection options should be clear and distinguishable from each other.

Tip: Keys can also be defined for dynamic options using a semicolon. As with static options, the key associated with the selected option is stored as a process variable.

Multiple choice field

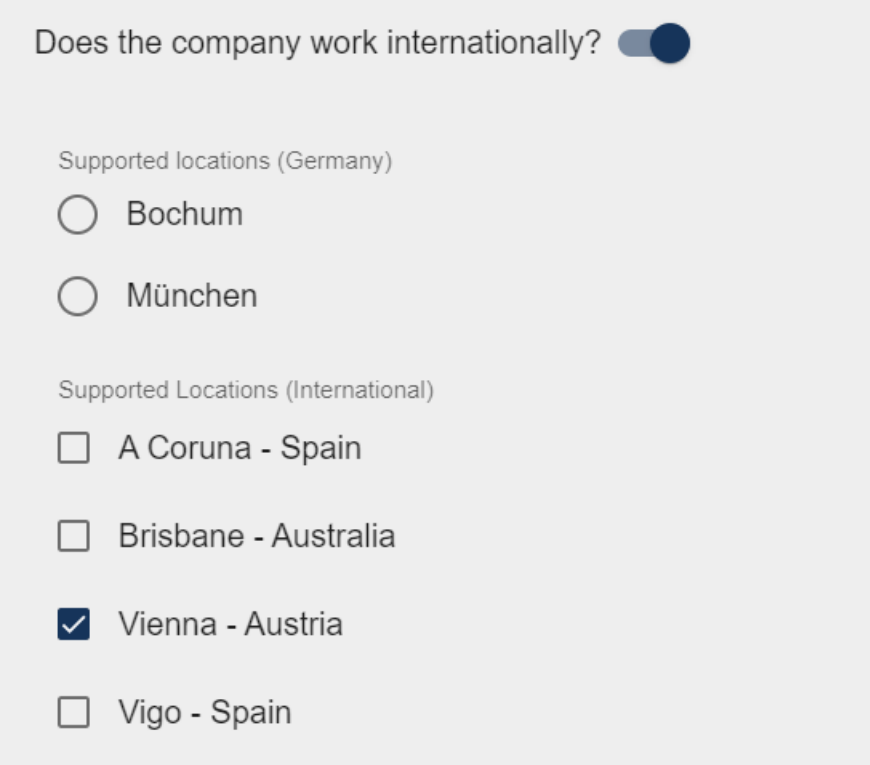


The multiple choice field can be used when the user can or needs to choose one or more of several predefined options.

It has the following additional attributes:

- *Options*: A list of available options from which the user can choose. The options are separated by a line break.
- *Show multiple choices as a dropdown*: If you activate this attribute, the user can select the desired option in a drop-down menu. Deactivating the attribute will lead to a presentation of the options in a list.
- *Save selected options as string array*: This attributes indicates whether the *process variable* is saved as a string or as a string array. If you deactivate the attribute, the process variable is saved as a string. If you activate the attribute, the process variable is saved as an array of strings. The array contains the selected answers. Note that you can define *keys* that are stored in the process variable array. You can find an explanation below the next screenshot.

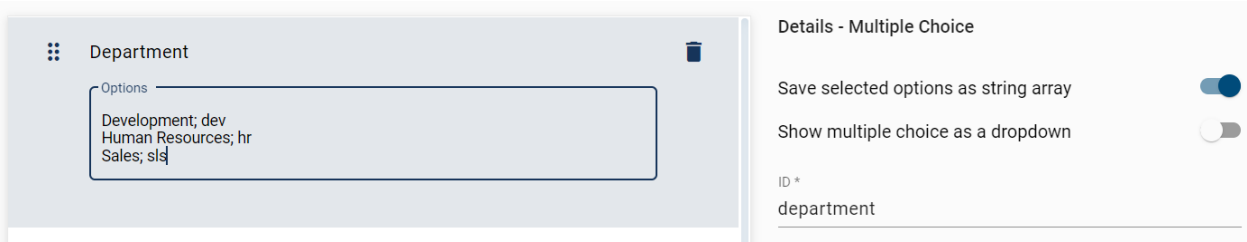
The multiple choice field "Supported Locations" above is only visible in the form if the process variable `contract.international` has the value `TRUE`. The process variable can be set to `TRUE` via the *boolean field* "Does the company supply internationally?". In a running case, the fields are displayed as follows:



Keys

If you activate the attribute *Save selected options as string array*, you can define a key for each option that is stored in the string array instead of the actual option. You can add the key to the respective option using a semicolon as separator. If an option itself contains semicolons, the last one is detected as separator. For example, the form field "Department" will have the option-key pairs *Development* - `dev`, *Human Resources* - `hr` and *Sales* - `sls`:

Note: Please note that this attribute defines whether the process variable is stored as a single string or as an array of strings. If the attribute is deactivated, the process variable is stored as a string. If the attribute is activated, the process variable is stored as a string array containing the selected answers. Additionally, you can define keys that are stored within the string array.



If the options *Development* and *Human Resources* are selected by a user in a case, the process variable "Department" is saved with the value `["dev", "hr"]`.

You can also make the selection options dynamic. In this case, the options can come from process variables that can change.

The **{{...}}** notation is used as a placeholder and is replaced by the value of the corresponding process variable.

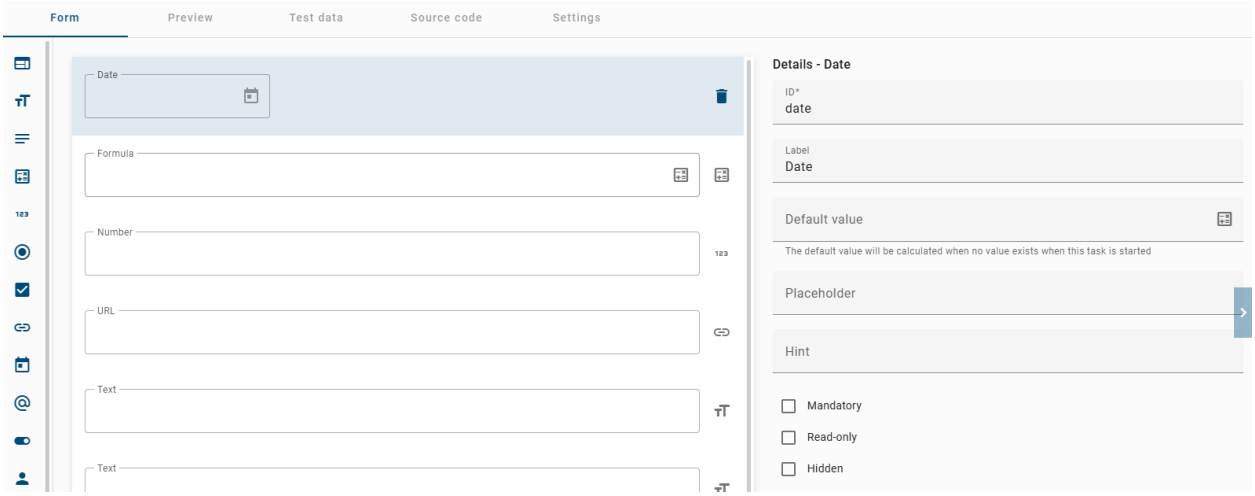
If the value of the process variable used as a placeholder is a comma-separated string, the string is split by the comma. Each split element is then displayed as an independent option that can change depending on other variables.

In this example, `{{MultipleDevelopments}}` is specified as an option, which is a comma-separated string. The task form now displays all the options contained in the process variable.

Warning: Please note that selection fields with multiple selections should not contain duplicate or identical entries. If, for example, the same key such as `"EU"` is listed several times or different selection options such as `"Germany;EU"`, `"Austria;EU"` and `"Spain;EU"` are internally assigned to the same key, this can lead to unexpected behavior. To ensure correct use, all selection options should be clear and distinguishable from each other.

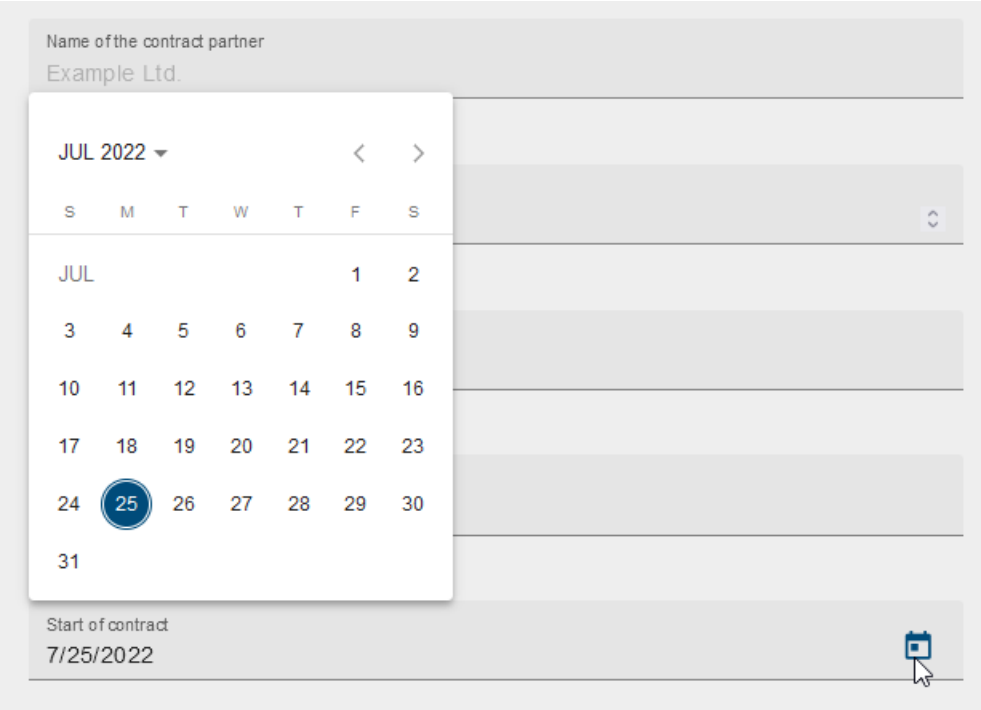
Tip: Keys can also be defined for dynamic options using a semicolon. As with static options, the key associated with the selected option is stored as a process variable.

Date field

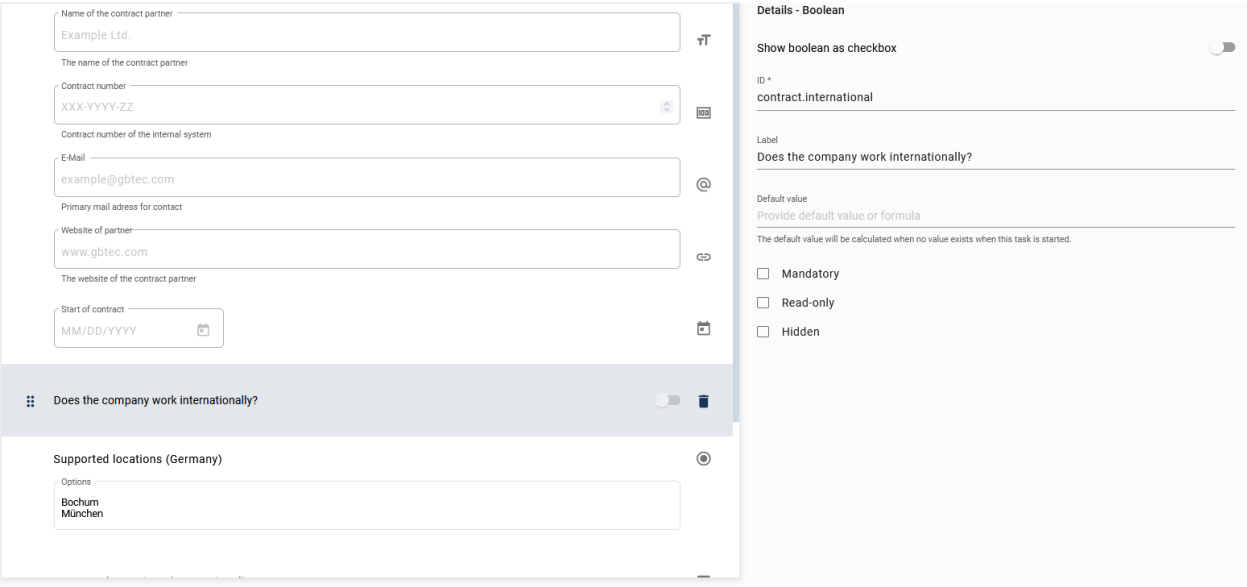


The date field can be used when the user needs to enter a date or display a specific date.

In the example above, two date fields are shown to the user. The desired dates can be selected from a drop-down calendar:



Boolean field

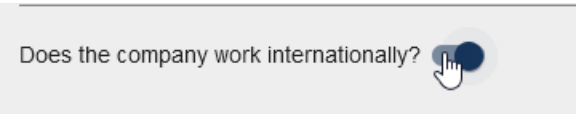


The boolean field can be used for binary (yes/no) or logical (true/false) decisions.

It has the following additional attribute:

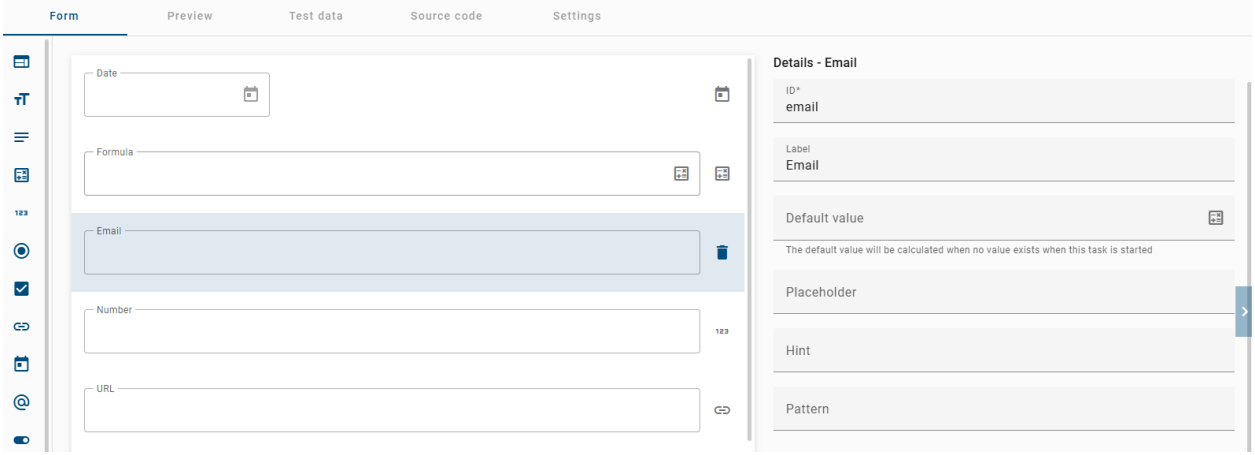
- *Show boolean as checkbox*: The appearance of the field will change and it will be displayed to the user as a checkbox instead of a slider.

In the example, the checkbox is deactivated so that the boolean field is displayed in the form as follows:



Note: If you mark a boolean field as *mandatory*, users must check this field during a case in BIC Process Execution to proceed with their case. If they are not doing that, an error message will appear to inform users that they need to complete the task to proceed further.

Email field

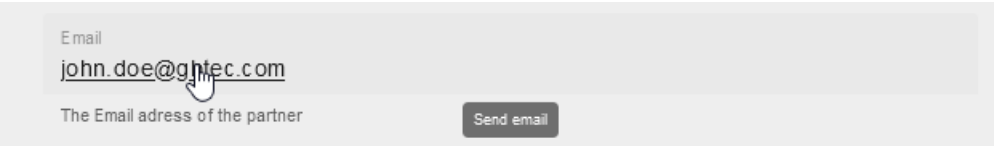


The email field can be used to input or display an email address.

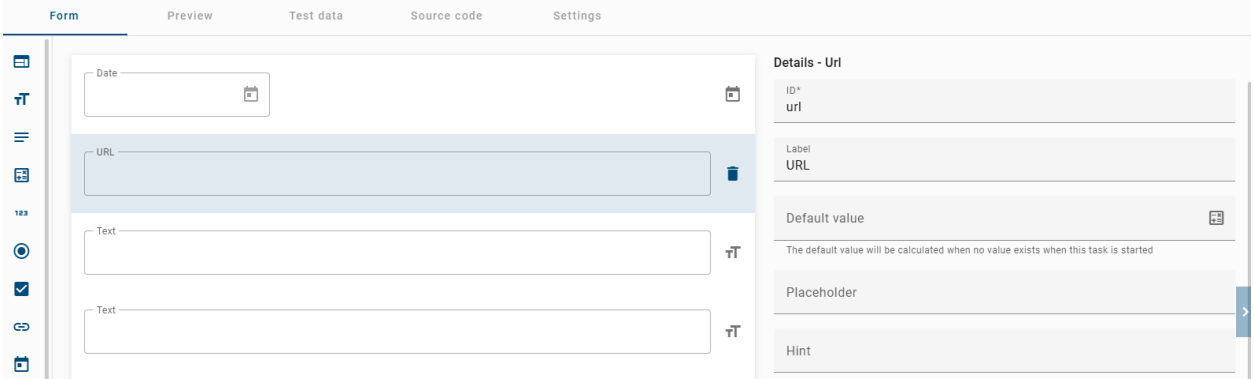
It has the following additional attributes:

- *Pattern*: Enter a regular expression that the input must match in order to be valid. If you do not enter a custom pattern, a standard pattern will check if the input matches an email address.
- *Min length*: This value defines the minimum of characters needed to make a valid input.
- *Max length*: This value defines the maximum of characters needed to make a valid input.
- *Width*: This value indicates how wide the email field is (measured in pixels).

In the following example you can see an email field with the option *Read-only* activated. In that case the email address will be displayed as a link. When you are selecting the link, you will be redirected to your mail program, where you can send an email.



URL field

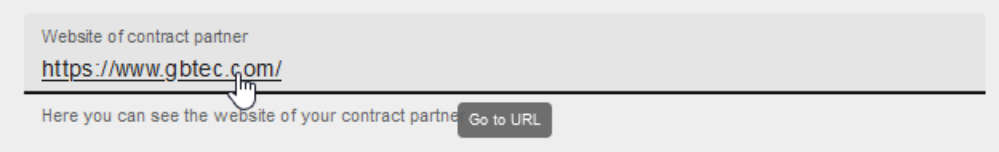


A URL field can be used to call or enter a web address.

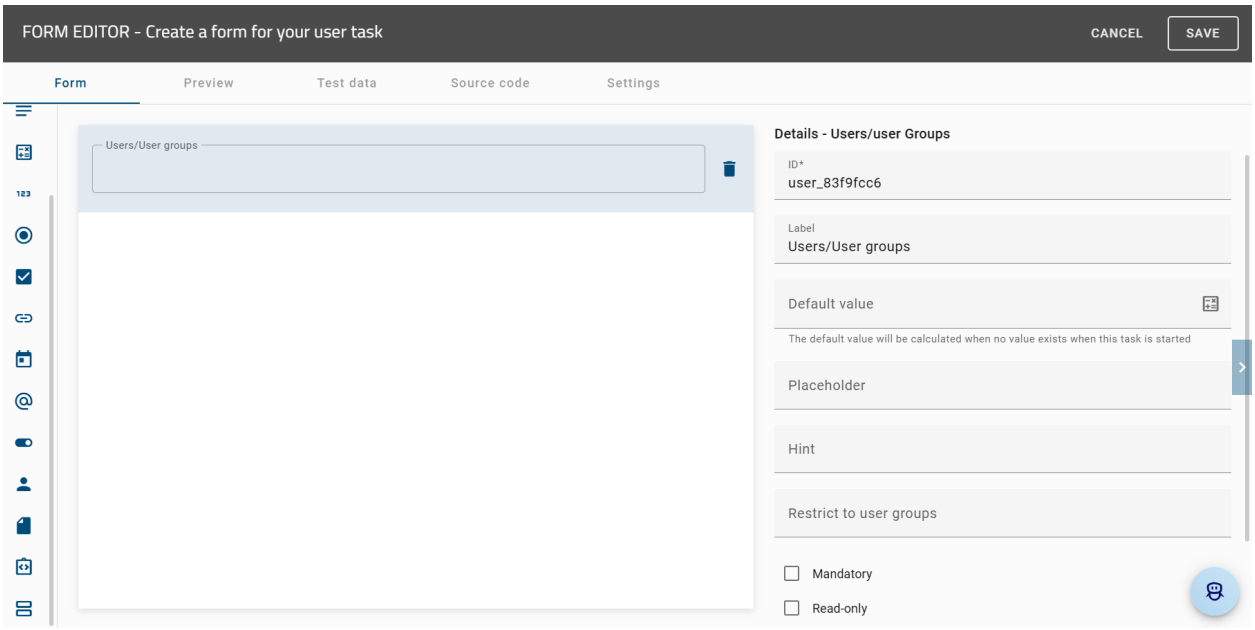
It has the following additional attributes:

- *Pattern*: Enter a regular expression that the input must match in order to be valid. If you do not enter a custom pattern, a standard pattern will check if the input matches a URL.
- *Min length*: This value defines the minimum of characters needed to make a valid input.
- *Max length*: This value defines the maximum of characters needed to make a valid input.
- *Width*: This value indicates how wide the URL field is (measured in pixels).

In the following example, you can see a URL field with the option *Read-only* activated. In this case, the web address will be displayed as a link. When you select the link (Ctrl + mouse click), it will open in a new tab in your browser.



Users/User groups



A Users/User groups field can be used to enter a user or user group to be included in the case. Note that you can only add one user or group to a Users/User groups field. If you start to enter a value in this field, a list of suggestions appears from which you can select a user (group). In the case of a user, the email address is stored as a process variable, and in case of a user group, the name is stored.

Version 7.17.0 now provides additional user information as a JSON object for users and user groups. This JSON object includes the user's ID, name, email, and whether it represents a single user or a user group. To access individual user information, use the assigned ID of the *Users/User Groups* form field as a process variable and retrieve the corresponding value.

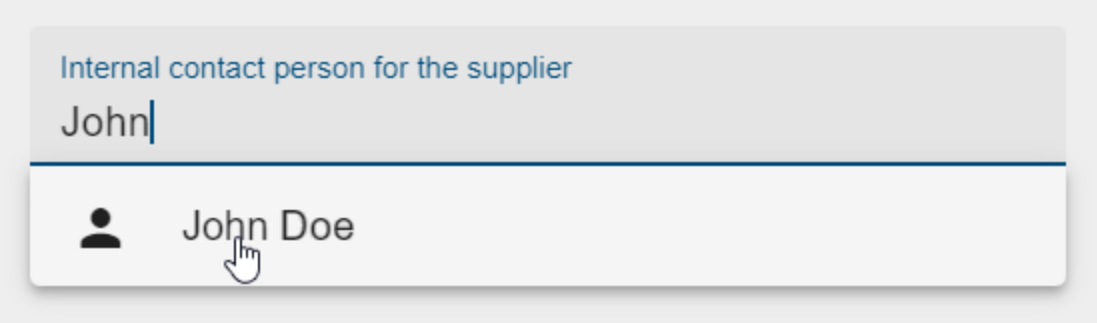
Example:

You have added the *Users/User Groups* form field to the form and set the form field ID to **employee**. The JSON object for the user will now be generated as follows `{"id": "employee", "name": "John Doe", "email": "jd@gbtec.com", "type": "ProcessApp Participant"}`. To access the individual information, you can access the variables as follows:

- .name
- .email
- .type

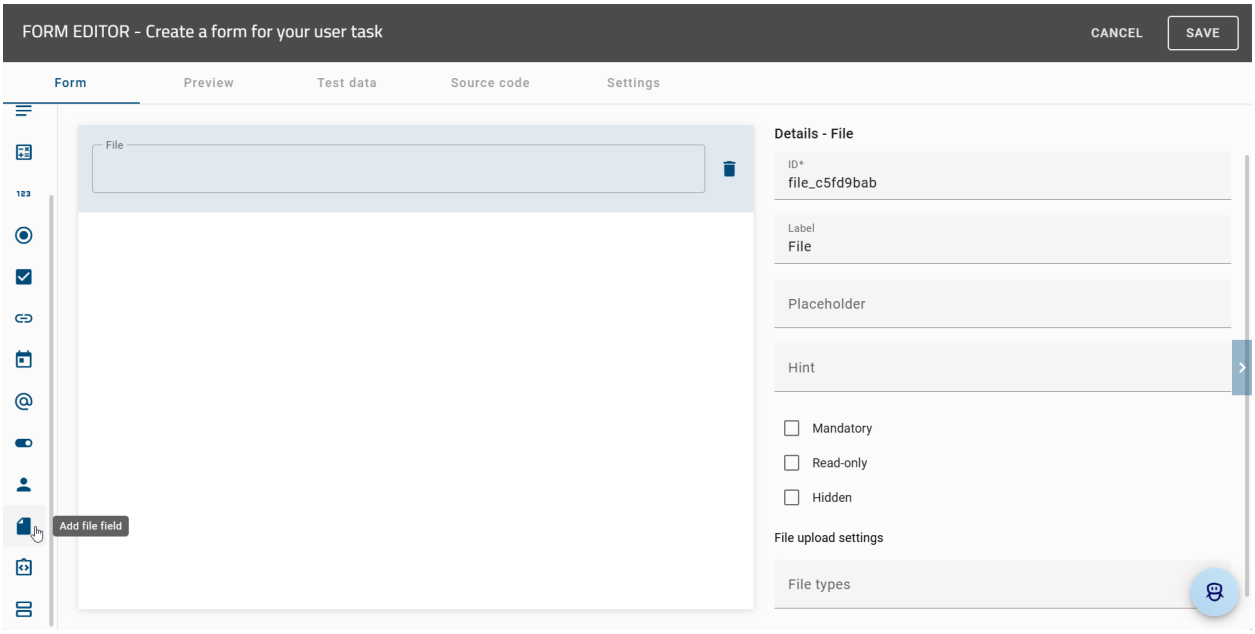
Now you want to retrieve the user's email. To do this, use `employee.email`. In this example, the result is `jd@gbtec.com`.

If the ID of the form field is the same as the identifier attribute of a role in the process, then this role will be linked to the form field. This means, that the initial value of the form field will be the user (group) that occupies the role in the current case. Also, if a new user (group) is set in the form field, this user (group) will occupy the role after the corresponding task is completed.



You also have the option to restrict access to specific user groups. To do this, enter the desired groups in the *Restrict to user groups* input field, where they will be stored and displayed as chips. During process execution, only users who are members of one of these groups can be selected. This ensures that only members of the designated user groups are considered for executing the process.

File



The file field can be used to upload files and embed them in the process.

Note: Please note that the form field and the associated document must have the same identifier for the form field to work. The document then represents either the input or the output document.

If you define a form field as *read-only* and the input document is linked to the same identifier as the form field, the actions of that input document are applied to the read-only fields. A form field that is *not read-only* allows data to be entered, while a *conditionally read-only* field is editable under certain conditions.

If an output document has the same identifier as a form field, the actions of that document are applied to the field. If multiple documents have the same identifier, only the actions of the document whose identifier is displayed in the form field are visible.

If you are using a form with a file upload option, and you have selected a file to upload, a visual representation of the file name of the uploaded file is displayed. This makes it easier to identify the uploaded file in the context of the upload process.

Note: You have the option to use the same file field for both input and output documents. If both the input and the output have the same identifier as the form field for files and only the input contains a document, you can use the file field to download the input file. Conversely, if the output contains a document, you can use the file field to download the output file.

In addition, you can define which file types are allowed to be uploaded for the file field. To do this, enter the allowed files types in the *File types* input field.

You can enter either one or multiple file types. If you want to specify multiple file types, they must be separated by a comma. Please note that only files with the specified file types are allowed to be uploaded. Furthermore, by entering `image/*`, you can allow the upload of all image files (e.g., *.jpg*, *.png*) or by entering `text/plain`, you can allow the upload of all text files.

Note: The *File types* input field accepts a wide variety of MIME types or file extensions. For a better overview of commonly used MIME types, you can find more information here

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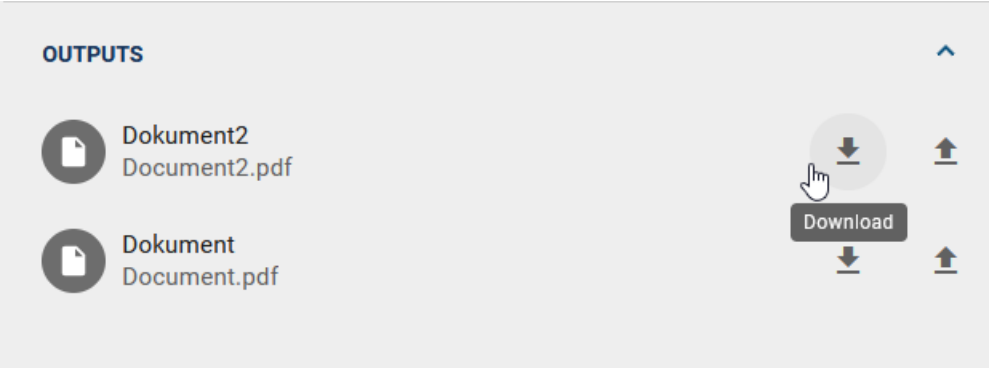
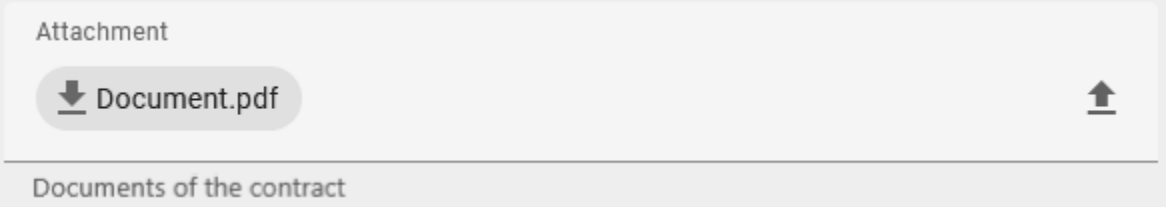
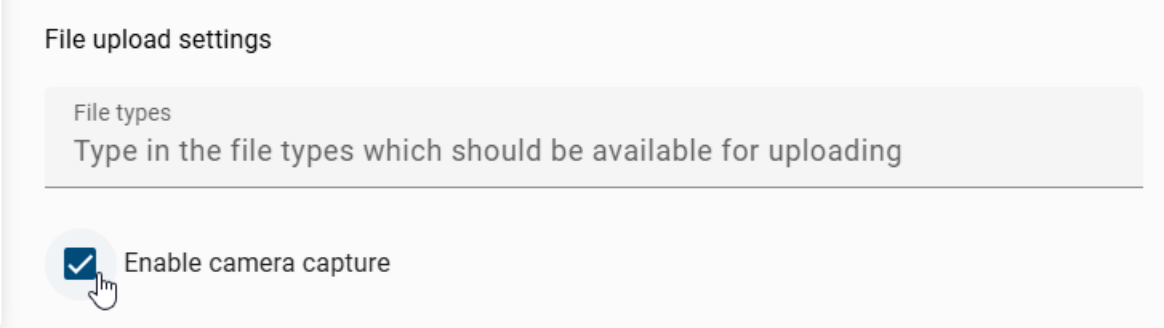
Additionally, you have the option to view uploaded PDF files in the integrated browser PDF viewer by clicking on the *Download* button. If an uploaded file is not supported by the PDF viewer of your browser, the file will be downloaded directly.



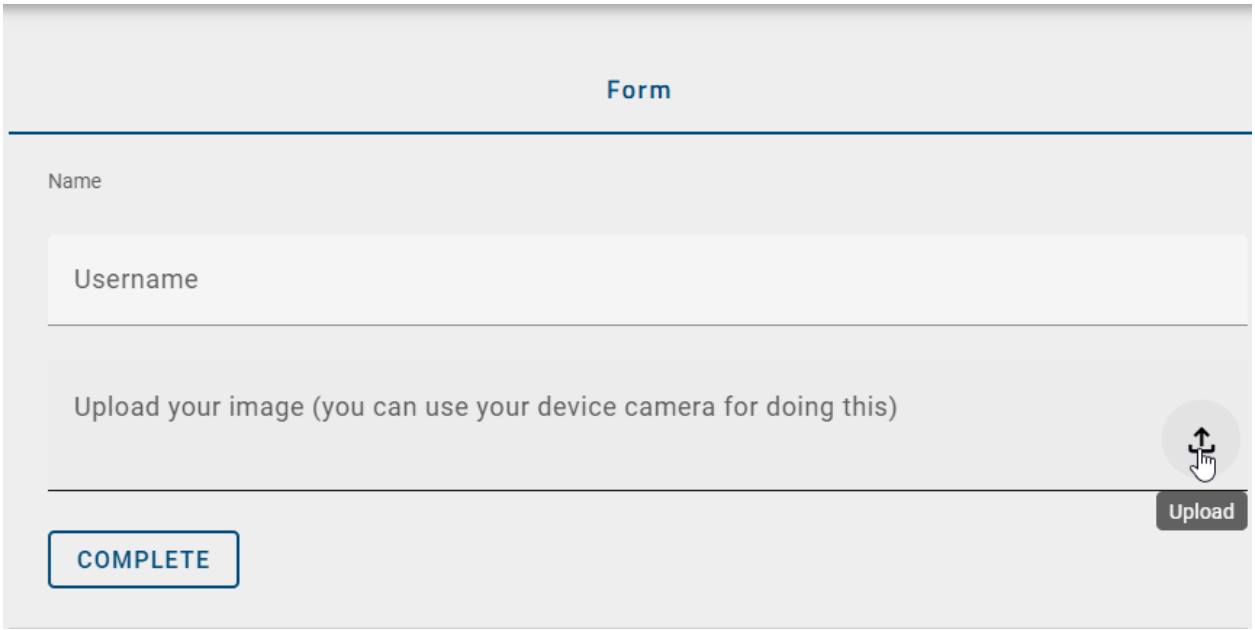
The above field for a file is prepared in the following way in the current process:



As a *ProcessApp Creator*, you also have the option of enabling photos to be taken via the device camera or uploading image files directly in the file field. An additional setting *Enable camera capture* is available for this in the *file field* field type.



If you activate this option, you can take a photo within the form or select an existing image from your gallery.



When you submit the form, the captured or uploaded image is saved and transmitted together with the other form data.

Tip: On mobile devices, a camera icon is displayed next to the upload icon if the device has a camera. If you tap on this icon, the device's camera function opens and the photo taken is automatically added to the form. Alternatively, you can still select an existing image file from your gallery.

Note: Please note that the camera function is usually not available on desktop devices. In this case, no camera icon is displayed. Instead, you can use the file upload icon to select an existing image file from your computer. The upload works as usual without an error message being displayed.

As a user with the role *ProcessApp User*, you can use the *File* field within repeating sections of a form. This allows you to upload one or more input documents for each repetition and to reliably reuse these files in subsequent tasks. You can also link multiple input documents to a single activity, enabling you to upload several files at once.

Note: Please note that if a *File* field is placed within a repetitive section and you upload a file in multiple repetitions,

each of these files is stored separately.

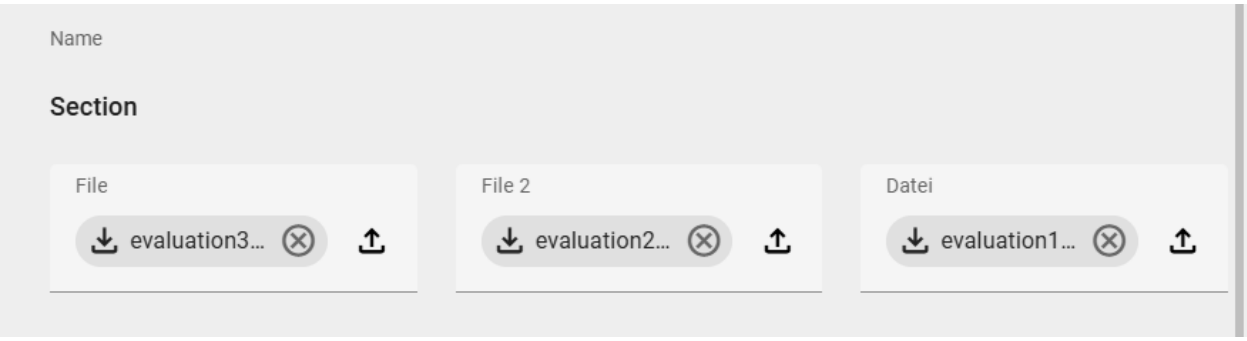
Tip: In later tasks, you can access each uploaded file individually. You can also see at any time how many files have been uploaded in total. Each file remains uniquely assigned to its respective repetition, ensuring that the relationship between the other input data and the uploaded file is maintained.

Note: Please note that even if the file upload is marked as *Optional*, the behavior remains unchanged.

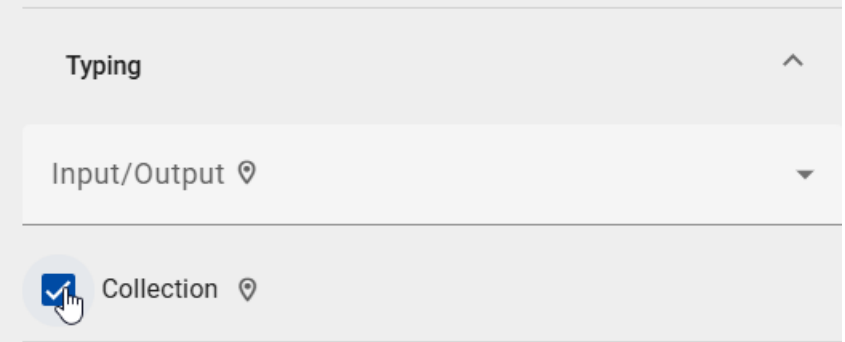
For a successful implementation, you must assign an identifier to the corresponding file. The document identifier consists of the identifier of the *Section* and the identifier of the contained *File* field. Both identifiers must be separated by a period.

Example:

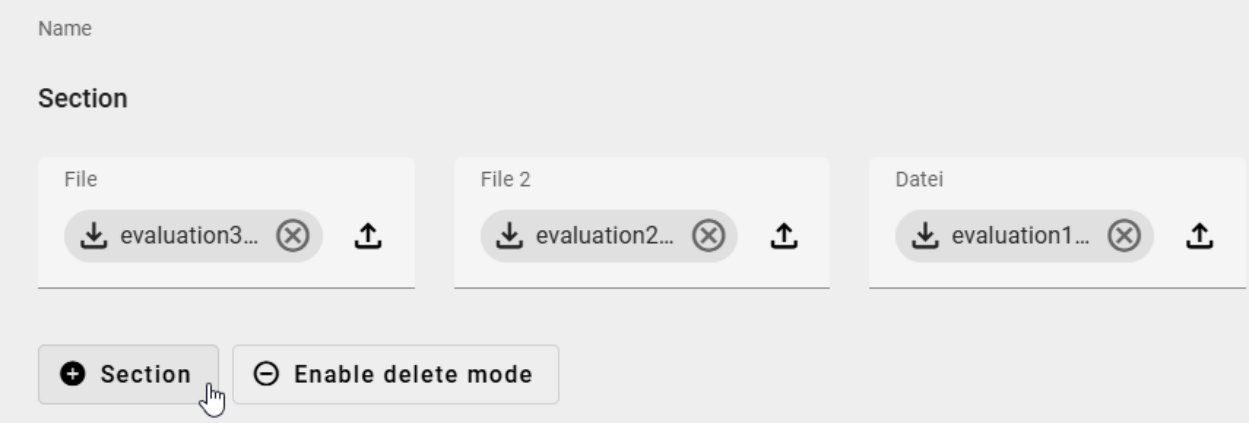
If the repetitive *Section* has the identifier `customerData` and the contained File field has the identifier `contract`, the complete identifier for the input document is `customerData.contract`.



To ensure the function works correctly, the *Collection* checkbox must be activated for the corresponding document. To do this, open the *Details* panel in the right sidebar and switch to the *Typing* tab. Then click the *Collection* checkbox to activate it. The function is fully available only after this setting has been applied.

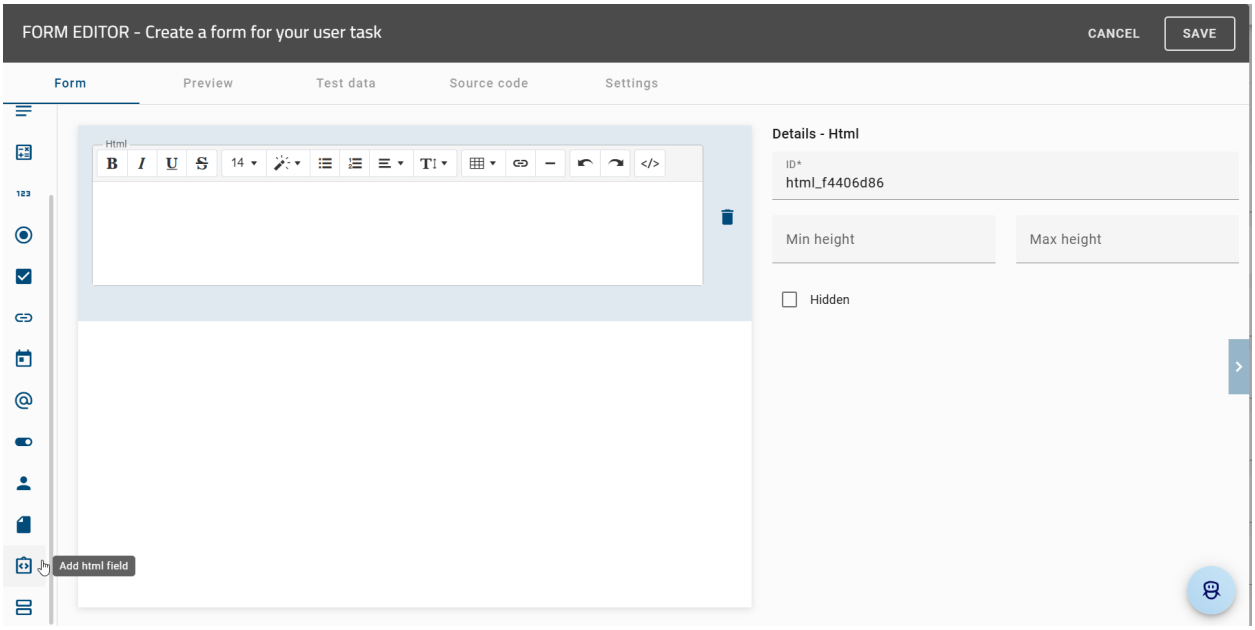


In the executed ProcessApp, you can add an additional section using the *Section* button and assign further documents to this section.



You can start deleting a section by clicking the *Enable delete mode* button. Then click the trash can to the right of the *Section* to delete it. To exit delete mode, click the *Disable delete mode* button.

HTML



The HTML field can be used to display clear and helpful instructions to help you fill out the form. These include text formatting, integrating links and the use of simple HTML tags.

For example, if you use the HTML text `<p>Welcome, {{first_name}} {{last_name}}! Please check the information carefully.</p>`, the content will be displayed in the preview of the form editor. When the form is executed, the placeholders {{first_name}} and {{last_name}} are dynamically replaced by the corresponding process variables.

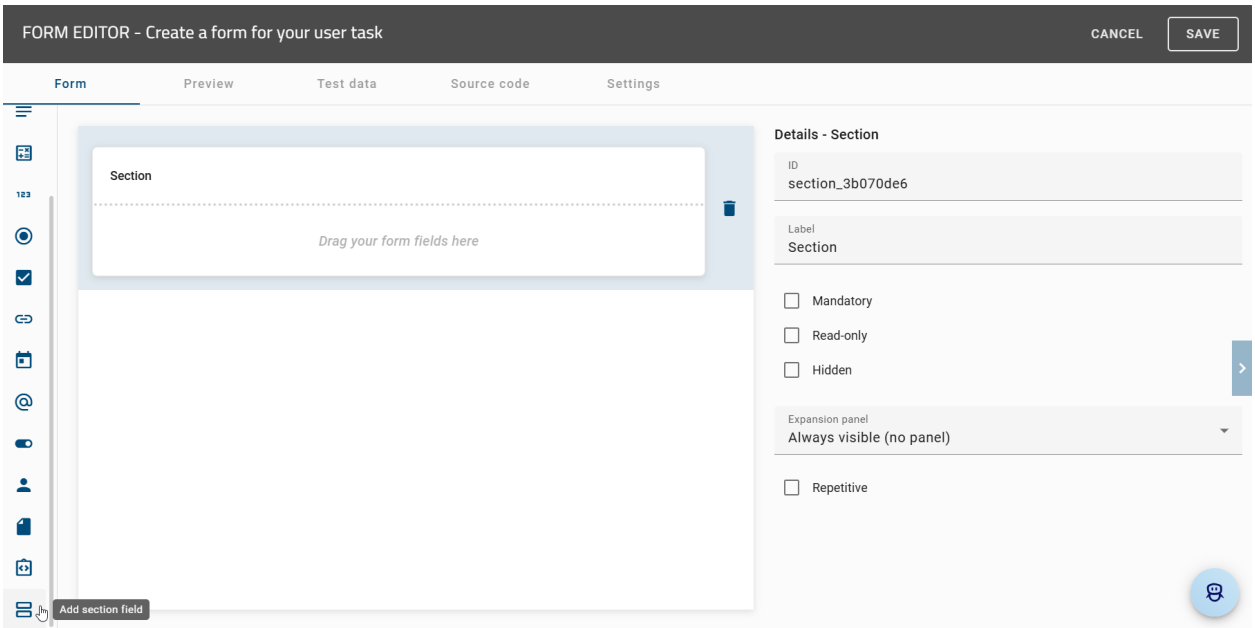
As a *ProcessApp Creator*, you have the option to retrieve task attributes directly within a task. To do this, use the `getAttribute()` function within an *HTML field* in a form. This function returns the value of a specific attribute, for example, the task description with `getAttribute("AT_DESCRIPTION")`. To receive an attribute in a specific language, you can specify the language, for example: `_task.getAttribute("AT_DESCRIPTION", "en")`.

You can also access attributes via the task variable, for example with `_task.getAttribute("AT_DESCRIPTION")`. If the task variable is not available, `getAttribute()` will return the value `null`. In addition, you can retrieve attributes in combination with properties, for example `_task.instance.id` to obtain the instance ID of the process to which the task belongs.

Hint: Please note that you also have the option to use *formulas* in HTML fields, just as you can in formula fields.

Hint: Please note that currently only the attributes of the task itself are available, while linked elements such as documents or risks cannot be retrieved.

Section



The section field can be used to create multiple sections with different column layouts. In the details in the right sidebar, you must enter an ID if the *Repetitive* option is selected. Otherwise, the ID is optional. Additionally you can select a label and the *Mandatory*, *Read-only* and *Hidden* attributes. Once you have assigned an ID to a section, it automatically becomes part of the IDs of all form fields contained therein. You can therefore only access the associated form fields using the combination of section ID and field ID. If a section is assigned the ID *address* and contains a form field with the ID *street*, it can be accessed via *address.street*.

Hint: Please note that if the *Repetitive* option is disabled, the previously entered ID remains saved in the background. To avoid saving errors caused by duplicate IDs, briefly re-enable the repetitions, delete the ID manually, and then disable the option again. In this context, also check and update all form fields within the section that reference this ID.

To create a section with a specific column layout, open the form editor and add a new section from the left sidebar. Once a section has been added, you will receive a message informing you how to change its layout. Select the section to make further adjustments, such as adding form fields.

If the section is marked as *Mandatory*, all form fields within the section must be filled out by the user. If a section is marked as *Read-only*, the user cannot edit any form fields within that section. If the section is marked as *Hidden*, all form fields within the section will be hidden and will not be visible to the user.

Marking a section as *Repetitive* allows you to define a minimum and maximum number of repetitions. This determines how many times the section can appear when the form is being filled out. In the process flow view, a *+ [Section]* button will be displayed below the section, allowing additional entries to be added until the specified maximum is reached. Additionally, you can choose whether the section title should be included in the repetitions within the form.

To link fields in a repetitive section to other fields within the same section, use the `_index` variable. This variable represents the current position of the respective entry in the repetition. The first entry always begins with the number 0.

Note: A section ID is automatically generated for each section and displayed in the upper right corner of the details. The section ID is available regardless of whether the *Repetitive* option is enabled or not. If the Repetitive option is enabled, the section ID is a mandatory field. Otherwise, it is optional. Even non repetitive sections thus have a unique ID that can be used for technical references or internal links.

Example:

You have these three form fields in the repetitive section:

- `text_1` (text field)
- `text_2` (text field)
- `formula` (formula field)

To ensure the formula in the formula field works correctly for each element, use the `_index` variable to reference the current index:

```
Code for the form editor:

[
    {
        "key": "repetitive_section",
        "props": {
        "label": "Repetitive section",
        "fieldRepetitive": true
    },
        "type": "section",
        "fieldGroup": [
            {
                "type": "formly-group",
                "fieldGroup": [
                    {
                        "key": "text_1",
                        "props": {
```

(continues on next page)

(continued from previous page)

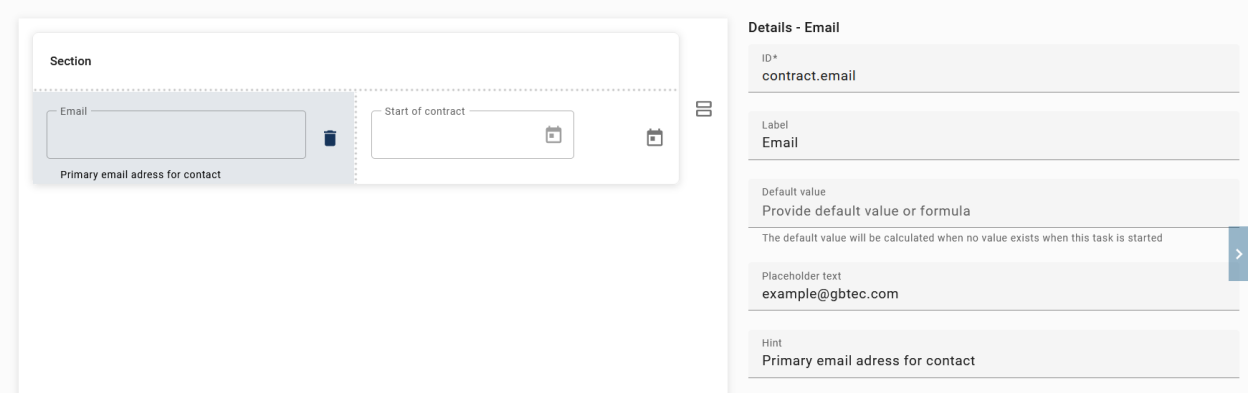
```
                            "label": "Text field 1"
                        },
                        "type": "text"
                    },
                    {
                        "key": "text_2",
                        "props": {
                            "label": "Text field 2"
                        },
                        "type": "text"
                    }
                ]
            },
            {
                "type": "formly-group",
                "fieldGroup": [
                    {
                        "key": "formula",
                        "props": {
                            "label": "Formula field",
                            "readonly": true,
                            "placeholder": "",
                            "formula": "CONCAT(repetitive_section[_index].text_1,
↪repetitive_section[_index].text_2)"
                        },
                        "type": "formula"
                    }
                ]
            }
        ]
    }
]
```

Each element in the array is evaluated independently when processing the form. The `_index` is used to access the correct values for a specific element:

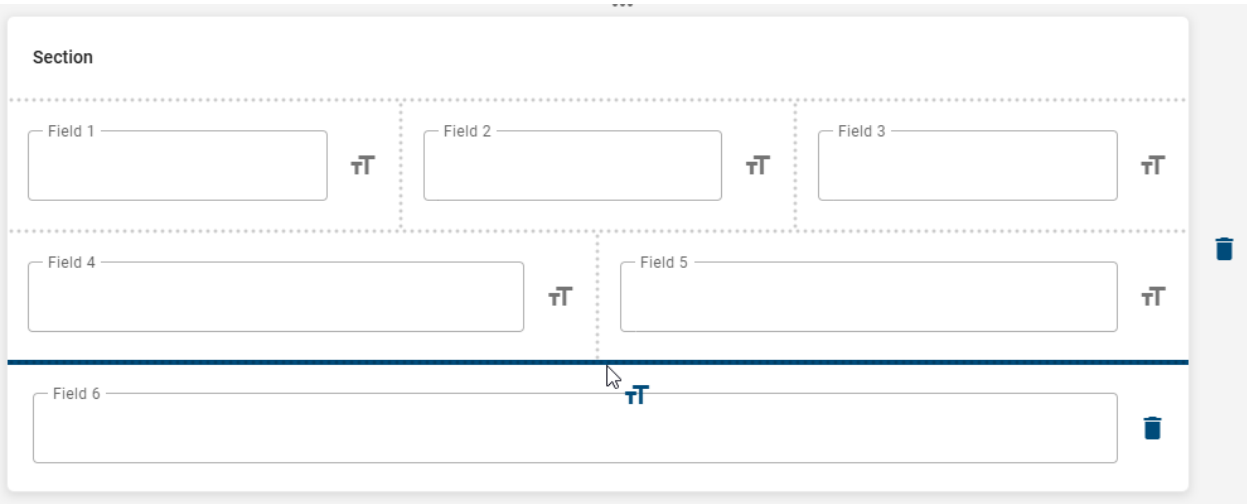
```
repetitive_section[0].formula = CONCAT(repetitive_section[0].text_1,repetitive_
↪section[0].text_2);
repetitive_section[1].formula = CONCAT(repetitive_section[1].text_1,repetitive_
↪section[1].text_2);
repetitive_section[2].formula = CONCAT(repetitive_section[2].text_1,repetitive_
↪section[2].text_2);
// ...
repetitive_section[n].formula = CONCAT(repetitive_section[n].text_1,repetitive_
↪section[n].text_2);
```

Note: Please note that the date picker icon will not appear if you add another section to the web form that contains a repetitive section with a date picker.

Once you have created sections and added form fields, you can click on the corresponding form fields to view an overview of their details in the right sidebar.



You can also add multiple rows to a section to efficiently enter and organize larger amounts of data. To do this, drag any form field (except the section field) above or below a row to add it to the section. The blue line will indicate the exact position.

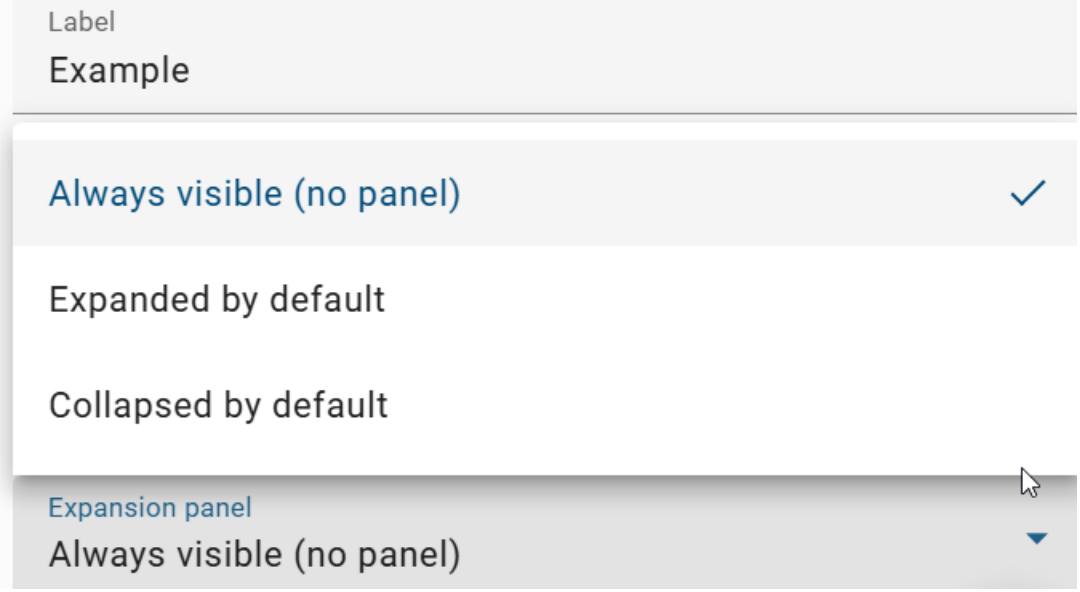


If you rearrange or remove fields within a section, the original column layout will be preserved. This means that the column arrangement remains unchanged, even if fields are modified. However, if you delete all fields from a row, the row will be removed.

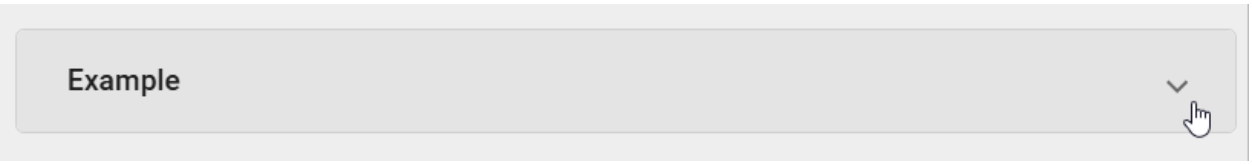
It is possible to add multiple sections to the form, each with its own independent layout for the columns of form fields.

In the user role *ProcessApp User*, you can use the *File* field within repeatable sections of a form. This allows you to upload one or more input documents per repetition and reliably reuse these files in subsequent tasks. For more information, see *here*.

As a *ProcessApp Creator*, you have the option to configure the visibility of your section during process execution. The visibility determines how the section is displayed. Navigate to the *Expansion panel* area in the right sidebar of the form editor. Using the corresponding dropdown, you can specify how the section is shown in the process. If you select *Always visible (no panel)*, which is set as the default, the section will always be visible in the process and cannot be collapsed. With *Expanded by default*, the section is initially open but can be collapsed manually. If you choose *Collapsed by default*, the section is initially collapsed in the process and can be opened manually if needed.



For sections configured as either *Expanded by default* or *Collapsed by default*, an arrow icon appears on the right side, allowing the section to be expanded or collapsed.

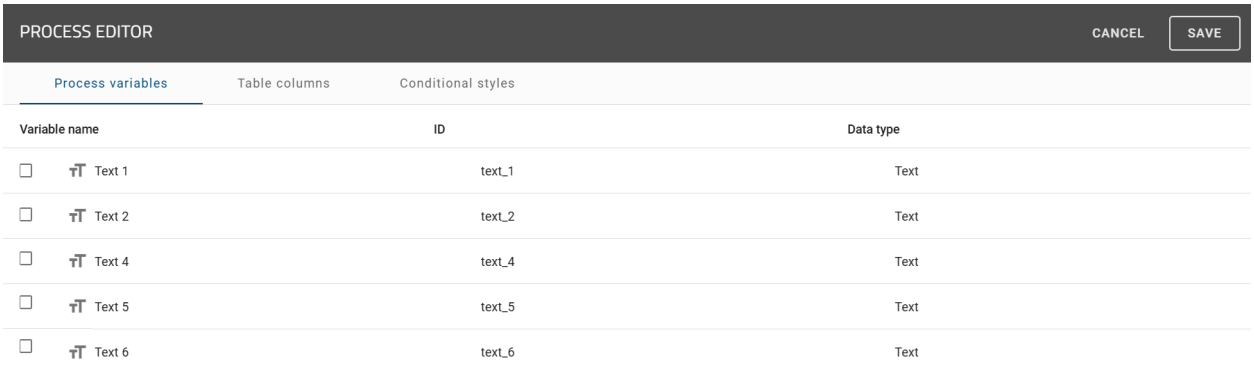


Note: Please note that a title is required for a collapsible section. It must be provided by the form creator.

Note: Please note that for a section containing an error, the title of the affected section will be highlighted and displayed in red.

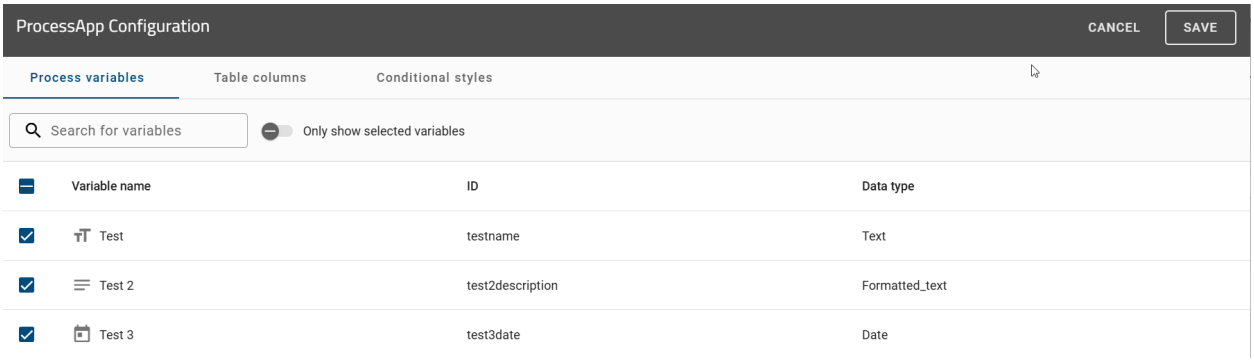
How can I view all process variables used in the form editor?

As a user with the *ProcessApp Creator* role, you can view all process variables of the current diagram that you have used in one or more forms. This configuration takes place in *BIC Process Design*. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header. In *BIC Process Design* open a diagram, check it out, and click on an empty area of the canvas. Then, in the *Details* panel in the right sidebar, select the *Automation* attribute group and mark the process as an *executable process*. Next, switch to the *Options* panel and select the *Process Execution Editor* entry. Then, click *Open editor*. The process editor will then open, showing all available process variables in form of a list.



Here, the *Variable name* corresponds to the label of a form field, the *ID* corresponds to the form field's ID, and the *Data type* corresponds to the form field type. To add more process variables, you must configure additional form fields. For instructions on how to do this, see *here*.

You also have the option to search for specific process variables. A search field is available that allows you to find process variables by variable name or ID and, if needed, select them for *configuring custom columns in a ProcessApp*. You can view the variables you have already selected by clicking the *Only show selected variables* button.

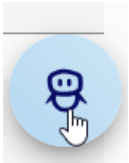


Hint: Please note that to increase clarity and avoid redundancies, process variables are only saved once in the list. As soon as a variable is declared for the first time, it appears in the list. If the same variable is used again in further tasks, no additional entry is made.

How can Arty help me with the configuration of a form?

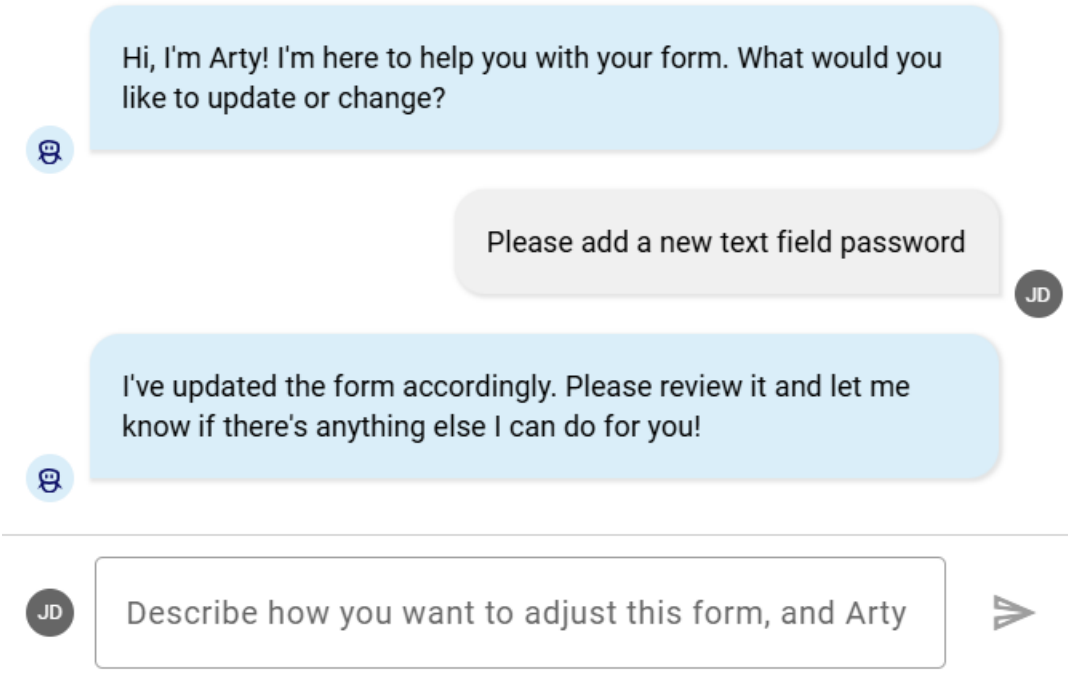
As a *ProcessApp Creator*, you have the option to let our AI assistant, *Arty*, help you configure a form. This configuration takes place in *BIC Process Design*. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header. In *BIC Process Design*, check out a diagram. Then, right-click on an activity that is typed as *User* task type and open the form editor. *Here* you will find more information about creating and configuring a form.

To get help from Arty, the AI-supported features must be enabled for you, and you should have already configured a form or placed at least one form field in the form editor. Once these steps are completed, you will see an Arty button at the bottom right of the form editor.



Clicking on this button will open a chat with Arty. Here you can enter your adjustments and changes to the form and send them to Arty by pressing Enter or clicking the send button.

Once you have sent your request to Arty, he will revise the form for you and inform you of the changes in the chat. You can then send more request to Arty.



Warning: Please make sure that yo provide Arty with all relevant information (e.g., position of the form field) so that the request can be processed correctly. Otherwise, Arty may not be able to process your request.

Tip: You also have the option of automatically linking form fields to existing process variables. Arty recognizes process variables that already exist in the process variable list and, if desired, automatically inserts them into the current form. The selection or instruction is made directly in the chat, so no manual assignment is necessary. Existing variables are reused, and new variables can be generated automatically as needed.

If you no longer need Arty's help, you can close the chat by clicking the *X* button. When you reopen the chat, previous messages will no longer be visible. Be sure to save your changes by clicking the *Save* button in the upper right corner of the form editor.

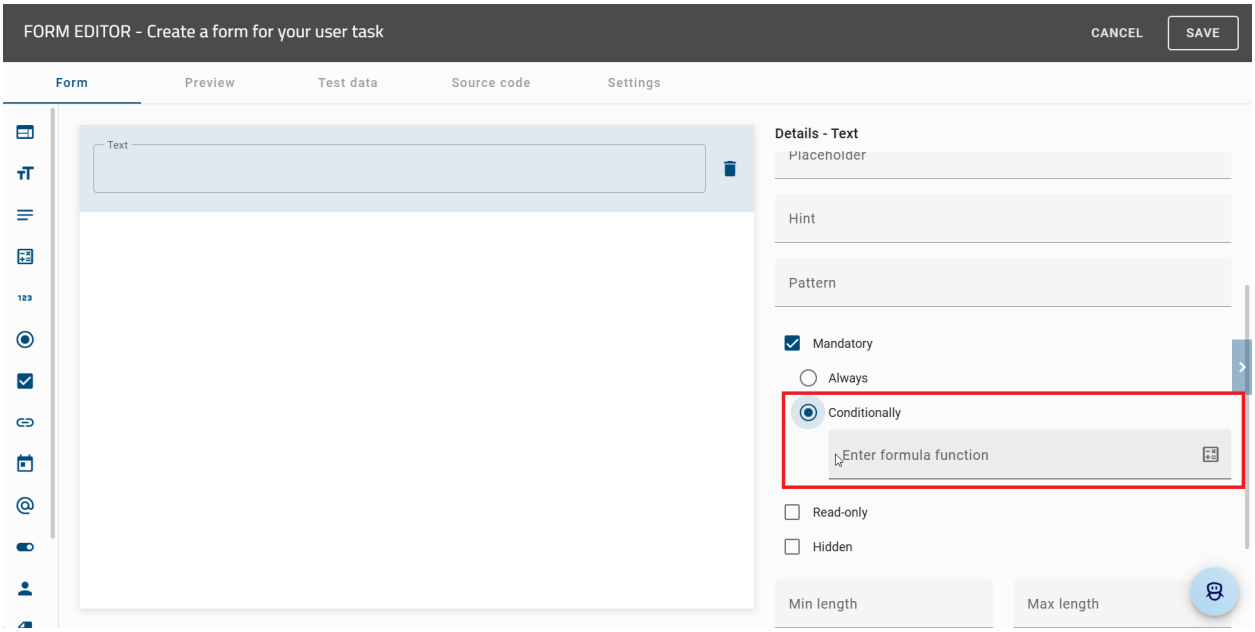
Tip: When you, as a *ProcessApp Creator*, are configuring a new form, Arty can create a draft using the *Generate form* button. To do this, the AI-supported features of Arty must be enabled for you. For more information, click *here*.

Hint: Please note that the AI-supported features of Arty are not included in the standard licence. Please contact your representative for more information. Please also refer to the notes on using the *AI feature*.

How can I test formulas in the form editor?

In the form editor, you can test formulas in all form fields in which a default value can be defined or the attributes *Mandatory*, *Read-only* or *Hidden* are available. To do this, select any form field in the form. In the *Details* panel in the right sidebar, next to the *Provide default value or formula* input field, you will find a button that enables extended input options and the testing of formulas.

For the attributes *Mandatory*, *Read-only*, and *Hidden* in the respective form fields, the option **Conditionally** must be selected to enable the button.



Once you have clicked on the button, a formula editor opens in which you can enter a formula to calculate the default value. To check your formula in advance in the form editor, you can enter variables in the *Input variables* input field and use the *Evaluate* button to test the formula. The result is displayed in the *Output* field as key-value pairs in JSON format.

You can then save your formula using the *Save* option. To discard your input, click the *Close* button.

Code to copy and test:

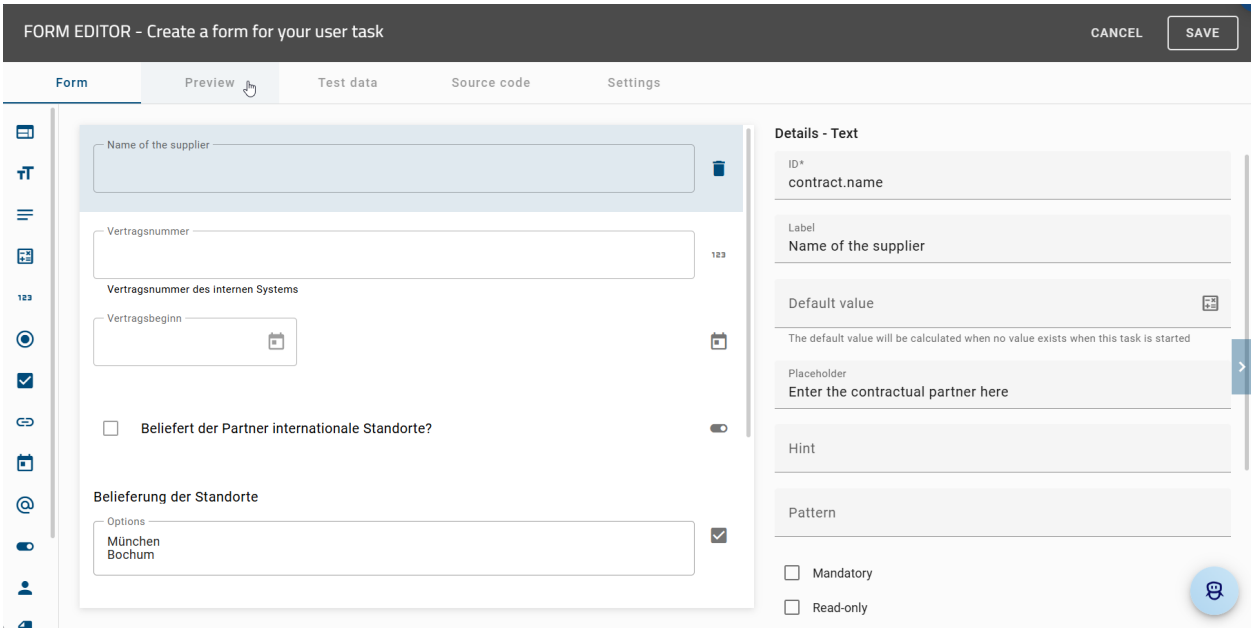
```
Default value expression:
CONCAT(first, " ",last)

Input variables:
{
    "first":"John",
    "last":"Doe"
}
```

Hint: For more information about the formulas you can use, click here.

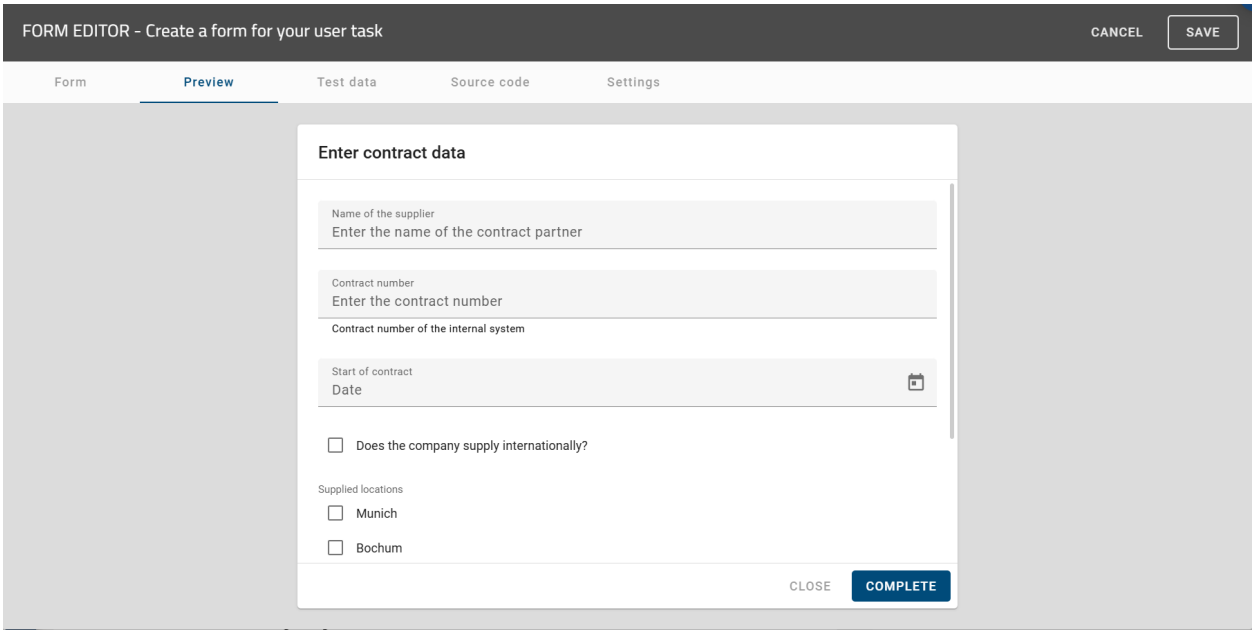
How can I preview the form in the form editor?

As a *ProcessApp Creator*, you can create a form for a task using the *Form editor* and check it at any time in a *Preview*. To do this, select the *Diagrams* menu item in the left menu bar in *BIC Process Design* and open a diagram from the desired repository. After opening it, *check out the diagram* so that you can edit it. Then select an activity in the diagram and type it as a *User* task type in the *Details* panel in the right sidebar. You can then open the *Form editor* either using the context menu of the selected activity or using the *Process Execution Editor* in the *Options* panel in the right sidebar.

After creating or modifying a form, you can open a preview of its current state by clicking the *Preview* button. The preview is displayed directly within your current workspace and reflects the latest version of the form draft. Unsaved changes are also included, allowing you to review and validate your adjustments immediately without needing to save them first.



The preview shows the form as it will later be filled out by users in the running process. You can interact with the form by filling in input fields, making selections or using buttons to check whether the form responds as expected. Necessary entries are highlighted and dependent fields are automatically shown or hidden so that the behaviour of the form during later use can be realistically simulated.



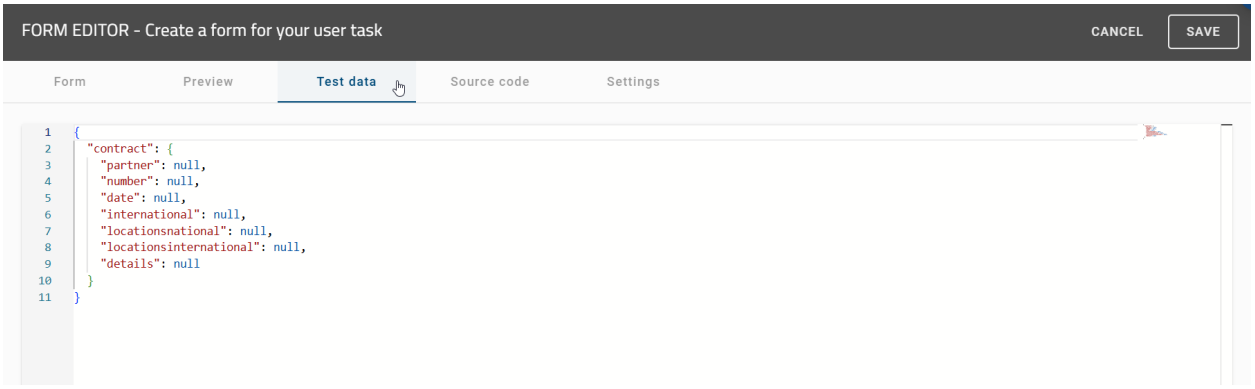
The form preview ensures that the form can be checked at any time in its current processing state, including unsaved changes, validated behaviour and correct display, thus providing a reliable basis for further configuration and provisioning of the process.

Hint: Please note that a corresponding empty message will be displayed in the preview if you have not yet added any process variables to the form.

How can I use test data for my form in the form editor?

As a *ProcessApp Creator*, you can create a form for a task using the *Form Editor* and test it at any time with sample values. To do so, select *Diagrams* from the menu on the left in *BIC Process Design* and open a diagram from the desired repository. After opening the diagram, *check it out* so that it can be edited. Then select an activity in the diagram and set its task type to *User* in the *Details* panel on the right. You can then open the *Form Editor* either using the context menu of the selected activity or via the *Process Execution Editor* in the *Options* panel on the right.

In addition to the form preview, the *Test data* tab is available in the Form Editor. This area allows you to define sample values in JSON structure for the fields used in the form so that you can realistically test the form's behavior without having to start the process itself.



When you open the *Test data* tab, all fields used in the form are displayed automatically. For each field, you can enter

suitable sample values, such as a name, a price, or a quantity. In addition, values are also prepared for fields that are not directly visible in the form but are used in the background, for example for calculations or placeholders.

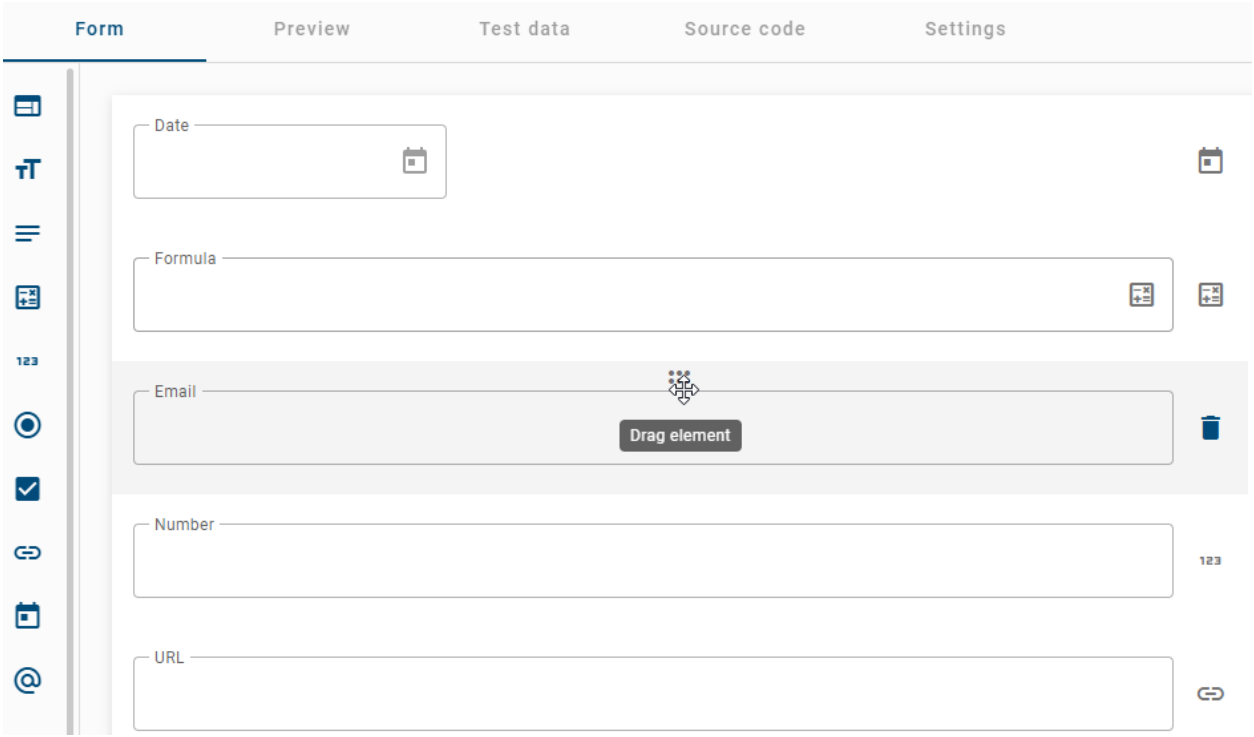
As soon as you modify the Test data, the changes are applied automatically to the form *Preview*. The form updates immediately, allowing you to see the effects of your inputs right away. This makes it easy to verify whether calculations are displayed correctly, content appears as expected, and the form responds properly to different inputs.

The values entered in the *Test data* tab are retained and are not reset automatically. This allows you to further refine your form step by step and repeatedly test it using the same or adjusted sample values.

How can I rearrange the position of my elements within the form?

In the form editor, you can easily customize fields by dragging and dropping. You can drag and drop fields from the palette to a section, place *fields from the base list* anywhere in sections, and move fields from a section back to the basic list. You can also rearrange fields within a section. As you drag a field, a blue line always appears to mark the possible position, regardless of how far away the next field is.

Hint: Please note that it is not possible to insert a section into another section.

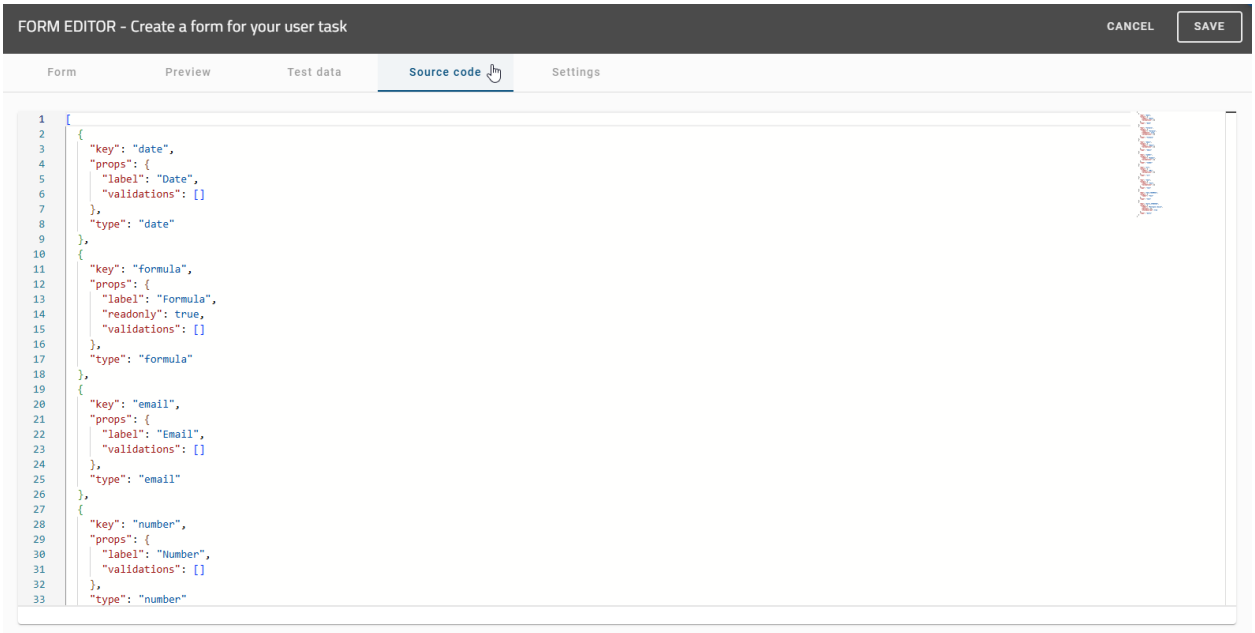


How can I remove one of my form fields from the form?

To remove a form field from the form you need to select the option *Delete Element* on the right side of the field. The entry will be removed from the list of form fields within the form.

How can I view and edit the source code of a form?

As a *ProcessApp Creator*, you can view the source code of the form and adapt it if necessary. This can be done manually by typing, copying, cutting or pasting something into the source code. To do this, open the form editor and select the *Source code* tab.



You can use various keyboard shortcuts within the source text to get a better overview:

1. Search and Navigation

- Ctrl + F: Find in the current file.
- Ctrl + H: Find and replace.
- F3: Find the next match in the search.
- Ctrl + F3: Select the next occurrence of the current word or selection.
- Ctrl + G: Go to a specific line in the file.
- Ctrl + Shift + O: Go to symbol in a file.

2. Text Selection

- Ctrl + A: Select all text in the file.
- Ctrl + L: Select the current line.

- Ctrl + D: Select the next occurrence of the current word or selection.
- Ctrl + Shift + L: Select all occurrences of the current word or selection.
- Shift + ← / →: Select text left or right, character by character.
- Ctrl + Shift + ← / →: Select text left or right, word by word.
- Shift + ↑ / ↓: Select text line by line, up or down.
- Ctrl + Shift + ↑ / ↓: Move the current line up or down while maintaining selection.
- Ctrl + Shift + Home: Select from the current position to the start of the document.
- Ctrl + Shift + End: Select from the current position to the end of the document.
- Shift + Home: Select from the current position to the beginning of the line.
- Shift + End: Select from the current position to the end of the line.

3. Text Editing

- Ctrl + Z: Undo the last action.
- Ctrl + Shift + Z: Redo the last undone action.
- Ctrl + Shift + K: Delete the current line.
- Ctrl + U: Undo the last cursor action.
- Alt + Click: Insert a cursor at multiple locations (multi-cursor).
- Alt + Shift + ↓ / ↑: Move the selected line down or up.
- Ctrl + Alt + ↓ / ↑: Copy the selected line down or up.
- Alt + ↓ / ↑: Move the selected line down or up.

4. Code Formatting

- Alt + Shift + F: Format the code.

5. Code Folding

- Ctrl + Shift + [: Collapse the current JSON block.
- Ctrl + Shift +]: Expand the current JSON block.

6. Line Insertion

- Ctrl + Enter: Insert a new line below the current line.
- Ctrl + Shift + Enter: Insert a new line above the current line.

Any changes you make in the source code are immediately updated and displayed in the form.

Hint: Please note that it is not possible to save or change the view if the source code is invalid. In this case you will be informed about the invalid source code within the source code.

How can I set validation rules in the form editor?

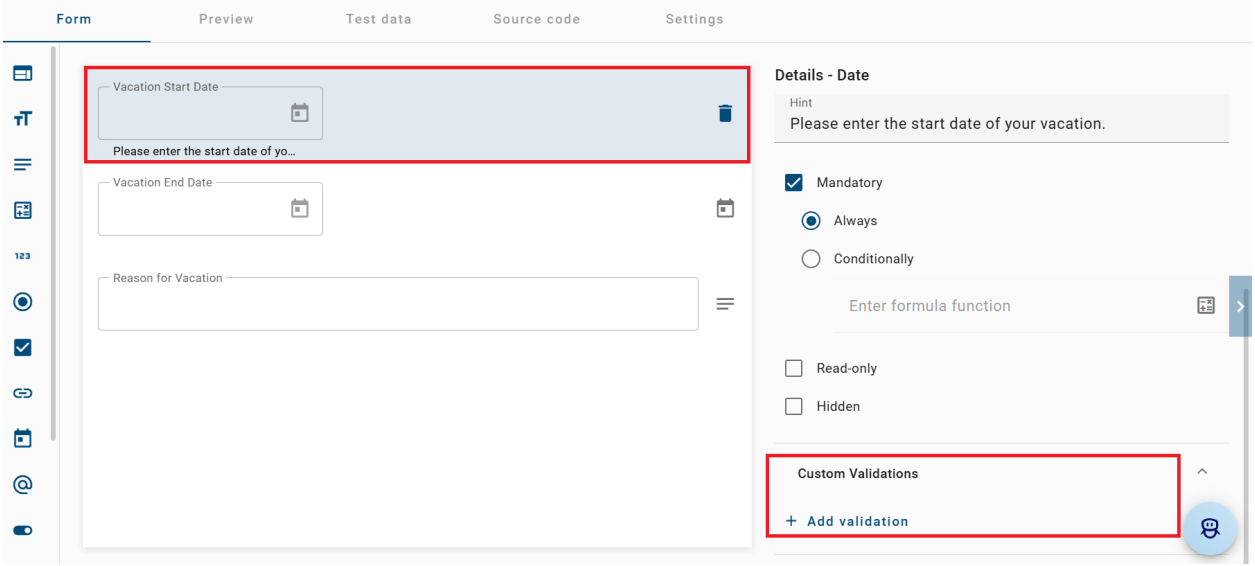
You can design your forms so that your users receive immediate feedback via custom validation and error messages when they enter incorrect information, thereby ensuring data quality.

If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header. Select the *Diagrams* menu item in the left menu bar in *BIC Process Design* and open a diagram from the desired repository. After opening, *check out the diagram* so that you can edit it. Then select an activity in the diagram and type it as a task type *User* in the *Details* panel in the right sidebar. You can then open the *form editor* either by right-clicking on the selected activity or by using the *Process Execution Editor* in the *Options* panel in the right sidebar.

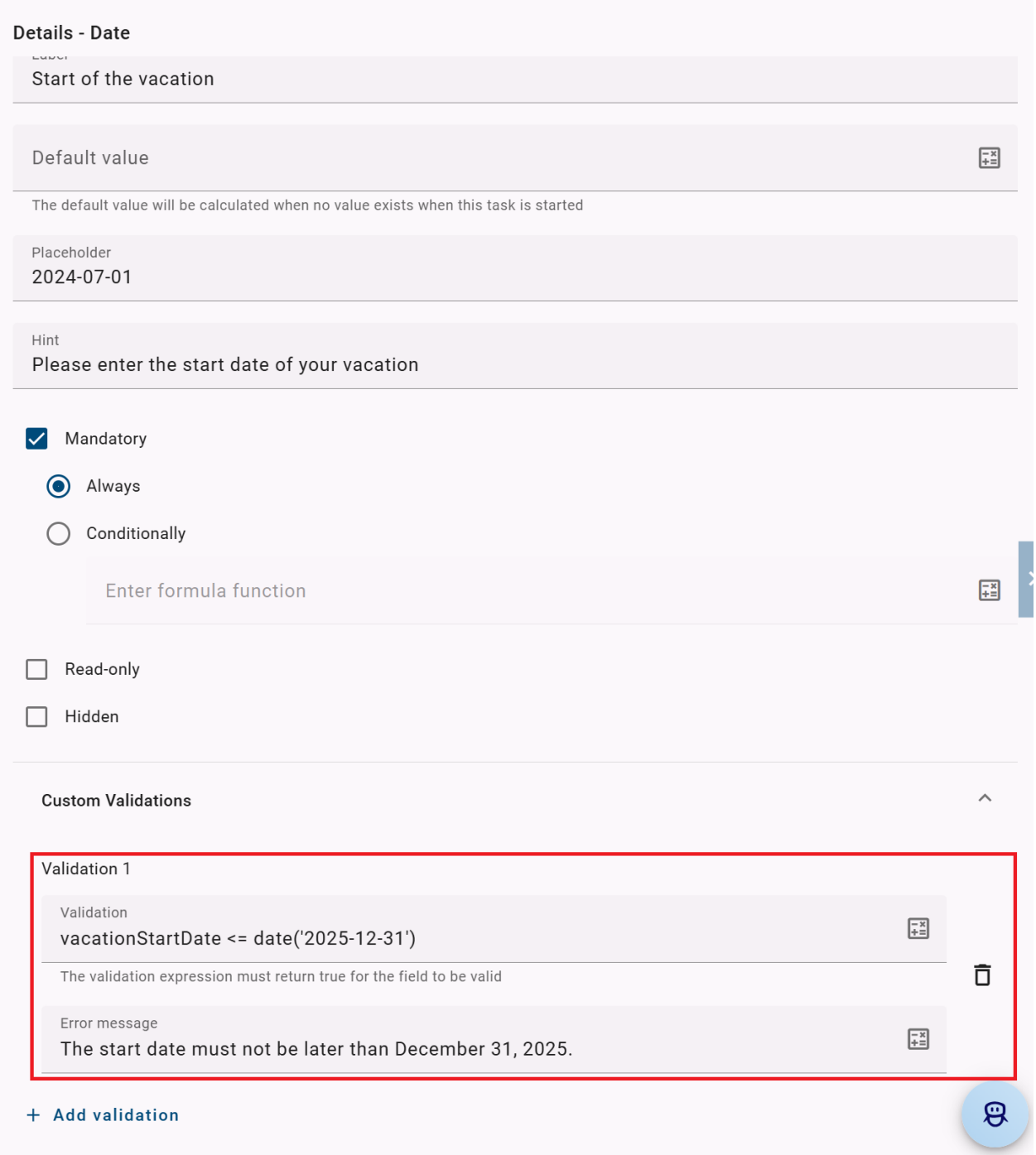
Hint: Please note that you can define validation rules only if your process has been set up as an *executable process*.

You can now add a *Custom Validation*. To do this, first click on the desired form field. Then navigate to the *Custom Validations* section in the *Form editor* in the right sidebar and click on *Add validation*.

Warning: Please note that HTML fields, file fields, and section fields cannot be used when using *validation rules*.



Next, define a validation to ensure that the user's entries meet the required criteria. Then specify an *error message*. This message is displayed if the entry violates the validation rule and informs the user what adjustment is required.

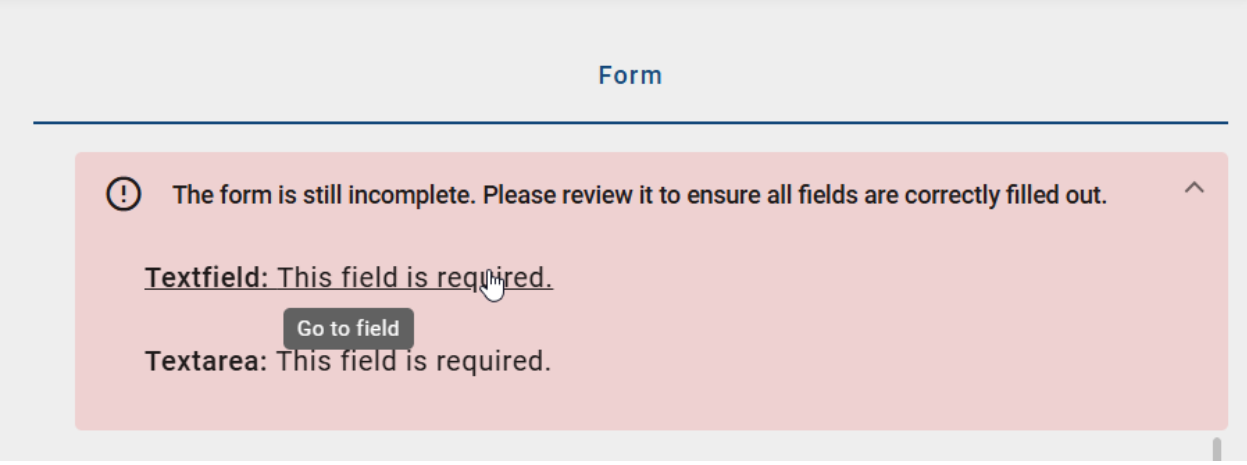


Hint: Please note that your custom validations must directly refer to the underlying ID of the respective form field.

Note: Please note that the validation formula is a logical expression. You must use comparison operators such as <, <=, >, >=, ==, or *!*= to check the value entered by the user against your defined criteria.

To save and apply your settings, click the *Save* button in the upper right corner of the form editor.

When you complete a task with custom validation and click the *Complete* button, the configured form is automatically checked for validation errors, unfilled *mandatory* fields, and pattern or format requirements. If the form contains invalid or incomplete entries, or if an entry violates the validation rules, an error banner appears at the top of the process execution view listing all errors. The errors are based both on the validations defined in the configuration and on the standard validation rules. The error banner displays a clear overview of all existing validation errors. Each error is written in an easy-to-understand way and clearly describes the issue.

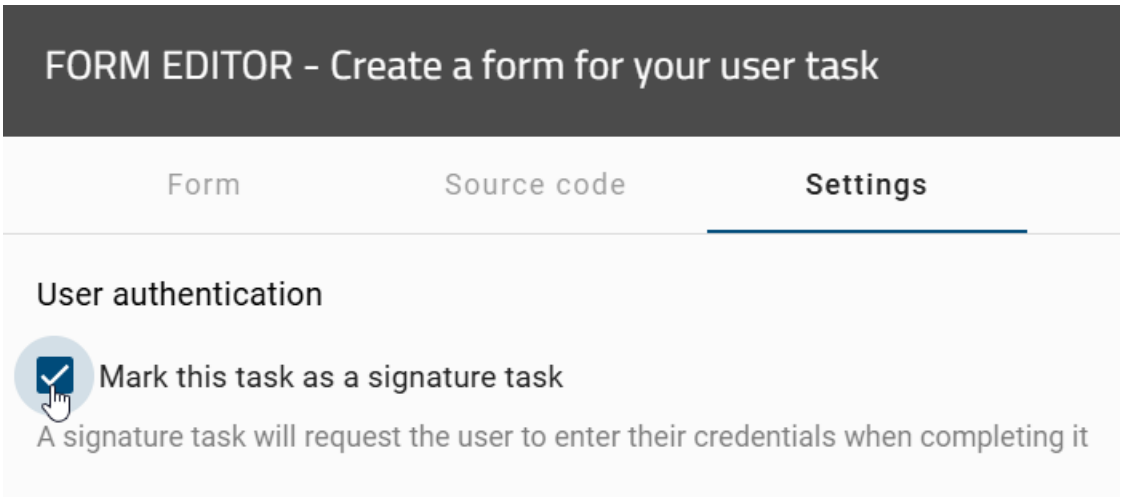


The errors listed in the error banner are interactive. When you click on an error, you are taken directly to the corresponding field in the process execution where the error occurred. This ensures that tasks can only be completed once all required inputs have been entered correctly and completely.

Hint: You have the option of assigning any number of validation rules to each form field.

How can I create a signature task?

You can create your forms in a way that your users must authenticate themselves before they can complete the task. To create a signature task, the *activity* must be of the type *User*. Open the form editor of the corresponding activity and select the *Settings* tab.



Here you have the option to select the *Mark this task as a signature task* checkbox. If you select this checkbox, your activity will be marked as a signature task and your users will have to authenticate themselves before completing the task. How the authentication process works can be found *here*.

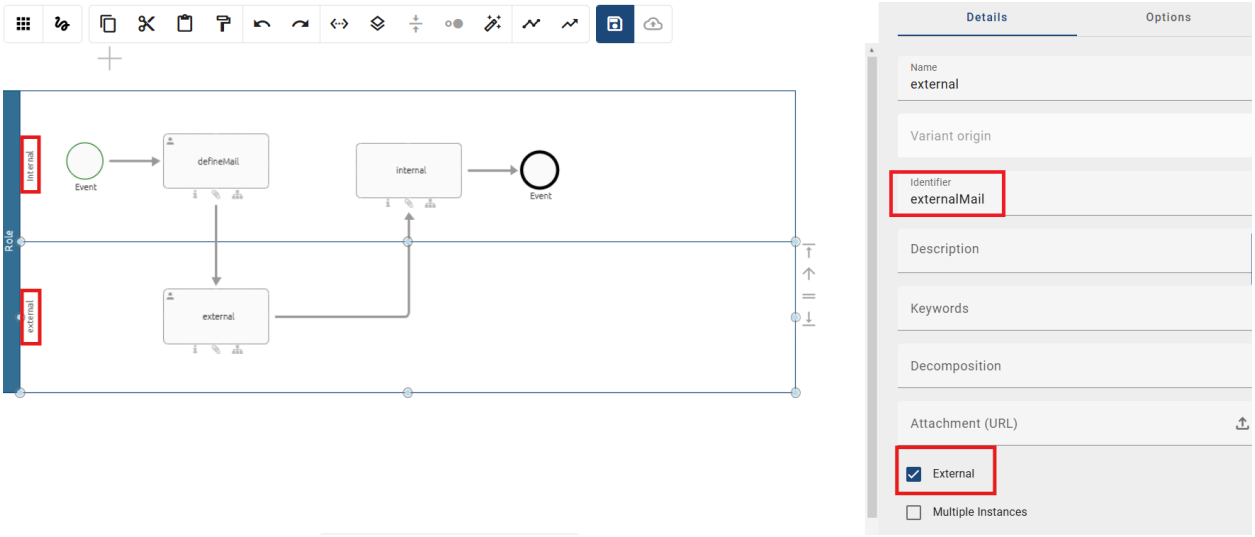
Note: Please note that this function is not activated by default in your system and must be configured. To do so, please contact your contact partner at GBTEC.

How can I create a task for an external user?

As a *ProcessApp User*, you have the ability to create and execute tasks for external users within a diagram. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header. In *BIC Process Design* click on the *Diagrams* menu item in the left menu bar. You can either *create a new diagram* or *check out an existing diagram*.

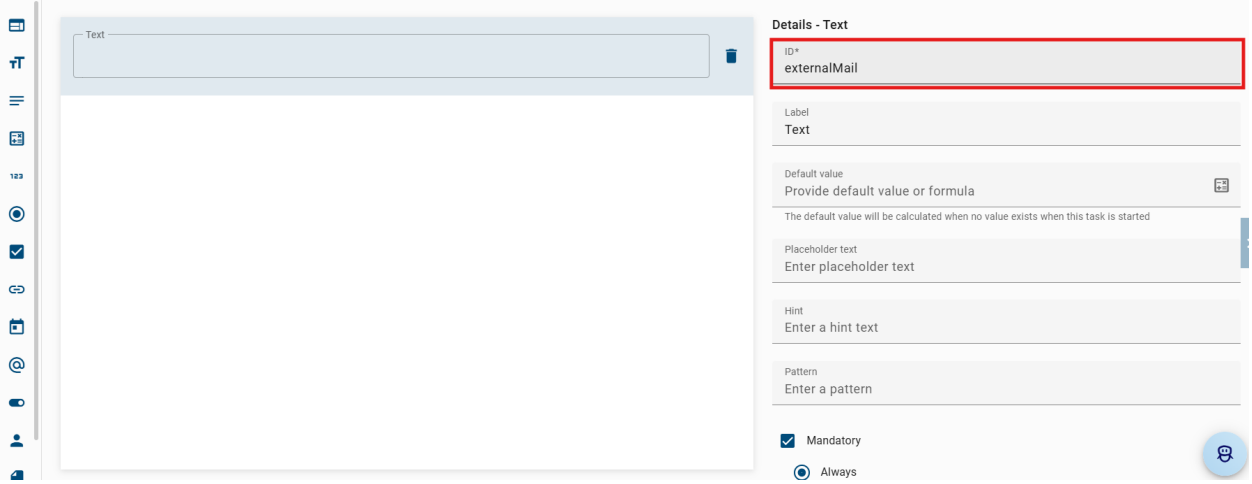
While modeling, you can define a role by *adding a pool*. Next, create two lanes to clearly differentiate between internal and external processes. The *start event*, *end event*, and your *activities* should be placed in the internal lane, while at least one activity must be placed in the external lane.

To define a lane as external and create tasks for external users, click on the lane you want to define as external. Then, navigate to the *Details* panel in the right sidebar. There, you will find the *External* button, which you need to activate by ticking the checkbox. Additionally, enter an *ID* of your choice in the *Identifier* attribute field.

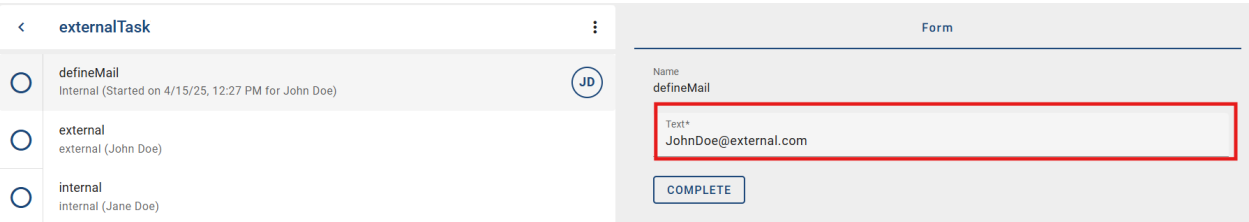


Once you have marked the lane as *external*, assign the *user* task type to the activities in both lanes. Then, right-click on the standardized activities and select the *Forms Editor* option.

In the form editor, select the *Text field* form field from the left sidebar and add it to the form. In the right sidebar, enter the previously selected *identifier* from the external lane into the *ID* attribute. In our example, it is *externalMail*. Save and close the form editor. This process must be repeated for both activities.



To send the task to external users, you must enter the user's email address. To do this, check in the diagram using the *Check In* button, then start a new process by clicking the *Test ProcessApp* button. When the process is executed, you will be directed to the process execution view, where you can insert the external email address in the first task.



After you have inserted the email address and marked the task as completed, the external user receives an email with the external task. Instructions on how an external user can work on an external task can be found *here*.

Hint: You also have the option of testing an external task. Please note that an external task can only be tested in the *Publish* area.

Hint: Please note that the roles must be in the same pool. If they are not, the activities will not be able to interact with each other.

Hint: Please note that if you enter several e-mail addresses, they must be separated by a semicolon.

29.2.7 Service task with REST call

BIC Process Execution offers you the possibility, in interaction with your BIC Process Design, to exchange data via REST endpoints. The REST calls are defined in your BIC Process Design and automatically executed via the processes in BIC Process Execution. The data which is resulting from these REST calls is then be stored in *process variables* and can be used and displayed for further tasks during the process flow of the corresponding case.

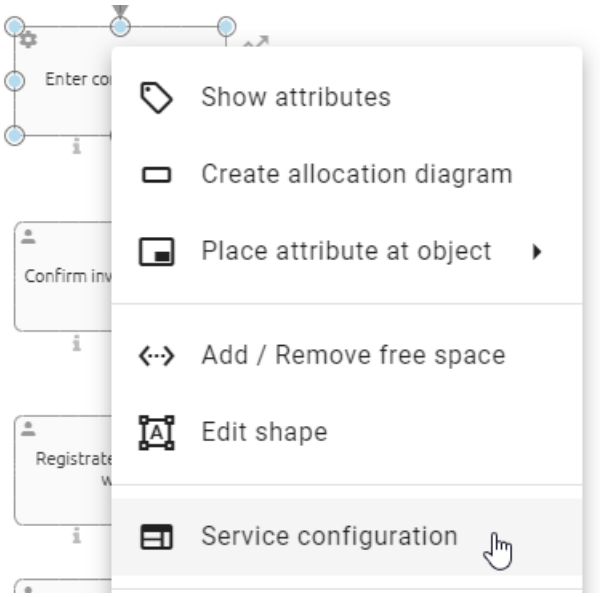
Note: You have the possibility to define your REST request in the *REST configurator* described further on. This request is executed prioritized. If you have defined a REST call in a previous version via the *Service call* attributes

and did not set any configuration in the REST configurator, the Service call attributes will be used as fallback.

How can I define my REST calls?

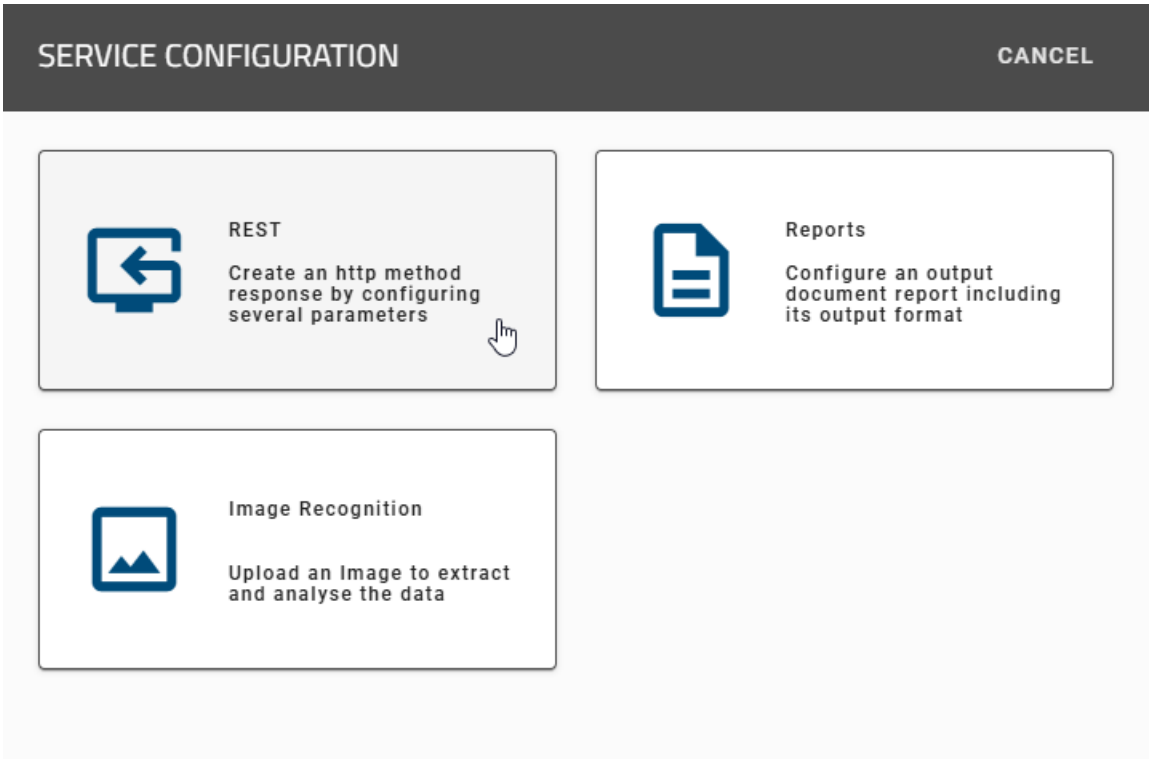
The configuration of a REST call takes place in BIC Process Design. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header. In order to define the REST call, your diagram has to be marked as *executable process* in the attributes. The *activity type* of the task has to be *Service*.

Afterwards, right-click the activity to open the context menu and select the option *Service configuration*.



Alternatively, you can open the editor by selecting the activity and choosing *Process Execution Editor* from the *Options*. There you will find the button *Open editor*. Select it and the Service configuration will be opened.

A dialog opens where you can define your REST call. Click on the *REST* option.



You will be guided by the following three steps. Click the fields to edit them or select the desired option.

Tip: You can also define your *REST calls dynamically via process variables*. For example: Using variables, the header data or request body can depend on the data of each case.

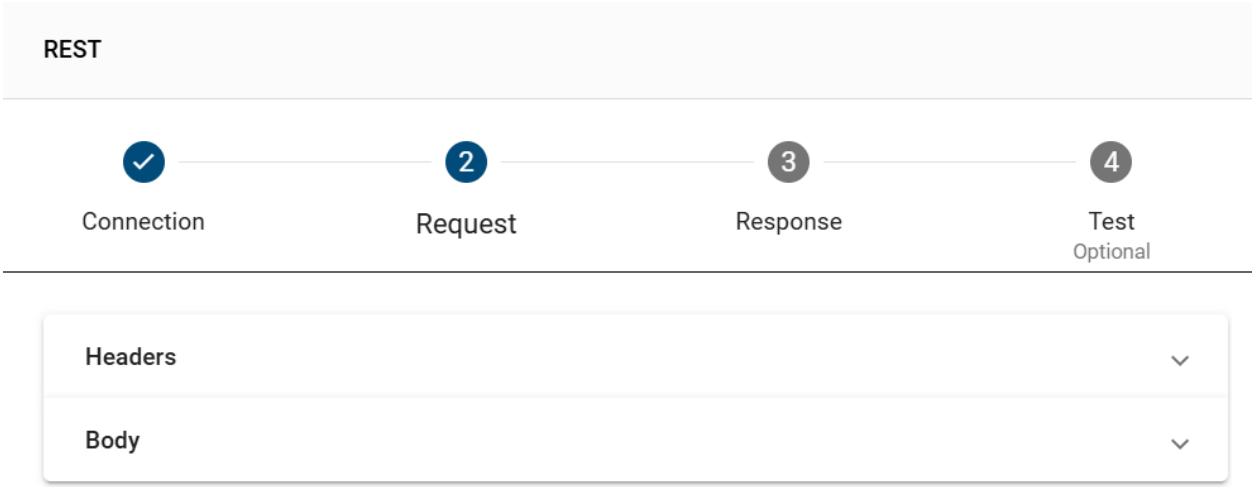
1. Connection

- **HTTP Method**: In this field, select the HTTP method which you want to use for your call. The supported HTTP methods are listed below. If no method is specified, the default value for this field is GET.
- *DELETE*
- *GET*
- *HEAD*
- *PATCH*
- *POST*
- *PUT*
- *OPTIONS*
- *TRACE*
- **URL**: Enter the URL path of your REST endpoint here (e.g.: *http://serviceUrl:port/service/1*).
- **Authentication**: Here you can select the type of authentication that you want to use for your REST Call. We offer you different options for authentication:
- *No Authentication*: You do not need any authentication and therefore do not need to enter more details.

- *Basic Authentication*: When you select this option, two new input fields will appear where you can enter your username and password for the desired service.
- *OAuth2*: Three new input fields will appear when you select this option. You need to enter the *Client ID*, the *Client secret* and the *Authentication URL*. Via the *eye icon* you can hide and show the *Client secret*.
- *API Key*: After selecting this option, two input fields will appear: *Key* and *Value* where you can enter your corresponding API key and its value. Below the fields you have the option to add the key-value pair to your header or to your query parameters.

Go to the second step using the button *NEXT*. Alternatively, you can click the tabs *Connection*, *Request* and *Response* to switch between the steps arbitrarily.

2. Request

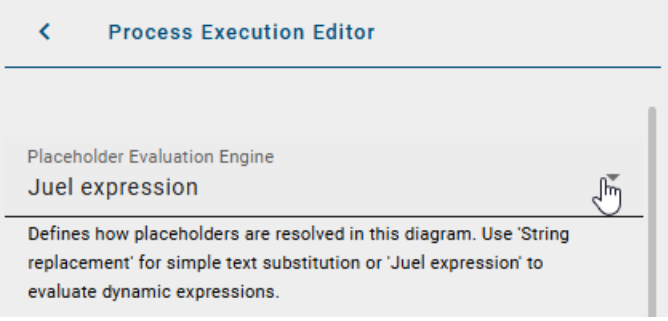


The input fields of the request options drop down if you select the respective option.

- **Request header**: Here you can enter all header data that has to be transferred in the REST call. This data is in a key-value table. Click on the plus-sign to add new entries or select the *recycle bin* icon to delete an entry.
- **Body**: Here you can enter the content that has to be transferred in the REST call. In the drop-down menu *Type*, choose one of the following options:
- *JSON*: Here you can enter the content in the *Request body* field using JSON-structure.
- *Binary (file)*: Choose this type to read the request body from a file. In this case, the request body will contain only the contents of the file.
- *Multipart (file)*: This type displays a key-value table where the request body is partially generated from a file. Once you have entered a key, you can choose between *Text* and *File* under "Type". If you select *Text*, you can enter text including variables as placeholders. If you choose *File*, you can specify an identifier for a file. You can also enter multiple files in the table by clicking *Add new empty row* and creating a combination of *Text* and *File*.

If you choose one of the types that *import the content from a file*, another field appears where you can link the desired file. Use the process variable defined in the identifier attribute of the file. You can find a detailed explanation in the linked section.

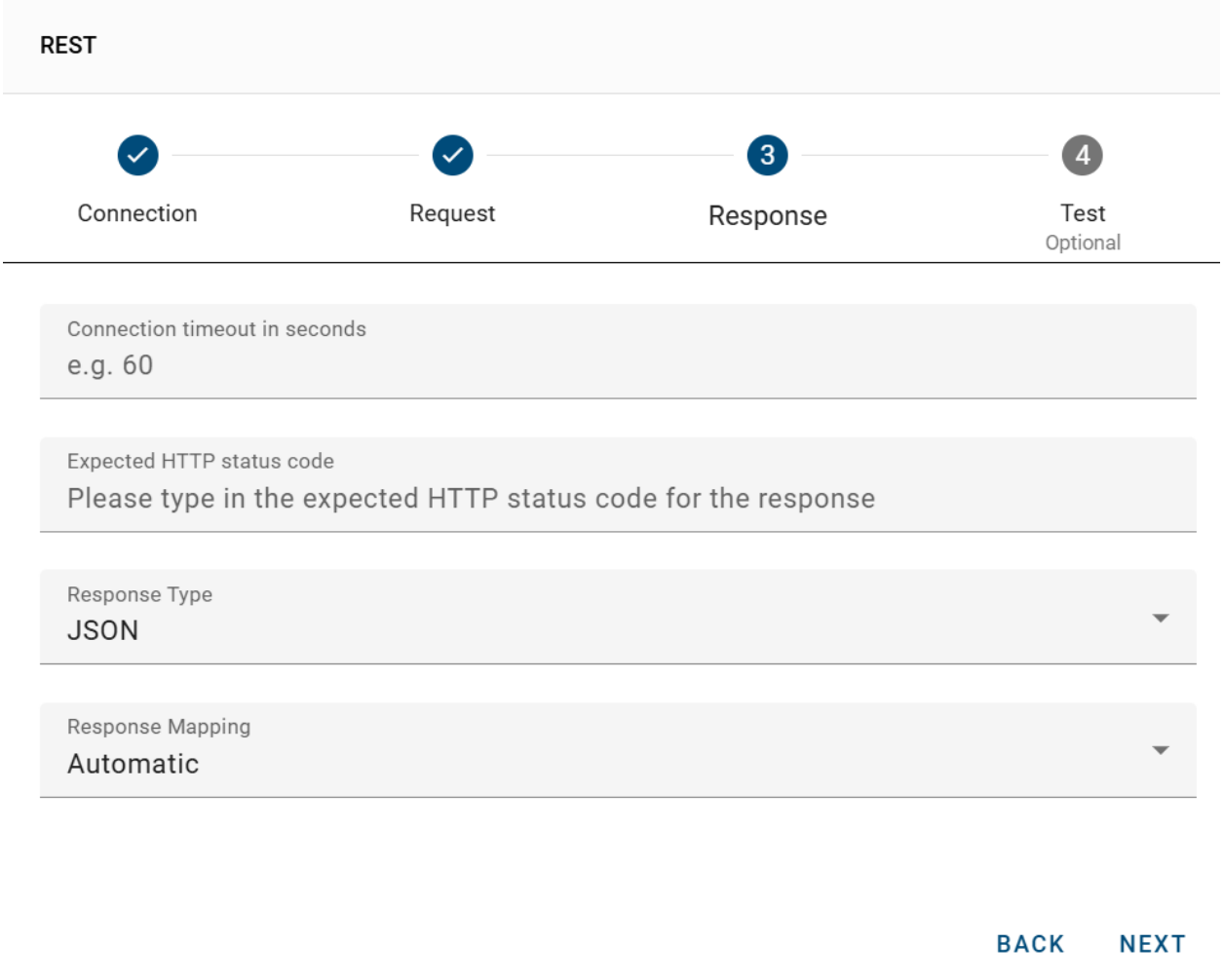
When entering a variable as a placeholder, you can choose between *JUEL expression* and *String replacement*. You specify the desired variant directly in the drop-down menu in the upper area of the *Process Execution Editor* in the *Options* panel in the right sidebar.



Please note that both variants are not supported at the same time. Diagrams that were created before the 8.0.0 version automatically use the previous string replacement logic. For newly created diagrams, however, the JUEL variant is now preselected by default. You can adjust the selected option at any time, but switching new diagrams to *String replacement* is **not** recommended.

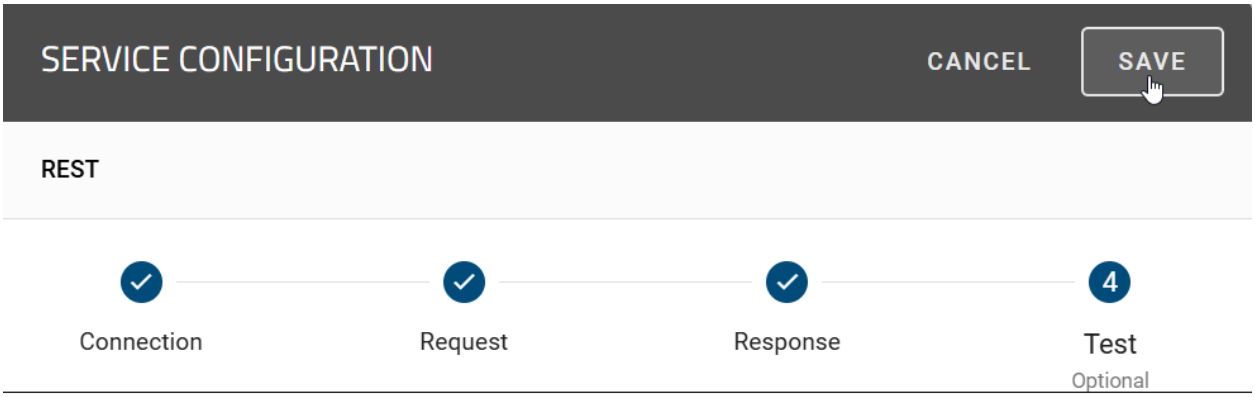
Tip: Further information about JUEL expressions can be found here.

3. Response



- **Connection timeout in seconds**: Here the time limit (in seconds) for your REST call can be set.

- **Expected HTTP status code**: Here you can set one or more expected status codes for your REST call.
- **Response Type**: Here you can enter if your output is in the JSON format or if it is a file. An explanation regarding how to include files in REST calls can be found *here*.
- **Response Mapping**: Here you can specify whether the returned data should be stored and used as process variables. The default setting is *Automatic*. If you select *None*, the response will not be processed as process variables. All response codes are accepted.



Click the equivalent button to *Save* your configuration. If you do not want to save your changes, select *Cancel* to close the dialog.

Regardless of the Response Mapping, a `_response` variable is stored, allowing you to access *Request header* and *HTTP status code*. If you have configured multiple service tasks, the `_response` variable will be overwritten after their execution. You can access the `_response` variable, for instance, through `_response.headers.NAME[0]` or `_response.headers["NAME-NAME"][0]` for keys with a hyphen. All response codes are accepted.

As a *ProcessApp Creator*, you also have the option to process JSON objects and arrays in the response of the REST call using various valid JSON structures. This ensures smooth data processing, regardless of the format. Each element in the JSON object returned by the REST endpoint is stored in the `_response.body` variable.

Note: Please note that if a service task with REST call returns an error status code such as 4XX or 5XX, BIC Process Execution does not store information from the `_response.headers`. Only the `_response.statusCode` will be stored.

Hint: Please note that the `_response` variable can only be used for the active main process and its subprocesses.

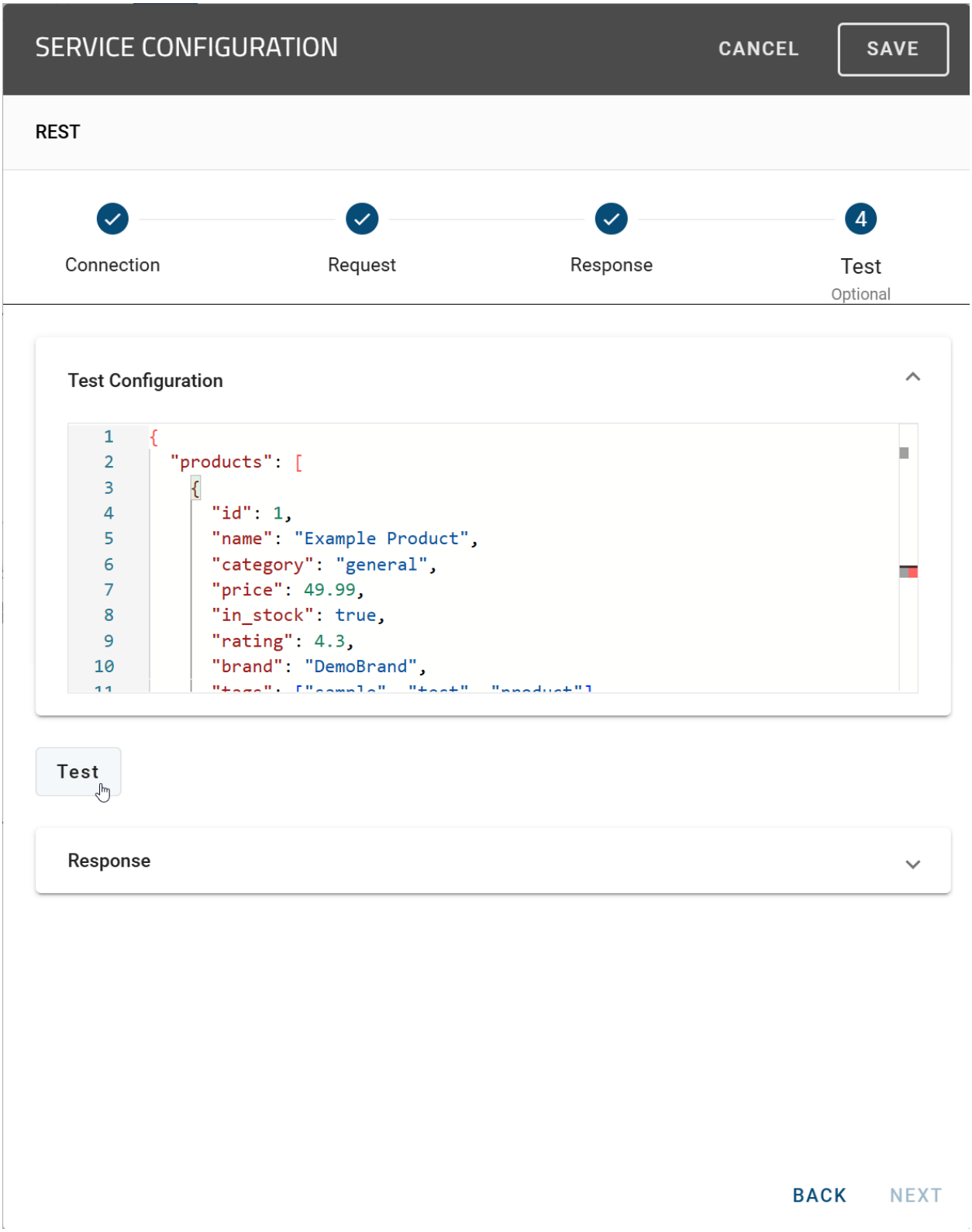
Note: If you use a REST call, the system currently automatically processes HTTP redirects with the status codes **301**, **302**, **307** or **308**. This means that a REST call is successfully executed even if the originally specified REST endpoint is redirected by the server to a new target address. The response from the target server is returned to the process as usual.

Warning: Please note that tasks that were active during a system restart are automatically set to error status. This applies to both script and service tasks that were running at the time of the restart. As these tasks could not be completed, they are considered faulty after the restart, are assigned to the respective editing users and trigger a notification by email. Tasks that were set to error status due to this change can be restarted as usual.

How can I test my configured REST call query?

The configuration of the REST query takes place in *BIC Process Design*. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header. Once a *Service task* has been configured in *BIC Process Design* with the user role *ProcessApp Creator*, you can use the *Test* function to test your configuration directly without having to deploy the process first. This ensures that the REST query is set up correctly and delivers the desired results.

In the configuration area of the service task, you will find the *Test* button after entering the REST configuration. This button is used to execute the currently configured REST query with the specified parameters.



The result of the REST query is displayed by unfolding *Response*. If the query was executed successfully, a corresponding confirmation message appears. If the settings are incorrect, for example due to an incorrect URL or missing parameters, an error message is displayed indicating the error.

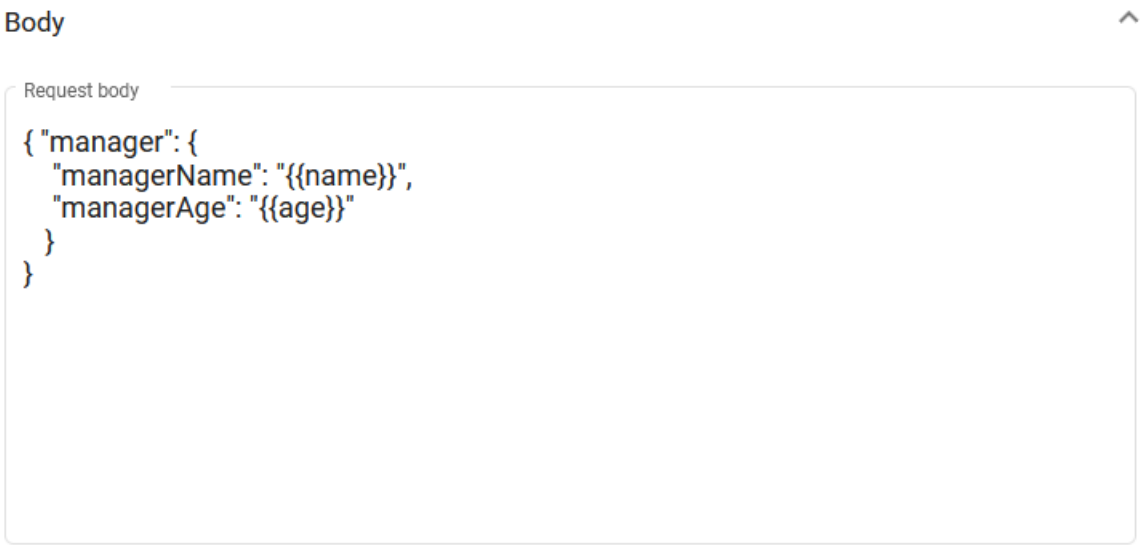
If process variables are used in the REST configuration, you can store sample values in the test dialog. These values are used automatically during the test in order to check the query realistically.

Note: Please note that the test is only executed on the basis of the currently configured parameters and no process instance is required.

How can I use variables to create dynamic REST calls?

You can create dynamic REST calls by using variables from your API. Within the *REST configuration* definition, you can use your process variables in the *Request body*. Variables should be listed as follows: `{{VariableName}}`.

For example, if you used the GET REST call to get an employee's name and age, you can use these values in the following REST call by using the corresponding variables. The result of the first GET REST call could be: `{"name": "John Doe", "age": 35}`. You can then use these variables and their values in the following POST REST call within the field *Request body* (if you select *JSON* in the *Body* field) as follows: `{"managerName": "{{name}}", "managerAge": {{age}}"`.

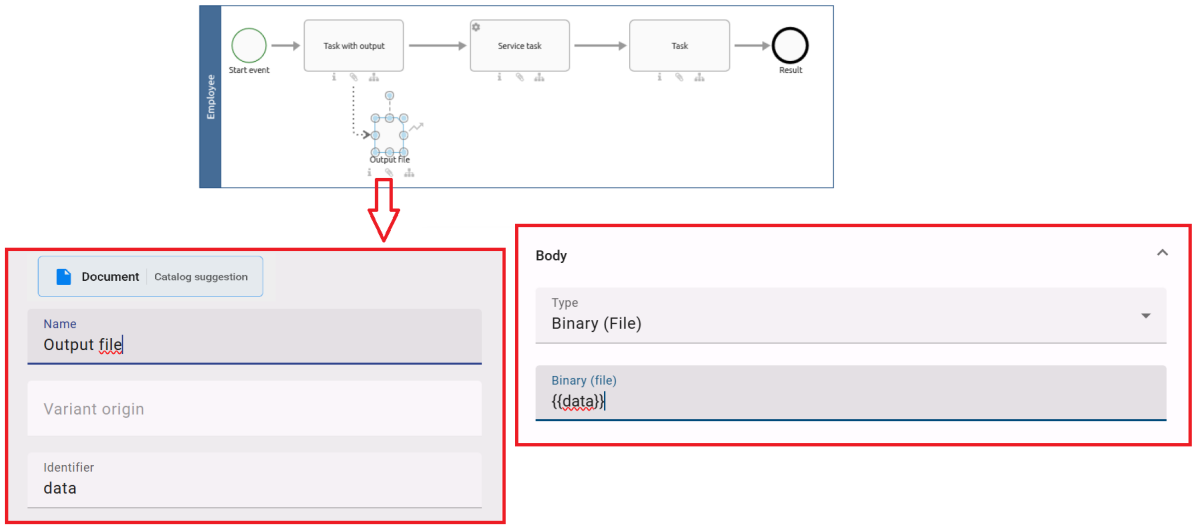


You can also use variables in the connection or response.

How can I use files in my REST calls?

If you *configure your REST call (i.e., a service task)*, you can read the request body from a file. The file has to be added to the case as an attachment of a previous task. Moreover, you have the possibility to define a REST call which returns a file. The system will save the file as an attachment of the service task. To configure your REST call using files, follow the next steps.

Request body as type file: If you want to read a document via a REST call and provide it as output to the user, you can do the following. In your diagram, model an activity marked as a *Service task*. On this activity, model a document and mark it as *Output*. Then, maintain the attribute *Identifier* of the document.

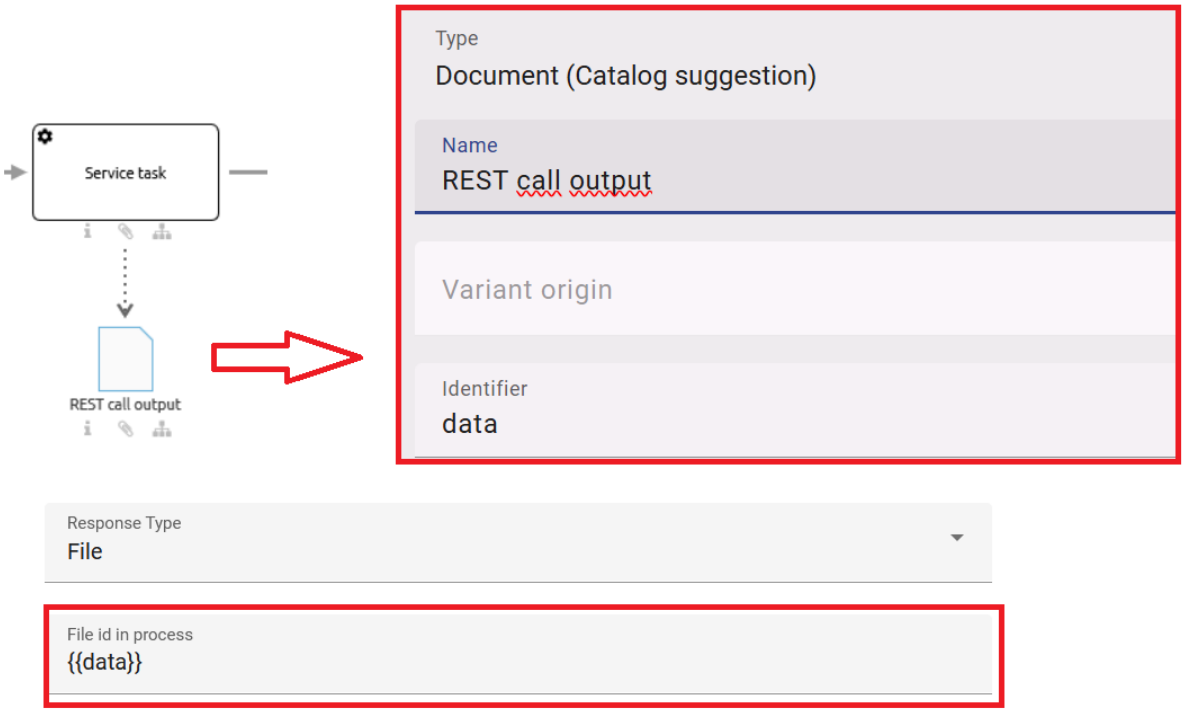


In the process flow, the service task has to occur after the task with the output. When you configure the REST call request, choose the type *Binary (file)* (or *Multipart (file)* if it is a data-form format) in the drop-down menu of the *Body*. Enter the identifier you defined previously.

If you use JSON Body Type with a corresponding Request Body (e.g., { “file”: “{{fileID}}” }), you can utilize file identifiers as placeholders on service tasks. This functionality allows the substitution of the placeholder with the file content of the identifier, encoded as Base64 data.

To upload a file in your running case, you need to add a document as an *output* in a previous task. When the service task is executed, it will retrieve the latest version of the file data, incorporate it into the JSON body, and automatically replace the placeholder.

File as response: In order to link a file returned by a REST call to your case, the activity representing the service task in BIC Process Design has to be modeled with at least one document as output. The attribute *Identifier* has to be maintained for the document to link it to the REST call response. In the REST configurator choose the option *File* as *Response Type* and enter the identifier in the upcoming field. The Identifier needs to be enclosed by two curly braces.



If the document's *identifier* matches a property of the REST call and that property is formatted as Base64-encoded data, the file content of the property is decoded and automatically added as an output file. The name of this file will be the name of the existing file. If no name is available, the file is automatically named after the *Identifier* and the file type (e.g., *.pdf*). The name can be changed if necessary.

If a REST service task provides a file with a defined identifier and it is saved via a document output node, the system automatically creates a file variable containing the file's metadata. Like any other file variable, this metadata is fully accessible and usable within the process.

Warning: Please note that if Base64-encoded data with a defined identifier is transmitted through a REST service task and stored using a document output node, the original variable containing the file content is **no longer provided**. The variable that previously held the file content and was linked to it will be **removed**. The file name consists of the transferred identifier combined with the appropriate file extension. The metadata remains accessible just like with any other file variable.

Note: If there are multiple files with an identifier and the REST call matches them, all files will be attached to the activity as output documents in case of Base64-encoded data.

After the REST call has been executed in your case, you can download the response file at the service task just as if it was uploaded manually.

How can I define multiple values as expected response status codes for REST calls?

As a *ProcessApp Creator*, you can define multiple values as expected response status codes for REST calls. The configuration takes place in *BIC Process Design*. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header.

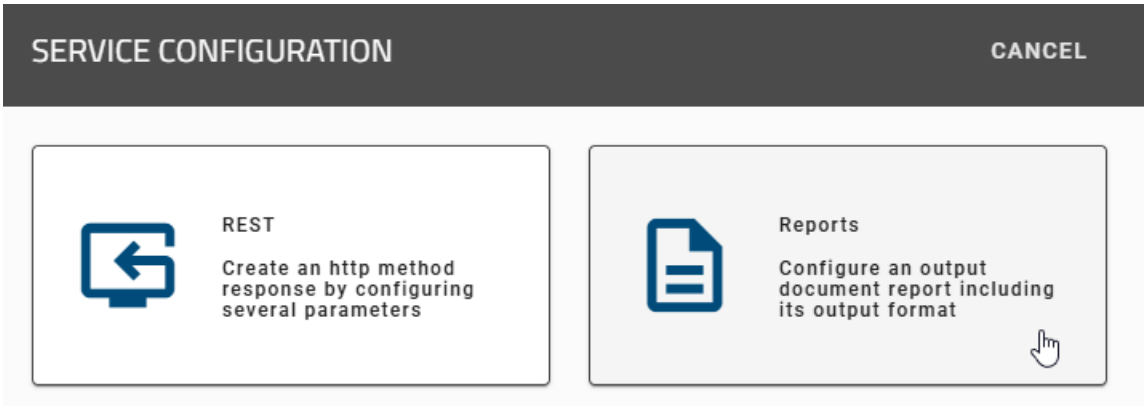
To do so, open the *REST call for service tasks* and navigate to *Response*. In the *Expected HTTP status code* input field, you can now define multiple status codes. You can define both predefined status codes (e.g., **200**) and regular expressions such as **200|201** (both status codes are accepted), **20.** (anything from 200-209 is accepted), or combinations thereof.

If you have configured a REST call and specified the expected HTTP status codes as patterns, you can consider a response from the API successful if the received status code matches the pattern. Otherwise, the response is treated as an error, and appropriate actions are taken based on the received status code.

Note: The pattern also accepts numbers, pipes, dots and queries.

How can I automatically create an output document with a service task for reports?

If you have modeled a *service task*, you can configure the report configuration for document creation in addition to the REST call in the editor.



Selecting the *REST call* option starts the REST configuration. Alternatively, selecting the *Reports* option starts the report configuration, where you can specify the output format (PDF or DOCX).

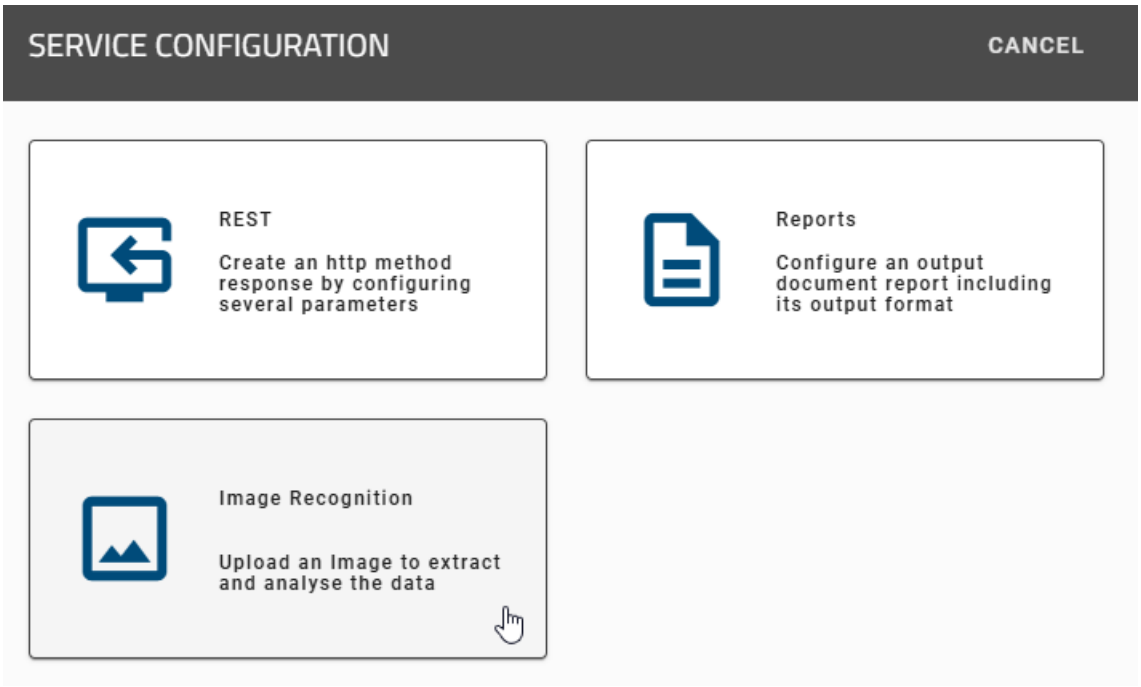
If the report task contains an input and that input has an attached file in your configured default language in DOCX format, this file is used as a template for the report. If there is an output in the report task and it is executed, the result is added to the output. The name of the output file is the same as the name of the template file.

Hint: Please note that if the input or output is missing or the input has no attachment, the report will not be created and the task will be marked as an error.

Additionally, if there is a *Design Document* in the input and the input does not have an *Instance Attachment*, the template for creating the report will be the *Design Document*. If there is a *Design Document* in the input and the input has an *Instance Attachment*, the template for creating the report will be the *Instance Attachment*.

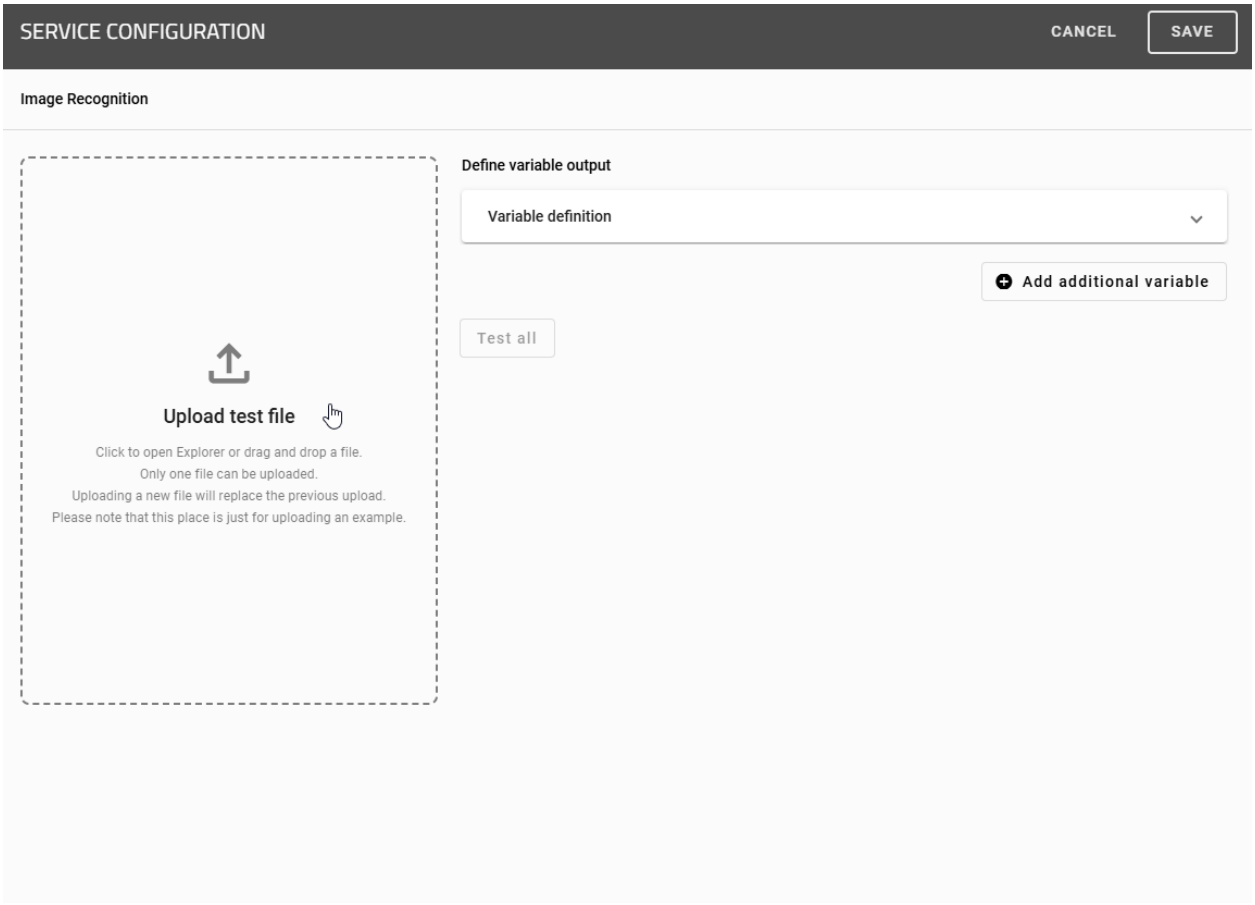
How can I analyze and extract data with a service task for image processing?

If you have modelled a *Service task* with the *ProcessApp Creator* user role, you have the option of processing a screen and extracting and analyzing the required data. For example, you can extract specific content such as an address, an IBAN or amounts from an invoice. To do this, click on the *Image processing* option. There you can upload an image and then configure fields for the data output by specifying a field ID, a name, a data type and a description for each field that defines the desired content.



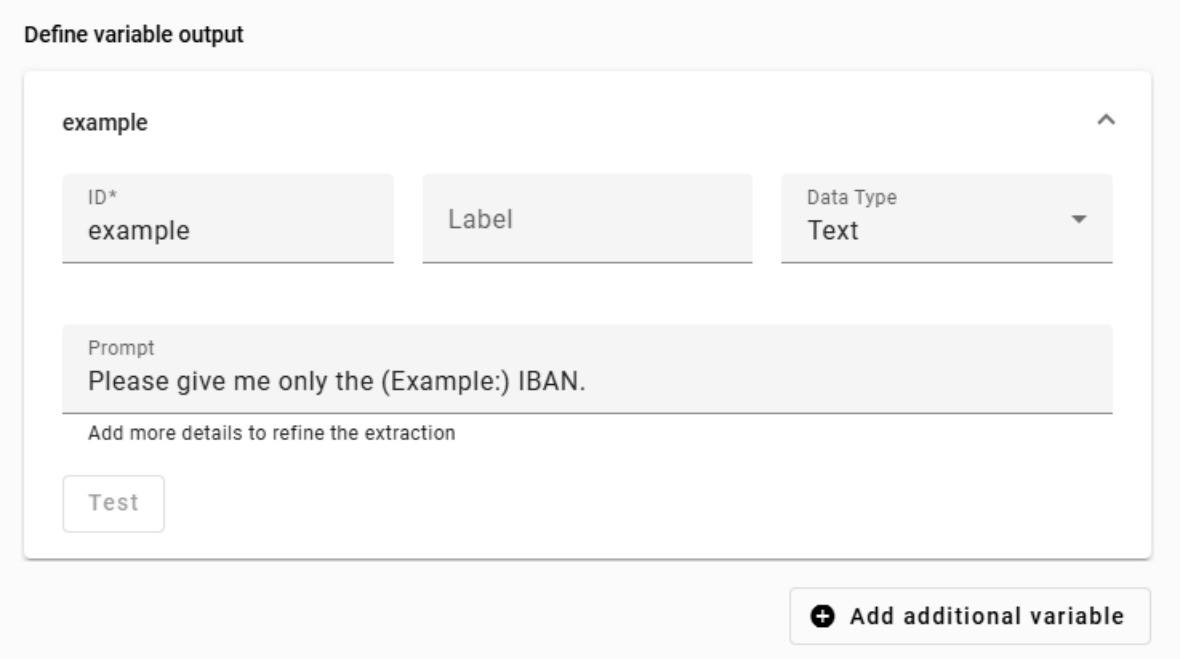
After you have selected the *Image processing* option, a dialog opens in which you can upload an image file on the left side of the screen. The uploaded image can be replaced at any time by uploading a new image or dragging and dropping it over the existing one. A corresponding button is available to remove the image. To do this, click on the *trash can* symbol or on the *remove image* button.

On the right side of the screen, you then have the option of adding and configuring variables for data extraction. For each variable, you can specify a *Field ID*, a *Name*, a *Data type* and a *Description (Promt)* to define exactly what information should be extracted from the uploaded image file.

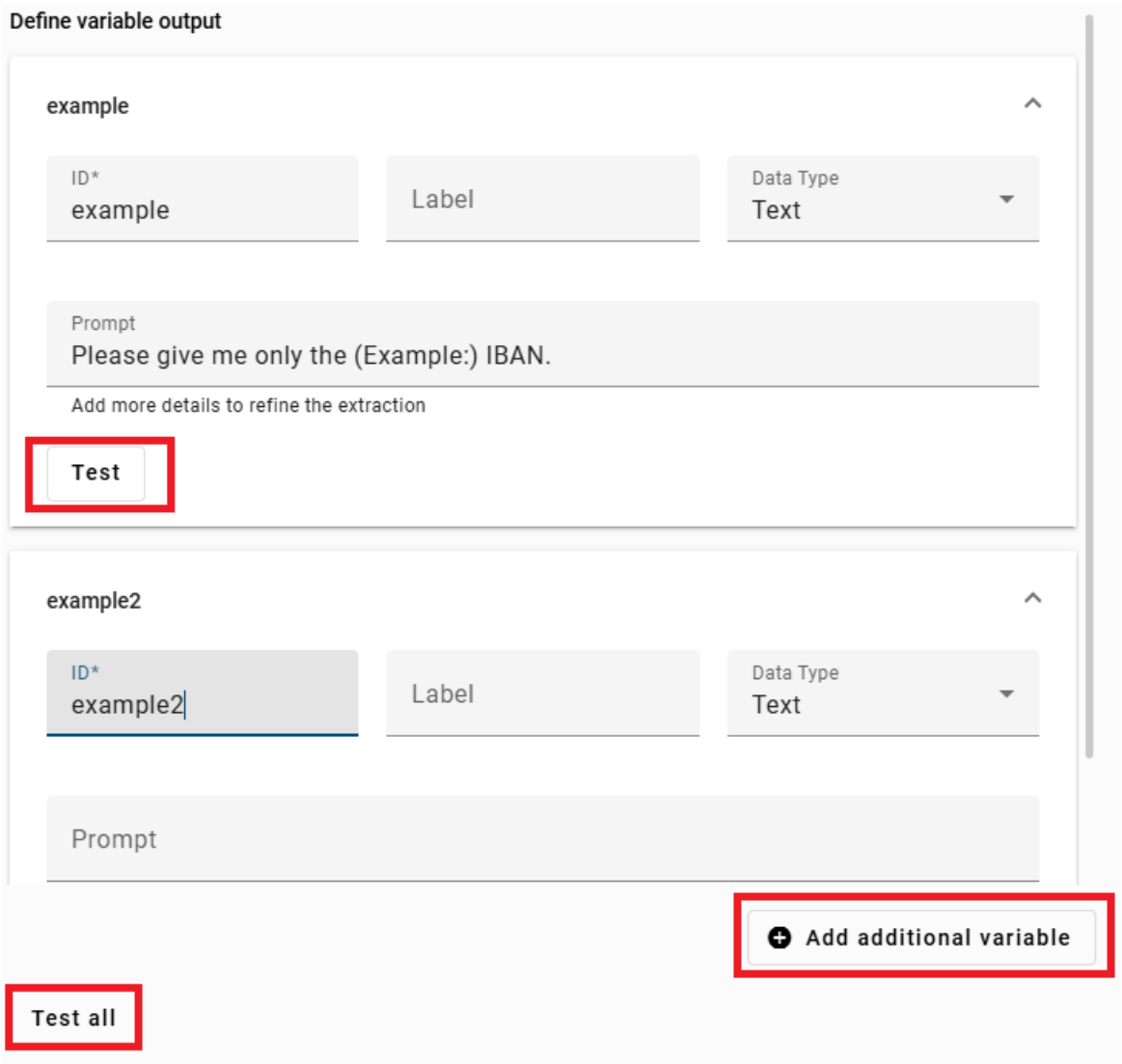


The following input fields are available for this purpose under *Define variable output*:

- **ID:** ID for the variable (required field). This determines in which process variable the information is stored.
- Label:** The name of the variable is optional. If it is specified, it appears as the heading of the section. If there is no name, the field ID is displayed instead.
- Data type:** Specifies the type of information to be saved (*Text*, *Number*, *Boolean*). Other data types, such as *Date*, are currently not supported.
- **Prompt:** Free text field in which you can formulate an instruction to our AI, e.g., “Give out only my IBAN” or “Read the address without the country.”



Each variable appears as a separate section in which you can perform an extraction using the *Test* button. As soon as you start a new test, the previous result is overwritten. If several variables have been created, you can also check all configurations at the same time using the *Test all* button. If you would like to add another extraction, click on *Add more variables* to create a new line. The variables are displayed in alphabetical order and updated in real time.



Hint: Please note that duplicate IDs are not permitted. If you assign the same ID multiple times, an error banner will appear, the corresponding sections will open, and the affected fields will be marked with an error message. As soon as you change an ID (e.g., from “name” to “sender_name”), the conflict will disappear.

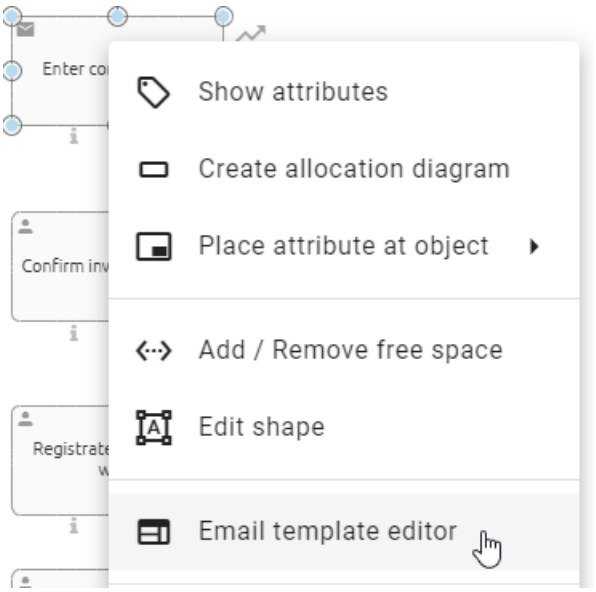
Hint: Variables that have already been added are grayed out in the process variable list and cannot be selected again. If the ID of a variable is changed, it is displayed as available again.

Note: You can view the restrictions for uploading images via the following link.

29.2.8 How can I create an email template?

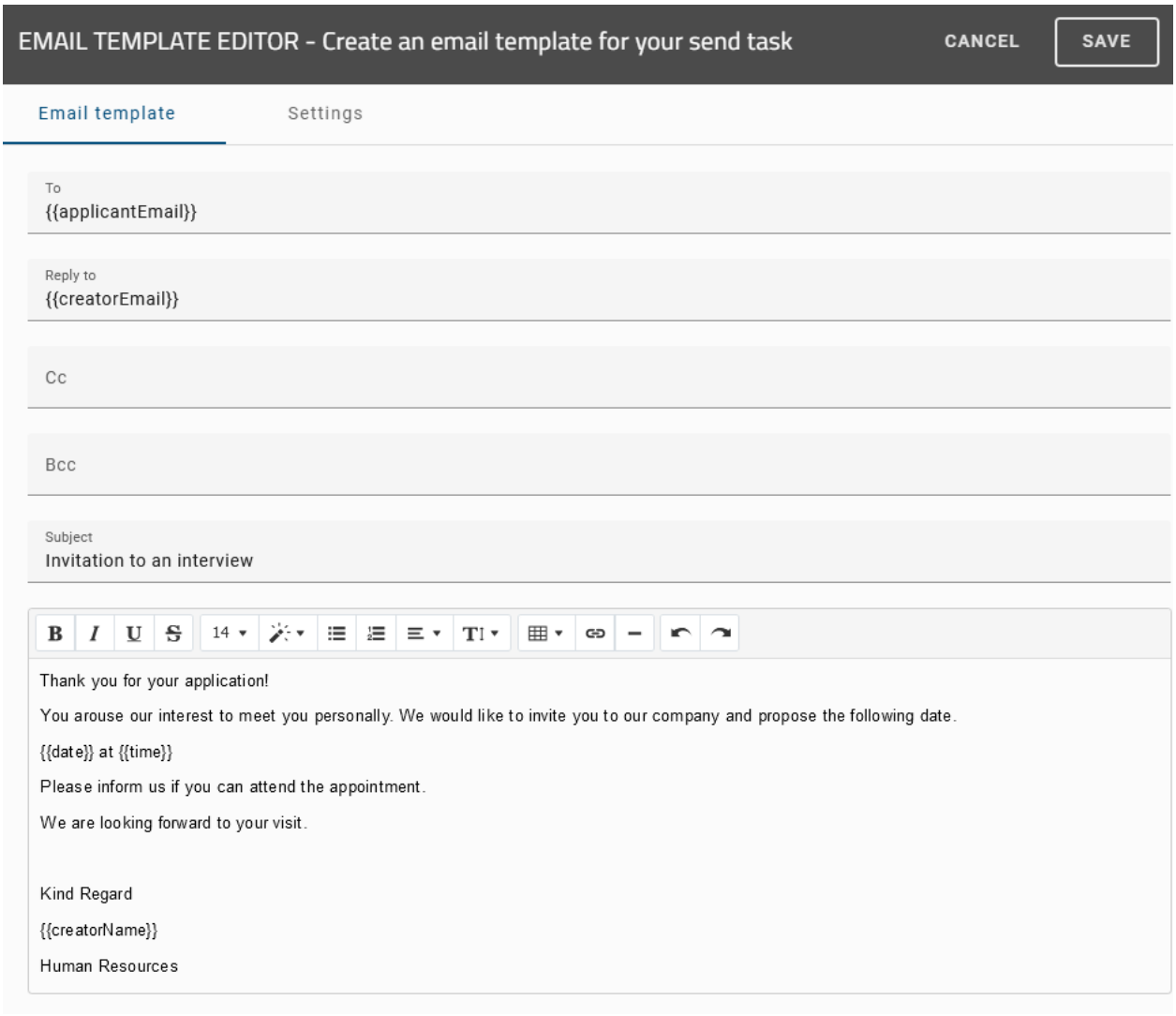
You can integrate send tasks in your process to enable users to *send emails based on a template*. In order to change the email template, your diagram has to be marked as an *executable process* in the attributes. The *activity type* of the task has to be *Send*.

Afterwards, right-click on the activity to open the context menu and select the entry *Email template editor*.

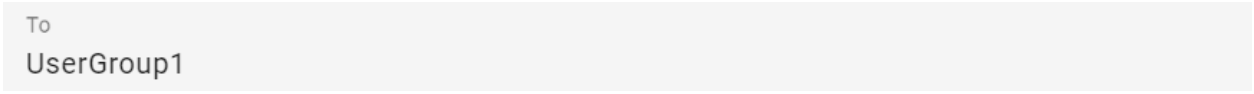


Alternatively, you can open the email template editor via the *Process Execution Editor* in the *Options* of the activity.

In the upper fields, you can enter the recipient in *To*, the email addresses in *Reply to*, *Cc* and *Bcc*, as well as a subject. The template can be written in the text field below. There you can find various formatting functions in the header.



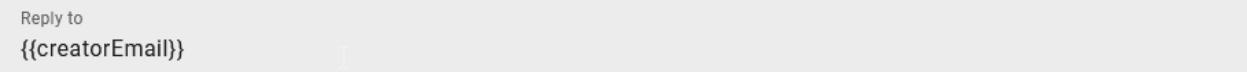
The **To** function also allows you to specify user groups. The email will then be sent to all members of the specified user group.



Note: Please note that when specifying multiple recipients in a send task, the individual email addresses must be separated by a semicolon. For example, enter the recipients in the following format `{{email1}}; {{email2}}`. It is also possible to use an e-mail address together with a group name, for example `{{email1}}; group name`. Only in this way will all recipients be taken into account correctly.

Note: Please note that you should not use curly braces ({{}}) with user groups.

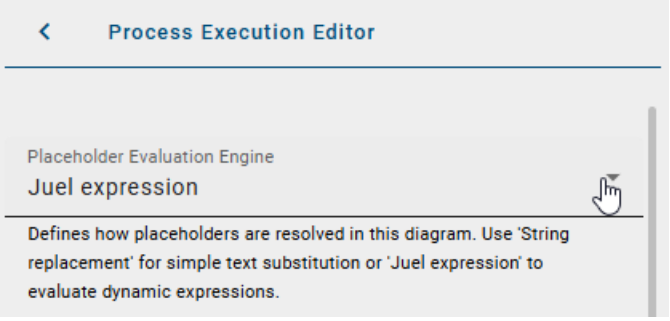
By using the **Reply to** function, you can specify exactly one email address to which all responses to your sent email should be forwarded.



Note: Please note that the *Reply to* field is only taken into account if the *Send email automatically* option is activated. However, if more than one email is specified in the *Reply to* field and the email is sent automatically, the status of the send task will change from *In progress* to *Error*. For manually sent emails, the *Reply to* field is ignored.

Process variables can be used in every field in the editor and result in a dynamic template that is automatically adjusted in BIC Process Execution. The variables are replaced with the case-specific values in the form of each case as soon as they are set in prior process steps. Integrate process variables via double curly braces: `{{VariableName}}`.

When entering a variable as a placeholder, you can choose between *JUEL expression* and *String replacement*. You specify the desired variant directly in the drop-down menu in the upper area of the *Process Execution Editor* in the *Options* panel in the right sidebar.



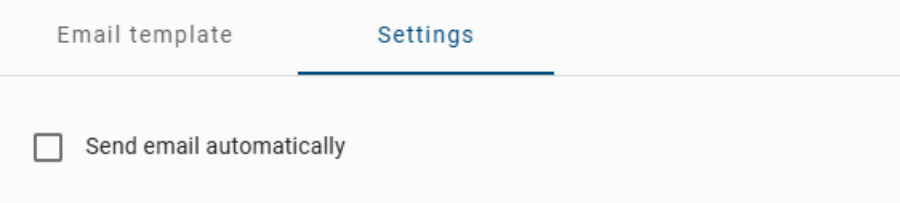
Please note that both variants are not supported at the same time. Diagrams that were created before the 8.0.0 version automatically use the previous string replacement logic. For newly created diagrams, however, the JUEL variant is now preselected by default. You can adjust the selected option at any time, but switching new diagrams to *String replacement* is **not** recommended.

Tip: You can find more information about JUEL expressions here.

Note: Please note that you can include process variables with html formatted values in the text editor. For such values, you must add a " -html" (attention: with a blank space!) to the process variable name. Otherwise the formatting will not be processed. Consider a process variable `{{CompanyName}}` for which the values are given with a formatting (for example, in bold over "GBTEC Software AG"). If you use the placeholder with the html tag `{{CompanyName -html}}` in the text editor of your template, the value will appear with the defined formatting (in bold in the example).

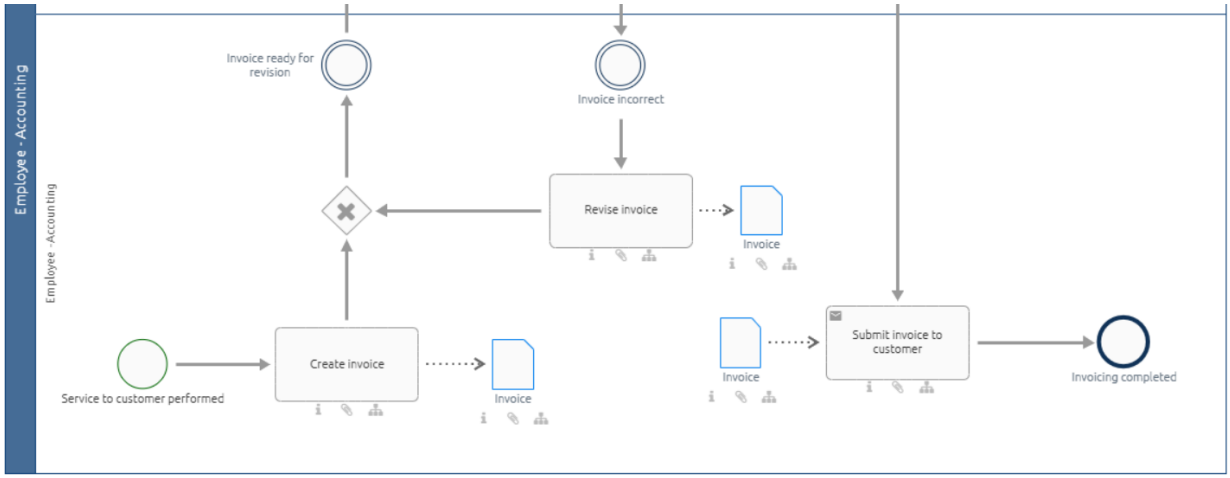
29.2.9 How can I send an email automatically?

As a *ProcessApp Creator* you have the possibility to configure your emails to be sent automatically. To do this, open the *Settings* tab in the Email template editor and activate the option *Send email automatically*. When you start this task in BIC Process Execution, your mail will automatically be sent from a *no reply* address. If you use process variables in your form, they will be automatically replaced with their corresponding value.



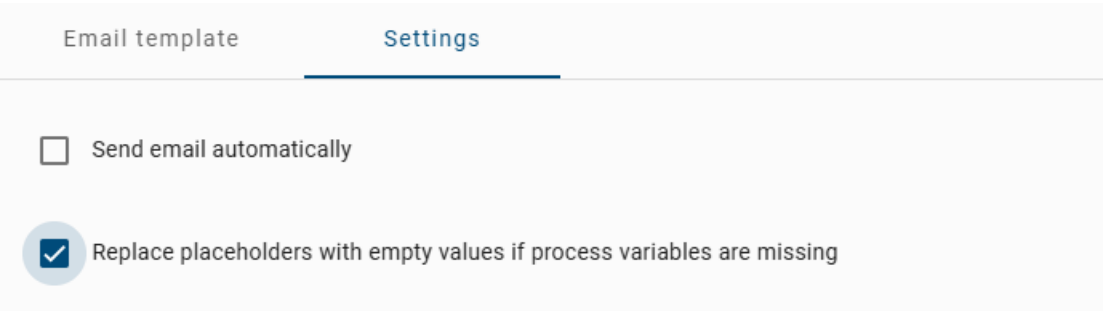
If the automatically sent email is supposed to contain an attachment, the desired file can already be included to the case in BIC Process Execution. Model a preceding activity connected to an output object which is either a *document*, *business object*, *norm* or *data store*. Add the same object as input to the send activity. Then, the responsible of the corresponding task can *upload a file* in the form and complete the task. When the *send task* is started, the file is automatically attached.

Note: Please note that the input is only attached if the email is sent automatically (option *Send email automatically* activated).



In the example above, the document “Invoice” is the output of the task “Create invoice” and the input of the send task “Submit invoice to customer”. The attachment of the email will be the latest version of the file in case. Thus, if the responsible uploads a new file (version) when working on the task “Revise invoice”, this file is attached to the email.

If your process variables are empty or not existing, BIC Process Execution will display an error icon and you have to send the mail manually via a human task. Alternatively, you got the option to replace these kinds of process variables with empty strings. For that you need to select the option *Replace placeholders with empty values if process variables are missing*.



Tip: Use the *form editor* to enable users to define the process variables in prior steps.

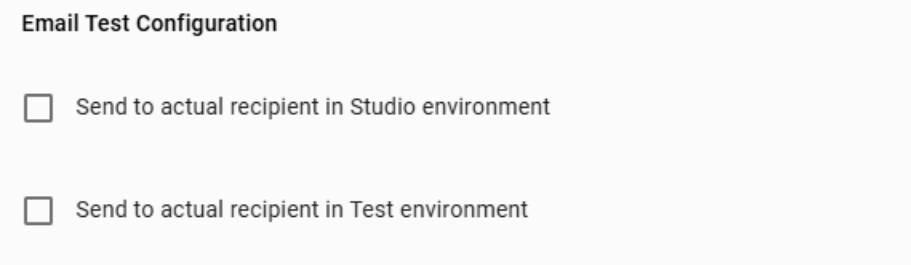
Warning: If an email is sent manually, there is a restriction for the length of the template. If your template is longer than a certain length, BIC Process Execution will automatically truncate the mail and only a part of it will be displayed in your email client. If the email is sent automatically, this restriction does not hold.

29.2.10 How can I set up an email test configuration?

As a *ProcessApp Creator*, you have the ability to configure an email test setup. To do this, open the *Settings* tab in the email template editor. In the *Email Test Configuration* section, you will find two options available.

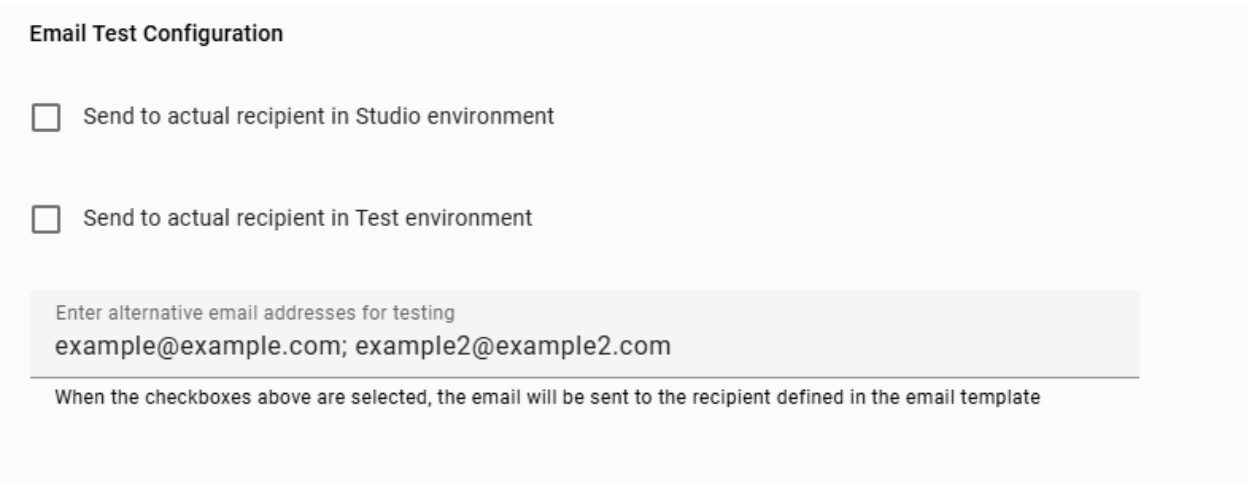
Send to actual recipient in Studio environment: If you activate this option and publish the process, emails in the **Studio environment** (development environment) will be sent to the recipients defined in the process. The subject line of each email will automatically include the prefix *[Test mail]*.

Send to actual recipient in Test environment: If you activate this option and publish the process, emails in the **Test environment** will be sent to the recipients defined in the process. The subject line of each email will automatically include the prefix *[Test mail]*.



If you activate both options, emails will be sent to the recipients defined in the process in both the **Studio environment** and the **Test environment**. In this case as well, the subject line will automatically include the prefix *[Test mail]*.

In addition, you have the option to specify alternative email addresses for testing purposes. These can be entered in the *Enter alternative email addresses for testing* field. If alternative test addresses are provided and sending to actual recipients is disabled, emails will be sent exclusively to these test addresses.



Warning: Please note that the alternative test email addresses are only considered as long as the options *Send to defined recipient in Studio environment* and *Send to defined recipient in Test environment* are not activated. Once

one of these options is enabled, the alternative test addresses are ignored and emails are sent exclusively to the recipients defined in the process.

Note: Please note that multiple alternative test email addresses must be separated by a semicolon or a comma.

Hint: Please note that currently no user groups can be used as alternative test email addresses.

29.2.11 Script task

How can I create a script task?

As a *ProcessApp Creator* you can:ref:*execute tasks automatically* <*pe-execute-script-task*> in your process by integrating *script tasks*. The supported script languages are *JavaScript* and *Groovy*. Starting from version 7.12.0, the *JavaScript* scripting language is based on the GraalVM Script Engine. The JavaScript ECMA version 5.1 is backward compatible, supporting the new components introduced in version 13.0. You can find detailed information about the used JavaScript Standard ECMA and the Groovy Engine in the following links.

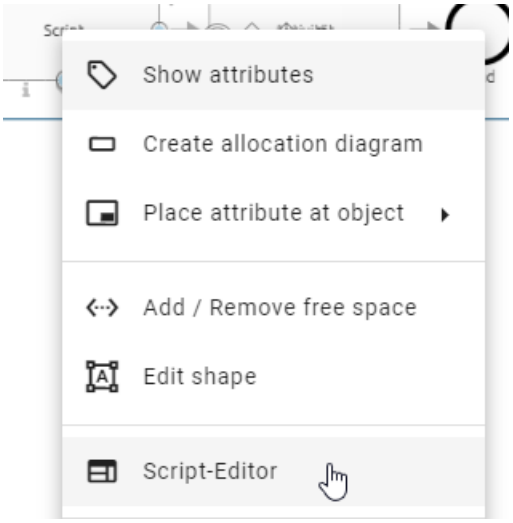
- JavaScript ECMA Version 5.1
- JavaScript ECMA Version 13.0
- Groovy Language Version 4.0.12

Hint: The Nashorn JavaScript Engine is no longer supported starting from version 7.12.0.

Hint: The version of the Groovy engine used to execute and create script tasks has been updated to version 4.0.12.

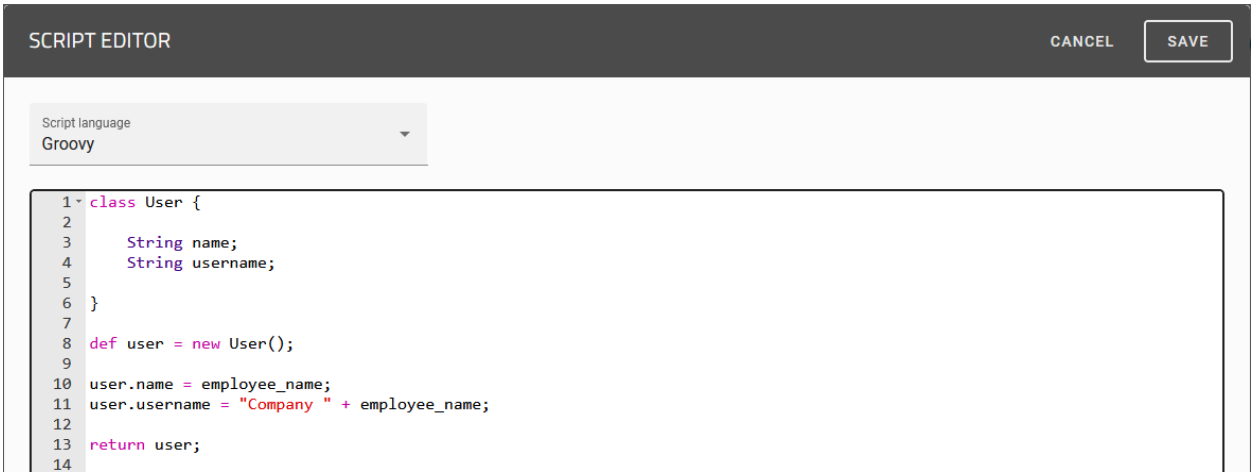
If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header. Then, open the corresponding diagram in BIC Process Design. In order to define a script task, your diagram must be marked as *executable process* in the attributes. The *activity type* of the task has to be *Script*.

Afterwards, right-click on the activity to open the context menu and select the entry *Script-Editor*.

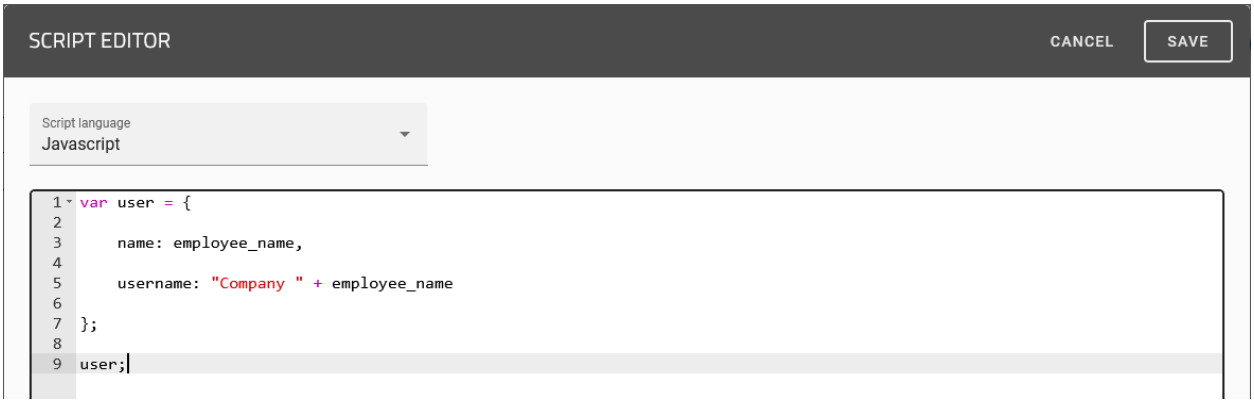


Alternatively, you can open the editor by selecting the activity and choosing *Process Execution Editor* in the *Options* panel. There you will find the button *Open editor*. Select it and the script editor will be opened.

You can select the desired script language from the drop-down menu, and then write the script which will be executed during the runtime of a case. Once you have selected a script language from the drop-down menu you can use *process variables* to dynamically adapt the script to each case. The example below shows a *Groovy* script that uses the process variable `employee_name` as an attribute of a new object `user`. This object is then returned as a new process variable in line 13.

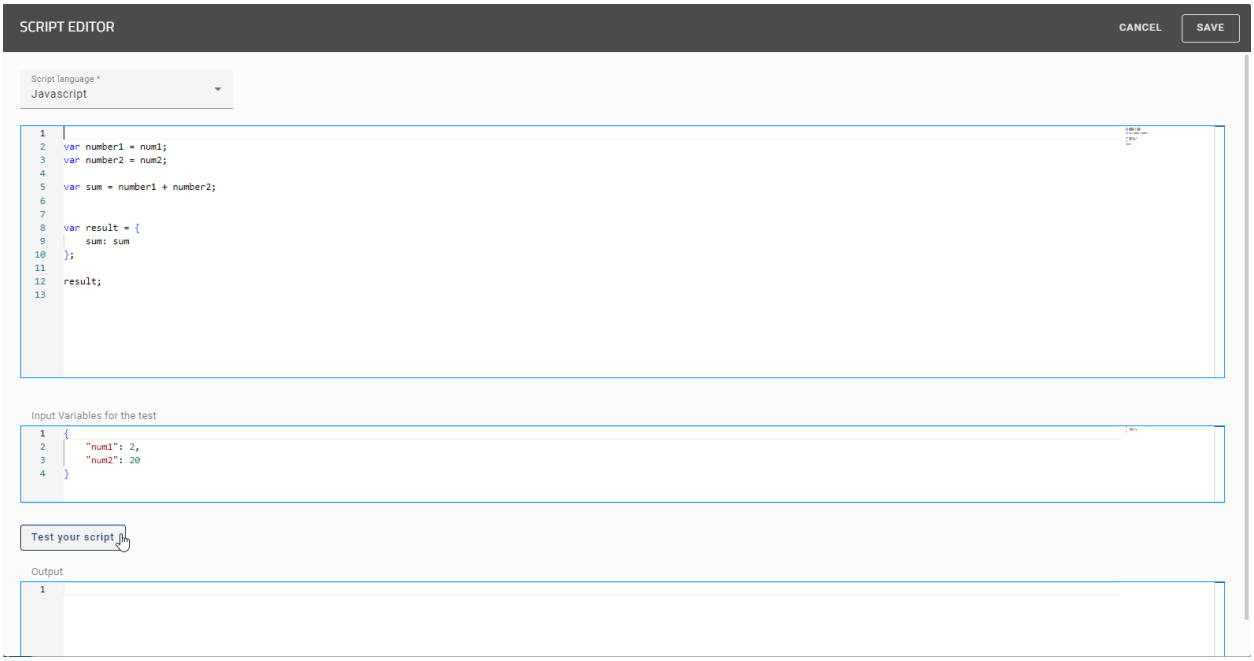


You can work with the process variables in a JavaScript in a similar way. The example below leads to the same behavior as above. The last statement of the script is the return. Thus, the new object `user` is returned to the process variables of the case in line 9.



Warning: If the result is declared with `var result = ...`, it is necessary to explicitly specify `result` again in the ending line.

As a *ProcessApp Creator*, you also have the option of saving the data entered in order to check the result before completing the task. To do this, click on the *Test your script* button.



If the script has been executed successfully you will receive the result as key-value pairs in JSON format.

Note: Please note that outputs larger than 64 KB will not be displayed.

You also have the option to use an ID, which is based on a *User* or a *User Group*, directly within the script editor. If you define an ID for a user or a user group in a previous activity of the type *User*, you can reference this ID in a later activity of the type *Script*. When you use the ID without specifying a particular attribute, the returned value depends on the type of the identity. For identities of type *USER*, the user's email address is returned automatically. For identities of type *USER_GROUP*, the name of the user group is returned instead.

In addition, you can access specific attributes of the identity:

- `.id` – returns the ID of the identity
- `.language` – returns the currently selected content language of the user or the users within the group
- `.name` – returns the name of the user or the user group
- `.email` – returns the email address of the user (not available for groups)
- `.type` – returns the type of the identity (USER or USER_GROUP)

These attributes are available within the script editor and can be used for further processing as needed.

Afterwards, select *Save* to store your script and close the editor. If you click the button *Cancel*, the editor will close without saving your changes.

Hint: Please use the correct JavaScript syntax to add a list from a script task to the process variables. This is demonstrated in the following.

```
*JavaScript*
var userList = ["John Doe", "Max Mustermann"];
vars = {
    scriptListVar:userList
}
```

If you define your list via the syntax above, each entry in the list will be stored as a single process variable (here of type *string*). The following two alternatives should be used instead to store the entire list as a single process variable of type *list*.

```
*JavaScript*
var List = Java.type("java.util.List");
var userList = List.of("John Doe", "Max Mustermann");

vars = {
    scriptListVar:userList
}
```

```
*JavaScript*
var Arrays = Java.type("java.util.Arrays");
var userList = ["John Doe", "Max Mustermann"];

vars = {
    scriptListVar:Arrays.asList(userList)
}
```

You can also use date values as output variables in the script. Date values in process variables are stored as **String**. However, there is an exception for JavaScript: If a *Date* object is returned as part of a response instead of formatting the object value, the variable can contain the value *null*. The following examples illustrate the different behavior of the two scripting languages.

Hint: Please note that scripts cannot return date values of the datatype *Date*.

Warning: Please note that tasks that were active during a system restart are automatically set to error status. This applies to both script and service tasks that were running at the time of the restart. As these tasks could not be

completed, they are considered faulty after the restart, are assigned to the respective editing users and trigger a notification by email. Tasks that were set to error status due to this change can be restarted as usual.

Using Javascript:

```
let localdate = new Date()
output = {
    javaScriptDate: localdate,
    javaScriptDate_String: localdate.toISOString()
};
```

If you want to return the *javaScriptDate* object as a variable value, the output of the script will be *null*. To return the date as a string, methods such as `toISOString()` or `toJSON()` must be used, as in *javaScriptDate_string*.

Using Groovy:

```
Map output = new HashMap();
Date testDate = new Date();
output.put("groovyDate", testDate);
return output;
```

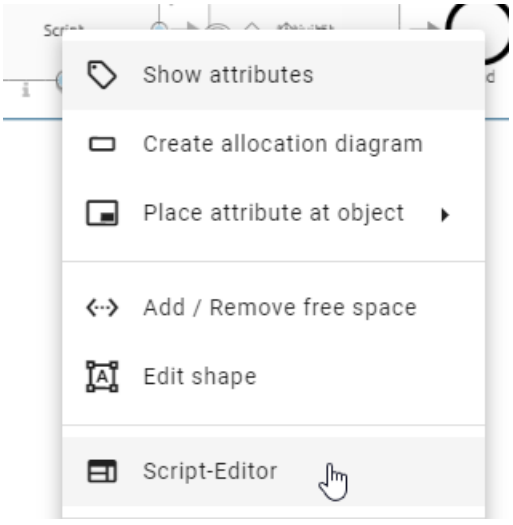
Returning a *Map* with a *Date* object, as shown in the previous code, **always** returns the date value as a string, unlike JavaScript.

How can I create code snippets using AI in the Script-Editor?

As a user with the *ProcessApp Creator* role, you can use *Arty* to generate code in the script editor. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header.

In *BIC Process Design* navigate to the *Diagrams* menu item in the left menu bar in *BIC Process Design* and open the corresponding diagram. To open the script editor in BIC Process Design, the corresponding diagram must be marked as an *executable process*. The *task type* of the activity must be of type *script*.

You will then find the *Script-Editor* option in the context menu for the activity, which you can access by right-clicking on the activity.



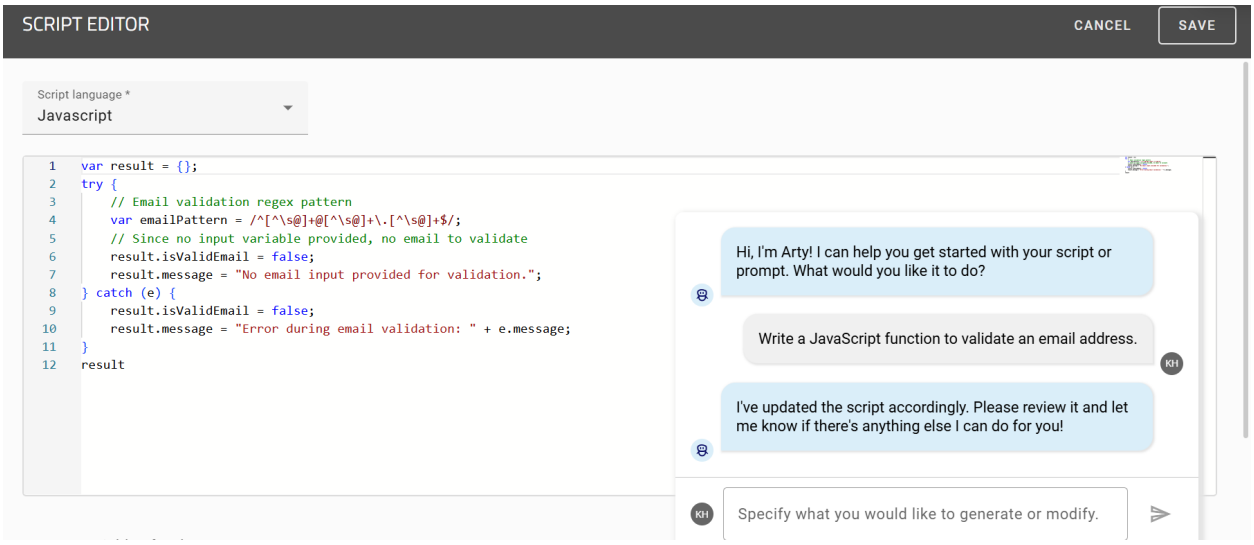
Alternatively, you can open the script editor by selecting the activity and navigating to the *Process Execution Editor* option in the *Options* panel in the right sidebar. There, you will find the *Open Editor* button, which allows you to open

the *Script-Editor*.

To generate code snippets in JavaScript or Groovy using AI, click the *Arty* icon at the bottom right of the script editor.

Hint: Please note that a separate license is required to use this feature. Please also refer to the *Notes on using the AI feature*.

In the chat that opens, please provide a description of what you would like to create or modify. The generated code will then be automatically inserted into the main area of the script editor.



Further examples of input requests to Arty could look like this:

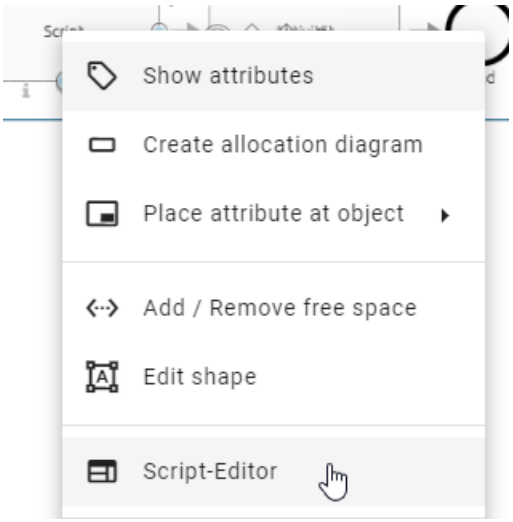
- Generate a Groovy function that increases the process variable *order number* by one.
- Update the code to also produce a console message.
- Phrase an appropriate AI prompt for this AI activity.

Hint: Please note that your instructions to Arty should be as precise as possible. Otherwise, Arty will inform you that your request is not understood and ask you to rephrase it.

How can I create a script task with the help of AI?

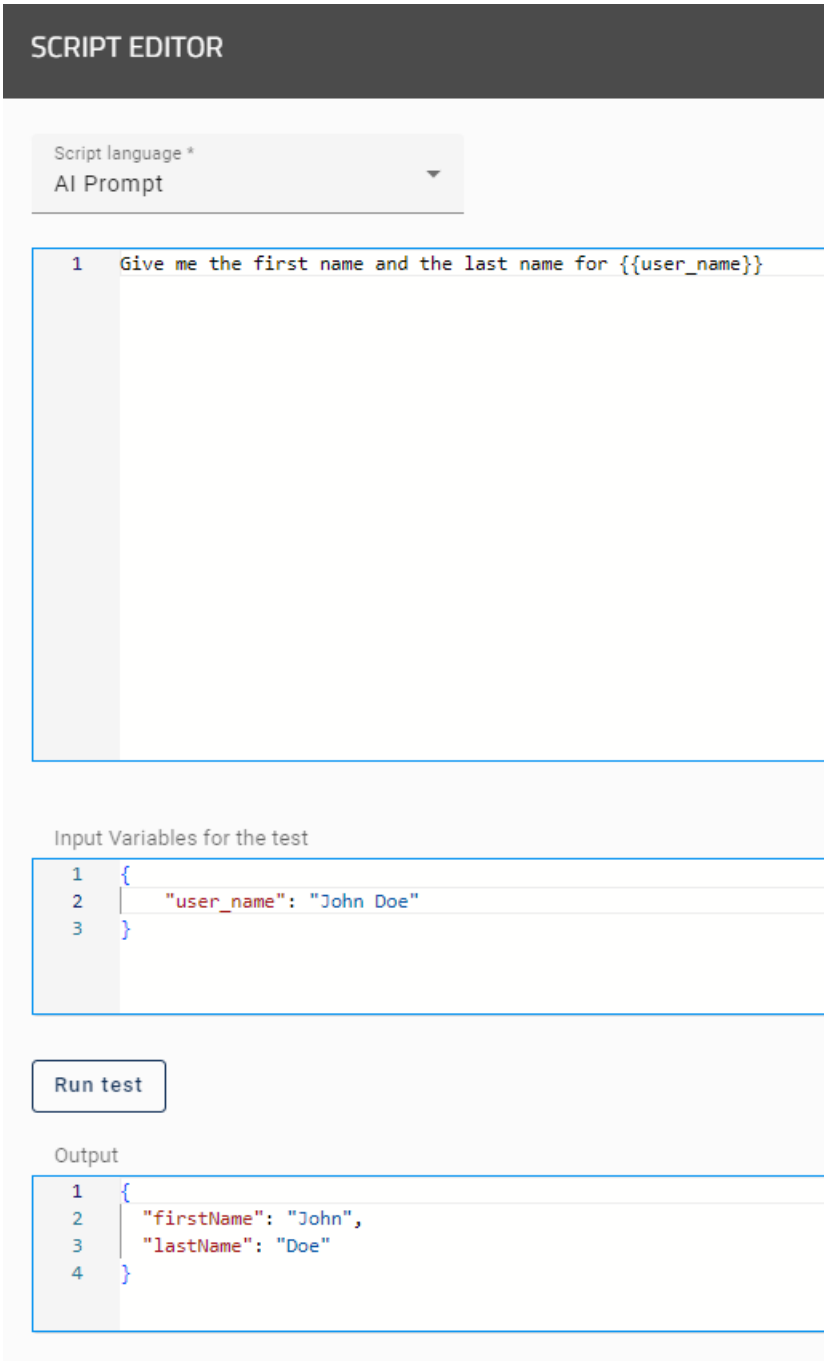
As a *ProcessApp Creator*, you can create a script task with the help of our AI assistant *Arty*. To do so, open the script editor in the corresponding diagram in BIC Process Design. The corresponding diagram must be marked as *executable process* and the *task type* of the activity must be of type *Script*.

Afterwards, right-click on the activity to open the context menu and select the entry *Script-Editor*.



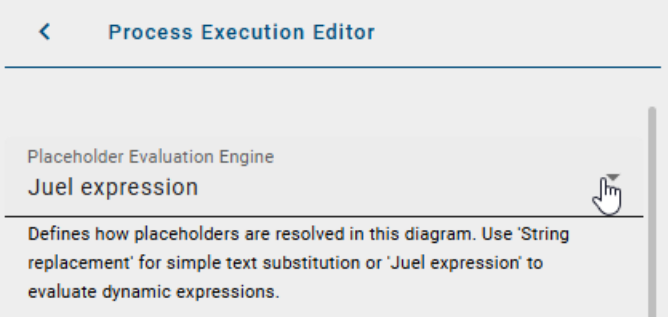
Alternatively, you can open the editor by selecting the activity and choosing *Process Execution Editor* in the *Options* panel. There you will find the button *Open editor*. Select it and the script editor will be opened.

In the *Script language* field, select *AI Prompt* from the drop-down menu. Then, enter a prompt for Arty in the upper input field and specify the relevant variables in the *Input Variables for the test* field. To preview the result before completing the script task, click *Run test*.



The placeholders in the upper input field will then be replaced with the specified input variables and the defined prompt will be executed as *Output*. If the script runs successfully, you will receive the output as key-value pairs in JSON format.

When entering a variable as a placeholder, you can choose between *JUEL expression* and *String replacement*. You specify the desired variant directly in the drop-down menu in the upper area of the *Process Execution Editor* in the *Options* panel in the right sidebar.



Please note that both variants are not supported at the same time. Diagrams that were created before the 8.0.0 version automatically use the previous string replacement logic. For newly created diagrams, however, the JUEL variant is now preselected by default. You can adjust the selected option at any time, but switching new diagrams to *String replacement* is **not** recommended.

Tip: You can find more information about JUEL expressions here.

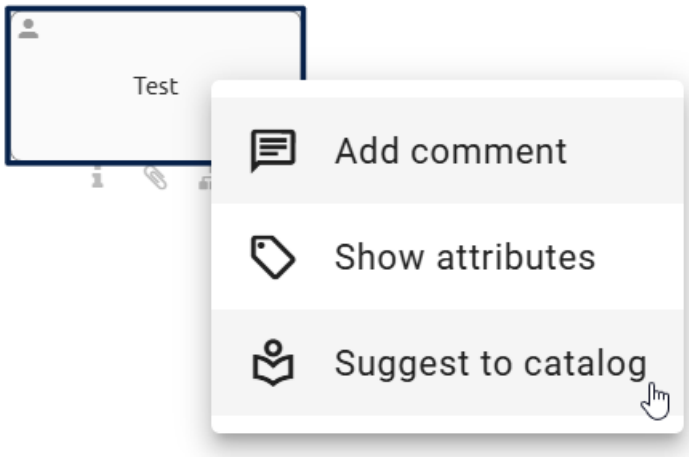
Hint: Please note that the AI-enabled feature of Arty is not included in the standard licence. Please contact your representative for more information. Please also refer to the notes on using the *AI feature*.

29.2.12 How can I edit modeled tasks in the catalog?

As a user with the *ProcessApp Creator* role, you can open and edit the respective editors of modeled tasks in the catalog in BIC Process Design. This includes the editors for user tasks, script tasks, service tasks with REST call, and send tasks.

To do this, open a diagram in BIC Process Design, check it out, and click on an empty area in the canvas. In the *Details* panel in the right sidebar, select the *Automation* attribute group and mark the process as an *executable process*. If necessary, model your process and then click on an activity. In the right sidebar, in the *Typing* attribute group, select a task type in the *Task type* field. Save your diagram and check it in using the *Check in* button.

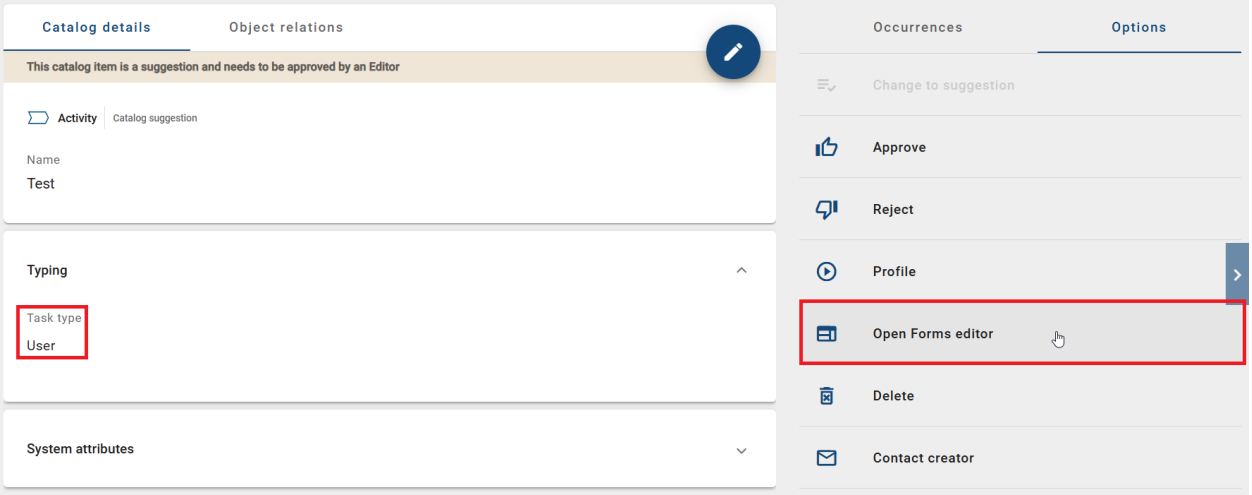
If no catalog item exists yet for this activity, right-click the activity while the diagram is checked in and select the *Suggest to catalog* option.



Once the catalog item has been suggested, right-click the activity again in the checked-in diagram and select the *Open*

in catalog option. You will then be taken to the details view of the selected activity in the catalog. Alternatively, you can open the catalog via the *Catalog* menu item in the left menu bar.

When you are in the details view of the activity, the *Options* panel in the right sidebar will display an additional option to open the editor for the selected task type.



The editor option is available for both suggested and accepted catalog items. Clicking this option opens the corresponding task type editor, which is synchronized with the editor in the diagram and can be adjusted as needed. This allows you to centrally manage the editor in the catalog across multiple diagrams without having to check out each individual diagram.

Hint: Please note that the option to open an editor is only displayed when you are in the *Public workspace* stage. Therefore, make sure that you also have a corresponding role in BIC Process Design.

29.2.13 Development and test environment

In addition to the productive environment where processes can be executed, BIC Process Execution offers two more environments where processes can be examined and tested while the diagram is still being modeled in BIC Process Design.

A process in the studio or development environment is based on the version of its related diagram in the *public workspace*. If you have modeled a diagram as *executable process* in BIC Process Design, it will be visible in the development environment right after check-in.

As soon as this diagram is available in *preview* stage of BIC Process Design, it also appears in the test environment.

The development and test environments perform as follows: If there is a former version in the respective environment, it will be replaced when the corresponding diagram in the public workspace or preview has changed. All existing cases of the process in the environment will be deleted. This helps authors to view and examine changes in the process right after modeling the corresponding diagram.

Which environments are existing?

The execution of established processes is done in the *productive environment* of BIC Process Execution. This environment is accessible for all *registered users of BIC Process Design*. A process is displayed and usable in the productive environment if the corresponding diagram is *published* in BIC Process Design.

There are two more environments: the *development* and the *test environment*. Users with the user role *ProcessApp Creator* or higher can access these environments to test processes before publishing them. More information can be found in the chapter *"Development and test environment"*.

How can I change the environment?

You are viewing the productive environment if the URL of your browser contains the keyword "app":

`https://XXX/process-execution/app/...`

You can access the development or test environment by modifying the URL. Add the keyword "studio" or "test" behind `.../process-execution/`:

- Use `https://XXX/process-execution/studio` to enter the development environment/the studio.
- Use `https://XXX/process-execution/test` to enter the test environment.

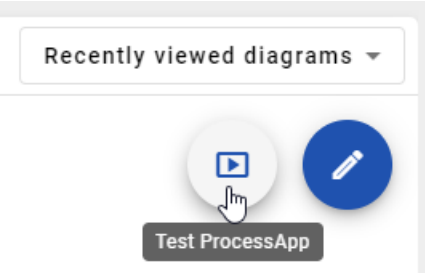
The following table serves as a short overview of the environments:

	Development environment	Test environment	Productive environment
Diagram version	public workspace	preview	publication
URL key word	`studio`	`test`	`app`

How can I test a process while it is modeled?

If you define a process by modeling a diagram in BIC Process Design, you can test it directly. You simply have to mark the diagram as an *executable process* in the attributes.

As soon as you check-in the diagram, the *Test ProcessApp* button appears.

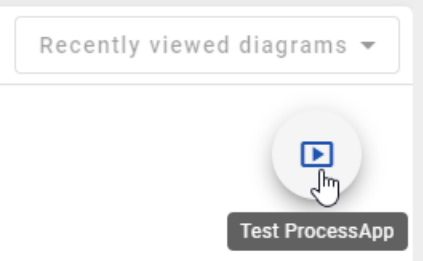


Select the button to open the studio of BIC Process Execution in a new browser tab. A new case of the modeled process will be created there automatically. The case name is maintained by the system with the name of the process and a timestamp. All roles will be assigned to you (even if the roles have a *default allocation*). This enables you to quickly test the process flow, as no further manual configuration of the test case is required.

How can I test a process before publication?

New processes modeled in BIC Process Design can be tested while the concerning diagram is in preview stage. This enables you to create a final test case in the scope of reviewing the diagram before it is published. Note that the diagram has to be marked as *executable process* in the attributes. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header.

In the diagram view, you will find the button *Test ProcessApp*.



Select the button to open the test environment of BIC Process Execution in a new browser tab. A dialog to *create a new case* of the defined process will open there. Follow the steps as in the productive environment to configure your test case.

29.2.14 How can I define a default role allocation for the process instantiation?

In BIC Process Design, you have the possibility to assign users or organizational units to roles so that they are automatically set during *the process instantiation* in BIC Process Execution. If it is known in advance that the same users or organizational units are nearly always responsible for all cases of a process, you can speed up the process instantiation for that particular process.

To use this function, navigate to the relevant role in the desired diagram in BIC Process Design. In the attribute *Staffing* enter the *user or organizational unit*. You can find this attribute within the attribute group *Automation*.

After the users as well as user groups or organizational have been entered, the diagram has *to be published* afterwards to apply the changes to the process in the productive environment. Once the new version of the diagram has been published, the user or organizational unit is assigned to the role of Responsible in the instantiation process by default.

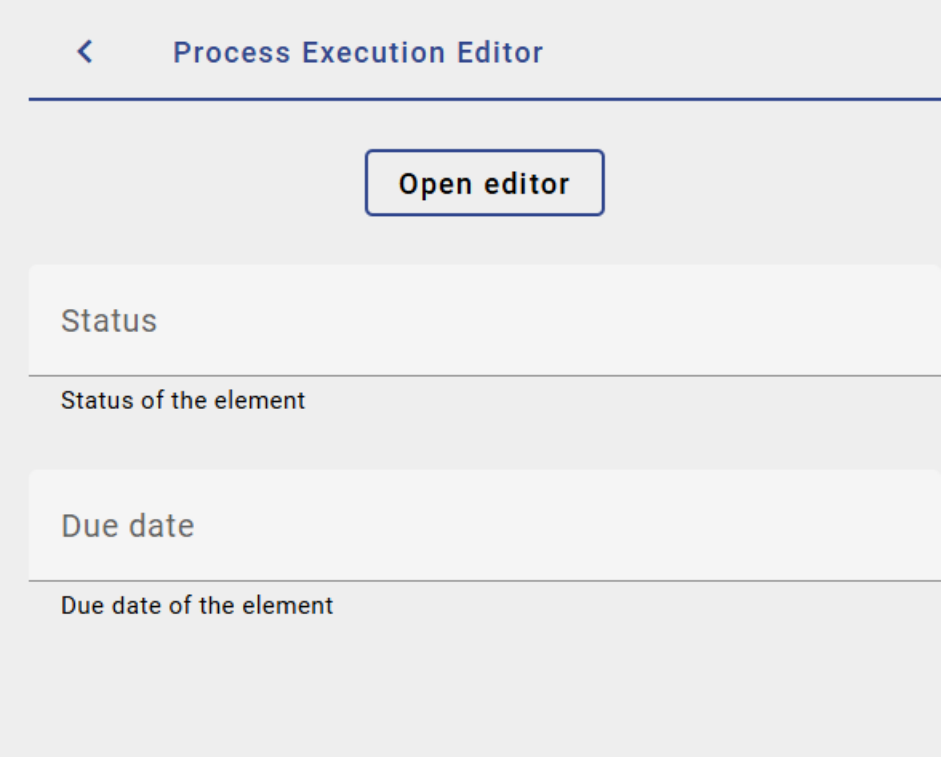
Tip: During the instantiation process the allocation can then still be changed if needed.

Note: If no user or user group was defined for a role when the case was created, the case creator is responsible for executing the task as soon as the case is started.

29.2.15 How can I model activities with a (dynamic) due date?

You can model your activities with a dynamic due date. This means that the resulting tasks have to be completed in a certain number of days or on a certain date. An explanation of how to work with due dates in BIC Process Execution can be found *here*

To do this, open the panel *Options* of the activity in the right side bar and select the option *Process Execution Editor*. There you can set the *Due date of the element*.



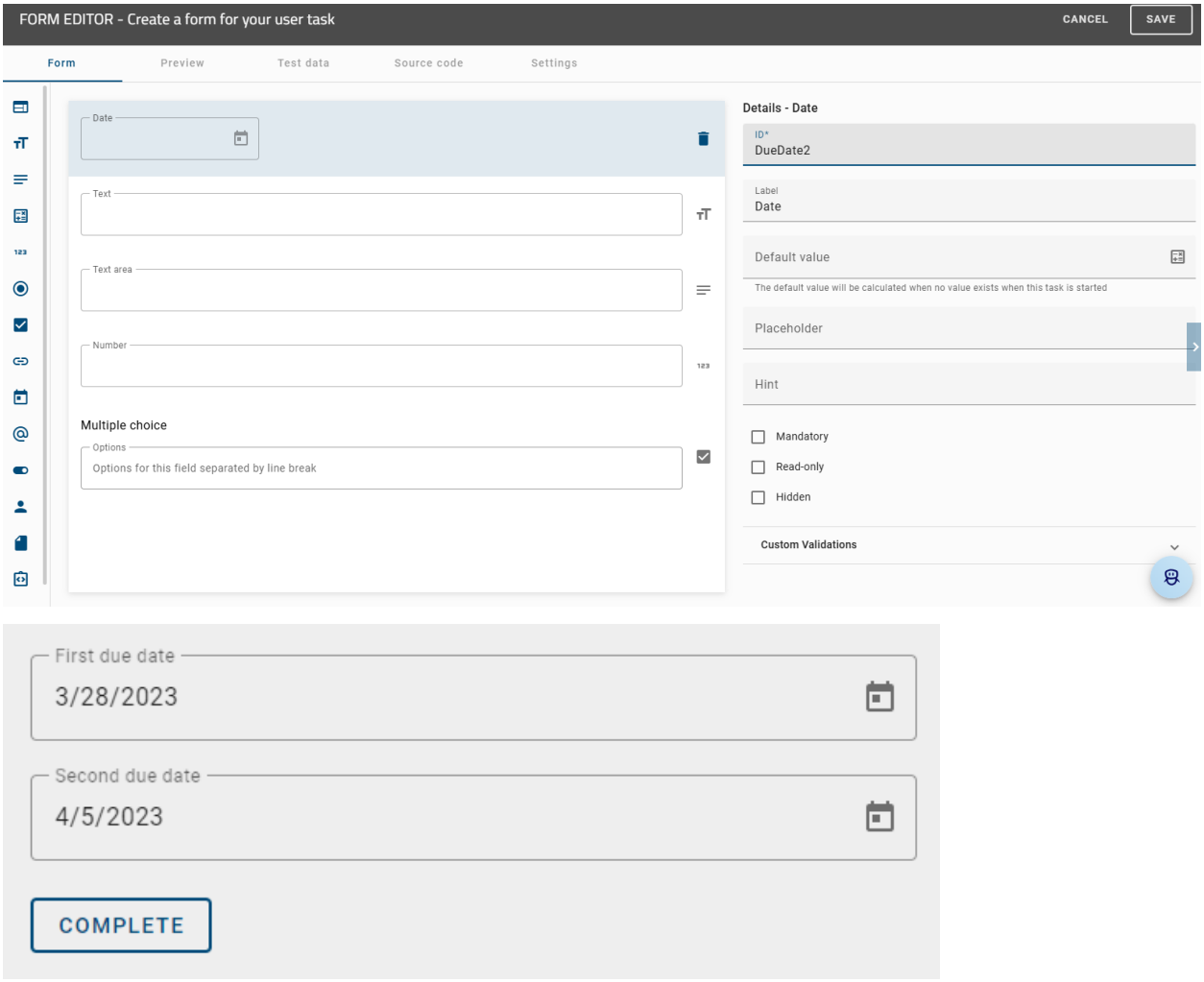
Here you can enter how many days after the start of the task or on what date the task is due. BIC Process Execution will automatically calculate the correct due date.

Note: If you do not give any input in the field, the due date will be set to the same value as the case due date.

Tip: Declare at least one date field in advance in the *form editor* to determine a due date with this value as well.

Note: You also have the option of using JUEL expressions (Java Unified Expression Language) to define dynamic due dates. With these expressions, you can not only query simple variable values, but also specifically access individual values within complex variables. Further information about JUEL expressions can be found here.

In the following, some examples of how to determine the due date using at least one date field are provided. Here, two date fields are created in the form editor and declared with the IDs “DueDate1” and “DueDate2”. For these examples, *DueDate1* is always set to `03/28/2023` and *DueDate2* to `04/05/2023`.



Hint: You can also determine dates in ISO 8601 format when using the form field *Text* and millisecond timestamps by using the form field *Number* through the following commands.

To move the due date by *X* days/weeks/months/years, you can use the commands:

```
nameID.plusDays(X).plusWeeks(X).plusMonths(X).plusYears(X)

nameID.minusDays(X).minusWeeks(X).minusMonths(X).minusYears(X)
```

- `nameID` here stands for your declared date field ID.
- `plusDays(X)` / `minusDays(X)` allows you to move the due date back or forward by *X* days.
- `plusWeeks(X)` / `minusWeeks(X)` allows you to move the due date back or forward by *X* weeks.
- `plusMonths(X)` / `minusMonths(X)` allows you to move the due date back or forward by *X* months.
- `plusYears(X)` / `minusYears(X)` allows you to move the due date back or forward by *X* years.

Examples:

```
DueDate1.plusDays(4)
```

gives the output `04/01/2023`.

```
DueDate1.plusWeeks(2).minusDays(1)
```

gives the output `04/10/2023`.

```
DueDate2.plusYears(1).minusMonths(2).plusWeeks(3)
```

gives the output `02/26/2024`.

```
DueDate2.minusWeeks(3).minusYears(1).plusDays(10).plusMonths(6)
```

gives the output `09/25/2022`.

To set the due date to the first day of the month, you can use the command

```
.withDayOfMonth(X)
```

Set *X* to the number *1* to give the first day of the month as the output.

Examples:

```
DueDate1.withDayOfMonth(1)
```

gives the output `03/01/2023`.

```
DueDate2.plusYears(2).withDayofMonth(1)
```

gives the output `04/01/2025`.

```
DueDate2.plusMonths(3).minusYears(1).withDayofMonth(1)
```

gives the output `07/01/2022`.

Alternatively, you can choose any number between 1-31 for *X*.

```
DueDate1.plusYears(1).minusMonths(2).withDayOfMonth(15)
```

gives the output `01/15/2024`.

Hint: Avoid numbers above 28, since not every month has the same number of days. For a number higher than 28, proceed as in the next example.

To set the due date to the last day of the month, you can use the command

```
nameID.plusMonths(X).withDayOfMonth(1).minusDays(X)
```

where `nameID` stands for your declared date field ID.

Examples:

```
DueDate1.plusMonths(1).withDayOfMonth(1).minusDays(1)
```

gives the output `03/31/2023`.

```
DueDate1.plusMonths(2).withDayOfMonth(1).minusDays(1)
```

gives the output `04/30/2023`.

```
DueDate2.plusMonths(1).withDayOfMonth(1).minusDays(1).plusYears(3)
```

gives the output `03/31/2026`.

```
DueDate2.plusMonths(1).withDayOfMonth(1).minusDays(2)
```

gives the output `04/29/2023`.

You can also use an if-else-then-statement to determine the due date if the output is determined by a *Boolean* value. For this, you need the operators ? and :, and a *TRUE* and *FALSE* condition. In addition, at least two date field IDs must be declared.

To compare two dates with each other, use the command:

```
nameID_1.equals(nameID_2) ? X : Y
```

- `equals()` is the command to compare two dates with each other.
- `nameID_1 / nameID_2` stand for your declared date field IDs.
- `?` terminates the request, followed by the *TRUE* and *FALSE* conditions.
- `X` is the output if the request is *TRUE*.
- `Y` is the output if the request is *FALSE*.
- `:` is inserted to separate the *TRUE* condition from the *FALSE* condition.

Examples:

```
DueDate1.equals(DueDate2) ? 5 : DueDate1.plusWeeks(1)
```

gives the output `04/04/2023`, because the condition is *FALSE*.

```
DueDate2.equals(DueDate1) ? DueDate2.plusWeeks(2) : DueDate2.minusDays(3).
↪plusMonths(1)
```

gives the output `05/02/2023`, because the condition is *TRUE*.

```
DueDate1.equals(DueDate2) ? 5 : 10
```

adds 10 days to the date when the task was created since the condition is *FALSE*. For example, if this date is set to 01.04.2023, the output will be `04/11/2023`.

To check whether a date is before or after another date, you can use the following commands:

```
nameID_1.isBefore(nameID_2) ? X : Y

nameID_1.isAfter(nameID_2) ? X : Y
```

- `isBefore()` checks if the date (nameID_1) is before the other date (nameID_2).
- `isAfter()` checks if the date (nameID_1) is after the other date (nameID_2).

Examples:

```
DueDate1.isBefore(DueDate2) ? DueDate1.plusMonths(1).withDayOfMonth(15) : DueDate2
```

gives the output `04/15/2023`, because the condition is *TRUE*.

```
DueDate2.isBefore(DueDate1) ? DueDate2.minusDays(5) : DueDate2.plusWeeks(2).
↪plusMonths(1)
```

gives the output `05/19/2023`, because the condition is *FALSE*.

```
DueDate1.isAfter(DueDate2) ? 10 : DueDate2.minusMonths(1).withDayOfMonth(20)
```

gives the output `02/20/2023`, because the condition is *FALSE*.

```
DueDate2.isAfter(DueDate1) ? 20 : DueDate2.plusYears(1)
```

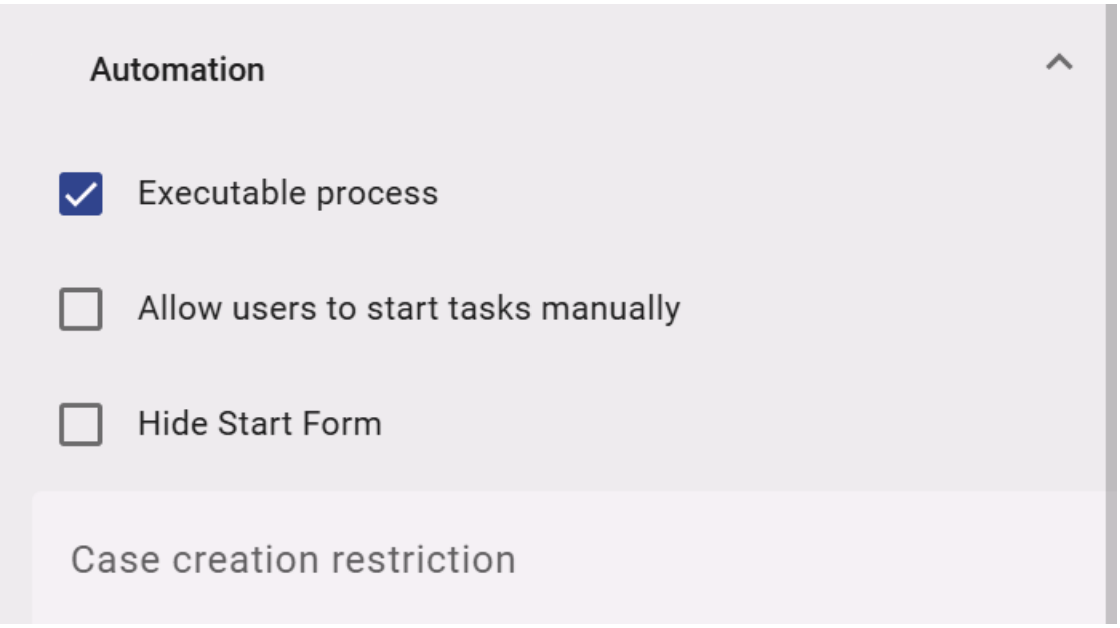
adds 20 days to the date when the task was created because the condition is *TRUE*. For example, if this date is set to 04/01/2023, the output will be `21/04/2023`.

Hint: If the output value of a *TRUE* or *FALSE* condition is deposited with a numeric number, this number will **always** be added to the date on which the task was created.

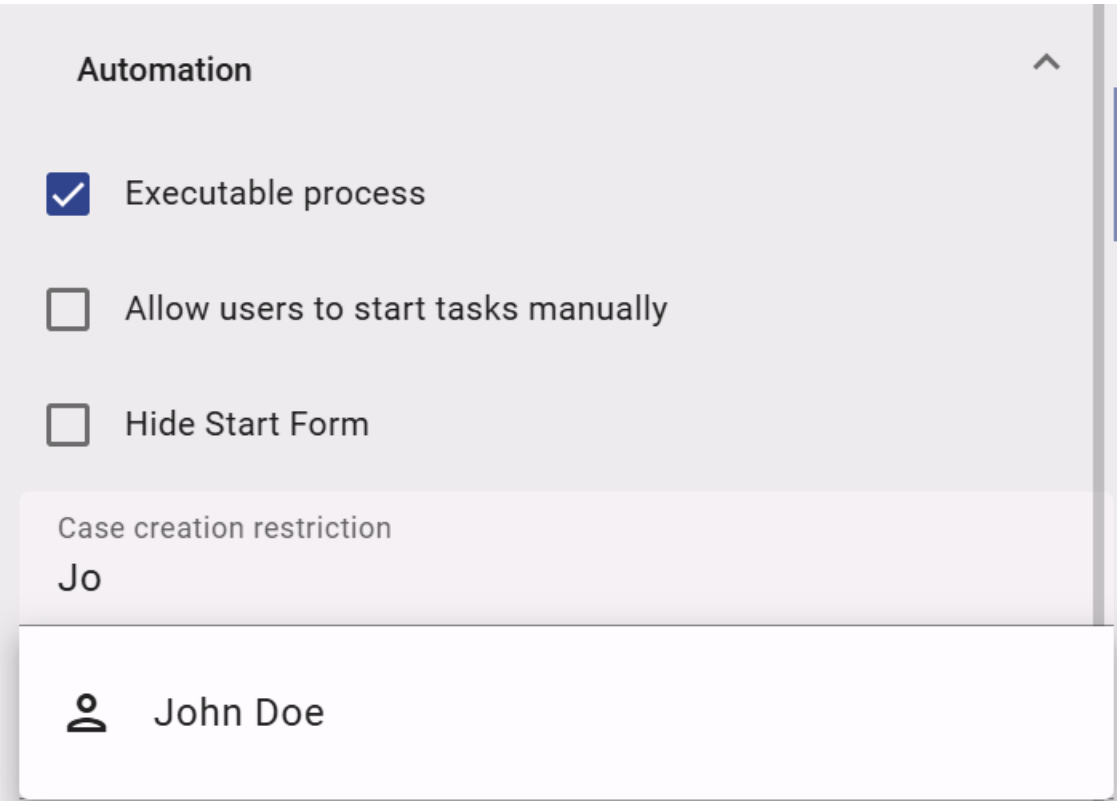
29.2.16 How can I set up a case creation restriction?

In BIC Process Design, you have the possibility to define a case creation restriction for diagrams, which will be executed with BIC Process Execution. This enables you to decide, individually for every process, which users have the possibility to create new cases. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* by using the *focus drop-down menu* in the header.

To define such a restriction navigate to the *Details* of the relevant diagram. You will find the attribute *Case creation restriction* within the attribute group *Automation*.



Analog to the diagram or repository *access restriction*, you can set the names of multiple users or whole user groups. As soon as you start typing in the input field, a list of suggestions is displayed to you to choose from.



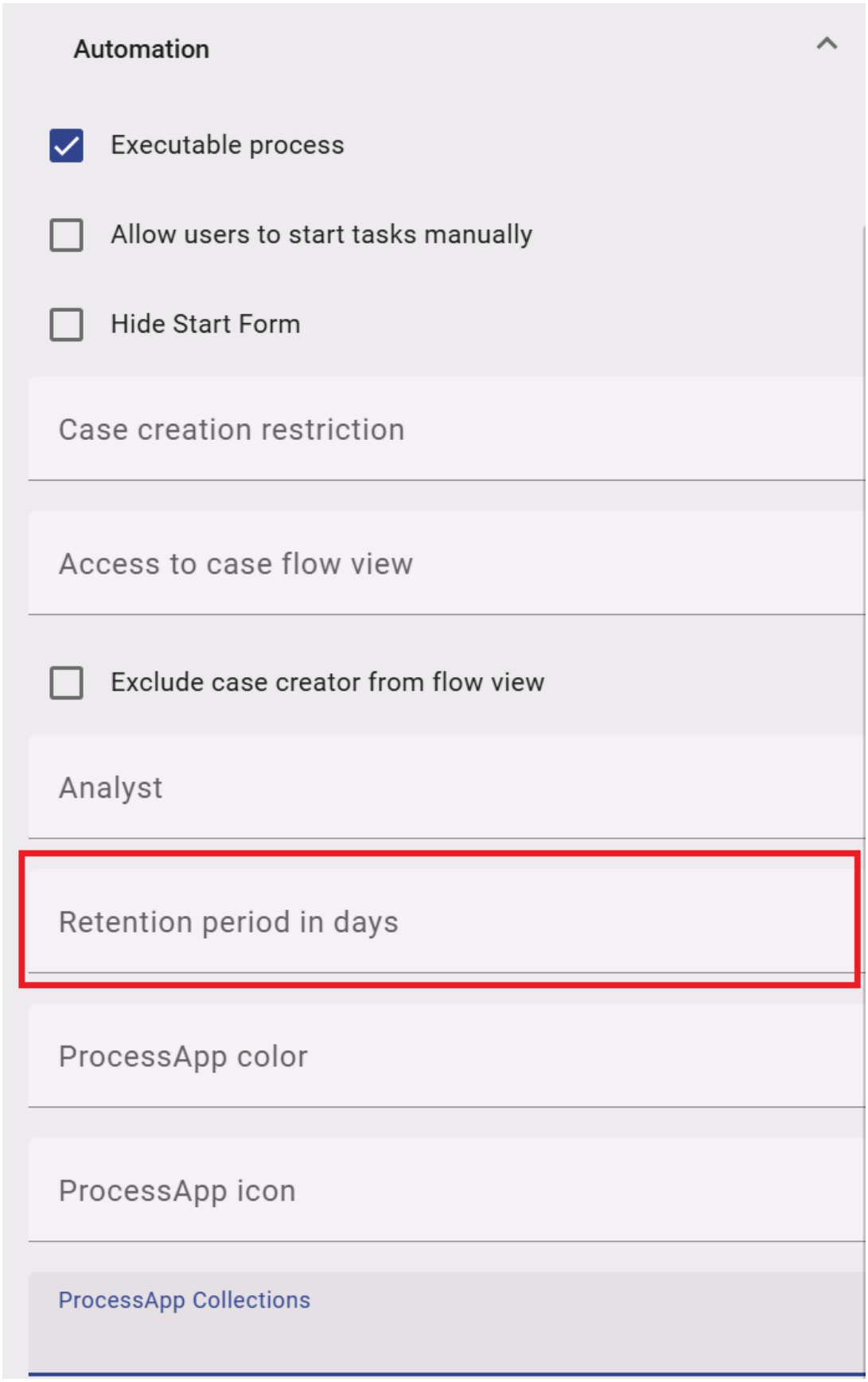
Once a case creation restriction is set and the diagram meets all requirements in order to be displayed also in BIC Process Execution, the case creation restriction behaves as follows:

All users included in the case creation restriction are enabled *to create cases for the corresponding process as usual*. Same goes for users who are part of user groups which have been included in the case creation restriction.

All other users will still see the process, but will not be able to create cases for this process. This means that the *Create a new case* function will neither be displayed in the menu of the corresponding ProcessApp nor in the case list of the process.

29.2.17 How can I set a retention period for the archived cases of my process?

If you model a process in BIC Process Design, you can configure a retention period for all archived cases of the process. When a case is archived, it is stored in the archive until the retention period expires. Then the case will be automatically and irrevocably deleted. You can set the time period in the attribute *Retention period*, which is part of the attribute group *Automation*. Enter a time period in *days*, e.g. "365" in order to store the archived cases for one year.


Automation
Executable process
Allow users to start tasks manually
Hide Start Form
Case creation restriction
Access to case flow view
Exclude case creator from flow view
Analyst
Retention period in days
ProcessApp color
ProcessApp icon
ProcessApp Collections

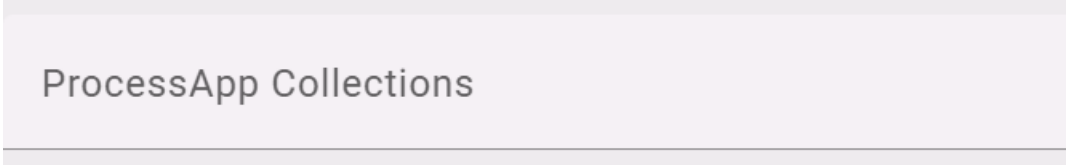
When the retention period of a case expires while you are viewing the list of archived cases, the case will be removed from the list and you will be informed by a message. In case you are viewing the process flow of an archived case and the retention period of this case expires, the system deletes the case and you will be redirected to the case list of the corresponding process. You receive a message informing you of this automatic action.

Warning: Maintaining a retention period leads to the **irrevocable deletion** of archived cases. For each case, the period starts to expire from the time it was *moved to the archive*.

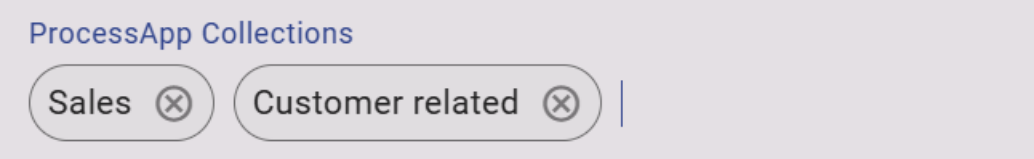
29.2.18 How can I add a process to a ProcessApp Collection?

The assignment of a process to a *ProcessApp Collection* takes place in *BIC Process Design*. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* using the *focus drop-down menu* in the header.

In BIC Process Design, open the diagram of the process you want to add and open its attributes. In the attribute group *Automation*, you will find the attribute *ProcessApp Collections*.



Here you can enter as many ProcessApp Collection IDs as you want.



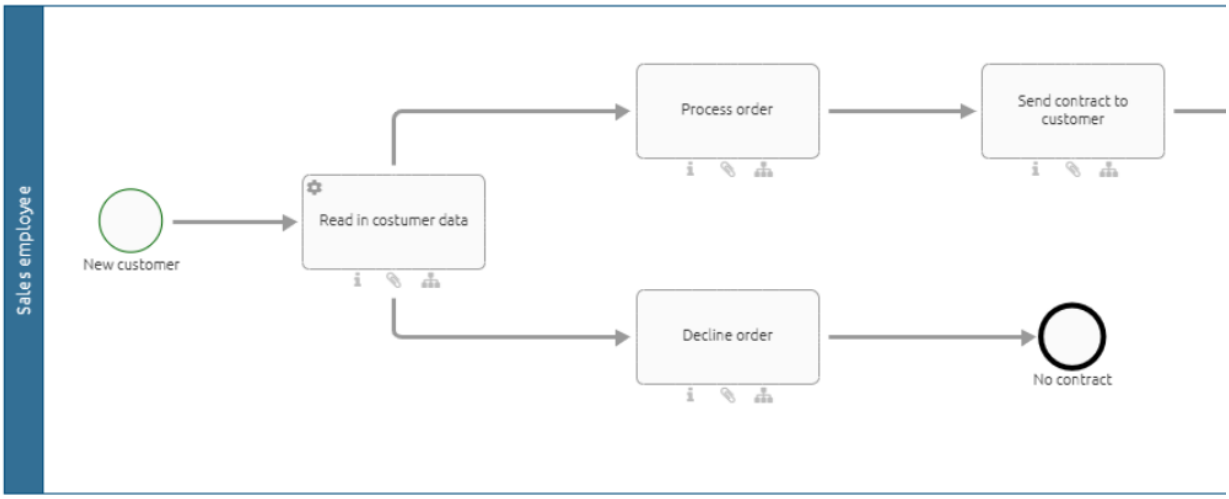
29.2.19 How can I model the process flow with gateways?

Usually, a process does not follow one exact flow linearly. Based on decisions, the path splits into multiple flows, which can also run parallel. In BIC Process Design, you can model this with sequence flows and gateways. In a concrete case in BIC Process Execution, gateways result in decisions or introduce parallel flows (and reunite them).

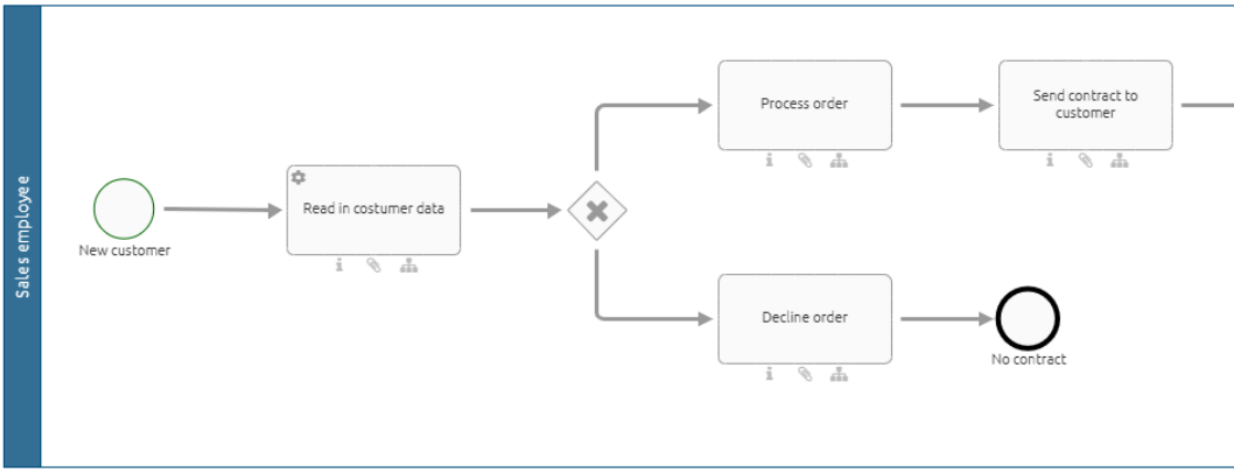
You can use the following three types of gateways:

- **Exclusive gateway**: After this gateway, exactly one sequence flow is followed. You can automate the decision of which one to choose in a particular case.
- **Inclusive gateway**: After this gateway, one or more of the following sequence flows can be executed.
- **Parallel gateway**: With a parallel gateway, all subsequent sequence flows are executed.

Note that it is possible to model multiple outgoing sequence flows at an activity without using gateways.



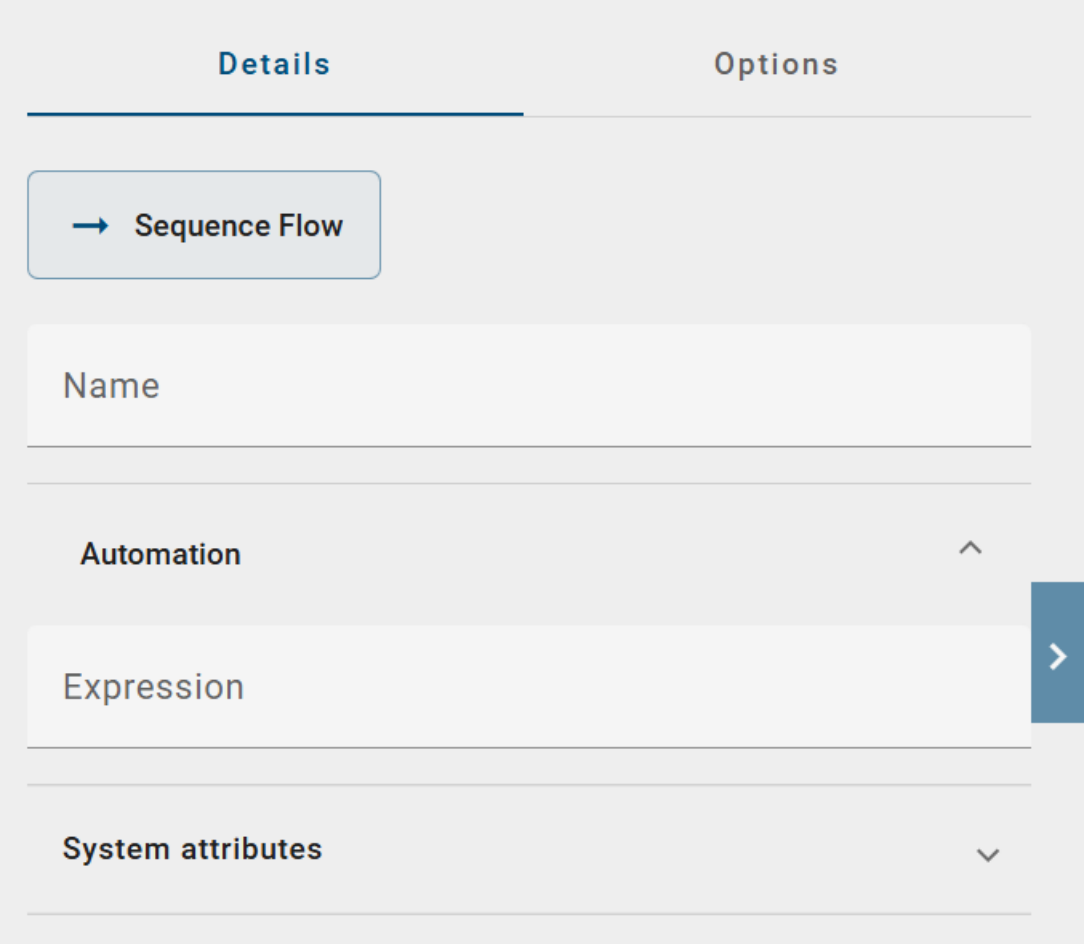
In the case of the image above, you have to define *expressions for an automatic decision* about the course of the process flow. Otherwise, the process will get stuck. If you do not want to work with expressions and automated decisions, you must model the process with a gateway (see below). The case owner then receives a *task for manual decision*.



29.2.20 How can I model an automated decision?

During the execution of one of your cases, you can have decisions made automatically in order to archive the right result for your process. To use this function, you must define expressions in the sequence flow in BIC Process Design that specify the conditions under which the respective decision is made. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* using the *focus drop-down menu* in the header.

To do this, first navigate to the diagram in BIC Process Design with the *ProcessApp Creator* user role that represents the basis for the process in BIC Process Execution in which you want decisions to be made automatically. Here, for each sequence flow after a split gateway, you have to define an expression which specifies the condition under which the next path is to be followed. To define the expression, first select the corresponding sequence flow. Within the section *Automation* in the attributes of the sequence flow, you will find the input field *Expression*.



Note: If you use the parallel gateway in your process, the definition of expressions is not necessary since every outgoing path is executed.

Here you can define your expression using the syntax of the programming language Java (an overview about the notation can be found in the table below). The return value of this expression should then be of the type boolean. The basis for the conditions are always *process variables* which receive their value before reaching the gateway within the process flow in BIC Process Execution. For example you can use process variables from previously executed *REST calls*, or process variables from previously executed *rule-based tasks*.

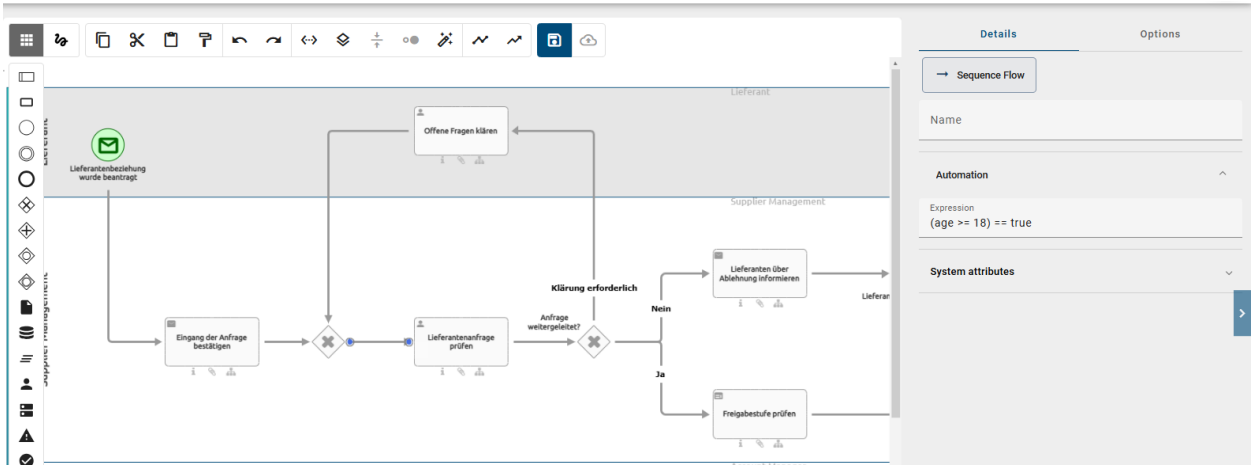


Table 1: **Overview about the notation**

Symbol	Description	Symbol	Description
`&&`	logic and	<	smaller than
`||`	logic or	<=	smaller or equal
`==`	comparison of expressions (is used with `true` and `false`)	=	equal
`true`	expression is true	`!=`	not equal
`false`	expression is wrong	>=	bigger or equal
		>	bigger than

Therefore, the expression `(age >= 18) == true` checks whether the value of the process variable `age` is greater than or equal to 18. If this is true, the corresponding path will be taken.

You also have the option of using JUEL expressions (Java Unified Expression Language) to define expressions. You can query both simple variables at the first level, such as `user.identity == 'email@gbtec.com'`, as well as more complex variables with multiple levels that refer to specific properties of the variable. For example, you can query `user.identity.email == 'email@gbtec.com'`. Further information about JUEL expressions can be found here.

Warning: Please note that with JUEL expressions, such as: `{{budget > 1000 ? "budget exceeded" : "budget not exceeded"}}`, results that are not *true* or *false* can also be returned.

As soon as you have defined your expressions and the diagram meets all *requirements*, you can access the respective process with the automated decision in BIC Process Execution.

In BIC Process Execution, when the value of a process variable changes, for example due to a change within *a decision table* or due to *a manual change by a ProcessApp Administrator*, all expressions which include that process variable are checked for their return value.

When the return value of the first expression returns the value *true* for a gateway of the type *Exclusive Or*, the corresponding path in the process flow of the case is selected and displayed. If the return value of the expression is *false*, the next expression is checked.

The *Exclusive Or* can also be used to determine whether a file was uploaded in a previously executed task. In a previously created diagram, at least one activity that has an edge to a document must be connected to at least two other activities using an *Exclusive Or*. To do this, label a file output in the diagram with an identifier of your choice, in our example invoice, and label the edges leading to the two activities after the *Exclusive Or* with the expressions `invoice != null` and `invoice == null`. This allows you to reliably control gateways or conditions without having to check in advance whether a variable exists at all. For example, if you use the expression `invoice !=`

`null` in an exclusive gateway, the process will only follow that path if a file is actually present. If no file has been uploaded, the alternative path will be taken automatically.

With gateways of the type *Inclusive Or*, all expressions are checked regardless of their order. For all expressions that return the value *true*, the corresponding path is displayed in the process flow.

If none of the expressions return the value *true* by the time the decision is made, the process stops at that point as no next step can be selected. To avoid this situation, the process must be planned in such a way that a decision can always be made. Alternatively, a *manual decision* can be provided instead of an automated decision.

Warning: If you model an activity with one or more outgoing sequence flows **without** a gateway, you must automate the decision via expressions. Otherwise, undesirable behavior may occur since manual decision tasks are created only at gateways. Please find an example *here*.

Warning: If a section of a case consisting only of automatic tasks is executed ten or more times in succession, the entire case is automatically stopped for safety reasons. The task in question can be restarted manually. This resets the counter for the executions. If in certain cases more runs are required, the maximum number of permitted executions can be adjusted accordingly in the Process Execution Editor. By default, the number of runs is ten, and one run must be executed at least.

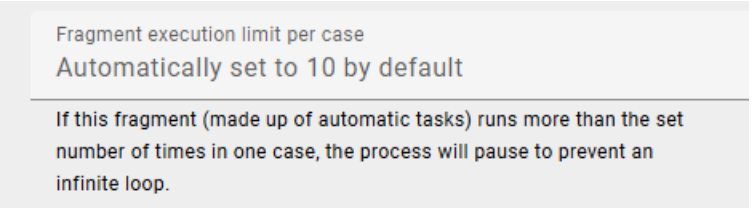
Note: Be aware that only automated decisions that are still open can be changed. This means that decisions which have already been set by starting a task in the respecting path, cannot be changed anymore.

Hint: If a task which is the last task before an automated decision is completed, the following task resulting from the decision path is automatically started.

29.2.21 How can I configure the repeat limit for fragments in the Process Execution Editor?

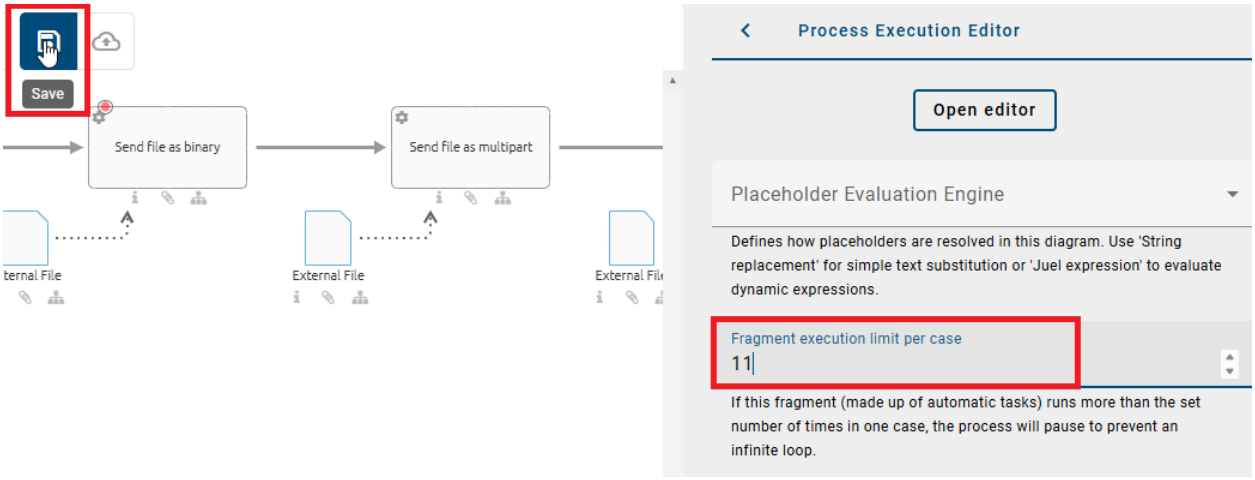
In the *Process Execution Editor*, you have the option of setting fragment repetitions in processes. To do this, you must be in the *Public workspace* area and have at least the *Author* user role. If you configure fragments in a process model, they can be executed multiple times. To avoid endless loops or unintentional continuous executions, a maximum execution limit per process instance can be defined in this editor. If this value is exceeded, the process pauses automatically and thus prevents incorrect or uncontrolled repetitions.

To do this, click in *BIC Process Design* on the *Diagrams* menu item in the left menu bar and select the desired diagram. Check out the diagram and navigate to the *Options* panel in the right sidebar. Then open the *Process Execution Editor* option. There you will find the configuration option *Fragment execution limit per case*.



The input field *Fragment execution limit per case* is preset with the value **10** by default. In addition, a note is displayed that the process is stopped during automatic execution as soon as the specified limit is exceeded in order to avoid

endless loops. You can adjust this value to define how many times a fragment may be executed per case.



After entering and saving a valid value, the setting is saved in the process definition. When the process is executed later, the limit you have defined is used to check for too many repetitions and thus replaces the default value.

Note: Please note that only positive integers greater than **0** are permitted for input. If, for example, you enter **0, -5,** a decimal number or a text, an error message will appear, prompting you to correct your entry. In this case, the configuration can only be saved after the error has been corrected.

29.2.22 How can I configure an automatic time event?

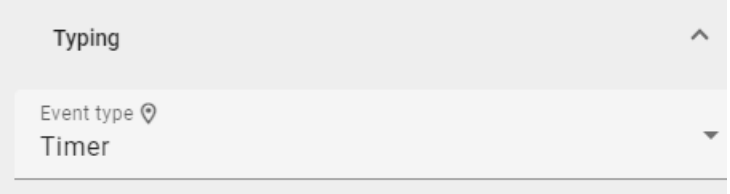
Start Timer Event

In BIC Process Execution, processes can be started either *manually* or automatically via a start timer event. Such an event makes it possible to initiate the process at a specified time and, if required, on a recurring basis. This function is only available for BPMN diagrams and is not intended for EPC modeling.

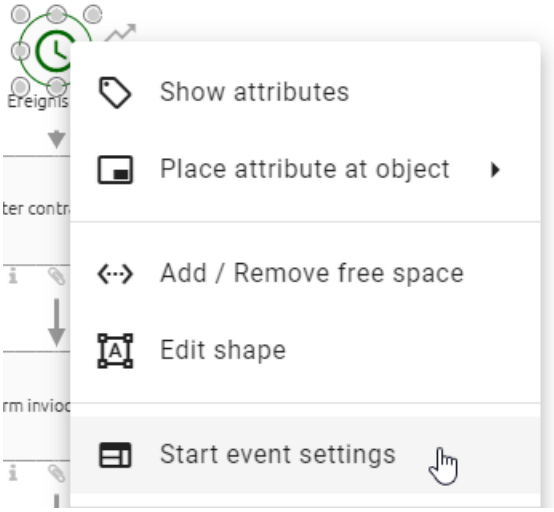
Hint: Please note that start timer events are only executed in the production environment, i.e. for published processes. In the test and development environments, no processes are started according to the Cron definition explained below. However, processes with a start timer event can be manually started in these environments, for example, for testing purposes.

Note: Please note that start timer events can be initiated manually in both the Public workspace and the Preview stage. However, this does not apply to the Publication stage. Therefore, if a start timer event in a published process needs to be triggered manually, a manual start event must also be modeled.

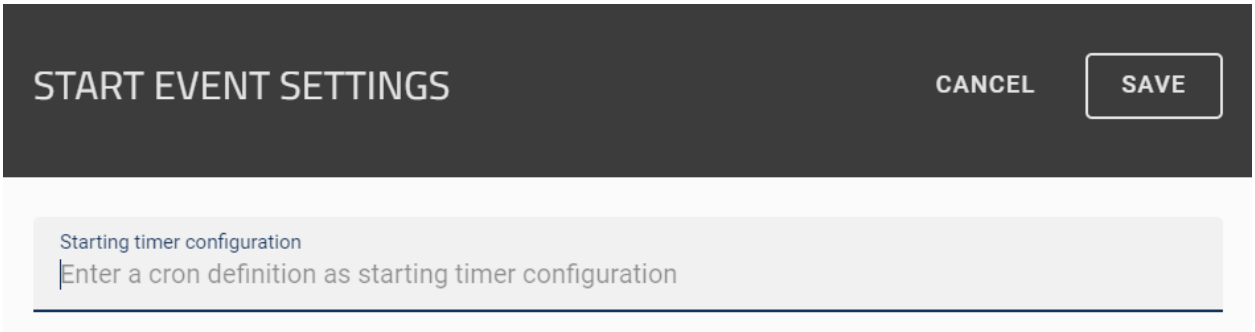
If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* using the *focus drop-down menu* in the header. In *BIC Process Design* open the corresponding diagram. In the attributes of the start event, select the event type *Timer* (in the attribute group *Typing*).



Then, open the context menu of the start event via a right-click on the symbol. Choose the option *Start event settings*.



Selecting this option opens a dialog. In the field *Starting timer configuration*, you can enter a *Cron expression* to define the (temporal) logic that will be applied to start new cases of the process in BIC Process Execution.



Save your configuration to close the dialog, or use the *Cancel* button in order to discard your changes.

As soon as your process is published, it will automatically start a new case each time the timer is triggered. Such a case is always named by the start time of the case, and participating roles are assigned to their *default staffing*. Note that the case *does not have an owner* which implies that tasks without a default staffing have to be *delegated manually*. If there is no responsible user assigned for a started task, the task has to be *delegated* before you can *complete* it.

Warning: If a section of a case consisting only of automatic tasks is executed ten or more times in succession, the entire case is automatically stopped for safety reasons. The task in question can be restarted manually. This resets the counter for the executions. If in certain cases more runs are required, the maximum number of permitted executions can be adjusted accordingly in the Process Execution Editor. By default, the number of runs is ten, and one run must be executed at least.

Note: If the diagram is depublished or no longer marked as *executable*, the automatic case creation will be stopped.

Tip: ProcessApp Administrators can edit the case name *in the process variables*.

Cron Expression:

A *Cron expression* is a chain of fields which are separated by blank spaces. The fields define the time units in the order

<Second> <Minute> <Hour> <Day-Of-Month> <Month> <Day-Of-Week>.

A field can consist of one or a combination of the following valid values and/or characters.

Field	Rang of values	Valid characters
Second	0-59	, - * /
Minute	0-59	, - * /
Hour	0-23	, - * /
Day-Of-Month	1-31	, - * ? / L W
Month	0-11 or JAN-DEC	, - * /
Day-Of-Week	1-7 or SUN-SAT	, - * ? / L #

Hint: Please note that support for specifying both a *day-of-week* and a *day-of-month* parameter at the same time is not implemented.

By combining these characters, you can configure the start event ("set a timer") in such a way that cases are started at recurring times. The following section gives an explanation of the possible characters based on this page.

Tip: On Freeformatter.com, you can find a free tool to generate Cron expressions.

***: The timer is set *for every* <time-unit>.** Example: '*' as <Month> means that a new case is started every month (JAN-DEC).

? [The timer is set on each <Day-Of-Week> resp. on each <Day-Of-Month>.] Example: '?' as <Day-Of-Week> means that a new case is started regardless of the day of the week.

- [The timer is defined for a *time span* (from-to).] Example: 'MON-SAT' as <Day-Of-Week> means that a new case is started on each working day.

, [The comma can be used to enumerate multiple values for one time unit. List the values without blank spaces.] Example: '8,15' as <Hour> means that new cases are started at 8 AM and 3 PM.

/ [The timer can be defined using individual increments.] Example: '1/7' as <Day-Of-Month> means that new cases are started every 7 days starting on the first day of a month.

L [The last value of the <time-unit>. It is also possible to combine this character with numerical values, e.g. using 'L-2' to get the second last value.] Example: 'L' as <Month> means that a new case is started on the last day of each month, i.e. on 31.01, 28./29.02., 31.03. usw.

W [The timer is set dynamically on the nearest week day (MON-FRI).] Example: '1W' as <Day-Of-Month> means that a new case is started on the nearest week day to the first day of the month. If the first day of the month is a Saturday, the new case will already be started on Friday. If the first day of the month is a Sunday, the case will be started on the following Monday.

#<n> [The timer is set to the <n>-th occurrence of the <Day-Of-Week> where <n> is a natural number.] Example: '2#1' as <Day-Of-Week> means that a new case is started on the first Monday of a month.

Hint: Note that the system calculates the case start times in the **time zone of the server**. If your local time differs from the server time, be sure to take the difference into account when defining the Cron expression.

For example, if you want a case to start at 8 AM in Germany (UTC+1), but the server is located in the UTC+0 time zone, you have to set the timer to 7 AM.

The following three examples show some possibilities to configure a recurring start using the values and characters:

0 30 8 ? * MON-FRI New cases start each day from Monday to Friday at 8 AM.

0 0 15 1 * ? New cases start each first day of a month at 3 PM.

0 0 12 ? JAN,JUN 2#1 New cases start at the first Monday of January and June at 1 PM.

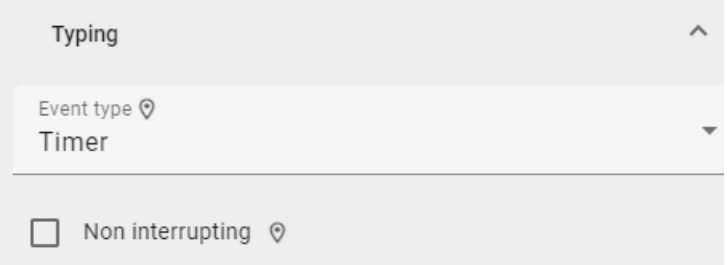
Intermediate Timer Events

You have the option to pause your case for a specified period before it continues. This can be especially useful, e.g., when waiting for a payment confirmation. This way, you can set the case to resume, for instance, after 3 days.

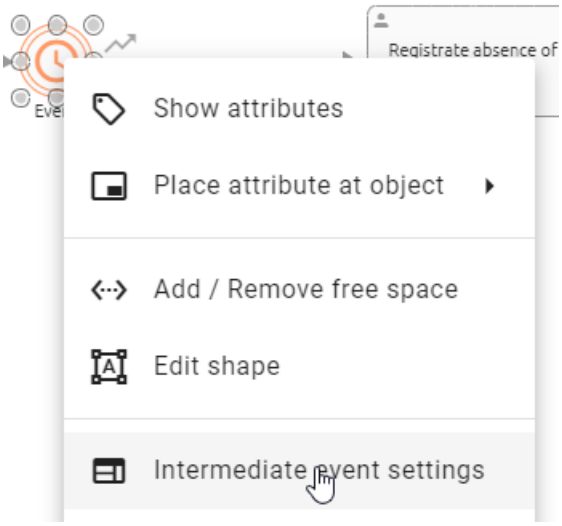
Hint: Please note that intermediate timer events are only executed in the productive environment (i. e. for published processes). The following ISO8601 definition is not applied in the test and development environments.

Hint: Please note that intermediate timer events only apply to BPMN modeling, not to EPC modeling.

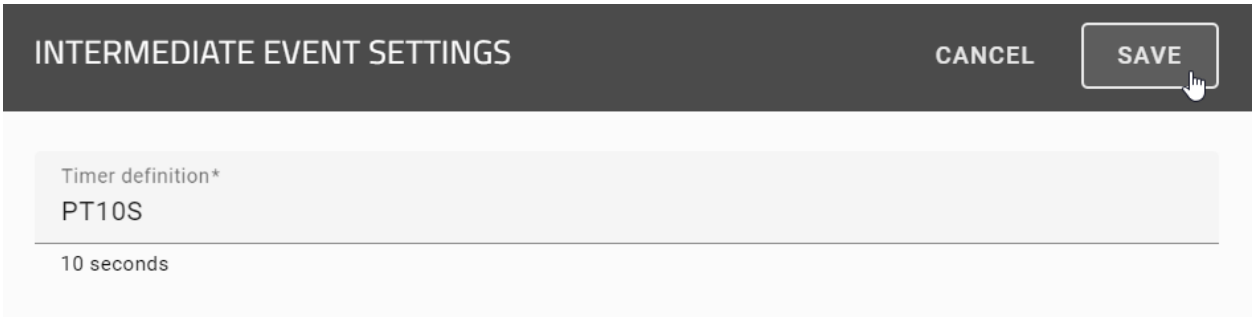
If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* using the *focus drop-down menu* in the header. Open the corresponding diagram in *BIC Process Design*. In the attributes of the intermediate event, select the event type *Timer* (in the attribute group *Typing*).



Then open the context menu of the intermediate event via a right-click on the symbol. Choose the option *Intermediate event settings*.



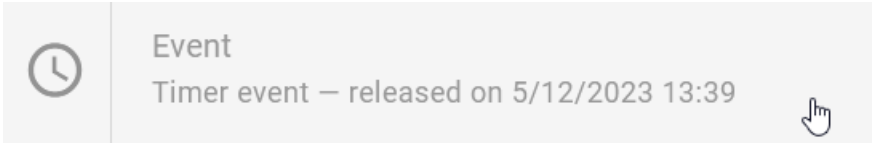
Selecting this option opens a dialog. In the *Timer definition* field, you have the option of defining the duration using the *ISO8601 format* or a *variable*. This defines the time logic according to which a case of the process is to be continued in BIC Process Execution.



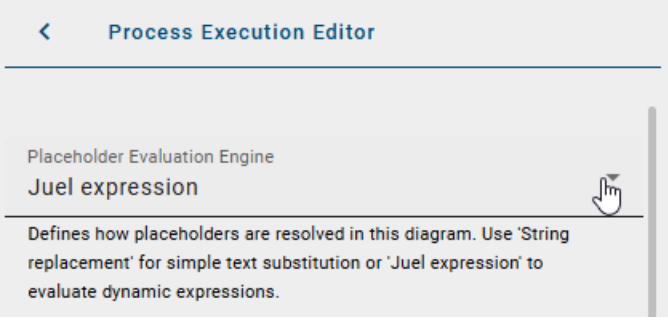
Save your configuration to close the dialog, or use the *Cancel* button in order to discard your changes.

Once an intermediate event is integrated into the corresponding process diagram, it becomes visible in the process flow. Subsequently, the publication date and time for the intermediate event and the configured timing will be displayed to you.

When the release time is reached, the intermediate timer event is marked as *done*, and the date and time of release are displayed.



When entering a variable as a placeholder, you can choose between *JUEL expression* and *String replacement*. You specify the desired variant directly in the drop-down menu in the upper area of the *Process Execution Editor* in the *Options* panel in the right sidebar.



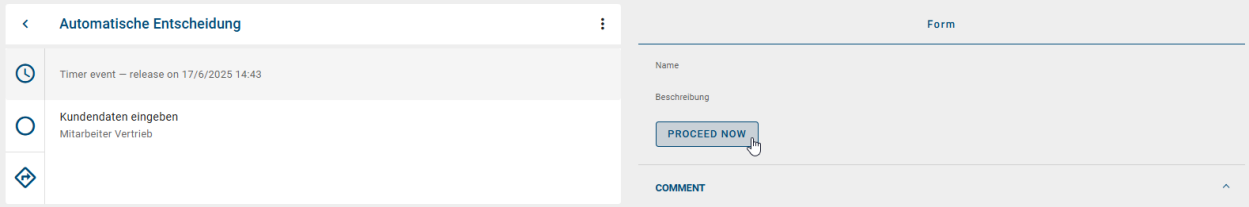
Please note that both variants are not supported at the same time. Diagrams that were created before the 8.0.0 version automatically use the previous string replacement logic. For newly created diagrams, however, the JUEL variant is now preselected by default. You can adjust the selected option at any time, but switching new diagrams to *String replacement* is **not** recommended.

Tip: You can find more information about JUEL expressions here.

Warning: When selecting an intermediate time event in the process flow of a process diagram, only the name and description of the event are displayed in the task form.

After the diagram has been published, the case will only continue when the intermediate event is reached and the configured time is triggered. If you are in a different stage, the case will resume immediately. This also applies for incorrectly or not configured times and for times configured in the past.

As a *case owner*, *ProcessApp Administrator*, or *ProcessApp Creator* (for ProcessApp Creator, this option is only available in the development and test environment), you also have the option to manually terminate a time-based intermediate event before the configured time has elapsed. This allows you to continue the process earlier if the timer event is no longer relevant or if you require immediate further processing. To do so, click th *Proceed now* button in the task form in the right sidebar.



Note: If the configured time is triggered while the servers are down, the case will only resume once the servers are restarted.

Hint: If an active case is aborted, all timers will be stopped.

ISO8601 format:

An *ISO8601 format* is a string of fields that specifies the time span of a time interval and is represented by the format **P(n)Y(n)M(n)DT(n)H(n)M(n)S**. The capital letters P, Y, M, W, D, T, H, M, and S are identifiers for each of the date and time elements and are not replaced, but can be omitted.

P : is the duration designator (for period) at the beginning of the duration representation.

Y : is the year designator that follows the value for the number of years.

M : is the month designator that follows the value for the number of months.

W : is the week designator that follows the value for the number of weeks.

D : is the day designator that follows the value for the number of days.

T : is the time designator that precedes the time components of the representation.

H : is the hour designator that follows the value for the number of hours.

M : is the minute designator that follows the value for the number of minutes.

S : is the seconds designator that follows the value for the number of seconds.

The fields define the time units in order:

<year> <month> <day> <hour> <minute> <second> <millisecond>.

Each field can contain one or a combination of the permitted values and/or characters.

Representation according to ISO 8601	Value range
Year (Y)	YYYY, four digits, shortened to two digits
Month (M)	MM, 01 to 12
Week (W)	WW, 01 to 53
day (T)	T, day of the week, 1 to 7
Hour (h)	hh, 00 to 23, 24:00:00 as end time
minute (m)	mm, 00 to 59
second (s)	ss, 00 to 59
Decimal fraction (f)	Fractions of a second, any accuracy

Examples:

`PT15S` - 15 seconds

`P14DT1H30M` - 14 days, 1 hour and 30 minutes

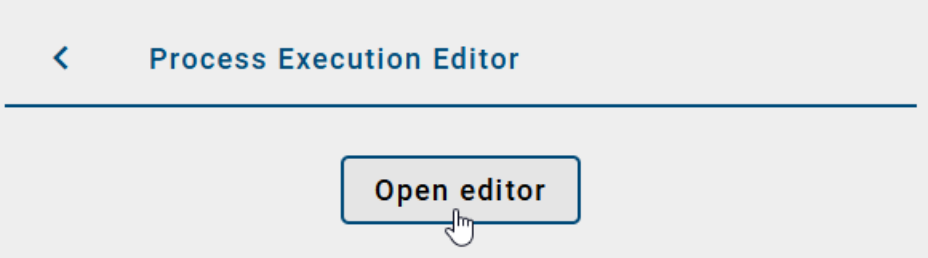
`P3Y6M4DT12H30M5S` - 3 years, 6 months, 4 days, 12 hours, 30 minutes and 5 seconds

---

Note: Please note that the *n* is replaced by the value for each of the date and time elements that follow the n.

29.2.23 How do I define a correlation key for a throwing event?

In a process initiated by a throwing event, there is an option to access specific configurations through the *Details* menu of the editor. Here, you can set a JUEL expression as a correlation key.



When the predefined throwing event occurs, a message is automatically generated. This message contains a specified event ID and the previously defined correlation key. At the same time, when the event occurs, the associated process step is triggered and marked as completed.

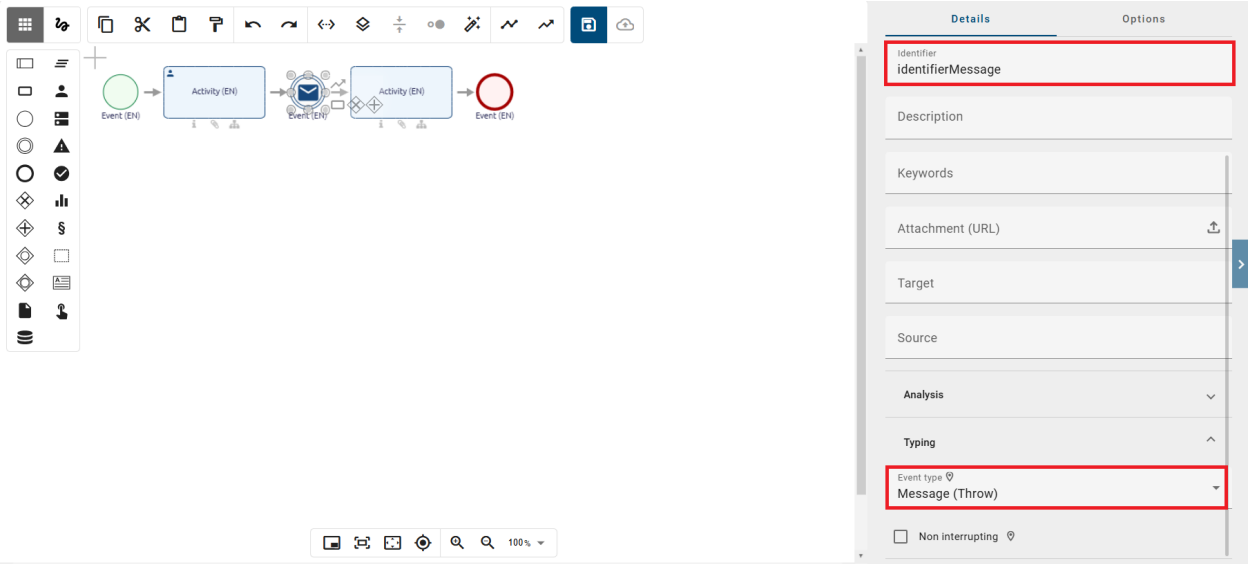
Note: The defined correlation key is retrievable in the context of the process instance.

Tip: Correlation keys can also be used within BPMN message events. Examples of correlation keys include `order.orderId` and `user.identity.email`. This ensures that an incoming message is matched not only by its name but also by the specific business data that identifies the corresponding process instance. When a message with a matching correlation key arrives, the intermediate event in the process is triggered, the waiting process instance resumes, and the subsequent task is automatically activated. For example, if a process is waiting at an intermediate message event correlated by `order.orderId` and a message with the same order ID arrives, the waiting process instance resumes at that point.

29.2.24 How can variables be passed on to other processes via intermediate and end events?

As a user with the *ProcessApp Creator* user role, you can automatically start another process or continue an existing one through an intermediate or end event. At the same time, you can pass along the required variables.

If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* using the *focus drop-down menu* in the header. In *BIC Process Design*, open the *Diagrams* menu through the Diagram menu tab and open a diagram that represents your main process. Then select the intermediate or end event in this diagram that will trigger the subprocess. For this event, you must assign an identifier and select the event type *Message (Throw)*. To do this, click on the *Identifier* field in the right sidebar and enter a name of your choice. This identifier establishes a unique connection between the main process and the subprocess. Then select the event type *Message (Throw)*.

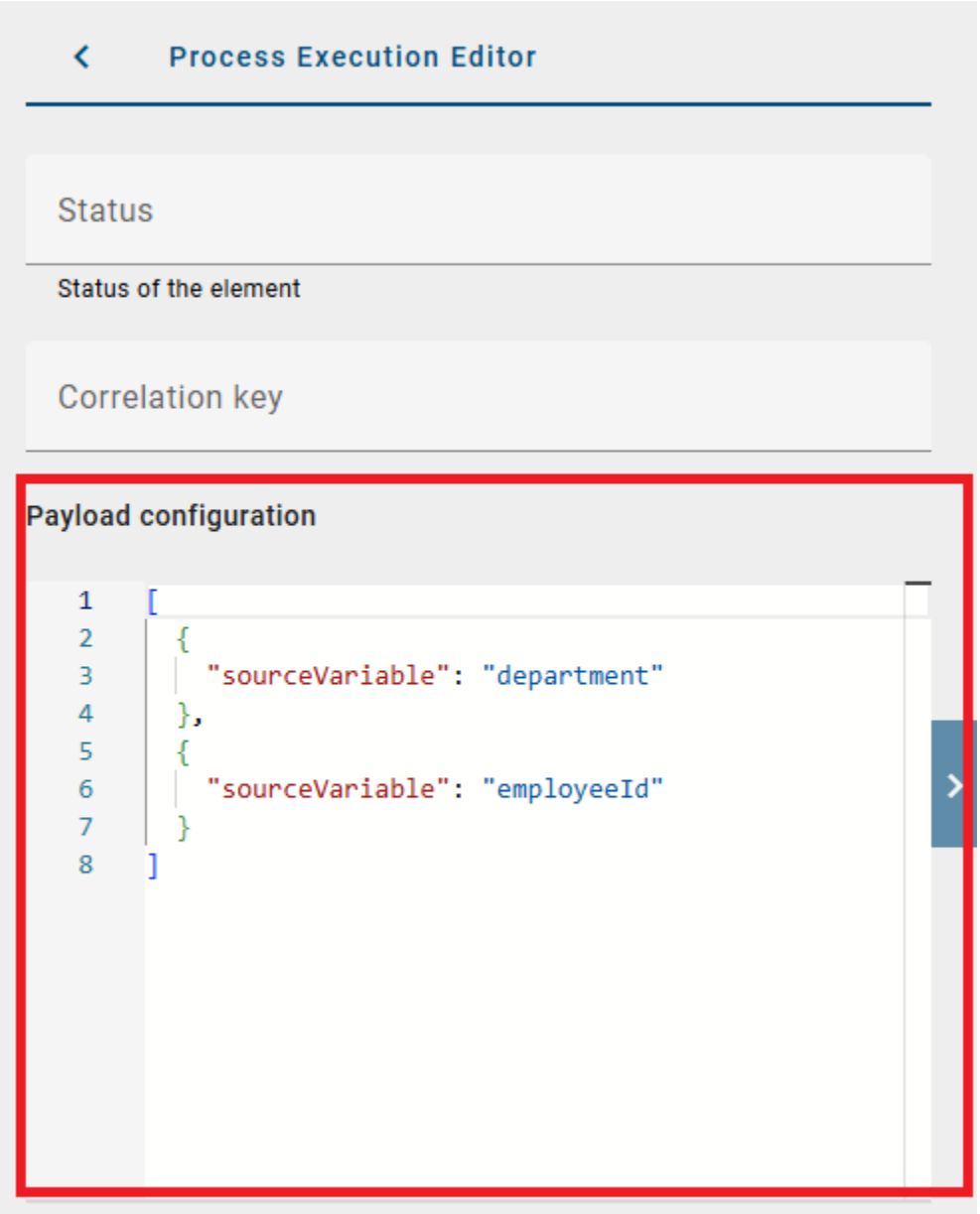


To define which information is passed to the subprocess, switch to the *Options* tab in the right sidebar and select the Process Execution Editor. In the *Payload Configuration* in the Process Execution Editor, you can define additional variables within a JSON structure that will be passed to the next process. This allows process variables to be transferred in a targeted manner.

JSON structure to copy:

```
[
    {
        "sourceVariable": "department"
    },
    {
        "sourceVariable": "employeeId"
    }
]
```

In the example above, the variables *department* and *employeeId* would be passed automatically. As soon as the event type *Message(Throw)* is triggered, the updated value is set in the *Payload*. The next process then immediately receives the new information for the variables *department* and *employeeId*, without requiring any additional mapping.



Hint: Please note that predefined system variables (e.g., _case.name) cannot be used within the JSON structure when

passing variables.

To configure the receiving event that allows the start or continuation of your subprocess, open a diagram representing your subprocess. In this diagram, specify the identifier you previously selected in the main process. Then select the event type *Message (Catch)*. This ensures that the sent message is uniquely assigned, allowing the subprocess to receive the data and start or continue the process accordingly.

Note: Since the variables are transferred directly to the subprocess, they are immediately available without any additional assignment and can be used directly.

29.2.25 How can I process waiting events using the REST API?

With the BIC Process Execution REST API, in addition to *creating new cases from external applications*, you can also process waiting events. To use this feature, you need the REST endpoint and an *API key* that you pass along in the *Request Header*.

You can use the following link to the Swagger UI to view the available public endpoints and process a waiting event. At the top right of the screen, under *Select a definition*, select **BIC Process Execution API**. In the list that appears then, you will find the *Throw a signal event* endpoint, where you can edit the variables and process a waiting event.

Tip: If the link to the Swagger UI **does not** work, please enter the following URL manually: `https://{{host}}/public/webjars/swagger-ui/index.html`, where `{{host}}` represents your host.

Hint: The old `{{host}}/process-execution/external/tenants/{{tenantId}}/stages/{{stageId}}/signal-events` REST endpoint is currently still available. However, please use the *new endpoint* in the future.

Hint: If you have previously worked with the old REST endpoint and are now working with the Swagger UI, you will need to generate a **new** API key. Please note that the new API key will need to be adjusted accordingly in the REST call.

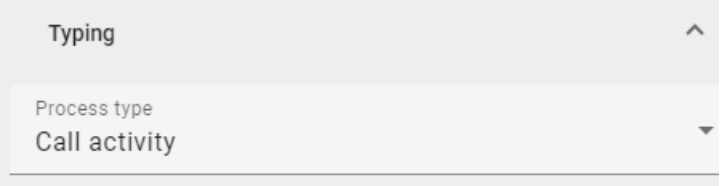
29.2.26 How can I start subprocesses from a process?

If you want to call another process from within a case, you can use *call activities*. This enables you to start any number of new subordinated cases. If you want to call a process in BIC Process Execution, it needs to be marked as *executable* as well. If the called process is not marked as executable, the task will be handled as a normal user task and needs to be done manually.

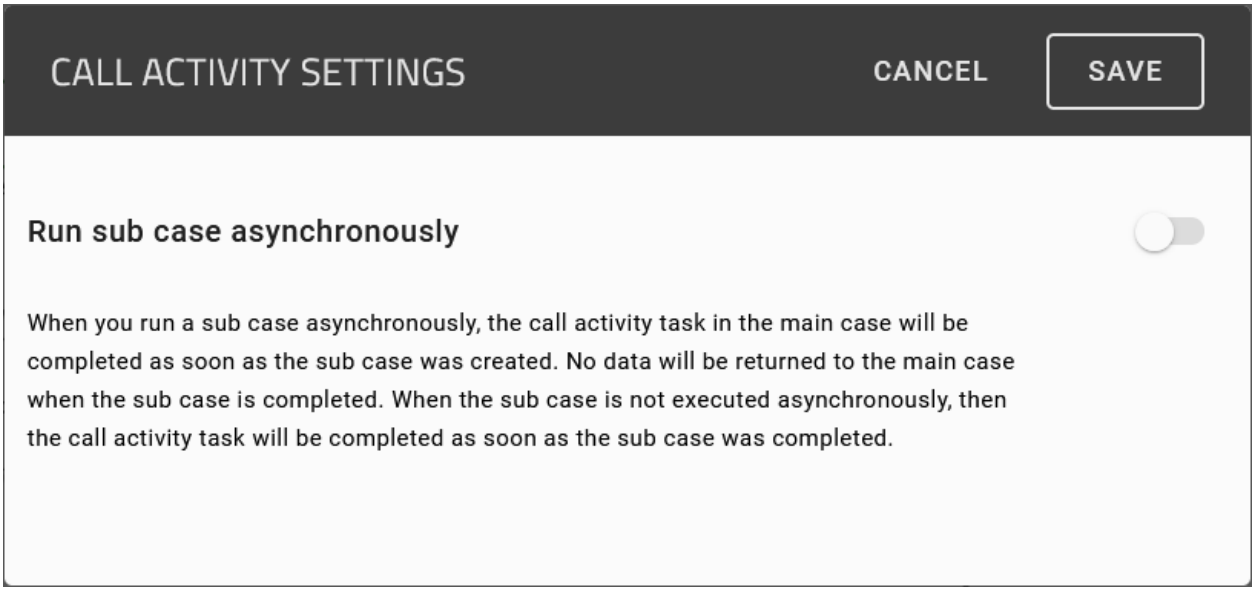
Here you can find an explanation of how you can work with a call activity.

The modeling takes place in *BIC Process Design*. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* using the *focus drop-down menu* in the header.

Model an activity in your diagram and set its process type to *Call activity*. You will find the attribute in the attribute group *Typing*.



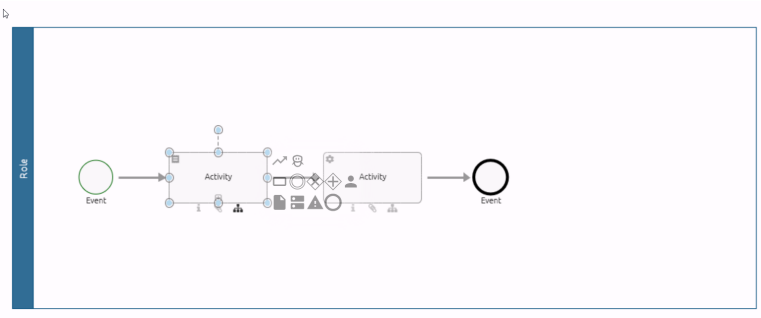
Open the context menu of your call activity with a right-click on it. Select *Open Call activity settings*.

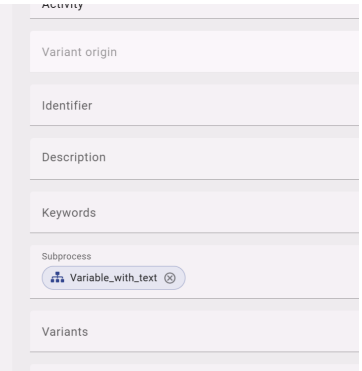


Here you can choose whether your call activity shall be synchronous or asynchronous.

- *Synchronous* call activities will be executed immediately and stop the main case. The *process variables* will be handed over to the sub case. After the completion of the sub case, the process variables will be handed back to the main case. If the ProcessApp Administrator manually completes the synchronous call activity, nothing will change in the existing sub case and it can continue to be processed.
- *Asynchronous* call activities will also be started immediately, but will not pause the main case. The process variables will also be handed over to the sub case at the start, but they will not be handed back when the sub case completes. Furthermore, one can continue their work on the main case before the sub case is completed. If the main case is archived, nothing will change in the existing sub case, and it can continue to be processed.

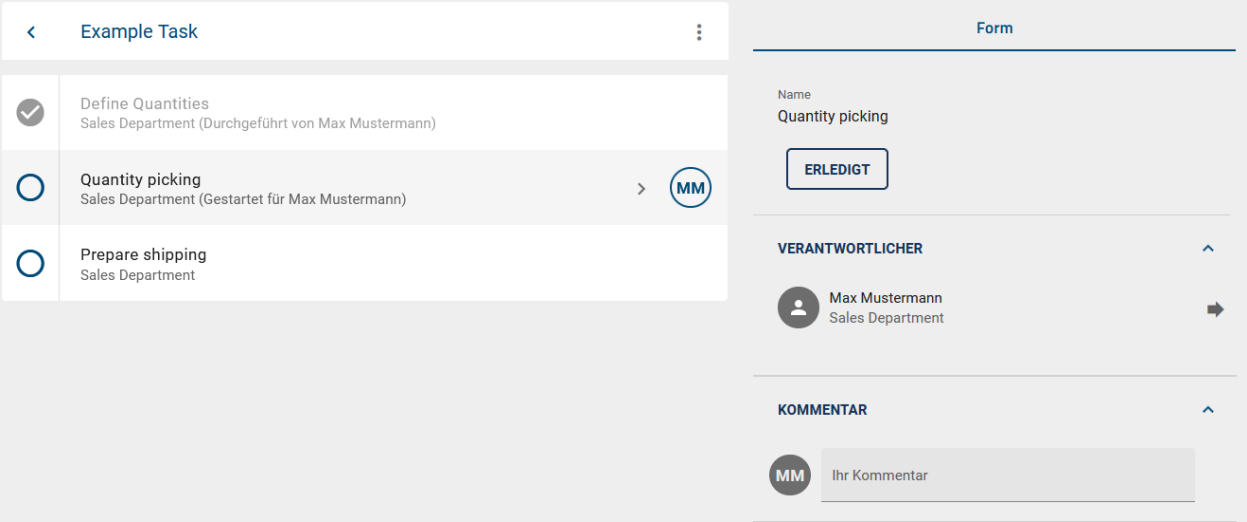
Maintain the attribute *Subprocess* of the call activity with the desired process to link it. The following example shows the attribute of the call activity “Produce special order” which is part of an order process. The subprocess diagram “Custom-made product” is an executable BPMN diagram.



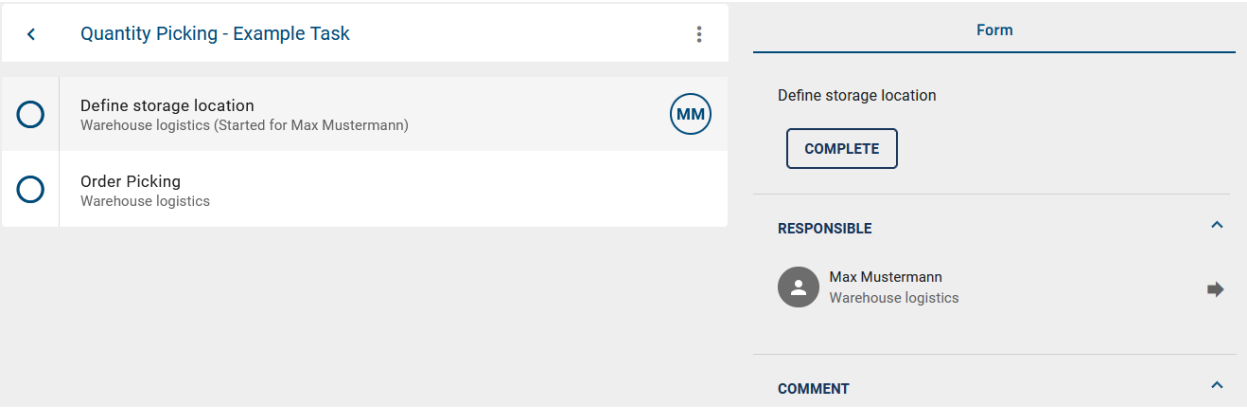


If the order process is executed in BIC Process Execution, a new case is automatically started for the called process as soon as the *task of the call activity* is started. The case is named after the call activity plus "- *name of the main case*". In the example, the call activity "Produce special order" of the the main case "Order 2503" triggered the creation of a new case of the process "Custom-made product".

Main case "Order 2503":



Sub case (new case of the process "Custom-made product"):



Max Mustermann is responsible for the tasks of the sub case because he is the *default assignee* of the corresponding role. The system is defined as the creator of the subprocesses of the call activities.

29.2.27 How can I provide input documents for my subprocess?

Once an input document has been modeled for a call activity task, the uploaded document is made available for use in that input within the subprocess. If an input document has been provided in a subprocess, the identifier of that document matches that of the input document for the corresponding call activity in the main process, the input document is made available in the subprocess.

Hint: Multiple input documents can be modeled, all of which are available in the subprocess. In each case, the most recent uploaded document is used as the input document.

In both cases, whether within the same case or when the input originates from a main case, the subprocess can either

not override the input or override it. This also applies in cases where the subprocess decides to override the input or when parallel paths result in both an override and no override.

29.2.28 How can I access the metadata of an output document?

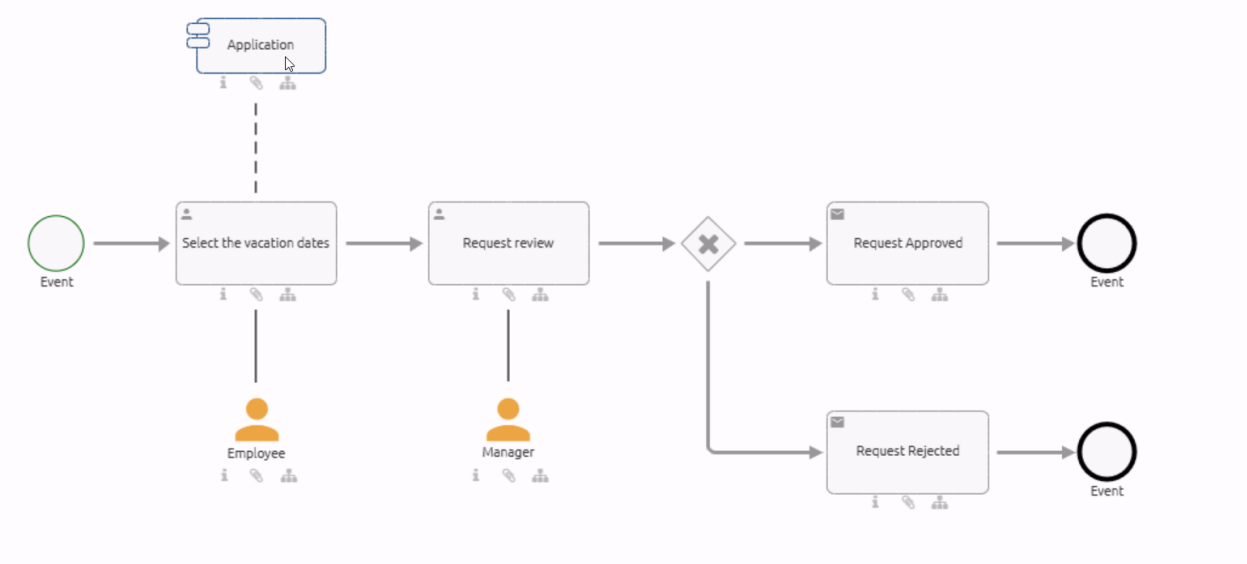
To access the metadata of an *output document*, an output document must be available in the process execution. This applies to output documents that were generated for *task forms*, *service tasks*, *reports*, or *activities*.

Once a document has been stored in the process execution, you can view the size, date, and name of the document. To check this information, open the context menu using the three dots next to the corresponding process step and select the option *Edit process variables*. This will take you to the variables where the document information is displayed.

The name corresponds to the stored identifier. If no identifier has been defined, a random name is assigned automatically. This ensures that it is always possible to trace which file was created or stored as part of the process.

29.2.29 How can I integrate an application into a task form?

Application objects that you have modeled in BIC Process Design can also be integrated into BIC Process Execution. They are available to the users within the process flow. In order to be able to integrate an application object, it must have a connection to an activity object in your diagram in BIC Process Design.



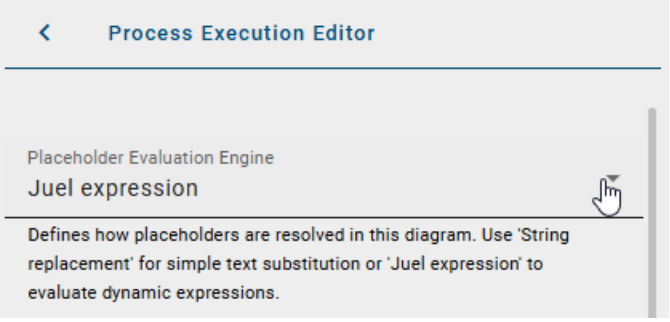
Within the *Details* of the application object, you can link the application of your choice to make it accessible in BIC Process Execution. To do so, use the attribute *Integration link* within the section *Automation*. Analog to the attribute Attachment (URL), you can add links or alternatively upload documents.

When adding a link to one of your applications, you can also integrate *process variables* if you know that they will be defined before the respective task is reached. To do so, add the respecting variable name between two curly braces at the appropriate place in the path. Here you can see an example of what such a path could look like:

```
mailto://{{emailRecipient}}?subject={{emailSubject}}&cc={{emailRecipientCC}}&body={{emailTe
```

In this example, the process variables are “emailRecipient”, “emailSubject”, “emailRecipientCC” and “emailText”.

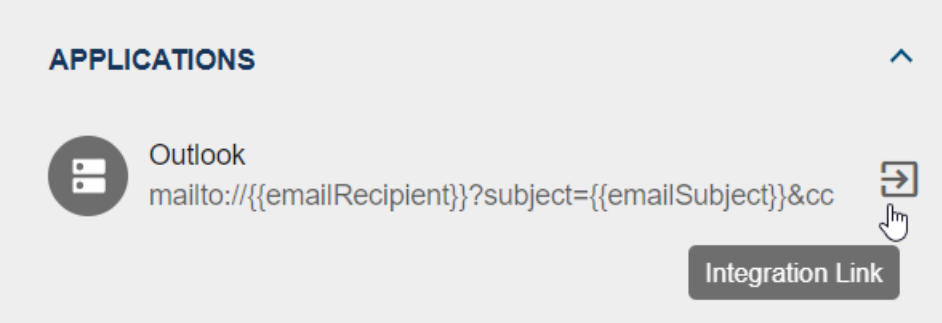
When entering a variable as a placeholder, you can choose between *JUEL expression* and *String replacement*. You specify the desired variant directly in the drop-down menu in the upper area of the *Process Execution Editor* in the *Options* panel in the right sidebar.



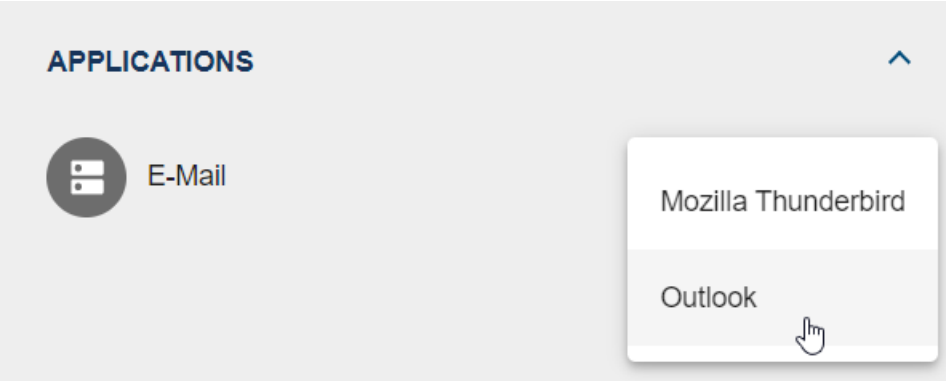
Please note that both variants are not supported at the same time. Diagrams that were created before the 8.0.0 version automatically use the previous string replacement logic. For newly created diagrams, however, the JUEL variant is now preselected by default. You can adjust the selected option at any time, but switching new diagrams to *String replacement* is **not** recommended.

Tip: You can find more information about JUEL expressions here.

Once you have defined your attribute and your diagram meets all *requirements to be displayed in BIC Process Execution*, the application will be displayed under the section *Applications* within the *task form*. If a title is available for the link, it will be displayed below the application name. Otherwise, the URL is displayed. You can access the application via the *Integration Link*.



Multiple links can also be integrated into an application. When this is the case, a context menu containing all the links is displayed after the *Integration Link* has been selected. You can then open the desired link by clicking on it.



29.2.30 Formulas

Formulas can be used for different purposes. For example, you can use them in the *form editor* to calculate values. You can also use them to make your task forms more dynamic.

This chapter provides an overview of all existing formulas and how to use them correctly. At the end of this chapter, you will find some *examples* of what you can calculate with these formulas. Additionally, you will find an example which explains how you can make your form dynamic.

Most of the formulas you can use in Microsoft Office Excel are supported and work the same as in Excel. It is also possible to write formulas using simple JavaScript syntax. For example, `2+6` would also be a valid formula and would return *8*.

Some formulas use parameters. Of course, you can also use existing *process variables*. If you want to use already existing process variables, you need to enclose them in two curly braces (e.g. `{{VariableName}}`).

If you use dates or strings as the data type for parameters, you need to enclose them in single quotation marks (e.g. `LEN('example')`).

Tip: Formulas can be nested within each other. That means you can use a formula as an input parameter for another formula.

Which formulas exist?

Note: This section is currently under revision and therefore not complete. A complete overview of all usable formulas can be found in the documentation of Formula.js.

The formulas can be separated into six different categories:

- *Date formulas*
- *Logic formulas*
- *String formulas*
- *Math formulas*
- *Conversion into different number systems*
- *Statistical formulas*

Date formulas

When using date formulas, you will often need parameters in the *datetime* format.

The data type *datetime* can be written in different formats. If you are not using predefined *process variables*, you need to make sure that you are using the correct form. A *datetime* without time looks like the following: `'month/day/year'`, e.g. `'06/14/2021'` for June 14, 2021. Alternatively, you can use `'day-month-year'`, e.g. `'14-Jun-2021'`. Note that it is important to abbreviate the month according to the table below. If you also want to use a timestamp, you need to use one of the formatting options above and append `'hh:mm:ss AM/PM'`. The use of seconds is optional. For example, `'06/14/2021 10:47:32 AM'` would represent 10:47 AM on June 14 2021. More examples using datetime variables can be found *here*.

Table 2: **Abbreviations for months**

Month	**January**	**February**	**March**	**April**	**May**	**June**
Abbr.	Jan	Feb	Mar	Apr	May	Jun
Month	**July**	**August**	**September**	**October**	**November**	**December**
Abbr.	Jul	Aug	Sep	Oct	Nov	Dec

Extract data from dates

There are various date formulas that you can use to extract specific data from a date.

- `YEAR({{datetime}})` returns the year of a *datetime* value in the range of 1900-9999.
- `MONTH({{datetime}})` returns the month of a *datetime* value in the range of 1-12.
- `WEEKNUM({{datetime}},[{{mode}}])` returns the week number of a *datetime* value in the range of 1-53. The parameter *mode* defines whether the week starts on Sunday (*mode* = 1) or on Monday (*mode* = 2). If you do not use this parameter, the default value is *mode* = 1.
- `ISOWEEKNUM({{datetime}})` returns the week number of a *datetime* value. The first week of the year is the week which has the first Thursday in it.
- `WEEKDAY({{datetime}}, [{{mode}}])` returns the number of the day of a *datetime* value in the range of 1-7. The parameter *mode* behaves equivalent to the one in the formula `WEEKNUM`.
- `DAY({{datetime}})` returns the day of a *datetime* value in the range of 1-31.
- `HOUR({{datetime}})` returns the hour of a *datetime* value in the range of 0-23.

- `MINUTE({{datetime}})` returns the minute of a *datetime* value in the range of 0-59.
- `SECOND({{datetime}})` returns the second of a *datetime* value in the range of 0-59.

Calculate time spans

The following table shows you the different modes and which parts of the week belong to the weekend.

<mode>	Weekend	<mode>	Weekend
1	Saturday and Sunday	11	only Sunday
2	Sunday and Monday	12	only Monday
3	Monday and Tuesday	13	only Tuesday
4	Tuesday and Wednesday	14	only Wednesday
5	Wednesday and Thursday	15	only Thursday
6	Thursday and Friday	16	only Friday
7	Friday and Saturday	17	only Saturday

With the following formulas you can measure the time span between two dates.

- `DAYS({{enddate}}, {{startdate}})` returns the difference in days between a start date and an end date. You can find a concrete example *here*.
- `WORKDAY({{date}}, {{k}})` returns the *k*-th next workday starting at *date*. Workdays are all days of the week except Saturday and Sunday.
- `WORKDAYINTL({{date}}, {{k}}, {{mode}})` returns the *k*-th next workday from *date*. *mode* defines which part of the week belongs to the weekend. Above you can find a table with an overview of all available weekend definitions.
- `NETWORKDAYS({{startdate}}, {{enddate}}, [{{listOfHolidays}}])` returns the number of work days (Monday-Friday) between two dates. Optionally, you have the possibility of adding holidays. They will also be excluded from counting. A more specific example can be found *here*.
- `NETWORKDAYSINTL({{startdate}}, {{enddate}}, {{mode}}, [{{listOfHolidays}}]` returns the number of workdays between two dates. *mode* defines which part of the week belongs to the weekend. Above you can find a table with an overview of all available weekend definitions.
- **`DAYS360({{start}}, {{end}}, {{method}})` returns the difference in days between a start and an end date. Th**
  - *European method*: If the start or end date falls on the 31st of a month, the formula will calculate with the 30th day of the month instead.
  - *US-american method*: If the start date falls on the 31st of a month, the formula will calculate with the 30th instead. If the end date falls on the 31st of a month, what the formula calculates depends on the start date. If the start date is earlier than the 30th of a month, the end date is set to the 1st day of the following month. Otherwise, the end date is set to the 30th.
- **`YEARFRAC({{start}}, {{end}}, {{mode}})` returns the time span between two dates as a number. With the par**
  - *mode* = 0: The difference will be calculated with the 30-day month US-American definition (see formula `DAYS360`) and divided by 360.
  - *mode* = 1: The actual difference in days will be divided by the actual number of days in the year.
  - *mode* = 2: The actual difference in days will be divided by 360.
  - *mode* = 3: The actual difference in days will be divided by 365.
  - *mode* = 4: The difference will be calculated with the 30-day month european definition (see formula `DAYS360`) and divided by 360.

- **`DATEDIF({{startdate}}, {{enddate}}, {{unit}})` returns the difference between two dates in a specified *uni***
  - *Y*: Difference of fully completed years.
  - *M*: Difference of fully completed months.
  - *D*: Difference of days.
  - *MD*: Difference of days; months and years are being ignored.
  - *YM*: Difference of months; days and years are being ignored.
  - *YD*: Difference of days; years are being ignored.

Current date

You can use the following formulas to get the current date.

- `TODAY()` returns the current date in the *datetime* format.
- `NOW()` returns the current date, including the current time in the *datetime* format.

Convert into datetime format

With the following formulas you can convert dates or other data types into the *datetime* format.

- `DATE({{year}}, {{month}}, {{day}})` lets you create a variable in the *datetime* format.
- `TIME({{hour}}, {{minute}}, {{second}})` returns a time span as floating point number in days. Therefore 24 hours correspond to the value 1, 12 hours to the value 0.5, etc.
- `DATEVALUE({{string}})` converts a string, if possible, into a valid *datetime* format.
- `TIMEVALUE({{string}})` converts a string, if possible, into a time span as floating point number (see `TIME`).

Adding timespans

- `EDATE({{start}}, {{k}})` will add *k* months to *start* and return the result. *k* can be negative to calculate dates in the past. For example, `EDATE('2/5/2021',3)` will return the *5th May 2021*.
- `EOMONTH({{start}}, {{k}})` will add *k* months to *start* and return the end of the corresponding month. *k* can be negative or zero. For example, `EOMONTH('2/1/2021',3)` will return the *31st May 2021*.

Note: If you receive an error message when entering a formula, the problem may be related to the date function. In this case the error can be resolved by using `.toISOString()`, as in the following example `WORKDAY({{createdDate}}, 10).toISOString()`.

Formatting date variables with DateUtils.format

As a *ProcessApp Creator*, you can use the helper function `DateUtils.format(date, pattern,timeZone)` to convert date variables into a uniform, easy-to-read format. This function supports both standard date formats and ISO formats and allows time zones to be taken into account. It is based internally on the Java Development Kit Version 17 API specifications. Information on the formatting patterns used (SimpleDateFormat) can be found at the following link, and information about time zones (TimeZone API) at this link

You can use this helper function to format date variables in service tasks with REST calls, script tasks using AI, send tasks, intermediate timer events, and when linking applications. Examples of how to use the helper function are listed below:

Example: format date variable in string

`DateUtils.format(startDate, "dd.MM.yyyy")` formats the variable "startDate" with the value *Wed Jul 09 00:00:00 UTC 2025* to *09.07.2025*.

Example: format date variable with ISO pattern

`DateUtils.format(eventDate, "yyyy-MM-dd")` formats the variable "eventDate" with the value *2024-12-31T23:59:59Z* to *2024-12-31*.

Example: format date variable with a time zone

`DateUtils.format(eventDate, "yyyy-MM-dd HH:mm:ss XXX", "GMT-8:00")` formats the variable "eventDate" with the value *2025-01-01T00:00:00Z* taking into account the time zone GMT-8 to *2024-12-31 16:00:00 -08:00*.

Example: format date variable with an invalid time zone

`DateUtils.format(eventDate, "yyyy-MM-dd HH:mm:ss XXX", "not-valid")` formats the variable "eventDate" with the value *2025-01-01T00:00:00Z* if the time zone is invalid and returns *2025-01-01 00:00:00 Z*.

Example: format date variable with a "null" value

`DateUtils.format(dueDate, "yyyy-MM-dd")` formats the variable "dueDate" with the value *null* and returns an empty string.

Example: format date variable with an invalid or unsupported pattern

`DateUtils.format(createdAt, "invalid-pattern")` formats the variable "createdAt" with the value *2025-01-01T00:00:00Z* with an invalid pattern and returns the date in ISO format.

Note: Date formatting with `DateUtils.format()` is only possible if the placeholder evaluation engine is set to "JUEL expression" in the Process Execution Editor. DMN tables are currently not supported.

Logic formulas

Logic formulas can be used for evaluating logical expressions.

Note: Logical expressions are always *TRUE* or *FALSE*.

- `TRUE()` returns the logic value *TRUE*.
- `FALSE()` returns the logic value *FALSE*.

Logical operators

- `AND({{log_a}}, {{log_b}}, ...)` returns *TRUE* if **all expressions** are *TRUE*. Returns *FALSE* otherwise.
- `OR({{log_a}}, {{log_b}}, ...)` returns *TRUE* if **at least one expression** is *TRUE*. Returns *FALSE* otherwise.
- `XOR({{log_a}}, {{log_b}}, ...)` returns *TRUE* if **exactly one expression** is *TRUE*. Returns *FALSE* otherwise.
- `NOT({{log_a}})` negates the parameter. *TRUE* becomes *FALSE*, *FALSE* becomes *TRUE*.

Conditional expressions

- `IF({{cond}}, {{value1}}, {{value2}})` returns depending on the condition a different value. If *cond* evaluates to *TRUE*, *value1* will be returned, otherwise *value2* will be returned.
- `IFS({{cond1}}, {{value1}}, {{cond2}}, {{value2}}, ...)` allows the possibility of multiple evaluations. It will be checked if one of the conditions evaluates to *TRUE*, the corresponding value will be returned. If a condition is *FALSE* the next condition will be checked until a condition which is *TRUE* is found. But only the first condition that evaluates to *TRUE* will return a value. For example, `IFS(TRUE, 2, TRUE, 5)` returns *2*.
- `SWITCH({{value}}, {{check_1}}, {{return_1}}, {{check_2}}, {{return_2}})` compares the parameter *value* with *check_1*, *check_2*, etc. until a match is found. The formula returns the corresponding return value then. For example, `SWITCH(7,9,'nine',7,'seven')` would return *seven*.
- `IFERROR({{formula}}, {{expression}})` evaluates the inner formula *formula* and returns its return value. If the formula returns an error, *expression* is returned. For example, `IFERROR(8/2,'Error')` would return *4*, but `IFERROR(8/0,'Error')` would return *Error*. Of course, you can nest any other formula inside this formula.

String formulas

If your formula requires a parameter of the type *string*, then you need to enclose it in single quotation marks, for example, `LEN('Example')`. Alternatively, you can use predefined process variables. You can find an explanation for that *here*.

String extraction

With the following formulas you can extract strings or specific information out of a string.

- `RIGHT({{string}}, {{num}})` returns the *num* right characters of *string*. For example, `RIGHT('Profit margin',6)` would return *margin*.
- `LEFT({{string}}, {{num}})` returns the *num* left characters of *string*.
- `MID({{string}}, {{startPos}}, {{num}})` returns a part of *string*. Starting at *startPos*, *num* characters will be returned. For example, `MID('Pete drives his car', 6, 6)` returns *drives*.
- `LEN({{string}})` returns the number of characters in *string*.
- `REPT({{string}}, {{num}})` repeats *string num*-times. For example, `REPT('x',5)` returns *xxxxx*.
- `SEARCH({{searchTerm}}, {{string}})` searches in *string* for *searchTerm* and returns the character index at which the searched string starts. For example, `SEARCH('margin', 'Profit Margin')` would return *8*. If the string cannot be found, the formula returns an error.
- `FIND({{searchTerm}}, {{string}}, [{{startPos}}])` searches in a string *string* for a search term *searchTerm* and returns the first occurrence of it. *startPos* allows you to start the search at a different character. For example, `FIND('i','Pete drives his car',10)` would return *14*. If you do not use the parameter *startPos*, the formula starts searching at the first character.
- `REGEXEXTRACT({{string}}, {{expression}})` searches in *string* for the regular expression *expression* and returns the index of the first occurrence.

String manipulation

With the following formulas, you can manipulate a string.

- `LOWER({{string}})` converts *string* into lowercase letters.
- `UPPER({{string}})` converts *string* into uppercase letters.
- `PROPER({{string}})` converts the first character of *string* into an uppercase letter and the following characters into lowercase letters. For example, `PROPER('bicYCle')` returns *Bicycle*.

- `TRIM({{string}})` deletes multiple spaces in *string*.
- `CLEAN({{string}})` returns *string* without non-printable characters.
- `CONCATENATE({{string1}}, {{string2}}, ...)` concatenates two or more strings into one string. For example, `CONCATENATE('John', ' ', 'Doe')` returns *John Doe*.
- `REPLACE({{string}}, {{pos}}, {{num}}, {{replace}})` replaces a character in a string with another character. Starting with the character at the position *pos*, *num* characters are replaced by the string *replace*. For example, `REPLACE('abcdefghijk', 6, 5, '*')` will return *abcde*k*
- `SUBSTITUTE({{string}}, {{old}}, {{new}}, [{{pos}}])` substitutes in *string* the character *old* by *new*. If you do not want to replace all occurrences of *old*, you need to add the parameter *pos*. This will define which character gets replaced. For example, `SUBSTITUTE('Q1-2011', '1', '2')` would replace all 1's by 2's, therefore returning *Q2-2022*, but `SUBSTITUTE('Q1-2011', '1', '2', 1)` would replace only the first occurrence of 1 therefore returning *Q2-2011*.
- `SPLIT({{string}}, {{delimiter}})` will split *string* at every position where *delimiter* is and returns the results as a list. For example, `SPLIT('Peter&Max&Antonia', '&')` will return *['Peter', 'Max', 'Antonia']*.

String comparison

With the following formula, you are able to check whether two strings are the same or not.

- `EXACT({{string1}},{{string2}})` checks if two strings are the same. This function is case-sensitive. It will return *TRUE* if the strings are the same, otherwise it will return *FALSE*.
- `REGEXMATCH({{string}}, {{expression}})` checks whether the regular expression *expression* is in *string* or not. It will return *TRUE* if the regular expression matches at least once and will return *FALSE* otherwise.
- `T({{var}})` checks if *var* is a string. If *var* is a string, it will be returned, otherwise an empty string will be returned.

Convert strings

With the following formulas, you can convert numbers into strings and vice versa. These formulas use the unicode standard.

- `UNICHAR({{number}})` formats a value and converts it into a string.
- `UNICODE({{character}})` formats a string and converts it to a number.
- `ARABIC({{string}})` converts a roman number *string* into the Arabic number system. For example, `ARABIC('XVI')` would return *16*.
- `ROMAN({{number}})` converts an Arabic decimal number *number* into the roman number system. For example, `ROMAN(16)` would return *XVI*.

Math formulas

Round numbers

With the following formulas you can round numeric values.

- `ROUND({{number}}, {{n}})` rounds *number* to *n* decimal places.
- `ROUNDDOWN({{number}}, {{n}})` rounds *number* down to *n* decimal places.
- `ROUNDUP({{number}}, {{n}})` rounds *number* up to *n* decimal places.
- `INT({{number}})` rounds *number* down to the next integer.

- `FLOOR({{number}}, {{i}})` rounds *number* down to the nearest multiple of *i* (for example, `FLOOR(3.1415,2)` will return *2*).
- `FLOORMATH({{number}}, {{i}}, {{mode}})` rounds *number* down to the nearest multiple of *i*. *mode* decides whether you want to round away or towards zero. *mode* = 0 rounds away from zero (`FLOORMATH(-12.1,1,0)` returns *-13*). *mode* = 1 rounds towards zero (`FLOORMATH(-12.1,1,1)` returns *-12*).
- `CEILING({{number}}, {{i}})` rounds *number* up to the nearest multiple of *i* (for example, `CEILING(3.1415,3)` returns *6*).
- `CEILINGMATH({{number}}, {{i}}, {{mode}})` rounds *number* up to the nearest multiple of *i*. *mode* decides whether you want to round away or towards zero. *mode* = 1 rounds away from zero (`CEILINGMATH(-4.1,1,1)` returns *-5*). *mode* = 0 rounds towards zero (`CEILINGMATH(-4.1,1,0)` returns *-4*).
- `TRUNC({{number}}, {{n}})` truncates a number to an integer by removing the decimal.
- `ODD({{number}})` rounds *number* up to the nearest odd number.
- `EVEN({{number}})` rounds *number* up to the nearest even number.
- `SIGN({{number}})` determines the sign of a number. Returns *1* if the number is positive, returns *-1* if the number is negative and returns *0* if the number is 0.

Arithmetic operations

- `QUOTIENT({{dividend}},{{divisor}})` performs division and returns only the integer portion of the division result. Use this function when you want to discard the remainder of the division.
- `MOD({{dividend}}, {{divisor}})` returns the remainder after a number is divided by a divisor.
- `POWER({{number}},{{power}})` returns the result of *number* to the power of *power*.
- `FACT({{number}})` returns the factorial of *number*.
- `ABS({{number}})` returns the absolute value of *number*.
- `SQRT({{number}})` returns the square root of *number*.
- `SQRTPI({{number}})` returns the square root of `{{number}} * Pi`.
- `MAX({{num1}},{{num2}}, ...)` returns the largest number value of the parameters. Logical values and text are being ignored.
- `MAXA({{num1}}, {{num2}}, ...)` returns the largest number value of the parameters. Logical values and text are not being ignored.
- `MIN({{num1}},{{num2}}, ...)` returns the smallest number value of the parameters. Logical values and text are being ignored.
- `MINA({{num1}}, {{num2}}, ...)` returns the smallest number value of the parameters. Logical values and text are not being ignored.
- `SUM({{num1}},{{num2}}, ...)` returns the sum of all parameters.
- `SUMIF({{range}}, {{criterion}}, {{[sum_range]}})` returns the sum of numbers in a list that meet a specific criterion. The criterion is applied to the list *range*. If that is not the list that should be summed up, the parameter *sum_range* must be used.
- `SUMPRODUCT({{list1}}, {{list2}})` returns the sum of the products of the lists.
- `SUMSQ({{num1}}, {{num2}}, ...)` returns the sum of the squares of the numbers.
- `SUMX2PY2({{list1}}, {{list2}})` returns the sum of the sum of squares of the corresponding values in two lists.

- `SUMXMY2({{list1}}, {{list2}})` returns the sum of squares of differences of corresponding values in two arrays.
- `PRODUCT({{num1}},{{num2}}, ...)` returns the product of all parameters.
- `LCM({{num1}}, {{num2}}, ...)` returns the least common multiple of all parameters.
- `GCD({{num1}}, {{num2}}, ...)` returns the greatest common divisor of all parameters.

Information functions

- `ISEVEN({{number}})` returns *TRUE* when *number* is even. Otherwise it will return false.
- `ISODD({{number}})` returns *TRUE* when *number* is odd. Otherwise it will return false.

Trigonometric functions

- `RADIANS({{number}})` converts degrees into radians. For example, `RADIANS(180)` returns *3.14159*.
- `SIN({{number}})` returns the sine of *number*.
- `SINH({{number}})` returns the hyperbolic sine of *number*.
- `COS({{number}})` returns the cosine of *number*.
- `COSH({{number}})` returns the hyperbolic cosine of *number*.
- `COT({{number}})` returns the cotangent of *number*.
- `COTH({{number}})` returns the hyperbolic cotangent of *number*.
- `CSC({{number}})` returns the cosecant of *number*.
- `CSCH({{number}})` returns the hyperbolic cosecant of *number*.
- `SEC({{number}})` returns the secant of *number*.
- `SECH({{number}})` returns the hyperbolic secant of *number*.
- `TAN({{number}})` returns the tangent of *number*.
- `TANH({{number}})` returns the hyperbolic tangent of *number*.
- `ASIN({{number}})` returns the inverse sine of *number*.
- `ASINH({{number}})` returns the inverse hyperbolic sine of *number*.
- `ACOS({{number}})` returns the inverse cosine of *number*.
- `ACOSH({{number}})` returns the inverse hyperbolic cosine of *number*.
- `ACOT({{number}})` returns the inverse cotangent of *number*.
- `ACOTH({{number}})` returns the inverse hyperbolic cotangent of *number*.
- `ATAN({{number}})` returns the inverse tangent of *number*.
- `ATANH({{number}})` returns the inverse hyperbolic tangent of *number*.

Logarithm functions

- `LN({{number}})` returns the natural logarithm of *number*.
- `LOG({{number}}, {{base}})` returns the logarithm of *number* to the *base*. If the parameter *base* is not given, the standard value will be 10.
- `LOG10({{number}})` returns the logarithm of *number* to the base 10.

Random numbers

- `RAND()` returns a random decimal number between 0 and 1.

- `RANDBETWEEN({{num1}},{{num2}})` returns a random integer between *num1* and *num2*.

Finance formulas

Table 3: **Some regularly used variables in the finance formulas**

Variable	Meaning
`nper`	describes the number of periods
`npery`	describes the number of periods per year
`PV`	describes the present / current value of an investment
`FV`	describes the future value of an investment
`type`	describes whether a payment is due at the end of the payment (*type = 0*) or at the beginning of the payment (*type = 1*)
`per`	describes the period you want to inspect. The value can only be between *1* and `{{nper}}`
`pmt`	describes the payment made each period

Other variables will be explained with the formula.

- `ACCRINT({{issue}}, {{first_interest}}, {{settlement}}, {{rate}}, {{par}}, {{frequency}}, {{[basis]}}, {{[calc_method]}})` returns the accrued interest for a security that pays periodic interest. *Issue* is the security's issue date. *Settlement* is the date after the issue date when the security is traded to the buyer. *Frequency* describes the number of payments in a year.
- `CUMPINT({{rate}}, {{nper}}, {{pv}}, {{start_period}}, {{end_period}}, {{type}})` returns the cumulative interest paid on a loan between *start_period* and *end_period*.
- `CUMPRINC({{rate}}, {{nper}}, {{pv}}, {{start_period}}, {{end_period}}, {{type}})` returns the cumulative principal paid on a loan between two dates.
- `DB({{cost}}, {{salvage}}, {{life}}, {{period}}, {{[month]}})` returns the depreciation of an asset using the fixed-declining balance method. *cost* describes the initial cost of the asset. *Period* describes the period for which you want to calculate the depreciation. It must have the same unit as the variable *life*.
- `DDB({{cost}}, {{salvage}}, {{life}}, {{period}}, {{[factor]}})` returns the depreciation using the double-declining balance method. The needed variables are the same as in the formula `DB`.
- `DOLLARDE({{fractional_Dollar}}, {{fraction}})` converts a number expressed as an integer part and a fraction part into a decimal number, for example, `DOLLARDE(1.02,16)` returns the value *1,125* (1 + 2/16).
- `DOLLARFR({{decimal_Dollar}}, {{fraction}})` converts a decimal number into a number that has an integer and a fraction part, for example, `DOLLARFR(1.125,16)` returns *1,02*.
- `EFFECT({{nominal_rate}}, {{npery}})` returns the effective annual interest rate.
- `FV({{rate}}, {{nper}}, {{pmt}}, {{[pv]}}, {{[type]}})` returns the future value of an investment.
- `FVSCHEDULE({{Principal}}, {{Schedule}})` returns the future value of an investment where interest rates are not constant. The variable *Schedule* must be given in list form.
- `IPMT({{rate}}, {{per}}, {{nper}}, {{pv}}, {{[fv]}}, {{[type]}})` returns the interest payment for a given period.
- `IRR([{{value1}}, {{value2}}, ...], {{guess}})` returns the internal rate of return of an investment. *guess* is used to determine at which return rate the algorithm starts to calculate. The closer *guess* is to the real rate, the preciser is the value calculated by the formula. Normally, *0.1* (10%) is a good estimation for the IRR.

- `ISPMT({{rate}}, {{per}}, {{nper}}, {{pv}})` returns the interest over a specific time, with even interest rates and principal payments.
- `MIRR({{values}}, {{finance_rate}}, {{reinvest_rate}})` returns the modified internal rate of return for a series of periodic cash flows. *values* must be given in list form. *finance_rate* is the interest rate you pay on the money, *reinvest_rate* is the interest rate you receive from reinvesting the cash flows.
- `NOMINAL({{effect_rate}}, {{npery}})` returns the nominal annual interest rate.
- `NPER({{rate}}, {{pmt}}, {{pv}}, {{[fv]}}, {{[type]}})` returns the number of periods for an investment.
- `NPV({{rate}}, {{value1}}, {{value2}}, ...)` returns the net present value of an investment by using the discount rate *rate*. *value1*, *value2* ... represent the corresponding cash flows.
- `PDURATION({{rate}}, {{presentValue}}, {{futureValue}})` returns the number of periods needed by an investment *presentValue* to reach *futureValue*. *rate* is the interest rate per period.
- `PMT({{rate}}, {{payments}}, {{presentValue}})` calculates the payment for a loan based on constant payments and a constant interest rate *rate*. *payments* denotes the number of payments. *presentValue* is the amount of the loan.
- `PPMT({{rate}}, {{per}}, {{nper}}, {{pv}}, {{[fv]}}, {{[type]}})` returns the payment on the principal for a given period.
- `PV({{rate}}, {{nper}}, {{pmt}}, {{[fv]}}, {{[type]}})` returns the present value of an investment.
- `RATE({{nper}}, {{pmt}}, {{pv}}, {{[fv]}}, {{[type]}}, {{[guess]}})` returns the interest rate per period of an annuity.

Conversion into different numeral systems

The formulas for converting numbers into different numeral systems are similar to each other: `XXX2YYY({{number}})`. Here `XXX` stands for the original numeral system and `YYY` for the target numeral system. In the table below you can find the abbreviations and the usable numbers and characters of the different numeral systems. For example, `BIN2DEC({{number}})` will convert *number* from the binary system to the decimal system.

Numeral system	Abbreviation	Usable characters
Binary	BIN	0-1
Decimal	DEC	0-9
Hexadecimal	HEX	0-F
Octal	OCT	0-7

Additionally, there are two more general formulas which you can use to convert numbers into different numeral systems.

- `BASE({{number}}, {{base}})` converts a decimal *number* into a number of a numeral system with the *base*.
- `DECIMAL({{string}}, {{base}})` converts a number of a different numeral system with the base *base* into the decimal system.

Therefore, the formula `DECIMAL('101',2)` and the formula `BIN2DEC(101)` have the same output.

Statistic formulas

Basics

- `AVERAGE({{num1}}, {{num2}}, ...)` returns the arithmetic mean of all numeric parameters.
- `AVERAGEA({{num_1}}, {{num_2}}, ...)` returns the average of all variables. Logical values and texts are not ignored.
- `AVERAGEIF({{range}}, {{criteria}}, {{[average_range]}})` returns the average of the parameters that meet the given criterion. The parameter with the exception of the criterion must be given in form of a list.
- `AVERAGEIFS({{average_range}}, {{criteria_range1}}, {{criteria1}}, {{criteria_range2}}, {{criteria2}}, ...)` returns the average of the parameters that meet the given criteria. The parameter, with the exception of the criteria, must be given in form of lists.
- `MEDIAN({{num1}}, {{num2}}, ...)` returns the median of all numeric parameters.
- `COUNT({{num1}}, {{num2}}, ...)` returns the number of values.
- `COUNTIF({{range}}, {{criteria}})` returns the number of elements in a list, that meet a given criterion.
- `COUNTIFS({{criteria_range1}}, {{criteria1}}, {{criteria_range2}}, {{criteria2}}, ...)` returns the number of elements in a list that meet the given criteria.
- `LARGE([{{num1}}, {{num2}}, ...],{{k}})` returns the *k*-th largest number. For example: `LARGE([2,3,5],2)` returns the second largest number *3*.
- `SMALL([{{num1}}, {{num2}}, ...],{{k}})` returns the *k*-th smallest number.

Examples for formulas

How do I calculate a leap year?

If you want to calculate whether a year is a leap year, you cannot use a predefined formula. But you can easily create your own formula to do this. First, you need a *number input field* in your form. In this case, the variable is called `year`. In BIC Process Execution, you can enter the year you would like to check in the number field.

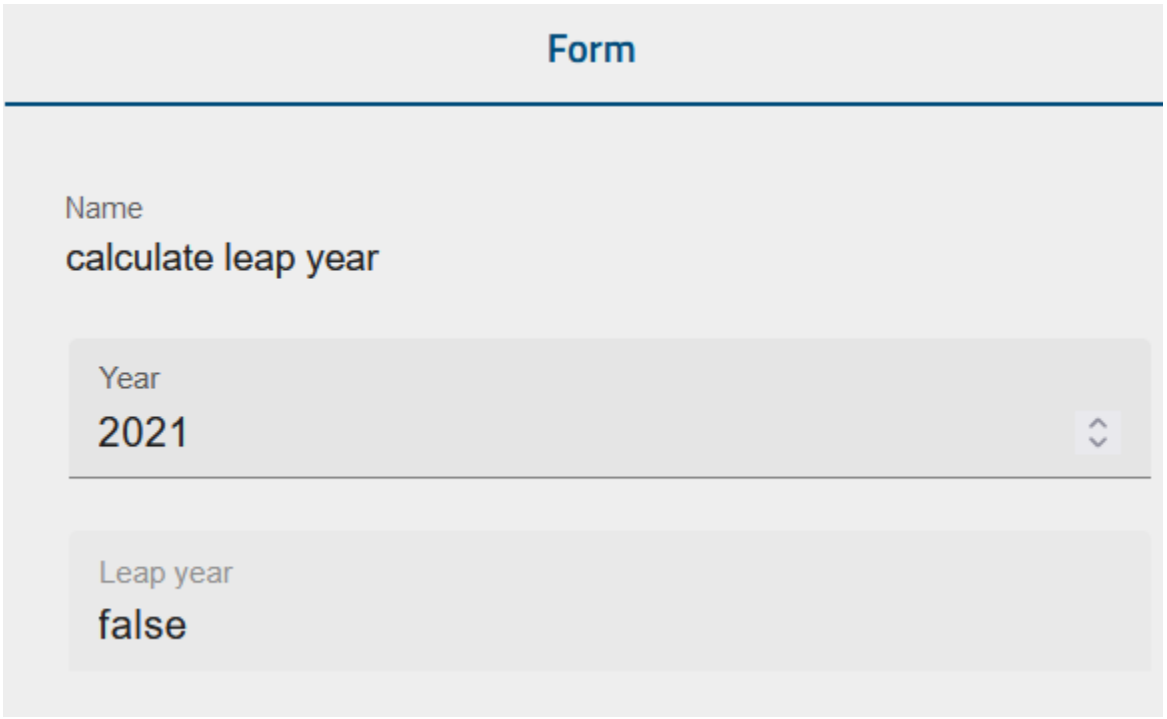
Now use the following formula:

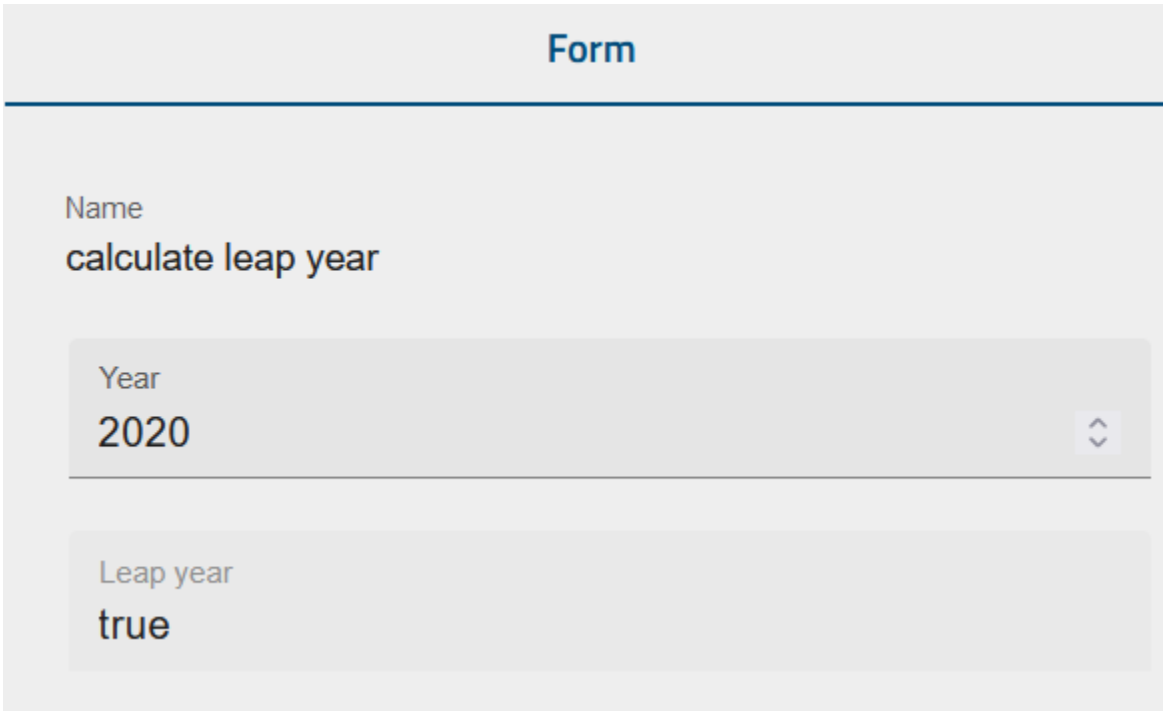
As you can see, the formula consists of multiple nested formulas. First, you create a valid variable in the *datetime* format with `DATE({{year}},02,29)`. Depending on the year, the date will be March 1 (if the year is not a leap year) or February 29 (if the year is a leap year).

Using the formula `MONTH` will return the month of the given date as an integer. As already explained, the return value will be 2 (if the year is a leap year and therefore the month is February) or 3 (if the month is March).

Last but not least, we use the formula `EXACT` to check whether our result is 2 or not. If it is true and the year is a leap year, it returns *TRUE*, otherwise it returns *FALSE*.

In BIC Process Execution it will look like this:


Form
Name
calculate leap year
Year
2021
Leap year
false


Form
Name
calculate leap year
Year
2020
Leap year
true

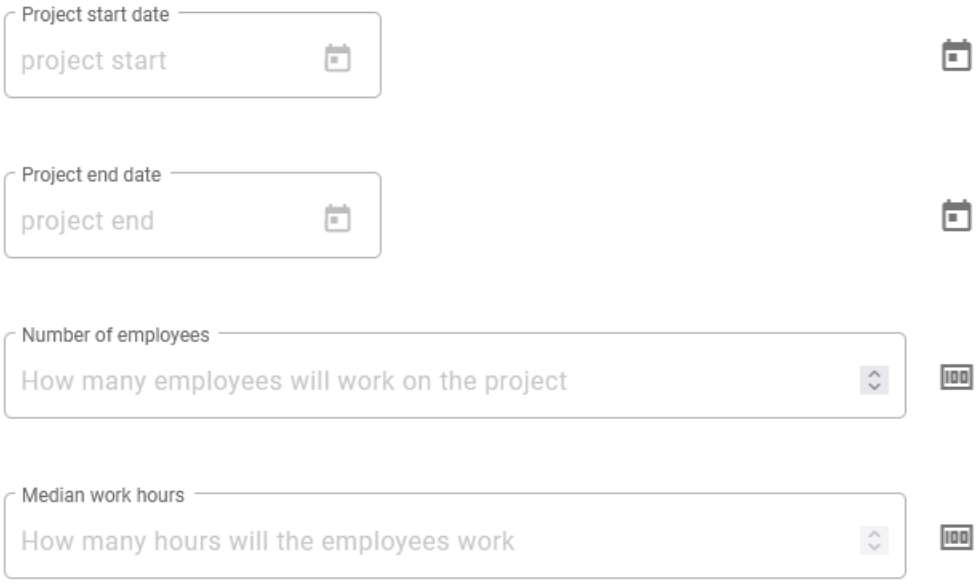
How do I calculate workdays?

In the following, we provide an example of how to use different formulas (for example, how to calculate the number of workdays between two dates).

In this example, you want to carry out a project and want to calculate how many working hours the company can offer in a given period of time.

This example is deliberately kept simple and does not reflect all relevant activities and aspects. It is intended to give you an overview of what you can accomplish with formulas.

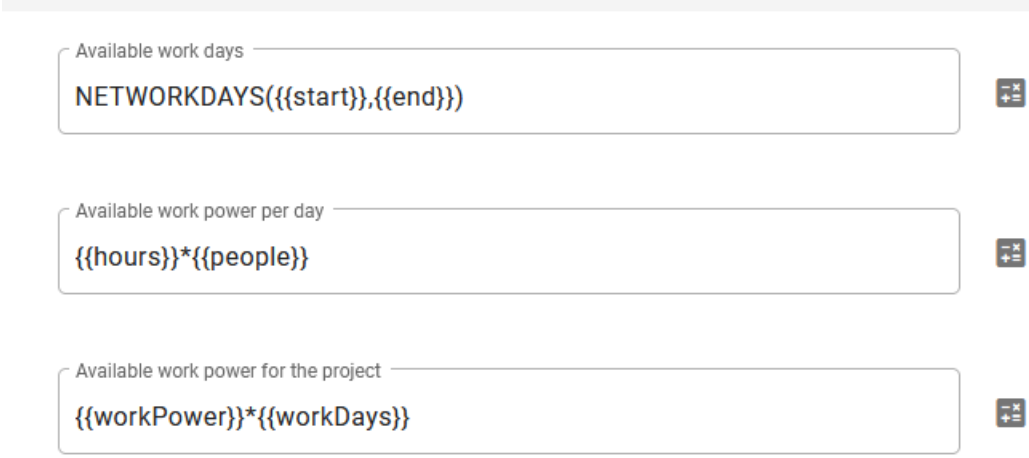
First, you could use form fields to enter some key aspects of our project. Alternatively, you could get the data from other processes as well. In this example, we only consider the start and end dates of the project, the number of participating employees, and their average hours they worked on the project.



The start date and end date fields are *date fields*. The fields for entering the number of employees and their average hours worked are *number fields*. The IDs of the corresponding form fields in this example are:

- start date: *start*
- end date: *end*
- number of employees: *people*
- number of working hours: *hours*

With these values, it is now possible to calculate the following variables.

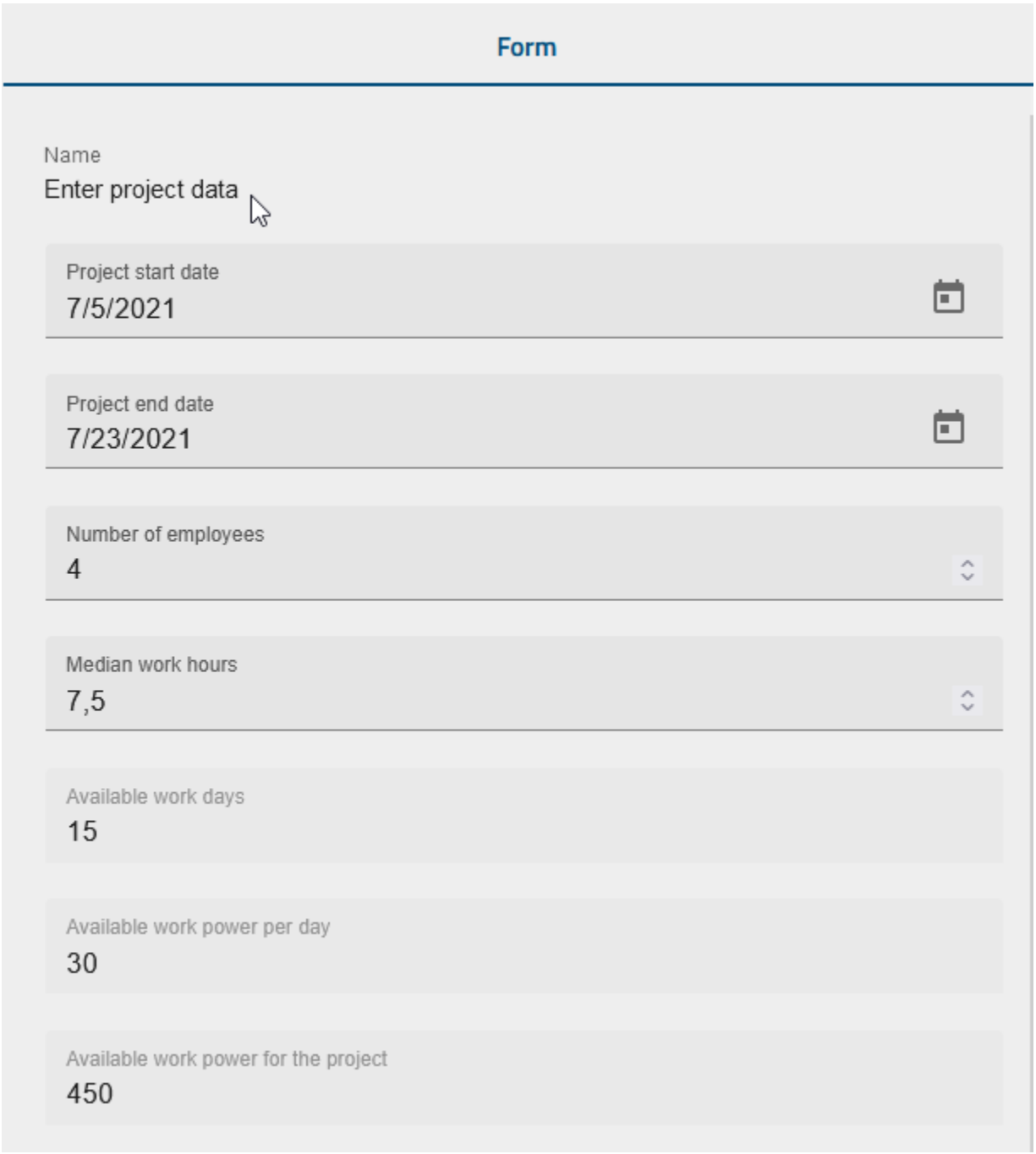


The first formula calculates the number of workdays (the variable ID is *workDays*) between the start and the end dates. *Here* you can find the details of the formula `NETWORKDAYS`.

The second calculation is the available work power per day (variable: *workPower*). To do this, we simply multiply the number of employees by their average working hours per day.

Finally, the total project capacity is calculated by multiplying the number of workdays by the available work power per day.

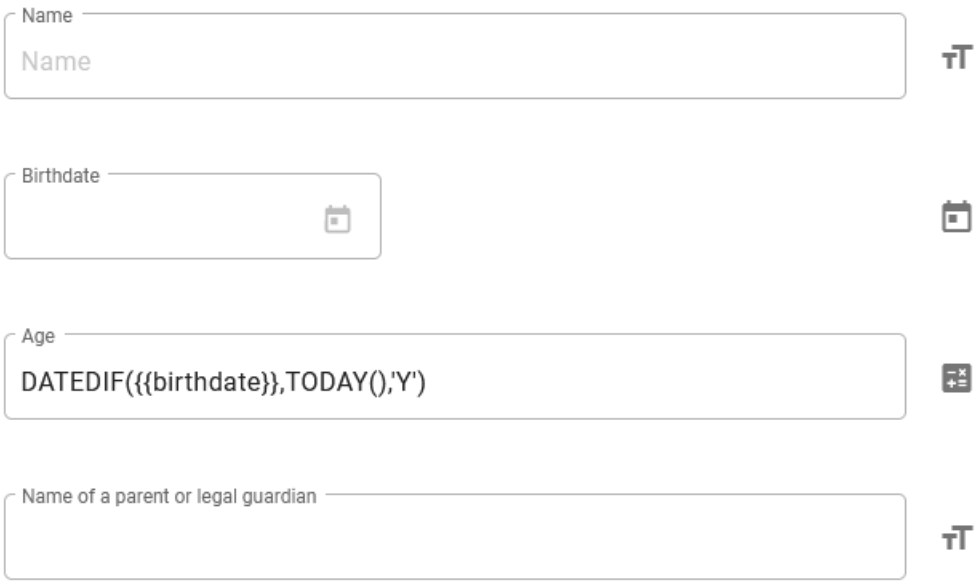
When you now open your process in BIC Process Execution, it will look like the following. The three calculated values are automatically updated as soon as you enter new values.



Note: If you receive an error message when entering a formula, the problem may be related to the date function. In this case the error can be resolved by using `.toISOString()`, as in the following example `WORKDAY({{createdDate}}, 10).toISOString()`.

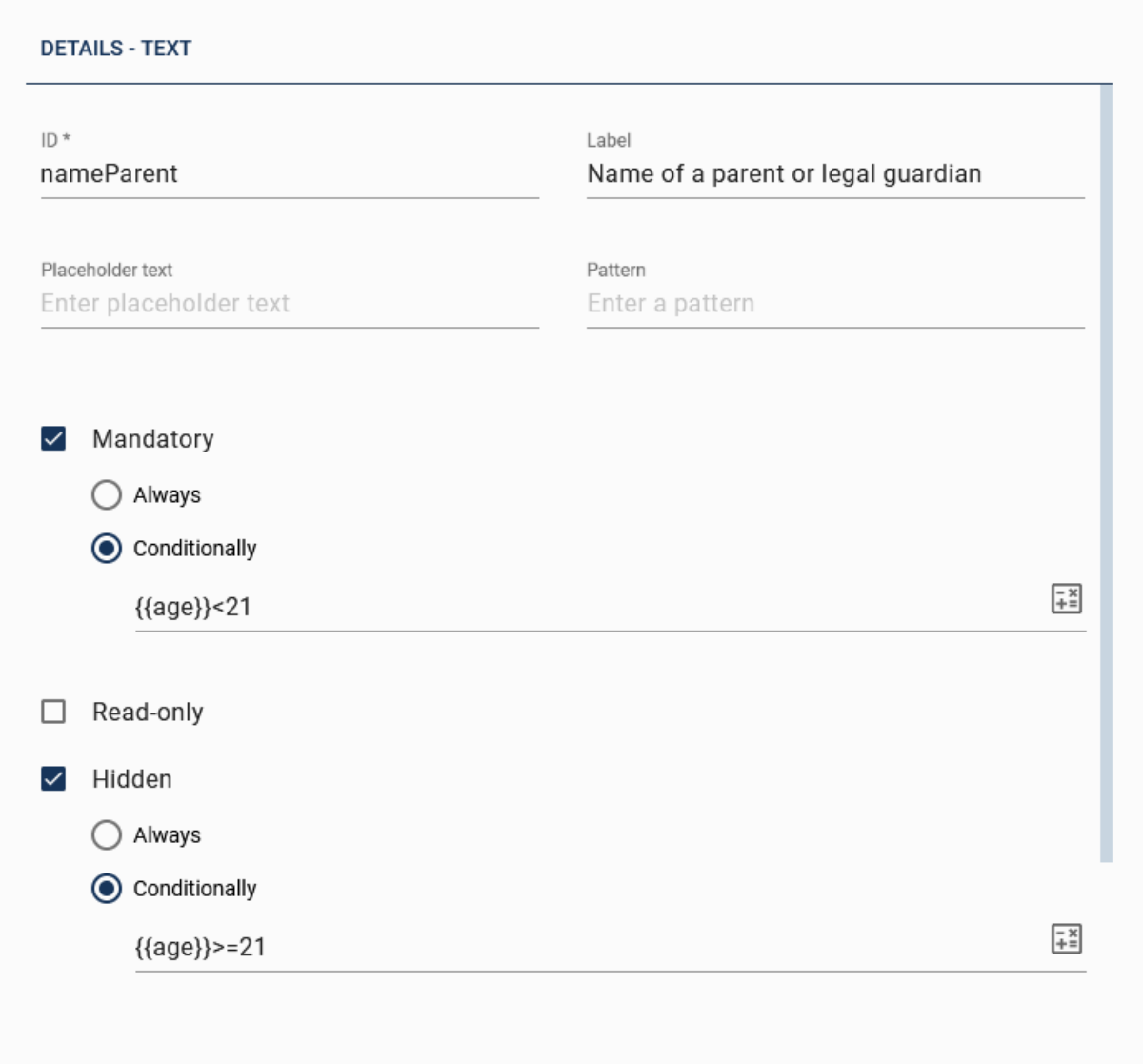
Create dynamic forms

You can also use formulas to create dynamic forms, which means that the attributes of form fields can be manipulated by user input. The following example uses a process to sell auto insurance. Our form in the form editor looks like this:

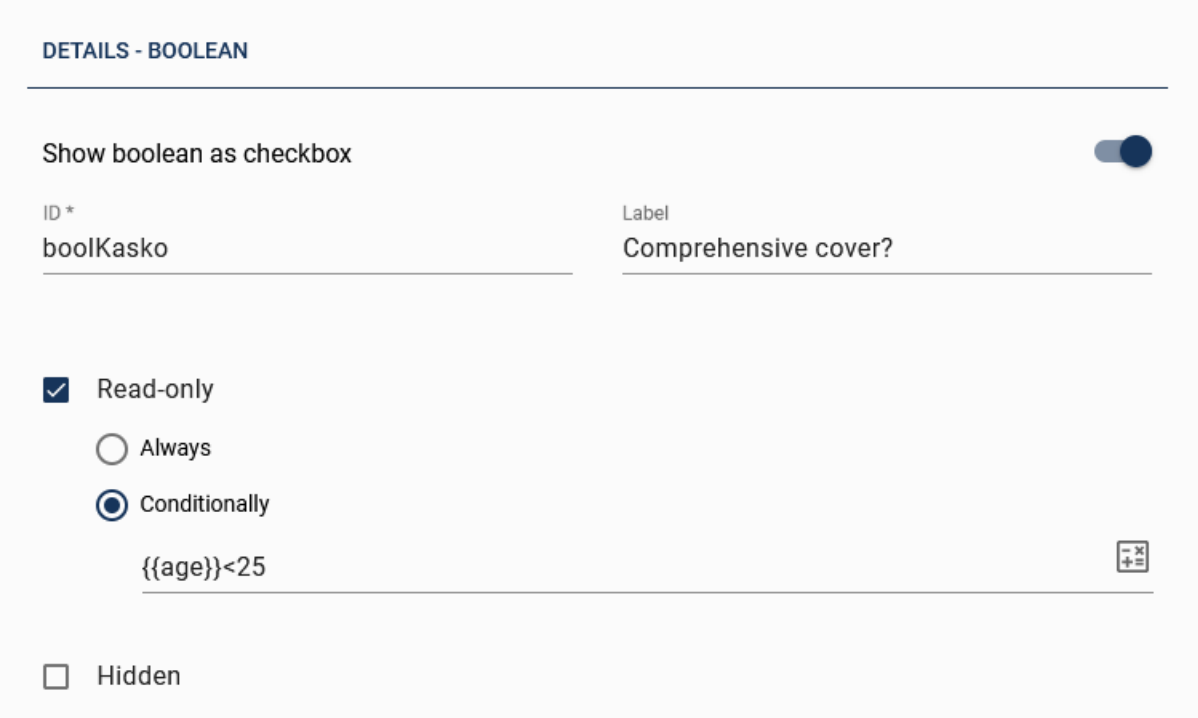


Note: If you receive an error message when entering a formula, the problem may be related to the date function. In this case the error can be resolved by using `.toISOString()`, as in the following example `WORKDAY({{createdDate}}, 10).toISOString()`.

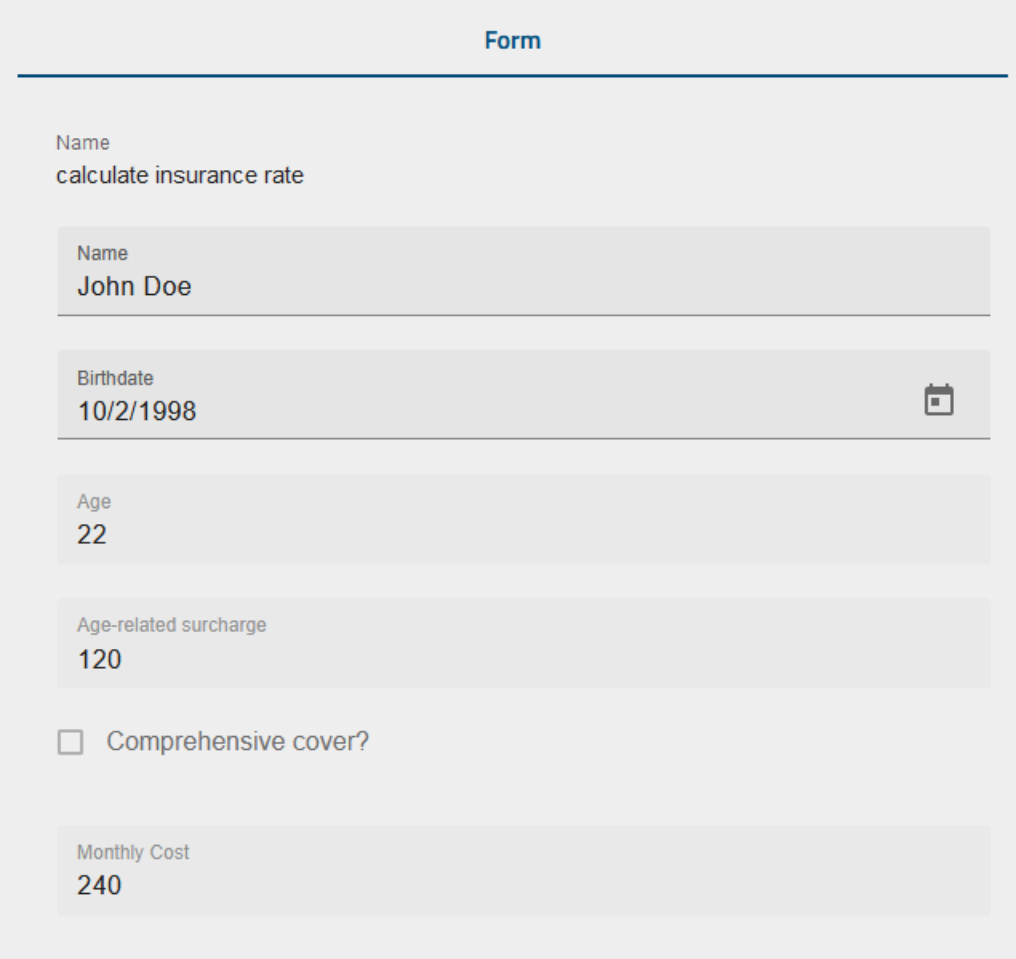
The name of a legal guardian or parent is only required if the person to be insured is younger than 21. For this, we use the attribute *Hidden* and choose the option *Conditionally*. Here we can enter a condition or formula under which circumstances the field should be hidden. In this example, it will be the case if the variable *age* is greater than or equal to 21. If the person is younger than 21, the field will be mandatory.



Another way to make your form dynamic is to use the attribute *read-only*. Below you can see a form field of the type *boolean* that is used to indicate whether the insurance includes fully comprehensive or not. As you can see, the field is read-only (and therefore not changeable) if the person is younger than 25, which means you can only select fully comprehensive cover if the person to be insured is older than 25.



In BIC Process Execution it is possible to start this case and see the form. In the following you can see that the field *comprehensive cover* cannot be changed because the person is younger than 25. However, due to the fact that the person is older than 21, you cannot enter the name of a parent or legal guardian.

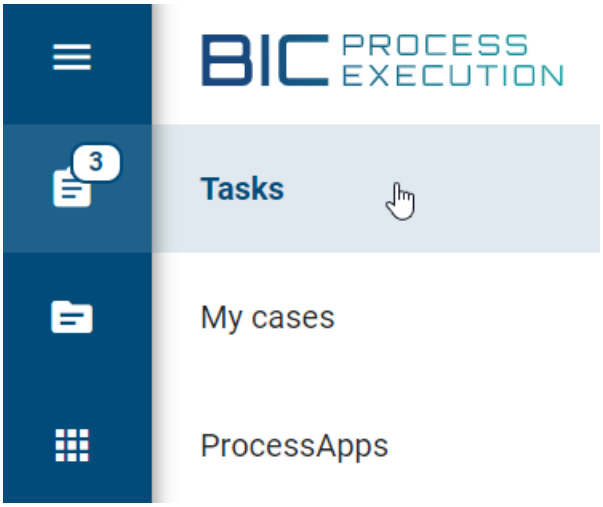


29.3 Tasks

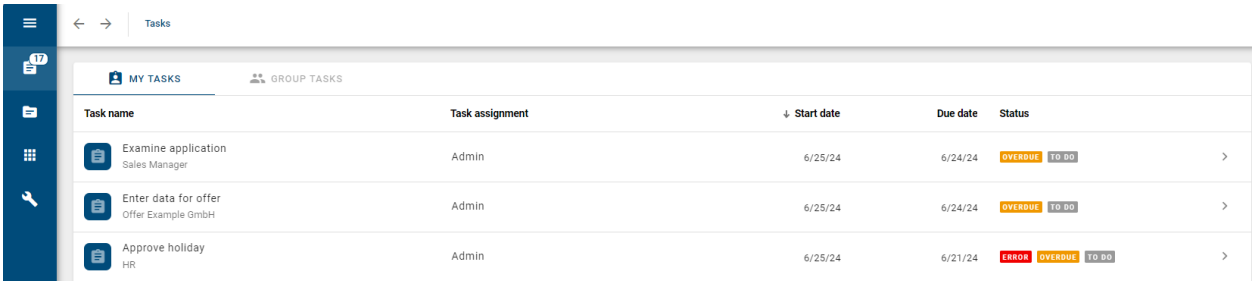
BIC Process Execution offers you a variety of functions to help you manage the tasks that result from your processes. When using these functions, the following questions may arise.

29.3.1 Where do I see my tasks?

Use the menu to switch to the *Tasks* section.

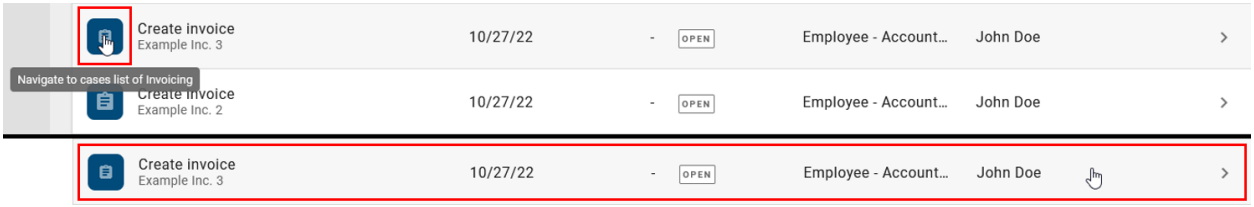


On the right side of the menu entry you can already see how many of your tasks are still open. As soon as you select the menu entry, you will be directed to the *My tasks* area.

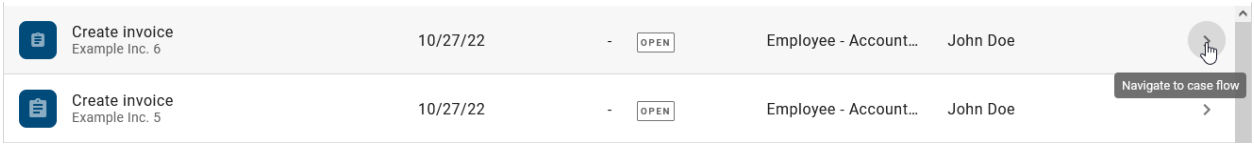


In the main area you will see all tasks assigned to you. Any new task, whether you started it, it was started for you, or an existing task was delegated to you, is displayed at the top of the task list. Below the name of each task you will see the name of the corresponding case. On the same line of each entry, you will see the *start date* of the case, the status and the *due date of the task*, if the latter has been defined in *BIC Process Design*. When the status of a task changes, the entry will be updated. The status of each task is displayed with the corresponding labels *Error* (red), *Overdue* (orange), *To do* (gray) and *Done* (green). Further explanations of the status can be found *here*.

The chip of a task is based on the *icon of the underlying ProcessApp*. You can directly navigate to the *case list of the ProcessApp* by a click on the chip.



A click on the list entry itself leads you to a *pop-up window of the task*. Alternatively, you can select *Navigate to case flow* to see the full process flow view.



Your personal task list contains all *started tasks* assigned to you during a *case creation process*. This list also contains tasks that have been *delegated to you* or *group tasks which you have claimed*. If you created a case and did not specify

a responsible for a role, the corresponding tasks will appear in your task list (one by one) as soon as they are started. Moreover, if you have created a case which includes a task without a responsible role, that task will be delegated to you as soon as it is started. This also applies to failed *script tasks*.

Personal tasks remain part of your task list until they are *completed*.

Your task list may contain *tasks that require manual decisions*. These tasks are created by the system if a gateway is not *modeled with an automation*. Decision tasks are assigned to the case owner.

Note: If you are working on your task list and *the status of a task* has been changed, it will automatically be displayed in your task list.

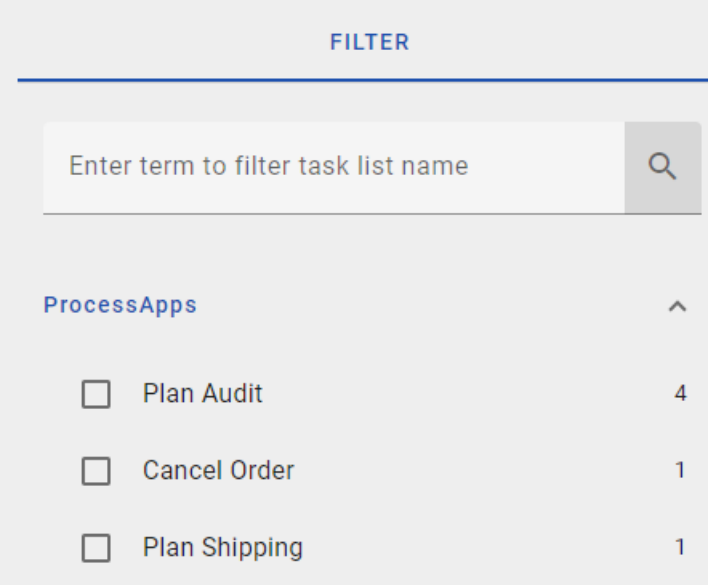
Tip: When you open a task from the task list, the URL is automatically updated with the ID of the selected task. You can use this URL to access a specific task directly or share it with others. If the task list is opened using a URL that contains a task ID and the task is available and visible, the corresponding task window opens automatically. Please note that only the task list will be displayed if the linked task is no longer available.

29.3.2 How can I filter and sort the task list?

Filter and Search:

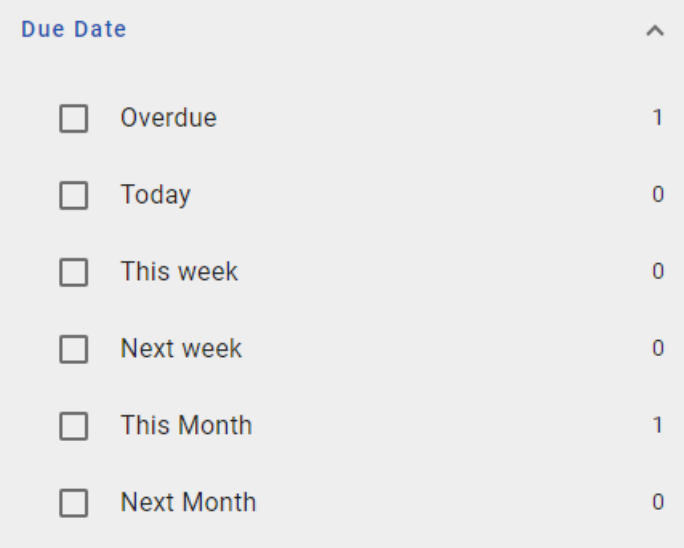
To the right of the main area of the task list, for both your own task list and a ProcessApp's task list, you will find the filter that allows you to search for and filter specific tasks.

You can filter your own task list by *ProcessApps*. When you select the *ProcessApps* filter facet in the right sidebar, all existing ProcessApps are displayed for filtering. Once you select a specific ProcessApp, only its tasks are displayed in the task list.



If you are viewing a task list for a specific ProcessApp, you have the option to filter by assigned users. To do so, use the *Assignee* filter facet available in the right sidebar. Once an assigned user is selected, the task list will display only the tasks assigned to that user.

Additionally, you can filter tasks using predefined date range options. To do so, select the *Due Date* filter facet in the right sidebar to display the available date ranges. Once a date range is selected, the task list will automatically update to show only those tasks that are due within the specified date range.



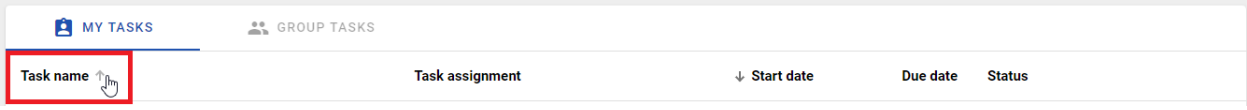
In the *Filter* panel in the right sidebar, you can also enter a search term in the input field to search for specific tasks.

When you search for a task name, the task list will be updated and you will see all the results of this search. If there are no search results, you will see a corresponding message in the main area. You also have the option to use both "a *AND* b" and "a *OR* b" to display all results that contain either "a" *and/or* "b".

Note: If you have applied a filter, the search will include the search term and any selected filter options. If you reset the search, you will get results that match the previously selected filter options.

Sort:

When you view the task list in the main area, whether you have applied a filter or not, you have the option to sort the tasks by a specific column. To do this, click on the column header.



If no sorting was applied before, the tasks are sorted in ascending order based on the selected column. At the same time, you will be scrolled to the top of the task list.

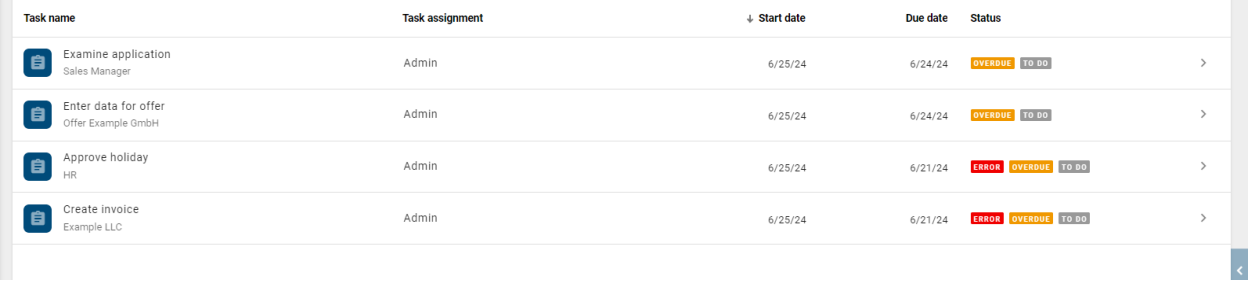
If you have already sorted by a column and the tasks are displayed in ascending order, you can change the sorting direction by clicking on the same column heading again. This will reverse the sorting and take you back to the top of the task list.

Hint: Please note that when entering the task list, tasks are sorted by default according to their creation date in ascending order. This serves as the starting point if no specific column sorting has been selected.

Note: Sorting is done for one column at a time.

29.3.3 What does the status of my task mean?

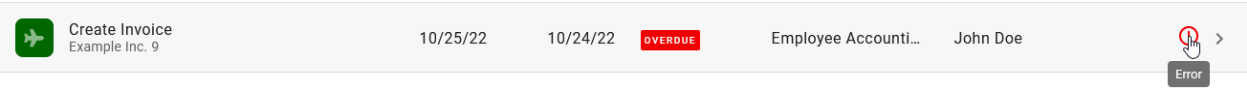
In your *personal task list*, each task has an entry in the *Status* column. This status gives you at least one of the following information:



- **To Do**: This task has been started and you have to work on it or *delegate* it to another user.
- **In progress**: This task has been started and you have started to work on its task form. But the task is not been yet completed.
- **Done**: If the task has been completed by you or another user, the task name is displayed crossed out. The completed task disappears from the list as soon as you leave the task list.
- **Overdue**: The task is past its *due date*. The urgency is highlighted in red.
- **Error**: The task has an error.

When you are currently in *your personal task list* and the status of a task changes, the change is automatically displayed. This way you will always have a good overview of which tasks you need to work on.

If there is an error in your task, the entry will be marked with a red error icon on the right side. Next to the *error* icon, you can navigate to the corresponding case to receive further information about the error (if available).

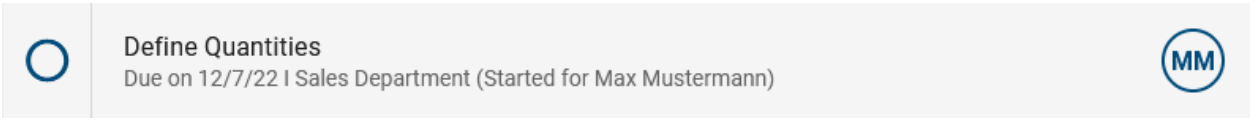


Hint: If you are in the pop-up window of your task and someone else completes the task, the *Complete* Button will be disabled and you will receive an information about the completion of the task.

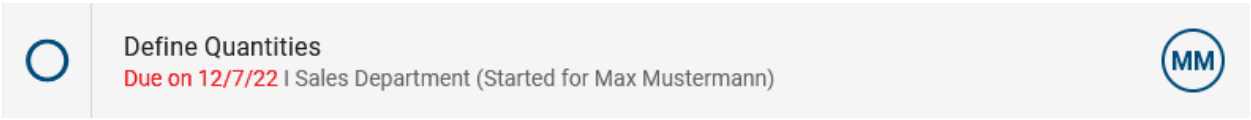
29.3.4 When is my task due?

The due date of a task is displayed in the task list. When the due date has been exceeded, the *status* becomes *overdue*.

Moreover, you can see the due date in the process flow view.



If your task is overdue the due date will be shown in red.



Note: If you want your tasks to have a due date, you have to model it in BIC Process Design first. An explanation of how to do this can be found *here*.

Hint: If you are assigned to a task that is due within one day, you will receive an email notification immediately. Please note that if you are assigned an urgent task that is due within one day and is not completed within one hour of being assigned, you will receive an email reminder of the unfinished task.

29.3.5 How am I notified about my tasks?

BIC Process Execution notifies you of upcoming tasks via email. The notification cycle described below includes *your personal tasks* as well as open *group tasks* if you are a member of the group and no member *has claimed the respective task* yet. You will also receive an email notification about which group is responsible for a group task.

As the owner of a task in your case, you will receive a notification in your overdue task reminder emails if the task is overdue. Even if you do not have any overdue tasks, but there are overdue tasks in your cases that are assigned or not assigned to other users or groups, you will still receive the email notification.

Notification cycle

Weekdays:

- At the beginning of each week, you will receive an email informing you of tasks that are *Overdue*, *Due today*, *Upcoming*, and *New tasks*. *Upcoming* indicates *tasks that are due* within the current week. Open tasks without a due date are listed separately at the end of the email notifications in the*Tasks without due date* section. The email also contains a link to BIC Process Execution. which takes you directly to the corresponding tasks.
- On the other weekdays, you will receive an email notifying you of tasks that are *Overdue*, *Due today* or *New tasks*. Tasks that are longer overdue than others are displayed at the top of the list.

Note: If a new task has been assigned to one of your group members or to you within the last 24 hours and has not yet been completed, that task will appear in the *New tasks* section. However, if the task has been assigned to multiple

users, only the most recently assigned user will receive a notification.

Weekends:

- You will not receive any task reminder emails on weekends. However, the Friday email will include any tasks that are due on the weekend or Monday.

In the default configuration, if you receive a reminder email regarding the due date or a new task on Monday, you will not receive information about Friday and Saturday.

Note: In order to receive daily reminders also on weekends, you need to update the default configuration. This means that on Saturday and Sunday you can receive reminders for the previous days (Friday and Saturday).

Hint: You are immediately notified by email when a new task is assigned to you that is overdue or due in the next 24 hours.

29.3.6 How are external users informed about due tasks?

BIC Process Execution helps you stay on track with your deadlines by sending automated email reminders. This requires that a *task* with a *due date* has been assigned to you as an external user. If you do not complete a task on time, you will receive an email reminder containing the details of the task. You will also receive a notification when the due date of a task is approaching, for example at the beginning of the week or on the day it is due, provided the task has not yet been completed.

As long as a task is not marked as *completed*, email notifications are sent in the following scenarios:

- **Reminder when the deadline is approaching**: You will receive a friendly reminder at the **beginning of the week** and once more on the **due date**.
- **Notification when overdue**: As soon as the due date has passed, you will be informed **immediately** to avoid delays in the process.

Both notification types contain the following details:

- **Case and task name**: For clear assignment of the process.
- **Due date**: The exact deadline for the task.
- **Direct link**: A link that takes you directly to the task form.
- **Contact person**: The responsible case owner for any queries.

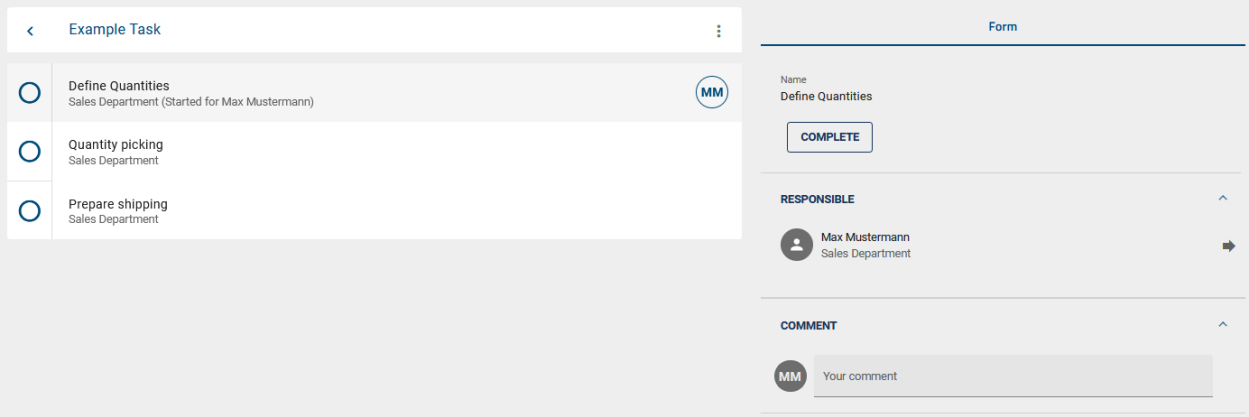
Note: Please note that if you have already completed the tasks in the meantime, you may ignore these automatically generated emails.

29.3.7 What is a task form and what is it used for?

In BIC Process Execution, a form is generated for each task when the corresponding *case is created*. This serves as a source of information for a specific task, but also provides you with many options for performing the necessary steps to complete the corresponding task. The information is derived from the information provided in the corresponding diagram in BIC Process Design for that task. However, be aware that the task form is not the same as the profile that you know from BIC Process Design. The form gives you much more. For example, you can see the responsible users and the attributes of the task, or you can access its input and output documents. To give you get a better idea of what the task form is, the following explains a few of the options available and how you can access the form.

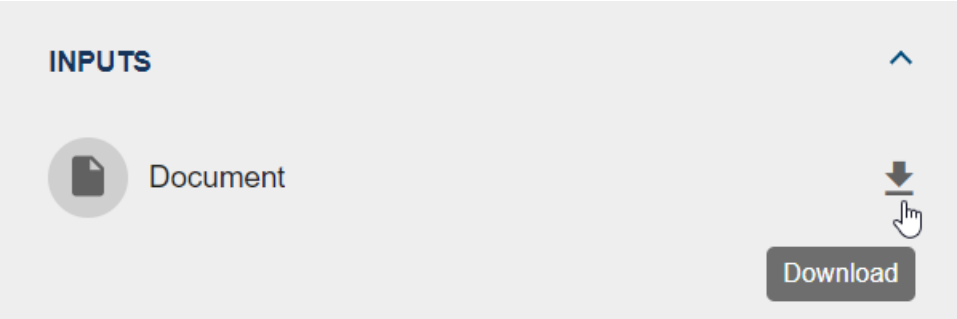
You can access your own task form in your task list once the task has been started. Simply select the desired task there and the form will open as a pop-up window.

To access the form of any task, you must first navigate to the *corresponding ProcessApp* and select the desired case. The task form will open in the right sidebar. If you are using the mobile view of the application, the task form is automatically displayed after selecting the task.

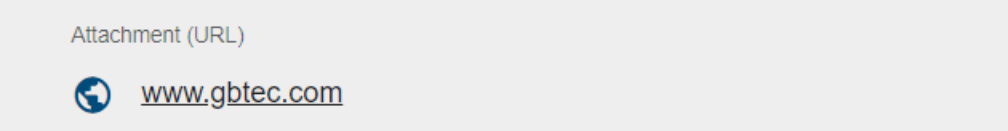


Here you will find the name of the task, the responsible user or the responsible roles, a description and other attributes of the task. This information is based on the modeled task anf its properties in the respective diagram of BIC Process Design.

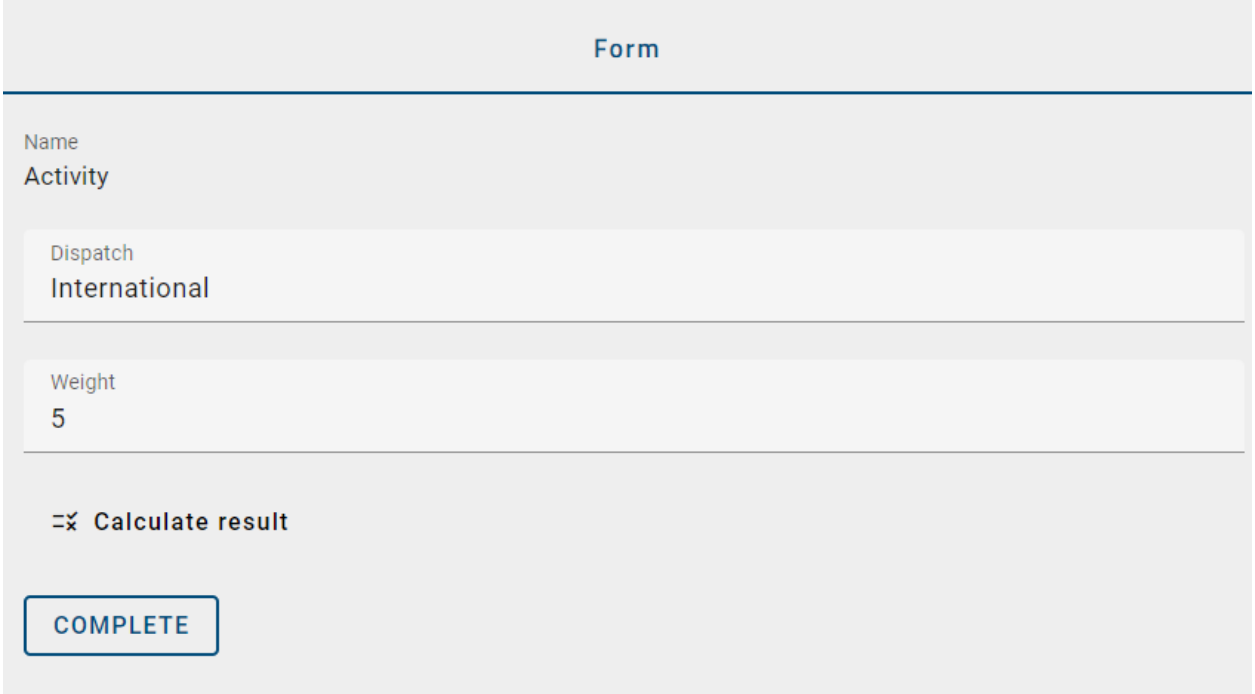
In addition to the information that you can get, it also provides you with some functions. For example, you can *download input documents or upload output documents for the task*.



You can also access document services and other web applications or websites by selecting individual *attachments*. For example, depending on the hyperlink, if it is a link to a document service, the download of a document will be started automatically. If a hyperlink is activated which contains a URL to a website, the website will automatically open in a new browser window.

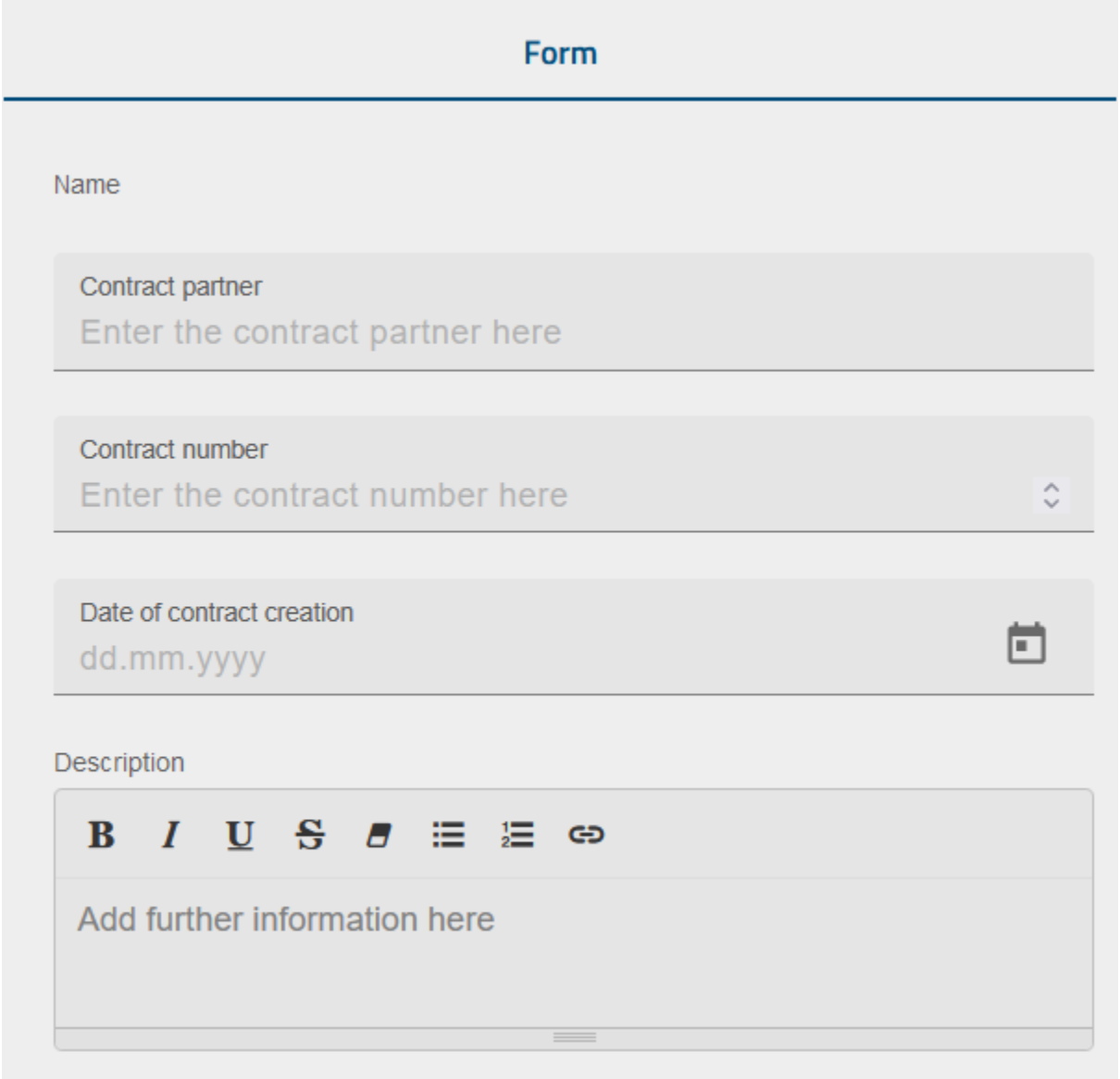


You can also make use of *decision tables* within the form. This provides your users with the decision making support they need to complete their task.



You have the option of saving the decision table data entered in order to check the result before completing the task. To do this, click on the *Calculate result* button. If the result is "null", you will receive a message indicating that the result is empty.

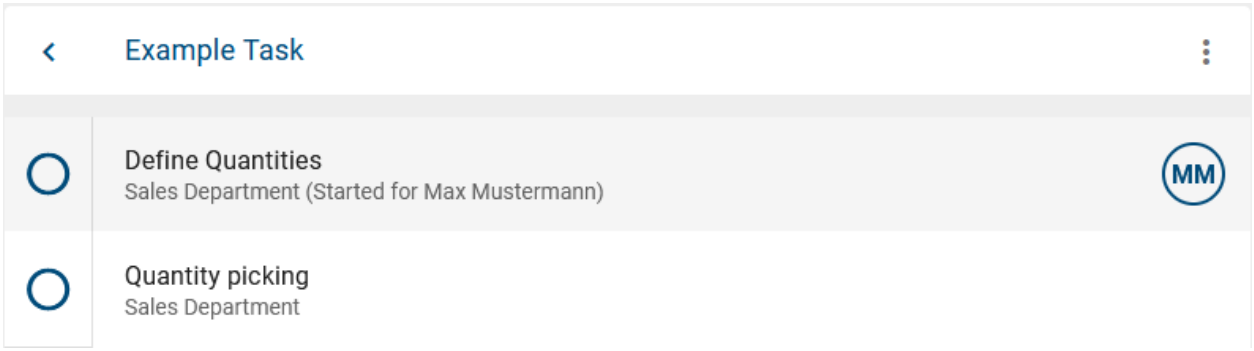
In addition to these functions and information, you can also *make decisions* and (if you have the permission) *delegate tasks* within a task form.



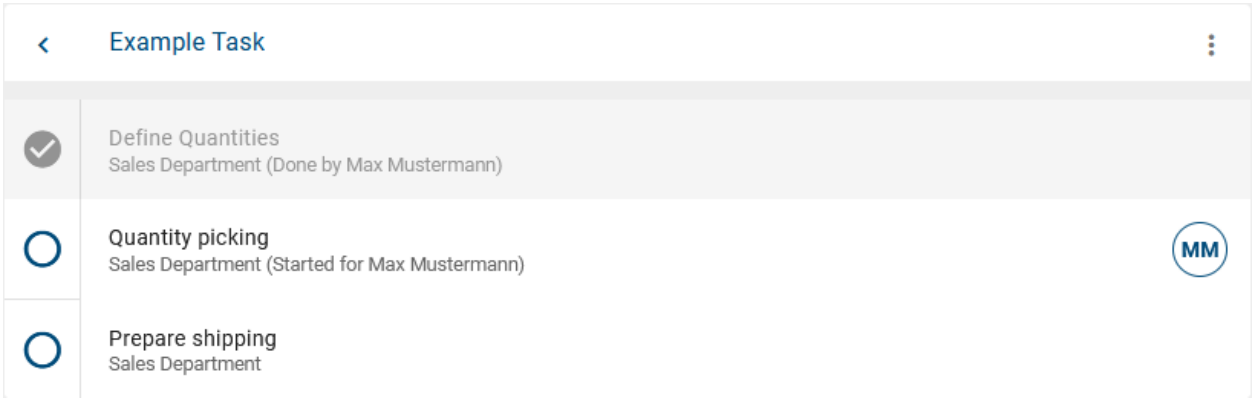
Most of the form fields in the task form are automatically obtained from the information derived from your diagram in BIC Process Design. In addition, additional form fields can be added to a user task form of a user task using the *form editor*. The responsible for the task can fill in these form fields when executing the case.

29.3.8 How do I start a task?

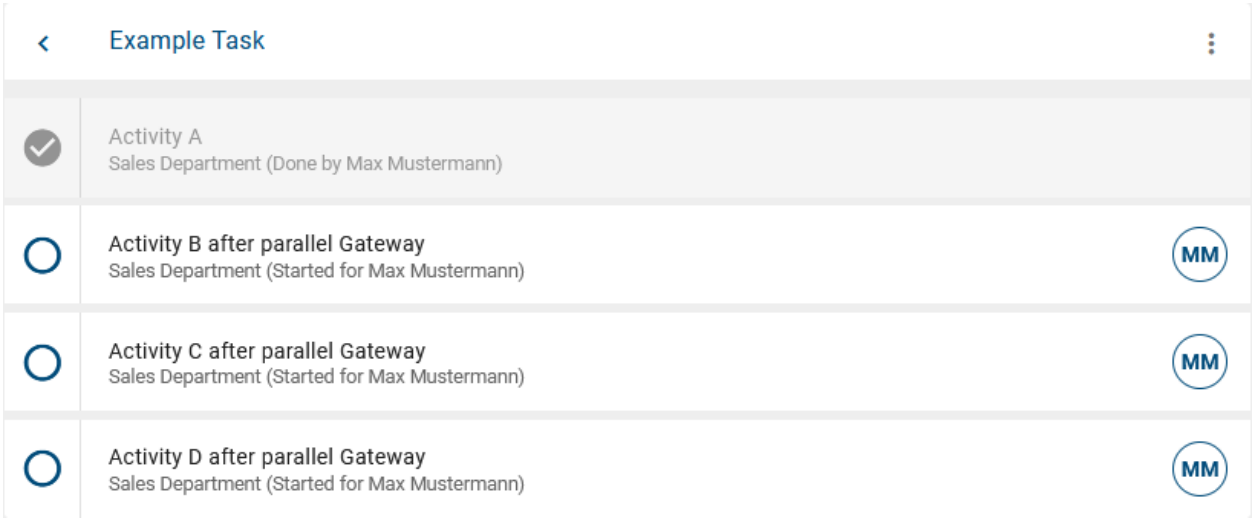
In BIC Process Execution, tasks are usually started automatically as soon as the corresponding step in the process flow is reached. This means that if a task is in the first place in the process flow, it will be automatically started as soon as *the case is created*.



All subsequent tasks are automatically started as soon as the direct predecessor task in the sequence is *completed*.



In this way, multiple tasks can be started automatically at the same time, for example, by using a parallel gateway. When the task in front of this gateway is completed, all tasks directly following it are started at the same time.



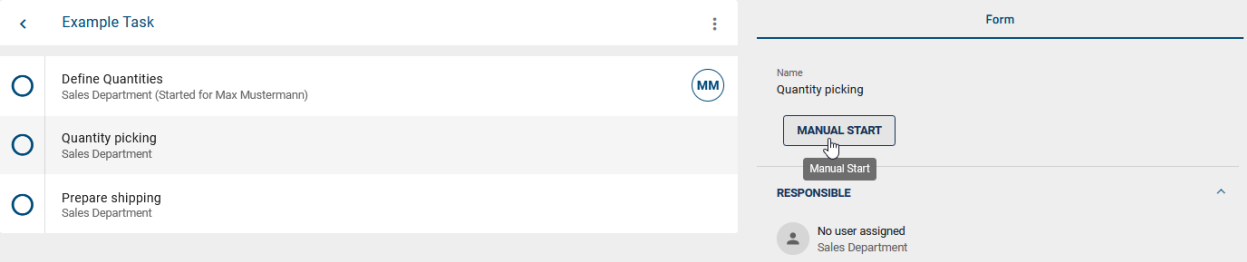
Depending on the definition of your process, the first task of a process may have to be started manually because the user can decide which task to start first. Note, however, that this is only possible if the *Allow users to start tasks manually* checkbox is selected. As a *ProcessApp Administrator*, you can start any task manually. Tasks are displayed

and can be started in the process flow view of a case as soon as the first task of its segment is started, which means, when the segment is *active*.

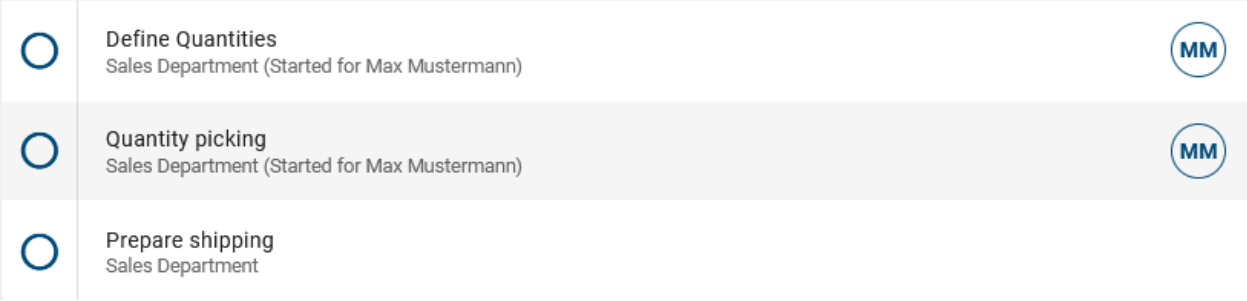
Note: A **segment** of the process flow is defined by its corresponding diagram and consists of a sequence of activities (the tasks) between gateways and events.

To start a task manually, navigate in the process flow view to a task for which you or another user has role responsibility. You can identify this by the user name displayed in small letters below the task. If you select the task entry and the task segment is active, you will see the option *Start task manually* in the *task form*.

In this example, in the case "A new offer", you cannot manually start the "Verify order" task until the case has progressed to the corresponding segment:



The task is started manually as soon as this function is activated. After the manual start, the chip is filled with the user's initials.



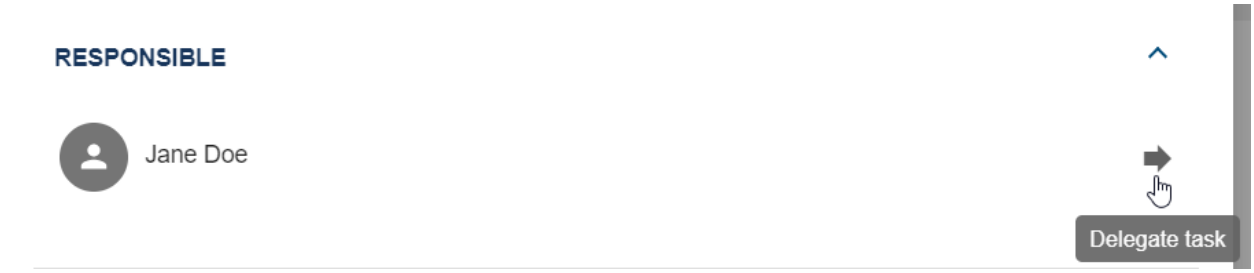
Now all users can directly see that this task in this case has been started. The task also appears in the *task list of the responsible user*, who can now work on it.

Hint: When a group is assigned to a role and the first task of that role is started, the group task must be claimed by a group member. Subsequent tasks of that role are automatically assigned to that member (as soon as they are started). Further information about this rule can be found *here*.

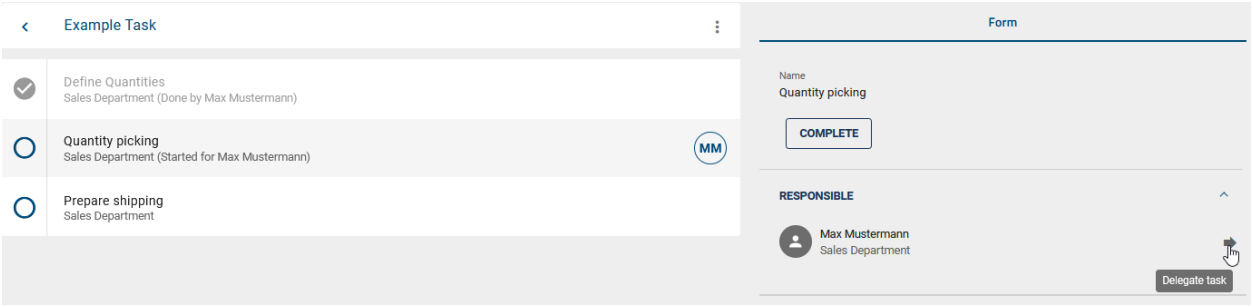
29.3.9 How can I delegate a task?

If a task is assigned to you and has already been started, you can delegate it to another user. As a ProcessApp Administrator or as a case owner, you can delegate all started tasks, whether they are owned by you or by other users. The delegation option is also displayed to ProcessApp Administrators and case owners when a task is started but not yet assigned to a user. A delegation only affects the respective task. All other tasks keep the assignment that was defined when the case was created.

In your *task list*, navigate to the pending task that you want to delegate. When you click on the task, the task form opens as a pop-up window. Within the form, you will find the *Responsible* section. Next to your username, you can select the *Delegate task* function on the right side.



Alternatively, you can find this function in the form of the started task in the process flow view. ProcessApp Administrators and case owners can delegate the tasks of other users this way.



When you use this function, a window appears where you can then search for a user (group) using the input field. You can then select a search result from the list of suggestions.

Your selection will be displayed as a chip. If you have accidentally not made the desired selection, you can remove the chip via the *x*, or select and delete it on the desktop with the backspace key. In general, you can select all users and user groups for delegation. If you want to *Cancel* the delegation, select the corresponding option.

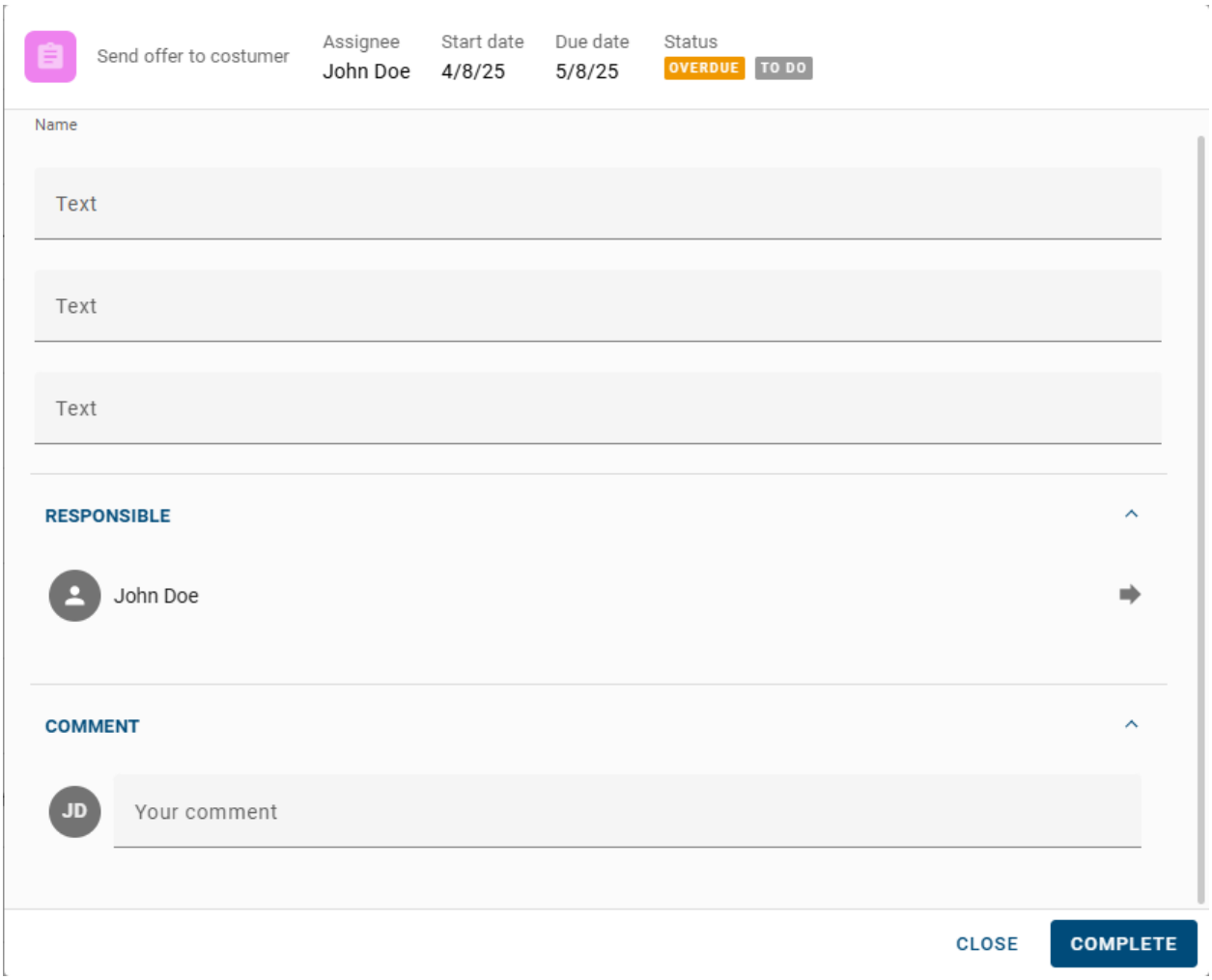
Otherwise, click *Delegate* to complete the delegation. The window closes and the task no longer appears in your task list. The initials of the newly assigned user (group) will now appear in the process flow view of the relevant case. In addition, the task appears in the task list of the affected users.

29.3.10 How do I complete a task?

In general, a task can be completed after it has been started *and* assigned to a user. You can see your own started tasks in *"Tasks"*. In BIC Process Execution, tasks are completed using *the task form*. The form provides more information and links to applications relevant to your task. You may also be able to *upload or download files* or enter other data in a *user task*. There are two ways to find the task form. The pop-up window allows you to complete single tasks more quickly because you do not need to open the corresponding process flow view of each task.

In a pop-up window:

Navigate to your *tasks*. There you will find your own, already started tasks. Click on the name of a task to open it in a pop-up window and see the associated task form. An overview of the task is displayed at the top of the form to make sure you are working on the correct task. This header includes the case name and associated ProcessApp, the user responsible, the start date, the due date, and the current status. At the bottom of the form, you will find a *comment field* where you can enter a note before completing the task via the *complete* button. The pop-up window automatically closes after you complete a task. If you are subsequently assigned another task within the same case, the next pop-up window will open immediately, allowing you to continue working seamlessly. If you are assigned multiple follow-up tasks at the same time, the first task created will open automatically.

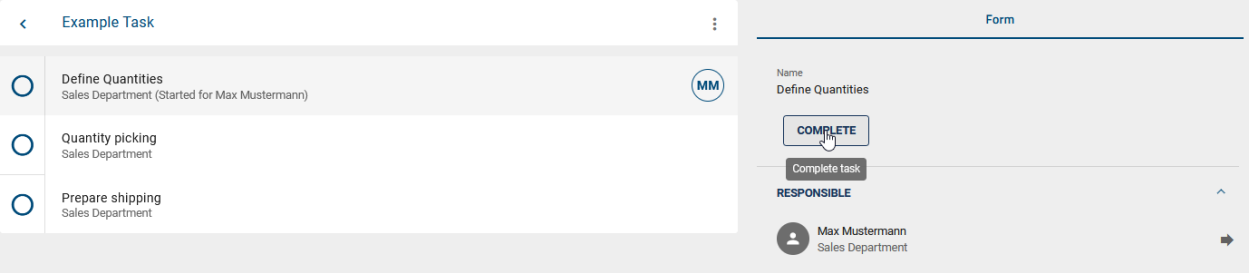


Hint: The possibility to complete a call activity is only available to the user who has the role of the ProcessApp Administrator. If you are the owner of a task but do not have the ProcessApp Administrator role, you cannot complete

the task manually.

In a process flow view:

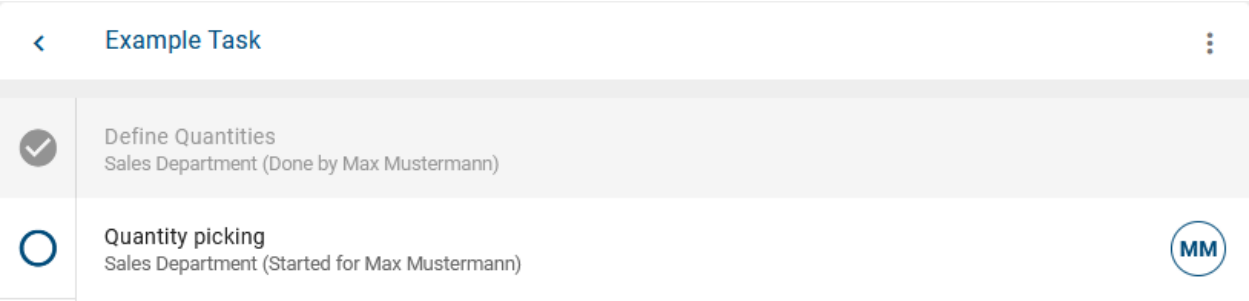
Alternatively, you have the possibility to open the process flow view. To do so, select the *Navigate to case flow* button. The affected task will be highlighted in the process flow with a filled chip with your initials. If you are using the mobile view of BIC Process Execution, the form will open when you select the task. In the desktop view, the form is located in the right sidebar.



In the form of your task, you will find a comment field where you can enter a *comment* before completing the task via the *Complete* button.

Hint: Please note that an interactive error banner appears as soon as the task form is incomplete or contains invalid entries. It checks both the standard validation rules and your custom defined validation rules. This error banner will automatically disappear once all fields are filled in correctly and the *Complete* button is clicked again.

After completing the task, a check mark will appear in the chip of the task and the task's text will turn gray, which will be directly visible to all users. In the form, you can see the comment that may have been submitted. The task is no longer listed in your tasks. This cannot be undone.



If a task is started but no user is assigned, it cannot be completed. The hint *No user assigned* will be shown in the *Responsible* section of the form. In this case, ProcessApp Administrators can *delegate* the task to a user (group). This user (group) can then complete the task as described above.

When a task is completed, the next task in the sequence is automatically started and thus appears in the task list of the responsible user. This happens if the next task is a clear successor or the following activity. If the following task has already been completed, the next task in the sequence is started. When the last task of a case has been completed, the case will be *finished*.

Hint: Please note the difference between a role being responsible for a task and an explicit user being assigned to the task. A user can be assigned to a role during the *case creation* or *later in the case details*. In this case, the user is automatically assigned to a task of the role when the task is started. If the responsible role of a task cannot be assigned to a user when the task is started, the task cannot be completed.

Tip: As a ProcessApp Administrator, you can complete every task by *delegating* it to yourself and then completing it as described above.

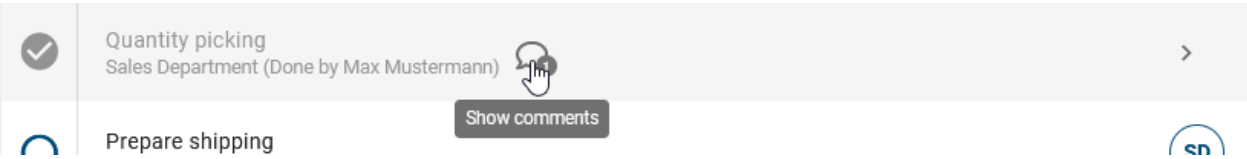
Note: A task started without an assigned user can occur in cases started by the system. These cases have no owner who would be responsible if no other role responsibility has been defined.

Warning: Please note that only users with the roles *ProcessApp User* or *ProcessApp Participant* can work on tasks. If a task is assigned to you and you do not have one of these roles, you will not be able to perform any actions for this task. You will then receive a notification stating that you do not have the required role. If you open BIC Process Execution without the user role *ProcessApp User* or *ProcessApp Participant* and you have been assigned tasks, you can view them in your *task list*. In this case, however, you will be informed in the task forms that you do not have the necessary role for processing. If no tasks are assigned to you, the menu item *Tasks* will not be available.

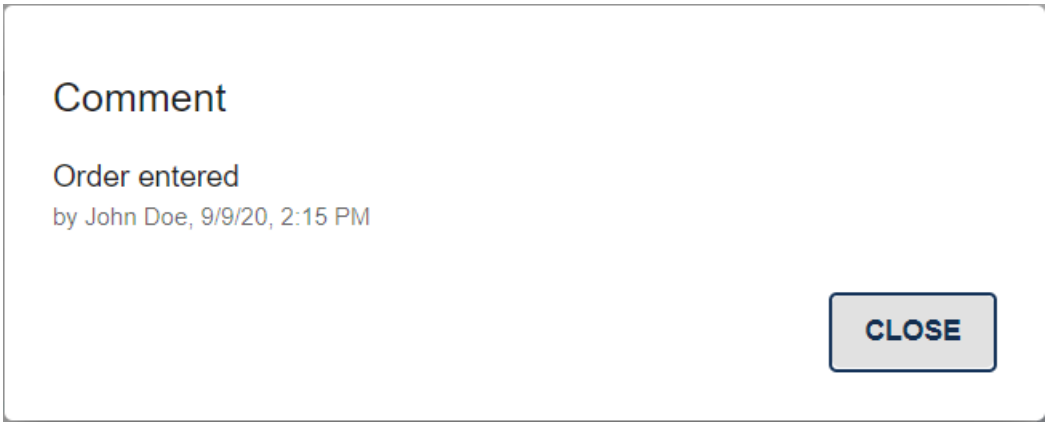
Tip: When you open a task from the task list, the URL is automatically updated with the ID of the selected task. You can use this URL to access a specific task directly or share it with others. If the task list is opened using a URL that contains a task ID and the task is available and visible, the corresponding task window opens automatically. Please note that only the task list will be displayed if the linked task is no longer available.

29.3.11 Where can I see comments of completed tasks?

When *completing a task*, users can add additional comments. These comments are then visible to all users. To view a comment, first navigate to the process flow view of a running case. When a task is completed, you will see a *Show comments* icon to the right of the entry.

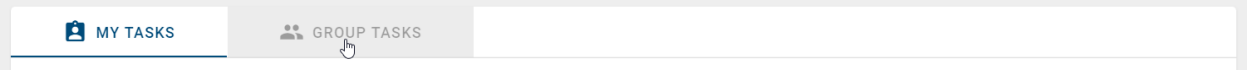


Clicking on this button opens the comment window. In addition to the comment itself, this window displays the author of the comment and the comment timestamp. The comment is in read-only mode and cannot be edited. Click on *Close* to return to the original view.

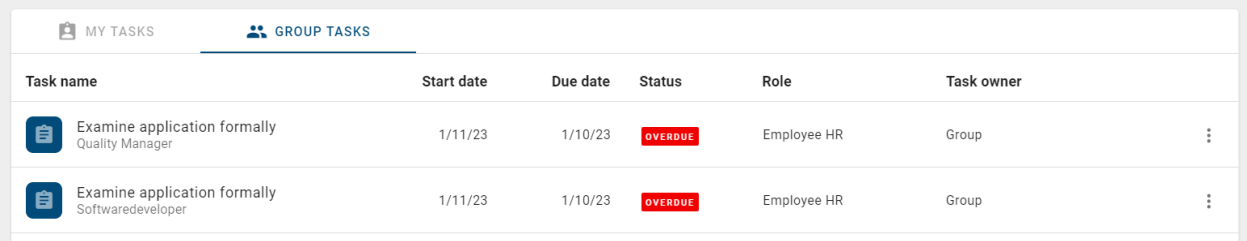


29.3.12 Where can I find my group tasks?

In order to find your group tasks, navigate to the *Tasks* area via the menu. You can access to all your group tasks over the *Group tasks* tab.



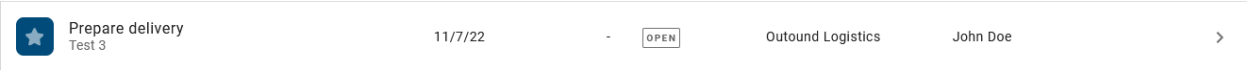
This area lists all started tasks assigned to the user groups you are part of. Under the name of each task, you can see the name of the corresponding case. Next to the task, you can see when the task was started, the due date of the task, the status of the task, the role and the task owner. The due date is empty if the corresponding attribute has not been maintained in BIC Process Design. In case there is a chip with initials to the right of the entry, the task *has already been claimed* by a user.



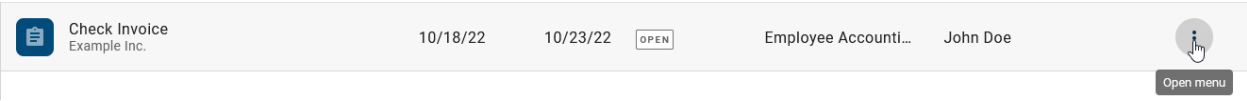
As soon as one of these tasks is successfully completed by one of the users of the group, it disappears from the personal task list of all involved users.

29.3.13 How can I claim a group task?

To claim a group task, first navigate to the *group tasks* list or to the relevant case. Both views show whether the task has already been claimed. If a group member has claimed the task, that user will be assigned as the responsible user in the task form in the process flow view. The corresponding entry in the group task list also shows the initials of this user.

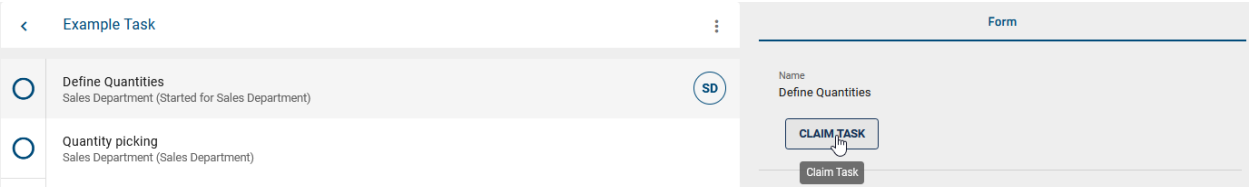


Tasks that can be claimed have a context menu to the right of the entry instead.



By clicking on the context menu, you can select the *Claim task* option. Once you have claimed a task, your initials will be displayed at the entry and the context menu will disappear. From then on, you will find the task in your *personal list of tasks* as well.

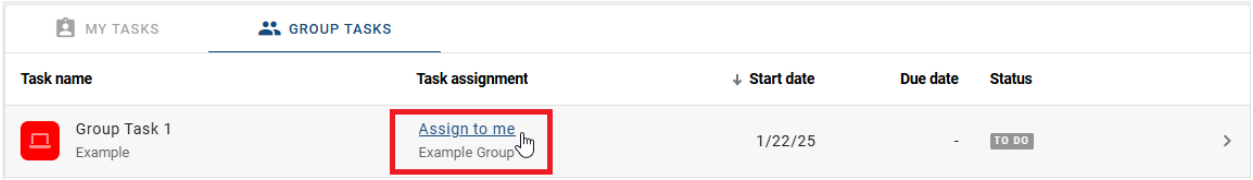
If your group task has not yet been claimed, you will also find the button *Claim task* in the task form when you view the process flow of the corresponding case. By clicking this button you can claim the task directly in the case.



If you complete the group task and another task is started for this group in the same case, this task will be assigned to you automatically. You do not have to claim it manually. Note that this is only the case for tasks arising from the same role.

Consider the following example: In a case, the group "Team Development" is responsible for the roles "Software developer" and "Software tester". As a member of this group, you have claimed and completed the first group task which was defined for the "Software developer" role. If another group task of the case is started for which this role is responsible, this task is automatically assigned to you. However, if a task with the responsibility "Software tester" is started in the case, this task has to be claimed by a group member - unless a user has already completed a previous task as software tester and is therefore assigned to this task as well.

Alternatively, you can assign group tasks to yourself while viewing the group tasks in the *Group Task* tab of *your task list*. Users with the role *ProcessApp Administrator* or *ProcessApp Analyst* can also assign group tasks to themselves in the *corresponding task list of a case*. Each task that is not assigned contains an *Assign to me* link. As soon as you select this, the task will be assigned to you and the list will be updated accordingly. If you cannot assign a task to yourself, either the *Assign to me* link will not appear or the message *Self-assignment not possible* will appear when you move the mouse pointer over the link.



Note: If you claim a group task, then delegate it to a user, and the user completes the task, the next task of that group in the case will be assigned to that user (when the task is started).

29.3.14 How can I edit a task as an external user?

If you have the role of an external user, you can edit a task assigned to you in the task form to provide the required information.

Once a task is started and your email address is stored in the process as an external user identifier, you will receive an email notifying you of the pending task.

This email will contain a link to a task form where you should complete all mandatory and/or optional fields. By clicking on *Submit*, the task form will be successfully submitted and you should receive a confirmation message. Once the task form has been submitted, you will no longer be able to edit the task. If you click the link again, you will only be able to view the task form in read-only mode.

Hint: Please note that the link is only valid as long as the task is assigned to you as an external user.

Hint: It is not possible to delegate the task to another external user.

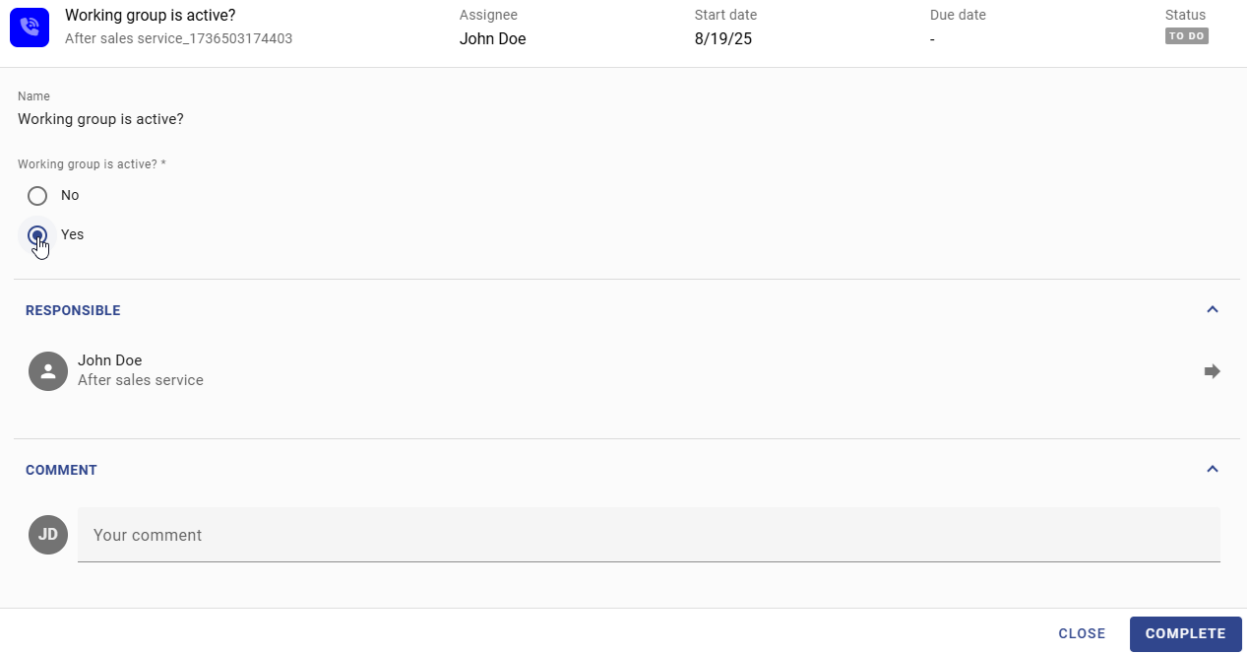
Hint: Please note that *signing tasks* cannot be performed by external users.

Hint: To be able to edit a task as an external user, a task must first be *created for an external user*.

29.3.15 How can I make a manual decision task for a gateway?

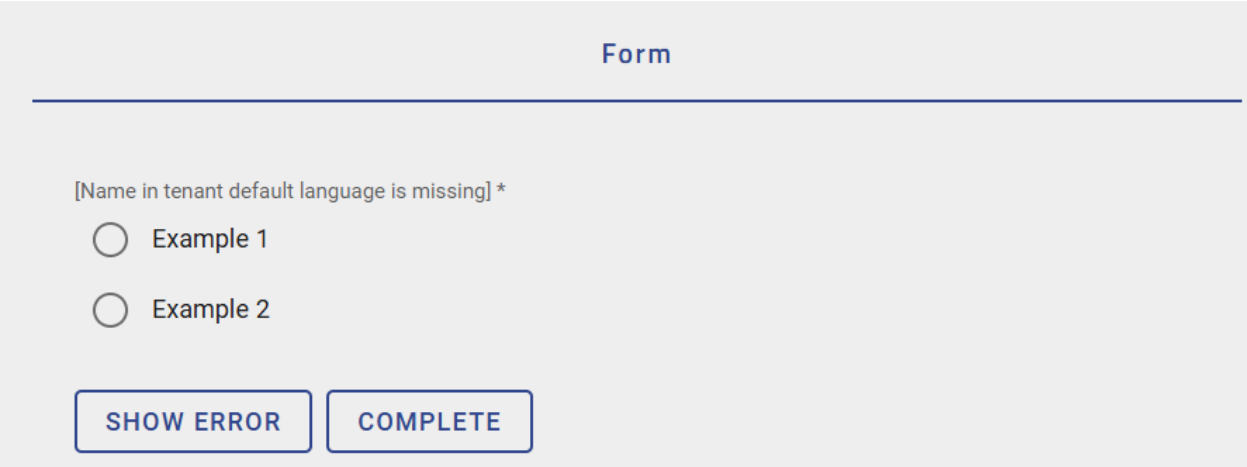
If a gateway is not *modeled with an automation*, the case owner receives a task to decide which path to executed.

As a case owner, you will find the manual decision task in your task list once the previous task has been completed. Select this task to open its pop-up window. Based on the options displayed in the window, you can see whether your decision is an *Exclusive Or* or an *Inclusive Or* gateway. *Exclusive Or* gateways only allow you to select one decision option.



If you use the *Exclusive Gateway* and do not define a fixed value to determine which path in the diagram is taken, the decision will be made manually. In this case, you can choose which of the available paths to follow.

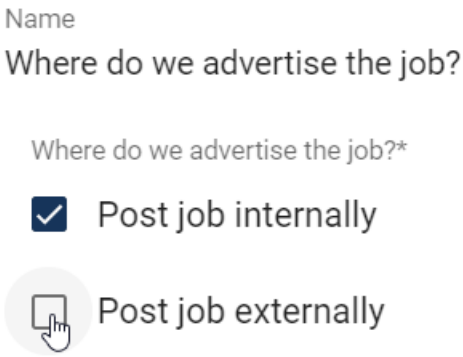
A manual decision can also be made if a fixed value is specified but an alternative or unanticipated value is provided during execution.



Note: Please note that continuing with an unexpected or invalid value may result in unpredictable behavior or errors during execution.

Note: Please note that manual selection of a path for deviating or missing values is only possible from version 8.1.0 onwards.

Inclusive Or gateways, on the other hand, have checkboxes for the decision options that allow multiple selections.



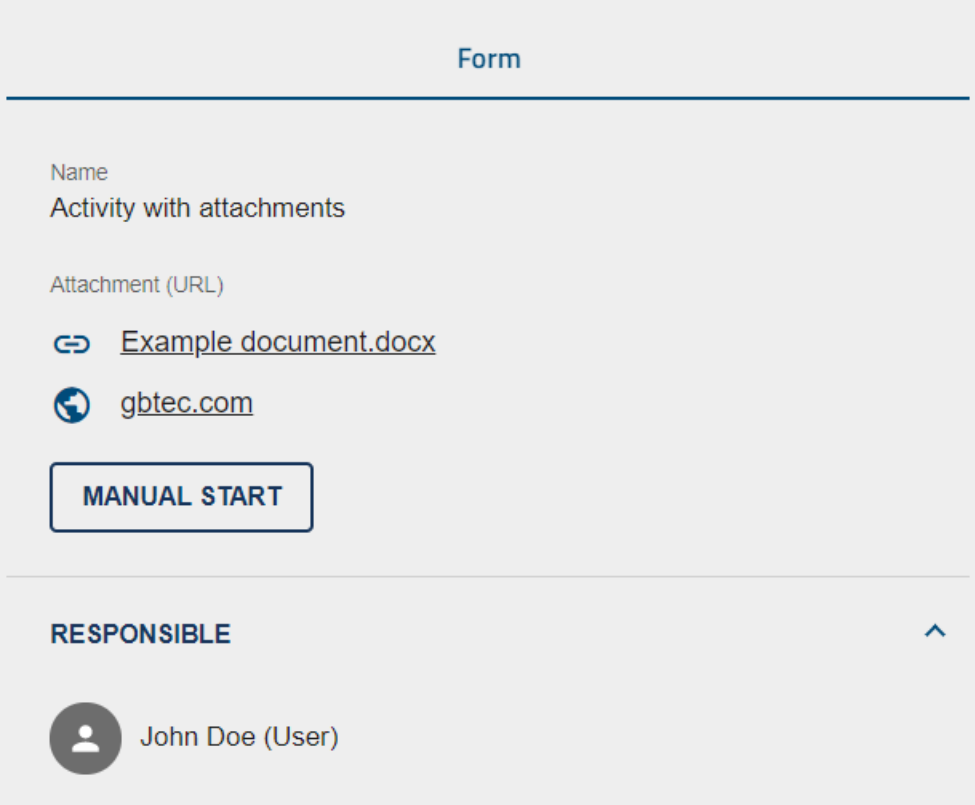
Select one or more options (depending on the type of gateway) and confirm your selection with the *Complete* button.

Warning: If an activity is modeled with one or more outgoing sequence flows **without** a gateway, the decision must be automated via expressions. Otherwise, undesired behavior may occur. Please find an example *here*.

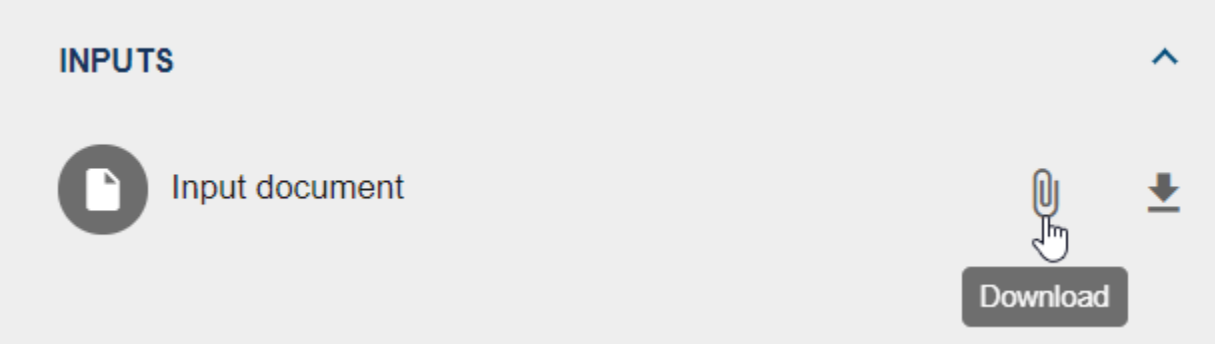
29.3.16 How can I use attachments in BIC Process Execution?

In BIC Process Execution, you can use attachments that have been defined on the corresponding objects in BIC Process Design. You can use all attachment types that are available for *the "Attachment (URL)" attribute* in BIC Process Design. In BIC Process Execution, these are displayed in various places in *the corresponding task form*.

If the *Attachment (URL)* attribute has been defined for an activity, you will find these attachments in BIC Process Execution in the corresponding task form under *Attachment (URL)*.



If you have defined an attachment in the attributes of a document object that represents an input or output of an activity, you will find the attachment in the *Inputs* or *Outputs* section of the corresponding task form. The attachment is represented by a paperclip icon. You can access the attachment by clicking the paperclip icon.



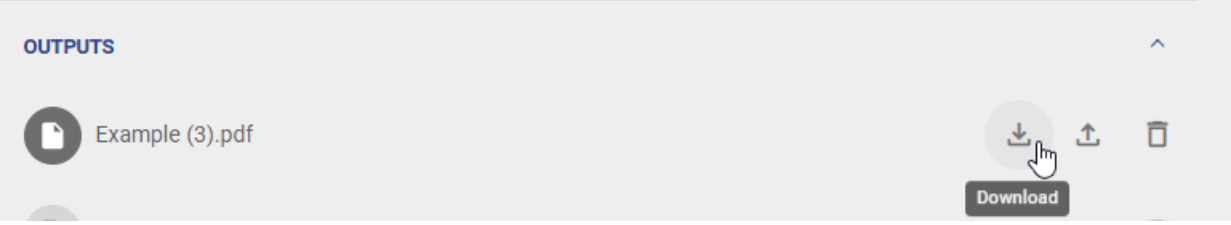
29.3.17 How can I upload or download files to my tasks?

If files have been modeled in your diagram in BIC Process Design, you can make use of them in BIC Process Execution to upload or download documents in the tasks of your case. This allows you to provide important documents for the process flow. You can also use these files for a *REST call*. They are always assigned to individual tasks in your case. The following section explains in more detail how to use these functions.

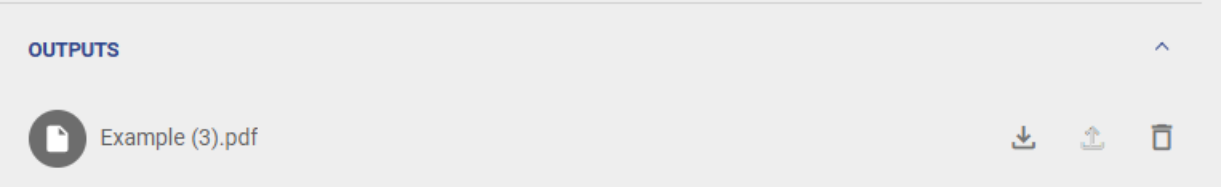
Outputs

If an output document has been modeled for an activity in BIC Process Design, you will find a corresponding entry in your *task form* in BIC Process Execution. In order to upload a document, you have to be the responsible of the relevant task and the task must already be started. If this is the case, you can use the *Upload file* function to select and upload the desired document via a corresponding dialog.

Once you have successfully uploaded a document, the document icon on the left side of the entry will turn white to indicate that the upload process is complete. Documents that have been uploaded as output can be downloaded at any time using the *Download* function.

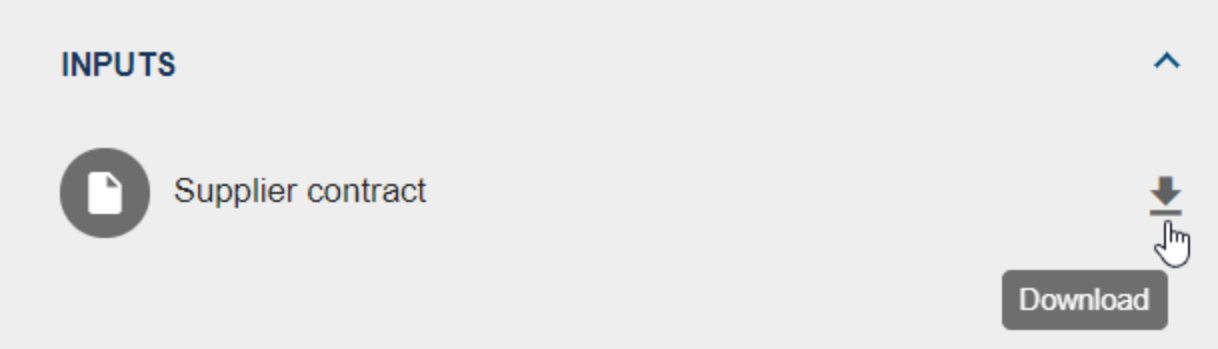


If the *Upload file* function is used when a document has already been uploaded, that document will be replaced by the newly selected document. This means that only one file can be provided per output entry. Once the corresponding task is completed, the *Upload file* function is grayed out and no more files can be uploaded for the relevant output.

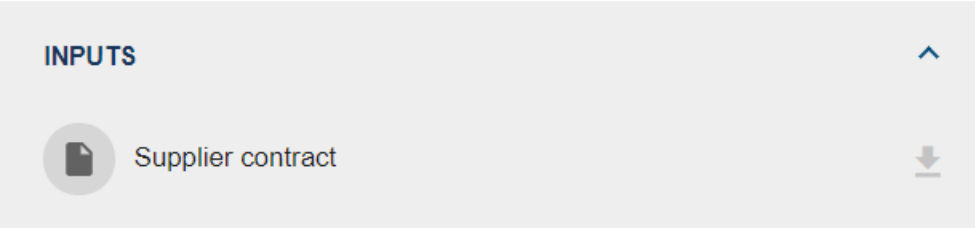


Inputs

As with outputs, you will find inputs in the corresponding task form. If an input exists for a task, you can access the relevant document by using the *Download* function.



All inputs are the result of outputs from previously processed tasks in the process flow. You can only download the document if the task containing the output has been successfully completed and the task containing the input has been started. If this is not the case, or if no file has been uploaded for the input, the *Download* function is grayed out and cannot be used.



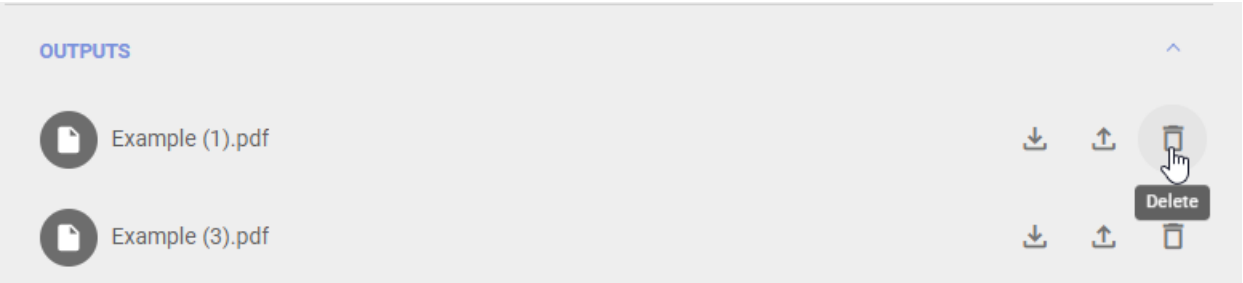
Note: You can use the following objects to upload or download files: *Document*, *Business object*, *Norm*, and *Data store*.

Tip: *Attachments* that have already been added to the document object in BIC Process Design can also be accessed via the corresponding input/output entries.

29.3.18 How can I delete an output document for a task?

When an output document has been modeled for an activity in BIC Process Design, you will find a corresponding entry in the *task form* in BIC Process Execution. To be able to upload a document, you must be responsible for the corresponding task and it must have already been started. Once a document has been successfully uploaded, you will have the option to delete the output document directly from the task form in BIC Process Execution.

If you are in a task form in BIC Process Execution and a corresponding output field for a file is configured, you can delete the previously uploaded output document using the delete icon on the right side of the field. To do so, simply click the displayed icon.

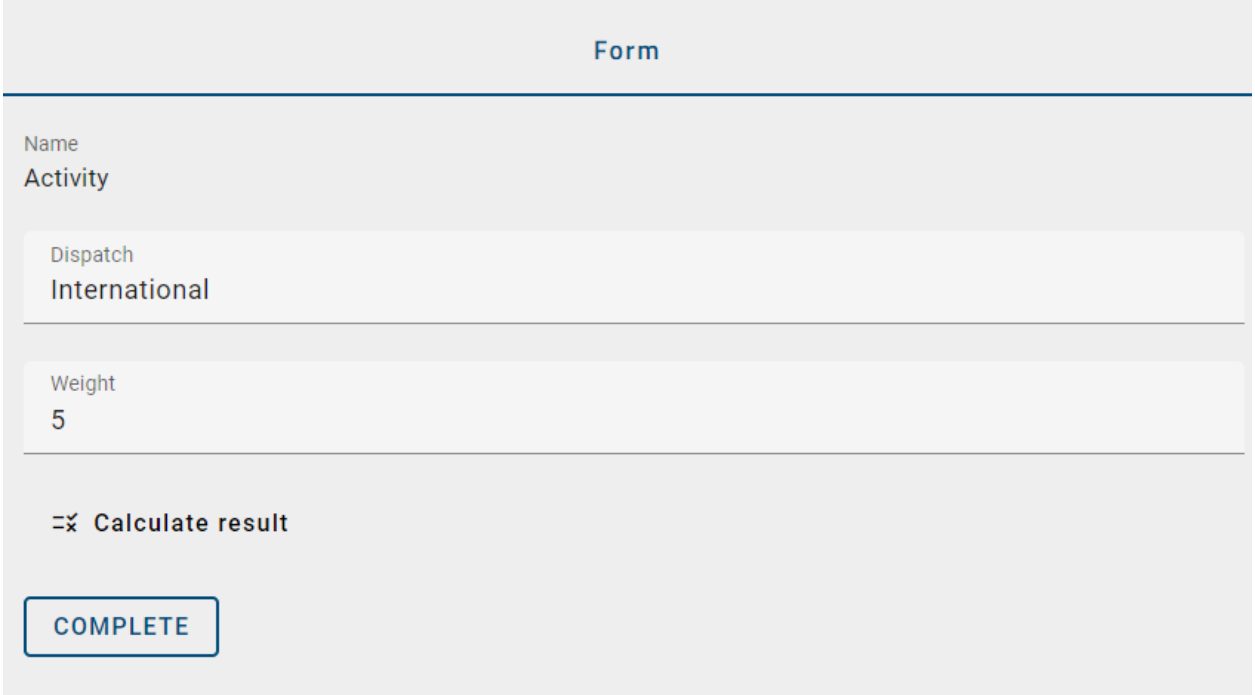


Hint: Please note that the file is removed immediately after clicking on the delete icon and no additional confirmation dialog is displayed.

29.3.19 How do I work with decision tables?

If a task in BIC Process Design is of the type *"Business Rule"*, the defined decision table will also be found in *the task form* in BIC Process Execution.

In the processes, you will see the *Input variables* in the form of input fields in the form of the corresponding task. To use the input fields within the decision table, *the task must be started*. Once you have filled in all the input fields with valid data, you can click on the Calculate result button and check the result before completing the task. If the result is "null", you will receive a message indicating that the result is empty.



For each of your input fields, there is a *process variable* that contains the value of your input. In addition to the information you can get from the table, you can use the individual data in other ways, such as *automated decisions*.

If the value of the process variable is defined before the *Business Rule* task is reached, the corresponding input field is automatically filled with the value of the process variable. For example, *REST calls* can be used to automatically provide information that is then used in a decision table. If you manually change the input fields in such a case, the corresponding value of the case's process variable is also be changed.

For *Business Rule* tasks where all input fields are automatically filled in, the output of the decision table is determined and the task is then automatically completed.

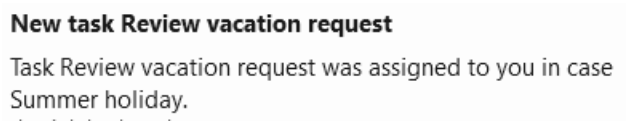
Tip: Within *the default case*, you can also make use of the decision tables without starting the corresponding tasks. This allows you to access these tables without the need for a specific case.

Note: Be aware that the output value may be different if you use the *COLLECT hit policy*. This depends on whether

the hit policy was selected with or without aggregation. In case the *COLLECT* hit policy was selected with aggregation, the output value is equal to the result out of the matching rules' output values. The result can be the greatest matching value (MAX), the minimum (MIN), the number of matching rules (COUNT), or all the matching values combined (SUM). Otherwise, the value of the *output variable* is a comma-separated string with all the results for the matching rules if the *COLLECT* hit policy was selected without aggregation.

29.3.20 How can I be notified when one of my tasks is started independently of me?

In BIC Process Execution, you have the option to be notified every time one of your tasks is started independently of you. This means that if one of your tasks is started automatically or by another user, you will receive a push notification.



When you then select this, you will be taken directly to the corresponding case and the corresponding task will be highlighted with a short visual animation. In order to use this function, you must first configure some settings on your device. Since these settings differ depending on whether you are using a mobile device or the desktop version, both types are discussed separately below.

Desktop version:

If you are using the desktop version, you will need to allow push notifications in your browser when using the BIC Process Execution Application. Depending on the browser you are using, you will find this setting in a different location in your browser. The documentation on how to find this setting is linked below for the three most common browsers.

- Google Chrome
- Mozilla Firefox
- Microsoft Edge (Privacy -> Change website permissions)

Mobile version:

If you have a mobile device and you are using the application through your device's browser, you will also need to allow notifications. Please refer to the help of your respective application/browser to find out how you can activate the notifications.

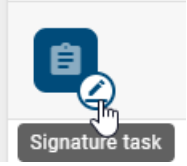
In case you have *BIC Process Execution installed* on your mobile device, you will receive notifications about your started tasks even if your application is not open. In this case, your application , may need to be authorized first to send notifications. The documentation on how to find this setting is linked below for the two most common operating systems.

- Android
- IOS

Hint: If you are using a desktop computer and the PWA has been installed, you will only receive the messages when the application is open.

29.3.21 How do I identify signature tasks in my task list?

If you check your task list and a task is configured as a signature task, you can see this directly in the task list. This is indicated by a tooltip that appears when you hover over the task icon.



29.3.22 How do I work with a signature task?

There are tasks that are marked as *signature tasks*. To successfully complete these tasks, you need to authenticate yourself. To authenticate, you will need to log in again. After a successful login, you will be redirected back to your task.

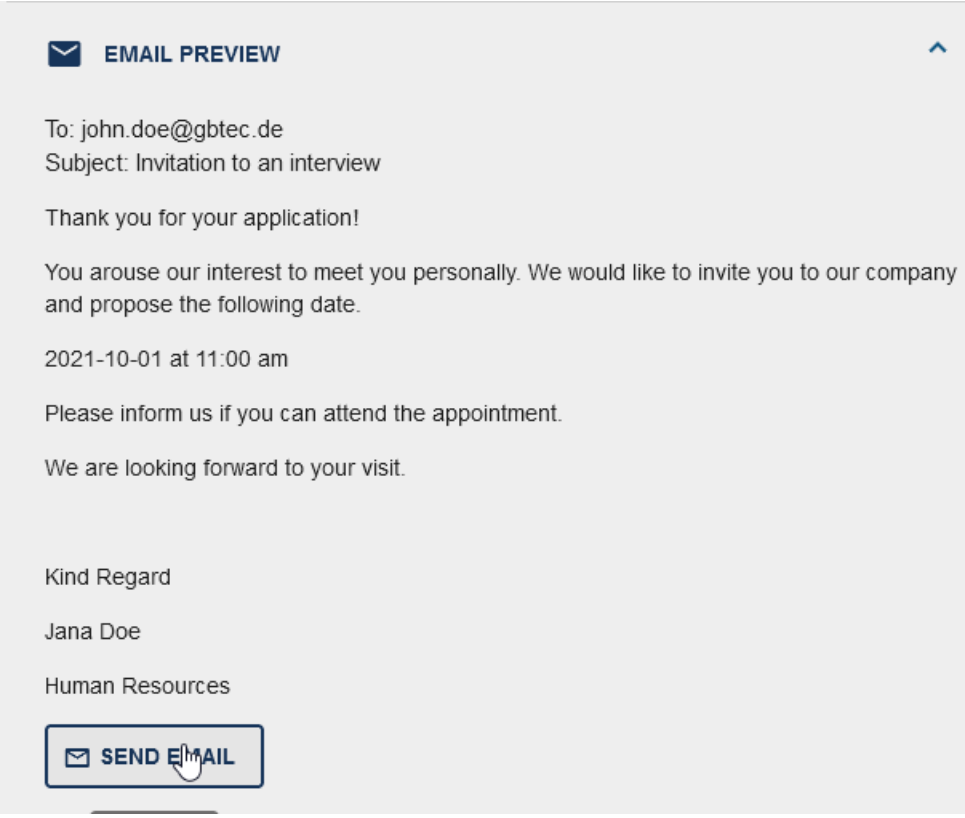
Until authentication is successful, the task cannot be marked as completed. If you are assigned to more than one signature task, you need to authenticate for each task individually.

Note: If you are working on a signature task while being in the *pop-up window*, the pop-up will automatically close after you authenticate.

29.3.23 How can I send the email of a send task?

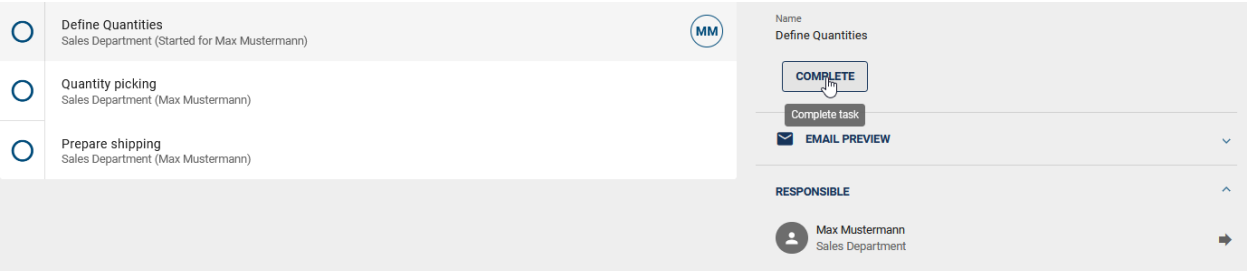
In BIC Process Design, tasks typed as *Send* can be linked to sending an email in BIC Process Execution. *This section explains how to create a template* for these tasks.

When a send task is assigned to you, navigate to the *process flow view of the case* by a click on the task. The task form for that step contains an email preview provided by template you created. If you have specified a user group as the recipient, it will be displayed as the recipient.



If process variables have been included in the template, they will be replaced with the actual values defined in the case. The form can display an *Input* section. Here you can *upload a file* that will be automatically attached to the email.

Click *Send Email* to open a new email in your email client that looks like the preview. You can edit the email (if necessary) and send it from there. You can then complete your task by clicking *Complete* in the form.



Note: If the *Send mail automatically* option is activated, the task will start automatically. The email is sent and the task is set to done. If an error occurs during automatic sending you will receive an error message in the process flow view. Here you have the option to send the email manually.

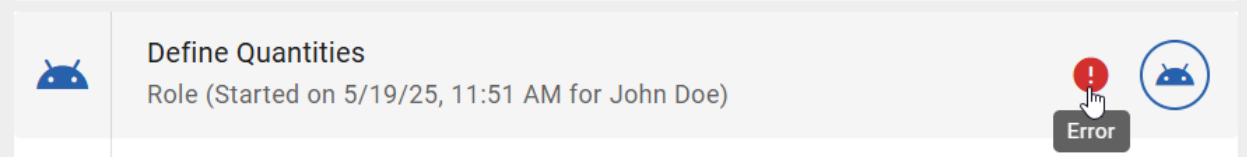
Note: If an automatic send task is defined in the development or test environment of a process, only the creator of the case receives an automatic email when it is executed. However, the configured recipients are displayed in the email preview. When the case is executed in a production environment, all configured recipients receive the automatically sent email.

Hint: If you send an email *manually* as described above, you should check the formatting in your email client. The

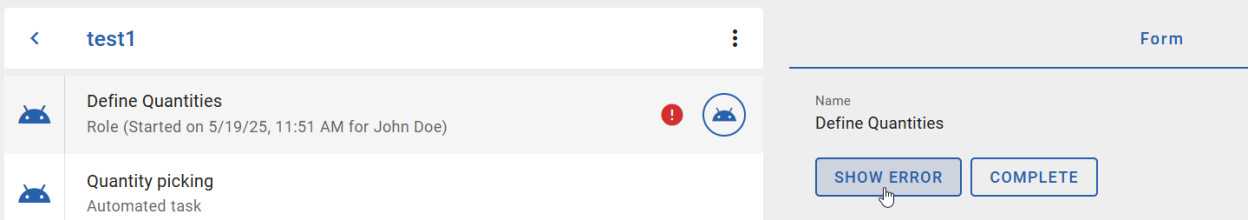
preview in BIC Process Execution will show the email formatted as defined in the editor, but some settings may be lost when it is converted to the text in your client. Indentations and tables will be lost and bulleted lists will be marked with the character "*" instead. *Automatically* sent emails do not lose their formatting. They are formatted according to the html definition in the *template editor*.

29.3.24 How can I execute a script task?

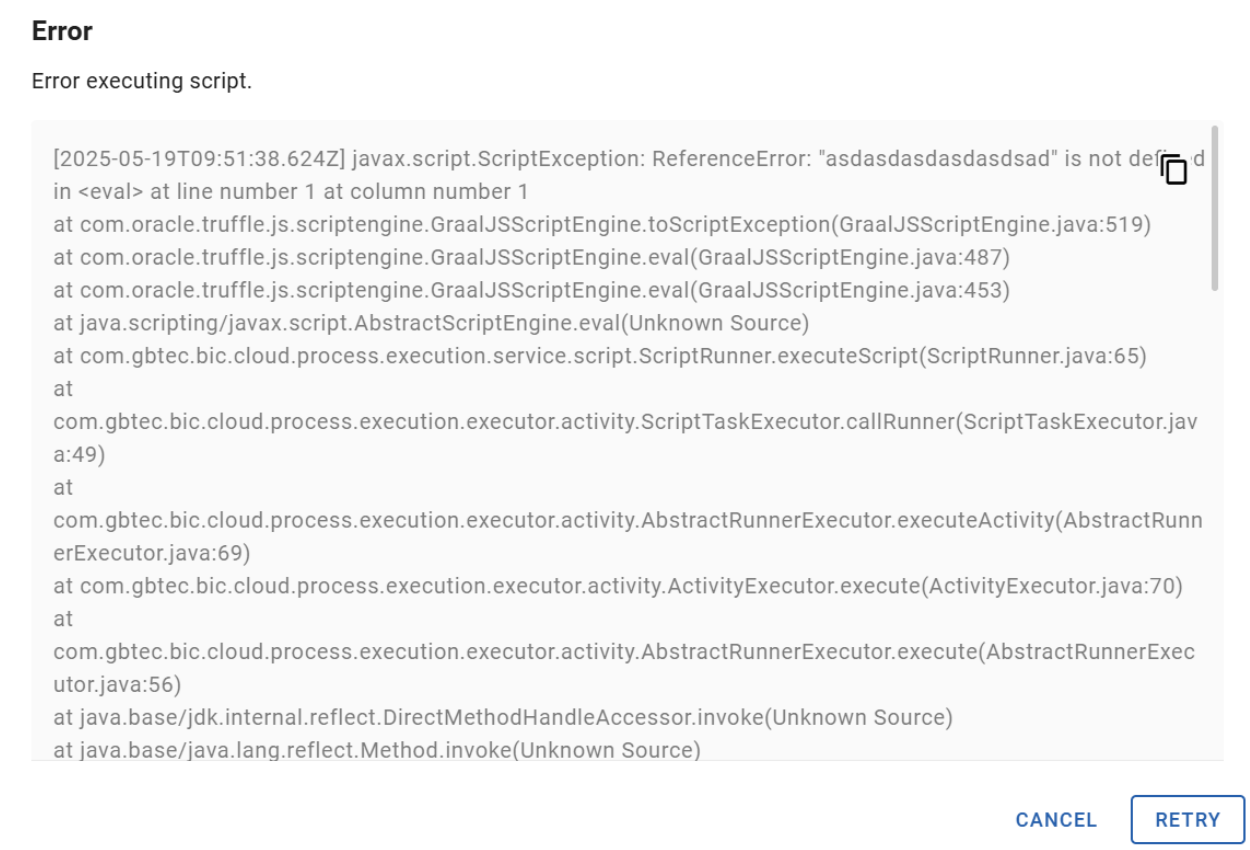
Script tasks are automated and completed by the system when the process is executed. If an error occurs during execution, the task is marked with an error. You can recognize this by a red chip containing an exclamation mark to the right of the task. In such cases, the task is assigned to the responsible role and appears in the task list of the corresponding user. If the role has not been modeled or set, the task is assigned to the case owner and appears in their task list.



In the process flow view, you can click the *Show error* button in the right sidebar after selecting the failed task to display the system's error message.

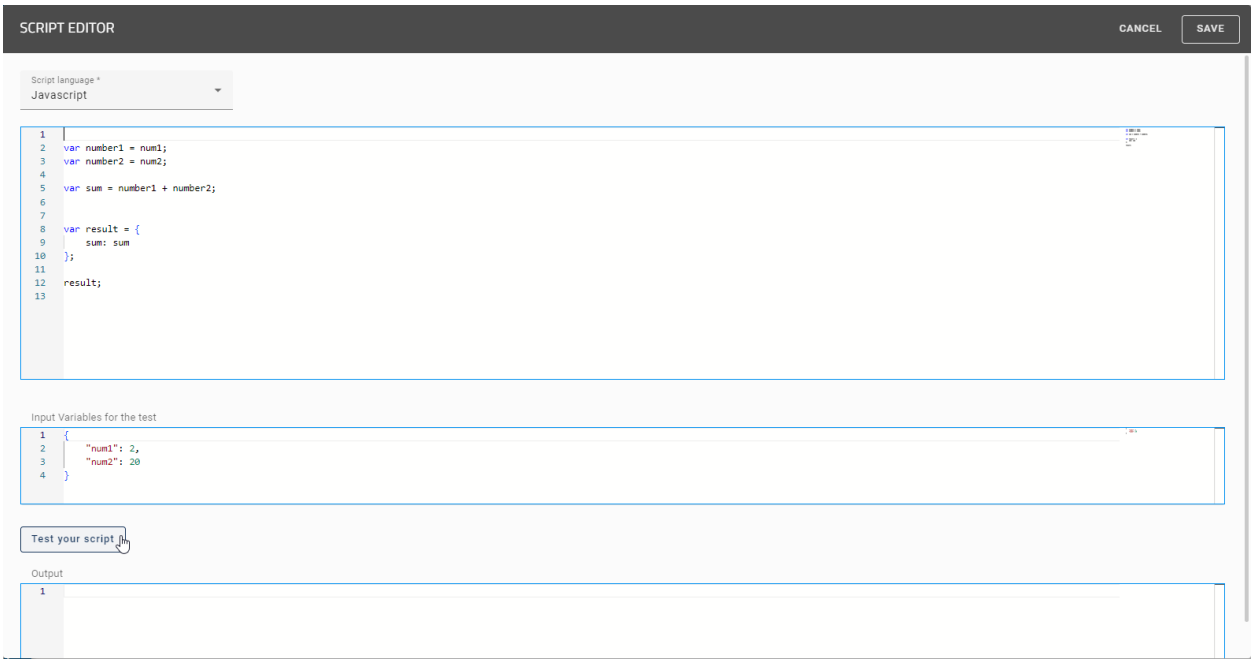


A dialog will then open displaying the system error message. Both the error and the complete execution sequence are displayed. This allows you to determine exactly where and why the error occurred. You can also copy the execution sequence to the clipboard using the button in the top right corner.



Failed script tasks can be manually restarted or completed at any time. To restart a failed script task, click the *Retry* button in the error dialog of the respective task. To close the dialog without taking any action, click the *Cancel* button.

As a *ProcessApp Creator*, you also have the option of saving the data entered in order to check the result before completing the task. To do this, click on the *Test your script* button.



If the script has been executed successfully you will receive the result as key-value pairs in JSON format.

Note: Please note that outputs larger than 64 KB will not be displayed.

Alternatively, you can manually *complete* the task by clicking the equivalent button.

Warning: Please note that automated script tasks are automatically terminated after a specified period of time to ensure the stability and performance of the system. In multi-tenant cloud environments, this time limit is **30 seconds** by default. In private cloud installations and on-premise systems, the time limit is **2 minutes**. If the permitted runtime is exceeded, the task in question is stopped immediately. In this case, an error message appears stating that the maximum runtime has been exceeded. As with other errors, the task is then assigned to the next responsible user and can be restarted by authorized users.

Note: If an automatically executed task in BIC Process Execution fails and receives the status *Error*, the assigned user is immediately notified by e-mail. The e-mail informs the user that the automatic task could not be completed successfully. If the task is assigned to a group, the first group member in the priority order receives the notification. If another execution attempt is made and the task fails again, no further e-mail is sent, instead an error notification appears at the bottom right of the screen.

29.3.25 How do I work with a call activity task?

When a call activity task is started within a case, a new case is automatically created for the called process. The responsible of the task is the owner of the case. If a group is responsible for the task, the case is owned by the case owner of the main case instead. The case is named according to the call activity plus "- *name of the main case*".

- If the call activity is *synchronous*, the main case is blocked while you are working on the called sub case. You cannot continue working on the main case until the called sub case has been successfully completed.
- If the call activity is *asynchronous*, the main case is not blocked. Therefore, you can work on both processes independently and in parallel. The call activity is immediately marked as *complete*.

The *process variables* of the main case are copied to the sub case and *can be edited* there. If the roles of the main case are present in the sub case, they are inherited from the main case. New roles are assigned to the *default user (group)* (if the attribute has been maintained) or can be *set in the details* of the sub case.

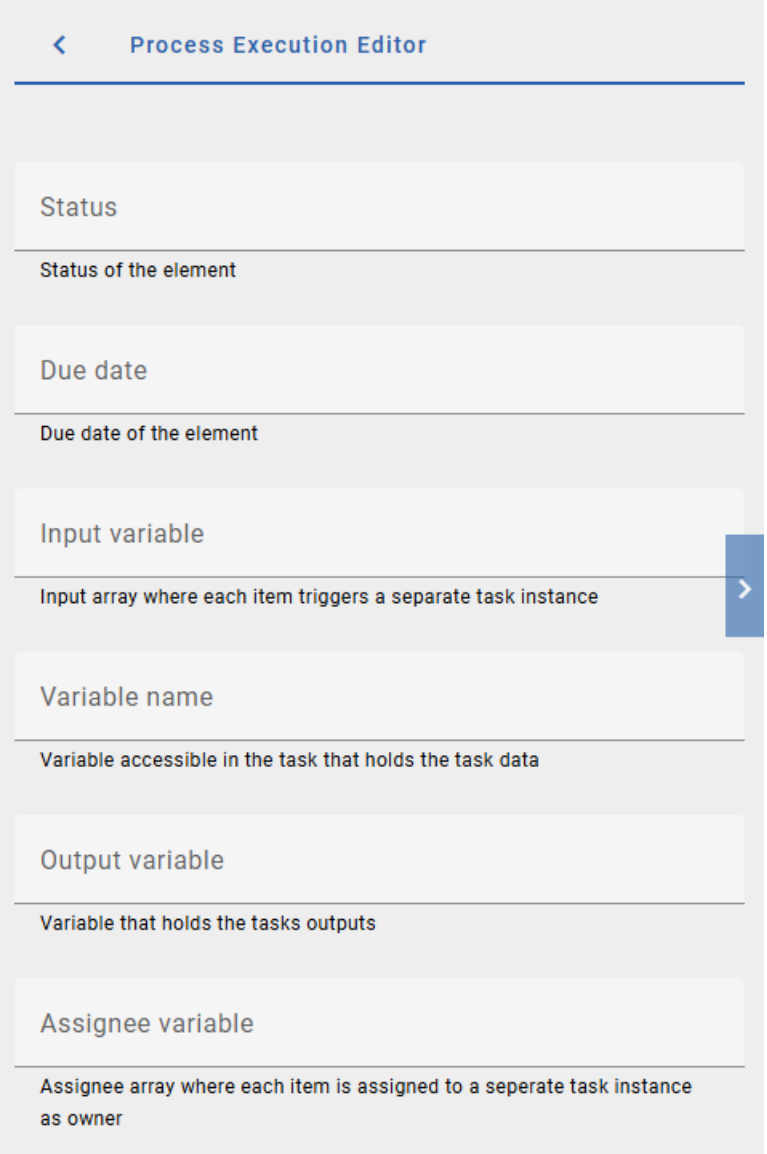
- If the call activity was *synchronous* and the sub case is completed, the process variables are handed over to the main case. If they have been changed, the process variables of the main case are updated. Variables defined exclusively in the sub case are not be copied to the main case. Moreover, the sub case is *automatically archived* after its completion.
- If the call activity was *asynchronous*, the process variables are not returned to the main case.

Note: As a ProcessApp Administrator or case owner, you can also complete the sub case manually. In this case, you will receive a warning notifying you about an ongoing call activity task.

29.3.26 How do I work with a parallel multiple instance activity?

As a *ProcessApp Creator*, you can model parallel multiple instance activities. To do this, switch to BIC Process Design, check out the diagram, and select an activity. In the *Details* panel in the right sidebar, open the *Typing* attribute group and select *Parallel* in the *Multiple instance type* field.

You can then define a process variable to be used as input. To do this, switch to the *Options* panel and click the *Process Execution Editor* option. In addition to the status and due date, you can define the input variable, output variable, variable name, and the assignee variable that contains the data for each array element of this task.



Once the multiple instance activity is reached within a case, a task is created in BIC Process Execution for each element in the input array. The data of each element is accessible under the defined variable name. Additionally, there is a smart variable (_loopCounter) that stores the index of its own task. After all tasks have been completed, the next step in the process is activated. In the event that the input array is empty or contains no elements, the multiple instance activity will be immediately completed.

Additionally, you can configure an output variable for a multiple instance activity. Once a task is completed, the output will be available as an object in the output variables. If the output variable is the same as the input variable, the input

content will be replaced by the output. If no output is defined for the task, the corresponding element in the output variables will be set to *null*.

You can also assign one or more users or user groups to a task using the assignment variable. To do this, you can provide an array to assign the tasks to the users or user groups within the array, which was previously defined in a script task and contains user groups and/or the email addresses of users. The users in the array can also include those with external email addresses, but they must be part of a user group defined in BIC.

When a task of a multiple instance activity is assigned to multiple users or user groups, the task is treated as a group task, In this case, any user or member of a user group can claim the task individually.

If the input array and the assignment array have different sizes, only one task will be created and assigned to the next available user (first staffing, then case owner, and then case creator). However, the task will be marked with an error. Additional errors may occur if the assignment variable for external tasks contains invalid email addresses or if the array is empty or *null*.

Warning: If no output variable is specified, the outputs of the tasks are not saved.

Hint: Please note that you are not allowed to use the same name for the output variable in different multiple instance activities that could be executed at the same time.

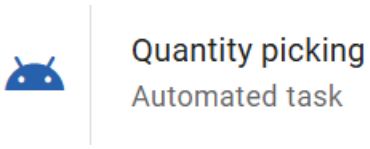
Hint: Please note that non-existent users and user groups are ignored in the assignment array. Accordingly, the next available user will be assigned (first staffing, then case owner, and then case creator).

Hint: Please note that DMN tasks are currently not supported.

29.3.27 How will my REST calls be executed?

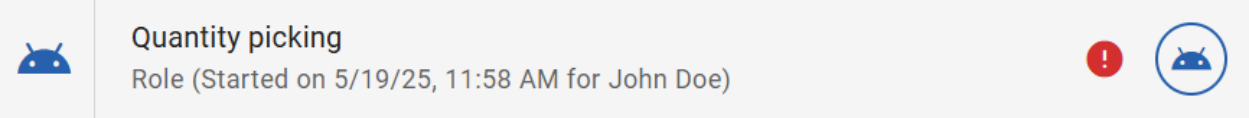
If you have defined REST calls and published the corresponding diagram in your BIC Process Design, they can be executed automatically in BIC Process Execution. This means that tasks that execute REST calls do not need to be started manually, but are started automatically as soon as the previous task is completed or if they are the first tasks in sequence.

You can identify tasks which are executed automatically by the *Automated task* label below the corresponding entry and the robot icon inside the task chip.



The REST call is will be executed once the task is started. If the status code of the REST call matches the status code defined for this task in your BIC Process Design, the task is marked as completed, analogous to *the manual execution*. The data, which is resulting from this REST call is stored in *process variables in the corresponding case*. They can then be used for further processing, for example, in *other REST calls*.

If the transmitted status code does not match the expected status code, the task is marked as incorrect. This is indicated by a red chip with an exclamation mark to the right of the entry.



You can manually restart failed executed tasks at any time. This means that you can execute your REST call at a later time. To do so, click the *Show error* button for the task in question in the process flow view in the right sidebar.

A dialog will appear showing an error message about the initial failed attempt. It displays both the error and the complete execution sequence, helping you identify exactly where and why the error occurred. You can copy the execution sequence to the clipboard using the button in the top right corner. To restart the task, click the *Retry* button in the dialog. This will trigger the REST call again.

If the automated *service task* is a task that has not been *configured*, it can also be completed manually by the responsible user (the linked role or the case owner) after the first failed attempt to execute it automatically. To do this, use the *Complete* button in the right sidebar, as usual. For more information about completing tasks manually can be found *here*.

Note: If an automatically executed task in BIC Process Execution fails and receives the status *Error*, the assigned user is immediately notified by e-mail. The e-mail informs the user that the automatic task could not be completed successfully. If the task is assigned to a group, the first group member in the priority order receives the notification. If another execution attempt is made and the task fails again, no further e-mail is sent, instead an error notification appears at the bottom right of the screen.

29.3.28 How can I automatically activate a task after receiving a message from an intermediate event in a task?

There is a possibility that the subsequent task is automatically activated when an intermediate event intercepts a message in a case. In this context, the event contains an attribute called *"correlation key"*.

If your process contains an intercepting intermediate event, and that event has an identifier reached in a case, the sequence is automatically paused at that event.

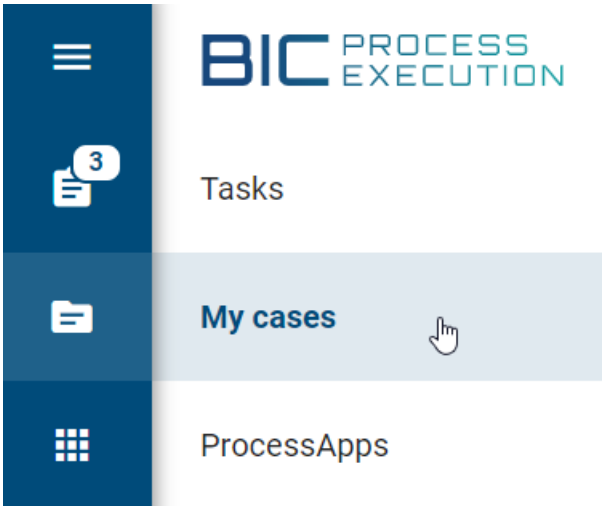
When an event that triggers a message is executed in any process, the message is received if the message event has the same identifier and the same correlation key. The entry is then marked as complete and the process flow continues.

Additionally, you can trigger a signal event by sending an *HTTP POST request* to proceed with an intermediate event. See *here* for how to configure the REST call.

29.4 Cases

29.4.1 Where do I find my cases?

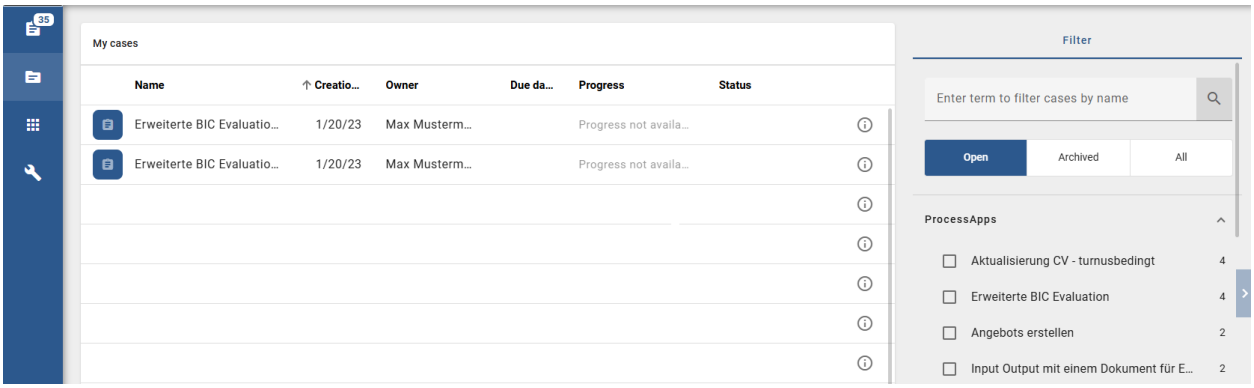
The *My cases* menu entry allows you to view all cases in which you are involved and view them collectively. This includes cases where you are *the creator*, *the owner* or *the task owner*.



In the main area, you will now see a list of your ongoing, not yet completed cases. For each case, the case name, creation and due dates, owner, case progress, and status are displayed. The list is sorted by creation date in descending order, with the oldest case shown at the top. You can change the sorting by column by clicking on a column name. The arrow indicates whether you have sorted in ascending or descending order.

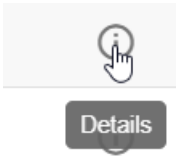
To get a better overview of the current and archived cases, you can filter by current cases (*Open*) or archived cases (*Archived*) in the right sidebar below the search bar. To display both current and archived cases in a list, you can select the *All* option.

You will also find further filter options in the right sidebar. Here, you can search for cases or filter by completion state, creator, owner, overdue state, due date, creation date, or status.



The *Progress* shows the percentage of the total progress of each case. The percentage is calculated based on the currently selected path in the case and the tasks completed in that path. The progress bar shows how many tasks have been completed, started (color gradient), and not yet started (dotted line).

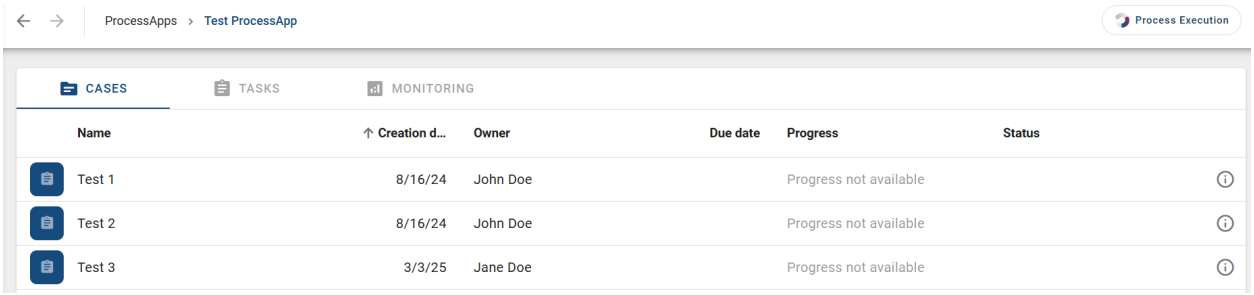
Clicking on an entry will take you directly to the process flow view of the running or archived case. Furthermore, the *Details* for each are also available. These can be accessed by clicking on the *i* to the right of the entry.



The details show the creator, the owner, the due date, the creation date and the name of the case. In the *Team* section, you can see all the roles that are involved in the process and the assigned users for this case.

29.4.2 Where do I find all cases of a process?

To find all cases for a process, go to the *ProcessApps* section, navigate to the desired process in a ProcessApp, and click on the corresponding entry. This will take you to the case list for that process.



Hint: If the *Analyst* attribute is maintained in the process, you will not be able to see all cases in the process.

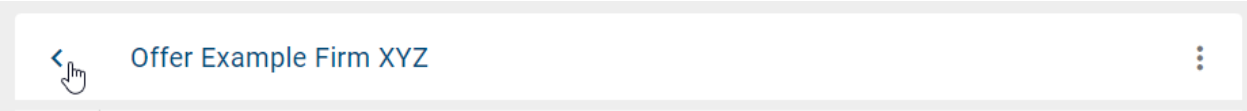
All running and archived cases in which you are involved are listed here with the corresponding *ProcessApp icons*. This means that you can see any case. if you created it, if you have the *"ProcessApp Administrator" user role*, if you are assigned to a role or task of the case, or if you are part of a user group that is assigned to a role or task. For each entry in the case list, you can see the following information:

- **Name**: Name of the case
- **Creation date**: Start date of a case

- **Owner**: User to whom the case is assigned. The owner can be changed when you are in the case details.
- **Due date**: Date by which the case should be completed
- **Progress**: The *Progress* defines the percentage of the total progress of the respective case. The percentage is calculated based on the currently selected path in the case and the tasks completed in that path. The progress bar shows how many tasks have been completed, started (colored gradient) and not yet started (dotted line).
- **Status**: Defined status for the case

The list is sorted by creation date in descending order, with the oldest case at the top.

Click on an entry in the list to open the process flow view of the case. Use the *Back* arrow to return to the list of cases.



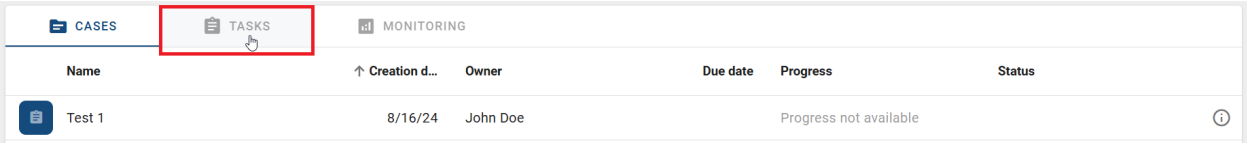
In addition, you can use the circled *i* icon to access the *details view of a case*. You can also use the *Create a new case* function to *create a new case* for this process.

Note: If there are no cases for a process, you will navigate to an empty list.

29.4.3 How do I switch from the case list to the corresponding task list?

As an *ProcessApp Administrator* and *ProcessApp Analyst*, you can switch between the case list and the task list using the tabs. To do this, click on the *Tasks* tab, which is located next to the *Cases* tab.

The *Tasks* tab appears in the ProcessApp when a case list is selected. This tab is only displayed when you select a case list from a ProcessApp in the *ProcessApps* menu entry, when you click on a *ProcessApp icon* in *My cases*/ *Tasks*, or when you open the process flow view of a case and then navigate to the corresponding case list of the ProcessApp using the back arrow. How to work with tasks, see *this chapter*.



Hint: As a *ProcessApp Analyst*, you can only see this tab if you are entered in the corresponding process in the *Automation* attribute group in the *Analyst* attribute.

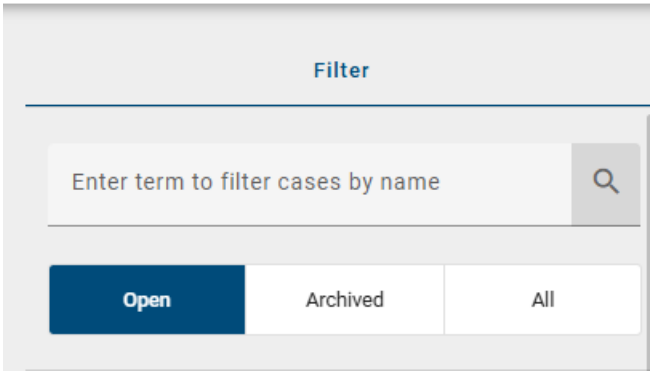
Within the *Tasks* tab, you will find the *Filter* panel in the right side, which is different from the usual filters in cases and tasks. Only the *Assignee* and *Due Date* filters are available here, and the filtering is limited to the tasks of the current case.

29.4.4 How can I filter and sort the case list?

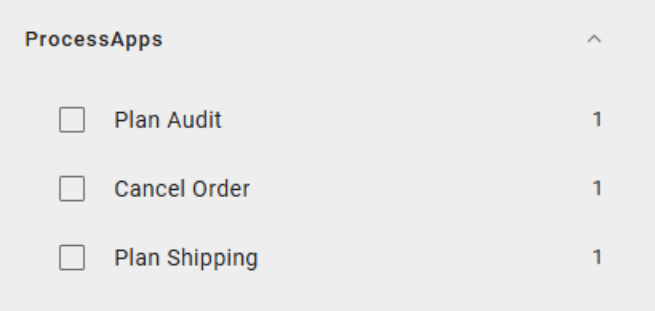
Filter and Search:

On the right side of the case list, you will see the *Filter* panel where you can search and filter for specific cases. You can do this in your own case list as well as in the case list of a process.

To get a better overview of the current and archived cases, you can filter by current cases (*Open*) or archived cases (*Archived*) in the right sidebar below the search bar. To display both current and archived cases in a list, you can select the *All* option.

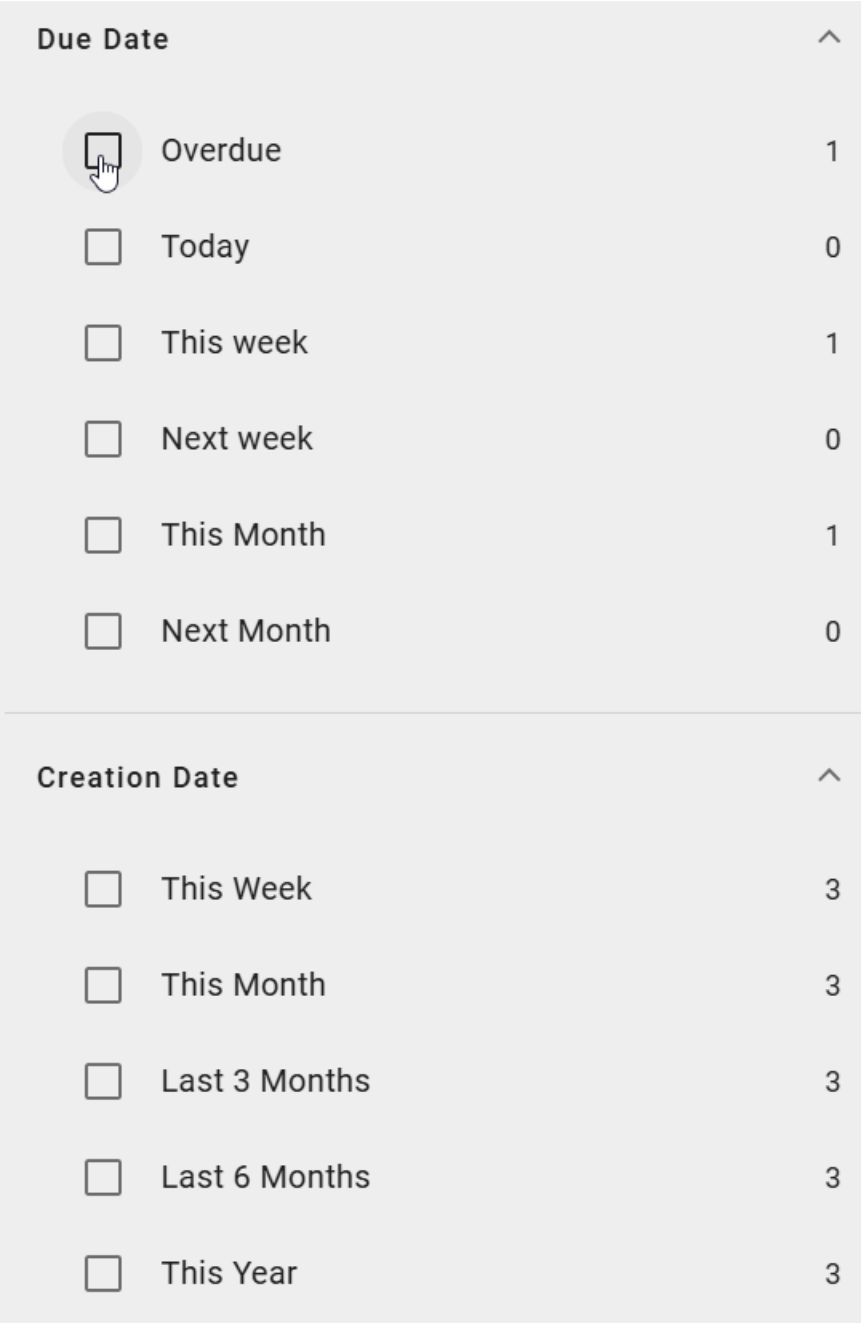


You can filter your case list by ProcessApps. To do so, select the *ProcessApps* filter in the right sidebar. All ProcessApps with current or archived cases will be displayed. Once you select a ProcessApp, only its corresponding cases are displayed in the list.



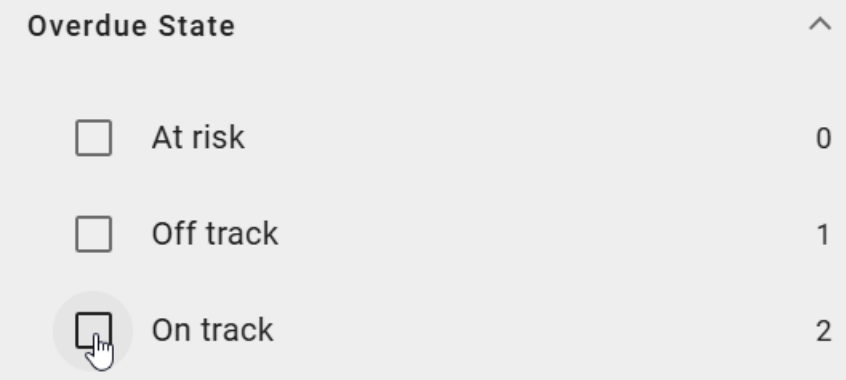
You can filter case list entries by specific case creators and case owners. To do this, select the *Creator* and/or *Owner* filter facet and choose the relevant user whose cases you want to view. The case list will update automatically.

In addition, you can filter the entries by the due date and creation date of the case. When you select the *Due Date* and/or *Creation Date* facet on the right, you will see the different date range options. Once you select a predefined date range, your case list will automatically update. You will see only those cases that are due or created within the selected date range. You also have the option of filtering *archived cases* and *Process Apps* by end date, among other things. The end date corresponds to the date used in the *monitoring view* in the *Closed cases by status* tile.

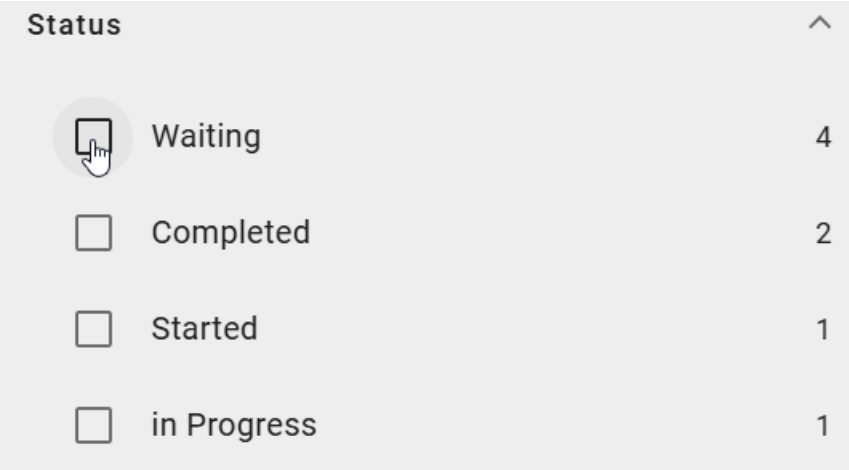


For a better overview of the overdue state of cases, you can use the *Overdue State* facet to filter by the *At risk*, *Off track*, and *On track* statuses, helping to minimize the risk of delays.

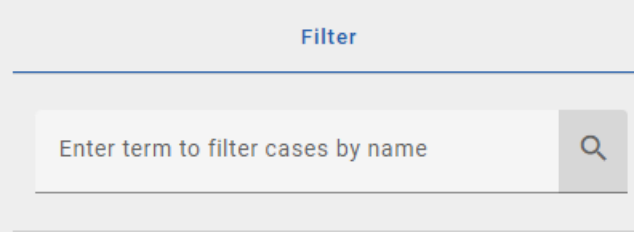
- **At risk**: Open cases that have at least one overdue active task and aren't already off track.
- **Off track**: Open cases that are already overdue.
- **On track**: Open cases that are not overdue and have no overdue active task.



The *Status* filter facet is also available. Here you can filter according to the defined status values of a case. If no status values have been defined, you will see the entry *(Blanks)* in the filter facet.



In the *Filter* panel in the right sidebar, you can also enter a search term in the input field to search for specific cases.

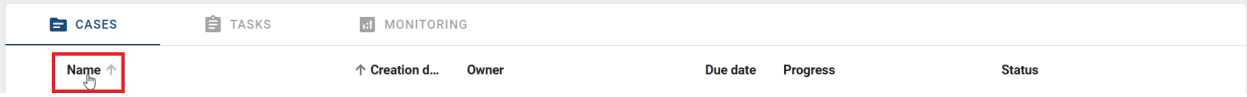


When you search for a case name, the case list will be updated and you will see all the results of this search. In the case list of all cases of a process, you can search for variables of type String/Text in addition to the case name in order to display the corresponding cases. If there are no search results, you will see a corresponding message in the case list. You also have the option to use both "a *AND* b" and "a *OR* b" to display all results that contain either "a" *and/or* "b".

Note: If you have applied a filter, the search will include the search term and any selected filter options. If you reset the search, you will get results that match the previously selected filter options.

Sort:

When you view the case list of a process or your own cases in *My cases*, whether you have applied a filter or not, you have the option to sort the cases by a specific column. The list can be sorted by *Name*, *Creation date*, *Owner*, *Due date*, *Progress* or *Status*. To do this, click on the column header.



If no sorting was applied before, the cases are sorted in ascending order based on the selected column. At the same time, you will be scrolled to the top of the case list.

If you have already sorted by a column and the cases are displayed in ascending order, you can change the sorting direction by clicking on the same column heading again. This will reverse the sorting and take you back to the top of the case list.

Hint: Please note that when entering the case list, cases are sorted by default according to their creation date in ascending order. This serves as the starting point if no specific column sorting has been selected.

Note: Sorting is done for one column at a time.

29.4.5 How is the case process flow view organized?

The process flow view of a case is the same as that of the *default case*. Unlike the default case, you can use the process flow view of one of your cases to design its specific sequence. Therefore, this is the central view, for example, when you want to edit tasks, change decisions, or see the current status of the case.

To access the process flow view of a case, simply select the entry of the desired case in *the case list of the corresponding process*. If you are the case owner, you will also find the case in your *personal case list*.

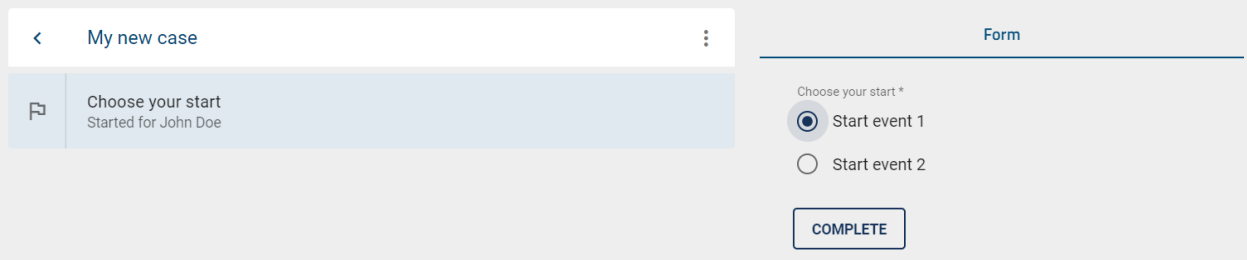
Once you have selected the case, the process flow view of this case will appear in the main area of the application. Similar to the default case, the process flow view here consists of tasks, decisions, and the start and end events. If multiple end events have been modeled, they will all be visible in the process flow view. The process flow view of a running case shows the completed and next up process steps (tasks of the active segment). In addition, there may be more steps coming up and the end event may not be visible yet.

Depending on the *fully completed cases* of the active process, a forecast is generated for subsequent runs. The forecast is based on the sequence of archived cases. The most frequently completed task among all possible subsequent tasks is identified, and the process flow of the active process is completed accordingly. If a different path is taken in the process that has not been taken by any other completed case of the same process version, or if the process is run for the first time, no forecast can be made. Additionally, forecasts are not applicable across different process versions.

Note: Please note that an updated ProcessApp can calculate forecasts using the process sequences from previous versions only if the updates do not alter the execution sequence or the basic structure of the ProcessApp. Changes can be categorized as non-structural or structural. Non-structural changes, such as renaming diagrams or activities, updating IDs and forms, or rearranging elements in the diagram, do not affect the execution sequence, allowing the history of completed instances to still be used for forecasts. Structural changes, such as adding or removing segments or nodes, alter the process sequence, making it impossible to use the existing execution history for forecasts in the updated version.

When you select one of the elements, the right sidebar gives you more information about the element and allows you to edit or change it. This sidebar is called the *task form*. In the mobile view, these options will appear as soon as you select one of these elements.

The case owner can select a desired start if there are multiple start events in the corresponding process modeling. The selection can be made from a single choice field in the form of the start event in BIC Process Execution. If you are the case owner, select the desired start and confirm by clicking the *Complete* button.



The path of a case can be changed by decisions (so-called *gateways*). The gateways *Inclusive Or*, *Exclusive Or* and *Parallel* are taken from the process modeling in BIC Process Design and displayed as entries in the process flow view. You can recognize these entries by the diamond-shaped symbol with an arrow in the middle. In this way, the gateways divide the process flow view into segments containing the decisions and resulting tasks. This means that you can always see where in the process flow view a decision needs to be made.

Note: Gateways of the *Parallel* type can only be recognized by the segmentation in the process flow view, as no decision can be made there.

Ideally, decisions can be made *automatically* at inclusive or exclusive gateways base on predefined expressions that determine the outcome. If the modeling does not support automated decisions, they have to be made manually. In this case, the case owner receives a decision task once the previous task is completed. His decision will determine the case's path after the gateway.

BIC Process Execution allows multiple users to work on the same process flow at the same time. To ensure this parallel work, your case is automatically updated when a task is changed by another user (e.g. *completed* or *delegated*). This allows you to keep track of the current status. If the *case is archived* while you are viewing it, the application will show you the corresponding case in the archive.

Tip: We recommend to *automate decisions using expressions*. You may use process variables which are set (for example) in a *user task*. In the end, this configuration prevents manual decisions from being overlooked and further automates your process flow.

Depending on the decision is made at the gateways, the path of the process flow changes and can therefore lead to different results. The changed path is automatically displayed. If the path calculation is not resolved immediately, a load indicator is displayed in the gateway step.

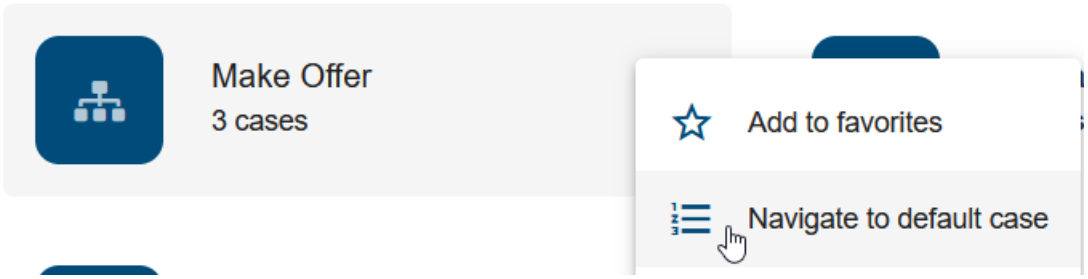
Note: When a *throwing event* occurs, a message is sent with the associated event ID. At the same time, the event with the corresponding identifier is thrown and the step is marked as completed.

Note: Once a task positioned after a decision in the process flow has been started, the decision can no longer be changed.

29.4.6 How is the default case structured?

The default case displays the default process flow, which is the basis for *every case that is created for the respective process*.

To display a default case, first navigate to the *ProcessApps*. Open the menu of the desired ProcessApp and select the option *Navigate to default case*.



This view shows you the process flow from the first task of your process to its end event. Here you can navigate through the process, for example, by making decisions and being shown the corresponding tasks of the process. The chronological sequence of the process flow is displayed from the top to the bottom.

Each process flow consists of tasks, gateways, and the start and end events. You can distinguish between these elements by the chip icon on the left side of each entry. End events are represented by a chip with a flag icon in it. Gateways are represented by a diamond-shaped icon with an arrow in the middle. Tasks, on the other hand, are represented by a number that indicates when a task has to be done in the process.

By selecting individual entries, the right sidebar provides additional information and options for each element. For example, you can display the form of a task to see which role is responsible for that task. Gateways and decisions can also be adapted to show alternative paths of the process.

Since this is the default view, which is not based on a running case, no tasks are assigned to users here, nor can you start or complete tasks here. To do this, you must first *create a case* for the process.

29.4.7 How can I create a new case for a process?

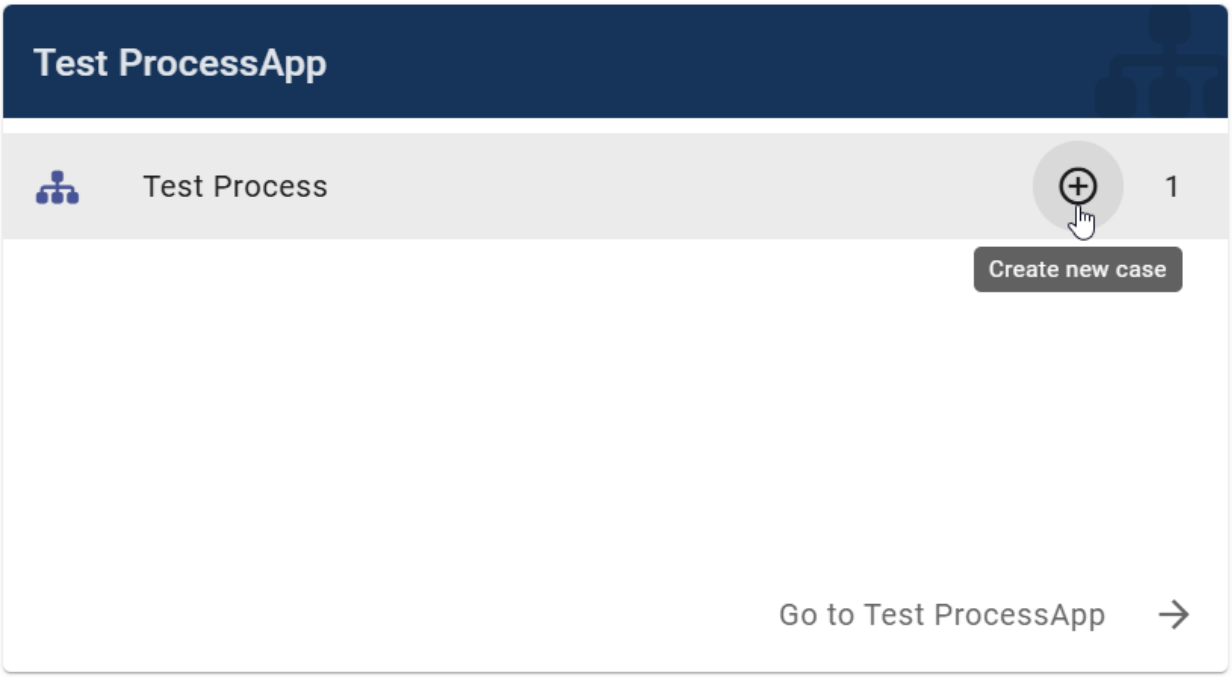
Cases represent the concrete, executable form of your processes. In BIC Process Execution and BIC Process Design, you initiate the case creation in different places.

In the public workspace and preview, the ability to initiate a new case is restricted to users with the *ProcessApp Creator* user role. In the published version, however, this option is available only to users with the *ProcessApp User* user role.

Create case from a ProcessApp:

To start a new case directly from a ProcessApp, navigate to the *ProcessApps* area in the left menu bar and locate the desired ProcessApp (potentially within a collection). Click on the three dots next to the ProcessApp to *open its menu* and select *Create a new case*.

Alternatively, you can find the *Create new case* option next to a process within a ProcessApp.

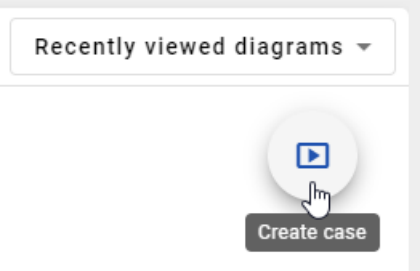


Create case from case list:

The case creation process can be initiated by using the *Create a new case* option. You can find this function within the *case list of a process*.

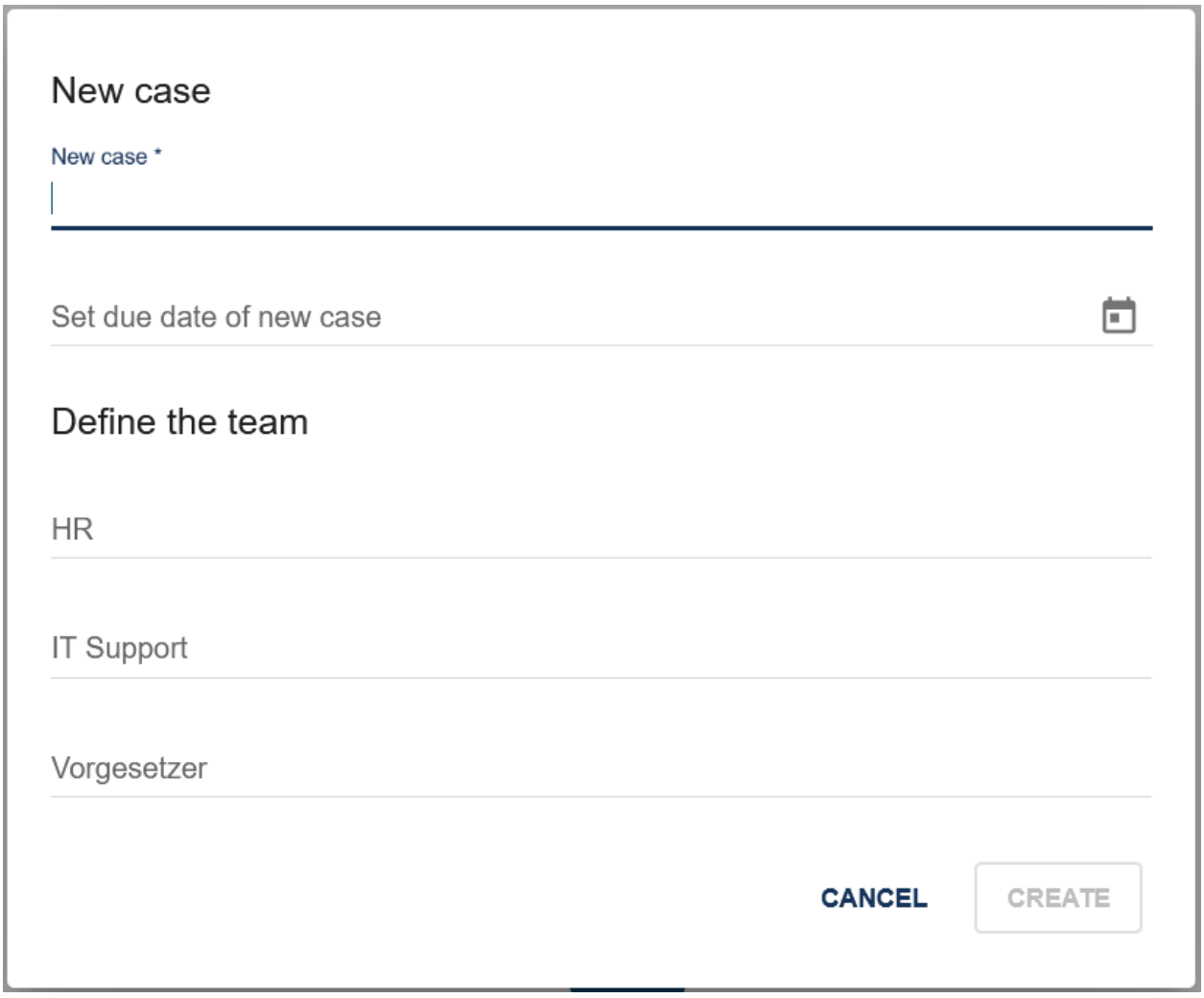
Create case in BIC Process Design:

The process of creating a new case can be initiated while viewing the corresponding diagram in BIC Process Design. The *Create case* button is located in the upper right corner of the diagram view but is only visible to users with the necessary permissions to create a case for that process.

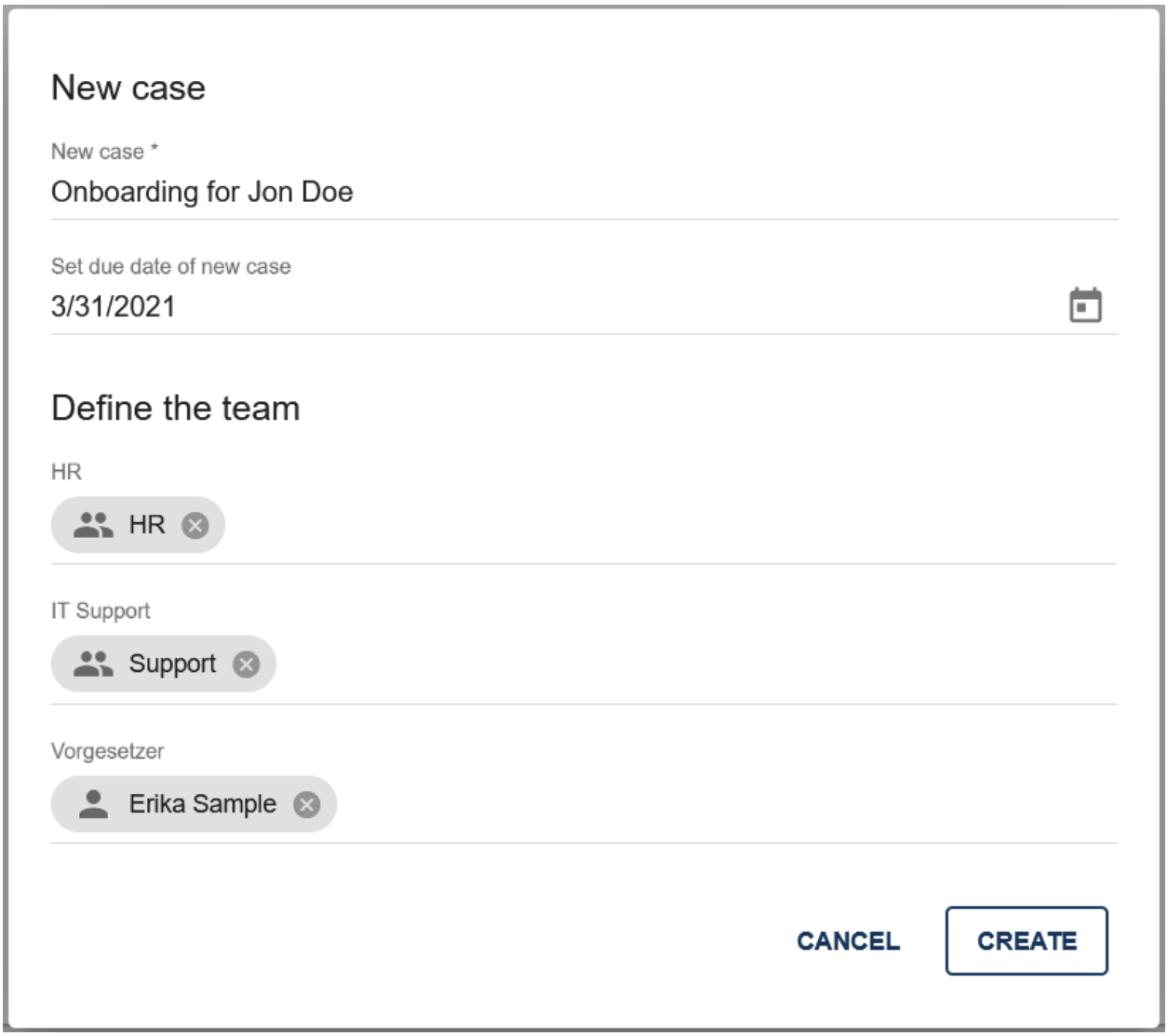


Hint: Diagrams with a *start timer event* cannot be started manually in the publication. If multiple start events are modeled and at least one start event does not have a configured time, the case for that start event can be started manually.

Once you have started the creation process in one of the ways described above, a dialog will appear asking you to assign a name to your new case by default. In the second field you can set a *due date* for this case. Furthermore, you can select representatives from your users for each role that occurs in the process. This user will then appear as responsible person for each task assigned to the corresponding role. Entire user groups can also be set as responsible persons. In such a case, all users of this user group will bd able to see the tasks of the role assigned to them in their *personal task list*.



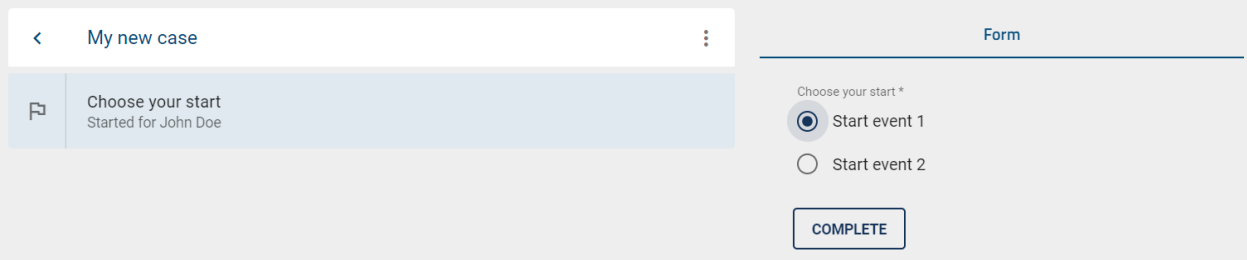
Users and user groups can be set as a *default person in charge* within BIC Process Design. They are automatically set, when a new case of the corresponding process is created. If no user is assigned to a role, the case owner is automatically responsible for the tasks of this role once they are started. You as the case owner are not assigned to the role itself, but any *started* task of the role will be delegated to you.



If a *custom start form* has been defined for a case with a start event, the custom start form will be displayed as a user task instead of the default form when creating a new case. After completing the start form and creating the case, a notification will appear in the bottom right corner of the screen with a link to the corresponding case. If you cancel the creation of a new case while using a start form, you will be redirected to the case list of the associated ProcessApp.

If you confirm the entry by clicking *Create*, a new task is created and the dialog closes. Then, a pop-up window opens automatically with the first user task, provided it is assigned to you. If the task is not assigned to a user, or if no task is available after starting the process, a message with a link to the process flow view will appear at the bottom right of the screen.

If you are in the process flow view of the case and the process has only one possible starting point, the first task will start automatically. If there are multiple starting points, you (as the case owner) must select one in the form of the start event and confirm your selection by clicking the *Complete* button. The first task following the selected starting point will then be started automatically.



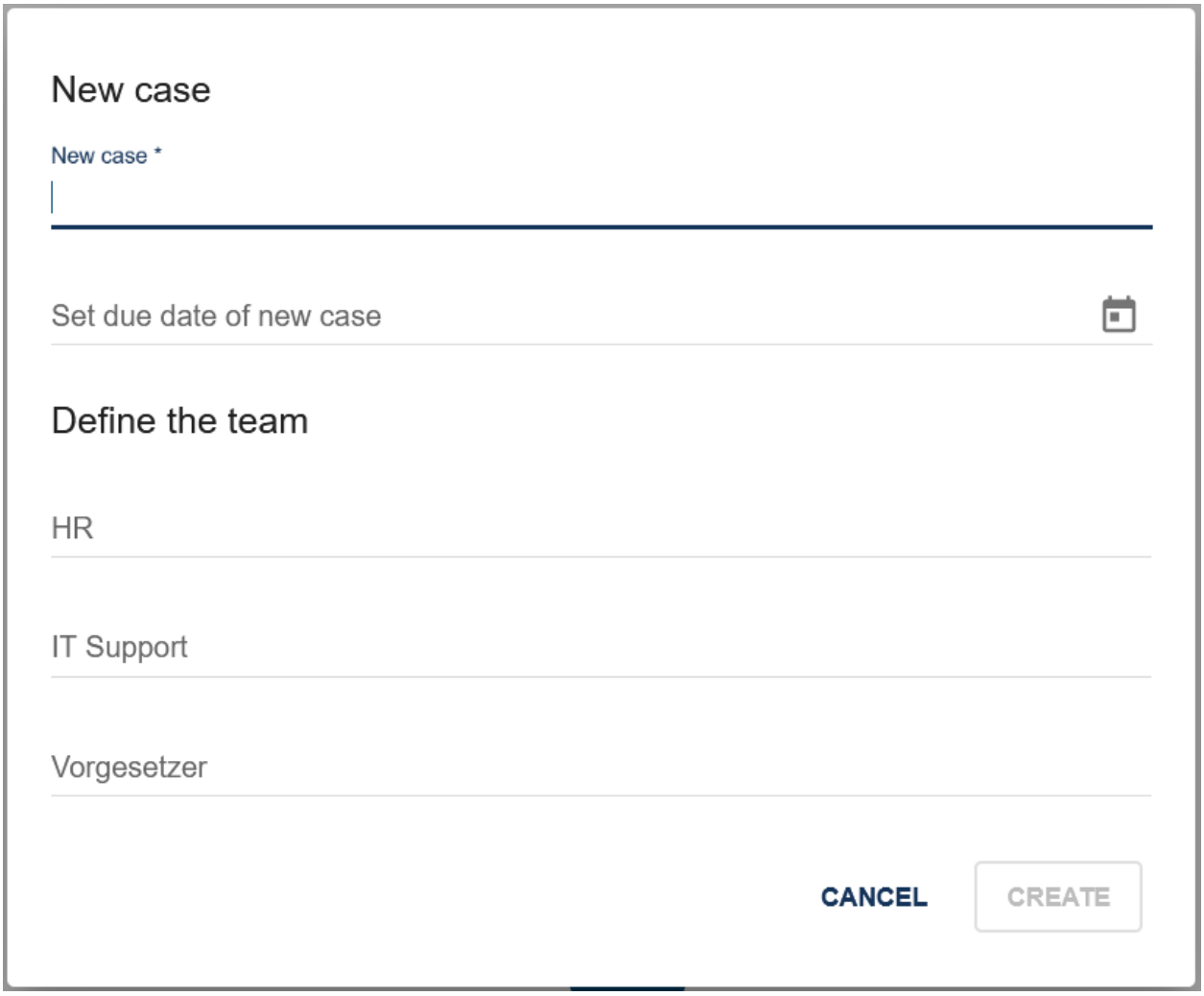
Hint: If the *Hide Start Form* option was selected during *modeling*, no dialog is displayed. Instead, you are redirected directly to the process flow view of the case. The name of the case is named after the process name and the timestamp.

Note: If the corresponding diagram has been depublished within BIC Process Design, you will see a corresponding message when you tap or hover over the *plus* icon. In this case, you can still edit and complete all existing cases, but you cannot create new cases. If the *plus* icon is not visible, a *case creation restriction* has been set.

Tip: In case you want to create cases from other applications, you can either use *run links* or *the BIC Process Execution REST API*.

29.4.8 How can I create a case with a run link from outside the application?

BIC Process Execution provides the opportunity to start the case creation from outside the application. The run link corresponding to your process navigates to the dialog of the case creation. If you use a run link when you are not logged in to BIC Process Execution, you will be asked to enter your login data. You will then be navigated to the case creation dialog.



You can simply copy the link of your process from the address bar of your browser when you open all *cases of the process*. Note that this is possible even if there are no existing cases yet.

```
https://XXX/process-execution/app/processes/YOUR-PROCESS-ID/instances
```

In order to generate the run link for the case creation of your process, simply add "/run" after the process ID. You can use this link to navigate directly to the window for case creation.

```
https://XXX/process-execution/app/processes/YOUR-PROCESS-ID/run
```

Furthermore, you can create a case directly by adding the case name to the link with `?name=NAME-OF-CASE`:

```
https://XXX/process-execution/app/processes/YOUR-PROCESS-ID/run?
name=NAME-OF-CASE
```

When you use this link, the process flow view of the new case *NAME-OF-CASE* is displayed directly and you do not have to confirm the dialog.

In addition, you can set process variables by adding `&caseVariable=VALUE` to the link, where *caseVariable* is the name of a process variable and *VALUE* is a valid input for this variable. It is possible to specify any number of process variables for your case:

```
https://XXX/process-execution/app/processes/YOUR-PROCESS-ID/run?
name=NAME-OF-CASE&caseVariable1=VALUE1&caseVariable2=VALUE2
```

Subsequently, you can *add the team members* in the *details*.

Tip: The links mentioned above are executed through the frontend. Alternatively, you can create a case directly through the backend. To do so use the following format: `https://XXX/process-execution/api/run/processes/YOUR-PROCESS-ID/instances?name=NAME-OF-CASE`. Please be aware that this kind of run link can only be used by external applications that also include an authentication header.

Hint: Please note that you must be in the *Public Workspace* or *Preview* in order to create a case with a run link from outside the application. This option is only available to users with the *ProcessApp Creator* role. In *Publication*, however, this function is only available to users with the *ProcessApp User* role.

29.4.9 How can I create a new case using the REST API?

The BIC Process Execution REST API allows you to create new cases from external applications. To use this function, you will need the REST endpoint of the desired process for which you want to create a new case and a *valid API key* which you pass along in the *Request Header*.

You can use the following link to the Swagger UI to view the available public endpoints and create a new case. At the top right of the screen, under *Select a definition*, select **BIC Process Execution API**. In the list that appears then, you will find the *Create instance* endpoint, where you can edit the variables and create a new case.

Tip: Files can be supplied directly when creating a new case, without having to create an additional form. These files can then be referenced as usual throughout the rest of the process.

Tip: If the link to the Swagger UI **does not** work, please enter the following URL manually: `https://{{host}}/public/webjars/swagger-ui/index.html`, where `{{host}}` represents your host.

Hint: The old `{{host}}/process-execution/external/tenants/{{tenantId}}/stages/{{stageId}}/processes/{{processAppId}}/instances?apiKey={{apiKey}}` REST endpoint is currently still available. However, please use the *new endpoint* in the future.

Hint: If you have previously worked with the old REST endpoint and are now working with the Swagger UI, you will need to generate a **new** API key. Please note that the new API key will need to be adjusted accordingly in the REST call.

Hint: Please be aware that the ProcessApp ID depends on your stage. Make sure that you use the ProcessApp ID of the stage you want to address.

Note: Cases generated using the REST API do not have a unique owner. The owner of these cases is set with the value *REST API*.

29.4.10 How can I create a new process using the public endpoints?

If you want to use the new endpoints (URL), you need a **new API key (public API key)**. This key is **not** created in *Administration*, but **exclusively** in client management. Please contact your responsible contact person, who will create the new API key for you. Once a new API key has been generated in client management, the authentication and functionality of the existing endpoints remain unchanged. This means that the old endpoint originally created in BIC Process Execution will continue to work with the old key. At the same time, the new endpoint generated in client management is working and used with the new key.

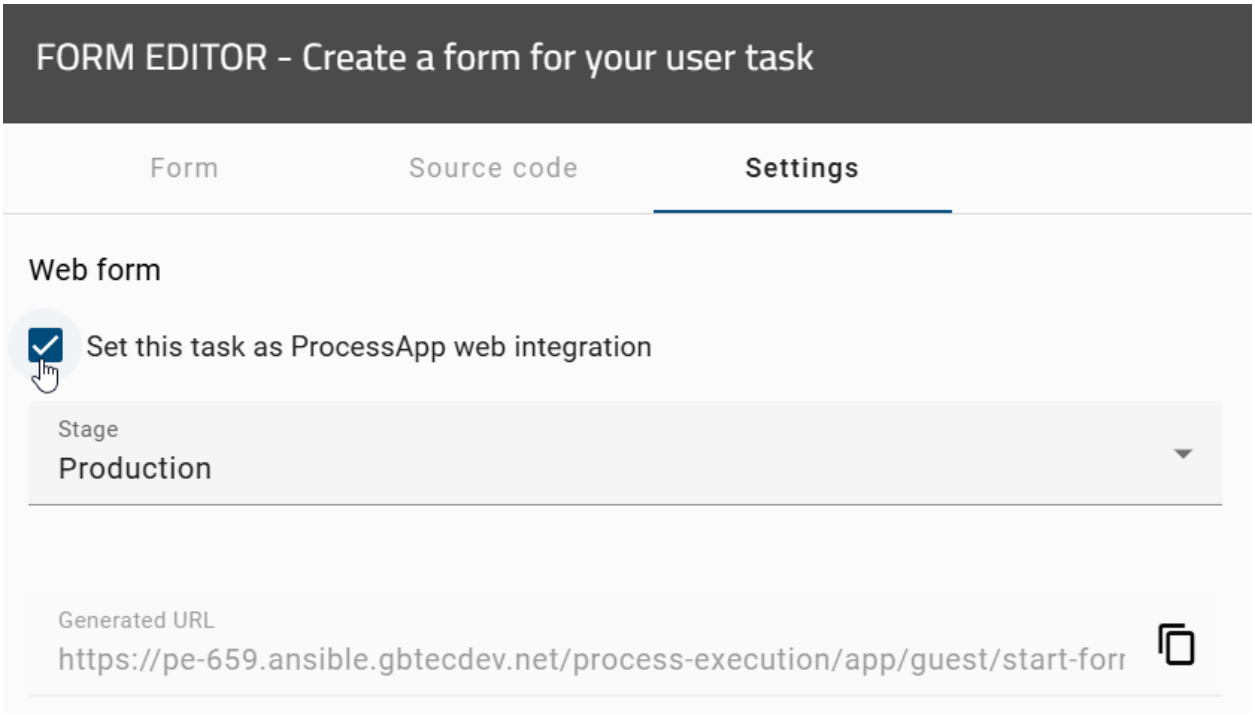
If you want to convert your integrations step by step, you can replace each old endpoint with a new endpoint one after the other, simply replacing the old API key with the newly created key. This allows you to perform the migration flexibly and sequentially for all your systems, while the remaining old endpoints continue to run with the old key for the time being. Once all endpoints have been completely converted, you can delete the old API key in BIC Process Execution. To remove the *old key*, navigate to the *Administration* menu item in the menu bar. Once created, the new API key remains visible and manageable in the *Administration* area.

29.4.11 How can I create a case from a start form as an external user?

As an external user, you can create a case using a form that is either embedded in a website or available as a separate URL. In this case, you do not need to be logged in to BIC Process Execution to start the case.

To do this, open BIC Process Design and check out a diagram. Then, select the start event and set its event type to *Message* in the *Details* panel in the right sidebar. Finally, open the form editor by either right-clicking on the start event or selecting the Process Execution Editor option from the *Options* panel in the right sidebar.

In the form editor, you can customize the properties of the *form fields* and define relevant process information. In the top sidebar, you will find the *Settings* tab. Here, you can configure the start form as a web form. When you enable this option, a URL will be generated that you can copy and send to external users. Additionally, you can specify which environment (**Studio** - public workspace / **Test** - preview / **Production** - publication) should be included.



To save your settings, click the *Save* button. Alternatively, you can exit without saving by clicking *Cancel*.

Once the start form is saved, external users can fill it out without needing to log in to BIC Process Execution. They only require access to the generated web form URL, which can be embedded in a website or used as a separate URL.

After completing the form, external users can click *Complete* and confirm their input.

Hint: Please note the following limitations for web forms regarding certain form fields:

- The *File* form field is not displayed in **repetitive sections**. Therefore, external users cannot upload files.
- The form field *Users/user groups* is not supported in start forms for external users and is therefore not functional.

Hint: The title and description of the start event will not be displayed in the web form.

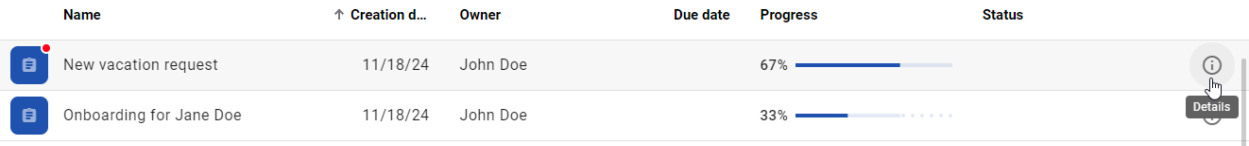
Note: Please note that the date picker icon will not appear if you add another section to the web form that contains a repetitive section with a date picker.

Tip: If your process includes multiple start events and one of them is configured as a web form, you must first choose which start event to start. Therefore, we recommend modeling only **one** start event when configuring a web form.

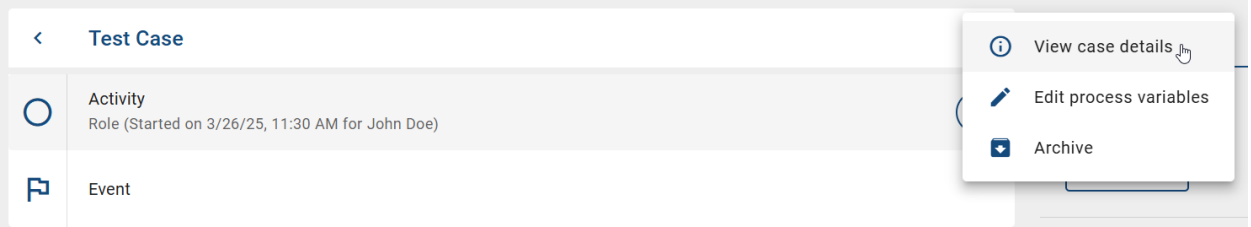
29.4.12 How do I access the case details view?

The case details view allows you to view detailed information about a specific case. There are two ways to access the detailed view of a case. The first way is through the case list. To do this, first navigate to *the case list of the corresponding process*.

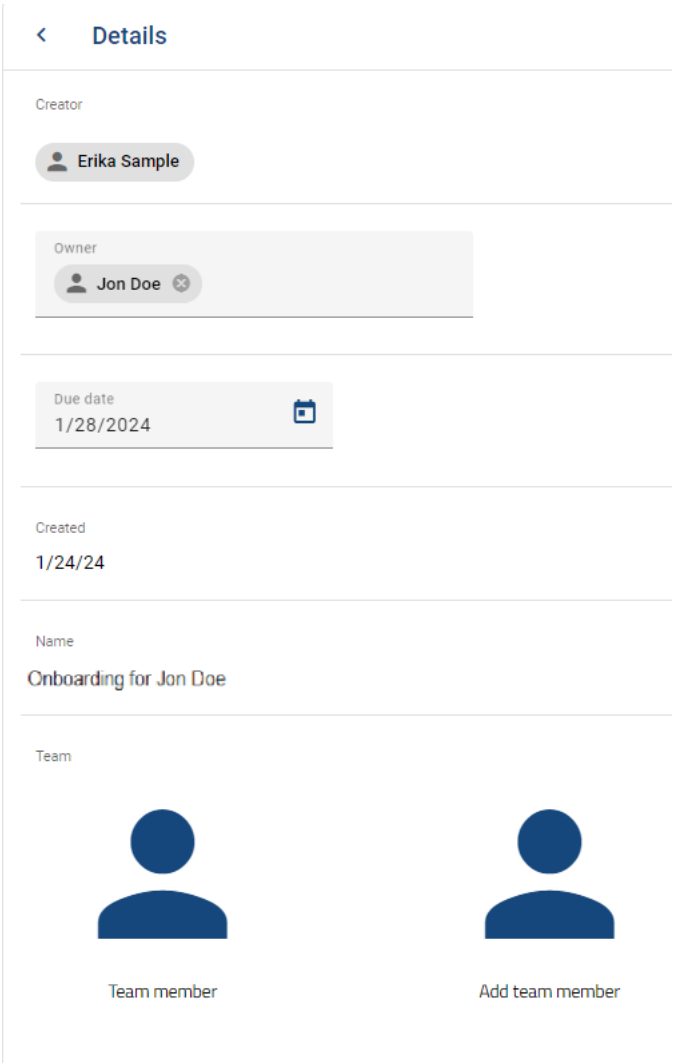
Then use the *Details* function to get to the details view of the desired case. You will find the function in the form of a circled *i* icon to the right of the list entry.



The second option is via the case itself. You can open the context menu next to the title of your case. Click on *View case details* and the details of your case will appear.



The details view displays the following information: the creator, the owner, the creation date, the optional due date, and the case name. In addition, under the *Team* section, you will see all roles involved in the corresponding process and all users assigned to those roles.



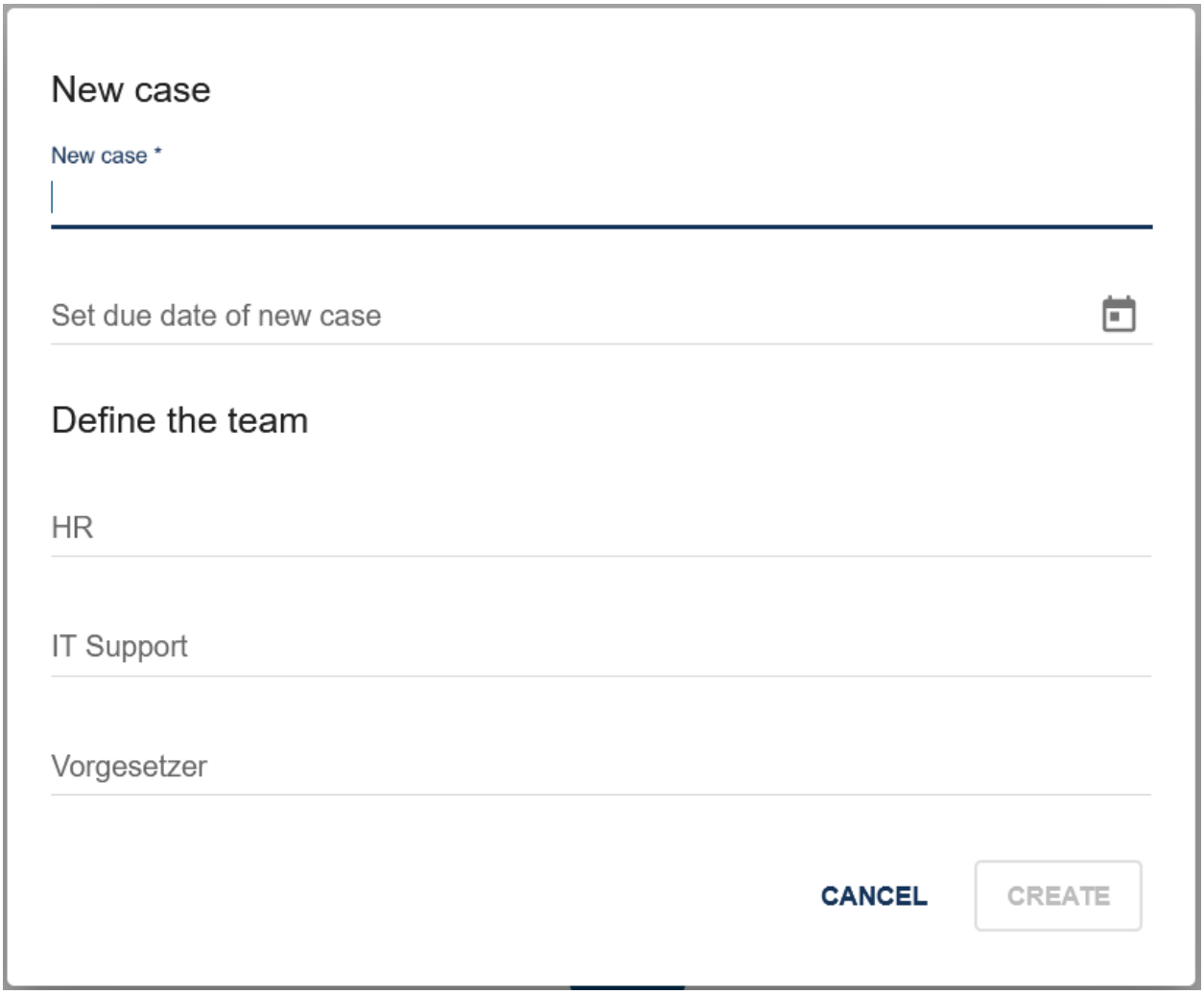
You can also *reassign the team members* here.

Note: Please note that only ProcessApp Administrators and owners can modify the details of a case.

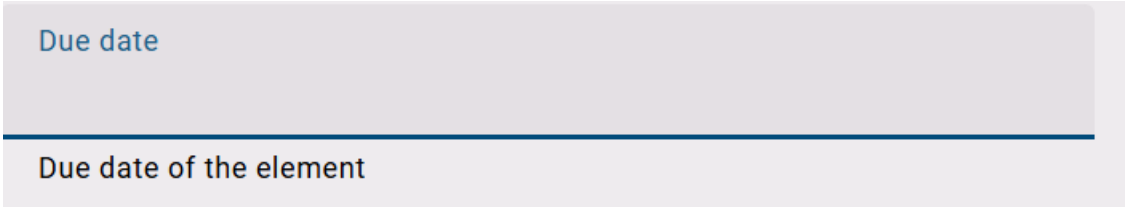
29.4.13 How can I set or change the due date of a case?

The due date defines when a case should be completed. If the due date has exceeded but the case has not been completed yet, the progress of the case is highlighted in red color in the personal as well as in the case list of the corresponding process. Cases that contain one or more overdue tasks are highlighted in the case list with a red marker on the ProcessApp icon. Cases with overdue tasks that have since been completed appear with a grey marker. You receive more information if you move your mouse over the marker. If all tasks are within their due dates or have been completed on time, the cases appear in the list without a marker.

When you *create a new case*, you can set a due date directly in the corresponding field. This statement is optional. Enter a date in the format MM/DD/YY or click the calendar button and select a date from the calendar that appears.



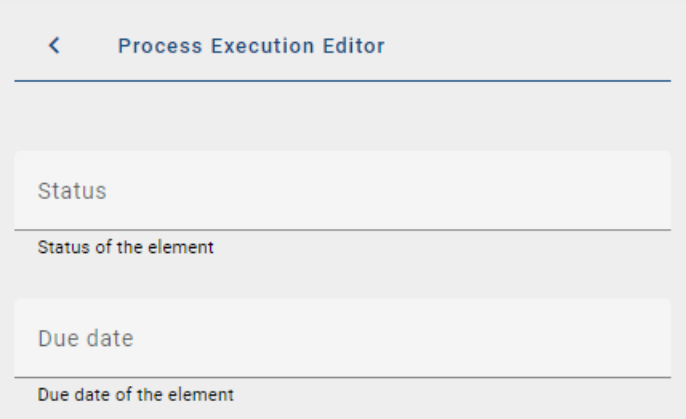
As a ProcessApp Administrator or case creator, you can set and change the due date of your case later. Navigate to the *case details*. The *Due date* is located below the owner. If no date has been set, the field is empty. Click the *Due date* placeholder to enter a date, or click the calendar to select a date.



In case a due date was previously set, you can change it here. Click the date to enter a new date, or use the calendar as described above.

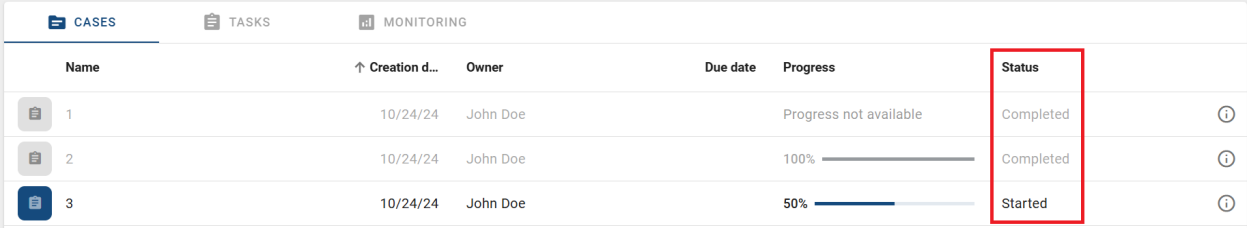
29.4.14 How can I define status changes for a process?

As a *ProcessApp Creator*, you can define the status of a process so that the status of a case can be easily read. When you are working on a process diagram and open the *Process Execution Editor* for an object such as a task, event or gateway, you have the option of entering a status value as text (string) in addition to the due date.



For example, if a node in an instance is completed or started and that node has a status change value, the status of the case is set to that value.

The status of a ProcessApp can be viewed at any time in the *case list* of the ProcessApp in the *Status* column. This status is also available as a facet. If a case has a status and an active task is completed while the next task has no status, the case retains the last active status. This status is also available as a facet.



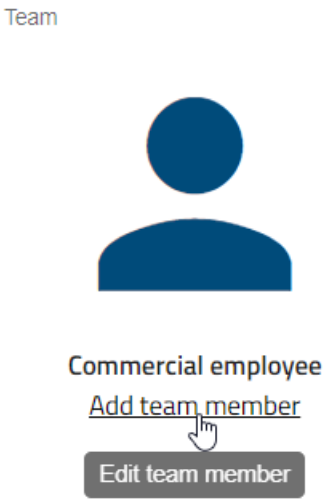
Hint: Please note that the due date only applies to tasks.

Hint: The custom status status field may contain a maximum of 255 characters.

29.4.15 How can I reassign team members of a case?

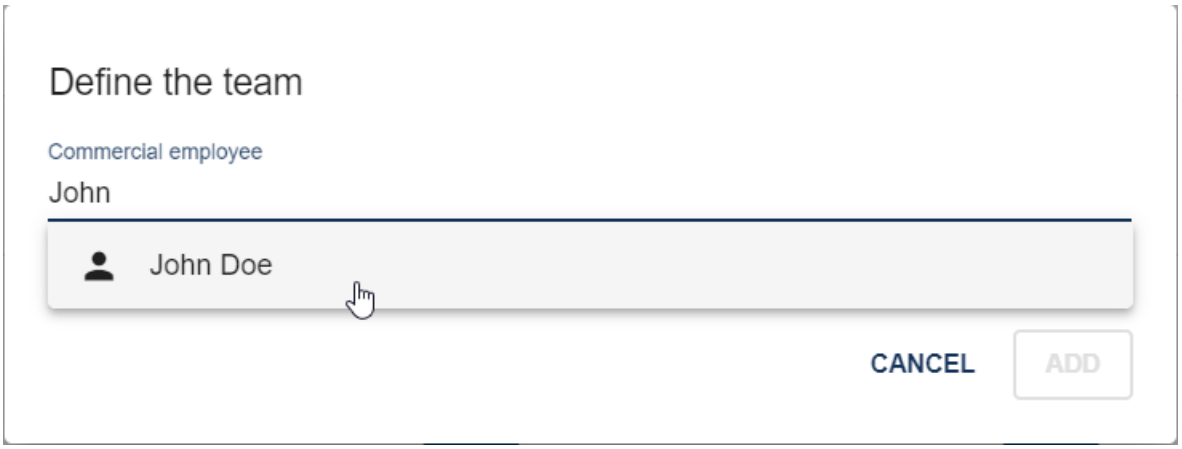
As the case owner, you can reassign team members to your case at any time. To do so, first navigate to the *case details view*.

Here you can see all roles of the corresponding case. Below the role description is the name of the user or user group currently assigned to the role. If no one has been assigned to the role yet, the *Add team member* button is displayed.



To reassign a role to your team, simply click on the name of the currently assigned user or user group, or if no one has been assigned, click *Add team member*. A dialog will appear allowing you to reassign the corresponding role.

Simply enter the name of the user or user group in the input field and then select the corresponding entry from the drop-down menu.



Select the *Add* button to apply your changes and reassign the role. The name of the assigned user or user group will now appear below the relevant tasks in the *process flow of the case* and in the *case details view*.

Note: Tasks that were started before the reassignment are not be reassigned. These tasks will still be visible in *the*

personal task list of the corresponding user. If you want them to be processed by the reassigned user or user groups you have to *delegate* them.

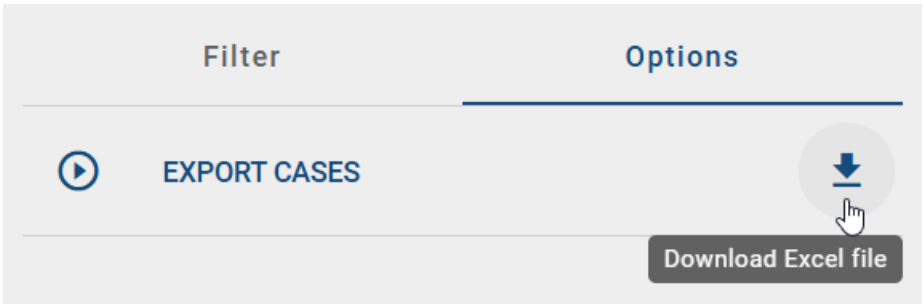
... note:: If no user or user group was defined for a role when the case was created, the case creator is responsible for executing the task as soon as the case is started.

29.4.16 How can I export an event log from a ProcessApp?

In the case list of a ProcessApp, you have the option of downloading an event log. To do this, navigate to the case list of the desired ProcessApp and open the options in the right sidebar. If you only want to export the log for certain cases and tasks, you can restrict the list accordingly in advance using the filters.

Then select the *Export cases* option by clicking on the *Export cases to Excel file* icon. The export takes the currently applied filters into account so that only relevant cases and the associated tasks are included.

Once the export is available, you will see a *Download Excel file* button next to the *Export completed cases* option. Note that this event log is only available to you. Other users will need to create an event log themselves in order to download it. Select the arrow button to download the created event log.



The file contains two sheets, one sheet lists all cases, the other sheet contains the associated tasks.

The first sheet contains the following data for each case:

- Case ID
- Case name
- Creation date (in ISO format)
- Owner
- Due date (in ISO format)
- Progress
- Status (defined in the process in BIC Process Design)
- Case status

The second sheet contains the following data for each task:

- Case ID
- Case name
- Task ID
- Task name (in your content language)
- Task start date (in ISO format)
- Task end date (in ISO format)
- Task due date (in ISO format)
- Task performer role (in your content language)

In addition to the role of the task, the email address and name of the user who performed the task are also exported.

Hint: If your *UI language* is not maintained, the default template is English.

Note: The export function is not available in the mobile version of BIC Process Execution.

Tip: If your user role allows, you will find additional tabs in the process list of your ProcessApp. The *monitoring view* provides an overview of the status of active processes.

29.4.17 When is a case completed?

A case is completed when all tasks within the process flow have been completed. From that moment on, no elements of the case can be changed. For each completed case, the end event at which the case was completed is recorded.

Hint: Please note that a process will be successfully completed immediately upon reaching an end event with the event type *Terminate*, even if other sequence flows are still active.

Once the case is completed, it is *archived* and the sequence of events is stored in the system. These are used for predicting subsequent flows of new cases for the same process.

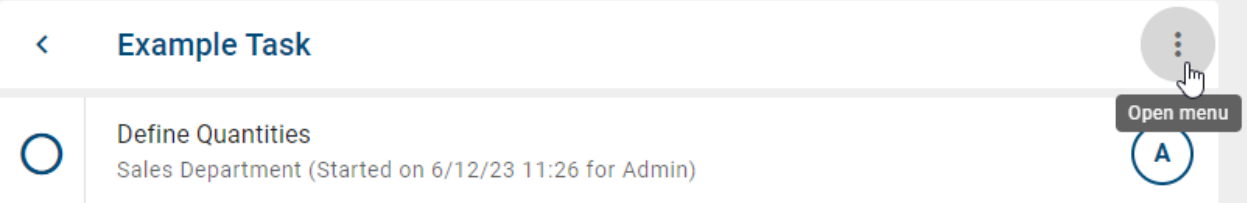
Note: The completion time or end time of a task is displayed when a step is completed in a given case.

Note: In a given case, the start time is displayed if the step is considered as an activity in progress. The start time is also displayed if the step has an error.

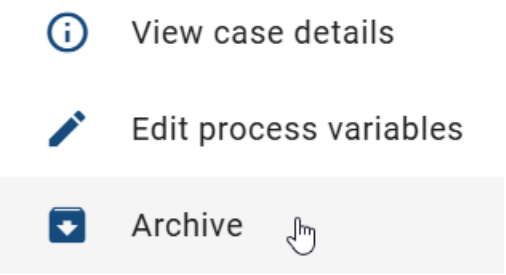
29.4.18 How can I archive cases?

By default, all cases are archived as soon as they are *completed*. However, you have the option to archive cases that are not yet completed.

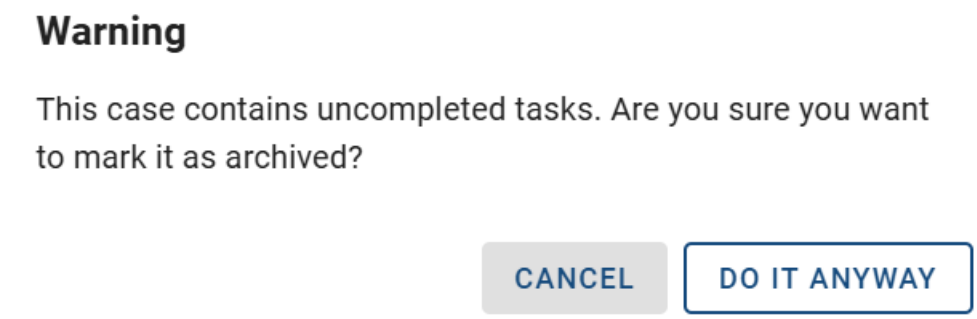
To do this, open the case list for the relevant process and select the desired case.



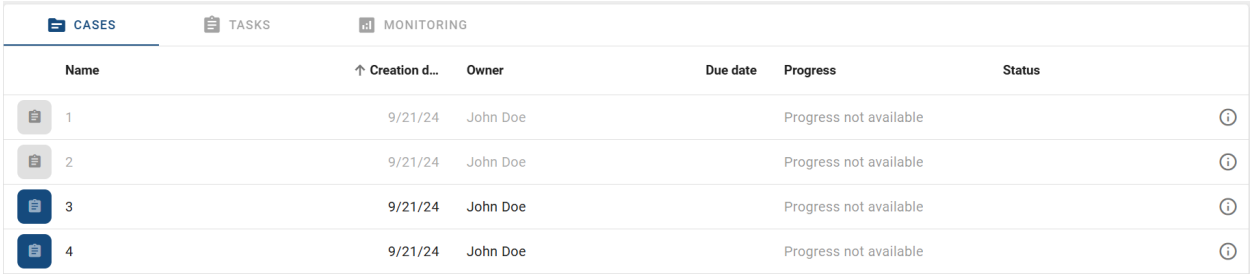
There, click on the context menu with the three dots to the right of the entry and select the option *Archive*.



A dialog will appear informing you that some tasks have not yet been completed. If you want to archive the case anyway, select the *Do it anyway* option. All uncompleted tasks will be canceled and the case will be archived.



After the case is archived, a message informs you that the case has been successfully archived. The case will now be greyed out in the case lists.



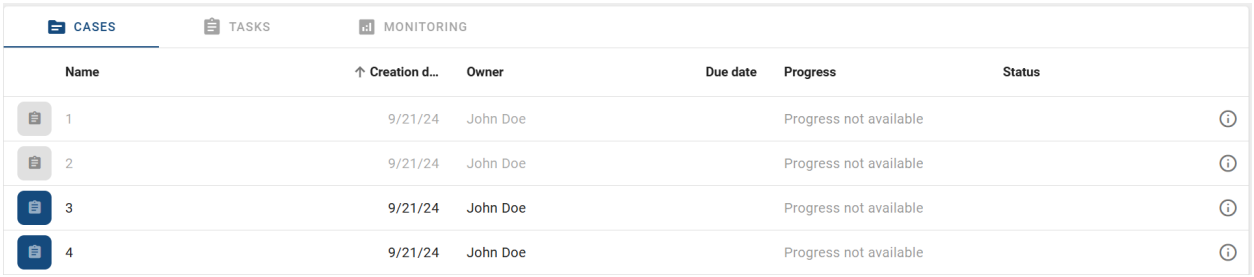
Warning: If you cancel a synchronized call activity early and archive the case, its sub cases are also archived.

Note: If the case was the last case unarchived of a depublished diagram in your BIC Process Design, the corresponding process will also disappear from the *process overview*.

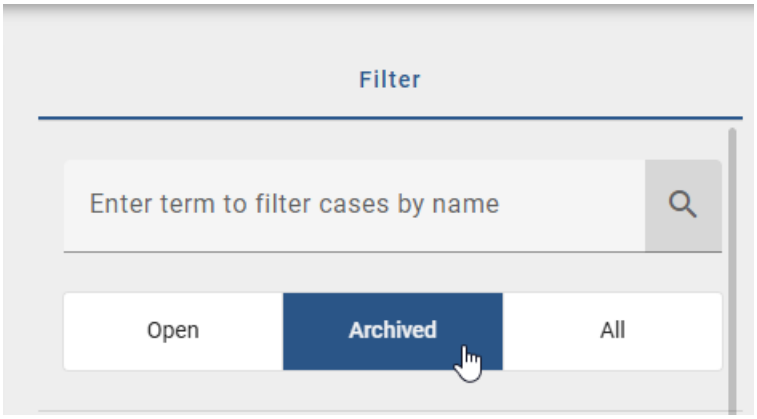
29.4.19 Where do I find archived cases?

Archived cases are displayed in your personal case list and in the case list for a case along with the ongoing cases. They are displayed in gray and can be filtered by the completion status *Archived* in the *Filter* panel to the right of the case list.

To do this, open your *personal case list* or the *case list of a process*. In the list, the archived case will be grayed out.



To display only archived cases in the case list, filter for archived cases by clicking on the *Archived* option in the right sidebar below the search bar. The case list will update immediately.



As with ongoing cases, you can view the *details* of a case by clicking the *i* button. You can also view the history of a case by clicking on it.

29.4.20 What are process variables used for in my cases?

In BIC Process Execution, you have the option to use process variables in your cases in order to dynamically process data during the process flow. Some *process variables are created by default*, while others are generated by *executing REST calls*, *script tasks*, or *decision tables of rule-based tasks*.

These process variables can be used during the process flow to provide users with data that they can use to successfully *complete their tasks*. Process variables can be used in *task forms*. In addition, the data provided can also be used in other automated tasks, such as *new REST calls* or script tasks.

Note: Note that the values of process variables change *locally in the task* until the task is completed.

Which process variables are created by default?

In BIC Process Execution, a set of process variables is provided by default for each case. The following process variables and associated values are therefore available for each case:

Table 4: **Default Process Variables**

Name of the variable	Default value
createdDate	Date when the case was created
creatorEmail	Email of the user who created the case
creatorName	Name of the user who created the case
caseName	Case name

Additionally, a process variable is created for each role used that has an *Identifier*. The name of the variable is the *Identifier* used and the value is the corresponding email of the assigned role.

Within the process flow view of a case, you can *view the values of all process variables*. ProcessApp Administrators can also change the case name there (value of *caseName*).

How can the default process variables be grouped as smart variables in a case object?

When a case of a new process is created, a case object is automatically created that contains all the required process variables.

The following variables are available in the _case object:

- “name” (changeable)
- “url” (not changeable)
- “dueDate” (changeable)
- “owner” object (changeable)
- “case” (not changeable)
- “creationDate” (not changeable)
- “creator” object (not changeable)
- “progress” (not changeable - automatically)
- “customStatus” (not changeable - automatically)
- “id” (not changeable)

- "processAppID" (not changeable)

Note: In this context it should be noted that the **.name** and **.email** variables belong to the owner and creator objects.

Note: Please note that while the *owner* variable can be changed, its properties are unchangeable. Changing the properties (e.g. _case.owner.name) is not supported. Instead, the entire *owner object* must be replaced, as it represents a user or a user group.

The variables are accessible in the following way:

- _case.name
- _case.url
- _case.dueDate
- _case.creationDate
- _case.owner.type / _case.creator.type
- _case.owner.id / _case.creator.id
- _case.creator.ATTRIBUTE
- _case.progress
- _case.customStatus
- _case.id
- _case.processApp.id

You can set a new value for a process variable. If the variable is modifiable, the changes will be reflected throughout the application. If the process variable is not modifiable, the changes are not saved and the process variable remains unchanged.

When viewing the process variables of a case, both the attributes of the case variable and the "old" default variables are visible. If you open an older case where the case object did not exist, only the "old" default variables will be displayed when reviewing the process variables.

Hint: Please note that the new object only applies to newly created cases. Existing cases do not have this updated element. While the previous method of accessing these variables is still supported, it is deprecated.

How can I see process variables for archived cases?

When a case is archived, there are different permissions to access the process variable dialog:

As a *ProcessApp Administrator*, you have the option to open the process variable dialog and view the process variables in all stages.

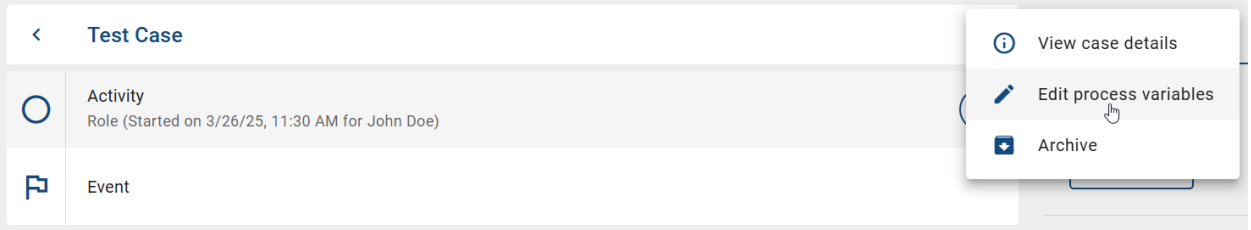
As a *ProcessApp Creator*, on the other hand, you can open the process variable dialog to read the process variables only in the public workspace and the preview stage.

How can I find and edit process variables within the process flow view?

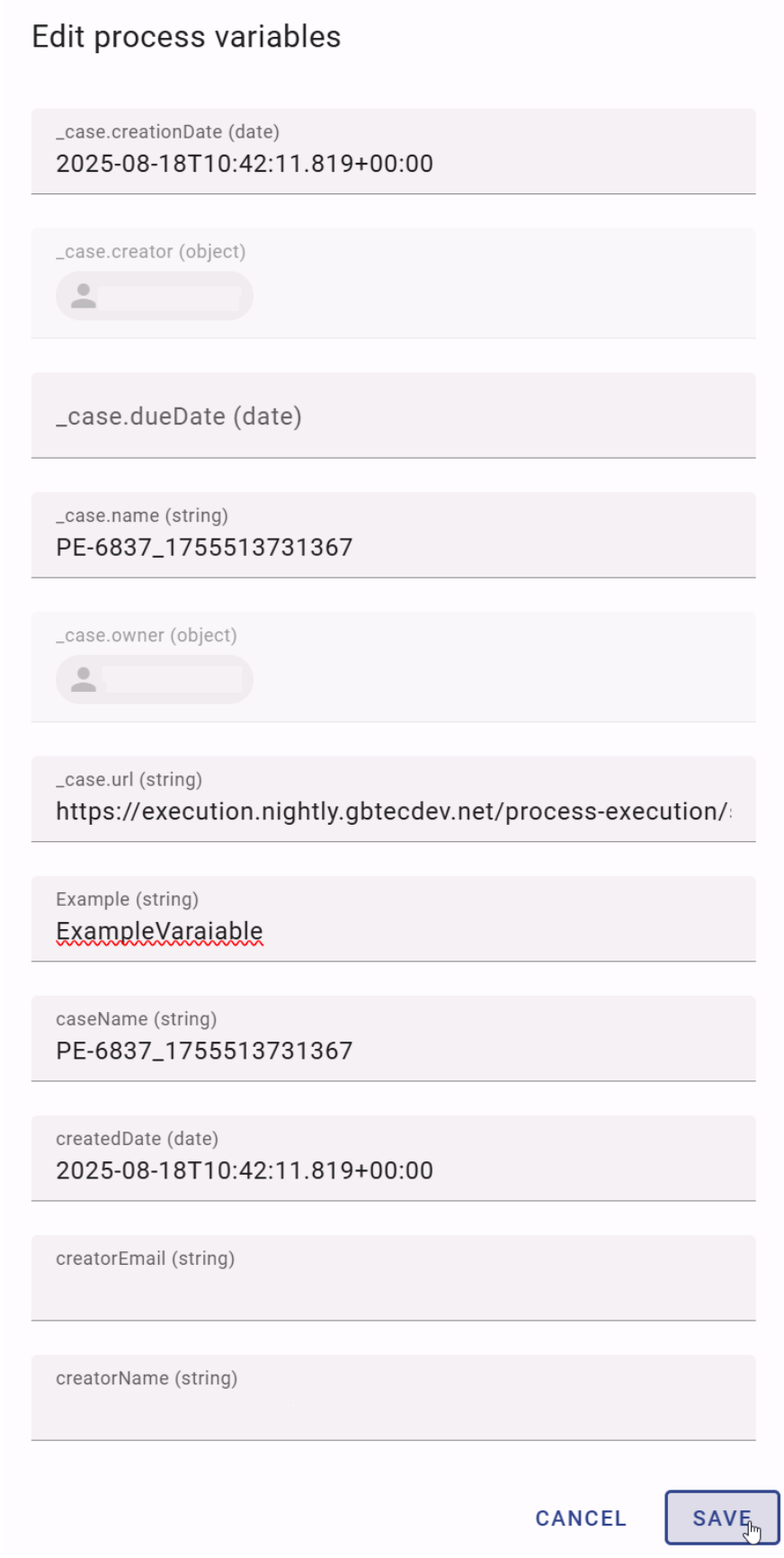
Within the process flow of a case, users with the *ProcessApp Administrator* user role and case owners have the possibility to view and change the value of your process variables. This enables you to adapt the data of your process variables to your needs in case something changes during the case completion.

To do this, first navigate to the process flow view of the corresponding case. There, open the context menu in the upper right corner of the main area.

You can then click on the *Edit process variables* option.



A dialog will appear listing all available process variables, their data type and their values for this case. In this dialog you can edit the values of the process variables. When you have edited the value of a process variable, you can confirm the changes by clicking the *Save* button.


Edit process variables
_case.creationDate (date)
2025-08-18T10:42:11.819+00:00
_case.creator (object)
_case.dueDate (date)
_case.name (string)
PE-6837_1755513731367
_case.owner (object)
_case.url (string)
https://execution.nightly.gbtecdev.net/process-execution/
Example (string)
ExampleVaraiable
caseName (string)
PE-6837_1755513731367
createdDate (date)
2025-08-18T10:42:11.819+00:00
creatorEmail (string)
creatorName (string)
CANCEL
SAVE

If you just want to exit the dialog or if you do not to save your changes, click the *Cancel* button.

Note: By default, each case has a set of *default process variables*.

How do the values of process variables change when working on a task?

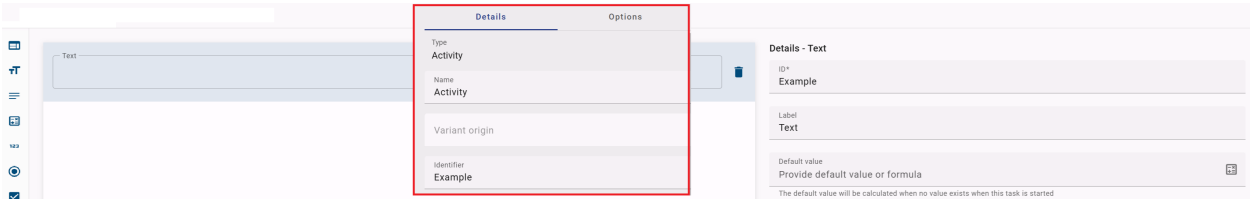
When a task is started, the current values of the process variables are loaded into a local scope. If you work with the task and change the variables, for example, by editing or adding values in the form, the variables are updated locally. The list of process variables still shows the values set before the task was started. When the task is completed, the local variables are transferred to the process variables of the case. They are then available for use in subsequent tasks.

How can I link a role to a process variable?

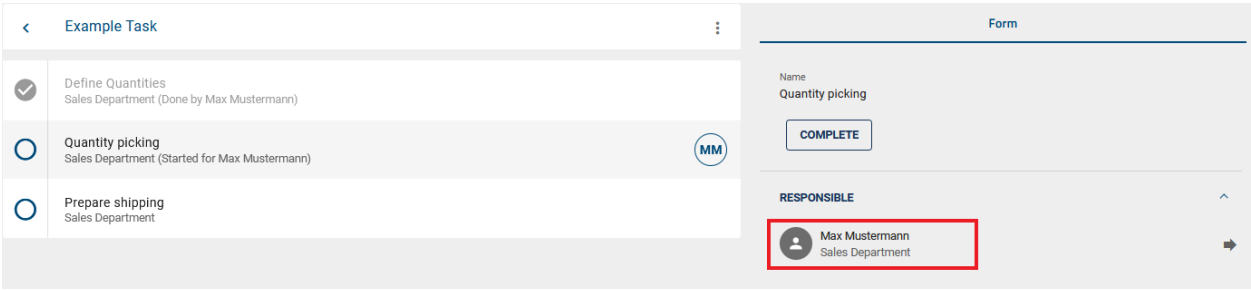
When modeling a process in BIC Process Design, you can maintain the *identifier* attribute of a role and use it as a process variable. This can allow process participants to select the responsible of subsequent tasks in a user form, or the responsible can be determined by a previous *REST call*. In addition, you can use this process variable as a parameter to create a new case via a REST call against BIC Process Execution or via a *run link*.

If a value (i.e. a name or email address) is set for the identifier in a case, the identifier is transferred to the process variable. When a task of the identified role is started, the user (or user group) set in the variable is entered as the person responsible for the task, provided a BIC Process Execution user or user group can be found for the value. If no user or user group was defined for a role when the case was created, the case creator is responsible for executing the task as soon as the case is started. Please note, however, that the user (or user group) is only responsible for started tasks and not for all tasks in the role. It is therefore possible to change the responsibility during the course of the case by editing the *process variable of the identifier*. If another task of the relevant role is then started, the latest value determines the responsibility.

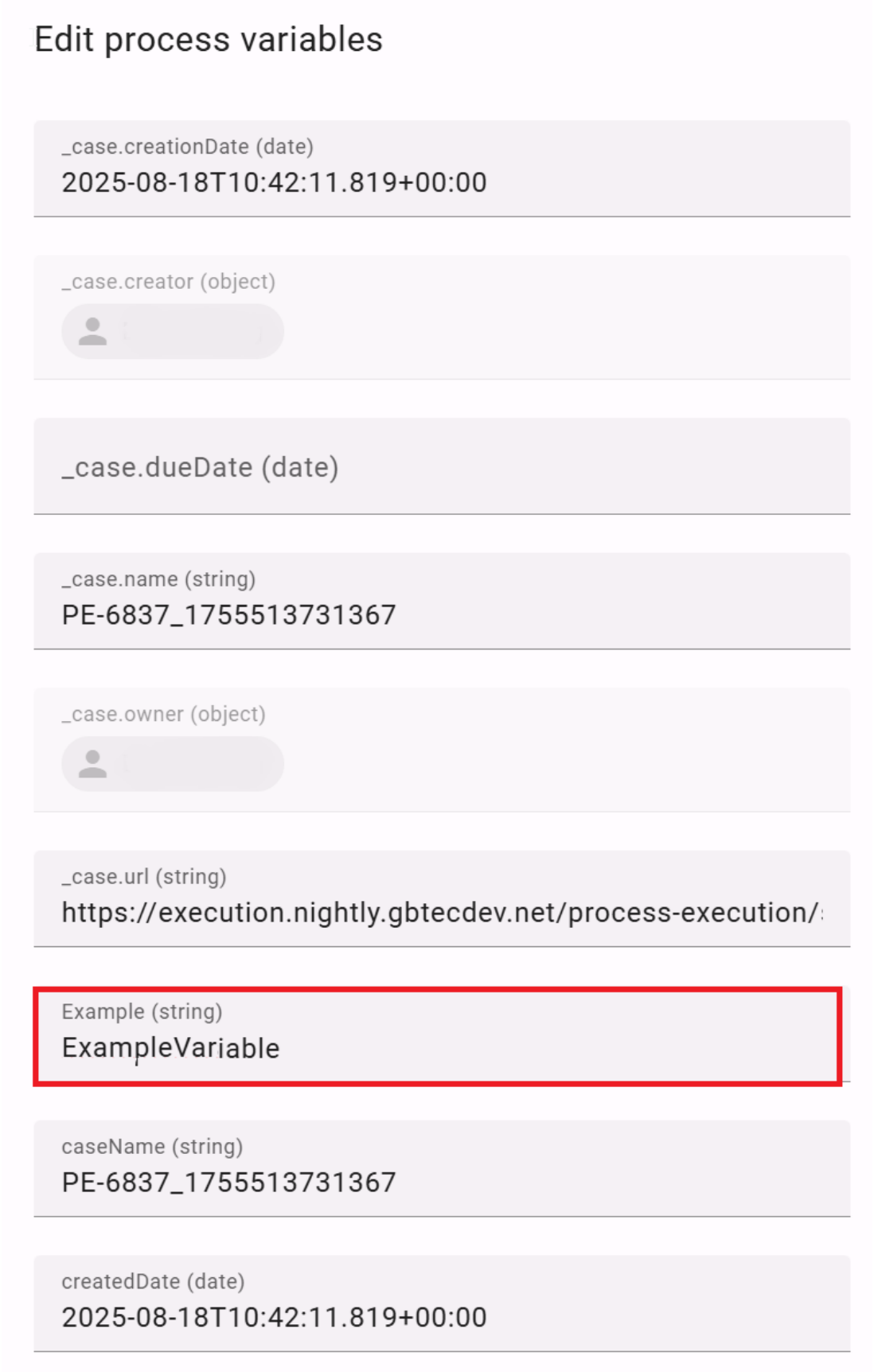
For example, the role "Executive Manager" is part of the "Selection process" and the *Identifier* is set as `executive-manager`. In this process, the HR employee should enter the name of the responsible executive manager in a user task to assign him to the task of the role. Therefore, a user form is modeled with a text field where the ID of the field is equal to the *Identifier*.



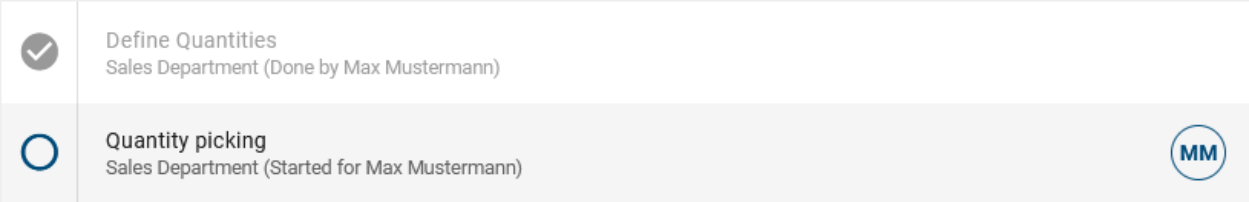
In a concrete case, this results in the user task "Examine application formally". The role "Executive Manager" (responsible for the last task) is not yet assigned to a user.



After the user task is completed, the identifier can be viewed and edited in the process variables.


Edit process variables
_case.creationDate (date)
2025-08-18T10:42:11.819+00:00
_case.creator (object)
_case.dueDate (date)
_case.name (string)
PE-6837_1755513731367
_case.owner (object)
_case.url (string)
https://execution.nightly.gbtecdev.net/process-execution/
Example (string)
ExampleVariable
caseName (string)
PE-6837_1755513731367
createdDate (date)
2025-08-18T10:42:11.819+00:00

When the task of the “Executive Manager” role is started, the corresponding user is assigned as responsible.

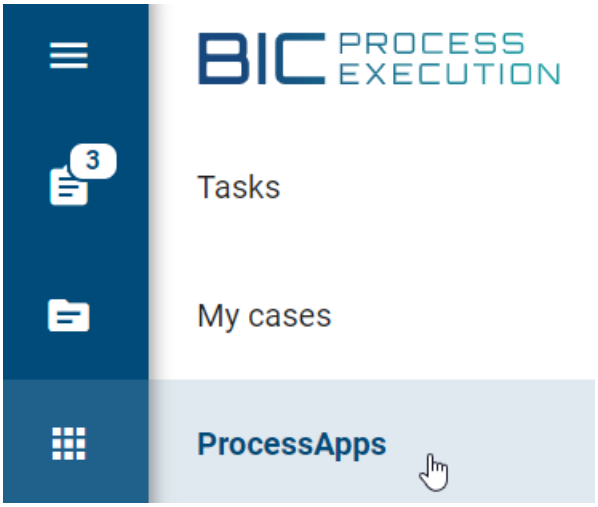


29.5 ProcessApps

In the ProcessApp overview, you can find all your organization’s processes that are relevant (to you) as *ProcessApps*. They can be grouped by departments, teams, or other structure using ProcessApp Collections. ProcessApp Administrators have a list of all available ProcessApp Collections in the *administration* and can *edit the Collections* as well as *create new ones*.

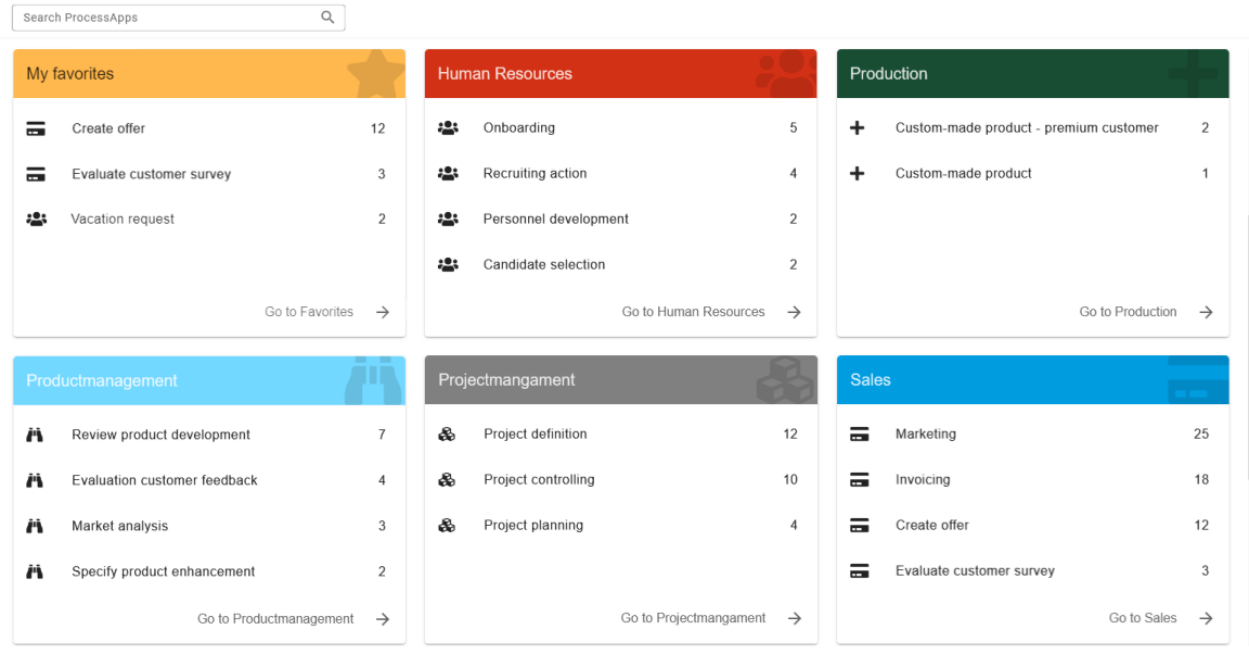
29.5.1 Where are all available ProcessApps displayed?

Go to the *ProcessApps* from the menu.



Depending on the configuration, this area may vary. However, you will find all *executable*, published processes (BPMN and EPC) of your tenant, displayed as *ProcessApps*.

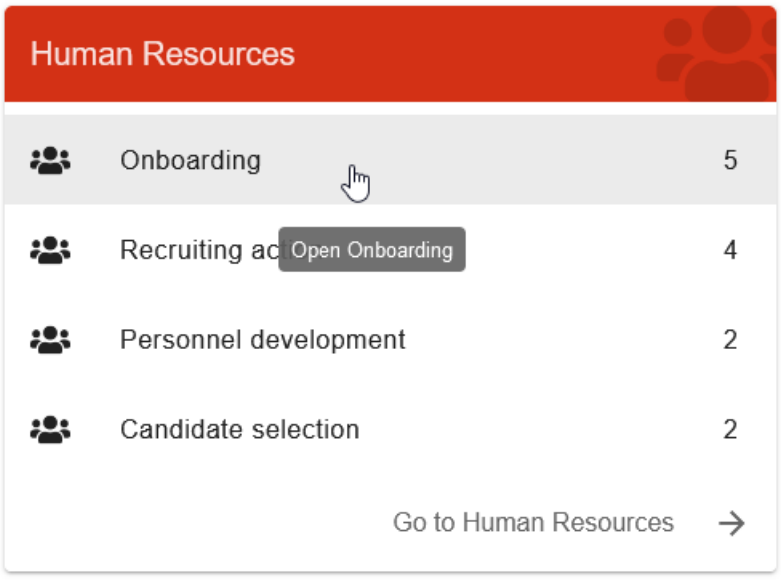
If *ProcessApps Collections defined* are defined in your tenant, you will see the ProcessApps grouped into these Collections. Collections are arranged alphabetically from left to right and top to bottom. Depending on your device and zoom factor, they are displayed in a single-column or multi-column list. The first Collection in the upper left corner is always the *My favorites* tile.



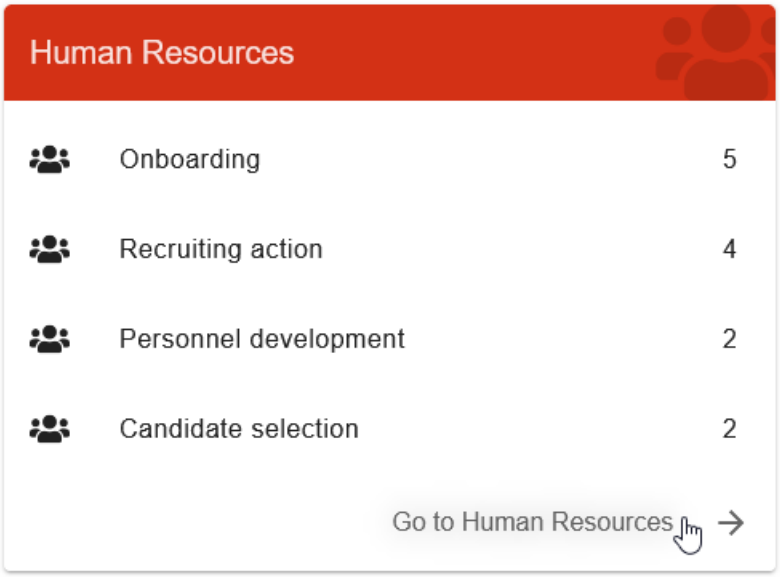
Note: Please note that a ProcessApp Collection only appears in this area if it has at least one *ProcessApp assigned* to it. Therefore, not all Collections *created in the administration* may be included here.

If you have ProcessApps that are not grouped into a ProcessApp Collection, you will see a Collection called *More ProcessApps* as the last Collection on this screen.

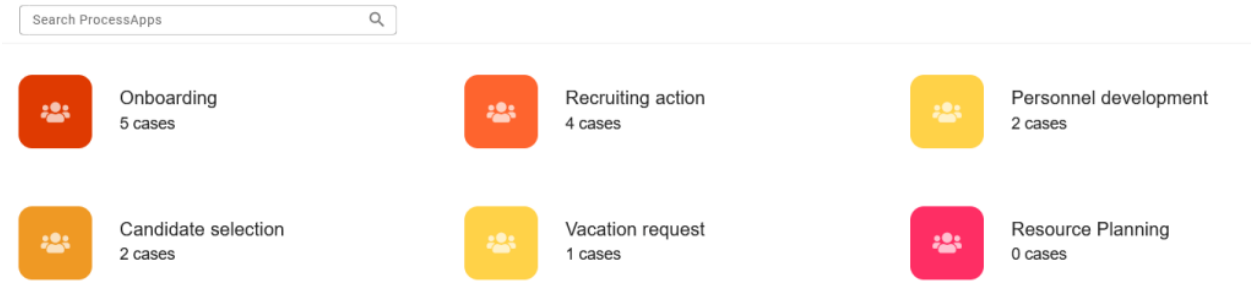
As a preview, the assigned ProcessApps with the highest number of running cases are displayed for each Collection. This allows you to access frequently used ProcessApps more quickly. If you select a ProcessApp in the preview, you will be navigated to the *list of all running cases* for that process.



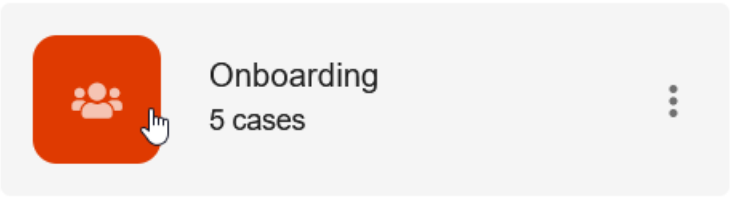
If you select the header of a ProcessApp Collection or the *Go to* button at a ProcessApp Collection, you will see a list of all ProcessApps of that Collection.



When you click on the header of a ProcessApp Collection, its ProcessApps are represented by an icon and the name of the process in the selected content language. The number of the running cases in which you are involved is also noted. The ProcessApps are displayed in a multi-column list that varies depending on your device and zoom factor.



Selecting the ProcessApp itself will take you to the *list of current cases for the process*. When you hover over a ProcessApp, a menu (three dots) appears at the entry. You can *open the menu* by selecting the three dots once.



The menu (usually) contains three options for the respective process. The first option allows you to (un)mark the process as a *favorite*. The second option allows you to *navigate to the corresponding diagram in BIC Process Design*. Finally, if no *case creation restriction* is defined for the corresponding ProcessApp, you will find the option to *create a new case* for the process.

If no ProcessApp Collections have been configured, the *ProcessApps* area directly displays a multi-column list of all *ProcessApps*. For each ProcessApp, you have the same options as described above.

Note: Users with the *ProcessApp Administrator* user role have access to all running cases, even if they are not

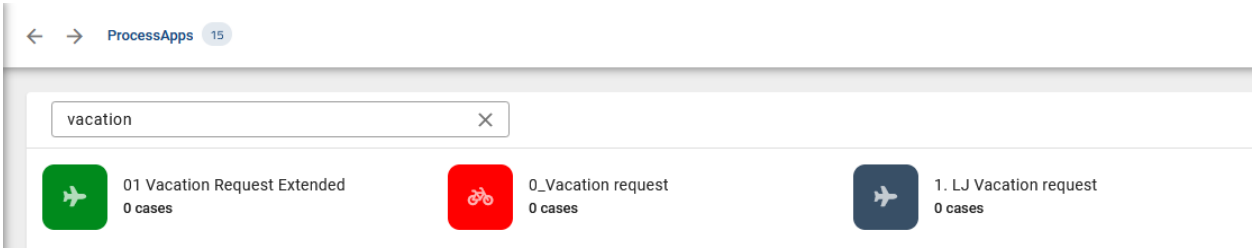
involved in those cases.

Users with the *ProcessApp Creator* role or higher can *switch environments* to view the processes of *executable* but still unpublished diagrams.

Tip: You can *configure* each process icon individually. You can also *search* for specific processes or add them as *favorites to your favorites list* for quick access.

29.5.2 How can I search for a specific ProcessApp?

Within the *ProcessApps* area, you can search for specific processes. To do so, use the search field in BIC Process Execution while you are in the *ProcessApps* area. Enter the term you want to search for. The search is started as soon as you click on the magnifying glass icon or press *Enter*. The result will be all ProcessApps that contain the term in the selected content language. The search results are not grouped into ProcessApp Collections.

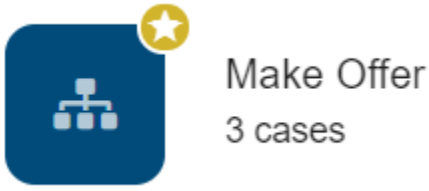


If the name of a process has not been maintained, the corresponding ProcessApps are not displayed.

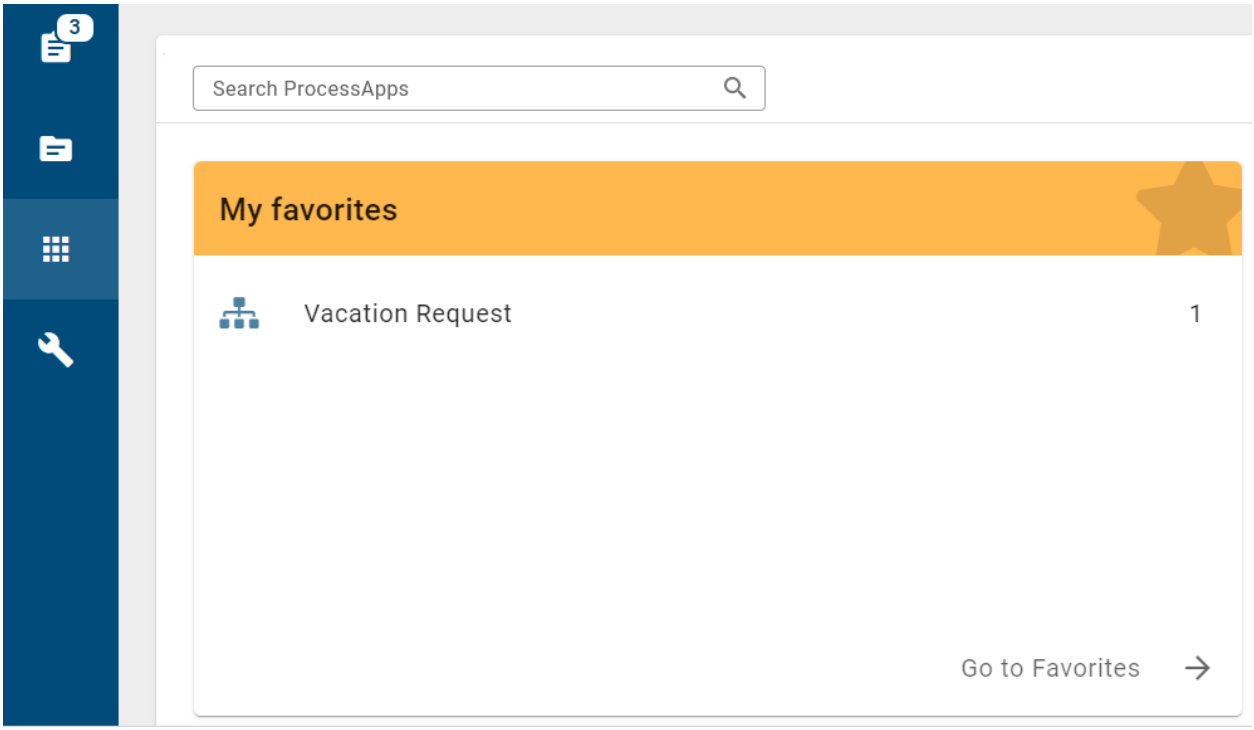
Note: The search is case-insensitive. The search does not support expressions such as wildcards.

29.5.3 How do I add a ProcessApps to my favorites and view my favorites?

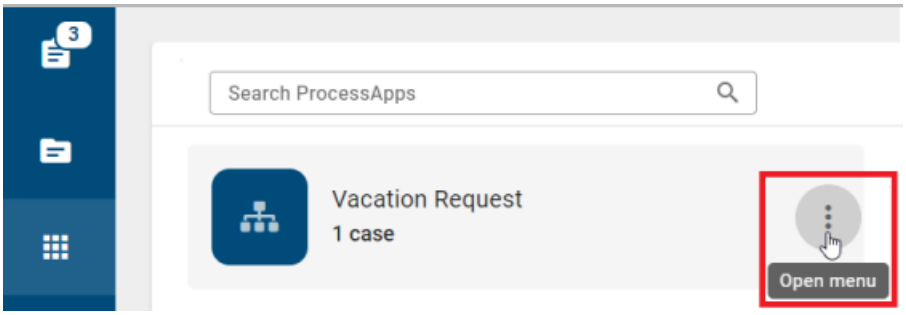
In BIC Process Execution, you can mark individual ProcessApps as your favorites. They are marked with a star icon.



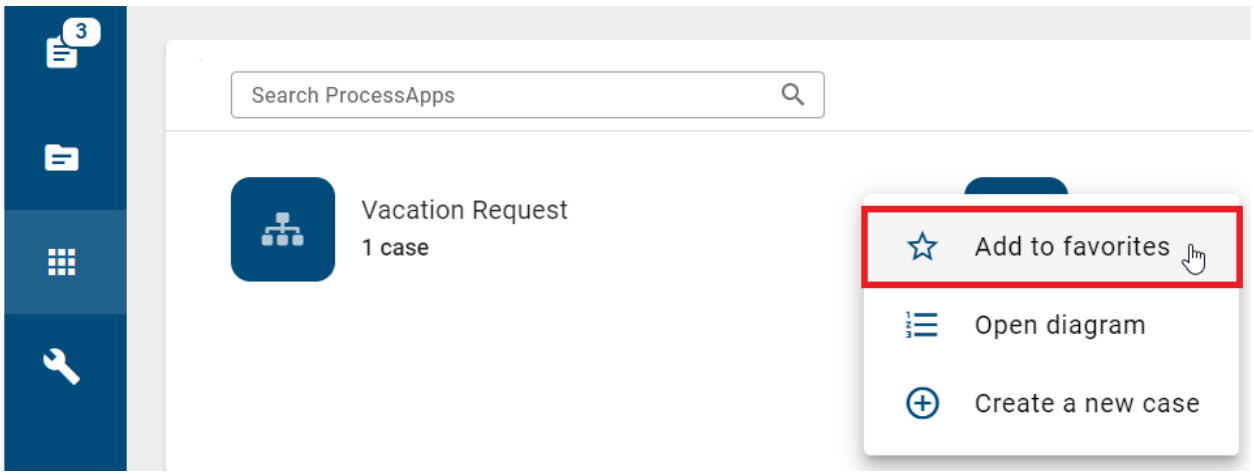
In the ProcessApp overview, these favorites will appear in the *My favorites* Collection.



To add a ProcessApp to your favorites, go to the *ProcessApps* and navigate to the desired ProcessApp (possibly in a Collection first). Then use the three dots to open the menu of the ProcessApp.

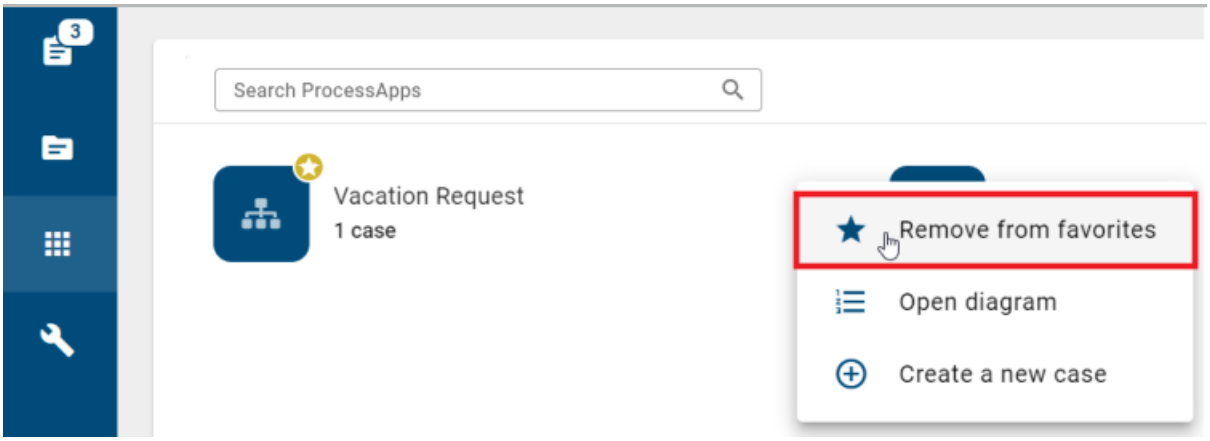


When you select the *Add to favorites* function, the ProcessApp is displayed with a yellow star icon.



If you want to remove a ProcessApp from your favorites, you have to use the *Remove from favorites* function, which

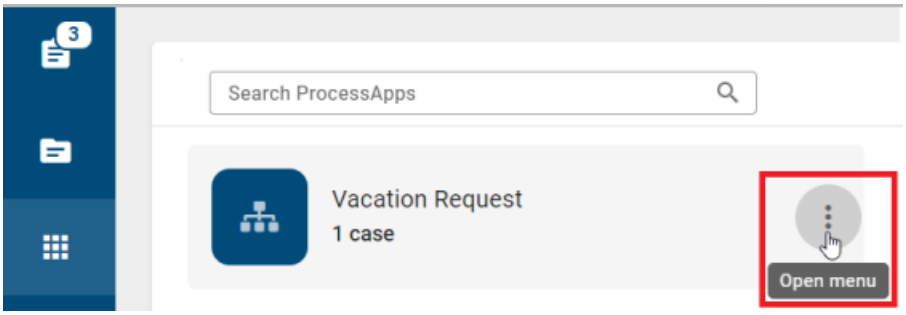
you will find in the menu of the ProcessApp.



The star icon of the corresponding ProcessApp will disappear then.

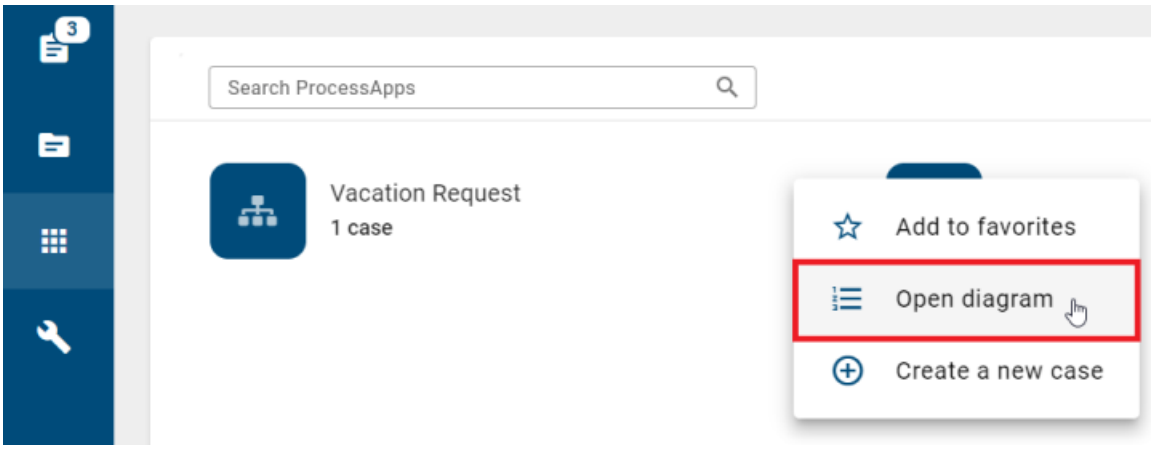
29.5.4 How do I navigate from my ProcessApp to the corresponding diagram in BIC Process Design?

When you are in the ProcessApp overview and open the context menu of a specific ProcessApp, you will find the option to navigate to the corresponding diagram in BIC Process Design.



Selecting the *Open diagram* option will take you to the corresponding diagram. The diagram for that ProcessApp will open in a new browser tab and will automatically display the corresponding stage of the process in BIC Process Design.

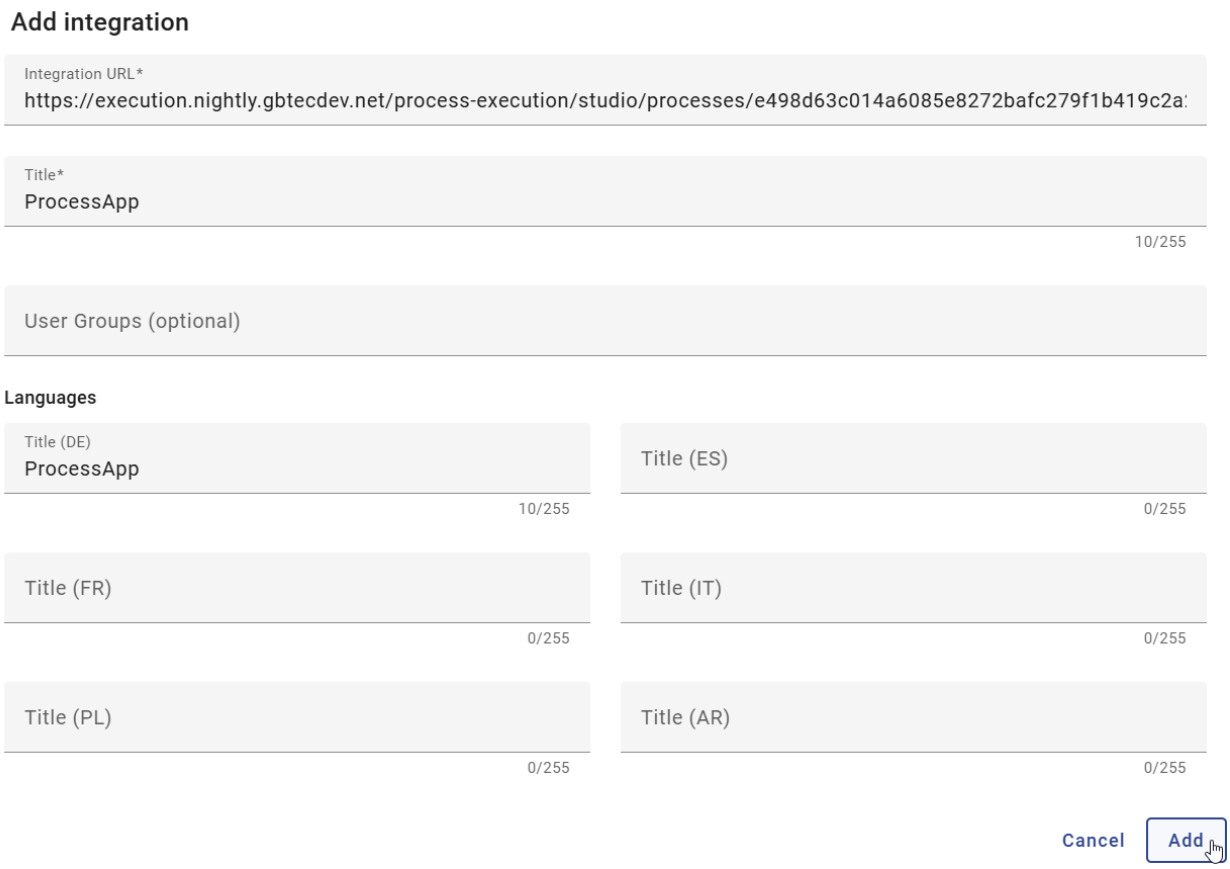
Hint: If a diagram with active cases has been depublished, you can still click on the option to view the diagram. Please note that it is now in the archived state.



29.5.5 How can I link published ProcessApps to a catalog object type and start cases?

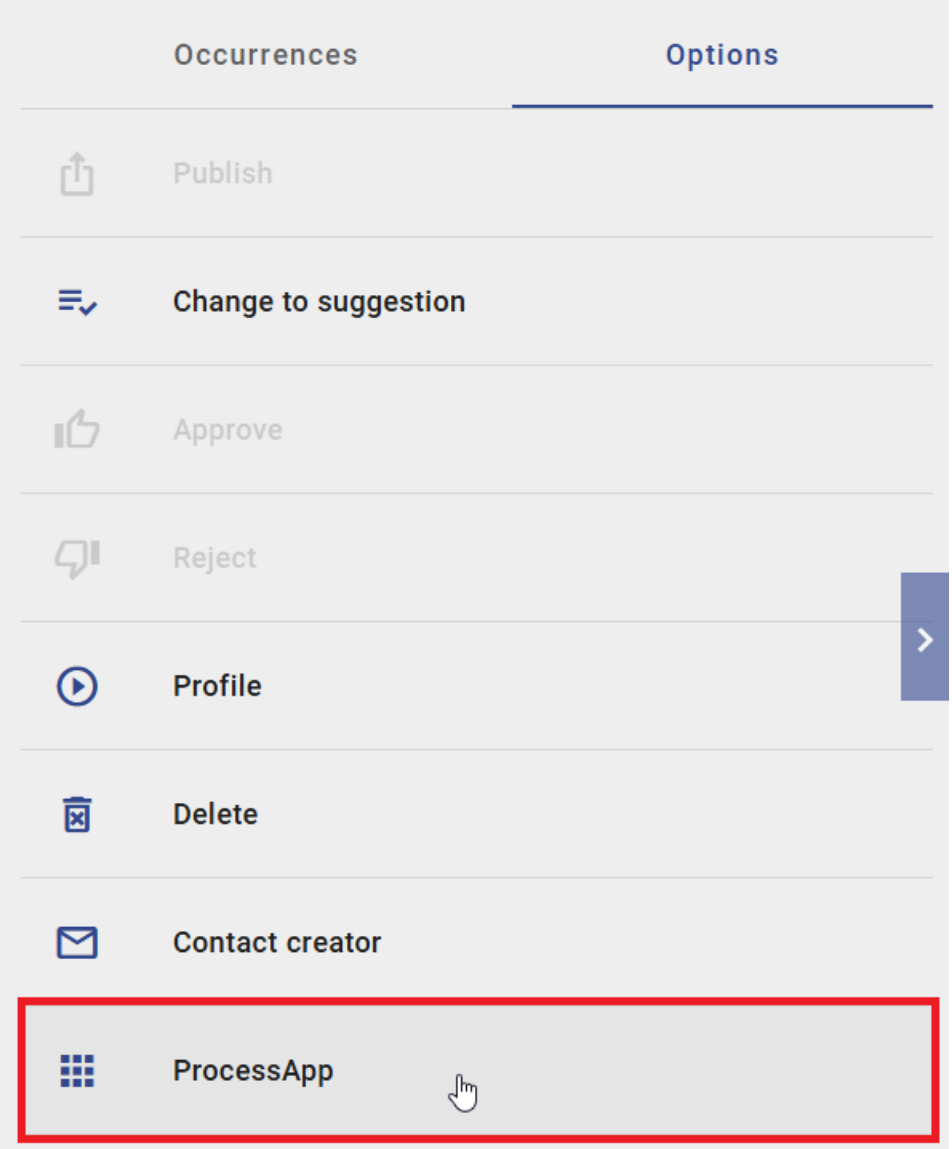
To link a published ProcessApp to a catalog object type, you must be in *BIC Process Design* and have the *Administrator* user role. If you are currently in *BIC Process Execution*, you can switch directly to *BIC Process Design* by using the *focus drop-down menu* in the header. In the left menu bar, go to the *Administration* menu item and select the *Catalog* tile. A list of all available object types will then be displayed.

Click on the desired object type and switch to the *Integrations* tab. To link a published ProcessApp to this object type, click the *Create integration* button in the bottom-right corner. This opens a dialog where you must enter the run link for the published ProcessApp in the *Integration URL* input field and a name in the *Title* input field.



Warning: Please note that for a successful integration, the run link of the published ProcessApp must follow the format `https://xxxx/process-execution/xxxx/processes/xxxx/run` and must refer to an already published ProcessApp. For more information, see *here*.

Save the integration by clicking the *Add* button. Then go to the *Catalog* menu item in the left menu bar. In the right sidebar, in the *Filter* panel, filter by the object type for which you created the integration. Select an entry from the list to open its details view. In the right sidebar, in the *Options* panel, the linked ProcessApp will now be displayed.



Hint: Please note that the use of integrations requires a separate licence, which you must purchase.

Once a ProcessApp is linked to a catalog object type, all users with the *ProcessApp Creator*, *ProcessApp Administrator* or *ProcessApp User* role can start a case directly from the catalog. To do this, click the button with the name of the linked ProcessApp in the *Options* panel in the right sidebar of the catalog item for the corresponding object type. You will then be redirected to BIC Process Execution, where a new case for the linked ProcessApp will be started.

29.5.6 How can I connect published ProcessApps to a diagram type and start cases?

To connect published ProcessApps to a diagram type, you must be working in *BIC Process Design* and have the user role *Administrator*. If you are currently in *BIC Process Execution*, you can switch directly to *BIC Process Design* by using the *focus drop-down menu* in the header. In the left menu bar, select the menu item *Administration* and then click the *Details* tile. A list of all available diagram types is then displayed.

Select the desired diagram type and switch to the *Integrations* tab. To connect a published ProcessApp to this diagram type, click the *Add integration* button in the lower right corner of the screen. A dialog then opens where you must enter the run link of the published ProcessApp in the *Integration-URL* field and a name for the integration in the *Title* field.

|createIntegrationProcessApp_de|

> **Warning:** Please note that for a successful integration, the run link of the published ProcessApp must follow the format `https://xxxx/process-execution/xxxx/processes/xxxx/run` and must refer to an already published ProcessApp. For more information, see *here*.

Save the integration using the *Add* button and then switch to the menu item *Diagrams* in the left menu bar. After opening a diagram, you will find the connected ProcessApp in the *Options* panel in the right sidebar.

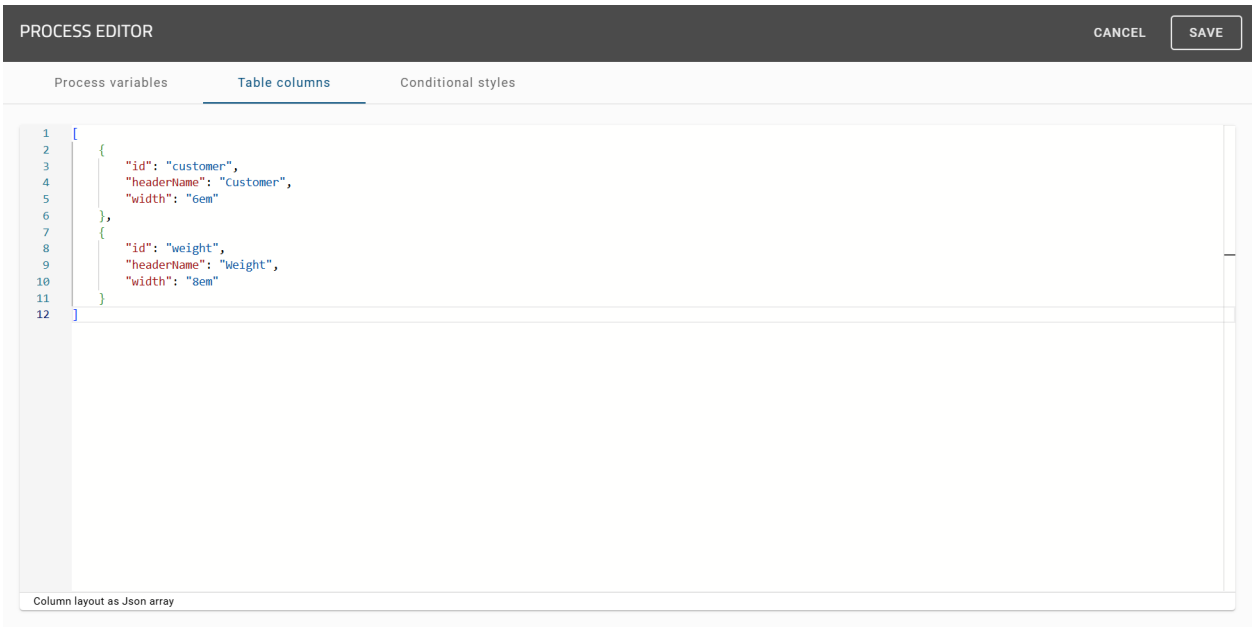
|createIntegrationProcessApp1_de|

Hint: Please note that the use of integrations requires a separate license and must be purchased by you.

Once a ProcessApp is connected to a diagram type, all users with the roles *ProcessApp Creator*, *ProcessApp Administrator*, or *ProcessApp User* can start a case directly from the diagram. To do this, click the button with the name of the connected ProcessApp in the *Options* panel in the right sidebar of a diagram. You are then redirected to *BIC Process Execution*, where a new case for the connected ProcessApp is started.

29.5.7 How can I add custom columns with my own variables to a ProcessApp?

As a *ProcessApp Creator*, you have the ability to define custom columns with your own variables for the processes within a ProcessApp. To do so, open a diagram in BIC Process Design, check it out, and click on an empty area in the canvas. Then, in the *Details* panel in the right sidebar, select the *Automation* attribute group and mark the process as an *executable process*. Next, switch to the *Options* panel and select the *Process Execution Editor* option. Then, click the *Open editor* option, and in the process editor that appears, switch to the *Table columns* tab.



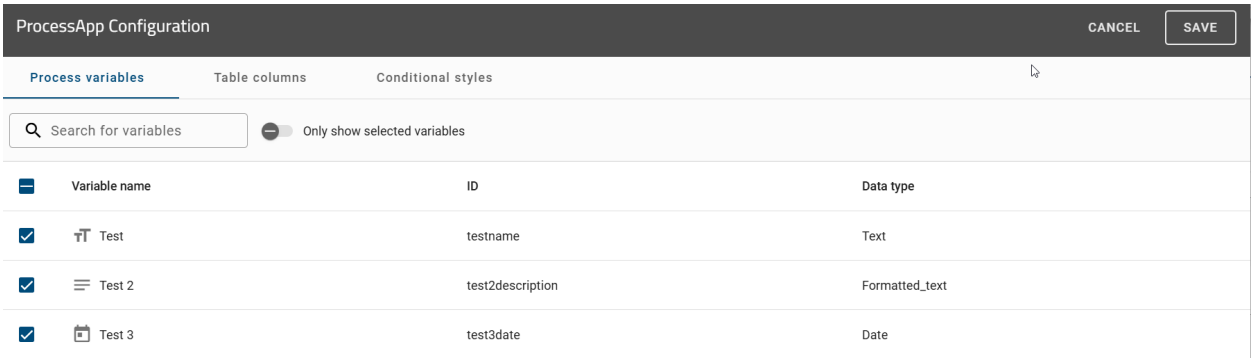
Here, you can define the layout for your custom columns. The layout must be entered as an array in JSON format and contain the following objects:

- **id**: Here you need to enter the name of the variable to be used.
- **headerName**: Here you need to enter the column name that should be displayed in the ProcessApp.
- **width**: [Optional] Here you can enter the width of the column (E.g., *150px*, *10em*, *75%*).
- **type**: [Optional] Here you can enter the output type of the variable. Allowed types are *text*, *string*, *date*, *datetime*, *time*, and *boolean*. If no type is specified, the output will be *string*, *number* or *boolean*.
- **hide**: [Optional] Here you have the option to hide a column (*true/false*).

Code to copy and test:

```
[
    {
        "id": "customer",
        "headerName": "Customer",
        "width": "6em"
    },
    {
        "id": "weight",
        "headerName": "Weight",
        "width": "8em"
    }
]
```

Alternatively, you can select available process variables in the *Process Variables* tab using the checkboxes to the left of the variable name to automatically generate the respective array in JSON format. As soon as you select at least one available process variable, the **id** and **headerName** objects are automatically inserted with the corresponding data in the *Table Columns* tab.

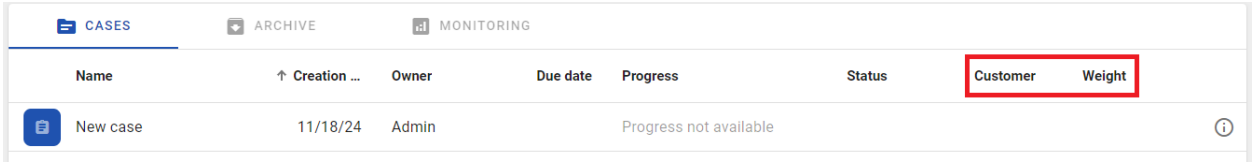


To make it easier to search for specific available process variables, a search field is available in the *Process variables* tab. You can use it to search for process variables by variable name or ID. You can view already selected process variables by clicking on the *Only show selected variables* button. If you want to select all available process variables, click the *Select all* button to the left of *Variable name*.

When an available process variable is deselected, the corresponding array is also removed in the *Table Columns* tab. Modified arrays of available process variables or manually added arrays always remain in place unless you remove them manually.

Hint: Please note that the corresponding checkbox is automatically activated when an array is added manually and matches the ID of an available process variable. This ensures that both views are synchronized.

After saving the changes made in the process editor through the *Save* button, checking in the diagram and creating an instance for this process, your custom columns and associated variables will now be displayed in the ProcessApp. The columns are displayed in the order in which you have defined them.



If the variable *customer* (taken from the example) in the **id** object contains multiple objects with different values, such as

```
customer = {
            "address": "addr",
            "email": "emailAddr"
           }
```

the custom column is not displayed. To display a custom column correctly for a variable with multiple objects, the individual object must be explicitly specified in the **id** object. For example, to display a customer's email address from the *customer* variable in a custom column, `customer.email` must be specified in the **id** object.

You can also apply the **headerName**, **width** and **hide** objects to the default columns of a ProcessApp. This allows you to customize the name and width of the default column, or to hide the default column.

Note: The default columns are accessible via the *_case object*. To do this, enter the _case object in the **id** object. For example, you can access the *Name* default column through _case.name and edit the column name through the **headerName** object.

Example: `{ "id": "_case.name", "headerName": "Name of Case", "width": "10em" }`

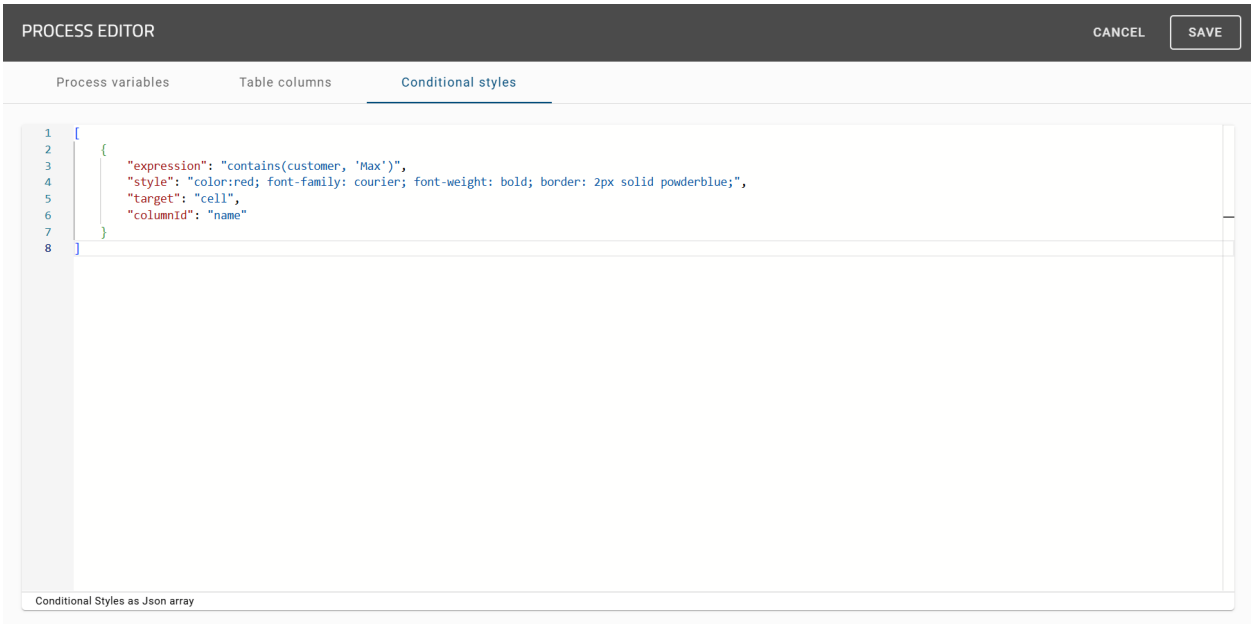
The default column *Name* was renamed to *Name of Case*.

If a ProcessApp has configured columns, you have the option of filtering all instances of a process according to their respective process data. If user-defined columns are available for the process, these are displayed as new facets at the top of the filter area.

Hint: Please note that the facets displayed represent unique values for which no type or string type is defined.

29.5.8 How can I apply (conditional) formatting to a ProcessApp?

As a *ProcessApp Creator*, you have the ability to apply (conditional) formatting to a ProcessApp. The configuration takes place in *BIC Process Design*. If you are currently in *BIC Process Execution*, you can switch to *BIC Process Design* using the *focus drop-down menu* in the header. In *BIC Process Design* open a diagram, check it out, and click on an empty area in the canvas. Then, in the *Details* panel in the right sidebar, select the *Automation* attribute group and mark the process as an *executable process*. Next, switch to the *Options* panel and select the *Process Execution Editor* option. Then, click the *Open editor* option, and in the process editor that appears, switch to the *Conditional styles* tab.



In the *Conditional styles* tab, you can define the configuration in JSON format and apply CSS styles to individual rows or cells based on expressions. The following objects must be included:

- **expression**: Here you must enter the condition to be evaluated.
- **style**: Here you must enter the CSS style to be applied if the condition evaluates to TRUE.
- **target**: Here you must specify whether the CSS style should be applied to the entire row or only to a specific cell.
- **columnId**: [Optional] Here you can specify the column(s) to which to apply the style when it is applied to a cell. This can be a single column or an array of columns.

In the following example, a custom column named “Customer” is added, which should execution a condition when the name is “Max”. The code for this example must be entered in both the *Table columns* tab and the *Conditional styles* tab in the process editor.

Code to copy and test:

```
Table columns:
[
    {
        "id": "customer",
        "headerName": "Customer",
        "width": "6em"
    }
]

Conditional styles:
[
    {
        "expression": "contains(customer, 'Max')",
        "style": "color:red; font-family: courier; font-weight: bold; border: 2px␣
↪solid powderblue;",
        "target": "cell",
        "columnId": "name"
    }
]
```

After saving the changes made in the process editor through the *Save* button, checking in the diagram and creating an instance for this process, your (conditional) formatting will be displayed in the ProcessApp if the condition is evaluated as true.

Name	↑ Creation ...	Owner	Due date	Progress	Status	B...
Process	11/12/24	John Doe		Progress not available		50
Process	11/12/24	John Doe		Progress not available		150
Process	11/12/24	Max Mustermann		Progress not available		550
~~Process~~	~~11/12/24~~	~~Max Mustermann~~		~~Progress not available~~		~~1100~~

Hint:

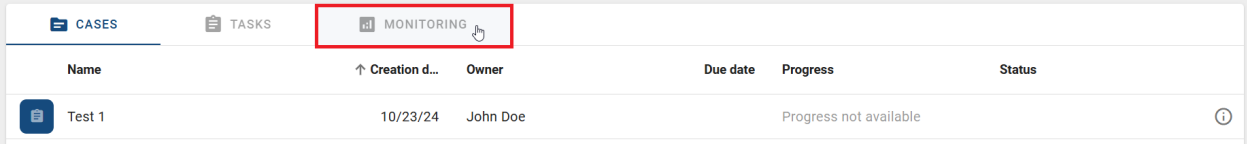
Follow the links below for more information on using (conditional) formatting:

- FEEL
- CSS

Note: You can also apply the (conditional) formatting to (individual) default columns. To do this, enter the corresponding *_case object* in the **columnId** object. For example, you can use _case.name to apply the (conditional) formatting to the default column *Name*.

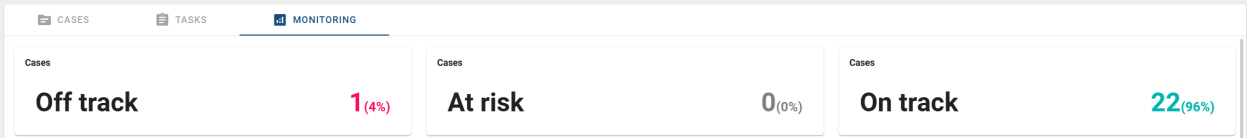
29.5.9 Dashboard

As a *ProcessApp Administrator*, you can view a dashboard for each ProcessApp that provides you with information about the status of all running cases. You can switch to the *Monitoring* tab from the *case list of a ProcessApp*.



How can I monitor the status of all open cases for a ProcessApp?

When you open the *Monitoring* tab for a ProcessApp as a *ProcessApp Administrator*, you will see three tiles at the top showing the current status of all open cases in terms of number and percentage.



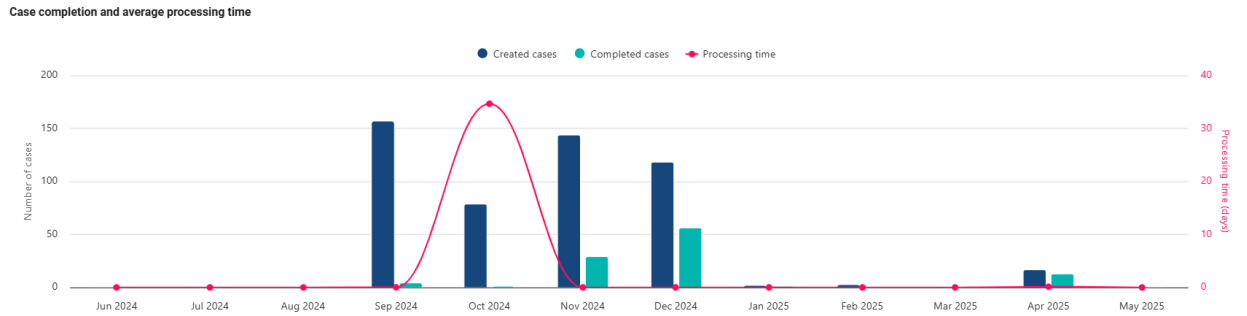
The tiles are divided into different categories to give you a better overview of open cases and to reduce the risk of falling behind. The three categories are:

- **Off track**: Open cases that are already overdue.
- **At risk**: Open cases that have at least one overdue active task and aren't already off track.
- **On track**: Open cases that are not overdue and have no overdue active task.

Clicking on one of these tiles opens the case list of the ProcessApp, filtered by the selected status. You can then *set additional filters* and adjust the case list according to your needs.

How can I monitor completed cases and the average processing time?

When you open the *Monitoring* tab for a ProcessApp as a *ProcessApp Administrator*, you will see a *Case completion and average processing time* tile with a summary of all completed cases and their average processing time as a bar chart.



The bar chart shows the last 12 months, e.g. from January to December. The left y-axis shows the number of tasks created (turquoise) and completed (blue) per month, while the right y-axis shows the average performance of the completed tasks. A line (magenta) representing the average performance lies above the bars, highlighting the performance values for each month.

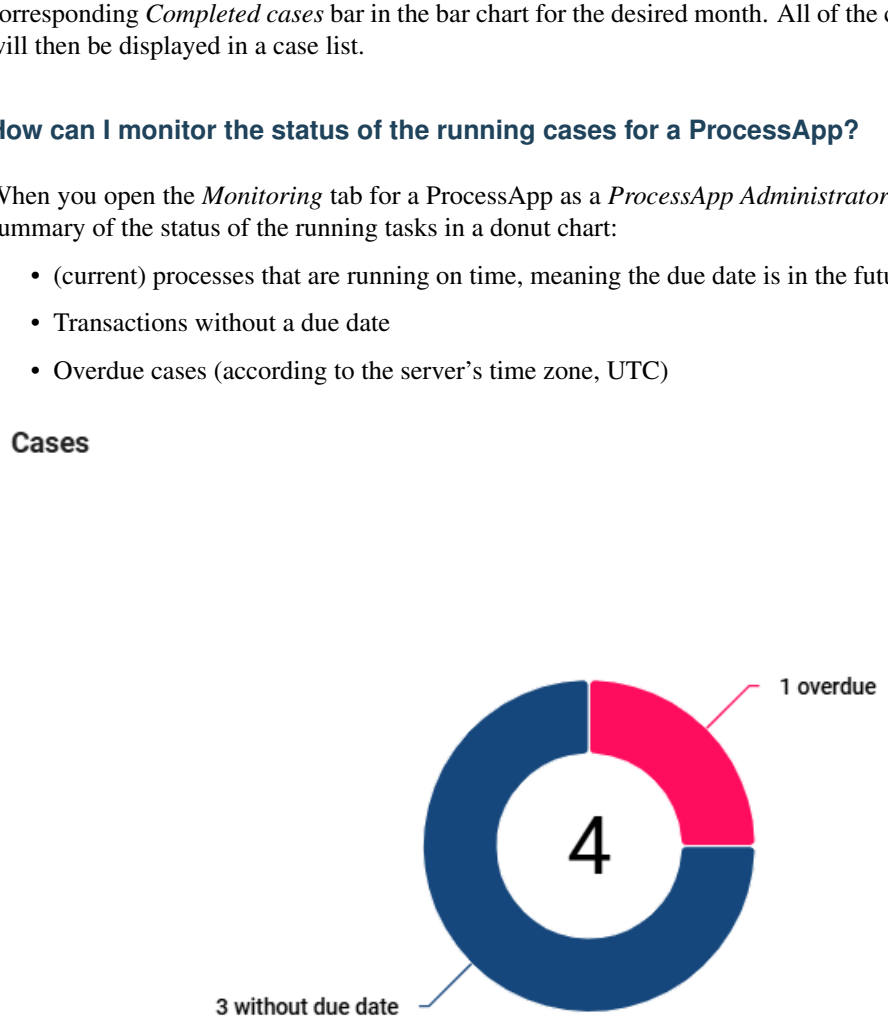
You can also hover over the magenta line to view detailed information about tasks and their average completion time. To hide specific details, click on the corresponding entry in the legend above the bar chart. Click the entry again to display the information.

You can also use this tile to view the case list of completed cases within a specific month. To do so, click on the corresponding *Completed cases* bar in the bar chart for the desired month. All of the completed cases from that month will then be displayed in a case list.

How can I monitor the status of the running cases for a ProcessApp?

When you open the *Monitoring* tab for a ProcessApp as a *ProcessApp Administrator*, you will see a *Cases* tile with a summary of the status of the running tasks in a donut chart:

- (current) processes that are running on time, meaning the due date is in the future.
- Transactions without a due date
- Overdue cases (according to the server's time zone, UTC)



The number in the center of the diagram indicates the number of ongoing tasks for the selected ProcessApp. Additionally, you can click on the ring of overdue cases in the donut chart. This will forward you to the case list of the corresponding ProcessApp, filtered according to the overdue cases. You can adjust the filters if necessary.

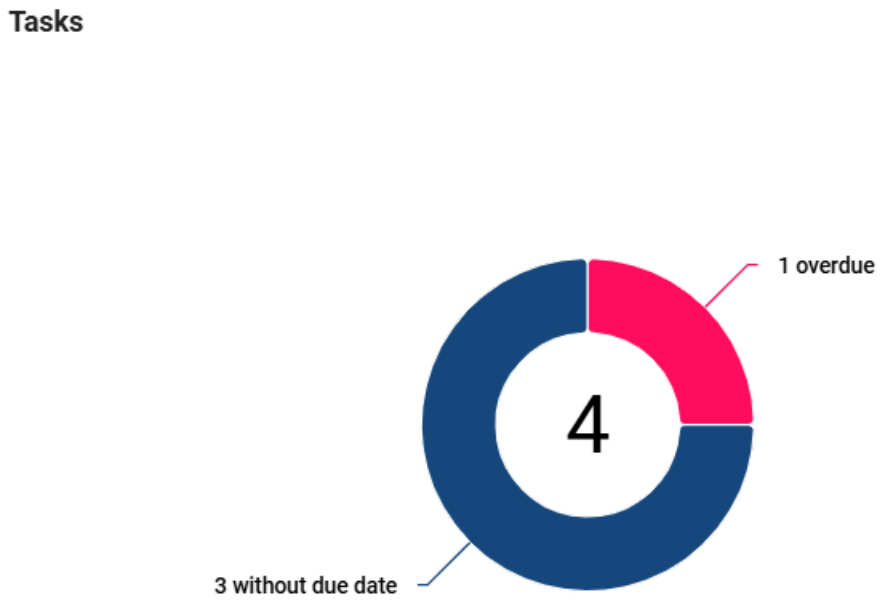
How can I monitor the status of open tasks for a ProcessApp?

When you open the *Monitoring* tab for a ProcessApp as a *ProcessApp Administrator*, you will see a *Tasks* tile with a summary of the status of the active tasks accessible in a donut chart.

The donut chart is designed to visually display the task data. It is sorted clockwise and displays the following information in a specific order:

- **Number of open tasks:** This value is displayed in the center of the chart and indicates the total number of tasks that are currently open and assigned to you.
- **Number of tasks completed on time:** This data point is represented by a specific segment area on the chart. It represents the number of tasks that have been successfully completed within your designated time frame.
- **Number of overdue tasks:** Another segment on the chart represents the number of tasks that have passed their designated due date and are now overdue.
- **Number of tasks with no due date:** The chart also includes a segment that represents tasks that do not have a due date.

By viewing this donut chart, you can get quickly assess the distribution of your active tasks based on their status.



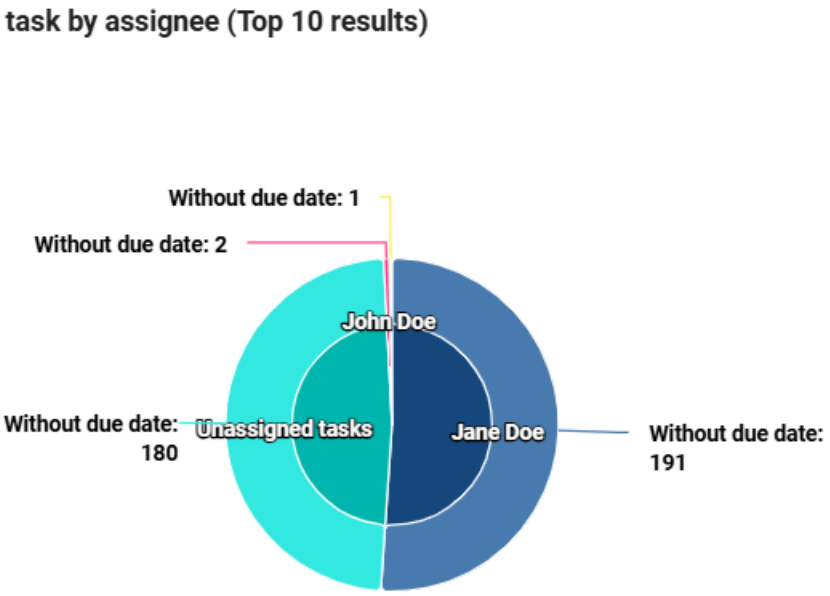
Additionally, you can click on the ring of overdue tasks in the donut chart. This will forward you to the task list of the corresponding ProcessApp, filtered according to the overdue tasks. You can adjust the filters if necessary.

How can I monitor the status of started tasks for a ProcessApp?

When you open the *Monitoring* tab for a ProcessApp as a *ProcessApp Administrator*, you will see a *Open task by assignee (Top 10 results)* tile with a summary of the status of all started tasks in a donut chart. The donut chart consists of two circles that are sorted clockwise:

- The inner circle represents the assignees for the tasks. The names of the assignees are displayed with the number of tasks in braces.
- The outer circle represents the task status of the started tasks for the assignees. The ring is divided into different segments that display the following information:
  - **Number of tasks completed on time:** This segment of the chart represents the number of tasks assigned to the particular assignee that have been successfully completed within their designated time frame.
  - **Number of overdue tasks:** Another segment of the chart represents the number of tasks that have passed their designated due date and are therefore overdue.
  - **Number of tasks with no due date:** The last segment in the chart shows the number of tasks that do not have a due date.

The donut chart gives you an overview of the current statistics of the started tasks, grouped by their respective assignees. The number of assignees displayed is reduced to the top 10 results.



You can also click on the assignees within the inner circle. This will forward you to the task list of the corresponding ProcessApp, filtered according to the selected assignee. You can adjust the filters if necessary.

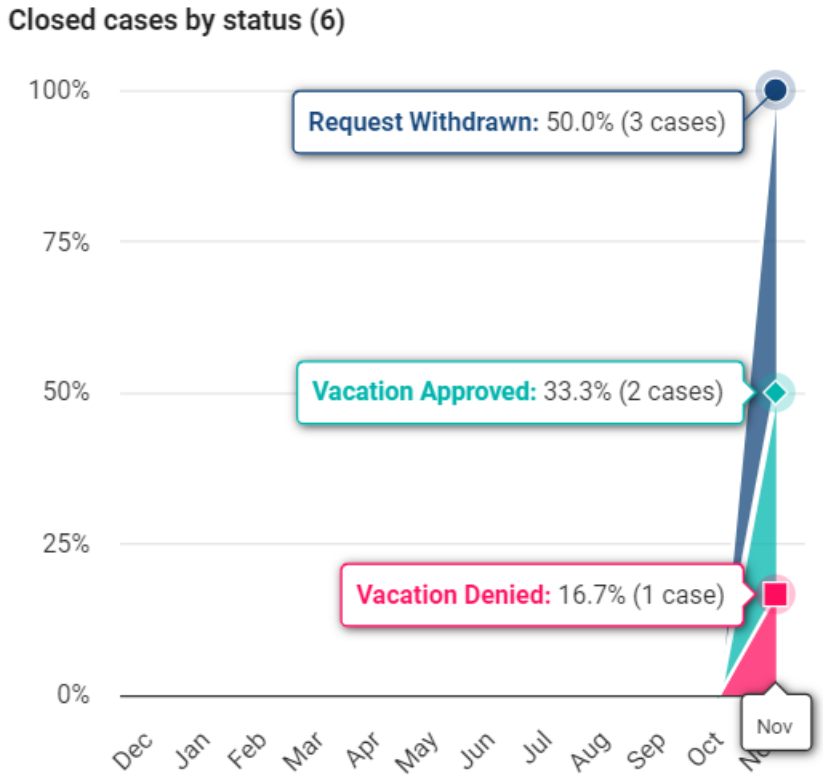
How can I monitor the end status of completed cases for a ProcessApp?

When you open the *Monitoring* tab for a ProcessApp as a *ProcessApp Administrator*, the *Closed cases by status* tile displays a graph that shows the end status, provided they were performed in the last 12 months. In order for the graph to be displayed, you must first set the *status in your process*.

Once you have defined the status, a graph appears to visually represent the closed cases. The Y-axis shows the percentage of end states achieved. The X-axis shows the last 12 months.

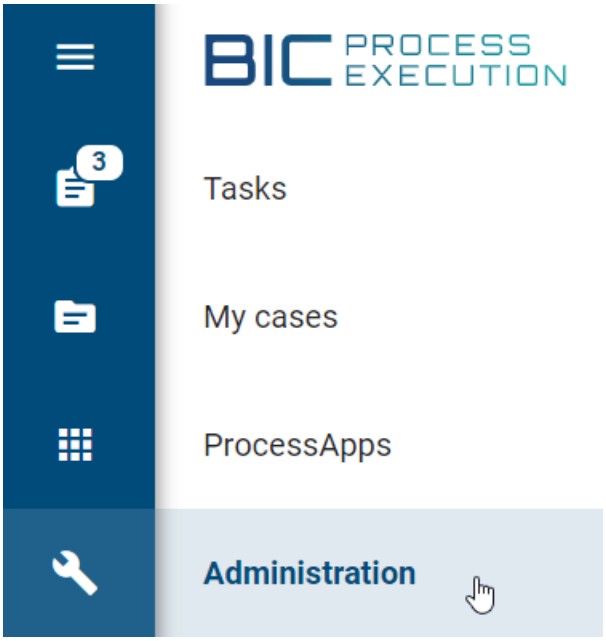
You can move your mouse over the graph to get more detailed information about the closed cases and your end status.

Additionally, you have the option to click on the closed cases by status for the respective month in the chart. You will then be forwarded to the case list of the corresponding ProcessApp. In this case list, all archived cases are filtered by the selected month and end status. You can adjust the filters if necessary.

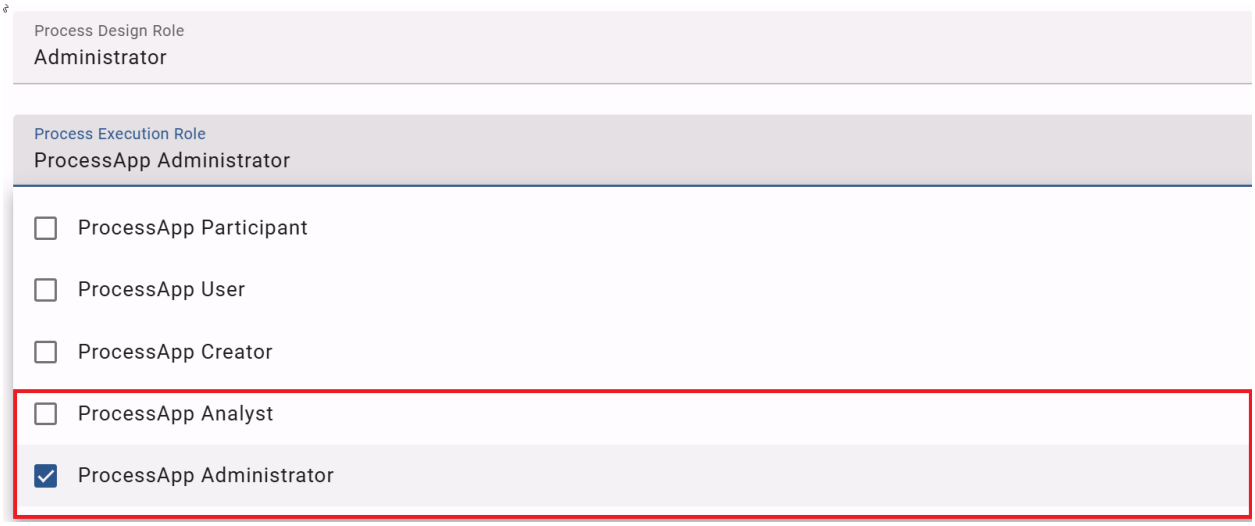


29.6 Administration

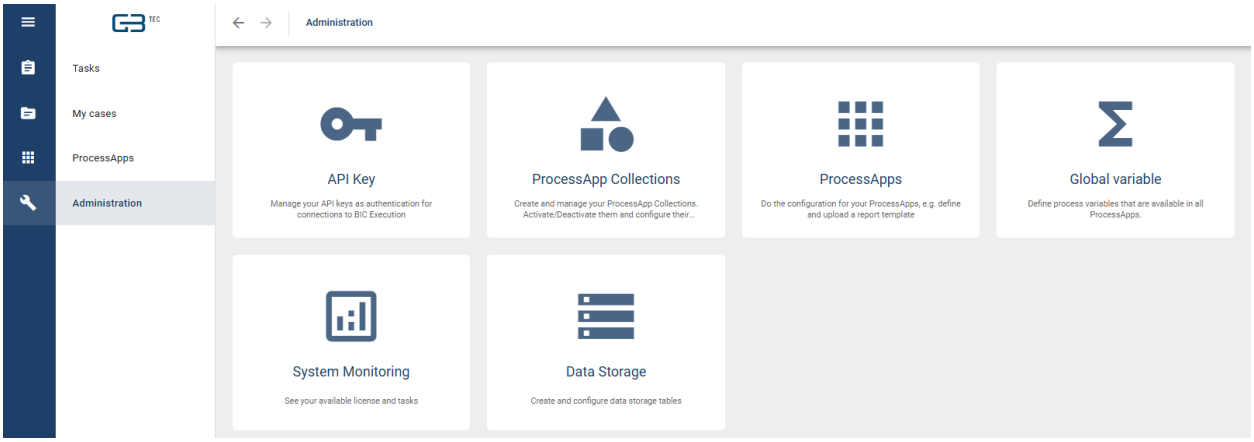
To access the administration area, you need to select the *Administration* button in the left sidebar.



To have full access to the administration, you need to be assigned to the *ProcessApp Administrator* role. You can edit your user details *here*.



Here you see an overview of all the options you can manage.



Warning: The functions *update case details, archive a case, open the case variables dialog and change values of case variables* are available only to ProcessApp Administrators.

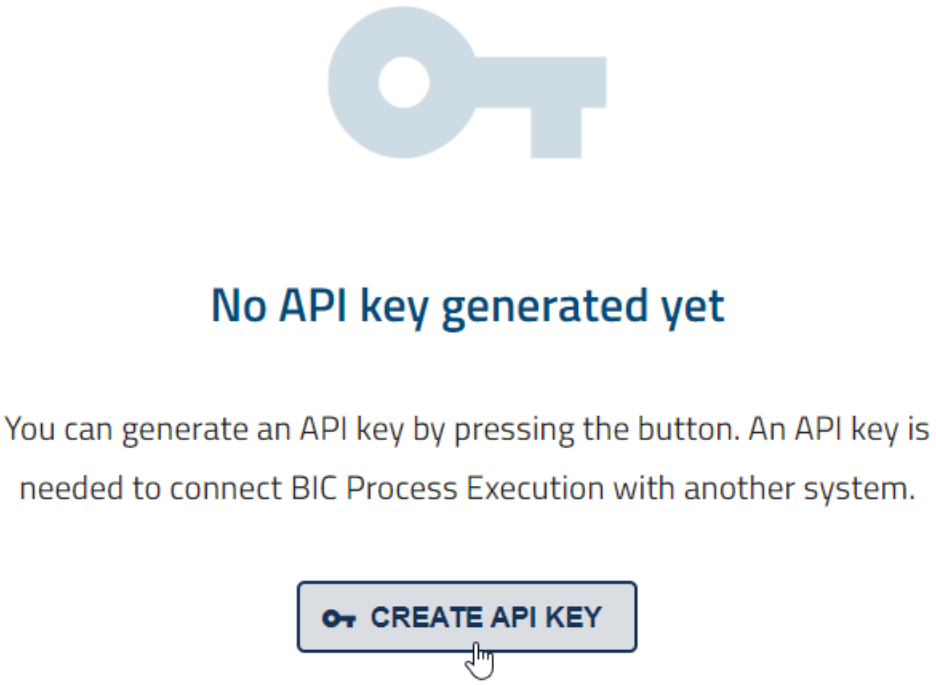
29.6.1 BIC Process Execution API

How can I manage my API key?

To ensure that only authenticated users can access your BIC Process Execution API, each ProcessApp Administrator can create an API key. This can then be used in the respecting REST calls for authentication.

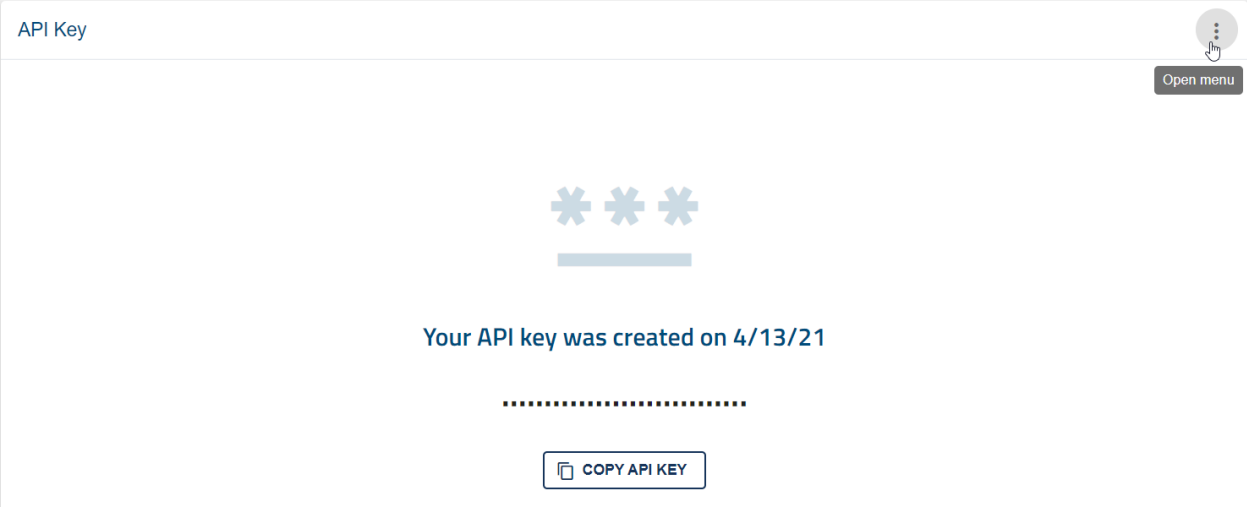
To create an API key, you must first navigate to the administration area. To do this, select the entry *Administration* from the menu. Select the *API Key* option.

Here you can manage your personal API key. If no API key has been created yet, you can see this information in the main area. There you will also find the *Create API Key* button. If you click on, it a new key will be created.

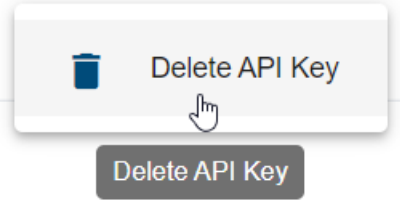


The generated key is now available and valid. The creation date of the key is now displayed in the main area. In addition, the *Copy API Key* button is displayed, which you can use to copy the key to the clipboard of your device.

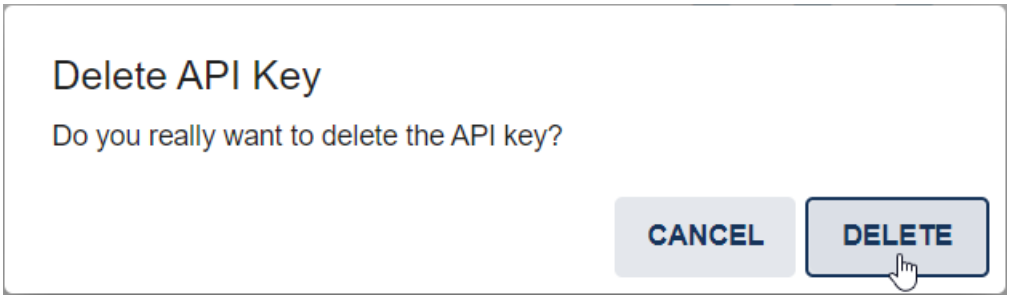
If the API Key is no longer used or is out of date, you can remove it. To do this, open the context menu with the three dots in the upper right corner of the main area.



Then select the entry *Delete API Key*.



A dialog will appear. The API key is deleted and can no longer be used once you click *Delete*.



Within the administration area you can then create a new API key.

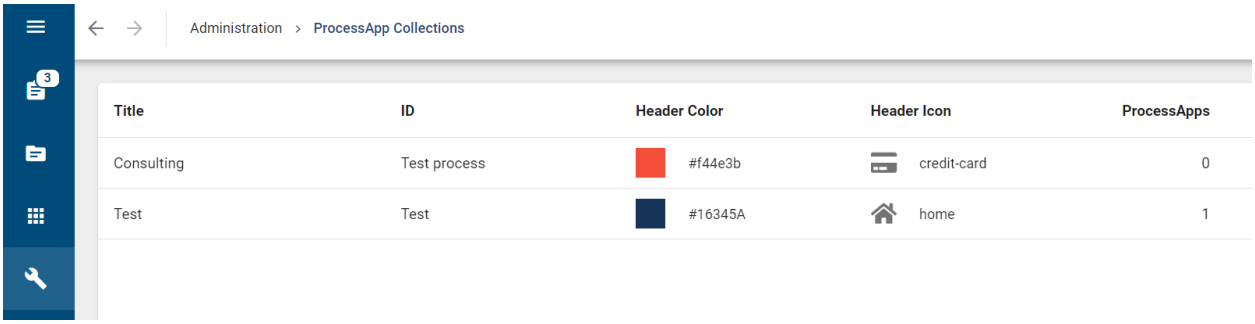
29.6.2 ProcessApp Collections

You can use ProcessApp Collections to group different ProcessApps together. For example, you might group the ProcessApps for a specific department into a ProcessApp Collection. A ProcessApp can be included in as many ProcessApp Collections as you like. In the administration, you can view a list of all available ProcessApp Collections and create new ones.

Tip: In the upcoming versions of BIC Process Execution, the functions of ProcessApp Collections will be extended. You will be able to better structure your ProcessApps so that your users can more quickly identify and execute the cases that are relevant to them.

Where can I find an overview of all ProcessApp Collections?

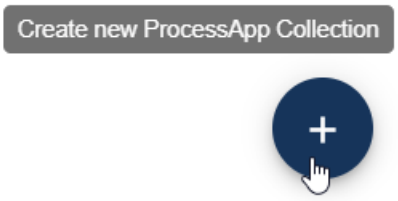
If you want to get an overview of all ProcessApp Collections, you must first navigate to the *Administration*. Select the *ProcessApp Collections* option.



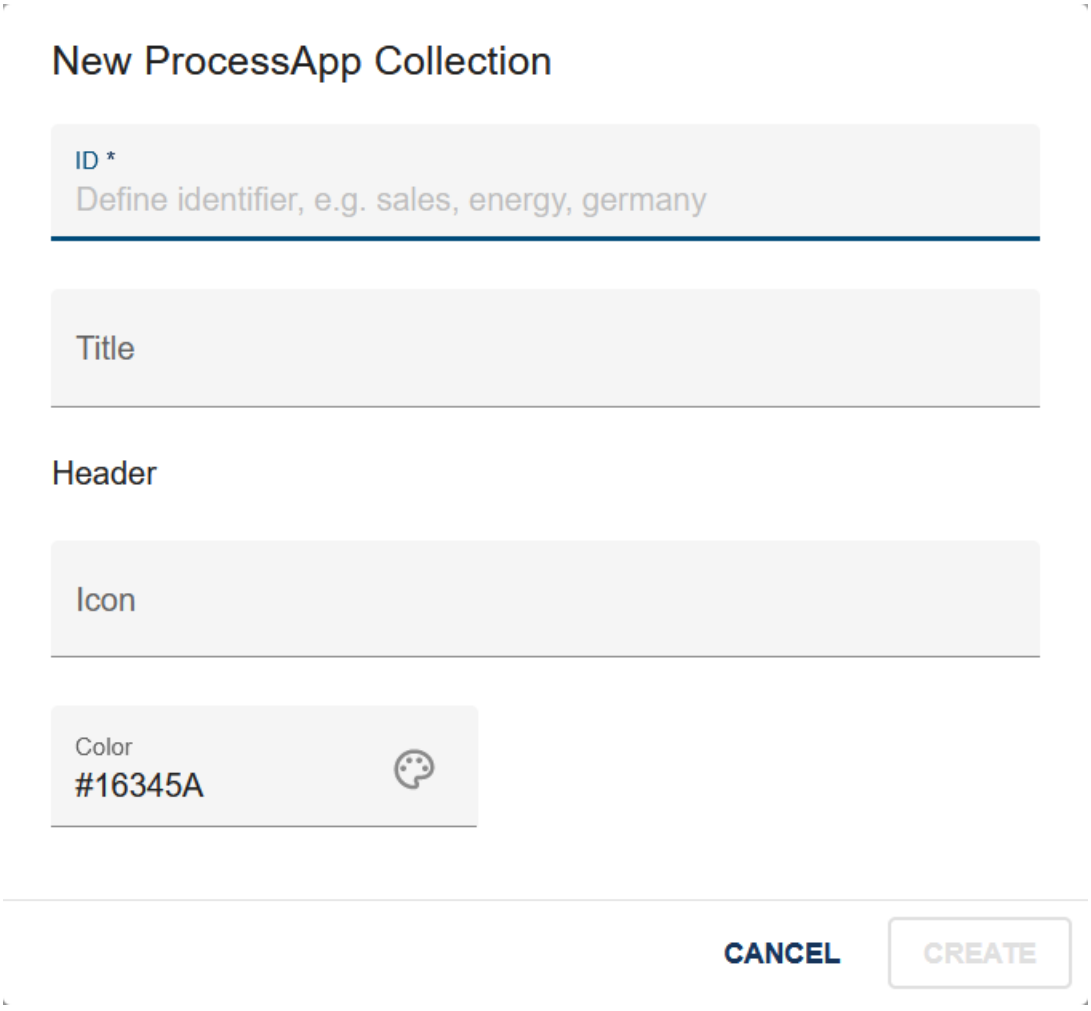
Here you can see an overview of all ProcessApp Collections in alphabetical order.

How can I create a new ProcessApp Collection?

To create a new ProcessApp Collection, navigate to the *overview of all ProcessApp Collections*. In the bottom right corner, you find the *Create new ProcessApp Collection* button.



When you click it, a dialog will appear where you can enter the details of the new ProcessApp Collection.



You must assign a unique ID to your ProcessApp Collection. This is used to *add a process to your ProcessApp Collection*.

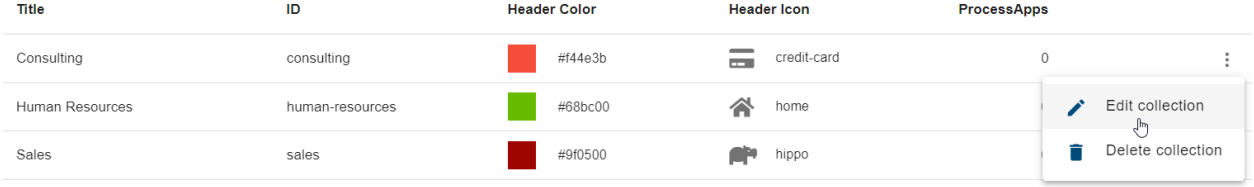
The title will be seen by users when they use this ProcessApp Collection. You also have the option to use a free icon from Font Awesome (v5.15.4) and a color of your choice to make your ProcessApp Collection more prominent.

Then choose *Create* to create your Collection.

Note: You can choose from all Font Awesome v5.15.4 icons except the trademarked ones.

How can I edit a ProcessApp Collection?

To edit a ProcessApp Collection, navigate to the *overview of all ProcessApp Collections*. When you hover over an entry, a context menu appears on the right. Open the menu of the desired Collection and select *Edit collection*.

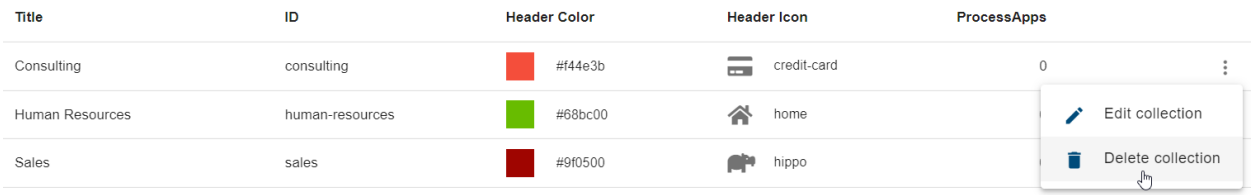


Then, a dialog opens, allowing you to edit the title, icon, and color of your Collection. Note that the ID is read-only. To confirm your changes, press the *Save* button. Use the *Cancel* button if you want to discard your changes.

Note: You can choose from all Font Awesome v5.15.4 icons except the trademarked ones.

How can I delete a ProcessApp Collection?

To delete a ProcessApp Collection, navigate to the *overview of all ProcessApp Collections*. Hover over the entry of the desired Collection. You can then open the context menu that appears to the right of the entry.



Here you will find the option *Delete collection*. When you select this option, a confirmation window appears. If you select *Delete*, your ProcessApp Collection will be deleted. The ProcessApps that it contains are not deleted.

29.6.3 ProcessApps

Where can I find a list of all ProcessApps?

The *administration* provides an overview of all ProcessApps. To access it, first navigate to the *Administration* and select the *ProcessApp* option. You will then see an overview of all available ProcessApps. Furthermore, you can see how many processes of eachProcessApp are currently active or archived.

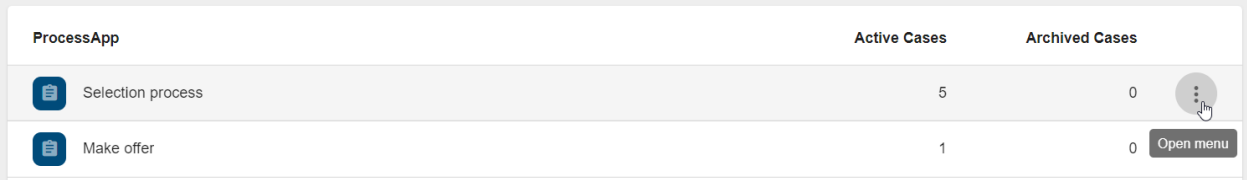
ProcessApp	Active Cases	Archived Cases	Report Template
Job advertisment	3	36	
Vacation request	0	15	
Onboarding	14	83	
plan company event	0	5	
evaluate performance	3	14	
BPM tool evaluation	14	76	

Note: Please note that the administration is accessible only to users with the *ProcessApp Administrator* role.

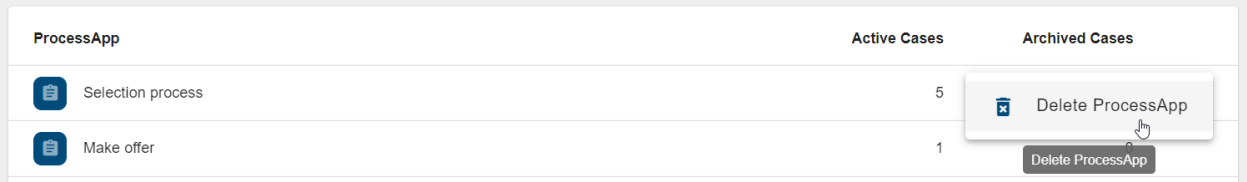
How can I delete a ProcessApp?

If you have tested a ProcessApp in the studio and in the test environment in different cases, you may no longer need this data. In the administration you can delete the ProcessApp including all cases. All started and future tasks of the cases are also removed. The data is deleted only in your current stage (studio or test environment). This is irreversible.

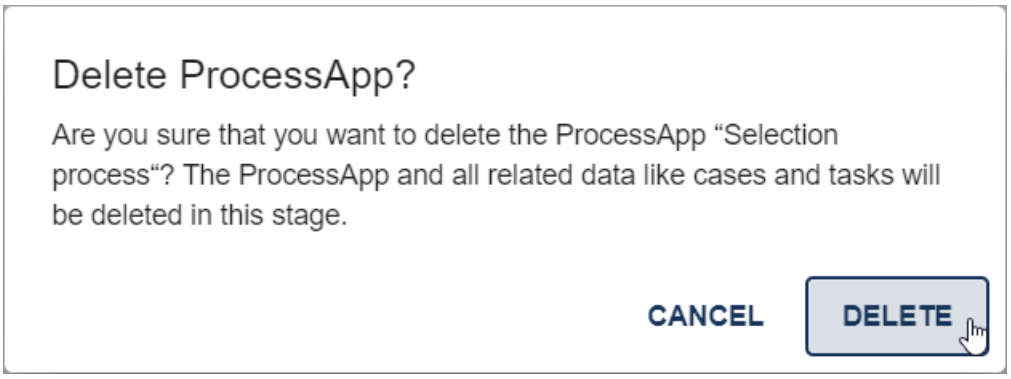
Navigate to the *administration* area and select the *ProcessApps* option. Scroll to the desired ProcessApp in the list of all ProcessApps in the environment. When you hover of the entry, you can select the three dots to *open the menu*.



Then select the *Delete ProcessApp* option.



Confirm the deletion with the *Delete* button in the dialog that appears. Alternatively, you can *Cancel* the deletion.



Note: Please note that the administration is accessible only to users with the *ProcessApp Administrator* role.

29.6.4 Global Variables

Where do I find an overview of all global variables?

Global variables are *process variables* that can be used in all ProcessApps. You can define them in the *administration area* of BIC Process Execution. It is possible to define the value of the variable separately for each stage (Public workspace, Preview and Publication).

To open the overview of all existing global variables, open the *administration area* and select the option *Global Variables*.

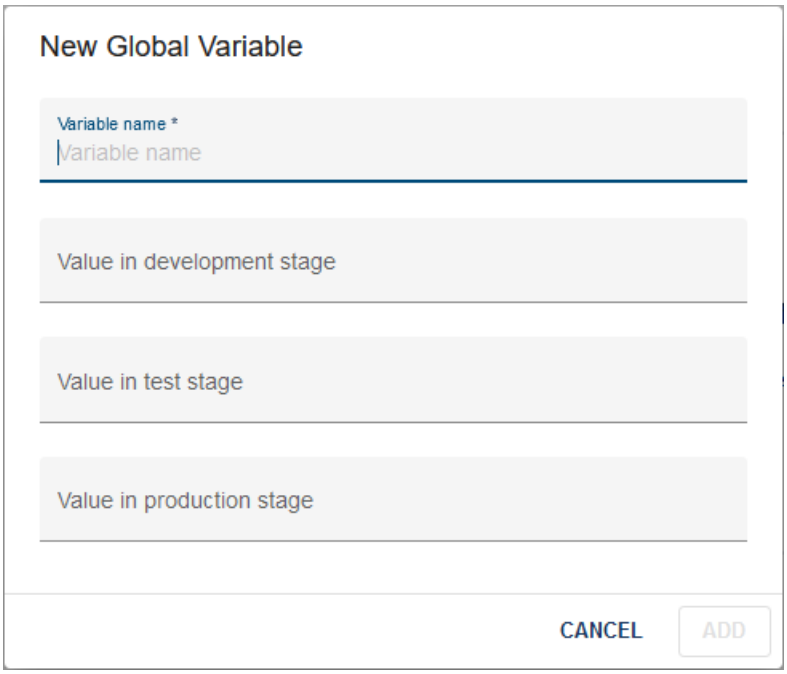
A list of all globally created variables will open. You can see the name and the values of the variables for the corresponding stages. The variables are sorted alphabetically by name.

Variable name	Studio	Test	Production (App)
stage_name	development	test	production
Test	False	True	False
ID_066			1233

How can I add a new global variable?

If you want to add a new global variable, you need to do the following. First, open the *overview of all global variables*. In the bottom right corner you will see a *Plus* button *Add new global variable*.

When you select this button, a new dialog appears. Here you can enter the *Variable name* and the values for the different stages.



Afterwards, you can press *Add* to save your new global variable. Alternatively, you can *Cancel* its creation.

If the name of a global variable contains special characters, punctuation marks, or spaces (e.g., +, /, =, >, ?, ., ;), it

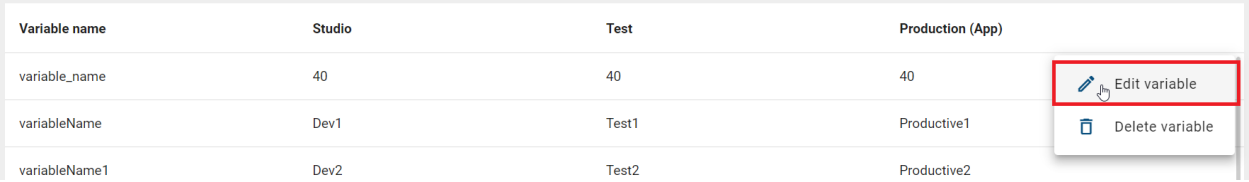
cannot be saved. In addition, the name of a global variable cannot contain accents and specific letters (e.g., á, à, ß, ç, ñ, ö, ü). In these cases, you will receive an error message in the bottom right corner of the page.

Hint: For existing global variables with a dot in the name, the dot is replaced by an underscore. If this creates a duplicate, the global variable is removed.

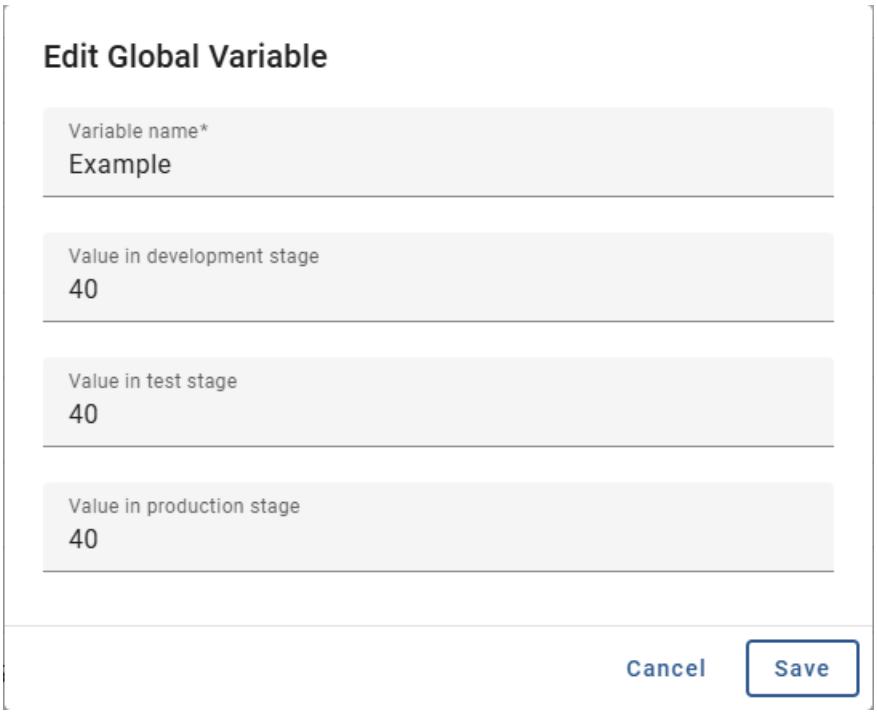
Note: If you do not specify a value for one (or more) stage(s), the value is stored as an empty string.

How can I edit a global variable?

If you are in Process Execution and open the menu item *Administration* in the left menu bar as a *ProcessApp Administrator*, a selection of tiles is displayed. Select the *Global variables* tile here to go to the *overview of all global variables*. In this overview, you have the option of editing existing global variables. To do this, click on the context menu (three dots) of the desired variable and select *Edit variable*.



A dialog will appear in which you can edit the name and values of the various stages of the global variable. If you want to change the name of a global variable, a confirmation dialog appears before saving, in which you can either accept or cancel the change.

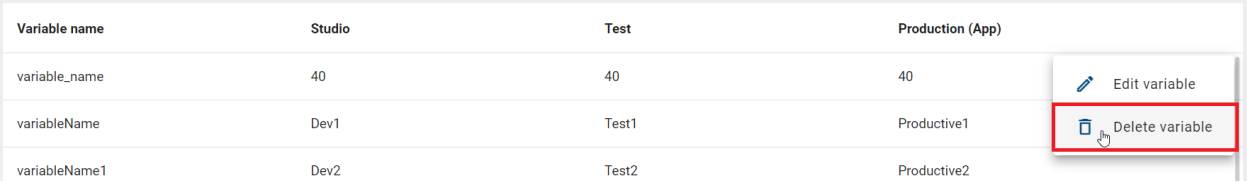


Confirm with *Save* if you want to save the changes, or select *Cancel* to discard the changes.

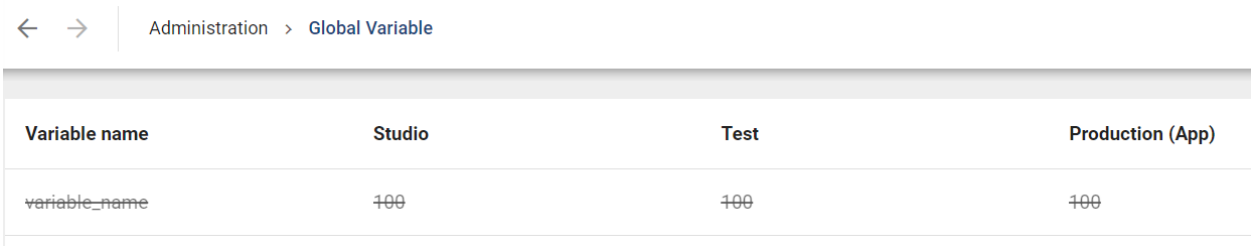
Hint: Please note that changing the variable name can have an effect on running cases. Processes that are currently accessing the initial name of the variable will no longer recognize it after the change.

How can I delete a global variable?

When you are on the *overview of all global variables*, you have the option to delete global variables. To do so, select the context menu (three dots) of the desired global variable and click on *Delete variable*.



A pop-up window will appear asking you to confirm the deletion. Once you click *Delete*, the deleted global variable will appear in your list with a strikethrough and will be permanently removed when you reload. If a global variable has been deleted by another user, it will also appear with a strikethrough in your list.



How are global variables used in the process?

If you use a placeholder in your process that is not defined within the process, the system checks to see if a global variable with the provided name exists. The system then requests the value for the stage at which the case is being executed.

If no value has been set for the stage in which the case is being executed, the placeholder is replaced with an empty string.

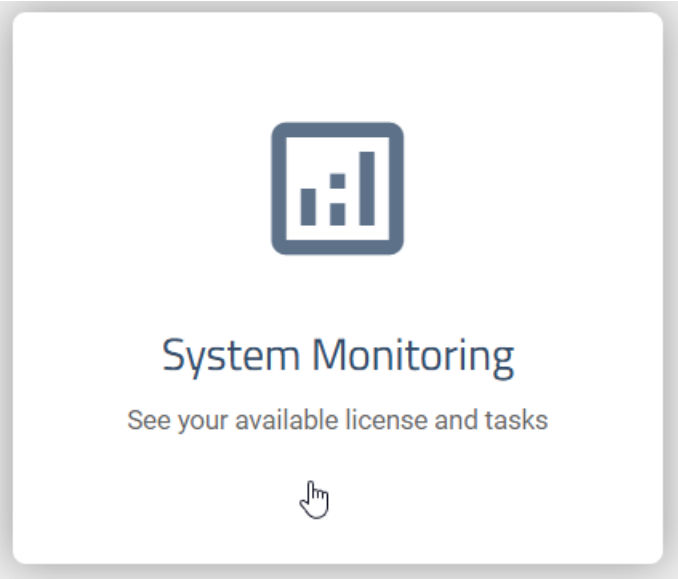
If a global variable is modified within a task, the value is modified within the context of that task. If a global variable is not modified within a task, its value is not transferred to the context of the case.

If the value of a global variable is changed within the context of a task and the task is not yet complete, the change is only valid within that task.

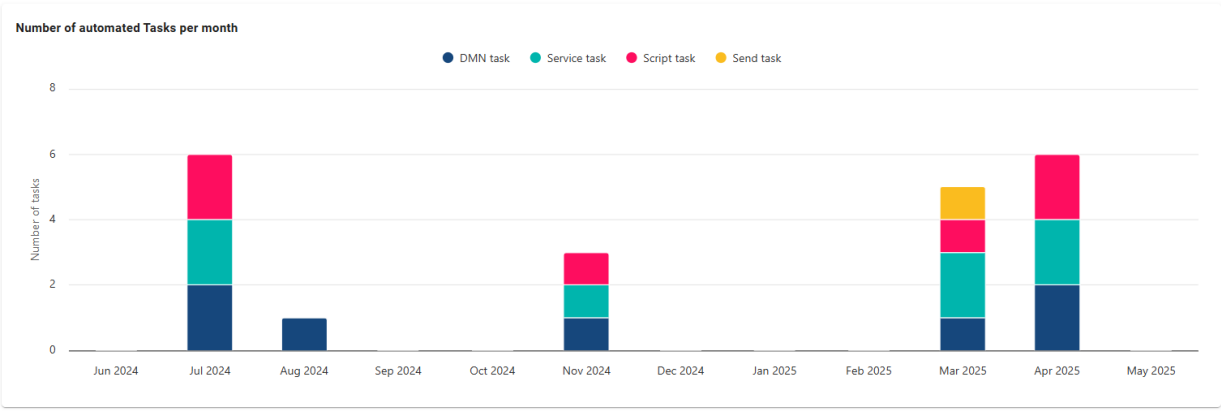
29.6.5 System Monitoring

How can I analyze the number of executed tasks?

When you open the *Administration* menu item in the left menu bar as a *ProcessApp Administrator*, you will see a collection of predefined tiles. The *System Monitoring* tile allows you to see how many tasks have been executed in total to help you keep a better overview of your license plan.



When you click the *System Monitoring* tile, you will see an overview of the number of tasks executed and their types. A stacked bar chart shows you how many tasks have been executed in the last 12 months. The horizontal axis represents the *individual months*, while the vertical axis shows the *number of tasks*. The tasks are grouped by type, including *DMN tasks*, *Script tasks*, *Service tasks*, and *Send tasks*. The exact number of tasks executed per month and per type can be seen by hovering over the bars.

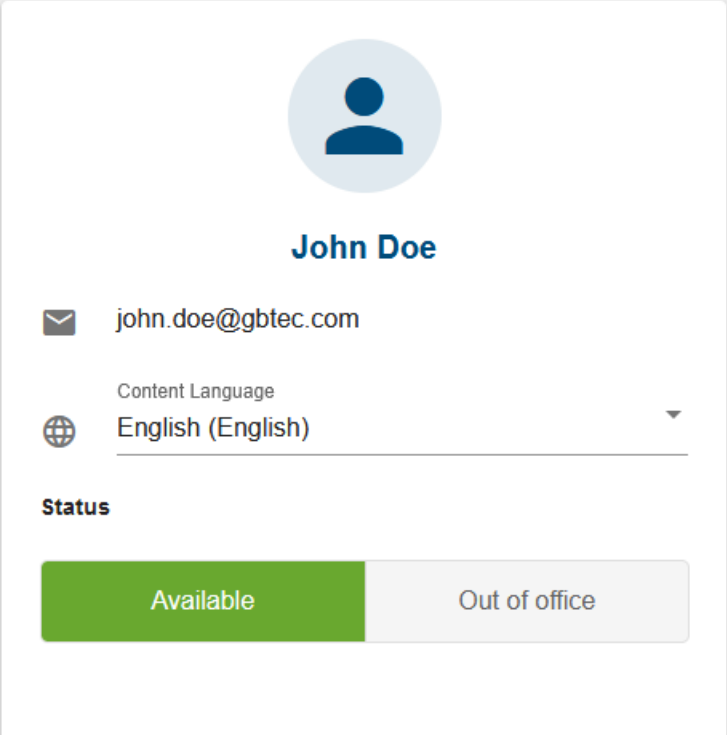


It is also possible to filter the system monitoring. To hide a specific task type from the overview, click on it in the legend above the bar chart. To show the task type again, click on the name in the legend again.

Hint: Please note that only data from version 8.0.0 can be displayed in the system monitoring.

29.7 Profile

The *Profile* area allows you to make adjustments to your BIC Process Execution interface. For example, you can change your content language or settings regarding your deputy.



29.7.1 Deputy

If you are going to be unavailable for an extended period of time, you can change your availability status. You can set a general deputy, who will be responsible for your tasks while you are out of the office. This ensures that important tasks are not forgotten and the normal workflow continues as usual.

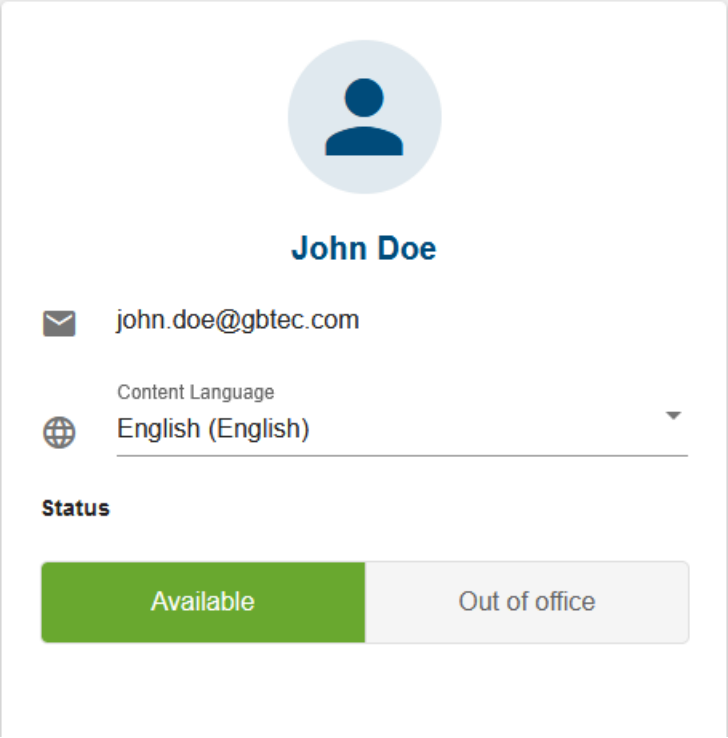
If you set your availability status to *out of office* and have a deputy set, your new tasks will automatically be assigned to your deputy.

Note: If your deputy has also set a deputy and is also *out of office*, your tasks will not be assigned to their deputy. This way you can ensure that your tasks are only be assigned to people you have personally selected.

Note: You will not receive any *email notifications* or *push notifications* if your task is automatically delegated to your deputy. If you are automatically assigned to a task, you will receive all notifications related to that task.

How can I change my availability status?

Your availability status indicates whether you are currently available to work on your tasks or whether you are unavailable (for example, vacation or sick). If you want to change your availability status, you must first navigate to your *profile*. Here you can see your current status. Your selected option is highlighted.

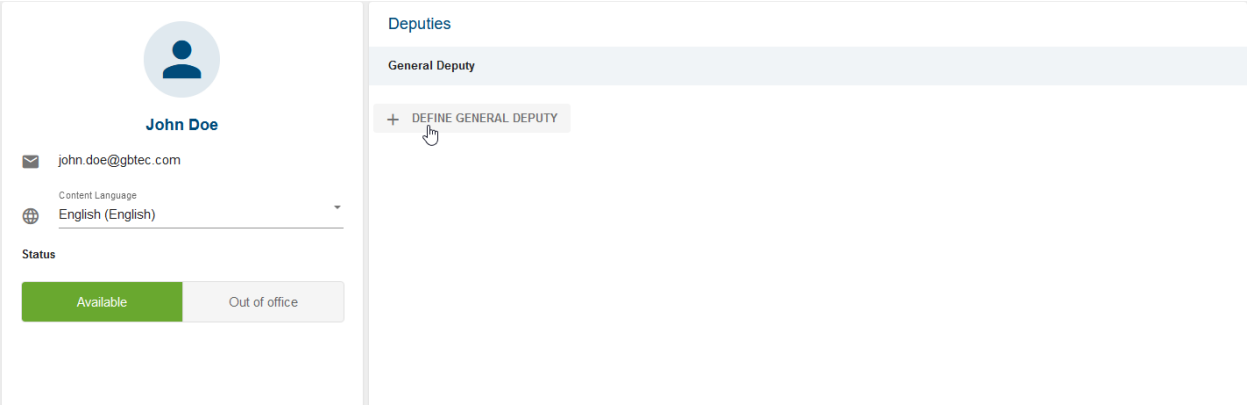


You have the possibility to switch between *Available* and *Out of office*.

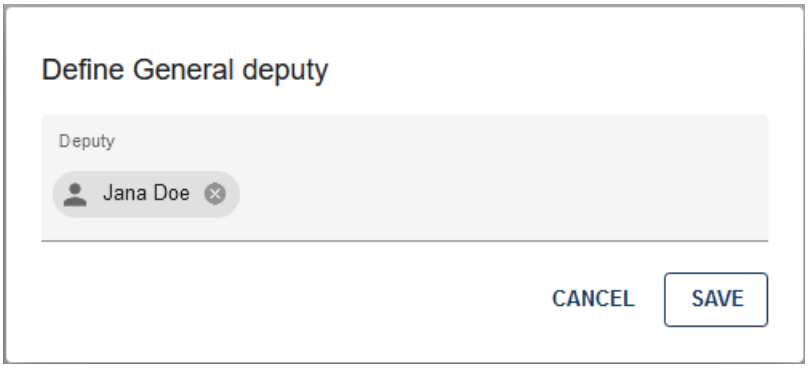
Note: Your availability status does not reset, so it will remain as you set it until you change it again.

How can I set my general deputy?

If you want to set your *general deputy*, you must first open your *profile*. On the right side you can see the *Deputy* overview. Here you can set up a *General Deputy*. To do this, select the *Define General Deputy* option.



An input field will appear where you can enter your general deputy.

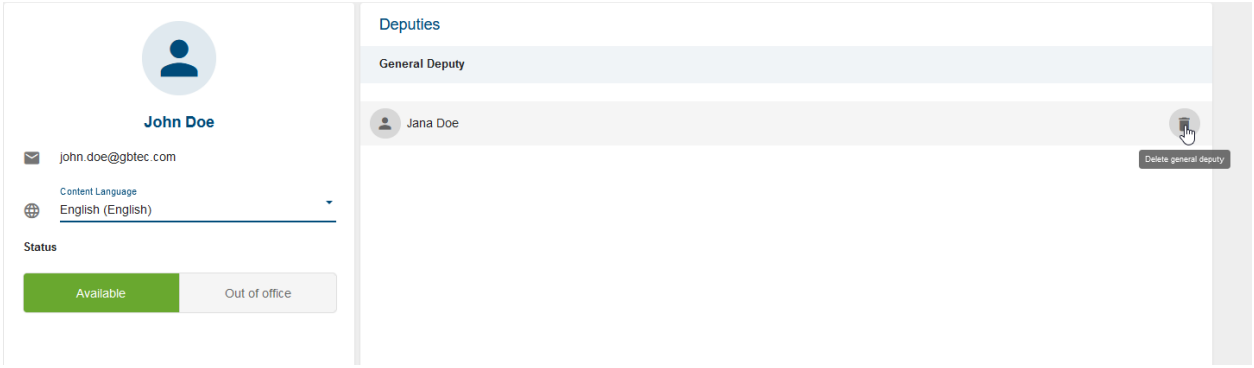


Use the *Save* button to save your general deputy. After the confirmation your deputy will appear in the list on the right.

How can I remove my current general deputy?

To remove your *general deputy*, you must first open your *profile*. On the right side you can see the *Deputy* overview and your *General Deputy*.

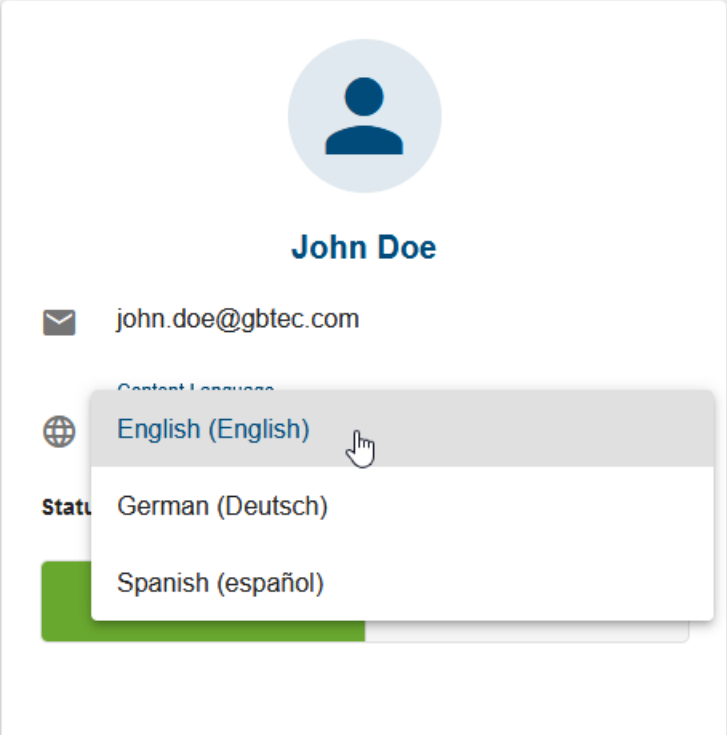
To the right of your Deputy's name is a *trash can* icon. Select this icon.



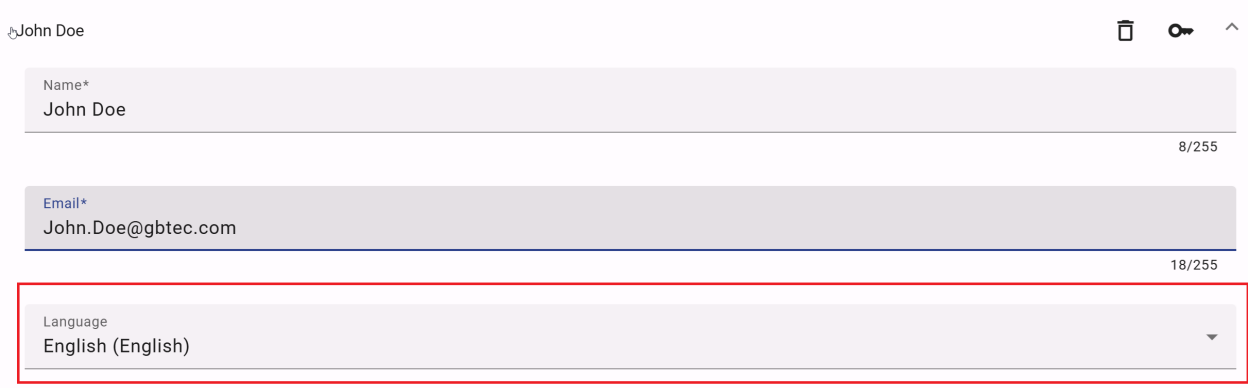
A dialog will appear asking you to confirm the removal of your general deputy. After confirming your general deputy will be removed.

29.7.2 How do I change language settings?

To change the content language of your BIC Process Execution application, navigate to the *Profile* from the menu.



Here you can select the desired content language from the drop-down menu. If you have not selected anything else, the default content language will be the language that was specified as the preferred language in the *User language* under the *User Details* in your administration in BIC Process Design.



Once you have selected a suitable content language, your settings will be adopted in BIC Process Execution. This setting is persist even if you close the application or clear the cache from your browser.

Note: Changes to the content language applied to the BIC Process Execution application do not effect on the content language settings of your BIC Process Design. This allows you to set different content languages in the two applications.

Note: The content languages available to the users are derived from the languages specified in the administration area

of your BIC Process Design.

Hint: Please note that when switching to the alternative language, process names, descriptions and forms are displayed in this language if a translation is available. Otherwise, the content remains in the original content language. The user interface and system messages remain unchanged and continue to be displayed in your browser language.

Hint: Please note that notifications and emails are displayed in the content language even if you have switched to the alternative language.

29.7.3 How can I change the language of the user interface (UI)?

You have the possibility to change the language of your user interface. As in your BIC Process Design, the UI language depends on the browser settings that have been selected for that browser. For more information about this topic, click *here*.

Note: If the UI language settings cannot be applied, the user interface will be displayed in English by default.

CHAPTER

THIRTY

RELEASE NOTES

30.1 Version 8.3.11

30.1.1 Resolved bugs

- [PE-14978] Options flicker on click
- [PE-14785] Find ProcessApps public API endpoint always returns 0 for 'activeInstanceCount'
- [PE-15015] Editor shows unnecessary horizontal scrolling
- [PT-23779] Opening an Insight Grid could freeze the user interface

30.2 Version 8.3.10

30.2.1 Resolved bugs

- [DES-8602] The audit-service doesn't start if migration doesn't finish within timeout limit
- [PT-23906] Documentation still references removed new UI role configuration

30.3 Version 8.3.9

30.3.1 Resolved bugs

- [PT-17266] Timestamps in diagram dashboard are not rendered correctly
- [PT-19329] Editors can see the option to download a diagram archive, but upon trying they receive an error due to missing permissions
- [PT-23097] Process Warehouse fails for high number of maintained diagram attributes
- [PT-23642] Diagram variant comparison does not show all archived versions
- [PT-23763] When modeling a diagram the save button remains disabled after adding a gateway from the quick modeler
- [PT-23800] In some situations catalog contexts are not shown if they do not have a name in the current content language
- [PT-23821] Catalog variant comparison does not show all variant catalog items

- [PE-14966] Identity objects are showing as [object Object] when additional properties are added
- [PE-15044] Bullet points are not rendered correctly in generated PDF Reports
- [PE-14295] Unnecessary padding between menu and navigation arrows
- [PE-14302] Process Execution Focus Switch is misaligned if "User Flow" is enabled
- [PE-14325] Circular dependency check does not work
- [PE-14751] Arty re-adds removed Default Value
- [PE-14973] Collapse and expand tooltips for expandable sections are incorrectly translated
- [PE-15014] Incorrect Form Generation Behavior

30.4 Version 8.3.8

30.4.1 Resolved bugs

- [PE-14868] Null variables are not accesible from script task
- [PE-14874] Form conditional expressions evaluate to false when they contain undeclared variables
- [PE-14318] Wrong position of Tooltip for repetitive Section deletion in Task Form and Preview
- [PE-14877] Value of section fields is not displayed anymore after completing a user form
- [PE-14586] Properties of wrong field are displayed to the user
- [PE-14587] Internal Server Errors during concurrent execution of automated tasks
- [PT-20362] Pasted object is focused on canvas but not selected in sidebar
- [PT-21376] Printing a diagram fails when customer logo was uploaded in certain formats
- [PT-22005] Missing 'Excel Report' labels on options for categories
- [PT-22466] Opening the object details of a diagram assignment is not working
- [PT-22470] Catalog suggestion from approved catalog item will be created in diagram without changes
- [PT-23357] Customer logo in print header and footer has not the expected size
- [PT-23511] Manual report executions are failing when a diagram contains an entity type that is not found in the method
- [PT-23537] Attached files have wrong translations after publication
- [PT-23606] PDF conversion during publication produces different text layout compared to original Word document
- [PT-23627] PDF prints display an attribute placeholder when attribute value is empty
- [PT-23635] Internal Improvement
- [PT-23641] Archived version list pagination does not advance and keeps requesting the first page
- [PT-23691] The character '%' in an attachment's filename may prevent documents from being published
- [PT-23745] Font substitutions are not correctly applied during document stamping

30.5 Version 8.3.7

30.5.1 Resolved bugs

- [DES-9100] Diagram generation with arty fails when the ai communication exceeds a certain limit
- [PE-14592] User can save a User form with duplicate identifiers in case of a Section without identifier
- [PE-14634] Case creation via Web Start Form fails if Start Form only contains HTML field(s)
- [PE-14741] Comma is interpreted as separator if Multiple / Single Choice field is filled via String Array
- [PE-14240] Process instance does not terminate
- [PT-22354] Warehouse report executions are failing when a diagram contains an entity type that is not found in the method
- [PT-23065] Parallel publications of large numbers of diagrams can lead to missing data in the vector store

30.6 Version 8.3.6

30.6.1 Resolved bugs

- [AI-149] Business Capability Map Generation by Arty is failing when number of employees is a string
- [DES-9054] Privacy link at login page is broken
- [PE-13137] Enable Identity object properties in script tasks
- [PE-14660] Connection pool exhaustion after multiple task reminder scheduler executions
- [PE-14680] Formula evaluator dialog is wrapping Boolean fn in placeholder notation
- [PE-14681] Formulas with errors upon evaluation break the User Form
- [PE-14265] Stability and Performance Issues on My Tasks and My Cases list
- [PE-14298] Error Summary is displayed although the field is not mandatory anymore
- [PE-14426] Hints of read-only fields no longer use the correct font color
- [PE-14490] User Picker Identity not matched because of different casing
- [PE-14595] Image upload form generation and data extraction via image recognition not functioning
- [PE-14677] Reloading a page causes conditional readonly fields to appear editable again

30.7 Version 8.3.5

30.7.1 Resolved bugs

- [PT-21813] Displayed attributes are not properly updated in the catalog details view when navigating between catalog objects
- [PT-22452] Process Warehouse and Profile report fail when a date value is older than 01.01.1970
- [PT-22823] Localized attribute values are ignored during stamping
- [PT-22937] Custom attribute values are ignored during stamping

- [PT-23035] Missing tooltip for headers in Business Capability Map view
- [PT-23059] Moving a diagram is not reflected in the search for some cases
- [PT-23209] Publication of catalog item fails if an attachment contains special characters
- [PT-23277] When publishing a catalog item the stamped date differs from the maintained attribute

30.8 Version 8.3.4

30.8.1 Resolved bugs

- [DES-9064] Service reliability improvement
- [PT-18712] Default values set by entity type templates are lost after check-in
- [PT-22843] Unsupported options shown for Business Capability Map Views on small resolution devices
- [PT-23027] Readers are able to approve tasks

30.9 Version 8.3.3

30.9.1 Resolved bugs

- [DES-8856] Creating a variant or copy of a diagram fails if the diagram contains connected rejected catalog items
- [PE-14433] Identity variables are incorrectly filtered when _case object is included in task output
- [PE-14190] “Show/hide list of filter chips” button has a second tooltip with the text “false”
- [PE-14411] Security Improvement
- [PE-14435] Security Improvement

30.10 Version 8.3.2

30.10.1 New Features

- [PE-13982] Update GPT-4o mini model
- [PE-14266] Feature Toggle for Data Storage

30.10.2 Resolved bugs

- [PE-9245] Unreachable fragments are shown in forecast after an already executed OR, I don’t want to see fragments that can not happen anymore
- [PE-13632] Uploaded files in case creation are not managed properly in service tasks if placeholder evaluator engine is “Juel Evaluator”
- [PE-14372] “How can I archive cases?” section lacks role clarification
- [PE-14373] Incorrect permission error displayed on case flow view

- [PE-14376] When several report service tasks generate the same file then they overlap and crash
- [PT-10024] Attribute values separated by semicolons are split and imported as multiple values when using the catalog Excel import
- [PT-14251] Renaming a user group used in a pending workflow breaks workflow
- [PT-22593] Opening an entity publication via the task view shows the wrong options in the options panel
- [PT-22607] Publication fails if a user group name is reused
- [PT-22785] Wrong icon in suggestion list for subprocess/decomposition attribute
- [PT-22844] Search index update run is marked failed in case of failure during single element processing
- [PT-22857] Diagrams/entities with multiple names for a single language cannot be found via the search
- [PT-22755] A technical chart menu is sometimes visible for charts on myBIC and in the catalog

30.11 Version 8.3.1

30.11.1 Resolved bugs

- [PT-22399] Process Warehouse and Profile Report generation fail when an Attachment contains ":\"
- [PE-13301] Unified Process Variable Storage and First-Declaration Detection
- [PE-14142] Case creation is stuck on waiting page
- [PE-14154] Minimum Repetitive Section Count is not reflected in Form Preview
- [PE-14234] Mandatory property should not apply on repetitive Sections without a minimum repetition value
- [PE-14239] Mandatory State is not updating correctly in Repetitive Sections
- [PE-14243] User in repetitive Section cannot be deleted
- [PE-14341] Case creation is retrying although the waiting page is closed

30.12 Version 8.3.0

30.12.1 BIC Process Design

New Features

Use your company glossary with DeepL translations

Administrators can now manage a DeepL Glossary directly in the Translation Service settings. Once set, your company glossary is automatically used for translations whenever a matching language pair is available. You can also clear or replace the glossary at any time, with changes taking effect immediately.

Previously, translations always relied on standard wording, even if your company had defined preferred terms in DeepL. This could result in inconsistent language and additional manual correction efforts. Now, translations follow your company's terminology by default, where possible. This improves consistency, reduces rework, and gives users translations that sound like your business.

Use your own translation service

You can now use a custom translation provider in BIC Process Design. Instead of DeepL, your tenant can be connected to a translation service of your choice. Once set up, the existing translation features work exactly as before, for diagrams and catalog objects.

Some organizations can't use DeepL due to compliance, data-sovereignty, or contractual rules. Until now, that meant giving up built-in translation support. With custom translation services, you get the flexibility to meet your requirements without changing how users translate content.

Hint: Implementation of the custom translation service requires implementation by our Technical Services Team (subject to a fee). DeepL remains the default option.

Let browsers translate BIC Process Design

Administrators can now *enable browser-based translation* for BIC Process Design. When switched on, supported browsers like Firefox and Microsoft Edge can translate both the UI and content automatically for all users in the tenant.

Until now, global teams had to work in a fixed set of application languages. That made collaboration harder and slowed adoption in multilingual environments. With browser translation enabled, users can work in their preferred language instantly, without waiting for official translations, making BIC Process Design more accessible for global teams, right out of the box.

Use ProcessApps to extend diagram functions

Administrators can now *connect ProcessApps to specific diagram types*. Once configured, the ProcessApp appears in the diagram's options menu and can be executed directly from there. Access can be limited to specific user groups, and display names adapt to the user's language.

Before, a ProcessApp could only be launched from the diagram that was the ProcessApp itself. That limited how and where it could be used. Now you can extend the functionality of any diagram. For example, you can build your own feedback workflow as a ProcessApp and attach it to a diagram type, making it available directly in the options menu.

Embed BIC Process Design in your own portals

BIC Process Design can now be embedded in an iFrame as part of the standard product. Customers can display the application inside approved domains.

Previously, embedding was a special system-wide configuration and not available for individual tenants. That limited flexibility and required extra coordination. Now you can integrate BIC Process Design directly and create a seamless experience without context switching. Note: This feature requires a separate license. Allowed domains are preconfigured.

Hint: This feature requires a separate license. Permitted domains are preconfigured.

Copy diagrams with all attributes

You can now create a copy of a diagram directly from the diagram list. The new "Create copy" action in the context menu allows you to specify the name of the new diagram (the original name is pre-filled) and optionally add yourself as the author. The copy is created in the same category, appears at the top of the list, and contains all content, including the diagram attributes.

Previously, copying a diagram meant manual duplication or error-prone workarounds. Now, existing diagrams can be copied securely and instantly, ideal for templates or starting a revised version without changing the original.

Hint: The copy is created from the latest server version of the source diagram. Copies of variants retain their variant history.

Process Hierarchy Insight

The Process Hierarchy Analysis is improved by enriching the *visualization* with clearer visual cues, more accessible details, and direct navigation options.

Apply Coloring to the Insight

Each process represented as a ring segment can now be *colored* based on the number of specific node types contained within it, such as activities, applications, documents, risks, controls, or roles. The visualization uses a heatmap-style color intensity, allowing users to recognize complexity or density at a glance. Processes with a higher number of associated nodes appear more intense, making it easier to identify areas of high activity, operational complexity, or documentation effort.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Show Details of a Process

To support deeper analysis, users can now display *detailed information* for every process shown in the visualization. This enables users to access key metadata without leaving the context of the analysis and makes the visualization not only an entry point for exploring the process landscape but also a source of immediate insight.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Navigate to Process

The analysis experience is further streamlined by enabling *direct navigation* from any ring segment to the underlying process. Users can move seamlessly from high-level visual exploration to the concrete process model they wish to inspect or refine.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Improvements

Edit object attributes directly in attribute-based modeling

In attribute-based modeling, you can now *open and edit the attributes of objects directly from the attribute panel*, without leaving the modeling canvas. This includes both occurrence attributes (like a Risk's owner on a specific activity) and the object's own attributes.

Previously, reviewing or updating the attributes of related objects meant navigating away from your diagram to the catalog, which broke your focus. Occurrence attributes could not be maintained in attribute-base modelling at all. Now you can maintain occurrence attributes and stay in flow, while still benefiting from the same safe catalog behavior you already know, protecting approved catalog objects and handling catalog suggestions correctly.

Decide whether attachments are stamped on publication

A *new governance attribute, "Keep file properties of the attachment" (AT_KEEP_ATTACHMENT_PROPERTIES)*, lets you control whether attached files are stamped during publication. When this attribute is enabled, attachments are published unchanged, no document properties are written and no stamping engine is triggered. When it's disabled, stamping follows the existing publication configuration.

Previously, attachments were always stamped based on global settings, even when that wasn't desirable. With this attribute, you can protect original file metadata for legal or archival purposes, or reduce processing time when publishing large numbers of attachments. It gives governance teams precise control without disrupting established publication processes.

Set individual resubmission intervals per diagram or object

You can now *define a resubmission interval (in months) individually for diagrams and catalog-controlled objects*. Method Administrators can enable this attribute in the Method Editor, set a default value, and make it available for modelers to adjust per item.

Before, resubmission cycles were fixed. That made it hard to reflect different levels of risk or importance. Now you can align resubmission schedules with reality. Critical processes can be reviewed more often, while stable ones follow a longer cadence. This brings more flexibility and clarity to governance, without adding extra overhead.

Hint: The default setting remains fixed at 12 months. Method Editor access is required to enable or configure this attribute.

Clear diagram and object type labels in the details view

Every diagram and object now shows its domain type as a clear, read-only label in the details header. The label includes an icon and a localized name from the tenant method. For objects that are part of the catalog, a badge also indicates whether they are a Catalog suggestion or an approved Catalog object.

Before, it wasn't always clear whether something in the details view was an editable attribute or just descriptive information. That created confusion and slowed people down. Now you can immediately see what kind of object you're looking at and know that the type itself is not something you can change

Bosnian is now available as a content language

Administrators can now enable Bosnian as a content language. Once activated, Bosnian appears in all content language selectors and can be used to create, edit, search, and report on diagrams and objects, just like any other supported language.

Until now, teams working in Bosnian had to rely on other content languages. With Bosnian fully supported, you can create and manage diagrams and objects in the language your teams actually work in, without limitations or special handling.

Zoom in the Diagram Editor exactly where your cursor is

Zooming in the Diagram Editor now follows your mouse cursor, just like in the other stages. When you zoom in or out, the diagram scales around the point you're actually looking at, instead of jumping to the center.

Before, zooming in the Modeler could feel disorienting because the view shifted away from where you were working. That meant extra panning and broken focus. Now zooming feels predictable and precise.

Currency-neutral labels for cost attributes

Currency symbols (such as €) have been removed from cost-related attribute labels in the standard method. The attributes keep their meaning, but their names are now currency-neutral (for example, "Material costs" instead of "Material costs (€)").

Including a specific currency in attribute labels was confusing for teams working outside the Euro zone. With neutral labels, cost attributes now work equally well for all regions, regardless of whether values are entered in Euros, Dollars, or any other currency, making the standard method more globally applicable and easier to understand.

30.12.2 BIC Process Execution

New Features

Form Generation with Image Upload

Forms can be generated directly from an *uploaded image of a paper form* in the Form Editor. Arty analyzes the image and converts detected fields into editable form fields automatically. A preview of the uploaded image is shown before generation, along with the option to add an additional prompt. This makes it possible to influence the result, for example by excluding specific sections such as address details.

Hint: Please note that the AI-powered features of Arty are not included in the standard license. Please contact your sales representative for more information.

Arty as Coding Assistant in Script Tasks

Script tasks now include a built-in chat that helps *generate, update, and refine code directly* in the editor. The chat can read the current script content to provide relevant suggestions and apply generated code back into the editor automatically. Code generation is supported for JavaScript and Groovy. Enhanced AI prompts can be generated for prompt tasks as well.

Hint: Please note that the AI-powered features of Arty are not included in the standard license. Please contact your sales representative for more information.

Interactive Form Preview and Testing

Forms can be *previewed directly* from the Form Editor in a dedicated tab to review layout, styling, and field behavior before deployment. The preview allows full interaction, including testing validations, required fields, conditional logic, and dynamic visibility rules. Test data for process variables can be provided via a dedicated editor, enabling realistic simulations without saving changes. Form submission in preview mode mirrors real usage and displays clear success or error feedback based on validation results.

Custom Field Validation in Form Editor

You can now define *custom validation rules* for individual form fields using expressions and error messages. All validations for a field must pass for the input to be accepted, and validation errors are shown directly below the field when users enter invalid data. Validation settings are available through a new expandable section in the form editor, with a formula editor for easy configuration.

Configurable Section Expansions in Forms

Large forms are easier to navigate with *configurable section expansion behavior*. Each section can be set to always remain visible, be expanded by default, or be collapsed by default when the form loads. Sections that can be expanded or collapsed display an arrow control in the user form.

Error Summary in User Forms

Validation errors are now summarized in a *clear error banner* when completing a form. The banner lists all issues across fields and sections, including mandatory fields, pattern mismatches, invalid dates, and custom validation rules. Each error entry links directly to the corresponding field, making it easy to navigate and fix issues one by one.

File Upload in Repetitive Sections

File input fields can now be used within repetitive sections, where each uploaded file is stored separately and linked to its corresponding section entry. This ensures files remain accessible in later tasks and can be reliably associated with related form data. Optional file inputs and partially filled repetitions are handled correctly, including empty or missing entries

File Upload in Custom Start Forms

Custom start forms now support file uploads during case creation as well. Selected files are validated before submission and only stored when the case is successfully created. This means that file uploads also work in external start forms, such as embedded forms.

Focus Switch in Process Execution

The *Focus Switch* is now available in Process Execution. It allows users to quickly move between Process Execution, Process Management, and Enterprise Architecture without leaving the current window. The current focus is always visible at the top right for easy context.

Filter Chips for Case and Task Lists

Selected filter options are now displayed as removable chips above the Case and Task Lists, making it easy to see and manage active filters. Each chip includes an "x" button to remove the filter, which also updates the corresponding checkbox in the filter facets. Filters applied via drill downs (e.g., from monitoring overdue tasks) automatically show as chips for context. Users can also hide or show the filter chip bar using the new toggle icon for a cleaner view.

Notification for Due External Tasks

External users now receive *notifications* for tasks that are approaching their due date or are overdue. Notifications include all relevant task details. They are sent at the start of the week when the due date is approaching and every day after the task becomes overdue.

Payload Forwarding for Internal Events

Processes can now be triggered from intermediate and end events while passing along *payload data to the next process*. All payload variables from the triggering event are automatically available in the new process, so tasks can access and use them without additional mapping. A "Payload Configuration" field allows creators to add custom variables in JSON format for the triggered process.

30.12.3 BIC EAM

New Features

AI-Based Generation of Business Capability Maps

AI support has been added to *generate company-specific Business Capability Maps* within the Enterprise Architecture Management environment. The generated capability structures follow common patterns and hierarchies typically found in similar organizations, providing users with a best-practice recommendation that can serve as a reference point for their own capability modeling. This offers an immediate, coherent map that reflects established industry standards without requiring teams to assemble such structures manually.

The generated map is currently provided as a read-only view, allowing users to explore and analyze the recommended capability hierarchy while preserving its role as a stable reference model. By removing the need to build an initial model from scratch and by offering a reliable industry-aligned blueprint, the feature accelerates early analysis, supports more consistent architectural reasoning, and strengthens strategic decision-making.

Hint: Please note that the AI-powered features of Arty are not included in the standard license. Please contact your sales representative for more information.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Initiative Support

This release introduces the *"Initiative" object type* to provide a structured way to model and monitor transformation activities within the enterprise architecture. An Initiative bundles essential information such as its classification, priority, responsible lead, financial parameters, progress, and its links to a Strategy and to affected architectural objects. By consolidating these attributes, the model creates a clear representation of what each transformation effort aims to achieve and how it interacts with the broader architecture.

Each Initiative follows its own life cycle, and all Initiatives are collectively visualized in a dedicated roadmap. This roadmap presents the life cycle states of every managed Initiative in one place, giving users an immediate overview of how their transformation portfolio is progressing. This shared view strengthens transparency and supports better coordination across initiatives, helping organizations maintain alignment between strategic objectives and the concrete activities required to implement them.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Insight Grids

Row-Support for Insight Grid Hierarchies

The Insight Grid functionality now incorporates *hierarchical structures* not only into columns but now also into rows. Many EAM objects, such as Business Capabilities, Applications, and IT Components, are modeled in hierarchical form, usually visualized in dedicated diagrams. By bringing these hierarchies into the Insight Grid, users can now adjust the scope and focus more precisely when analyzing architectural relationships. This creates a clearer view of clustered responsibilities, dependencies, and coverage patterns.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Improved Comparison

The *Insight Grid comparison view* that displays differences between two time periods now allow direct navigation to the underlying objects listed in the comparison results. This enhancement streamlines the evaluation of architectural changes by enabling users to move from aggregated insights directly to the detailed objects behind them.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Business Capability Map View Enhancements

There are now several improvements to the *Business Capability Map View*, with a particular focus on making the visualization more informative, easier to navigate, and better suited for analyzing complex capability structures.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Labeling

Users can now choose an *enumeration attribute* whose value is displayed as a label on each Business Capability. This allows users to enrich the map with meaningful contextual information directly within the visualization. Depending on the chosen attribute, the map can highlight aspects such as capability maturity, criticality, or relevance. By exposing these attributes visually, users gain an immediate understanding of patterns that would otherwise require switching to detailed views or filtering through catalogs. If no additional information is needed, a label-free display can be selected to keep the visualization clean and focused.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Navigate to Corresponding Business Capability

To support deeper analysis, users can now *navigate directly from any Business Capability displayed in the map to its corresponding catalog entry*. This creates a smooth transition from high-level visualization to detailed inspection, reducing the number of steps needed to explore or edit architectural content.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Zoom Support

In addition, the map view now includes full *zoom support*. Large capability models can be examined comfortably by zooming in and out via a zoom bar, offering predefined levels. Zooming through the mouse wheel is also supported, ensuring that users can keep an overview of the overall capability landscape or focus on selected parts of the hierarchy with ease.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Improved Catalog Context Integration

To improve clarity in the catalog view, contexts are now visually distinguished more clearly from attribute groups. Previously, both elements used identical widgets, which made it difficult for users to immediately recognize whether an item represented an attribute group or a context. With the new visual indicator, users receive a clear cue about where contexts are located within the details section of a catalog object. This enhancement improves orientation, reduces potential confusion, and creates a more intuitive and readable navigation experience in complex object structures.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

30.12.4 BIC BPM & EAM

New Features

Company Information for Arty

The platform now offers company information settings that allow administrators to provide *contextual details about their organization* to improve the relevance of Arty's generated content. Administrators can specify aspects such as industry or sector, company size, operating regions, primary products or services, target markets, and strategic priorities.

When provided, this information helps Arty tailor its outputs more precisely to the organization's profile, resulting in Business Capability Maps that better reflect the customer's operational environment and strategic intent. By using these optional settings, users benefit from more accurate, industry-aligned suggestions and a faster path to meaningful modeling outcomes without additional manual adjustments.

Hint: Please note that the AI-powered features of Arty are not included in the standard license. Please contact your sales representative for more information.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Focus

Improved Focus Handling for Tenant Favorites

A more intuitive workflow now improves the usability of the *Focus* feature by making the selection process during configuration more intuitive and reducing unnecessary manual steps when configuring tenant favorites: The system now pre-selects the currently active focus automatically when adding new tenant favorites for myBIC, ensuring that users can create favorites more quickly and with fewer interactions. At the same time, the drop-down menu now allows users to select any focus that may become available in the future. This supports proactive preparation and enables users to set up favorites for upcoming areas of work without waiting for those focuses to be fully enabled.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Improved Bookmarking

In addition, bookmarking has been improved to ensure that links to the myBIC page consistently reflect the user's chosen focus. By now embedding the *focus* directly into the URL, the platform now ensures that opening a saved link always loads a view compatible with its intended focus. This results in more predictable navigation behavior and a smoother experience when working across Process Design, Enterprise Architecture, or future focus areas.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Related Objects

Improved Visuals

The user experience has been enhanced when *navigating between related objects in the catalog using the tree view*. To create a smoother and more predictable interaction during loading or while navigating, the tree view now uses a loading animation that remains visible until all required data has been fully retrieved. This ensures that the tree appears only once it is complete, reducing irritation and improving perceived performance.

Additionally, the visual design of the related-object elements has been refined to maintain consistent background colors even during interactions such as hovering or expanding nodes. This increases readability and helps users better distinguish the different levels and connections within the tree.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

30.12.5 Resolved bugs

- [DES-6400] Triggering synchronization endpoint on grc-apigateway for a not existing repository does not result in a proper error response
- [DES-8487] Service reliability improvement
- [DES-8726] Excel Quick Model Template has cosmetic issues
- [DES-5978] Service reliability improvement
- [DES-7848] User report shows Author and Editor as one license
- [DES-8315] Public API documentation misses HttpStatus 409
- [DES-8528] Import via Quick Modeler fails if data from the example sheet is used
- [DES-8817] Service reliability improvement
- [DES-8843] Diagram publication failed when non-catalog-item is replaced by catalog item
- [PT-1957] Author can edit comments of other users and see their edit as set, however these changes do not get saved to the database
- [PT-2413] Diagram Manual with Assignments: Numbering of Process Step tables do not start anew for assigned diagrams
- [PT-13200] Adjusting the page break in checked out Print view does not work and freezes the canvas
- [PT-15021, PT-5952] Undo after auto layout does not restore original edge positions
- [PT-16341] Changing a catalog item via three dots menu back to a suggestion right after approving it leads to an error
- [PT-16677] Publication of document with Powerpoint attachment fails
- [PT-17136] Italic formattings used in a diagram graphic can sometimes lead to missing spaces around words
- [PT-17137] Strike-through formatting does not show on diagram graphic
- [PT-17289] Document publication fails with NullPointerException in Aspose during stamping
- [PT-17406] Spring Boot version update in modeling-assistance-service causes chatbot to not be vectorizable anymore
- [PT-17948] The Breadcrumb isn't correctly displayed for Object types in Details tile in Administration
- [PT-18178] Toast pops up when copying an activity with an associated relationship reminding of missing relationship attributes although standard method is used
- [PT-18655] Privacy link do not redirect to the privacy notice but stay in the application instead
- [PT-19134] Security Improvement
- [PT-20176] Administration labels are broken when reloading the page while being in the Catalog administration view
- [PT-20859] Single value occurrence link attributes are not shown in the diagram read view
- [PT-21243] Column headings in diagram warehouse report are not shown in the selected method language

- [PT-21258] Comparison shows “false positives” when comparing a diagram against a published version
- [PT-21355] Readers and Reviewers have incorrect access rights for depublishing diagrams
- [PT-21430] Resolve flaky test(s) in modeling-assistance-service
- [PT-21569] Arty answers instead of rejecting answers on non-BPM- or process-related topics
- [PT-21732] Life cycle phase dates are not correctly displayed in the catalog details view of an object
- [PT-22058] Insights facets filters do not update on stage change
- [PT-22063] Wrong position of Focus switch in combination with Info Hub widget
- [PT-22136] Diagram edit view may get loaded with incorrect data resulting in possible checkin errors
- [PT-22215] Incorrect error toast shown when publishing catalog contexts containing unapproved catalog entries
- [PT-22249] A technical chart menu is sometimes visible for Governance Roadmap and Life Cycle Roadmap
- [PT-22264] Restore Keyboard Focus to Trigger After Closing Dialog
- [PT-22294] Focus switch icon styling defects
- [PT-22413] Matrix and Process Flow view on Common and Preview stage are showing wrong data for Readers
- [PT-22457] When switching the repository while being on global search, the search is still performed in the previous repository
- [PT-22500] A diagram cannot be opened anymore if it contains a pool without header
- [PT-22504] Catalog list fails to load when the user belongs to many user groups
- [PT-22517] Create option in suggestion list does not update and creates Catalog suggestion with undesired name
- [PT-22546] Chips for available assignments are missing when there are unavailable assignments
- [PT-22553] Missing tooltip in Attachments section for long attachments
- [PT-22567] Adding not included nodes via Variants option does not work
- [PT-22573] Variants view does not update when removing a newly added node
- [PT-22583] Blank right-side panel when opening diagrams from workflow context
- [PT-22590] Missing diagram or catalog object name in mail about closed resubmission if object does not contain a name in a given locale
- [PT-22591] Filters not applied when opening a search favorite on myBic in small resolution devices
- [PT-22609] Import via Quick Modeler fails if data from the example sheet is used
- [PT-22630] Some file formats cannot be uploaded as attachment
- [PE-13124] ProcessAppId is not present in the response of Public API endpoint
- [PE-13494] Translation issues in REST Service configuration form
- [PE-13515] Long username is truncated in User Profile and ellipsis does not appear
- [PE-13534] getStartDate() and getEndDate() do not deliver the time in the generated Report
- [PE-13661] Sections Inside Other Sections During Form Generation
- [PE-13673] User Form’s Formula Evaluation Order is wrong
- [PE-13735] Builds are failing because no space left on runner device
- [PE-13977] User Picker field Placeholder text is cut too quickly
- [PE-14150] User form fields are not read-only on a completed external task

30.13 Version 8.2.19

30.13.1 Resolved bugs

- [PT-19329] Editors can see the option to download a diagram archive, but upon trying they receive an error due to missing permissions
- [PT-23097] Process Warehouse fails for high number of maintained diagram attributes
- [PT-23642] Diagram variant comparison does not show all archived versions
- [PT-23821] Catalog variant comparison does not show all variant catalog items
- [PE-14966] Identity objects are showing as [object Object] when additional properties are added
- [PE-15044] Bullet points are not rendered correctly in generated PDF Reports
- [PE-14325] Circular dependency check does not work
- [PE-14586] Properties of wrong field are displayed to the user
- [PE-14973] Collapse and expand tooltips for expandable sections are incorrectly translated

30.14 Version 8.2.18

30.14.1 Resolved bugs

- [PT-20362] Pasted object is focused on canvas but not selected in sidebar
- [PT-21376] Printing a diagram fails when customer logo was uploaded in certain formats
- [PT-22005] Missing 'Excel Report' labels on options for categories
- [PT-22466] Opening the object details of a diagram assignment is not working
- [PT-22470] Catalog suggestion from approved catalog item will be created in diagram without changes
- [PT-23357] Customer logo in print header and footer has not the expected size
- [PT-23511] Manual report executions are failing when a diagram contains an entity type that is not found in the method
- [PT-23537] Attached files have wrong translations after publication
- [PT-23606] PDF conversion during publication produces different text layout compared to original Word document
- [PT-23627] PDF prints display an attribute placeholder when attribute value is empty
- [PT-23641] Archived version list pagination does not advance and keeps requesting the first page
- [PT-23691] The character '%' in an attachment's filename may prevent documents from being published
- [PT-23745] Font substitutions are not correctly applied during document stamping

30.15 Version 8.2.17

30.15.1 Resolved bugs

- [PE-14868] Null variables are not accesible from script task
- [PT-23635] Internal Improvement

30.16 Version 8.2.16

30.16.1 Resolved bugs

- [PE-14587] Internal Server Errors during concurrent execution of automated tasks

30.17 Version 8.2.15

30.17.1 Resolved bugs

- [DES-9100] Diagram generation with arty fails when the ai communication exceeds a certain limit
- [PE-14592] User can save a User form with duplicate identifiers in case of a Section without identifier
- [PE-14634] Case creation via Web Start Form fails if Start Form only contains HTML field(s)
- [PE-14240] Process instance does not terminate
- [PT-22354] Warehouse report executions are failing when a diagram contains an entity type that is not found in the method
- [PT-23065] Parallel publications of large numbers of diagrams can lead to missing data in the vector store

30.18 Version 8.2.14

30.18.1 Resolved bugs

- [PE-14660] Connection pool exhaustion after multiple task reminder scheduler executions
- [PE-14680] Formula evaluator dialog is wrapping Boolean fn in placeholder notation
- [PE-14681] Formulas with errors upon evaluation break the User Form
- [PE-14265] Stability and Performance Issues on My Tasks and My Cases list

30.19 Version 8.2.13

30.19.1 Resolved bugs

- [PT-14343] Catalog search does not handle results with names prepending from the search term well
- [PT-21813] Displayed attributes are not properly updated in the catalog details view when navigating between catalog objects
- [PT-22452] Process Warehouse and Profile report fail when a date value is older than 01.01.1970
- [PT-22823] Localized attribute values are ignored during stamping
- [PT-22937] Custom attribute values are ignored during stamping
- [PT-23059] Moving a diagram is not reflected in the search for some cases
- [PT-23209] Publication of catalog item fails if an attachment contains special characters
- [PT-23277] When publishing a catalog item the stamped date differs from the maintained attribute

30.20 Version 8.2.12

30.20.1 Resolved bugs

- [DES-9064] Service reliability improvement
- [PE-13137] Enable Identity object properties in script tasks
- [PE-14490] User Picker Identity not matched because of different casing
- [PE-14157] Parallel gateway after message start event does not execute all paths

30.21 Version 8.2.11

30.21.1 Resolved bugs

- [PT-18712] Default values set by entity type templates are lost after check-in
- [PT-22939] Column headings in diagram warehouse report are not shown in the selected method language
- [PT-23027] Readers are able to approve tasks

30.22 Version 8.2.10

30.22.1 Resolved bugs

- [PE-14433] Identity variables are incorrectly filtered when _case object is included in task output
- [PE-14142] Case creation is stuck on waiting page
- [PE-14411] Security Improvement
- [PE-14435] Security Improvement

30.23 Version 8.2.9

30.23.1 New Features

- [PE-13982] Update GPT-4o mini model

30.23.2 Resolved bugs

- [PT-14251] Renaming a user group used in a pending workflow breaks workflow
- [PT-22593] Opening an entity publication via the task view shows the wrong options in the options panel
- [PT-22607] Publication fails if a user group name is reused
- [PT-22785] Wrong icon in suggestion list for subprocess/decomposition attribute
- [PE-9245] Unreachable fragments are shown in forecast after an already executed OR
- [PE-13632] Uploaded files in case creation are not managed properly in service tasks if placeholder evaluator engine is “Juel Evaluator“
- [PE-14372] “How can I archive cases?” section lacks role clarification
- [PE-14373] Incorrect permission error displayed on case flow view
- [PE-14376] When several report service tasks generate the same file then they overlap and crash

30.24 Version 8.2.8

30.24.1 Resolved bugs

- [DES-8843] Diagram publication failed when non-catalog-item is replaced by catalog-item
- [PT-22755] A technical chart menu is sometimes visible for charts on myBIC and in the catalog
- [PT-22844] Search index update run is marked failed in case of failure during single element processing
- [PT-22857] Diagrams/entities with multiple names for a single language cannot be found via the search

30.25 Version 8.2.7

30.25.1 Resolved bugs

- [PE-13124] ProcessAppId is not present in the response of Public API endpoint
- [PE-13301] Unified Process Variable Storage and First-Declaration Detection
- [PT-22399] Process Warehouse and Profile Report generation fail when an Attachment contains “:"
- [PT-22630] Some file formats cannot be uploaded as attachment
- [PT-22567] Adding not included nodes via Variants option does not work
- [PT-22546] Chips for available assignments are missing when there are unavailable assignments
- [PT-22500] A diagram cannot be opened anymore if it contains a pool without header

- [PT-22136] Diagram edit view may get loaded with incorrect data resulting in possible checkin errors
- [PT-22063] Wrong position of Focus switch in combination with Info Hub widget
- [PT-21258] Comparison shows “false positives” when comparing a diagram against a published version
- [PT-22573] Variants view does not update when removing a newly added node

30.26 Version 8.2.6

30.26.1 Resolved bugs

- [PT-22050] Attached Intermediate Events cannot be connected to other objects via outgoing sequence flows
- [PT-22096] Columns in Insights are not sorted
- [PT-22311] Repository and stage switch are visible when navigating from a catalog object to a page that is independent of the repository and stage
- [PT-22323] Certain special character in the file name of an attachment blocks displaying or downloading it
- [PT-22472] PE user may face an inoperable catalog details page for specific entity types
- [PT-22492] Modeling an invalid flow type between subprocess elements and external elements is possible
- [PT-22497] Check-in fails when relationship attributes are newly maintained and the activity is deleted
- [PE-14148] User can not check-in Diagram with big User Tasks

30.27 Version 8.2.5

30.27.1 Resolved bugs

- [DES-8817] The system is not reachable when there is a large number of parallel requests
- [PE-13977] User Picker field Placeholder text is cut too quickly
- [PE-14153] Send tasks fail for documents without identifier

30.28 Version 8.2.4

30.28.1 Resolved bugs

- [DES-6400] Triggering synchronization endpoint on grc-apigateway for a not existing repository does not result in a proper error response
- [DES-8487] Service reliability improvement
- [DES-8726] Excel Quick Model Template has cosmetic issues
- [DES-5978] Service reliability improvement
- [DES-7848] User report shows Author and Editor as one license
- [DES-8315] Public API documentation misses HttpStatus 409
- [DES-8528] Import via Quick Modeler fails if data from the example sheet is used

- [DES-8817] The system is not reachable when there is a large number of parallel requests
- [DES-8843] Diagram publication failed when non-catalog-item is replaced by catalog item
- [PE-13124] ProcessAppId is not present in the response of Public API endpoint
- [PE-13494] Translation issues in REST Service configuration form
- [PE-13515] Long username is truncated in User Profile and ellipsis does not appear
- [PE-13534] getStartDate() and getEndDate() do not deliver the time in the generated Report
- [PE-13661] Sections Inside Other Sections During Form Generation
- [PE-13673] User Form's Formula Evaluation Order is wrong
- [PE-13735] Builds are failing because no space left on runner device
- [PE-13977] User Picker field Placeholder text is cut too quickly
- [PE-14150] User form fields are not read-only on a completed external task
- [PE-13843] File names of large uploaded files are not properly cropped
- [PE-13884] Async Multi Instance Call Activity should create all sub processes for an input array
- [PT-18069] Index update for entity with a lot of assignments runs into timeout
- [PT-18152] Extend validity does not work for entities when using custom resubmission interval
- [PT-18972] Bad scrolling behavior in firefox
- [PT-20466] Uploading unsupported file types causes issues in search
- [PT-21740] Entity publication fails if document contains an URL attachment
- [PT-21827] Multivalue attributes are separated by comma instead of semicolon in the process warehouse report
- [PT-21923] Category tree does not scroll into the selected category when it is loaded
- [PT-21927] Process Warehouse fails in some cases of attribute values not matching the type defined in the method
- [PT-22090] Filter values of Governance Lifecycle "Workflow" are missing translations
- [PT-22208] Diagram list does not scroll down correctly
- [PT-22309] Insight grids are not updated when the repository is changed
- [PT-22221] Canceling deletion dialog in catalog makes catalog object temporarily disappear in the list
- [PT-22340] Saved simulations are not listed on the simulation option panel
- [PT-22373] Entity Types that are not assigned to a diagram type in method are missing in suggestion lists of assignment attributes

30.29 Version 8.2.3

30.29.1 Resolved bugs

- [PT-13461] Scrolling the user list in the "Add user" dialog is not possible
- [PT-18387] Application is not usable without repository id
- [PT-20231] Time period filter does not work correctly in small resolutions

- [PT-20764] Diagram cannot be indexed in vector store with a huge amount of data
- [PT-21492] Keyboard navigation in list tables moves through not wanted items when screen reader is active
- [PT-21654] Assignment attribute values are not displayed when viewing a context within the catalog
- [PT-21775] Service reliability improvement
- [PT-21776] Opening a catalog object from an assignment of another catalog object does not reset context diagram list
- [PT-21826] Arty is lacking information about published processes
- [PT-21854] Security Improvement
- [PT-22033] Filter facets are not shown in Insight grids
- [PT-1496, PT-1547] Overview "Responsibilities in the process" is always shown in diagram with assignment report
- [PT-18054] Links in catalog get opened in same tab instead of new tab in Portal
- [PT-18655, DES-8665] Privacy link do not redirect to the privacy notice but stay in the application instead
- [PT-20059] Redirection to the correct subdomain does not work for URLs leading to the old webclient
- [PT-21157] The user can maintain multivalue text attributes longer than the allowed limit which causes the check-in to fail
- [PT-21811] Process warehouse fails when processing boolean value for attribute typed as enum
- [PT-21821] Moving a diagram results in an error or shows outdated category path
- [PT-21884] Warehouse report fails if the title of an attachment contains a '%' character
- [PT-21901] Scrolling the user group members list fails the more users there are
- [PT-21911] Subprocess icon is still shown on the editor when a subprocess is no longer available
- [PT-22197] The online help says that editors can export diagrams but this shouldn't be possible
- [DES-5978] Method-service responds state "unhealthy" on health-check
- [DES-7215] BPMN import fails when the diagram contains a pool with nested lanes
- [DES-8563] Requesting variants has bad performance in combination with access restrictions
- [PE-13532] Files cannot be downloaded if the content Type was set to Auto on Uploading
- [PE-13533] Wrong Status Code on Instance creation with missing parameters
- [PE-13534] getStartDate() and getEndDate() do not deliver the time in the generated Report
- [PE-13659] The add button and delete mode are displayed incorrectly in repetitive sections when the minimum and maximum are equal
- [PE-13661] Sections Inside Other Sections During Form Generation
- [PE-13673] User Form's Formula Evaluation Order is wrong
- [PE-13776] User Fields Min length and Max length validation does not work
- [PE-13800] Multiple/Single choice field in repetitive Section cannot be filled via process variable
- [PE-13815] User form can be saved without ID on error state
- [PE-13703] Form cannot be completed although all fields are filled
- [PE-13811] Adding a comment to an intermediate timer event causes "proceed now" button to fail

- [PE-13936] Guest tasks are not accessible after the retention period of other cases has expired

30.30 Version 8.2.2

30.30.1 Resolved bugs

- [DES-8256] Bulk updating entities has high memory consumption if updating a huge amount of entities
- [DES-8379] Bulk update fails for entities and diagrams if an assignment is referencing diagrams
- [DES-8549] Selection of repositories and categories is not possible for extended periods
- [PT-12159] Language switch in new UI disables “Save” button when editing a catalog entry
- [PT-19942] Occurrence attributes are not displayed in translation mode
- [PT-20074] Version comparison does not show differences in occurrence attributes
- [PT-21237] Newly added assignments in the latest diagram version makes comparison mode unresponsive
- [PT-21307] Data tooltips in insights matrixes have a wrong layout
- [PT-21426] Diagram list is sorted incorrectly for diagram names with plain numbers and special characters
- [PT-21428] Diagram list sorting ignores special characters
- [PT-21432] Catalog objects maintained Serbian cannot be found
- [PT-21451] Nested business capabilities are not considered in badge count
- [PT-21452] Business Capability Map view relies on associations and entities instead of nodes and edges, leading to wrong nested views
- [PT-21463] Adding an annotation on top of a lane sometimes changes the lane to a new catalog suggestion
- [PT-21468] Layout assistant is aligning edges wrongly when satellite objects are configured to the bottom
- [PT-21488] Insights become visible when browser is resized from desktop to small device resolution
- [PT-21555] Redirections from old ui to new ui do not happen sometimes and the user stays in the old UI
- [PT-21589] Hidden entity types are still offered for creation on relationship or assignment attributes
- [PT-21569] Arty answers on unrelated topics
- [PT-21571] Left-click navigation is not working in object relations tree
- [PT-21594] Search does not find results maintained in different alphabet than the search term
- [PT-21664] Checked out diagram cannot be opened in Publication what causes repeated requests to the domain-service
- [PT-21696] Screen reader announces the previous column header when navigating custom Catalog column cells with the keyboard
- [PE-13029] Memory Leak in JavaScript Execution
- [PE-13066] Out of Memory Issue in Process Execution Environment
- [PE-13624] Inconsistent behavior of Date Picker
- [PE-13626] Wrong Pages in Table of Content in generated Reports
- [PE-13647] Single and Multiple option dropdown is misaligned
- [PE-13736] Security improvement

30.31 Version 8.2.1

30.31.1 Resolved bugs

- [DES-8477] An empty category for context diagrams is shown after importing a repository containing catalog contexts
- [PT-11414, PT-17851, PT-20583] Accessibility improvements
- [PT-17386] High contrast theme is not applied to dashboards and analytics charts
- [PT-19963] OCL validation fails when Author is auto-filled in diagrams
- [PT-20182] Assignment chips are not sorted in the diagram details view
- [PT-20544] Custom attribute type names in the context of an entity type are not applied in Modeler
- [PT-20804] Diagram attributes are not updated on stage change
- [PT-20827] Enum attribute values mapped to "0" are not displayed
- [PT-20947] Pressing enter in a process flow row marks the entry as done IF a screen reader is open
- [PT-20971] Catalog objects containing a lot of characters cannot be found
- [PT-21235] Compressed files containing BPMN cannot be imported
- [PT-21246] In catalog object relations the tooltip "object attribute" is unexpectedly shown, when the plus or minus button is pressed
- [PT-21275] Entity Profile report fails when attributes are missing in the method
- [PT-21300] Browser cache causing redirection of the old UI URLs to the new UI to fail
- [PT-21303] Diagram checkout button is missing
- [PT-21344] User creation is not possible for email addresses with long top-level domains
- [PT-21356] Business Capability Map: Incorrect number badge design in closed state & missing hover over icon
- [PT-21388] Repository names are always shown as "[No content]" in favorites tile in my BIC
- [PT-21400] Security Improvement
- [PT-21407] Adjust comparison logic or labels to ensure correct element meaning in comparison view
- [PT-21417] SVG generation render font and icons incorrectly
- [PT-21422] User accounts with upper case letters in mail address cannot be updated
- [PT-21429] Switching the repository while editing a diagram leads to failed check in on return
- [PT-21499] modeling-assistance-service tickets do not get fully resumed after service restart
- [PT-21552] Arty displays a default error message
- [PT-21553] Redirections from old client search to new client search do not use the correct repository, stage and locale
- [PE-13066] Out of Memory Issue in Process Execution Environment

30.32 Version 8.2.0

30.32.1 BIC Process Design

New Features

Bulk update in the catalog

In the catalog's public workspace, administrators and editors can now *update multiple catalog entries* at once, for example, to replace the responsible person on a set of documents. For managing objects in attributes of the Assignment data type, the actions Replace, Remove, and Add are available, making it easy and efficient to update catalog object references. After the operation completes, a downloadable log is provided that lists all affected objects and indicates whether each update was successful.

This feature also applies to attributes whose value range is restricted to one single object references (for example the single-valued attribute "Responsible"). Empty attributes can be populated automatically, for instance, to assign an initial responsible person to a large number of documents. Before adding a value, the system automatically checks whether an object already exists in the attribute. If so, the entry is skipped and recorded in the log to avoid accidental overwrites.

Hint: The attribute name "Responsible" (stereotype ID: AT_RESPONSIBLE) is the name in the standard method. The display name may have been customized in your system by your administrator.

Adding objects to single-valued diagram attributes

When performing a *bulk update of diagrams*, you can now insert a catalog object into a previously empty, single-valued attribute. For example to automatically set missing "Responsible" values. Before inserting, the system checks whether the attribute already contains an object. If it does, that diagram is skipped and the action is recorded in the log so nothing is overwritten by accident. This new capability is available for updates in the public workspace, preview, and publication.

Hint: The ability to update preview and publication must be enabled in your system.

AI Modeler for the "Author" role

The ref:*AI Modeler (Arty) <diagrams-ai-generated-diagram>* is now additionally available to users with the "Author" user role. Authors can generate BPMN drafts via text input or by uploading documents.

Hint: The AI Modeler requires a separate license. This enhancement has also been retroactively enabled for versions 8.0 and 8.1.

Start publishing and depublishing workflows via the BIC Public API

You can now start publishing and depublishing workflows for diagrams and catalog entries programmatically via the BIC Public API. For example, you can trigger a publish workflow automatically during the execution of a Process App or move large numbers of diagrams or catalog objects into publication in a single operation. The API call can optionally indicate that the action is an editorial approval (i.e., no further approval steps). This enhancement enables automated approvals via API and simplifies integration with external tools.

Hint: Access to the BIC Public API is required.

Comparison mode: multilingual support & direct difference display

The comparison mode for *diagram variants* and *versions* has been extended: differences are now calculated directly and displayed immediately after selection, the extra click "Show differences" is no longer required.

The mode also indicates which other content languages contain differences. This allows users to quickly identify where discrepancies exist and switch to the relevant content language with one click to examine them.

Process Hierarchy Analysis

This new analysis allows Authors, Editors, and Administrators to visually explore *process hierarchies* starting from any selected diagram. This enhancement provides a dedicated analysis view that reveals all sub-processes modeled along the process hierarchy, offering a comprehensive overview of the entire process landscape. By making hierarchical relationships transparent and navigable, users can more easily identify gaps or redundancies in their process architecture. This supports better governance, optimization, and strategic alignment of business processes across the organization.

Improvements

DMN decision simulation in read mode

Until now, modeled DMN decision tables could only be simulated by users with edit rights in the Modeler. From now on, *decision simulation* is also available to users with read-only access (public workspace, preview, publication), provided the diagram contains an activity typed as a "business rule" that models a DMN decision table. In that case, select the activity in the diagram and start the simulation from the activity's options.

Hint: This feature has also been retroactively enabled for versions 8.0 and 8.1.

Symbol filter for diagrams in read mode

The *symbol filter*, which lets you hide, for example, satellite symbols, was previously available only to users with access to the Modeler. It is now also available to users in the public workspace, preview, and publication. From a diagram's options menu you can temporarily hide individual symbol types to focus the view. Filtering only affects the display and reduces visual clutter during presentations, makes it easier to review specific elements, and improves readability of complex diagrams.

Hint: This feature has also been retroactively enabled for versions 8.0 and 8.1.

30.32.2 BIC Process Execution

New Features

Extract Data from Images

The new *image recognition Service connector* enables users to extract information such as addresses, IBANs, or totals directly from images. Extraction fields can be configured with ID, data type, and AI prompts, and tested instantly. Multiple extractions per image are supported, with validation against duplicate IDs. This makes image-based data input easy and efficient.

Hint: Please note that the AI-enabled features of Arty are not included in the standard licence. Please contact your representative for more information.

Reuse Existing Process Variables in Form Editor

Form creators can now view and add existing process variables that were created in other user tasks within the same process diagram directly as form fields. This enables easy reuse of predefined variables and helps prevent typos or duplication. Built - in search and sort options make it simple to find variables quickly, and duplicate entries are automatically avoided.

Process Variables Context for Arty

Arty now understands the *context of process variables* in the variables list and can automatically use them when modifying forms. If a variable already exists, users can simply instruct Arty to add this variable to the form. This makes form creation faster and more intelligent.

Hint: Please note that the AI-enabled features of Arty are not included in the standard licence. Please contact your representative for more information.

Automatic Column Configuration with Process Variables

In the Process Execution Editor, *process variables* can now be selected via checkboxes to automatically populate the Columns Configuration JSON. The JSON stays valid as variables are added or removed. A search and filter option improves usability. Manual editing of the JSON is no longer needed.

File Upload with Camera Support

The file upload field now supports capturing photos directly using the device camera. Users can either take a new photo or *upload an existing image*. Users just have to enable the camera capture during form creation. On mobile or other devices with camera, the camera option appears automatically; on desktop, image uploads continue as usual. This makes image collection faster and more intuitive.

Access Task Attributes in User Forms

Task attributes can now be accessed directly within forms and processes. Using _task.getAttribute(), users can retrieve values such as descriptions or instance IDs. This feature enables dynamic, context-aware forms.

Test REST Configuration in Service Task

REST calls can now be tested directly from the Service Task configuration. The new "Test" step lets users verify API settings and review real responses. Detailed error messages are displayed for failed calls. Placeholder values can be provided for variables to simulate realistic test results.

End-to-End Testing for automated Send Tasks

Automated emails in Studio or Test environments can now be sent to *real recipients*. A fallback email address can also be configured for testing. All test emails are automatically marked with the [Test mail] prefix. This allows realistic testing of email processes before production deployment.

New Case Variables: _case.id and _case.processApp.id

The _case smart variable now includes both id and processApp.id. These can be used in forms, reports, or integrations to access the case and process application identifiers. This simplifies referencing and sharing process metadata.

Tasks without due date in weekly reminder

Open tasks without a due date are now listed in a separate section at the end of the *weekly reminder email*.

Automatic tasks set to error status when interrupted

When an automatic task is stopped due to an *interruption*, it is now automatically set to error status. This ensures consistent and transparent process states.

Notification for failed tasks

When an automatic task enters an error status, the responsible user now receives an email notification. This enables faster detection and resolution of issues.

Protection against infinite loops in scripts

Long-running or potentially system-intensive script tasks are now *automatically terminated* when exceeding a defined maximum runtime, ensuring overall system stability.

Protection against infinite loops in process fragments

Automated process fragments that are triggered within a case are now automatically stopped by the system after 10 repetitions. This helps detect potential infinite loops at an early stage. Case owners or administrators can manually resume the execution at any time. Additionally, a new UI option has been added to the Process Execution Editor, allowing the repetition limit for fragments to be adjusted.

Case creation with file upload

Cases can now be started with one or more files as input parameters via the *Public API*. These files are available as file variables within the process. In the future, this functionality will also be supported for custom start forms.

30.32.3 BIC EAM

New Features

Alternative Business Capability Maps

Business Capability Map diagrams now feature an alternative view that enhances clarity and usability. Instead of relying solely on the traditional diagram format, users can now explore a column-based layout that organizes Business Capabilities and their relationships in a structured and visually clean way. This new representation is based directly on the modeled capabilities and their connections, offering a consistent and easy-to-read format. It helps users quickly grasp the hierarchy and dependencies within their capability models, making it especially useful for presentations, workshops, and collaborative reviews.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Variant Support for Catalog Modeling

We've introduced variant support for catalog modeling, allowing users to create *variants of a modeled context*. This enhancement enables the representation of transformation scenarios, such as future-state ("to-be") models, alongside current-state ("as-is") configurations. By modeling variants, users can explore alternative strategies, assess potential impacts, and plan transitions more effectively.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Insight Grid Hierarchies

Insight Grids now incorporate *hierarchical structures of columns*, allowing users to drill up and down directly within the grid interface. Many EAM-related objects—such as Business Capabilities, Applications, and IT Components—are often modeled hierarchically in diagrams. With this enhancement, those hierarchies are now reflected in the columns of Insight Grids. When a hierarchy is present, users can interact with column headers to navigate between levels, adjusting the scope and focus of their analysis dynamically. This makes Insight Grids a more powerful tool for architectural exploration, enabling users to tailor their view to strategic, operational, or detailed levels as needed.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Comparison in Insight Grids

Insight Grids now provide a powerful *comparison feature*, enabling users to analyze changes between different reference periods directly within the grid view. This functionality mirrors the familiar version comparison in diagrams and is especially valuable for conducting gap analyses. Users can now choose a comparison period and the system then lists all elements between this and the current period that were added or removed. This feature streamlines change tracking and supports more informed decision-making across time-based analyses.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Insight Grid Time Slider Enhancement

The *time slider* in Insight Grids has been enhanced to improve usability and clarity. With this update, these indicators are now more prominent and interactive. Users can click on any threshold to instantly view the corresponding reference period, making it easier to navigate and understand the temporal structure of the grid.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Extended Catalog Integration Capabilities

We've extended the *catalog's integration capabilities* to give administrators more control over visibility and relevance. It is now possible to assign integrations to specific repositories, ensuring that they are only shown to users working within those repositories. This enhancement helps reduce information overload and ensures users see only the integrations that are relevant to their current working environment, improving focus and usability across the platform.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Strategy Support

We've added a new *strategy object* to the meta model, enabling users to document and manage strategic initiatives directly within the EAM context. This new object allows for the specification of key attributes such as strategic relevance, current status, time horizon, and success KPIs. By modeling strategies in the catalog, users gain a structured way to align architectural decisions with business goals. This addition strengthens the platform's support for strategic planning and execution.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

30.32.4 BIC BPM & EAM

New Features

Focus

We've introduced a new concept called *Focus*, allowing users to seamlessly switch between the platform's core modules: Business Process Management (BPM), Enterprise Architecture Management (EAM), and Process Execution. Each focus now represents a distinct product area—Process Design, EAM, or Execution—and users can switch between them using a prominent UI control, provided the respective module is available.

The myBIC page is now focus-dependent, enabling users to configure personalized views for each focus. For example, when a user marks a diagram or dashboard widget as a favorite, it is added to the myBIC page of the currently active focus. Administrators can also assign tenant-wide myBIC elements to specific focuses, ensuring tailored experiences across teams. Focus selections are user-specific and automatically saved for convenience.

When switching to the Process Execution focus, users are directed to the process app view, streamlining access to operational workflows. This enhancement supports clearer navigation, personalized content, and a more modular experience across the platform.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Governance Roadmap Enhancements

The Governance Roadmap now provides new functionalities to make process tracking and navigation more intuitive and informative. Diagrams within the roadmap can now be *sorted by name and validity dates*, helping users quickly locate and organize relevant content. Additionally, users can directly *navigate to any process shown in the roadmap*, streamlining access and reducing friction in analysis workflows.

The validity period chart has also been improved to visually distinguish between different process states—valid, in resubmission, or overdue—using clear color-coded timelines. Users can interact with the chart's legend to highlight specific phases, allowing them to focus on particular validity phase with ease.

These enhancements provide greater transparency and control over process governance, supporting better planning and compliance monitoring.

Related Objects Navigation

When viewing the relations of one object in the catalog, users can now directly navigate to the *relations of a related object* simply by clicking on it. If the related element is another object, the click takes the user straight to the "Object Relations" tab of that object's catalog entry. If the related element is a diagram, the click opens the diagram view directly.

This enhancement makes it easier to follow relationship chains and explore dependencies or connections across the model.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

30.32.5 Resolved bugs

- [DES-7024] Documentation for postgres migration for RDS misses ANALYZE step
- [DES-8472] Installation guide refers to wrong area for setup of token life time in troubleshooting section
- [DES-8314] Diagram generation with Arty fails occasionally
- [PT-14673] Reloading a diagram with opened side panel removes sidebar header
- [PT-15315] Entity types cannot be filtered for in catalog bulk mode
- [PT-17029] Security Improvement
- [PT-18907] Categories in repository tree are not reachable with keyboard when screen readers are used
- [PT-19738] A previously applied filter in an Insight grid remains active despite the updated filter list does no longer contain this option.
- [PT-20368] The sidebar shows up unexpectedly when resizing the browser window from small to large screen size while viewing the object relations for a catalog object
- [PT-20643] Documentation missing info about pasting images via Ctrl+V into diagrams
- [PT-20746] Copying and pasting objects containing allocation models leads to invisible nodes
- [PT-20780] Text field focus gets lost when marking text
- [PT-20839] Set filter marks are not removed when leaving bulk mode
- [PT-20945] UI uses inconsistent fonts

- [PT-20946] Internal improvement
- [PT-21247] Category shows both pasted diagram and content from subcategories when cut and pasting a diagram into an empty category
- [PT-21271] Diagram details sidebar header is not sticky when navigating into catalog items via clicking chips
- [PT-21284] Catalog modeled context diagrams are inaccessible when their catalog item got rejected from catalog
- [PE-11728] Consecutive fields with small size values are rendered side by side instead of stacked vertically
- [PE-11920] OutOfMemoryError during creation of large Multi-instance tasks
- [PE-12831] Task name and description without spaces are displayed incorrectly in flow and popup views
- [PE-12980] Deleted process variables still appear in ProcessApp Configurator when using diagram variants
- [PE-13035] Angular Proxy configuration fails on local environment development mode
- [PE-13303] Connection timeout setting is ignored during REST service task execution
- [PE-13459] Incorrect German translation in ProcessApp Collections info message
- [PE-13474] Diagram properties not displayed when opened via ProcessApps menu
- [PE-13478] Fields in repetitive sections cannot access indexed data within the same section
- [PE-13494] Translation issues in REST Service configuration form
- [PE-13515] Long username is truncated in User Profile and ellipsis does not appear
- [PE-13523] Online help links lead to outdated help content
- [PE-13529] 'My Tasks' view only shows first 20 items after switching to 'Group Tasks' tabs
- [PE-13549] HTML fields without 'htmlTemplate' attribute cause User Form failure

30.33 Version 8.1.26

30.33.1 Resolved bugs

- [PE-14868] Null variables are not accesible from script task
- [PT-21376] Printing a diagram fails when customer logo was uploaded in certain formats
- [PT-22466] Opening the object details of a diagram assignment is not working
- [PT-23357] Customer logo in print header and footer has not the expected size
- [PT-23511] Manual report executions are failing when a diagram contains an entity type that is not found in the method
- [PT-23627] PDF prints display an attribute placeholder when attribute value is empty

30.34 Version 8.1.25

30.34.1 Resolved bugs

- [PE-14265] Stability and Performance Issues on My Tasks and My Cases list
- [PE-14634] Case creation via Web Start Form fails if Start Form only contains HTML field(s)
- [PE-14240] Process instance does not terminate
- [PE-14680] Formula evaluator dialog is wrapping Boolean fn in placeholder notation
- [PE-14681] Formulas with errors upon evaluation break the User Form

30.35 Version 8.1.24

30.35.1 Resolved bugs

- [DES-9100] Diagram generation with arty fails when the ai communication exceeds a certain limit
- [PT-22354] Warehouse report executions are failing when a diagram contains an entity type that is not found in the method

30.36 Version 8.1.23

30.36.1 Resolved bugs

- [PT-23059] Moving a diagram is not reflected in the search for some cases
- [PT-22452] Process Warehouse and Profile report fail when a date value is older than 01.01.1970
- [PT-21813] Displayed attributes are not properly updated in the catalog details view when navigating between catalog objects

30.37 Version 8.1.22

30.37.1 Resolved bugs

- [PE-13137] Enable Identity object properties in script tasks
- [PE-14490] User Picker Identity not matched because of different casing
- [PE-14157] Parallel gateway after message start event does not execute all paths

30.38 Version 8.1.21

30.38.1 Resolved bugs

- [DES-9064] Service reliability improvement

30.39 Version 8.1.20

30.39.1 Resolved bugs

- [PE-14480] Corrupted identitiy object cause javacript error using string function
- [PE-14142] Case creation is stuck on waiting page
- [PE-14411] Security Improvement
- [PE-14435] Security Improvement
- [PE-14374] [Execution] Improve the “How can I archive cases?” section to reflect who can archive a case
- [PT-18712] Default values set by entity type templates are lost after check-in
- [PT-22939] Column headings in diagram warehouse report are not shown in the selected method language
- [PT-23027] Readers are able to approve tasks

30.40 Version 8.1.19

30.40.1 New Features

- [PE-13982] Update GPT-4o mini model

30.40.2 Resolved bugs

- [DES-8843] Diagram publication failed when non-catalog-item is replaced by catalog-item
- [PT-14251] Renaming a user group used in a pending workflow breaks workflow
- [PT-22593] Opening an entity publication via the task view shows the wrong options in the options panel
- [PT-22607] Publication fails if a user group name is reused
- [PT-22785] Wrong icon in suggestion list for subprocess/decomposition attribute
- [PE-9245] Unreachable fragments are shown in forecast after an already executed OR, I don’t want to see fragments that can not happen anymore
- [PE-13632] Uploaded files in case creation are not managed properly in service tasks if placeholder evaluator engine is “Juel Evaluator”
- [PE-14372] “How can I archive cases?” section lacks role clarification
- [PE-14373] Incorrect permission error displayed on case flow view
- [PE-14376] When several report service tasks generate the same file then they overlap and crash

30.41 Version 8.1.18

30.41.1 Resolved bugs

- [PE-13124] ProcessAppId is not present in the response of Public API endpoint
- [PE-13301] Unified Process Variable Storage and First-Declaration Detection
- [PT-22399] Process Warehouse and Profile Report generation fail when an Attachment contains ":"
- [PT-22630] Some file formats cannot be uploaded as attachment
- [PT-22567] Adding not included nodes via Variants option does not work
- [PT-22546] Chips for available assignments are missing when there are unavailable assignments
- [PT-22500] A diagram cannot be opened anymore if it contains a pool without header
- [PT-22136] Diagram edit view may get loaded with incorrect data resulting in possible checkin errors
- [PT-21258] Comparison shows "false positives" when comparing a diagram against a published version

30.42 Version 8.1.17

30.42.1 Resolved bugs

- [PT-21827] Multivalue attributes are separated by comma instead of semicolon in the process warehouse report
- [PT-21927] Mismatch between data and attribute type definition causes Process Warehouse to fail
- [PT-22050] Attached Intermediate Events cannot be connected to other objects via outgoing sequence flows
- [PT-22323] Certain special character in the file name of an attachment blocks displaying or downloading it
- [PT-22472] PE user may face an inoperable catalog details page for specific entity types
- [PT-22492] Modeling an invalid flow type between subprocess elements and external elements is possible
- [PT-22497] Check-in fails when relationship attributes are newly maintained and the activity is deleted
- [PE-14148] User can not check-in Diagram with big User Tasks

30.43 Version 8.1.16

30.43.1 Resolved bugs

- [DES-8817] The system is not reachable when there is a large number of parallel requests
- [PE-13977] User Picker field Placeholder text is cut too quickly
- [PE-13884] Async Multi Instance Call Activity should create all sub processes for an input array

30.44 Version 8.1.15

30.44.1 Resolved bugs

- [PT-22295] Internal Improvement

30.45 Version 8.1.14

30.45.1 Resolved bugs

- [PT-21923] Category tree does not scroll into the selected category when it is loaded
- [PT-22373] Entity Types, that are not assigned to a Diagram Type in method are missing in suggestion lists of assignment attributes

30.46 Version 8.1.13

30.46.1 Resolved bugs

- [PT-18152] Extend validity does not work for entities when using custom resubmission interval
- [PT-18972] Bad scrolling behavior in firefox
- [PT-22090] Filter values of Governance Lifecycle “Workflow” are missing translations
- [PT-22208] Diagram list does not scroll down correctly
- [PT-22221] Canceling deletion dialog in catalog makes catalog object temporarily disappear in the list
- [PT-22245] Replacement of catalog objects in an assignment attribute does not update search filters

30.47 Version 8.1.12

30.47.1 Resolved bugs

- [PT-18655, DES-8665] Privacy link do not redirect to the privacy notice but stay in the application instead
- [PT-20466] Uploading unsupported file types causes issues in search
- [PT-21911] Subprocess icon is still shown on the editor when a subprocess is no longer available
- [PE-13936] Guest tasks are not accessible after the retention period of other cases has expired

30.48 Version 8.1.11

30.48.1 Resolved bugs

- [DES-5978] Method-service responds state “unhealthy” on health-check
- [DES-7215] BPMN import fails when the diagram contains a pool with nested lanes
- [DES-8563] Requesting variants has bad performance in combination with access restrictions
- [PE-13534] getStartDate() and getEndDate() do not deliver the time in the generated Report
- [PE-13659] The add button and delete mode are displayed incorrectly in repetitive sections when the minimum and maximum are equal
- [PE-13673] User Form’s Formula Evaluation Order is wrong
- [PE-13776] User Fields Min length and Max length validation do not work
- [PE-13800] Multiple/Single choice field in repetitive Section cannot be filled via process variable
- [PE-13875] Misalignment of multiple choice fields
- [PE-13703] Form cannot be completed although all fields are filled
- [PE-13811] Adding a comment to an intermediate timer event causes “proceed now” button to fail
- [PT-1496, PT-1547] Overview “Responsibilities in the process” is always shown in diagram with assignment report
- [PT-13461] Scrolling the user list in the “Add user” dialog is not possible
- [PT-18054] Links in catalog get opened in same tab instead of new tab in Portal
- [PT-18069] Index update for entity with a lot of assignments runs into timeout
- [PT-18387] Application is not usable without repository id
- [PT-20059] Redirection to the correct subdomain does not work for URLs leading to the old webclient
- [PT-20231] Time period filter does not work correctly in small resolutions
- [PT-20764] Service reliability improvement
- [PT-21157] The user can maintain multivalue text attributes longer than the allowed limit which causes the check-in to fail
- [PT-21237] Newly added assignments in the latest diagram version makes comparison mode unresponsive
- [PT-21654] Assignment attribute values are not displayed when viewing a context within the catalog
- [PT-21775] Service reliability improvement
- [PT-21776] Opening a catalog object from an assignment of another catalog object does not reset context diagram list
- [PT-21811] Process warehouse fails when processing boolean value for attribute typed as enum
- [PT-21821] Moving a diagram results in an error or shows outdated category path
- [PT-21826] Arty is lacking information about published processes
- [PT-21854] Security Improvement
- [PT-21884] Warehouse report fails if the title of an attachment contains a ‘%’ character
- [PT-21901] Scrolling the user group members list fails the more users there are

- [PT-22033] Filter facets are not shown in Insight grids
- [PT-22197] The online help says that editors can export diagrams but this shouldn't be possible

30.49 Version 8.1.10

30.49.1 Resolved bugs

- [DES-8379] Bulk update fails for entities and diagrams if an assignment is referencing diagrams
- [DES-8549] Selection of repositories and categories is not possible for extended periods
- [PT-21789] Security Improvement
- [PT-21594] Search does not find results maintained in different alphabet than the search term
- [PT-21555] Redirections from old ui to new ui do not happen sometimes and the user stays in the old UI
- [PT-21553] Redirections from old client search to new client search do not use the correct repository, stage and locale
- [PT-21664] Checked out diagram cannot be opened in Publication
- [PT-21589] Hidden entity types are still offered for creation on relationship or assignment attributes
- [PT-21468] Layout assistant is aligning edges wrongly when configuring elements to the bottom quadrants
- [PT-21463] Adding an annotation on top of a lane sometimes changes the lane to a new catalog suggestion
- [PT-21432] When a catalog item has values maintained in language SR, they're not findable in catalog or findable in an outdated state
- [PT-21428] Diagram list sorting ignores special characters
- [PT-21426] Sorting is wrong in diagram list if there is a mix of plain numbers and numbers seperated with dots
- [PT-21275] Entity Profile report fails when attributes are missing in the method
- [PT-21007] Types of diagrams in diagram details is depending on the content language instead of the browser language
- [PT-20956] Diagram cannot be opened in other stages using the same browser client when being checked out in Public Workspace
- [PT-20074] Version comparison does not show differences for occurrence attributes
- [PT-19963] OCL validation fails when Author is auto-filled in diagrams
- [PT-19942] Translation mode misses feature to translate node attributes
- [PT-17755] Search administration does not show facets or shows unlabeled checkboxes on custom methods
- [PT-12159] Language switch disables "Save" button when editing a catalog entry
- [PT-19729] Catalog search mechanism Improvement
- [PT-21464] Catalog search mechanism Improvement
- [PT-21488] Insights become visible when browser is resized from desktop to small device resolution
- [PT-21569] Arty answers on unrelated topics
- [PT-21246] The tooltip "object attribute" is unexpectedly shown in object relation explorer
- [PT-14343] Catalog search does not handle results with names prepending from the search term well

- [PE-13736] Security improvement

30.50 Version 8.1.9

30.50.1 Resolved bugs

- [PE-13029] Memory Leak in JavaScript Execution
- [PE-13624] Inconsistent behavior of Date Picker
- [PE-13626] Wrong Pages in Table of Content in generated Reports
- [PE-13677] Error to start 64G systems do to low xms heap

30.51 Version 8.1.8

30.51.1 Resolved bugs

- [DES-8477] An empty category for context diagrams is shown after importing a repository containing catalog contexts
- [PT-20182] Assignment chips are not sorted in the diagram details view
- [PT-20544] Custom attribute type names in the context of an entity type are not applied in Modeler
- [PT-20827] Enum attribute values mapped to "0" are not displayed
- [PT-21235] Compressed files containing BPMN cannot be imported
- [PT-21275] Entity Profile report fails when attributes are missing in the method
- [PT-21300] Browser cache causing redirection of the old UI URLs to the new UI to fail
- [PT-21303] Diagram checkout button is missing
- [PT-21429] Switching the repository while editing a diagram leads to failed check in on return
- [PT-21552] Arty displays a default error message
- [PE-13066] Out of Memory Issue in Process Execution Environment

30.52 Version 8.1.7

30.52.1 Resolved bugs

- [PT-20757] When navigating to an occurrence in a context that is currently checked out, an infinite loading skeleton shows up
- [PT-20790] Sidebar remains empty when navigating between business capabilities
- [PT-20804] Diagram attributes are not updated on stage change
- [PT-20971] Catalog objects containing a lot of characters cannot be found
- [PT-21284] Catalog modeled context diagrams are inaccessible when their catalog item got rejected from catalog
- [PT-21344] User creation is not possible for emails with long top-level domains

- [PT-21393] Arty chatbot does not answer to questions regarding Process Design
- [PT-21417] SVG generation render font and icons incorrectly
- [PT-21422] User accounts with upper case letters in mail address cannot be updated
- [PE-13478] Fields in repetitive sections cannot access indexed data within the same section
- [PE-13510] Error email is sent in case of retry
- [PE-13529] 'My Tasks' view only shows first 20 items after switching to 'Group Tasks' tabs
- [PE-13549] HTML fields without 'htmlTemplate' attribute cause User Form failure

30.53 Version 8.1.6

30.53.1 Resolved bugs

- [DES-8314] Diagram generation with Arty fails occasionally
- [PT-16936] Catalog facets cannot be used after bulk publication
- [PT-20669] Create and edit options for context diagrams in the catalog should be disabled in XS/S view
- [PT-20731] Going back with the browser button after selecting a chip leaves the details panel empty
- [PT-20742] Profile report cannot be generated for applications that have context diagrams
- [PT-20745] Tooltips are always displayed on chips, even when the content does not overflow
- [PT-20861] Service reliability improvement
- [PT-21208] Process warehouse fails when attributes are missing in the method
- [PT-21274] Error during entity publication can show 'null' in error email instead of the actual error reason

30.54 Version 8.1.5

30.54.1 Resolved bugs

- [PT-18242] "Show more" button disappears from the details view in diagram and catalog
- [PT-20263] Page count does not increment when printing diagram as PDF
- [PT-20741] Matrix view is broken when opening the User Profile menu while high contrast mode is enabled
- [PT-20772] Collapsing a sub accordion under catalog facet stereotype resets one child checkbox filter
- [PT-20951] Conditional text fonts in customized diagrams are sometimes broken when printing to PDF
- [PT-21010] Breadcrumb navigation in diagram details for RTL mode is not shown correctly
- [PT-21202] Diagram integrations are not using the full width of content area
- [PE-13333] Select Index Type for Reindexing
- [PE-12288] File field is too high
- [PE-12886] Misalignment of file upload field in Sections with rows
- [PE-13081] DMN does not reopen after importing it

- [PE-13276] Settings for Evaluation Engine and Fragment Execution are cleared when structural changes in Diagram are saved
- [PE-13303] Connection Timeout Setting Ignored During REST Service Task Execution
- [PE-13326] Wrong german translation for case in Fragement Limit text
- [PE-13401] Fragment Limit value is not saved when saving changes in Editor

30.55 Version 8.1.4

30.55.1 New Features

- [PE-10362] Setting Automatic tasks to Error when interrupted due to a service restart
- [PE-11227] Notify Assignee when a task was set to Error state

30.55.2 Resolved bugs

- [DES-8072] Improve audit log to support various attribute values
- [PT-1154, PT-18385, PT-18948] Context menu in process execution view is partially invisible
- [PT-18822] Service reliability improvement
- [PT-18936] Breadcrumb in diagram view is not reflecting correctly to changes
- [PT-19003] Diagram favorites cannot be added or removed from favorites on small resolution devices
- [PT-19034] Category is not visible on the breadcrumb when editing a diagram unless you move the cursor over it
- [PT-20369] Internal Improvement
- [PT-20514] Catalog facets are not updated correctly when using the replace option
- [PT-20744] Browser shows unsaved changes alert on reload even when no changes exist
- [PT-20756] Unsaved changes are lost in one context when another context is deleted
- [PT-20758] Adding only an integration URL doesn't make the save button enabled
- [PT-20805] Opening a catalog object from an assignment of another catalog object does not load details of target catalog object
- [PT-20825] Diagram attributes not displayed correctly after switching content language
- [PT-21003] Opening a catalog object from catalog occurrences does not load details of target catalog object

30.56 Version 8.1.3

30.56.1 New Features

- [PE-12462] Configure Fragment Repetition Limit in Process Execution Editor

30.57 Version 8.1.2

30.57.1 Resolved bugs

- [PT-11411] Increase accessibility of standard report templates
- [PT-16798] Processing a rework task for a diagram in diagram list or diagram details fails
- [PT-17814] Accessibility improvement: Provide a semantic grouping for related form controls
- [PT-18151] User creation only works with lowercase email addresses
- [PT-19340] Creation of a catalog integration fails if the title contains only blank characters
- [PT-19793] Advanced approval tasks can not be completed
- [PT-19806] Access token validity check fails
- [PT-20048] Check in a new diagram fails with 404 Not Found
- [PT-20143] Entity publication fails for PDF 2.0 file attachments
- [PT-20177] Loading the category tree highly impacts the system performance when there are lots of categories
- [PT-20267] Occurrences aren't displayed in the list in XS/S Version
- [PT-20274] Internal Improvement
- [PT-20318] The number of hits for node attributes when filtering in insights is not being updated
- [PT-20358] Tooltips in the object relations view are not rendered properly
- [PT-20367] Internal Improvement
- [PT-20494] Some websites used in catalog integrations are not loaded properly
- [PT-20368] The sidebar shows up when resizing the browser window from small to large screen size while viewing the object relations for a catalog object
- [PT-20429] Resizing the browser window between small and large screen size can cause broken views for sidebars in the catalog
- [PT-20431] Occurrence attributes are not shown when selecting a relationship attribute object chip
- [PT-20432] Wrong occurrences are shown when selecting a relationship attribute object chip
- [PT-20509] Distribute SVG generation on clients
- [PT-20644] Security Improvement
- [PT-20671] Content language is not always used for diagram names in governance roadmap
- [PT-20688] Editing approved objects copied from another diagram does not convert them into suggestions
- [PE-13148] Security Improvement

30.58 Version 8.1.1

30.58.1 Resolved bugs

- [DES-8240] Internal Improvement
- [DES-8228] Entity attributes are duplicated in the node when Arty creates the diagram
- [DES-8173] The Swagger UI in the public API shows a wrong format for the responses
- [DES-8264] Internal Improvement
- [PT-19630] Reports fail to generate when the requesting user belongs to many user groups
- [PE-12891] Diagrams created by Arty cannot be executed in App stage
- [PE-12903] Some method improvements were missed during method-service hotfix release
- [PE-12948] Date element vanishes when switching pages in date picker input field
- [PE-12821] Process-Execution-Apigateway fails on public clouds
- [PE-12897] API Gateway restarts due to insufficient memory limit
- [PE-12904] Re-index timeout value is too low

30.59 Version 8.1.0

30.59.1 BIC Process Design

New Features

Turn documents into standards-compliant BPMN diagrams with Arty

Convert existing process documentation, meeting notes or SOPs into high-quality, BPMN diagrams, no prior knowledge of the notation required. Upload a PDF, DOCX or TXT and Arty extracts the text, uses it as the prompt, and *delivers a usable BPMN draft within seconds*. The result: drastically reduced manual modelling, faster discovery and onboarding, fewer review cycles, and immediate, approval-ready diagrams so you can focus on refinement and stakeholder alignment rather than data entry.

Hint: Please note that the AI-enabled features of Arty are not included in the standard licence. Please contact your representative for more information.

Control the level of detail in AI-generated BPMN diagrams

Choose the *right level of detail for your AI-generated BPMN* with a single switch. Ideal Process Flow produces a concise, happy-path diagram that abstracts away execution noise and is perfect for early discovery, stakeholder briefings, and fast decision making. Full Process Flow generates a complete diagram including alternative paths, decisions, loops and parallel branches, ideal for detailed analysis, design and operational handover. This saves time and reduces rework by delivering the right level of detail up front, speeds stakeholder consensus, lowers the amount of manual rework, and makes your modeling workflow far more flexible, so you can start with a simple overview and progressively unfold complexity only where it's needed.

Hint: Please note that the AI-enabled features of Arty are not included in the standard licence. Please contact your representative for more information.

Narrow your diagram list using system attributes

Before this release you could not filter the diagram list by system attributes, limiting targeted discovery and exports. The *Filters panel* now includes a "System attributes" section, searchable and selectable like any other filter, and applicable immediately to existing data while honoring permission/stage restrictions. This helps you pull exactly the set you need for reporting, exports, or bulk actions — so you can run targeted reviews or compliance checks quickly and confidently.

See system attributes as columns in diagram table

Previously, system attributes could not be shown as columns in the diagram table. You had to open each diagram to view these values. Now you can *add system attributes in the diagram table column picker*. They appear in a new "System attributes" group, are searchable in the column picker, and populate immediately for existing diagrams. This makes it simple to spot recently changed or published diagrams, prioritize review work, and build audit-ready views immediately.

Use diagram filters to tailor Process Warehouse & Matrix Reports

Previously, Process Warehouse and Diagram Matrix reports could only be limited by category. Now you can generate those reports from any filtered diagram list — for example, all diagrams by a specific author, only published diagrams, or items modified since a given date. Simply apply your search and filters, then run the report: the generated file contains only the filtered set. This enables highly targeted reports for reviews, audits, or stakeholder (e.g., "All Published diagrams by Author X" or "Diagrams modified since 2025-01-01"), reduces file size and post-processing, speeds up analysis, and removes the need to manually trim large exports.

Auto-Assign creator as Author now also for Quick Modeler & AI-generated diagrams

Previously, diagrams created with the Quick Modeler, or the AI diagram generator did not automatically add the creator to the Author (AT_AUTHOR) attribute. Users had to remember to assign themselves afterwards. With this release the "Assign me as an Author" behavior is applied to diagrams created by Quick Modeler and AI-generated diagrams by Arty as well: *when enabled, the creator is automatically added to AT_AUTHOR at creation time*. If the creator has no person object in the repository yet, one is created and linked automatically. This saves an extra manual step and keeps governance data accurate from the moment a diagram is created.

Hint: Please note that "Author" (AT_AUTHOR) is the standard method's attribute name; your system may use a different label if it has been customized.

Improvements

Improved diagram printing

Printing diagrams in read mode has been significantly enhanced. Previously you couldn't set page scaling or print factor, there was no print preview, and PDF exports sometimes displayed fonts incorrectly. Now you can control page scaling and print factor, preview the print layout before exporting, and generate PDFs with improved font rendering and layout fidelity. The result: more accurate, professional printouts with fewer trial-and-error attempts and faster generation of meeting-ready documents.

Hint: Please note that this functionality is already available in version 8.0.

Continue publication workflow after rework

When a user receives a Rework Task for a diagram, the "Publish" action now resumes the existing publication workflow instead of starting a new one. Clicking on "Publish" opens a Rework Decision dialog with the explicit choices to "Publish again" (continue the running workflow) or "Abort workflow". Selecting "Publish again" continues the original workflow instance (preserving audit trail and workflow state) and "Abort workflow" cancels it. This avoids duplicate or conflicting publication runs, preserves continuity and accountability of the workflow, reduces failed attempts and manual coordination, and makes it straightforward for the Rework assignee to finish or cancel the exact publication they were handling.

Hint: Please note that this functionality is already available in version 8.0.

Faster access to your diagram favorites on MyBIC

Previously, each diagram favorite appeared as its own preview tile on MyBIC, which quickly cluttered the page and made it hard to get an overview or locate a specific favorite. Now *all favorites are consolidated into a single, compact "Favorites" tile* (displayed only when you have favorites). The tile lists favorites as two-line entries (diagram name and repository name) and clicking an entry opens the diagram while automatically switching repository and stage if required. This provides a single, decluttered entry point to favorites across repositories, enabling faster discovery, less scrolling, better performance and simpler favorite management.

Copy & paste graphical modelling elements across diagrams

You can now *copy graphical modelling elements from any diagram in read-mode*, e.g. Public Workspace, Preview, or Publication, and paste it into another diagram in edit mode, even across browser tabs, windows and across repositories. Use the keyboard shortcut (Ctrl + C) to copy a single selected graph item. When pasted into a target diagram, the system creates a new node using the target diagram type's default symbols, transfers all entity and node attribute values, and inserts the new item in the center of the visible canvas. Paste attempts are validated against the target diagram type: if the entity type is not allowed in the target, the paste is rejected.

This enables you to quickly reuse existing diagram elements across diagrams without manual recreation, preserving attributes and saving time. Please mind the current limitations so that the format is not preserved and only one object without its relations may be copied at a time.

Hint: Please note that this functionality is already available in version 8.0.

OpenID Connect (OIDC) support for Single Sign-On

BIC Process Design now supports OpenID Connect (OIDC) as an alternative SSO option alongside existing SAML-2 integrations. Customers can choose OIDC when it better matches their identity platform while current SAML configurations continue to operate unchanged. This adds flexibility to align authentication with your corporate identity strategy and simplifies integration with today's identity providers. Please contact your GBTEC representative for further information.

30.59.2 BIC Process Execution

New Features

Restrict User Picker to Specific Groups

User picker field in the Form Editor can now be *restricted to show only users from selected groups*. This ensures that only relevant and authorized users of a certain group can be selected in forms. If an unauthorized user is prefilled or entered, a validation error will prevent form submission.

Delete Uploaded Files in Forms

It is now possible to *delete uploaded files from input and output fields in forms*. Users can remove output files by clicking the bin icon and delete uploaded input files via the "x" on the chip. This offers more control when working with attachments in open tasks.

File Type Attribute for File Field in Form Editor

The *file field now supports a new attribute* that defines which file types are allowed for upload. Multiple types can be entered as comma separated values, and the form will automatically restrict uploads to the specified types.

Recover Stuck Gateways Manually

Users can now manually resolve stuck gateways caused by faulty or unmet edge expressions. A form allows selecting the appropriate path(s) to resume the process. The user interface also now includes a "Show Error" button that explains the cause of the issue.

Case Flow Visibility Restriction

ProcessApp Creators can now control *who can view the process flow and case details across all instances of a ProcessApp*. A new "Case Flow Restriction" field allows specific users or groups to be granted access, while others are blocked. Optionally, the case creator can also be excluded by checking the "Exclude case creator from flow view" checkbox. Users outside the defined list will be shown a notification if they try to access the flow.

New Quick Editor for Process Execution

A new Process Execution Editor is now available as a quick-access panel in the right sidebar of the designer. A dedicated button opens the editor directly. In addition, *table configuration* and *conditional formatting* have been moved into this area for a more centralized and streamlined editing experience.

Overview of Form Variables

The new editor provides a *list of all form variables* created via the Form Editor – including label and technical ID. This improves transparency and control over how variables are used throughout the process.

Support for Custom Date Formatting in Expressions

The new function *DateUtils.format(date, pattern)* allows date variables to be converted into a human-readable and standardized format. Common patterns such as `yyyy-MM-dd` or `dd.MM.yyyy` are supported, and optional time zones can also be applied. The function is only available when placeholder evaluation for JUEL Expressions is enabled in the Process Execution Editor.

Help Button for Formula Creation in the Form Editor

A new help button is now available in the Form Editor, linking directly to the online help center. Users can find guidance on how to create formulas and use the relevant fields within the editor effectively.

Workflow

Improved linking in task notifications

Task notification emails now link directly to the task list instead of the process flow view, and the corresponding task popup opens automatically.

Completing Call Activities without Executable Subprocesses

Call Activities that reference a non-executable diagram can now be completed like untyped activities. This ensures that processes remain executable even when subprocesses have been unpublished.

Extended Use of User Identities in Edge Expressions

User identity variables (e.g., from user picker fields) can now be used directly or through their properties e.g., `user.identity.email` in edge expressions. Existing comparisons remain valid, enabling a flexible mix of simple and complex conditions.

Conditions Based on Undefined Variables

Edge expressions now treat all undefined variables as `null`. This makes it easier to evaluate conditions even when certain variables have not been set yet, helping to guide process flows more reliably.

Dynamic Placeholders in Application Nodes

Application nodes now support placeholders to dynamically access object attributes – for example, to display personalized links. These are evaluated via the JUEL engine. Existing static configurations remain fully functional.

Improved Handling of Defined Error Responses in Service Tasks

Service tasks can now handle expected error status codes such as 401. If the error code is passed in the REST response configuration, the process will no longer end in an error state. This allows response data to be processed even without a success status code and reliably stored as a process variable.

Automatic Following of HTTP Redirects in Service Tasks

Service Tasks now automatically follow HTTP redirects (status codes 301, 302, 307, 308) by default. This enables processes to continue seamlessly when API endpoints are changed or temporarily unavailable.

File Variables with Metadata

File uploads now store metadata (such as file name, type, and size) as structured variables that are accessible throughout the process. This allows, for example, conditional logic in gateways based on file attributes.

Protection Against Infinite Loops

Automated process fragments are now stopped after repeated execution (default limit: 10 runs). This helps detect potential infinite loops early. Case owners or admins can manually resume the execution.

Tenant Default Language for Automatic DMN Task Execution

Automatic execution of DMN tasks now respects the tenant's default language. Previously, automatic tasks always defaulted to German (DE), since no assignee existed to determine the correct language. With this improvement, tenants benefit from consistent language handling in all automatic DMN executions.

30.59.3 BIC EAM

New Features

Smart Assistance with Arty

With this release, Arty, the chatbot of BIC EAM, becomes even more powerful. Arty can now *answer questions related to your modeled Enterprise Architecture*, for example, which data is exchanged via a specific interface between

applications, or how the Functional Fit of an application is rated in a specific context. Arty provides accurate, context-aware responses based on the modeled object relationships and attributes.

This enables faster access to decision-relevant insights, reduces the need for manual research in complex models, and allows for a more intuitive interaction with architecture data.

Hint: Please note that the AI-enabled features of Arty are not included in the standard licence. Please contact your representative for more information.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

EAM Method Extension

To support data privacy–oriented modeling, the EAM method has been extended. Data objects can now include an attribute specifying whether personal data is processed. This addition increases transparency and facilitates compliance documentation as well as the integration of privacy aspects into your architecture models.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Insights

Improved Structure for Better Orientation

The *Insights tiles have been restructured* to offer a more intuitive and efficient navigation through your analyses. Visualizations are now categorized by analysis type – providing a clearer overview and easier access to the relevant evaluations:

- **Matrix Analyses**: Show relationships between three object types in a structured cross-table view.
- **Maps**: Visualize relationships between two object types in a compact column layout.
- **Roadmaps**: Illustrate time-based developments and strategies, based on existing roadmaps in the catalog for applications, IT components, or providers.

In addition, the tiles now feature tooltips for object icons, making it easier to quickly identify the right analysis. This reduces search effort, increases clarity, and creates a more seamless user experience in Insights.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

New Insights

This release introduces several new Insights designed to address key questions in Enterprise Architecture Management. Each analysis focuses on specific object relationships and provides actionable insights – visually enhanced through context-based color coding.

- **Matrix Analyses**
  - *Data Integration*: Identifies which applications exchange data through interfaces – supporting impact and dependency analysis.
  - *Technical Impact*: Evaluates how IT components affect applications and business processes – for risk assessment and resource planning.
- **Overview Analyses**
  - *Business Capability Support*: Visualizes how applications support business capabilities – to uncover gaps and redundancies.
  - *Organizational Usage*: Shows how applications are used across the organization – for informed decisions in restructuring initiatives.
  - *Business Context Support*: Analyzes how applications influence organizational operations – to evaluate automation coverage and process risks.
  - *Data Usage*: Assesses how data objects are managed and used by applications – for improved data flows and compliance monitoring.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Enhanced Usability in Insights

The Insights module has been further optimized to improve user experience and make accessing relevant information even more efficient:

- **Enhanced Filters**: Analyses can now be refined using node attributes, such as Functional Fit, to focus on what really matters. Additionally, the number of affected objects is now shown for each filter value.
- **Drag & Drop Navigation**: Easily move through the matrix without manual scrolling – for faster navigation.
- **Extended Tooltips**: Tooltips now include more details on color coding and linked objects – enabling quicker interpretation of insights.
- **Visual Feedback**: Animated highlights improve traceability of changes to reference time points or selected elements.
- **Detailed Views with Profile**: Integration Object details can now also be viewed in familiar profile views – ensuring consistency in deep dives.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

30.59.4 BIC BPM & EAM

New Features

New Object Relationship Analysis

In addition to the well-known occurrences list, BIC now provides a *graphical visualization of object relationships*. This new analysis shows which object types a catalog item is related to, or where it is referenced in attributes – clearly and contextually.

Whether in an EAM context ("What risks is this application linked to?") or a BPM context ("In which activities is this document used?"), the analysis helps uncover relationships quickly and supports well-informed decisions.

Governance Roadmap

A new *Roadmap view for published process validity periods* is now available for editors and administrators in the Governance Cockpit. This visual overview makes it easy to identify overlaps, gaps, or expiring/upcoming processes at a glance – enabling proactive and seamless process management.

This analysis is also accessible via the Insights area, which already bundles various EAM analyses and will continue to expand with additional BPM-oriented analytics in the future.

Hint: Please note that the Insights area is not included in the standard licence. Please contact your representative for more information.

Improvements

Catalog Integration Enhancements

Integrations with external systems in the catalog is now even more flexible: Integration URLs now support placeholders for Tenant ID, Repository ID, Stage, and Language. This allows external content or applications to be dynamically and contextually linked from the catalog – ensuring precise, context-specific information delivery from third-party platforms.

Hint: Please note that external content integration requires a separate license and is not activated by default in the standard license. Contact your Sales Accountant for additional information and pricing.

User Interface Enhancements

For visual consistency and improved accessibility, chips in multi-value attributes (e.g., keywords) now also feature a clear outline – including support for high-contrast mode.

30.59.5 Resolved bugs

- [DES-7940] Services using a custom "/process-design/" location for communication are not accessible via the proxy
- [PT-13630] Matrix report consumes too much memory
- [PT-15529] Profile reports fail when a date has the timestamp value 0
- [PT-15638] API Gateway allows requesting multiple resource pages
- [PT-18402] Clicking outside does not close the diagram creation menu
- [PT-18414] Documentation for MyBIC tenant favorites is unclear
- [PT-19027] AI chat doesn't respect content or UI language
- [PT-19055] Reports section in a diagram still shows outdated 'Export to Excel' option
- [PT-19119] Method Editor exports default values as 'null', causing errors on import/export
- [PT-19386] Tooltips are missing for icons showing the main object type on Insight tiles
- [PT-19444] Opening a FAD in the modeler unexpectedly switches to connection mode
- [PT-19548] Newly created diagram variants don't appear in gallery view
- [PT-19719] Bulk publication button is not displayed correctly
- [PT-19771] Clicking matrix insights (e.g., Application Costs) no longer opens the matrix
- [PT-19841] Security Improvement
- [PT-19869] Wrong object type icons shown for 'Organizational Usage' and 'Business Context Support' Insight tiles
- [PT-19937] Service reliability improvement
- [PT-19944] Insights tiles overview is broken due to wrong styling
- [PT-19976] Tooltip in Insights description section does not appear correctly
- [PT-20020] Diagram favorite tile is still displayed even though there is no diagram favorite set
- [PT-20101] Catalog item header shows wrong tabs and misaligned buttons in details page
- [PT-20125] Service reliability improvement
- [PT-20130] Refreshing the browser while viewing a diagram causes error
- [PT-20185] Chatbot page uses full width instead of centered layout
- [PT-20186] Switching between repositories keeps wrong category ID
- [PT-20212] Catalog object variants missing 'Variants' option in details sidebar
- [PT-20214] Version changes option missing in catalog sidebar until object is published
- [PT-20216] Catalog list breaks after searching with no results and navigating back
- [PT-20232] Catalog Modeler allows accessing object relations and shows overflow issues
- [PT-20258] Long names in Object Relations are not truncated and displayed confusingly
- [PT-20262] Matrix report appears empty in Excel until Edit mode is enabled
- [PT-20264] Copy URL button for attachments leads to 400 error page
- [PT-20269] Diagram assignment field becomes unselectable after editing another node

- [PT-20271] Catalog import option wrongly visible for Author users
- [PT-20280] Catalog object comparison view shows misleading grayed-out Confirm button in read-only stages
- [PT-20289] Catalog suggestion icons are misaligned in suggestion lists
- [PT-20303] Diagram table view show scrolled out content on hover
- [PT-20315] Version changes view wrongly navigates to other diagrams when clicking assignment chips
- [PT-20326] Edit button wrongly shown in Catalog archives
- [PT-20328] CTRL+S check-in while editing a node label clears the label
- [PT-20329] Governance Analytics chart navigation ignores repository filter
- [PT-20359] Internal Improvement
- [PT-20366] Internal Improvement
- [PE-10125] Security Improvements
- [PE-11635] “Default value” field is too large
- [PE-11984] Arty is not able to modify User Forms with Sections
- [PE-12422] Multiple choice field misparses options with similar labels in Form Editor
- [PE-12611] Diagrams update issues
- [PE-12675] DMN Editor has no horizontal scroll bar
- [PE-12827] Permission checks failing for user groups
- [PE-12878] Instance data is not visible in the list of a ProcessApp
- [PE-12885] Catalog entry contains wrong Process Execution Editor

30.60 Version 8.0.22

30.60.1 Resolved bugs

- [PT-21827] Multivalue attributes are separated by comma instead of semicolon in the process warehouse report
- [PT-21927] Mismatch between data and attribute type definition causes Process Warehouse to fail
- [PT-22452] Process Warehouse and Profile report fail when a date value is older than 01.01.1970

30.61 Version 8.0.21

30.61.1 Resolved bugs

- [PT-21923] Category tree does not scroll into the selected category when it is loaded
- [PT-22373] Entity Types, that are not assigned to a Diagram Type in method are missing in suggestion lists of assignment attributes

30.62 Version 8.0.20

30.62.1 Resolved bugs

- [PT-22033] Filter facets are not shown in Insight grids
- [PT-18655, DES-8665] Privacy link do not redirect to the privacy notice but stay in the application instead
- [PT-21911] Subprocess icon is still shown on the editor when a subprocess is no longer available
- [PE-13936] Guest tasks are not accessible after the retention period of other cases has expired

30.63 Version 8.0.19

30.63.1 Resolved bugs

- [PE-13534] getStartDate() and getEndDate() do not deliver the time in the generated Report
- [PE-13659] The add button and delete mode are displayed incorrectly in repetitive sections when the minimum and maximum are equal
- [PE-13673] User Form's Formula Evaluation Order is wrong
- [PE-13749] Security improvement
- [PE-13776] User Fields Min length and Max length validation do not work
- [PE-13800] Multiple/Single choice field in repetitive Section cannot be filled via process variable
- [PE-13875] Misalignment of multiple choice fields
- [PE-13703] Form cannot be completed although all fields are filled
- [PE-13811] Adding a comment to an intermediate timer event causes "proceed now" button to fail

30.64 Version 8.0.18

30.64.1 Resolved bugs

- [DES-8563] Requesting variants has bad performance in combination with access restrictions

30.65 Version 8.0.17

30.65.1 Resolved bugs

- [DES-7215] BPMN import fails when the diagram contains a pool with nested lanes
- [PT-13461] Scrolling the user list in the "Add user" dialog is not possible
- [PT-1496, PT-1547] Overview "Responsibilities in the process" is always shown in diagram with assignment report
- [PT-18054] Links in catalog get opened in same tab instead of new tab in Portal
- [PT-18387] When a portal application once gets loaded without a repository id the application breaks completely

- [PT-20059] Redirection to the correct subdomain does not work for URLs leading to the old webclient
- [PT-20466] Uploading unsupported file types causes issues in search
- [PT-21157] The user can maintain multivalue text attributes longer than the allowed limit which causes the check-in to fail
- [PT-21654] Assignment attribute values are not displayed when viewing a context within the catalog
- [PT-21775] Service reliability improvement
- [PT-21776] Opening a catalog object from an assignment of another catalog object does not reset context diagram list
- [PT-21811] Process warehouse fails when processing boolean value for attribute typed as enum
- [PT-21821] Moving a diagram results in an error or shows outdated category path
- [PT-21854] Security Improvement
- [PT-21884] Warehouse report fails if the title of an attachment contains a '%' character
- [PT-21901] Scrolling the user group members list fails the more users there are

30.66 Version 8.0.16

30.66.1 Resolved bugs

- [PT-21789] Security Improvement
- [PT-21594] Search does not find results maintained in different alphabet than the search term
- [PT-21555] Redirections from old ui to new ui do not happen sometimes and the user stays in the old UI
- [PT-21553] Redirections from old client search to new client search do not use the correct repository, stage and locale
- [PT-21664] Checked out diagram cannot be opened in Publication
- [PT-21589] Hidden entity types are still offered for creation on relationship or assignment attributes
- [PT-21468] Layout assistant is aligning edges wrongly when configuring elements to the bottom quadrants
- [PT-21463] Adding an annotation on top of a lane sometimes changes the lane to a new catalog suggestion
- [PT-21432] When a catalog item has values maintained in language SR, they're not findable in catalog or findable in an outdated state
- [PT-21428] Diagram list sorting ignores special characters
- [PT-21426] Sorting is wrong in diagram list if there is a mix of plain numbers and numbers seperated with dots
- [PT-21275] Entity Profile report fails when attributes are missing in the method
- [PT-21007] Types of diagrams in diagram details is depending on the content language instead of the browser language
- [PT-20074] Version comparison does not show differences for occurrence attributes
- [PT-19963] OCL validation fails when Author is auto-filled in diagrams
- [PT-19942] Translation mode misses feature to translate node attributes
- [PT-17755] Search administration does not show facets or shows unlabeled checkboxes on custom methods

- [PT-12159] Language switch disables “Save” button when editing a catalog entry
- [PT-19729] Catalog search mechanism Improvement
- [PT-21464] Catalog search mechanism Improvement
- [PT-21488] Insights become visible when browser is resized from desktop to small device resolution
- [PE-13736] Security improvement

30.67 Version 8.0.15

30.67.1 Resolved bugs

- [DES-8549] Selection of repositories and categories is not possible for extended periods
- [PE-13029] Memory Leak in JavaScript Execution
- [PE-13066] Out of Memory Issue in Process Execution Environment
- [PE-13624] Inconsistent behavior of Date Picker
- [PE-13626] Wrong Pages in Table of Content in generated Reports

30.68 Version 8.0.14

30.68.1 Resolved bugs

- [DES-8477] An empty category for context diagrams is shown after importing a repository containing catalog contexts
- [PT-19042] Disabled import option in catalog is shown as enabled
- [PT-20182] Assignment chips are not sorted in the diagram details view
- [PT-20544] Custom attribute type names in the context of an entity type are not applied in Modeler
- [PT-20757] When navigating to an occurrence in a context that is currently checked out an infinite loading skeleton shows up
- [PT-20790] Sidebar remains empty in some cases when navigating to context references during catalog context modeling
- [PT-20804] Diagram attributes are not updated on stage change
- [PT-20827] Enum attribute values mapped to “0” are not displayed
- [PT-21235] Compressed files containing BPMN cannot be imported
- [PT-21284] Catalog modeled contexts are inaccessible when their context reference catalog item got rejected from catalog
- [PT-21300] Browser cache causing redirection of the old UI URLs to the new UI to fail
- [PT-21303] Diagram checkout button is missing
- [PT-21344] User creation is not possible for email addresses with long top-level domains
- [PT-21417] SVG generation render font and icons incorrectly
- [PT-21422] User accounts with upper case letters in mail address cannot be updated

- [PT-21429] Switching the repository while editing a diagram leads to failed check in on return

30.69 Version 8.0.13

30.69.1 Resolved bugs

- [PE-13478] Fields in repetitive sections cannot access indexed data within the same section
- [PE-13529] 'My Tasks' view only shows first 20 items after switching to 'Group Tasks' tabs
- [PE-13549] HTML fields without 'htmlTemplate' attribute cause User Form failure

30.70 Version 8.0.12

30.70.1 Resolved bugs

- [DES-8314] Diagram generation with Arty fails occasionally
- [PT-16936] Catalog facets cannot be used after bulk publication
- [PT-20669] Create and edit options for EAM context diagrams in the catalog should be disabled in XS/S view
- [PT-20731] Going back with the browser button after selecting a chip leaves the details panel empty
- [PT-20742] Profile report cannot be generated for applications that have EAM context diagrams
- [PT-20745] Tooltips are always displayed on chips, even when the content does not overflow
- [PT-20861] Service reliability improvement
- [PT-21208] Process warehouse fails when attributes are missing in the method
- [PT-21227] Process warehouse fails when date attributes have value zero
- [PT-21274] Error during entity publication can show 'null' in error email instead of the actual error reason

30.71 Version 8.0.11

30.71.1 Resolved bugs

- [PT-21194] AI chat does not answer in the expected language
- [PT-21010] Breadcrumb navigation in diagram details for RTL mode is not shown correctly
- [PT-20951] Conditional text fonts in customized diagrams are sometimes broken when printing to PDF
- [PT-20805] Opening a catalog object from an assignment of another catalog object does not load details of target catalog object
- [PT-20772] Collapsing a sub accordion under catalog facet stereotype resets one child checkbox filter
- [PT-20263] Page count does not increment when printing diagram as PDF
- [PT-18242] "Show more" button disappears from the details view in diagram and catalog
- [PT-21003] Opening a catalog object from catalog occurrences does not load details of target catalog object
- [PE-12288] File field is too high

- [PE-12886] File upload field in Section with rows is not aligned with other fields
- [PE-13081] DMN does not reopen after importing it

30.72 Version 8.0.10

30.72.1 New Features

- [PE-13333] Select Index Type for Reindexing

30.73 Version 8.0.9

30.73.1 New Features

- [PE-10362] Setting Automatic tasks to Error when interrupted due to a service restart
- [PE-11227] Notify Assignee when a task was set to Error state

30.73.2 Resolved bugs

- [PT-1154, PT-18385, PT-18948] Context menu in process execution view is partially invisible
- [PT-18822] Service reliability improvement
- [PT-18936] Breadcrumb in diagram view is not reflecting correctly to changes
- [PT-19003] Diagram favorites cannot be added or removed from favorites on small resolution devices
- [PT-19034] Category is not visible on the breadcrumb when editing a diagram unless you move the cursor over it
- [PT-20514] Catalog facets are not updated correctly when using the replace option
- [PT-20744] Browser shows unsaved changes alert on reload even when no changes exist
- [PT-20756] Unsaved changes are lost in one context when another context is deleted
- [PT-20758] Adding only an integration URL doesn't make the save button enabled
- [PT-20825] Diagram attributes not displayed correctly after switching content language

30.74 Version 8.0.8

30.74.1 Resolved bugs

- [PE-13148] Security Improvement
- [PT-19806] Access token validity check fails
- [PT-20688] Editing approved objects copied from another diagram does not convert them into suggestions

30.75 Version 8.0.7

30.75.1 Resolved bugs

- [PT-20509] Distribute SVG generation on clients
- [PT-19340] Creation of a catalog integration fails if the title contains only blank characters
- [PT-16798] Processing a rework task for a diagram in diagram list or diagram details fails
- [PT-18151] User creation only works with lowercase email addresses
- [PT-20048] Check in a new diagram fails with 404 Not Found
- [PT-20143] Entity publication fails for PDF 2.0 file attachments
- [PT-20177] Loading the category tree highly impacts the system performance when there are lots of categories
- [PT-20274] Internal Improvement
- [PT-20367] Internal Improvement

30.76 Version 8.0.6

30.76.1 Resolved bugs

- [DES-8228] Entity attributes are duplicated in the node when Arty creates the diagram
- [PT-19630] Reports fail to generate when the requesting user belongs to many user groups
- [PE-12897] API Gateway restarts due to insufficient memory limit

30.77 Version 8.0.5

30.77.1 Resolved bugs

- [PE-12948] Date element vanishes when switching pages in date picker input field
- [PE-12891] Diagrams created by Arty cannot be executed in App stage
- [PE-12904] Re-index timeout value is too low

30.78 Version 8.0.4

30.78.1 Resolved bugs

- [DES-8240] Internal Improvement
- [PE-10710] Automatic execution of DMN tasks is not using tenant default language
- [PE-11349] Wrong text color in Date picker input fields
- [PE-12446] Field key collision validation is too strict for repetitive sections in form editor
- [PE-12662] Wrong padding in case of Custom Start Forms

- [PE-12761] Automatic execution of DMN tasks is not using tenant default language
- [PE-12799] Form Editor - Nested conditional properties not working in sections
- [PE-12827] Permission checks failing for user groups
- [PE-12878] Instance data is not visible in the list of a process app anymore
- [PT-17545] Online help contains inaccurate information about updating the catalog object view and the download counter for attachments
- [PT-19027] AI chat does not respect content or UI language
- [PT-19889] Incorrect styling of sub-expansion panels in catalog context
- [PT-19922] Sidebar incorrectly appears when resizing the window in integration view
- [PT-19995] Emails from old UI are double-encoded when redirected
- [PT-19998] My Tasks list missing updated circle colors and styling
- [PT-20008] Context diagram folder incorrectly visible in diagram tree
- [PT-20055] Service reliability improvement
- [PT-20264] Opening an URL to an attachment leads to an error page
- [PT-20359] Internal Improvement

30.79 Version 8.0.3

30.79.1 Resolved bugs

- [PT-13533] As a modeler, I want the system to remove an orphan node at diagram save so that the diagram stays consistent
- [PT-18324] As a user, I want to see the category of each diagram in the table, so that I understand where each diagram is located in the hierarchy
- [PT-6832] Migrate some Siren “search” routes from legacy apigateway
- [PT-17715] Change texts in workflow dialog
- [PT-19631] Add attribute for personal data from the protection requirements attribute group to data objects
- [PT-17880] User preferences do not store the state of details, filter and option panel
- [PT-18715] Label for distances unit in diagram layout configuration is incorrect
- [PT-18999] Links in emails do not correctly direct the user to diagrams and catalog objects
- [PT-19797] the Reader as user shouldn’t see the archive download button.
- [PT-19949] Missing tenant id in links that lead to the Task view in Workflow email templates
- [PT-19969] Opening a diagram assignment that leads to the already opened diagram while discarding changes keeps the changes visually what causes inconsistent visual data
- [PT-20018] PDF generation does not reliably fallback to default font
- [PT-20155] Translations are missing for update to new version dialog
- [PT-18830] Provide sorting of diagram list in a natural sort order
- [PT-19633] Relationship attributes for risks are shown in the wrong attribute group for EAM context diagrams

- [PT-18282] Category tree does not update order by name on content language change
- [PT-18372] Categories are not sorted correctly
- [PT-18447] Wrong translation for german 'depublication started' dialog for catalog items
- [PT-19809] Diagram favorite collection tile is in wrong position
- [DES-7854] Redirect to login page after setting password does not work correctly
- [DES-8064] Links in emails do not correctly direct the user to diagrams and catalog objects
- [PE-12689] The user picker field does not remain filled
- [PE-12639] Selecting an entry in a User Picker suggestion list via keyboard does not work anymore
- [PE-11587] DMN task output doesnt show the complete text
- [PE-12675] DMN Editor has no horizontal scroll bar
- [PE-12422] Case-insensitive label/value comparison causes incorrect option parsing in multi-choice field form editor
- [PE-11111] Avoid unnecessary debug logs messages in editors-service
- [PE-12415] Enhance the docs regarding the use of keys and Save selected options as string arrays configuration for multi-choice inputs

30.80 Version 8.0.2

30.80.1 Resolved bugs

- [DES-7348] Generated diagrams misses default diagram attribute values
- [DES-7993] When adjusting the diagram table, EAM attributes are shown besides not having EAM activated
- [DES-8027] Certificates in biccloud-proxy cannot be accessed
- [DES-8038] Missing translations in Polish, French, Italian, Arabic
- [PE-10891] ProcessApp Deletion fails with OutOfMemoryError on Apps with many cases
- [PE-12355] Date Picker icon not visible in Web Form if Repetitive Section is used
- [PE-12408] Fields with Default Values in Repetitive Sections Cannot Be Emptied
- [PE-12502] Clarify that user picker fields should not be used in external start forms
- [PE-12603] Juel expressions with string literals cannot be formatted as html
- [PE-12623] Missing translations in Polish, French, Italian, Arabic
- [PE-12638] Formula.js expressions in User field conditions do not work
- [PE-12658] Unclear Documentation for Manual Start of Timer Events
- [PT-10366] When printing a PDF, certain symbols in a diagram are printed with a black background
- [PT-12260] Occasionally, printing a diagram as PDF results in incompatibility with Adobe Acrobat Reader
- [PT-13383] Suggestion list entries display incorrect icons
- [PT-14669] Security Improvements
- [PT-16317] Reviewers and Readers can access public workspace and cannot get back to their allowed stages

- [PT-17286] It is not possible for two integrations to be shown in the catalog to have the same URL
- [PT-17402] Application breaks when opening a checked out diagram in another window and cancelling dialog
- [PT-17797] Catalog suggestion list overlaps name label in Portal Modeler
- [PT-18383] Authors cannot delete their diagrams
- [PT-18404] Removing a name in current content language does not remove the attribute value
- [PT-18421] Failed archive request initiates another request
- [PT-18716] Deleted checked out diagrams remain in checked out by you box on mybic page and can not be checked in again
- [PT-18762] Item bar icons do not get visually updated when using an object from suggestion list
- [PT-18837] Replacing a used catalog item in the catalog does not work correctly
- [PT-18839] When checking in and having an option on the sidebar open (i.e., print or format), the sidebar will be broken on the next checkout
- [PT-18894] Screen reader reads full content of SVG previews on MyBIC and Gallery View
- [PT-18946] Comments entered by Readers are not visible
- [PT-18962] Diagrams cannot be configured as default tenant favorite for MyBIC
- [PT-18968] Categories cannot be opened in Gallery View on small resolution devices
- [PT-19029] Renaming myBIC tile dialog doesn't update input name for the nexts renamings
- [PT-19033] Occurrences list is not available on small resolution devices
- [PT-19056] Mini symbols at the bottom of a diagram get cut off on PDF print
- [PT-19069] Scope is ignoring when searching for suggestions
- [PT-19083] Restoring nodes with non resolvable assignments breaks diagrams
- [PT-19118] Opening Catalog Archive view in small-resolution view causes infinite loop of requests
- [PT-19128] Changing the repository while exploring an Insight grid results in leaving the grid
- [PT-19133] Printing without checking out the diagram only offers limited functionality
- [PT-19146] The lifecycle roadmap tab is shown object types in the catalog which do not have the life cycle attribute group configured in the method
- [PT-19179] A column dashboard chart from the catalog is not using multiple colors when shown on myBIC
- [PT-19182] Activity with allocation diagram is also typified as subprocess
- [PT-19188] Userflow toolbar spacing is not reserved as needed
- [PT-19197] Role columns in diagram matrix view are colored in high contrast mode
- [PT-19203] When selecting attributes as filter facets for a catalog object in the administration area, there is no space visible between the chips of selected attributes
- [PT-19297] Non localized link attributes are treated as localized
- [PT-19370] Service reliability improvement
- [PT-19495] When adjusting the diagram table, EAM attributes are shown even though EAM is not activated
- [PT-19505] Text attribute values are not being removed correctly
- [PT-19506] Canceling diagram unsaved changes dialog results in infinite loading spinner

- [PT-19516] Category tree displays only the first 100 categories at the repository level
- [PT-19524] Browser translations are not suppressed
- [PT-19528] An infinite loading spinner is shown when trying to see the “Lifecycle roadmap” if there is an application with only the “Retired” lifecycle attribute set
- [PT-19589] Service reliability improvement
- [PT-19590] Service reliability improvement
- [PT-19595] The timeline labels sometimes show technical placeholders instead of dates when viewing the life cycle details for a catalog object
- [PT-19654] Diagrams display print settings after check in
- [PT-19734] Workspace is not fully visible when a userflow banner is displayed
- [PT-19805] Entities with assignments cannot be suggested to the catalog
- [PT-19813] Some webclient catalog url within preview stage are wrong redirected to portal diagram list

30.81 Version 8.0.1

30.81.1 Resolved bugs

- [PE-7105] Show waiting page for instance creation
- [PE-12076] Complex expressions in combination with specific input mapping
- [PE-12258] User Forms: Enhacement of prevent read-only field manipulation via source code
- [PE-12169] Add switch to change between JUEL-expressions and String replacement for placeholders
- [PE-10086] Case Creation Restriction Not Enforced for API Requests
- [PE-11919] Inconsistent handling of Dates (UI and Process Variable)
- [PE-12201] Arty removes all field labels
- [PE-12242] Multiple choice & Users/User groups can’t complete when are read-only and mandatory
- [PE-12357] Assigning user to a task in a subcase does not work right if there is default staffing
- [PE-12373] Issues while performing diagram updates
- [PE-12384] OutOfMemoryError while updating a diagram with too many instances
- [PE-12419] Placeholder expressions in send tasks don’t work properly with string literals
- [PE-12437] Missing identities link for user-picker on start event form
- [PE-12438] Incorrect styling on form fields
- [PE-12508] Documentation regarding multiple recipients for send tasks is unclear
- [DES-7882] Request to find entities by query has still poor performance
- [DES-7876] Security improvements

30.82 Version 8.0.0

30.82.1 BIC Process Design

Farewell to the old user interface

With this release, the transition is complete - only the new user interface remains. The legacy interface has been retired, and all users are now logged into to the new user interface by default. All legacy links to the old user interface now automatically redirect to their equivalents in the new user interface.

Please ensure your users are ready for this change. Our *Quick Start Guide* has been updated to focus exclusively on the new interface. If you need additional support, our Academy continues to offer a free e-learning module and, if desired, paid e-learning tracks or tailored training sessions to help your organization get up to speed.

New Features

Embed external content in diagrams

We've introduced a *new "Integration (URL)" attribute* to the standard method, allowing Modelers to embed any web content—such as a Power BI dashboard—directly into a diagram. Once a diagram is checked in, an additional tab with an individual title displays the external content, and the URL is archived with that diagram version. Consequently, publishing the diagram synchronizes the Integration tab with the Publication stage, ensuring the embedded content remains accessible as long as the diagram version is live.

This is especially helpful when you not only want to document a process but also provide operational data like process KPIs alongside the officially published process. Additionally, this feature supports a variety of other use cases, such as giving users access to training videos or connecting processes to knowledge management systems (e.g., Confluence pages or intranet wikis).

Until now, embedding external content directly into a diagram—complete with real-time or dynamic updates—was not possible. With this new capability, switching back and forth between the process diagram and external sources becomes unnecessary, supporting faster decision-making and more effective onboarding of new employees.

Hint: Please note that external content integration requires a separate license and is not activated by default in the standard license. Contact your Sales Accountant for additional information and pricing.

More control over "Link" attributes in the BIC Method Editor

We've enhanced the BIC Method Editor so that, when defining a "Link" attribute, you can now restrict which types of values are allowed. Specifically:

- **Link**: Users can enter a URL but cannot upload a file.
- **File**: Users can upload a document but cannot specify a URL.
- **Link & File**: Users may choose either a URL or upload a file.

Previously, any "Link" attribute automatically permitted both URLs and file uploads, so Modelers who should only be able to maintain only links still had the option to upload files. With this new feature, you gain precise control over what Modelers can maintain — and what end users can see — preventing, for example, file uploads in attributes that should only contain URLs.

Hint: Please note that existing "Link" attributes in the standard method remain unchanged. To use this capability, you must have access to the BIC Method Editor.

New table view for diagrams

The previous list view, showing only each diagram's name, has been replaced by a *flexible table view* that surfaces every relevant diagram attribute in its own column. Rather than opening each diagram to see attributes like "Responsible" or "Scope," users can now compare all values side by side. Column headers display the attribute name, and cells automatically populate with the corresponding diagram attribute value. Via the "Adjust Table" option, users can show or hide columns on the fly: attributes are grouped and searchable in real time, so everyone can choose exactly the attributes they need.

While power users (for example, Editors and Authors) will appreciate the ability to review multiple diagrams at once, all roles benefit from quicker data checks, streamlined reviews, and a personalized view over all diagrams.

Automatically assign diagram creator as Author

When creating a new diagram, the diagram-creation dialog now includes *an "Enter me as Author" toggle*, which is enabled by default. If the toggle remains on, the system automatically adds the current user to the Author attribute (AT_AUTHOR) at creation time—eliminating the need to manually assign yourself later. If a default value has been set for the Author attribute (AT_AUTHOR), selecting "Assign me as an Author" will append the creator alongside any preconfigured Authors.

By streamlining author assignment, this feature reduces manual overhead and ensures that the diagram's ownership is always accurate from the moment of creation.

Hint: Please note that "Author" (AT_AUTHOR) is the standard method's attribute name; your system may use a different label if it has been customized.

Access files via Public API

You can now access both file metadata and the files uploaded to a diagram or object attachment, previously only accessible internally, via the Public API. Two new options are available:

- **Metadata**: Returns details such as file name, size, upload date, and MIME type.
- **Download**: Streams the actual file, allowing you to programmatically retrieve attachments.

Whether you want to display document names in a custom dashboard or obtain the file for further processing, these extensions give you full access to any uploaded file.

Diagram Matrix Report and Diagram Warehouse Report configurable in Administration

You can now *manage both the Diagram Matrix Report and the Diagram Warehouse Report directly in Administration*, giving admins full control over these outputs. Previously, it was not possible to, for example, restrict access to the Diagram Warehouse Report by user role or to rename either report.

Hint: Please note that some configuration options available for Word-based reports do not apply identically here.

Color highlighting of object references and icons

For better recognition and visual differentiation of object references (chips) and icons of object types, these are now colored based on the border color of the standard symbol of the respective object type. The color can be changed by the administrator via the existing way of *color adjustments for symbols in the method area of the administration*.

Additional chart types in the catalog dashboard

To display attribute values of objects as appropriately and meaningfully as possible, *column and line charts are now also available in the catalog dashboard* in addition to donut charts. The respective selection is saved individually for each user and attribute and is also considered when used as a favorite on myBIC.

Existing features available in the new user interface

Share a diagram in Public Workspace via e-mail

In the Public Workspace, *each diagram now offers a "Share by e-mail" option*. Clicking it opens your mail client with a localized subject and body that includes a link to that specific diagram version. Recipients who follow the link land directly on the diagram in Public Workspace: even without explicit Public Workspace rights (e.g., Reader or Reviewer), they can view and comment but cannot edit, compare versions, or browse other diagrams.

Share search results via e-mail

After *running a search, choosing "Share by e-mail"* opens your mail client with a localized subject and body that include a direct link to the exact filtered results. Recipients who click it land on the same search page, but with their own access rights enforced.

Toggle between Profile and Attributes View in diagram details

Formerly, when a Profile View was configured, it became the default diagram view, and accessing all attributes required opening the Modeler. This mismatch with the previous interface confused users, as no toggle existed to reveal every attribute. Now, if Profile View is enabled and properly configured in Administration, you can *switch between the Profile view and a full Attributes view directly within diagrams*. By default, Profile view appears first, and Reviewers, Authors, Editors, and Administrators can toggle to the Attributes view—but Readers see only the configured Profile view, allowing Administrators to tailor a simplified experience. If Profile View is disabled in Administration, everyone sees only the Attributes view. This update provides flexibility to customize views for different user roles while still letting power users access all raw attributes as needed.

MyBIC now lists your checked-out diagrams

Your *MyBIC page in the Public Workspace* now includes a "Checked out by you" tile when you have diagrams checked out or created locally. Each entry appears as a two-line item - showing the diagram name and the repository where it's locked - and is sorted by last modified date, with the most recent first. Clicking an entry takes you directly to that diagram in your Local Workspace. Once you check a diagram back in, it's removed from the list. If you have no local diagrams, the tile simply doesn't appear. On small-resolution devices - where diagram check-out isn't supported - the tile is hidden to avoid confusion.

These updates make it easy to see which diagrams you're working on locally and jump back into them with a single click.

Contact creator of a catalog object via e-mail

Editors and Administrators can now *contact the creator of any catalog object directly from its details page in the Public Workspace*. Clicking the option opens a blank e-mail in your default mail client with the creator's address prefilled in the "To" field.

Suggest object in diagram to catalog

In the Public Workspace, you can now *suggest any diagram object to the catalog directly from a diagram*. When you open the context menu of an object in a diagram, which is not catalog object yet, you'll see a new "Suggest to catalog" option. Selecting this immediately suggests this object to the catalog. Once an object has been suggested, the "Open in Catalog" option becomes available in that same context menu letting you jump straight to its newly created catalog suggestion. This streamlines the process suggesting objects to the catalog without leaving the diagram view.

Highlight and navigate Functional Allocation Diagrams (FADs)

When an activity has an internal Functional Allocation Diagram (FAD) assigned, the *decomposition icon beneath the activity symbol is now highlighted on the model canvas* to indicate the FAD's presence. If this internal FAD is the only diagram linked to the activity, clicking the highlighted icon opens it immediately. If multiple diagrams are assigned (e.g., external allocation, subprocess, variant), clicking the icon opens a context menu listing all linked diagrams — grouping the internal FAD in its own section — so you can select which one to open.

Improvements in the new user interface

Export only filtered diagrams

You can now export only the diagrams currently displayed by your filters. When you apply filters on the diagram list and then choose an Excel Report (Warehouse or Matrix), the generated file contains just that filtered subset—no extra rows.

Open diagrams in a new tab

You can now open any diagram in a separate browser tab using Ctrl+Click or a middle-mouse-button without losing your original tab's unsaved changes, filters, or navigation state. This makes it easy to view multiple diagrams side by side, preserve your workflow uninterrupted, and return to your previous context at any time.

Done tasks available in your Tasks

The Tasks area in Portal now includes a *"Done Tasks" tab* alongside "My Tasks", "Deputy Tasks", and "Group Tasks". When you open the Tasks section, all tabs are visible, with My Tasks selected by default. Clicking Done Tasks shows every completed task—sorted in descending order by completion date so the most recently finished tasks appear at the top. Hovering over a completed task reveals an Audit Trail button; clicking it opens a detailed history that lists each workflow step and any comments made during the workflow.

Symbol palette and canvas origin immediately visible

When opening any checked-in diagram, the symbol palette now appears by default and the canvas origin (0,0) is immediately visible, with the right-side panel closed. This means you can begin modeling without first reopening the palette or locating the origin. Once you adjust the symbol palette or right-side panel, the system saves those settings upon check-in and restores them the next time you open that diagram.

Retain attribute groups during modeling session

When you expand or collapse attribute groups in the Modeler, the application now remembers each group's state (open or closed) for the remainder of your session. Previously, every time you clicked a different diagram element, all groups would reset to closed, forcing you to reopen them repeatedly. With this update, once you open an attribute group, it stays open as you navigate to other elements - and any group you close stays closed - until you log out or refresh. This lets you focus on modeling instead of repeated UI housekeeping.

Translate relationships (edges) in diagram translation mode

The Portal now provides the capability to *translate relationships (edges) with language-dependent attributes in the diagram translation mode*, allowing you to supply or review translations without hunting through the diagram. Relationships without any language-dependent attribute values are automatically excluded, so you only see elements requiring translation.

30.82.2 BIC Process Execution

Form Generation with Arty

Initial form generation with Activity Description as instructions Prompt

A *new prompt field has been introduced just above the 'Generate Form' button in the Form Editor*. By default, this field is pre-filled with the activity's description, which serves as Arty's instructional input. Users can easily modify or expand this prompt to provide more context or specific requirements before clicking the generate button.

Hint: Please note that the AI-enabled features of Arty are not included in the standard licence. Please contact your representative for more information.

Arty Chat – Real-Time AI Assistant for Form Editing

We've introduced a *new Arty floating action button (FAB) in the bottom-right corner of the Form Editor*. Once a form has been started - either through AI generation or manual field placement - users can open a chat with Arty to refine, extend, or restructure the form using natural language instructions.

Hint: Please note that the AI-enabled features of Arty are not included in the standard licence. Please contact your representative for more information.

Form Editor Section Improvements

Multiple Rows in Sections

You can now *create multi-row sections in the Form Editor*, making it easier to structure and organize complex forms. Instead of being limited to a single row per section, users can now add fields above or below existing ones in order to create rows and move fields freely within a section to adjust layout and order. This improvement enables more flexible and scalable form designs.

Repetitive Sections

Users can now mark sections as repetitive. Once enabled, users can define minimum and maximum limits for how many times a section can be repeated. In the rendered form, users will see an add and delete buttons to dynamically manage repetitions, unless a fixed number of repetitions is defined. There is also the option to display or hide section titles for each repetition.

Hint: File upload fields within repetitive sections are currently not supported and will be hidden during form execution.

New Features

Error Banner for User Forms

Users are now clearly informed of form validation issues with a persistent error banner displayed above the form after clicking the Complete button. This sticky banner remains visible until the form is corrected and resubmitted successfully.

Task Consumption Overview for Automated Tasks

ProcessApp Administrators can now *monitor automated task execution across all types (e.g., user, script, service tasks) via a new "System Monitoring" dashboard in the Administration area*. The view includes a stacked bar chart with monthly breakdowns which shows the consumption for each task type.

Enhanced Performance Monitoring and Drill-Down Capabilities

- **Drill Down on Overdue Tasks and Cases**: Users can now click directly on the 'Overdue' segments in task and case monitoring tiles to instantly navigate to filtered case lists showing overdue items.
- **Top Ten Assignees Drill-Down**: From the monitoring view, users can click on a segment in the assignee chart to jump to a task list filtered by that specific user, making it easier to manage workload distribution.
- **Case Completion Drill-Down**: Clicking on the bar 'Completed cases' in the Case Summary for a specific month takes users to the case list, pre-filtered for the selected time period.
- **Dynamic Case Summary Tile Display**: The 'Case Summary' tile now dynamically adjusts based on whether an end status is configured—expanding to full width when no end status tile is present.
- **Status Tile Drill-Down for Cases**: Users can click on specific areas in the 'End Status' tile to view all cases with that status for a selected month, helping pinpoint trends and bottlenecks.

Instant Task Start After Case Creation

Right after creating a case, if the next task is a user task assigned to the same user, it opens immediately in the next task pop-up—no extra clicks required. This ensures that users can dive directly into their work the moment a case is launched.

Seamless Task Handover After Completion

When a user completes a task in the task list, and the next user task within the case is assigned to the same user, that next task automatically pops up. This streamlines task transitions and speeds up work, especially in user-heavy workflows.

Additional Task Information in Pop-up View

Tasks opened from the task list now display a header section showing key details like Assignee, Start Date, Due Date, and Status—making it easier to review task info without leaving the pop-up.

Unified Case View

Users can now easily *switch between "Open", "Archived", and "All" cases using new tabs in the Case List view*. This enhancement allows for a clearer, time-based overview of created cases—no need to navigate away to compare statuses.

Create Case with Custom Start Forms in Process Execution

The case creation can be enhanced with *modifying a custom start form configured on the start event in the process definition*. Users can now create cases directly from multiple entry points across Process Execution. Whether browsing the ProcessApp Collection, searching for a ProcessApp (icons view), exploring the Case List, or using the 'Run' button in Process Design, you can now kick off a process with just one click.

Improved Error Visibility for Automated Tasks

When a REST call or script task fails (e.g., due to an SSL error or timeout), users now see a clear and detailed error message in the existing error popup. The message includes the failure reason and stack trace inside a code block for easier debugging. A copy button is also available for quick sharing or support escalation.

Multiple Users and Groups for Multi-Instance Tasks

You can now *assign multi-instance tasks to multiple users and internal groups* using a new assignee field in the Process Execution Editor. Simply define an array of emails and group names in a script task to distribute tasks in parallel. This update improves flexibility and supports more collaborative, scalable workflows.

Workflow

Manual Completion of Intermediate Timer Events

ProcessApp Users with the appropriate permissions can now manually complete Intermediate Timer Events to advance the process execution ahead of the predefined timer expiration. Manual completions are logged and available in Test and Staging environments with behavior consistent to Production.

Consistent Handling of Global Variables

Global variables are only applied if they are actually used and modified within the respective task. This ensures central values remain consistently manageable and that changes precisely affect ongoing cases without unintended overwrites.

Modification of Global Variable Names

ProcessApp Administrators can now *rename global variables after creation* to maintain consistent and clear naming conventions.

Hint: Changes may impact running processes that still reference the previous variable name. This function should therefore be used with appropriate caution.

Targeted Input Mapping for Service and Send Tasks

Service and Send Tasks now receive only the variables actually used within the task. This improves stability, reduces unwanted side effects, and simplifies maintenance of complex processes. The implementation is fully backward compatible.

Updated Input Mapping on Task Retries

When a task is retried, the input mapping is re-evaluated. This allows updated case or global variables to be included in the retry, enabling precise adjustments.

Enhanced Support for Complex Variables in Tasks

ProcessApp Creators can now directly use complex variables (e.g., objects, lists) in various tasks (Send, Prompt, Service REST Call) as well as in edge expressions. This significantly increases flexibility and intuitiveness when evaluating variable attributes within placeholders and conditions—without manual flattening or adjustments. Existing configurations remain fully compatible, and execution remains performant.

Flexible Handling of JSON Responses from REST APIs

ProcessApp Creators can now process REST API responses formatted either as JSON objects or JSON arrays. The entire response body is uniformly stored under `_response.body`, ensuring reliable handling of varying data formats.

30.82.3 BIC EAM

New features

Catalog modeling

Application and business capability contexts can now be modeled in a dialog-driven way inside the catalog. For this purpose, relationships between objects and associated properties can be *created and maintained directly in the detailed view of an application or business capability as so-called contexts*. The possible relationships and attributes correspond to the existing context diagrams. Visually modeled context diagrams can also be displayed in the detail view of the respective central application or business capability in the catalog.

This innovation strengthens and bundles the Enterprise Architect's focus on the catalog. Context-related relationships between objects and associated attributes are now centralized and therefore easier to find and more efficiently and clearly to maintain.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Life cycle attribute

The occurrence attribute relating to the life cycle has been renamed to “Context Life Cycle” and included in the life cycle attribute group to make it clearer and easier to find.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Insights Extensions

Timeline

To support EAM roadmapping and the analysis of future scenarios, the *selection of data for display within an Insight matrix can now be controlled by specifying a reference time via a timeline*. Objects and relationships from contexts with validity dates are displayed in the matrix if the selected reference time is valid according to the context's governance validity period. This makes it possible to interactively view and analyze changes in the attributes and relationships over time.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Filter

For a better focus within an Insight matrix, *column, row, and main objects can be filtered following the filter facets from the catalog*.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Object details

To support the evaluation and analysis within an Insight matrix without having to leave it, *details of the objects displayed in the matrix can be displayed directly in the Insight*. If desired, you can also *navigate to the use of an object from the matrix in a context or in the catalog*.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

Display improvements

Small adjustments to the display of the Insights improve the general usability of the matrix. Among other things, the alignment of the matrix cells has been harmonized, traffic light colors for suitable standard attributes and supporting tooltips have been introduced.

Hint: Please note that BIC EAM is not included in the standard licence. Please contact your representative for more information.

30.82.4 Resolved bugs

- [DES-6407] If multiple variants of the same diagram are assigned as allocation model to a diagram, the diagram fails to load
- [DES-7152] Security Improvements
- [DES-7408] Attribute values in Indonesian, Yiddish and Hebrew are not displayed after saving the entity or diagram
- [DES-7555] Generate diagrams with resources using Arty fails for some diagram names
- [DES-7560] Request to find entities by query has very poor performance
- [PT-6215] Changed BPMN pool colors in administration are not applied to all existing BPMN pools
- [PT-6872, PT-6873, PT-6874, PT-16882] Security improvements
- [PT-8483] Last entry in search results are cut
- [PT-9412] The distance between header and content cells in the matrix view of diagrams is incorrect
- [PT-13755] BPMN pools created by imports have default color instead of custom color
- [PT-14172] Search input field in central search are displayed wrong
- [PT-14737] Diagram navigation bar is positioned incorrectly when the diagram has no top bar
- [PT-14858] Manually set BPMN pool fill color does not overwrite custom colors
- [PT-14859] Diagram cannot be saved when BPMN pool color is changed twice
- [PT-14869] Setting BPMN pool color in administration and method file does not show the intended result
- [PT-14870] Changing BPMN pool colors in administration result in an unexpected coloring
- [PT-15046] Clearing a search term and searching for the same term again yields no results
- [PT-15964] Diagram navigation bars differ in edit and read mode
- [PT-16325] Context menu for placed attribute values on the canvas cannot be opened
- [PT-16376] Catalog object counter is not updated when filtering for a specific type in catalog dashboard
- [PT-16397] Dashboards are not respecting search term and filters on catalog list
- [PT-16941] Diagram warehouse report displays incorrect diagram names
- [PT-16942] Userflow control overlaps menu in RTL mode
- [PT-17036] Horizontal scrollbar in modeler does not work properly with the zoom area
- [PT-17096] Application language is set to English instead of users' browser language
- [PT-17388] Shape of BPMN pools and lanes can be edited

- [PT-17496] Tooltips for phases in the life cycle roadmap might overlap with the application labels
- [PT-17511] The life cycle roadmap does not display all available phases when showing many entities
- [PT-17592] Improved service logging
- [PT-17624] Inconsistent behavior of toolbars and hovering effects when managing catalog integrations in the administration area
- [PT-17818] Clicking on a diagram in the selection list does not show a loading indicator
- [PT-17838] UI switch and language toggle are incorrectly positioned on chatbot page
- [PT-17858] Changes in custom symbol colors does not get applied to checked-out diagrams
- [PT-17888] Archive status page displays incorrect text
- [PT-17928] Local diagram cannot be opened in a new browser tab
- [PT-17970] Changing the content language while viewing an insight grid does not update the page
- [PT-17972] In some cases, insight grid details does not display any data
- [PT-18164] Styling of detail page and tab broken in diagrams
- [PT-18179] In some cases, the coloring and the time slider are not working properly in Insight grids
- [PT-18194] Activity descriptions are not taken into account in chat answers
- [PT-18214] Direct URL access to diagram edit view ignores lock and does not redirect to read-only mode
- [PT-18256] Selecting ‘Save’ after diagram edit prompt does not preserve change
- [PT-18261] Scrollbar missing in content language menu
- [PT-18266] Share by e-mail text and translations are wrong
- [PT-18271] Enum values are displayed with “undefined” as value for some content languages
- [PT-18285] BPMN files are always imported in English instead of content language
- [PT-18301] Conditions for symbol formatting is not updated when changing enumeration value
- [PT-18304] Element focus gets lost while modelling
- [PT-18305] Clicking on a risk does not select the risk symbol properly on the canvas
- [PT-18306] Stamp mode does not work for certain objects in the new modeler
- [PT-18330] Entity profile report fails when a used attribute type cannot be found on the method
- [PT-18389] Reader can select object views in catalog table
- [PT-18417] Text alignment of Insight grid headers
- [PT-18418] Remove additional padding and spacing in chips
- [PT-18431] When content and alternative language are set to the identical language then the table entries a suffixed with the alternative language code
- [PT-18449] Distance between right tab and dropdown for settings is missing
- [PT-18461] If the default diagram attribute differs from the default entity attribute, then the diagram attribute is used to determined object coloring
- [PT-18464] AI name suggestion does not work
- [PT-18622] Diagrams are not sorted by name in diagram table
- [PT-18629] Depublication of diagrams is not possible via the menu in the diagram list

- [PT-18635] Link attributes cut of text in edit mode
- [PT-18647] Analytics tab and options menu are missing in Governance Cockpit
- [PT-18653] Inconsistency in published diagram email templates across different langauges
- [PT-18662] Diagram integration URL are not properly loaded when a specific title is not provided
- [PT-18704] Successful creation of a new catalog integration in administration produces an error toast
- [PT-18718] Not all search hits are displayed
- [PT-18719] Selected state for insight grid headers is incorrect
- [PT-18793] Export excel functionality in catalog is returning an empty excel file
- [PT-18805] After interacting with the keyword attribute a popup is shown
- [PT-18838] Diagrams pasted into a category are only displayed after reloading
- [PT-18910] Diagrams in sub-categories are not available in category filter
- [PT-18951] Diagrams shown as chips are initially not shown correctly visually
- [PT-18952] Matrix view in scroll is overlaying content
- [PT-18961] Breadcrumb does not update when categories are selected in diagram table view
- [PT-18966] Incorrect context diagram part shown in applications and business capability catalog items
- [PT-18971] Rename field in diagram list allows line breaks
- [PT-18992] Quick start guide cannot be opened
- [PT-18995] Printing a diagram as JPEG/PNG fails
- [PT-19009] Navigating from myBIC to a checked out diagram in another repository breaks modeler
- [PT-19012] Search favorite is shown as expert search
- [PT-19016] Wrong formatting of toggle content language section on catalog not found page
- [PT-19020] Inconsistent scrollbar placement in comparison table in catalog
- [PT-19026] Catalog details view is broken when saving changes on an approved catalog item
- [PT-19043] AI-powered Editor is not working
- [PT-19045] Catalog search doesn't find entries when searching for a suffix
- [PT-19101] Pools can be pasted in lanes and become their child objects
- [PT-19109] Executing simulation scenarios is not possible
- [PT-19177] Formatted Texts are not displayed in the diagram table
- [PE-11289] Missing translations in Global Variables dialog
- [PE-11465] German Description Text for Service Tasks not fully shown
- [PE-11717] Variable _case.url is not using the correct process id
- [PE-12228] Case creation not possible if ProcessApp has two Roles and a mix of user and group is used

30.83 Version 7.17.29

30.83.1 Resolved bugs

- [PE-13029] Memory Leak in JavaScript Execution
- [PE-13066] Out of Memory Issue in Process Execution Environment
- [PE-13510] Error email is sent in case of retry

30.84 Version 7.17.28

30.84.1 Resolved bugs

- [PT-20861] Service reliability improvement

30.85 Version 7.17.27

30.85.1 New Features

- [PE-10362] Setting Automatic tasks to Error when interrupted due to a service restart
- [PE-11227] Notify Assignee when a task was set to Error state

30.86 Version 7.17.26

30.86.1 Resolved bugs

- [PT-18822] Service reliability improvement
- [PT-20514] Catalog facets are not updated correctly when using the replace option for attributes on multiple catalog objects

30.87 Version 7.17.25

30.87.1 Resolved bugs

- [PE-13148] Security Improvement
- [PT-20688] Editing approved objects copied from another diagram does not convert them into suggestions

30.88 Version 7.17.24

30.88.1 Resolved bugs

- [PT-20509] Distribute SVG generation on clients
- [PT-20416] If a category has 500 child categories or more, the diagram list appears empty without the possibility to load new elements
- [PT-20143] Entity publication fails for PDF 2.0 file attachments

30.89 Version 7.17.23

30.89.1 Resolved bugs

- [DES-8228] Entity attributes are duplicated in the node when Arty creates the diagram
- [PT-19630] Reports cannot be generated when the requesting user is assigned to a large amount of user groups
- [PE-11349] Wrong text color in Date picker input fields
- [PE-12948] Date element vanishes when switching pages in date picker input field
- [PE-12827] Permission checks failing for user groups
- [PE-12897] API Gateway restarts due to insufficient memory limit

30.90 Version 7.17.22

30.90.1 Resolved bugs

- [PT-19027] AI chat does not respect content or UI language

30.91 Version 7.17.21

30.91.1 Resolved bugs

- [PE-12415] Enhance the docs regarding the use of keys and Save selected options as string arrays configuration for multi-choice inputs
- [PE-12658] Unclear Documentation for Manual Start of Timer Events
- [PT-20048] Check in a new diagram fails with a not found error (404)
- [PT-20177] Loading the category tree highly impacts the system performance when there are lots of categories
- [PT-20274] Internal Improvement
- [PT-20359] Internal Improvement
- [PT-20367] Internal Improvement

30.92 Version 7.17.20

30.92.1 Resolved bugs

- [PT-19814] Readers can not access preview stage using a shared link
- [PT-19932] Diagram name gets automatically replaced with the file name in AI diagram generation dialog
- [PT-19589] Service reliability improvement
- [PT-19806] Access token validity check fails
- [PT-19813] Catalog links in Preview stage are not correctly redirected to the new UI

30.93 Version 7.17.19

30.93.1 Resolved bugs

- [PE-10891] ProcessApp Deletion fails with OutOfMemoryError on Apps with many cases
- [PE-11587] DMN task output doesn't show the complete text

30.94 Version 7.17.18

30.94.1 Resolved bugs

- [DES-7348] Generated diagrams misses default diagram attribute values
- [PT-19581] Stage is switched to publication when refreshing some pages
- [PT-12260] PDF output of diagram printing is sometimes incompatible with Adobe Acrobat Reader
- [PT-17570] Uploading custom report templates does not replace the existing one and creates new entry
- [PT-17699] Attribute types with specific data types cannot be displayed on profile view
- [PT-18013] Profile view does not work for entities
- [PT-19015] Catalog configuration for "Annotation" cannot be disabled
- [PT-19176] Certain custom method extensions can cause failing checkins
- [PT-19281] Date filter facets instantly autocompletes dates after typing the first number
- [PT-19370] Service reliability improvement
- [PT-19505] Removing a text attribute value saves an empty string
- [PT-19506] Canceling diagram unsaved changes dialog results in infinite loading spinner
- [PT-19516] Category tree only shows first 100 categories at root level
- [PT-19524] Browser translations are not suppressed
- [PT-19720] "Go To New Interface" button is missing

30.95 Version 7.17.17

30.95.1 Resolved bugs

- [PE-10086] Case Creation Restriction Not Enforced for API Requests
- [PE-11919] Inconsistent handling of Dates (UI and Process Variable)
- [PE-12242] Multiple choice & Users/User groups can't complete when are read-only and mandatory
- [PE-12357] Assigning user to a task in a subcase does not work right if there is default staffing
- [PE-12384] OutOfMemoryError while updating a diagram with too many instances

30.96 Version 7.17.16

30.96.1 New Features

Control visibility of "New user interface banner"

Administrators can now control the visibility of the "New user interface banner" for all users in the Set user interface option (Administration). When the banner is disabled, it is no longer shown to any users. When re-enabled, the banner reappears for all users except those who had previously closed it.

30.96.2 Resolved bugs

- [DES-7876] Security improvements
- [PT-16317] Reviewers and Readers can access public workspace and cannot get back to their allowed stages
- [PT-18709] Clicking out of a suggestion list in Portal modeler does not close suggestion list
- [PT-18962] Diagrams cannot be configured as default tenant favorite for MyBIC
- [PT-18837] Replacing a used catalog item in the catalog does not work correctly
- [PT-19083] Restoring nodes with non resolvable assignments breaks diagrams

30.97 Version 7.17.15

30.97.1 Resolved bugs

- [DES-6407] If multiple variants of the same diagram are assigned as allocation model to a diagram, the diagram fails to load
- [DES-7882] Request to find entities by query has still poor performance
- [PE-12352] Enabling "Show boolean as checkbox" results in a label overflow issue.
- [PE-12373] Diagrams are not updated in the test stages
- [PE-12381] The drag icon for boolean fields overlaps the label

30.98 Version 7.17.14

30.98.1 Resolved bugs

- [PE-12345] Resolved memory leak during case deletion caused by null IDs
- [PE-12228] Case creation not possible if ProcessApp has two Roles and a mix of user and group is used
- [PE-12273] _case.owner does not work in Formula.js SPLIT function

30.99 Version 7.17.13

30.99.1 Resolved bugs

- [DES-7650] User can not change role, group and email because the username contains prohibited character [DES-7509]
- [PT-15979] Set date values get lost on content language switch during editing
- [PT-16567] Storing boolean attribute values differs in new and old UI
- [PT-17469] Violated OCL rules are shown in Publication
- [PT-17849] Catalog search indexing takes too long due to misconfigured calls
- [PT-18453] Revision creation date is not updated after modifications on catalog objects
- [PT-18479] Labels of BPMN pool and lane headers can be copied and pasted
- [PT-18480] BPMN lanes can be moved outside of a pool
- [PT-18671] Depublish option are displayed for catalog objects without own governance lifecycle
- [PT-18704] Error toast is shown on successful creation of a new catalog integration in administration
- [PT-18946] Comments entered by Readers are not visible
- [PT-19181] Diagram generation fails if generated diagram references symbols without default names

30.100 Version 7.17.12

30.100.1 Resolved bugs

- [PE-11593] InstanceDeleted message is not sent when updating a ProcessApp in DEV & TEST stage
- [PE-11856] Response mapping could not be skipped
- [PE-11963] Application link fails when process variables are used
- [PE-12074] Formula evaluation order error when accessing _case.owner
- [PE-10720] DMN editor data caused errors if the activity was previously defined as a signature task
- [PE-11915] Multi-instance Call Activities did not receive required data
- [PE-12226] Backward compatibility issue with identities

30.101 Version 7.17.11

30.101.1 Resolved bugs

- [PT-17322] Toast for an provisioned archive is missing when there already an archive toast
- [PT-17848] Service reliability improvement
- [PT-18087] Placed assignment attributes on canvas are not updated when the assigned object was updated
- [PT-18088] Import started toast is not shown until the file upload finished
- [PT-18224] Setting the diagram satellite layout in the administration does not differentiate between diagram types
- [PT-18226] Modeler displays symbols in specific diagrams in a wrong way
- [PT-18261] Scrollbar missing in content language menu
- [PT-18271] Enum values are displayed with “undefined” as value for some content languages
- [PT-18285] BPMN file are always imported with English content language
- [PT-18304] Focus on elements while modelling get lost
- [PT-18306] Stamp mode does not work for certain objects in the new modeler
- [PT-18456] Process warehouse export shows object names instead of diagram names in diagram name column in the object sheet
- [PT-18477] Redirection to new UI always navigates to MyBIC instead of the intended location
- [PT-18497] Name change of object is lost when creating a new object
- [PT-18560] Reorganizing catalog items ignores the “Only show suggested” filter
- [PT-18575] Editor in new UI does not update when language is switched more than once
- [PT-18589] Portal is not able to send the browser generated SVG to the render service
- [PT-18608] Adding pools via context palette leads to errors
- [PT-18762] Item bar icons do not get visually updated when using an object from suggestion list

30.102 Version 7.17.10

30.102.1 Resolved bugs

- [DES-7560] Request to find entities by query has very poor performance
- [PE-10835] Subsequent process - message start event doesn’t get triggered automatically
- [PE-10917] ArrayIndexOutOfBoundsException when user opens ProcessApp Cases while cases are created
- [PE-11305] Variables can’t be used in formula fields
- [PE-11683] Variables can’t be used to assign a role in a call activity subcase
- [PE-11951] Complex process variables do not work in Send Tasks
- [PE-10130] Make archiving instances more error safe
- [PE-11938] GitHub builds fail due to test SMTP server connection issues

- [PT-18600, PT-18652] Security improvements
- [PT-18661] Improved service reliability

30.103 Version 7.17.9

30.103.1 Resolved bugs

- [PT-14287] Image in diagram gets displayed multiple times when printing a PDF
- [PT-18382] OCL blocker violations can be bypassed to check in a diagram
- [PT-18405] Validation does not get recalculated when changing content language
- [PT-18529] Read-only attributes must not be editable via variant and version comparison

30.104 Version 7.17.8

30.104.1 Resolved bugs

- [DES-7408] Attribute values in Indonesian, Yiddish and Hebrew are not displayed after saving the entity or diagram
- [DES-7555] Generate diagrams with resources using Arty fails for some diagram names
- [PT-17716] Search favorite URLs are sometimes incomplete, causing errors in tenant favorite creation
- [PT-18057] Archived diagrams can't be compared to active ones in the current stage
- [PT-18194] Activity descriptions are not taken into account in chat answers
- [PT-18494] Changing one default setting removes multiple default settings
- [PT-17001] Attachments cannot be added via drag and drop in the new UI
- [PT-17256] Improved navigation bar
- [PT-17853] Catalog administration cannot be displayed
- [PT-18089] Search results cannot be configured as default tenant favorite for MyBIC
- [PT-18154] User feedback is missing on failed save in translation mode
- [PT-18173] Suggestion list overlaps the input field when renaming pools or lanes
- [PT-18177] Diagram assignments are not showing in profile
- [PT-18214] Direct URL access to diagram edit view ignores lock and does not redirect to read-only mode
- [PT-18221] Improved diagram loading times
- [PT-18225] Incorrect or missing default settings in multiple administration sections
- [PT-18256] Selecting 'Save' after diagram edit prompt does not preserve change
- [PT-18257] Comments on deleted entities are still displayed
- [PT-18288] Using Indonesian, Yiddish and Hebrew as content languages breaks search functions
- [PT-18301] Symbol is not updated when changing enumeration value
- [PT-18328] Improved interaction with categories

- [PT-18478] Copying pools into other diagram types creates invalid graph items

30.105 Version 7.17.7

30.105.1 Resolved bugs

- [PT-18145] Entity type selection does not get reflected in suggestion list of pools
- [PT-18163] Catalog search displays search results wrong order
- [PT-18165] Catalog search displays search results wrong order
- [PT-18172] Tooltip for suggestion list displays random entity name
- [PT-18176] Diagram check-in sometimes fails in new modeler

30.106 Version 7.17.6

30.106.1 Resolved bugs

- [DES-7054] Missing documentation about key pair rotation / expiry for on-prem installations
- [PT-17640] Unnecessary tooltips are shown for fully displayed catalog item names in life cycle roadmap
- [PT-17677] Inconsistent font styling used for labels in catalog section of administration area
- [PT-17969] No content is displayed in Insights if both selected languages (content and alternative) are not maintained
- [PT-16999] Diagram can be checked out by navigating back
- [PT-18021] Free forms palette is still available when set as hidden in the method definition
- [PT-18034] Process Execution Editor options entry is not available for diagrams
- [PT-18084] Incorrect scrolling behavior in Catalog translation mode causing that the elements at the bottom are not fully reachable
- [PT-18100] When clicking in an active edit field on the canvas, editing is canceled and typed changes are lost
- [PT-18080] New modeler creates incorrect OCL evaluation objects
- [PT-10600] Check-in fails after copying diagram content with broken edges into a new diagram
- [PT-16045] Edge label does not snap into a fixed position, nor does it move with the edge
- [PT-17990] Domain data in indonesian language cannot be indexed
- [PT-18079] Pasting a switched association caused by an OCL rule creates inconsistent domain data and fails to checkin
- [PT-18085] Names of assigned diagrams are cut in navigation menu of the item bar
- [PE-10974] Send Task Fails When Multiple Recipients Are Set in the Reply-To Field
- [PE-11232] Custom columns for object variables are not shown in the cases view
- [PE-11303] Interaction with UI not possible anymore when adding a Link to HTML field
- [PE-11390] Some Tasks Fail When Validating Identities

- [PE-11479] Missing Exception Details in Logs for Failed Service Calls
- [PE-11480] Service Calls Fail After Update from Version 7.15 to 7.16

30.107 Version 7.17.5

30.107.1 Resolved bugs

- [PT-17384] Overlapping elements when scrolling in an insight grid
- [PT-17831] Insight pages don't have a dedicated tab title
- [PT-17927] Newly created pools in the Portal UI do not appear in the configured primary UI color
- [PT-18036] Unlocked diagrams cannot be deleted

30.108 Version 7.17.4

30.108.1 Resolved bugs

- [PE-11127] Options tab missing for 'Message' Start Event for Process Execution Editor in new Process Design UI
- [PT-7506] Local diagrams tile is not available on MyBIC
- [PT-15465] Variant diagram cannot be checked in when updating restored catalog items (new and old modeler)
- [PT-17220] FailureReason cannot be persisted due to character limit
- [PT-17505] Changed diagram attributes are not shown in the comparison mode
- [PT-17585] Insight grid coloring for some attributes produces colors inconsistent with grid key and data
- [PT-17702] Loading indicator disappears prematurely when checking in a diagram, potentially leading to errors
- [PT-17784] Insight grids are not updated when repository or stage are changed
- [PT-17829] Unable to remove nodes from relationship attributes in old UI
- [PT-17835] Former method configuration gets applied after browser reload in new UI
- [PT-17859] Loading of insights is too slow
- [PT-17873] Removing a favorite on MyBIC randomizes titles of other MyBIC tiles
- [PT-17892] Version changes and comparison option is unusable for diagrams

30.109 Version 7.17.3

30.109.1 Resolved bugs

- [PT-13269] Too much catalog facet are included in requests leading to an 'URI too long' error
- [PT-15465] Variant diagram cannot be checked in when updating restored catalog items (new and old modeler)
- [PT-16414] Feedback of removed nodes in a relationship attribute on pasting is missing
- [PT-16704] Diagram options do not get updated on stage switch

- [PT-17021] Attachments that are not uploaded for all languages are not persisted
- [PT-17326] Incorrect today marker position in expanded catalog details lifecycle chart
- [PT-17492] Matching catalog objects are not on top of the suggestion list for some naming formats
- [PT-17498] After changing catalog filtering to an entity type that doesn't support the roadmap view, application doesn't redirect back to entity list
- [PT-17637] Comment functionalities are still available in new UI when service has been deactivated
- [PT-17686] Variant comparison table fails to show results when diagram attributes change

30.110 Version 7.17.2

30.110.1 Resolved bugs

- [DES-7341] Login not possible due to problems in the group synchronization with SAML
- [PE-10266] Changing the team does not change the related variable
- [PE-11156] ElasticsearchException when the max clause limit is reached during report generation
- [PE-11158] Case and task list export cause an error when filter values contain commas
- [PE-11212] Cases filtered by 'Overdue State' are not exported to Excel Report
- [PE-11231] Form Editor: Arty does not have the correct context for some fields
- [PE-11233] Saving variables deletes all role owners
- [PE-11206] Mandatory file fields are not validated in user form completion

30.111 Version 7.17.1

30.111.1 Resolved bugs

- [PT-4859] Given allocation diagram with pool and within activity, if I delete pool, activity will be deleted, but not from main diagram
- [PT-13524] Users export in the new admin ui is downloaded with "null" as filename for non default tenants
- [PT-16394] Adding a search favorite doesn't fill the star icon anymore
- [PT-17326] Incorrect today marker position in expanded catalog details lifecycle chart
- [PE-10497] Default variables do not behave as expected when used as role ID
- [PE-11172] Change german translation for 'generate form' button in Form Editor
- [PE-10926] Users not involved in a case can see it with direct link to the case flow
- [PE-11117] Error 500 when accessing archived process instance

30.112 Version 7.17.0

30.112.1 BIC Process Design

Important note about the new user interface

The new user interface is now fully available. The transition phase from the old to the new interface has already begun.

We recommend preparing your users for the change in advance. To support you, a *Quickstart Guide* is available. Additionally, our Academy offers a free e-learning module and, if needed, paid e-learning modules and customized training sessions to ensure a smooth transition.

Flexible transition to the new user interface

Administrators can now flexibly control which user roles are restricted to using the new user interface only. Activated roles will be automatically redirected to the new interface upon their next login and will no longer have access to the old interface. Any links to the old interface will also lead directly to the new one. User roles that are not activated will retain access to both interfaces. Existing systems with the current configuration require no action, as the settings will be automatically applied and can be managed directly in the administration in the future.

New Features

Comparison for catalog variants with an integrated checklist

With the new comparison feature, users can *efficiently compare and update catalog variants and their versions*. An integrated checklist *highlights differing attribute values, allowing targeted review, direct adoption, or reversal of changes*. This streamlines quality assurance, ensures consistent data maintenance, and saves time during revisions.

How to use the feature:

1. **Start the variant comparison**: Select a variant.
2. **Review changes**: The comparison table only shows differences.
3. **Apply changes**: Apply values with one click or reset them.
4. **Confirm and update**: Save the changes to update the catalog variant.

New table view in the catalog

The previous simple list view in the catalog, which only displayed the name and description of an entry, has been completely replaced with a *new, clear table view*. This allows users to see all relevant attributes quickly and makes it easier to compare entries. Columns can be individually shown or hidden, enabling each user to display only the information that is important to them. The table view offers enhanced structure and flexibility, particularly for power users like editors and authors, but all other user roles also benefit from the ability to customize the catalog to their individual needs.

Dynamic guides for consistent spacing between objects

When modeling, dynamic guides now help you align objects precisely with consistent spacing between them. These guides appear automatically and assist with exact placement, resulting in a professional and structured layout with minimal effort.

Improved handling of edges in modeling

We have optimized edge selection, especially for narrow edge paths. Previously, waypoints were often selected instead of the actual start or end of an edge. Now, a visual hand symbol on the cursor makes it easier to select edges and indicates when the start or end of an edge is being captured. Additionally, when points are close together, the edge start or end is automatically prioritized. These improvements enable more precise and intuitive handling of edges.

Direct Object Filtering in the Public API

Previously, calling systems could only retrieve a complete list of all objects for a tenant and had to filter the data on the client side. This resulted in unnecessarily large data volumes and increased processing effort. With the new enhancement, queries can now be filtered directly by the object's stereotype and catalog status. As a result, systems receive only the relevant objects without the need for additional selection. This improves performance, reduces data load, and simplifies integration with other applications.

Existing features available in the new user interface

Version comparison in the catalog

The new comparison feature allows users to specifically *compare different versions of a catalog item* and track changes transparently. Only differing attributes are displayed, categorized in a clearly structured comparison view.

Print preview for diagrams

When opening the *print option in the options panel of a checked-in diagram*, a preview of the diagram is displayed with margins and page layout, ensuring optimal display and formatting.

Additional features in the new modeler

The Right-to-Left (RTL) mode has been optimized for displaying languages with RTL scripts. Users can now directly add and manage comments and notes. Additionally, the new feature provides an overview of object usage, making it easier to identify dependencies. The direct opening of an object's detail view in the catalog enhances navigation efficiency. Furthermore, the print format for diagrams can now be set directly, allowing for precise formatting for printing.

Improvements in the new user interface

Improved administration of object types

The object type view in catalog management has been switched to a tab-based structure to improve clarity and navigation. General settings (governance) and filter facet configuration are now housed in separate tabs. In the *filter facets tab*, attributes can be selected, filtered, and added or removed as chips through a multi-select field.

Integrated comparison table for object versions

In the old user interface, differences between object versions were displayed, but without a direct comparison. With this update, the *version comparison in the catalog now features an integrated comparison table* that presents object attributes in a structured dialog. This improves clarity, makes comparison easier, and provides quicker access to relevant information.

Improved comparison of diagram variants

The selection menu has been restructured, and the default settings have been improved. The selected variant now remains active when switching stages, as long as it exists in the new stage.

Optimized Create Button (FAB)

The Create Button (FAB) has been optimized to avoid overlaps with list entries and ensure intuitive interaction. It is now consistently positioned in the bottom-right corner, hides when scrolling, and reappears once scrolling stops.

30.112.2 BIC Process Execution

New Features

Form Generation with Arty

Arty can now *generate forms during the initial form creation process*. Based on activity names and descriptions, Arty suggests relevant form fields, reducing manual effort and accelerating the design. To generate a form with Arty, users need to click the '**Generate form**' button in the Form Editor.

Hint: Please note that the AI-enabled features of Arty are not included in the standard licence. Please contact your representative for more information.

Embed Start Forms on External Websites

Users can now *configure start forms directly at the start event* and *embed them into external websites*. The embedding information can be copied directly from the settings in the Form Editor. This feature allows external visitors to trigger automated processes and create cases in **Process Execution**.

Improved Export of Cases and Tasks to Excel

The **Excel export** for cases has been enhanced, allowing users to *export all cases and tasks to Excel*, where they will be stored in separate tabs. This improvement facilitates data analysis and reporting outside the platform.

Easy Assignment of Group Tasks

Users can now *claim group tasks directly from the task List*, simplifying task management and delegation within teams. By clicking the '**Assign to me**' link in the task assignment column, the task is immediately assigned to the user.

Seamless Switching Between Case and Task Lists

Users can now effortlessly *switch between case and task lists within a ProcessApp*, improving workflow efficiency and navigation. The lists are displayed as adjacent tabs within the respective ProcessApp.

Enhanced Case Monitoring and Summary

A dashboard *summarizing cases from the past 12 months* has been added to the Monitoring section. It provides insights into the number of cases created and completed per month, as well as their processing time over the course of the year. In addition to the axis labels of the bar chart, users can hover over the bars to display the corresponding values separately.

Improvements in the Form Editor

Extended Properties for Sections

Form sections now support the properties '**Mandatory**', '**Read-Only**', and '**Hidden**'. All fields within a section automatically inherit the configured property, making form management more efficient and consistent.

Enhanced Drag & Drop for Form Fields

Users can now intuitively rearrange sections and fields in the Form Editor *using drag & drop functionality*. Additionally, the drag & drop icons have been updated for better usability.

Introduction of a Formula Editor

A *new Formula editor* has been introduced to support **dynamic calculations**, **data validation**, and **conditional logic** within form fields. Users can review and test their inputs, allowing for greater flexibility in form design.

Advanced Filtering Options for Cases

Filtering in the 'Monitoring' Section for Ongoing Cases

In the Monitoring section, users can now *filter cases based on their due status*. By clicking one of the tiles '**Overdue**', '**On Track**', or '**At Risk**', users are automatically redirected to the filtered case list. The *new filter facets can also be used directly in the case list* for data analysis. To do this, users need to expand the '**Overdue State**' facet to see the available filters.

New Filters for Archived Cases

A **new filtering facet** has been introduced for archived cases, allowing users to filter cases from the **past 12 months** in the archive list. Users can now select a specific month or a range of months from the last year to filter completed cases accordingly.

Hint: Introduction of JSON Objects for Form Variables:

Form variables are now processed as complete JSON objects. This update ensures that structured data remains consistent, improving data integrity and usability. Script tasks that use user group fields must be adapted due to the new data structure. Further information can be found *here*.

30.112.3 BIC EAM

New Features

Insights

In the *new main section "Insights"*, which can be found as an independent menu item in the main menu, EAM analyses are now centrally consolidated. Predefined evaluations allow for quick and targeted analysis of EAM-relevant questions, such as the analysis of application costs, identification of redundancies, application strategy planning, or risk management.

Depending on the question, suitable EAM objects, such as applications, business capabilities, or risks, are *displayed in a matrix* based on their relationships with other EAM objects and are color-coded according to specific attribute values, such as lifecycle phases or technical fit. This allows for easy answers to questions like how application costs are distributed across organizational units and business capabilities, or which applications should be prioritized for further development or transformation. *Depending on the types of objects used and the appropriate selection of attributes for coloring*, clear and tailored evaluations can be created.

Integrations of external websites for catalog object types

Administrators can now *configure the display of external websites in additional tabs in the catalog area* of the administration for individual object types. This makes it easy to integrate relevant additional information, e.g. from external analytics platforms or ticket systems, directly and in the right place in BIC. By specifying user groups, the visibility of the relevant tab can be restricted so that user groups only see the integrations that are relevant to them.

Graphical visualization of the life cycle for catalog objects

To display the life cycle attributes in EAM objects, e.g. for applications, the corresponding date attributes of the individual life cycle phases are now displayed graphically as a timeline. The current date is marked separately for better orientation. This provides a simple and intuitive overview of the various life cycle phases.

Life Cycle Roadmap

A *roadmap is now available in the catalog for EAM object types* in which the individual life cycle phases can be maintained, for example for applications. This view provides a compact overview of which object is in which lifecycle phase at which point in time and thus represents a strategic planning tool for the long-term orientation, further development and transformation initiatives. The current date is marked separately for better orientation. For a better focus, the individual lifecycle phases can be highlighted individually, and the selection of the displayed objects can be restricted using the usual filter facets.

30.112.4 Resolved bugs

- [DES-5755] Audit event handling may be interrupted frequently due to memory issues
- [DES-5862] Tenant creation with toolbox fails if the name of tenant consists of more than one word
- [DES-6591] Security Improvements
- [DES-6745] Replacing entities has no effect on checked-out entities (due to concurrent processing)
- [DES-6766] Redirect to login page fails if the subdomain contains a dot
- [DES-6843] Security improvements
- [DES-7001] Security improvements
- [DES-7029] Publishing a diagram is not possible when a replaced non-catalog-item has a relation
- [DES-7047] Security improvements
- [DES-7148] No messages will be send if attributes of an entity change through a replacement of an assigned entity
- [DES-7214] Keycloak cannot encrypt configuration with metadata generated by an older version
- [PT-3469] Item bar below BPMN activity symbol doe not update correctly after placing another node inside
- [PT-12265] Help buttons in administration do not forward to correct sections
- [PT-13462] Default value of assignment attributes assigned to an entity are not saved without any additional attribute update
- [PT-13542] Incorrect translation in the German date range filter facets
- [PT-13586] Banner informing about the validity of a diagram or catalog entry in publication is not displayed
- [PT-13764] Color pickers in the Method Administration behave inconsistently

- [PT-14409] No label displayed in edit mode for formatted text attributes
- [PT-14565] Associations and edges are not recalculated when an element is moved inside or outside a pool using the alignment function
- [PT-15467] User roles in the drop-downs are sorted alphabetically instead of being ordered by their privilege
- [PT-16319] Alternative diagram views are missing in some diagram types
- [PT-16351] Validation during entity publication fails for mandatory occurrence attributes
- [PT-16499] Process Warehouse export can fail on data with formatted attributes
- [PT-16510, PT-16512, PT-16831, PT-16832, PT-16833, PT-16834, PT-16835, PT-16836, PT-16837, PT-16938] Security Improvements
- [PT-16600] Spaces between words with bold or underline formatting are missing in diagram graphic
- [PT-16672, PT-16674] Documentation misses information
- [PT-16706] Modelers get logged out even though they are constantly modeling
- [PT-16707] Edge gets detached when moving the attach point in certain cases
- [PT-16738] No documentation available why missing icons in SVG prints are expected behaviour
- [PT-16755] Search-service operational improvements
- [PT-16946] User role-restricted category and catalog reports are not available in Portal
- [PT-17144] Variant option missing when variants exist in stages other than the current one
- [PT-17246] Download button does not appear if a report is generated and the session is closed before it finishes
- [PT-17284] Quick model import option is missing for Editors
- [PT-17295] Pool can be removed via Assigned Objects attribute while activity and other content is inside
- [PT-17333] Formatted texts are not displayed correctly in the catalog
- [PT-17337] Create variant option available for rejected catalog items
- [PT-17339] Removed activities in modeler version changes view still appear in list of changes
- [PT-17345] Stage changes are not displayed correctly in the drop-down in Central Search when no search term is entered
- [PT-17347] Profile settings are not saved correctly when the page has been reloaded
- [PT-17350] No feedback when a search favorite has been created successfully
- [PT-17354] When adding users to a user group on small resolutions, the ‘Add’ and ‘Cancel’ buttons are not visible
- [PT-17366] When using the “Export to Excel,” “Export Diagram Archive,” or “Export BPMN File” features in an archived diagram version, the newest version is used instead of the archived version
- [PT-17367] Dashboard does not match the name filter
- [PT-17382] Removing newly added allocated objects via the details view does not persist on the first attempt
- [PT-17396] Diagram list flickers and becomes unusable when scrolling (Firefox only)
- [PT-17399] Attachment uploads for a single language will not be persisted to diagram or catalog entry
- [PE-8000] Script task does not enter an error state when a failure occurs during variable initialization in the engine.
- [PE-9975] When changing a signal event to a timer event, the timer event fails to work properly

- [PE-10603] ProcessApp Collections with a name longer than 64 characters cause an error
- [PE-10925] URL attachments title are not shown
- [PE-11081] Wrong translations for 'invalid user' in 'Edit team member' dialog
- [PE-11082] Wrong translation for 'More ProcessApps'
- [PE-11123] Inconsistent stage names in "Global Variable" form

30.113 Version 7.16.21

30.113.1 Resolved bugs

- [DES-7876] Security improvements
- [PE-11938] GitHub builds fail due to test SMTP server connection issues
- [PE-10130] Make archiving instances more error safe
- [PE-11856] Response mapping could not be skipped
- [PE-11915] Multi-instance Call Activities did not receive required data

30.114 Version 7.16.20

30.114.1 Resolved bugs

- [DES-7650] User can not change role, group and email because the username contains prohibited character [DES-7509]
- [PT-18453] Revision creation date is not updated after modifications on catalog entries

30.115 Version 7.16.19

30.115.1 Resolved bugs

- [PT-18600, PT-18652] Security improvements
- [PT-18608] Adding pool lanes per context palette icons leads to unintended execution of redo functionality and to various follow up errors
- [PT-18661] Improved service reliability

30.116 Version 7.16.18

30.116.1 Resolved bugs

- [DES-7408] Attribute values in Indonesian, Yiddish and Hebrew are not displayed after saving the entity or diagram
- [PT-17853] Catalog administration cannot be displayed
- [PT-18100] Editing a label on the canvas is canceled and changes are reverted
- [PT-18154] User feedback is missing on failed save in translation mode
- [PT-18288] Using Indonesian, Yiddish and Hebrew as content languages breaks search functions

30.117 Version 7.16.17

30.117.1 Resolved bugs

- [PT-18145] Entity type selection does not get reflected in suggestion list of pools
- [PT-18163] Catalog search displays search results wrong order
- [PT-18165] Catalog search displays search results wrong order
- [PT-18172] Tooltip for suggestion list displays random entity name
- [PT-18176] Diagram check-in sometimes fails in new modeler

30.118 Version 7.16.16

30.118.1 Resolved bugs

- [PT-18080] New modeler creates incorrect OCL evaluation objects
- [PT-10600] Check-in fails after copying diagram content with broken edges into a new diagram
- [PT-16045] Edge label does not snap into a fixed position, nor does it move with the edge
- [PT-16150] Connecting an intermediate message event with a pool creates a broken edge
- [PT-16706] Modelers get logged out even though they are constantly modeling
- [PT-17990] Domain data in indonesian language cannot be indexed
- [PT-18079] Pasting a switched association caused by an OCL rule creates inconsistent domain data and fails to checkin
- [PT-18085] Names of assigned diagrams are cut in navigation menu of the item bar
- [PE-11303] Interaction with UI not possible anymore when adding a Link to HTML field
- [PE-11479] Missing Exception Details in Logs for Failed Service Calls
- [PE-11480] Service Calls Fail After Update from Version 7.15 to 7.16

30.119 Version 7.16.15

30.119.1 Resolved bugs

- [PE-11232] Custom columns for object variables are not shown in the cases view
- [PE-11456] Process Execution Editor entry not available in new Process Design UI
- [PE-10974] ReplyTo field in email templates supports only one recipient

30.120 Version 7.16.14

30.120.1 Resolved bugs

- [PT-17873] Newly created pools in the Portal UI do not appear in the configured primary UI color

30.121 Version 7.16.13

30.121.1 Resolved bugs

- [PE-11127] Options tab missing for 'Message' Start Event for Process Execution Editor in new Process Design UI
- [PT-17505] Changed diagram attributes are not shown in the comparison mode
- [PT-17835] Former method configuration gets applied after browser reload in new UI
- [PT-17873] Removing a favorite on MyBIC randomizes titles of other MyBIC tiles

30.122 Version 7.16.12

30.122.1 Resolved bugs

- [PT-13269] Too much catalog facet are included in requests leading to an 'URI too long' error
- [PT-16414] Feedback of removed nodes in a relationship attribute on pasting is missing
- [PT-17021] Attachments that are not uploaded for all languages are not persisted
- [PT-17492] Matching catalog objects are not on top of the suggestion list for some naming formats
- [PT-17637] Comment functionalities are still available in new UI when service has been deactivated

30.123 Version 7.16.11

30.123.1 Resolved bugs

- [DES-7341] Login not possible due to problems in the group synchronization with SAML
- [PE-10266] Changing the team does not change the related variable
- [PE-11158] Case and ask list export cause an error when filter values contain commas
- [PE-11206] Mandatory file fields are not validated in user form completion

30.124 Version 7.16.10

30.124.1 Resolved bugs

- [PE-10497] Default variables do not behave as expected when used as role ID
- [PE-11038] Form Editor must not allow duplicate IDs of fields within a Section
- [PE-11081] Wrong translations for “invalid user” in “Edit team member” dialog
- [PE-11082] Wrong german translations for “More Processapps”
- [PE-10926] Users not involved in a case can see it with direct link to the case flow
- [PE-11117] Error 500 when accessing archived process instance

30.125 Version 7.16.9

30.125.1 Resolved bugs

- [PT-17287] Auto layouter does not work in the new UI

30.126 Version 7.16.8

30.126.1 Resolved bugs

- [DES-7214] Keycloak cannot encrypt configuration with metadata generated by a older version
- [PT-12300] Report generation is not terminated after service restarts
- [PT-16499] Process Warehouse export can fail on data with formatted attributes
- [PT-16783] Generated Process Warehouse export finished after user session cannot be downloaded

30.127 Version 7.16.7

30.127.1 Resolved bugs

- [PT-13872] Cannot delete nodes from canvas under certain circumstances
- [PT-16604] Security improvement
- [PT-16755] Search-service operational improvements
- [PT-16985] Save and checkin are not reachable in medium resolutions in Portal
- [PT-17017] Depublishing the base entity removes the parent relationship with variant entities when searching
- [PT-17209] BPMN import/export fails for diagrams containing a pool with lanes created in the new interface
- [PE-10660] Parallel join gateway does not wait for branch

30.128 Version 7.16.6

30.128.1 Resolved bugs

- [DES-6745] Replacing entities has no effect on checked-out entities (due to concurrent processing)
- [DES-7029] Publishing a diagram is not possible when a replaced non-catalog-item has a relation

30.129 Version 7.16.5

30.129.1 Resolved bugs

- [PT-16509] Security Improvements
- [PT-16576] EAM entity profile reports are missing attributes
- [PT-16741] Improve indexing
- [PT-16902] URL in attachment attribute persisted in content language only (Portal Modeler)
- [PT-16924] Reindex fails
- [PT-16949] Links in new UI banner refer wrong resource
- [PT-16987] Images can be pasted into description attribute
- [PT-16991] Context palette for lanes does not get updated after usage (Portal Modeler)

30.130 Version 7.16.4

30.130.1 Resolved bugs

- [DES-5755] Audit event handling may be interrupted frequently due to memory issues
- [PE-9730] Clicking the “Complete” button does not complete the task if a text was entered before
- [PE-10657] Incoming messages in a start event may prevent update
- [PE-10719] Log empty email reminders for overdue tasks
- [PE-10751] Manual DMN tasks don’t show in my task list

30.131 Version 7.16.3

30.131.1 Resolved bugs

- [PT-13190] Custom attributes names are not displayed in profile view
- [PT-14608] Unable to save or leave the diagram translation mode
- [PT-14667] Lack of user feedback when the creation of an edge of a node added via a relationship attribute failed
- [PT-15135] Depublishing the base diagram removes the parent relationship with variant diagrams when searching
- [PT-15528] Zip upload of report template does not work
- [PT-15532] Single-value attachment attributes cannot be persisted
- [PT-16138] Inconsistent data created by data migration leads to infinitely repeating workflow steps
- [PT-16175] Cannot enable notifications for favorite diagrams via toast
- [PT-16234] Portal Modeler breadcrumb missing category path for newly created diagrams
- [PT-16342] Save dialog appears after deleting a catalog entry
- [PT-16410] Activities in allocation diagrams can be copied
- [PT-16413] Deleting an activity with a shared relationship node removes values in other relationship attributes
- [PT-16477] PE editor data is lost while editing in Portal Modeler
- [PT-16491] Relationship attribute values are not saved when reloading the diagram in Portal Modeler
- [PT-16498] No lock notification displayed for locked diagram when the locking user has been deleted
- [PT-16742] Webclient unavailable due to internal error
- [PT-16794] Layout Assistant does not correctly apply the configuration set in Portal Administration
- [PT-16829] Users are logged out of the portal after an internal error and cannot login for some time
- [PT-16830] Security improvement
- [PT-16904] Name of newly created diagram is not always persisted in Portal Modeler
- [DES-6864] Images part of HTML field are not loaded
- [DES-6108] (PT-14278) Switch symbol does not correctly reset the SymbolType ID in domain data, which applies the wrong method color configuration to the graph item

- [DES-6870] Security Improvements
- [DES-6886] Depublication of a catalog entry is not possible in case there are published variants of it
- [DES-6970] Archives are not created when doing a bulk update of diagrams
- [PE-10488] Analyze inconsistencies between Camunda data and PE instances
- [PE-10675] Send task with an input without any document fails
- [PE-10799] Analysts cannot see the monitoring tab
- [PE-10761] Wrong format in date picker
- [PE-10784] When moving a field in the form editor an unwanted 'disabled' attribute is added
- [PE-10798] Migrate unassigned send tasks blocked in the flow

30.132 Version 7.16.2

30.132.1 Resolved bugs

- [PE-9991] User can complete a Task although mandatory text field was not filled
- [PE-10117] The size property of form editor fields is removed when moving the field
- [PE-10531] Placeholder for 'upcomingTask.assigneeName' is not shown in weekly reminder emails for upcoming group tasks
- [PE-10533] Missing files in Service Tasks when the input document is coming from a parent process
- [PE-10559] No scroll bar if Text Area contains a very long text
- [PE-10561] Starting a process in App stage can cause a 409 error (Conflict) / process non-structural changes are not applied
- [PE-10565] Images part of HTML field are not loaded
- [PE-10595] Name of custom status column ("Status") cannot be changed

30.133 Version 7.16.1

30.133.1 Resolved bugs

- [PT-15531] Update EAM method
- [PT-16279] Name of attribute used to store Process Execution related information is wrong
- [PE-10500] Security Improvements

30.134 Version 7.16.0

30.134.1 BIC Process Design

Introducing the New User Interface

The new user interface is fully available starting with this release, which marks the beginning of the transition period from the old user interface to the new user interface. We recommend that you prepare your users early for the change. A *Quick Start Guide* is available. In addition, our Academy offers a free e-learning module and, if required, will support you with fee-based e-learning modules and individual training courses to ensure a smooth transition.

New Features

AI Supporter and AI Enterprise Expert

Arty now offers users interactive support. With the *integrated chat*, users can communicate with Arty in real time and get quick answers to their questions or navigate through the documented processes. Arty takes on two specialised roles that provide the following support:

- **AI Supporter**: In this role, Arty supports the user in a direct dialogue with the online help. Users can ask questions about how to use the tool and receive specific answers that make it easier to navigate and use the software. The AI Supporter guides users through individual functions and explains specific steps without the need to refer to detailed manuals. This simplifies and accelerates the learning process for new and casual users, shortening the learning curve and reducing the need for support.
- **AI Enterprise Expert**: In the role of AI Enterprise Expert, Arty acts as a virtual process consultant. Arty answers questions about the processes documented in the system and helps users find their way around the company's process landscape. For example, users can call up specific information on process steps or responsibilities and receive precise information that will quickly help them in their daily work. Arty not only helps to maintain an overview, but also makes all process knowledge easily accessible and applicable. This role is particularly valuable when it comes to understanding complex processes or quickly accessing critical details, so that even the casual, non-specialist user can act with confidence.

These roles offer several benefits to users: they save time, make it easier to train new employees, and improve productivity for anyone who uses BIC Process Design occasionally. In addition, thanks to its integrated translation function, Arty can translate content into several languages in real time, which is particularly valuable when working in international teams. All information provided by Arty comes from the system itself or the online help - no external content is used, further ensuring the relevance and security of the answers.

Note: Please note that the AI-enabled features of Arty are not included in the standard licence. Please contact your representative for more information.

Creating object variants in the catalog

The new user interface now allows you to *create object variants directly in the catalog*, in addition to process variants. This functionality creates a clear and understandable link between the base object and its variants. The clear display of dependencies between catalog items makes the relationship between the original object and object variants transparent and easy to understand.

Analyze views of governed catalog items

All user roles except Reader now can *analyze the views of governed catalog items* (catalog items that have their own governance lifecycle) in the publication. When you open the catalog in the publication in the new user interface, you can find the number of views in the system attributes on the details page of a catalog item.

Note: : Only views in the new interface and from managed catalog records are counted. Views prior to the installation of this release are not counted A filter for the catalog list, with which only catalog items within a certain value range can be filtered, is currently not available for views.

Analyze the downloaded attachments of governed catalog items

All user roles except Reader now can analyze the number of *downloads of attachments* of a governed catalog item (catalog items that have their own governance lifecycle) in the new user interface. When opening a catalog item in the new UI, the details page displays a list of downloads per attachment in the current content language. Because attachments are language-dependent, different files may exist for each content language. Changing the content language will load the attachments in the new content language and display the downloads per attachment.

Note: Only downloads in the new user interface and for attachments of governed catalog items are counted. Any downloads prior to the installation of this release are not counted. A filter for the catalog list, with which only catalog items within a certain value range can be filtered, is currently not available for downloads of attachments.

Reports on variants with all objects

In this version, all objects that appear both in the original diagram and in its variants are output in full in Word and Excel reports, which increases the precision of the reports. The ID or name of the respective diagram is used for differentiation in the reports. The structure and presentation of the reports remain unchanged. Previously, objects used in both the original and variant diagrams were listed only once.

Existing functions available in the new user interface

The new Modeler is here - faster, smarter, and more powerful

The new user interface makes creating and editing diagrams even more intuitive and efficient. The functionality of the previous Modeler has been almost completely transferred, so you can start working right away without any major changes. For a smooth start, there is a *Quick Start Guide* that explains the most important new and modified features.

Compare variants and decide on modifications

The new user interface allows the *variant diagram to be compared to the base or source diagram*, making it easier to identify required updates to the variant when changes have been made to the base or source diagram. Variant diagram modelers have access to a comprehensive change list to determine the applicability of each change to the variant diagram. This integrated change list supports decision making and simplifies the process of customizing variant diagrams.

Improvements in the new user interface

Transfer of individual attribute values for flexible variant modification

In the new Modeler user interface, users can now select individual attribute values of an object or *diagram to be transferred to the displayed diagram*, rather than having to transfer all attributes. This feature provides more flexibility and allows to make targeted adjustments. The feature can be used immediately on existing diagrams.

30.134.2 BIC Process Execution

New Features

User Roles for Process Execution

The roles of ProcessApp User and ProcessApp Creator have been more clearly defined. ProcessApp Creators can create instances in the development and test environments but require the ProcessApp User role to do so in the production environment.

HTML Fields for User Guidance in Forms

ProcessApp Creators can now add HTML fields in forms to provide additional information. These fields allow for clear and relevant instructions to support users in completing the form, including options for text formatting, link embedding, and using basic HTML tags.

Source Code View for Form Editor

ProcessApp Creators can switch the form editor to a *source code view* to modify forms efficiently by copying, cutting, and pasting. This flexibility speeds up the editing process.

Setting Case Variables via Arty-powered PromptTasks

ProcessApp Creators can now use Arty for PromptTasks to *set case variables via an LLM-powered script*. Users can define a prompt, provide example data, and test outputs. When the process is executed, the prompt dynamically replaces placeholders with case-specific data to set case variables automatically.

Hint: Please note that the AI-enabled features of Arty are not included in the standard licence. Please contact your representative for more information.

Central Task Management in Process Execution

ProcessApp Creators can use the *ProcessExecution editors* (e.g., Script Task, Send Task) for tasks stored in the catalog. This feature promotes consistency and saves time in creating new executable processes and maintaining existing ones.

Status Changes within the Process

ProcessApp Creators can define *status changes for a process* within the nodes of the diagram, making the current status of a case clearly visible to users. This feature improves understanding of process progress and enhances transparency.

Previewing DMN Table Results

Business rule tasks (DMN tasks) that still require input can now *show a preview result* before completing the task. This feature enables better control and input verification.

Filtering Process Instances by Instance Data

Users can now *filter all instances of a process* based on instance data once these data points have been added as columns in the case list. Columns can be configured as hidden, allowing filtering by these columns without displaying them in the table.

Searching for Instance Data in the Case List

Instance data configured as columns in the case list can now be *searched*, allowing users to quickly locate specific instances.

Conditional Formatting for Visual Data Highlighting in the Case List

ProcessApp Creators can set flexible rules for *conditional formatting of table rows or cells* in the case list, visually highlighting important cases. This improves clarity and makes it easier to identify relevant data.

Customizable Column Configuration in the ProcessApp Case List

ProcessApp Creators can now override the *default column configuration* in the case list. This offers customized adjustments to meet user needs for better clarity and relevance.

Marking Deviating Cases in the Case List

Cases with overdue tasks are now marked as *"deviating"*. This marking helps users recognize potential delays early and take timely action.

Displaying Deviating Cases in the Monitoring Dashboard

The monitoring dashboard now shows how many cases deviate from the schedule due to overdue tasks or are already overdue. This feature helps users focus on critical cases.

Note: Please note that only the deviated cases and overdue tasks that have reached the status after the update to version 7.16.0 are displayed in the monitoring dashboard. All previous deviated cases and overdue tasks will not be considered initially.

Visualization of End Status Trends for Completed Cases

The monitoring dashboard visualizes the distribution of end statuses for completed cases, enabling analysis of trends and outcomes over the past 12 months. This feature supports a comprehensive analysis of completed processes.

Introduction of Swagger UI Endpoints

External developers can now use the *Swagger UI* to understand how new instances of a ProcessApp can be created via API endpoints. The Swagger UI provides a clear, documented interface, allowing developers to test endpoints beforehand and seamlessly implement integration and automation of processes into external systems.

Enhanced Consistency for ProcessApp Forecasts

ProcessApp forecasts are only recalculated if the app's structure has changed. Minor modifications to the app will no longer reset the forecast, ensuring reliable predictions of future instances remain consistent even with changes.

Modernized and Consistent Email Design

Emails now feature a modern and consistent design, enhancing trust in the content and improving the user experience when interacting with email notifications

30.134.3 BIC EAM

New Features

Application Profile Report

For EAM, we have extended the entity profile report for applications. It now focuses and highlights EAM related attributes and relationships for an application, especially regarding the usages in related context diagrams. This provides you with an EAM view on an application in a central, comprehensive report.

EAM Warehouse Report

The new EAM warehouse report collects attributes and information about related objects from context diagrams inside a repository in a dedicated report. By using groupings and filters you can easily concentrate on various EAM aspects across multiple context diagrams.

30.134.4 Resolved bugs

- [DES-5800] Security improvements
- [DES-6301] Installation guide procedures refer to outdated package versions (RHEL only)
- [DES-6347] Public API calls may respond unexpectedly on missing request parameters
- [PT-4275] Process flow for certain diagrams breaks on path selection
- [PT-10144] "Show more" is displayed although it is not necessary
- [PT-11309] Copy and paste visual data from a diagram into another with an image doesn't work
- [PT-12366] Invalid retention periods can be entered in administration
- [PT-13452] Decimal/Number field attribute values cannot be removed
- [PT-13535] Workflow tasks report cannot be reached in options menu
- [PT-13567] Profile configuration does not provide a default configuration (JSON) on first activation
- [PT-14080] Profile view configuration is empty when enabled
- [PT-14139] Custom report on catalog list uses incorrect filters
- [PT-14210] Profile view in new UI cannot handle undefined attribute types
- [PT-14380] Wrong header layout in diagram options for related object details (low resolution view)
- [PT-14644] MyBIC favorites cannot be configured for contents of the new UI
- [PT-14739] Diagrams remain selected when exiting and re-entering bulk editing
- [PT-14853] Catalog facets not displayed on high number of facets
- [PT-14967] Diagrams with access restrictions are displayed with an infinite loading spinner in gallery view
- [PT-15213] Approve button not shown in preview stage
- [PT-15214] [Not for release notes] Userflow - Error occurs when USERFLOW_ALLOWED_ROLES has an empty string
- [PT-15219] Entity profile report does not show assigned objects
- [PT-15464] Custom attributes with multi values are not shown in catalog
- [PT-15561] Hint on bulk update in online help is unclear
- [PT-15578] Variant comparison does not show changes in attributes when the diagram has more than one variant
- [PT-15931] Switching repository does not update the category explorer
- [PT-16244] Matrix view does not apply abbreviation in chips for customized role names and does not sort them correctly
- [PT-16279] Name of attribute used to store Process Execution related information is wrong
- [PT-16282] Display issue in new UI when the user is member of many user groups

- [PT-16295] Adding a missing node in a variant diagram via a variant comparison violates the uniqueness of the entities
- [PT-16336] Occurrences in catalog are not always shown
- [PT-16375] Catalog and diagram options order is wrong in the main menu
- [PT-16393] Translation suggestion for descriptions in translation mode cannot be triggered
- [PE-8343] Start Timer Events cron expressions are not validated properly and cases may not be created automatically
- [PE-9451] Exporting completed cases to Excel may fail on large number of tasks
- [PE-10077] Overlapping text in mobile view when creating a new Case and German language is used
- [PE-10097] Spelling mistake in Text Area element of Form Editor (German only)
- [PE-10347] Report service task can fail on new tenants

30.135 Version 7.15.22

30.135.1 Resolved bugs

- [DES-7408] Attribute values in Indonesian, Yiddish and Hebrew are not displayed after saving the entity or diagram
- [PT-18288] Using Indonesian, Yiddish and Hebrew as content languages breaks search functions

30.136 Version 7.15.21

30.136.1 Resolved bugs

- [PT-17505] Changed diagram attributes are not shown in the comparison mode

30.137 Version 7.15.20

30.137.1 Resolved bugs

- [PT-16414] Feedback of removed nodes in a relationship attribute on pasting is missing

30.138 Version 7.15.19

30.138.1 Resolved bugs

- [PE-10266] Changing the team does not change the related variable
- [PE-11206] Mandatory file fields are not validated in user form completion

30.139 Version 7.15.18

30.139.1 Resolved bugs

- [PE-10497] Default variables do not behave as expected when used as role ID
- [PE-10926] Users not involved in a case can see it with direct link to the case flow
- [PE-11117] Error 500 when accessing archived process instance

30.140 Version 7.15.17

30.140.1 Resolved bugs

- [PT-12300] Report generation is not terminated after service restarts
- [PT-16499] Process Warehouse export can fail on data with formatted attributes
- [PT-16783] Generated Process Warehouse export finished after user session cannot be downloaded

30.141 Version 7.15.16

30.141.1 Resolved bugs

- [PT-13872] Cannot delete nodes from canvas under certain circumstances
- [PE-10660] Parallel join gateway does not wait for branch

30.142 Version 7.15.15

30.142.1 Resolved bugs

- [DES-6745] Replacing entities has no effect on checked-out entities (due to concurrent processing)
- [DES-7026] Restart of keycloak necessary due to failing authentication of method-service
- [DES-7029] Publishing a diagram is not possible when a replaced non-catalog-item has a relation

30.143 Version 7.15.14

30.143.1 Resolved bugs

- [DES-5755] Audit event handling may be interrupted frequently due to memory issues
- [DES-6870] Security Improvements
- [PE-9730] Clicking the “Complete” button does not complete the task if a text was entered before
- [PE-10657] Incoming messages in a start event may prevent update
- [PE-10751] Manual DMN tasks don’t show in my task list

30.144 Version 7.15.13

30.144.1 Resolved bugs

- [DES-6970] Archives are not created when doing a bulk update of diagrams
- [PT-15135] Depublishing the base diagram removes the parent relationship with variant diagrams when searching
- [PT-16794] Layout Assistant does not correctly apply the configuration set in Portal Administration
- [PT-16829] Users are logged out of the portal after an internal error and cannot login for some time
- [PE-10117] The size property of form editor fields is removed when moving the field
- [PE-10488] Analyze inconsistencies between Camunda data and PE instances
- [PE-10675] Send task with an input without any document fails
- [PE-10761] Wrong format in date picker
- [PE-10784] When moving a field in the form editor an unwanted 'disabled' attribute is added
- [PE-10798] Migrate unassigned send tasks blocked in the flow

30.145 Version 7.15.12

30.145.1 Resolved bugs

- [PT-14608] Unable to save or leave the translation view
- [PT-15528] Zip upload of report template does not work
- [PT-16410] Activities in allocation diagrams can be copied
- [DES-6108] (PT-14278) Switch symbol does not correctly reset the SymbolType ID in domain data, which applies the wrong method color configuration to the graph item

30.146 Version 7.15.11

30.146.1 Resolved bugs

- [PE-9991] User can complete a Task although mandatory text field was not filled
- [PE-10533] Missing files in Service Tasks when the input document is coming from a parent process

30.147 Version 7.15.10

30.147.1 Resolved bugs

- [PT-15531] Update EAM method
- [PT-16279] Name of attribute used to store Process Execution related information is wrong
- [PT-16413] Deleting an activity with a shared relationship node removes values in other relationship attributes
- [PT-14667] Lack of user feedback when the creation of an edge of a node added via a relationship attribute failed
- [PE-10500] Security Improvements

30.148 Version 7.15.9

30.148.1 Resolved bugs

- [PE-10490] No user is assigned to a Task if a ProcessApp is started in the App stage
- [PE-10455] Email attachments missing in automatic send tasks when the document comes from a parent case

30.149 Version 7.15.8

30.149.1 Resolved bugs

- [PT-12129] Link titles are not shown correctly in reports when the link URL contains a fragment identifier (“#”)
- [PT-14139] Filters are not updated correctly when executing a custom report on Catalog list
- [PT-16282] Display issue in new UI when the user is member of many user groups
- [PT-16295] Adding a missing node in a variant diagram via a variant comparison violates the uniqueness of the entities

30.150 Version 7.15.7

30.150.1 Resolved bugs

- [PE-10003] Using smart variables as role identifier does not work
- [PE-10116] Gateway choices without translations in the tenant default language are not rendered
- [PE-10213] Action button in ‘insert link’ dialog of textarea fields is not visible
- [PE-10388] Send task editor: html editor: sourcecode changes are not saved until sourcecode mode is switched
- [PE-10459] Intermediate timer event does not show release date correctly
- [PT-15520] Template handlings do not get considered in new UI report administration
- [PT-16199] MyBIC Search Tiles do not show results

30.151 Version 7.15.6

30.151.1 Resolved bugs

- [PE-10139] Process Design Play Button button does not work if ProcessApp name contains special characters
- [PE-10305] Readonly url fields are not clickable until the CTRL key is pressed
- [PE-10330] Checked status is not shown in multiple-choice checkboxes stored as string
- [PT-15311] Bulk update in the new UI allows changes to readonly attributes in diagrams
- [PT-16075] Search index is not updated for existing diagrams

30.152 Version 7.15.5

30.152.1 Resolved bugs

- [PT-15745] Selected objects in an assignment attribute cannot be saved

30.153 Version 7.15.4

30.153.1 Resolved bugs

- [PT-15014] No diagram options are displayed in new UI
- [PT-15097] When creating entities in the catalog in new UI, defaults are not set correctly
- [PT-15143] Incorrect toast appears when a change gets reverted in comparison view
- [PT-15398] Nodes remain in diagram without symbol after deletion of pool with 'Remove symbol only on modeling canvas' option
- [PT-15410] Search results displaying '[No content]' in Central Search and Diagram Search in new UI
- [PT-15479] Some readonly attributes can still be changed in new UI permanently
- [PT-15513] Changes to base diagram attributes cannot be applied to variant diagram attributes
- [PT-15527] When diagram name is only available in secondary language and a filter is applied, the name disappears in central search (new UI)
- [PT-15580] Read-only attributes can be changed in translation mode in the new UI

30.154 Version 7.15.3

30.154.1 Resolved bugs

- [PE-9673] Process variables not evaluated correctly in single/multiple choice with dynamic values using key/value pairs
- [PE-9895] Dates information on steps is not consistent when case has set a due date
- [DES-6346] Visibility of changes are delayed by assignment attribute cleanup

- [DES-6350] Missing compatibility for custom services in find all repositories endpoint
- [PT-15141] Check-in button missing after saving changes in Variant Comparison or Diagram Archives

30.155 Version 7.15.2

30.155.1 Resolved bugs

- [PT-14966] Persons and organizational units are suggested in bulk editing
- [PE-9729] Process App Editor validation message is not initialy shown
- [DES-6343] Checkin fails after removing updated non catalog item

30.156 Version 7.15.1

30.156.1 Resolved bugs

- [PT-5887] Favorite removed toast has a typo in German (Portal)
- [PT-10177] As a base modeler in the web client, I want to compare a base process against its process variants to identify the differences
- [PT-12129] Link titles are not shown correctly in reports when the link URL contains a fragment identifier (“#”)
- [PT-12247] Message about expired items in a diagram cannot be reconfigured
- [PT-12254] Resubmission email is not send if an examiner group is empty
- [PT-13450] Notify userFlow about users screen size
- [PT-13882] Chart favorite with no data in the current stage break the portal rendering
- [PT-14591] When diagram name is only available in secondary language and a filter is applied, the name disappears
- [PT-14606] Wrong error toast for catalog publications with unapproved entities
- [PT-14606] Newly created catalog entries are not sorted alphabetically
- [PT-14665] No error toast is shown when starting a diagram depublication workflow while another workflow was already started
- [PT-14876] Context menu for nodes inside a pool is not appearing anymore after converting the pool to a suggestion and dropping new nodes to the pool
- [PT-14938] Translation functionality is not working
- [PT-15045] Catalog Index does not get updated on catalog item change, leading to outdated views & facet results in catalog
- [PE-9638] Distinction of group names and email addresses as email recipients cannot handle upper case
- [PE-9683] Multiple and Single fields are not displayed correctly when variables are not initialized
- [PE-9687] Fields changes do not work correctly in the guest task interface
- [PE-9696] In the guest task, sometimes the form is filled out when it is saved
- [PE-9780] User form Single Choice Dropdown field is missing from Task Popup

- [PE-9781] When a task is not assigned to anyone I cannot delegate it as case owner
- [PE-9784] No sort parameter should be sent when entering search term in case list
- [PE-9640] The case owner is not shown in form field when the task is not started yet
- [PE-9682] Task assignment to case creator as fallback is not working in app stage
- [PE-9782] Diagram changes in production are not transferred to ProcessApp when it has cases with instance attachments

30.157 Version 7.15.0

30.157.1 BIC Process Design

New Features

Enterprise Architecture Management with BIC EAM

We are happy to announce that we now offer you a way to model and document your enterprise architecture with *BIC EAM*. Build within BIC Process Design, BIC EAM lets you create an enterprise architecture comprised of business and IT elements which is easy to manage, provides you with insights for steering your digital transformation while being cost effective to create and keep up to date.

Document your IT landscape ranging from a portfolio to an individual architecture using e.g. business capabilities, applications or IT components. Graphical and dialog-based input methods provide a perfect user experience for the occasional modeler as well as for the enterprise architect. Use standard APIs to easily and automatically integrate data from external data sources.

Hint: Please note that BIC EAM is a separate module and license.

Create and manage process variants

Both the old and new user interfaces have been enhanced to allow the integrated creation of variants of a base process. A direct dependency is created between the base and variant diagrams, allowing you to easily visualize the relationship between the two diagrams.

The old user interface allows you to compare the variant process with the base process, making it easier to identify necessary updates to the variant when changes occur in the base process. Variant process modelers have access to a comprehensive change list to determine the applicability of each change to the variant process. This integrated change list supports decision making and simplifies tailoring variant processes. Please note that this feature will also be available in the new user interface as soon as the diagram editor is available

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Hint: Please note that this feature will also be available in the new user interface as soon as the diagram editor is available

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More bulk updating options for diagrams

We have enhanced the *bulk updating options for diagrams* in the new user interface. Editors and Administrators can now add a new assignment to a multi-value diagram assignment attribute and search for a specific assignment to remove. This streamlines the updating of multiple processes, saving time and effort while improving accuracy.

Direct bulk update of diagrams in Preview and Publication

We have also increased flexibility by allowing Administrators to apply *bulk updates* directly to diagrams in the Preview or Publication stages, ensuring timely and efficient changes. In addition, any update applied at the preview or publication stage is tracked in the governance cockpit, providing a comprehensive audit trail and ensuring accountability.

Hint: Please note that direct preview and publication updates are deactivated by default and must be activated for a client by GBTEC Software AG.

Merge version changes

The Version Compare view in the old user interface has been enhanced to allow you to review and decide on each change individually, and to revert if necessary. Newly added modeling objects can be removed, removed objects can be re-added, and attribute updates can be undone, providing greater flexibility and provides precise control over the changes.

Hint: Please note that this feature will also be available in the new user interface as soon as the diagram editor is available.

Method

Object type “Entity” renamed to “Entity / Data object”

To better reflect the diverse applications of object type “Entity” (ET_ENTITY), we have updated the object type name from “Entity” to “Entity / Data Object”. This change is purely a label modification within the catalog. Existing objects themselves, along with their attributes, remain unchanged

New position of the attribute group “Protection requirement”

For customers utilizing the “Protection Requirement” attribute group, please note that we have adjusted its position for improved usability. This attribute group is now located just before the “Governance” attribute group in the sequence.

Improvements in the new user interface

Most recent tasks on top of your task list

Tasks are now sorted in descending order of creation date. This improvement ensures that the most recent tasks appear at the top of your task list, making it easier for you to stay organized and prioritize your work effectively.

30.157.2 BIC Process Execution

New Features

Additional Columns for ProcessApp Case List

ProcessApp Creators can configure additional columns for the ProcessApp case list, allowing users to see more detailed information. This improvement ensures that all relevant information is readily accessible, which provides greater visibility into the details of each case enhancing the ability to monitor and analyze cases effectively.

External User Task Form Access

External users can now work on task forms, enabling them to provide necessary information and complete tasks. This change facilitates collaboration with external stakeholders, such as clients or partners, by allowing them to participate directly in the workflow. It streamlines communication and ensures that all necessary data is collected efficiently.

Autocomplete for Single-Choice Drop-Down Fields

When typing in a single-choice drop-down field, users will now see a suggestion list, enhancing the user experience by providing autocomplete functionality. This change reduces the time spent scrolling through long lists and helps users find the desired option more quickly, improving overall efficiency and user satisfaction.

Email Notifications for Task Assignments

Users will receive email notifications for task assignments only when necessary, reducing unnecessary email clutter. If tasks are due within the next 24 hours and are not completed within an hour of assignment, an email notification will be sent. This improvement minimizes notifications, ensuring users are alerted only to important tasks that are not promptly completed.

Group Task Notification Emails

Notification emails now indicate the group to which a group task belongs, giving users better context when they receive the notifications. This change helps users understand the task's relevance and identifies the responsible team, improving task assignment clarity and reducing confusion.

Administer Instance as Case Owner

Case owners now have the ability to administer an instance, enabling them to solve issues and manage cases more effectively. This feature gives case owners more control over their cases, allowing quicker resolution of problems and more efficient case management.

Enhanced Task List

The task list has been enhanced to provide users with a more streamlined and user-friendly interface. This update improves usability by making the task list more intuitive and easier to navigate, helping users to manage their tasks more effectively and efficiently.

Output Variable for Multi-Instance Activity

ProcessApp Creators can now define an output variable for multi-instance activities, providing more flexibility and control over process configurations. This enhancement allows for better handling of complex workflows, making it easier to manage and utilize the data generated by multiple instances within a single activity.

Unified Upload Fields

The same upload field can now be used to manage input and output documents, simplifying document management within tasks. The upload field can provide an input document for download, which will then be overwritten with the output of the activity. This feature improves document handling, reduces complexity, and facilitates coherent file management.

Download Base64 Encoded Files

Users can download files sent as base64 encoded strings in a JSON response, simplifying the process of accessing encoded data. This improvement makes it possible to handle and retrieve data transmitted in base64 format, enhancing the user experience by providing a straightforward way to access files sent as part of a JSON response.

Configure Multipart/Form-Data REST Call

ProcessApp Creators can now configure multipart/form-data REST calls, allowing for more complex and flexible API interactions. This capability enhances the ability to handle different types of data within REST calls, providing more versatility in how applications can interact with external systems and services.

Smart Variable for Case URL

ProcessApp Creators can now access the URL for a case as a property of the _case smart variable, making it easier to reference and share specific cases. This feature simplifies navigation and communication, as ProcessApp Creators can quickly provide direct links to cases as a part of a send task, facilitating better collaboration and quicker access to relevant information.

My Cases List Involvement

Users can now view all cases where they are involved in the My Cases list, providing them with a comprehensive view of their responsibilities. This feature ensures that users have a clear overview of all the cases they are part of, enabling better tracking and management of their workload.

Filter and Search My Cases List

Users can filter and search the My Cases list with the same options available in the ProcessApp case list, enhancing usability and efficiency. This change ensures a consistent experience throughout the application, helping users quickly find the cases they need to work on.

Edit Global Variables

Admins now have the capability to edit global variables, allowing for adjustable process management. This feature provides greater control over the environment settings and configurations, making it easier to adapt processes to changing requirements.

Consistent Multi-Line Text Fields

Multi-line text fields now appear like standard text fields, providing a consistent and polished user interface. The formatting toolbar is visible only when the field is in edit mode. This update enhances the visual coherence of the application, ensuring a uniform look and feel across all text fields, significantly improving the user experience.

30.157.3 Resolved bugs

- [DES-2368] Translations of some symbols for “milestone” node are missing
- [DES-3589] Deleting a person object does not update the access restriction for diagrams
- [DES-5344] If an uploaded file contains special characters, downloading the file again will show a wrong file-name
- [DES-5639] Entities which are not catalog items anymore and have no occurrences will not be cleaned up in “preview” and “published” stage
- [DES-5681] Requesting user groups for a tenant leads to high database CPU usage, which may slow down the application
- [DES-5807] Parallel modification of the same catalog entries through the catalog are not prevented by the system
- [DES-5817] Deleting unused entities becomes very slow on systems with a lot of data
- [DES-5910] Potential performance issue caused by messages being sent synchronously
- [DES-5969] Wrong .gitignore entry prevents on premises customers to push custom configurations into their version control
- [DES-5971] If logging is configured to debug level, the scheduled cleanup of temporary data fails, which may lead to high disk consumption
- [DES-6007] Missing cleanup after BPMN export or import may lead to high disc consumption
- [DES-6086] Auditing of user login and diagram access fails if the technical credentials used for the auditing module contain special characters

- [PT-2533] Missing placeholder text for items without a value in active content language
- [PT-4138] Special and Japanese characters are replaced with underscores in file names when publishing documents
- [PT-4874] Missing placeholder text for items without a value in active content language
- [PT-8926] Workflow export fails if workflows exists without stereotype
- [PT-12331] Uploaded files with special characters will be downloaded with filename null
- [PT-13145] Wrong Spanish translation in email template
- [PT-13146] Layout of diagram bulk update is misaligned
- [PT-13264] MyBIC search result tiles do not get displayed on small resolution devices with limited responsiveness
- [PT-13372] Disabling all entity types for the publication catalog leads shows all entity types
- [PT-14203] Back navigation is missing after clicking on an assignment chip in the attribute view
- [PT-14306] Comparison does not detect changes, if a value was removed in the current version
- [PT-14307] Comparison changes item does not always disappear, if attributes are aligned to previous version
- [PT-14523] Diagram translation view displays approved catalog items for authors
- [PT-14542] Unavailable categories in a target stage lead to an infinite loading indicator
- [PT-14645] Attribute bar in the publication is always visible, even if it is switched off in the administration
- [PT-14648] Governance lifecycle filters are not reset
- [PT-14659] Filters in central search are not available if search gets performed with the same term again
- [PT-14670] Some of suggested users offered by bulk updating cannot be selected
- [PT-14674] Authors can start category or repository publication which fails
- [PT-14689] Suggestions for diagram assignments are not filtered by stereotype range
- [PT-14721] Recreating catalog index runs into error message
- [PT-14722] After inserting a diagram, the target category displays all diagrams from the source category until page refresh
- [PT-14729] Publication dialog for catalog entries misses name of catalog entry
- [PT-14739] Diagrams remain selected when exiting and re-entering bulk updating
- [PT-14741] Suggestions for assignment governance attributes are not filtered by range
- [PE-2746] No variables will be stored in the process when a task with empty form fields is completed
- [PE-8628] In some cases changes inside an object in parallel tasks are not identified properly so that values are overwritten
- [PE-9101] Unnecessary scrollbar when creating a case
- [PE-9112] Content disposition header is missing if the downloaded document's filename contains special characters
- [PE-9146] Service Reports cannot access string variables longer than 4000 characters
- [PE-9187] Translation missing for instance attachment's context menu
- [PE-9333] Variables input into the script engine are not validated
- [PE-9354] Cursor in text area automatically moves to beginning in form field

- [PE-9369] Call Activity with active status after archiving the parent case is shown in MyTasks view
- [PE-9371] Label “Export Completed Cases” in options is incorrect and should be Export Cases
- [PE-9420] Menu icon styling and placement in global variables is incorrect
- [PE-9528] Diagrams get split into one additional useless segment
- [PE-9530] Group tasks are auto claimed even if the user is out of office and not assigned to the deputy or group
- [PE-9531] Cannot complete a task when a variable associated with the identifier of a role is set to empty string
- [PE-9566] Play button after completing a signature task does not create the case
- [PE-9588] Owners of cases with tasks due today may get empty reminder emails
- [PE-9616] When in app stage, task assignee follows assignation steps of test stages
- [PE-9617] Invalid user configuration in the case creation dialog shows an empty chip
- [PE-9626] The action buttons are not present in the “Create a new case” dialog box

30.158 Version 7.14.19

30.158.1 Resolved bugs

- [DES-6108] (PT-14278) Switch symbol does not correctly reset the SymbolType ID in domain data, which applies the wrong method color configuration to the graph item

30.159 Version 7.14.18

30.159.1 Resolved bugs

- [PE-10500] Security Improvements

30.160 Version 7.14.17

30.160.1 Resolved bugs

- [PT-16413] Deleting an activity with a shared relationship node removes values in other relationship attributes
- [PT-14667] Lack of user feedback when the creation of an edge of a node added via a relationship attribute failed

30.161 Version 7.14.16

30.161.1 Resolved bugs

- [PE-10305] Readonly url fields are not clickable until the CTRL key is pressed
- [PE-10330] Checked status is not shown in multiple-choice checkboxes stored as string
- [PT-16075] Search index is not updated for existing diagrams

30.162 Version 7.14.15

30.162.1 Resolved bugs

- [PT-15745] Selected objects in an assignment attribute cannot be saved

30.163 Version 7.14.14

30.163.1 Resolved bugs

- [PT-15014] No diagram options are displayed in Portal
- [PT-15479] Some readonly attributes can still be changed in new UI permanently
- [PT-15580] Read-only attributes can be changed in translation mode in the portal

30.164 Version 7.14.13

30.164.1 Resolved bugs

- [PT-15097] When creating entities in the Portal catalog, defaults are not set correctly
- [PT-15398] Nodes remain in diagram without symbol after deletion of pool with 'Remove symbol only on modeling canvas' option

30.165 Version 7.14.12

30.165.1 Resolved bugs

- [PE-9673] Process variables not evaluated correctly in single/multiple choice with dynamic values using key/value pairs
- [DES-6346] Visibility of changes are delayed by assignment attribute cleanup
- [PT-14966] Persons and organizational units are suggested in bulk editing

30.166 Version 7.14.11

30.166.1 Resolved bugs

- [DES-6343] Checkin fails after removing updated non catalog item

30.167 Version 7.14.10

30.167.1 Resolved bugs

- [PT-14549] When clicking on the options entry “Reports & Exports” in the diagram gallery view, the available reports are not listed
- [PT-14640] Newly created catalog entries are not sorted alphabetically
- [PT-14876] Context menu for nodes inside a pool is not appearing anymore after converting the pool to a suggestion and dropping new nodes to the pool
- [PT-14928] Users are not suggested when adding user assignments to an attribute
- [PT-15045] Catalog Index does not get updated on catalog item change, leading to outdated views & facet results in catalog
- [PE-9640] The case owner is not shown in form field when the task is not started yet
- [PE-9682] Task assignment to case creator as fallback is not working in app stage
- [PE-9782] Diagram changes in production are not transferred to ProcessApp when it has cases with instance attachments

30.168 Version 7.14.9

30.168.1 Resolved bugs

- [PT-14741] Suggestions for assignment governance attributes are not filtered by range

30.169 Version 7.14.8

30.169.1 Resolved bugs

- [PT-14550] Opening files (PDF) directly in the integrated browser viewer behaves inconsistently throughout the application and opens file with uuid as name instead of the real file name
- [PT-14619] Diagrams cannot be checked in when assigned entities are not available
- [PT-14721] Recreating catalog index runs into error message due to missing revision information
- [PE-9146] Service Reports can not access string variables longer than 4000 characters
- [PE-9616] When in app stage, task assignee follows assignation steps of test stages
- [PE-9369] Call Activity with active status after archiving the parent case is shown in MyTasks view

- [PE-9530] When a second group task is started, it should be assigned back to the group if the previous user is out of office
- [PE-9620] Email Template fails replacing variables longer than 4000 characters when parsing html content
- [PE-9624] User Form's multiple choice fields does not load correctly the key/value pairs

30.170 Version 7.14.7

30.170.1 Resolved bugs

- [PT-14551] Chips are cut and full chip title cannot be reached

30.171 Version 7.14.6

30.171.1 Resolved bugs

- [DES-5840] Users and groups with short names sometimes not reachable in attribute suggestion list
- [PE-9531] Cannot complete a task when a variable associated with the identifier of a role is set to empty string
- [PT-14136] Users and groups with short names sometimes not reachable in attribute suggestion list
- [PT-14377] Diagram cannot be checked in when diagram assignment attributes contain inaccessible or circular references
- [PT-14415] Potentially long running upgrade step does not indicate progress

30.172 Version 7.14.5

30.172.1 Resolved bugs

- [DES-5859] Changing symbol type of a node does not apply on related processwarehouse export (fix for new symbol assignments)
- [PT-12924] Key value is displayed instead of title in diagram and catalog dashboard
- [PT-13564] Reduce the amount of calls and loaded data when validating a diagram
- [PT-13641] Cursor focus disappears on Catalog/Diagram edit page when typing in a value on an empty formatted text field
- [PT-13750] Opening an attachment opens a file with a uuid as name instead of the real file name
- [PT-13896] Checking in a diagram is not possible when using Firefox browser
- [PT-13965] Display of edit button for catalog entries is inconsistent for authors
- [PT-13987] Filter facets cannot be opened on mobile devices
- [PT-13988] Mobile touch scrolling not working on catalog filter facets
- [PT-14145] Re-indexing of catalog-search fails instead of appropriate error handling
- [PT-14165] Inconsistent data can cause publication steps to be repeated
- [PT-14183] Catalog entries with assignments are reindexed multiple times during bulk index

- [PE-9360] Claimed group tasks cannot be delegated by group members
- [PE-9194] Several diagram updated message in a short period cause loss of updates
- [PE-9372] Deputy: Task is reassigned when the person responsible does not have an assigned status
- [PE-9447] Formula for conditional hidden field not working properly
- [PE-9448] User Form Editor's details section scrolls the whole editor out of view

30.173 Version 7.14.4

30.173.1 Resolved bugs

- [DES-5926] UpdateMessages sent after the bulk update of diagrams don't have the correct priority
- [DES-5974] No archives are created for bulk updates
- [PE-9178] Files used in a JSON body of a REST service task include line breaks
- [PE-9278] Multi-line text fields link option is displayed incorrectly
- [PE-9300] ProcessApp Analyst has not access to the process app monitoring tab

30.174 Version 7.14.3

30.174.1 Resolved bugs

- [PT-14095] Workflow execution may result in endless loop

30.175 Version 7.14.2

30.175.1 Resolved bugs

- [PE-9115] Option labels are too long and oversize the fields in forms
- [PE-9124] Case progress calculation is inconsistent with the displayed flow
- [PE-9213] Call Activity Editor dialog is not centered and lacks a background
- [PE-9093] A text area in the form causes task completion to fail in the "My Tasks" view
- [PE-9135] The German translation of "Creator" in instance facets is incorrect

30.176 Version 7.14.1

30.176.1 Resolved bugs

- [DES-5888] Wrong thread pool configuration in some services

30.177 Version 7.14.0

30.177.1 BIC Process Design

New Features

Setting new standards in process modeling with Arty

In our effort to further revolutionize business process modeling and management, we are pleased to introduce Arty, our intelligent AI-based modeler and editor. Arty integrates the latest AI technologies to save you time while improving the accuracy and consistency of your modeling. By using Arty, you can ensure that your processes are modeled and documented not only faster and more accurately, but also with fewer resources.

Hint: Please note that the AI-powered features of Arty are not included in the standard license. Please contact your sales representative for more information.

Automatic BPMN process modeling

Arty provides the ability to *automatically generate complete BPMN processes*, including all associated resources. This feature is ideal for teams that need to create high-quality process diagrams quickly and without prior knowledge. By minimizing human error and accelerating the entire modeling process, you can be confident that your processes will be created not only faster, but with higher quality

Smart name suggestions during modeling

With the ability to generate naming suggestions for the next process flow elements as you model, Arty helps you maintain clear and consistent naming that seamlessly integrates with existing process structures.

Automatic generation of descriptions

In addition to modeling, Arty also supports the *generation of descriptions* for processes and process elements. This automated creation of clear and concise text facilitates documentation and improves accessibility and understanding of your process landscape.

Generation of catalog items

With Arty, you can now quickly and efficiently *create new catalog items*, such as documents or applications, from which you can directly select and create the appropriate items. Arty allows you to quickly expand your catalog without manual effort, greatly increasing efficiency.

With these advanced features, Arty sets a new standard for efficiency in business process modeling. We are confident that these innovations will significantly increase your productivity and help you efficiently meet the demands of modern business.

Filters for the governance lifecycle of diagrams and catalog entries

In the new user interface, we have introduced the ability to filter diagrams and catalog entries in the public workspace by their *governance lifecycle*.

Publication

- **Not published:** Filters content that has not yet been published.
- **Published:** Filters content that has been published.
- **Depublished:** Filters content that was previously published and then depublished.

Revision

- **Unmodified:** Filters content that has not been changed since it was published.
- **Modified:** Filters content that has been modified since it was published.

Workflow

- **Publication:** Filters content that is in the process of being published.
- **Resubmission:** Filters content that has been resubmitted for review.
- **Depublication:** Filters content that is in the process of being depublished.

These new filters help you keep track of the status and lifecycle of your diagrams and catalog items, enabling more efficient management in the public workspace.

Hint: The filter options were introduced with this version and cannot reflect the life cycle before the update. For example, diagrams or catalog elements that have already been published only appear in the "Published" filter category once they have been edited in the public workspace. The "Revision" filter category also only shows changes when the diagram or catalog item is published again. Until then, the value is "unknown".

Quick access to recently visited diagrams

We have introduced quick access to *recently visited diagrams* in the new user interface. When you open a diagram, you now see a list of your five most recently viewed diagrams in the diagram header. This list allows you to quickly and easily switch between your most recently viewed diagrams. Simply click on one of the diagrams in the list to open it directly and continue working seamlessly.

Gallery view for diagrams

A new “Gallery” tab is now available when navigating to the “Diagrams” section on large screens. This tab displays all diagrams in a selected category as gallery tiles, enhancing visual navigation and interaction.

Set access to archives in the publication

Administrators now have the ability to specify whether readers can access archived versions within the new user interface. This setting provides more granular control over what historical data is available to readers. If readers are allowed to access archives in the publication, they can now select all archived versions in the change view and compare them to the current version. This setting only applies to the new user interface.

Export of the current diagram version in the publication

With the new user interface, it is now possible to directly export the current version of a diagram in the publication. This removes the previous limitation that only archived versions could be exported.

Improved usability in the new user interface

We have significantly improved the interaction with the category explorer: You can now minimize the explorer further and resize it more easily using drag-and-drop, with a preview of the new size.

We have simplified catalog navigation: On the details page of a catalog entry, you can now navigate directly to a linked object, such as a diagram or another catalog entry, by simply clicking on the chip.

The height of all list entries has been optimized to take up less space, allowing more list entries to be visible at once.

Other optimizations have been made for low-resolution devices: In the Diagram list, Catalog, and Governance Cockpit, options are now available in context menus instead of on the bottom panes. When opening a category, diagrams are now displayed first, followed by categories.

Finally, the RACI matrix in the new user interface now displays all modeled RACI relationships between a role and an activity. Previously, only one relationship was shown.

Based on your feedback, we have renamed the “Properties” tab back to “Details” in the new UI to make it easier to find attributes and profiles. In the old interface, these views were called “Details”.

Statement of Accessibility

We are constantly working to remove barriers in BIC Process Design. On the login page and in the help section, you can now view our *Statement of Accessibility* to learn about known barriers.

Existing administration functions available in the new user interface

The new user interface gives you access to familiar administrative functions. You can now easily manage and configure the following areas:

- *User*
- *User groups*
- *Attribute and profile view for diagrams and objects*
- *MyBIC*
- *Reports*
- *Corporate Design*
- *Method, Symbol color and layout assistant*
- *Catalog*

In future versions, we will integrate the remaining administration functions into the new user interface.

30.177.2 BIC Process Execution

New Features

Instance Progress Tracking

You can now easily monitor the progress of your instances directly from the case list. This feature provides real-time insights into the status of each instance in your workflow, enabling better decision-making.

Reports with Access to Tasks

Access all executed tasks of a case when generating reports, allowing for comprehensive and detailed insights into case activities. With this feature, users can generate more detailed reports.

Parallel Multi-Instance Activity

You can now define parallel Multi-Instance Activities within processes, enhancing workflow efficiency and scalability. This feature allows multiple tasks to be executed simultaneously based on a collection of data.

Group Emails

It is now possible to address user groups in send tasks. This enables effective communication by sending email notifications to all group members set as recipients, facilitating seamless collaboration and information sharing.

End Events Inside the Instance View

Enjoy improved process transparency with end events that are now visible to users within the process flow. This feature provides users with a clear understanding of process completion points, facilitating better process monitoring.

Overdue Task Notifications for Case Owners

Stay on top of task deadlines with notifications of overdue tasks within your cases. This feature empowers case owners to take timely action, reducing the risk of delays and ensuring smooth case execution.

Simplified Multiline Field View

Experience an enhanced user interface by viewing the value of multiline fields without the toolbar when not in editing mode. This feature provides a clutter-free view, allowing users to focus on content without distractions.

Multi Column User Forms

You can now customize user forms with multiple columns, offering greater flexibility and compactness. This feature enables users to design forms tailored to their specific needs, enhancing usability and efficiency.

Case Ownership Management

Improve accountability and ownership with the introduction of case owners. This feature assigns responsibility for case management, ensuring clear ownership and streamlined collaboration.

Analyst Case Visibility

Analysts can now easily view all cases to which they are assigned as the analyst for the ProcessApp. This feature provides analysts with quick access to relevant cases, streamlining their workflow and enhancing productivity.

Studio Stage Email Testing

Test emails from send tasks executed in the studio stage or test stage are now sent to the case creator only. This feature enables thorough testing of processes without disrupting other users, ensuring smooth process development.

Unified Handling of Results with the Collect Hit Policy

To have a consist handling of output variables with DMN tables using the hit policy “Collect”, the result is now also an array if there is only one result. This feature simplifies data handling and processing.

REST API Signal Events

You can now trigger signal events via the REST API to allow waiting processes to continue. This feature provides greater flexibility and control over process execution, enabling seamless interaction with external systems.

Consistent Field Hinting

Maintain consistency in UI design with read-only fields now displaying hints in the same font color. This feature enhances visual clarity, improves user experience, and reduces cognitive load.

Overdue Reminder Optimization

Reduce notification overload with overdue reminders that are no longer sent for successful automated tasks. This feature streamlines communication, ensuring that users receive relevant notifications.

HTML Code Visibility in Email Templates

Users can now opt to see the HTML code to resolve issues, providing greater transparency and control over their content. This feature allows users to troubleshoot formatting issues more effectively and make precise adjustments directly in the HTML code.

Call Activity Subcase Management

Subcases started by a call activity now have a system creator as the case creator. However, the case owner remains the task owner of the call activity. This feature enhances traceability and accountability, ensuring clear ownership of subcases.

Usability Improvement

Enjoy improved usability with the increased size of the Task Dialog opened from the task list. For multi-column forms, the task form popup is 75% of the browser width, and for simple forms, the popup is 50% of the browser width. This feature enhances user interaction, makes it easier to work with large user forms, and improves the overall user experience.

30.177.3 Resolved bugs

- [DES-4826] User export does not work for customer with large number of users (>90k)
- [DES-5449] Security Improvements
- [DES-5778] The configuration for the max header size for the bpm-service uses the wrong property key in docker-client
- [DES-5853] Docker health check for proxy return always unhealthy if extra domain names are configured
- [PT-1580] Invalid characters in formatted text attribute blocks process warehouse export
- [PT-4375] Attachment not downloadable from chip with a cut name
- [PT-4872] Entity profile performance issue

- [PT-5614] Simulation of business rule fails when DMN contains date and time function
- [PT-6262] Document stamping fails if file ending is not all lower case
- [PT-6692] Empty examiner 2 and 3 get stamped
- [PT-6766] Comment emails will be sent to more recipients than the configured limit
- [PT-6982] Wrong styling of filters of Governance Cockpit
- [PT-12136] Placeholder texts exceed input field size
- [PT-12168] Catalog edit mode design issues
- [PT-12267] Tooltips are missing for administration cards
- [PT-12324] Stage switch does not get updated correctly
- [PT-12362] Help link in administration redirects to wrong section in online help
- [PT-12386] Catalog archives will be displayed in enabled edit mode
- [PT-12420] Input limit does not work for user group names in Portal
- [PT-12434] Some OCL rules lead to errors leading to an empty validation
- [PT-12531] Debug tool does not work correctly with relationship attributes
- [PT-12598] User group administration issues in Portal
- [PT-12667] User administration issues in Portal
- [PT-12683] Buttons on click (hold) have too strong color
- [PT-12711] Security improvement
- [PT-12804] Changed file upload limit is not respected in Portal
- [PT-12819] Top bar badge font color is wrong
- [PT-12832] User group members are not filtered out in add dialog
- [PT-12927] Request token does not get updated
- [PT-12960] Delete file in all languages dialog does not get displayed
- [PT-12962] Attachment attribute label gets display without a value
- [PT-12979] Direct link to an attachment leads to errors
- [PT-13023] Central search URL misses parameters
- [PT-13057] SVG does not get updated on language switch
- [PT-13082] Radio buttons on touch devices behave incorrectly
- [PT-13084] Catalog facet does not show custom attribute name changed in a object context
- [PT-13091] Printing does not work with a SVG logo set as footer or header
- [PT-13191] Missing tool tip for cut attachment names in Portal
- [PT-13205] Pasting a selection with free form elements or big images can cause errors
- [PT-13280] Label in quick modeler dialog is incorrect
- [PT-13281] Entity profile report availability is not taken from report descriptor
- [PT-13413] Error toasts get displayed to all users
- [PT-13440] Deleting assigned objects in catalog details page is not persisted

- [PT-13456] Diagram dashboard not displayed in Portal
- [PT-13463] Generate smart description tooltip is incorrect
- [PT-13465] Generated smart description gets inserted in wrong attribute
- [PT-13496] BPMN quick model import does not work with associations without edge symbols
- [PT-13540] Wrong error handling in central search
- [PT-13546] Validity expiration banner does get updated when switching stages
- [PT-13548] Invalid archive retention period values can get persisted
- [PT-13558] Archive export does not work on repository level
- [PE-1356] If a column in a DMN table contains prefilled values, not only strings are presented as dropdowns.
- [PE-1468] When delegating to a group, the instance is permanently listed.
- [PE-4135] A new tab created from the run link is not being updated if it is changed.
- [PE-7622] Dragging the scrollbar of the process flow view is not working and shows a not allowed icon.
- [PE-7791] The “My cases” list does not update the process name when a new case is created and a second tab is open.
- [PE-8059] Elastic is rejecting write operations due to the flood stage watermark being reached
- [PE-8153] The regexmatch formula returns the matching expression by default.
- [PE-8331] Sorting by status on the “My tasks” view is not working as expected.
- [PE-8399] Attachment names are not shown correctly.
- [PE-8513] The ordering arrow for columns in the case list is not shown if there is not enough space.
- [PE-8562] Fetching users from a group only returns the first 20 users.
- [PE-8566] The user form loads slowly.
- [PE-8663] Terminate end events are not archiving the case when the fragment where the event belongs is not completed.
- [PE-8749] German translations are incorrect in some places across the application.
- [PE-8896] Line breaks within the ProcessApp titles do not consider proper hyphenation.
- [PE-8906] Attachment URL is shown instead of the title of the attachment.
- [PE-8908] DMN evaluation filters variables with null values and makes the evaluation fail because there is no value for the corresponding input.
- [PE-8924] DMN tasks in error status do not show the error icon.
- [PE-8925] The attribute labels in the form inside the process flow view are not shown after refreshing the page.
- [PE-8978] The autocomplete suggestion list for formular fields in the form editor is not working in the form preview and default value
- [PE-8979] A ProcessApp beginning with a parallel gateway gets stuck.
- [PE-8983] Inclusive gateways at the beginning of a ProcessApp are failing.
- [PE-9048] Script/REST service task is stuck when it is not possible to add variables.

30.178 Version 7.13.25

30.178.1 Resolved bugs

- [PT-15014] No diagram options are displayed in Portal
- [PT-14966] Persons and organizational units are suggested in bulk editing

30.179 Version 7.13.24

30.179.1 Resolved bugs

- [PT-14876] When a pool as approved catalog item gets converted into a suggestion and activities will be dropped inside you cannot get the menu of the activity by right clicking

30.180 Version 7.13.23

30.180.1 Resolved bugs

- [PE-9624] User Form's multiple choice fields does not load correctly the key/value pairs
- [PE-9369] Call Activity with active status after archiving the parent case is shown in MyTasks view
- [PT-14741] Suggestions for assignment governance attributes are not filtered by range

30.181 Version 7.13.22

30.181.1 Resolved bugs

- [PT-14550] Opening files (PDF) directly in the integrated browser viewer behaves inconsistently throughout the application and opens file with uuid as name instead of the real file name
- [PT-14619] Diagrams cannot be checked in when assigned entities are not available

30.182 Version 7.13.21

30.182.1 Resolved bugs

- [DES-5840] Users and groups with short names sometimes not reachable in attribute suggestion list
- [PE-9447] Formula for conditional hidden field not working properly
- [PT-14136] Users and groups with short names sometimes not reachable in attribute suggestion list
- [PT-14377] Diagram cannot be checked in when diagram assignment attributes contain inaccessible or circular references

30.183 Version 7.13.20

30.183.1 Resolved bugs

- [PT-13750] Opening an attachment opens a file with a uuid as name instead of the real file name
- [PE-9194] Several diagram updated message in a short period cause loss of updates
- [PE-9372] Deputy: Task is reassigned when the person responsible does not have an assigned status

30.184 Version 7.13.19

30.184.1 Resolved bugs

- [PT-14145] Re-indexing of catalog-search fails instead of appropriate error handling
- [PT-14165] Inconsistent data can cause publication steps to be repeated
- [PT-14183] Catalog entries with assignments are reindexed multiple times during bulk index

30.185 Version 7.13.18

30.185.1 Resolved bugs

- [DES-5926] UpdateMessages sent after the bulk update of diagrams don't have the correct priority
- [DES-5974] No archives are created for bulk updates

30.186 Version 7.13.17

30.186.1 Resolved bugs

- [PE-9178] Files used in a JSON body of a REST service task include line breaks
- [PE-9278] Multi-line text fields link option is displayed incorrectly
- [PT-14008] Delete file in all languages dialog does not get displayed

30.187 Version 7.13.16

30.187.1 Resolved bugs

- [PT-13896] Checking in a diagram is not possible when using Firefox browser
- [PT-13754] Deleting user-assignment values is not possible in Portal

30.188 Version 7.13.15

30.188.1 Resolved bugs

- [PT-13564] Reduce the amount of calls and loaded data when validating a diagram
- [PT-13641] Cursor focus disappears on Catalog/Diagram edit page when typing in a value on an empty formatted text field

30.189 Version 7.13.14

30.189.1 Resolved bugs

- [PE-9084] Forms which are too big for the available screen size cannot be completed from the MyTasks view
- [PE-9093] Text area in form makes completion of task from My Tasks view fail

30.190 Version 7.13.13

30.190.1 Resolved bugs

- [DES-5888] Wrong thread pool configuration in some services

30.191 Version 7.13.12

30.191.1 Resolved bugs

- [PE-9029] Javascript Script Task do not have access to Java classes anymore

30.192 Version 7.13.11

30.192.1 Resolved bugs

- [PE-8952] Process Instance Monitoring View is partially hidden
- [PE-8979] A ProcessApp beginning by a parallel gateway get stuck
- [PE-8983] Inclusive gateways at beginning of ProcessApp are failing
- [PE-8993] Page layout incorrect when user lands on Mytasks page from a link - App stage
- [PE-8046] Elasticsearch is overload due to many request
- [PE-8955] Boolean fields with default value true are not working properly

30.193 Version 7.13.10

30.193.1 Resolved bugs

- [PE-8907] Disable Nashorn compatibility mode in the script engine to support JavaScript ECMA version 13
- [PE-8919] Breadcrumb is not shown in flow view when the page is refreshed
- [PT-13376] Notify UserFlow about enabled AI features
- [PT-13434] Default attribute values are not applied when creating a new entity
- [PT-12305] Default attribute values are not applied when an entity is created in the catalog

30.194 Version 7.13.9

30.194.1 Resolved bugs

- [PE-8796] Process variables of type Array are not available in reports
- [PE-8804] Diagram without a start behaves erroneous
- [PE-8811] ProcessApp is not checked in when it has multiple starting points and one of the paths is a single node
- [PE-8824] Logout button gets redirect to login page
- [PE-8826] Form data is lost when the application tokens expire because of inactivity
- [PE-8838] Formula Field producing values NaN causes a Bad Request when saving variables

30.195 Version 7.13.8

30.195.1 Resolved bugs

- [PT-12919] Update gpt-api version
- [PT-12927] Render-service runs into infinite request loop when request token is expired
- [PT-13257] Non-localized multi-value link attributes are not shown in the Catalog Details view in the new UI

30.196 Version 7.13.7

30.196.1 Resolved bugs

- [PT-12374] Attachment titles get double encoded
- [PT-13077] Object attribute icons will not be removed anymore after removing the node and undo the change
- [PT-13148] When opening or using an approved catalog item with a description that is missing a surrounding <p> tag, a suggestion is created without any user interaction

30.197 Version 7.13.6

30.197.1 Resolved bugs

- [PT-13078] Selecting an entity in a relationship attribute does not update symbol condition (Portal designer)
- [PT-13079] Removing an activity with entities in relationship attribute can cause inconsistent diagram data

30.198 Version 7.13.5

30.198.1 Resolved bugs

- [PT-13025] Chromium update centers the catalog list vertically, making half of the list inaccessible
- [PE-8699] Smart variables are mapped from sub case to parent case

30.199 Version 7.13.4

30.199.1 Resolved bugs

- [PE-8672] The placeholder replacement with text empty values make formulas fail
- [PE-8678] User Task's Boolean Fields are not initialized when starting the task

30.200 Version 7.13.3

30.200.1 Resolved bugs

- [PT-6076] Disabled content language gets set as alternative language on first login
- [PE-8443] Due date value does not work bidirectionally with process variables
- [PE-8480] REST, Report and Script tasks are being executed inside a transaction
- [PE-8539] User Form Default values are applied when the variable has a falsy value but not null nor undefined
- [PE-8566] User form is loaded slowly

30.201 Version 7.13.2

30.201.1 Resolved bugs

- [PT-12833] Reports execution fails when using a client token

30.202 Version 7.13.1

30.202.1 Resolved bugs

- [PT-7872] Cursor jumps to beginning of HTML attributes
- [PT-10599] Workflow-service sometimes does not restart automatically
- [PT-12409] Autocomplete list shows less than 5 results when potential results are already used
- [PT-12413] Enumeration values of 0 aren't displayed and cannot be validated
- [PT-12495] Removal of an internal allocation diagram generates broken visual data
- [PT-12550] Wrong context menu functions for approved catalog items in diagram editor
- [PT-12589] Disable process draft feature in UI
- [PT-12827] Copy pasting does not work anymore

30.203 Version 7.13.0

30.203.1 BIC Process Design

New Features

Receive translation suggestions via DeepL connector (separate licensing)

In the public workspace of the new user interface, translation suggestions for language-dependent text attributes can be requested via the DeepL API. This enables even faster translation of multilingual content from *diagrams* and *catalog entries*. The feature is available in diagram and catalog translation modes and requires a connection to a DeepL account. Administrators can easily link their company's DeepL account in the new BIC Process Design administration to *connect their system to the DeepL API*.

Note: Please note that DeepL integration is separately licensed and needs to be activated for your account. Before linking a DeepL account, ensure your company policies allow data exchange with DeepL.

Bulk editing of diagram attributes in the public workspace

In the new user interface, we have significantly simplified the management of existing diagrams. Administrators and Editors can now comfortably make *bulk changes to the assignment attributes of diagrams* in the public workspace. The bulk editing function allows for efficient updating of an attribute value for multiple diagrams simultaneously.

Creation of a BPMN Quick Model including resources

In the *BPMN Quick Model Excel template*, resources for an activity can now also be captured. When importing the completed Excel template, the associated resources are automatically included in the generated BPMN diagram.

Note: Please note that importing resources may generate new catalog suggestions and does not rely on existing catalog entries.

Open PDF attachments directly in your browser's integrated PDF viewer

PDF attachments in both the old and new user interfaces are now opened directly in the browser's integrated PDF viewer. This allows you to easily view PDF documents even if you do not have a separate PDF viewer installed on your device or if you want to view the document before downloading it.

Existing functions available in the new user interface

Translate diagrams in the public workspace

We have improved the *translation mode for diagrams*. You can now access it in the public workspace without having to check out the diagram. The translation mode can be found in the diagram options.

Export repository

Administrators can *export a repository* via the category tree to download the data from the public workspace, preview, or publication.

Publish repository

Administrators and Editors can now *publish repositories* from the public workspace. To avoid unintended publications, we have implemented an additional security measure: Before publishing a repository, a confirmation dialog is displayed. This ensures users that the publication is intentional.

Improvements in the new user interface

Display diagram and object type

The type of a diagram or selected object is now displayed in the properties.

Integrated forward and backward navigation

We have improved navigation in the new user interface. You can now use the *integrated forward and backward navigation* to navigate forward and backward along your navigation path.

Property view for relationship attributes

You can now also open and display the properties of relationship attributes in diagrams and objects. This feature was already available for assignments and has been extended to relationship attributes.

Marking objects with comments in the diagram

We have improved *interaction with object comments*. Users can now select commented objects directly from the comment area to mark them in the diagram and move them into the visible area.

Displaying occurrence attributes in all diagram views

The values of occurrence attributes are now displayed in all diagram views. Please note that you may need to customize the profile view of objects to display the desired attribute.

Existing administration functions available in the new user interface

The new user interface provides access to familiar administration functions. You can now easily:

- Set *content, alternative, and default languages*
- Set *reminders for workflow tasks and resubmissions*
- Adjust archiving settings
- Set standard configuration of *header and footer for print outputs*
- Customize BIC Process Design to match your company's *corporate design*
- Select filters for *central search*

In upcoming versions, we will integrate additional missing administration functions into the new user interface.

30.203.2 BIC Process Execution

New Features

Timestamp in case overview

Users can now see in the case overview when a task was started and completed. Intermediate timer events are also displayed in the process flow view of a case. The trigger time of the intermediate event is also displayed. This promotes the transparency and traceability of your work processes.

Event-based process control

From now on, a message with the event ID is sent for throwing events such as end events or certain intermediate events. A corresponding catching event such as start events or certain intermediate events with the same identifier are automatically triggered by this message. This function enables a more transparent and precise control over your work processes.

Immediate process termination by end event

Cases can now be instantly terminated by terminating end events. This is useful whenever the process contains parallel paths, and the parallel activities no longer need to be executed when a certain end event is reached.

Configuration of output document reports

With Service Tasks, documents can now be created based on templates, like BIC Process Design. Users have the option to fill a Word template with data from the case and to flexibly choose between output formats Word and PDF. This extension enables efficient document creation and opens a wide range of application options for individual process requirements.

Defining multiple expected HTTP status codes

Users now have the option to specify multiple expected HTTP status codes when configuring REST requests. This new feature provides enhanced flexibility in API usage, allowing you to make your applications more robust and reliable. This is important, for example, if a particular endpoint sometimes responds with 200 and sometimes with 201. With the introduction of a new variable, "_response", you can access to the status code, enabling you to control the further course of the case.

Summary of case information in a variable

Until now, various pieces of information about the case were available in individual variables (e.g., creatorName). With the introduction of the new smart variable "_case", we have now summarised this information for all newly created processes. With the "_case" variable, customers can easily access case information.

Improved task and case search

Users now can search the task and case list using advanced filtering options, enabling efficient management and prioritization. These features allow you to quickly sort the lists by a specific column and order, as well as filter by due date to identify and focus on important tasks or cases. Additionally, you can search for tasks by name.

Input documents in subprocess

As a user, you now have the option to provide documents in the case for a subprocess. To do this, you simply need to model the document as input in the main process for the subprocess, and the file will be automatically made available in the subprocess.

Corporate Design and Redesign

The color configurations from BIC Process Design are now also adopted in BIC Process Execution to ensure a consistent design of the application. Additionally, we have further optimized the UI in BIC Process Execution and aligned it with the new UI from BIC Process Design.

Process variables for archived cases

From now on, ProcessApp Administrators can also access process variables for archived cases. For the ProcessApp Creator role, access to these variables remains limited to the Studio and testing environment.

Quick identification of signature tasks

Users can now identify which tasks are configured as signature tasks in their task list. This function allows for quickly identifying signature tasks and determining where additional authentication is required.

Notification for unsupported browsers

From now on, users will receive a notification when attempting to access the application using an unsupported browser. This notification aims to ensure that users have the best possible experience with the application and encounter no limitations due to their used browser.

30.203.3 Resolved bugs

- [DES-2920] Wrong warning information regarding the SAML group mapper configuration in the installation documentation
- [DES-4161] Security Improvement
- [DES-4481] Security Improvement
- [DES-4502] BPMN import fails if “<text>” section for an “textAnnotation” is missing
- [DES-4507] API Documentation contains “unresolved directive” problems in domain-service
- [DES-4983] SQL Statement to identify SSO-tenants in the toolbox does not collect all relevant tenants
- [DES-5330] Public-apigateway is not part of the “docker-compose-64.yml”
- [PT-1390] Examiner does not receive depublication mail
- [PT-6552] Date input field doesn’t apply new value
- [PT-7248] Tenant customized colors are not applied to previously unsaved entities
- [PT-7504] AR and PL templates are not included in the template overview for manual reports in admin ui
- [PT- 8216] Matrix View becomes unresponsive with bigger data sets (Portal)

- [PT-8530] No search results default page will be displayed shortly
- [PT-9238] Workflow task dialog is displayed incorrect
- [PT-9844] Search facets in catalog change order
- [PT-9969] Catalog Favorites are saved as an empty tile
- [PT-9971] MyBIC Page in Portal reloads tiles when switching content language
- [PT-10299] MyBIC tiles don't work in high contrast mode
- [PT-10301] Interaction with item bar reloads attribute view
- [PT-10305] Check in warning dialog appears when using default values for access restriction
- [PT-10406] Catalog headers differ in different screen sizes
- [PT-10817] "Read more" button on long description is not reachable (Portal)
- [PT-11005] Renaming favorite fails (Portal)
- [PT-11198] Main diagram cannot be saved
- [PT-11256] Catalog resubmission isn't automatically closed after the depublication
- [PT-11359] Arabic, Japanese, and other supported languages text not displaying when printing a PDF
- [PT-11364] System attribute are displayed in profile view (Portal)
- [PT-11458, PT-11659] Security improvement
- [PT-11459] Report executions do not work for certain timezones
- [PT-11476] Empty mandatory attribute value prevents checkin
- [PT-11550] "Show more" option of description disappears (Portal)
- [PT-11562] Diagrams with allocation diagrams stuck in the loading screen
- [PT-11602] Export to excel only works by clicking the icon (Portal)
- [PT-11662] Suggestion list for assignment attributes is not usable
- [PT-11689] Character limit will be ignored in translation mode
- [PT-11701] Missing toast when modifing a catalog item within a diagram
- [PT-11709] [Firefox] Catalog list loses scroll position when navigating back from details
- [PT-11751] Incorrect behavior of long names (Portal)
- [PT-11932] Diagram navigation bar is not shown correctly for certain window sizes
- [PT-11943] Catalog edit button is displayed in Publication
- [PT-12066] Add user to group dialog is blank
- [PT-12068] Latest version option for a selected stage is disabled (Portal)
- [PT-12075] Design error
- [PT-12081] Occurrence attributes do not show up on attribute profile view (Portal)
- [PT-12082] Switching content/alternative language does not update columns in catalog translation mode
- [PT-12087] Commentator name is not visible in the comment hub (Portal)
- [PT-12108] Process Warehouse export shows disabled attribute types
- [PT-12186] Edit link dialog in rich text field freezes diagram editor

- [PT-12262] Catalog translation mode can be left without dialog (Portal)
- [PT-12266] Catalog translation button is visible in Publication (Portal)
- [PT-12289] Incorrect visual feedback for unavailable assignments in Profile View (Portal)
- [PT-12292] Removing a description in diagram does not delete the value
- [PT-12348] Subcategories are displayed duplicated in category tree (Portal)
- [PT-12355] [Firefox] Customer logo is sized incorrectly (Webclient)
- [PT-12376] Back button does not work after opening a diagram through Governance cockpit
- [PE-2297] Field Size in form field editor doesn't change width
- [PE-4635] Mobile View: Background fails to scroll to last element while scrolling the menu
- [PE-5753] Group icon missing in process flow and in form in responsible chip when group is assigned
- [PE-7774] Service Task "OAuth2" error message will not go away, after we change the authentication type
- [PE-7859] Edit Process Variable and Archive Instance Button are shown after an Instance is completed
- [PE-7884] Prometheus endpoints are not installed
- [PE-7905] Subcases and cases with attachments with expired retention period are not removed
- [PE-7939] Sonar test coverage is not calculated
- [PE-7965] Many threads crash the system with an OOM Exception
- [PE-8001] Date picker input fields do not allow manual date entry
- [PE-8159] Email reminders are notifying for tasks with due date today a day before the expected one
- [PE-8175] "Show more" button of the form description is not displayed when description is long
- [PE-8311] Conditional text area loses content when hiding and un-hiding (visual issue)
- [PE-8316] Sort by task name is not working properly
- [PE-8318] Mandatory validation of form fields is not enforced when claiming and completing tasks very quickly
- [PE-8347] Exporting report does not work
- [PE-8357] Insufficient error logging for deletion of non-execution users or groups
- [PE-8358] Out of memory is thrown when a process definition with many cases is updated
- [PE-8382] Tasks list columns are not aligned with their headers
- [PE-8392] Inconsistent update of assigned role in cases across database

30.204 Version 7.12.21

30.204.1 Resolved bugs

- [PT-13896] Checking in a diagram is not possible when using Firefox browser

30.205 Version 7.12.20

30.205.1 Resolved bugs

- [PT-13564] Reduce the amount of calls and loaded data when validating a diagram

30.206 Version 7.12.19

30.206.1 Resolved bugs

- [PE-9029] Javascript Script Tasks do not have access to Java classes anymore

30.207 Version 7.12.18

30.207.1 Resolved bugs

- [PE-8955] Boolean fields with default value true are not working properly
- [PE-8979] A ProcessApp beginning by a parallel gateway get stuck
- [PE-8983] Inclusive gateways at beginning of ProcessApp are failing
- [PE-8046] Elasticsearch is overload due to many request

30.208 Version 7.12.17

30.208.1 Resolved bugs

- [PE-8907] Disable Nashorn compatibility mode in the script engine to support JavaScript ECMA version 13
- [PE-8919] Breadcrumb is not shown in flow view when the page is refreshed

30.209 Version 7.12.16

30.209.1 Resolved bugs

- [PE-8804] Diagram without a start behaves erroneous
- [PE-8811] ProcessApp is not checked in when it has multiple starting points and one of the paths is a single node
- [PE-8824] Logout button gets redirect to login page
- [PE-8826] Form data is lost when the application tokens expire because of inactivity
- [PE-8838] Formula Field producing values NaN causes a Bad Request when saving variables
- [PE-8897] Entire reindexing fails, if single document update throws an exception

30.210 Version 7.12.15

30.210.1 Resolved bugs

- [PT-13077] Object attribute icons will not be removed anymore after removing the node and undo the change
- [PT-13148] When opening or using an approved catalog item with a description that is missing a surrounding <p> tag, a suggestion is created without any user interaction

30.211 Version 7.12.14

30.211.1 Resolved bugs

- [PT-13078] Selecting an entity in a relationship attribute does not update symbol condition (Portal designer)
- [PT-13079] Removing an activity with entities in relationship attribute can cause inconsistent diagram data

30.212 Version 7.12.13

30.212.1 Resolved bugs

- [PT-13025] Chromium update centers the catalog list vertically, making half of the list inaccessible

30.213 Version 7.12.12

30.213.1 Resolved bugs

- [PE-8672] The placeholder replacement with text empty values make formulas fail
- [PE-8678] User Task's Boolean Fields are not initialized when starting the task

30.214 Version 7.12.11

30.214.1 Resolved bugs

- [PE-8568] Blank values in the process variables form for certain data types gives an error
- [PE-8566] User form is loaded slowly

30.215 Version 7.12.10

30.215.1 Resolved bugs

- [PT-7872] Cursor jumps to beginning of HTML attributes
- [PT-12409] Autocomplete list shows less than 5 results when potential results are already used
- [PT-12413] Enumeration values of 0 aren't displayed and cannot be validated
- [PT-12495] Removal of an internal allocation diagram generates broken visual data

30.216 Version 7.12.9

30.216.1 Resolved bugs

- [PE-8539] User Form Default values are applied when the variable has a falsy value but not null nor undefined
- [PE-8448] User Form does not activate after starting a step manually
- [PT-10599] Workflow-service sometimes does not restart automatically

30.217 Version 7.12.8

30.217.1 Resolved bugs

- [PT-11659] Security improvement
- [PT-12287] Internal allocation diagrams cannot be opened in new UI

30.218 Version 7.12.7

30.218.1 Resolved bugs

- [PE-8341] Performance issues updating ProcessApp definitions
- [PE-8364] Tasks with only attachment form fields cannot be completed
- [PE-8390] Signature tasks cannot be completed

30.219 Version 7.12.6

30.219.1 Resolved bugs

- [PT-12270] Improve SVG compressing

30.220 Version 7.12.5

30.220.1 Resolved bugs

- [PT-12223] SVG image compression is performed on every request and blocks following requests
- [PT-12231] Fit SVG to screen is always enabled in new UI

30.221 Version 7.12.4

30.221.1 New Features

- [PE-8297] Delete instances not found in Camunda for studio/test stage and notify for app

30.221.2 Resolved bugs

- [PE-8311] Conditional text area loses content when hiding and un-hiding
- [PE-8318] Mandatory validation of form fields is not enforced when claiming and completing tasks very quickly
- [PE-8324] Postgres error resizing shared memory because no space left on device

30.222 Version 7.12.3

30.222.1 Resolved bugs

- [PT-8786] Manual report shows tables in description attribute with minimal width
- [PT-11601] Content language changes unexpectedly in Portal
- [PT-11657] Change comparison only works when an archive is already existing in Portal
- [PT-11704] Attribute hub does not update data after deleting name and switching between nodes of the same type
- [PT-11752] Blocking OCL rule violations do not prevent the user from check in
- [PT-11783] Cross stage diagram comparison doesn't work in Portal when there is no archived version yet
- [PT-11930] Long text attribute values are not cut and make 'Show changes' button unreachable in Portal
- [PT-12022] Relationship attributes for input and output create wrong edge direction

30.223 Version 7.12.2

30.223.1 Resolved bugs

- [PT-9229] Description of catalog items is missing on catalog list in Portal
- [PE-7982] Text variables which represent a ISO date values are always saved like date but only is needed for Service tasks and external cases creation

30.224 Version 7.12.1

30.224.1 Resolved bugs

- [PT-10139] “Open in new window” attribute gets changed after checking a diagram / catalog item out
- [PT-11140] Switching the suggestion filter on hides entity type filter
- [PT-11305] Pool generated by the excel import can not be copied
- [PT-7251] Responsible gets logged in audit trail and mail instead of responsible (resubmission)
- [PT-10582] Document links created via “Copy URL” are not valid hyperlinks
- [PT-10803] Diagrams sorted incorrectly when filtering
- [PT-10816] Role restrictions are incorrectly applied in Portal
- [PT-10964] Attachment containing special characters cannot be downloaded in Portal
- [PT-11232] Hidden attributes are getting exported in process warehouse
- [PT-11272] You cannot delete free form lines from the canvas
- [DES-4809] Deletion of tenant data for tenants with a huge amount of documents/archives could fail
- [DES-4847] User export is not working for tenants with thousands of users
- [DES-4934] Repository export may fail in case of a complex category structure

30.225 Version 7.12.0

30.225.1 BIC Process Design

New Features

Automatically create a BPMN diagram via Excel import

Administrators and editors can now *download an Excel template for BPMN diagrams* from the online help and easily, consistently, and efficiently capture their processes in Excel. Add activities and responsible roles and import the Excel file into the public workspace of the new user interface. A graphical BPMN diagram is automatically generated with the specified responsible roles as pools and lanes. Activities are connected by a continuous sequence flow.

Hint: Please note that this feature is only available in the new user interface. If further editing of the graphical BPMN diagram is required, users need to switch to the old user interface. In future versions, we plan to add support for satellites.

Restructured occurrence list and extended evaluation for assignment attributes

We have made significant optimizations to the occurrence list in the catalog and diagram options for modeled objects to enhance clarity and detail.

The structure of the occurrence list has been reorganized to include a dedicated entry for each diagram. Instead of a long list of uses, you will now find separate entries for each diagram in which the object is used. These entries are easily accessible and give you a detailed view of how the object is used in that diagram. With just one click, you can seamlessly navigate to the precise usage and quickly visualize connections.

Additionally, we have extended the occurrence list to display the usage of assignment attributes. This means that you can easily review all instances of an object's usage, allowing you to navigate to specific use cases effortlessly.

New sorting for multivalued attribute values

We have improved the search for specific attribute values when dealing with multiple entries in the new user interface. The user's current content language is now automatically used to sort the values of assignment attributes, text attributes, links, and files alphabetically. Examples of such attributes are standard attributes like 'author', 'reviewer', 'keyword' and 'attachment (URL)'. Custom attributes are sorted similarly. The sort order is applied in the matrix view, in the properties, in the quick access under an icon in a diagram, and on the details page of a catalog entry.

Hint: Please note that alphabetical sorting is currently not supported in reports and exports. We are actively working to remove this limitation in future updates. This sorting is not available in the old user interface.

Execute reports on archived diagram versions

The new user interface now allows you to run reports on archived process versions. You can simply *open the archive of a diagram version* and execute a *report on that version* without the need to manually restore the diagram version. This saves time and greatly simplifies your work. You can run reports at any time, which is important for long-term projects that started with an archived process version.

Hint: Please note that reports do not explicitly indicate whether the version is archived.

Change of report templates for add-ons

Administrators now have full control over the change of add-on-provided report templates.

Hint: Please be aware that the customization options for add-on templates may differ from the standard ones. Refer to the according add-on documentation for details. Changing templates can impact the functionality of these reports.

Converting timestamps for reporting and exporting

The time zone of a logged-in user is now considered when creating reports and exports to ensure that the timestamps refer to the same reference time zone as in the user interface.

Additional content language

Persian can now be *enabled as a content language* in the administration.

Method

Method for modeling in attributes

The standard method has been updated to faciliate the transition to modeling resources and satellites within attributes, if you are considering this innovative approach. The default method now includes predefined relationship attributes that can be activated in activities. Additionally, an alternative symbol has been added to indicate that there are resources that are not graphically visible on the modeling interface.

The following attributes are available in the standard method:

· A - Responsible role(s)

· C - Contributing role(s)

· I - Role(s) to be informed

· Supporting application(s)

· Required input(s)

· Produced output(s)

· Risk(s) Occurring

When these relationship attributes have a value, an icon is displayed within the alternate activity symbol, drawing attention to the specific attribute.

Hint: Please note that we recommend making any necessary changes to the method either after training or by requesting us to make the customization. The configuration may not be suitable for inexperienced users. To customize your method, access to the BIC Method Editor is necessary.

Validation of properties of assigned objects

The properties of objects within a diagram can now be validated using OCL in validation.

Hint: Please note that the default validation does not contain a rule that uses this possibility. To customize the validation rules, you need access to the BIC Methods Editor.

Existing functions available in the new user interface

Manage repositories in the administration of the new user interface

In the new user interface, *repository management* has been moved to Administration. You can find all existing repositories there and *edit* and *delete* them. Deleting a repository has been provided with an additional security confirmation prompt to minimize the risk of accidentally deleting it and losing valuable data.

Currently, the list of repositories does not include repositories that have access restrictions set that exclude the administrator. In future versions, administrators will be able to view all repositories. However, they will not have access to the contents of a repository if access restrictions prohibit it.

Printing with individual print settings

The *print settings* can now be customized in the diagram options. All print options that were available in the old user interface are still available.

30.225.2 BIC Process Execution

New Features

Intermediate Timer-Events

Designers can now define intermediate timer events, enabling fine-tuned control over case progression. This feature allows you to specify a waiting time, ensuring that your cases pause for the defined duration. This precision enhances process orchestration and helps you optimize your case management.

Data Mapping in Service Task

When configuring a service task, you can now set it to ignore the response. This additional control prevents the automatic mapping of response bodies to process variables, enabling you to customize the handling of service task responses according to your specific needs.

Service Task Response Handling

When using a service task , the response is now automatically stored in a process variable named "_response.". This variable provides access to the header of the response, allowing for greater flexibility in handling and utilizing the data in subsequent process steps.

Enhanced Task Monitoring

In this release, we've made it easier for case managers to track the tasks by introducing the ability to view open tasks organized by assignee. This feature simplifies task management and provides clear visibility into assignments, making it more convenient to manage and prioritize work.

File Fields in Form Editor

When configuring forms, you can now add a file field, providing you with additional customization options for handling files within your processes. This enhancement empowers you to tailor file-related configurations to meet your specific requirements, making form design more versatile.

Enhanced File Upload Experience

When interacting with file uploads in forms, users will now see a visual representation of the uploaded file's name. This feature enhances the user experience by making it easier to identify and manage uploaded files.

Integrated Browser Viewer

You can now open PDF files directly in the integrated browser viewer, allowing you to quickly view file content without the need to download. This feature saves time and improves accessibility, making it easier to access and review files within your processes.

Full Text Search for Case Names

Users can now perform comprehensive full-text searches in the case list, enhancing your ability to find and access specific cases quickly. This feature streamlines case discovery, saving you time and effort in navigating your cases.

Case and Task List Sorting

Users now have the option to sort the task list and the case list, enabling efficient management and prioritization. With this feature, you can quickly identify and focus on the most critical tasks or cases at hand.

Access Control

Access control has been refined in this release to provide more tailored permissions. Please note that with Version 7.12, it's essential to assign the specific ProcessApp roles to your users. These roles are now checked for compliance, and proper role assignment is crucial to ensure a seamless and secure experience with BIC Process Execution:

- ProcessApp Creators now have exclusive access to execution editors, granting greater control over process execution and refinement. In previous versions, all authors had the ability to configure tasks in Process Execution Editors.
- ProcessApp Creators can seamlessly view and edit process variables directly in the studio stage, streamlining ProcessApp development and customization.
- Creating new instances now requires the ProcessApp User role, giving you greater control over different stages in your processes.
- Task assignment and work can only be carried out by ProcessApp Participants. This helps maintain clear responsibilities and ensures that only authorized users can interact with tasks.
- The admin area is now exclusively accessible to ProcessApp Administrators, ensuring the secure and efficient administration. It's worth noting that a BIC Design Administrator can no longer access the administration area in BIC Process Execution.

Gateway Task Assignment

Tasks created at gateways are now automatically assigned to the corresponding lane, providing more effective responsibility allocation. This feature simplifies task management, ensuring that tasks are consistently assigned to the right team or individual.

30.225.3 Resolved bugs

- [DES-3483] Security improvement
- [DES-4036] Caching of method failed because of serialization issues
- [DES-4132] BPMN file can't be imported if it contains xsi:type="dc:Point"
- [DES-4139] Missing migration for entities that have AT_NAME as node attributes
- [DES-4152] The system does not prevent users from creating domain objects in stage Preview and Publish
- [DES-4153] When importing BPMN files, for some edges the import uses outdated edge-symbol stereotypes
- [DES-4541] Deleting a single document does not remove the data properly
- [PT-10035] Failed workflows are not correctly aborted
- [PT-10285] Edit option for catalog item is displayed in preview in Portal
- [PT-10978] Add-on reports are incorrectly listed in catalog in Portal
- [PT-10994] Relationship attributes are not displayed in the publication and preview
- [PT-10999] New user group gets displayed in list only after refreshing the page
- [PT-11014] Diagram gets duplicated after cut and paste in category panel in Portal
- [PT-11034] Phrase search cannot be saved as search favorite in Portal
- [PT-11058] Missing spacing to the right for default favorite badges on small resolution devices in Portal
- [PT-11080] Properties panel can be opened in audit trail on small resolution devices in Portal

- [PT-11101] Filter of diagram view not working reliable in Portal
- [PT-1754] Switching the role from Reviewer to Reader does not switch stage to Publication in Portal
- [PT-4481] Some special characters in a comment are shown in unicode in emails
- [PT-4918] Attachments cannot be downloaded in catalog in Portal
- [PT-8106, PT-8342, PT-9322] Security improvements
- [PT-8663] Users in user groups are sorted incorrectly and duplicate entries will be shown while scrolling through the list
- [PT-9033] Diagram editor logs misleading error message
- [PT-9547] Multi-value attributes are not testable via OCL
- [PE-1108] The option "Add team member" is not completely displayed in the German version within the case's details
- [PE-2698] Boolean fields should default to false in DMN Tasks
- [PE-2779] Gateway Evaluation fails when checked string variable is null
- [PE-2975] Progress bar does not differ between completed and running tasks on overdue
- [PE-3667] Formating applied on email editor is not set in Execution email preview
- [PE-4170] Process with multiple gateways does not start first task
- [PE-4504] ProcessApp Icon Color is not consistent across the application
- [PE-4821] When deputy is delegated an error task, task counter is not update immediately
- [PE-4998] Ng-hal-forms not setting default header
- [PE-5060] Collection cards do not have ellipsis overflow
- [PE-5113] Process Apps in favourites tile show randomly in the wrong order
- [PE-5838] User Picker errors when User/Group begin with the same substring
- [PE-5908] Role assignment is not set in sub case
- [PE-7165] My task/Group task list don't upgrade correctly when task list is empty
- [PE-7178] Forms Editor fails to detect circular dependencies in in formulas when changed in the field list
- [PE-7313] Instances of deleted diagrams can still be created in app stage
- [PE-7319] Gateways whose execution result in no decision being made end up in state completed, instead of error
- [PE-7324] In certain situations there is a problem with the forecast where a case is not able to show the flow
- [PE-7343] Error creating instance in ElasticSearch for instances created from a timer start event
- [PE-7370] Date Input fields are not editable on smaller screens or when zoomed in
- [PE-7404] Instance is not archived in ElasticSearch
- [PE-7438] Textbox is not alligned with checkbox on Editor Service
- [PE-7514] In the list of fields, you cannot select a field if you click inside the input.
- [PE-7527] Reduce the attributes information of the flow steps to avoid performance issues getting the flow of case
- [PE-7629] Initial readonly and mandatory expression evaluation is failing

- [PE-7707] Update and remove Process Collections templates are sent to NO Admin users in ProcessApp view
- [PE-3272] Process flow calculation breaks on loops with non-exclusive gateways
- [PE-6058] Performance issues on ProcessApp Collections view
- [PE-6148] Script tasks with float variables fails
- [PE-7326] Some Material Icons are missing
- [PE-7344] Can not open link of Disabled URL Field in Firefox
- [PE-7362] Too many variables makes URL too long when requesting variables leading to 414
- [PE-7363] Error evaluating formulas in field conditions
- [PE-7410] Pending task reminder mails are sent without pending tasks
- [PE-7513] Not all Owner are shown as filters in the case list view of a ProcessApp

30.226 Version 7.11.15

30.226.1 Resolved bugs

- [PT-13148] When opening or using an approved catalog item with a description that is missing a surrounding <p> tag, a suggestion is created without any user interaction

30.227 Version 7.11.14

30.227.1 Resolved bugs

- [PT-13025] Chromium update centers the catalog list vertically, making half of the list inaccessible

30.228 Version 7.11.13

30.228.1 Resolved bugs

- [PT-7872] Cursor jumps to beginning of HTML attributes
- [PT-10599] Workflow-service sometimes does not restart automatically
- [PT-12409] Autocomplete list shows less than 5 results when potential results are already used
- [PT-12495] Removal of an internal allocation diagram generates broken visual data

30.229 Version 7.11.12

30.229.1 Resolved bugs

- [PE-8390] Signature tasks cannot be completed
- [PE-8448] User Form does not activate after starting a step manually

30.230 Version 7.11.11

30.230.1 Resolved bugs

- [PT-11659] Security improvement

30.231 Version 7.11.10

30.231.1 Resolved bugs

- [PT-11783] Cross stage diagram comparison doesn't work when there is no archived version yet

30.232 Version 7.11.9

30.232.1 Resolved bugs

- [PT-11657] Change comparison only works when an archive is already existing in Portal

30.233 Version 7.11.8

30.233.1 Resolved bugs

- [PE-7946] A String variable with date format 'DD-MM-YYYY' is converting into date and the generated date is not correct
- [PE-7982] Text variables which represent a ISO date values are always saved like date but only is needed for Service tasks and external cases creation

30.234 Version 7.11.7

30.234.1 Resolved bugs

- [DES-4934] Repository export may fail in case of a complex category structure
- [PT-11580] Move activities to other lanes is not possible

30.235 Version 7.11.6

30.235.1 New Features

- [PE-7495] As a process designer, I want to store the response of a service task as a process variable, so that I can access and utilize various parts of the response in subsequent steps of the process
- [PE-7699] Prepare services so that quay labeling for legacy releases is easy possible

30.235.2 Resolved bugs

- [PE-7598] Long automatic tasks could block all database connections
- [PE-7629] Initial readonly and mandatory expression evaluation is failing

30.236 Version 7.11.5

30.236.1 New Features

- [PT-9819] As a user, I want to see changes in relationship attributes in version comparison so that I can identify the differences of two versions
- [PT-10264] As a user, I want to use OCL for relationship attributes
- [PT-9916] As a symbol editor, I want to use association types as conditions for formatting symbols

30.236.2 Resolved bugs

- [PT-10694] When deleting a node that has Relationship Attributes maintained, the Relationship nodes do not get deleted and produce ghost nodes
- [PT-10626] Catalog items are created without default assignment in Portal

30.237 Version 7.11.4

30.237.1 Resolved bugs

- [DES-4550] Wrong max-http-header size configuration for some services
- [DES-4053] Elasticsearch frequently restarts due to memory problems
- [PE-7586] In a JSON body, when utilizing placeholders for string arrays, the quotation marks are missing
- [PE-7607] Hyperlinks in disabled/readonly fields are not functional in Firefox

30.238 Version 7.11.3

30.238.1 Resolved bugs

- [PE-7457] Migration of gatewaypoints fails

30.239 Version 7.11.2

30.239.1 Resolved bugs

- [DES-4447] SQL Statement to identify SSO-tenants in the UPGRADE.md for version 7.11.0 does not collect all relevant tenants
- [PT-10321] Categories cannot be reached on small resolution devices
- [PT-10477] Associations of relationship attributes are created in the wrong direction

30.240 Version 7.11.1

30.240.1 Resolved bugs

- [PT-9944] Scrolling diagram filters does not work on small screens (e. g. mobile devices)
- [PT-10063] Unable to search in categories for diagrams after the category or diagram was moved
- [PT-10302] Process cost analysis report does not calculate resources
- [PE-7342] ObjectOptimisticLockException when calculating the path with gateway expressions
- [PE-7391] Task details view does not open on mobile

30.241 Version 7.11.0

30.241.1 BIC Process Design

New Features

Set validation scope of languages for mandatory attributes

Administrators now have more control over the *validation of mandatory language-dependent text attributes* during publishing workflows. With this update, administrators can now specify whether these attributes should contain a value in any content language, a value in the enabled default content language, or a value in all enabled content languages. These settings apply to new workflows from the beginning, while ongoing workflows keep their existing settings. This configuration can only be set in the new user interface administration.

Improved notifications for editorial releases and favorites

In this release, we have made adjustments to the default behavior for *scope emails* in editorial releases and notifications for updated favorites. **By default, the scope will no longer receive notifications about changes when an editorial workflow is initiated.** However, users still have the option to send scope emails by selecting the mail sending feature in the workflow start dialog.

Similarly, in the new user interface, we have updated the default behavior for *change notifications related to newly marked favorites*. **By default, we will no longer send change emails for newly marked favorites.** Instead, users are now required to actively subscribe to receive change notifications for their favorites. **Change emails will continue to be sent for favorites marked in the old user interface.**

It is important to note that we will continue to send change notifications for existing favorites to facilitate a smooth transition to the new default behavior. Users can manage their change mail subscriptions, including subscribing and unsubscribing, on their myBIC page within the new user interface.

Favorite catalog lists

In the new user interface, we have introduced a new feature that allows users to *mark lists in the catalog as favorites*. Once marked a catalog list as favorites, this lists will conveniently appear as tiles on your myBIC page, providing easy access to their preferred catalog items. We do not send change notification emails when a favorite catalog list is updated. Additionally, at present, there is no explicit subscription option available for these updates.

It is important to note that the catalog favorites feature is exclusively available in the new user interface. If you are using the old user interface, you will not find the Catalog Favorite tile on your myBIC page, and you will not be able to mark a catalog list as a favorite in the catalog of the old user interface. Furthermore, Administrators cannot set a catalog favorite as a myBIC configuration for their organization.

Alternative to the graphical modeling of resources

We have introduced a new feature that allows you to model the relation between resources and activities within the activity attributes. Once you have prepared your method accordingly, you can select a catalog entry in the corresponding activity attribute or directly create a catalog proposal from the suggestion list. This automatically establishes the configured relationship between the selected catalog entry and its activity.

This alternative approach to graphical modeling offers many advantages. For example, the resources of an activity no longer need to be arranged graphically, and existing processes can be more easily maintained throughout their lifecycle. Readers see the resources in a more natural representation and do not need to learn a specific notation to understand the process.

Please note that this new capability needs to be activated in your method and is not available automatically. Before enabling this feature, we recommend checking its impact on your modeling conventions. Currently, the functionality of this new modeling option is still limited. Version comparison is not yet optimized for this new approach, and validation needs to be extended. However, these limitations will be improved shortly.

Save simulation parameters and continue working with them

We have optimized the simulation to enhance usability. From now on, you can assign individual names to simulation scenarios, enabling better navigation among different scenarios. Additionally, you can now *save the entered parameters* of a scenario and continue working on them later if needed. These saved scenarios are also visible to other simulation users, promoting collaboration.

Please note that scenario names cannot be changed afterwardsand that scenarios saved in new diagram versions will no longer be available if the previous diagram version has been archived.

Existing features available in new user interface

Print diagram graphic with default print settings

In the new user interface, you now have the option to *print the diagram graphic* of a checked-in diagram through the options panel. Currently, you have access to default standard print settings that cannot be customized individually. Nevertheless, enhancements in this aspect are scheduled for the near future.

Rename personal favorites on myBIC

On your myBIC page, you can now *rename* diagram, catalog list, and search result favorites using the context menu of each respective tile. Renaming does not affect the content of the personal favorite but exclusively contributes to better user clarity. The changes made apply only to the active content language.

Please note that standard favorites defined by the administrator cannot be renamed.

30.241.2 BIC Process Execution

New Features

Filter Facet Date Range Options

We are excited to introduce a brand-new feature that enhances your task and case management experience. As a user, you now have the power to conveniently filter your lists of tasks and cases based on specific date ranges for due dates. This means you can easily narrow down your workload and focus on the tasks that matter most within your desired timeframe.

Task Status Monitoring

We have added a task status monitoring feature that displays the status of your open tasks. This means you'll have quick and easy access to see how your tasks are progressing without having to dig through details. Stay informed and in control with this new addition.

Global Variable Management

We are thrilled to announce that users can now use global variables in their processes. This powerful addition allows you to create more dynamic and adaptable workflows, utilizing variables that can be accessed throughout your processes.

We have also rolled out a handy enhancement that gives you more control over your application's configuration. You now have the ability to delete global variables that are no longer needed. This helps keep your application clutter-free and ensures you're utilizing resources efficiently.

Process Enhancement - Task Start Restrictions

Authors and users working with ProcessApps, this one is for you. We've added a feature that allows authors to define restrictions on manually starting tasks. This means you can have better control over your process flow, ensuring tasks are initiated only when appropriate. This enhancement provides a more streamlined and efficient process.

Process Enhancement - Skip Case Creation Start Form

We are all about optimizing your workflow. Authors, we heard you! You can now define that the case creation start form will be skipped. By skipping this form, you gain the advantage of creating a specific form as the first task in a process. This opens up possibilities for delivering a tailored and engaging user experience right from the start.

Seamless Navigation to BIC Process Design

Users can now seamlessly jump from their ProcessApp to the corresponding diagram in BIC Process Design. This feature enhances collaboration and ensures a smoother transition between design and implementation.

Base64 Encoded File Transfer

Need to send files as part of your JSON request? We have got you covered. With this new feature, users can now send files as base64 encoded strings in JSON request bodies. This simplifies the process of sharing files and streamlines data integration across your systems.

Starting Timer Event Option

We have tidied things up to ensure a clean and user-friendly experience. You will notice that when a process has a starting timer event, this event will not appear as an option during manual process initiation. This design decision emphasizes the automatic triggering nature of timer events, ensuring a more intuitive and efficient user experience. This subtle adjustment helps maintain clarity in your process options.

30.241.3 Resolved bugs

- [DES-3793] Missing logging configuration for elasticsearch and audit-logstash in docker-compose-local.yml(.example)
- [DES-4040] domain-data-archive-service creates error logs for repository exports
- [DES-4054] BPMN import seems to run indefinitely if an internal error occurs
- [DES-4151] Metrics configuration for spring services are not correct
- [DES-4276] Logout is not possible when user token size is above 4KB
- [DES-4439] Some modules do not support SCRAM authentication for database connectivity
- [PT-1859, PT-1951, PT-2355, PT-4104, PT-9724, PT-9725, PT-9726] Navigating to a different repository does not update repository switch
- [PT-1860] Custom name for catalog item profile is not displayed correctly (Portal)
- [PT-6871] File title is HTML encoded in title edit dialog
- [PT-7585] Sanitizing HTML attributes is too strict
- [PT-7818, PT-9089, PT-9312] Security improvements
- [PT-8743] Header of catalog item details page is not sticky
- [PT-9255] Pasting content into HTML attribute takes over unsupported HTML tags
- [PT-9265] Search field clearing fails to clear filter facets in diagrams, catalog, governance, and central search
- [PT-9436] Publish option is missing for categories (Portal)
- [PT-9442] User login count is capped to 10000
- [PT-9467] Catalog item profile report cannot be triggered (Portal)
- [PT-9489] Indexing attachments causes memory errors
- [PT-9703] Administration tiles in Portal are not colored
- [PT-9729] Misleading description of process warehouse report
- [PT-9753] Favorite update mail has wrong reference
- [PT-9843] Applicable documents cannot be downloaded (Portal)
- [PT-9999] Catalog item profile report has wrong page break

- [PT-10063] Unable to search in categories for diagrams after the category was moved
- [PT-10134] Changing to suggestion a catalog element doesn't update publish button properly
- [PT-10140] Approve/Reject button is briefly shown when opening catalog details view in publication
- [PE-6883] Exporting in the DMN Editor does not work on Firefox
- [PE-6888] Update a task takes to long
- [PE-6898] Improve Flow View loading screen when creating a case of an empty diagram
- [PE-6919] XS/S version: Filter Design is incorrect
- [PE-7056] Error when case name exceeds 100 characters
- [PE-7057] Non-Admin users see the Process Monitoring tab
- [PE-7096] Null token is allowed on root API end-point
- [PE-7152] Visual error because scroll overlay doesn't work
- [PE-7167] Visual error to enter name with space when create a case
- [PE-7187] Details section inside the form field doesn't show the 'Show more' button
- [PE-7240] When we have multiple starting timer events and one of those events is triggered we see a manual decision at the beginning of the flow
- [PE-7263] Recreated User groups do not work properly
- [PE-7268] Wrong font in attachment link
- [PE-7299] ProcessApp Collection color bug after resizing
- [PE-7301] Case stuck waiting on a gateway
- [PE-7314] ProcessApps Search box is moving when clicking on "Toggle Sidebar" button
- [PE-7315] Variables cannot be updated when form field changes from single choice type to multiple choice
- [PE-7345] User Tasks with FormulaJs are not executed in the Task Popup View

30.242 Version 7.10.17

30.242.1 Resolved bugs

- [PT-11783] Cross stage diagram comparison doesn't work when there is no archived version yet

30.243 Version 7.10.16

30.243.1 Resolved bugs

- [PT-11657] Change comparison only works when an archive is already existing in Portal

30.244 Version 7.10.15

30.244.1 Resolved bugs

- [PE-7629] Initial readonly and mandatory expression evaluation is failing

30.245 Version 7.10.14

30.245.1 Resolved bugs

- [PT-10626] Catalog items are created without default assignment in Portal

30.246 Version 7.10.13

30.246.1 Resolved bugs

- [PE-7482] Step with mandatory text area can be completed without value inside in mobile view
- [PE-7457] Migration of gatewaypoints fails

30.247 Version 7.10.12

30.247.1 Resolved bugs

- [PT-10321] Categories cannot be reached on small resolution devices

30.248 Version 7.10.11

30.248.1 Resolved bugs

- [PE-7342] ObjectOptimisticLockException when calculating the path with gateway expressions
- [PE-7391] Task details view does not open on mobile

30.249 Version 7.10.10

30.249.1 Resolved bugs

- [PT-9944] You cannot scroll correctly through the diagram filter list on small screens (e.g. mobile devices)
- [PT-10302] When I use process cost analysis report, it does not calculate resources

30.250 Version 7.10.9

30.250.1 Resolved bugs

- [PT-9753] Favorite update mail has wrong reference

30.251 Version 7.10.8

30.251.1 Resolved bugs

- [PT-10240] First entity type is not displayed in publication catalog
- [PT-10245] Some modules do not support SCRAM authentication for database connectivity
- [DES-4439] Some modules do not support SCRAM authentication for database connectivity

30.252 Version 7.10.7

30.252.1 Resolved bugs

- [PT-10130] Catalog search sends wrong locale for facet request

30.253 Version 7.10.6

30.253.1 Resolved bugs

- [PT-9321] Configure time zone for date values in stamped attachments

30.254 Version 7.10.5

30.254.1 New Features

- [PT-9347] As administrator, I want that the creation option for catalog items in an assignment attribute depends on the administration settings for catalog items

30.255 Version 7.10.4

30.255.1 New Features

- [PT-7901] As simulation user, I want to save my entered simulation parameters so that I can continue working on it later

30.255.2 Resolved bugs

- [PE-7144] Execution Apigateway does not manage HTTP headers larger than 8192 bytes
- [PE-7146] Parallel gateway starts next fragment before finishing all of incoming fragments

30.256 Version 7.10.3

30.256.1 Resolved bugs

- [PT-9258] Simulation parameters for lanes of imported BPMN diagrams cannot be maintained
- [PT-9298] Editing link title of a catalog item opens maintained URL
- [PT-9314] Security improvement
- [PT-9320] Security improvement
- [PT-9470] Dynamic valid from date is not set in PDF on publication

30.257 Version 7.10.2

30.257.1 Resolved bugs

- [PE-6661] Process-execution-service gets killed several times a day, because it consumes too much memory
- [PE-7035] Restore missing attachment relations
- [PE-7058] Mishandled NPE when completing a task with formulas or default values
- [PE-7060] Flow Step Skeleton Screen does not hide on User Tasks without any field

30.258 Version 7.10.1

30.258.1 Resolved bugs

- [PT-9234] A catalog item can added in wrong stage when you change your role
- [PT-9258] Simulation parameters for lanes of imported BPMN diagrams cannot be maintained
- [PT-9298] Editing link title of a catalog item opens maintained URL
- [DES-4134] After a BPMN import from Signavio the renaming of entities in the diagram does not work properly

30.259 Version 7.10.0

30.259.1 BIC Process Design

New Features

Relationships between catalog items

We've enhanced the analysis capabilities for catalog items by adding *relationships to other catalog items* in the occurrences lists of the catalog. The new user interface catalog now includes a comprehensive list of all assignments of a catalog item to other catalog items, making it easier to analyze relationships between items. In a separate panel, you can view all catalog items to which the selected item has been assigned. By clicking on a listed catalog item, you can access more details about that item.

If you've already assigned a catalog item to another item (e.g., you've assigned a person as the author of a document), you can immediately see the assigned item in the occurrences list.

Switch stage and repository in top bar

We have added two new features that make it easy for you to switch between different *stages* and *repositories* while working in the new user interface. The active stage and repository you are working on are now always displayed at the top of your screen. This allows you to quickly switch between the different stages and repositories, navigate between them, view the contents, and keep track of the stage and repository you are currently working in. Both features are available in the stage- and repository-specific areas, such as diagram list, catalog, or central search.

Hint: Users can only select stages that they have access to. Since Readers have access only to the Publication stage, they do not see the stage switch at all.

Reassign the connection between symbols

We've made modeling easier by enabling the *reassignment of connections between two symbols*. To reassign a connection, simply drag it from the original symbol and drop it onto the desired new symbol. It's important to note, however, that the new symbol must allow the connection for the edge to be successfully reassigned.

This new feature streamlines the modeling process and allows for more efficient editing and updating of diagrams. With the ability to reassign connections quickly and easily, users can make changes to their diagrams with ease without the need to redraw entire connections of the diagram.

Session lifetime reminder

In the new user interface, users now receive a session lifetime reminder 5 minutes before they are automatically logged out. This feature allows users to refresh their session without the need to log in again, ensuring uninterrupted work.

Improvements in process simulation

We have added new functionalities for customers who have licensed our simulation component. They can now view the *resource utilization of a simulation run* as a bar chart in the Charts tab, in addition to the Heatmap tab. Furthermore, simulation results can be exported as a CSV file, allowing for easy analysis of the results in other applications. Please note that all KPIs are listed in the CSV file with varying levels of granularity, which may require adjustments to fit your specific needs.

Furthermore, it is now possible to enable the simulation component in Public Cloud systems. If you are interested in utilizing the simulation component and your system is hosted in a Public Cloud environment, you can now benefit from this functionality. However, please note that an additional license is required for the simulation component.

Additional validation rules for governance attributes

We've added new validation rules to the validation hub that help you keep track of the maintenance of governance attributes. The validation hub will show you if a diagram has no assigned responsible person, if the diagram's scope hasn't been maintained, if the valid-to date is earlier than the valid-from date, or if the valid-to or valid-from date is in the past. You can customize the rules that are applied or deactivate them entirely, according to your preferences. Note that this is done in the BIC Method Editor.

Additional resubmission decision "End task and inform Governance participants"

The resubmission task has received an *additional decision option* called "End task and inform Governance participants". This option is designed to streamline the resubmission process and make it easier to manage tasks. When a task assignee selects the "End task and inform Governance participants" option, they'll be prompted to enter a comment explaining why the task is being closed. Furthermore, the governance group will be automatically notified of the decision, ensuring that all parties involved are kept up to date with the task's progress. This feature is particularly useful in cases where a decision may not be required or if a task can be closed without further action.

Switch currency in process costs/simulation report

The Excel-based process *costs/simulation report* now includes support for Dollar as a currency. Users can conveniently switch between currencies within the Activities worksheet. Please be aware that the default currency in your method is Euro, but it can be easily modified in the BIC Method Editor.

Existing features available in new user interface

New design for top bar, menu, and category explorer

We have implemented major redesigns and added new functionalities to the category explorer, menu, and top bar. The *category explorer* is now easily expandable by clicking on the repository bar besides the diagram list and can be collapsed with the repository or collapse icon at the edge of the category explorer. The edge of the category explorer can also be used to broaden the category explorer for easy access to even deep category structures.

The menu on the left side and the top bar have been reworked. The menu is collapsible and can still be used for navigation, with icons representing menu entries available in the *collapsed state*. Users can now access the most important profile settings in a card by clicking on the *profile icon*. To adjust further settings, the "open complete profile" button needs to be clicked. Additionally, *search fields* for diagrams, catalog items, and governance workflows have been moved to their respective filter sections. These improvements provide a more streamlined user experience and easier navigation within the application.

Select any diagram version for comparison to see changes

The version of a diagram open in the content area in a stage can now be *compared with any version from different stages* to see the changes between them. Administrators, Editors, and Authors can choose between the Public Workspace, Preview, and Publication, and select a diagram version from these stages for comparison with the version currently opened in the content area. Readers can only see the comparison with the latest version in the Publication and cannot select any other stage or chart version. Reviewers have only access to diagram versions in Preview and Publication.

Import and export diagram archives, BPMN files, and categories

Diagram archives, BPMN diagrams, and categories can now be *imported* from the context menu of the repository and category, as well as from the options panel of an opened category. To *export a diagram*, you can access it from the diagram list via the context menu of the diagram or from the options panel of the diagram's details page. Category import and export options can only be accessed from the context menu of a category.

Hint: Please note that the repository import and export options are only available to Administrators and will be located in the administration area of the new user interface. This functionality is currently not available and will be added in upcoming versions.

Depublish catalog items and diagrams

We've added the depublication feature, which allows published catalog items and diagrams to be removed from the Publication. The depublish option can be found in the options panel on the details page of the *catalog item* and *diagram*, as well as on the list view.

Both Administrators and Editors have the ability to initiate an editorial depublication as well as a depublication that requires approval. Authors, on the other hand, are only able to depublish diagrams and catalog items using an approval workflow.

Publish a category

Administrators and Editors can now *publish* categories from the Public Workspace. This option is available in the context menu of a category and triggers the publication workflow for all subordinated diagrams, including those in sub-categories. We've added a confirmation dialog that requires the user to enter the category name before the publication can be confirmed. This ensures that the user is intentionally publishing the correct category and prevents accidental publication.

Create, rename, and delete a category

Categories can be *created*, *renamed*, or *deleted* by Administrators, Editors, and Authors in Public Workspace.

Cut and paste categories and diagrams

Diagrams and categories in Public workspace can now be *cut and pasted* into a different category in the same repository. Please note that a cut diagram or category cannot be pasted to a different repository.

Import and update catalog items

Administrators and Editors can now *import and update catalog items* using the process warehouse report for catalog items. To import items, simply filter the catalog by entity type and set the content language to the language of the items being imported. This will automatically determine the entity type and language for the import.

Translate catalog items

We've introduced a new *translation mode for catalog items* in the Public Workspace catalog. This feature is activated after applying a filter for a specific entity type, and you can further refine the list of catalog items to be translated by applying additional filters or a search term. The translation mode displays all language-dependent attributes of a catalog item and provides a column for each content language defined in your tenant. The first column in the translation mode represents the active content language and remains visible as you scroll through other language columns. Administrators and Editors can translate all catalog items, while Authors are only permitted to translate catalog items to which they have been assigned as an Author.

Hint: This feature is not available on small resolution devices.

Reorganize unused catalog items

Administrators and Editors can *reorganize* the Public Workspace catalog to delete catalog items that are no longer needed (not referenced in diagrams or attributes). This feature is activated after applying a filter for a specific entity type. We have improved this feature by adding a confirmation dialog that requires the user to enter the entity type name before the reorganization dialog can be confirmed. This ensures that the user is intentionally deleting the correct entity types and prevents accidental deletion.

Hint: This feature is not available on small resolution devices.

Approve or reject catalog suggestions

Administrators and Editors can now make decisions about catalog items either directly from the catalog list or by accessing the options on the details page of a catalog item. You can use the "Only show suggested" filter to view catalog suggestions and determine which items need a decision. Once a *catalog suggestion is approved*, it can no longer be modified during the modeling process. Conversely, if a *suggestion is rejected*, the object will remain in the diagram or attribute as a standalone object without any connection to the catalog.

Publish catalog item from catalog list

In addition to the option to publish a catalog item in the options panel on the details page, catalog items can now also be published from the context menu of a catalog item in the catalog list.

30.259.2 BIC Process Execution

New Features

Monitoring dashboard now available for running cases

We have added a monitoring dashboard next to the case list. This dashboard provides first metrics of all running cases, including those that are on time, overdue, and have no due date. This is the first step towards providing various metrics for instances.

Export feature enables quick and easy process data analysis in BIC Process Mining

The application now supports exporting an event stream as an Excel file. This file can be easily used for analyzing instances in process mining tools, such as our own product, BIC Process Mining. Exporting event streams as an Excel file allows administrators to quickly and easily analyze process data and identify areas for improvement. It also makes it easier to share process information with other stakeholders, such as process owners or auditors.

Improved form fields with dynamic options using process variables for flexible choices

Previously, single and multiple-choice fields in forms could only provide static values. Now, you can use a process variable to provide dynamic options. The ability to use process variables for dynamic choices in forms makes it easier to maintain and update forms as business needs change. It also allows greater flexibility in the types of choices that can be offered to users.

Skeleton screens added for improved user experience

Using skeleton screens helps to improve the perceived performance of the application by providing users with visual feedback that content is loading. This can help to reduce a users frustration and improve the overall user experience.

Dynamic due dates for process tasks

We have renamed the “Process time in days” attribute to “Due Date” attribute for activities. You can still use numbers to provide the number of days for performing an activity. Additionally, you can use date variables from the process to set the due date for a task. The ability to use date variables from the process to set due dates for tasks makes it easier to manage and track task deadlines. It also provides greater flexibility for users, as they can set due dates based on the specific needs of their process.

Get notified about new tasks in your reminder emails

The reminder emails that inform users about due tasks now include tasks that were assigned within the last day. This helps users organize their work more efficiently. Including newly assigned tasks in reminder emails helps users stay on top of their work and prioritize their tasks more effectively. It also helps to reduce the risk of tasks being missed, which can improve process efficiency.

Prediction of upcoming tasks based on previous completed cases

The application now displays an automatic forecast for instance if historical data is available. Based on past instances for a process version, the application shows the most likely next steps in an instance. The automatic forecast feature helps users anticipate upcoming tasks and plan their work more effectively. This can help to reduce delays and bottlenecks in the process and improve overall process efficiency.

Restriction of task completion for synchronous call activities to administrators only

Previously, users could finish call activity tasks manually before the subprocess was finished, which could cause problems. Restricting the complete action to administrators for synchronously started call activities helps to prevent users from inadvertently causing problems in the process by prematurely completing tasks. This will help to improve process accuracy and reduce the risk of errors.

30.259.3 Resolved bugs

- [DES-4046] Method-service has less memory configured in the 64GB configuration than in the default 32GB configuration
- [DES-4124] Exporting in the DMN Editor does not work on Firefox
- [PT-510] Boolean facets in central search show true or false
- [PT-4355] Suggestion list overlaps input label in diagram editor
- [PT-4415] Missing scrollbar in process flow view (Portal)
- [PT-5367] Facet count of catalog item has wrong value when using suggested filter
- [PT-5369] Facet count of catalog item has wrong value when using search term
- [PT-5874] Description preview in catalog will not displayed when text contains HTML formatting [Customer action required]
- [PT-6385] Set start diagram prevents Readers to switch repository
- [PT-6480, PT-6481] Security improvement
- [PT-6845] Pasted image cannot be moved in diagram editor
- [PT-7031] Default value for enumeration attributes cannot be defined in BIC Method Editor
- [PT-7258] Overlapping dashed or dotted edges result in a solid edge
- [PT-7265] Dynamic valid from date is not set in PDF on publication
- [PT-7333] Catalog list and dashboard tab is not displayed on small screens
- [PT-7418] Diagram changes get lost during checkin attempt
- [PT-7513] Scroll bar disappears when searching or filtering in workflow list (Portal)

- [PT-7530] Catalog does not respect the time zone in date filters
- [PT-7531] Language switch does not change the translations in favorites page
- [PT-7534] Language switch does not change the translations in the matrix of a diagram
- [PT-7535] Language switch does not change the translations in workflow list
- [PT-7766] Diagram changes default value for archived assignments
- [PT-8063] Admin set background colors of a symbol cannot be overwritten by format options in a diagram
- [PT-8150] MyBIC favorites are not sorted in alphabetically (Portal)
- [PT-8175] Accessibility improvement
- [PT-8245] Activities in manual report for VCD are sorted incorrectly
- [PT-8451] “Show changes” button has wrong tool tip (Portal)
- [PT-8529] System attributes are displayed wrong when clicking in a specific order
- [PT-8542] Option entry for simulation is available in read-only stages (Portal)
- [PT-8616] Boolean facets in catalog show true or false
- [PT-8666] Undo / redo breaks visual diagram data in allocation diagrams
- [PT-8685] Mimetype is displayed for attachment titles with special characters (Portal)
- [PT-8740] Templates for “Manual with Assignments” report cannot be downloaded after modification of report descriptor
- [PT-8797] Attachment titles with special characters have wrong name after PDF conversion
- [PT-8915] Special characters in name of catalog item lead to wrong representation in breadcrumb
- [PT-9027] Publication dialog shows domain object name in random locale
- [PT-9064] Role-rights table is incorrect in documentation
- [PT-9095] Access permissions of Readers miss detailed information in documentation
- [PT-9215] Non smooth scrolling through the search result list and entity type name is missing
- [PE-5992] Corrupted data in Camunda causes process to be irresponsive
- [PE-6057] Inconsistency on number of processes
- [PE-6358] Task join gateways behave differently depending on order of execution
- [PE-6400] The user picker is displayed incorrectly
- [PE-6445] Rest Editor OAuth2 Client Authentication Dropdown does not save
- [PE-6532] Exception is thrown when having multiple last fragments
- [PE-6544] Concurrently changing variables leads to org.camunda.bpm.engine.OptimisticLockingException
- [PE-6616] As a user I can see group task without belong to any group
- [PE-6635] Error toasts in the Process Cases View persist into the Flow View after creating a new case and navigating to it
- [PE-6636] Process Instances List receives the Instance Created Message before the Instance is available in the BE’s datasource
- [PE-6638] Diagram modification are not applied to ProcessApp in studio stage
- [PE-6639] Mail are not sent when a overdue task is assigned or delegated to other user/group

- [PE-6649] User Task's Multiple Selection Dropdown Form Field is not showing it's current value
- [PE-6660] Performance issues on Flow and Step detail views
- [PE-6682] Problem with attachment on automatic task
- [PE-6695] Variables that include dots are not assigned when doing a REST call
- [PE-6720] Enhance 2.2.0 sql scripts using white spaces
- [PE-6722] Create instance using the external API fails with text variables bigger than 4000 characters
- [PE-6736] User Task Formulas aren't evaluated correctly when a value is an empty List
- [PE-6742] I/O takes place on subprocesses when call activities are asynchronous
- [PE-6851] Wrong redirection on Collections view
- [PE-6883] Exporting in the DMN Editor does not work on Firefox
- [PE-6886] Gateway waits unnecessarily for token from loop
- [PE-6887] An error toast is shown when a user starts a task which is already started
- [PE-6890] Overdue due date in "my cases" is not shown in red on mobile view
- [PE-6896] Subcases are not archived when main case is archived

30.260 Version 7.9.12

30.260.1 Improvements

- [PE-6643] Attachment cannot be accessible after upgrading to 7.9.*

30.261 Version 7.9.11

30.261.1 Resolved bugs

- [DES-4070] The maintenance mode fails because of wrong certificate locations

30.262 Version 7.9.10

30.262.1 Improvements

- [SRE-157] / [DES-3875]: Proxy recognizes changes in certificate

30.263 Version 7.9.9

30.263.1 Improvements

- [PE-6717] Remove “No forecast possible” message from process flow view

30.264 Version 7.9.8

30.264.1 Improvements

- [PE-6696] Create a feature flag to control error messages in UI

30.264.2 Resolved bugs

- [DES-3701] LDAPs configuration is outdated with Keycloak 20.0.3

30.265 Version 7.9.7

30.265.1 Resolved bugs

- [PT-8329] Tenant default language overwrites user’s content language in the webclient on reload when userflow is enabled
- [DES-3927] The cleanup of temp files in the domain-data-transfer-service does not run
- [DES-3911] Diagram archive contains documents

30.266 Version 7.9.6

30.266.1 Improvements

- [PT-7415 | PE-6598] Enhance data provisioning for onboarding tool
- [PT-7910] Enable font replacement mapping in workflow-service

30.266.2 Resolved bugs

- [DES-3876] In some cases it is not possible to select a user in the attributes, when there are multiple users with a similar name
- [DES-3891] Missing update of the configuration for upload limits

30.267 Version 7.9.5

30.267.1 Resolved bugs

- [PE-6516] Security Improvements
- [PE-6541] Script to clean up process execution Elasticsearch data causes process execution service not to start
- [DES-3821] Security improvements
- [PT-7747] Apigateway memory configuration is insufficient

30.268 Version 7.9.4

30.268.1 Resolved bugs

- [PE-6472] Process execution not responding, all database connections blocked

30.269 Version 7.9.3

30.269.1 Resolved bugs

- [PT-6438] Security improvements
- [PT-6482] Security improvements
- [PT-6630] Adding missing translations for AR, IT, FR
- [PT-6732] Sync entity messages don't contain the repository ID
- [PT-7623] Default values for diagram attributes are not applied on diagram creation
- [PT-7706] Method editor does not allow the user to set attributes as mandatory for specific domain object types
- [PT-7709] Incorrect default configuration for the onboarding tool
- [PT-7754] Lists use wrong enumeration symbols in generated PDF reports

30.270 Version 7.9.2

30.270.1 Improvements

- [PE-6416] Security improvement

30.270.2 Resolved bugs

- [PE-6418] In progress tasks of archived cases are shown on task list
- [PE-6437] Expired cases cannot be removed

30.271 Version 7.9.1

30.271.1 Resolved bugs

- [PE-6418] Process gets stuck because of loop
- [PE-6437] Reindex of tasks results in an OOM

30.272 Version 7.9.0

30.272.1 BIC Process Design

New Features

Analyze views of published diagrams

All user roles, except Reader, can now analyze views of published diagrams. When you open the publication in the new user interface, you will find the "Diagram views" filter in the *filter area* to filter a range of values of views. If you want to see the number of views of a particular diagram, you can find the exact number of views in the system attributes of the diagram.

Hint: Evaluation starts after installation of this version. Logins before installation cannot be evaluated.

Hint: Views in the old and in the new user interface are all counted.

Analyze user logins in the administration

In the administration of the new user interface you now have the possibility to analyze *user logins*. The logins are summarized per month and are listed for the past 12 months.

Hint: Evaluation starts after installation of this version. A login before installation cannot be evaluated.

Hint: Currently you will find only this entry in the administration of the new user interface. In upcoming versions, you will be able to access other administration options as well.

Export workflow tasks to Excel

In the Governance Cockpit of the new user interface, users with the appropriate user role (Administrator or Editor) can now *export all workflow tasks to Excel*. You can use the search or the filters to determine the workflows that should be exported to Excel.

Hint: If you do not filter the workflow list and thus export all workflows including their tasks, then the generation of the Excel file may take a long time.

Waypoint of edge trajectories can be set while dragging

If you want to create the *sequence flow* between two symbols on the modeling surface, then you can set the waypoints directly when dragging to define the flow. To do this, click once on the edge in the *mini symbol palette* at the output symbol to be able to set the manual sequence flow. If you want to set a waypoint, click with the left mouse button on the desired position. The manual flow will end when you click on the target symbol. The manually drawn sequence flow is considered by the layout assistant and is not changed.

Create catalog proposals in assigned attributes

You can now create a catalog suggestion directly in an assigned attribute if the desired catalog entry does not exist yet. The configuration of the attribute determines for which object type you can create a catalog suggestion. If several object types are provided for an attribute, you can choose between these object types.

Automatically check language-dependent mandatory attributes on publication

If a *language-dependent mandatory attribute* is assigned to a diagram, then it is checked whether the mandatory attribute has a value in the default language of your system (can be configured by the administrator), when the publication is started. If the standard language does not contain a value, the publication will be rejected. All other languages of your system will not be checked.

Automatically check mandatory attributes when publishing catalog entries

When the publication workflow for a catalog entry is started, it is checked whether all *mandatory attributes* have a value. Please consider for language-dependent mandatory attributes that only the set standard language is checked (analogous to the publication of diagrams).

Hint: Classification as a mandatory attribute is applied to the attribute definition and is not dependent on the context (diagram or object attribute). For example, if you have classified the description as a mandatory attribute, then it will now check for diagrams and objects if a value exists in the default language of their system.

Publishing of governed catalog entries in diagrams during diagram publishing

If you use a governed catalog entry in a diagram that is not yet published, the governed catalog entry is published as a draft with the diagram so that the *diagram publication* can continue without releasing the approving catalog entry first. The maintained attribute values of the catalog entry are not available in the *publication until it is released*.

Switch analysis data in the Governance Cockpit

In the *Analysis tab* of the Governance Cockpit of the new user interface, you can now easily switch between your repositories to change the data basis of the evaluations. If you have only created one repository in your system, the selection option is deactivated.

Create your own Word-based reports in administration

Administrators can now create their own reports and define Word-based report templates for them. With this feature, you can create your own reporting scenarios or offer existing report templates in different variations.

Change report templates for the manual with assignments report

In the administration area all report templates of the manual with assignments can be downloaded as a ZIP file to adapt the report templates to your needs. After adjusting the templates, you have to save all report templates again in a ZIP file to be able to upload the customized report templates. Please read the corresponding chapter in our documentation beforehand and keep the downloaded ZIP file, because the default templates cannot be restored.

Monitor licensing status in user report

The user report user report has been revised and now keeps the group and role membership of users in separate spreadsheets. In addition, you will now find an overview of purchased and used licenses in the user report. On the first spreadsheet you will find an aggregated overview as table and diagram.

Manage BIC Process Execution Roles in administration

In the user management, you can assign BIC Process Execution roles to users. Users can have multiple roles at the same time.

Advances method

Extension of the Customer Journey Map

In the Customer Journey Map (CJM), you will now find alternative symbols for the Touchpoint, Customer Step and Journey Stage. Additionally, the Document, Application and Backstage Process symbols have been added so that you can model the Customer Journey in more detail and do not have to maintain this information in attributes.

"Decomposition" is now called "Subprocess" for activities

The "Decomposition" attribute on activities has been renamed to "Subprocess".

Existing features available in new user interface

Central search

The *central search* can be used to search for catalog entries, diagrams, or modeling objects in diagrams at the same time. You can use the expert search or save a search query as a favorite. After the search shows results, you can use the filters to further narrow down the search results. When you save a search query as a favorite, it is saved on your MyBIC page and you can navigate directly to your search query from the MyBIC.

Category tree

On the diagram list, the category tree is now available for navigation. If you use filters on the diagram list, then the selected category is also used as a filter so that you only see hits that are in the category or subcategories.

Hint: With the introduction of the category tree, the appearance of subcategories in the diagram list has been removed for high screen resolutions.

Hint: If you are accessing from an end device with a small screen resolution, then the embedded categories are still available for navigation. The category tree, though, will then not be offered for navigation.

Comparison of the current version with the direct predecessor version

In the new user interface, you can *compare* the active version in a stage with the direct previous version. Removed and added symbols are shown, as well as objects whose attributes have been changed. If the attributes of an object have changed, then you can compare the difference in tabular form.

Hint: You can currently run the version comparison only on the previous version. In future versions, you will be able to select another version of the diagram for comparison

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Deputies can take over tasks from the task owner

In the task management of the new user interface, you can take over and execute deputy and group tasks.

Number of tasks in the menu

In the new user interface, the number of your own open tasks is shown as a badge on the menu entry. Substitute tasks and group tasks are not counted.

Perform tasks directly on the diagram or catalog entry

If you click on a task in your tasks, you will be directed to the diagram or catalog entry where you can perform your task.

Diagrams can be published

Users with the appropriate user role can start publication of a diagram on the diagram list and detail page of a diagram in public workspace.

Catalog entries can be deleted

In the catalog of the new user interface, you can now delete catalog entries and suggestions from corresponding user roles.

Labeling of catalog proposals in proposal lists

Non-accepted catalog entries are marked as catalog suggestions in suggestion lists.

Automatic search for keywords

You can click on a keyword to perform a search for the keyword.

30.272.2 BIC Process Execution

New Features

New development of the process execution

With the version 7.9 the calculation of the process execution was substantially revised and accelerated. This has resulted in a higher reliability of process execution. Unfortunately, this improvement made it necessary to temporarily remove the forecast of future tasks. The forecast will be available again in the next version of BIC Process Execution.

BIC Process Execution also allows the execution of processes where no conditions were specified at sequence flows after gateways. Until now, the decision of these gateways was integrated into the task immediately before the gateway. This procedure was not always reliable and predictable for the user. With the new version, gateways where no conditions were specified now become active tasks for the task creator. The user is thus prompted by an explicit task to make a decision for the further process flow.

In processes that have multiple start events, it was previously necessary to start the case after creation. With the new version the creator of the process gets a task to decide with which event the case should be started. In this way, the process can no longer be simply overlooked.

Warning: Running cases must be terminated before updating to version 7.9. Unfortunately, it is not possible to migrate running cases to the new version 7.9. All processes that have not yet been finished will be automatically archived when updating to version 7.9.

Enhancements in the form editor

The form editor now provides a field that supports the selection of users and user groups during process execution. This makes it even easier to dynamically assign roles in the process to users or user groups.

Selection fields in the form editor were previously simple texts. These now optionally support a key. So you have the possibility to use the key e.g. in formulas and don't have to use the display text.

Enhancements in the REST editor

The REST editor now allows to send configuration files as binary. This form of REST call is necessary e.g. when using MS-Sharepoint to upload a file.

In addition, more HTTP methods (e.g. HEAD, PATCH) are now available in the REST configuration. This allows to cover a wider range of API calls for external systems.

CI configuration in BIC Process Execution

BIC Process Execution now also adopts the CI configuration from BIC Process Design to achieve a consistent web presence of both products in the organization.

Breadcrumb for navigation

The breadcrumb is not only used to display where you are currently located in the application, but now also allows you to navigate to the higher levels of the application. For this purpose, the individual components of the breadcrumb can be clicked.

Next to the breadcrumb you will also find a way to navigate back and forth. This navigation makes it easier for the user to navigate back to the task list, for example.

Filter in the case and task list

The case list of a ProcessApp and the task list can now be filtered. The first filter available here is the owner or creator of the case and the ProcessApp to which a task belongs. More filters will follow in the next version.

Group tasks in the process

Group tasks can now also be claimed directly within the case. If the group task is not assigned to anyone yet, a button “Assign to me” is displayed. This eliminates the need to navigate to the task list to take ownership of the task there.

More compact task list

The task list has been redesigned to provide a more compact view that allows you to see more tasks on one page.

Changed display of tabs

The tabs in different areas of the application have been unified and show the name of the tab in addition to an icon.

30.272.3 Resolved bugs

- [DES-3023] Improve content security policy
- [DES-3359] Users cannot login via SAML from time to time
- [DES-3363] Inconsistencies prevent publication of diagram
- [DES-3412] Security improvements
- [DES-3435] Exception during the replacement of a used and connected entity
- [DES-3467] Import fails and cause a “DataIntegrityViolationException”
- [DES-3479] User report generation can run into timeouts
- [DES-3481] Security improvement
- [DES-3489] Failing export due to duplicate document id
- [DES-3665] Setting standard attributes to read-only has no effect for diagrams
- [PT-518] Users and User groups don’t get loaded in alphabetic order in Administration
- [PT-1569] Audit trail is not visible anymore if the owner of an open task is deleted
- [PT-2001] Wrong default page of deputy tasks
- [PT-2997] Catalog has no default page (Portal)
- [PT-4087] OverlayEdgeCreation has no alignment assistance
- [PT-4467] Clicking on keyword always leads to a search in the public workspace
- [PT-4468] Attribute view shows date values in different format than the profile view (Portal)
- [PT-4844] Toasts are translated incorrectly (Portal)
- [PT-5277] Formatting of lane edges differs in printed diagram
- [PT-5416] Boolean conditional formatting is not triggered when a diagram gets freshly checked out after reloading page
- [PT-5487] First task listed in the group task list cannot be revoked after claiming it
- [PT-5688] Formatted text attributes not updated in edit mode when toggling languages
- [PT-6116] Requesting diagrams causes unacceptable loading times

- [PT-6211] Font loading produce wrong calculation
- [PT-6248] Third Examiner doesn't get a task (Portal)
- [PT-6330] Once a BPMN event label contains a line break, its edge overlaps with the label
- [PT-6352] Dates don't respect the locale variant
- [PT-6357] Governance analytics tab has options (Portal)
- [PT-6431] Security improvement
- [PT-6465] Missing ellipsis in MyBIC Titles
- [PT-6479] Notification about a new task is missing when assigned as an examiner on a catalog item
- [PT-6487] Task list shows only 50 items (Portal)
- [PT-6567] An edge docked at bottom port covers node name
- [PT-6579] Reports don't respect locale variants
- [PT-6580] Date filter in dashboards do not respect the filter values (Portal)
- [PT-6589] Unused catalog items in publication are not cleaned up
- [PT-6594] Break point of a sequence flow cannot be selected and moved
- [PT-6595] Message edge cannot be drawn straight
- [PT-6694] Freeform lines could not moved anymore after placing it on canvas
- [PT-6777] User report generation can run into timeouts
- [PT-6788] Attachment cannot be downloaded when filename has certain special characters (Portal)
- [PT-6791] Mimetype will be shown for attachments with special characters in filename (Portal)
- [PT-6792] Attachment that is published as PDF will be shown with its original file ending
- [PT-6854] Tenant symbol type colors are sometimes overwritten
- [PT-6880] Saved searches ignore set filters (Portal)
- [PT-6899] Security improvement
- [PT-7045] Workflow error toasts are displayed to all users (Portal)
- [PT-7214] Layouting two pools doesn't work correct
- [PT-7219] Suggestion list does not find expected hits when using a space character (Portal)
- [PT-7235] Disabled bulk publication option available in read-only stages (Portal)
- [PT-7257] Center port will not be highlighted if the edge does not exactly hover over center port
- [PT-7403] AUTHOR doesn't see "Publish" button in the List page for catalog and diagram (Portal)
- [PT-7404] AUTHOR doesn't see "Depublish" button in the catalog list (Portal)
- [PT-7420] Invalid diagram toast gets shown on last validity day already [User action required]
- [PT-7515] You cannot set a title for a document in upload dialog
- [PT-7519] Clicking on a validation item has a wrong behavior
- [PT-7521] Title of uploads and links are not given in reports
- [PT-7528] Date attributes are displayed differently depending on their attribute group
- [PE-2285] Wrong icon when there are no favorites

- [PE-4911] Unify Apidoc URL in all services
- [PE-5199] User tasks with only formula fields cannot be completed
- [PE-5540] A default value error message is displayed but there is no error on date type fields.
- [PE-5632] Variables saved as String throw an exception with more than 4000 characters because a database restriction
- [PE-5725] User form is not disabled if task is not assigned to me
- [PE-5863] Role occupation defined in process variable is not set in sub case
- [PE-5996] List created in a script task is not stored correctly
- [PE-6049] The value in a formula field is not calculated when a value exist on task start
- [PE-6072] Query parameters encoding is not needed on Service tasks
- [PE-6073] Form values are not stored when the pattern for a text field is invalid
- [PE-6088] When I claim a group task, I want to be assigned for all following tasks of the group in order to be responsible for the entire instance
- [PE-6095] Performance issues in processes request
- [PE-6098] End event with multiple incoming edges crashes execution
- [PE-6099] Task can not be completed when optional field does not contain a value
- [PE-6106] Empty cases message is not properly align
- [PE-6107] The task counter doesn't work as expected
- [PE-6113] ACL for Elasticsearch Instance documents is not correctly populated
- [PE-6114] Selecting a different step in the process flow view causes the view to fully reload
- [PE-6114] Selecting a different step in the process flow view causes the view to fully reload
- [PE-6115] Sub case icon is not shown when the call activity is synchronous
- [PE-6116] How to remove process-execution elasticsearch data is missing in upgrade notes
- [PE-6123] Updating a process variable does not update the corresponding Elasticsearch document
- [PE-6130] Elastic Search throws timeout exceptions during re-indexing of Nightly
- [PE-6153] Service task does not attach the result file in a Document entity
- [PE-6162] Service Task fails if the URL is a place holder
- [PE-6165] When a case was stuck because of multiple paths, the synchronization after check-in was not working
- [PE-6168] Case creation restriction does not work when more than one identity is specified
- [PE-6169] Text area value is not shown properly in the Email task preview
- [PE-6186] When multiple paths are finish together, next fragments are not calculated and cases can be stuck
- [PE-6222] Republishing a diagram in production stage breaks decisions of previous version cases
- [PE-6224] The status of the first task of a new case is not shown properly when it was started automatically
- [PE-6260] On systems with cgroup v2, memory management fails in some Java services
- [PE-6270] New instances are added to the Archived Process' Instances View
- [PE-6273] Wrong german translation in the header of My Cases view.
- [PE-6276] The labels of new user form fields are not localized

- [PE-6306] Pagination of Collections view is broken
- [PE-6310] Upload a file to output documents does not work on cases belonging to previous versions of a ProcessApp
- [PE-6316] NullPointerException when republish a diagram
- [PE-6346] When a user belongs to more than one Restricted Access group the ProcessApp is shown multiple times as a result of a search
- [PE-6359] App url changes without view change should replace last navigation entry
- [PE-6363] Tooltips block the selection on steps of the Flow View
- [PE-6371] Form Editor Spanish translation misspellings
- [PE-6377]Signature user task does not get completed in the Flow View
- [PE-6380] Formatted Text Field with conditional hidden value fails to enable initially
- [PE-6383] Field with default value fails to execute conditional formulas
- [PE-6396] The list of cases is misaligned
- [PE-6398] Long username and email does not display properly in the Profile view

30.273 Version 7.8.19

30.273.1 Resolved bugs

- [PT-6997] Excel macros may not work after stamping
- [PT-7177] Document conversion during publication has a delay
- [PT-7178] Process Warehouse creation to fails

30.274 Version 7.8.18

30.274.1 Resolved bugs

- [PT-6623, PT-6793, PT-6900] Security improvements
- [PT-6809] Local files cannot be opened
- [PE-6072] Query parameters encoding is not needed on Service tasks
- [PE-6099] Task can not be completed when optional field does not contain a value
- [PE-6125] Not count the default instances in the “count open instances endpoint”

30.275 Version 7.8.17

30.275.1 Resolved bugs

- [PT-4234] The word file name is not correct, when the FileName field property in the word is being used
- [PT-3977] Formatted text attributes get stamped with HTML tags
- [PE-5752] Archive running instances to support the new flow calculation

30.276 Version 7.8.16

30.276.1 Resolved bugs

- [PE-5886] Variables calculated in a script task have an unexpected result
- [PE-5905] Rearranging columns in the dmn editor does not work as expected
- [PT-6663] Security Improvement

30.277 Version 7.8.15

30.277.1 Resolved bugs

- [DES-3419] Entities are replaced by different entities after re-opening a diagram

30.278 Version 7.8.14

30.278.1 Resolved bugs

- [SRE-45] Reliability improvement

30.279 Version 7.8.13

30.279.1 Resolved bugs

- [SRE-45] Reliability improvement

30.280 Version 7.8.12

30.280.1 Resolved bugs

- [PT-6471] Date attributes can not be cleared on the attribute list
- [PT-6575] Security improvements
- [PT-6618] Mismatch between selected date and displayed date for datepickers in old UI

30.281 Version 7.8.11

30.281.1 Resolved bugs

- [PE-5819] API key validity is not checked
- [PE-5782] Properties on form fields do not work as expected
- [PE-5773] When I move a column in a dmn task then only the column header is moved, not the rows with the values
- [PE-5755] User Form's Formatted Text field saves step variables on OnChanges instead of on OnBlur
- [PE-5750] DMN tasks show outputs that should be hidden
- [PE-5820] Optimize output mapping on call activity tasks
- [PE-5756] Save only changed variables
- [PE-5533] Run start timer only on production stage

30.282 Version 7.8.10

30.282.1 Resolved bugs

- [DES-3343] Archive import does not update entities correctly

30.283 Version 7.8.9

30.283.1 Resolved bugs

- [PT-6382] Workflow emails will be sent to more recipients than the configured limit
- [PT-5184] Workflow fails with uninformative error if any governance related group does not exist
- [PT-4119] Workflow related issue after temporary database connection failure

30.284 Version 7.8.8

30.284.1 Resolved bugs

- [PT-6316] Governance dates should be shown with the locale time of the viewing user
- [PT-6252] Images can be added to the description attribute which leads to unexpected behaviour

30.285 Version 7.8.7

30.285.1 Resolved bugs

- [PE-5651] Task list is not updated automatically when I complete a task
- [PE-5611] Request for task variables fails, if request gets to long, because of filters
- [PE-5650] Input/output mapping fails on multiple choice fields marked as “Save selected options as string array”

30.286 Version 7.8.6

30.286.1 Resolved bugs

- [DES-3323] User Export does not contain all users
- [PT-5858] Switching the language while editing description attributes displays the same value in both languages instead of an empty field
- [PT-6188] Replace unsupported list bullet characters during PDF conversion of MS Word documents

30.287 Version 7.8.5

30.287.1 Resolved bugs

- [PE-5612] After deleting and recreating a user, the query to search by email address gets multiple search results

30.288 Version 7.8.4

30.288.1 Resolved bugs

- [PT-6216] Add/Remove free space does not work if pools with multiple lanes are involved

30.289 Version 7.8.3

30.289.1 Resolved bugs

- [PE-5568] Formula execution resulting in null values results in npe
- [PE-5556] Default reminder schedule has wrong configuration
- [PE-5554] Input fields for DMN are not shown in task

30.290 Version 7.8.2

30.290.1 Resolved bugs

- [PT-6118] Diagrams with non-resolvable decompositions cannot be displayed in the webclient
- [PT-6207] Documents without stamping properties are not converted to PDF on repeated entity publications

30.291 Version 7.8.1

30.291.1 Resolved bugs

- [PT-3840] When using an occurrence assignment attribute to display a conditional formatting on the symbol, the format is not applied
- [PT-5827] Date attribute values are not displayed in the local timezone
- [PT-6005] SVG of diagram with over 2000 entities is not requestable and diagram cannot be displayed in portal or publication stage
- [PT-6104] Changing color settings is not consistent for all stages

30.292 Version 7.8.0

30.292.1 BIC Process Design

New Features

Governance Analytics

We extended the Governance Cockpit of the new user interface with an *analytics tab*. There you can display the most important information aggregated in charts and get an even better overview of your diagrams and catalog items.

Various evaluations are available to analyze your governance:

All diagrams or catalog items of a repository

The two evaluations show you the number of diagrams or catalog items per stage and offer you the possibility of drilling down on the aggregated view to get to the detailed view.

Upcoming diagram or catalog item resubmissions

The evaluations give you an outlook of how many diagrams or catalog items become invalid in which month so that a check of their validity is necessary. The outlook covers the next 12 months. The reminder interval for resubmissions is not considered here.

Finished publications of diagrams or catalog items

The evaluations present the past publications of diagrams or catalog items within the last 12 months and summarizes them per month.

After updating to the current version, it may take some time until all the data is available in the evaluations.

Resubmission and repository filter in the Governance Cockpit

In the Governance Cockpit, you can now *filter* for diagram or object resubmissions as well as for workflows originating from certain repositories. Both filters are available in the new and old user interface.

Bulk publication of catalog items

In the new user interface, you now have the option of publishing several catalog items at the same time. The function is in the options panel if you are in the catalog on the catalog list. If you select *bulk publication*, BIC Process Design pre-filters the catalog list so that you can only select catalog entries that can be published. Each entry is displayed with a checkbox. As soon as you have selected several entries, you can start the bulk publication for these catalog entries.

Please note that for each selected catalog entry a publishing workflow is initiated, and tasks and notifications are triggered (depending on the release type).

Document stamping with language localized attribute values and dynamic date values

If you publish your documents in BIC Process Design, then you can use *document stamping* to include values from governance attributes in the document. We have extended the function so that you can now also use the values of language-dependent text and enumeration attributes. It is necessary that you configure the intended language in the document beforehand.

Furthermore, you can now leave the "Valid from" date empty and use it in the stamping. If you have subscribed to the Extended Approval Package, you have the possibility to use the date values in the stamping that are set when the workflow is executed.

Please note the necessary preparation to stamp attribute values in a published document.

Configure cut process image in Word reports

In Word-based reports it is now possible to include a *process as a cut graphic* instead of an uncut graphic. To do this, you must first adapt the corresponding template by exchanging the placeholder for the graphic. After that you need to set the number of pages to be used to cut the process in the print settings of the process. The print settings are also applied to the print function.

Additional validation possibilities via OCL

We extended the *validation possibilities* and give you the opportunity to ...

- ... check the values of diagram attributes.
- ... double check date values against the current date.
- ... double check date values against defined intervals.
- ... classify rules as blocker to prevent the check-in in case of a violation.

Please note that OCL rules are configured in the method editor. Currently, none of these options is applied in a validation rule in the standard method.

Pre-configured report scenarios in the Process Matrix report

We have extended the *Process Matrix report* with common reporting scenarios and integrated the existing report as additional pivot matrices. The pre-configured reporting scenarios are:

- Application usage (per activity and process)
- Document usage (per activity and process)
- RACI mapping (per activity and process)
- Risk occurrence (per activity and process)
- Diagram metrics (per process)

You specify the scope of the report, i.e., whether a diagram, the diagrams of a category or the entire repository should be included in the report, directly when generating the report. All processes listed in the content area are considered. If essential relationships or objects are not available in the report context, the affected report scenarios remain empty.

User overview as Excel report

Administrators can export a user overview as Excel report in the user administration. In the Excel file you can see the number of licenses used per user role, all users of your system and other details about a user such as name, email, user role, language, and stored user groups. If several user groups have been stored for a user, an entry is created for each user group.

Please note that activated filters or search terms are not considered for the export.

Existing features available in new user interface

Central search

The new user interface gained a *central search* which helps you to find diagrams, modeling objects and catalog entries.

Please note that the search does not yet include all functions and we will integrate them in the coming versions.

Set a deputy for tasks

Task owners can *set a deputy* in their profile. This setting could be made in the "My Tasks" area of the old user interface and has been moved to the user profile.

After a deputy has been chosen, all tasks also appear in the "Deputy tasks" list of the deputy and can be taken over, for example, if the task owner is absent.

Remove favorites

Favorite diagrams or search favorites can be *removed from your MyBIC page at the corresponding tile*. This option was available in the old user interface in the favorites panel above the current repository. Please note that you cannot remove favorites set for you by your administrators. Therefore, these tiles have no context menu.

Change catalog entry to suggestion

If you open the details view of an accepted catalog entry in the catalog of the public workspace, you have the possibility to change the *catalog entry into a catalog suggestion* in the options.

Please note that catalog suggestions, in contrast to catalog entries, can be changed in the modeling and the changes affect all occurrences.

30.292.2 BIC Process Execution

New Features

Task form on your task list

Working on tasks is the main use case you will face in BIC Process Execution. Therefore, we have now enhanced the focus on your tasks and how to work on them. When opening your task list and clicking on one of them, the task form will *open in this view as pop-up*. You can then work on your task just in the same way as in the task form within the process flow view. When you complete the task, the pop-up closes, and the task is marked as completed in the task list. The option to provide a comment when completing a task is also integrated in the pop-up task form. In this way, it is now possible to edit all your tasks directly within the task list and no longer have to navigate into the process flow.

Remark: The pop-up task form will not include auto generated decisions for gateways without expressions! This is only a backup mechanism. You should always define expressions on the outgoing edges of a gateway. Please check the documentation for the pop-up task form to get more information.

Email and URL as new inputs field for the user form

We have added two new input field types to the *user form editor*. As an author you can now add an email and an URL field to your user form. The fields provide built-in validation for emails and URLs. As an author you have the option to provide own definitions for the validation of the user inputs.

The URL field supports the URL functions of the browser, such as opening the URL when clicked. The email field also supports the mailto feature so that your local email client will be triggered to open the send email window.

Define default values on your input fields

There are some cases where it is necessary to have a *default value* on an input field. This can be a number, text, selection, or anything else. As an author you can define a default value that can be a fixed or calculated value and refer to process variables in the case. You can use the same formulas and options as on a formula field. The defined value will be calculated once the task is started. You are then able to change the value before completing the task.

Attachments in automatically sent emails

Emails can be sent automatically via *send tasks* in BIC Process Execution. You can provide all necessary information like the receiver, cc, bcc, subject, and body. Now also attachments will be included in automatically sent emails via send tasks. To add an attachment, you only need to model an input document on a send activity. When a document was uploaded in a step before, this document will be attached to the email. When you want to send multiple attachments, you simply need to model one input document for each attachment on the activity in BIC Process Design.

API key as dedicated authentication option for REST-Calls

We have improved the configuration for the API key authentication. You can now select the API key as authentication type in the connection section of the *REST-Call configuration*. When you have selected the API key authentication you can provide the name and the value of the API key and select whether to place it in the header or request parameters of the request.

OAuth2 as authentication for REST-Calls

Oauth2 is a common authentication method and provides various authentication workflows. BIC Process Execution now supports the OAuth2 client credentials flow for the *REST-Calls* in the service tasks. You can provide all necessary information in the editor when you select OAuth2 as authentication type.

Improved error messaging in user form editor

There are some conventions and mandatory fields to configure for a *user form*. When you try to save a form configuration that contains errors, the system will not allow you to save these settings and will give you feedback on the errors and where they occur. By that you can find and resolve the issues quickly.

Favorites as dedicated ProcessApp Collection

When you are using ProcessApp Collection, you now have a *dedicated collection* for your ProcessApp favorites. All ProcessApps that you marked as favorite are included in this collection automatically. This collection is shown by default when the ProcessApp Collections are configured. The favorites collection is always shown as the first collection in the ProcessApp Collections view.

"More ProcessApps" Collection to collect unassigned ProcessApps

When you are using ProcessApp Collection, you now have a *dedicated collection* for ProcessApps that are not assigned to any collection. This collection is shown by default when the ProcessApp Collections are configured. The "More ProcessApps" collection always appears as the last collection in the ProcessApp Collections view.

Edit ProcessApp Collection configuration

If you are an administrator, you can now *edit the configured ProcessApp Collections*. All settings except the collection ID can be adjusted. If you want to change the ID, you must delete and recreate the collection.

Improved usability in the header configuration of a REST-Call

We improved the usability in the header configuration of the REST configuration for service tasks. Adding new parameters to the header is now more intuitive and predictive. The provided fields are now also saved when not clicking explicitly on the plus icon.

New entry point for editors in the configuration panel of a diagram

When editing a diagram, you now have a new entry point for the BIC Process Execution editors of the different element types in a diagram. In the details section on the right side of the screen, you will find a new option for the editors. In the first step this is a place where you can open the existing editors. In the future, editors will be integrated into the sidebar so that you can do the configuration in this place without opening a pop-up.

Redesign of the process flow view

We have updated the *process flow view* that you see when you open a case. Like this, we provide a better overview of the different tasks and types of activities that have been completed, are active and will be relevant in the future.

Redesign of DMN editor

In the past the *DMN editor* did not fit the design of the other editors. Therefore, we updated the design to align it and have a consistent UX on overall BIC Process Execution editors. The changes bring a better readability, better UX and add explicit buttons to save and cancel the changes.

Navigate into a ProcessApp Collection by clicking on the collection header

When you have configured the *ProcessApp Collections*, you can now navigate into a collection by clicking the header on the card of a collection.

Automatic group task assignment

Some cases contain *group tasks that can be claimed* by a member of these groups. Usually, a user who takes over a task for a group should automatically be responsible for all tasks of the respective case. Therefore, when you claim a group task, the system now assigns all following tasks for this group to you. By that you do not have to claim the tasks on your own.

Only the responsible for a task can now complete this task

In the past, you could complete tasks that were not assigned to you. This was a comfort function that we changed in this release. If you are not the responsible of a task, you cannot work on a task and cannot complete it. The *task form* is disabled, and the complete button is not shown. When you want to complete the task, you must be the assignee.

Only an authorized user can now delegate a task

Delegation of a task was previously available to all users. This was a comfort function that we changed in this release. If you now want to *delegate a task*, you must be the assignee, an administrator, or part of the group if it is a group task.

Store multiple-choice selection in an array

Multiple choice fields save the user selection in a process variable with the data type string. To have an easy handling of the selection in expressions, evaluations, etc., this data can now be saved as data type array. As an author you can set the type of storing in the configuration for the multiple choice field. Each field can be configured separately.

Remark: The use of storing multiple choice selection as string is no longer recommended. This functionality is deprecated and will be removed in 2023. Please check your processes and update them in the next months.

30.292.3 Resolved bugs

- [DES-526] Missing documentation for Advanced Approval / Execution Signing
- [DES-1668] Administrator cannot filter SSO users using the role filter
- [DES-2832] Installation instruction in SAML has incorrect screenshot
- [DES-2893] Upload limits are incorrectly documented
- [DES-2905] Configuration of open relay SMTP leads to warnings
- [DES-2928] Nginx often crashes during the upload of a 1 GB file
- [DES-2995, DES-2996] Security improvements
- [DES-3022] Proxy does not work if more than one nameserver exists
- [DES-3024] Unlocalized attachment attribute in imported objects are invisible
- [DES-3039] GRC-Apigateway returns 500 by fetching big diagram
- [PT-1598] Catalog list filter display enumeration value instead of the name (Portal)
- [PT-2305, PT-5641, PT-5764] - Security improvements
- [PT-2779] Invalid diagram warning toast gets displayed on the expiry day already
- [PT-2786] Assignment is created in wrong stage when navigating from versions hub

- [PT-4650] Charts show index of enumeration instead of related name (Portal)
- [PT-4653] Tables are not inserted at cursor position in formatted text attributes
- [PT-4655] Format buttons in formatted text attributes are not correctly highlighted
- [PT-4914] Occurrence view does not show all occurrences (Portal)
- [PT-5019] Publishing a workbook could hide spreadsheets
- [PT-5148] Copied symbol format gets partially lost
- [PT-5357] Extend option in resubmission can affect preview stage
- [PT-5471] Undo function does not work properly
- [PT-5557] Filtering catalog leads to an empty export (Portal)
- [PT-5612] Entity release mail contains wrong language
- [PT-5642] Default configuration can lead to out of memory
- [PT-5822] Diagram layouter can break edges
- [PT-5882] Catalog state will always set to 'suggested' when this column is missing in the import
- [PT-5987] Removing free space on pools with nodes may prevent diagram check in
- [PT-6001] Opening a diagram by link doesn't switch to corresponding repository context
- [PE-5472] Formula is recalculated after task completion
- [PE-5471] Null comparison for null value in string variable does not work on sequence expression
- [PE-5425] The DMN output is not shown properly when the variable matches the label
- [PE-5347] The task following a DMN task shows the DMN form field
- [PE-5345] DMN evaluation does not work for default instance
- [PE-5342] Shown ProcessApps in Collection card do not fit the defined logic
- [PE-5298] Placeholder in text area is not visible
- [PE-5285] Retention period attribute missing on BPMN and EPC diagrams
- [PE-5224] User task list does not show all tasks when the app starts in the group task list
- [PE-5218] Security improvements
- [PE-5200] DMN editor jumps to top when I delete or duplicate a row
- [PE-4999] createdDate process variable only sends date without time in a service task
- [PE-4996] Formatting text in textarea does not apply the format
- [PE-4894] Setting a ProcessApp as favorite does not apply when switching to another site before the animation is not completed
- [PE-4892] Case flow view does not appear after creation
- [PE-4597] Warning toast pops up multiple times when starting process without clear entry point
- [PE-4171] Boolean field not checkable after textarea input

30.293 Version 7.7.8

30.293.1 Resolved bugs

- [PT-5270] Activities without name will sometimes be rendered with an undefined label
- [PT-5558] Diagram search results cannot be opened via left click in the portal
- [PT-5838] Images are displayed in wrong order when using “getImageWithPrintSettings” in report templates
- [PT-5839] Image resolution of large diagrams is too low when using “getImageWithPrintSettings” in report templates

30.294 Version 7.7.7

30.294.1 Resolved bugs

- [PT-5755] Signed PDF files cannot be published with stamping enabled
- [PT-5819] SVG rendering fails with custom symbol formats for BPMN pools
- [PT-5829] Catalog search in webclient incorrectly applies additional sorting
- [PT-5828] Stamping in document publication removes unmaintained properties instead of leaving them empty

30.295 Version 7.7.6

30.295.1 Resolved bugs

- [DES-2958] Message publishers will be blocked due to high watermark alarm

30.296 Version 7.7.5

30.296.1 New Features

- [DES-2036] When the trial period has ended, the tenant should be deleted after a grace period
- [DES-2035] When the trial period for a tenant is over, the tenant should be blocked

30.296.2 Resolved bugs

- [PT-5529] Security Improvements
- [PE-5068] Role occupation does not work when creating a case via run link

30.297 Version 7.7.4

30.297.1 Resolved bugs

- [DES-2903] Serialization of domain data fails sporadically during field access via reflection
- [DES-2894] The usage of the Method-Service leads to OutOfMemoryError on multi-tenant systems
- [PT-5377] Donut charts does not get updated facet value counts

30.298 Version 7.7.3

30.298.1 Resolved bugs

- [PT-5237] Facet view moves when a hidden value gets displayed again
- [PT-4974] Multiple items get pasted from clipboard
- [PT-5341] Edit catalog item attributes after creation saves data only partially
- [PT-4642] Dynamic facet count does not work for catalog filter

30.299 Version 7.7.2

30.299.1 Resolved bugs

- [DES-2866] Keycloak cause Bad Request 400 in Authentication Configuration when the flow name contains a space
- [DES-2845] Username and other user attributes from Keycloak don't fit user-service columns
- [DES-2890] User cannot choose highest role when more than one role is assigned in Keycloak

30.300 Version 7.7.1

30.300.1 Resolved bugs

- [DES-2843] Add missing hint in Upgrade notes
- [DES-2785] Reindex cannot be triggered

30.301 Version 7.7.0

30.301.1 BIC Process Design

New Features

Dashboards for diagrams

The new user interface provides a *dashboard view for diagrams* now. The dashboards evaluate the attributes of your diagrams in donut charts and since they are interactive, you can easily analyze your repository. The dashboard is an alternative view to the diagrams of your diagrams list. If you select pieces in a donut chart and navigate back to the list view, the list will contain exactly the diagrams which match your criteria.

To see dashboards for diagram attributes, you need to select those attributes in the administration. You can apply the same procedure to your self-configured attributes to evaluate them in the dashboards. In addition, these attributes are available as filter options in the diagrams list.

Process Warehouse export includes state of catalog entries

We added the column „Catalog state" in the *Process Warehouse export for catalog entries*. The values in the column indicate if the respecting entry is an accepted catalog entry or a catalog suggestion.

You can change the catalog state in a Process Warehouse export and import it to accept a large quantity of catalog suggestions or reset accepted entries to suggestions. If you create new catalog entries using a Process Warehouse import and change their catalog state to "APPROVED", these new entries do not have to be accepted manually in the catalog.

Please note that you should only display the columns of the attributes you would like to update with an import.

Including of graphics to diagrams and modelling objects

You can include graphics as a background of a symbol. For example, this can be helpful if the graphic serves as a navigation element. To do so, you must model and format a navigable object first and then add the graphic.

Hint: The formatting options do not show yet that a graphic has been included as background.

Moreover, you have the possibility to paste graphics directly from your clipboard. In the past, the pasting of a graphic had to be done via drag and drop which meant that you had to save it locally to add it.

Hint: If you have several items in your clipboard, all items will be pasted.

New catalog design

The design of the catalog in the new user interface has been reworked and adapted to the diagrams view. The dashboards are displayed in a new design which matches the diagram dashboards. The bar charts have been removed in the new user interface since this form of evaluation was redundant.

List of expired catalog entries in publication stage

Until now, BIC Process Design informed about expired catalog entries ("Valid to" date in the past) contained in a diagram via a banner in the new user interface. From now on, those entries are listed in the *validation*. You can simply click on an entry in the validation to highlight the expired catalog entry in the diagram and easily identify the specific occurrences.

30.301.2 BIC Process Execution

New Features

Group ProcessApps in ProcessApp Collections

You can now group your ProcessApps in ProcessApp Collections. You can define your Collections in the BIC Process Execution Administration and create Collections based on departments, areas, topics and any other structure you need. A ProcessApp then can be assigned to one or multiple Collections. The Collections let you group your ProcessApps so that you have a clear structure and can find your relevant ProcessApps even quicker.

Single- and multiple-choice fields as dropdowns

When creating a user form, you can now configure single-choice and multiple-choice fields to be shown as dropdown fields. You do not need to create new input fields to do so. You can simply update your existing input fields and change the radio buttons and checkboxes into dropdowns.

Introducing the user profile

We implemented a user profile area in the application. Here you find your user information, the selection for the content language, and new profile settings. The user profile will include even more features in the future.

Define your deputy who will get your tasks when you are out of office

In the new user profile area, you are now able to configure your deputy and your availability status. Both features in combination ensure that your tasks will be handled even if you are out of office. You can define another user as your deputy and when you set your availability status to "Out of office", all new tasks assigned to you, will be delegated to your deputy.

When you are back in the office, you set your availability status back to "Available" and all new tasks will be again assigned to you.

Provide hint text for input fields

Some input fields need to provide more information to the user. We already have placeholders to provide information and from now on you can use hint texts for most of the input fields. The hint text will be shown right under the input field. In contrast to the placeholder, the hint text is visible even if there is a value in the input field.

Payload for case creation via REST API adjusted

In BIC Process Execution, you can create new cases for a process via REST call. You can include data for the case, like process variables, the case name, and roles in the payload of the REST call. The structure was a bit different to the structure we accept and the way we handle the payload in the REST calls of service activities. Therefore, we now have aligned this in the case creation API, so that creating the payload is more in common with the rest of the application.

Hint: You can use both variants, the old one and the new one. By that you do not need to adjust existing configurations.

Roles are included as process variable

Every case has some process variables that are created automatically when starting a case. Until now these process variables were the case name, creator name, creator email and creation date. We added the functionality that also roles are available when creating a case.

To have a role as a process variable, you must set an identifier on the role. By that the system creates a process variable with the defined identifier as name when creating a new case.

When you have defined a staffing for a role, the process variable contains either the email of the user or the name of the user group.

30.301.3 Resolved bugs

- [PT-5216] - Check in of a favorite fails on different repository
- [PT-5202] - Create new catalog item dialog has scroll bar on mobile view (Portal)
- [PT-5189] - Facets for an entity type are not shown if set to hidden in the method
- [PT-5119] - Automatic line break in description editor breaks lines within words
- [PT-5112] - Catalog search misses sorting for equal scores
- [PT-5109] - Titles are not properly removed from URLs
- [PT-4864] - Language switch doesn't work for diagrams (Portal)
- [PT-4837] - Catalog list is not update after deselecting a facet (Portal)
- [PT-4583] - Chart titles in catalog depend on content language (Portal)
- [PT-4571] - Generating an entity profile report in catalog fails sporadically
- [PT-2103] - Stamped attribute values are not updated after re-releasing a document
- [PT-1222] - OCL fails to evaluate association attributes
- [DES-2620] - GroupMapper should first try to use the groupId
- [PE-4725] - Outline is crossing label in the preview area in the form editor

- [PE-4724] - Drag and drop indicator line is too short in user form editor
- [PE-4599] - Curly braces instead of correct error is shown when unrelated formula field gets updated
- [PE-4525] - Long instance names overflow is disregarded
- [PE-4483] - New empty instance flows are not updated once the flow has been calculated
- [PE-4472] - Label fonts in form editor are blurred
- [PE-4305] - Push notifications are not sent when tasks are delegated
- [PE-3896] - JSON variables arraise an exception if has a field with an object value

30.302 Version 7.6.10

30.302.1 Resolved bugs

- [PE-5329] Role occupation does not work when creating a case via run link

30.303 Version 7.6.9

30.303.1 Resolved bugs

- [PT-5220] Adjust timeout for editor context menu items

30.304 Version 7.6.8

30.304.1 Resolved bugs

- [PT-5033] “You are offline” hint gets triggered when opening modeling context menu on slow connection

30.305 Version 7.6.7

30.305.1 Resolved bugs

- [PT-4834] As a user I want to confirm my identity in a single sign on environment so that the Advanced Approval works with SSO

30.306 Version 7.6.6

30.306.1 Resolved bugs

- [DES-2677] Keycloak fails starting for systems with more than one LDAP provider
- [PT-5110] Diagram cannot be rendered if it contains boolean attribute placements
- [PT-5021] Cursor in description fields jumps to beginning while typing

30.307 Version 7.6.5

30.307.1 Resolved bugs

- [DES-2472] Login with LDAP user fails when LDAP is set to read-only
- [PT-5020] Define a max limit for email recipients

30.308 Version 7.6.4

30.308.1 Resolved bugs

- [PT-4943] Allow check-in of catalog suggestions option in administration does not work
- [PT-4908] Stamping certain file formats blocks catalog publication

30.309 Version 7.6.3

30.309.1 Resolved bugs

- [PT-4450] Expired valid to dates are not shown in the validation hub

30.310 Version 7.6.2

30.310.1 Resolved bugs

- [DES-2485] Entity replacement does not create update event
- [DES-2482] Pagination is broken when fetching entity occurrences
- [DES-2508] Retrieving all users with projection fails
- [DES-2483] User groups with a stop word as name do not work in access restrictions
- [PE-4460] Security improvement
- [PE-4417] PWA on mobile devices is not working properly

30.311 Version 7.6.1

30.311.1 Resolved bugs

- [DES-2512] When entering two different passwords while setting a new password no hint message is shown
- [PE-4325] Case name is not changed when the Service or Script tasks change the caseName variable
- [PE-4324] Reminder just after creating an instance doesn't work
- [PT-4925] Provide actual user role to Userflow
- [PT-4861] Banners for validity period are not refreshed when changing stage
- [PT-2153] Original file format is not always kept during publication

30.312 Version 7.6.0

30.312.1 BIC Process Design

New Features

Add tables and links in the description attribute

In formattable text attributes (e.g., Description) you can now *add tables* to structure your information. With this change you can also add external links in a dialog, which allows easier editing and more configuration options. These functions are also available for custom attributes with the data type formatted text.

Please be aware of the limitations:

- You can place the attribute on the modeling surface, but tables won't be displayed.
- The pop-up for the description in the mini bar can show tables but not their border lines.
- The catalog process warehouse report does not show tables in cells. Please keep this in mind when re-importing a catalog process warehouse.

Copy and paste of symbols between different diagram types and automatic symbol conversion

You can *copy single or multiple symbols and paste* them into a different diagram type. We automatically change the symbols copied to your clipboard to match the notation of the targeted diagram type and transfer the modeling objects. The object types must be allowed in the target diagram to enable copying and symbol conversion. Prohibited objects will not be pasted and you will receive a note. You can manage object types in the method to allowed entity types in diagram types and set the default for symbol types.

Please be aware of the limitations:

- The BPMN standard differentiates between start, intermediate, and end events. EPCs only have a generic event which can be used for all circumstances. Therefore, events will not be pasted.
- When pasting into a BPMN diagram, pools will not be automatically created.

Special retention periods for diagrams and catalog entries

You can assign a special retention period to diagrams and catalog entries for the publication stage, which differs from the general setting in the administration area. Use the *governance attribute "Special retention period (in years)"* to configure a special retention period to assign an individual retention period in years.

Please be aware that the attribute "Special retention period (in years)" is disabled in the standard method. You need to enable it in your method for productive use.

Declaration for expired catalog entries in published diagrams

When a catalog item is used in a published diagram and its *validity period* is reached the user will see a banner which informs them about that.

The banner text can be customized if it does not fit your needs, but only for Private SaaS or on-premises installation. Please contact your GBTEC project team.

Exchange symbol color settings

Administrators have the possibility to change the symbol color settings to easily switch between different designs or use predefined symbol color settings. You have the option to download the current symbol color settings in the administration. At the same place you can upload your own symbol color settings for example to use predefined symbol color settings.

Distribution types in the simulation

You now have the possibility to use different types of distributions when using parameters for the simulation. This allows you, for example to specify more precisely the duration of an activity or the incoming of a process instance.

EPC Symbol classified by task type

The EPC symbol for activities now shows an icon to visually identify the task type of the activity. Before that you could choose a task type, but it was not visible in the modeling surface.

Please be aware that already modeled symbols will not automatically change. You need to reassign the symbol.

EPC symbol classified as external

The EPC symbol for roles now switches its color to visualize external roles. Before that you could classify roles as external, but the symbol stayed in the same color.

Please be aware that already modeled symbols will not automatically change. You need to reassign the symbol.

30.312.2 BIC Process Execution

New Features

Introducing signature tasks

Some processes contain critical tasks where you, as the task owner, must confirm that you and not someone else performed the task. You can obtain this confirmation with signing tasks. To complete the task, you must first authenticate yourself with your credentials. If the authentication is successful, the task is completed, otherwise the system refuses to complete it. The authentication follows your company's rules and is even requested when SSO is enabled by default.

Dynamic role assignment

Within a process flow, you can model different roles and store a default assignment for them. With our new feature, you can define which user or user group is responsible for a role during the runtime of a process. To achieve this, you can use different task types and methods. Roles can be assigned wherever process variables can be modified. This can occur, for example, within activities or also at the start when creating an operation from another system via the API interface.

Create cases automatically by timer

You can now define timers on start events. The system then automatically creates cases according to the defined timer. By that you can automate recurring processes and ensure that these processes will not be forgotten. When you have reached a state of full automation of a process, you will not even have to do one manual step.

Setting dynamic due dates on tasks

Tasks often need to be done in a specific time to keep projects and processes on track. Therefore, you can now define a processing time for each task in the processes. When reaching such a task during runtime, the due date will be calculated dynamically. You as assignee can see the due date on the task in the task list and in the case flow overview. By that, the tasks can be completed on time.

Getting reminders for due tasks

By having due dates on tasks, you can ensure that your cases will be handled in a proper time. To keep the task owners up to date and remind them about due and overdue tasks, the system sends reminder emails with a task overview. The tasks are grouped into pending, due today and overdue, so you can get the tasks listed by urgency and work through them.

If you are assigned a task that is already overdue or needs to be completed within the next 24 hours, the system sends a separate email for this task immediately after the assignment.

Every task mentioned in the reminder email contains a link to the task in BIC Process Execution so that you can directly access and work on it.

Perform subprocesses asynchronously

With release version 7.5 we introduced call activities that allow you to refer another process via call activity and by that create a subcase for that process automatically. In that version, the subcase will be processed synchronously. That means that the main case waits for the subcase to be completed to continue with the next steps.

Now you can mark a call activity as asynchronous. By doing so, the call activity task in the main process will be continued instantly when the case for the subprocess was created. The next task is started, and the main case can continue without waiting for the subcase to be completed.

Delete ProcessApp data in Studio and Test stage

When you create a ProcessApp, you usually test it intensively to make sure that everything works as defined. Some process designers duplicate ProcessApps and then work with that version. In the long run, this creates a lot of data that you will eventually no longer need. The Studio and Test environments are automatically cleared of ProcessApp operations when a new version of the process is checked in. Now you have the additional option of deleting the entire ProcessApp in the Studio and the Test environment in order to manually clean up the system.

JavaScript in script tasks

We introduced script tasks with release 7.5 where you can provide Groovy script to the ProcessApp and handle data in script tasks. Now BIC Process Execution is also supporting JavaScript as script language. You can switch between JavaScript and Groovy and will get syntax highlighting and code suggestions for both languages. With JavaScript, you have an easier access to script tasks.

Change case name

The case name is a specification that is also available as process variable within a case. There are use cases where you need to change the case name in a running case and see the change in the case list. We have improved the application there so that this change takes effect in all places where the case name is displayed.

Favourites within the ProcessApp list

The ProcessApp list was separated into “All ProcessApps” and “Favorites”. We have merged these views as a preparation for features that will be available in the next release. When you have marked a ProcessApp as favorite, then you will see the favorite icon on this ProcessApp.

Actions on a ProcessApp

We changed the icons and the access to the functions of a ProcessApp in the ProcessApp overview. Additionally, to the ProcessApp icon there is only the favorite icon left. Other actions like the create case action are now placed in a context menu that appears on hover.

Improved error handling on send tasks

Send tasks can be configured to send emails automatically. But there can be an issue e.g., with the email server so that the task cannot be sent and is in an error state. When this happens, this task now becomes a user human task, and you can handle this task manually. The error is shown on this task and you can decide whether to send the task manually or try to send it again automatically.

Automatic email sending when placeholders are missing

Email templates can contain placeholders for process variables. In a generic email, you sometimes add placeholders for variables that are not provided in all cases. For these cases you can now specify the option to set an empty string at this point. In manual send task, you will not be confused by the placeholder any longer. In automatic send task, the system will send the email with an empty string.

Redesigning the task list

We redesigned the task list to provide a better overview of the pending tasks. The task entries now show the information in a more structured way. It also shows the due date for a task if one is set. Additionally, status icons will be shown when a task is in error state or overdue.

Updated application name and favicon

To ensure a consistent look and feel for all products, we have updated the application name and the favicon. Both changes can be seen in the browser tab.

30.312.3 Resolved bugs

- [DES-2376] - Service calls sometimes fail because of expired access token
- [DES-2314] - The “visual-data” is not loaded lazy and can cause an OOM of the domain-service
- [DES-2312] - Diagrams may be displayed in the wrong context
- [DES-2161] - Misleading information in section “Configuration for automatic linking of SAML accounts” of installation documentation
- [DES-2092] - It is not possible to trigger the endpoint for creating an user without sending an first-login-email
- [DES-2017] - System requirements needs update
- [DES-1967] - Database backup may cause unexpected high disk usage
- [DES-1962] - Java Mail Properties set by environment variables have no effect
- [PE-4259] - Attachments are being handled in memory
- [PE-4178] - Form data is not saved when completing a task
- [PE-4176] - Button text size on mobile devices is too big on case archive action
- [PE-4169] - Hidden condition is not evaluated
- [PE-4143] - The Process Execution Apigateway is killed in production due to too much memory consumption
- [PE-4121] - Publishing of new process version aborted when creation case
- [PE-4107] - Can not download an attachment on activity

- [PE-4067] - Manual complete task is not possible for started task which does not have an assignee
- [PE-3981] - Form focus jumps to top when updating the form
- [PE-3975] - Menu is missing on mobile when accessing the application
- [PE-3878] - Error message for mobile view has wrong format
- [PE-3665] - NullPointerException on navigating to the default instance
- [PT-4886] - Online help download as PDF broken
- [PT-4841] - Special characters in link title breaks search when link is search facet
- [PT-4806] - Delete attachment in all languages does not work without attachment title
- [PT-4731] - Simulation parameters cannot be entered on custom symbols
- [PT-4488] - Typo in info banner
- [PT-4020] - Matrix view does not respect configuration
- [PT-3945] - Some fonts are not displayed correctly
- [PT-3710 | PT-3733 | PT-4455] - Security improvements
- [PT-3263] - Catalog import removes link titles
- [PT-3151] - Valid from date did not recognize UTC time zone in process warehouse report
- [PT-2787] - Third examiners do not receive an email on diagram publication completion
- [PT-2503] - Profile report for catalog items gets generated in browser language
- [PT-2014] - PDFs with extended rights do not work after publication (see *hint here*)
- [PT-1922] - Reports do not update Created / Last Saved property

30.313 Version 7.5.11

30.313.1 Resolved bugs

- [DES-3024] When the attachment attribute is configured as unlocalized, the attachments from imported objects are invisible. *Attention*: This fix not included in 7.6.x and 7.7.x.

30.314 Version 7.5.10

30.314.1 Resolved bugs

- [DES-2845] Username and other user attributes from Keycloak don't fit user-service columns

30.315 Version 7.5.9

30.315.1 Resolved bugs

- [PE-4762] Enhance how the JWT public key is loaded in Process Execution service

30.316 Version 7.5.8

30.316.1 Resolved bugs

- [PT-5110] Diagram cannot be rendered if it contains boolean attribute placements

30.317 Version 7.5.7

30.317.1 Resolved bugs

- [DES-2384] Improve “migrateToUserService” migration

30.318 Version 7.5.6

30.318.1 Resolved bugs

- [PT-4265] Last changed date of search hit is not correct
- [PT-4666] Sanitizing results in format differences
- [PT-4671] Pasting a link in third-party applications breaks URL

30.319 Version 7.5.5

30.319.1 Resolved bugs

- [PT-4632] Building search index is interrupted on uncommon office documents

30.320 Version 7.5.4

30.320.1 Resolved bugs

- [DES-2277] No User and Group related messages are sent for LDAP and SAML configurations

30.321 Version 7.5.3

30.321.1 Resolved bugs

- [PT-4557] - Security improvement

30.322 Version 7.5.2

30.322.1 Resolved bugs

- [PT-3770] - Redirect roles in feature toggle

30.323 Version 7.5.1

30.323.1 Resolved bugs

- [PT-4120] - Scale factor slider values in diagram print format settings are not correctly reproduced in print view
- [PT-4388] - Active resubmission workflows started before version 7.4.8 that are manually aborted will be recreated once if they are still valid
- [PT-4505] - Security improvement

30.324 Version 7.5.0

30.324.1 BIC Process Design

New Features

Easy inserting of a symbol in an existing sequence flow

Symbols can now be dropped on a sequence flow to automatically embed the new symbol in an *existing sequence flow*. You will see a visual feedback which signals that a symbol can be embedded in a sequence flow.

For example, you can drop an Activity or Gateway on the sequence flow between two other Activities and the new Activity is directly embedded in the sequence flow and connected to the other Activities.

Access to publication archives

Until now the archive export of depublished diagrams or catalog items were provided at the depublication workflow in Governance Cockpit. Users wanting to view an archived version in BIC Process Design needed to download the archive export and import it again.

The archived versions of diagrams and catalog items can now be accessed from the Governance Cockpit. When a diagram or catalog item was depublished, users can access the archived version from the audit trail of the depublication workflow. You will be informed that the diagram or catalog item has been depublished and have the option to open the archive. If you choose to open the archive you will directly see the diagram or catalog item and easily navigate through the different versions. Your Readers won't be able to access archived versions in publication since the archive

access is in the Governance Cockpit, but you can share the URL to the diagram or catalog item with them, if they need to access an archive.

Please note that this is only available in the new user interface.

Linking Governance Workflows to diagrams or catalog items

In the old user interface, it was not possible to navigate from a workflow to a diagram or catalog item which is subject of the workflow. We enabled *this navigation* in the new user interface where you can now easily navigate from the workflow. The accessing link is located on the audit trail of a governance workflow and leads to the diagram or catalog item in the corresponding stage depending on the current state of the workflow (whether it is pending, rework or closed).

Displaying effective time span of archives

Archives were declared with the time stamp of the archive generation in the old user interface. In the new user interface, archive entries of *diagrams* and *catalog items* now display the actual time span in which the archive entry was the active version. This time span may differ from the governance attributes "valid from" and "valid to" since it displays the effective time span and not the set values in those attributes.

With the new declaration it is now easily possible to e. g. identify gaps in publication archives.

Arabic and Polish user interface

BIC Process Design now speaks Arabic and Polish in the new user interface! Both languages could already be chosen as content languages, but our user interface did not support those languages. The language of the user interface is determined by the set browser language. Our online help remains in English when accessing from an Arabic or Polish browser.

Serbian added as content language

We implemented Serbian as content languages, so that processes or catalog entries can be maintained in Serbian. Please note that this does not count for the language of the user interface.

Optimized search in catalog

We deactivated the alphabetical order of search results in the *catalog search* so that the list of search results is sorted by the relevance of each item. The alphabetical sorting of catalog items is still possible but not on search result list.

Optimization of task summary mail

Delegated tasks are now included in the *task summary mail* once a day. The task is still directly assigned in BIC Process Design and a toast informs the new task owner about the delegation.

Additional customization capabilities

We extended our customization capabilities so that some attributes can be excluded from being transferred to preview and publication stage. This is helpful if some attributes should not be archived in those stages, e. g. when they are only used in modeling.

We also enabled customization projects to perform validation on the start of publication workflows, so that individual rules can be validated. The workflow continues if the rule evaluation is positive and will be aborted if the rule evaluation is negative. In this manner, we can implement a variety of validations for you, for example to check whether the assigned Author is not also assigned as Responsible or whether the validity period is set correctly according to your governance definition.

Please note that both capabilities are highly individual and that your requirements can only be implemented by customization projects.

Existing features available in new user interface

Declaration of expired content in publication stage

When the validity period of a catalog item or diagram is reached the user will see a banner in publication that the catalog item or diagram exceeds the set "valid to"-date in the governance attributes. If the standard banner text does not fit the wording of your organization, then it can be adjusted for Private SaaS or on-premises systems. Please talk to your GBTEC project team about it.

Abort workflows and delegate tasks

In Governance Cockpit

- Administrators, Editors, and the initiator of a Governance Workflow can *abort running workflows* in Governance Cockpit. Simply open the audit trail of a Governance Workflow and you will find the option to abort in the option panel.
- Administrators and Editors can *delegate* a pending task of a Governance Workflow to a user in BIC Process Design. Users only need to open the audit trail of a Governance Workflow and click on the Delegation-Button on the pending task to delegate it to another user.

Filter catalog suggestions and access archives

In Catalog, users can now

- *filter* the catalog list in Public Workspace for catalog suggestions. Reviewers can filter the catalog list in Preview Stage for catalog items which need an approval.
- distinguish catalog suggestions from approved catalog items on the catalog list and on the details page of a catalog item.
- access *archived versions of catalog items* on the details page of a catalog item. Please note that a catalog item needs the Responsible being set to archive the version of a catalog item. You also need to set a Responsible to access the archived versions.

30.324.2 BIC Process Execution

New Features

Introducing call activities in BIC Process Execution

Process designers are now able to include call activities in their processes. With call activities you can refer to other processes and create cases for them. During runtime a sub case will be created automatically when the call activity has been reached. All process variables and roles are transferred to the sub case and are available there. When the sub case is completed, the changes for the process variables will then be handed over to the main case.

Send emails from send tasks automatically

Process designers can already define email templates for send tasks, so that users have predefined emails. With this release the designer can mark a send task, so that the email will be sent automatically by the system. The system completes the task when the mail was sent, so that no user interaction is needed in the case.

Write own scripts and run them within script task

It is sometimes necessary to do complex calculations or interactions with process data. Many things can be done with formula fields within user forms. But sometimes this is not sufficient, so designers can now use script tasks for this. As the name already says, designers can write scripts that will be executed during run time. You can use all available process variables within the script, change them and create new process variables that will be available in the following steps of the case.

Define a retention period for your cases

Due to data protection purposes and system cleanups designers can now define a retention period for their processes. The retention period for a case starts when it is completed. BIC Process Execution deletes the case and all its data automatically after the defined period.

Use basic authentication in REST calls

It is best practice to use authentications when running REST calls against other systems. We introduce the basic authentication to extend our REST functionality. Process designers can configure the authentication easily in the REST configuration.

Possibility to handle data objects within user forms

Service tasks and REST are a common and powerful way to get data from external systems. That data is mostly structured as objects. User forms now support data object handling, so that the process designer can directly address attributes in data objects.

Updated administration page as preparation for coming features

The administration only contained the API-key configuration. With the coming releases there will be more things that need to be configured in the administration. That's why we've added a new page as overview of those things as administration entry page.

Mark a Boolean field as mandatory

Process designers can now mark a Boolean field in a user form as mandatory. As a result, a user must check this Boolean field to complete the task. By that you can force the user to actively accept or confirm data, information, etc.

User form editor design improvements

The design of the user form editor was improved. The preview section was increased, and the details section decreased in size. But both sections benefit from the change. The input fields in the details have now a row for their own. By that the size of the fields increases and the user can see even longer inputs.

Improve behavior of environments when deleting cases

User now get more detailed information when a case in the studio and test environment was deleted. Additionally, the user will be redirected to the instance when the case he/she had opened was deleted.

Include case functions in case flow menu

In the flow view of a case there were two menus – one at the top and one at the bottom of the flow. These menus have been merged so that there is only one menu left that contains all menu options from the former ones. It is shown at the top of the flow so that users can access it easily.

Use all output elements as document containers

By now it was only possible to use document objects as container for input- and output documents in BIC Process Execution. We improved the system so that business objects and other containers can be used. The user has now options to upload and download documents on those objects.

Show user error message on wrong REST response HTTP status code

Process designers usually define an expected HTTP status code for the response of their REST calls. When something goes wrong or the system simply returns an unexpected HTTP status code, then the user needs to know what happened. Therefore, BIC Process Execution now shows an error message to provide that information.

Show different start pages depending on user tasks

Different users have a different workload and a different type of work. Some have a lot of tasks in their task list, some have mostly group tasks, and some have most of their time no tasks and only create new cases. To match all those use cases and to improve the usability, we changed the behavior for the starting page when logging into BIC Process Execution. When the user has personal tasks to do, then he/she will see the task list. If there are no personal tasks but group tasks, the user will get the group tasks list. If there are no personal and no group tasks the user will be redirected to the ProcessApp overview to be able to create a new case quickly.

30.324.3 Resolved bugs

- [PE-3752] - Very long diagram names (>100 characters) causes an exception when the user tries to create an case of the process
- [PE-3698] - Task list in studio stage is not being updated after diagram update
- [PE-3546] - The size of the steps' icons in the instance flow view is not fitting with the design
- [PE-3456] - Mark, unmark and mark again a process as a favourite doesn't work as expected
- [PE-3442] - Mandatory fields have no mandatory indicator
- [PE-3376] - Updating a process in studio stage fails, if more than one user has marked it as favorite
- [PE-3375] - Input/Output documents should be retrieved by their association type and not edge type
- [PE-3342] - Alignment and line spacing in textarea for email editors are not being saved
- [PE-3339] - Email editor and preview content are not displayed correctly
- [PE-3184] - DMN task is not completed automatically
- [PE-3051] - Flow is breaking when having two associations with expressions pointing to the same entity
- [PE-2457] - Wrong warning message when trying to create an instance with creation restriction
- [PT-4381] - Wrong redirect on catalog list when creating a catalog entry (new UI)
- [PT-4172] - Switching between a main and allocation diagram can break visual data
- [PT-4127] - Converting PPT to PDF might fail
- [PT-4041] - Diagram editor allows selection of fonts not available for rendering, resulting in visual differences between stages and reports
- [PT-3941] - Diagram publication is not working correctly when started from publication stage
- [PT-3937] - Changing a title for an URL attachment decodes and breaks original link
- [PT-3910] - Document selector not working for multivalue attachments in documents view
- [PT-3892] - Local time zone is ignored after picking a date
- [PT-3778] - Open an URL needs double click to reach the destination (new UI)
- [PT-3771] - Updating numeric attribute values is not always possible
- [PT-3634] - Generated PDF doesn't display Cyrillic
- [PT-3630] - Diagram cannot be copied with broken edges
- [PT-3436] - Process flow calculation breaks on loops with non-exclusive gateways
- [PT-3060] - Only english translation for resubmission task toast is displayed
- [PT-2766] - "Share by email" is not working if the diagram name contains a special character

- [PT-2543] - Security improvement
- [PT-2529] - Reader see Tasks entry in navigation (new UI)
- [PT-1805] - Entity Resubmission Reminders still get sent after entity was republished with empty “Valid To” value
- [PT-1581] - Loss of image quality when creating a manual as a PDF
- [PT-1570] - Second and third examiner tasks are not included in entity publication mail
- [DES-1969] - Delete used catalog entries without replacement is not working
- [DES-1928] - Deletion of archive entries fails
- [DES-1919] - Repository archive entries are not properly removed
- [DES-1900] - Archive cleanup misses one entry
- [DES-1866] - Duplicated groups can be created by renaming
- [DES-1864] - Updating a node attribute through GRC-Apigateway does not work correctly
- [DES-1779] - Labels are broken after setting an attribute to hidden
- [DES-1736] - Differences between stages and reports due to unavailable fonts in rendering
- [DES-1275] - Layouter decreases pool size under specific circumstances
- [DES-562] - BPMN “call activity” can be set by two distinct attributes

30.325 Version 7.4.8

30.325.1 Resolved bugs

- [PT-3847] Resubmission data are incorrect
- [PT-4009] Catalog item replacement blocks diagram check in
- [PT-3949] Opening an allocation diagram from catalog can block check in
- [PT-3948] Opening an allocation diagram from catalog can double the main diagram
- [PT-3565] Saving larger diagram takes is not performant

30.326 Version 7.4.7

30.326.1 Resolved bugs

- [PT-3911] Frontend does not work in Internet Explorer 11
- [PT-3760] Role based UI selection is not reliable redirecting on first login
- [PT-3654] Security improvement

30.327 Version 7.4.6

30.327.1 Resolved bugs

- [PT-3517] Entity resubmission aborts on single failure
- [PT-3611] Search can't find assignment attribute values
- [PT-3568] Deputy tasks are limited to EDITOR or ADMINISTRATOR

30.328 Version 7.4.5

30.328.1 Resolved bugs

- [PE-3306] Uploaded documents are removed from cases when publishing new ProcessApp version

30.329 Version 7.4.4

30.329.1 Resolved bugs

- [DES-1835] As a new User I want to reach the application after I initially set my credentials

30.330 Version 7.4.3

30.330.1 Resolved bugs

- [PE-3297] Datepicker does not allow German inputs
- [PT-3509] Search filters may show IDs instead of names

30.331 Version 7.4.2

30.331.1 New Features

- [PT-3273] As a user I want to see the KPIs when I hover over a node in heatmap view
- [PT-3181] As a user I want to see simulation scenario statistics in order to analyze the run
- [PT-2987] As a user I want to see the simulation results in a heatmap
- [PT-2985] As a user I want to execute a simulation based on a locally filled out scenario
- [PT-2511] As a user I want to specify scenario parameters in a simulation scenario
- [PT-2508] As a user I want to specify gateway parameters in order to apply decision probabilities to a simulation scenario
- [PT-2507] As a user I want to specify task parameters in order to apply these to a simulation scenario
- [PT-2505] As a user I want to create a simulation scenario so that I can define the scenario

30.331.2 Resolved bugs

- [PT-2262] Links on landingpage point to invalid URLs

30.332 Version 7.4.1

30.332.1 Resolved bugs

- [PT-2615] BPMN export misses outgoing sequences of a gateway in BPMN XML
- [PT-3250][DES-1804] Migration to find missing resubmission reminders fails to match email addresses in different cases
- [PT-3231][DES-1809] Workflow participants can delegate tasks
- [PT-2962] Manual report doesn't display role satellites of first activity
- [PT-1586][DES-1821] Search filter based on assignments are not updated if the assigned object is changed
- [PE-3159] Completing send task results in error
- [PE-3149] Null comparison does not work in forms

30.333 Version 7.4.0

30.333.1 BIC Process Design

New Features

Analyze repository with diagram filters

Up to now it was not possible to filter diagrams for diagram attributes and the only way to achieve filtered lists was to receive the process warehouse export and filter the diagrams in Excel or via the overall search. We now introduce *filter for diagrams* to analyze your repository. When you open the diagram view in the new user interface you will see the filter panel on the right side to tailor the diagram list. The feature enables you to quickly answer plenty of questions, like

- What resubmission effort will come up next month?

  Use Valid To filter and set time span to next month

- Which processes are in my department?

  Use Scope filter and set your department

- Which diagrams are maintained by me?

  Use Author filter and set yourself as author

- Which diagrams are in responsibility of a colleague who leaves the company next month?

  Use Responsible filter and set the leaving person as responsible

- Which are currently in modelling or needs to be reviewed?

  Use State filter and set the desired state

It is also possible to extend your method by custom attributes which then can be used to filter the diagrams. Just add them in the diagram type in your method, maintain the attribute in BIC Process Design and the filter will directly be available.

Apply custom colors to symbols

Administrators can change the symbol colors, namely border color, background color and font color, in the administration without changing the symbol definition in the method. A custom symbol code can be set for almost all symbols and can be directly applied to all diagrams in all stages.

Please note that changes to the symbol colors might have a huge impact on the appearance of the modeled processes in your organization. We recommend to carefully plan, coordinate, and communicate those changes.

Copy direct link to attached files

It is now possible to copy a *direct link to an attached file* into your clipboard so that you can easily share the URL to this attachment. Simply hover over an attached file at a catalog item, diagram or even a modeling object and copy the URL. The generated URL leads to the attachment in the corresponding stage and the file gets directly downloaded when a user follows the URL (depends on your browser configuration). We will check the user's permissions to access the file (valid BIC Process Design account, access permission to stage, access restriction) and show the context of the attachment to the user. The shared URL is stable if you give the new version of a file the same title.

Please note that this feature is available for attached files, not for external links or links to local files. You can only copy the URL in the new user interface and user who follow the URL will be directed to the new user interface.

Editors are now Governance Cockpit administrators

Until now Administrators where the only ones who could see and manage all governance workflows. This gave them a heavy workload besides their system administration tasks. We enabled Editors to take over the administrative tasks for *governance workflows* to ease the situation for Administrators. Users with the Editor role now can see and manage all governance workflows. They have the same rights in governance cockpit like Administrators, e.g. delegating or aborting a workflow.

Please note that Editors did not receive any other administrator rights. This feature only allows them to administer workflows.

Resubmission tasks for catalog items

Until now, the responsible or responsible (resubmission) received only an email notification about the upcoming resubmission of a catalog item. We now introduce the *resubmission task* for catalog items, which is already available for diagrams. When a catalog item is going to be invalid, then the responsible or responsible (resubmission) is assigned to the task. The resubmission workflow for the catalog item is listed in the governance cockpit and the task will appear directly in the user's task list in BIC Process Design. We will also inform the task recipient in the task summary mail once a day. The resubmission task has the options to extend the validity for 1 year or depublish the catalog item (will be depublished when "valid to"-date is reached).

Please note that it is currently not possible to filter for resubmission workflows in the Governance Cockpit.

Participating Reviewer can access the Governance Cockpit

We introduced in version 7.3 that *task owner can track progress* of their governance workflows . We kept on improving this feature so that Reviewers can also access the Governance Cockpit in BIC Process Design to track the progress of their governance workflows where they have or had a task.

Resubmission information mail for governance participants

All governance participants (persons assigned to governance attributes) can receive an *information mail* that a resubmission for a catalog item or diagram has been initiated. This mail serves only for their information and is independent to the resubmission workflows. We also introduced an additional governance attribute "Do not send information mail (resubmission)" to deactivate the mail for a diagram or catalog item so that you can decide whether you want to inform the governance participants or not. This mail gets send per default and the attribute can be configured in the method, e.g. if you do not want modelers to deactivate the mail or if you want this mail to be never send. Please contact us if you have questions regarding the right method configuration.

Please note that the information mail can only be send for diagrams or catalog items published after this version.

Configure granular retention period for archives

Administrators can set the retention period for the publication stage up to 30 years with a yearly interval. The retention period for the public workspace and preview stage can be set up to 365 days with a daily interval. Please consider that changes to the retention period only affect newly created archives and that a newly set retention period does not affect already created archives.

Please note that we limited the archive period for the public workspace and preview stage to 365 days, but we will not change your configuration. When you already configured a higher period before version 7.4, then we will retain this period and convert it to days. When you change the period after the update, then you can only set the new limit for the public workspace and preview stage.

Copy & paste between diagram types

Copying & pasting modelled objects was only possible between the same diagram type until now, e.g. copying an activity from a BPMN diagram and paste it into another BPMN diagram. From now on you can copy a selection of modeling elements and copy them to your clipboard to paste the elements in a different diagram type, e.g. copy a risk from a risk diagram and paste it into a BPMN diagram. The only precondition is that the modeled object (symbol type, entity type and association type) is allowed in the target diagram type. We will remove the modeled objects during pasting if you have modelled objects in your clipboard which are not allowed in the target diagram type while allowed modeling objects are pasted.

Please note that you can configure the diagram types in the method and thereby allow modeling objects in a diagram type which are not enabled in the standard method. Thereby you could extend the transfer of modelling objects between diagram types according to your requirements.

Existing functionalities available in the new user interface

Please note that not all functionalities of the old user interface are yet available in the new user interface. You might miss some functions but be sure that we will transfer all. The new user interface is a work in progress state. We offer you the possibility to get used to the new user interface and give us feedback on it, so that we can keep on improving it.

Adding and editing catalog items

Catalog items can now be *added in the new user interface*. You can also edit existing catalog items and *maintain the attributes*. Please note that some catalog features, e.g. deleting catalog items or the catalog re-organization, are not yet available. We are working on the catalog to enable the whole functionality!

30.333.2 BIC Process Execution

New Features

Introducing studio, test and production environment

In order to create and test your ProcessApps, you now have two additional environments in BIC Process Execution. We added the studio and test environments to enable authors and reviews to test their ProcessApps without creating testing data on the production environment and mix production and testing data. A big bonus of studio and test environments is that the test cases and data will be deleted automatically when you check in a new version of your ProcessApp. By that you will always have a clean system.

Create case and access BIC Process Execution directly from BIC Portal

You are now able to access BIC Process Execution directly from BIC Portal. You will find a button in the top right corner of the documented processes. As an author in the common stage, you will create a test case in the studio environment and as a reviewer in the review stage, you will create a test case in the test environment of BIC Process Execution in order to test the process quickly. As a “normal” user in the publication stage you will create a case in the public/production stage in BIC Process Execution.

Assign task to case owner as fallback

There are several cases where a task needs to be assigned automatically to a user. That can be an error on a service task, a missing role assignment, etc. To avoid that these tasks will not be recognized, they now will be assigned to the case owner as fallback. The case owner then can see this task in the task list and decide what to do.

Define a conditional expression for the mandatory property of a form field

We have already introduced the conditional expression for the “readonly” and “hidden” property if input fields. You can now define a conditional expression for the “mandatory” property, too. By that you are now able to create complete dynamic user forms that will react to the process and form data provided by the tasks and users.

Drag & drop form field from the field palette

You are now able to drag & drop a new form field directly from the field palette to the place of the form where you want it to be.

Default id for input fields in user form editor

When you are editing a user form in the designer and adding new input fields to your form, these input field will now get an automatic generated id. By that you are no longer forced to set an id by yourself. But you are still able to change the id to a more user friendly one.

Admins can start any task manually

It is sometimes necessary to start a task which is not the next one in flow of the documented process. Therefore, admins are able to start any task they want.

That function should only be used on an exceptional basis and only by admins who know what this action can lead to!

See datatype of process variables

When you are in the case flow view, you have the option to see all process variables in the "Edit process variables" dialog. In order to evaluate issues with these variables in the process, we added the datatype as information to each variable in this list.

Design improvement Text area

We improved the design of the text area input field to have a better look and feel in the user form.

Design improvement Menu Bar

We improved the design of the menu bar to have a more consistent look and feel over all BIC products.

Dates are shown in the format of your browser language

Dates will now be shown in your local format. The system evaluates the language and format from your browser settings. When you have set British English as language in your browser, the dates will be shown in British English format. When you have set American English as language in your browser, the dates will be shown in American English format. Same behavior for other languages.

30.333.3 Resolved bugs

- [PT-3187] - Resubmission workflow does not work as intended if the responsible is a user group
- [PT-3133] - Long names overlap dialogs
- [PT-3021] - Errors in email sending during publication interfere with resubmission mechanism
- [PT-2613] - Catalog Warehouse Export doesn't show the entity type for not maintained languages
- [PT-2304] - Fallback placeholder is missing in catalog list and detail page in new UI
- [PT-2647] - Clicking on the attachment icon in the SVG view may lead to wrong content language
- [PT-2151] - Entries in Matrix Report are duplicated
- [PT-2131] - Search subfolder with enums are not shown correctly in new UI
- [PT-2111] - Manual report in pdfa/pdfa2b format are missing icons
- [PT-2017] - Process Warehouse report doesn't show the content of certain rows for not maintained languages
- [DES-1673] - Formatting for some symbol does not work as expected
- [DES-1428] - When renaming a link, the title= parameter gets appended and not replaced, potentially leading to the display of the old title
- [DES-1364] - It is not possible move an attribute to the main attribute group
- [DES-1277] - If maintained attachments Urls are too long you cannot click the edit button
- [DES-1231] - Typo in path for updating the user group
- [DES-565] - Enumeration and indentation in description is wrong after check in
- [PE-3071] - Bug when routing from selection directly to end event to path having tasks
- [PE-3014] - Process is stuck after multiple gateways
- [PE-3012] - Process is stuck after first task with a following loop
- [PE-3011] - Space under Textarea is too small
- [PE-3010] - Error when resetting default instance being in a gateway and trying to change the decision after reset
- [PE-2970] - Drag & drop objects into textarea breaks forms
- [PE-2944] - Task acting like a gateway before a Pararell is not started
- [PE-2925] - Boolean value is saved as string
- [PE-2913] - Evaluation of booleans does not work dynamically with calculated fields values
- [PE-2912] - Checkbox in form show wrong value
- [PE-2861] - Can not start task after two gateways
- [PE-2860] - Manual gateway switch is missing on task
- [PE-2846] - Last character in textarea is removed after completing a task (sometimes)
- [PE-2797] - Gateway in one click ProcessApp does not work and destroys case
- [PE-2791] - First task can not be completed
- [PE-2763] - When completing a task the system starts overnext task, if next task is already started manually
- [PE-2762] - Process with loop on XOR gateway fails to calculate the flow on decision selection

- [PE-2734] - No step can be started after a GW
- [PE-2409] - Initial method resource request has no tenantId specified
- [PE-1678] - Fast typing deletes characters
- [PE-2736] - Service Task may fail when request body content contains double quotes

30.334 Version 7.3.5

30.334.1 Resolved bugs

- [PT-2947] - Values of occurrence attributes were duplicated to entity
- [PT-2781] - Diagram resubmission do not start

30.335 Version 7.3.4

30.335.1 Resolved bugs

- [PE-2720] - Push notification links do not work
- [PE-2685] - Rest editor offers Http Methods that are not implemented in the BE

30.336 Version 7.3.3

30.336.1 BIC Process Execution

New Features

REST Configuration editor to define the details of a REST call

As a process designer you are able to do the configuration for the REST call within a dialog. This dialog structures the configuration in three steps. The connection, the request and the response. With that changes the user has a better experience and overview. It is also the basis for more configuration options in order to use REST with all its features.

Configure the header of a REST call

One new feature that we provide in REST calls is the request header. As a process designer you can add additional data in the request header. You can either use static key value pairs, or use placeholders to provide dynamic data from a case as request parameters.

Define a file as request body for a REST call

Sometimes it is necessary to send files and document via REST call to other systems. Therefore you can now configure in the new REST configuration a file that will be send in the request of the REST call.

Receive a file as response in a REST call

When doing REST calls, you always get a response from the system you are calling. This response can contain different data and data types. You can now receive a file as response, map it to an modeled output document and use it in further steps of your process.

Set a conditional expression for the hidden property of a form field

In order to create less complex diagrams and to improve the user experience, a process designer can now configure whether an input field in a uer form should be hidden or not on a dynamic basis. Therefore you can define an expression that will be evaluated during runtime and decide on the basis of the output if the field will be displayed or not.

Set a conditional expression for the read only property of a form field

Like the dynamic configuration for the hidden property of a field in a user form, you have the same option for the read only property. A process designer can define an expression do decide during runtime if that field is read only or not.

30.336.2 Resolved bugs

- [DES-1523] - Start diagram cannot be changed
- [PE-2628] - System does not route to flow view while calculating a case
- [PE-2591] - Initialize boolean variables as false if no value ist set
- [PE-2545] - The flow of “old” cases are not shown after changing the way to calculate integrated decision options
- [PE-2468] - Form calculation does not happen when using calculated values
- [PE-2453] - When a task after a gateway is started some of previous gateways are not block
- [PE-2377] - Wrong “Responsible” spelling for German language
- [PE-2337] - Mark and unmark a process as favourite doesn’t work for processes listed in the search result
- [PE-1762] - There is no reload button on a decision when the selected task is below the changed gateway
- [PE-1715] - Localized content is not loaded on mobile when the tab is refreshed
- [PE-2414] - Deleting a group used in a process’ “Create restriction” results in case list and process apps req failures
- [PE-2399] - Request timeout when creating a case via run link
- [PE-2379] - Flow is requested while in calculation leading to corrupted data

30.337 Version 7.3.2

30.337.1 Resolved bugs

- [PT-2748] - Correction in domain service migration
- [PT-2247] - Queries with two or more whitespaces break the catalog search
- [DES-1521] - Catalog item suggestions don't show entries when query contains umlauts
- [DES-1517] - Role suggestion list in modeler is missing correct search results

30.338 Version 7.3.1

30.338.1 Resolved bugs

- [PT-2736] - Workflow list is incorrect when user did not participate in any workflow
- [PT-2605] - Catalog list cannot be loaded when catalog items have a huge amount of custom assignments
- [DES-781] - Decomposition icon at nodes are not always highlighted

30.339 Version 7.3.0

30.339.1 BIC Process Design

New Features

Breadcrumb navigation

We reworked and enhanced the design of the breadcrumb function in the new user interface. It is now always available for example when you are in a diagram, category or in the catalog. The breadcrumb can also be used for navigation so that it is now even easier to navigate through BIC Process Design.

Archive access for depublished catalog entries

We introduced the archive access for depublished diagrams in version 7.1 and continued our improvements. You can now also access the archived version of a depublished catalog entry in the corresponding depublication workflow in governance cockpit. Like for depublished diagrams, the archive of the depublished catalog entry is stored in the audit trail of the depublication workflow and can be downloaded there. We also enabled the archive access of already depublished catalog entries before this version.

Please note that this feature is only available in the new user interface and that we will also improve this feature in future versions.

Option to delete attachments in all content languages

We introduced localized attachments in version 7.2 and continued to improve this feature. When you uploaded a file or maintained an URL in all content languages, then you can delete those attachments with one click instead of deleting each attachment in all content languages. This reduces the maintenance effort a lot.

Task owner can track progress of their governance workflows

Governance participants who have an open task or had completed a task in a governance workflow can access the workflow in governance cockpit to track the progress of the workflow. You can also see your workflows even though you delegate the task to another user to track the progress of your delegation. All functionalities of the governance cockpit, like searching for a workflow or filtering the list of workflows, can be used.

Please note that reviewers cannot access the Governance Cockpit at the moment.

Alignment of BIC Process Design standard method with BIC GRC

Attribute “Risk category” for Risks

We adjusted the standard method and changed the attribute context from occurrence to entity. This means that the set value now counts for the whole entity and no longer for an occurrence of this entity. We migrated the set values to the entity just in case the values of all occurrences were unique. For all other cases we discarded the value in modeling (public workspace). You might need to set a value again.

Please note that the migration was only executed in public workspace and does not affect the preview, publication, or archived versions.

“Obsolete” flag for Controls

The catalog entry “Risks” has already the option to maintain it as “Obsolete”. We adjusted the standard method so that you can also maintain Controls as “Obsolete”, e. g. when the corresponding Risk is obsolete.

Enhanced OCL custom validation

We enhanced our OCL (Object Constraint Language), so that it now uses the entity instead of its graphical nodes. For example, you can now create a validation rule (in method editor) to check weather an activity inside an application pool is typed as service task. You can also set a more specific validation context for an OCL rule (in method editor), modelling or validation, to define when the rule should be validated (during modelling or when a user check in a diagram).

Hindi and Indonesian added as content language

We implemented Hindi and Indonesian as content languages, so that processes or catalog entries can be maintained in those languages. Please note that this does not count for the language of the user interface.

Do you need to maintain your processes in a content language which is not yet available in BIC Process Design? Then please request the language at our Support team. We will give you a feedback whether we can provide your desired content language.

Administration in a new tab

When you open the administration in the application, then the administration gets opened in a new tab. You can then simply close the administration tab and all changes are saved.

Existing functionalities available in the new user interface

Identity validation for governance tasks

When you are working in the new user interface and your organization activated the re-validation of your identity for governance tasks, this feature is now also active in the new user interface. Task owner are directed to the login screen when deciding upon a governance task to validate their identity.

30.339.2 BIC Process Execution

New Features

Create an API key in order to connect to BIC Execution

An API key can now be created in BIC Process Execution. This function enables you to securely connect external systems to BIC Process Execution so that only authenticated systems can access BIC Process Execution via REST call. API keys can be created and deleted in the administration area.

Create new cases via REST call

Cases can now be *created from external systems*. Therefore, a higher degree of automation can be reached for your processes. Technically speaking a HTTP POST request is sent to BIC Process Execution via a REST call. For a safe authentication, this call must contain an API key, which can be created in the administration area of BIC Process Execution. In addition, the case's name and process variables can be specified within the request. As soon as the HTTP POST request has been processed, the new case is available in BIC Process Execution and can be worked on immediately.

Search for ProcessApps

If you have many different processes that are made available as executable ProcessApps in BIC Process Execution, it can sometimes be difficult to find the right ProcessApp quickly. To ease this task for you, we have implemented a *search* function. Simply type in the name or a part of the name of the ProcessApp in the search bar and press enter to filter the ProcessApps.

Mark ProcessApps as favourites

As a user you have usually a couple of ProcessApps you are working with. To have a quick access to these ProcessApps, you are now able to *mark ProcessApps as favourites*. You can can do this for every app in the ProcessApps view. There you can also switch to the favorites tab in the top right corner.

Calculate data in user forms

User forms are powerful tools to get relevant data from the user during the process flow. But sometimes it is necessary not only to collect the data, but also to do calculations, checks, transformations, etc. To this purpose we have *introduced the "Formula" field* in the form editor. With that field, you can use different formulas to access and process data within your process instance.

All available formulas can be checked in the documentation of Formula.js.

Create an email template for a send task

You can now *create and configure email templates* in send tasks via the "Email template editor" in BIC Process Design. Process variables will be replaced during runtime to provide data dynamically for defined placeholders in the email template, such as the recipient of the email. The users who have been assigned to such a task in BIC Process Execution can see the email template in the corresponding task's form. With a simple click the email template can then be transferred to their local email client for further editing, file attaching and sending.

Create a new case from the process's case list

Through the usage of a new implemented button the process's case list you can now create new cases directly for the corresponding process.

User form editor improvements

We implemented some improvements in the user form editor to provide a better user experience when creating a user form.

- The field type icon is displayed at the right side of a form field to show the user which form fields are already included in the form.
- The field type name is added to the details header on the right side of the user form editor.
- The error messages have been updated to provide a clear and more understandable error message.

30.339.3 Resolved bugs

- [PT-1352 | BC-14041] - User group assigned to scope and access restriction of same diagram is not shown as search facet in wildcard search
- [PT-1535] - SVG of a diagram look different in portal and design
- [PT-1621] - Fonts in reports differ in some user languages
- [PT-1786] - Delegation entry is missing in mail notification
- [PT-1793 | BC-14291] - Applicable documents are displayed twice in profile view
- [PT-1869] - Check out button is still present when opening allocation diagram
- [PT-1947] - Chips in catalog are not directly clickable because of overlaying tooltips
- [PT-1991] - Links to online help in mails are outdated
- [PT-2021] - Big imports bottleneck the messaging leading to unresponsive catalog usage
- [PT-2064] - Governance search facets missing user when user was maintained in several governance attributes
- [PT-2090] - Customized entity publication mails link to the entity in the common stage
- [PT-2096] - Depublication of managed document aborts with failure when the document is still referred in preview stage
- [PT-2261] - Indexing of documents with content length larger than 32KB is skipped
- [PT-2358] - Wrong default language for release notes
- [PT-2497] - Resubmission email templates cannot be changed for specific tenants
- [PT-2504] - Occurrences view misses elements
- [PT-2526] - Catalog import removes keyword in other languages
- [PT-2531] - Indexing of documents with number of characters larger than 100000 is skipped completely
- [DES-436 | BC-14482] - Methodeditor stores numerical default values as strings in the method file
- [DES-550] - OCL check works not as expected when creating objects via mini symbol palette
- [DES-645] - Security improvement
- [DES-654 | PT-465| BC-3067] - The text formatting window of an Annotation does not work correctly
- [DES-1107] - Parallel document downloads may lead to no response
- [DES-1140] - Content language in diagram SVG is not always update when switching language
- [DES-1176] - Context menu for attachment / decomposition link misses entries
- [DES-1281] - Edited link title gets not updated correctly
- [DES-1362] - Catalog creates occurrence attribute value for catalog item
- [DES-1363 | DES-1277] - Edit button for attachments with long names is hidden in catalog view
- [DES-1371] - Clicking on a keyword in catalog entry edit mode discards all unsaved changes
- [DES-1395] - Suggestion list misses some items with special character in name
- [PE-2278] - ProcessApps list not up to date on login or site reload
- [PE-2265] - Administrator cannot modify case details
- [PE-2264] - Gateway change causes error when form boolean switch is changed

- [PE-2259] - Drag & Drop icon on input field is always visible in user form editor
- [PE-2258] - When i create an instance via REST call, the first task should start automatically when it has a user or grouped assigned
- [PE-2251] - When receiving an user deletion message, then we should ignore the message
- [PE-2223] - DMN task can not be completed
- [PE-2184] - Change info message for archive cases when there are no cases in the list
- [PE-2183] - Typo in german no cases info text
- [PE-2181] - Archived cases button must not be present on archived cases list
- [PE-2177] - Missing error message and error is shown when unnecessary in user form editor
- [PE-2154] - Archive confirmation dialog has a horizontal scrollbar
- [PE-2112] - Readme has a typo in title
- [PE-2109] - Drag and trash icons are always visible on each form field in form editor
- [PE-2108] - German label name in form editor is wrong
- [PE-2107] - Task can not be completed if all form fields are read only
- [PE-2106] - Long formfield value texts are cut in user task view
- [PE-2099] - Adjust icon size of ProcessApps on a desktop
- [PE-2098] - Wrong color of active due date icon
- [PE-1970] - Wrong deign for input field placeholder text
- [PE-2224] - Gateway recalculation spinner is never removed when no input expression resolves to true
- [PE-2220] - Customer cannot create new instances because unique[email,tenant] constraint
- [PE-2216] - Escaping quotation marks in DMN Table attribute causes exception

30.340 Version 7.2.7

30.340.1 Resolved bugs

- [DES-1236] - Migration Service view is broken

30.341 Version 7.2.6

30.341.1 Resolved bugs

- [DES-1214] - Attachments are not migrated when checked out during upgrade across 7.2.0
- [PT-2225] - Nodes are not listed in manual report with path sorting
- [PT-2227] – Old and new user interface should handle non-localized attachments

30.342 Version 7.2.5

30.342.1 BIC Process Execution

New Features

As an admin or instance owner, I want to set a due date for an instance

When you create a new instance of a process, you can add a due date. You can also add and edit the due date for an instance, when you go to the details of the instance. When you set a due date on an instance, it will be shown in the instance list. If the due date is expired, the entry for this instance will be shown with a red due date in the instance list.

As a user I want to see archived entries in the case list

You can move instances of a process into the archive. When you are on the instance list, you have the option to switch from your active instances to the archive by selecting the archive register at the top of the list. You can switch between the two available registers to show active or archived instances.

As a user I want to create a case with a run link from outside the application

As a user, you are now able to create a run link for a process to create a new instance from outside the application. You can use this link in other applications. By clicking on this link, you will be redirected to the create instance dialog in BIC Process Execution. If you are already logged in, the dialog will show up. Otherwise you will have to log in first. After logging in, you will be redirected to the create instance dialog.

When a DMN Task has all input it should be executed automatically

DMN tasks will now be executed automatically, if all input variables are available. The calculation will be done as soon as the task starts and the output will be shown directly.

30.342.2 Resolved bugs

- [PE-1818] - Instance list is partial hidden when windows size is to small.
- [PE-1854] - When a diagram is checked and for a while, form fields disappear if you close and open the form editor
- [PE-1991] - Menu toggle button doesn't work after some quick clicks
- [PE-2010] - TenantId should be checked for Camunda rest API requests
- [PE-2014] - DMN errors messages are always empty

30.343 Version 7.2.4

30.343.1 Resolved bugs

- [PT-2192] - Attachments are localized during import when they are non-localized in method
- [PT-2169 | PT-2187 | PT-2188] - Enumeration of process step path differs in matrix view and manual reports
- [PT-2159] - Recreating the SOLR index breaks sometimes

30.344 Version 7.2.3

30.344.1 BIC Process Execution

New Features

Separate section for the user task form on the right side

When a user task has a configured form, the form will now be shown on the right side of the task in the flow view. The form is only visible if the task is assigned to a user.

ProcessApps view as an icon view

“Processes” is renamed to “ProcessApps” and the view is changed to an icon view. You can change the color of the default icon, so this color will be shown instead of the default color (primary color). You can also change the process app icon by a custom icon. You can change both in the automation group settings of your diagram in the process designer.

30.344.2 Resolved bugs

- [PE-1615] - Roles are shown under “Applications” section of task form
- [PE-1623] - Automatic Start next task throws an exception when the next task after a parallel gateway is already started
- [PE-1652] - Archived instances cannot access process variables
- [PE-1898] - Automatic DMN evaluation sends null variables value if untouched
- [PE-1925] - The process does not run correctly if the output is changed in a DMN task
- [PT-2136] - Update search-index without deleting it

30.345 Version 7.2.2

30.345.1 Resolved bugs

- [DES-948] – Changes to catalog items are not visible when switching between content languages in edit mode
- [DES-949] – Newly created links are only available in current content language when a title was directly added
- [DES-1025] - Assignments are limited to 100
- [PT-1852] – Scheduled workflow steps are not performed correctly
- [PT-1987] – Retrieving localized attribute values is not possible in report templates
- [PT-2084] - Assigned entities with own lifecycle get directly published when source entity gets published
- [PT-2092] – All entity assignments are not available when only one assignment is not available

30.346 Version 7.2.1

30.346.1 Resolved bugs

- [PT-1970] - Security improvement
- [PT-1997] - Error while sending task assignment emails
- [DES-916] - Adding a new lane does not change the parent for elements that are already on the pool

30.347 Version 7.2.0

30.347.1 BIC Process Design

New Features

View diagram archives directly

When a diagram has an archived version, then you can *view the archive directly in BIC Process Design*. Just select the intended stage (e.g. publication) of the diagram and click on the archive entry! The displayed archive can only be viewed and so some functionalities are not available for the diagram archive. You can still download the archive and import it to use all functionalities.

Please note that this feature is available only in the new user interface.

Language dependent attachments

Attachments are now language dependent. Therefore, uploaded files will be stored in a specific content language. This enables you to provide attachments to users in their language, like you provide process translation in every content language. You can use the translation mode for diagram and catalog items to maintain the attachments for each content language or to gain an overview about the maintained attachments in each content language.

When you do not want to provide attachments in each content language, then you can still maintain only one attachment for each content language. The procedure is then the same as before, just do not uncheck the option to *Upload the attachment for all content languages*. The option is active per default.

Please note that you might want to rework your attachments for language localization to provide your current attachments in only specific languages.

Support for browser extensions to link local files

Browsers have become more restrictive when it comes to access locally stored files to raise the security of your data. Several browser extensions can help to overcome those restrictions and we did our best to support those extensions. But it depends on your browser, your browser settings, and the used browser extension whether our improvements work for your configuration. Browser extensions are not part of our software.

Path sorting of activities in reports

Activities of a process are now ordered in accordance with their sequence flow in a process when they are enumerated in reports processflow-based-exports>. If gateways or operators are modeled in a process, then we will rely on the maintained probability of the following activity to determine the order if the activities.

Resubmission workflows in workflow list

Resubmission workflows for diagrams and catalog entries now appear in the workflow list (and in *governance cockpit* of the new user interface). You can now track the process of a resubmission workflow, delegate a task, or abort the workflow.

Please note that you are not yet able to filter for resubmission workflows.

Summary mail for new tasks

We optimized our task notification. Your task will be directly available in the application, but we will not send you one mail per task each time a new task was assigned to you. We gather all new tasks and summarize them in a single mail once a day (during night).

Edit mode without alternative language

We still provide the fallback language, when a process or catalog item is in public workspace, preview or publication stage. But we *do not show the fallback language* when you are editing a diagram or catalog item. This adjustment enables you to complete your translation tasks faster and have a clearer overview about missing translations.

Explicit editing of catalog items

We also introduced a check out mechanism to edit catalog items. This mechanism avoids unintended changes to catalog items and allows you to view the fallback language when you only want to view a catalog item in public workspace.

Adjustments of standard method

The customer journey map attribute *Key performance indicator* is now a multi value attribute, so that you can assign several KPI to this attribute.

Adjustment of layout settings

In the administration area, the list of configurable layouts was reduced so that only diagram types appear for which a process layout can be configured. Those diagram types are EPC, BPMN and VCD.

Quick start guide

When you click on the quick start guide, then you do not receive a file any longer. Instead, you are directing to the quick start guide section in our documentation. If you have replaced our quick start guide file with organization specific files, those files will still be provided, and the users can receive them.

Existing features available in new user interface

Working with workflow tasks

Your workflow tasks go an audit trail, so that you can see the previous workflow steps including all given comments. You can navigate from the task directly to the process or catalog entry or perform the task directly in the task list. If you navigate from a task to a process, you can also perform the task directly on the process.

Searching for diagrams

The diagram search was aligned with known search logic from the old user interface:

- The list of search hits is no longer alphabetically ordered. The order is determined based on the ranking of a search hit so that more relevant hits are ranked higher.
- When you search for diagrams, the content of all diagram attributes will be searched now. For example, when you search for a diagram of a certain author you can just type the name to find all related diagrams.

Further improvements

- Catalog entries can be published from the catalog if you have maintained at least the responsible.
- The *RACI-Matrix can be filtered*, e.g., when you want to see only your process role.

30.347.2 BIC Process Execution

New Features

- With the new version the user gets a push notification when a new task is assigned. Thus, each user stays informed about new events even if the application is not directly used at the moment.
- When a decision in a case was changed, the new tasks are shown directly without the need to press the update button on the gateway. The update button is only shown, if the user current selected task would be vanished.
- When the process flow is recalculated, the gateway shows a loading indicator to make ot visible for the user, that the process flow is about to be updated.
- Only administrators are now able to edit case variables.

30.347.3 Resolved bugs

- [PT-110 | DES-224] - 2nd / 3rd examiner and resubmission responsible cannot see an access restricted diagram
- [PT-370 | BC-13493 | PT-996] - Security improvements
- [PT-915] - Workflow list may show non-existing workflows as active tht cannot be aborted
- [PT-1056 | PT-1387 | BC-9323] - Depublication mail contains link to diagram
- [PT-1344] - Wrong link to online help in workflow notification mails
- [PT-1345] - GRC API Gateway only provides the first attribute value for multi value attributes
- [PT-1391 | BC-10696] - The local time when a workflow was started is not correct in workflow emails
- [PT-1398 | DES-490] - Misspelling in German mail template for resubmission tasks
- [PT-1485] - Governance attributes are displayed in wrong order
- [PT-1543] - Words get cut illogical in new UI
- [PT-1673] - Portal and Design show different reports based on the same report descriptor configurations
- [PT-1675] - Diagram Publication may fail if it's using an entity with its own lifecycle and the same "Valid From" date
- [PT-1741] - Link in entity release mail leads to common stage
- [PT-1757 | PT-1206 | DES-566] - Missing documentation of font usage restrictions for pdf output formats (Note: Please check out our documentation for applicable fonts.)
- [PT-1949] - Upgrade can cause workflow timer inconsistency
- [PT-1964] - Upload limit for attachments is calculated incorrectly
- [DES-246] - On MyBIC page images get overwritten
- [DES-488] - Document list is not scrollable in Designer
- [DES-527] - "Show more" for long attributes works properly only in 100% browser zoom

- [DES-528] - The cropping of the description is not consistent
- [DES-532] - Entity replacement for entities with associations
- [DES-533] - Watermark broken on pools and lanes
- [DES-537] - Line brakes in annotation are not consistent
- [DES-570] - Attribute “Name” of gateways is emptied after the field has values inside
- [DES-587 | BC-13505] - Methodeditor removes tooling after symbol definition changes or export
- [DES-590] - Download the online help as pdf does not work
- [DES-684] - Auto logout in “authenticateOnWorkflow” feature will break if the customer uses multiple tabs in browser
- [PE-1394] - Process Instances counter is wrong
- [PE-1587] - Mobile instances list update
- [PE-1596] - Flow calculation produces NullpointerException for specific constellation
- [PE-1616] - When a case is archived with new or assigned tasks. These are not disabled on the list and the hub shows the button to manual start or complete them
- [PE-1617] - Custom symbol types result in filtering out an activity
- [PE-1658] - Predecessor cannot be retrieved correctly, if gateway synchronizes and splits at the same time

30.348 Version 7.2.0

30.348.1 BIC Process Execution

New Features

- With this new version the user gets a push notification when a new task is assigned. Thus, each user stays informed about new events even if the application is not directly used at the moment.

30.349 Version 7.1.3

30.349.1 Resolved bugs

- [PE-1477] - Performance issue, when evaluating expressions while calculating the flow
- [PT-1713] - Resubmission workflow, that was initiated by the system, will be aborted with errors
- [DES-665] - Authentication on approval continues even after interruption

30.350 Version 7.1.2

30.350.1 BIC Process Execution

New Features

- In the main menu next to the "Tasks" menu item, the user can see how many tasks are assigned to him. This counter also changes immediately when a new task is assigned.
- The task list is also automatically updated when the status of a task changes or a new task is assigned. This keeps the user up to date while the task list is open.
- Application systems have a new attribute "Integration link". Here you can enter one or more URLs that will be used to call other systems. Within these URLs, data from the current process can also be transferred to a third-party system as parameters.
- The checklist for the process is now recalculated immediately if data changes within the process. Previously, data-based gateways were only calculated when the previous activity was completed. You can now see the consequences for the process after the data entry.
- If a task has an output (usually a document), the user can now upload his work result to the task. This file is then made available to other users in the following tasks if they have this document as input for their task. Files no longer have to be sent back and forth between users via email. The current file is always available in the context of the task.

30.350.2 Resolved bugs

- [PT-1584] - Depublished diagram archive cannot be downloaded (button inactive)
- [PT-1596] - Administration and MyBIC only shows a maximum of twenty shared favorites even if more are configured
- [PE-1015] - Group Tasks are not correctly updated
- [PE-1017] - Team edition is not instantly reflected in flow
- [PE-1250] - Showing default flow or creating instance fails, if staffing to an user group is defined, that is not existing
- [PE-1272] - When a new case is created and the user presses the enter key, a new dialog appears
- [PE-1302] - When I don't have admin rights I should not see an instance of a process in which I am not involved in
- [PE-1338] - DMN issues

30.351 Version 7.1.1

30.351.1 Resolved bugs

- [DES-536] - Bugs in release notes are missing predecessor ID

30.352 Version 7.1.0

30.352.1 BIC Process Design

New Features

Governance Cockpit

- The *Governance Cockpit* is available in the user interface so that you can manage and analyze your workflows centrally.
- **We implemented existing features in the new user interface:**
  - You can access the complete *workflow audit trail*.
  - You can *filter the workflow list* and *search for workflows*.
- **We also added new features to the new user interface:**
  - The initiator of a workflow is the first entry of a workflow audit trail.
  - All comments of the examination steps and approval given in a workflow are accessible in the audit trail of this workflow.
  - Depublished diagrams are stored in the audit trail of the depublishing workflow and can be retrieved in the audit trail.

Utilization of external Functional Allocation Diagrams (FAD)

- When you use external FAD to model the resources of a process flow, then those activities are now utilized in the process flow. For example, the resources of the external FAD are utilized for the process flow in reports (both new and old user interface) or are displayed in the process flow view as integral resources of the process flow (only new user interface).

Extension options for Governance Workflow

- Governance-Workflows can be extended for individual validations prior to publishing diagrams or catalog entries. Customers have the option to implement industry-specific validations (for example FDA 21 Part 11). Industry-specific validations are individual, thus a custom-service is required to implement those requirements. Our customizing would be glad to realizes your requirements.

30.352.2 Resolved bugs

- [BC-14418] - Inplace-edit shows old label content if a condition of the label exists
- [BC-13282] - Catalog import does not remove attribute value
- [BC-11609] - Catalog Data Transfer Service cannot export a diagram if it contains values in enum attributes which not defined in the corresponding stereotype
- [PT-1392] - All existing report types are shown for each diagram type instead of only the types where a diagram type is included for
- [PT-1386] - Third row for myBIC tiles will not be used anymore when there are at least 7 Favorite tiles
- [PT-1372] - Misspelling on DMN loading screen in German UI language

- [PT-1355] - Diagrams are also listed when clicking on Attachments mini symbol (only new user interface)
- [PT-1220 | BC-14519] - Repository import performs entity postprocess on wrong entity
- [PT-1206] - Table of content has in published stage different amount of pages than in common stage
- [PT-1098] - Process Cost report references wrong rows
- [PT-1094] - When switching languages in opened Catalog List, some languages are only changed after hovering over other elements
- [PT-1075] - "No Diagram available" message is missing and leaving a blank page
- [PT-1071] - Process Flow starts with step second activity
- [PT-908] - Properties are not up to date when switching the content and alternative language
- [PT-907] - New UI displays the repository name not in the content language, but in the alternative language
- [PT-693] - Diagram manual with assignments styling issues
- [PT-672 | BC-13986] - User preferences do not save toggled content / alternative
- [DES-521] - Re-authentication of workflow tasks does not work with IDP
- [DES-457] – When a symbol was removed from sequence flow, then the sequence flow is behind the lane
- [DES-431 | DES-408 | DES-223 | DES-144 | DES-142 | DES-141 | PT-890 | PT-427 | PT-260 | PT-232 | BC-11755 | BC-13512 | BC-13778 | BC-14327 | BC-14348 | BC-14328] - Security improvements
- [DES-416] - Line breaks in formatted text attribute is not working
- [DES-400] - Inplace edit on a placed occurrence attribute is not saved correctly
- [DES-308] - Undo "branch catalog item" in diagram damages edges connected to that catalog item
- [DES-300] - Margin of diagram to border is too small in publication
- [DES-278] - French and Italian translations are missing for some method objects
- [DES-251] - Typo in validation hub on activity with invalid sequence flows
- [DES-232 | PT-502 | BC-4225] - In BPMN, the symbols on activity for multiple instances "sequence" and "parallel" are switched (Note: To correct the visualization in existing diagrams, use "Switch symbol" on affected activity symbols and re-apply the symbol type.)
- [DES-197] - Inplace edit causes a "New catalog entry" toast to show even though no entity was changed and no catalog entry was created
- [DES-159 | BC-12230] - Annotation symbol splits if selection contains only the bracket
- [DES-158] - Attributes details are rendered too often
- [PE-951] - Role is missing in process flow list when no one is assigned
- [PE-961] - When a case begins with a gateway, selection is not updated in flow
- [PE-973] - DMN form fields are displayed even if it is not a rule based task
- [PE-983] - Toggle button leads to a problem in 'My Tasks'
- [PE-984] - Hub is inaccesible when task's responsible text is long
- [PE-990] - Task name is partially hidden in the hub if the task name is long
- [PE-1046] - First task in a flow has disabled DMN form right after case is created
- [PE-1152] - Checkbox labels should do a line break if there is not enough space
- [PE-1179] - Group tasks should be only shown if the task is already created

- [PE-1039] - When there is more than one translation of a process, then the process is displayed duplicated in the process list
- [PE-1048] - Dmn evaluation request is not sent

CHAPTER

THIRTYONE

SYSTEM REQUIREMENTS

31.1 Hardware Requirements User Workstations

BIC Process Design and BIC Process Execution are browser-based tools and there is no need of a separate client installation. Nevertheless, there are hardware requirements for the computer which runs the web browser.

CPU	RAM	Network data rate
4 CPU cores	8 GB (The user workstation must have 64-bit operating system to be able to use all physical RAM)	10 Mbps or more recommended[*]

[*]Since the application content is freely defined by the authors, the size of the content can vary in a huge range. For example, using high-resolution images in diagrams heavily increases the amount of data that must be transferred to display such diagrams. Limited data rates result in longer loading times for application and content, which can result in users experiencing impaired application performance.

On user workstations with less hardware resources performance of BIC will degrade. Performance may by sufficient for limited use cases like read-only viewing.

31.2 Software Requirements User Workstations

Web Browser	Web Browser Settings	Printing
Supported: Google Chrome, Microsoft Edge in the latest version, Mozilla Firefox (latest ESR) **Recommended:** Google Chrome	JavaScript and Cookies activated, at least 50 MB free memory for web databases	PDF Viewer (e.g., Adobe PDF)

31.3 Software Requirements Single Sign On

Single Sign On is supported based on the SAML 2.0 protocol, which is supported by almost all current IAM providers. Integration of a Private BIC Process Design & Execution with Active Directory and Single Sign On requires Active Directory Federation Services 2.0 or higher with SAML 2.0 activated. Integration will require additional services for implementation, configuration, and coordination with customer's IT department, offered for an annual fee.

CHAPTER

THIRTYTWO

ACCESSIBILITY

32.1 Statement of Accessibility

As part of our commitment to accessibility, we have had our product "BIC Process Design" tested by an external agency in accordance with the requirements of the EN 301 549 and WCAG 2.1 standards. The test was performed on software version 7.10.0 with the new product user interface. The independent test report dated August 23rd, 2023 indicates that we meet the accessibility requirements in many areas, but also points out that the product is currently not equally accessible to all user groups and that improvements are warranted.

We are committed to continuously improving the accessibility of our product software to provide an equitable user experience for all users. We are working to remove identified barriers and ensure that our products are accessible and usable by all people. We welcome feedback and input about barriers.

32.1.1 Current Status of Accessibility

The accessibility requirements are based on §§ 3 Paragraphs 1 to 4 and 4 of the BITV 2.0, which was enacted on the basis of § 12d BGG.

The assessment of compliance with the requirements is based on an evaluation conducted by Materna Information & Communications SE in August 2023 in accordance with legal requirements and global standards (EN 301 549, BITV 2.0).

The product is not fully accessible in all areas. We are actively working to remove identified barriers through technical revisions. In particular, the following areas have been identified (as of 23/08/2023):

- Not all controls are clearly indicated by a recognizable focus highlight or the focus highlight has insufficient contrast.
- The consistent use of language attributes is not consistently correct implemented.
- Mandatory fields are not identifiable as such for all form fields.
- In the main navigation, individual list items are not integrated as such.
- Some controls and modal windows lack clear or any text alternatives.
- The current state is not announced in collapsible sections.
- Interactive graphics are not fully operable with a keyboards and screen reader, as certain content areas cannot be filtered or operated.
- For controls indicating that content is filtered based on certain criteria, this information is not provided for screen reader users.
- Text overlaps occur when adjusting text sizes and spacing.

32.1.2 Creation of this Statement of Accessibility

The statement was created on August 24th, 2023, and last updated on December 8th, 2023.

32.1.3 Feedback on Accessibility

If you encounter any barriers in our product, please send us a corresponding notice with a description of where you noticed a limitation to our responsible contact person (bicsupport@gbtec.com).

You can also contact us by mail or phone:

GBTEC Software AG
Gesundheitscampus-Süd 23
44801 Bochum (Germany)

Phone: +49 234 97645 -100

32.1.4 Arbitration Service

If, even after providing feedback to the contact mentioned above, no satisfactory solution has been found, you can contact the Arbitration Service according to the § 16 BGG. The BGG Arbitration Service is tasked with facilitating extrajudicial conflict resolution on accessibility issues between people with disabilities and federal public authorities. The Arbitration Service is free of charge. Legal representation is not required. Further information on the Arbitration Service and how to file a complaint can be found at: www.schlichtungsstelle-bgg.de.

You can reach the Arbitration Service at the following address:

Schlichtungsstelle nach dem Behindertengleichstellungsgesetz
bei dem Beauftragten der Bundesregierung für die Belange von Menschen mit Behinderungen

Mauerstraße 53
10117 Berlin

Phone: +49 (0)30 18 527-2805
Fax: +49 (0)30 18 527-2901
Email: info@schlichtungsstelle-bgg.de