





# **Data Warehouse**

## **User Handbook**

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## Table of contents

List of Figures	8
List of Tables	23
1 Introduction	27
1.1 Purpose of the document	27
1.1.1 UHB Methodology	27
1.1.2 UHB Structure	28
1.2 Set-up and Login	29
1.2.1 GUI Access	29
1.2.2 Technical Requirements	29
2 Introduction to the Data Warehouse	31
2.1 Overview	31
2.2 Process of the Data Warehouse	32
3 First steps & basics	33
3.1 Access to the DWH	33
3.2 Navigating in the DWH GUI – Global application bar	34
3.2.1 Open menu	34
3.2.2 Data Warehouse icon	34
3.2.3 View switcher	34
3.2.4 Search content	35
3.2.5 Notification	37
3.2.5.1 Subscribing to reports	38
3.2.6 Personal menu	
3.2.6.1 Profile and settings	39
3.2.6.2 Logging	43
3.2.6.2.1 Profile and Settings - Settings	
3.2.6.3 My schedules and subscriptions	47
3.2.6.4 Log out	58
3.3 Navigating in the DWH GUI – menu	58
3.3.1 Data Warehouse logo	59
3.3.2 Open Home	59
3.3.3 Search function	60
3.3.3.1 Narrow your search with filters	60
3.3.3.2 Save search results	60
3.3.4 System information	61
3.3.5 Recent	62
3.3.6 New	63
3.4 Personal Folders	64
3.4.1 Team content	64



3.4.2 My content	67
3.4.3 Add a new folder	
3.4.4 Sort the content	
3.4.5 Filter the content	
4 Working with reports	
4.1 Copy, save and export	
4.1.1 Copy a report	
4.1.2 Creating a report view	
4.1.3 Saving a report output	
4.1.4 Exporting a report to a local folder	
4.2 Running reports	
4.2.1 Run a report step-by-step	
4.2.1.1 Choose different formats	
4.2.1.2 Run in background	
4.2.2 Delivery	
4.2.2.1 Delivery - Save report (U2A)	
4.2.2.2 Delivery - Save the report for an external file (A2A)	
4.3 Scheduling reports	
4.3.1 Precondition	
4.3.2 Scheduling the report for a specific time	
4.3.3 Scheduling the report for a specific DWH event	
4.3.4 Check the schedule of your report	
4.4 Dynamic prompts	
4.4.1 Description and function of dynamic prompts	
4.4.2 Functionality	
4.4.3 How to run a report with dynamic prompt	
4.4.4 How to schedule a report with dynamic prompt	132
5 Predefined reports	142
5.1 Ancillary systems reports (ANS)	
5.1.1 ANS01 – Overview of AS transfer orders	
5.1.2 ANS02 – Daily average of AS transfers	
5.2 Business day reports (BDY)	
5.2.1 BDY01 - Business Day event/delay information on settlement opening time	
5.3 Billing reports (BIL)	
5.3.1 BIL01 - Consumption data	
5.3.2 BIL02 - Monitoring the invoice activity	
5.3.3 BIL03 - Audit of critical billing data	
5.3.4 BIL04 - Detailed consumption	
5.3.5 BIL05 - Detailed participation	
5.3.6 BIL06 - PDF invoice list	
5.4 Contingency reports (CON)	
J / -   / - / -	



5.4.1 CON01 – Cash transfers settled during contingency processing and final contingency acco	
balances	
5.4.2 CON02 – Contingency processing – end of procedure account balances per CB 5.5 Data extraction reports (DXE)	
5.5.1 DXE01 - Data extraction reports: Party reference data	
5.5.2 DXE02 - Data extraction reports: Cash account reference data	
5.5.3 DXE03 – Data extraction reports: Cash account aggregation group	
5.5.4 DXE04 – Data extraction reports: Cash account balance and liquidity	
5.5.5 DXE05 – Data extraction reports: Cash transfer orders	
5.5.6 DXE06 – Data extraction reports: Business day event	
5.6 Intraday credit reports (IDC)	
5.6.1 IDC01 - Daily Intraday credit (IDC) community indicators	
5.6.2 IDC02 – Credit line/IDC daily reporting	
5.6.3 IDC03 – Credit line/IDC averages and maxima (account level)	
5.6.4 IDC04 – Credit line/IDC averages and maxima (community level)	
5.6.5 IDC05 – Maximum of credit line used	
5.6.6 IDC06 – Credit line and IDC use at system level	
5.7 Invoice Data (INV)	
5.7.1 INV01 - Reporting revenues	
5.8 Minimum reserve reports (MIR)	
5.8.1 MIR01 – Minimum reserve information	
5.8.2 MIR02 – Minimum reserve requirements per country	
5.9 Participation reports (PAR)	
5.9.1 PAR01 – Critical participants	
5.9.2 PAR02 – List of active Direct and Indirect Participants according to RTGS Directory	
5.9.3 PAR03 – Parties subject and not subject to minimum reserve	
5.9.4 PAR04 – List of ancillary systems	
5.9.5 PAR05 – List of DCA cross-border links	
5.9.6 PAR06 – Number of participants per CB	
5.10 Standing facilities reports (STF)	
5.10.1 STF01 – Standing facility information	
5.11 Statement reports (STA)	
5.11.1 STA01 – Statement of account (single account)	
5.11.2 STA02 – Statement of account (co-managed accounts)	
5.12 Transaction reports (TRN)	
5.12.1 TRN01 - Cash transfer (order) search and details	
5.12.2 TRN02 - Monthly overview of domestic and cross-border payments	. 285
5.12.3 TRN03 - Monthly peak day and peak hour in terms of volume and value of cash transfer	
orders 289	
5.12.4 TRN04 - Cash transfers per time band and per CB	. 293
5 12 5 TDNOS Monthly everyions of each transfer orders nor party	207



5.12.6 TRN06 – Monthly share of Indirect Participant, addressable BIC and multi-addressee	
payments as part of total Direct Participant's activity	303
5.12.7 TRN07 – Cash transfers between two accounts of different parties	307
5.12.8 TRN08 – Business activity of a party/parties	313
5.12.9 TRN09 – RTGS Account Holder activity	318
5.12.10 TRN10 – Monthly value and volume of cash transfers in CLM/RTGS (according to T2	
statistical framework)	322
5.12.11 TRN11 – Monthly value and volume of cash transfers between system entities	326
6 Understanding user rights and access rights (advanced users)	
6.1 Functional security	332
6.2 Data security	335
7 Creating reports (just advanced users)	337
7.1 The user interface	338
7.1.1 On-demand toolbar	
7.1.2 Sources tab	349
7.1.3 Data items tab	350
7.1.4 Toolbox bar	351
7.1.5 Report overview pane	353
7.1.6 Pages pane	354
7.1.7 Queries pane	355
7.1.8 Classes pane	355
7.1.9 Variables pane	356
7.1.10 Filters pane	356
7.1.11 Properties pane	357
7.2 Report Layout, queries and objects	
7.2.1 Layout	361
7.2.1.1 The Function of the page structure view	362
7.2.1.2 Pages	365
7.2.1.3 Guided Report Layout	367
7.2.1.4 Specify the font for a report	368
7.2.2 Queries	370
7.2.3 Report objects	370
7.2.3.1 Mostly Used Objects	373
7.2.3.2 Copy object formatting	376
7.2.3.3 Add borders to a formatting object	376
7.3 Relational and Dimensional Reporting	378
7.3.1 How to choose a reporting style	378
7.3.2 Relational reporting style	378
7.3.3 Dimensional reporting style	379
7.3.4 Insert a Query Calculation	379
7.3.4.1 Functions for data items	383



7.3.5 Guidelines for each reporting style	400
7.4 Create a report	403
7.4.1 Templates and themes	403
7.4.2 Adding data	404
7.4.3 Insert a single data item	407
7.4.4 Validate a report	408
7.5 Options in Reporting	411
7.5.1 View Options	411
7.5.2 Edit Options	413
7.5.3 Report Options	415
7.5.4 Advanced Options	417
7.6 Working with lists	418
7.6.1 Set list properties	418
7.6.2 Hide column in reports	420
7.6.3 Create a scrollable list	421
7.6.4 Using Repeaters	422
7.6.5 Change a list into a crosstab	423
7.7 Working with crosstabs	424
7.7.1 Crosstab nodes and Crosstab nodes members	425
7.7.2 Set Crosstabs properties	427
7.7.3 Create a Single-Edge crosstab	430
7.7.4 Create a nested Crosstab	430
7.7.5 Creating headers automatically for sets in crosstabs	432
7.7.6 Showing Crosstab values as percentages	432
7.7.7 Specify the Default Measure	434
7.7.8 Indent data	434
7.8 Working with Visualisations	435
7.8.1 Comparing measures in a visualization	437
7.8.2 Adding a baseline to a visualization	438
7.8.3 Change visualization from one type to another	441
7.9 Charts	442
7.9.1 Change Chart from one type to another	442
7.9.2 Customizing chart properties	443
7.9.3 Adding a note to a chart	454
7.9.4 Adding a baseline to a chart	456
7.9.5 Adding a marker to a chart	458
7.9.6 Creating a drill-down Chart	460
7.10 Adding prompts to filter data	460
7.10.1 Build your own Prompt and Prompt page	461
7.10.2 Create a Prompt Directly in a Report Page	469
7.10.3 Control the data that appears in a tree prompt	472
7 10 4 Modifying prompts	474



7.10.4.1 Choose a drop-down list, a list box, or a radio button group:	474
7.10.4.2 Prompt requires user input	
7.10.4.3 Selecting multiple values in a prompt	
7.10.4.4 Show or Hide Prompt Status	
7.10.4.5 Specify a Default Selection for a Prompt	
7.10.4.6 Customize Prompt Text	
7.10.4.7 Add prompt buttons	
7.10.4.8 Create a Cascading Prompt	
8 Additional information	489
8.1 DWH data objects	489
8.2 CLM/RTGS inbound XML messages available in the DWH	506
8.3 DXE file documentation	507
8.3.1 Introduction	507
8.3.2 General information	508
8.3.2.1 Scheduling	508
8.3.2.2 File splitting	509
8.3.2.3 File and field conventions	509
8.3.3 Relationship between files	510
8.3.3.1 Use of technical identifiers	510
8.3.3.2 Party to cash account reference data file relationship	510
8.3.3.3 Cash account balance and liquidity to reference data file relationships	510
8.3.3.4 Cash transfers to reference data file relationships	510
8.3.3.5 Aggregation Group to Reference Data File Relationships	511
8.3.4 DXE01 - party reference data file specification	511
8.3.5 DXE02 - Cash account reference data file specification	512
8.3.6 DXE03 - Cash account aggregation group file specification	516
8.3.7 DXE04 - Cash account balance and liquidity file specification	517
8.3.8 DXE05 - Cash transfers orders/cash transfer file specification	522
8.3.9 DXE06 - Business day file specification	534



# List of Figures

Figure 1 - DWH high level overview	32
Figure 2 - Welcome page	33
Figure 3 - Welcome page - navigation view	34
Figure 4 - Welcome page - navigation view - items	35
Figure 5 - Welcome page – navigation view – items – report view selection	35
Figure 6 - Welcome page – Search content	35
Figure 7 - Welcome page – Search content - Save search	36
Figure 8 - Welcome page – Search content - initiate actions	36
Figure 9 - Welcome page – Search content - Action menu	36
Figure 10 - Welcome page - Notification	37
Figure 11 - More options – Notify me	37
Figure 12 - Welcome page - Notification – subscribe	38
Figure 13 - Welcome screen – Personal menu (1)	39
Figure 14 - Welcome screen – Personal menu (2)	39
Figure 15 - Welcome screen – Personal menu – Profile and settings – Profile	40
Figure 16 - Welcome screen – Personal menu – Profile and settings – Personal – Groups and roles	41
Figure 17 - Welcome screen – Personal menu – Profile and settings – Personal – Groups and roles	41
Figure 18 - Welcome screen – Personal menu – Profile and settings – Profile – My capabilities (1)	42
Figure 19 - Welcome screen – Personal menu – Profile and settings – Profile – My capabilities (2)	43
Figure 20 - Welcome screen – Personal menu – Profile and settings - Logging	44
Figure 21 - Welcome screen – Personal menu – Profile and settings – logging	44
Figure 22 - Welcome screen – Personal menu – Profile and settings - logging level	45
Figure 23 - Welcome screen – Personal menu – Profile and settings – Settings	46
Figure 24 - Welcome screen – Personal menu – My schedules and subscriptions	48
Figure 25 - Welcome screen – Personal menu – My schedules and subscriptions - Filter	48
Figure 26 - Welcome screen – Personal menu – My schedules and subscriptions – Upcoming schedules	49
Figure 27 - Welcome screen – Personal menu – My schedules and subscriptions – Past schedules	49
Figure 28 - Welcome screen – Personal menu – My schedules and subscriptions	50
Figure 29 - Welcome screen – Personal menu – My schedules and subscriptions – Modify	51
Figure 30 - Welcome screen – Personal menu – My schedules and subscriptions – View versions	51
Figure 31 - Welcome screen – Personal menu – My schedules and subscriptions – Disable schedule	51
Figure 32 - Welcome screen – Personal menu – My schedules and subscriptions – Remove schedule	52



Figure 33 - Welcome screen – Personal menu – My schedules and subscriptions – Filter (2)	52
Figure 34 - Welcome screen – Personal menu – My schedules and subscriptions – Filter (2) - Further o	
Figure 35 - Welcome screen – Personal menu – My schedules and subscriptions - Subscription type	53
Figure 36 - Welcome screen – Personal menu – My schedules and subscriptions – Status disabled	53
Figure 37 - Welcome screen – Personal menu – My schedules and subscriptions – Schedules Priority	54
Figure 38 - Welcome screen – Personal menu – My schedules and subscriptions – Advanced	55
Figure 39 - Welcome screen – Personal menu – My schedules and subscriptions – Advanced - All - Typ schedule	
Figure 40 - Welcome screen – Personal menu – My schedules and subscriptions – Advanced - All - Typschedule – Report	
Figure 41 - Welcome screen – Personal menu – My schedules and subscriptions – Advanced - All - Typ schedule - Report	
Figure 42 - Personal menu - Log out	58
Figure 43 - Welcome page - menu	59
Figure 44 - Welcome page - Home	59
Figure 45 - Welcome page - Search	60
Figure 46 - Welcome page - filter options	60
Figure 47 - Welcome page - Search - Save icon	61
Figure 48 - Welcome page – remove search	61
Figure 49 - Welcome page - Search - Saved searches	61
Figure 50 - Welcome page - System information link	61
Figure 51 - Welcome page – System information menu	62
Figure 52 - Welcome page – Recently viewed	63
Figure 53 - Welcome page - New	64
Figure 54 - Welcome page - Team content	65
Figure 55 - Welcome page- Team content - folder structure	65
Figure 56 - Welcome page - Team content - folder structure (CB user)	66
Figure 57 - Welcome page - Team content - Data Packages	66
Figure 58 - Welcome page - Team content - Predefined reports	67
Figure 59 - Welcome page - Team content - Predefined Reports - ANS - Ancillary System Reports	67
Figure 60 - Welcome page – My content	68
Figure 61 - Welcome page – My content – Add folder	68
Figure 62 - Welcome page – My content – New Folder (1)	68



Figure 63 - Welcome page – My content– New Folder (2)	. 69
Figure 64 - Welcome page – My content – sort in ascending order	. 69
Figure 65 - Welcome page – My content – sort in descending order	. 70
Figure 66 - Welcome page – Team content – Predefined Reports – filter options	. 70
Figure 67 - Welcome page – My content – filter options – filter by folders	. 71
Figure 68 - Team content - Predefined Reports - STF - Standing Facilities Reports	. 72
Figure 69 - Team content - Predefined Reports - STF - Standing Facilities Reports – STF01 – Standing Facility information- Copy	. 73
Figure 70 - Team content - Predefined Reports - STF - Standing Facilities Reports – STF0 – Standing Facility information - Copy to	. 73
Figure 71 - Team content – CB Shared folders	. 74
Figure 72 - My content - copied report	. 74
Figure 73 - Team content - Predefined Reports - STF - Standing Facilities Reports	. 75
Figure 74 - Team content - Predefined Reports - STF - Standing Facilities Reports – STF01 – Standing Facility information - Create report view	. 75
Figure 75 - My content - report view	. 76
Figure 76 - My content - report view - Properties	. 77
Figure 77 - My content - report view - Properties - Source report	. 78
Figure 78 - My content - report view - Properties - Source report deleted	. 79
Figure 79 - My content - report view - View versions	. 80
Figure 80 - My content - report view - View versions - Versions	. 80
Figure 81 - My content - report view - View versions - Version - report output	. 81
Figure 82 - Welcome page - My content - Properties	. 82
Figure 83 - Welcome page - My content – Run as XML	. 83
Figure 84 - Save Report	. 84
Figure 85 - Team content – Predefined Reports – STF – Standing Facilities Reports	. 85
Figure 86 - Team content – Predefined reports – STF – Standing Facilities Reports	. 85
Figure 87 - Standing Facilities Reports – STF01 Standing Facility information – prompt page	. 86
Figure 88 - Team content – Predefined Reports – STF – Standing Facilities Reports	. 87
Figure 89 - Team content – Predefined Reports – STF – Standing Facilities Reports – STF01 Standing Facility information – Run as (1)	. 87
Figure 90 - Team content – Predefined Reports – STF – Standing Facilities Reports – STF01 Standing Facility information – Run as (2)	. 88
Figure 91 - Standing Facilities Reports – STF01 Standing Facility information - prompt page	. 89



Figure 92 - Standing Facilities Reports – STF01 Standing Facility information – report	90
Figure 93 - Team content – Predefined Reports – STF – Standing Facilities Reports – STF01 Standing Facility information – Run as	90
Figure 94 - Team content – Predefined Reports – STF – Standing Facilities Reports – STF01 Standing Facility information – Run as – Run in background	91
Figure 95 - Run as – Run in background – Advanced	92
Figure 96 - Run as – Run in background - Advanced	93
Figure 97 - Run as – Run in background – Advanced – Execution time – Later	93
Figure 98 - Team content – Predefined Reports – STF – Standing Facilities Reports	94
Figure 99 - Team content – Predefined Reports – STF – Standing Facilities Reports – Run as	94
Figure 100 - Team content – Predefined Reports – STF – Standing Facilities Reports – Run as – Run in background	95
Figure 101 - Team content – Predefined Reports – STF – Standing Facilities Reports – Run as – Run in background – Advanced	95
Figure 102 - Team content – Predefined Reports – STF – Standing Facilities Reports – Run as – Run in background – Advanced – Save report as an external file	96
Figure 103 - Team content - Predefined Reports - Standing Facilities Reports - STF01 Standing Facility information	96
Figure 104 - STF01 Standing Facility information - More options	97
Figure 105 - STF01 Standing Facility information - Copy	97
Figure 106 - STF01 Standing Facility information – Copy to My content	98
Figure 107 - My content - STF01 Standing Facility information - Run as	98
Figure 108 - My content - STF01 Standing Facility information - Run as – Run in background	99
Figure 109 - My content - STF01 Standing Facility information - Run as – Choose the format	99
Figure 110 - My content - STF01 Standing Facility information - Run as – Advanced – Now or Later	100
Figure 111 - My content - STF01 Standing Facility information - Run in background - Advanced Delivery.	100
Figure 112 - My content - STF01 Standing Facility information - Run in background - Advanced Delivery - Save report as an external file	
Figure 113 - My content - STF01 Standing Facility information - Run in background - Advanced Delivery - Save report as an external file – Conflict resolution	
Figure 114 - My content - STF01 Standing Facility information - Run in background - Advanced Delivery - Run the report	
Figure 115 - My content - STF01 Standing Facility information - Run in background - Advanced Delivery - Enter search criteria	
Figure 116 - My content - report view - Properties	105



igure 117 - My content - report view - Properties – General - description of your report	
igure 118 - Welcome page - My content - report view - Properties - Schedule	
igure 119 - Welcome page - My content - report view - Properties - create schedule (1)	107
igure 120 - Welcome page - My content - report view - Properties - create schedule (2)	108
igure 121 - Welcome page - My content - Report view - Properties - Create schedule – Current values	109
igure 122 - Welcome page - My content - Report view - Properties - Create schedule – Enter values	109
igure 123 - Welcome page - My content - Report view - Properties - Create schedule – Languages	110
igure 124 - Welcome page - My content - Report view - Properties - Create schedule - PDF	111
igure 125 - Welcome page - My content - report view - Properties - create schedule (3)	112
igure 126 - Welcome page - My content - Properties - Set values	113
igure 127 - Welcome page - My content - Properties - Prompts - Set values	114
igure 128 - Welcome page - My content - Properties — Schedule	115
igure 129 - Welcome page - My content - Properties – Schedule	116
igure 130 - My content - report view – Properties	117
igure 131 - My content - report view - Properties – General - description of your report	117
igure 132 - Welcome page - My content - report view - Properties – Schedule	118
igure 133 - Welcome page - My content - report view - Properties - create schedule (1)	118
igure 134 - Welcome page - My content - report view - Properties - create schedule (2)	119
igure 135 - Welcome page - My content - report view - Properties - create schedule (3)	120
igure 136 - Welcome page - My content - Properties - Set values	121
igure 137 - Welcome page - My content - Properties - Prompts - Set values	122
igure 138 - Welcome page - My content - Properties - Schedule	122
igure 139 - Welcome page - Personal menu	123
igure 140 - Welcome page - Personal menu - My schedules and subscriptions	123
igure 141 - Welcome page - Personal menu - My schedules and subscriptions - Schedule	123
igure 142 - Previous prompts described as "Manual"	124
igure 143 - New prompts described as "Dynamic"	124
igure 144 - Dynamic prompts reference interval	125
igure 145 - Running a report with dynamic prompts	125
igure 146 - Select manual or dynamic dates	126
igure 147 - Dynamic option	126
igure 148 - Reference Month	126
igure 149 - Reference month options to select	127



Figure 150 - Dynamic prompt selected with all reference interval	127
Figure 151 - Report result	128
Figure 152 - Filters of report executed	128
Figure 153 - Filters of report executed	128
Figure 154 - Report result with data starting from April	129
Figure 155 - Report result with data ending on August	129
Figure 156 - Last Business Date	130
Figure 157 - Time Range options to select	130
Figure 158 - Dynamic prompt selected with all reference interval	131
Figure 159 - Report result	131
Figure 160 - Filters of report executed	132
Figure 161 - Scheduling a report with Dynamic prompts	132
Figure 162 - Scheduling a report with Dynamic prompts - copy to my content folder	133
Figure 163 - Scheduling a report with Dynamic prompts - copy to my content folder	134
Figure 164 - Scheduling a report with Dynamic prompts - selecting Action menu in copied report	134
Figure 165 - Scheduling a report with Dynamic prompts - Action menu – properties	135
Figure 166 - Scheduling a report with Dynamic prompts - Action menu - properties menu	136
Figure 167 - Scheduling a report with Dynamic prompts - create schedule	136
Figure 168 - Scheduling a report with Dynamic prompts - schedule menu - Schedule	137
Figure 169 - Scheduling a report with Dynamic prompts - schedule menu - Options	137
Figure 170 - Scheduling a report with Dynamic prompts - schedule menu - Prompts	138
Figure 171 - Scheduling a report with Dynamic prompts - static prompt page	138
Figure 172 - Scheduling a report with Dynamic prompts - Dynamic prompt page	139
Figure 173 - Scheduling a report with Dynamic prompts - Dynamic prompt page with reference intervals	
selected	139
Figure 174 - Scheduling a report with Dynamic prompts - Dynamic prompt page with reference intervals selected	140
Figure 175 - Scheduling a report with Dynamic prompts - Dynamic prompt page with reference intervals selected	140
Figure 176 - Scheduling a report with Dynamic prompts - successfully created	141
Figure 177 - ANS01 prompt	142
Figure 178 - ANS01 output	143
Figure 179 - ANS02 Prompt	145
Figure 180 - ANS02 output	146



Figure 181 - BDY01 prompt	. 148
Figure 182 - BDY01 Output (1)	. 149
Figure 183 - BDY01 Output (2)	. 150
Figure 184 - BIL01 prompt	. 152
Figure 185 - BIL01 Output ("Per service")(1)	. 153
Figure 186 - BIL01 Output ("Per service")(2)	. 154
Figure 187 - BIL01 Output ("System entity wide sums per service")(1)	. 154
Figure 188 - BIL01 Output ("System entity wide sums per service")(2)	. 155
Figure 189 - BIL02 prompt	. 159
Figure 190 - BIL02 Output ("Monitor the invoicing activity by party")	. 160
Figure 191 - BIL02 Output ("Monitor the invoicing activity by service")	. 160
Figure 192 - BIL02 Output ("Monitor the invoicing activity by billing period")	. 161
Figure 193 - BIL02 Output ("Monitor the invoicing activity by fee type")	. 161
Figure 194 - BIL03 prompt	. 164
Figure 195 - BIL03 output (1) ("Invoice configuration")	. 165
Figure 196 - BIL03 output (2) ("Fee schedule")	. 166
Figure 197 - BIL03 output (3) ("Fee band")	. 166
Figure 198 - BIL03 output (4) ("VAT")	. 167
Figure 199 - BIL03 output (5) ("Service")	. 167
Figure 200 - BIL04 prompt (1)	. 170
Figure 201 - BIL04 prompt (2)	. 171
Figure 202 - BIL04 Output	. 172
Figure 203 - BIL05 prompt	. 175
Figure 204 - BIL05 Output	. 177
Figure 205 - BIL06_Prompt	. 179
Figure 206 - BIL06_Output	. 180
Figure 207 - CON1 prompt	. 182
Figure 208 - CON01 output (1) ("Synthesis of contingency accounts settlements during the contingency procedure and final balances")	. 183
Figure 209 - CON01 output (2) ("Details on contingency cash transfers settled")	
Figure 210 - CON02 prompt	
Figure 211 - CON02 output (2)	
Figure 212 - DXE01 prompt	



Figure 213 - DXE02 prompt	191
Figure 214 - DXE04 prompt	195
Figure 215 - DXE05 prompt	197
Figure 216 - DXE06 prompt	199
Figure 217 - IDC01 prompt	201
Figure 218 - IDC01 Output (1)	202
Figure 219 - IDC01 Output (2)	203
Figure 220 - IDC02 prompt	205
Figure 221 - IDC02 output (1)	206
Figure 222 - IDC02 output (2)	207
Figure 223 - IDC02 output (3)	207
Figure 224 - IDC03 prompt	210
Figure 225 - IDC03 output (1)	211
Figure 226 - IDC03 output (2)	212
Figure 227 - IDC04 prompt	214
Figure 228 - IDC04 output (1)	215
Figure 229 - IDC04 output (2)	215
Figure 230 - IDC05 prompt (1) – For a specific party BIC	217
Figure 231 - IDC05 prompt (2) – For all parties	217
Figure 232 - IDC05 output (1) - A party was selected	218
Figure 233 - IDC05 output (2) - A party was not selected covering one day only	219
Figure 234 - IDC06 prompt	221
Figure 235 - IDC06 output (1)	222
Figure 236 - IDC06 output (2)	223
Figure 237 - INV01 prompt	224
Figure 238 - INV01 Output	226
Figure 239 - MIR01 prompt	229
Figure 240 - MIR01 output (1)	230
Figure 241 - MIR01 output (2)	230
Figure 242 - MIR01 – Output (List of interest and penalty rates)	231
Figure 243 - MIR02 prompt	235
Figure 244 - MIR02 output	236
Figure 245 - PAR01 prompt	237



Figure 246 - PAR01 output (1)	238
Figure 247 - PAR02 prompt	240
Figure 248 - PAR02 output (1)	241
Figure 249 - PAR02 output (2)	241
Figure 250 - PAR02 output (3)	242
Figure 251 - PAR03 prompt	244
Figure 252 - PAR03 output (1)	245
Figure 253 - PAR03 output (2)	245
Figure 254 - PAR04 prompt	247
Figure 255 - PAR04 output (1)	248
Figure 256 - PAR04 output (2)	249
Figure 257 - PAR05 prompt	251
Figure 258 - PAR05 output (1) – DCA view	252
Figure 259 - PAR05 output (2) – Linked account view	253
Figure 260 - PAR06 prompt	255
Figure 261 - PAR06 output	256
Figure 262 - STF01 prompt	258
Figure 263 - STF01 output (1)	259
Figure 264 - STF01 output (2)	259
Figure 265 - STF01 output (3)	260
Figure 266 - STA01 prompt (1)	263
Figure 267 - STA01 prompt (2)	264
Figure 268 - STA01 output (1)	265
Figure 269 - STA01 output (2)	266
Figure 270 - STA02 prompt	269
Figure 271 - STA02 output (1)	270
Figure 272 - STA02 output (2)	271
Figure 273 - TRN01 prompt (1) – by transaction reference	273
Figure 274 - TRN01 prompt (2) - by business characteristics	274
Figure 275 - TRN01 prompt (3) - by business characteristics	275
Figure 276 - TRN01 output (1) – by transaction reference	278
Figure 277 - TRN01 output (2) – details	278
Figure 278 - TRN01 output (3) - by business characteristics	279



Figure 279 - TRN01 output (4) – details	279
Figure 280 - TRN01 output (5) - details	280
Figure 281 - TRN02 prompt	286
Figure 282 - TRN02 output (1)	287
Figure 283 - TRN02 output (2)	287
Figure 284 - TRN03 prompt	289
Figure 285 - TRN03 output	291
Figure 286 - TRN04 prompt	294
Figure 287 - TRN04 output (1)	295
Figure 288 - TRN04 output (2)	295
Figure 289 - TRN04 output (3)	296
Figure 290 - TRN04 output (4)	296
Figure 291 - TRN05 prompt	298
Figure 292 - TRN05 output (1)	299
Figure 293 - TRN05 output (2)	300
Figure 294 - TRN05 output (3)	300
Figure 295 - TRN05 output (4)	301
Figure 296 - TRN05 output (5)	301
Figure 297 - TRN05 output (6)	302
Figure 298 - TRN06 prompt	304
Figure 299 - TRN06 output (1)	305
Figure 300 - TRN06 output (2)	306
Figure 301 - TRN07 prompt	308
Figure 302 - TRN07 output (1)	309
Figure 303 - TRN07 output (2)	310
Figure 304 - TRN07 output (3)	310
Figure 305 - TRN08 prompt	314
Figure 306 - TRN08 output (1)	315
Figure 307 - TRN08 output (2)	316
Figure 308 - TRN08 output (3)	316
Figure 309 - TRN08 output (4)	317
Figure 310 - TRN09 prompt	318
Figure 311 - TRN09 output (1) – RTGS Account Holder activity View	319



Figure 312 - TRN09 output (2) – Party Market Share View	320
Figure 313 - TRN10 prompt	323
Figure 314 - TRN10 output (1)	324
Figure 315 - TRN10 output (2)	325
Figure 316 - TRN11 prompt	326
Figure 317 - TRN11 output (1)	328
Figure 318 - TRN11 output (2)	328
Figure 319 - TRN11 output (3)	329
Figure 320 - TRN11 output (4)	329
Figure 321 - Groups and roles and capabilities	332
Figure 322 - Functional security - Central Bank user	334
Figure 323 - Functional security - Payment bank user	335
Figure 324 - Functional security - Ancillary System user	335
Figure 325 - Creating reports - Welcome page – Open menu - New - Report	337
Figure 326 - Creating reports - Predefined Reports - Edit report	338
Figure 327 - The user interface- Creating a report	338
Figure 328 - The user interface - Page Preview	343
Figure 329 - The user interface - Page design view	343
Figure 330 - The user interface - Page structure preview	344
Figure 331 - The user interface - Page structure view	344
Figure 332 - On-demand toolbar - Pin and Unpin	345
Figure 333 - On-demand toolbar - More icon	346
Figure 334 - On-demand toolbar - More icon - Options	347
Figure 335 - On-demand toolbar - Select ancestor	349
Figure 336 - Sources tab - Sources items	350
Figure 337 - Toolbox bar	351
Figure 338 - Toolbox bar - Properties Pane	352
Figure 339 - Report overview pane	353
Figure 340 - Report overview pane - Validate report	354
Figure 341 - Pages pane	354
Figure 342 - Queries pane	355
Figure 343 - Classes pane	356
Figure 344 - Variables pane	356



Figure 345 - Properties pane - Report level	358
Figure 346 - Properties pane - Report level – Burst options (2)	359
Figure 347 - The user interface - Report Layout, queries and objects - Layout - Page structure	363
Figure 348 - The Function of the page structure view	364
Figure 349 - Report Layout, queries and objects - Pages	365
Figure 350 - Report Layout, queries and objects - Pages - First page	366
Figure 351 - Report Layout, queries and objects - Pages - Second page	366
Figure 352 - Report Layout, queries and objects - Pages - Chart and first rows of the table on the first pag	ge
	367
Figure 353 - Guided Report Layout - More icon - Options - Report	368
Figure 354 - Specify the font for a report - Font icon - Foreground Color	369
Figure 355 - Queries - Query example of Eurosystem2 template	370
Figure 356 - Report objects - Insert map and list in a cell of table	371
Figure 357 - Report objects - Find - Find objects in the query	372
Figure 358 - Report objects - Mostly Used Objects - Data container - List	374
Figure 359 - Report objects - Mostly Used Objects - Textual	375
Figure 360 - Report objects - Mostly Used Objects - Layout	375
Figure 361 - Report objects - Add borders to a formatting object	377
Figure 362 - Relational reporting style - Dimensional data	379
Figure 363 - Dimensional reporting style - Dimensional data (2)	379
Figure 364 - Insert a Query Calculation	380
Figure 365 - Insert a Query Calculation - Specify Query Calculation	381
Figure 366 - Insert a Query Calculation - Specify Query Calculation - Data items	382
Figure 367 - Insert a Query Calculation - Operators	383
Figure 368 - Insert a Query Calculation - Operators - Function tab	384
Figure 369 - Insert a Query Calculation - Searching the string	385
Figure 370 - Insert a Query Calculation - Searching the string - Results	385
Figure 371 - Insert a Query Calculation - Searching the string (2)	386
Figure 372 - Insert a Query Calculation - Searching the string - Results (2)	386
Figure 373 - Insert a Query Calculation - Data item expression - Tips tab – Information	387
Figure 374 - Insert a Query Calculation - Operators	388
Figure 375 - Insert a Query Calculation - Searching the string - Different context than the "like" function	389
Figure 376 - Insert a Query Calculation - Searching the string - Different context than the "like" function -	
Results	389



Figure 377 - Insert a Query Calculation - Data item expression - Tips tab - Information - Literal	. 390
Figure 378 - Insert a Query Calculation - Data item expression - Tips tab - Information - Literal (2)	. 390
Figure 379 - Insert a Query Calculation - Summarize Functions	. 391
Figure 380 - Insert a Query Calculation - Member Summaries	. 392
Figure 381 - Insert a Query Calculation - Constants	. 393
Figure 382 - Insert a Query Calculation - Constructs	. 394
Figure 383 - Insert a Query Calculation - Business Date/Time Functions	. 395
Figure 384 - Insert a Query Calculation - Period Predicates	. 396
Figure 385 - Insert a Query Calculation - Block Functions	. 396
Figure 386 - Insert a Query Calculation - Common Functions	. 398
Figure 387 - Insert a Query Calculation - Dimensional Functions	. 400
Figure 388 - Templates and themes - Templates	. 404
Figure 389 - Templates and themes - Themes	. 404
Figure 390 - Adding data - Add a source - Right click item - Set default package	. 405
Figure 391 - Adding data - Add a source - Right click item - Delete package	. 406
Figure 392 - Adding data - Add a source - Right click item - Replace package	. 407
Figure 393 - Insert a single data item - Data container - Singleton	. 408
Figure 394 - Validate a report - Validate options	. 410
Figure 395 - Set list properties	. 419
Figure 396 - Hide column in reports -List column properties - Conditional - Set Render to No	. 421
Figure 397 - Create a scrollable list	. 421
Figure 398 - Create a scrollable list - Properties - General - Scrollable area height	. 422
Figure 399 - Using Repeaters - Data container - Repeater/Repeater table	. 422
Figure 400 - Using Repeaters - List with all Number of Transactions in a single row	. 423
Figure 401 - Using Repeaters - Properties - General - Across and Down	. 423
Figure 402 - Change a list into a crosstab - More icon - Pivot List to Crosstab	. 424
Figure 403 - Working with crosstabs - Data container - Crosstab	. 424
Figure 404 - Crosstab nodes and Crosstab nodes members	. 425
Figure 405 - Crosstab nodes and Crosstab nodes members (2)	. 426
Figure 406 - Set Crosstabs properties	. 428
Figure 407 - Create a Single-Edge crosstab	. 430
Figure 408 - Create a nested Crosstab	. 431
Figure 409 - Creating headers automatically for sets in crosstabs	. 432



Figure 410 - Specify the Default measure	434
Figure 411 - Indent data - Properties pane - General - Level indentation	435
Figure 412 - Working with Visualisations - Data container - Visualization	436
Figure 413 - Working with Visualisations - Visualization gallery	436
Figure 414 - Adding a baseline to a visualization	439
Figure 415 - Adding a baseline to a visualization - Baselines	440
Figure 416 - Adding a baseline to a visualization - Baseline at 1.300.000	440
Figure 417 - Adding a baseline to a visualization - Baseline properties	. 441
Figure 418 - Adding a baseline to a visualization - Baselines box	. 441
Figure 419 - Charts - Visualization gallery	. 442
Figure 420 - Adding a note to a chart	454
Figure 421 - Adding a note to a chart - Position the node / Expression	455
Figure 422 - Adding a note to a chart - Report expression	456
Figure 423 - Adding a baseline to a chart	457
Figure 424 - Adding a marker to a chart	459
Figure 425 - Build your own Prompt and Prompt page	462
Figure 426 - Build your own Prompt and Prompt page - Prompting	463
Figure 427 - Build your own Prompt and Prompt page - Prompt Wizard dialog box	465
Figure 428 - Build your own Prompt and Prompt page - Prompt Wizard dialog box - Make the filter option	al
	466
Figure 429 - Build your own Prompt and Prompt page - Prompt Wizard - Tree prompt	467
Figure 430 - Build your own Prompt and Prompt page - Prompt Wizard - Tree prompt - Apply filter	468
Figure 431 - Build your own Prompt and Prompt page - Prompt Wizard - Tree prompt - Create new query	<i>t</i> 468
Figure 432 - Create a Prompt Directly in a Report Page	470
Figure 433 - Create a Prompt Directly in a Report Page - Prompt Wizard - Date prompt	470
Figure 434 - Create a Prompt Directly in a Report Page - Prompt Wizard - Date prompt - Make the filter	474
optional	
Figure 435 - Control the data that appears in a tree prompt - Prompt Wizard - Operator	
Figure 436 - Modifying prompts - Properties - General - Select UI - List box	
Figure 437 - Modifying prompts - Properties - General - Select UI - List box	
Figure 438 - Modifying prompts - Filters - Usage box	
Figure 439 - Modifying prompts - Properties - General - Multi-select	
Figure 440 - Modifying prompts - Filters - Edit filters	
Figure 441 - Modifying prompts - Operator	. 479

Page 22 of 536



Figure 442 - Modifying prompts - Detail filter expression	. 480
Figure 443 - Modifying prompts - Select more than one value	. 480
Figure 444 - Modifying prompts - Check box group - Select more than one value	. 481
Figure 445 - Modifying prompts - Properties - General - Hide adornments	. 481
Figure 446 - Modifying prompts - Properties - Default selections - Minimum value/ Maximum value	. 482
Figure 447 - Modifying prompts - Properties - Prompt Text	. 483
Figure 448 - Modifying prompts - Properties - Prompt Text - Header Text	. 483
Figure 449 - Modifying prompts - Properties - Prompt Text - Header Text - Localized Text	. 484
Figure 450 - Modifying prompts - Add prompt buttons - Toolbox - Prompt button	. 485
Figure 451 - Modifying prompts - Add prompt buttons - Prompt button properties - General - Type	. 486
Figure 452 - Modifying prompts - Value prompt - Properties - General - Cascade source	. 487
Figure 453 - Modifying prompts - Value prompt - Properties - General - Cascade source - Select Parame	ter
	. 487



## List of Tables

Table 1 - ANS01 - Report description - Prompt screen	. 143
Table 2 - ANS01 - Report description - Output screen	. 144
Table 3 - ANS02 - Report description - Prompt screen	. 146
Table 4 - ANS02 - Report description - Output screen	. 147
Table 5 - BDY01 - Prompt description	. 149
Fable 6 - BDY01 - Output description	. 151
Table 7 - BIL01 - Prompt description	. 153
Fable 8 - BIL01 - Output description	. 158
Table 9 - BIL02 – Prompt description	. 159
Fable 10 - BIL02 - Output description	. 163
Fable 11 - BIL03 - Prompt description	. 165
Table 12 - BIL03 - Output description	. 168
Fable 13 - BIL03 - Critical data fields	. 169
Table 14 - BIL04 - Prompt description	. 172
Table 15 - BIL04 - Output description	. 175
Table 16 - BIL05 - Prompt description	. 176
Table 17 - BIL05 - Output description	. 178
Fable 18 - BIL06 - Prompt description	. 180
Table 19 - BIL06 - Output description	. 181
Fable 20 - CON01 - Prompt description	. 182
Fable 21 - CON01 - Output description	. 185
Table 22 - CON02 - Prompt description	. 187
Fable 23 - CON02 - Output description	. 188
Fable 24 - DXE01 - Prompt description	. 190
Table 25 - DXE02 - Prompt description	. 192
Fable 26 - DXE03 - Prompt description	. 194
Table 27 - DXE04 - Prompt description	. 196
Table 28 - DXE05 - Prompt description	. 198
Fable 29 - DXE06 - Prompt description	. 200
Table 30 - IDC01 - Prompt description	. 202
Fable 31 - IDC01 - Output description	. 204
Fable 32 - IDC02 - Prompt description	. 206



Table 33 - IDC02 - Output description	209
Table 34 - IDC03 - Prompt description	210
Table 35 - IDC03 - Output description	213
Table 36 - IDC04 - Prompt description	214
Table 37 - IDC04 - Output description	216
Table 38 - IDC05 - Prompt description	218
Table 39 - IDC05 - Output description	220
Table 40 - IDC06 - Prompt description	221
Table 41 - IDC06 - Output description	223
Table 42 - INV01 - Prompt description	225
Table 43 - INV01 - Output description	228
Table 44 - MIR01 - Prompt description	229
Table 45 - MIR01 - Output description - table minimum reserve information	233
Table 46 - MIR01 - Output description - table list of interest and penalty rates	234
Table 47 - MIR02 - Prompt description	235
Table 48 - MIR02 - Output description	236
Table 49 - PAR01 - Prompt description	238
Table 50 - PAR01 - Output description	239
Table 51 - PAR02 - Prompt description	240
Table 52 - PAR02 - Output description	243
Table 53 - PAR03 - Prompt description	244
Table 54 - PAR03 - Output description - table parties subject to minimum reserve	246
Table 55 - PAR03 - Output description - table parties not subject to minimum reserve	246
Table 56 - PAR04 - Prompt description	248
Table 57 - PAR04 - Output description	250
Table 58 - PAR05 - Prompt description	252
Table 59 - PAR05 - Output description - Table DCA View	253
Table 60 - PAR05 - Output description - Table linked account view	254
Table 61 - PAR06 - Prompt description	255
Table 62 - PAR06 - Output description	257
Table 63 - STF01 - Prompt description	258
Table 64 - STF01 - Output description - Table use of marginal lending	261
Table 65 - STF01 - Output description - Table overnight deposit	262



Table 66 - STF01 - Output description -	Bar chart for marginal lending and overnight deposit	262
Table 67 - STA01 - Prompt description		264
Table 68 - STA01 - Output description.		268
Table 69 - STA02 - Prompt description		270
Table 70 - STA02 - Output description.		272
Table 71 - TRN01 - Prompt description		277
Table 72 - TRN01 - Output description.		281
Table 73 - TRN01 - Report description	- Details	285
Table 74 - TRN02 - Prompt description		286
Table 75 - TRN02 - Output description.		288
Table 76 - TRN03 - Prompt description		290
Table 77 - TRN03 - Output description.		293
Table 78 - TRN04 - Prompt description		294
Table 79 - TRN04 - Output description.		297
Table 80 - TRN05 - Prompt description		299
Table 81 - TRN05 - Output description.		303
Table 82 - TRN06 - Prompt description		305
Table 83 - TRN06 - Output description.		307
Table 84 - TRN07 - Prompt description		309
Table 85 - TRN07 - Output description.		313
Table 86 - TRN08 - Prompt description		315
Table 87 - TRN08 - Output description.		317
Table 88 - TRN09 - Prompt description		319
Table 89 - TRN09 - Output description	- Table	322
Table 90 - TRN09 - Output description.		322
Table 91 - TRN10 - Prompt description		324
Table 92 - TRN10 - Output description.		325
Table 93 - TRN11 - Prompt description		327
Table 94 - TRN11 - Output description	- Table overall volume	331
Table 95 - TRN11 - Output description	- Table overall value	331
Table 96 - Functional security - User G	roups and Roles	333
Table 97 - The user interface - Report i	cons and functions	342
Table 98 - Guidelines for each reporting	g style	403



Table 99 - Validate a report	. 409
Table 100 - View Options	. 412
Гable 101 - Edit Options	. 414
Table 102 - Report Options	. 416
Table 103 - Advanced Options	. 418
Table 104 - Adding a baseline to a visualization	. 438
Table 105 - Customizing chart properties	. 454
Table 106 - Adding a marker to a chart	. 458
Table 107 - Adding prompts to filter data	. 461
Table 108 - Build your own Prompt and Prompt page	. 464
Table 109 - Control the data that appears in a tree prompt	. 474
Гable 110 - DWH objects	. 506
Table 111 - List of CLM/RTGS inbound messages	. 507



### 1 Introduction

### 1.1 Purpose of the document

The Data Warehouse (DWH) User Handbook, hereinafter referred to as UHB, aims to facilitate the use of the Data Warehouse Graphical User Interface. It is addressed to all DWH users, regardless of the parties and describes the full range of functionalities available in user-to-application (U2A) mode. The UHB provides detailed reference information on all GUI functionalities and step-by-step descriptions. Thus the DWH UHB provides helpful information on the use of the DWH GUI.

There is only one handbook for DWH addressing all actors: Central Banks (CB), Payment Banks (PB) and Ancillary Systems (AS). Specific chapters for CB users with advanced user's profile (see chapter Overview [> 31]) are marked with the annex "for advanced user" in the title of the chapter. All other chapters are relevant for each reader.

The UHB is part of the functional documentation and complements the DWH UDFS, which can be found on the ECB's website.

Updated versions of the UHB will be provided on a regular basis.

#### 1.1.1 UHB Methodology

To ease orientation and help you to find your desired information quickly several symbols and methodological elements are used throughout the DWH UHB.

#### **Page**

Every page of the UHB has a similar page layout. You can find the following elements:

- I The header, which shows the chapter and the sub-chapter title,
- I The text, which contains the main information, tables and screenshots
- The footer, which shows page number and the amount of pages of the document

#### Links

Links are illustrated throughout the UHB with a little triangle followed by a page number within squared brackets. These links help you to jump to related sections by clicking on them or turning to the relevant page.

Example:

[ 209]



#### Tables

Tables are used to present information in a clearly arranged format. They consist of a table head and a table body. The body is divided into a left and a right column. The left column contains keywords, for example field names, which are explained in the right column. Subsections within a table are preceded by a heading. The order of the description follows the appearance on the screens from left to right and from top to bottom.

#### **Action steps**

Step-by-step descriptions are divided into single action steps. These steps are numbered sequentially. Intermediate results are described where appropriate.

#### **Screenshots**

Screenshots are used to illustrate the corresponding text. Note that there might be minor deviations between the screenshot and your screen appearance, according to your access rights or a specific selection you have made. In addition, some functions are mutually exclusive and cannot be represented in a single screenshot. In these cases, the screenshot illustrates the more relevant use of the screen.

Values shown on a screenshot might also deviate from the default values indicated in the description. In these cases, the description is valid rather than the screenshot.

#### 1.1.2 UHB Structure

The UHB is divided in eight chapters:

#### **Chapter 1**

The chapter **Introduction** explains the aim, the content and the approach of both the UHB and the DWH GUI. While the first section explains how to use the UHB, the second section focuses on technical requirements.

#### Chapter 2

The chapter **Introduction to the Data Warehouse** provides background information about the Data Warehouse itself and also about the software tool used as GUI.

#### Chapter 3

The chapter **First steps & basics** provides the reader with basic elements and the structure of the DWH GUI.

#### Chapter 4

The chapter Working with reports explains the reader how to



- copy and save a report (see chapter Copy, save and export [▶ 72])
- I run a report (see chapter Running reports [▶ 84])
- schedule a report (see chapter Scheduling reports [> 104])

#### **Chapter 5**

The chapter **Predefined reports** provides the reader with information about all predefined reports.

#### **Chapter 6**

The chapter **Understanding user rights and access rights** is only applicable for advanced users and explains on one hand the functional security and on the other hand the data security in DWH.

#### **Chapter 7**

The chapter **Creating reports** is only applicable for advanced users and provides information how to build a user defined report from scratch and how to adapt a predefined report.

#### **Chapter 8**

The chapter **DWH data objects** lists all data objects available in the DWH GUI.

### 1.2 Set-up and Login

#### 1.2.1 GUI Access

Users are directed to an initial page named ESMIG portal that ensures proper routing to the web applications the user has been granted to enter. Refer to the Connectivity Guide specified in the ESMIG UDFS document, current version available, for details on the communication network and services.

#### 1.2.2 Technical Requirements

Before entering the GUI, make sure to implement all necessary preparations described below.

Such preparations may be subject to periodical review/update to comply with changing technical/regulatory scenarios.

Please refer to the "ESMIG U2A Qualified Configurations" annex of ESMIG UDFS.

The required minimum screen resolution is 1366 x 768 pixel. Screen resolutions below this requirement are not supported and can lead to a deviating appearance and functionality of the GUI.



Even if the screen resolution fulfils the requirement defined above, it is important to note that scaling options provided by the operating system and the browser (e.g. 125% or 150%) may cause a deviating appearance and functionality of the GUI. If this is the case, the usage of scaling options is not supported.



### 2 Introduction to the Data Warehouse

#### 2.1 Overview

The aim of the DWH is to store and compile information coming from T2 (Real-Time Gross Settlement (RTGS) and Central Liquidity Management (CLM)), TARGET2- Securities (T2S) and common components i.e. Common Reference Data Management (CRDM), Billing (BILL), Contingency Services (ECONS II) and Business Day Management (BDM) in a homogenous manner at business level. As in T2 only data from the current business day are available, based on a reliable and secure database, the DWH offers the possibility of accessing the past data accumulated for further data analysis.

The DWH provides access to data in U2A mode and permits access to data within the databases. It gives a business-oriented view of the collected data without any detailed technical database terminology. Therefore, no knowledge about the database structure of T2 or T2S is required. It provides information through reports as predefined reports (for all user profiles) and user defined reports (only applicable for CB users with advanced user profile).

The DWH consolidates the content of the sources into a single database for reporting purposes and offers pre-defined reports to the users of the following T2 parties:

- I Central Banks (CB),
- Payment Banks (PB),
- Ancillary Systems (AS).

The precondition for a user to obtain access to the DWH is a setup in CRDM by the respective party. Access to the DWH depends on the user's profile, which ensures that the user is allowed to perform the requested action(s). There are two user profiles reflected as privileges in CRDM:

- Normal user profile: will be available for all party types.
- Advanced user profile: will be available for CB users only.

The data scope in the DWH follows the following rules:

- Users have access to their parties' data based on the data scope according to the hierarchical model (for details please refer to CRDM UDFS).
- I For CBs: Each CB has access to granular data for all parties belonging to its system entity. Moreover, each CB has access to aggregated data of all system entities.

The DWH uses Cognos as platform. It is an enterprise wide Business Intelligence (BI) solution, mostly used for reporting. Cognos is a web-based solution. Both the development and the end user interface are displayed on the web. It supports Relational Online Analytical Processing (ROLAP) and Multidimensional Online Analytical Processing (MOLAP) data sources.

The DWH provides reports to users in different formats in user-to-application mode (U2A) or to other applications in application-to-application mode (A2A). The user can run a report directly in the DWH GUI



(Cognos) and export the result. The second option is A2A delivery of the report as a file. To achieve this, the report has to be scheduled as described in chapter <u>Scheduling reports</u> [▶ 104].

**Note:** A CB user with advanced user profile was used in order to show the full scope of all screenshot pictures presented in this document.

#### 2.2 Process of the Data Warehouse

DWH receives data from different services and common components and processes the data in order to make them available via reports and files. The data passes through the following three layers:

- 1. landing zone,
- 2. core layer,
- 3. enterprise layer.

The data are transmitted into the landing zone of the DWH as a copy after the end of each business day (EoD). The landing zone buffers the data before they are selected and loaded into the core layer.

The core layer stores only granular, validated, harmonised and historicised data.

From the core layer the data are loaded into the enterprise layer. In the enterprise layer the data are aggregated, calculated and prepared for reporting and analysis in a dimensional structure.

The stored data cannot be retrieved in the landing zone; instead, detailed structured and aggregated data can be accessed through the reports. The reports are built using the data in the core and the enterprise layer.

After processing (data transformation and pre-calculations) of the transmitted data within the DWH, data from the previous business day are available in the DWH at the start of the new calendar day at the latest.

The following diagram provides a high-level overview of the flow from the source through the different DWH layers:

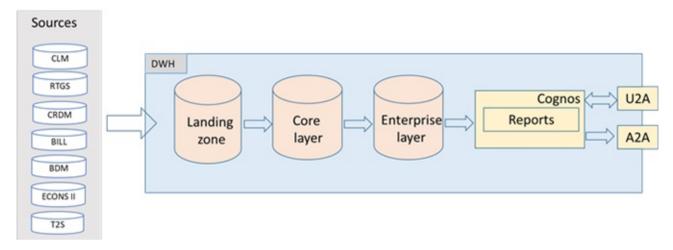


Figure 1 - DWH high level overview



## 3 First steps & basics

#### 3.1 Access to the DWH

Access to the DWH is managed through the Eurosystem Single Market Infrastructure Gateway (ESMIG). ESMIG provides to the DWH specific credentials found in CRDM for a specific user-id. This ensures that you have access to the relevant information depending on the party you belong to, the party type and your privilege.<sup>1</sup>

As soon as your login is successful you will see the welcome page.

The welcome page provides quick access to the product functionalities and content.

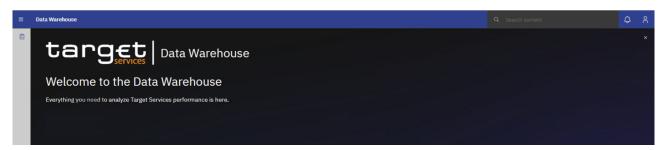


Figure 2 - Welcome page

The welcome page consists of the following building blocks:

#### Global application bar

The global application bar (the blue bar at the top of the screen) is a constant element of the user interface.

When the welcome page is open, the following, standard options are available:

"Data Warehouse" home page link (
"View switcher" - only visible if at least one document is open (
"Search content" (
"Notifications" icon (
"Notifications" icon (

<sup>1</sup> For details on the network communication and services, please refer to the Connectivity Guide specified in the ESMIG UDFS.





#### Welcome banner



You can hide the banner by clicking the "Close" icon ( ) or you can go to the personal menu, and under "Profile and settings > Settings", toggle the "Welcome banner" switch on or off.

## 3.2 Navigating in the DWH GUI – Global application bar

#### 3.2.1 Open menu

The "Open menu" is the main access point to the Cognos Analytics.

Click the "**Open menu**" icon ( ) in the application bar to access the menu options.

#### 3.2.2 Data Warehouse icon

By clicking on the "Data Warehouse" icon ( ) you return to the "Welcome" page.

#### 3.2.3 View switcher

In the DWH GUI different pages each containing another report can be open at the same time. The "View switcher" in the application bar provides a convenient way to navigate between open views, and closes the views when they are no longer needed. You can navigate between different types of items, such as folders, reports, schedules, and more, from this view.



Figure 3 - Welcome page - navigation view



In the following example, you open a report and a report view. The "View switcher" provides the ability to view both of the objects:

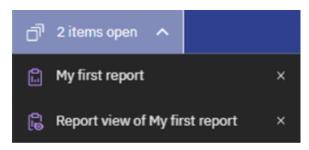


Figure 4 - Welcome page - navigation view - items

By clicking on the report or the report view, you can switch between the report and the report view:

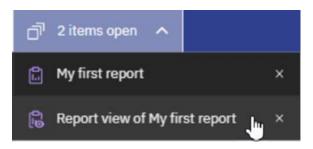


Figure 5 - Welcome page - navigation view - items - report view selection

#### 3.2.4 Search content

Search content is a quick and easy way to find content in Cognos.

You can search for items such as reports, folders etc. You can also search for table or column labels, XML report specifications, shortcuts, templates, and more.

Search content does not return results for content that is archived, but you can access archived content from any report that is listed in one of your folders.

The search content box is located in the application bar, as shown in the following screen capture:

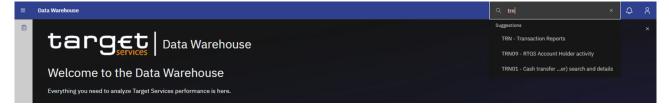


Figure 6 - Welcome page - Search content

To find items, type the search terms (keywords, phrases, strings), and click the Enter key. After the search results are listed, you can save your search by clicking the "Save search" button (



If your search returns too many results, you can click the "filter" icon ( $\mathbb{Y}$ ), and select the options that you want. The filter option is only available after you do an initial search. The filters are saved with the search.

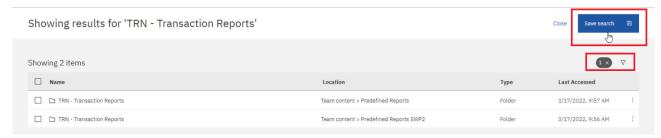


Figure 7 - Welcome page - Search content - Save search

From the search results page, you can initiate actions on the returned items. If you select multiple items (by clicking their check boxes), the related actions that are available for all or at least one item are shown in the toolbar, above the search results.



Figure 8 - Welcome page - Search content - initiate actions

To view the actions for a specific item, select the checkbox for this item (all other items must be deselected), and click its "**Action menu**" ( i ) icon. The actions that are available for the selected item are shown. For example, the following screen capture shows actions for a report.

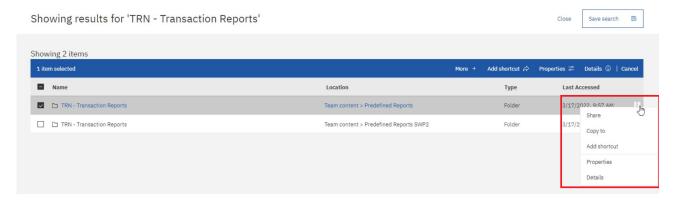


Figure 9 - Welcome page - Search content - Action menu

#### Special characters and search in double quotation marks

You can use the following special characters in your search terms:

"~`!@#\$%^&\*()-+={[}]|:;'<,>.?/"



When you enclose your search terms in double quotation marks (" "), the search results include only those instances where the terms appear in the exact order as within the double quotation marks.

#### 3.2.5 Notification

Notifications help you stay on top of important data.

If you view a saved output and you want to know when there is a new version of the report, you can click the "**Notify me**" button. A saved output is either a report view in html format or the html view of the report when the option "**Run in background**" is selected. If you choose to be notified when a new version is available, you are notified every time t a new version of the report is delivered..

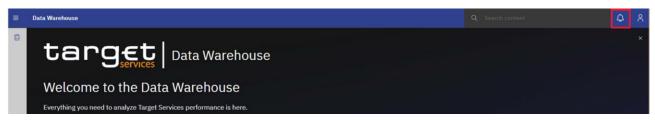


Figure 10 - Welcome page - Notification

The Notify me option is available in view mode of an html output of a report or a report view when it is saved in "My content" folder when you tap the "More" button in the application bar.

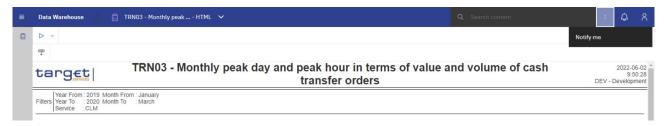


Figure 11 - More options - Notify me

If you request notification and then someone runs that report, you get a notification with a link to the updated version.

When you subscribe, if you choose the "Save the report on the system" delivery option, you receive a notification with a link to the new report version.

To see all your notifications, tap the "**Notifications**" icon in the application bar. When you revive a new notification, a number is added to the icon



# 3.2.5.1 Subscribing to reports

When you subscribe to reports, you pick the time, date, format, and where you want it delivered. When you subscribe to a report, the subscription includes all your prompt and parameter values.

The subscription option is available in the application bar when you run and view a report, but not when you are in editing mode or when you view saved output.



Figure 12 - Welcome page - Notification - subscribe

#### Note for users with advanced user profile:

To ensure that you are in view mode, and not in edit mode, turn off the "**Edit**" toggle (

If you edit a report, you must save it before you can subscribe.

After you subscribe, each time your report is delivered, you are notified by a red circle on the

"Notifications" icon ( ) in the application bar.

The number in the red circle indicates the number of notifications that you have not yet viewed. Tap the notifications icon to find a message with a link to view the report output.

After you create your subscriptions, you can view and manage them. For more information, see chapter <a href="Scheduling reports">Scheduling reports</a> [\* 104].

#### 3.2.6 Personal menu

In the "Personal menu" icon you can find settings to customise your DWH experience.

You can view and edit your personal and regional information, monitor the system activities etc. The user can edit the time zone, the product language and view the capabilities granted by the administrator. For further information, please refer to chapter <u>Profile and settings</u> [> 39].



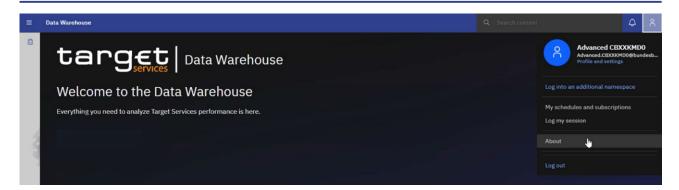


Figure 13 - Welcome screen - Personal menu (1)

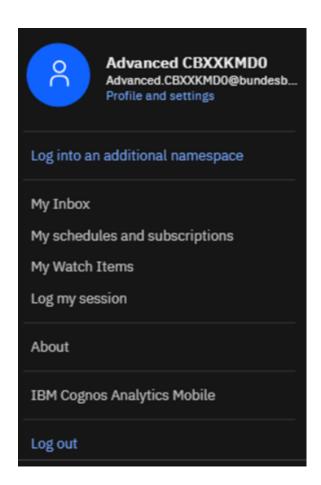


Figure 14 - Welcome screen - Personal menu (2)

# 3.2.6.1 Profile and settings

AugenIn the "**Profile and settings**" menu you can find more information about your user under "**Profile**". Please note, that some of the settings displayed have to be changed in CRDM e.g. User information, granted privilege.



For example you will see your email address if available in CRDM.

You can also find information about "Groups and roles" and "My capabilities" described in detail hereafter.

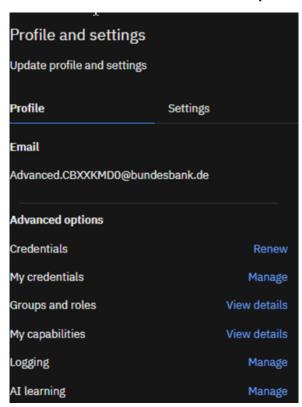


Figure 15 - Welcome screen – Personal menu – Profile and settings – Profile

#### **Groups and roles**

You can find the groups and roles you are associated to by clicking on "View details" at the right of "Groups and roles". Please refer to <u>Understanding user rights and access rights (advanced users)</u> [> 332] to find more information about groups and roles.



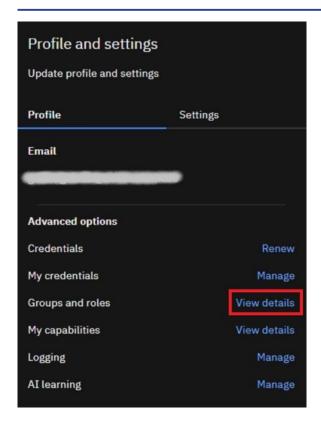


Figure 16 - Welcome screen - Personal menu - Profile and settings - Personal - Groups and roles

In this example, the user belongs to a Central Bank with country code "KM". In CRDM the role containing the "Data Warehouse Advanced User"-privilege is granted to the user.

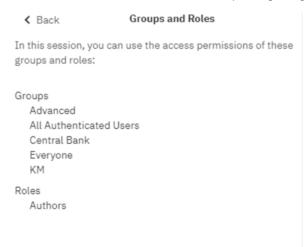


Figure 17 - Welcome screen – Personal menu – Profile and settings – Personal – Groups and roles

# My capabilities

The capabilities control access to different administration tasks and different functional areas of the user interface in DWH. You can find the capabilities assigned to you by clicking on "View details" on the right of the section.



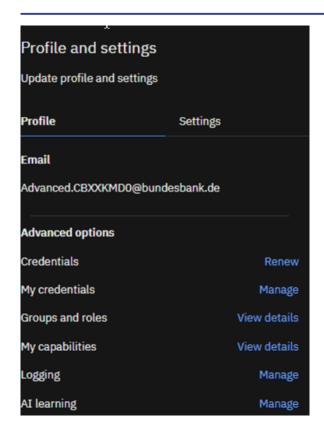


Figure 18 - Welcome screen - Personal menu - Profile and settings - Profile - My capabilities (1)



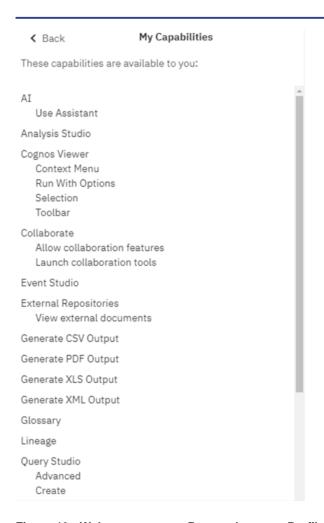


Figure 19 - Welcome screen - Personal menu - Profile and settings - Profile - My capabilities (2)

# 3.2.6.2 Logging

You can use "**Logging**" to enable detailed, diagnostic logging for your current DWH session. This can be useful to support the analysis of the Operational Teams in case you run into reproducible problems or errors while using the Data Warehouse. In such a case, you can turn logging on and then perform the steps that lead to the problem or error you encountered. Session logging can run for one hour maximum, but can be turned off at any time.

A unique identifier is generated to allow the administrator to identify the session logging data. Record the log identifier before you turn off the logging or close your browser. Please remember to add this identifier to your ticket when requesting help.



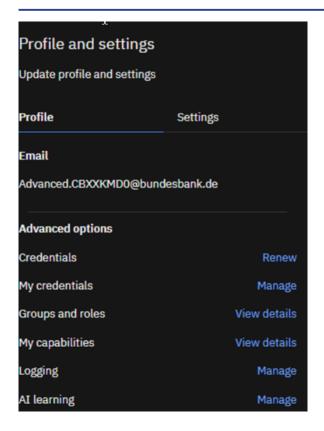


Figure 20 - Welcome screen - Personal menu - Profile and settings - Logging

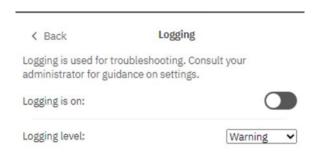


Figure 21 - Welcome screen - Personal menu - Profile and settings - logging

In some circumstances, IBM customer support might direct you to increase the logging level. You can set it to one of the following levels:

# **Error**

Basic level of logging that tracks only major error messages that occur during processing on the client workstation.



#### Warning

The next level of logging that includes all the information from the Error level of logging and includes warnings about situations that might not affect your system function.

#### <u>Information</u>

This level of logging aggregates all previous levels of logging and includes more detail about the regular operation of the user interface. You might notice that performance at this level is slower.

#### **Debug**

This level of logging contains the most information. Use it if you are testing your own extensions or when you are advised by a member of the software development team or customer support. You can expect that performance at this level is noticeably slower.

Logging levels are stored in the browser cache. If you clear the browser cache, logging levels return to the default setting.

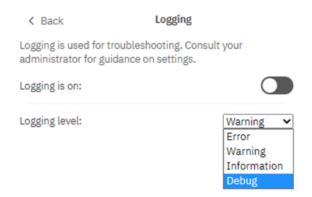


Figure 22 - Welcome screen - Personal menu - Profile and settings - logging level

# 3.2.6.2.1 Profile and Settings - Settings

You can set up settings for your DWH applications. To set your settings in the personal menu click on "Profile and settings" and then "Settings".



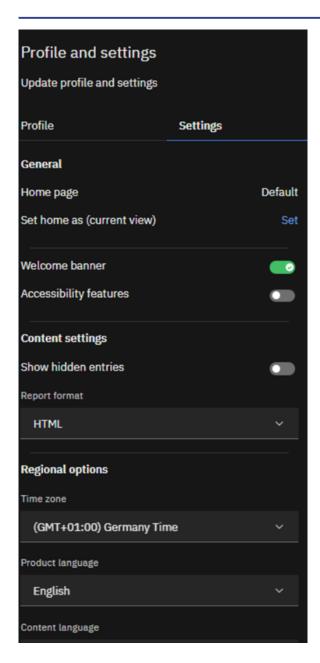


Figure 23 - Welcome screen - Personal menu - Profile and settings - Settings

#### Home page

In case a different page than the default is set, the user can reset to the default

#### **Report format**

The default value for the report format is html

But you can choose also one of the following formats:

- I Excel (same content as html but as Excel file)
- Excel Data (only the report data is exported Not recommended since it does not work properly)



- Pdf
- l Html
- Csv
- | Xml

#### Turn on accessibility features

Accessibility features assist users who have a disability, such as restricted mobility or limited vision, to use information technology content successfully

#### **Show hidden entries**

When you first sign in to the DWH, you can see hints that help you navigate through the user interface. If you turn the hints off, but want to show them again, select the "Show hidden entries" check box.

#### **Language settings**

The default language is English.

You can select the language that you prefer for the DWH user interface. If your data and reports are available in multiple languages, you can also select the language that you prefer for the content. There is also support for bidirectional languages such as Hebrew, Arabic, Urdu, and Farsi. Report authors can control the display of native digits and the direction of text, crosstabs, and charts.

# 3.2.6.3 My schedules and subscriptions

This menu item allows you to browse through the list of all report runs scheduled for the day. You can view all your scheduled activities and subscriptions on the "**My schedules and subscriptions**" panel.

The subscription option is available when you run and view a report, but not when you are in editing mode or when you view saved output.

In order to subscribe to a report:

Run a report.

In the application bar, tap "More" icon in the application bar ( ) and then tap the "Subscribe" text ( Subscribe

Select your subscription options, and then tap "Create".

The subscriptions have the following characteristics:

A subscriber requires only Read and Execute permissions for the report.



There can be up to 32 subscriptions for the same report.

Created by running a report and, in view mode, tapping the "**More**" icon ( in the application bar.

Only the subscriber can view their subscription.

Only the most recent saved report output is available.

The report can be run daily or weekly.

You can view a list of your scheduled activities that are current, past, or upcoming on a specific day.

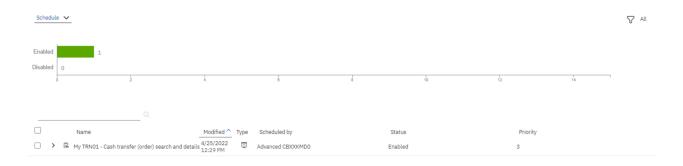


Figure 24 - Welcome screen - Personal menu - My schedules and subscriptions

You can filter the list to show the entries you want to see by clicking on the down arrow next to the "Schedule".

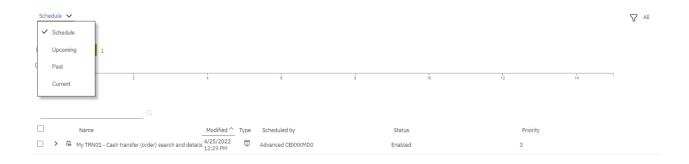


Figure 25 - Welcome screen - Personal menu - My schedules and subscriptions - Filter

The following screenshots show the upcoming and the past schedules respectively:



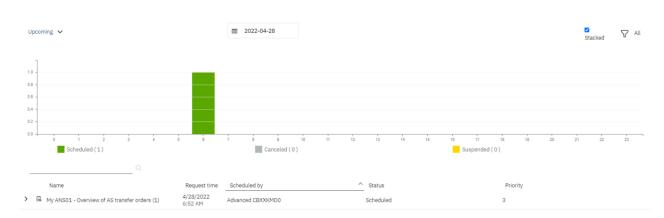


Figure 26 - Welcome screen - Personal menu - My schedules and subscriptions - Upcoming schedules

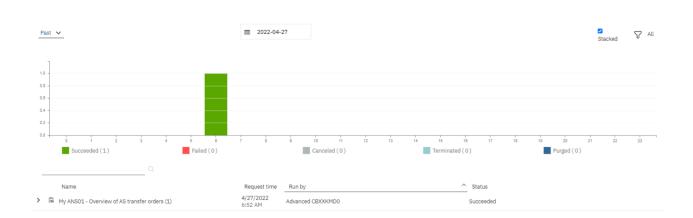


Figure 27 - Welcome screen - Personal menu - My schedules and subscriptions - Past schedules

In general you can enable, disable, modify, or remove subscriptions, and view their saved outputs or the archived version details panel for information such as the run status and run time.

All this information are available by clicking on the "More" icon ( ):



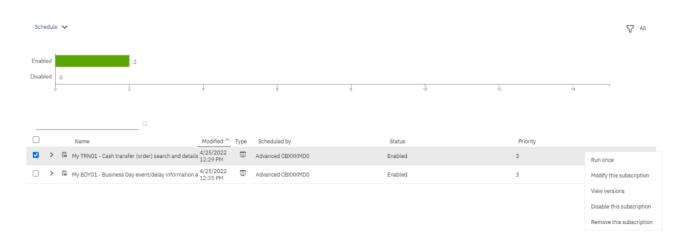
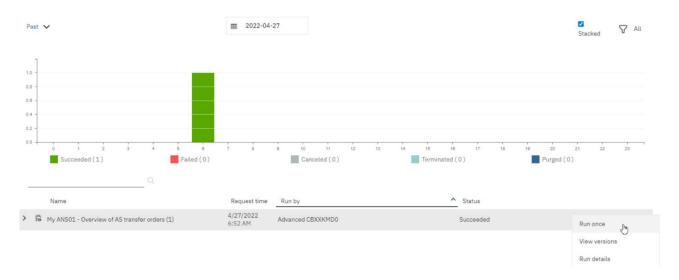


Figure 28 - Welcome screen - Personal menu - My schedules and subscriptions

Enabled: The Status "Enabled" informs the user that the schedule is active.

Run once: By clicking here, the user can run the report once:



You can find further information on how to run a report in the chapter Run a report step-by-step [ 84].

Modify this subscription: Change the settings for the scheduled report.



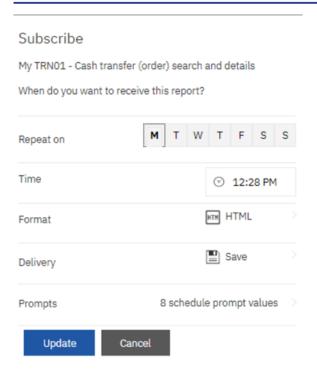


Figure 29 - Welcome screen - Personal menu - My schedules and subscriptions - Modify

View versions: The versions of the report, that is the date it was executed after it was successfully scheduled

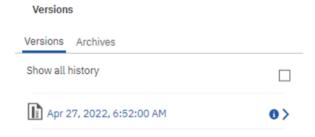


Figure 30 - Welcome screen - Personal menu - My schedules and subscriptions - View versions

Disable this subscription: By clicking this option, the user disables the schedule

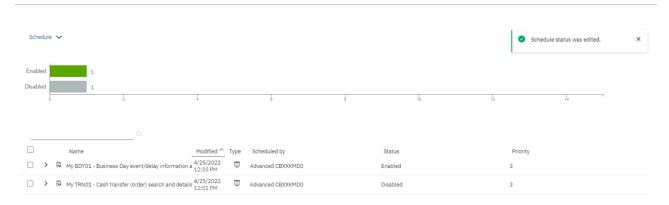


Figure 31 - Welcome screen - Personal menu - My schedules and subscriptions - Disable schedule



Remove this subscription: The schedule will be deleted

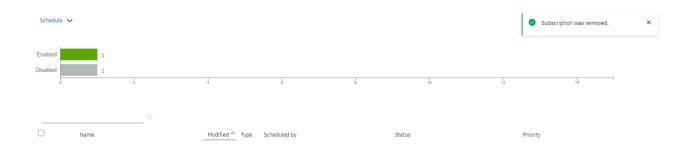


Figure 32 - Welcome screen - Personal menu - My schedules and subscriptions - Remove schedule

In the top right corner, the user will find another filter.

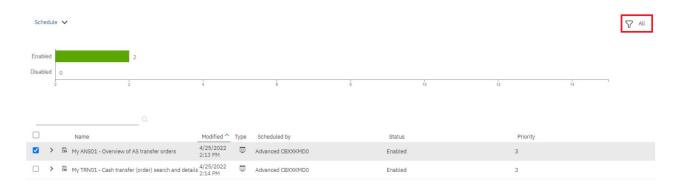


Figure 33 - Welcome screen - Personal menu - My schedules and subscriptions - Filter (2)

By clicking on "**All**" ( ) button, the user will be presented with further options.

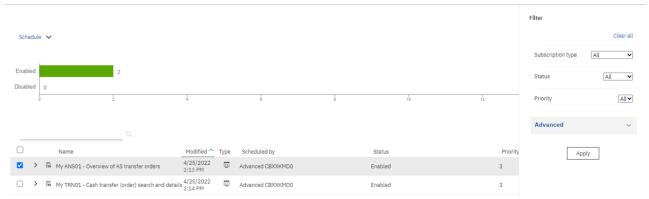


Figure 34 - Welcome screen - Personal menu - My schedules and subscriptions - Filter (2) - Further options

Subscription type: By clicking on the dropdown next to the "**Subscription type**" the user will be able to filter to see either the subscriptions or the activities.





Verify the choice by clicking on the "**Apply**" button (

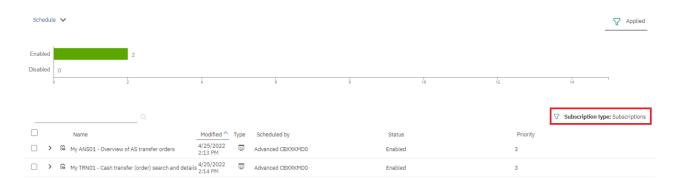


Figure 35 - Welcome screen - Personal menu - My schedules and subscriptions - Subscription type

Status: By clicking on the dropdown next to the "**Status**", the user can choose to see either the "**Enabled**" or the "**Disabled**" schedules:



Verify the choice by clicking on the "**Apply**" button ( Apply ).

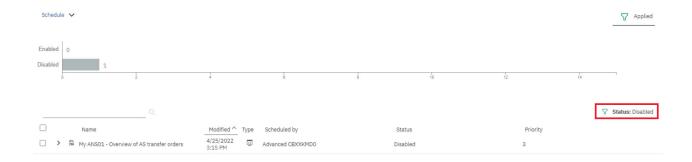


Figure 36 - Welcome screen - Personal menu - My schedules and subscriptions - Status disabled

Priority: By clicking on the dropdown next to the "**Priority**", the user can choose to select different schedules according to the priority.



☐ ➤ ® My ANS01 - Overview of AS transfer orders



Figure 37 - Welcome screen - Personal menu - My schedules and subscriptions - Schedules Priority

By clicking on the down arrow next to "Advanced", the user is presented with further options.



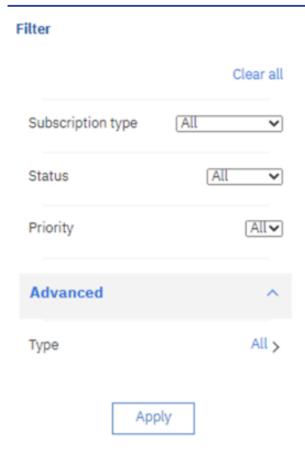


Figure 38 - Welcome screen - Personal menu - My schedules and subscriptions - Advanced

By clicking on the "**All**" text ( All > ) next to the "**Type**", the user can choose which type of schedule to see, i.e. Report or Repot view:



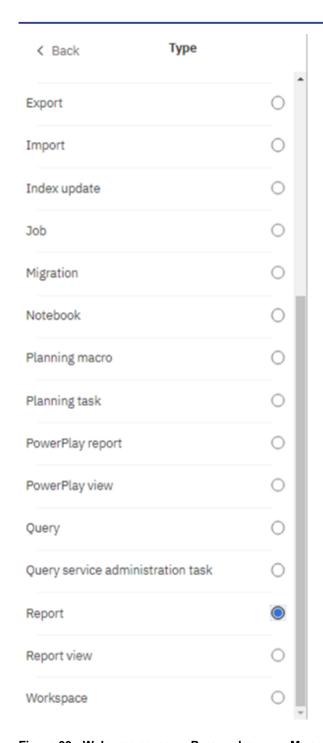


Figure 39 - Welcome screen - Personal menu - My schedules and subscriptions - Advanced - All - Type of schedule



# Filter

	Clear all
Subscription type	All
Status	All
Priority	All
Advanced	^
Туре	Report >
App	ply

Figure 40 - Welcome screen - Personal menu - My schedules and subscriptions - Advanced - All - Type of schedule - Report

By clicking on "Back" text in the upper left corner ( and clicking on the "Apply" button ( Apply ), the user can see the type of schedule that has been chosen.

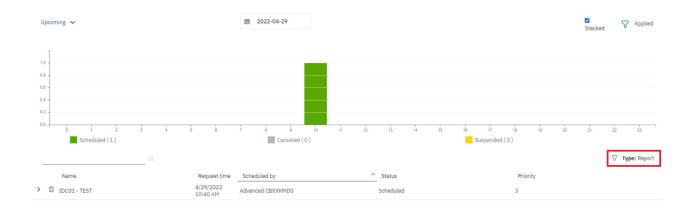


Figure 41 - Welcome screen - Personal menu - My schedules and subscriptions - Advanced - All - Type of schedule - Report



# 3.2.6.4 Log out

In order to log out you can use the "Log out" item from the personal menu in the toolbar.

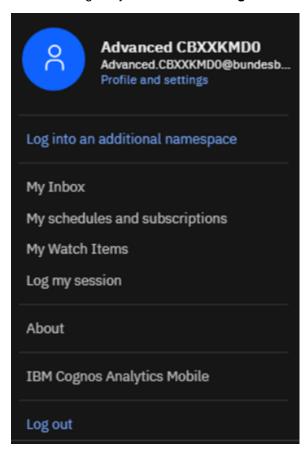


Figure 42 - Personal menu - Log out

# 3.3 Navigating in the DWH GUI - menu

On the left side of the screen you can find the "Open menu" icon ( ) with different folders and the "System information" ( ).





Figure 43 - Welcome page - menu

# 3.3.1 Data Warehouse logo

By clicking on the "Data Warehouse" logo, you return to the "Welcome" page.

# 3.3.2 Open Home

The first icon under the "Open Home" icon is the "Home" icon.

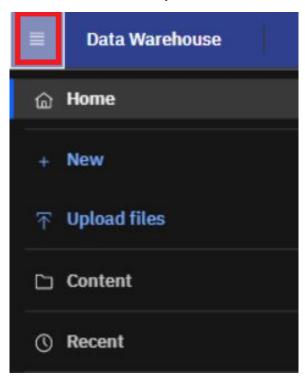


Figure 44 - Welcome page - Home

By clicking on this icon it is always possible to return to the "**Welcome**" page (the standard one or the one you have specified – for further information please refer to chapter <u>Access to the DWH</u> [▶ 33]) from everywhere in the DWH GUI.



#### 3.3.3 Search function

To find items in your own or in the team content type the search term in the "**Search**" field. In the search field - you can type in one or multiple keywords and press "**Enter**". You can search for folders or predefined reports.

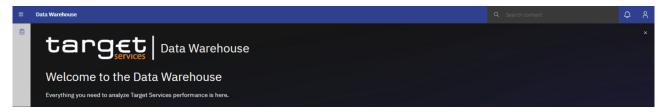


Figure 45 - Welcome page - Search

# 3.3.3.1 Narrow your search with filters

After a search was successful, the filter function is available. In case your search returns too many results, you can click on the "Filter" icon and select for example specific search results or dates to modify the result list.

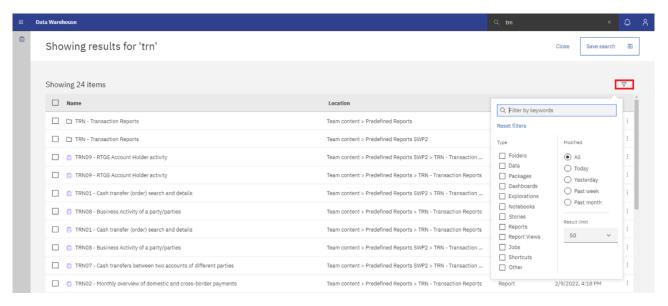


Figure 46 - Welcome page - filter options

## 3.3.3.2 Save search results

After you have performed a search and the results are shown, you can save the results of your search. The "Save" icon is only available after a successful search.





Figure 47 - Welcome page - Search - Save icon

After clicking on the "Save" icon, a message pops up, that informs you that the search was saved.

The result of the search will be available later, even after the search is closed, or the user signs out.

If you do not save the result, the next search will overwrite the previous:

In order to delete a previously saved search, click on the "remove" button of the saved search you intend to delete.

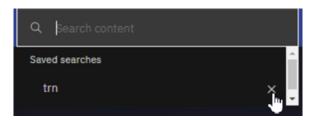


Figure 48 - Welcome page - remove search

#### **Example**

In case you save the search, the search result will be available in the "Saved searches" list, even after you sign out.

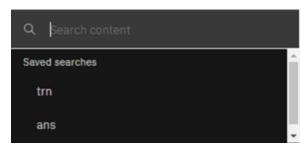


Figure 49 - Welcome page - Search - Saved searches

## 3.3.4 System information

Behind "System information", you find a menu with a welcome page and user information.



Figure 50 - Welcome page - System information link



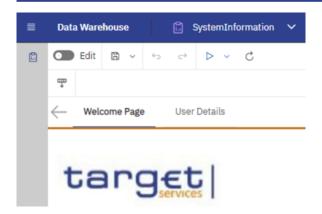


Figure 51 - Welcome page - System information menu

#### Welcome page

This page serves as an introduction to this menu and informs you about the content of this menu.

#### **User details**

Here you can see additional user information, such as user details concerning your User ID, which is needed to identify you in case of support. In addition, you will find your name, the name of your institution, and system information such as the environment (production or test environment) you are working on. The last business day is also mentioned to give you the information, which was the last business day loaded into the DWH completely.

#### 3.3.5 Recent

If you want to see pages, folders or reports that you recently viewed you can find the list under "Recent".



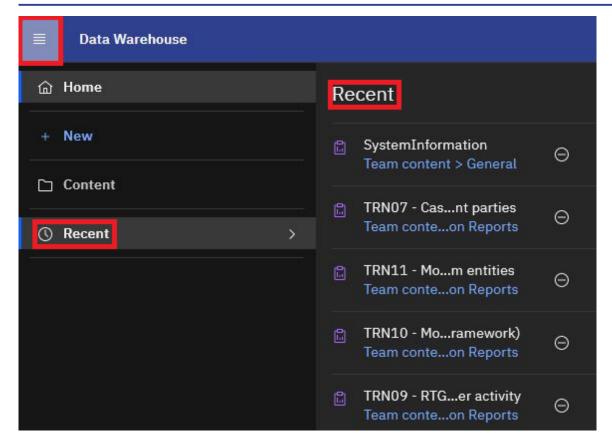


Figure 52 - Welcome page - Recently viewed

#### 3.3.6 New

"New" is only visible for CB users granted with the "Data Warehouse advanced user" privilege in CRDM. Only with this privilege it is allowed to create user-defined reports. For more information please refer to chapter Creating reports (just advanced users) [> 337].





Figure 53 - Welcome page - New

# 3.4 Personal Folders

#### 3.4.1 Team content

After clicking on the "Open menu" icon and then clicking on "Content", you will be presented with a screen having two tabs, "My content" and "Team content". Under "Team content", you can find all reports you are allowed to run and view, depending on the party type you belong to. For information about each predefined report and who is allowed to use it, please refer to <a href="Predefined reports">Predefined reports</a> [\* 142]. For CB users a specific CB folder can be found, where CB advanced users can store adapted or user-defined reports and share them with normal users within their CB. This enables also other users of this CB with the normal user privilege to execute reports previously designed by an advanced user.

Additionally, the CBs shared folder is included in here. With this folder, CBs can share adapted or user-defined reports with other CBs.





Figure 54 - Welcome page - Team content

You can see the following content within "Team content".

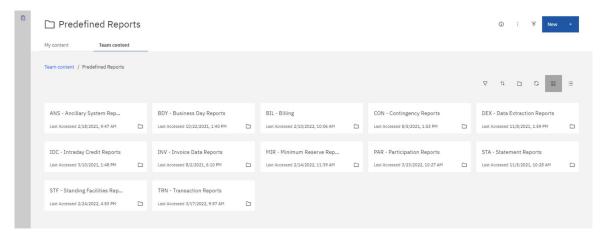


Figure 55 - Welcome page- Team content - folder structure

In case you are a CB user, you will see this structure in "Content":



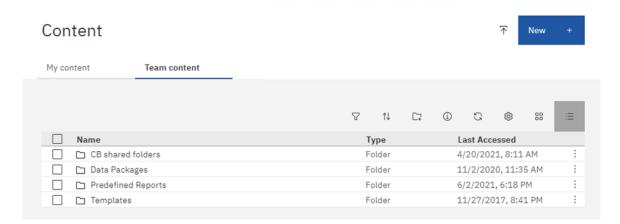


Figure 56 - Welcome page - Team content - folder structure (CB user)

#### **CB** shared folders

In the "CB" shared folders the CB user can find the folders for sharing reports within its own CB as well as the folder for sharing reports with other CBs. These folders cannot be used to share reports with PBs or AS since the users of these party types do not have visibility of the CB shared folders.

# **Data Packages**

In the "Data Packages" folder, you can find the data model that was used to create the reports. This is an information item only (showing the date and time of the last update of the data model).

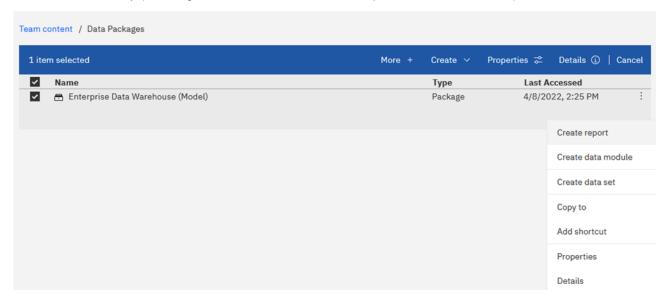


Figure 57 - Welcome page - Team content - Data Packages

#### **Predefined Reports**

In the "Predefined Reports" folder you can find the subfolders containing the predefined reports.



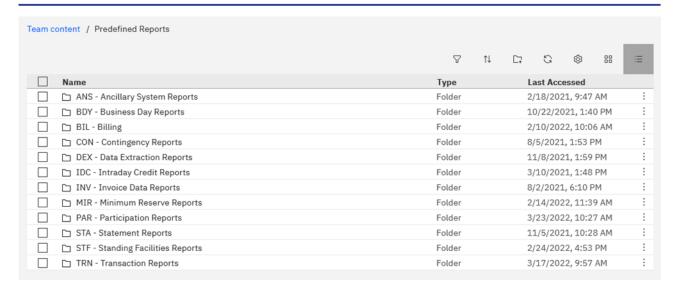


Figure 58 - Welcome page - Team content - Predefined reports

# **Example**

Under "ANS – Ancillary System Reports" you can find the predefined reports "ANS01 – Overview of AS transfer orders" and "ANS02 – Daily average of AS transfers".



Figure 59 - Welcome page - Team content - Predefined Reports - ANS - Ancillary System Reports

The normal user has the same capabilities, except from the "Create report".

# 3.4.2 My content

This is your private area where only you can see the content that is stored there. At start, the folder is always empty.



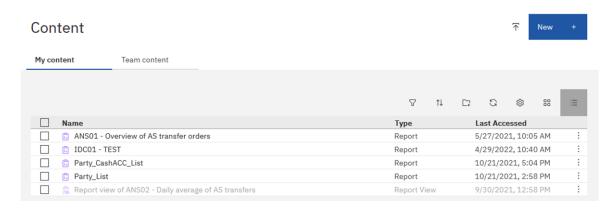


Figure 60 - Welcome page - My content

# 3.4.3 Add a new folder

Click on the "Open menu" icon ( ), click on "Content" and then click on "My content". In order to create a new folder, click on the "Add Folder" icon ( ).



Figure 61 - Welcome page - My content - Add folder

After click on the "Add Folder" icon, you must enter a name for the new folder you want to create.

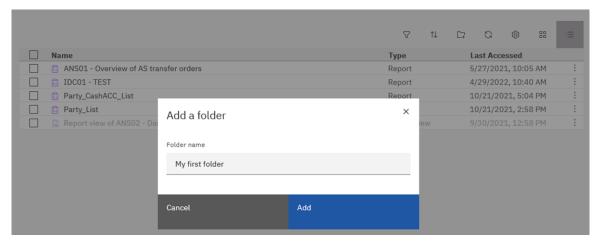


Figure 62 - Welcome page - My content - New Folder (1)



Press "Enter" and the new folder is created.



Figure 63 - Welcome page - My content- New Folder (2)

#### 3.4.4 Sort the content

Open "My content" or "Team content" by clicking on the "Open menu" icon and then clicking on "Content", and click on the "Sort" icon in the toolbar. You can sort by name, the latest modification date or type of the content. In addition, you can decide if you want to see the ascending or descending order of your items.

In the following screenshot, the folders are sorted by name in ascending order.

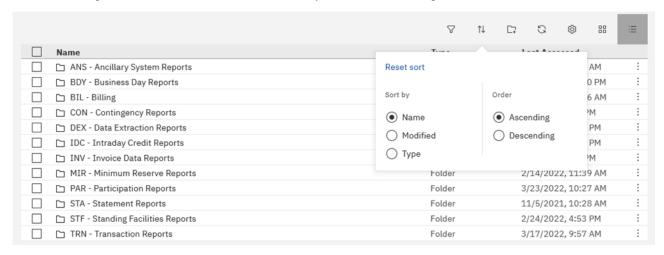


Figure 64 - Welcome page - My content - sort in ascending order

On the contrary, in this screenshot the folders are sorted by name in descending order.



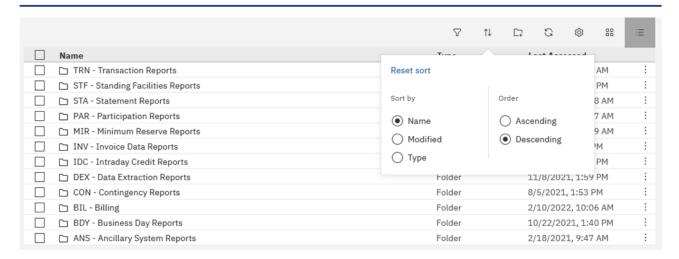


Figure 65 - Welcome page - My content - sort in descending order

#### 3.4.5 Filter the content

Open "My content" or "Team content" by clicking on the "Open menu" icon and then clicking on "Content", and click on the "Filter" icon in the toolbar. You can choose the type, the modified time or provide one ore multiple keywords of the item you are looking for.

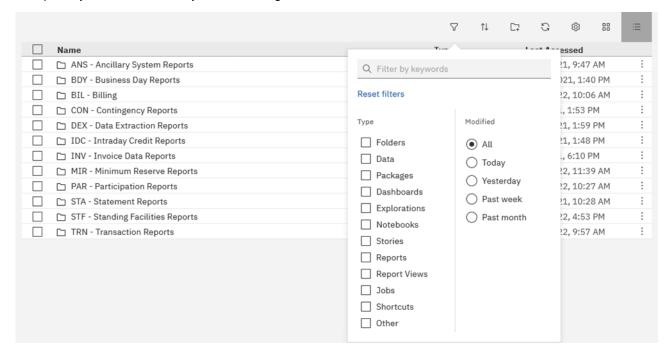


Figure 66 - Welcome page - Team content - Predefined Reports - filter options

## Example

You want to search for a folder in combination with a keyword "ST". The following result is shown:



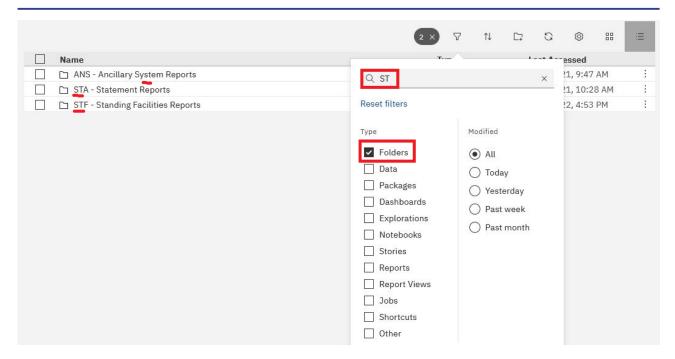


Figure 67 - Welcome page - My content - filter options - filter by folders



# 4 Working with reports

# 4.1 Copy, save and export

This chapter gives you a step-by-step description on how to copy the report to your own folder or to save or export the data.

# 4.1.1 Copy a report

A copy is an independent version of the original report. Any changes to the implementation due to e.g. CRs in the original report will not affect the report results from the copied version. Deleting the original report will not affect the copy. This is the difference to the report view (please see chapter Creating a report view [ $\triangleright$  74]) which remains linked to the original report. You can save a report as a copy in "My content" folder, or if the user is a member of a Central Bank, in the CB shared folders as well:

**Step 1:** Navigate to the "**Team content**" folder, open "**Predefined Reports**" and select the folder with the desired report.

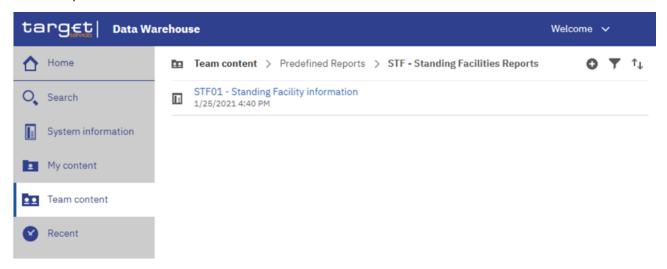


Figure 68 - Team content - Predefined Reports - STF - Standing Facilities Reports

**Step 2:** Choose the report that should be copied and click on the "**More**" icon ( ) at the right of the report and select "**Copy**".



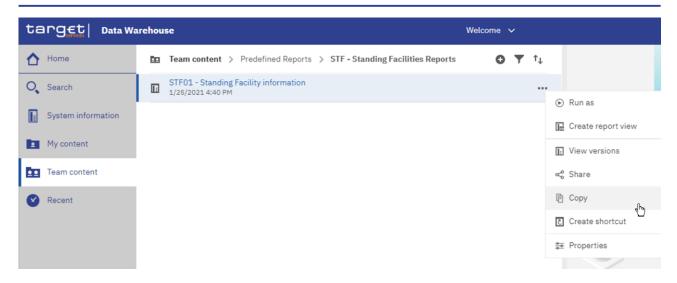


Figure 69 - Team content - Predefined Reports - STF - Standing Facilities Reports - STF01 - Standing Facility information- Copy

**Step 3:** A window pops up to save the report. You can save the reports in the "**My content**", or in the CB shared folders, by clicking on the "**Copy to**" button you move a copy of the report to your own working space in the DWH.

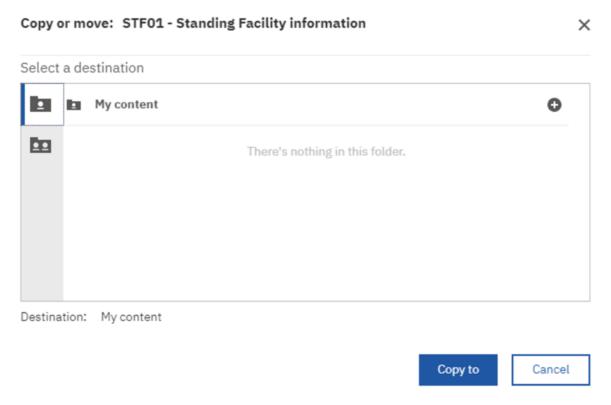


Figure 70 - Team content - Predefined Reports - STF - Standing Facilities Reports - STF0 - Standing Facility information - Copy to

If you are a CB user with advanced user profile, you can also copy the report into the CB shared folder or CB – "Country code shared" folder, which can be found in the path: "Team content" -> "CB Shared folders". Both folder are only visible for CB user.



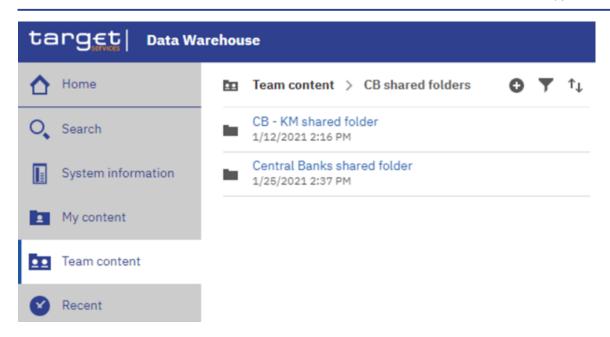


Figure 71 - Team content - CB Shared folders

Step 4: Afterwards you can find the report in the respective folder. In this example in "My content".

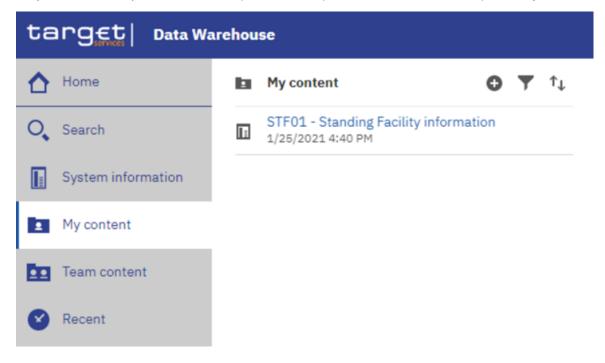


Figure 72 - My content - copied report

### 4.1.2 Creating a report view

The report view is the same report as the predefined report, but has different properties such as prompt values, schedules, delivery methods, run options, languages, and output formats. A report view is an alias of the original report and remains linked to it. If the source report is moved to another location, the report view link is not broken. If the source report is deleted, the report view link is broken and the properties link to the



source report is removed. In case the report has been changed (e.g. due to a new software release), the user will be prompted with this information. The "**Report view**" icon ( ) changes to indicate that the link is broken and is no longer operable. In order to schedule the run of a report (see chapter <u>Scheduling reports</u> [ > 104]), you have to create a report view first. These steps have to be executed in order to create a report view of the chosen report:

**Step 1:** Navigate to the "**Team content**" folder, open "**Predefined Reports**" and select the folder with the desired report.

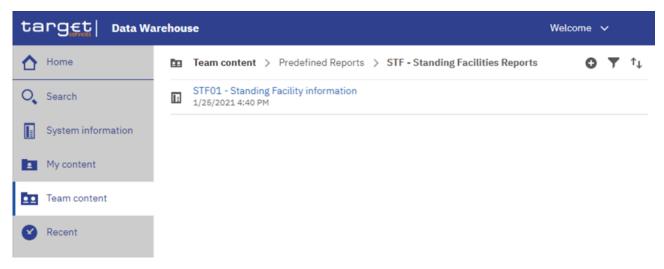


Figure 73 - Team content - Predefined Reports - STF - Standing Facilities Reports

**Step 2:** Choose the report for that a view should be created and click on the "More" icon ( ) at the right of the report and select "Create report view".

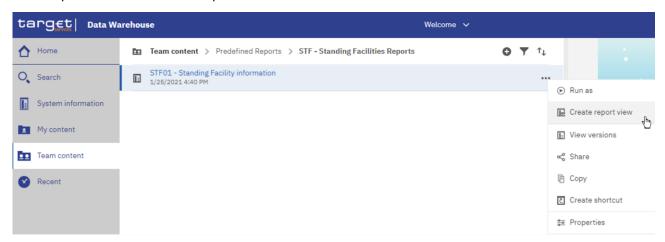


Figure 74 - Team content - Predefined Reports - STF - Standing Facilities Reports - STF01 - Standing Facility information - Create report view

**Step 3:** A pop up window opens and you can save the report view in "**My content**" after entering a name and by clicking on the "**Save**" button.

If you are a CB user, you can also save the report view into the CB shared folder or CB – "Country code" shared folder, which can be found in the path: "Team content" -> "CB Shared folders".



Step 4: You can find the report view in the respective folder. In this example in "My content".

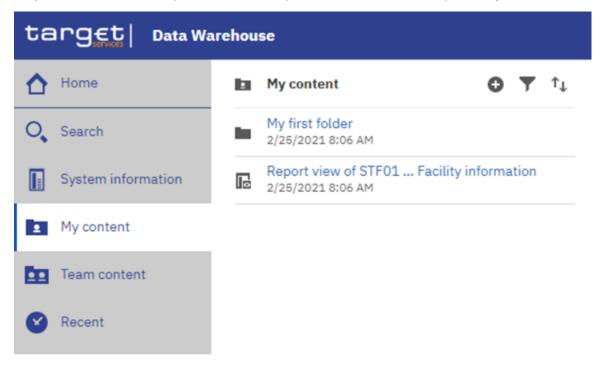


Figure 75 - My content - report view

Step 5: You can determine the source report for a report view by clicking on the properties.



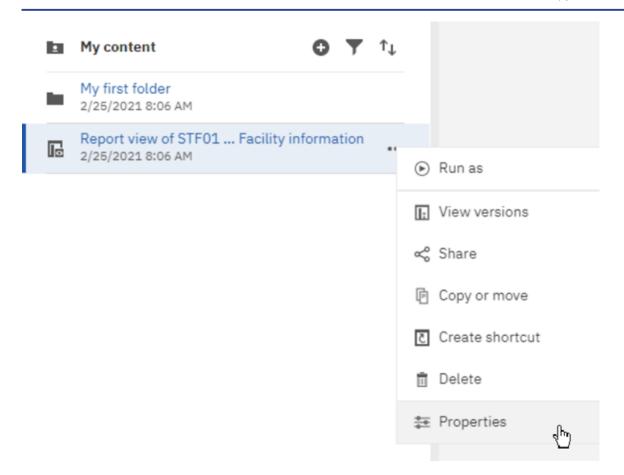


Figure 76 - My content - report view - Properties

Step 6: Scroll down to "General".

The report view properties also provide a link to the properties of the source report.



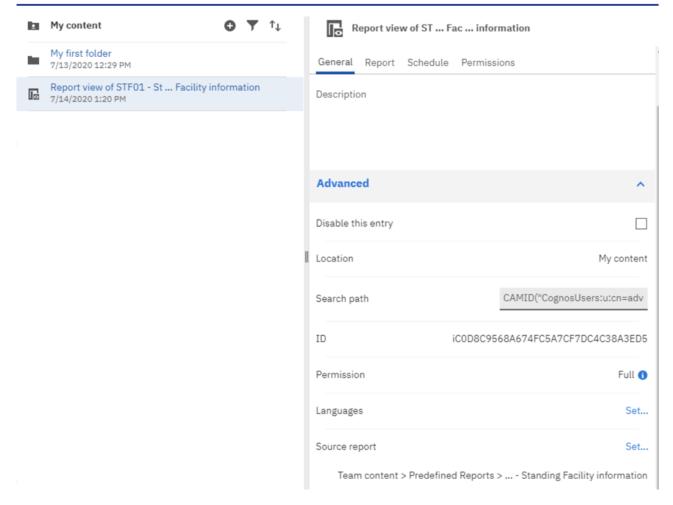


Figure 77 - My content - report view - Properties - Source report

When the source report is deleted, the report view title is greyed and the link to the source report is missing in the properties:



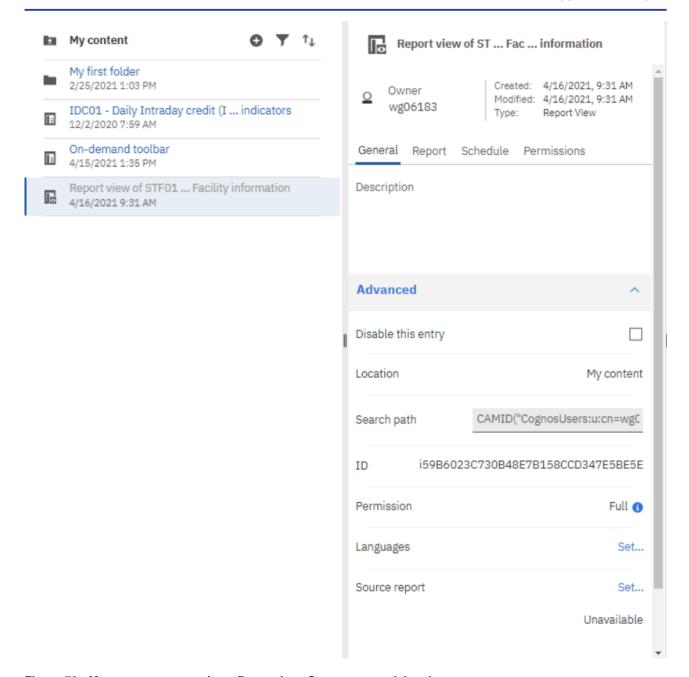


Figure 78 - My content - report view - Properties - Source report deleted

In case there is a change in the report content and you have created a report view then you will be notified if you have activated the 'notify me' option previously. Please see details on Notifications in the chapter Personal menu [\* 38].

### 4.1.3 Saving a report output

You can save the report output (meaning the result of the run of a report, please see chapter Running reports [ > 84]) in DWH for future uses by creating a report view first.

**Step 1:** Create a report view as described in chapter Creating a report view [ 74].



- **Step 2:** Navigate to the folder containing the report view you have created.
- **Step 3:** Run the report as described in chapter Run a report step-by-step [ 84].
- **Step 4:** You can view the output by clicking on the "More" icon ( ) next to the report in "My content".
- Step 5: Select "View versions".

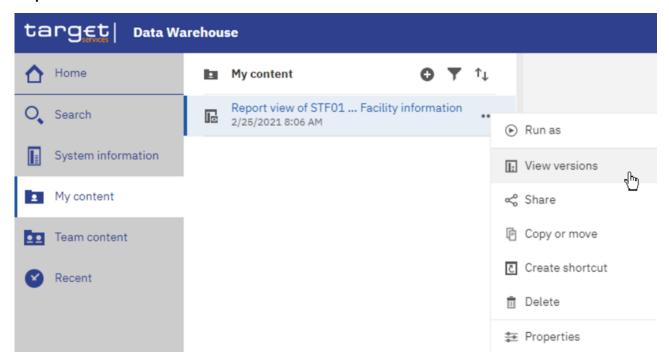


Figure 79 - My content - report view - View versions

**Step 6:** Versions opens, where you can find the report output with the date and time of the execution.

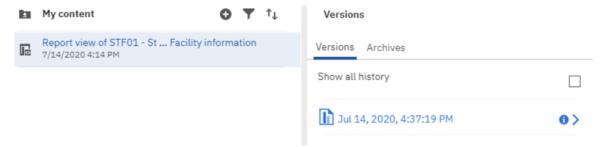


Figure 80 - My content - report view - View versions - Versions

Step 7: Click on the version.



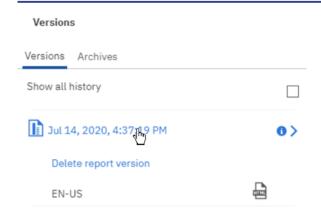


Figure 81 - My content - report view - View versions - Version - report output

**Step 8:** You can click on the report name and either delete this version or view the outcome by clicking on the "**Format**" icon ( ) of the report.

# 4.1.4 Exporting a report to a local folder

You can export a report in csv, excel, excel data, pdf and xml format. Therefore, you have to navigate to the folder of the desired report.

**Step 1:** Choose the report you want to export and click on the "More" icon ( ) in the right of the report name.

Step 2: Select "Run as" from the list.



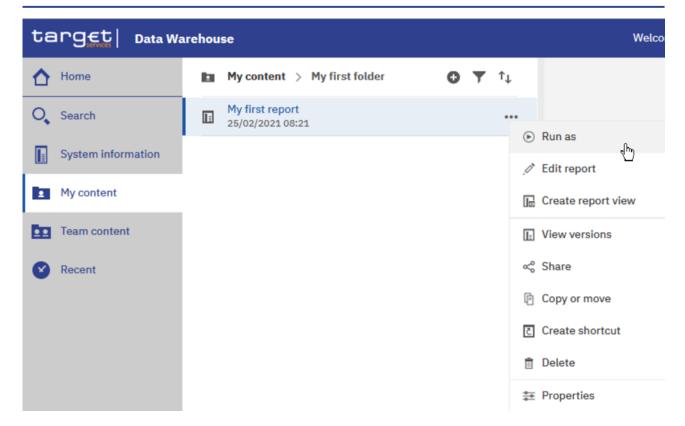


Figure 82 - Welcome page - My content - Properties

- Step 3: Select the desired format.
- Step 4: Enter the selection criteria of the report (see chapter Run a report step-by-step [> 84]).
- Step 5: Click on the "Run" button (
- **Step 6**: After clicking on the "**Run**" button ( ) a pop-up window appears to save the report. You can download a report in csv, excel, excel data, pdf and xml format.
- **Step 7**: The download option depends on the chosen format and the functionality of the browser you are using. In most browsers you can define, whether certain file types should be opened in the browser, a save dialog is shown or the file is directly downloaded to the default download directory. Please be aware that these settings have to be done in the browser, not in the DWH GUI.

For example, if you choose to run the report as 'XML', then you cannot view the result, but only download the report in a local folder.



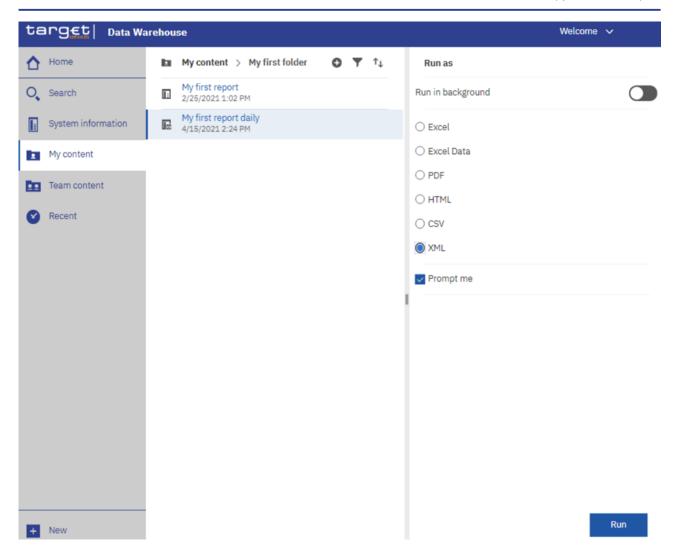


Figure 83 - Welcome page - My content - Run as XML

A pop up window appears to save the report:



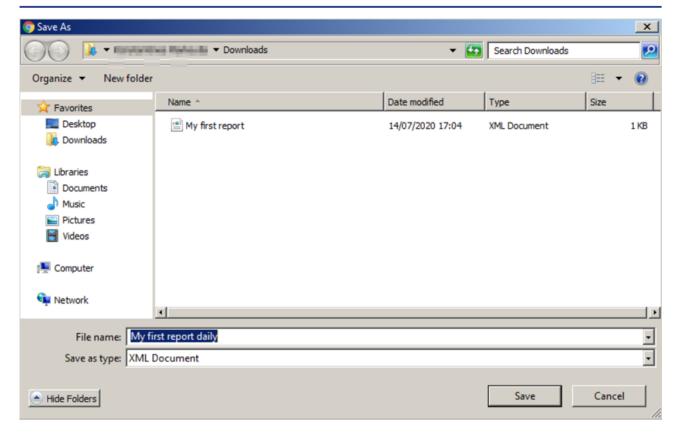


Figure 84 - Save Report

Please refer to the user manual of your browser for details and options.

# 4.2 Running reports

This chapter gives you an overview about how to run a report and organise its delivery.

# 4.2.1 Run a report step-by-step

**Step 1:** Navigate to the "**Team content**" folder, there to folder "**Predefined Report**" and open the folder with the desired report.



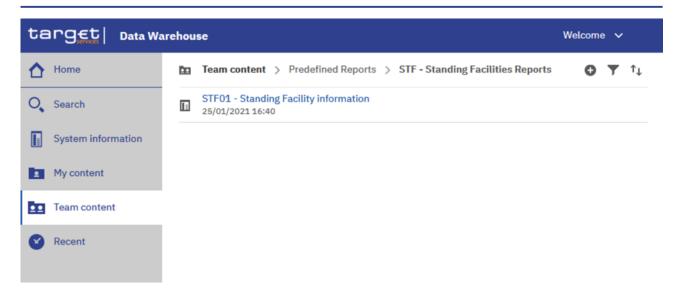


Figure 85 - Team content - Predefined Reports - STF - Standing Facilities Reports

**Step 2:** Select the report you want to run. In order to run the report you can click on the report name. This action will run the report in the default DWH format, which is html.



Figure 86 - Team content - Predefined reports - STF - Standing Facilities Reports

**Step 3:** In the following screen you have to enter the search criteria in the prompt page.



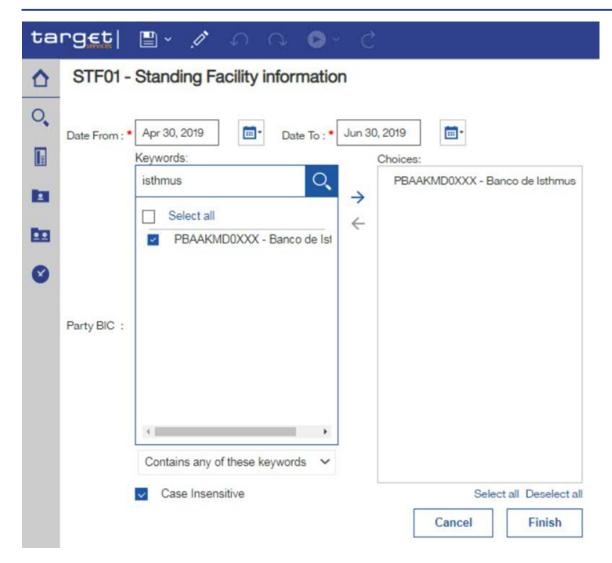


Figure 87 - Standing Facilities Reports - STF01 Standing Facility information - prompt page

**Step 4:** The report result is available in html format.

#### 4.2.1.1 Choose different formats

If you want to run the report and DWH shall provide the result in another format than html you have to click on the "**More**" icon ( •••• ) on the right side.

Please note, that when choosing 'XML' or 'CSV' as format for reports having more than one list as report output, only the first list is exported in the chosen format.



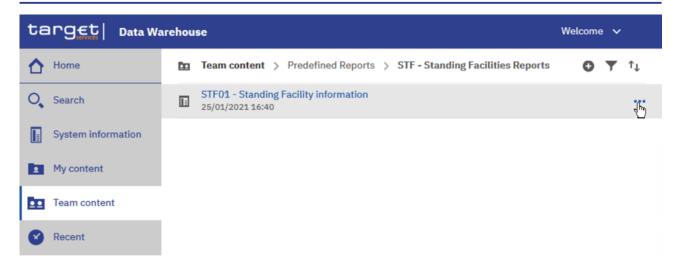


Figure 88 - Team content - Predefined Reports - STF - Standing Facilities Reports

Select "Run as" from the list.

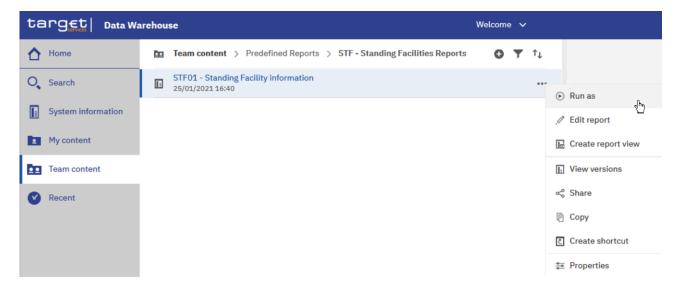


Figure 89 - Team content – Predefined Reports – STF – Standing Facilities Reports – STF01 Standing Facility information – Run as (1)

You can choose the format you want to receive the report result and click on "Run" button.



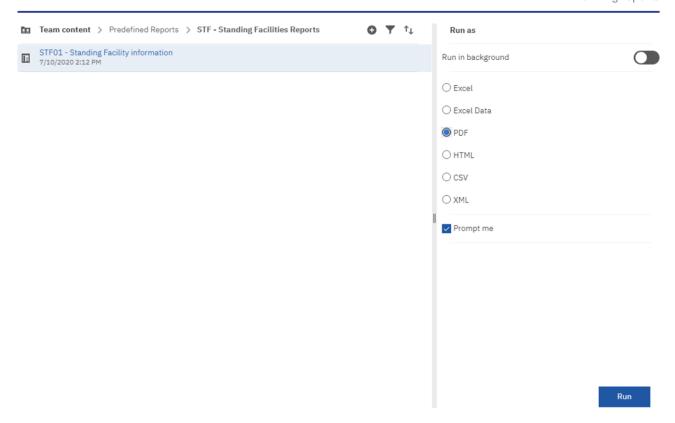


Figure 90 - Team content – Predefined Reports – STF – Standing Facilities Reports – STF01 Standing Facility information – Run as (2)

Also with a different format you have to enter the search criteria in the prompt page.



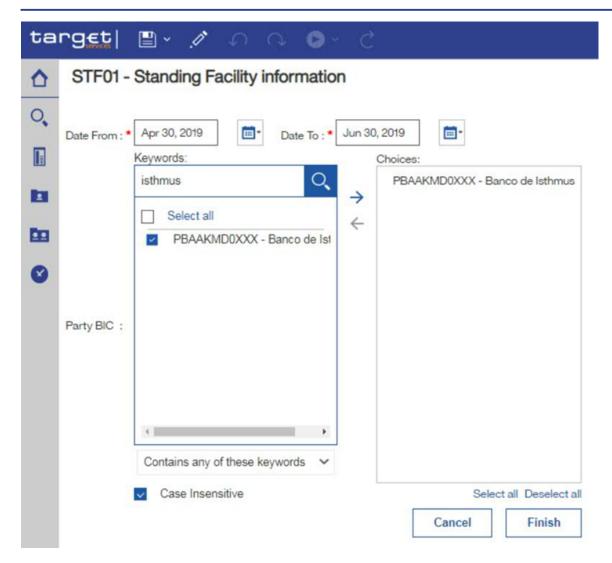


Figure 91 - Standing Facilities Reports - STF01 Standing Facility information - prompt page

The report result is available in the chosen format, in this example in pdf format.



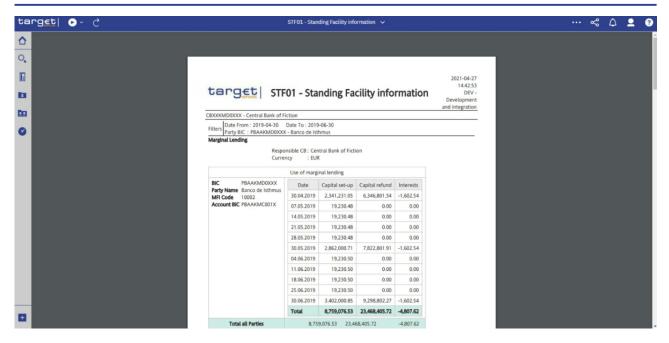


Figure 92 - Standing Facilities Reports - STF01 Standing Facility information - report

# 4.2.1.2 Run in background

There is another option to run a report – "Run in background". You can find and select this option under "Run as".

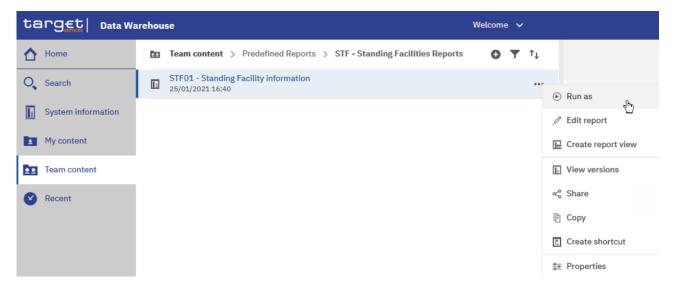


Figure 93 - Team content – Predefined Reports – STF – Standing Facilities Reports – STF01 Standing Facility information – Run as

Here you can see the "Run in background" option on top of the list.



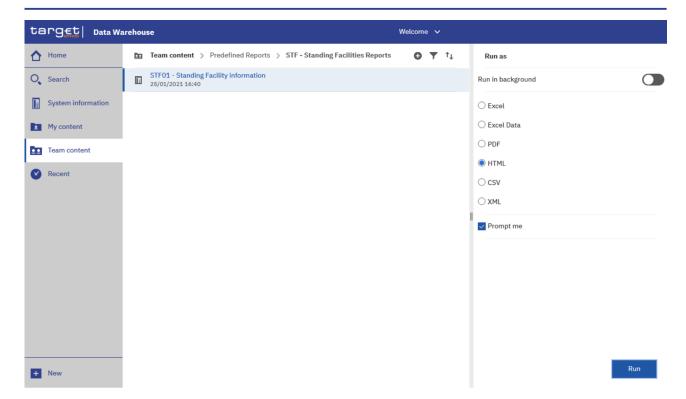


Figure 94 - Team content – Predefined Reports – STF – Standing Facilities Reports – STF01 Standing Facility information – Run as – Run in background

This option gives you the opportunity to run the report in the background without waiting for the result. Instead, you can view the report when the report is available.

In order to run the report in background, you have to enable "Run in background". The icon colour turns into blue, meaning this option is enabled, and the following options are available to you:



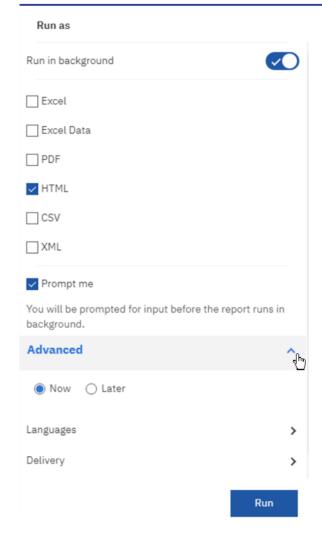


Figure 95 - Run as - Run in background - Advanced

#### Prompt me

When you select "**Prompt me**", you have to enter search criteria in the prompt page after you click on "**Run**". If you do not chose this, the report will run with the last set of search criteria you have used.

#### **Advanced**

You can decide if you want to run the report now or later. You can find this option by clicking on the arrow to the right of the "**Advanced**" section.

In case you select "Now", the report runs directly.

A message on top informs you that the prompt page will open.



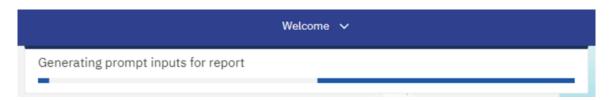


Figure 96 - Run as - Run in background - Advanced

In case you select "Later", you can choose the date and time of the execution.

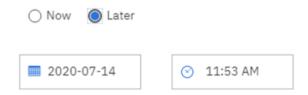


Figure 97 - Run as - Run in background - Advanced - Execution time - Later

#### 4.2.2 Delivery

You can deliver reports by either saving them on the Team content folders, or by saving them as an external file. You have two possibilities to deliver a report result if you want to receive the result only once. First you can save the report in DWH directly and view it after successful creation. The second option is the delivery to the application of your party.

In case a report should be delivered to you (independent from the output channel (U2A or A2A) you have to schedule a report. For this option please refer to chapter <a href="Scheduling reports">Scheduling reports</a> [\* 104] for further details.

## 4.2.2.1 Delivery - Save report (U2A)

To save the report result you must click on the arrow on the right of the Delivery section. Choose "Save report" and click on the "Done" button. As soon as it is executed, the report is saved in DWH.

Step 1: Navigate to the respective report folder





Figure 98 - Team content - Predefined Reports - STF - Standing Facilities Reports

Step 2: Click on the "More" icon ( \*\*\* ) at the right of the report and select "Run as"

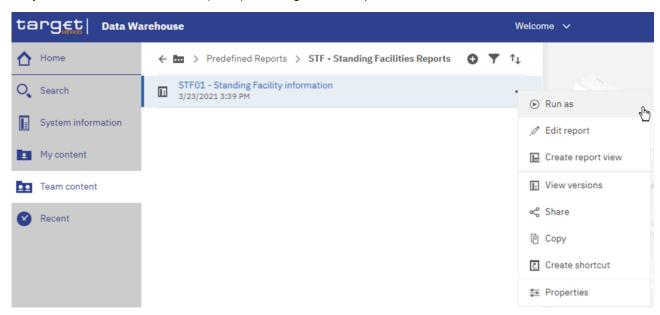


Figure 99 - Team content - Predefined Reports - STF - Standing Facilities Reports - Run as

Step 3: Select "Run in background"



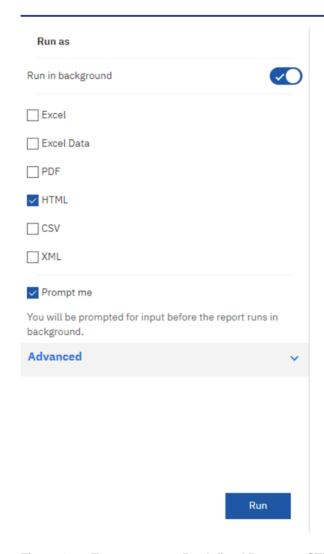


Figure 100 - Team content – Predefined Reports – STF – Standing Facilities Reports – Run as – Run in background

Step 4: Click the arrow next to "Advanced" to view the delivery section

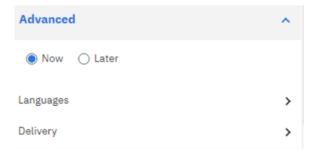


Figure 101 - Team content – Predefined Reports – STF – Standing Facilities Reports – Run as – Run in background – Advanced

**Step 5:** Click the arrow next to the "**Delivery**" property, uncheck the "**Print report**" property, and check the "**Save report as an external file**". Finally, click on 'Done'



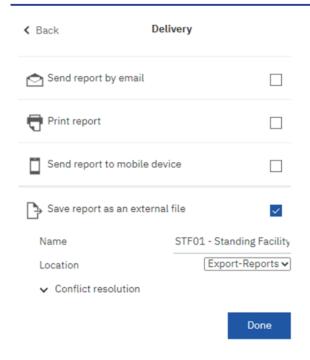


Figure 102 - Team content – Predefined Reports – STF – Standing Facilities Reports – Run as – Run in background – Advanced – Save report as an external file

## 4.2.2.2 Delivery - Save the report for an external file (A2A)

For the A2A delivery please follow the steps described hereafter.

**Step 1:** You navigate to the respective report folder as described in chapter Copy a report [▶ 72].

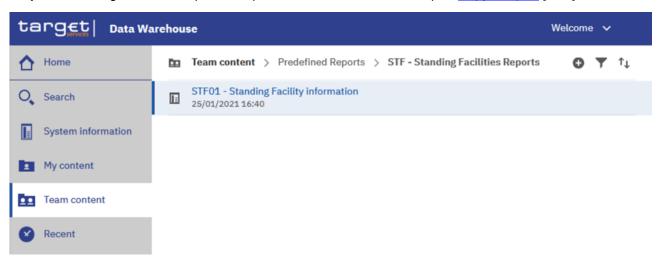


Figure 103 - Team content - Predefined Reports - Standing Facilities Reports - STF01 Standing Facility information

Step 2 Click on the "More" icon ( ) at the right of the report and select "Copy".



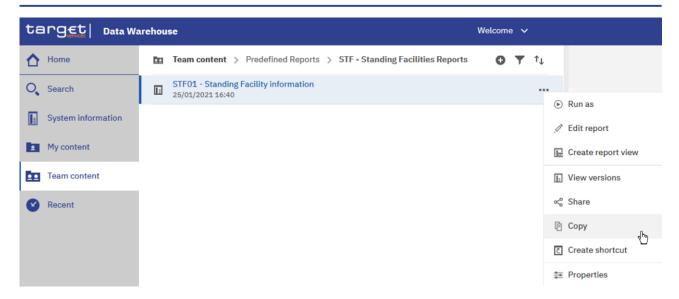


Figure 104 - STF01 Standing Facility information - More options

**Step 3:** A window pops up where you have to enter a storage location for your copy. In this example, the report is copied to "**My content**".

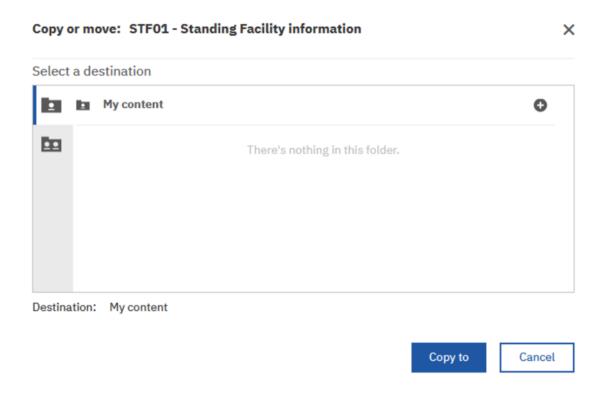


Figure 105 - STF01 Standing Facility information - Copy

Step 4: Navigate to the folder where you have copied the report. In this example, the folder is "My content".



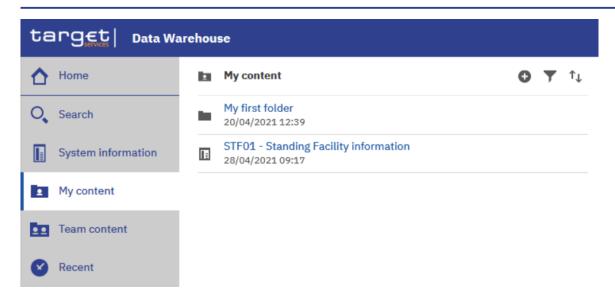


Figure 106 - STF01 Standing Facility information - Copy to My content

Step 5: Find the report and click on the "More" icon (\*\*\*\*) at the right of the report and confirm by clicking "Run as".

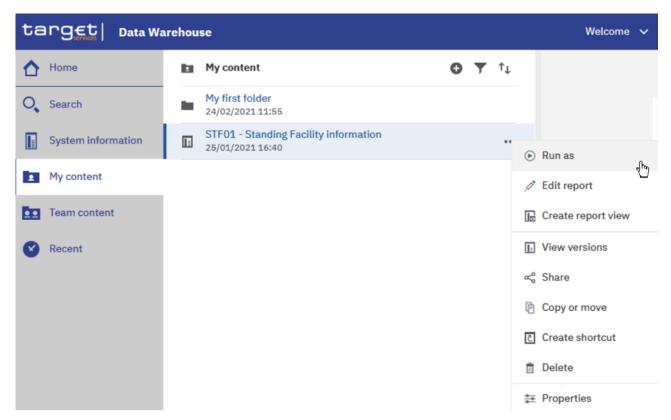


Figure 107 - My content - STF01 Standing Facility information - Run as

**Step 6:** Perform the same action as explained in chapter Run a report step-by-step [▶ 84] for "Run in background".

Check the "Run in background" button:



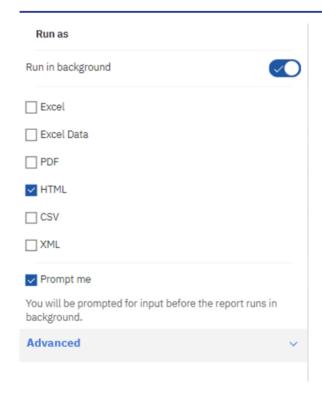


Figure 108 - My content - STF01 Standing Facility information - Run as - Run in background

Step 7: For delivery in A2A you can choose the following formats: csv, excel, xml.

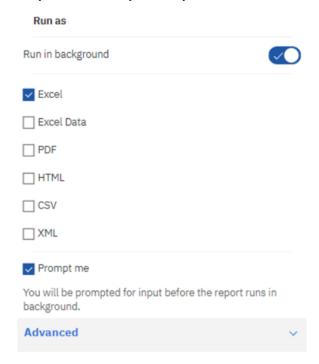


Figure 109 - My content - STF01 Standing Facility information - Run as - Choose the format

Step 8: You are free to select "Advanced" "Now" or "Later" and add a date and time of the execution.



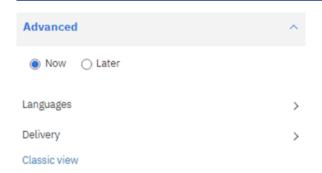


Figure 110 - My content - STF01 Standing Facility information - Run as - Advanced - Now or Later

Step 9: For "Delivery" you have to select the option "Save report as an external file".

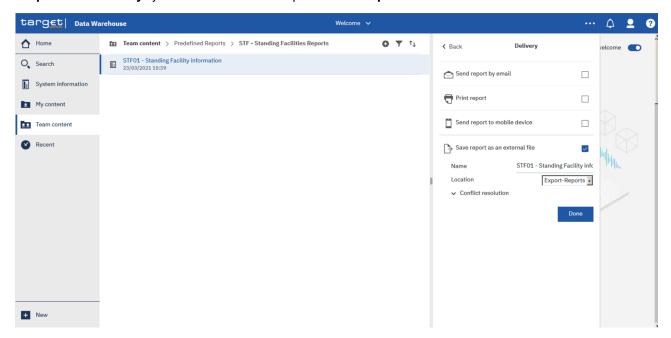


Figure 111 - My content - STF01 Standing Facility information - Run in background - Advanced Delivery

Step 10: After you activated the "Save report as an external file" checkbox, further options are presented.



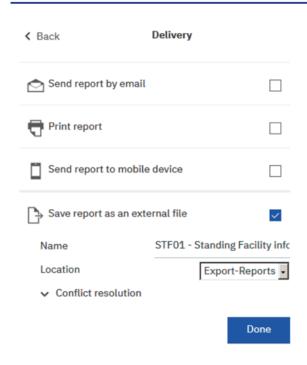


Figure 112 - My content - STF01 Standing Facility information - Run in background - Advanced Delivery - Save report as an external file

The "Name" field presents the name of the report. The default value is the name of the report, as it is known in DWH. Please note, that by leaving the default name in place you need to prevent the generated file from being overwritten by a file with the same name but stemming from other users. For this, please change the value for "Conflict resolution" to one of the two following choices:

- I Make the file names unique and append a timestamp
- Make the file names unique and append a sequence number





Figure 113 - My content - STF01 Standing Facility information - Run in background - Advanced Delivery - Save report as an external file – Conflict resolution

Please do not change the default value in the "**Location**" field, as this is the place where the report is stored before it is delivered to your party via A2A. Changing the default value in the 'Location' field will result in reports not being sent via A2A. The folder is not accessible via the GUI and only for storing the report before it is delivered via A2A.

Step 11: Click on the "Done" button ( ).

Step 12: Click on the "Run" button.



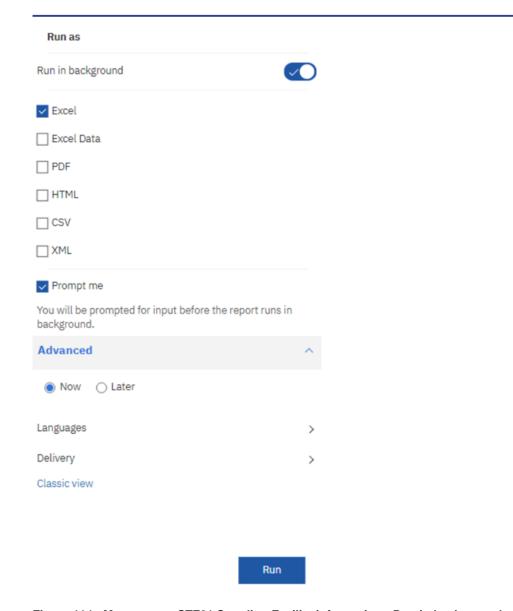


Figure 114 - My content - STF01 Standing Facility information - Run in background - Advanced Delivery – Run the report

**Step 13:** Enter the search criteria in the prompt page.



# STF01 - Standing Facility information

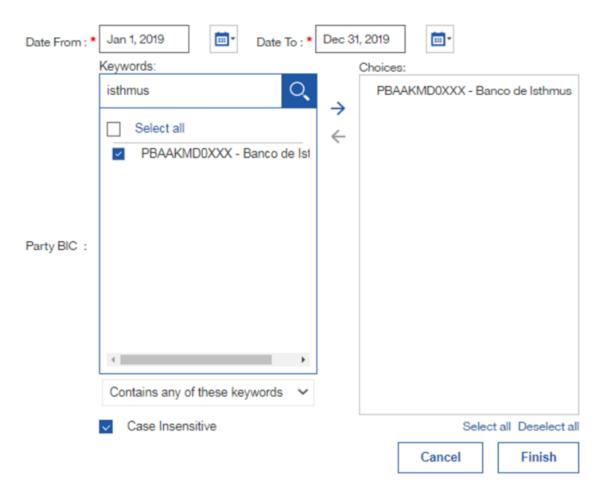


Figure 115 - My content - STF01 Standing Facility information - Run in background - Advanced Delivery – Enter search criteria

The report will be executed and the result will be sent via A2A in the chosen format to your party.

Or you run your report in the background with the delivery "Save the report as an external file".

# 4.3 Scheduling reports

The DWH offers a scheduler function which allows the configuration and delivery of (recurring) reports with individual settings.

This chapter describes the steps that you perform to schedule a report and to check the scheduling afterwards.



#### 4.3.1 Precondition

After saving the report in "**My content**" or, for CB users, under the shared folder of your CB, you have to choose the report you want to schedule and create a report view of this report (see chapter <u>Saving a report output</u> [> 79]).

#### 4.3.2 Scheduling the report for a specific time

After creating the report view you can start to schedule your report.

**Step 1:** Choose the report you have saved as a report view, and click on the "**More**" icon ( \*\*\* ) at the right of the report.

Step 2: Click on "Properties".

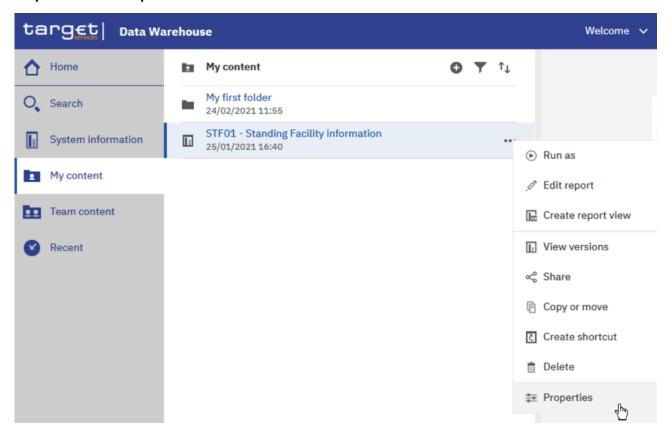


Figure 116 - My content - report view - Properties

Step 3: A description of your report is shown and you can add a description under "General".



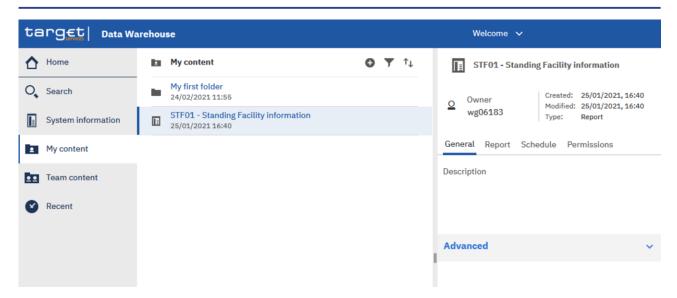


Figure 117 - My content - report view - Properties - General - description of your report

Step 4: In the "Schedule" tab you will find the "New" icon (

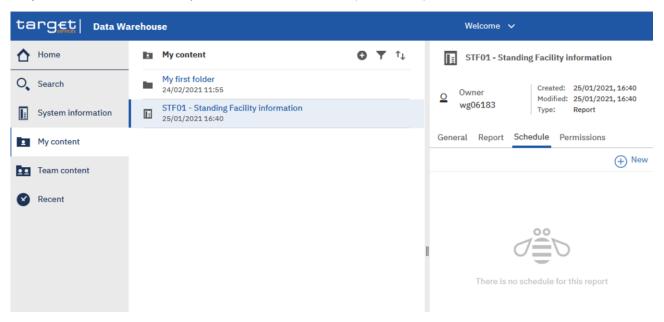


Figure 118 - Welcome page - My content - report view - Properties - Schedule

Step 5: By clicking on the "New" icon ( ), the "Schedule" is opening where you have multiple options to choose for scheduling your report.



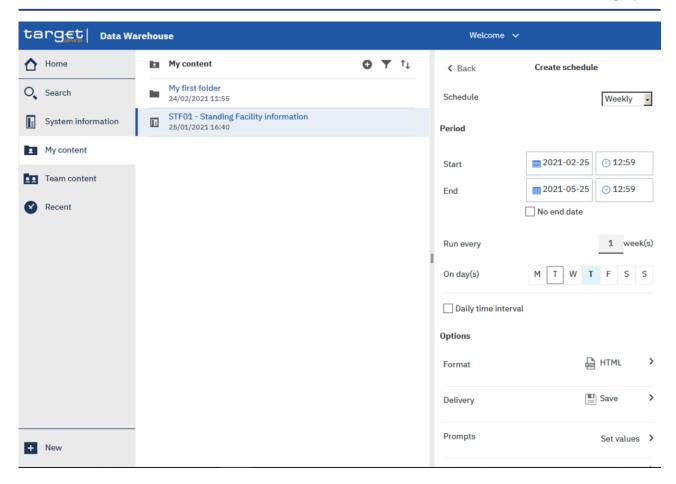


Figure 119 - Welcome page - My content - report view - Properties - create schedule (1)

**Step 6:** You can set a variety of options when scheduling a report: the frequency the report will be run, the "**Period**" of the schedule, the format in which the report will be delivered, and the delivery method.



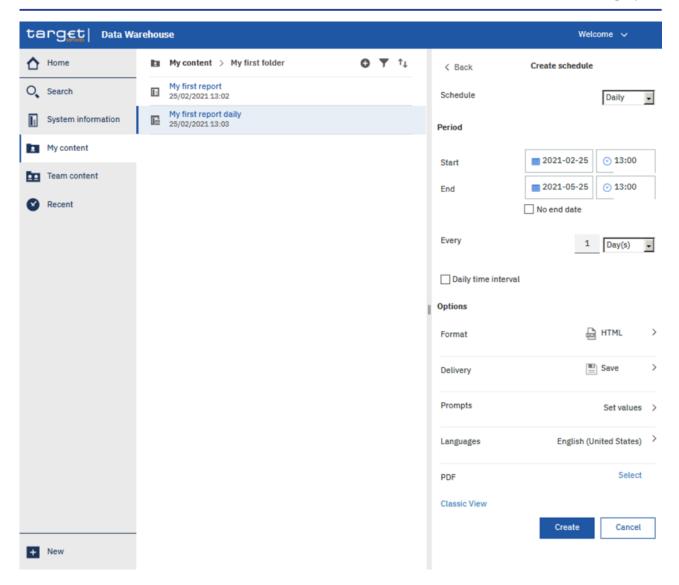


Figure 120 - Welcome page - My content - report view - Properties - create schedule (2)

Schedule: The frequency, which the report will be run, daily, weekly, monthly, yearly.

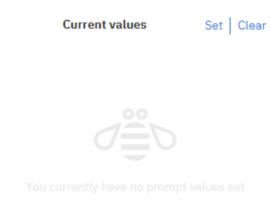
Period: Choose the start and the end date of the schedule. Alternatively, by clicking on "No end date" the schedule will run indefinitely.

Format: The type of format the report will be executed to, HTML, csv, excel, excel data and xml. For further information, you may check the chapter Run a report step-by-step [> 84].

Delivery: You may choose if you want to save the report in Cognos or as an external file. For further information please go to chapter Delivery - Save report (U2A) [> 93].

Prompts: By clicking on "**Set values**", and then "**Set**" you will be presented with the prompt page of the report, where you can enter the search criteria.





TRN01 - Cash transfer (order) search and details

Cancel

Finish

Figure 121 - Welcome page - My content - Report view - Properties - Create schedule - Current values

# Please select the group of criteria you wish to perform your search: Select by Transaction Reference Keywords: Input keywords here No Results Starts with any of these keywords Case Insensitive

Figure 122 - Welcome page - My content - Report view - Properties - Create schedule - Enter values

Languages: You may define the language of the content of the report, if more than one languages has been defined in the database. As the language in the database is always English, nothing will change in case you define another language.



Languages	
English (Ireland)	•
English (Malta)	
English (New Zealand)	
English (Philippines)	
English (Singapore)	
English (South Africa)	
English (U.S. Virgin Islands)	
English (United Kingdom)	
✓ English (United States)	
English (Zimbabwe)	
Estonian	
Estonian (Estonia)	
Faroese	
Faroese (Faroe Islands)	
Finnish	
Finnish (Finland)	

Figure 123 - Welcome page - My content - Report view - Properties - Create schedule - Languages

PDF: By clicking on "Select" you may choose the orientation or the paper size.



# PDF options Orientation Default ✓ Paper size Default ✓ Requires a password to open the report Password: Confirm Password: Password: Confirm Password: Confirm Password:

Figure 124 - Welcome page - My content - Report view - Properties - Create schedule - PDF

In this example, you see a daily schedule with no end date, HTML as an output, and save the report in DWH.



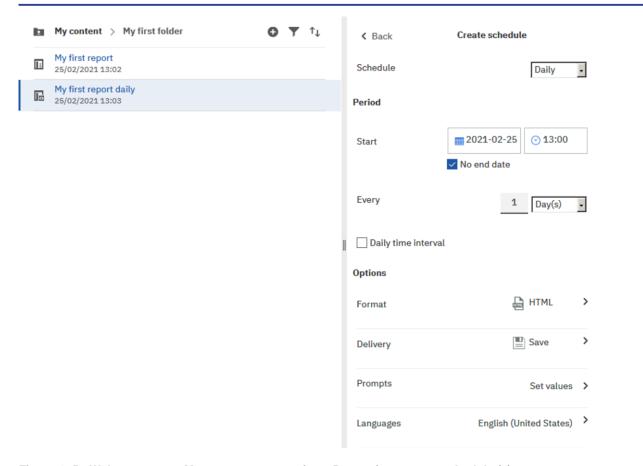


Figure 125 - Welcome page - My content - report view - Properties - create schedule (3)

In case you want to receive the scheduled reports via A2A you have to choose "Save report as external file" and follow the information provided in chapter Delivery - Save report (U2A) [> 93].

**Step** 7: It is very important to set the prompt values when scheduling a report to be executed. This can be done by clicking on the arrow next to "**Set values**".



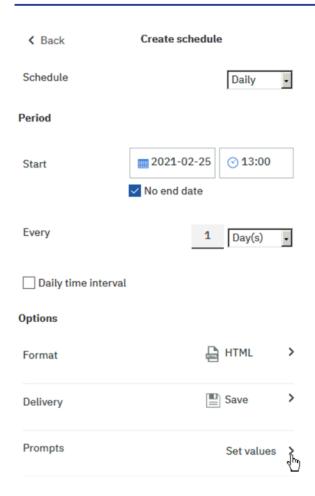


Figure 126 - Welcome page - My content - Properties - Set values

**Step** 8: The "Current values" opens. To enter the prompt page you must click on the "Set" icon ( $^{\text{Set}}$ ).



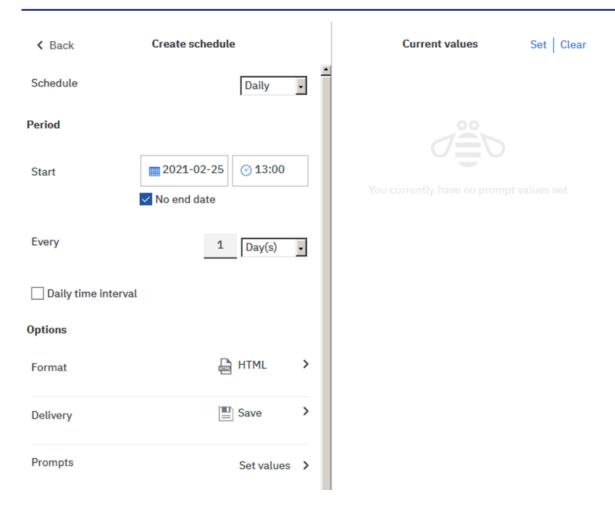


Figure 127 - Welcome page - My content - Properties - Prompts - Set values

Step 9: Enter the search criteria on the prompt page and click on "Finish".

Step 10: Click on the "Create" button and the schedule is created.



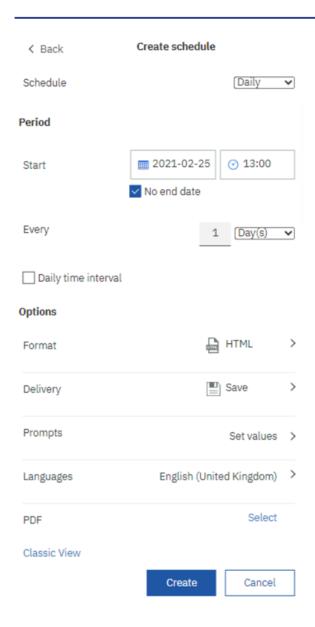


Figure 128 - Welcome page - My content - Properties - Schedule



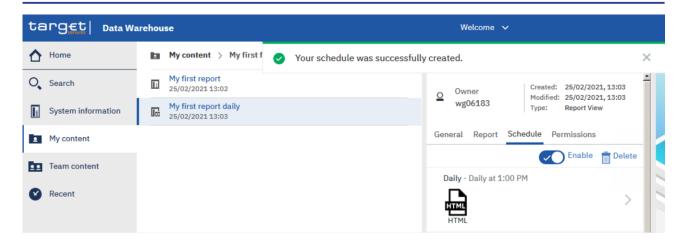


Figure 129 - Welcome page - My content - Properties - Schedule

The option "Enable" informs the user that the schedule is active. By unchecking it, the user cancels the schedule.

# 4.3.3 Scheduling the report for a specific DWH event

You can also schedule a report to be executed shortly after the new data of the last business day was loaded into the DWH. One dedicated DWH internal event will be triggered that starts the execution of the report and either stores it in the "**My content**" folder or sends it out via A2A.

**Step 1:** Choose the report you have saved as report view, and click on the "**More**" icon ( ) at the right of the report.

Step 2: Click on "Properties".



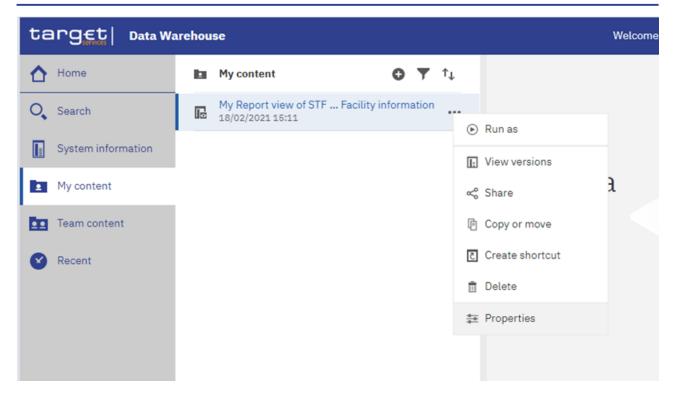


Figure 130 - My content - report view - Properties

Step 3: A description of your report is shown and you can add a description under "General".

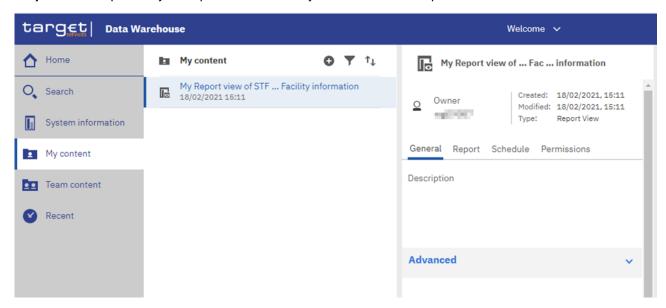


Figure 131 - My content - report view - Properties - General - description of your report



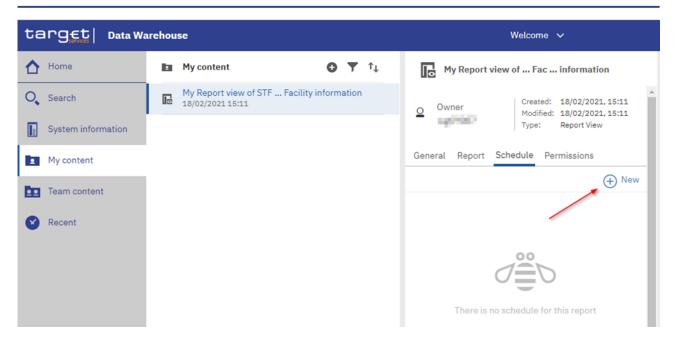


Figure 132 - Welcome page - My content - report view - Properties - Schedule

**Step 5:** By clicking on the "**New**" icon ( ), the "**Schedule**" is opening where you have multiple options to choose for scheduling your report.

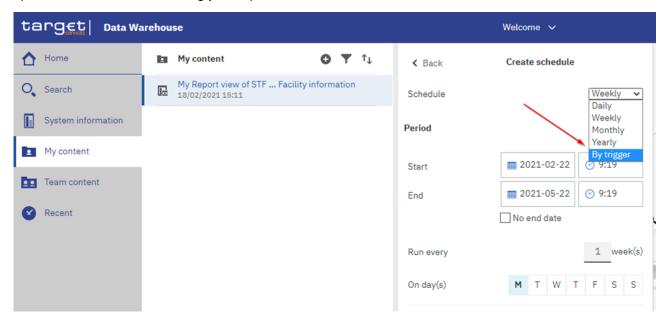


Figure 133 - Welcome page - My content - report view - Properties - create schedule (1)

**Step 6:** Please select "By Trigger" in the pull down list as schedule. In the field "Trigger name" you have to enter the phrase "eodtrigger". Please make sure to type this phrase exactly this way, otherwise the report trigger does not work and the scheduled report will not be executed.



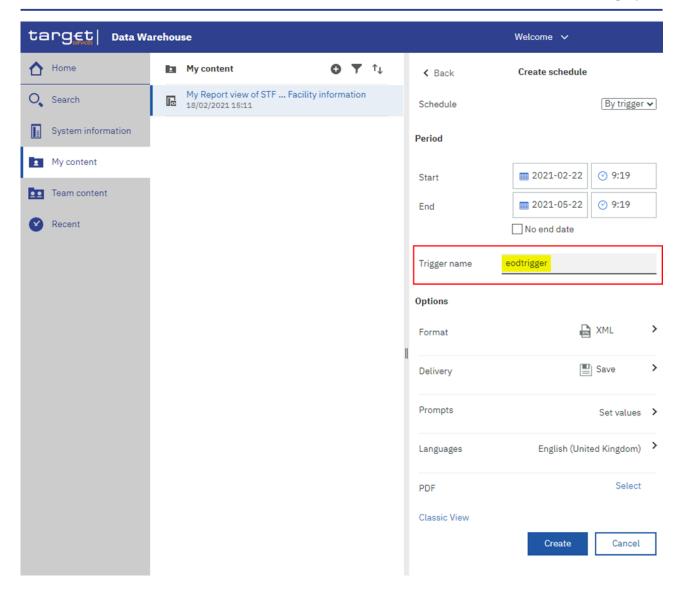


Figure 134 - Welcome page - My content - report view - Properties - create schedule (2)

In this example, you see a daily schedule with no end date, xml as an output, and save the report in DWH.



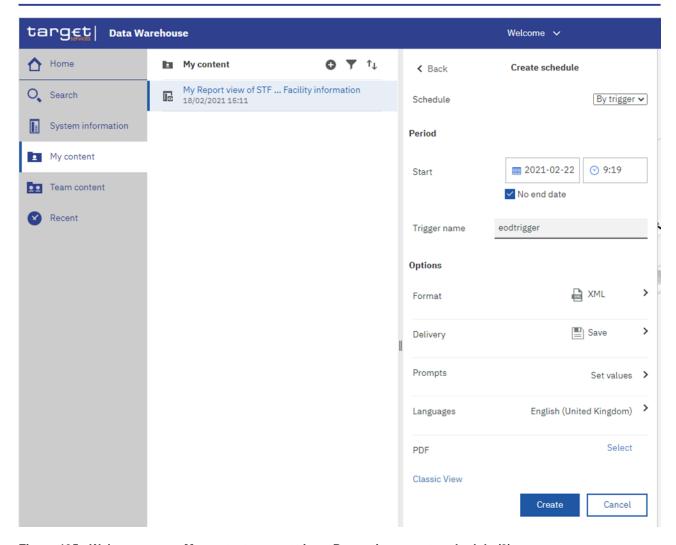


Figure 135 - Welcome page - My content - report view - Properties - create schedule (3)

In case you want to receive the scheduled reports via A2A you have to choose "Save report as external file" and follow the information provided in chapter Delivery - Save report (U2A) [> 93].

**Step 7:** It is very important to set the prompt values when scheduling a report to be executed. This can be done by clicking on the arrow next to "**Set values**".



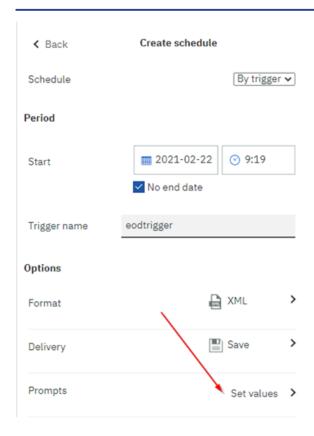


Figure 136 - Welcome page - My content - Properties - Set values

Step 8: The "Current values" opens. To enter the prompt page you must click on the "Set" icon.



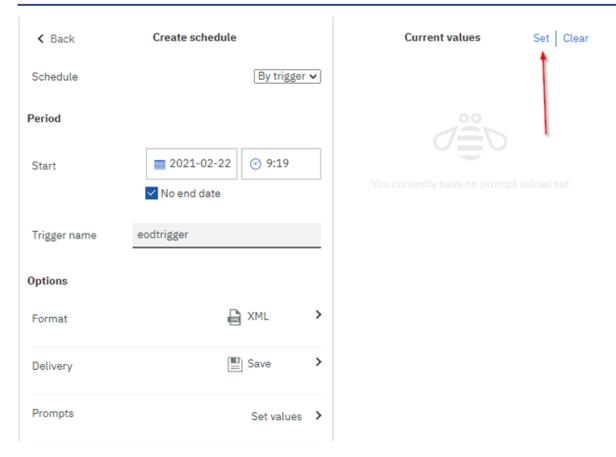


Figure 137 - Welcome page - My content - Properties - Prompts - Set values

Step 9: Enter the search criteria on the prompt page and click on "Finish".

Step 10: Click on the "Create" button and the schedule is created.

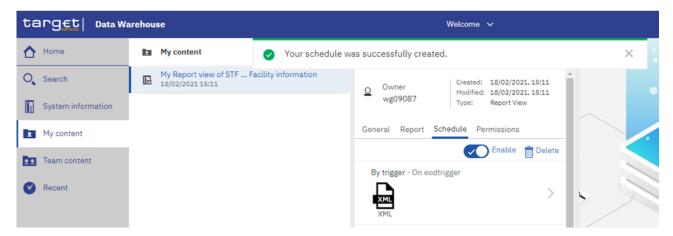


Figure 138 - Welcome page - My content - Properties - Schedule

# 4.3.4 Check the schedule of your report

Step 1: To check the schedule of your report you have to navigate to the "Personal menu".



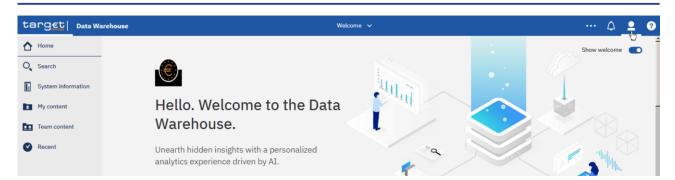


Figure 139 - Welcome page - Personal menu

### Step 2: Click on "My schedules and subscriptions".



Figure 140 - Welcome page - Personal menu - My schedules and subscriptions

**Step 3:** You can verify the reports that are scheduled.

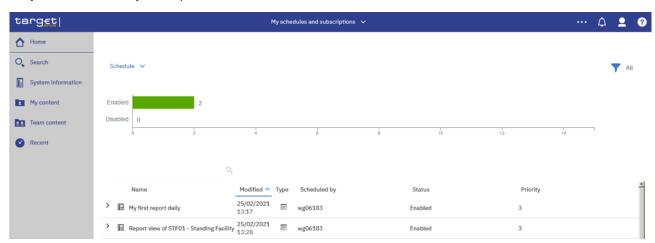


Figure 141 - Welcome page - Personal menu - My schedules and subscriptions - Schedule

Please refer to chapter Personal menu [▶ 38] for further information.



# 4.4 Dynamic prompts

# 4.4.1 Description and function of dynamic prompts

The Dynamic prompts are a new functionality added to Cognos reports. They provide to the user the ability to select a time period that is automatically set by the last business day. The values of these prompts vary depending on the requirements of each report.

TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

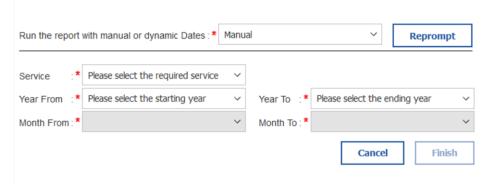


Figure 142 - Previous prompts described as "Manual"

## TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

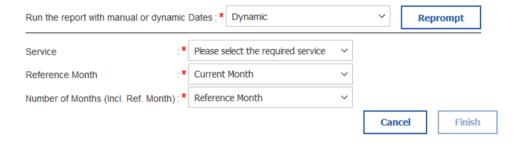


Figure 143 - New prompts described as "Dynamic"

# 4.4.2 Functionality

The Dynamic prompts use the Last Business Day to filter the data and change dynamically when this date is updated. In order to achieve the result, the user is offered the Reference Interval, which is the point where the date filter is applied. Depending on the report that option could be the Current Day, Previous Day, Current Month, Previous Month, Current Quarter, Previous Quarter. Moreover, depending on the report



specifications, the user could be prompted to select a time period, starting from the Reference Interval and going back to the past. That time period is again dependent on the Reference Interval.

TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

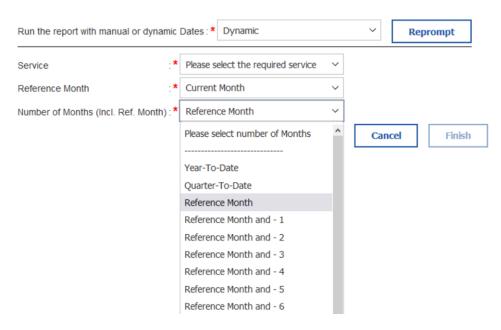


Figure 144 - Dynamic prompts reference interval

# 4.4.3 How to run a report with dynamic prompt

When a user run a report with dynamic prompts, he is presented with a prompt page having a header with the option to run the report with "Manual" or "Dynamic" Dates. By default, the option "Manual" is preselected.

TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

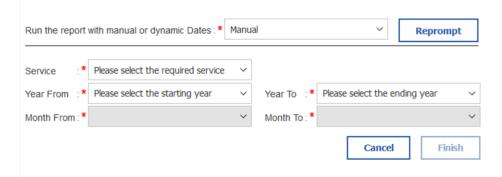


Figure 145 - Running a report with dynamic prompts

By clicking on the drop down "Run the report with manual or dynamic Dates:" the user can find the option "Dynamic"



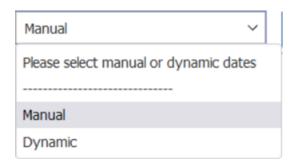


Figure 146 - Select manual or dynamic dates

By selecting the "Dynamic" option, and then clicking on the "Reprompt" button the dynamic prompts are shown:

TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

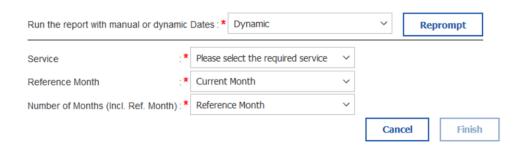


Figure 147 - Dynamic option

In our example the Reference Interval option is the "Reference Month". By clicking on the Drop down, the user is presented with the Reference Intervals. In this example there is available "Current Month" and the "Previous Month":

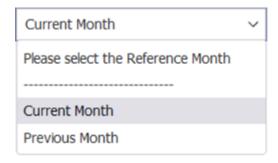


Figure 148 - Reference Month

In this example that option would work as the "Period End".

The next drop down which is called "Number of Months (Incl. Ref. Month)", provides the option to go back to the past, in order to filter the results of the report for a time period. In our example the available options are "Year-To-Date", "Quarter-To-Date", "Reference Month", and the options "Reference Month" and – "Number of months".





Figure 149 - Reference month options to select

In our example that option would work as the "Period Start".

For the sake of our example, we will choose "T2 CLM" as "Service" the "Current Month" as the "Reference Month" and the "Year-To-Date" as the "Number of Months (Incl. Ref. Month)".

After the successful execution of our report, the user is presented with the following results:

TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

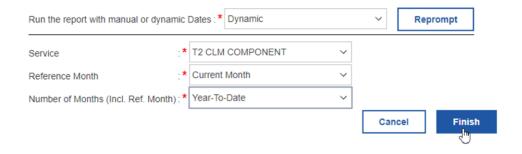


Figure 150 - Dynamic prompt selected with all reference interval





# TRN03 - Monthly peak day and peak hour in to

CBXXAQD0XXX - CSLD BBK QM DWH Test CB1

Service : T2 CLM COMPONENT

Filters Reference Month : Current Month 2022 - Aug

Number of Months (Incl. Ref. Month): Year-To-Date

Currency: EUR

Party: CBXXAQD0XXX - CSLD BBK QM DWH Test CB1

Year Month: 2022 - 04

Cash Transfer Status: Final

			Peak Day		Peak Hour				
	Тор	Date	Value (in million)	Volume	Тор	Date and hour	Value (in million)	Volume	
	1	2022-04-28	11.9	13	1	2022-04-11 16:00	0.0	6	
	2	2022-04-19	6.0	11	1	2022-04-19 15:00	6.0	6	
In Volume	3	2022-04-11	6.0	9	1	2022-04-28 11:00	6.0	6	
	4	2022-04-12	6.0	8	4	2022-04-12 15:00	6.0	5	
	5	2022-04-21	6.0	7	4	2022-04-19 16:00	0.0	5	
	5	2022-04-25	6.0	7					

Figure 151 - Report result

In the results the user may see in the header the values "Reference Month" set to "Current Month", like the user selected in the prompt screen and the value "2022 - Aug" to the right. That value informs the user that the current month in the dataset is set to August of 2022.

Service : T2 CLM COMPONENT
Reference Month : Current Month 2022 - Aug
Number of Months (Incl. Ref. Month) : Year-To-Date

Figure 152 - Filters of report executed

The value "Number of Months (Incl. Ref. Month)", is set to "Year-To-Date" as the user selected in the prompt screen.

Service : T2 CLM COMPONENT

Filters Reference Month : Current Month 2022 - Aug

Number of Months (Incl. Ref. Month) : Year-To-Date

Figure 153 - Filters of report executed

After these selections, the results are expected to start from the January of 2022, ending to August of 2022.

In our list of results, we may see results starting from April of 2022:



NCBXSKMMXXX - NCB SK

Service : T2 CLM COMPONENT

Filters Reference Month : Current Month 2022 - Aug

Number of Months (Incl. Ref. Month): Year-To-Date

Currency: EUR

Party: NCBXSKMMXXX - NCB SK

Year Month: 2022 - 04

Cash Transfer Status: Final

	Peak Day					Peak Hour				
	Тор	Date	Value (in million)	Volume	Тор	Date and hour	Value (in million)	Volume		
	1	2022-04-26	0.0	2	1	2022-04-21 14:00	0.0	1		
In Volume	2	2022-04-21	0.0	1	1	2022-04-22 12:00	0.0	1		
	2	2022-04-22	0.0	1	1	2022-04-26 09:00	0.0	1		
					1	2022-04-26 10:00	0.0	1		

Figure 154 - Report result with data starting from April

### Ending in August 2022

NCBXSKMMXXX - NCB SK

Service : T2 CLM COMPONENT

Filters Reference Month : Current Month 2022 - Aug

Number of Months (Incl. Ref. Month): Year-To-Date

Currency: EUR

Party: NCBXSKMMXXX - NCB SK

Year Month: 2022 - 08

Cash Transfer Status: All

Figure 155 - Report result with data ending on August

Which verifies that our results are correct.

Example with Last Business Date

In this example the Reference Interval option is the "Last Business Date". By clicking on the Drop down, the user is presented with the Reference Intervals. In this example there is available "Last Business Date" and the "Prior Last Business Date":



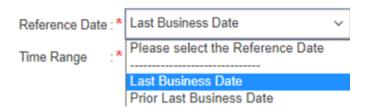


Figure 156 - Last Business Date

The next drop down which is called "Time Range", provides the option to go back to the past, in order to filter the results of the report for a time period. In our example the available options are "Year-To-Date", "Quarter-To-Date", "Week-To-Date" and the options "Reference Date" and — "Number of months".

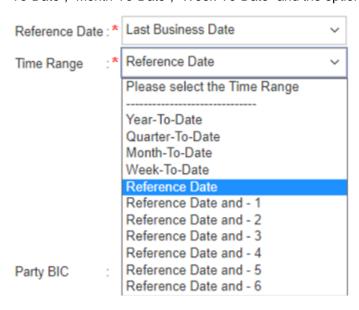


Figure 157 - Time Range options to select

In our example that option would work as the "Period Start".

For the sake of our example, we will choose "Last Business Date" as "Reference Date" and "Reference Date" as the "Time Range". After the successful execution of our report, the user is presented with the following results:



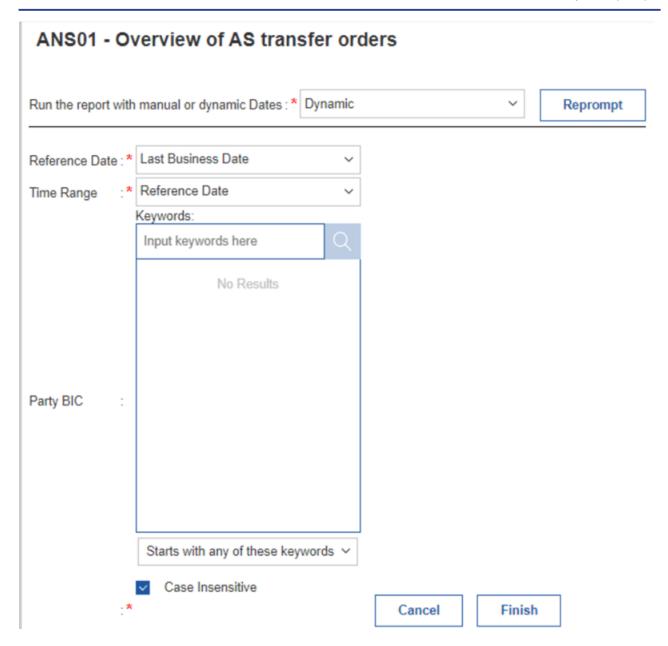


Figure 158 - Dynamic prompt selected with all reference interval

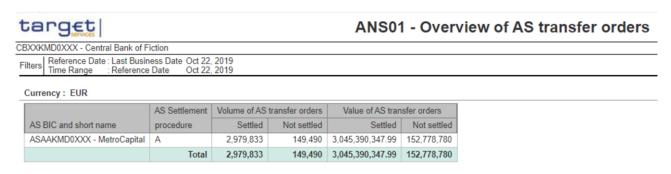


Figure 159 - Report result



In the results the user may see in the header the values "Reference Date" set to "Last Business Date", like the user selected in the prompt screen and shows the Last Business day available.

Furthermore we have the "Time Range" set to "Reference Date" which is the Period Start for the report.

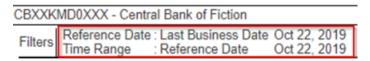


Figure 160 - Filters of report executed

# 4.4.4 How to schedule a report with dynamic prompt

Click on "Content" > "Team content" and select the folder "Predefined Reports". Select the folder with the Predefined reports. In our example TRN03

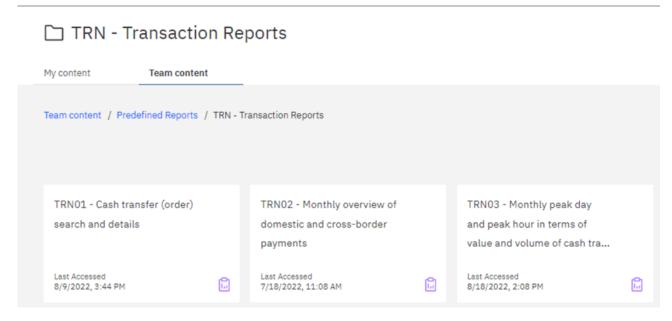


Figure 161 - Scheduling a report with Dynamic prompts

After navigating to the report location, the user may click on the "Action menu" and select "Copy to" to copy the report to the "My content" folder.



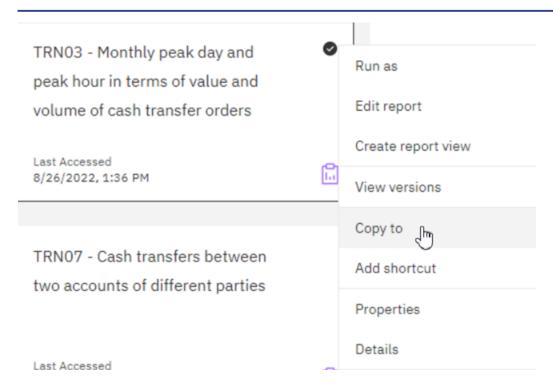


Figure 162 - Scheduling a report with Dynamic prompts - copy to my content folder



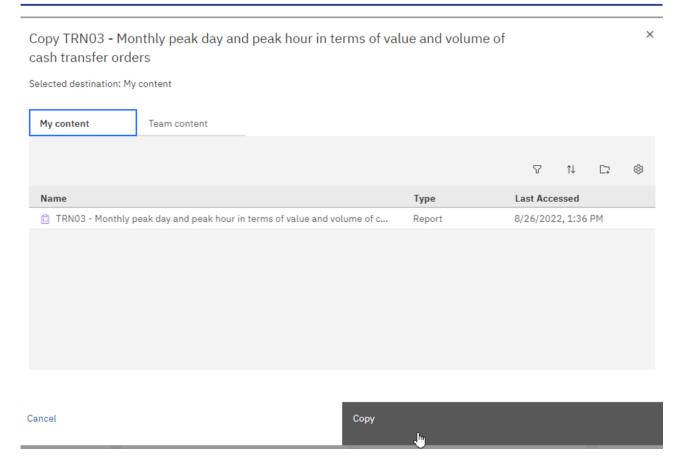


Figure 163 - Scheduling a report with Dynamic prompts - copy to my content folder

From the "My content" folder now click again on the "Action menu" then click on "Properties"

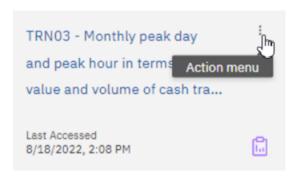


Figure 164 - Scheduling a report with Dynamic prompts - selecting Action menu in copied report



Run as
Edit report
Create report view
View versions
Copy or move to
Add shortcut
Edit name and description
Properties
Details
Delete

Figure 165 - Scheduling a report with Dynamic prompts - Action menu – properties

Then, the user is shown a menu at the right side.



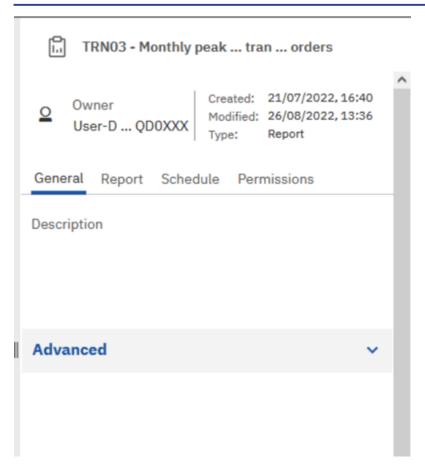


Figure 166 - Scheduling a report with Dynamic prompts - Action menu - properties menu

By clicking on the "Schedule" tab, the user is prompted to create a new schedule:

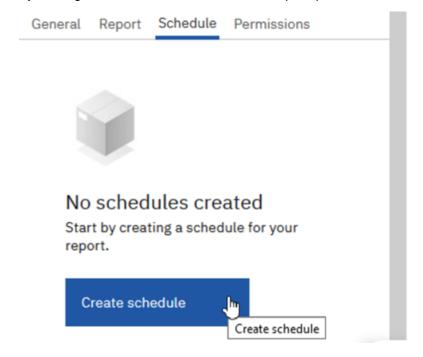


Figure 167 - Scheduling a report with Dynamic prompts - create schedule



By clicking on the "Create schedule" button the user is presented with a window having the schedule options:

TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

Schedule	Option	s Prompts	3	
Frequency				
Туре		Weekly		~
Repeat every		1	<b>‡</b>	week
Repeat on		☐ Monday ☐ Tuesday	Sat	day turday
		✓ Wednesda  ☐ Thursday		nday
☐ Daily time	e interva	l		

Figure 168 - Scheduling a report with Dynamic prompts - schedule menu - Schedule

Where someone could choose how often the report should be executed. The tab "Options" provides choices regarding the format of the report:

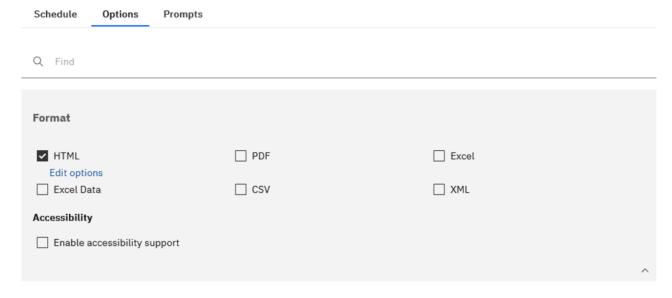


Figure 169 - Scheduling a report with Dynamic prompts - schedule menu - Options

Finally, the tab "Prompts" allows the user to set prompts by clicking on the "Set values" button:



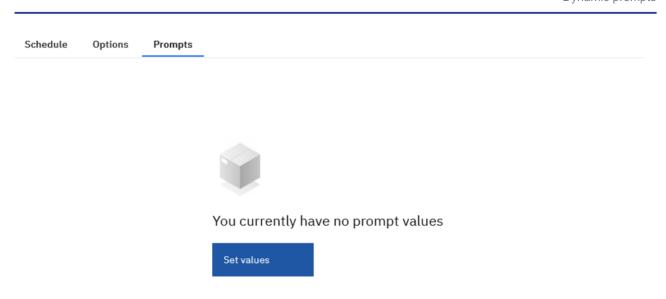


Figure 170 - Scheduling a report with Dynamic prompts - schedule menu - Prompts

At first, the user is shown the existing "static" prompts having manual dates:

TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

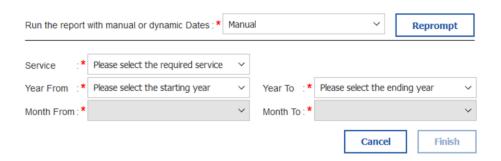


Figure 171 - Scheduling a report with Dynamic prompts - static prompt page

In order to schedule the report using the new "dynamic dates" the user should click on the drop down "Run the report with manual or dynamic Dates:" select "Dynamic" and then click on "Reprompt" button.



## TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

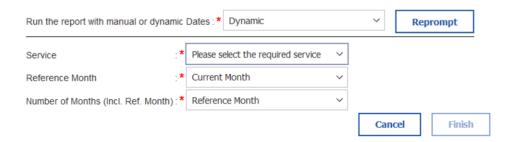


Figure 172 - Scheduling a report with Dynamic prompts - Dynamic prompt page

In that case the user is presented to the dynamic date prompts, where you could select the new available options. In our example, let us use the Service "T2 CLM" and "Current Month" as the Reference Month, and "Year-To-Date" as the "Number of Months (Incl. Ref. Month)".

TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

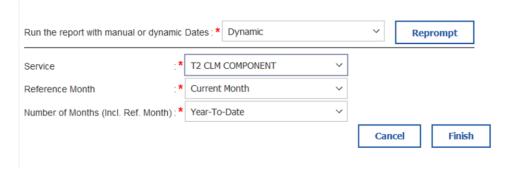


Figure 173 - Scheduling a report with Dynamic prompts - Dynamic prompt page with reference intervals selected

After clicking on "Finish", the user is shown a window with the choices made:



TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

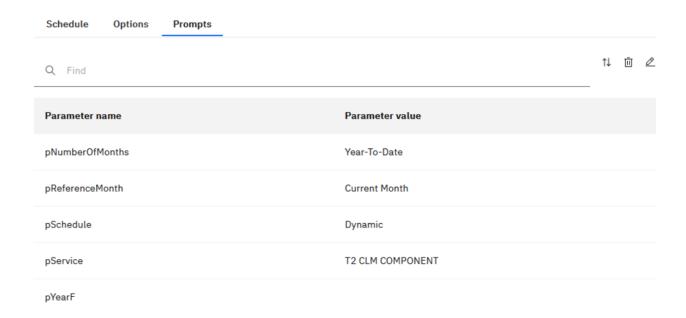


Figure 174 - Scheduling a report with Dynamic prompts - Dynamic prompt page with reference intervals selected

And by clicking on "Save" button

TRN03 - Monthly peak day and peak hour in terms of value and volume of cash transfer orders

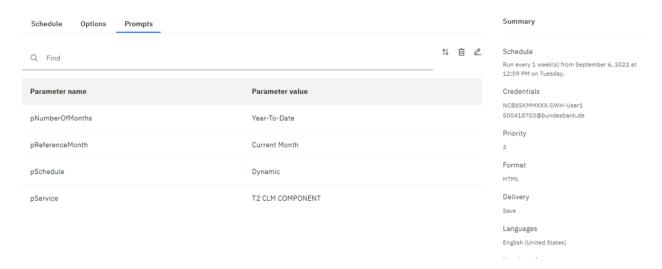


Figure 175 - Scheduling a report with Dynamic prompts - Dynamic prompt page with reference intervals selected

The choices are saved and the Schedule is created:



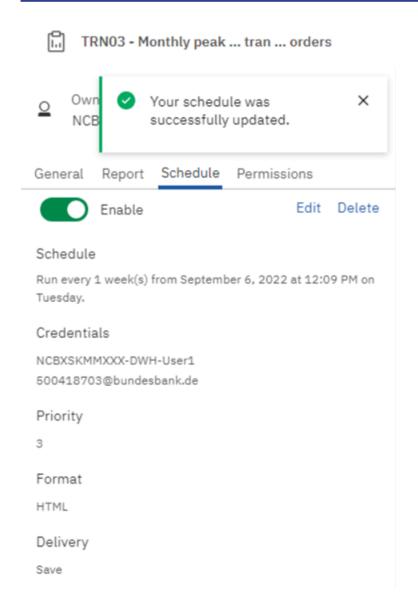


Figure 176 - Scheduling a report with Dynamic prompts - successfully created



# 5 Predefined reports

# 5.1 Ancillary systems reports (ANS)

# 5.1.1 ANS01 - Overview of AS transfer orders

# **Context of usage**

The report ANS01 provides information on the total volume and value of AS transfer orders differentiated by AS name and BIC that were settled (or not settled) on (or within) a given date (range).

CBs can retrieve information for AS belonging to their system entity.

This report can be used by CB and AS users.

#### **Report access**

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [ANS - Ancillary System Reports] >> [ANS01]

# Screenshot - prompt

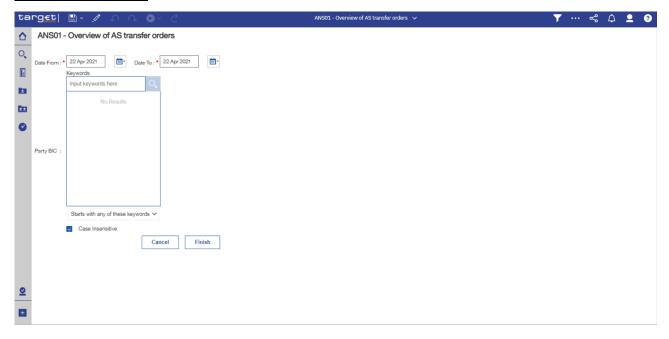


Figure 177 - ANS01 prompt



# **Prompt description**

ANS01 – Report description – prompt screen				
Field label	Description			
Date From	You can select the date by clicking on the calendar.  This field is mandatory.			
Date To	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, the current day cannot be selected.  This field is mandatory.			
Party BIC	You can use this drop-down field to select the party BIC. This field will show all party BICs within the data scope of the user's party.  This field is optional.			

Table 1 - ANS01 - Report description - Prompt screen

# Screenshot - output screen

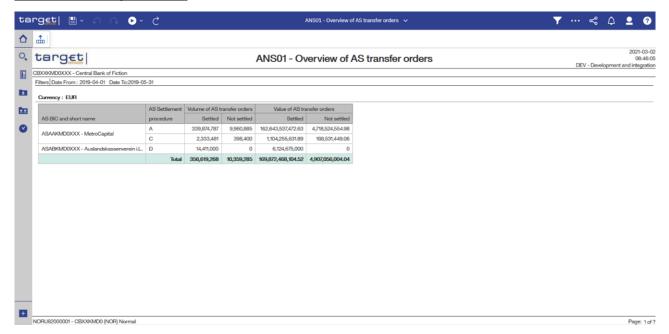


Figure 178 - ANS01 output

# **Output description**

ANS01 – Report description – output screen				
Field label	Description			
AS BIC and short name	BIC and short name of the AS			



AS settlement procedure	AS settlement procedure
	Possible Values:
	A, B, C, D, E
Volume of AS transfer orders –	Number of AS transfer orders which were settled or partially settled for the respective
Settled	AS in the chosen date range is reflected.
Volume of AS transfer orders –	Number of AS transfer orders which were not settled (i.e. cancelled (revoked) or
Not settled	rejected) for the respective AS in the chosen date range.
Value of AS transfer orders –	Sum of amounts of all AS transfer orders which were settled or partially settled for the
Settled	respective AS in the chosen date range.
Value of AS transfer orders –	Sum of amounts of all AS transfer orders which were not settled (i.e. cancelled
Not settled	(revoked) or rejected) for the respective AS in the chosen date range.

Table 2 - ANS01 - Report description - Output screen

# 5.1.2 ANS02 – Daily average of AS transfers

# **Context of usage**

The report ANS02 provides information on the daily average volume and value of AS transfers settled within a given month (range) and differentiated by system entity/CB.

CBs can retrieve aggregated volume and value information for each system entity/CB.

This report can be used by CB users only.

# Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [ANS - Ancillary System Reports] >> [ANS02]



# Screenshot - prompt

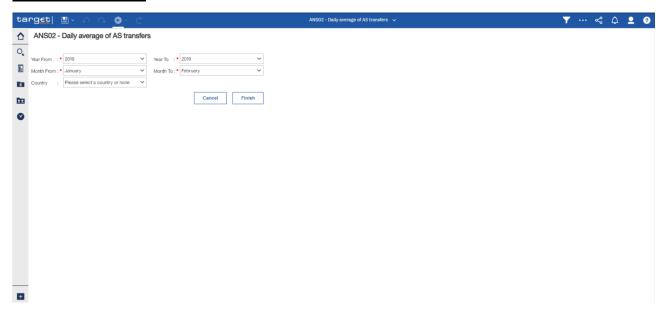


Figure 179 - ANS02 Prompt

ANS02 – Report description – prompt screen	
Field label	Description
Year From	You can use this drop-down field to select the year, from which the report should contain the data.  This field is mandatory.
Month From	You can use this drop-down field to select the month, from which the report should contain the data.  For valid report result, the current month cannot be selected.  This field is mandatory.



Year To	You can use this drop-down field to select the end year, for which the report should contain the data.
	This field is mandatory.
Month To	You can use this drop-down field to select the end month, for which the report should contain the data.
	For valid report result current month cannot be selected.
	This field is mandatory.
Country Code	You can select the Country Code of the related Party.
	This field is optional.

Table 3 - ANS02 - Report description - Prompt screen

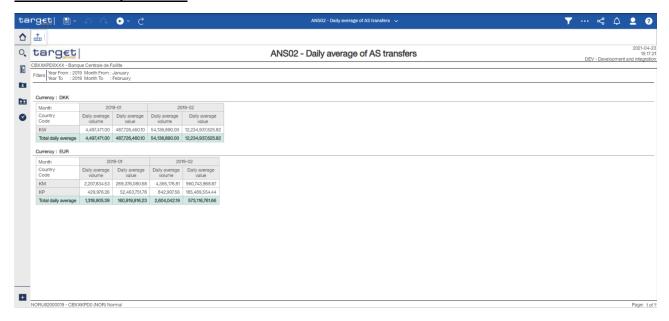


Figure 180 - ANS02 output



#### ANS02 - Report description - output screen

The output table will be repeated for each currency and for every selected month in the search prompt. It is sorted by country code.

Field label	Description
Month	Month and Year
	AS transfer orders which were settled or partially settled within the scope of the respective CB during this month are reflected.
Country Code	Country Code for all available CBs or for the one selected in the search prompt.
Daily average volume	Daily average AS transfer volume for this CB in this month.
Daily average value	Daily average AS transfer value for this CB in this month.
Total daily average volume	The total daily average for a month as sum of daily averages for all CBs divided by the number of CBs.
Total daily average value	The total daily average for a month as sum of daily averages for all CBs divided by the number of CBs.

Table 4 - ANS02 - Report description - Output screen

# 5.2 Business day reports (BDY)

#### 5.2.1 BDY01 - Business Day event/delay information on settlement opening time

#### Context of usage

This report provides information on the daily timing of business day events and on delays in periods of the business Day for CLM or RTGS.

For each time-based event of a respective business day the report provides information as regards the planned time, the revised time and the effective time. For events that are not time-based the report will only provide an effective time. In case of currency-specific events the event times are provided separate per currency.

Based on the timing of the business Day events, the report calculates the daily opening time for settlement as well as the total number and the duration of delays in CLM or RTGS.

The report is available for a given date (range).



This report can be used by CB, PB and AS users.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [BDY – Business Day Reports] >> [BDY01]

#### Screenshot - prompt

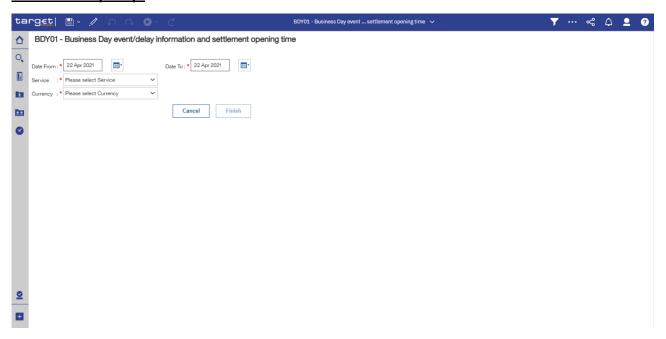


Figure 181 - BDY01 prompt

BDY01 - Report description - prompt screen		
Field label	Description	
Service	Service for which the data shall be displayed.	
	Possible values:	
	I RTGS	
	I CLM	
	This field is optional	



Date from	You can select the date by clicking on the calendar.
	This field is mandatory.
Date to	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.
	For valid report results, the current day cannot be selected.  This field is mandatory.
	This held is manualory.
Currency	Choose the currency, for which you want to generate the report.

Table 5 - BDY01 - Prompt description

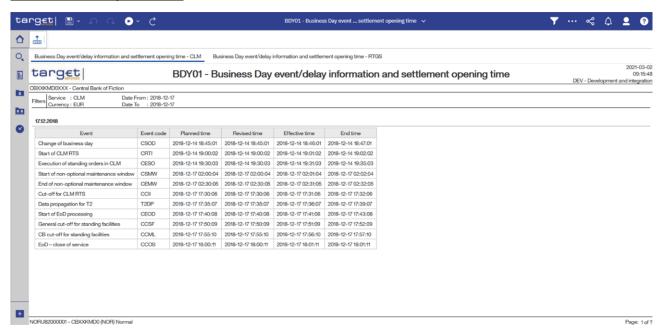


Figure 182 - BDY01 Output (1)



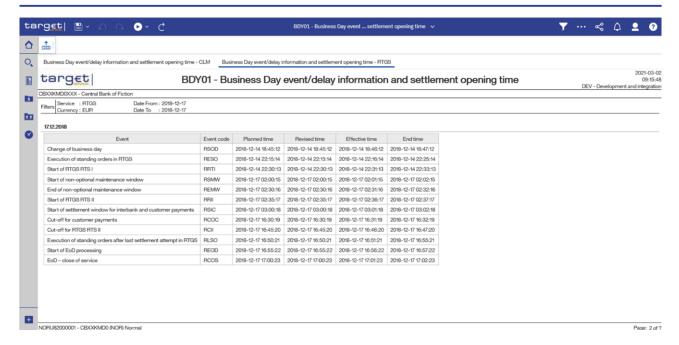


Figure 183 - BDY01 Output (2)

BDY01 - Report description - output screen	
Field label	Description
Event	Description of the business day event.
Event code	The event code as delivered by the CLM or RTGS service. The list of events is not static because the set of events may change.  For a list of currently valid events, please see CLM and RTGS UDFS.
Planned time	The planned time corresponds to the standard schedule applied by default.  Only for time-based events.  For non-time based events this field is empty.



Revised time	The revised time is the foreseen time for the current business day, which usually coincides with the planned time except when a delay has occurred.  Only for time-based events.  For non-time based events this field is empty.
Effective time	The effective time is the time of the actual occurrence of the event during the current business day. It is the time, when the BDM (Business Day Management) sent the trigger to CLM or RTGS.
End time	The end time is the time, when CLM or RTGS informed the BDM, that the processes for this event have been finished.

Table 6 - BDY01 - Output description

# 5.3 Billing reports (BIL)

### 5.3.1 BIL01 - Consumption data

#### **Context of usage**

This report provides aggregated information on consumption data for a selected period **per service** and **charged party at the level of service item**. It provides a monthly view on the quantity per service item and the share (in %) compared to the whole system entity's quantity. CBs can retrieve information on the aggregated consumption data of those parties belonging to their system entity.

Additionally, the report provides the sums over all parties per service item and service for the system entity.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [BIL – Billing Reports] >> [BIL01]



# Screenshot - prompt

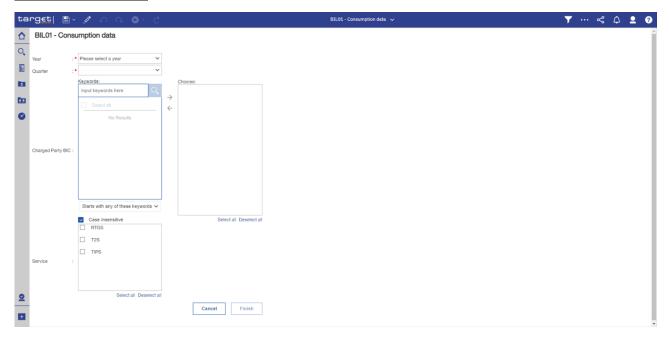


Figure 184 - BIL01 prompt

BIL01 – Report description – prompt screen	
Field label	Description
Year	You can use this drop-down field to select the year, from which the report should contain the data.  This field is mandatory.



Quarter	You can use this drop-down field to select the quarter, for which the report should show the data.  This field is mandatory
Charged party BIC	You can use this search and select prompt to be able to search for the party BIC or short name. One or several parties can be selected. In case the user leaves this field free, all party BICs belonging to the user's data scope are selected.  This field is optional.
Service	Service for which the data shall be displayed.  Possible values:  I RTGS  I TIPS  This field is optional

Table 7 - BIL01 - Prompt description

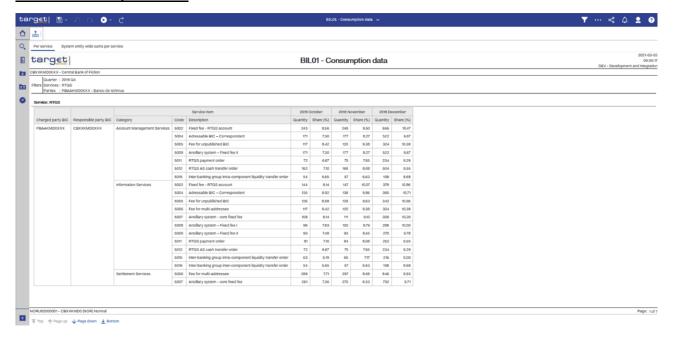


Figure 185 - BIL01 Output ("Per service")(1)



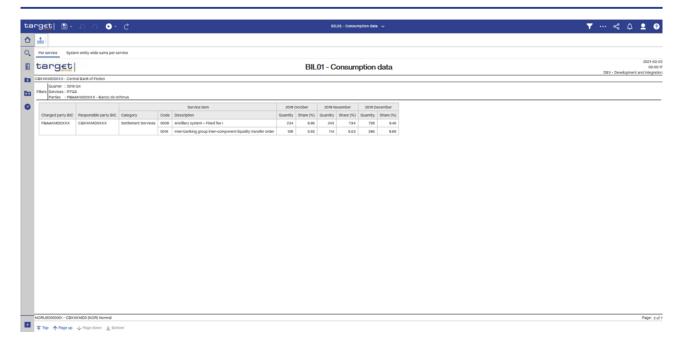


Figure 186 - BIL01 Output ("Per service")(2)

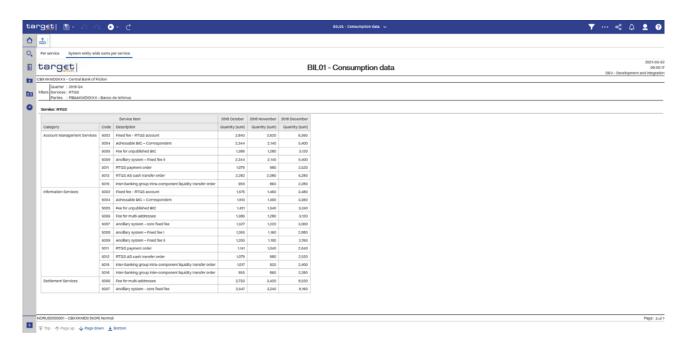


Figure 187 - BIL01 Output ("System entity wide sums per service")(1)



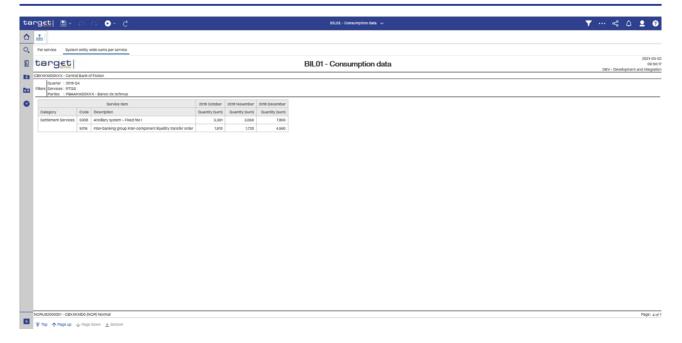


Figure 188 - BIL01 Output ("System entity wide sums per service")(2)

BIL01 – Report description – output screen	
Field label	Description
Year, Quarter	Year and quarter as chosen in input screen
Tab "Per service": Shows consur	mption data per selected service
Charged party BIC	BIC of the charged party
Responsible party BIC	BIC of the responsible party.
	Indicates the CB responsible for the party to be charged
Service item category	Possible values are:
	I Settlement Services (SETT)
	I Account Management Services (ACMS)
	I Information Services (INSV)
Service item code	Following service item codes are currently available:
	I 5002
	I 5004
	I 5005
	I 5006
	I 5007



	I 5008
	1 5009
	I 5011
	I 5012
	I 5015
	I 5016
	I 3001
	1 3002
	1 3003
	1 3004
Service item description	Following service item descriptions are currently available:
	Fixed fee – RTGS account (5002)
	Addressable BIC – Correspondent (5004)
	Fee for unpublished BICs (5005)
	Fee for multi-addressee access (5006)
	Ancillary system – Core fixed fee (5007)
	I Ancillary system – Fixed fee I (5008)
	Ancillary system – Fixed fee II (5009)
	I RTGS payment order (5011)
	I RTGS AS Cash transfer orders (5012)
	Inter-banking group intra-component liquidity transfer order (5015)
	Inter-banking group inter-component liquidity transfer order (5016)
	I Settled Instant Payment transaction (3001)
	I Unsettled Instant Payment transaction (3002)
	I Settled Positive Recall answer (3003)
	I Unsettled Positive Recall answer (3004)
Month, Year	For each month within the chosen quarter, one row will be displayed.
	If the billing period is not yet closed, then no quantities are shown (empty cells)
Quantity	The number of counts for this service item
Share (%)	The share (in %) for the usage of this service item within the month compared
Share (70)	



Service item category	Possible values are:
	I Settlement Services
	Account Management Services
	Information Services
Service item code	Following service item codes are currently available:
	I 5002
	1 5004
	I 5005
	I 5006
	I 5007
	1 5008
	1 5009
	5011
	5012
	I 5015
	5016
	I 3001
	I 3002
	I 3003
	I 3004



Service item description Following service item descri	ntions are currently available:
Service item description 1 ollowing service item descri	plions are currently available.
Ⅰ Fixed fee – RTGS accou	int (5002)
I Addressable BIC – Corre	espondent (5004)
I Fee for unpublished BIC	s (5005)
I Fee for multi-addressee	(5006)
I Ancillary system – Core	fixed fee (5007)
I Ancillary system – Fixed	fee I (5008)
I Ancillary system – Fixed	fee II (5009)
I RTGS payment order (50	011)
I RTGS AS Cash transfer	orders (5012)
I Inter-banking group intra	-component liquidity transfer order (5015)
I Inter-banking group inter	-component liquidity transfer order (5016)
I Settled Instant Payment	transaction (3001)
I Unsettled Instant Payme	nt transaction (3002)
I Settled Positive Recall a	nswer (3003)
I Unsettled Positive Recal	l answer (3004)
Month, Year For each month within the ch	osen quarter, one row will be displayed.
If the billing period is not yet	closed, then no quantities are shown (empty cells).
Quantity (sum)  For each service item the sum the CB.	m over all parties belonging to the data scope of

Table 8 - BIL01 - Output description

# 5.3.2 BIL02 - Monitoring the invoice activity

#### Context of usage

This report provides aggregated information on invoicing activity per party, service, billing period and fee type. It shows the item count and value in EUR together with the respective share (in %) compared to the grand total of the system entity.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [BIL – Billing Reports] >> [BIL02]



# Screenshot - prompt

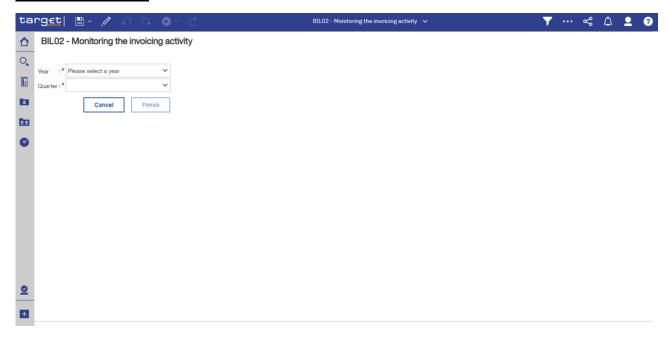


Figure 189 - BIL02 prompt

BIL02 – Report description – prompt screen	
Field label	Description
Year	You can use this drop-down field to select the year, from which the report should contain the data.
Quarter	This field is mandatory.  You can use this drop-down field to select the quarter, for which the report should show the data.  This field is mandatory

Table 9 - BIL02 - Prompt description



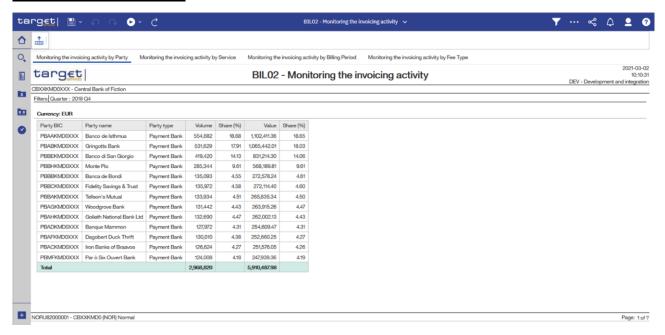


Figure 190 - BIL02 Output ("Monitor the invoicing activity by party")

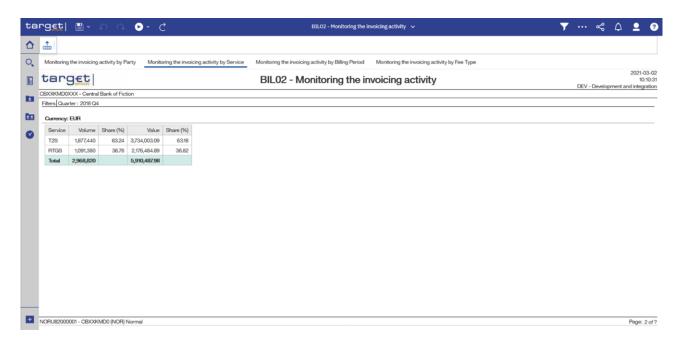


Figure 191 - BIL02 Output ("Monitor the invoicing activity by service")



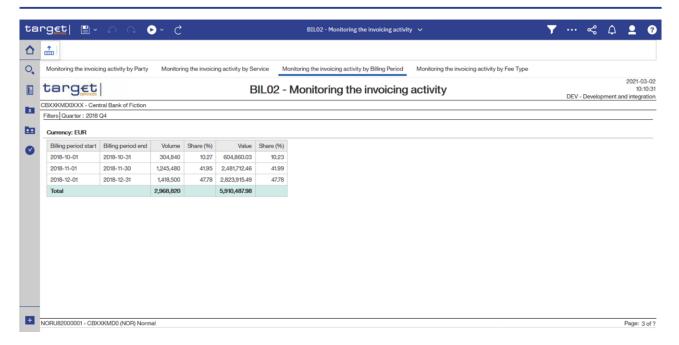


Figure 192 - BIL02 Output ("Monitor the invoicing activity by billing period")

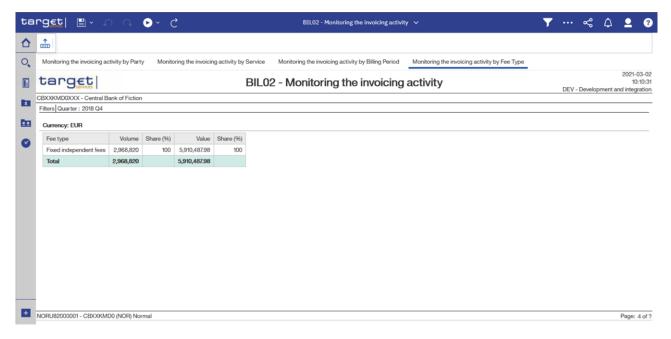


Figure 193 - BIL02 Output ("Monitor the invoicing activity by fee type")



BIL02 – Report description – output s	BIL02 – Report description – output screen	
Field label	Description	
Year, Quarter	Year and quarter as chosen in input screen	
Tab "Monitor the invoicing activity by pa	nty"	
Party BIC	BIC of the charged party	
Party name	Name of the charged party	
Party type	Type of the charged party	
Volume	Number of all charged service items for the party during the selected quarter	
Share (%)	Share (in %) of the volume compared to the total of the system entity during the selected quarter	
Value (in EUR)	Value of all charged service items for the party during the selected quarter	
Share (%)	Share (in %) of the value compared to the total of the system entity during the selected quarter	
Total volume	Sum of all volumes of charged service items for the system entity during the selected quarter	
Total value (in EUR)	Sum of all values of charged service items for the system entity during the selected quarter	
Tab "Monitor the invoicing activity by se	rvice"	
Service	Service for which the data is displayed.  Possible values:  I RTGS  I TIPS	
Volume	Number of all charged service items for the service during the selected quarter	
Share (%)	Share (in %) of the volume compared to the total of the system entity during the selected quarter	
Value (in EUR)	Value of all charged service items for the service during the selected quarter	
Share (%)	Share (in %) of the value compared to the total of the system entity during the selected quarter	
Total volume	Sum of all volumes of charged service items for the system entity during the selected quarter	
Total value (in EUR)	Sum of all values of charged service items for the system entity during the	



	selected quarter		
Tab "Monitor the invoicing activity by bil	lling period"		
Billing period start	Start date (Calendar date) of the billing period for which data is shown		
Billing period end	End date (Calendar date) of the billing period for which data is shown		
Volume	Number of all charged service items for the billing period		
Share (%)	Share (in %) of the volume compared to the total of the system entity during the selected quarter		
Value (in EUR)	Value of all charged service items for the billing period		
Share (%)	Share (in %) of the value compared to the total of the system entity during the selected quarter		
Total volume	Sum of all volumes of charged service items for the system entity during the selected quarter		
Total value (in EUR)	Sum of all values of charged service items for the system entity during the selected quarter		
Tab "Monitor the invoicing activity by fe	Tab "Monitor the invoicing activity by fee type"		
Fee type	Fee type		
Volume	Number of all charged service items for the fee type during the selected quarter		
Share (%)	Share (in %) of the volume compared to the total of the system entity during the selected quarter		
Value (in EUR)	Value of all charged service items for the fee type during the selected quarter		
Share (%)	Share (in %) of the value compared to the total of the system entity during the selected quarter		
Total volume	Sum of all volumes of charged service items for the system entity during the selected quarter		
Total value (in EUR)	Sum of all values of charged service items for the system entity during the selected quarter		

Table 10 - BIL02 - Output description



# 5.3.3 BIL03 - Audit of critical billing data

# **Context of usage**

This report provides audit information on changes to data critical for billing ("Critical data"). Sorted by party BIC, the report lists the most recent changes to critical data that were executed during a selected period stating their old and new values and the timestamp of the change.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [BIL - Billing Reports] >> [BIL03]

#### <u>Screenshot – prompt</u>



Figure 194 - BIL03 prompt

BIL03 – Report description – prompt screen	
Field label	Description
Service	Service for which the data shall be displayed.
	Possible values:
	I RTGS



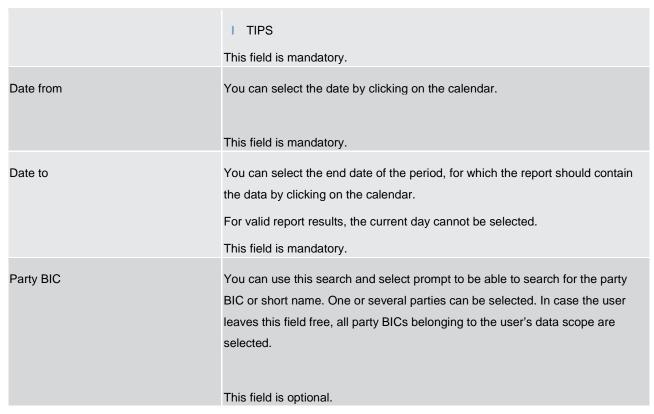


Table 11 - BIL03 - Prompt description

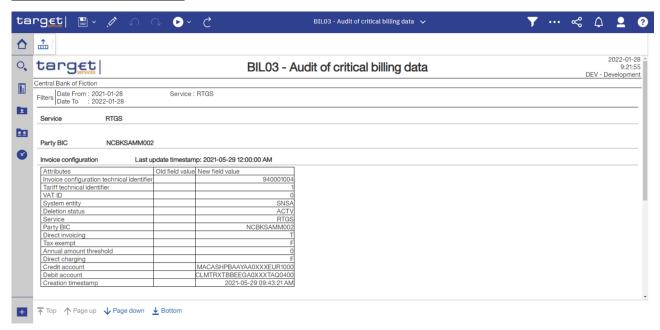


Figure 195 - BIL03 output (1) ("Invoice configuration")



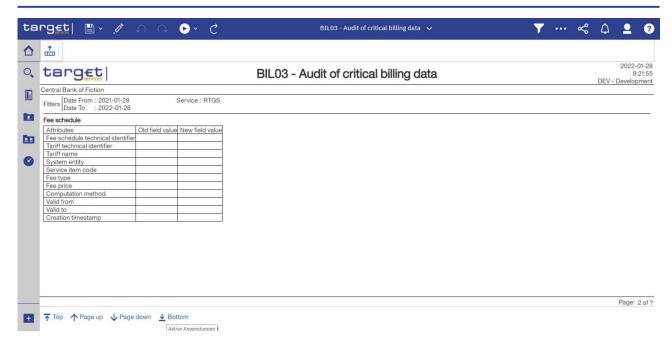


Figure 196 - BIL03 output (2) ("Fee schedule")

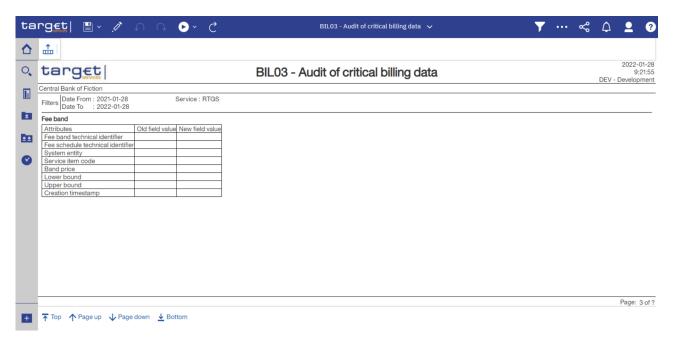


Figure 197 - BIL03 output (3) ("Fee band")



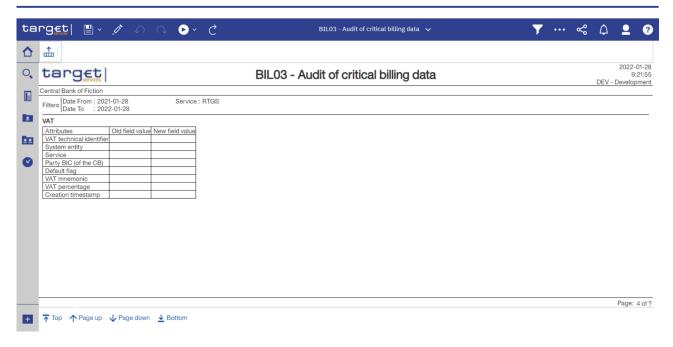


Figure 198 - BIL03 output (4) ("VAT")

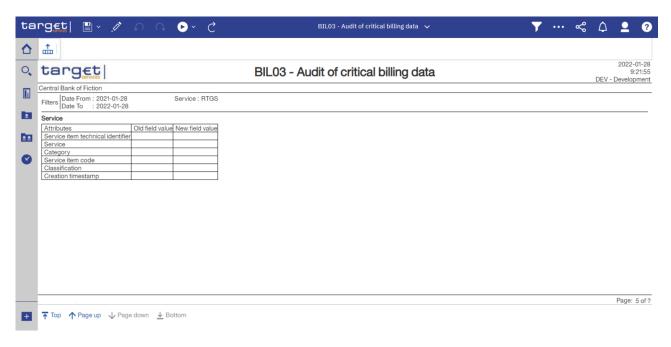


Figure 199 - BIL03 output (5) ("Service")



BIL03 – Report description – output screen	
Field label	Description
Party BIC	BIC of the party, for which the audit for critical billing data is shown in the following table
The following information is shown per	critical data item (entity – see following list for possible values):
Entity name	Name of the critical data entity.  Possible values:  Invoice configuration  Fee schedule  VAT  Billing group  Service item
Last update timestamp	Timestamp of the last update to attributes of this critical data item
The following information is shown per	attribute of the critical data item (entity – see following list for possible values):
Attribute name	Name of the attribute
Old field value	Value of the attribute before the change.
New field value	Value of the attribute after the change. Is empty for those attributes that were not changed.

Table 12 - BIL03 - Output description

# **Critical data fields**

BIL03 – List of billing critical data entities and attributes	
Entity	Attribute
Invoice configuration	Service
Invoice configuration	Party BIC
Invoice configuration	Direct invoicing
Invoice configuration	Tax exempt
Invoice configuration	Annual amount threshold
Invoice configuration	Direct charging



Invoice configuration	Credit account
Invoice configuration	Debit account
Fee schedule	Tariff name
Fee schedule	Service item code
Fee schedule	Fee type
Fee schedule	Fee price
Fee schedule	Computation method
Fee schedule	Valid from
Fee schedule	Valid to
Fee band	Service item code
Fee band	Band price
Fee band	Lower bound
Fee band	Upper bound
VAT	Service
VAT	Party BIC (of the CB)
VAT	Default flag
VAT	VAT mnemonic
VAT	VAT percentage
Billing group	Billing group leader
Tariff	Service
Tariff	Tariff name

Table 13 - BIL03 - Critical data fields

# 5.3.4 BIL04 - Detailed consumption

# **Context of usage**

This report provides detailed information on consumption data for a selected period and provides information on the originator and the charged party, the service item category and code and the quantity of each service item per day within the selected period. CBs can retrieve information on the detailed consumption data of those parties belonging to their system entity.

This report can be used by CB users only.



### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [BIL - Billing Reports] >> [BIL04]

# Screenshot - prompt

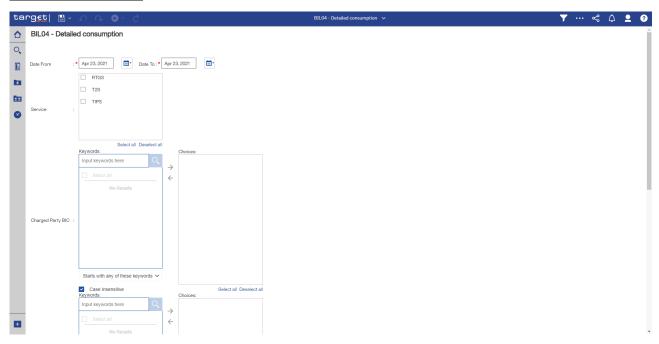


Figure 200 - BIL04 prompt (1)



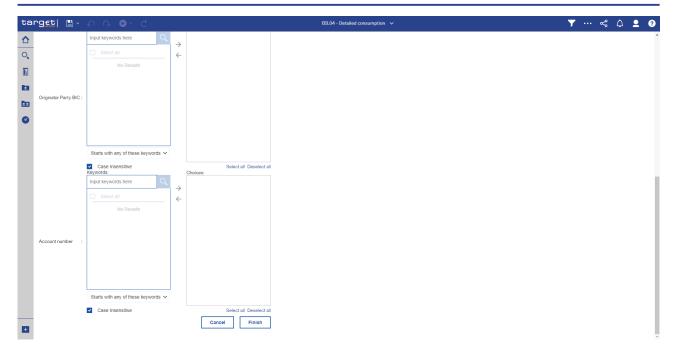


Figure 201 - BIL04 prompt (2)

BIL04 – Report description – prompt screen	
Field label	Description
Date from	You can select the date by clicking on the calendar.
	This field is mandatory.
Date to	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, the current day cannot be selected.
	This field is mandatory.
Service	Service for which the data shall be displayed.  Possible values:  I RTGS
	I TIPS
	This field is mandatory.



Charged party BIC and name	BIC and name of the party to be charged  You can use this search and select prompt to be able to search for the charged party BIC or short name. One or several parties can be selected. In case the user leaves this field free, all party BICs belonging to the user's data scope are selected.
Originator party BIC and name	This field is optional.  BIC and name of the party originating the charge  You can use this search and select prompt to be able to search for the charged party BIC or short name. One or several parties can be selected. In case the user leaves this field free, all party BICs belonging to the user's data scope are selected.  This field is optional.
Account number	Account number to which the service item is linked  This field is optional.

Table 14 - BIL04 - Prompt description

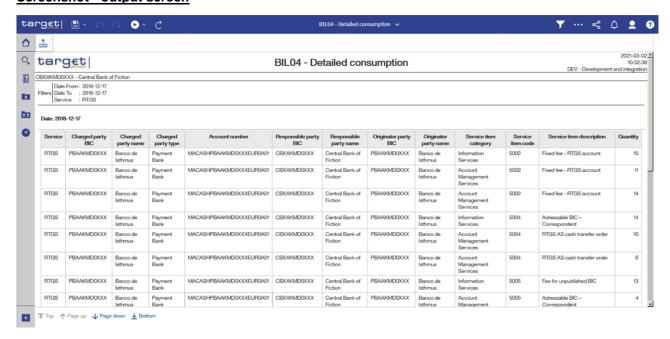


Figure 202 - BIL04 Output



BIL04 – Report description – output screen	
Field label	Description
Date	Date, for which detailed consumption data are shown
The following information is shown per	date within the chosen date range.
Service	Service where the detailed consumption data are shown.  Possible values:  I RTGS  I TIPS
Charged party BIC	Party that is charged for the service items
Charged party name	Name of the charged party
Charged party type	Party type of the charged party.
Account number	Account number, to which the service item is linked (only filled in case of service item category "Settlement services" or "Account management services". Otherwise empty)
Responsible party BIC	Party BIC of CB responsible for the charged party
Responsible party name	Name of the CB responsible for the charged party
Originator party BIC	BIC of the party that originated the service item
Originator party name	Name of the party that originated the service item
Service Item Category	Possible values are:    Settlement Services (SETT)    Account Management Services (ACMS)    Information Services (INSV)



Service item code	Following service item codes are currently available:
	1 5002
	I 5004
	1 5005
	1 5006
	1 5007
	1 5008
	1 5009
	I 5011
	I 5012
	I 5015
	I 5016
	I 3001
	1 3002
	1 3003
	I 3004
Service item description	Following service item descriptions are currently available:
	Fixed fee – RTGS account (5002)
	Addressable BIC – Correspondent (5004)
	Fee for unpublished BICs (5005)
	Fee for multi-addressee (5006)
	Ancillary system – Core fixed fee (5007)
	Ancillary system – Fixed fee I (5008)
	Ancillary system – Fixed fee II (5009)
	I RTGS payment order (5011)
	RTGS AS Cash transfer orders (5012)
	Inter-banking group intra-component liquidity transfer order (5015)
	Inter-banking group inter-component liquidity transfer order (5016)
	Settled Instant Payment transaction (3001)
	Unsettled Instant Payment transaction (3002)
	Settled Positive Recall answer (3003)
	Unsettled Positive Recall answer (3004)



Quantity Number of the service items counted

Table 15 - BIL04 - Output description

# 5.3.5 BIL05 - Detailed participation

#### **Context of usage**

This report provides detailed information about charged parties per consumption of service item categories of each service for a given date range. CBs can retrieve information on the detailed participation data of those parties belonging to their system entity.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [BIL – Billing Reports] >> [BIL05]

#### <u>Screenshot – prompt</u>

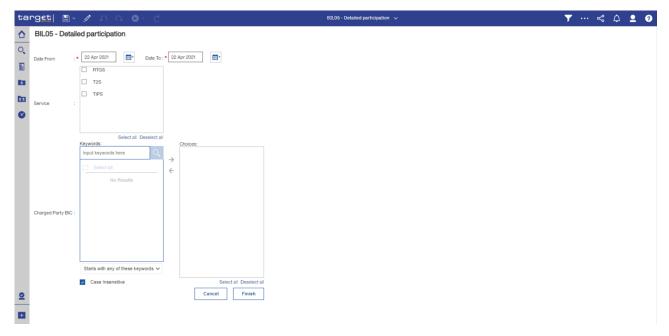


Figure 203 - BIL05 prompt



BIL05 – Report description – prompt screen		
Field label	Description	
Date from	You can select the date by clicking on the calendar.	
	This field is mandatory.	
Date to	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, the current day cannot be selected.	
	This field is mandatory.	
Service	Service for which the data shall be displayed.  Possible values:  I RTGS  I TIPS  This field is mandatory.	
Charged party BIC and name	BIC and name of the party to be charged  You can use this search and select prompt to be able to search for the charged party BIC or short name. One or several parties can be selected. In case the user leaves this field free, all party BICs belonging to the user's data scope are selected.  This field is optional.	

Table 16 - BIL05 - Prompt description



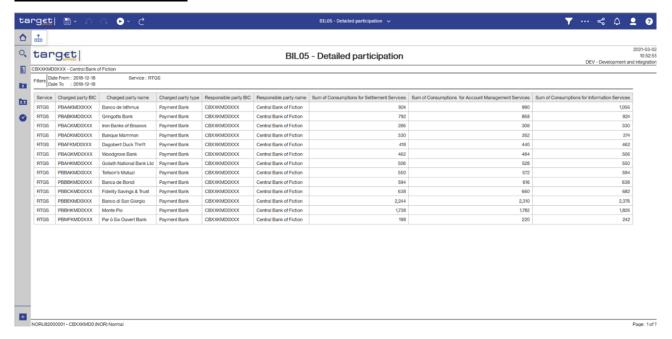


Figure 204 - BIL05 Output

BIL05 – Report description – output screen			
Field label	Description		
Service	Service where the detailed consumption data are shown.		
	Possible values:		
	I RTGS		
	I TIPS		
Charged party BIC	Party that is charged for the service items		
Charged party name	Name of the charged party		
Charged party type	Party type of the charged party.		
Responsible party BIC	Party BIC of CB responsible for the charged party		
Responsible party name	Name of the CB responsible for the charged party		
Sum of consumptions for Settlement	Number of consumptions of Settlement Services by the charged party during		
services	the given date range		



Sum of consumptions for Account	Number of consumptions of Account management services by the charged
management services	party during the given date range
Sum of consumptions for Information	Number of consumptions of Information services by the charged party during
services	the given date range
Quantity	Number of the service items counted

Table 17 - BIL05 - Output description

#### 5.3.6 BIL06 - PDF invoice list

#### **Context of usage**

This report provides access to the PDF invoices created by the BILL module. The user will be provided with a list of invoices accessible to him where he can select a single invoice which is then shown either directly on the screen or downloaded to a dedicated directory (depending on the settings of the user's browser concerning handling of PDF documents).

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [BIL – Billing Reports] >> [BIL06]



# Screenshot - prompt

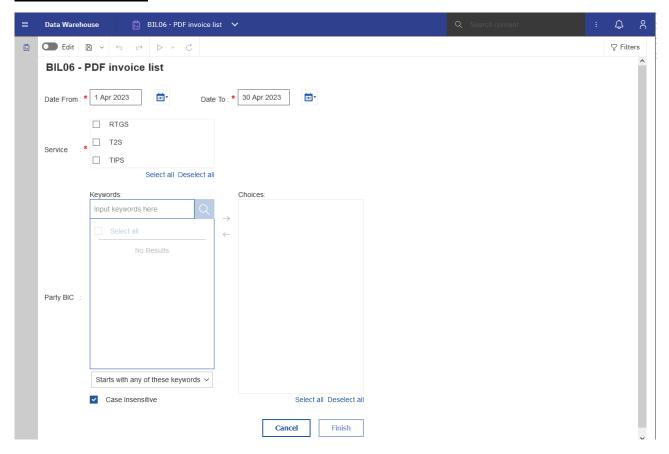


Figure 205 - BIL06\_Prompt

BIL06 – Report description – prompt screen		
Field label	Description	
Service	Service for which the available PDF invoices shall be displayed.	
	Possible values:	
	I RTGS	
	I TIPS	
	This field is mandatory.	



Date from	You can select the date by clicking on the calendar.
	This field is mandatory.
Date to	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, the current day cannot be selected.  This field is mandatory.
Party BIC	BIC of the party, for which PDF invoices should be shown You can use this search and select prompt to be able to search for the party BIC or short name. One or several parties can be selected. In case the user leaves this field free, all party BICs belonging to the user's data scope are selected.
	This field is optional.

Table 18 - BIL06 - Prompt description

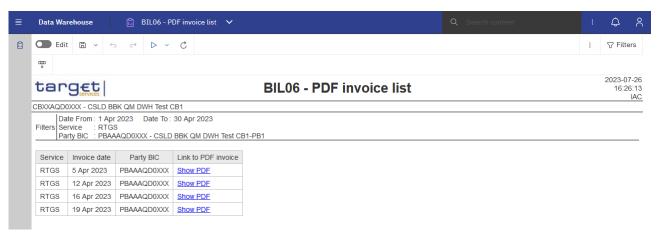


Figure 206 - BIL06\_Output

BIL06 - Report description - output screen	
Field label	Description
Service	Service for which the invoice was generated.
	Possible values:



	I RTGS
	I TIPS
Invoice date	Business date of the invoice
invoice date	Dusiness date of the invoice
Party BIC	BIC of the CB for which the invoice was created
Link to PDF invoice	URL to webserver address, where the PDF document can
	be accessed

Table 19 - BIL06 - Output description

# 5.4 Contingency reports (CON)

5.4.1 CON01 – Cash transfers settled during contingency processing and final contingency account balances

## **Context of usage**

This report provides information on the cash transfers settled on accounts in the Contingency Services during a contingency procedure. For each party/contingency account (with at least one cash transfer within a contingency processing) all cash transfers within the contingency processing as well as the final account balance on the contingency account at the time of the closure of the contingency processing are provided.

For each cash transfer the report provides the account number in the Contingency Services, the account number of the cash transfer counterparty in the Contingency Services, the settlement timestamp and the credit or debit amount. Cash transfers on the same account are sorted in chronological order of their settlement timestamp.

In case that several contingency processing sessions occurred within the same business day, the sessions are reported separate.

CBs can retrieve information for parties belonging to their system entity.

This report can be used by CB users only.

# Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [CON – Contingency Reports] >> [CON01]



# Screenshot - prompt

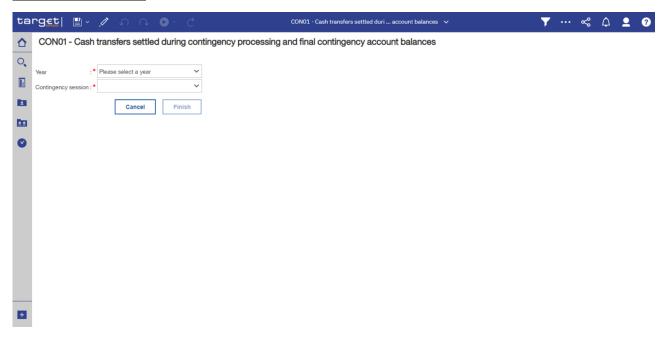


Figure 207 - CON1 prompt

# **Prompt description**

CON01 - Report description - prompt screen	
Field label	Description
Year	You can use this drop-down field to select the year, from which the report should contain the data.  This field is mandatory.
Contingency session	You can select the contingency session, for which the report should contain the data, depending on the chosen year.  This field is mandatory.

Table 20 - CON01 - Prompt description



#### Screenshot - output screen

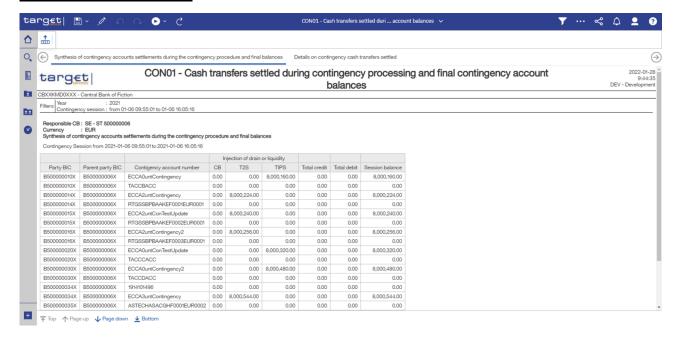


Figure 208 - CON01 output (1) ("Synthesis of contingency accounts settlements during the contingency procedure and final balances")

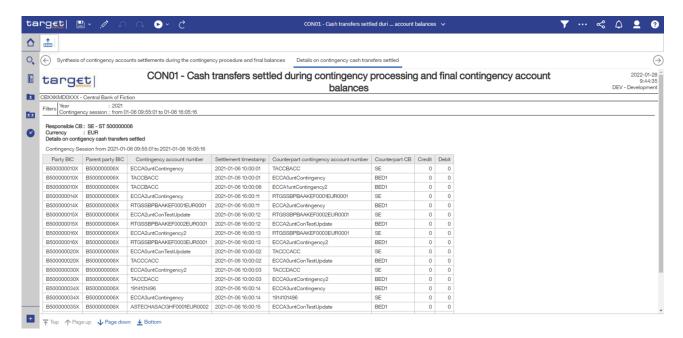


Figure 209 - CON01 output (2) ("Details on contingency cash transfers settled")



# **Output description**

CON01 – Report description – output screen		
Sheet 1		
Field label	Description	
Party BIC	BIC of the party whose details are listed in the following fields	
Parent party BIC	The party BIC of the responsible CB in case the Party BIC belongs to a PB or AS. In case the party BIC belongs to a CB, this field is empty.	
Contingency account number	The account number of the contingency account of a PB and/or an AS	
Injection or drain of liquidity - CB	Sum of credited (injected) - Sum of debited (drained) amount of liquidity transfers on the current partys contingency account when the counterparty of the liquidity transfer is the CB contingency account.	
Injection or drain of liquidity – T2S	Sum of credited (injected) - Sum of debited (drained) amount of liquidity transfers on the current partys account when the counterparty of the liquidity transfer is the T2S contingency transit account.	
Injection or drain of liquidity - TIPS	Sum of credited (injected) - Sum of debited (drained) amount of liquidity transfers on the current partys account when the counterparty of the liquidity transfer is the TIPS contingency transit account	
Total credit	Sum of credited cash transfers i.e. payment orders and liquidity transfers between the current partys account and any other contingency account (excluding the CB/T2S/TIPS injections or drains) during the session.	
Total debit	Sum of debited cash transfers i.e. payment orders and liquidity transfers between the current partys account and any other contingency account (excluding the CB/T2S/TIPS injections or drains) during the session.	
Session balance	The available cash balance for the current partys contingency account by the end of the contingency session.	
One row for the « CB » with the following data for the selected congingency session		
Party BIC	BIC of the CB	



Contingency account number	The contingency account number of the CB
Injection or drain of liquidity - CB	Sum of credited (drained) - Sum of debited (injected) amount of liquidity transfers on the CBs contingency account when the counterparty of the liquidity transfer is the contingency account of a party within the data scope of the CB
Total credit	Sum of credited payment orders and liquidity transfers between the CBs contingency account and any other contingency account (excluding the liquidity transfers on the counterparty accounts within the data scope of the CB, i.e. without CB liquidity drains) during the session.
Total debit	Sum of debited payment orders and liquidity transfers between the CBs contingency account and any other contingency account (excluding the liquidity transfers on the counterparty accounts within the data scope of the CB, i.e. without CB liquidity injections) during the session.
Session balance	The available cash balance for the CB contingency account by the end of the contingency session
Sheet 2	
Field label	Description
Party BIC	BIC of the party whose details are listed in the following fields
Parent party BIC	The party BIC of the responsible CB in case the Party BIC belongs to a PB or AS
Contingency account number	The contingency account number of the party
Settlement timestamp	The timestamp at which the cash transfer was settled
Counterparty contingency account number	The contingency account number of the counterparty of the cash transfer.
Counterparty CB	The country code of the CB of the counterparty of the cash transfer.
Credit	Credited value of the cash transfer
Debit	Debited value of the cash transfer

Table 21 - CON01 - Output description



# 5.4.2 CON02 - Contingency processing - end of procedure account balances per CB

#### **Context of usage**

This report provides the balance for each CB contingency account at the end of a contingency procedure. In addition, the sum of debits and credits during a contingency procedure for each CB contingency account are reported.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [CON – Contingency Reports] >> [CON02]

#### <u>Screenshot – prompt</u>

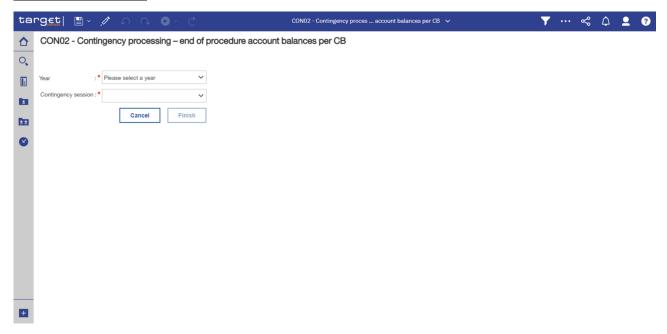


Figure 210 - CON02 prompt



CON02 - Report description - prompt screen	
Field label	Description
Year	You can use this drop-down field to select the year, from which the report should contain the data.  This field is mandatory.
Contingency session	You can select the contingency session, for which the report should contain the data, depending on the chosen year.  This field is mandatory.

Table 22 - CON02 - Prompt description

#### Screenshot - output screen

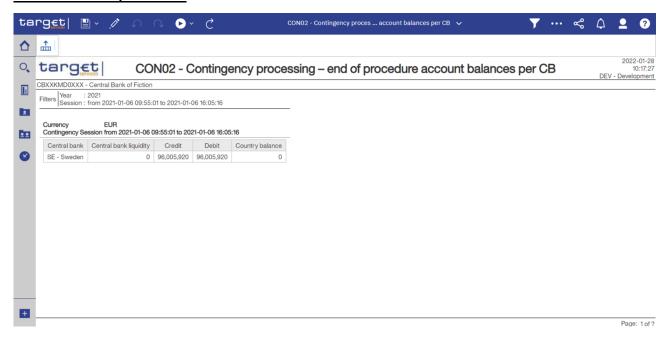


Figure 211 - CON02 output (2)

#### **Output description**

CON02 - Report description - output screen	
Field label	Description
Central Bank	Filled with the country code of the CB and the name of the



	country
Central bank liquidity	Central bank liquidity = Sum of CB liquidity drains – Sum of CB liquidity injections against the parties contingency accounts within the CBs data scope.
Credit	Sum over credited amounts of the cash transfers of the PB/As contingency accounts without CB liquidity injections
Debit	Sum over debited amounts of the cash transfers of the PB/AS contingency accounts without CB liquidity drains
Country balance	Country balance = CB liquidity + Credit – Debit

Table 23 - CON02 - Output description

# 5.5 Data extraction reports (DXE)

# 5.5.1 DXE01 - Data extraction reports: Party reference data

# Context of usage

This report belongs to a group of six reports (DXE01 – DXE06) that give the users the possibility to extract static and transactional data from the DWH data store and have it sent to them as CSV files in order to feed f.ex. a local data warehouse.

The report DXE01 allows extraction of party static data which is limited to a set of party service link types to prevent the delivery of parties not being T2 parties or not being involved in the clearing and settlement of cash and liquidity transfer orders.

This report is not limited by any data scope restrictions – all parties will receive all party static data available in CRDM for T2 belonging to the following party service link types:

- RCAH (RTGS CB Account Holder)
- RTRH (RTGS Transit Account Holder)
- I RACH (RTGS Account Holder)
- I ANSY (Ancillary System)
- I CCAH (CLM CB Account Holder)
- I CTEH (CLM CB Technical Account Holder)
- I CTRH (CLM Transit Account Holder)
- I CACH (CLM Account Holder)



IMMR (Institution managing minimum reserve without account in CLM.

This report can be used by CB users only.

# Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [DXE - Data Extraction Reports] >> [DXE01]

#### Screenshot - prompt

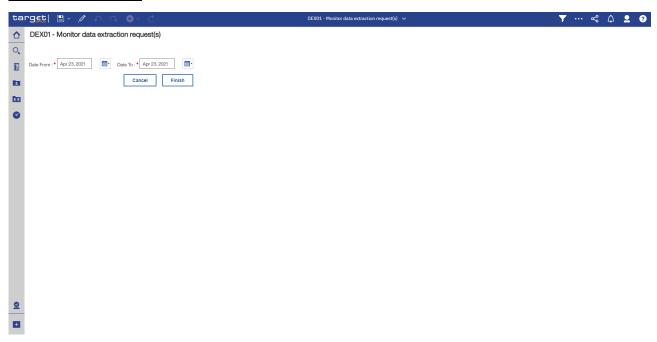


Figure 212 - DXE01 prompt



DXE01 – Report description – prompt screen		
Field label	Description	
Reference Date	Indicates the end-point of the date range for which the dynamic report should contain data.  Valid values:  "Last Business Date"	
	The system will automatically calculate the end of the date range based upon the date at the time of execution.	
Date Range	Indicates the start-point of the date range for which the dynamic report should contain data.  Valid values:  "Month-to-Date"  "Week-to-Date"  "Reference Date"  The system will automatically calculate the start of the date range based upon the date at the time of execution.	

Table 24 - DXE01 - Prompt description

#### Screenshot - output screen

No output screen available – report result is only provided via CSV files.

#### **Output description**

The report output sent via A2A consists of one file described in detail in chapter <u>DXE01 - party reference</u> <u>data file specification</u> [\* 511].

# 5.5.2 DXE02 - Data extraction reports: Cash account reference data

# **Context of usage**

This report belongs to a group of six reports (DXE01 – DXE06) that give the users the possibility to extract static and transactional data from the DWH data store and have it sent to them as CSV files in order to feed f.ex. a local data warehouse.



The report DXE02 allows extraction of cash account static data belonging to the data scope of the party of the report scheduling user, meaning those cash accounts where the user's party is the account owning or account servicing party.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [DXE - Data Extraction Reports] >> [DXE02]

#### <u>Screenshot – prompt</u>

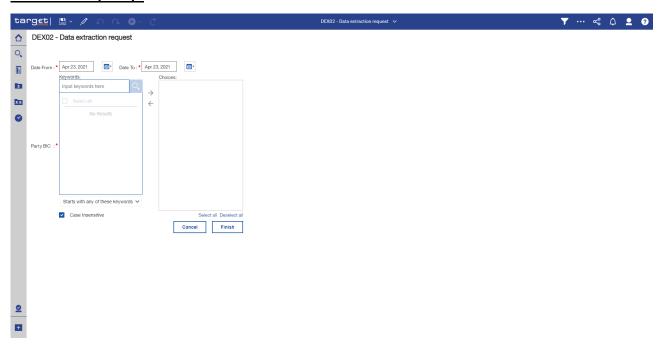


Figure 213 - DXE02 prompt



DXE02 - Report description - prompt screen		
Field label	Description	
Reference Date	Indicates the end-point of the date range for which the dynamic report should contain data.  Valid values:  "Last Business Date"  "Prior Last Business Date"  The system will automatically calculate the end of the date range based upon	
	the date at the time of execution.	
Date Range	Indicates the start-point of the date range for which the dynamic report should contain data.  Valid values:	
	"Month-to-Date"	
	"Week-to-Date"	
	"Reference Date"	
	The system will automatically calculate the start of the date range based upon the date at the time of execution.	

Table 25 - DXE02 - Prompt description

#### Screenshot - output screen

No output screen available - report result is only provided via CSV file.

#### **Output description**

The report output sent via A2A consists of one file described in detail in chapter <u>DXE02 - Cash account</u> reference data file specification [> 512].

#### 5.5.3 DXE03 – Data extraction reports: Cash account aggregation group

#### **Context of usage**

This report belongs to a group of six reports (DXE01 – DXE06) that give the users the possibility to extract static and transactional data from the DWH data store and have it sent to them as CSV files in order to feed f.ex. a local data warehouse.

The report DXE03 allows extraction of cash account or party aggregation data referring to the cash accounts belonging to the data scope of the party of the report scheduling user, meaning aggregations to those cash



accounts where the user's party is the account owning or account servicing party, or to the party itself. The following aggregation types exist:

#### Cash Account:

- Account monitoring group (ACCM)
- Liquidity transfer group (LQTR)
- Settlement bank account group (SETL)

#### Party:

I Banking group (BANK)

This report can be used by CB users only.

#### Data scope

The report DXE03 provides only CB-relevant aggregations, where

I For cash account aggregations: the CB is either account owning or account servicing party of the linked cash account – in other words, where the cash account owning party belongs to the data scope of the CB.

I For party aggregations:
The party belongs to the data scope of the CB.

I For all:

The aggregation leader party belongs to the data scope of the CB.

To fulfil the data scope requirements, it is sufficient that one of the three clauses are true. This means, that if the aggregation leader party belongs to the data scope of the CB running the report, the extract will contain all members of the aggregation group irrespective whether they themselves belong to the data scope of the CB or not. If the aggregation leader party does not belong to the data scope of the CB then only those members of the aggregation are extracted, that belong to the data scope of the CB.

Since liquidity transfer groups do not have an aggregation leader, only those members are extracted per default, that belong to the data scope of the CB.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [DXE – Data Extraction Reports] >> [DXE03]



DXE03 – Report descr	iption – prompt screen
Field label	Description
Reference Date	Indicates the end-point of the date range for which the dynamic report should contain data.  Valid values:  "Last Business Date"  "Prior Last Business Date"  The system will automatically calculate the end of the date range based upon the date at the time of execution.
Date Range	Indicates the start-point of the date range for which the dynamic report should contain data.  Valid values:  "Month-to-Date"  "Week-to-Date"  "Reference Date"  The system will automatically calculate the start of the date range based upon the date at the time of execution.

Table 26 - DXE03 - Prompt description

## Screenshot - output screen

No output screen available – report result is only provided via CSV files.

#### **Output description**

The report output sent via A2A consists of one file described in detail in chapter <u>DXE03 - Cash account</u> <u>aggregation group file specification</u> [\* 516].

# 5.5.4 DXE04 - Data extraction reports: Cash account balance and liquidity

#### **Context of usage**

This report belongs to a group of six reports (DXE01 – DXE06) that give the users the possibility to extract static and transactional data from the DWH data store and have it sent to them as CSV files in order to feed f.ex. a local data warehouse.

The report DXE04 allows extraction of data concerning the liquidity of cash accounts belonging to the data scope of the party of the report scheduling user, meaning liquidity data of those cash accounts where the user's party is the account owning or account servicing party. This report can be used by CB users only.



The report can be used by CBs only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [DXE – Data Extraction Reports] >> [DXE04]

# Screenshot - prompt

# DXE04 - Cash Account and Liquidity

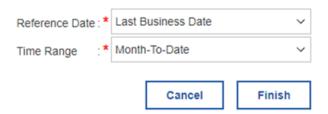


Figure 214 - DXE04 prompt



DXE04 – Report description – prompt screen	
Field label	Description
Reference Date	Indicates the end-point of the date range for which the dynamic report should contain data.  Valid values:  "Last Business Date"  "Prior Last Business Date"  The system will automatically calculate the end of the date range based upon the date at the time of execution.
Date Range	Indicates the start-point of the date range for which the dynamic report should contain data.  Valid values:  "Month-to-Date"  "Week-to-Date"  "Reference Date"  The system will automatically calculate the start of the date range based upon the date at the time of execution.

Table 27 - DXE04 - Prompt description

#### <u>Screenshot – output screen</u>

No output screen available – report result is only provided via CSV files.

#### **Output description**

The report output sent via A2A consists of one file described in detail in chapter DXE04 - Cash account balance and liquidity file specification [▶ 517].

# 5.5.5 DXE05 – Data extraction reports: Cash transfer orders

#### **Context of usage**

This report belongs to a group of six reports (DXE01 – DXE06) that give the users the possibility to extract static and transactional data from the DWH data store and have it sent to them as CSV files in order to feed f.ex. a local data warehouse.



The report DXE05 allows extraction of transactional data of cash accounts belonging to the data scope of the party of the report scheduling user, meaning cash transfer orders impacting those cash accounts where the user's party is the account owning or account servicing party.

The report can be used by CBs only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [DXE – Data Extraction Reports] >> [DXE05]

#### <u>Screenshot – prompt</u>

#### DXE05 - Cash Transfer Orders

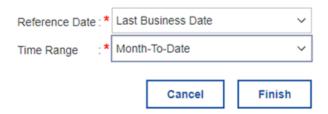


Figure 215 - DXE05 prompt



DXE05 – Report description – prompt screen	
Field label	Description
Reference Date	Indicates the end-point of the date range for which the dynamic report should contain data.  Valid values:  "Last Business Date"  "Prior Last Business Date"  The system will automatically calculate the end of the date range based upon the date at the time of execution.
Date Range	Indicates the start-point of the date range for which the dynamic report should contain data.  Valid values:  "Month-to-Date"  "Week-to-Date"  "Reference Date"  The system will automatically calculate the start of the date range based upon the date at the time of execution.

Table 28 - DXE05 - Prompt description

#### <u>Screenshot – output screen</u>

No output screen available – report result is only provided via CSV files.

#### **Output description**

The report output sent via A2A consists of one file described <u>DXE05 - Cash transfers orders/cash transfer</u> <u>file specification</u> [▶ 522].

5.5.6 DXE06 – Data extraction reports: Business day event

#### **Context of usage**

This report belongs to a group of six reports (DXE01 – DXE06) that give the users the possibility to extract static and transactional data from the DWH data store and have it sent to them as CSV files in order to feed f.ex. a local data warehouse.



The report DXE06 allows extraction of business day data along with the events and the scheduled and actual timestamps.

The report can be used by CBs only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [DXE – Data Extraction Reports] >> [DXE06]

# Screenshot - prompt

# DXE06 - Business Day Event



Figure 216 - DXE06 prompt



DXE06 – Report descrip	tion – prompt screen
Field label	Description
Reference Date	Indicates the end-point of the date range for which the dynamic report should contain data.  Valid values:  "Last Business Date"  "Prior Last Business Date"  The system will automatically calculate the end of the date range based upon the date at the time of execution.
Date Range	Indicates the start-point of the date range for which the dynamic report should contain data.  Valid values:  "Month-to-Date"  "Week-to-Date"  "Reference Date"  The system will automatically calculate the start of the date range based upon the date at the time of execution.

Table 29 - DXE06 - Prompt description

# Screenshot - output screen

No output screen available – report result is only provided via CSV files.

# **Output description**

The report output sent via A2A consists of one file described <a href="DXE06">DXE06</a> - Business day file specification [> 534].



# 5.6 Intraday credit reports (IDC)

# 5.6.1 IDC01 - Daily Intraday credit (IDC) community indicators

#### **Context of usage**

This report provides a set of community indicators related to the use of credit lines and IDC. The indicators focus on those default main cash accounts (MCAs) belonging to the system entity of each CB and having at least once within the respective business day a credit line > 0.

For the respective business day the number of default MCAs with a credit line > 0 and the number of those with a negative intraday balance (IDC used) is reported. In addition, the report provides calculations (lowest community value, highest community value and time weighted average value) for the aggregated credit line amounts, IDC use and queued cash transfer orders.

This report can be used by CB users only.

#### **Report access**

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [IDC – Intraday Credit Reports] >> [IDC01]

# Screenshot - prompt

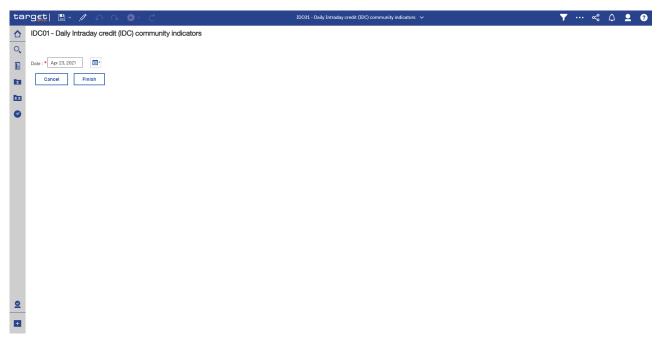


Figure 217 - IDC01 prompt



IDC01 – Report description – prompt screen	
Field label	Description
Date	You can select the date by clicking on the calendar.
	For valid report results, the current day cannot be selected.
	This field is mandatory.

Table 30 - IDC01 - Prompt description

## Screenshot - output screen



Figure 218 - IDC01 Output (1)



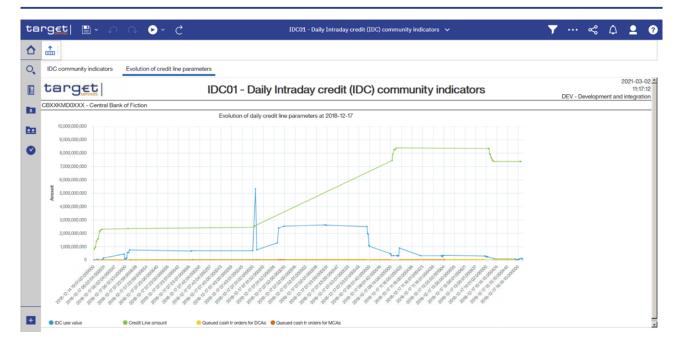


Figure 219 - IDC01 Output (2)

# **Output description**

IDC01 – Report description – output screen		
Field label	Description	
Number of MCAs with a credit line > 0	Number of all MCAs, which had a credit line > 0 at least once during the selected date.	
Number of MCAs with a negative intraday balance	Number of those MCAs that had a negative account balance at least once during the selected date.	
Credit line amount	Amount of credit line	
Weighted average	Weighted average of the credit line amount (Time based on a minute-level excluding the maintenance times during the business day)	
Lowest community value	Lowest community value of the credit line amount	
Timestamp	For lowest community level, this is the timestamps, when the community-wide values for the Credit line amount, the IDC use etc. reached their minimum.	
Highest community level	Highest community value of the credit line amount	
Timestamp	For highest community level, this is the timestamps, when the community-wide values for the Credit line amount, the IDC use etc. reached their maximum.	
IDC use value	Total amount of intraday credit use	
Weighted average	Weighted average of the IDC use value (Time based on a minute-level excluding the maintenance times during the business day).	



Lowest community value	Lowest community value of the IDC use
Timestamp	For lowest community level
Highest community level	Highest community level of the IDC used
Timestamp	For highest community level
Queued cash transfer orders for MCAs Volume / Value	Queued cash transfer orders for the default MCAs
Weighted average volume / value	Weighted average volume/value of queued cash transfer orders for the default MCAs in CLM
Lowest community volume / value	Lowest community volume/value of queued cash transfer orders for the default MCAs in CLM
Timestamp	For lowest community level
Highest community volume / value	Highest community volume/value of queued cash transfer orders for the default MCAs in CLM
Timestamp	For highest community level
Queued cash transfer orders for RTGS DCAs	Queued cash transfer orders for the RTGS DCAs that are linked to a default MCA which had a credit line > 0 at least once a day
Volume / Value	
Weighted average volume / value	Weighted average volume/value of queued cash transfer orders for the RTGS DCAs that are linked to a default MCA which had a credit line > 0 at least once a day.
Lowest community volume / value	Lowest community volume/value of queued cash transfer orders for the RTGS DCAs that are linked to a default MCA which had a credit line > 0 at least once a day.
Timestamp	For lowest community level
Highest community volume / value	Highest community volume/value of queued cash transfer orders for the RTGS DCAs that are linked to a default MCA which had a credit line > 0 at least once a day.
Timestamp	For highest community level
Graph 1	Evolution of daily credit line indicators
	Cartesian coordinate system, y-axis representing the amount, x-axis representing the time (hours of the business day)

Table 31 - IDC01 - Output description



# 5.6.2 IDC02 - Credit line/IDC daily reporting

#### **Context of usage**

The report IDC02 provides information related to the amount of credit line, the use of IDC and queued cash transfer orders on a given business day for a selected holder of a default MCA.

CBs can retrieve information on default MCAs of those parties belonging to their system entity.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [IDC – Intraday Credit Reports] >> [IDC02]

#### <u>Screenshot – prompt</u>

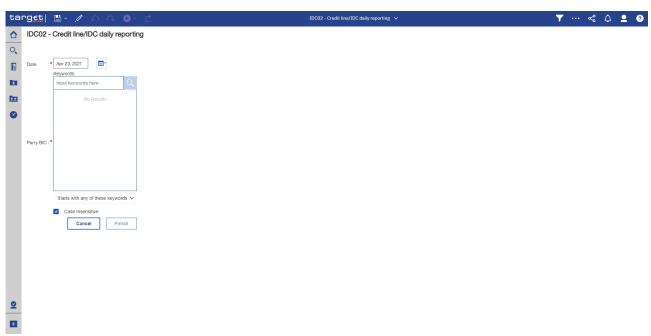


Figure 220 - IDC02 prompt



IDC02 – Report description – prompt screen	
Field label	Description
Date	You can select the date by clicking on the calendar.
	For valid report results, the current day cannot be selected.
	This field is mandatory.
Party BIC	You can use this drop-down field to select the Party BIC. This field will show all related BIC's, which belong to the party.  This field is mandatory.

Table 32 - IDC02 - Prompt description

#### Screenshot - output screen

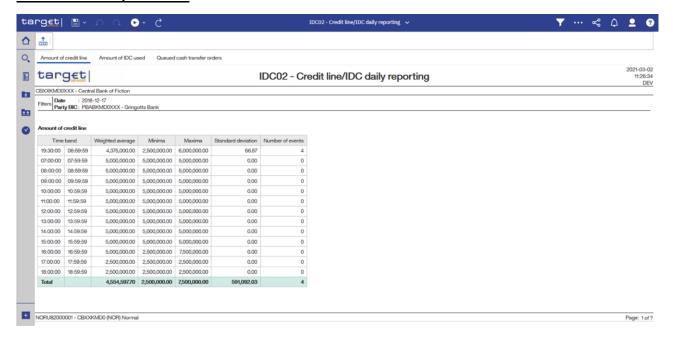


Figure 221 - IDC02 output (1)



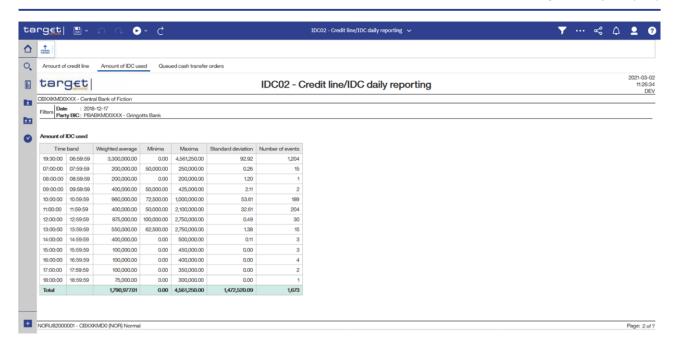


Figure 222 - IDC02 output (2)

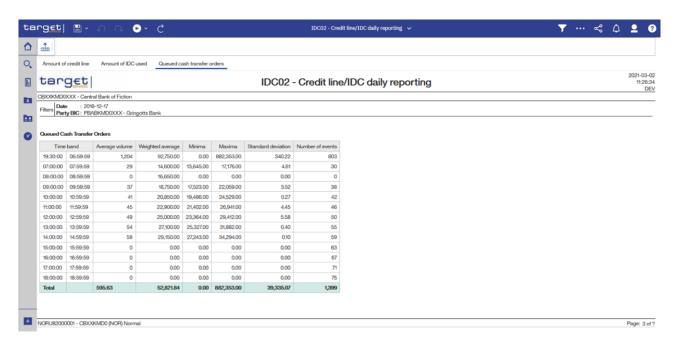


Figure 223 - IDC02 output (3)



# **Output description**

IDC02 – Report description – output screen	
Field label	Description
Following details are available in separa	ate tables for:
Amount of credit line/ Amount of IDC us	ed/ Queued Cash Transfer Orders
Time band	Time band in one hour interval.
Average volume	For "Queued cash transfer orders" table only: Average number of queued cash transfer orders in the timeframe 19:00:00 – 18:00:00
Weighted average	Weighted average of  I the credit line amount  I the amount of IDC used  I the sum of values of queued cash transfer orders  I for the time band
Minima	Minimum of  I the credit line amount  I the amount of IDC used  I the sum of values of queued cash transfer orders  I for the time band



Maxima	Maximum of  I the credit line amount  I the amount of IDC used  I the sum of values of queued cash transfer orders  I for the time band
Standard deviation	Standard deviation of  I the credit line amount values  I the amounts of IDC used  I the sum of values of queued cash transfer orders  I during the time band
Number of events	The number of  I changes to the credit line I changes to the account balance influencing the IDC use I Queued cash transfers I during the time band

Table 33 - IDC02 - Output description

# 5.6.3 IDC03 – Credit line/IDC averages and maxima (account level)

#### **Context of usage**

This report provides information related to the credit line and IDC development during a given date range for a selected holder of a default MCA. For each business day within the given date range the weighted average and maximum amount of credit line amount and IDC use are reported.

CBs can retrieve information on default MCAs of those parties belonging to their system entity.

This report can be used by CB, PB and AS users.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [IDC – Intraday Credit Reports] >> [IDC03]



# Screenshot - prompt

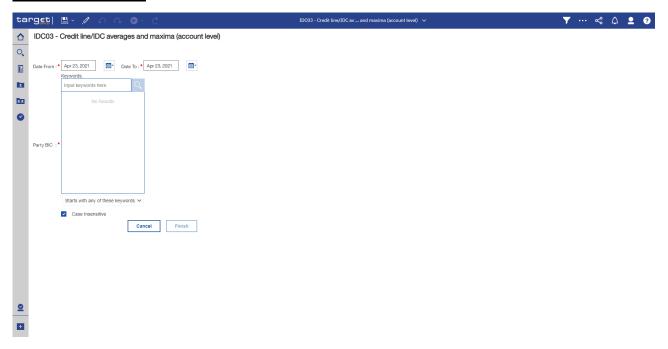


Figure 224 - IDC03 prompt

# **Prompt description**

IDC03 – Report description –prompt screen	
Field label	Description
Date From	You can select the date by clicking on the calendar.
	This field is mandatory.
Date To	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, the current day cannot be selected.
	This field is mandatory.
Party BIC	You can use this drop-down field to select the party BIC. This field will show all related BIC's, which belong to the party.
	This field is mandatory.

Table 34 - IDC03 - Prompt description



#### Screenshot - output screen

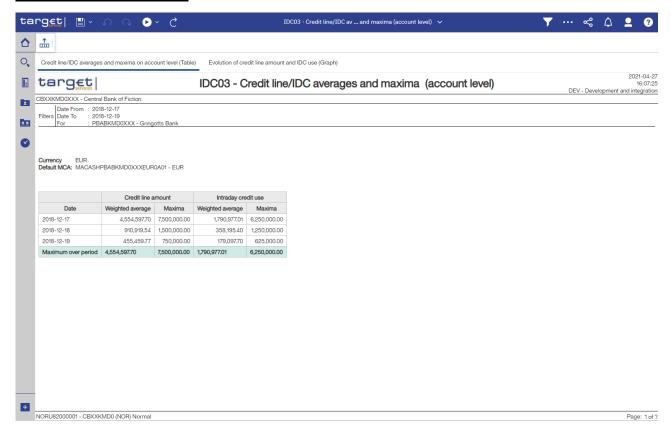


Figure 225 - IDC03 output (1)



#### **Output Description**

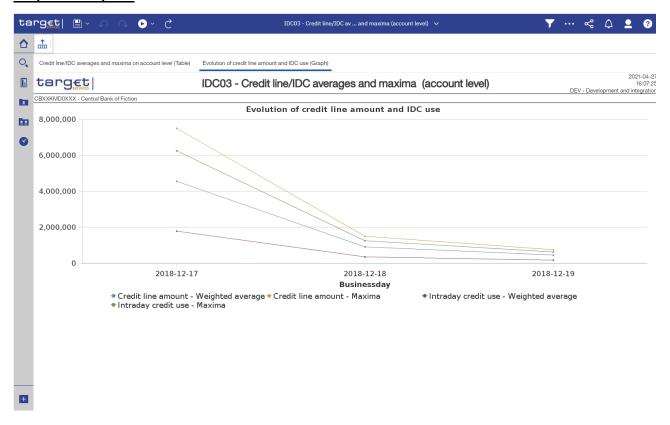


Figure 226 - IDC03 output (2)

# **Output description**

IDC03 – Report description – output screen	
Field label	Description
Date	One line per business date within the chosen date range, sorted by date.
Credit line amount:	Weighted average of the credit line amount of that day.
Weighted average	
Credit line amount:	Maximum of the credit line amount at that day.
Maxima	
Intraday credit use:	Weighted average of the intraday credit line use of that day.
Weighted average	



Intraday credit use:	Maximum of the intraday credit line use at that day.
Maximum over period	Highest amount of the respective column.
Graph 1	Evolution of credit line amount and IDC use  Cartesian coordinate system, y-axis representing the amount, x-axis representing the date.
	Show four lines in different colours representing the values in the table on previous page.

Table 35 - IDC03 - Output description

5.6.4 IDC04 – Credit line/IDC averages and maxima (community level)

#### Context of usage

This report provides aggregated information related to the credit line and IDC development during a given date range at community level. For each business day within the given date range the weighted average and maximum amount of credit line amount and IDC use (aggregated Figures at community level) are reported.

CBs can retrieve aggregated information on parties belonging to their system entity.

This report can be used by CB users only.

### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [IDC – Intraday Credit Reports] >> [IDC04]



# Screenshot - prompt

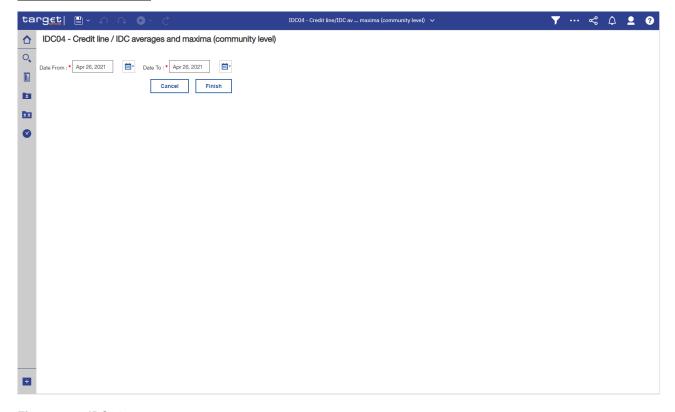


Figure 227 - IDC04 prompt

# **Prompt description**

IDC04 – Report description – prompt screen	
Field label	Description
Date From	You can select the date by clicking on the calendar.  This field is mandatory.
Date To	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.
	For valid report results, the current day cannot be selected.  This field is mandatory.

Table 36 - IDC04 - Prompt description



#### Screenshot - output screen

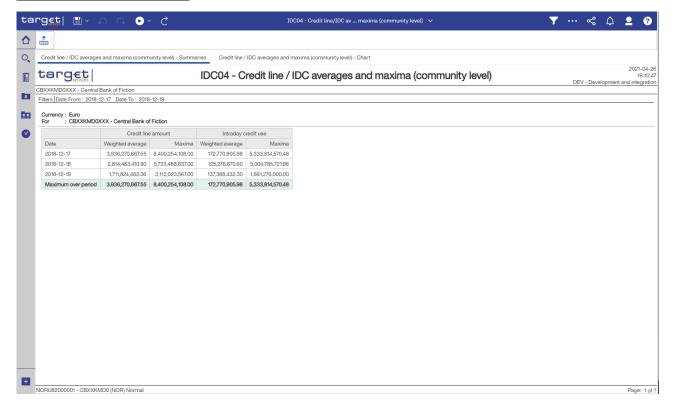


Figure 228 - IDC04 output (1)

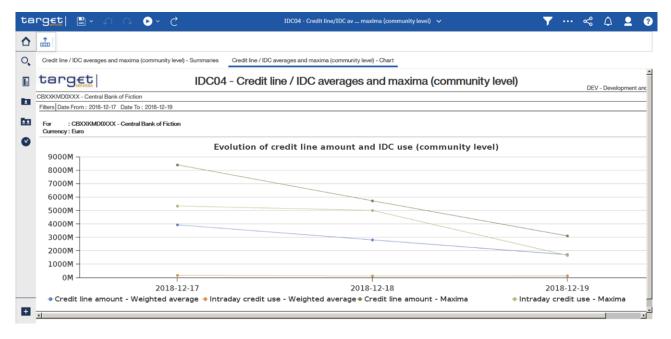


Figure 229 - IDC04 output (2)



#### **Output description**

IDC04 – Report description – output screen	
Field label	Description
Date	One line per business date within the chosen date range, sorted by date.
Credit line amount:	Weighted average of the credit line amount of that day
Weighted average	and
	Weighted average of the intraday credit line use of that day.
Credit line amount:	Maximum of the credit line amount at that day
Maxima	and
	Maximum of the intraday credit line use at that day.
Intraday credit use:	Weighted average of the intraday credit line use of that day.
Weighted average	
Intraday credit use:	Maximum of the intraday credit line use at that day.
Maxima	
Maximum over period	Highest amount of the respective column.
Graph 1	"Evolution of credit line amount and IDC use (community level)"
	Cartesian coordinate system, y-axis representing the amount, x-axis representing the date.
	Show four lines in different colours representing the values in the table on previous page.

Table 37 - IDC04 - Output description

# 5.6.5 IDC05 - Maximum of credit line used

#### Context of usage

This report provides credit line and balance information for the SoD and EoD of a selected parties' default MCA on a given business day. Moreover, the peak IDC use for the selected default MCA on that business day is reported together with the corresponding amount of credit line at that point in time.

CBs can retrieve information on default MCAs of those parties belonging to their system entity.

This report can be used by CB, PB and users.

#### Report access

This report can be reached in the following way:



[Team Content] >> [Predefined Reports] >> [IDC - Intraday Credit Reports] >> [IDC05]

#### Screenshot - prompt

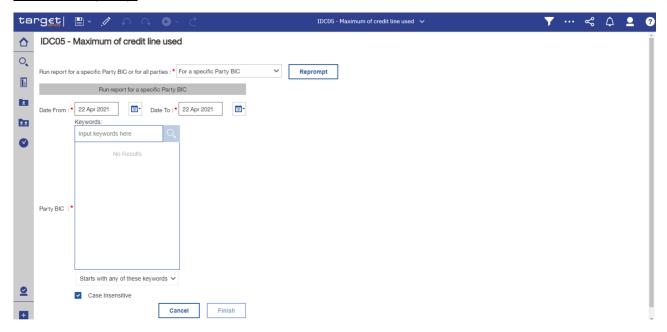


Figure 230 - IDC05 prompt (1) - For a specific party BIC

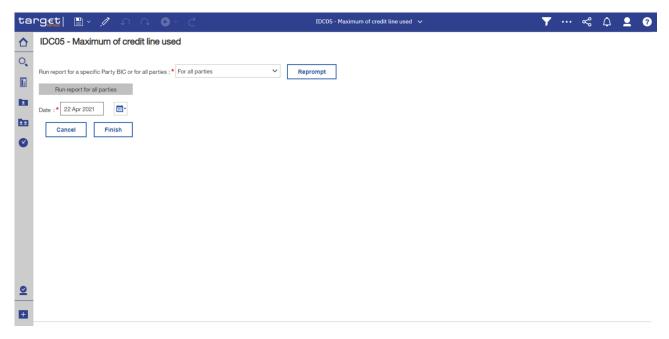


Figure 231 - IDC05 prompt (2) - For all parties



#### **Prompt description**

IDC05 – Report description –prompt screen	
Field label	Description
Date From	You can select the date by clicking on the calendar.
	This field is mandatory.
Date To	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, the current day cannot be selected.  This field is mandatory.
Party BIC	You can use this drop-down field to select the party BIC. This field will show all related BICs, which belong to the party.  In case the party BIC is not selected, the report only shows results for one date (the date selected under "Date from").
	This field is optional.

Table 38 - IDC05 - Prompt description

#### Screenshot - output screen

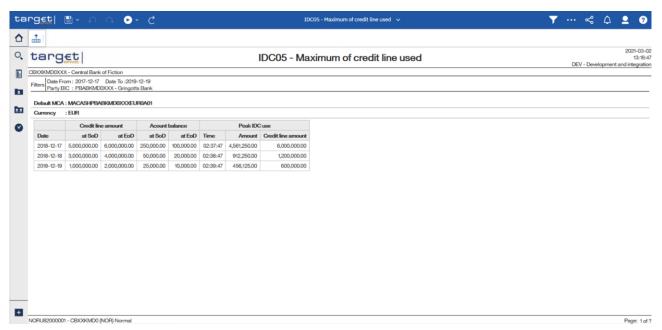


Figure 232 - IDC05 output (1) - A party was selected



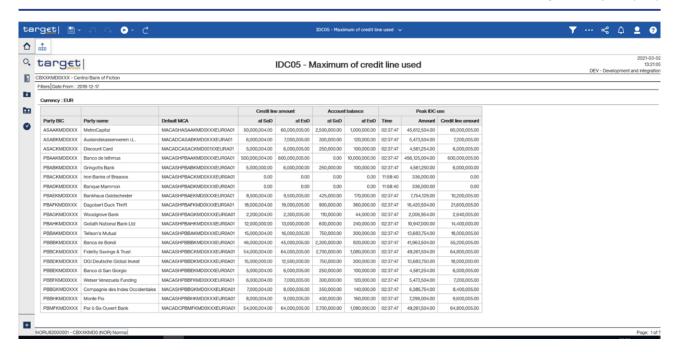


Figure 233 - IDC05 output (2) - A party was not selected covering one day only

IDC05 – Report description – output screen (a party was selected)		
Field label	Description	
Following details are available for	or:	
Credit line amount / Account bala	ance	
Date	One line per business date within the chosen date range, sorted by date	
At SoD	Credit line amount at SoD	
	and	
	Account balance of the MCA at SoD	
At EoD	Credit line amount at EoD	
	and	
	Account balance of the MCA at EoD	
Following details are available for	or:	
Peak IDC use		
Date	One line per business date within the chosen date range	
Time	Time of the peak IDC use (HH:MM:SS); Marked with "—" in case the account balance remained positive throughout the day	
Amount	IDC amount used at that time;	



	Marked with "—" in case the account balance remained positive throughout the day
Credit line amount	Credit line amount at that time;
	Marked with "—" in case the account balance remained positive throughout the day
IDC05 – Report description –	output screen (a party was not selected covering one day only)
Field label	Description
Party BIC	BIC of the party for which the default MCA is regarded.
Party name	Party short name according to party BIC
Default MCA number	Account number of the default MCA of the party
Following details are available t	or:
Credit line amount /Account bal	ance
At SoD	Credit line amount at SoD
	and
	Account balance of the MCA at SoD
At EoD	Credit line amount at EoD
	and
	Account balance of the MCA at EoD
Following details are available t	or:
Peak IDC use	
Time	Time of the peak IDC use (HH:MM:SS); Marked with "—" in case the account balance remained positive throughout the day.
Amount	IDC amount used at that time;
	Marked with "—" in case the account balance remained positive throughout the day.
Credit line amount	Credit line amount at that time;
	Marked with "—" in case the account balance remained positive throughout the day.

Table 39 - IDC05 - Output description

# 5.6.6 IDC06 - Credit line and IDC use at system level

# **Context of usage**

This report provides system-wide aggregated information on the overall amount of credit line and IDC use for a given date (range). For both objects the weighted average for each business day within the given date range is reported.



CBs can retrieve aggregated information including credit line and IDC data from all system entities in a respective currency.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [IDC - Intraday Credit Reports] >> [IDC06]

#### Screenshot - prompt

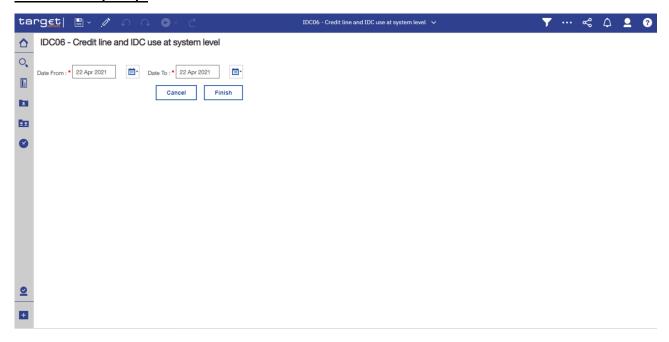


Figure 234 - IDC06 prompt

#### **Prompt description**

IDC06 – Report description – prompt screen		
Field label	Description	
Date From	You can select the date by clicking on the calendar.  This field is mandatory.	
Date To	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, the current day cannot be selected.	
	This field is mandatory	

Table 40 - IDC06 - Prompt description



#### Screenshot - output screen

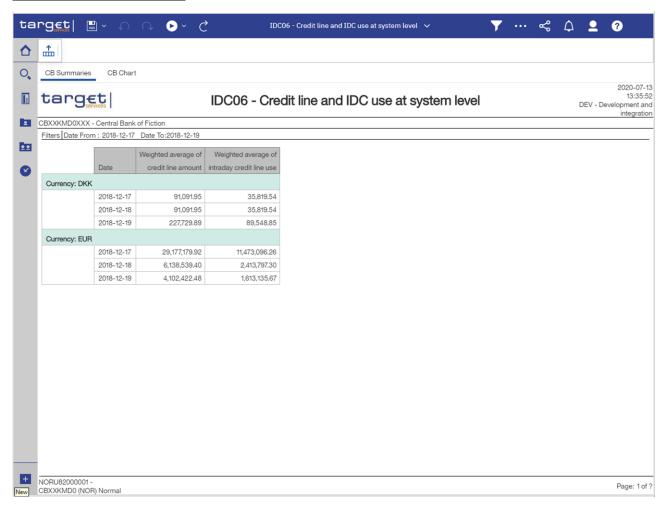


Figure 235 - IDC06 output (1)



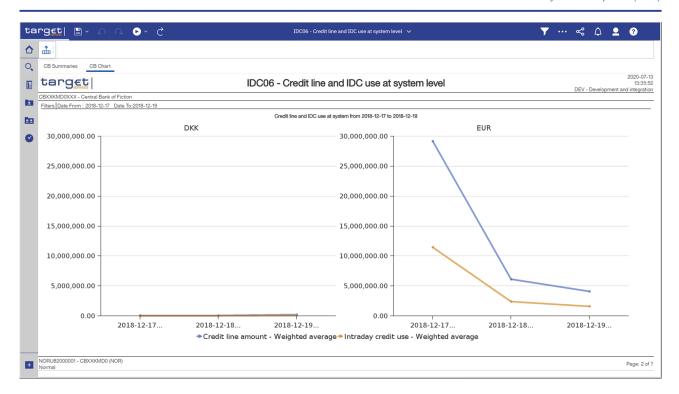


Figure 236 - IDC06 output (2)

IDC06 – Report description – output screen		
Field label	Description	
Currency	ISO currency code	
Date	Business day as chosen in prompt screen.	
	One line per business day within the date range.	
Weighted average of credit line amount	The weighted average of credit line amounts for all parties within the system entity at the business day.	
Weighted average of intraday credit line use	The weighted average of the intraday credit line use for parties within the system entity at the business day.	
Graph 1	Credit line and IDC use at system level  Cartesian coordinate system, y-axis representing the amount (value), x-axis representing the date (each business day within the selected date range)  Shows two lines in different colours representing the evolution of the values in the table on previous page per business day within the selected date range (between from and to date).	

Table 41 - IDC06 - Output description



# 5.7 Invoice Data (INV)

#### 5.7.1 INV01 - Reporting revenues

#### **Context of usage**

This report provides information on the volumes and values of fees/revenues for each month within a given quarter. Within the selected service, absolute volumes and values are reported for each service item. In addition, the fee category (e.g. "Account Management") and the fee type (e.g. "Fixed Independent") are provided for each service item. For each month the total amount of fees/revenues is reported.

CBs can retrieve aggregated information on the fees/revenues of parties belonging to their system entity.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [INV – Invoice Data Reports] >> [INV01]

#### Screenshot - prompt

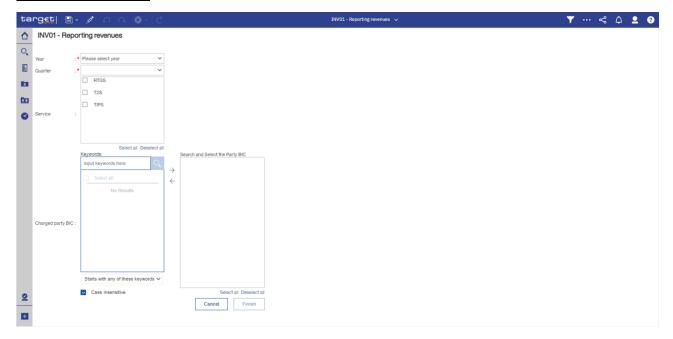


Figure 237 - INV01 prompt



# **Prompt description**

INV01 – Report description – prompt screen	
Field label	Description
Year	You can use this drop-down field to select the year, from which the report should contain the data.
	This field is mandatory.
Quarter	You can use this drop-down field to select the quarter, for which the report should show the data.
	This field is mandatory
Service	Service for which the data shall be displayed.
	Possible values:
	I RTGS
	I TIPS
	This field is optional
Charged party BIC	You can use this search and select prompt to be able to search for the party
	BIC or short name. One or several parties can be selected. In case the user
	leaves this field free, all party BICs belonging to the user's data scope are
	selected.
	This field is optional.

Table 42 - INV01 - Prompt description



# Screenshot - output screen

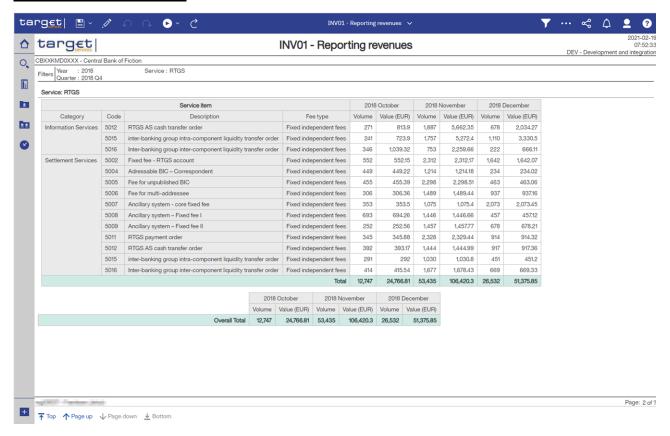


Figure 238 - INV01 Output

INV01 – Report description – output screen	
Field label	Description
Year, Quarter	Year and quarter as chosen in input screen
The following block is repeated for ever	y service chosen in the prompt screen
Service	The service, for which invoice data are displayed
	Possible values:
	I RTGS
	I TIPS
Month/Year	Calendar month and year of the billing period, for which the invoice data are
	shown. All three months of the selected quarter are displayed. In case the
	billing period of one month is still running, no data will be shown for that month.
Service item category	Service item category
Service item code	Following service item codes are currently available:



	I 5002	
	I 5004	
	I 5005	
	I 5006	
	1 5007	
	1 5008	
	1 5009	
	I 5011	
	I 5012	
	1 5015	
	I 5016	
	I 3001	
	1 3002	
	1 3003	
	1 3004	
Service item description	Following service item descriptions are currently available:	
	Fixed fee – RTGS account (5002)	
	Addressable BIC – Correspondent (5004)	
	Fee for unpublished BICs (5005)	
	Fee for multi-addressee (5006)	
	I Ancillary system – Core fixed fee (5007)	
	Ancillary system – Fixed fee I (5008)	
	Ancillary system – Fixed fee II (5009)	
	RTGS payment order (5011)	
	RTGS AS Cash transfer orders (5012)	
	Inter-banking group intra-component liquidity transfer order (5015)	
	Inter-banking group inter-component liquidity transfer order (5016)	
	Settled Instant Payment transaction (3001)	
	I Unsettled Instant Payment transaction (3002)	
	Settled Positive Recall answer (3003)	
	Unsettled Positive Recall answer (3004)	
Fee type	Fee type	



Volume	The quantity of the billable items for the service item having this fee type
	If there is no fee for this fee type, then 0 is displayed.
Value	The sum of amounts of the billable items for the service item having this fee type (VAT not included)
	The invoices are always in EUR.
	If there is no fee for this fee type, then 0 is displayed.
Total (Volume/Value)	Sum of the volumes/values within the month over all fee types
Overall total (Volume/Value)	Overall sum of the volumes/values within the month over all fee types and services

Table 43 - INV01 - Output description

# 5.8 Minimum reserve reports (MIR)

#### 5.8.1 MIR01 – Minimum reserve information

#### Context of usage

This report provides periodic information on the minimum reserve requirements, the fulfilment of the aforementioned and the associated (accrued/pro rata) interests. In addition to the party BIC/name, entities are reported with their respective MFI code. The report provides information on payment banks being subject to minimum reserves on the level of the respective leading CLM Account Holder. The report is available for each reserve maintenance period.

CBs can retrieve minimum reserve information on those parties belonging to their system entity.

<u>Note:</u> As the report is required to display accrued interests (interests will be shown pro rata within an ongoing reserve maintenance period), the interest amounts shown are derived from calculations (and not from interest payments). The final (calculated) interest amounts are displayed as soon as all data for a respective reserve maintenance period is available in the DWH.

This report can be used by CB and PB users.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [MIR – Minimum Reserve Reports] >> [MIR01]



# Screenshot - prompt

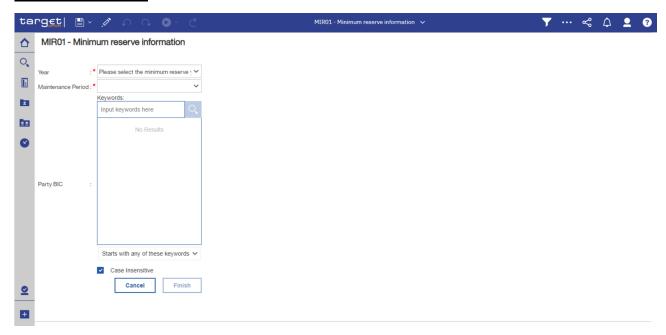


Figure 239 - MIR01 prompt

# **Prompt description**

MIR01 – Report description – prompt screen	
Field label	Description
Year	You can use this drop-down field to select the year, from which the report should contain the data.
	This field is mandatory.
Maintenance period	You can select the required maintenance period in this drop-down field.  This field contains "validity start date" to "validity end date" of maintenance periods and consists of all maintenance periods that start in the chosen year
	This field is mandatory.
Party BIC	You can use this drop-down field to select the party BIC. This field will show all related BICs, which belong to the party.
	This field is optional.

Table 44 - MIR01 - Prompt description



# Screenshot - output screen

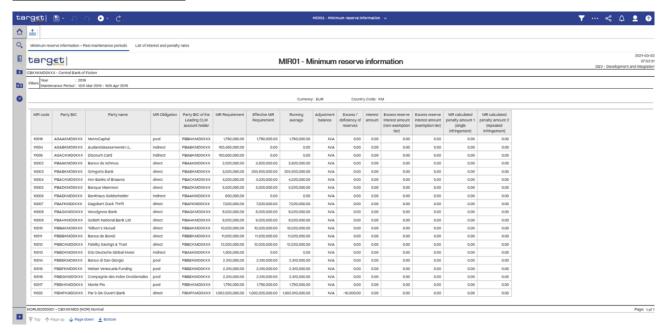


Figure 240 - MIR01 output (1)

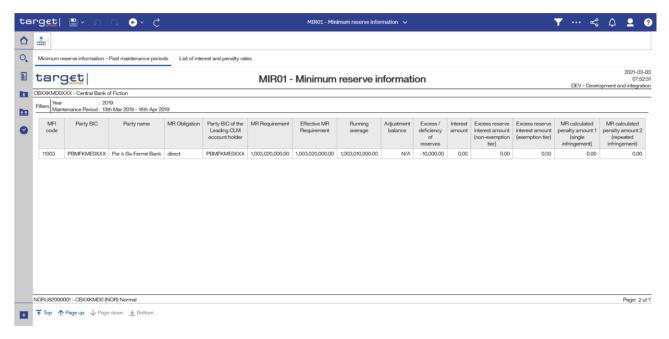


Figure 241 - MIR01 output (2)



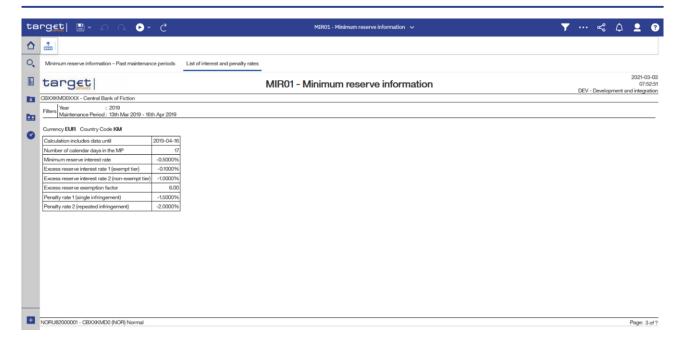


Figure 242 - MIR01 - Output (List of interest and penalty rates)

MIR01 – Report description – output screen – table minimum reserve information	
Field label	Description
Sorted by party BIC:	
MFI code	MFI code of the party
Party BIC	BIC of the party
Party name	Name of the party
MR Obligation	Minimum reserve obligation.  Possible Values:  I Direct  I Indirect  I Pool
Party BIC of the Leading CLM Account Holder	BIC of the party that holds the leading CLM account
MR Requirement	Amount of minimum reserve to be held at the end of each day of the maintenance period.
Effective MR requirement	Amount of minimum reserve to be held effectively at the end of each day of the maintenance period.



	For Leading CLM Account Holders offering to maintain the MR requirements for other parties (i.e. for those with MR obligation = "Indirect") this is the sum of the requirement for the Leading CLM Account Holder itself as well as of the MR requirements from the other parties.  For parties with MR obligation "Indirect", the value is always 0 (zero)  For all other parties the value is identical to the MR requirement.
Running average	This is the arithmetic mean of the accumulated balances from the first calendar day of the current maintenance period until the last day of the maintenance period, i.e sum of daily balances from beginning of the maintenance period till the end of the maintenance period / total number of days in the maintenance period (for ongoing maintenance periods: sum of daily balances from beginning of the maintenance period till the day for which MR data is available in the DWH / total number of days in the maintenance period that have already been passed).  As soon as a Maintenance Period is over, this amount corresponds to the Minimum Reserve fulfilment.
Adjustment balance	The adjustment balance is the amount that would be needed at the end of each business day from the current day until the end of the maintenance period, in order to precisely fulfil the minimum reserve requirement. In case that the minimum reserve requirement for an ongoing maintenance period is already fulfilled the adjustment balance is 0 (zero).  This field is only filled in case the chosen maintenance period is the
Excess / deficiency of reserve	currently running. For past maintenance periods, this field is empty.  This is the difference between the running average and the minimum
	reserve requirements.
Interest amount	The amount of MR interest for the displayed maintenance period.  In case the chosen maintenance period is the currently running, the accrued interest is displayed, calculated from the start of the MP until the end of the day preceding the day of report generation.  Please note, that accrued MR interest calculations are based on MR
	fulfilment data delivered by CLM.
Excess reserve interest amount (non-exemption tier)	Amount of interest to be paid for excess reserves within the non-exemption tier.  In case the chosen maintenance period is the currently running, the accrued interest is calculated from the start of the MP until the end of the day preceding the day of report generation.
	Please note, that accrued excess reserve interest calculations are based on



	MR fulfilment data delivered by CLM.
Excess reserve interest amount (exemption tier)	Amount of interest to be paid for excess reserves within the exemption tier.  In case the chosen maintenance period is the currently running, the accrued interest is calculated from the start of the MP until the end of the day preceding the day of report generation.  Please note, that accrued excess reserve interest calculations are based on MR fulfilment data delivered by CLM.
MR calculated penalty amount 1 (single infringement)	Penalty to be debited for balances not meeting the MR requirements. The value is calculated by CLM at the end of the MP. It is up to the responsible CB to decide, whether penalties are debited and which of the two.  This field is only filled for a past maintenance period. For the current maintenance period, this field is empty.
MR calculated penalty amount 2 (repeated infringement)	Penalty to be debited for balances not meeting the MR requirements. The value is calculated by CLM at the end of the MP. It is up to the responsible CB to decide, whether penalties are debited and which of the two.  This field is only filled for a past maintenance. For the current maintenance period, this field is empty.

Table 45 - MIR01 - Output description - table minimum reserve information

# MIR01 - Report description - output screen - table list of interest and penalty rates

Field label	Field label
Calculation includes data until <date></date>	The calculation includes data until the given date. For past maintenance periods it is always the last day of the MP, for running MP it is the date of the last data load in the DWH.
Number of calendar days in the MP	Number of days within the maintenance period; For current MP, the days are counted from the start of the MP until the date in the previous line.
Minimum reserve interest rate	Rate (in %) which is used to calculate the interest amount on MR
Excess reserve interest rate (exempt tier)	Rate (in %) which is used to calculate the interest amount for excess reserves (exempt tier).
Excess reserve interest rate (non-exempt tier)	Rate (in %) which is used to calculate the interest amount for excess reserves (non-exempt tier).



Excess reserve exemption factor	Factor for the calculation of the excess reserve exemption amount
Penalty rate 1 (single infringement)	Rate (in %) which is used to calculate the interest amount on MR balances which did not meet the MR requirement (for a single infringement).
Penalty rate 2 (repeated infringement)	Rate (in %) which is used to calculate the interest amount on MR balances which did not meet the MR requirement (for a repeated infringement)

Table 46 - MIR01 - Output description - table list of interest and penalty rates

# 5.8.2 MIR02 – Minimum reserve requirements per country

#### **Context of usage**

This report provides information on the aggregated amount of minimum reserve requirements for a given reserve maintenance period and the five preceding reserve maintenance periods. For each reserve maintenance period the aggregated amount of minimum reserve requirements at country level is reported.

CBs can retrieve aggregated minimum reserve information of parties belonging to their system entity.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [MIR – Minimum Reserve Reports] >> [MIR02]



# Screenshot - prompt

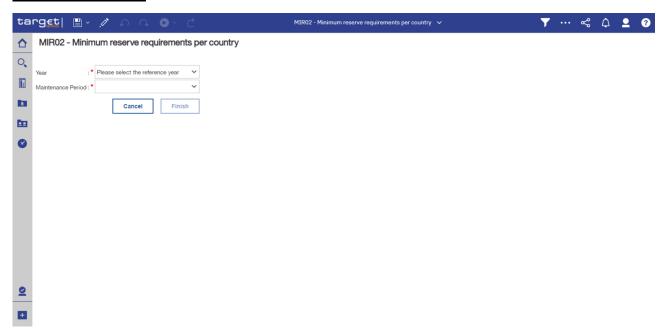


Figure 243 - MIR02 prompt

# **Prompt description**

MIR02 – Report description – prompt screen	
Field label	Description
Year	You can use this drop-down field to select the year, from which the report should contain the data.
	This field is mandatory.
Maintenance period	You can select the required maintenance period in this drop-down field.  This field contains "validity start date" to "validity end date" of maintenance periods and consists of all maintenance periods that start in the chosen year
	This field is mandatory.

Table 47 - MIR02 - Prompt description



#### Screenshot - output screen



Figure 244 - MIR02 output

#### **Output description**

MIR02 – Report description – output screen		
Field label	Description	
For the chosen maintenance per	riod and the five preceding periods:	
Maintenance period	Shows the validity start date until validity end date of the maintenance period	
Value	Aggregated amount of the minimum reserve requirements during the respective period at the country level:	
	Within the data scope of the CB the minimum reserve requirements of all parties	
	subject to minimum reserve requirements (minimum reserve obligation = direct,	
	indirect or pool) for the respective maintenance period are summed up.	

Table 48 - MIR02 - Output description

# 5.9 Participation reports (PAR)

# 5.9.1 PAR01 - Critical participants

#### **Context of usage**

This report aims to identify critical participants in RTGS. For the chosen quarter, the report provides information on the daily average volume and value of payments and AS transfers on RTGS dedicated cash



accounts (DCAs). Payments and AS transfers are counted once on the debit side of each RTGS DCA and reported by account number, party BIC and party name. Volumes and values for payments and AS transfers are reported as aggregated daily averages for the chosen quarter. By standard, the report result is sorted decreasing by the aggregated daily average value of payments and AS transfers.

In a second report table the report provides the daily average volume and value of payments and AS transfers on all RTGS DCAs within the given quarter. In addition, the value corresponding to one percent of the reported value is displayed.

CBs can retrieve information for those parties belonging to their system entity.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [PAR - Participation Reports] >> [PAR01]

# Screenshot - prompt

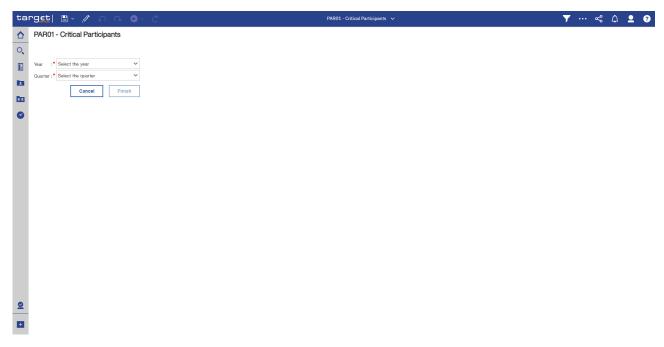


Figure 245 - PAR01 prompt



#### **Prompt description**

PAR01 – Report description – prompt screen	
Field label	Description
Year	You can use this drop-down field to select the year, from which the report should contain the data.  This field is mandatory
Quarter	You can use this drop-down field to select the quarter, from which the report should contain the data.  This field is mandatory

Table 49 - PAR01 - Prompt description

# Screenshot - output screen

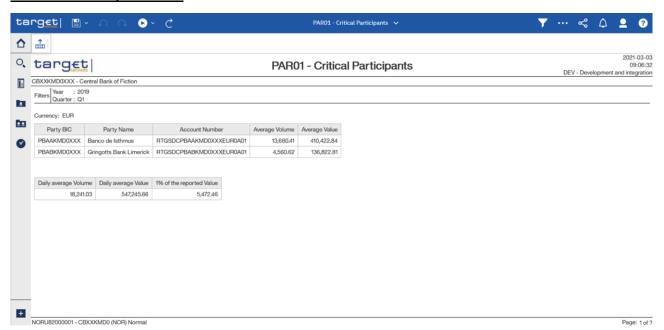


Figure 246 - PAR01 output (1)

PAR01 – Report description – output screen		
Field label	Description	
List by RTGS DCA and party. It is sorted by average value decreasing, then average volume decreasing, then party BIC decreasing		
Party	BIC and short name of the party	
Cash Account Number	RTGS dedicated cash account number	



Daily Average Volume	Average volume of the debit side of payments and AS transfers on the specified RTGS DCA.
Daily Average Value	Average value of the debit side of payments and AS transfers on the specified RTGS DCA.
Overall	
Daily average Volume	Daily average volume for all RTGS DCAs in the first list.
Daily average Value	Daily average value for all RTGS DCAs in the first list.
1 % of the reported Value	1 % of the daily average value for all RTGS DCAs in the first list.

Table 50 - PAR01 - Output description

5.9.2 PAR02 - List of active Direct and Indirect Participants according to RTGS Directory

#### **Context of usage**

This report provides information on those entities being a Direct or an Indirect Participant (Participation Type = 01 – Direct or 02 – Indirect) according to the RTGS Directory on a given date.

For each Direct and Indirect Participant the following information from the RTGS Directory are provided: BIC, Institution Name, Valid from, National Sorting Code, Participation Type. In addition, the overall number of Direct and Indirect Participants is reported.

In case of Indirect Participation, the report provides the country code (ISO 3166 Alpha-2) from the BIC of the corresponding Direct Participant.

The report is provided in several sorting options, including an option where the Indirect Participants are reported under their corresponding Direct Participant/addressee.

**Note:** Independent from the Participation Type, unpublished BICs are not considered for the purpose of this report:

This report can be used by CB, PB and AS users.

#### **Report access**

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [PAR – Participation Reports] >> [PAR02]



# Screenshot - prompt



Figure 247 - PAR02 prompt

# **Prompt description**

PAR02 – Report description – prompt screen	
Field label	Description
Date	You can select the date by clicking on the calendar.
	For valid report results, the current day cannot be selected.
	This field is mandatory.

Table 51 - PAR02 - Prompt description



# Screenshot - output screen

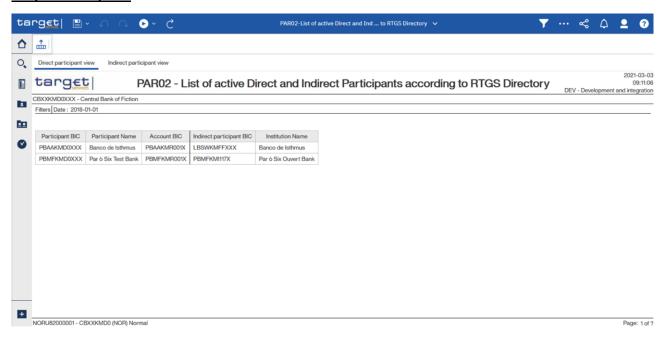


Figure 248 - PAR02 output (1)

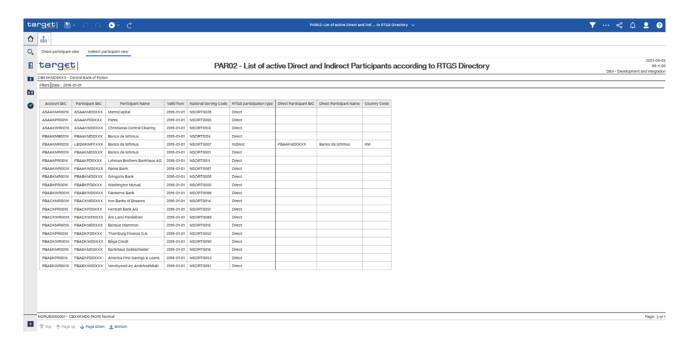


Figure 249 - PAR02 output (2)



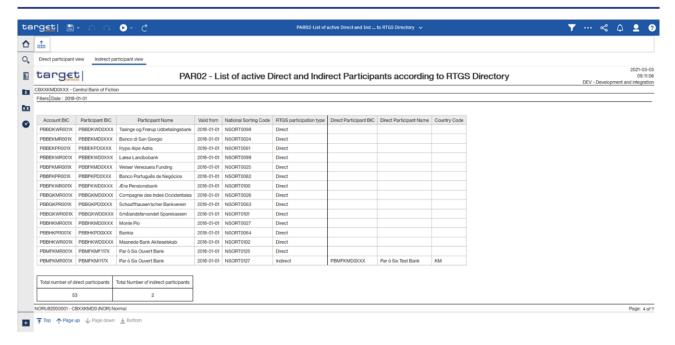


Figure 250 - PAR02 output (3)

PAR02 – Report description – output screen – table Direct Participant view		
Field label	Description	
Per active party in RTGS, sorted by participant BIC, then by account BIC.		
Participant BIC	The participant BIC	
Participant name	Short name of the participant	
Account BIC	RTGS DCA account BIC of the Direct Participant, where at least one Indirect Participant is linked to.	
Indirect Participant BIC	BIC of the Indirect Participant linked to the account BIC	
Institution name	Institution name of the Indirect Participant	
PAR02 – Report description – output screen – table Indirect Participant view		
Field label	Description	
Per active party in RTGS, sorted by account BIC.		
Account BIC	RTGS DCA Account BIC of the Direct Participant.	
Participant BIC	BIC of the Direct or Indirect Participant.	
Participant Name	Short name of the Direct or Indirect Participant.	
Valid from	Date, from which the Direct or Indirect Participant became valid.	
National Sorting Code	National sorting code of the Direct or Indirect Participant	



RTGS participation type	RTGS participation type.
	Possible values:
	I Direct
	I Indirect
Direct Participant BIC	The Participant BIC of the related participant.
Direct Participant Name	The Direct Participant Name of the related participant.
Country code	The Country code of the related participant.
Total number of Direct Participants	Only displayed for participation type = direct
Total number of Indirect Participant	Only displayed for participation type = indirect

Table 52 - PAR02 - Output description

# 5.9.3 PAR03 – Parties subject and not subject to minimum reserve

#### **Context of usage**

This report provides information on whether or not parties are subject to minimum reserves according to the CLM configuration reference data attribute Minimum Reserve Obligation on a given date.

Separate lists are provided for parties holding their minimum reserves direct, indirect, in a pool of accounts (pool) and those not being subject to minimum reserves.

Each party is reported with its respective MFI code in addition to its party BIC and name.

For parties holding their minimum reserves indirect, BIC and name of the party maintaining reserves for this party are reported.

CBs can retrieve data of those parties belonging to their system entity.

This report can be used by CB users.

#### **Report access**

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [PAR – Participation Reports] >> [PAR03]



# Screenshot - prompt



Figure 251 - PAR03 prompt

# **Prompt description**

PAR03 – Report description – prompt screen	
Field label	Description
Date	You can select the date by clicking on the calendar.
	This field is mandatory.

Table 53 - PAR03 - Prompt description



#### Screenshot - output screen

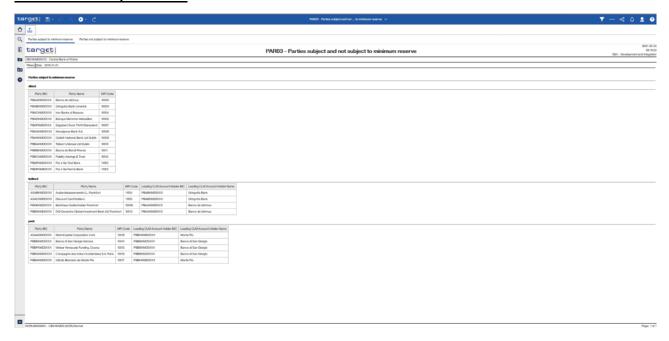


Figure 252 - PAR03 output (1)

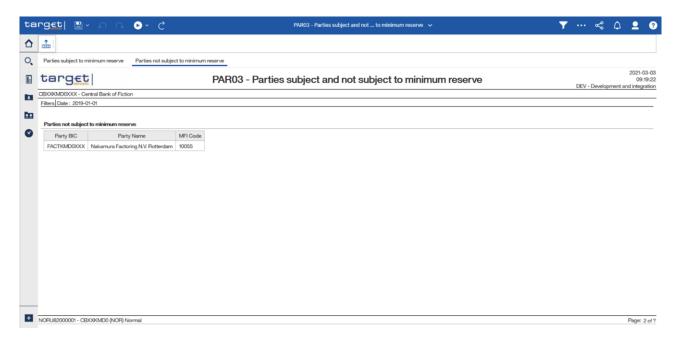


Figure 253 - PAR03 output (2)



PAR03 – Report description – output screen – table parties subject to minimum reserve		
Field label	Description	
Direct – List is sorted by party BIC		
Party BIC	Party BIC	
Party Name	Party short name	
MFI Code	MFI code of the party	
Indirect – List sorted by party BIC		
Party BIC	Party BIC	
Party Name	Party short name	
MFI Code	MFI code of the party	
Leading CLM Account Holder BIC	BIC of the Leading CLM Account Holder	
Leading CLM Account Holder Name	Short name of the Leading CLM Account Holder	
Pool		
Party BIC	Party BIC	
Party Name	Party short name	
MFI Code	MFI code of the party	
Leading CLM Account Holder BIC	BIC of the Leading CLM Account Holder	
Leading CLM Account Holder Name	Short name of the Leading CLM Account Holder	

Table 54 - PAR03 - Output description - table parties subject to minimum reserve

PAR03 – Report description – output screen - table parties not subject to minimum reserve		
Label	Description	
Party BIC	Party BIC	
Party Name	Party short name	
MFI Code	MFI-Code of the party (can be empty)	

Table 55 - PAR03 - Output description - table parties not subject to minimum reserve



#### 5.9.4 PAR04 – List of ancillary systems

#### **Context of usage**

This report provides information on those parties classified as ancillary system according to the party reference data attribute Party Type on a given date.

For each ancillary system, the party name and BIC and the corresponding accounts of the ancillary system, or linked through a settlement bank account group, in RTGS are reported.

For each account the account number and the ancillary system procedure (where applicable) is provided.

CBs can retrieve data of those ancillary systems belonging to their system entity.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [PAR - Participation Reports] >> [PAR04]

#### <u>Screenshot - prompt</u>

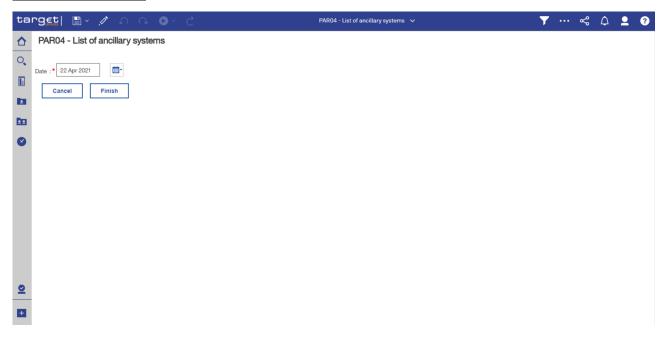


Figure 254 - PAR04 prompt



#### **Prompt description**

PAR04 – Report description – prompt screen		
Field label	Description	
Date	You can select the date by clicking on the calendar.	
	For valid report results, the current day cannot be selected.	
	This field is mandatory.	

Table 56 - PAR04 - Prompt description

#### Screenshot - output screen

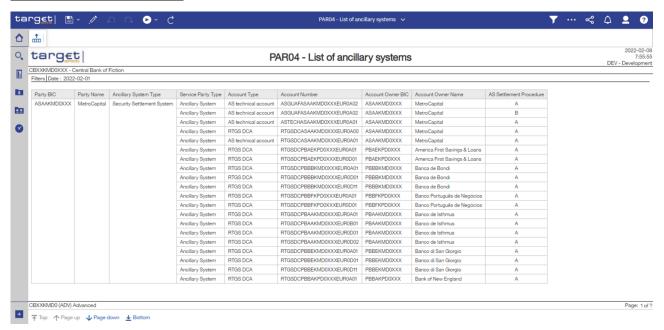


Figure 255 - PAR04 output (1)



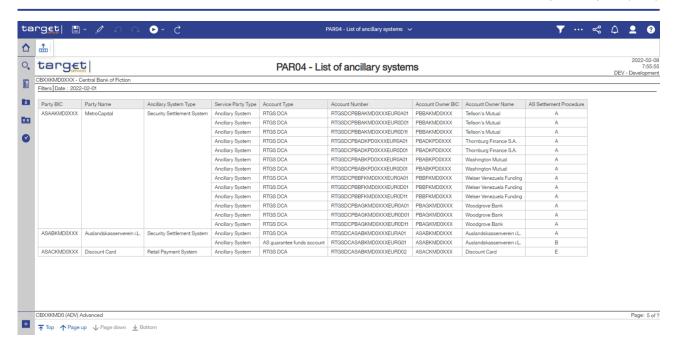


Figure 256 - PAR04 output (2)

PAR04 – Report description – output screen		
Field label	Description	
Party BIC	Party BIC of the ancillary system	
Party Name	Party short name of the ancillary system	
Ancillary system type	Ancillary system type.	
	Possible values:	
	High-Value-Payment- Systems (HVPS)	
	l Retail-Payment-Systems (RPS)	
	I Instant-Payment-Systems (IPS)	
	l Security-Settlement-Systems (SSS)	
	l Foreign-Exchange-Settlement-Systems	
	Money-Market-Settlement-Systems (MMS)	
	Central Counterparties (CCP)	
	I Other	
Service party type	Service party type linked to the party.	
	Possible values:	
	I Ancillary system	



	I RTGS Account holder
Account type	Account type.
	Possible values:
	I RTGS CB account
	I RTGS DCA
	I RTGS sub-account
	I AS guarantee funds account
	I AS technical account
Account number	Account number, where the party (AS) is owner as well as those, that are linked to this party (AS) via its Settlement Bank Account Group.
Account owner BIC	BIC of the party owning the account. This can either be the AS itself or (in case the account is linked to the AS via the Settlement Bank Account Group) the AS settlement bank
Account owner name	Name of the party owning the account
AS settlement procedure	Optional criteria;
	Possible Values:
	A, B, C, D, E
	If not applicable, field is filled with "—"

Table 57 - PAR04 - Output description

#### 5.9.5 PAR05 - List of DCA cross-border links

#### **Context of usage**

This report provides information on those DCAs and their linked MCA when they are held in books of different CBs within a given month.

For each cross border link, the account number and the party BIC and name of the DCA and the linked account are reported. In addition, the country code of the CB being responsible for the respective account (DCA and the linked account) is displayed.

The report is provided in two different views (DCA and linked account view).

CBs can retrieve information on those cross border links where either the party owning the DCA and/or the party owning the linked account of a cross border link belongs to their system entity.

This report can be used by CB users only.



# Report access<sup>2</sup>

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [PAR - Participation Reports] >> [PAR05]

#### <u>Screenshot - prompt</u>



Figure 257 - PAR05 prompt

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This report currently shows empty results since DCA cross border links no longer exist in T2 (contrary to Target2). Will be transformed by a future CR to show cross-service billing groups.



#### **Prompt description**

PAR05 – Report description – prompt screen		
Field label	Description	
Year	You can use this drop-down field to select the year, from which the report should contain the data.	
	This field is mandatory	
Month	You can use this drop-down field to select the month, from which the report should contain the data.	
	For a valid report result, it is necessary to select at least the previous Month.	
	This field is mandatory	

Table 58 - PAR05 - Prompt description

#### Screenshot - output screen

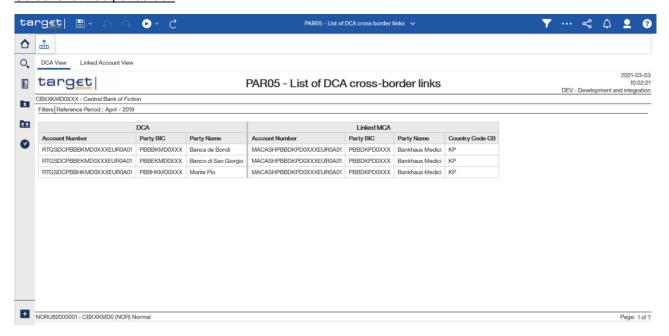


Figure 258 - PAR05 output (1) - DCA view



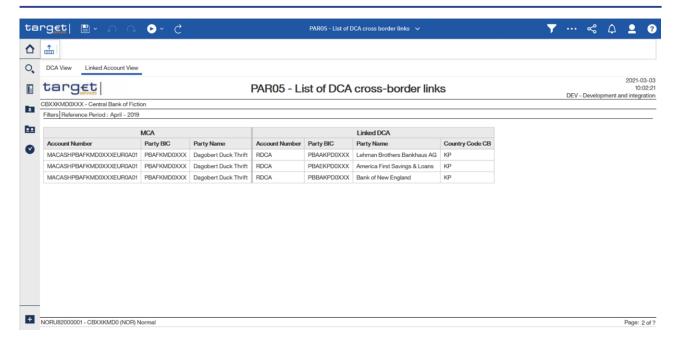


Figure 259 - PAR05 output (2) - Linked account view

MCA, list sorted by account number

PAR05 –Report description – output screen – table DCA view	
Field label	Description
DCA, list sorted by account number	
Account Number	Dedicated cash account number with a cross-border link during the selected month
Party BIC	BIC of the party owning the DCA
Party Name	Short name of the party owning the DCA.
Linked MCA	
Account Number	MCA number corresponding to the DCA
Party BIC	BIC of the party owning the MCA
Party Name	Short name of the party owning the MCA.
Country Code CB	Country code of the CB responsible for the MCA
Table 59 - PAR05 - Output description - Table DCA View	
PAR05 –Report description – output screen – table linked account view	
Field label	Description



Account Number	MCA number
Party BIC	BIC of the party owning the MCA
Party Name	Short name of the party owning the MCA
Linked DCA	
Account Number	Dedicated cash account number corresponding to the MCA
Party BIC	BIC of the party owning the DCA
Party Name	Short name of the party owning the DCA.
Country Code CB	Country code of the CB responsible for the MCA corresponding to the DCA

Table 60 - PAR05 - Output description - Table linked account view

## 5.9.6 PAR06 - Number of participants per CB

## **Context of usage**

This report provides information on the number of participants per participation type according to RTGS Directory on a given date.

For each participation type in RTGS Directory, the number (total and per CB) of participants on the given date is reported. In addition, the number of unpublished RTGS DCAs belonging to payment banks and the number of Direct Participants (payment banks) having a different BIC8 is provided in the same manner.

CBs can retrieve aggregated numbers (overall and per CB) for all CBs/system entities.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [PAR – Participation Reports] >> [PAR06]



## Screenshot - prompt



Figure 260 - PAR06 prompt

# **Prompt description**

PAR06 – Report description – prompt screen	
Field label	Description
Date	You can select the date by clicking on the calendar.
	For valid report results, the current day cannot be selected.
	This field is mandatory

Table 61 - PAR06 - Prompt description



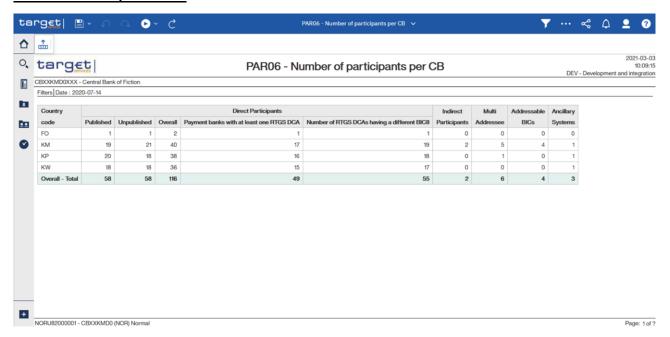


Figure 261 - PAR06 output

PAR06 – Report description – output screen		
Field label	Description	
Country code	ISO country code	
Direct Participants		
Published	Number of published RTGS DCA Account BICs	
Unpublished	Number of unpublished RTGS DCA Account BICs	
Overall	Number of published + unpublished RTGS DCA Account BICs	
Payment banks with at least one RTGS DCA	Distinct number of payment banks having at least one RTGS DCA	
Number of RTGS DCAs having a different BIC8	Distinct number of RTGS DCA Account BICs for each CB on BIC8-Level (without the last 3 positions of BIC11)	
	Every BIC needs to have 11 characters, but in this column all accounts are summed up, that have the same first 8 characters in their account BIC (the trailing three are disregarded)	
Indirect Participants	Number of Indirect Participants	
Multi Addressee	Number of all types of Multi addressees	



Addressable BICs	Number of all types of Addressable BICs
Ancillary Systems	Number of parties with party type = ancillary system
Overall - Total	Sums for each of the columns

Table 62 - PAR06 - Output description

# 5.10 Standing facilities reports (STF)

## 5.10.1 STF01 – Standing facility information

## Context of usage

This report provides daily information on the use of standing facilities within a given data range. In addition to the party BIC/name, entities are reported with their respective MFI code. The report provides information on payment banks with access to monetary policy operations and is split in two parts: Marginal lending and overnight deposit.

For each facility and day the set-up amount, the refund amount and the interest amount is reported. For the marginal lending facility, the reported amounts include both, the use of marginal lending on request and the use of automated marginal lending.

CBs can retrieve information on the use of standing facilities of those parties belonging to their system entity.

Note: After the launch of Eurosystem Collateral Management System (ECMS) this report will only provide information on the use of the overnight deposit facility as major parts of the marginal lending facility will be no more handled by CLM, but by ECMS. Further information can be found in CLM UDFS chapters "Marginal lending on request" and "Automatic marginal lending".

This report can be used by CB and PB users.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [STF – Standing Facilities Reports] >> [STF01]



## Screenshot - prompt

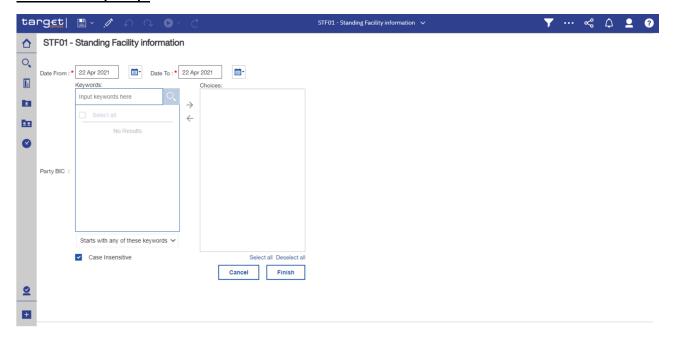


Figure 262 - STF01 prompt

## **Prompt description**

STF01 – Report description –prompt screen	
Field label	Description
Date From	You can select the date by clicking on the calendar.  This field is mandatory.
Date To	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report result, the current day cannot be selected.  This field is mandatory.
Party BIC	You can use this search and select prompt to search for the party BIC or short name. One, several or all parties can be selected.  This field is optional.

Table 63 - STF01 - Prompt description



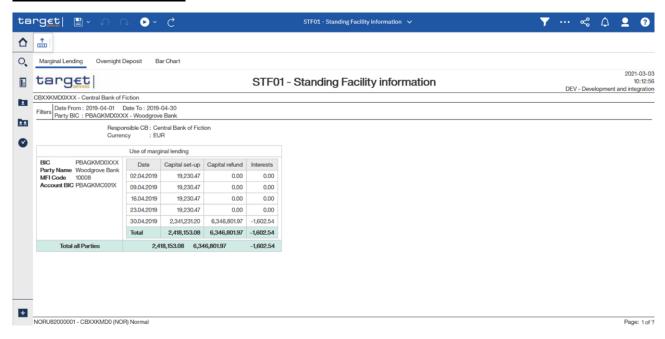


Figure 263 - STF01 output (1)

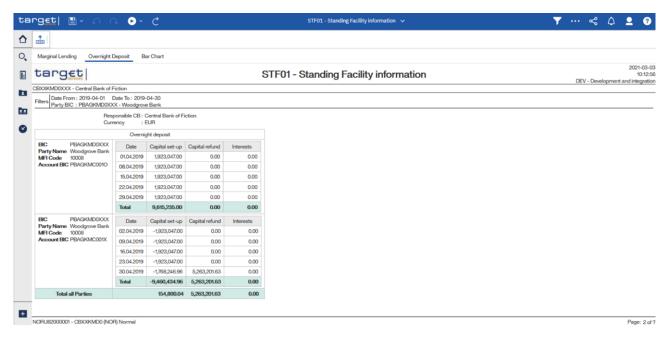


Figure 264 - STF01 output (2)



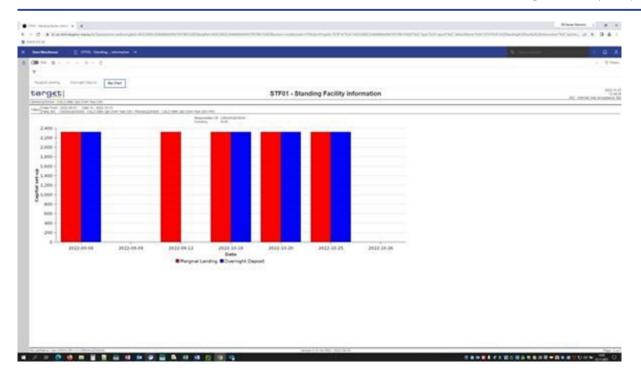


Figure 265 - STF01 output (3)

STF01 – Report description – output screen – table use of marginal lending		
Field label	Description	
The table contains the following	details for each selected party (sorted by party BIC):	
BIC	BIC of the party holding the default MCA	
Party name	Short name of the party holding the default MCA	
Account BIC	Account BIC of the default MCA	
MFI Code	MFI code of the party holding the default MCA	
Date	Date of the chosen Date range in the search prompt. The following details will be repeated for each business day (sorted by date).	
Capital set-up	Total value of liquidity granted to the party minus the on-demand reverse operation between default MCA of the party and its dedicated ML account.  This value considers automatic and on-demand marginal lending.	
Capital refund	Total value of liquidity reimbursed by the party on a daily basis.	



Interest	Total value of interests paid by the party.
	In case of multiple marginal lending operations, automatic and on request, for the
	same CLM account holder, the interest is calculated on the basis of the aggregated
	marginal lending amount by CLM.
"Total" per party for	For all business days for each party
capital set-up	
capital refund	
interests	
"Total all Parties" for	For all business days and all parties
capital set-up	
capital refund	
interests	

Table 64 - STF01 - Output description - Table use of marginal lending

STF01 – Report description – output screen – table overnight deposit		
Field label	Description	
The table contains the following details for each selected party (sorted by party BIC)		
BIC	BIC of the party holding the default MCA	
Party name	Short name of the party holding the default MCA	
Account BIC	Account BIC of the default MCA	
MFI Code	MFI code of the party holding the default MCA	
Date	Date of the chosen date range in the search prompt. The following details will be repeated for each business day (sorted by date).	
Capital set-up	The overnight deposit capital set-up amount.  This amount equals the (positive) end of day balance on the dedicated overnight deposit account (owned by the responsible CB) per default MCA holder.  The balance is the result of liquidity transfers of a party to its dedicated overnight deposit account minus possible overnight deposit reverse transactions on a given business day.	
Capital refund	Total value of liquidity reimbursed to the party on a daily basis.	



Interest	Amount of overnight deposit interests received by the party on a daily basis.  Note:  Depending on the interest rate for overnight deposit in CRDM, interest amounts are
	displayed positive (positive interest rate) or negative (negative interest rate).
Total per party for capital set-up capital refund interests	For all business days for each party
Total all Parties for capital set-up capital refund interests	For all business days and all parties

Table 65 - STF01 - Output description - Table overnight deposit

STF01 – Report description – output screen - bar chart for marginal lending and overnight deposit		
Field label	Description	
x-axis: Date	Bar chart:	
y-axis:	Each business day within the given date range has an entry on the x-axis-	
- The amount of marginal	The amounts of each facility for each business day is calculated as:	
lending capital set-up	sum over all capital set-ups (per facility) of all parties (for each business day)	
	Marginal lending and overnight deposit are separately shown for each business day	
	and are differentiated by separate colours.	

Table 66 - STF01 - Output description - Bar chart for marginal lending and overnight deposit

# 5.11 Statement reports (STA)

# 5.11.1 STA01 – Statement of account (single account)

#### Context of usage

This report provides information on all cash transfers debited or credited on an account in CLM or RTGS for a given date (range).

For each business day the account balance at the beginning and the end of the day is reported. In between, the report lists all cash transfers in the order of their CLM/RTGS settlement timestamp. For each cash transfer an ID, the currency of the instructed amount, the party BIC of the counterparty, the



service/component where the account of the counterparty is located and the debit/credit settlement value are provided. Each cash transfer is reported with the respective account balance after its settlement.

For each business day the volume and value (separate for debits and credits) of cash transfers are calculated.

CBs can retrieve account statement information for those parties belonging to their system entity.

Note: No information is provided for RTGS sub-accounts and accounts in the Contingency Services.

This report can be used by CB, PB and AS users.

#### **Report access**

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [STA – Statement Reports] >> [STA01]

## Screenshot - prompt

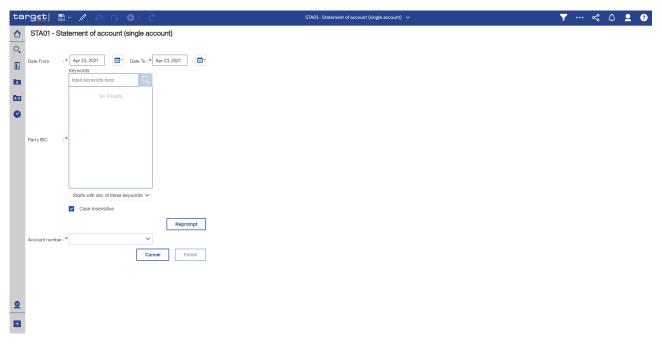


Figure 266 - STA01 prompt (1)



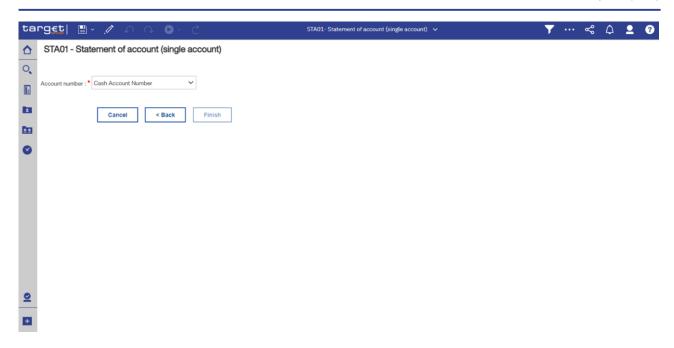


Figure 267 - STA01 prompt (2)

## **Prompt description**

STA01 – Report description – prompt screen		
Field label	Description	
Date from	You can select the date by clicking on the calendar.  This field is mandatory.	
Date to	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, the current day cannot be selected.  This field is mandatory.	
Party BIC	You can use this search and select prompt to be able to search for the party BIC or short name.  This field is mandatory.	
Account number	You can choose here the cash account number for which the account statement should be generated.  Only account numbers under the selected party BIC can be selected (either CLM or RTGS accounts).  RTGS sub-accounts and accounts in the contingency services are excluded in this report.  This field is mandatory.	

Table 67 - STA01 - Prompt description



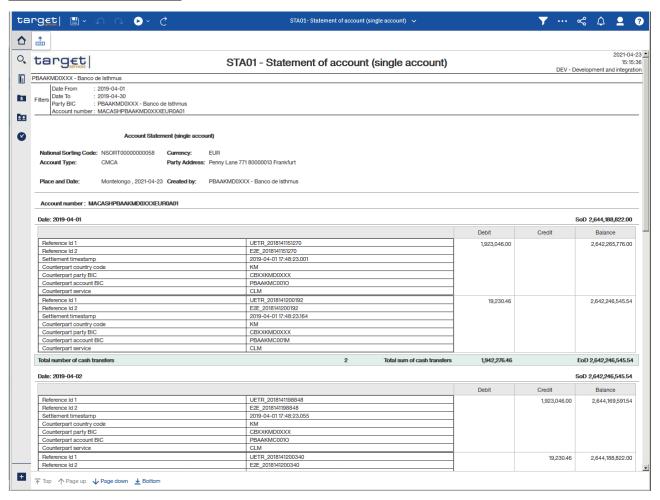


Figure 268 - STA01 output (1)



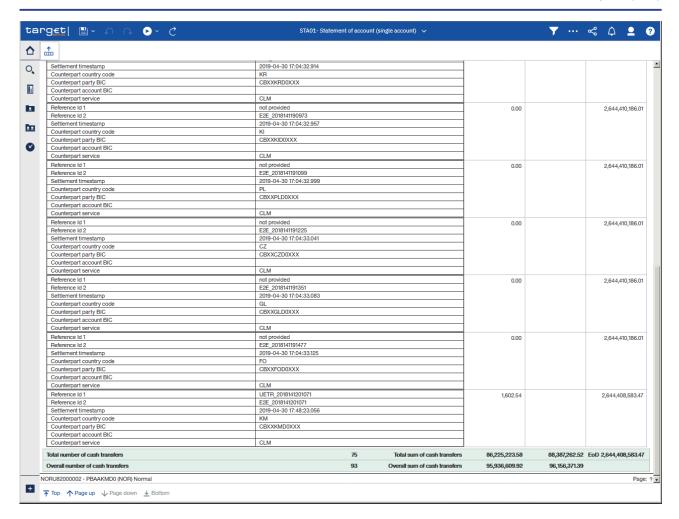


Figure 269 - STA01 output (2)

STA01 - Report description - output screen		
Field label	Description	
Party Address	Street, house number, postal code and city of the selected Party	
National Sorting Code	NSC of the selected Party	
Currency	Currency of the selected Party	
"Place and date" + City + date	City of the user's party + current date. Used as place and date of creation of the report	
"Created by" + Party BIC + Party short name	The user's party. Used for information about the executor of the report in line "created by"	
Account Type	Account type of selected account number	
Date	Business day	



Balance of account (SoD)	Balance of account (SoD) is always shown, even if there is no cash transfer
	during the business day.
Reference 1	Depending on the message that caused the cash transfer, the following
	reference type is listed:
	camt.050: Message ID (from BAH)
	l pacs.004: original UETR
	I pacs.008: UETR
	I pacs.009: UETR
	I pacs.010: UETR
	I pain.998 ASTI: None <sup>3</sup>
	If no reference can be found, this field is left empty.
Reference 2	End To End ID
	If no reference can be found, this field is left empty. For AS cash transfer orders delivered via pain.998 ASTI message, the End-to-End ID is never available. <sup>4</sup>
Settlement timestamp	Settlement timestamp of the cash transfer
Counterpart country code	ISO country code of the counterpart
Counterpart party BIC	Party BIC of the counterpart
Counterpart account BIC	Account BIC of the counterpart; If no account BIC exists (e.g. for marginal
	lending accounts), the value "-" is filled in
Counterpart service	Service of the counterpart
Debit	Debited value of the cash transfer- If the settlement was debited
Credit	Credited value of the cash transfer - If the settlement was credited
Balance	Calculated balance of the account after the settlement of the cash transfer
Volume (number of cash transfers)	Volume of cash transfers during the business day
Value (sum of cash transfers debited)	Value of debited cash transfers during the business day
Value (sum of cash transfers credited)	Value of credited cash transfers during the business day
Balance of Account (EoD)	Balance of the account at the end of the business days
	Balance of account (EoD) is always shown, even if there is no cash transfer during the business day.

<sup>3</sup> For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions.

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For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions.



Total Volume (number of cash transfers)	Total volume over all business days within the selected date range
Total Value (of all cash transfers) debited	Total value of debited cash transfers over all business days within the selected date range
Total Value (of all cash transfers) credited	Total value of credited cash transfers over all business days within the selected date range
Balance	EoD balance at the end of the date range

Table 68 - STA01 - Output description

## 5.11.2 STA02 – Statement of account (co-managed accounts)

## **Context of usage**

This report provides information on all cash transfers debited or credited on one or several co-managed MCAs in CLM for a given date (range).

Apart from that, the content of the report is congruent to STA01.

Co-managers can retrieve account statement information on single or all of their co-managed accounts.

CBs can retrieve account statement for those parties belonging to their system entity.

This report can be used by CB and PB users.

## Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [STA – Statement Reports] >> [STA02]



## Screenshot - prompt

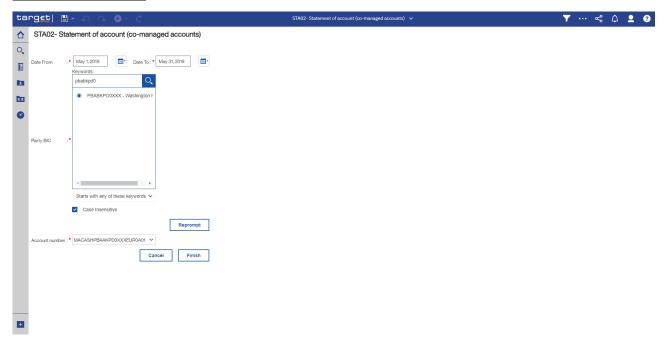


Figure 270 - STA02 prompt

## **Prompt description**

STA02 – Report description – prompt screen		
Field label	Description	
Date From	You can select the date by clicking on the calendar.	
	This field is mandatory.	



Date To	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, the current day cannot be selected.
	This field is mandatory
Party BIC	You can use this search and select prompt to search for the party BIC or short name
	This field is mandatory
Account number	You can select here the cash account number for which the account statement should be generated.
	Only MCA numbers under the selected party BIC can be selected
	This field is optional.

Table 69 - STA02 - Prompt description

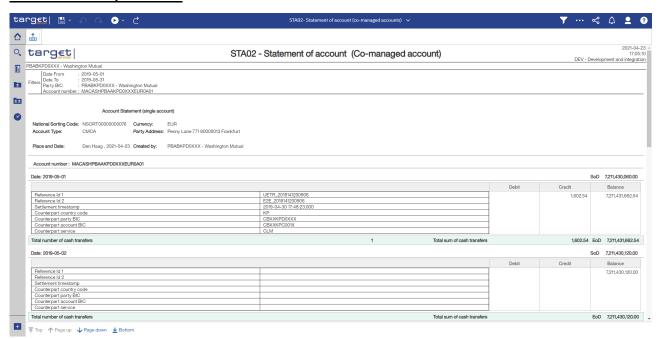


Figure 271 - STA02 output (1)



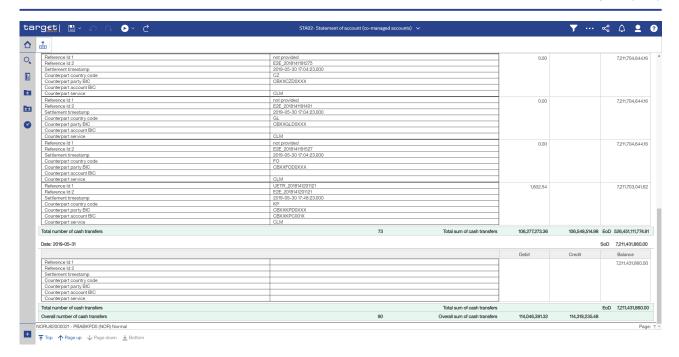


Figure 272 - STA02 output (2)

STA02 – Report description – output screen		
Field label	Description	
Party Address	Street, house number, postal code and city of the selected co-manager	
National Sorting Code	National sorting code of the selected Party	
Currency	ISO currency code of the selected party	
"Place and date" + City + date	City of the user's party + current date. Used as place and date of creation of the report	
"Created by" + Party BIC + Party short name	The user's party. Used for information about the executor of the report in line "created by"	
Account number	The following details are repeated per co-managed MCA (sorted by account number).	
Date	Date of the Business day  The following details are repeated per business day in the date range (sorted by date).	
Balance of account (SoD)	Balance of account (SoD) is always shown, even if there is no cash transfer during the business day.	
Reference Id 1	Depending on the message that caused the cash transfer, the following reference type is listed:	
	camt.050: Message ID (from BAH) pacs.009: UETR	



	pacs.010: UETR
	I pain.998 ASTI: none⁵
	If no reference can be found, this field is left empty.
Reference Id 2	End To End ID
	If no reference can be found, this field is left empty. For AS cash transfer orders delivered via pain.998 ASTI message, the End-to-End ID is never available. <sup>6</sup>
Settlement timestamp	Settlement timestamp of the cash transfer
Counterparty country code	ISO country code of the counterparty
Counterparty party BIC	Party BIC of the counterparty
Counterparty account BIC	Account BIC of the counterparty; If no account BIC exists (e.g. for marginal lending accounts), the value "-" is filled in
Counterparty service	Service of the counterparty
Debit	Debited value of the cash transfer- If the settlement was debited
Credit	Credited value of the cash transfer - If the settlement was credited
Balance	Calculated balance of the account after the settlement of the cash transfer
Balance EoD	Balance of the account at the end of the business days
	Balance of account (EoD) is always shown, even if there is no cash transfer during the business day.
Total number of cash transfers	Total volume of cash transfers per business day
Total sum of cash transfers	Total value of cash transfers per business day
Overall number of cash transfers	Total volume over all business days within the selected date range
Overall sum of cash transfers	Total value over all business days within the selected date range
Balance EoD	EoD balance at the end of the date range

Table 70 - STA02 - Output description

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<sup>5</sup> For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions.

<sup>6</sup> For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions.



# 5.12 Transaction reports (TRN)

## 5.12.1 TRN01 - Cash transfer (order) search and details

#### **Context of usage**

The report TRN01 offers the possibility to search for cash transfer orders/cash transfers using a set of (optional) filter criteria (including e.g. the UETR). For the resulting cash transfers/cash transfer orders it is possible to display the respective message and settlement details.

For CBs access to those cash transfers/cash transfer orders is granted where one of its parties is involved on the credit and/or the debit side.

From a prompt of the selection criteria screen the user either opts for the selection by reference or selection by business related criteria.

This report can be used by CB, PB and AS users.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN - Transaction Report] >> [TRN01]

## Screenshot - prompt

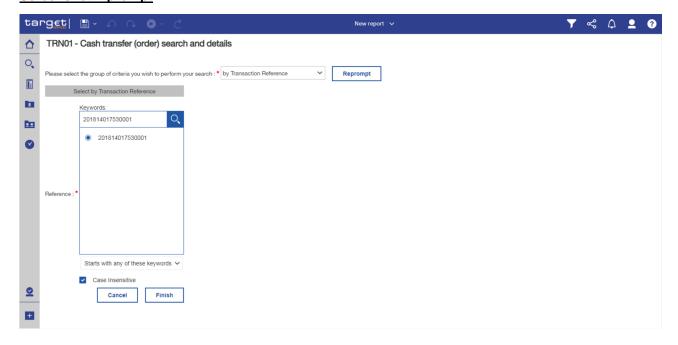


Figure 273 - TRN01 prompt (1) - by transaction reference



# TRN01 - Cash transfer (order) search and details

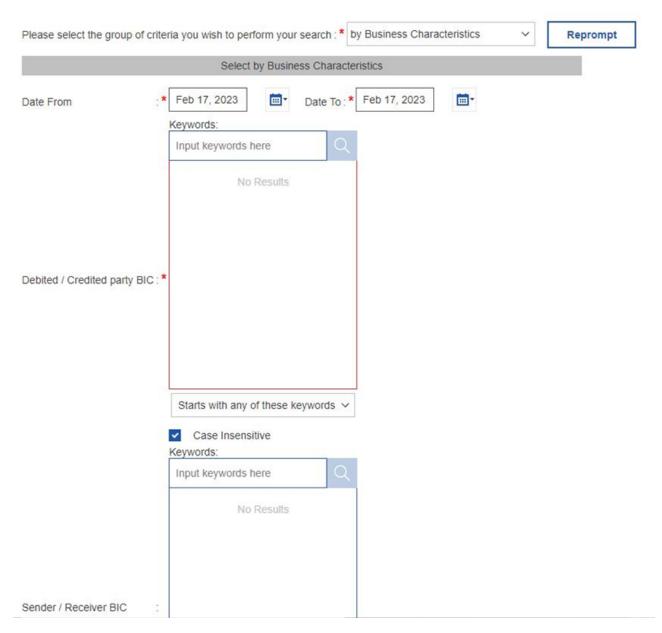


Figure 274 - TRN01 prompt (2) - by business characteristics



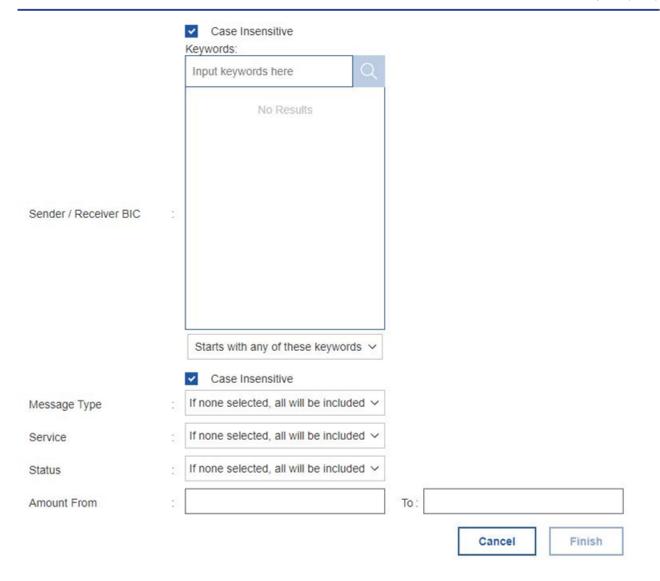


Figure 275 - TRN01 prompt (3) - by business characteristics

## **Prompt description**

The TRN01 offers the possibility to execute the report in two ways. The first way is "Select by Transaction Reference" the other way is "Search by Business Characteristics".

Having chosen a selection by transaction reference, you may enter any reference such as message ID, a UETR, an End-To-End ID, an instruction ID etc.

Having chosen a selection by business related criteria, you can enter business related search criteria.

When the DWH finds at least one transaction, a view on all transactions, which match the entered business criteria is opened. Here you can choose a certain transaction by double click for a view on its detailed data.



TRN01 – Report description – prompt scree	en e
Field label	Description
Search by transaction reference	
Reference	You can use this field to search with any reference that can be contained in a cash transfer.  This field is mandatory.
Search by Business Characteristics	
Date From	You can select the date by clicking on the calendar.
	This field is mandatory.
Date To	You can select the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, current day cannot be selected.
	This field is mandatory.
Debited / Credited party BIC	You can use this drop-down field to select the BIC of the debited resp. credited party.
	The possible values are built from parties within the user's data scope.
	This field is mandatory.
Sender/receiver BIC	You can use this drop-down field to select the BIC of the sending resp. receiving party
	The possible values are built from parties within the user's data scope.
	This field is optional.
Message Type	You can use this drop-down field to restrict the result list to one message type.
	Possible Values:
	l camt.050
	I pacs.004
	l pacs.008
	l pacs.009



Service Type	pain.998 (ASTI) This field is optional. This drop-down field offers the possibility to select between the services CLM or RTGS.
Status	This field is optional.  You can use this drop-down field to restrict the result list to one status.
	Possible Values:  Partially settled
	I Revoked I Reversed
	<ul><li>Rejected</li><li>Settled</li><li>Warehoused</li></ul>
	This field is optional.
Amount from/to	You can use these fields to search for a certain amount or amount range.
	This field is optional.

Table 71 - TRN01 - Prompt description



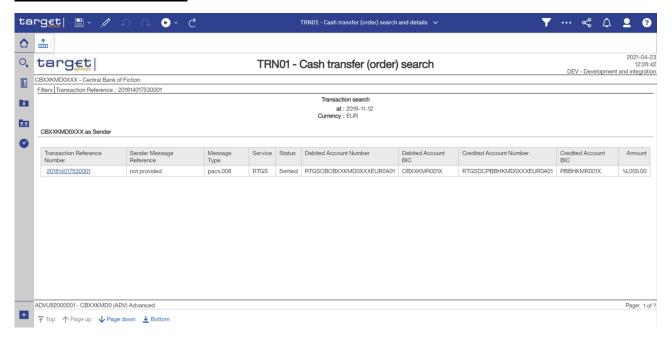


Figure 276 - TRN01 output (1) - by transaction reference

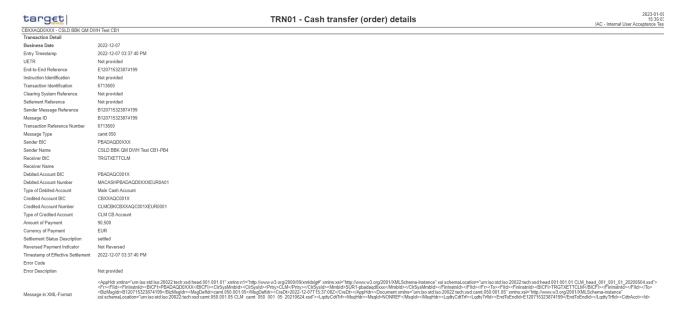


Figure 277 - TRN01 output (2) - details





Version 0.01-13 R00 / 2023-01-30

Figure 278 - TRN01 output (3) - by business characteristics

target		TRN01 - Cash transfer (order) details	2023-02-1 10-55:2 IAC - Internal User Acceptance Te
BXXAQD0XXX - CSLD BBK QM [	DWH Test CB1		
Transaction Detail			
Business Date	2023-02-01		
Entry Timestamp	2023-02-01 10:00:39.363		
UETR	466b59d9-4f73-4211-8cd5-c3b621db2971		
End-to-End Reference	E020109595254605		
Instruction Identification	TC13		
Transaction Identification	7401859		
Clearing System Reference	Not provided		
Setlement Reference	Not provided		
Sender Message Reference	B020109595254605		
Message ID	B020109595254605		
Transaction Reference Number	7401859		
Message Type	pacs.010		
Sender BIC	CBXXAQD0XXX		
Sender Name	CSLD BBK QM DWH Test CB1		
Receiver BIC	TRGTXETTCLM		
Receiver Name			
Debited Party BIC	PBAAAQD0XXX		
Debited Party Name	CSLD BBK QM DWH Test CB1-PB1		
Credited Party BIC	CBXXAQD0XXX		
Credited Party Name	CSLD BBK QM DWH Test CB1		
Debited Account BIC	PBAAAQC001X		
Debited Account Number	MACASHPBAAAQD0XXXEUR0A01		
Type of Debited Account	Main Cash Account		
Credited Account BIC	CBXXAQC001X		
Credited Account Number	CLMCBKCBXXAQC001XEUR0001		
Type of Credited Account	CLM CB Account		
Amount of Payment	1,778.77		
Currency of Payment	EUR		

Figure 279 - TRN01 output (4) - details



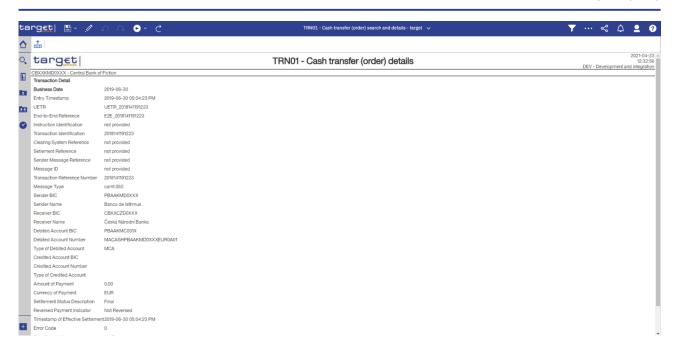


Figure 280 - TRN01 output (5) - details

TRN01 - Report description - output screen - list of cash transfers		
Field label	Description	
Date	Above the table you can see the date of the transaction search "at"	
Currency	Above the table you can see the currency of the transaction	
One table for " <b>Debited party BIC</b> " and one table for " <b>Credited party BIC</b> ". In each table every cash transfer order is listed with following data (sorted by transaction reference number):		
Transaction Reference Number	Transaction reference; technical identifier of the transfer.	
Sender Message Reference	Identification of the message, which is delivered by the sender.	
Message Type	Message type  Possible values:    camt.050   pacs.004   pacs.008   pacs.009   pacs.010   pain.998 (ASTI)	



	I Unknown
Service	Service for which the data is displayed.
	Possible values:
	I CLM
	I RTGS
Sender BIC	BIC of the sending party (can be empty)
Receiver BIC	BIC of the receiving party (can be empty)
Status	Status of the cash transfer order.
	Possible values:
	I Warehoused
	I Settled
	I Reversed
	I Revoked
	I Rejected
	I Cancelled
Debited Account Number	Debited account number
	The account number is not displayed if it does not belong to
	data scope of the user.
Debited Account BIC	Debited account BIC
Credited Account Number	Credited account number
	The account number is not displayed if it does not belong to
	data scope of the user.
Credited Account BIC	The BIC of the credited account
Amount	Amount of payment

Table 72 - TRN01 - Output description

TRN01 – Report description – details	
Field label	Description
Entry Timestamp	Timestamp of entry in CLM/RTGS
UETR	Universal-End-to-End-Transaction Reference <sup>7</sup>

\_\_\_\_\_



End-to-End Reference	End-to-End-Transaction Reference <sup>8</sup>
Instruction Identification	Instruction Identification <sup>9</sup>
Transaction Identification	Transaction Identification <sup>10</sup>
Clearing System Reference	Clearing System Reference <sup>11</sup>
Settlement Reference	Settlement Reference <sup>12</sup>
Sender Message Reference	Sender Message Reference <sup>13</sup>
Message ID	Message ID
Transaction Reference Number	Technical Identifier of the transfer
Message Type	Message Type
	Possible values:
	I camt.050
	I pacs.004
	I pacs.008
	I pacs.009
	I pacs.010
	I pain.998 (ASTI)
Sender BIC	Party BIC of the sender (can be empty)
Sender Name	Sender Name (can be empty)
Receiver BIC	Party BIC of the receiver (can be empty)
Receiver Name	Receiver name (can be empty)

<sup>7</sup> For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions so the reference and identification fields are empty for those cash transfer orders.

<sup>8</sup> For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions so the reference and identification fields are empty for those cash transfer orders.

<sup>9</sup> For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions so the reference and identification fields are empty for those cash transfer orders.

For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions so the reference and identification fields are empty for those cash transfer orders.

<sup>11</sup> For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions so the reference and identification fields are empty for those cash transfer orders.

<sup>12</sup> For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions so the reference and identification fields are empty for those cash transfer orders.

For cash transfer orders delivered via pain.998, the source system does not provide any business identifiers of the single transactions so the reference and identification fields are empty for those cash transfer orders.



Debited party BIC	Debited party BIC
Debited party name	Debited party name
Credited party BIC	Credited party BIC
Credited party name	Credited party name
Debited Account BIC	Debited account BIC
Debited Account Number	Debited account number
	The account number is not displayed if it does not belong to data scope of the user.
Type of Debited Account	Type of debited account
	Possible Values:
	I RTGS DCA
	I RTGS CB account
	I AS guarantee funds account
	I RTGS sub-account
	I AS technical account
	The second secon
	The second secon
	The second secon
	The second secon
	CLM dedicated transit account in RTGS
	I MCA
	I CLM CB account
	I Overnight deposit account
	I Marginal lending account
	I ECB mirror account
	I CB ECB account
	I Technical account for CONT settlement
	T2S dedicated transit account in CLM
	I TIPS dedicated transit account in CLM
	RTGS dedicated transit account in CLM
Credited Account BIC	Credited account BIC
Credited Account Number	Credited account number



	The account number is not displayed if it does not belong to
	data scope of the user.
Type of Credited Account	Type of credited account
	Possible Values:
	I RTGS DCA
	I RTGS CB account
	AS guarantee funds account
	I RTGS sub-account
	I AS technical account
	I CLM dedicated transit account in RTGS
	I MCA
	I CLM CB account
	l Overnight deposit account
	I Marginal lending account
	I ECB mirror account
	I CB ECB account
	I Technical account for CONT settlement
	I T2S dedicated transit account in CLM
	I TIPS dedicated transit account in CLM
	I RTGS dedicated transit account in CLM
Amount of Payment	Amount of payment
Currency of Payment	Currency of payment
Settlement Status Description	Status description.
	I Warehoused
	I Settled
	I Rejected
	I Reversed
	I Revoked
	I Cancelled
Reversed Payment Indicator	Reversed payment indicator.
	Possible values:
	i "not reversed"
	HOUTEVELOCA



	I "is a reversed"
	I "has been reversed"
Timestamp of Effective Settlement	Date and time of effective settlement
Error Code	Error code (if provided)
Error Description	Error description (if provided)
Message in XML-Format	Original message in XML format. Only the payload of the
	message will be displayed, not the BAH.

Table 73 - TRN01 - Report description - Details

# 5.12.2 TRN02 - Monthly overview of domestic and cross-border payments

#### **Context of usage**

The report TRN02 provides information on the monthly volume and value of payments in RTGS differentiated by domestic and cross-border traffic. Separate tables for interbank and customer payments are displayed. For CBs information on all of its payment banks the figures are shown sorted by name and BIC.

This report can be used by CB and PB users

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN – Transaction Report] >> [TRN02]



## Screenshot - prompt



Figure 281 - TRN02 prompt

## **Prompt description**

TRN02 - Report description - prompt screen	
Filed label	Description
Year	You can use this drop-down to select the year, from which the report should contain the data.  This field is mandatory.
Month	You can use this drop-down field to select the month, from which the report should contain the data.  For valid report results, the current month cannot be selected.  This field is mandatory.
Party BIC	You can use this drop-down field to select the party BIC. This field will show all related BIC's, which belong to the party.  This field is optional.

Table 74 - TRN02 - Prompt description



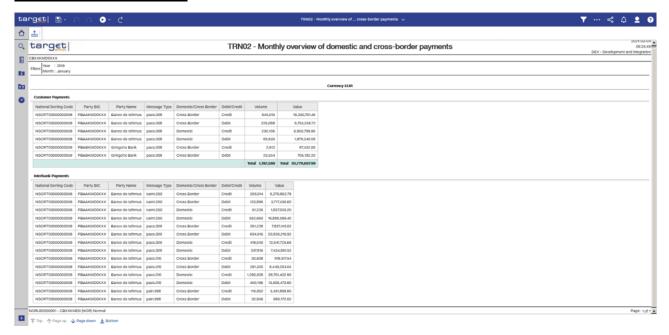


Figure 282 - TRN02 output (1)

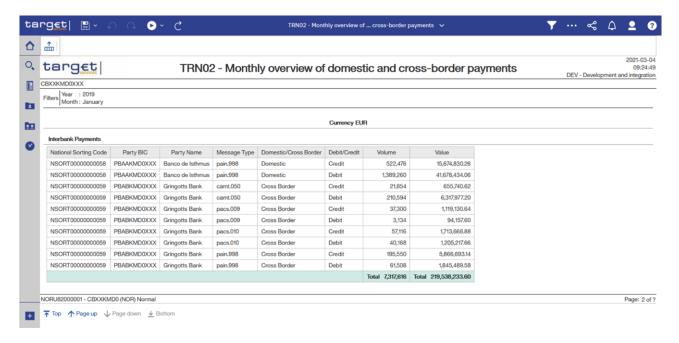


Figure 283 - TRN02 output (2)



<del></del>	
TRN02 - Report description - output screen	
The currency will be displayed above the table	
Field label	Description
One table for "Interbank payments" and one table for "Customer payments" with following data, sorted by message type and then by party BIC:	
National Sorting Code	National Sorting Code of the participant
Party BIC	BIC of Party
Party Name	Short name of the party;
Message Type	Message type. Possible Values:
	I camt.050
	I pacs.004
	I pacs.008
	I pacs.009
	I pacs.010
	I pain.998 (ASTI)
Domestic/Cross Border	Mark, which identifies whether the displayed aggregation refers to domestic or cross border payments.
	Possible values:
	I Domestic
	I Cross Border
Debit/Credit	"Debit" or "Credit" are displayed.
Volume	Number of payments per party, message type, domestic/cross border payment and debit/credit
Value	Sum of payments per party, message type, domestic/cross border payment and debit/credit
Total	Total of volumes and values listed in the preceding rows.  Recalculated automatically on the base of a data subset when the user uses filters.

Table 75 - TRN02 - Output description



# 5.12.3 TRN03 - Monthly peak day and peak hour in terms of volume and value of cash transfer orders

#### **Context of usage**

The report TRN03 provides information on the peak hour and peak day within a given month (range) in terms of volume and value of cash transfer orders in CLM or in RTGS. Within given time intervals the report TRN03 identifies peaks in volume and peaks in value of cash transfer orders grouped by their status.

This report can be used by CB and PB users.

# Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN - Transaction Report] >> [TRN03]

#### <u>Screenshot – prompt</u>

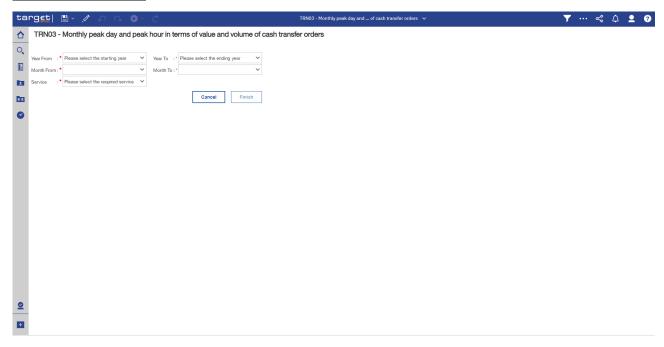


Figure 284 - TRN03 prompt

#### **Prompt description**

TRN03 – Report description – prompt screen		
Field label	Description	
Service	You can use this drop-down field to select between the services.	
	Possible values:	



	I CLM, I RTGS. This field is mandatory.
Year From	You can use this drop-down field to select the year, from which the report should contain the data.  This field is mandatory.
Month From	You can use this drop-down field to select the month, from which the report should contain the data.  For a valid report result, it is necessary to select at least the previous month.  This field is mandatory.
Year To	You can use this drop-down field to select the end date of the period, for which the report should contain the data.  This field is mandatory
Month To	You can use this drop-down field to select the end date of the period, for which the report should contain the data.  For a valid report result, it is necessary to select at least the previous month.  This field is mandatory.

Table 76 - TRN03 - Prompt description



#### Screenshot - output screen

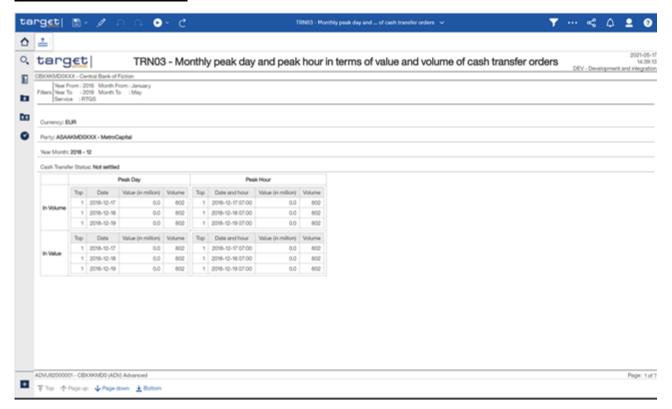


Figure 285 - TRN03 output

The report result is separated into two blocks, one for transfer orders in volume and the other one for transfer orders in value. Within this blocks there is a further segmentation in "Peak Day" and "Peak Hour" for the selected time period. For every segmentation the report will display the Top 5 results. If one or several results are identical, the report result will be extended by another result.

The report result shows the date, date and hour, volume and value of all cash transfer orders/final cash transfer orders/not settled cash transfer orders and cancelled cash transfer orders

TRN03 – Report description – output screen		
Field label	Description	
Party	The party BIC and party short name of the user are shown. Both values are separated by a hyphen "-"	
Peak day – in volume		
Тор	Numbers 1 through 5, each in a single row	
Date	Date of the peak day this row refers to	
Value (in million)	Sum of the value of all cash transfer orders/all final cash transfer orders/all not	



	settled cash transfer orders this row refers to million of the given currency commercially rounded.
Volume	Number of all cash transfer orders/all final cash transfer orders/all not settled cash transfer orders this row refers to.
Peak day – in value	
Тор	Numbers 1 through 5, each in a single row
Date	Date of the peak day this row refers to
Value (in million)	Sum of the value of all cash transfer orders/all final cash transfer orders/all not settled cash transfer orders this row refers to million of the given currency, commercially rounded.
Volume	Number of all cash transfer orders/all final cash transfer orders/all not settled cash transfer orders this row refers to.
Peak hour – in volume	
Тор	Numbers 1 through 5, each in a single row
Hour	Date and hour (as range) this row refers to:  yyyy-mm-dd  hh.mm – hh.mm  (from 00:00 – 00:59 till 23:00 – 23:59)
Value (in million)	Sum of the value of all cash transfer orders/all final cash transfer orders/all not settled cash transfer orders this row refers to million in the given currency, commercially rounded.
Volume	Number of all cash transfer orders/all final cash transfer orders/all not settled cash transfer orders this row refers to
Peak hour – in value	
Тор	Numbers 1 through 5, each in a single row



Date and Hour	Date and hour (as range) this row refers to:
	yyyy-mm-dd
	hh:mm – hh:mm
	(from 00:00 – 00:59 till 23:00 – 23:59)
Value (in million)	Sum of the value of all cash transfer orders/all final cash transfer orders/all not settled cash transfer orders this row refers to in million in the given currency, commercially rounded.
Volume	Number of all cash transfer orders/all final cash transfer orders/all not settled cash transfer orders this row refers to.

Table 77 - TRN03 - Output description

# 5.12.4 TRN04 - Cash transfers per time band and per CB

# **Context of usage**

The report TRN04 provides information on the total volume and value of cash transfers per time band of 15 minutes on a chosen business day. Cash transfers in CLM and RTGS are reported in separate report Tables.

Volume and value Figures are reported separate for domestic (only debits) and cross-border (differentiated by debits and credits) cash transfers. In addition, cumulated volume and value Figures are displayed.

CBs can retrieve information on cash transfers of parties belonging to their system entity.

This report can be used by CB users only.

## Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN – Transaction Report] >> [TRN04]



# Screenshot - prompt



Figure 286 - TRN04 prompt

# **Prompt description**

TRN04 – Report description – prompt screen	
Field label	Description
Date	You can specify the business day by clicking on the calendar.
	For valid report results, the current day cannot be selected.
	This field is mandatory.

Table 78 - TRN04 - Prompt description



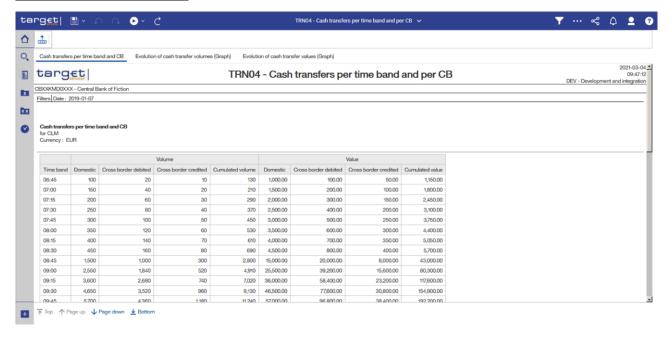


Figure 287 - TRN04 output (1)

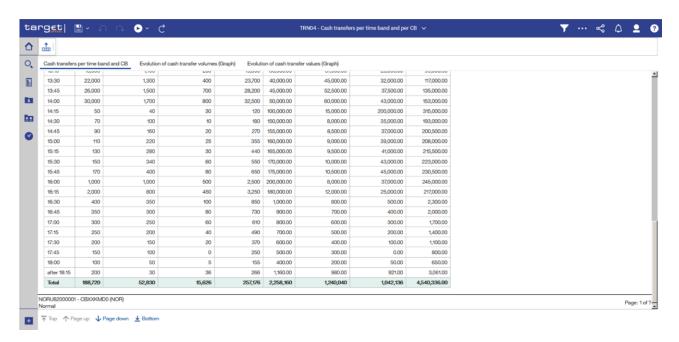


Figure 288 - TRN04 output (2)



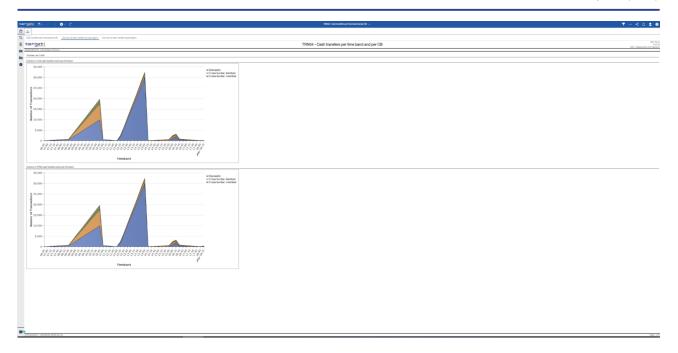


Figure 289 - TRN04 output (3)

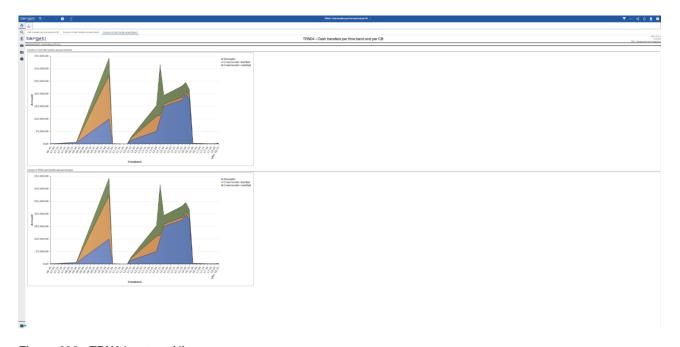


Figure 290 - TRN04 output (4)



TRN04 – Report description – output screen		
Field label	Description	
Time band	Time band in 15 minutes intervals:	
	Time band in 15 minutes intervals: Before 19:00 (beginning with start of the business day), 19:00, 19:15, 19:30, (etc. in 15 minutes steps), 18:00, after 18:00 (ending with EoD)	
Volume Domestic	Volume of domestic cash transfers (only debits) per time band	
Volume Cross border debited	Volume of debited cross border cash transfers per time band	
Volume Cross border credited	Volume of credited cross border cash transfers per time band	
Volume Cumulated volume	Sum of all three volumes per time band	
Value Domestic	Value of domestic cash transfers (only debits) per time band	
Value Cross border debited	Value of debited cross border cash transfers per time band	
Value Cross border credited	Value of credited cross border cash transfers per time band	
Value Cumulated value	Sum of all three values per time band	
Total	Overall Sum of the volumes/values types over all time bands	
Graph 1	Evolution of CLM/RTGS cash transfer volumes per time band".	
	Four different lines stacked areas in different colours representing the values in the table on previous page.	
Graph 2	Evolution of CLM/RTGS cash transfer values per time band".	
	Four different lines stacked areas in different colours representing the values in the table on previous page.	

Table 79 - TRN04 - Output description

# 5.12.5 TRN05 – Monthly overview of cash transfer orders per party

# **Context of usage**

The report TRN05 provides information on the monthly volume and value of cash transfer orders of a selected party on its account(s). Cash transfer orders in CLM and RTGS are reported in separate report Tables. In case that several accounts belong to the same party in CLM or RTGS, separate Figures for each account are displayed. The volume/value Figures include totals, monthly averages and are differentiated by settlement priority and settlement status and service.

CBs can retrieve information for parties belonging to their system entity.



This report can be used by CB and PB users.

# Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN – Transaction Report] >> [TRN05]

# Screenshot - prompt



Figure 291 - TRN05 prompt



# **Prompt description**

TRN05 – Report description – prompt screen	
Field label	Description
Year	You can use this drop-down field to select the Year, from which the report should contain the data.  This field is mandatory.
Month	You can use this drop-down field to select the Month, from which the report should contain the data.  For valid report results, the current month cannot be selected.  This field is mandatory.
Party BIC	You can use this drop-down field to select the party BIC. This field will show all related BIC's, which belong to the party.  This field is mandatory.

Table 80 - TRN05 - Prompt description



Figure 292 - TRN05 output (1)



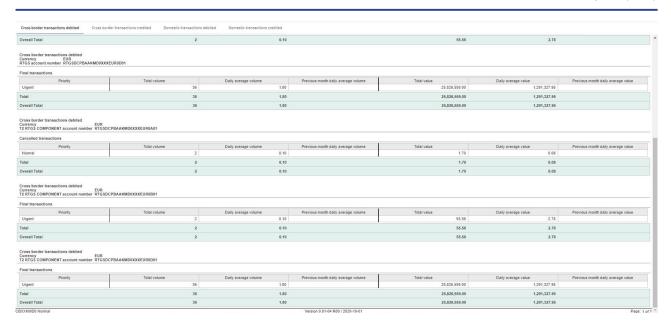


Figure 293 - TRN05 output (2)

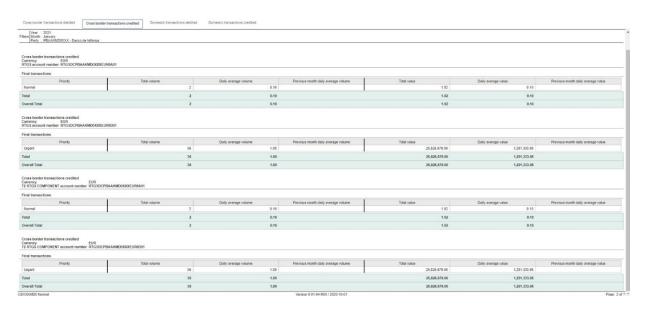


Figure 294 - TRN05 output (3)





Figure 295 - TRN05 output (4)



Figure 296 - TRN05 output (5)



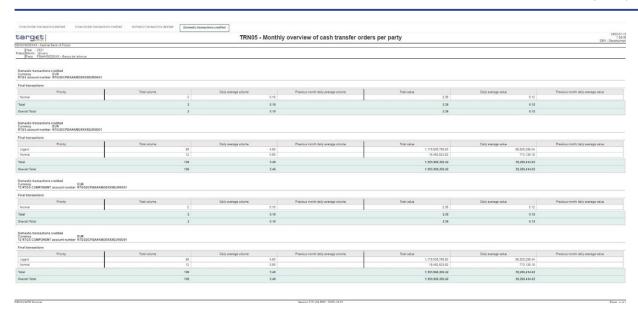


Figure 297 - TRN05 output (6)

TRN05 - Report description - output screen	
Field label	Description
The report consists of four sheets:	
Sheet 1: Cross border transactions deb	ited
Sheet 2: Cross border transactions credited	
Sheet 3: Domestic transactions debited	
Sheet 4: Domestic transactions credited	
Each sheet with following data:	
For every service (CLM and RTGS, in c	ase the chosen party owns accounts in both) and every cash account owned by
the chosen party in the respective service	ce:
Service, account number	Service in which the account is held:
	I CLM,
	I RTGS,
	followed by the account number of cash account owned by the chosen party in
	the respective service.
	Only accounts of the following types are regarded:
	For CLM:
	I MCA
	I CLM CB account



	For RTGS:
	I RTGS DCA
	I RTGS sub-account
	I RTGS CB account
	Ancillary System Guarantee funds account
	I AS Technical account
Three tables for "Final transactions", "C data:	ancelled transactions" and "Rejected transactions". Each table with following
Priority	Possible values:
	I Urgent
	I High
	I Normal
Total volume	Total of volume of chosen month
Daily average volume	Daily average of volume
Previous month daily average volume	Daily average of volume of the previous month
Total value	Total value
Daily average value	Monthly average of value
Previous month daily average value	Daily average of value of the previous month
Total	Sum of each column for one status
Overall Total	Sum of each column over all status (final, cancelled, rejected)
Table 04 TRNOS Contract description	

Table 81 - TRN05 - Output description

5.12.6 TRN06 – Monthly share of Indirect Participant, addressable BIC and multi-addressee payments as part of total Direct Participant's activity

#### Context of usage

This report provides information on the monthly volume and value of payments of all Indirect Participants, addressable BICs and multi-addressees belonging to a selected Direct Participant in RTGS. The volume and value Figures are presented for each Indirect Participant/addressable BIC/multi-addressee as totals (differentiated by domestic and cross-border traffic) and in addition, as share of the Direct Participant's activity.

All Figures are reported for the given month and the preceding month.



CBs can retrieve information for those entities where the respective Direct Participant belongs to their system entity.

This report can be used by CB and PB users.

# **Report access**

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN - Transaction Report] >> [TRN06]

# Screenshot - prompt screen



Figure 298 - TRN06 prompt



# Prompt description,

TRN06 – Report description – prompt description	
Field label	Description
Year	You can use this drop-down field to select the year, from which the report should contain the data.  This field is mandatory.
Month	You can use this drop-down field to select the month, from which the report should contain the data.  For valid report results, the current month cannot be selected.  This field is mandatory.
Party BIC	You can use this drop-down field to select the Party BIC. This field will show all related BIC's, which belong to the Party.

Table 82 - TRN06 - Prompt description

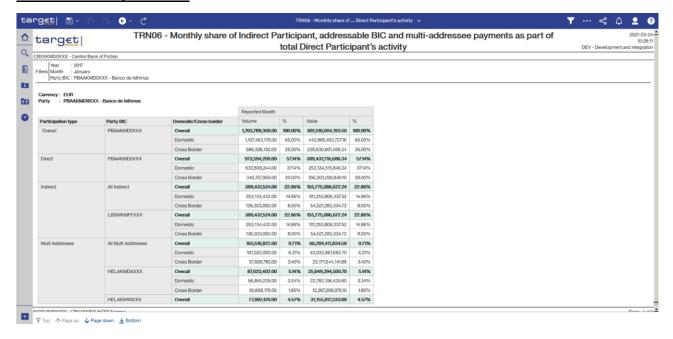


Figure 299 - TRN06 output (1)



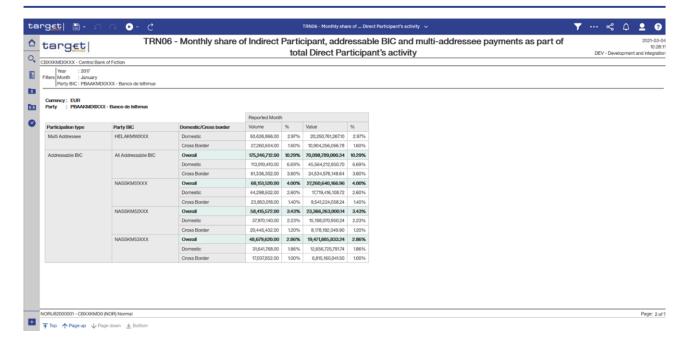


Figure 300 - TRN06 output (2)

TRN06 - Report description - output screen	
Field label	Description
Currency	Currency
Party	The party BIC and party short name of the user are shown. Both values separated by a hyphen "-"
Participation Type	Participation type.  Possible values:  I "Overall"  I "Direct"  I "Addressable BIC"  I "Indirect"  I "Multi Addressee"  In order to increase readability the participation type is displayed only after a group change.  Initial sorting by this column, then by party BIC
Party BIC	In total rows the column either displays "Addressable BIC" resp. "All Indirect" resp. "All Multi Addressee" or the BICs of the Direct Participant, of related addressable BICs, the party's Indirect Participants or of its multi addressee.



	In order to increase readability the party BIC/Total is displayed only after a group change.  Initial sorting by participation type, then by this column
Overall/Domestic/Cross Border	Mark which identifies whether the displayed aggregation refers to a total per BIC or domestic or cross border cash transfer orders.  Possible values:  Overall  Cross Border
Previous Month	
Volume	Number of cash transfer orders
%	Percentage value of the displayed volume for the combination of participation type, party BIC total and debit/credit;  Up to 2 decimals are displayed
Value	Sum of amount. The base for the calculation are debited amounts only.
%	Percentage of the displayed volume for the combination of participation type, party BIC total and debit/credit  Up to 2 decimals are displayed.
Reported Month	
%	Percentage value of the displayed volume for the combination of participation type, party BIC total and debit/credit;
	Up to 2 decimals are displayed.
Value	Sum of amount. The base for the calculation are debited amounts only.
%	Percentage of the displayed volume for the combination of participation type, party BIC total and debit/credit
	Up to 2 decimals are displayed.

Table 83 - TRN06 - Output description

# 5.12.7 TRN07 – Cash transfers between two accounts of different parties

# **Context of usage**

TRN07 lists all cash transfers between two accounts in CLM or RTGS for a given date (range). For each cash transfer the settlement time stamp, the message type, the CLM/RTGS booking reference, the



transaction category and the settlement amount are displayed. CBs can retrieve information on those cash transfers where at least one of the two involved accounts (credited or debited account) is opened under a party belonging to its system entity.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN - Transaction Report] >> [TRN07]

# <u>Screenshot – prompt</u>

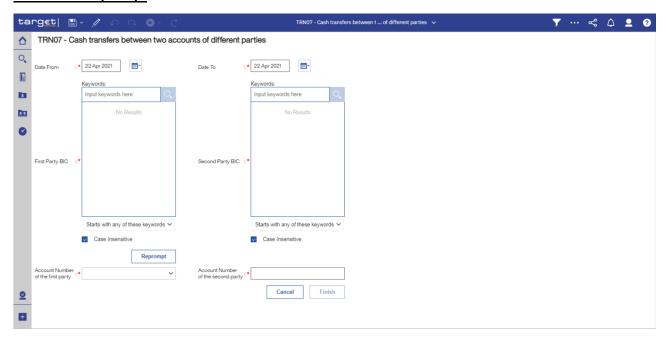


Figure 301 - TRN07 prompt

# **Prompt description**

TRN07 – Report description – prompt description	
Field label	Description
Date From	You can enter the date by clicking on the calendar .  This field is mandatory.
Date To	You can enter the end date of the period, for which the report should contain the data by clicking on the calendar.  For valid report results, the current day cannot be selected.



	This field is mandatory
First Party BIC	You can use this search and select prompt to select the first party BIC or short name.
	This field is mandatory
Second Party BIC	You can use this search and select prompt to select the second party BIC and short name.
	This field is mandatory
Account Number of the first party	.You can use this drop-down list to select the account number of the first party.  It is built from account numbers within the user's data scope.
	This field is mandatory.
Account Number of the second party	You can use this free text field to enter the account number of the second party.
	This field is mandatory

Table 84 - TRN07 - Prompt description

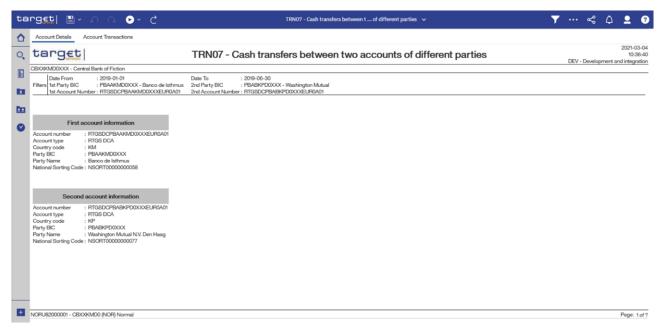


Figure 302 - TRN07 output (1)



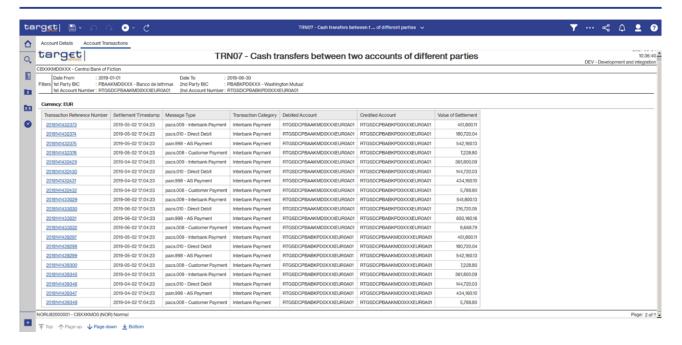


Figure 303 - TRN07 output (2)

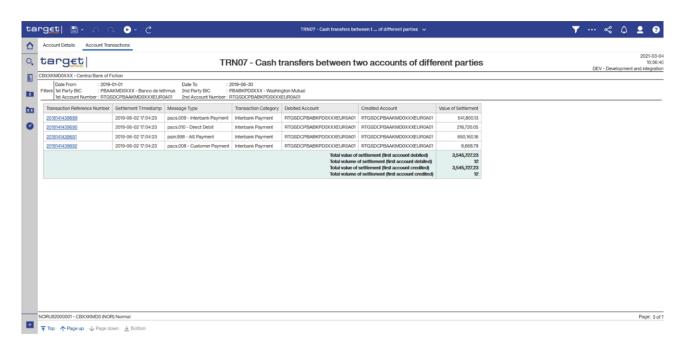


Figure 304 - TRN07 output (3)



TRN07 – Report description – out	put screen – table
Account details	
Field label	Description
Account number	Account number as chosen in the search criteria
Account type	Account type as chosen in the search criteria
	Possible values:
	For CLM
	I MCA
	l Overnight Deposit account
	I CLM CB account
	I Marginal Lending account
	For RTGS:
	I RTGS DCA
	I RTGS sub-account
	I RTGS CB account
	Ancillary System Guarantee funds account
	I AS technical accounts
Country code	Country code related to the party chosen in the search criteria
Party BIC	Party BIC as chosen in the search criteria
Party Name	Party name related to the party BIC chosen in the search criteria
National Sorting Code	National Sorting Code related to the party BIC chosen in the search criteria
TRN07 - Report description - out	put screen – table list of cash transfers
Field label	Description
Currency	ISO currency code
Transaction Reference Number	Transaction reference number (CLM/RTGS internal cash transfer identifier)
Settlement Timestamp	Timestamp of the cash transfer settlement
Message Type	Message type.
	Possible values:
	I camt.050
	I pain.998 (ASTI)



	Transaction reports (Trans
	I pacs.004
	l pacs.008
	I pacs.009
	I pacs.010
Transaction Category	Statistical Classification Transaction category.
Ç ,	Possible values:
	I CLM Intra Liquidity Transfer (C.10.00)
	CLM RTGS Liquidity Transfer (C.10.20)
	I CLM T2S Liquidity Transfer (C.10.30)
	CLM TIPS Liquidity Transfer (C.10.40)
	I Open Market Operations (C.11.01)
	I Standing Facilities (C.11.02)
	Reserve and Account Management (C.11.03)
	Inter Central Bank Transactions (C.11.04)
	Connected payments for credit line changes (C.11.05)
	Non-euro area CB operations (C.11.06)
	Other (including cash transactions) (C.11.09)
	I Billing (C.12)
	I Target balances (C.13)
	Levelling out of closed accounts (C.14.01)
	I ECONS II back transfers (C.14.02)
	I Seizure of funds (C.14.03)
	I CLM Other (C.19)
	I RTGS Intra Liquidity Transfer (R.20.00)
	RTGS CLM Liquidity Transfer (R.20.10)
	I RTGS T2S Liquidity Transfer (R.20.30)
	RTGS TIPS Liquidity Transfer (R.20.40)
	Interbank Payments (R.21.01)
	Customer Payments (R.21.02)
	I Other (R.21.09)
	AS Transactions HVPS (R.22.01)
	AS Transactions RPS (R.22.02)
	I AS Transactions IPS (R.22.03)



	I AS Transactions SSS (R.22.04)
	AS Transactions FES (R.22.05)
	AS Transactions MMS (R.22.06)
	AS Transactions CCP (R.22.07)
	AS Transactions Other (R.22.09)
	Levelling out of closed accounts (R.23.01)
	RTGS Other (R.29)
Debited Account	Debited account number
Credited Account	Identification of the credited account number
Value of Settlement	Settlement amount
Total value of settlement (first account debited)	Total value of settlement (first account debited)
Total volume of settlement (first account debited)	Total volume of settlement (first account debited)
Total value of settlement (first account credited)	Total value of settlement (first account credited)
Total volume of settlement (first account credited)	Total volume of settlement (first account credited)
Details of chosen cash transfer	This Details-screen is shown when the user has clicked on the reference of one of the objects in the screen. TRN01 - Cash transfer (order) search and details  [> 273]

Table 85 - TRN07 - Output description

# 5.12.8 TRN08 – Business activity of a party/parties

# **Context of usage**

The report TRN08 provides information on the total volume and value as well as the average settlement amount of cash transfer orders in CLM or RTGS per party for a given date (range). In case that several accounts belong to the same party in CLM or RTGS, aggregated Figures are displayed. The volume, value and average settlement amount Figures are presented separately for the debit/credit side and the sending/receiving side.

CBs can retrieve information for parties belonging to their system entity.

This report can be used by CB and PB users.



# Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN - Transaction Report] >> [TRN08]

# Screenshot - prompt screen

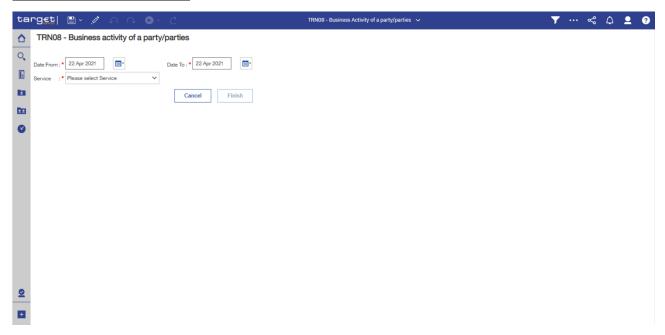


Figure 305 - TRN08 prompt



# **Prompt** description

TRN08 – Report description – prompt screen	
Field label	Description
Service Type	You can use this drop-down field to select between the services  Possible values:  I CLM,  I RTGS.
	This field is mandatory.
Date From	You can select the date by clicking on the calendar.
	This field is mandatory.
Date To	You can select the end date of the period, for which the report should contain the data.
	For valid report results, the current day cannot be selected.
	This field is optional.

Table 86 - TRN08 - Prompt description

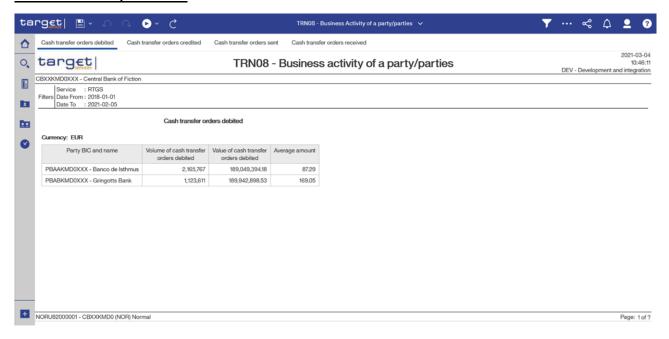


Figure 306 - TRN08 output (1)



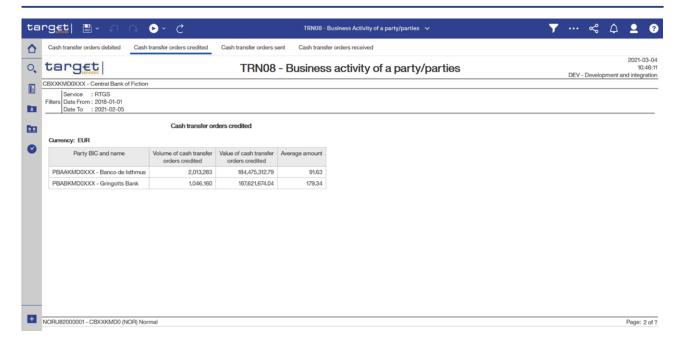


Figure 307 - TRN08 output (2)

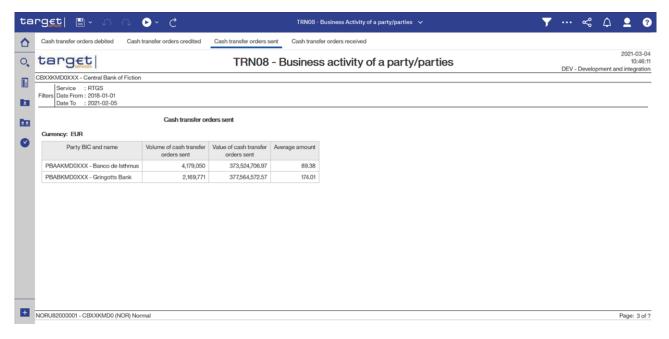


Figure 308 - TRN08 output (3)



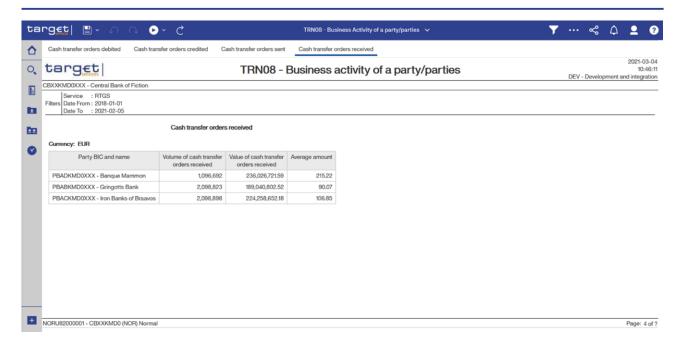


Figure 309 - TRN08 output (4)

TRN08 – Report description – output screen	
Field Label	Description
Following information is available for:	
"Cash transfer orders debited", "Cash transfer order	ers credited", "Cash transfer orders sent", "Cash transfer orders
received"	
Party	The party BIC and party short name of the user are shown.
	Sorting is done by party BIC.
Volume of cash transfer orders	Number of cash transfer orders for this party of final status within the
debited/credited/sent/received	regarded date / date range.
Value of cash transfer orders	Total amount of all cash transfer orders for this party of final status
debited/credited/sent/received	within the regarded date / date range.
Average amount	Average calculated from previous fields of the row (value divided by
	volume).

Table 87 - TRN08 - Output description



# 5.12.9 TRN09 - RTGS Account Holder activity

#### **Context of usage**

The report TRN09 provides information on the biannually activity of RTGS Account Holders. It displays for the selected account holder(s) the total volume and value of cash transfer orders per transaction category, per message type and differentiated per settlement status within the first or second half of a year. In case that several accounts belong to the same party, each account is displayed separately. In case that a CB executes the report for ALL RTGS Account Holders belonging to its system entity, the market share per RTGS Account Holder in terms of volume of cash transfers in relation to the volume of all cash transfers of RTGS Account Holders belonging to the CBs system entity is added to the report.

CBs can retrieve information for Account Holders belonging to their system entity.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN – Transaction Report] >> [TRN09]

#### Screenshot - prompt screen

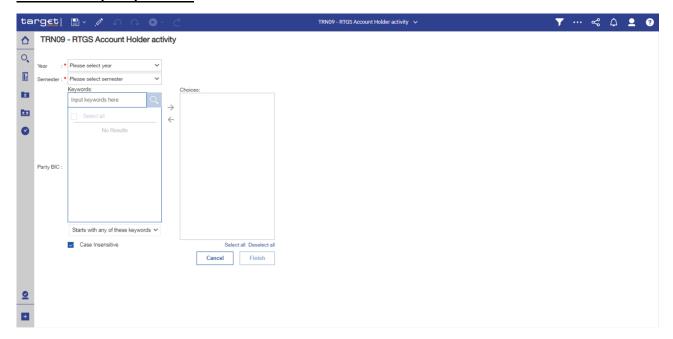


Figure 310 - TRN09 prompt



# **Prompt description**

FRN09 – Report description – prompt screen	
Field label	Description
Semester	You can use this drop-down field to select a semester.  Possible Values:  1 1st semester (representing 01.01. – 30.06.)  1 2nd semester (representing 01.07. – 31.12.)
	This field is mandatory.
Year	You can use this drop-down field to select the year, for which the report should contain the data.
	This field is mandatory.
Party BIC	You can use this field to select one, several or all party BICs. This field will show all related BICs, which belong to the party.
	This field is mandatory.

Table 88 - TRN09 - Prompt description

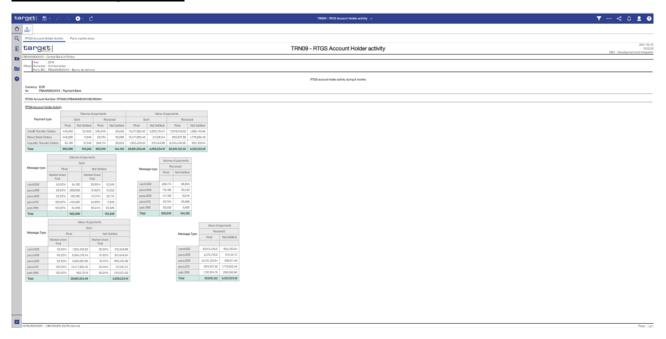


Figure 311 - TRN09 output (1) - RTGS Account Holder activity View



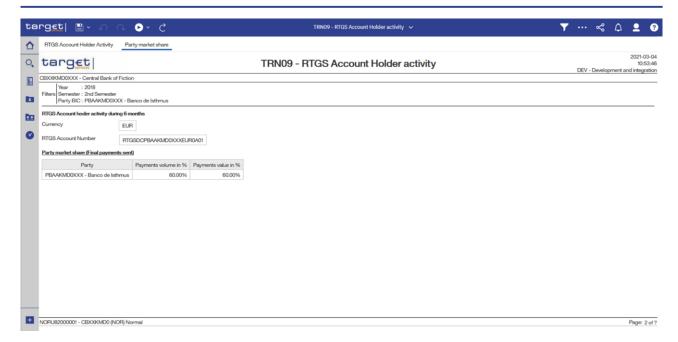


Figure 312 - TRN09 output (2) - Party Market Share View

TRN09 – Report description – output screen – table	
RTGS Account Holder activity	
Field label	Description
Payment type	Payment type.
	Possible values:
	Credit transfer orders
	Liquidity transfer orders
	l Direct debit orders
Volume of payments sent	Volume of all payments sent
	Final (Settled)
	Not settled (Cancelled, rejected)
	per payment type and total for the chosen semester
Volume of payments received	Volume of all payments received
	Final (Settled)
	Not settled (Cancelled, rejected)
	per payment type and total for the chosen semester
Value of payments sent	Value of all payments sent



	I Final (Settled)
	Not settled (Cancelled, rejected)
	per payment type and total for the chosen semester
Value of payments received	Value of all payments received
	I Final (Settled)
	Not settled (Cancelled, rejected)
	per payment type and total for the chosen semester
Message type	Message type.
	Possible values:
	I camt.050
	I pacs.004
	I pacs.008
	I pacs.009
	I pacs.010
Volume of payments sent	Volume of all payments sent
	Market share final (in %)
	I Final (Settled)
	Not settled (Cancelled, rejected)
	per message type and total for the chosen semester
Volume of payments received	Volume of all payments received
	I Final (Settled)
	Not settled (Cancelled, rejected)
	per message type and total for the chosen semester
Message type	Message type.
	Possible values:
	I camt.050
	I pacs.004
	I pacs.008
	I pacs.009
	I pacs.010



I payments sent
are final (in %)
Settled)
ottled (Cancelled, rejected)
ge type and total for the chosen semester
· · ·
I payments received
Settled)
ttled (Cancelled, rejected)
ge type and total for the chosen semester
olumes and values

Table 89 - TRN09 - Output description - Table

TRN09 – Report description – output Screen – only in case ALL Party BICs were chosen		
Field label	Description	
Party	BIC and short name of the party	
Payments volume in %	Percentage of the party's volume of whole CB's volume (only final payments sent) for the chosen semester	
Payments value in %	Percentage of the party's value of whole CB's value (only final payments sent) for the chosen semester	

Table 90 - TRN09 - Output description

5.12.10 TRN10 – Monthly value and volume of cash transfers in CLM/RTGS (according to T2 statistical framework)

# Context of usage

This report provides information on the monthly volume and value of cash transfers in CLM or RTGS according to the T2 statistical framework, which aims to reflect cash transfers from a business perspective. In this respect, some cash transfers (e.g. any liquidity transfers between two accounts of the same party) are not considered for the volume and value Figures in this report.

Volume and value figures are displayed as monthly totals and daily averages (for each month) and are given for each CB/system entity and in addition as the total sum of all system entities for a given currency.



CBs can retrieve aggregated volume and value information for each CB/system entity as well as the sum of all system entities in CLM/RTGS.

This report can be used by CB users only.

# **Report access**

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN – Transaction Report] >> [TRN10]

# **Screenshot - prompt**

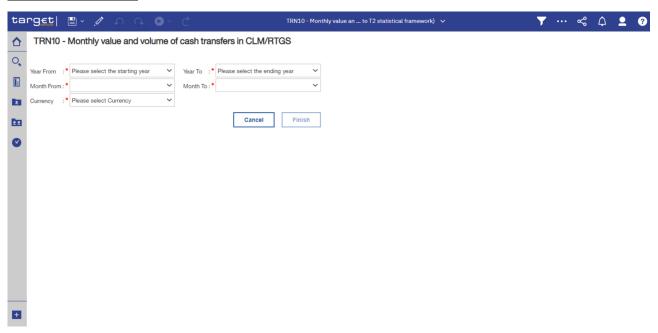


Figure 313 - TRN10 prompt

#### **Prompt description**

TRN10 – Report description – prompt screen		
Field label	Description	
Year From	You can use this drop-down field to select the year, from which the report should contain the data.	
	This field is mandatory.	
Month From	You can use this drop-down field to select the month, from which the report should contain the data.  For valid report results, the current month cannot be selected.	



	This field is mandatory.
Year To	You can use this drop-down field offers the possibility to select the end year of the period, for which the report should contain the data.  This field is mandatory.
Month To	You can use this drop-down field to select the end month of the period, for which the report should contain the data.  For valid report results, the current month cannot be selected.  This field is mandatory.
Currency	You can use this drop-down field to select from all valid currencies in CLM/RTGS.  This field is mandatory.

Table 91 - TRN10 - Prompt description

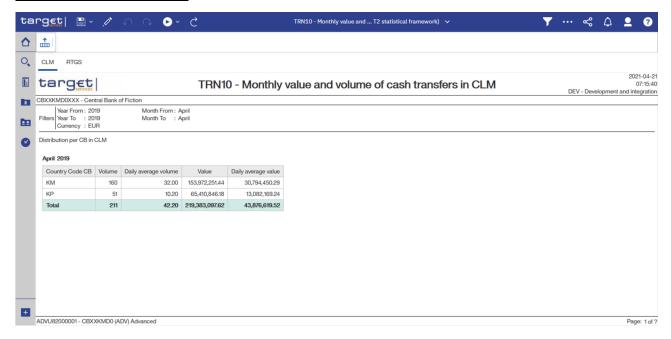


Figure 314 - TRN10 output (1)



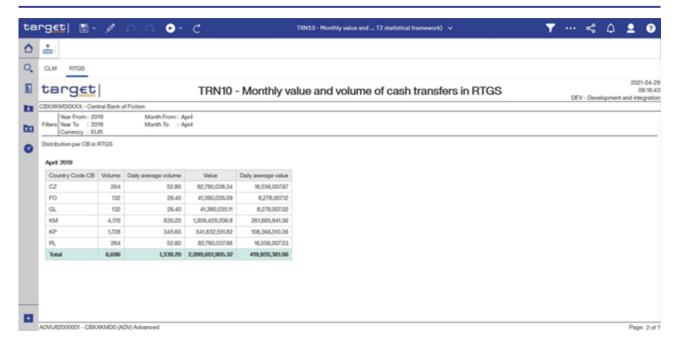


Figure 315 - TRN10 output (2)

#### **Output description**

TRN10 – Report description – output screen	
Field label	Description
One table per Service (CLM/RTGS) and	d month with following data per CB in each table. The table is sorted by month
ascending and then within each table by	y ISO country code.
Country Code CB	ISO Country Code of the CB
Volume	Number of all cash transfers (according to T2 statistical framework) of the CB in the chosen month.
Daily average volume	Calculated from the sum of volumes divided by the number of business days for the chosen currency in the chosen month.
Value	Sum of the value of all cash transfers (according to T2 statistical framework) of the CB in the chosen month.
Daily average value	Calculated from the sum of values divided by the number of business days for the chosen currency in the chosen month.
Total	Total of volumes and values listed in the preceding rows over all CBs.

Table 92 - TRN10 - Output description



### 5.12.11 TRN11 – Monthly value and volume of cash transfers between system entities

### **Context of usage**

The report TRN11 provides information on the monthly volume and value of cash transfers in CLM and RTGS between all accounts belonging to the system entities/CBs active in a selected currency. The Figures for the bilateral payment flows between all accounts of system entities/CBs which are differentiated by Euro area and by EU CBs are dis-played as totals.

CBs can retrieve aggregated volume and value information for each bi-lateral CB/system entity relationship.

This report can be used by CB users only.

#### Report access

This report can be reached in the following way:

[Team Content] >> [Predefined Reports] >> [TRN – Transaction Report] >> [TRN11]

#### <u>Screenshot – prompt</u>



Figure 316 - TRN11 prompt

# **Prompt description**

TRN11 – Report description – prompt screen		
Field label	Description	
Year From	You can use this drop-down field to select the year, from which the report should	
	contain the data.	



	This field is mandatory.
Month From	You can use this drop-down field to select the month, from which the report should contain the data.  For valid report results, the current month cannot be selected.
	This field is mandatory.
Year To	You can use this drop-down field to select the end year of the period, for which the report should contain the data.  This field is mandatory
Month To	You can use this drop-down field to select the end month of the period, for which the report should contain the data.
	For valid report results, the current month cannot be selected.
	This field is mandatory.
Service	You can use this drop-down field to select a Service.  Possible values:  I CLM  I RTGS  I CLM + RTGS
	This field is mandatory.
Currency	You can use this drop-down field to select from all valid currencies in CLM/RTGS.
	This field is mandatory.

Table 93 - TRN11 - Prompt description



#### Screenshot - output screen

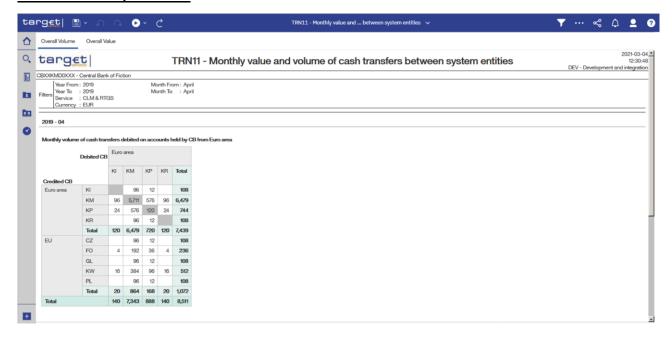


Figure 317 - TRN11 output (1)

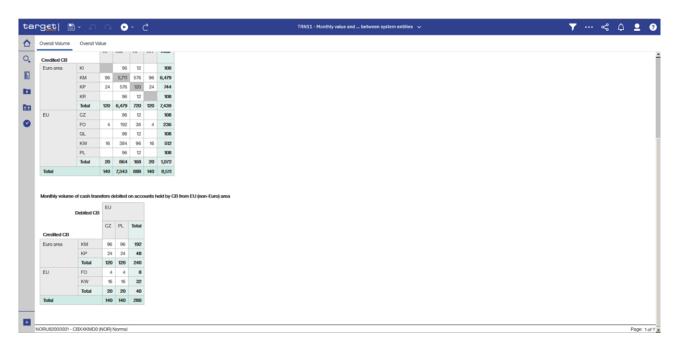


Figure 318 - TRN11 output (2)



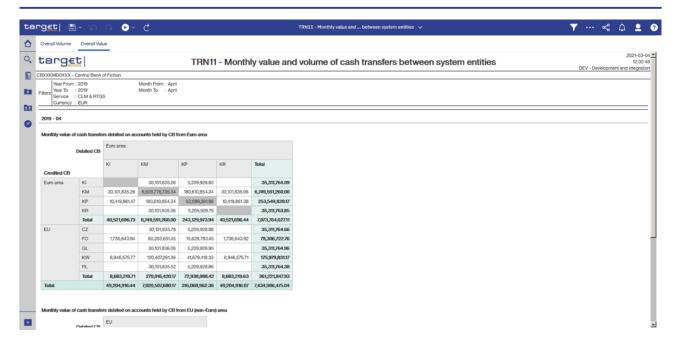


Figure 319 - TRN11 output (3)

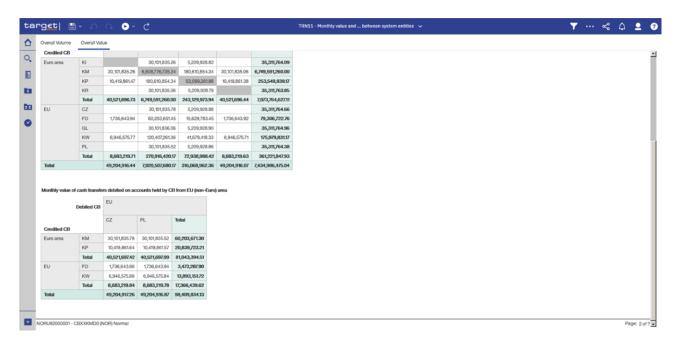


Figure 320 - TRN11 output (4)

TRN11 – Report description – output screen – table overall volume		
Field label	Description	
Only cash transfers are selected for this	s report according to T2 statistical framework.	
One block for each month with two tables.		



Table "Cash transfers debited on accoutable by "Euro area".	unts held by CB from Euro area". The tables are sorted by month and within each
Columns "Euro area"	Each column contains one ISO country code. All EUR-countries are listed.  The tables are sorted by month and within each table by this column.
Rows "Euro area"	Each row contains one ISO country code. All EUR-countries are listed.
None	Every cell in the matrix is filled with the daily average volume of cash transfers, where the accounts held by the CB represented by the country code in each column were debited and where the accounts held by the CB represented by the country code in each row were credited.  Cells, where both the country code in the column header and the country code in the row header are the same are shaded light grey.
Total	In the cells of this column, all values from the respective row are added up.
Total Euro-area	In the cells of this row, all values from the respective columns are added up.
Rows "EU/non-Euro area"	Each row contains one ISO country code. All EU-countries (non Euro-area) are listed.
None	Every cell in the matrix is filled with the daily average volume of cash transfers, where the accounts held by the CB represented by the country code in each column were debited and where the accounts held by the CB represented by the country code in each row were credited.
Column "Total"	In the cells of this column, all values from the respective row are added up.
Row "Total EU/non-Euro area	In the cells of this row, all values from the respective columns are added up.
Row over all columns "Total"	In the cells of this row, all values from "Total Euro area" and "Total EU area" of the respective columns are added up.
Table " Cash transfers debited on acco	unts held by CB from EU (non-Euro) area"
Columns "EU/non-Euro area"	Each row contains one ISO country code. All EU-countries (non Euro area) are listed
Rows "Euro area"	Each row contains one ISO country code. All Euro-countries are listed.
None	Every cell in the matrix is filled with the daily average volume of cash transfers, where the accounts held by the CB represented by the country code in each column were debited and where the accounts held by the CB represented by the country code in each row were credited.
Column header "Total"	In the cells of this column, all values from the respective row are added up.
Row header "Total Euro-area"	In the cells of this row, all values from the respective columns are added up.



Rows "EU/non-Euro area"	Each row contains one ISO country code. All EU-countries (non Euro-area) are listed.
None	Every cell in the matrix is filled with the daily average volume of cash transfers, where the accounts held by the CB represented by the country code in each column were debited and where the accounts held by the CB represented by the country code in each row were credited.  Cells, where both the country code in the column header and the country code in the row header are the same are shaded light grey.
Column "Total"	In the cells of this column, all values from the respective row are added up.
Row "Total EU area"	In the cells of this row, all values from the respective columns are added up.
Row over all columns "Total"	In the cells of this row, all values from "Total Euro area" and "Total EU area" of the respective columns are added up.

Table 94 - TRN11 - Output description - Table overall volume

### TRN11 - Report description - output screen - table overall value

This table has the same structure as the previous table (Overall Volume) with the difference that here the daily average values are displayed.

Table 95 - TRN11 - Output description - Table overall value



# 6 Understanding user rights and access rights (advanced users)

Every user is linked to one party in CRDM and member of one role and group in DWH.

In order to identify to which group, role you belong and the capabilities assigned to you follow the steps:

- Personal menu > My preferences > Personal > Advanced > Groups and roles > View details
- Personal menu > My preferences > Personal > Advanced > My capabilities > View details

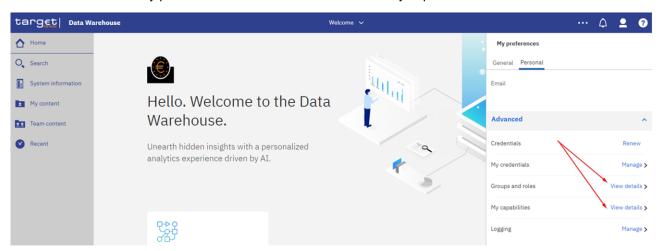


Figure 321 - Groups and roles and capabilities

Based on the above attributes a two level security is defined in the DWH:

- I Functional security
- Data security

# 6.1 Functional security

The functional security is defined as what a user is able to access and do in the DWH, which means access to content and product features.

### **User Groups and Roles**

In CRDM two privileges for the usage of DWH are available: Data Warehouse Normal User and Data Warehouse Advanced User. Each of these privileges is linked to one role/group in DWH. Ther roles/groups define the DWH capabilities, assigned to user.



User groups	Can be assigned to party type	DWH Role	Description
Normal	Central Bank Payment Bank Ancillary System	Consumers	Members can read, execute and schedule public content, such as predefined reports.
Advanced	Central Bank	Authors	Members have the same access permissions as Consumers. They can also schedule a report and create user defined reports or adapt predefined reports.

Table 96 - Functional security - User Groups and Roles

**Note:** Roles "Everyone" and "All Authenticated Users" are system roles, which are assigned to all users who are allowed to access the DWH.

The party types CB, Pb and AS define the access to the DWH content.

All users of these three party types have access to the "Team content" folder. It contains the following subfolders, visible to the users according to the group they belong to:

- CB shared folder (only visible to CB users), containing following sub-folders:
  - CB XX shared folder (XX is the country code of the CB)
    - Contains reports shared among all users of the same CB
  - Central Banks shared folder
    - Contains reports shared among all CBs
- Data packages (visible to all users)
  - Packages are model subsets or the whole model that ensure users are provided with data appropriate for the reporting they need to do, and that the data is structured in ways that make sense from a business perspective. A model serves as an insulating layer between DWH users and the database.
  - Contains data used for running or developing reports it is read-only.
- Predefined Reports (visible to all users)
  - Contains all predefined reports grouped in sub-folders in the hierarchy of chapter <u>Predefined reports</u> [> 142]. Only those predefined reports are visible to the user, which are accessible to his user group (according to his party type). See chapter <u>Predefined reports</u> [> 142] for details.

Users are not allowed to create or delete entries in the "Team content", "CB shared", "Data packages" and "Predefined Reports" folder.



The users according to their party type (CB, PB, AS) have access to different reports in the Predefined Reports folder. For example in the folder 'TRN - Transaction Reports' under Team content - Predefined Reports,

A Central Bank user can see the following reports:

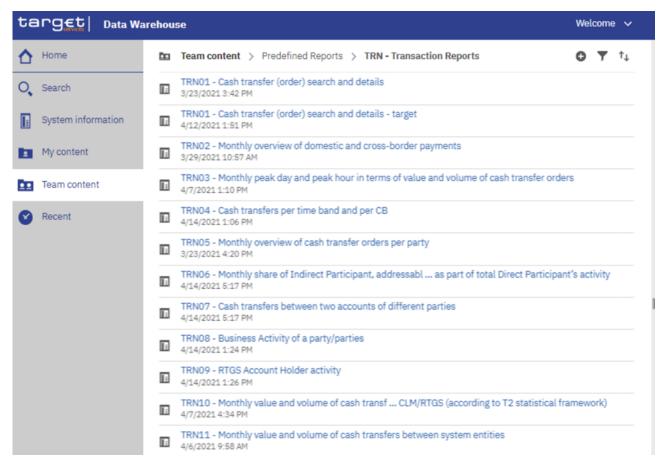


Figure 322 - Functional security - Central Bank user

A Payment Bank user can see the following reports:



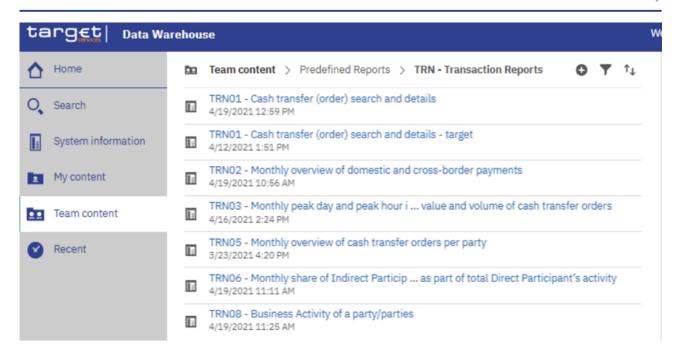


Figure 323 - Functional security - Payment bank user

An Ancillary System user can see the following reports:

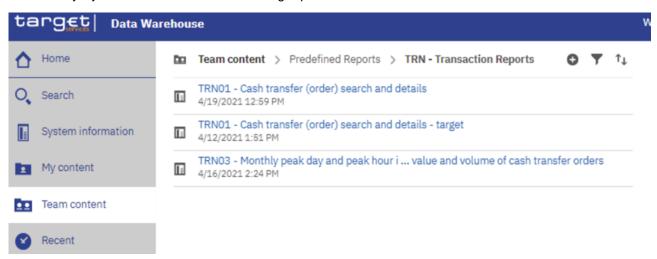


Figure 324 - Functional security - Ancillary System user

# 6.2 Data security

Users are accessing data through predefined reports or reports they develop themselves (only advanced users).

In both cases, a report is related to one Data package, which describes the database in business terms allowing advanced users to easily develop reports.

The package also dictates the access to the data according to user-id, which is related to one party and the relevant cash accounts.



#### The general rules followed are:

- PB and AS users are allowed to see granular and aggregated data provided by predefined reports and related to their party / cash accounts. They are also able to see data of Cash Accounts that do not belong to them, e.g. as Co-manager, or Account Monitoring group leader.
- CB users are allowed to see granular and aggregated data related to their party / cash accounts along with the data that parties within their system entity are able to see. Additionally, they are also able to see aggregated system-wide data.



# 7 Creating reports (just advanced users)

Create a report by clicking the "**Open menu**" icon ( ) on the left side of the Global application bar and then clicking on "New" and "Report". When you create a report, you are actually creating a report specification. The report specification defines the queries and prompts that are used to retrieve data and the layouts and styles used to present the data. For simplicity, the report specification is named by the same name as the report.

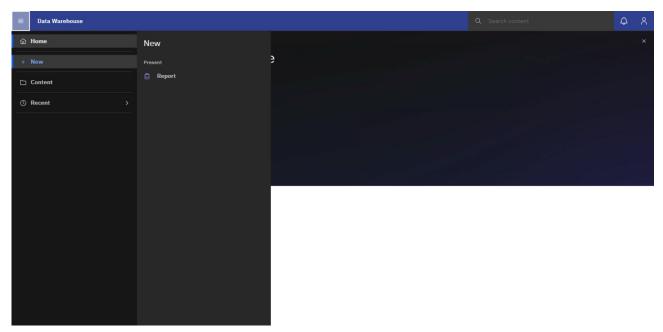


Figure 325 - Creating reports - Welcome page - Open menu - New - Report

To adapt predefined reports, navigate to the report click on "**Action menu**" and select "**Edit report**". The report will be displayed in the edit view. All report adaptions can be executed in the same way as how to create a new report from scratch.



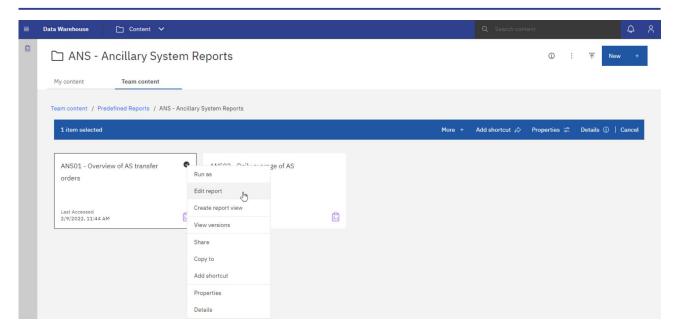


Figure 326 - Creating reports - Predefined Reports - Edit report

# 7.1 The user interface

This chapter gives an overview in the creation of a new report.

This is the first screen when creating a new report.

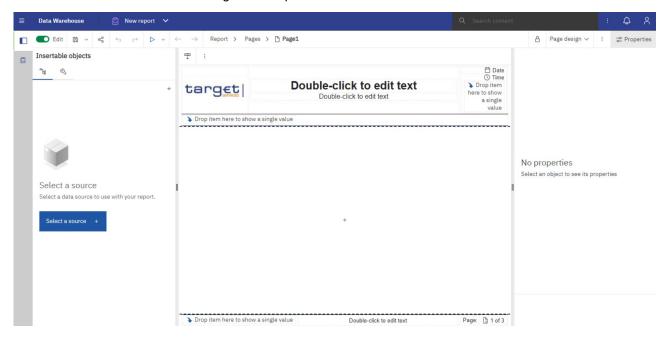
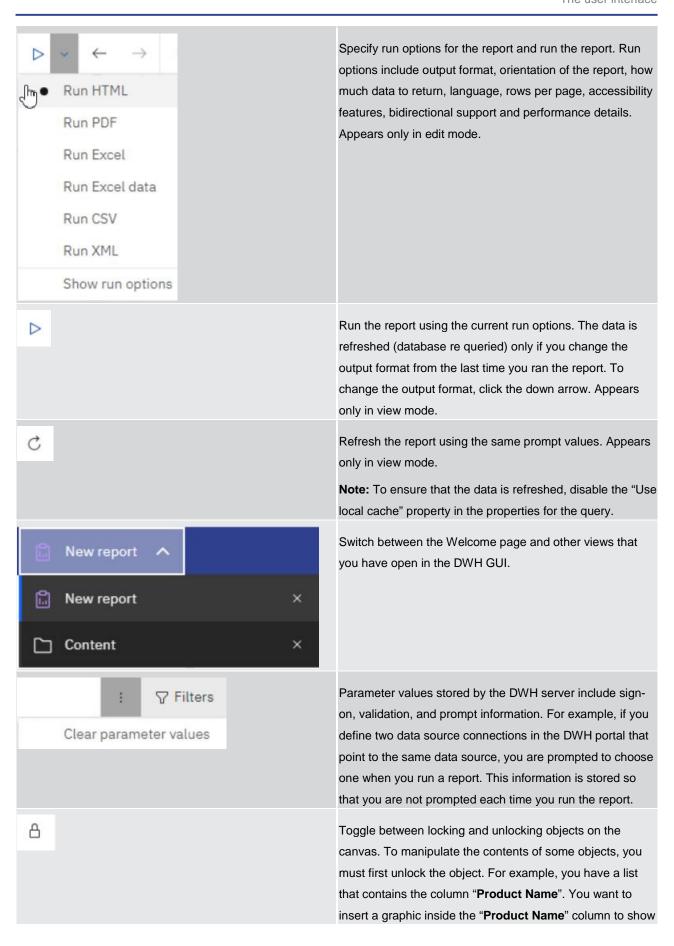


Figure 327 - The user interface- Creating a report



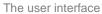
Reporting icon	Description
Report > Pages > [ Page1	Navigation menu
ੀਰ	Data source
Select a source Select a data source to use with your report.  Select a source +	Data items  The first Symbol is only visible if you did not select a source.  Than you can select the source you need from the team content.
2	Toolbox
Save As  Convert to Template  Convert to Active Report	Save as  Convert to Template  Convert to Active Report
Edit	Toggle between editing the report and viewing the report. <b>Tip:</b> These two states are referred to as edit mode and view mode.
↔	Undo last action you made to the report
<b>↔</b>	Redo the last change you made to the report







	an image of each product. Unlock the list to insert the image object inside a list column.
Page design  Page design  Page preview  Page structure	Switch between page design, page preview, or page structure view.
Page design ✓ : State Properties  Open report from clipboard Copy report to clipboard Clear parameter values  Visual aids  Visual aids  Validate report Validate options Auto correct  Layout component cache Manage conditional styles Show generated SQL/MDX  Add shared set report  Manage shared set references  Manage shared set references  Show specification Options	When you click on the "More" icon ( ) the following options are available to choose:    Open report from clipboard   Copy report to clipboard   Visual aids   Find   Validate report   Validate options   Auto correct   Layout component cache   Manage conditional styles   Show generated SQL/MDX   Add shared set report   Manage Shared Set References   Show specification   Options
Copy report to clipboard	You can copy a report specification to the clipboard so you can open it from the clipboard later.
Open report from clipboard	You can open a report specification that was previously copied to the clipboard. This is useful for importing an XML





	report specification from outside the DWH environment.
Visual aids	Visual aids include options to help you when you are designing reports in the layout.
Q Find	You can quickly locate specific objects in a report by using "Find".
✓ Validate report	Validate your report to ensure that it contains no errors.
Validate options	If you require more details from the validation process.
Auto correct	If you encounter validation errors and want to identify incorrect objects in your report
Layout component cache	In the layout component cache you can see which template (report) is used. In case there is a change in the template (report) you can see where the source of the change is.
Manage conditional styles	You can view, modify, or delete the conditional styles that are applied to your report. You can also define a new conditional style.
Show generated SQL/MDX	View the SQL or MDX for the entire report.
M Show specification	A report specification is an XML file that you can view.
Options	Please see Chapter "Options in Reporting" for detailed information.
≈ Properties	Toggle between showing and hiding the Properties pane for the active object. The properties that are displayed are different, depending on the object.

Table 97 - The user interface - Report icons and functions

DWH - Reporting has three views in which you can author reports: Page design view, Page preview view, and Page structure view.



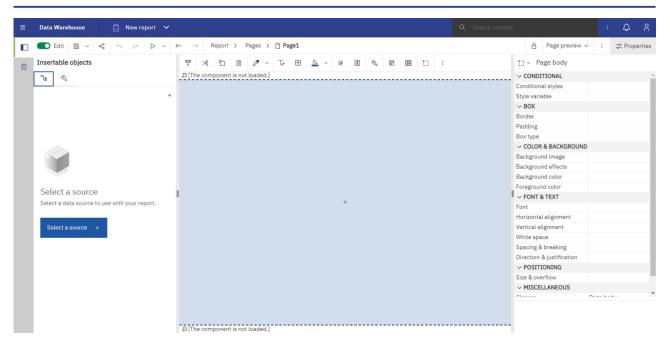


Figure 328 - The user interface - Page Preview

You choose a report authoring view by selecting one of them on the application bar. Different options are available in each view, so you often need to use all views. For example, you must use the "Page design" and "Page structure" views to remove sections in relational reporting.

#### Page design view:

The default view in DWH - Reporting. In this view, you can see what your report will look like after you run it.

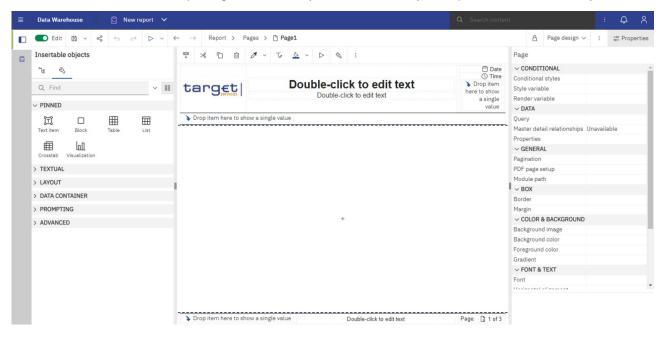


Figure 329 - The user interface - Page design view

Page preview view:



Shows you the current report page with live data. In this view, you can edit the report, such as inserting data items into empty data containers.

When you are authoring an DWH Active Report, the "Page preview" view shows you live data as you format the report.

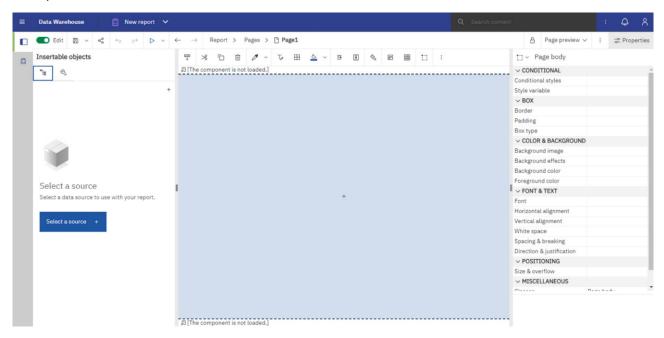


Figure 330 - The user interface - Page structure preview

Here it looks the same as the design view, but you cannot add objects (plus symbol) here.

Page structure view:

Displays an overview of all of the report objects in your report in a tree structure, which is organized by page.

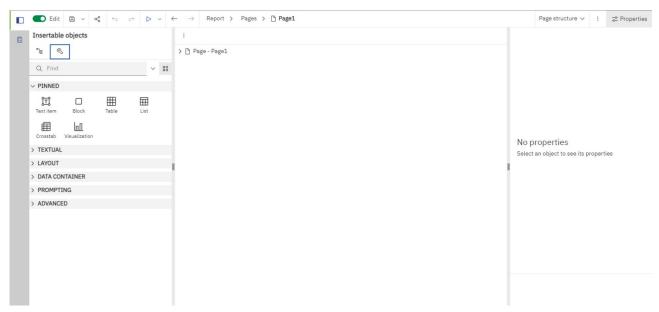


Figure 331 - The user interface - Page structure view



Create a report [▶ 403] details the process of report creation further by providing a step-by-step guidance.

#### 7.1.1 On-demand toolbar

The on-demand toolbar (formerly known as the report object toolbar) contains the actions you can perform on an object.

You can disable the on-demand toolbar.

The following list shows the actions that are available from the on-demand toolbar. The actions that appear depend on the type of object that is active on the canvas:

#### **Pin and Unpin**



Figure 332 - On-demand toolbar - Pin and Unpin

When the on-demand toolbar is pinned, it stays at the upper left corner of the canvas, regardless of which object is active.



When it is unpinned, it floats near the object that is active.



You can also control the display of the on-demand toolbar by setting the "Show on demand toolbar on right-click" option



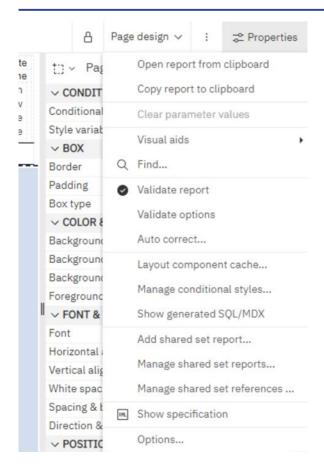


Figure 333 - On-demand toolbar - More icon

Click the "More" icon ( ).



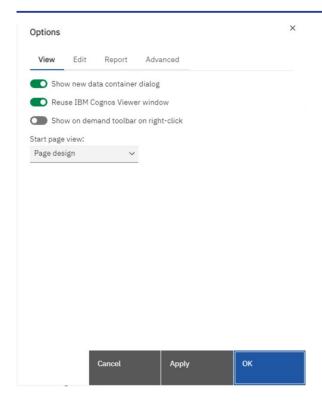
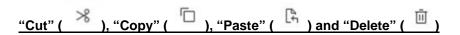


Figure 334 - On-demand toolbar - More icon - Options

When the "Show on demand toolbar on right-click" check box is selected, the on-demand toolbar displays when you right-click an object. When cleared, the on-demand toolbar displays when you click an object. If the on-demand toolbar is pinned, it appears at the top left corner of the canvas, regardless of the setting of the "Show on demand toolbar on right-click" option.



Cut, copy, paste, or delete an object

Click the "Filters" icon to add, edit, or delete filters or add filter text to the visualization

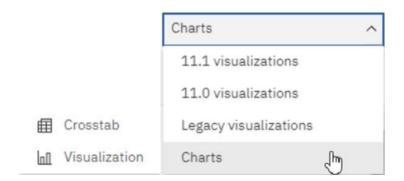
# "Swap rows and columns" (

In a table, switch the row and columns around

You can only swap columns and rows in a crosstab or in a Visualization from the Visualization gallery window "Charts"

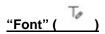








Apply a custom or default style



Edit the font for an object

# "Border" ( )

Apply a border. You can choose the style, width, and colour.

# "Background colour" ( 🌺 )

Apply a background colour

# "Horizontal alignment" ( = )

Change the horizontal alignment

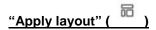
# "Vertical alignment" (

Change the vertical alignment

# "Style current selection" ( )

Create and apply a custom style to the selected object





Select a different layout for the report



Insert a table



Select the layout component that is the ancestor of our current selection.

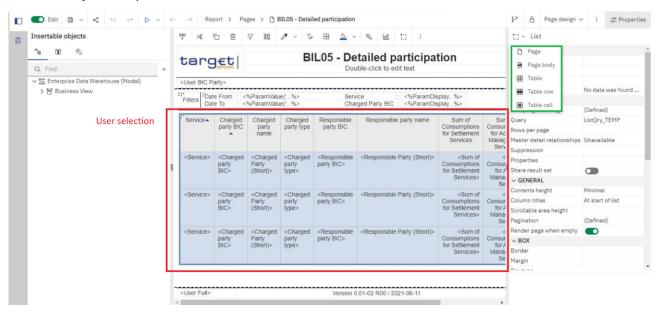


Figure 335 - On-demand toolbar - Select ancestor

# "More" ( i )

Other actions that vary, depending on the type of object that is active. For example, for a visualization, you can change the headers and footers. For a table, you can apply a table style. For a table cell, you can build a prompt page.

#### 7.1.2 Sources tab

The "**Sources**" tab (———) contains items from the package selected for the report, such as data items and calculations. When you drag an item to the canvas, the visualization recommender chooses a visualization to represent the data. If you do not like the visualization, you can change it.



Search through the sources by typing a value in the "**Find**" field ( ). As you type, the items that match your search string appear in the tab.

All the items in the "**Sources**" tab (———) have an icon that describes the item purpose.

000	Package
2	Namespace
	Folder
٨.	Dimension
묾	Hierarchy
ž.	Level
0	Member
<b>=</b>	Query Subject
abc	Character
	Measure
#	Integer
0	Date / Time

Figure 336 - Sources tab - Sources items

### 7.1.3 Data items tab

The "Data Items" tab ( ) shows the queries in the report.



#### 7.1.4 Toolbox bar

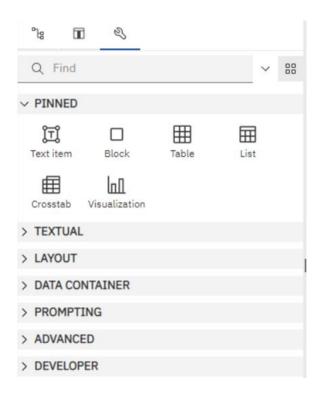


Figure 337 - Toolbox bar

The "**Toolbox**" tab (———) contains various objects that you can add to a report, such as visualizations, text, layout objects, and prompts. You can also add advanced objects such as custom controls and hyperlinks. Depending on the type of object, you can drag it from the Toolbox to the canvas or double-click it to open a window in which you define values for the object. When the object is placed on the canvas, its properties are displayed in the "**Properties Pane**".



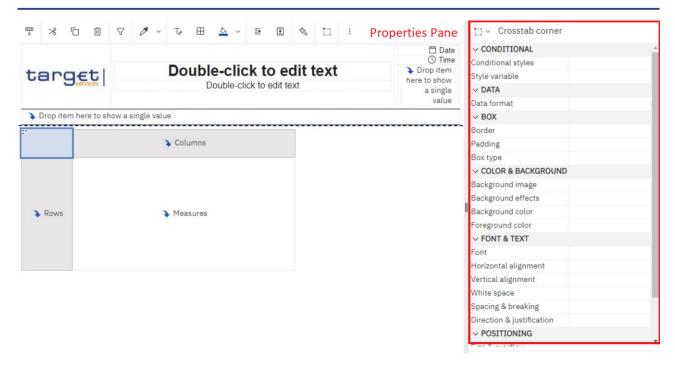


Figure 338 - Toolbox bar - Properties Pane



### 7.1.5 Report overview pane

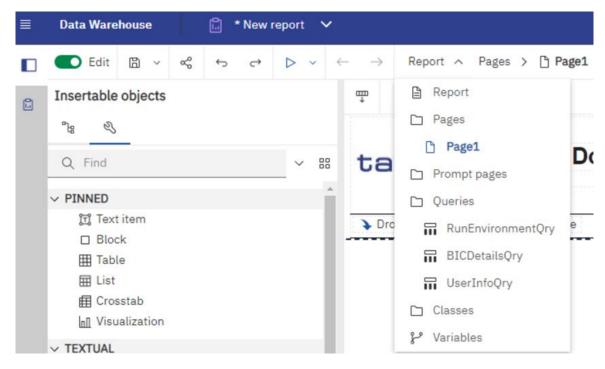


Figure 339 - Report overview pane

Click Report in the navigation drop-down to see the following information:

- 1. A description of the report
- 2. Data sources used in the report
- 3. The parameters used in the report
- 4. Number of report objects
- 5. Number of page objects

Click "Validate report" ( ) to validate the report specification.



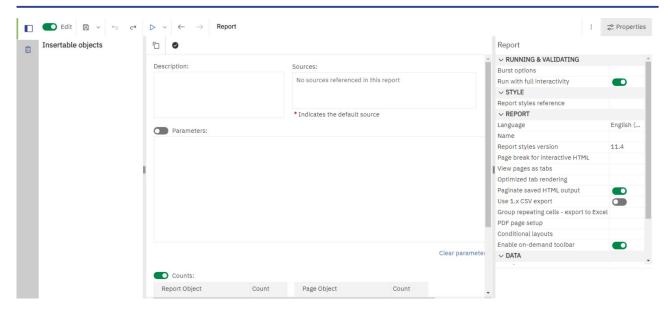


Figure 340 - Report overview pane - Validate report

### 7.1.6 Pages pane

Click on "Pages" ( ) to view or create new report pages and prompt pages, and to create and modify classes. You can insert a page, a set of pages, or a reference to a report from the pages pane.

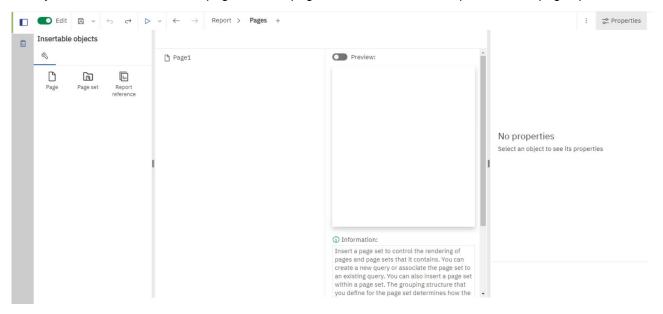
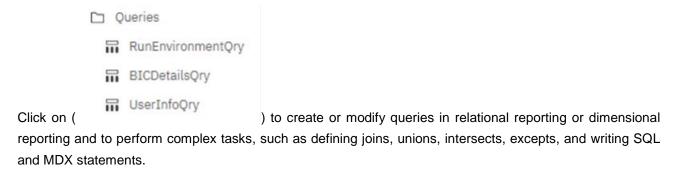


Figure 341 - Pages pane



## 7.1.7 Queries pane



Click a specific query to add a calculation, detail or summary filter, or a set expression.

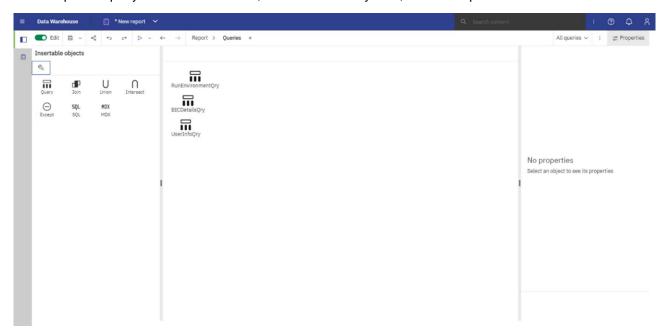


Figure 342 - Queries pane

### 7.1.8 Classes pane

Click on "Classes" ( ) to define a style. For example, you can define a style for the title of an axis. You can then apply the style to all axis titles in the report.



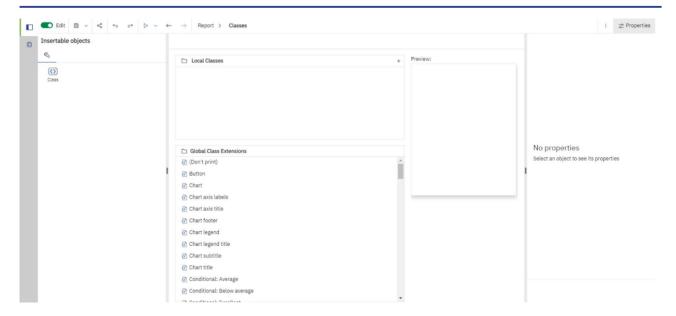


Figure 343 - Classes pane

# 7.1.9 Variables pane

Click on "Variables" ( Variables ) to add a variable that has values in a different language, values as strings, and values in Boolean.

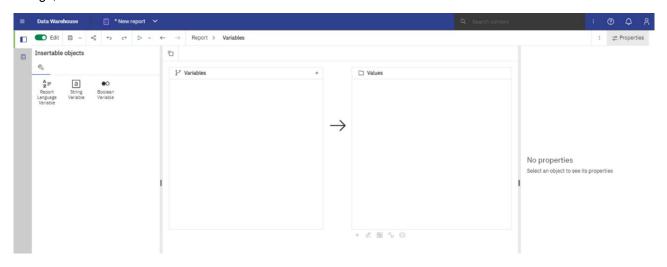


Figure 344 - Variables pane

### 7.1.10 Filters pane

The Filters pane is ( ) available when the user runs the report in HTML. It displays all filters that are created by the report consumer on the report output. When you click a filter in this pane, all data containers that use the selected filter are automatically highlighted in the report. When a data container is selected, the



filter pane is updated instantly to display only filters that are applied to the selected data container. You can edit or delete the filter directly in the pane.

You can resize the filter pane, and pin or unpin the pane depending on the screen resolution. Report authors can also make an authored filter visible to report consumers so that they can interact with it in this pane.

The pane cannot be used to create or view low-level filter expressions that are manually created in the expression editor. By default, interactive filtering is disabled for filters that were created in earlier versions of the DWH software.

This feature is not available for active reports.

### 7.1.11 Properties pane

The properties pane lists the properties that you can set for an object in a report or for the entire report. The properties that are displayed vary depending on the type of object. When you specify a value for a property, press "Enter", click another property, or save the report to ensure that the value is saved. Click on (
Properties

) to show or hide the properties pane.

At the "Report" level, you can set the following properties:



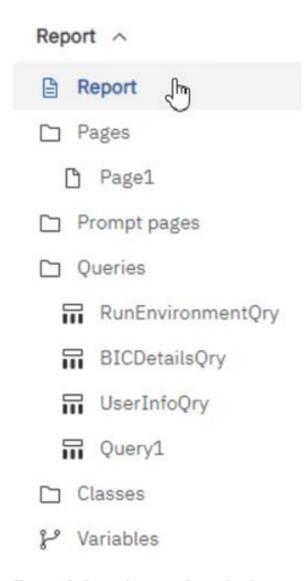


Figure 345 - Properties pane - Report level

#### **Burst options**

Specifies the data item on which to burst reports. Specify recipients.

Bursting a report is running a report and sending the report to recipients, dividing the results according to which results they have access.

By clicking on the right side of the "Burst options" property, the following window pops out



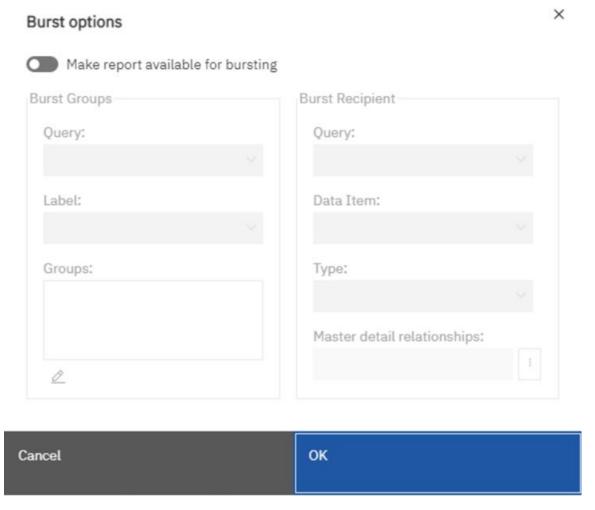


Figure 346 - Properties pane - Report level - Burst options (2)

By clicking on the right side, or dragging the marble to the right of the checkbox ( ) at the left of "Make report available for bursting" the user is presented with the bursting properties:

Burst Groups: in the Query box you can select the query that contains the data item on which to burst

Label: you can select the data item with which to label each burst report.

By clicking on the edit button ( ), you can drag from the "**Data items**" the data item on which to burst to the Groups folder and then click on "**OK**".

Under **Burst Recipient**, in the **Query** box, you can select the query that contains the data item to be used as the distribution list.

In the Data Item box, you can select the data item that contains the recipients.

In the **Type** box, choose the method to burst the report:

Directory entries: you can distribute reports to folders that recipients can access in the Cognos Analytics portal.



#### Run with full interactivity

Enable users to change the report

By default, reports that are created are set to run with full interactivity

#### **Style**

Apply local and global styles from another report

#### Language

Specifies the language package

#### Name

Name of the report, specified when you save it

#### Report styles

Specifies the product classes used to format objects. You can select between 1.x, 8.x, 10.x, 11.x, 11.4 and 11.5.

#### Page break for interactive HTML

For reports with multiple data containers, specifies whether to render the default number of rows of each data container on each page.

#### View pages as tabs

In HTML output, specifies whether to show each report page in its own tab, and the location where the tabs appear in the browser.

#### Paginate saved HTML output

Specifies whether to create multiple pages or one scrollable page.

#### Use 1.x CSV export

Not applicable.

#### **Group repeating cells - export to Excel**

When you produce reports in Excel format, you can choose to group repeating cells into a single merged cell.



# PDF page setup

Sets PDF page options

#### **Conditional layouts**

Add layouts to a report based on conditions

#### **Data formats**

Specifies the default data format properties for each type of data

# Package-based drill-through source

Enable or disable the report to be used as the source during a package drill-through. This property can also be set in the drill through definitions property.

### **Dynamic filtering**

When the report is a drill-through target, specifies whether to apply more filtering when names from the context in the source report match names of items in the target report. This property can also be set in the drill through definitions property.

For other types of objects, like containers, you can set conditional styles, queries, pagination, margins, colour and background, font and text, and many other properties.

# 7.2 Report Layout, queries and objects

All reports have two components: a layout component that defines the report appearance and a query component that defines report data. Understanding these components will help you design effective reports.

# 7.2.1 Layout

A layout is a set of pages that defines the appearance and formatting of a report. When you design the layout of a report, you:

- I present the data in a meaningful way by using lists, crosstabs, charts, and maps
- I add formatting, such as borders, colour, images, and page numbers
- specify how the data flows from one page to the next

When you create a report, consider the following structural elements:

Define the page structure.



Determine what goes into the page header, body, and footer. The page header contains information that appears at the top of each page. The page body contains information that starts on the first instance of the page. If there is too much data to fit on a single page, it continues across all instances of the page. The page footer contains information that appears at the bottom of each page.

- I Identify horizontal bands of information.
  - Look for natural bands of information running across the page. Each of these bands typically translates into a block.
- I Identify vertical bands of information.
  - In each horizontal band of information, look for bands that run up and down the page. Each of these bands typically translates into table cells.
- I Decide which data frames to use to lay out the data.
  - Choose a list, crosstab, chart, repeater, or text frame.
- I Set properties at the highest level item possible.
  - By setting properties at the highest level, you set them once instead of setting them for each child object. For example, if you want all text items in a report to appear in a specific font, set the font for the page.
  - When setting properties for an object, click the "**Select ancestor**" icon ( ) in the Properties panel title bar to see the different levels available.
- I Use padding and margins to create white space.
  - Do not use fixed object sizing unless it is absolutely necessary. When you specify that an object has a fixed size, your layout becomes less flexible.

# 7.2.1.1 The Function of the page structure view

When you add objects to a report, you usually work in the layout. An alternative view of the report is available. To view the report in a different way, select at the right of the top Page design and then click "Page structure".



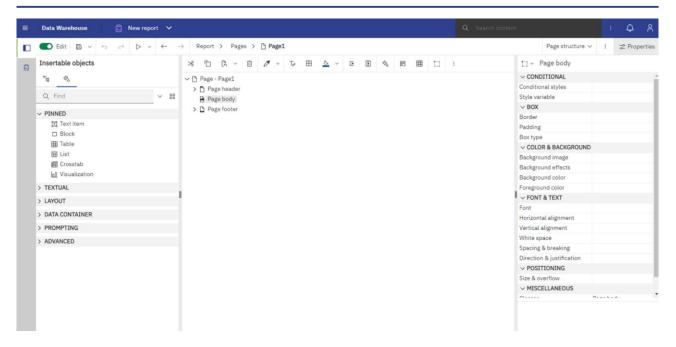


Figure 347 - The user interface - Report Layout, queries and objects - Layout - Page structure

Use the page structure view to view the entire contents of a report page in a tree structure. Using a tree structure is useful for locating the objects in a page and troubleshooting problems with nested objects.



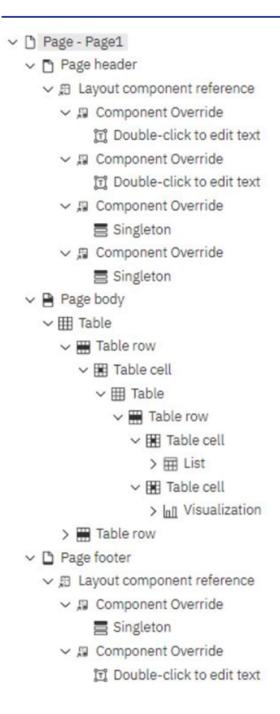


Figure 348 - The Function of the page structure view

# Use the "Page structure" view:

- I To quickly move objects from one area of a page to another. If you have a complex layout, it may be difficult to select, cut, and paste objects in the layout view. Objects are easier to locate in the "Page structure" view.
- I When you want to modify object properties, you can navigate to the layout or in the "Page structure" view. To switch back to the report layout, select "Page design" at the right of the top.

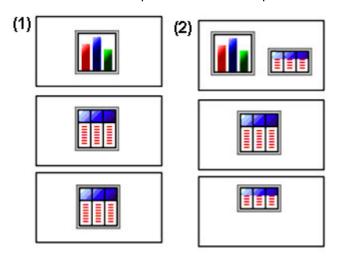


# 7.2.1.2 Pages

Pages are containers for the layout objects that you use to build a report. A page is made up of the following mandatory and optional components:

- I page header (optional)
- page body (mandatory)
- page footer (optional)

When you run a report, the amount of data queried often exceeds one page. As a result, a page will repeat until all the data is shown. You have control over how data flows from one page to the next. For example, here are alternative representations of a report that contains a chart and a lengthy list.



1. The chart appears on its own page. The list begins on the next page and fills subsequent pages until all rows appear.

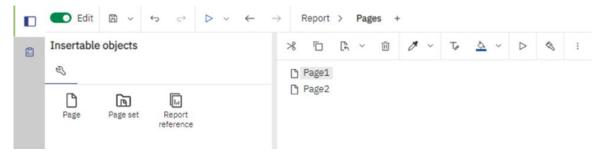


Figure 349 - Report Layout, queries and objects - Pages

It is necessarily to create two pages for this approach.





Figure 350 - Report Layout, queries and objects - Pages - First page

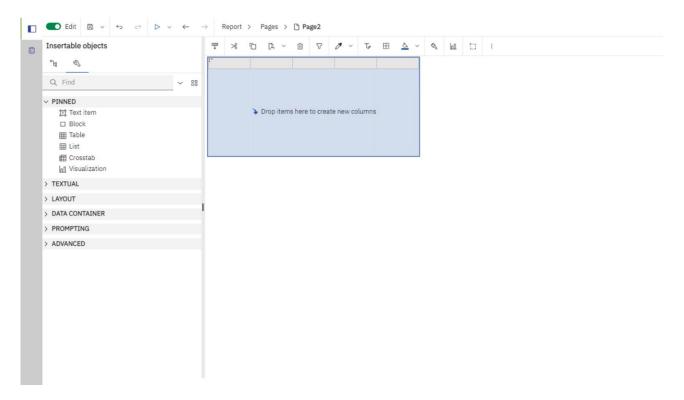


Figure 351 - Report Layout, queries and objects - Pages - Second page

2. The chart and the first few rows of the list appear on the first page. The rest of the data in the list appears on the subsequent pages.



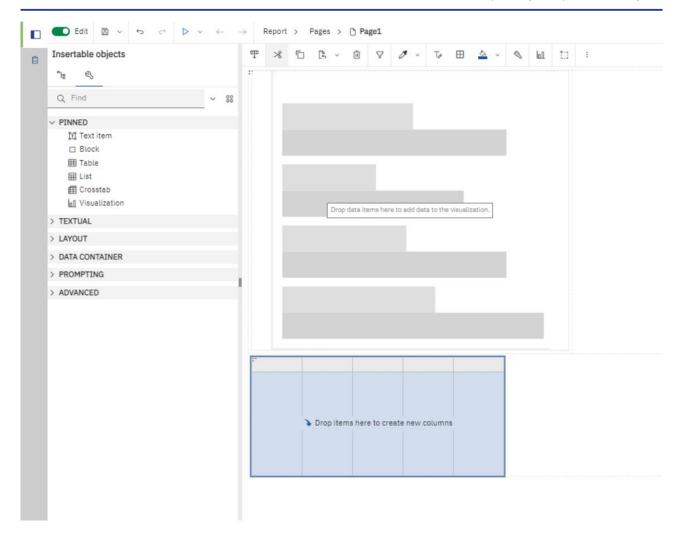


Figure 352 - Report Layout, queries and objects - Pages - Chart and first rows of the table on the first page

# 7.2.1.3 Guided Report Layout

Guided report layout helps you to create a report layout more quickly and dynamically by simplifying the process of adding objects to the canvas.

Here are some of the features of guided report layout:

- Visual indicators that show you where an object is going to be placed before you drop it on to the canvas.
- I When you drag a measure on to the canvas, you get a summarized text item with a descriptive la-bel and formatting.
- I When you drag a column that is not a measure on to the canvas, you get a list with a descriptive title.
- You can place objects on the left, in the middle, right, top, or bottom of a container with one gesture.
- Tables use percentage sizing which ensures that different screen resolutions are supported.
- I You can resize an object by dragging one of its grippers.
- You cannot drop a crosstab space object on to the canvas.



Guided report layout is enabled by default for the benefit of users that are new to report authoring. If you prefer not to use guided report layout, you can disable it.

1. Click on the "More" icon ( ), click on "Options" icon ( Options... ), and then click on the Report tab.

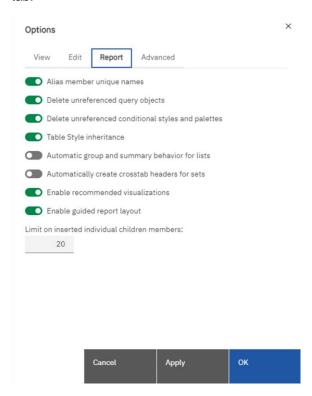


Figure 353 - Guided Report Layout - More icon - Options - Report

- 2. Clear the Enable guided report layout check box.
- 3. Click OK.

The "Apply" button is present in every pop up window next to the "OK" button. It serves as a preview. When the user wants to make any change and see the outcome step by step, can click the "Apply" button to see the effect the change has made to the result and when the result is the expected, click on "OK" button.

# 7.2.1.4 Specify the font for a report

You can specify the font for text in a report.

#### **Procedure**

Click the object.

To specify the default font for the report, click the page.



Do one of the following:

From the report object toolbar, click the "Font" icon and then specify the font properties.



In the Properties pane, double-click the "Font" property and specify the font properties.

To specify the colour of the text, from the report object toolbar, click the "Font" icon, and then click Foreground colour. Alternatively, you can specify the colour of the text by clicking the Foreground colour property for the object.

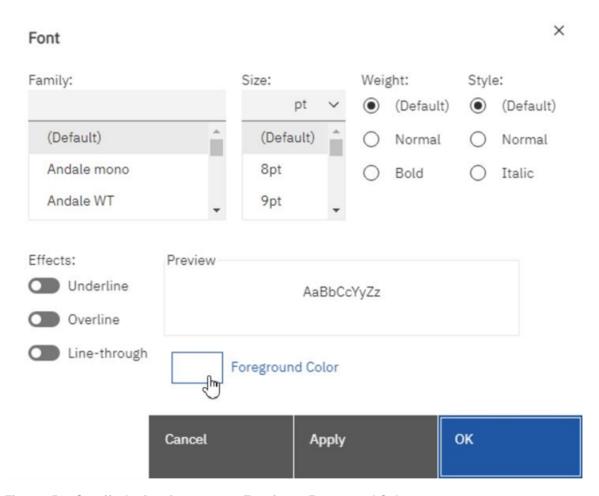


Figure 354 - Specify the font for a report - Font icon - Foreground Color

Type a list of fonts in the Family box if you are not sure whether a specific font is installed on a user's computer. For example, if you type Times New Roman, Arial, monospace, The Reportstudio checks to see if Times New Roman is installed. If it is not, Reporting checks for Arial. If Arial is not installed, the mono-space font used by the computer is used.

If you clicked "**Default**" for any of the font properties, the default value for the property is used. Default values are stored in a style sheet that is used across all DWH tools. You can modify default values by modifying classes.



#### 7.2.2 Queries

Queries determine what data items appear in the report. Sometimes you want detailed rows of data, which you obtain by using a simple SELECT statement. Other times you must calculate totals or averages using summary functions and grouped columns or must apply filters to show only the data you want.

DWH - Reporting automatically creates the queries you need as you build reports. However, you can modify these queries or create your own custom queries to get the results you want.

The Queries are depending on the templates and the package you have selected when you are creating a report. Here is an Example how the query looks if you selected "Eurosystem2" in the templates of the report.

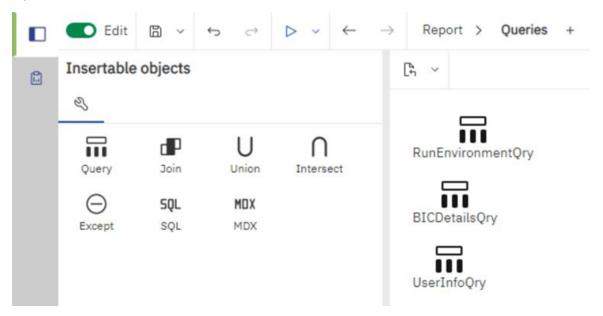


Figure 355 - Queries - Query example of Eurosystem2 template

# 7.2.3 Report objects

You build reports by adding objects and manipulating them to obtain the results you want. To understand how to work with objects in DWH - Reporting, you must be familiar with the following concepts:

#### Objects as containers

Objects, such as tables, blocks, and any report frame, are containers in which you can insert other objects. For example, you can insert a list in one cell of a table and a chart in another.

You can also nest objects to create a sophisticated layout. For example, you can insert a map and a list in a cell of table.



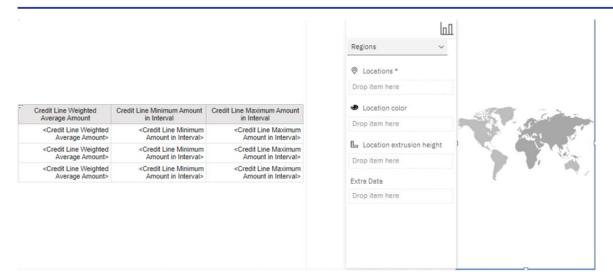


Figure 356 - Report objects - Insert map and list in a cell of table

#### Locking and unlocking objects

To manipulate the contents of some objects, you must first unlock the object. For example, you have a list that contains the column "**Product Name**". You want to insert a graphic inside the "**Product Name**" column to show an image of each product. Unlock the list to insert the image object inside a list column.

To unlock a report, click the "**Lock**" icon ( ) in the application bar. All layout objects in a report are unlocked. Note that this setting is not saved with the report.

# **Hierarchy of objects**

In DWH - Reporting, objects are organized hierarchically. For example, a list contains list columns, and each list column contains a text item, which is the name of the inserted data item.

The hierarchy of objects is useful to remember when you apply formatting because formatting is applied to the child objects of the object. For example, you can specify that all list column titles in a list have red as the background colour. The formatting is automatically applied to any new columns you add to the list be-cause the formatting is applied to the list and is therefore applied to the objects in the list. If you apply for-matting to a specific object, it will override the same formatting specified for the parent object.

# **Searching**

You can quickly locate specific objects in a report by using "Find":



		Find what:
ı	Click "Find what" (	Any objects ) and choose the type of object to find.
		Options
		Text:
ı	In the " <b>Options</b> " (	) box, specify the search criteria.

For example, if you want to find the objects that reference a specific data item, you must specify the query that contains the data item and the data item name.

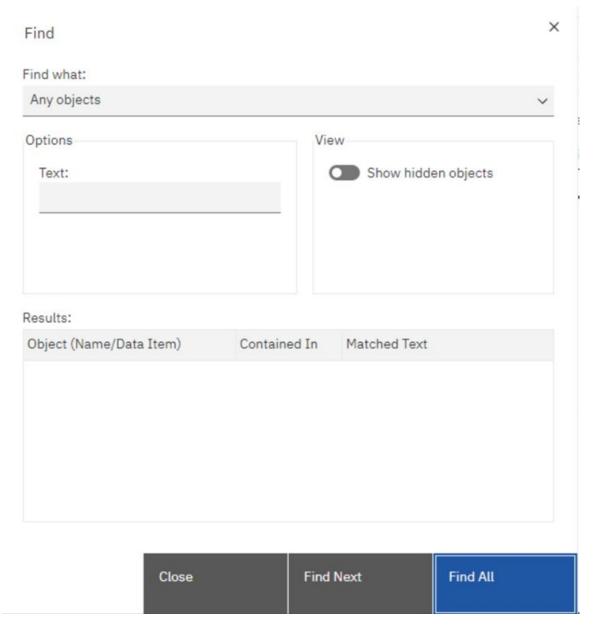


Figure 357 - Report objects - Find - Find objects in the query



I To search for objects that are hidden in the report, in the "View" box (
select the Show hidden objects check box.

Find All

Click "Find All" (
) or "Find Next" (
).

All objects that meet the search criteria are listed under "Results" (
). The first object that meets

Find Next

the search criteria is highlighted in the list. Continue clicking "Find Next" (
) to show all other objects that meet the search criteria.

In some cases, such as searching for a data item that is used to define a conditional style, the Report Studio cannot directly select the object in the report. Instead, Reporting selects the object that uses the object for which you are searching.

# 7.2.3.1 Mostly Used Objects

You add layout objects to a page when you create a report. Below are objects that you will use often when building reports in DWH - Reporting:

# List

Add a list to show data in rows and columns.



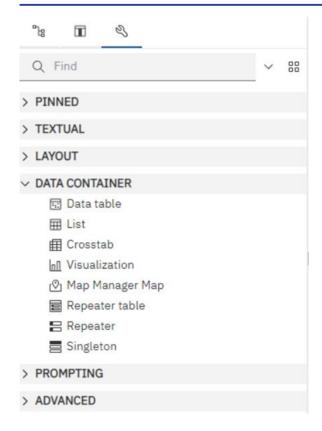


Figure 358 - Report objects - Mostly Used Objects - Data container - List

# **Crosstab**

Add a crosstab to show data in a grid with dimensions along the rows and columns and measures in the cells or intersection points. (see list)

- Chart or Visualization (see list)
- **Map**

(see list)

# Repeater

Add a repeater to show each instance of a certain column or data item in a separate frame. (see List)

Text



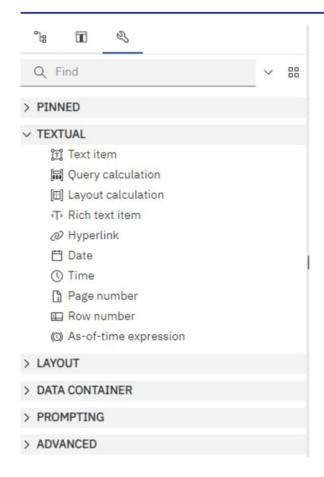


Figure 359 - Report objects - Mostly Used Objects - Textual

# **Block**

Add a block to hold text or other information. Blocks are often used to lay out horizontal bands of information.

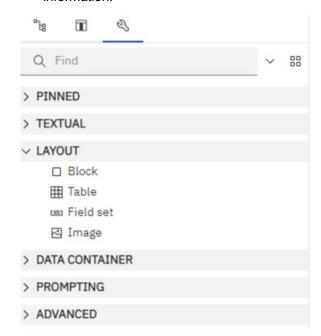


Figure 360 - Report objects - Mostly Used Objects - Layout



(See Block)

# 7.2.3.2 Copy object formatting

You can quickly copy the formatting of items in your report, such as fonts, colours, borders, and number formats, and apply that formatting to other items.

- I Click an item that has the formatting to copy.
- I Do one of the following:
  - To copy all the formatting applied to the item, from the object toolbar, click the "Pick up style" icon (
     ), by clicking on the down arrow to the right, click the item to format, and then click the "Apply style" icon (
  - To copy only one of the formatting styles, click the down arrow to the right of the pick-up style button and click the style to copy. Then click the item to format and click the "Apply style" button (
- If you want to make changes to a style that you copied, click the "Pick-up style options" button (

  Edit dropper style...
  ).

In the Style dialog box, specify basic and advanced style characteristics.

# 7.2.3.3 Add borders to a formatting object

You can add borders to objects in a report such as a column, a header, or a footer or to the whole report.

You can also add borders using the report object toolbar by clicking the "Border" icon (  $^{oxed{oxed{oxed{1}}}}$  ).



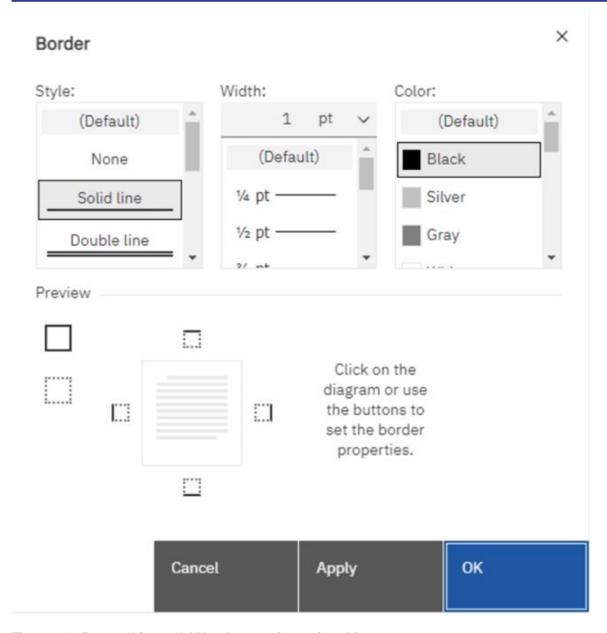


Figure 361 - Report objects - Add borders to a formatting object

Alternatively click on the object to which to add a border.

To quickly select the parent of an object, click the object, and then click the "**Select ancestor**" icon select

( ) in the title bar of the Properties pane.

V BOX

In the Properties pane, double-click the "Border" property (Border ) and select values in the Colour, Style, and Width boxes.

Specifying a width using % as the unit of measure is not supported when producing reports in PDF.



Apply the selected values to the top, bottom left side or all sides of the object by clicking the preview appropriate button in the "Preview" section (

# 7.3 Relational and Dimensional Reporting

You can create reports in DWH - Reporting using either a relational reporting style or a dimensional reporting style.

The Reporting tools and query language are the same for both styles. However, it is important to choose a reporting style to ensure that you are making the most of your data and to avoid mixing dimensional and relational concepts.

# 7.3.1 How to choose a reporting style

When authoring a report, first choose your preferred reporting style for working with data: relational or dimensional. You can choose a reporting style from your viewpoint:

- If you think about your data as tables and columns, you have a relational viewpoint and should use a relational reporting style.
- If you think about your data as a number of dimensions intersecting at cells, you have a dimensional viewpoint and should use a dimensional reporting style.

# 7.3.2 Relational reporting style

The relational reporting style consists of lists. You focus the data with filters and summarize with header and footer summaries.

If your data is purely relational, then only query subjects and query items appear in the "**Source**" tab (
————————————————), and you must use the relational reporting style.

Ple



If your data is dimensional, then dimensions appear in the "**Source**" tab (———), and you can still use a relational reporting style, but instead of query items (columns) and query subjects (tables), you use measures, levels, and level properties.

Here is an example of relational style reporting with dimensional data.



Figure 362 - Relational reporting style - Dimensional data

# 7.3.3 Dimensional reporting style

The dimensional reporting style consists of measures and members from different hierarchies arranged in a crosstab with cell values at the intersections. You focus the data with set expressions that navigate from specific members in the hierarchy and summarize with set summaries.

Here is an example of dimensional style reporting with dimensional data.



Figure 363 - Dimensional reporting style - Dimensional data (2)

# 7.3.4 Insert a Query Calculation

When working with dimensional data, insert a query calculation into your report to add a new row or column with values that are based on a calculation. For example, you create a query calculation named Euros that converts dollars to euros by multiplying an existing dollar measure by a conversion rate. Euros can then be displayed to end users in a separate row or column.

In the Report studio you can create the following types of calculations:



Create calculated members or calculated measures where the expression is a member or a tuple-based (as opposed to property-based) value expression. For example, [2013] - [2012] is a calculated member and [Revenue] - [Planned Revenue] is a calculated measure.

Use set expressions to create calculated sets of members. For example, children ([2012]) is a set expression that displays the child members of 2012.

You must base each set expression on a hierarchy and the set expression must contain only members from this hierarchy.

Create value expressions when you want to insert a string, number, date, or interval value.

#### **Procedure**

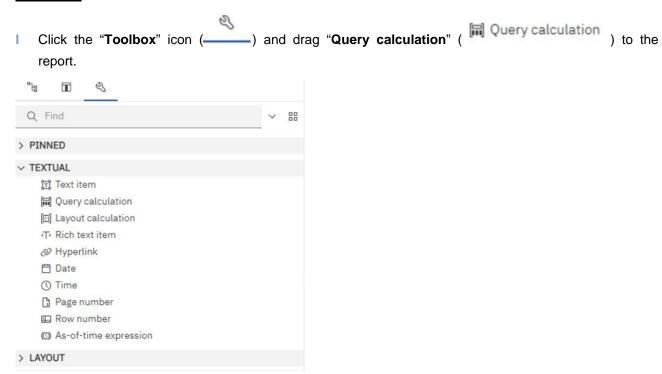


Figure 364 - Insert a Query Calculation



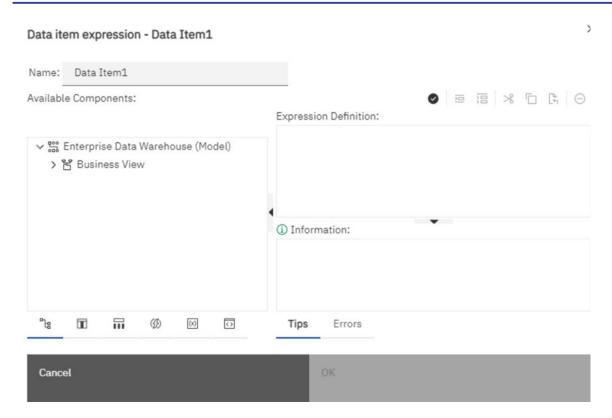


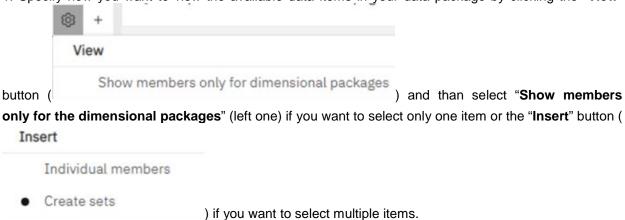
Figure 365 - Insert a Query Calculation - Specify Query Calculation

I Click the type of calculation you want to create and if required, select the hierarchy that contains the data that is the focus of your calculation.



For example, if you are calculating the difference between 2012 revenue and 2011 revenue, you could name your expression 2012 - 2011 Revenue.

- In the Available Components pane, define the calculation:
  - 1. Specify how you want to view the available data items in your data package by clicking the "View"





I

2. To add data items that are not shown in the report, on the "Source" tab (————), double-click the data items.

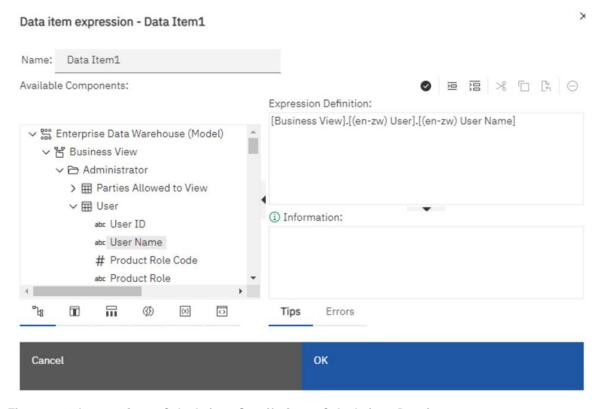


Figure 366 - Insert a Query Calculation - Specify Query Calculation - Data items

- 3. To add data items that are in the report but not necessarily in the model, such as calculations, on the "Data items" tab ( ), double-click the data items.
- 4. To add data items from a specific query, on the "Queries" tab ( ), double-click data items. The items you will see are the items you already placed in your report.
- 5. To add functions, summaries, and operators, on the "Functions" tab (\_\_\_\_\_\_), double-click elements.
- 6. To add a value that is derived from a parameter, on the "**Parameters**" tab (———), double-click a parameter. The items you will see are the parameters you already set in the report.

Parameters define prompts, drill-through reports, and master detail relationships.

You can also type the calculation directly in the "Expression Definition" ( Expression Definition: ) box.

When typing date values, ensure that the date format is correct for your database type.

To copy and paste expression components in the Expression Definition pane, you can use the "Copy" button copy icon and the "Paste" button paste icon



Click the "Validate" button ( ).

Any validation errors appear on the Errors tab of the Information pane.

To copy and paste expression components in the "Expression Definition" pane, you can use the "Copy" button ( ) and the "Paste" button ( ).

#### 7.3.4.1 Functions for data items

When you insert a calculation there are a lot of functions you can do with the data. Try to use the functions that are appropriate for the selected data type. For example a percentage function only makes sense for decimal number data in contrast to the date or a text. Double-click the function to add it to the data item. When you click only one time on the function you can see the information in the information box what the function is for, an Example of the function, the Result and the correct Syntax you have to use.

#### **Operators:**

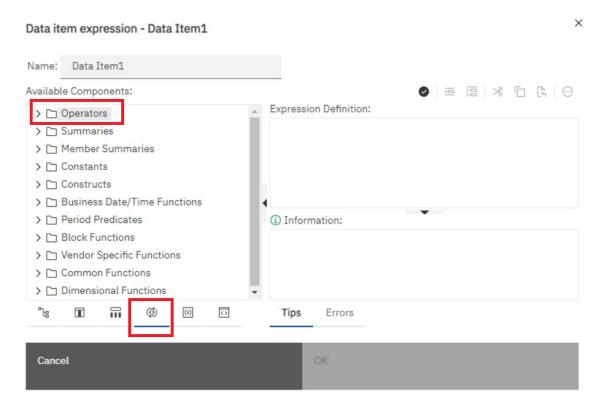


Figure 367 - Insert a Query Calculation - Operators

In the operator functions you can add the general mathematical functions like plus, minus, for all, or a combination of it like for all 'data item' < 15 and > 18.

You can also find the functions "like" and "contains" that can be helpful when searching within data.



The "**like**" function can be used when searching a string within a string. Here, the percent sign (%) represents zero, one or multiple characters, and the underscore sign (\_) represents any character. You can find the "**like**" function under "**Operators**" folder in "**Functions**" tab.



Figure 368 - Insert a Query Calculation - Operators - Function tab



# In the following example we are searching for any Party that contains the string "Ban" in its name:

CASE
WHEN [(en-zw) Invoice Data Info].[(en-zw) Party Charged Name CRDM].[(en-zw) Party Short Name] like '%Ban%'
THEN 1
ELSE 0
END

Figure 369 - Insert a Query Calculation - Searching the string

# That is the result:

Party (Short)	Flag
Ærø Pensionsbank	0
America First Savings & Loans	0
Aphrodite's Mutual	0
Apollon Bank	1
Ares Bank	1
Årø Land Pandebrev	0
Artemis Bank	1
Athena National Bank	1
Auslandskassenverein i.L.	0
Bågø Credit	0
Banca de Bondi	1
Banco de Isthmus	1
Banco di San Giorgio	1
Banco Português de Negócios	1
Bank of Korea	1
Bank of New England	1
Bankhaus Goldscheider	1
Bankhaus Medici	1
Banki Kiribati	1
Bankia	1

Figure 370 - Insert a Query Calculation - Searching the string - Results

In the next example the use of underscore sign (\_) twice in the function like '%Ban\_\_' returns Parties that have the string "Ban" followed by exactly two characters:



CASE
WHEN [(en-zw) Parties - Cash Accounts - Other Info].[(en-zw) Parties].[(en-zw) Party (Short)] like '%Ban\_\_%'
THEN 1
ELSE 0
END

Figure 371 - Insert a Query Calculation - Searching the string (2)

# That would be the result:

Party (Short)	Flag
Ærø Pensionsbank	0
America First Savings & Loans	0
Aphrodite's Mutual	0
Apollon Bank	0
Ares Bank	0
Årø Land Pandebrev	0
Artemis Bank	0
Athena National Bank	0
Auslandskassenverein i.L.	0
Bågø Credit	0
Banca de Bondi	1
Banco de Isthmus	1
Banco di San Giorgio	1
Banco Português de Negócios	1
Bank of Korea	1
Bank of New England	1
Bankhaus Goldscheider	1
Bankhaus Medici	1
Banki Kiribati	1
Bankia	1

Figure 372 - Insert a Query Calculation - Searching the string - Results (2)

You can find tips about this function in the "Tips" tab in the expression definition window:



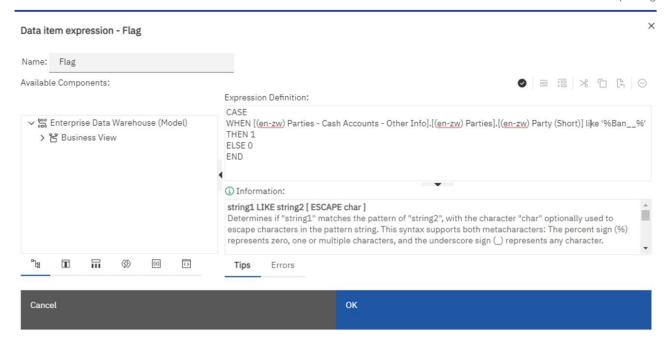


Figure 373 - Insert a Query Calculation - Data item expression - Tips tab - Information

The "contain" function, can also be found under "Operators" folder in "Functions" tab:





Figure 374 - Insert a Query Calculation - Operators

This function determines if a string exists in a string, but in a different context than the "**like**" function. In the following example we are looking for any Party that has the string "**Ban**" in its name:



CASE
WHEN [(en-zw) Parties - Cash Accounts - Other Info].[(en-zw) Parties].[(en-zw) Party (Short)] contains 'Ban'
THEN 1
ELSE 0
END

Figure 375 - Insert a Query Calculation - Searching the string - Different context than the "like" function

That would be the result:

:	Party (Short)	Flag
Ærø	Pensionsbank	0
Ame	rica First Savings & Loans	0
Aphr	odite's Mutual	0
Apoll	on Bank	1
Ares	Bank	1
Årø l	and Pandebrev	0
Arter	nis Bank	1
Athe	na National Bank	1
Ausla	andskassenverein i.L.	0
Båge	Credit	0
Band	a de Bondi	1
Band	o de Isthmus	1
Band	o di San Giorgio	1
Band	o Português de Negócios	1
Bank	of Korea	1
Bank	of New England	1
Bank	haus Goldscheider	1
Bank	haus Medici	1
Bank	i Kiribati	1
Bank	ia	1

Figure 376 - Insert a Query Calculation - Searching the string - Different context than the "like" function - Results

The "contain" function could be useful when you wish to search for a string that could have the character "%" or "\_", by also using the term "literal"



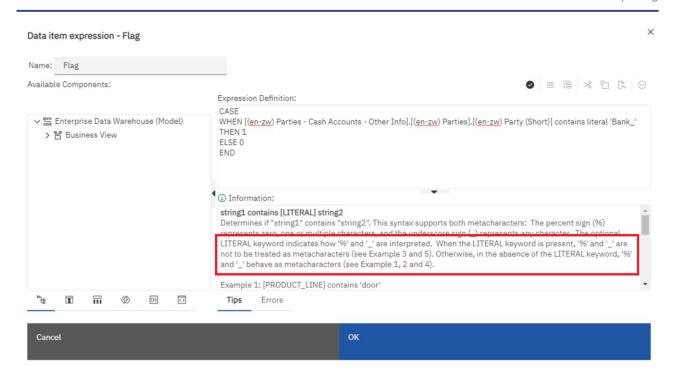


Figure 377 - Insert a Query Calculation - Data item expression - Tips tab - Information - Literal

You can find tips about this function in the "Tips" tab of the expression window

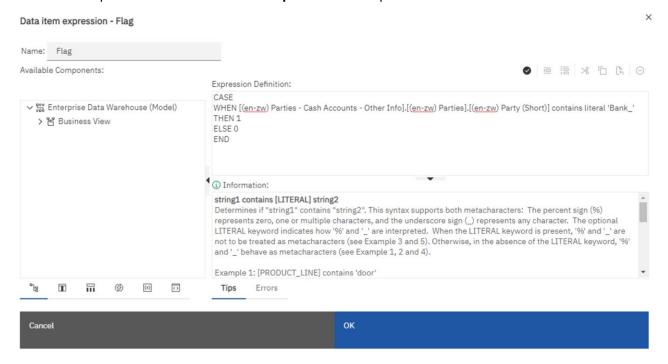


Figure 378 - Insert a Query Calculation - Data item expression - Tips tab - Information - Literal (2)



# **Summarize Functions:**



Figure 379 - Insert a Query Calculation - Summarize Functions

The summarize function are very useful when you have a large amount of decimal data. It will help you to show the data that is more important to you.



# **Member Summaries:**

∑! aggregate

∑! average

∑! count

∑! maximum

∑! median

∑! minimum

∑! percentage

∑! percentile

∑! quantile

∑! quartile

∑! rank

∑! rank

∑! standard-deviation

∑! total

∑! variance

Figure 380 - Insert a Query Calculation - Member Summaries

The member Summaries only work with dimensional data. Ask your Administrator if you do not know about the data item you like to select. If it work you can categories and summarize the whole or a part of the hierarchy of the dimensional selected item.



# **Constants:**



Figure 381 - Insert a Query Calculation - Constants

The Constant functions help you to add, as the name says, a Constant. This can be a date, time or a special Number you select if you make a double click on the function you want.



# **Constructs:**

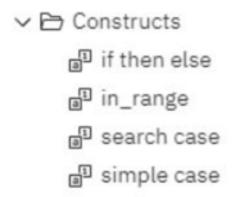


Figure 382 - Insert a Query Calculation - Constructs

The Constructs functions are useful if you want to mark a scenario. You can select here a condition to the data item. For example you can select if then else and combine it with a Constant you want to pop up in the report. It could look like that:

If 'Number of Transactions' is > 1000 then Timestamp with timezone.



# **Business Date/Time functions:**

```
→ Business Date/Time Functions

     #xx _add_days
     Ke _add_hours
     #(a) _add_minutes
     #(x) _add_months
    *(a) _add_seconds
    *(x) _add_years
    f(x) _age
    #xx _date_to_int
    #(x) _day
     KN _day_of_week
     *co _day_of_year
     *xx _days_between
     # days_to_end_of_month
     *(x) _end_of_day
     #xx _first_of_month
     ## _from_unixtime
     # hour
     #(x) _last_of_month
     ## _make_timestamp
     #xx _minute
     # month
     #xx _months_between
     *(x) _second
     #(x) _shift_timezone
     #(x) _start_of_day
```

Figure 383 - Insert a Query Calculation - Business Date/Time Functions

These functions help you to calculate time-data. Just double-click the function you need and add the data item to it.



# **Period Predicates:**

```
Period Predicates

*= contains

*= equals

*= immediately precedes

*= immediately succeeds

*= overlaps

*= precedes

*= succeeds
```

# Figure 384 - Insert a Query Calculation - Period Predicates

This functions help you to search in the data to the data item you want to highlight. You can set the function for example equal to a constant.

# **Block functions:**

```
✓ Block Functions
f∞! _firstFromSet
f∞! _remainderSet
```

Figure 385 - Insert a Query Calculation - Block Functions

The Block function are use full when you want to select a block of multiple data in the report. You just have to specify which data items should be marked.

# **Vendor Specific functions:**

This function is not recommended for beginners. You can change the datatype into another. First of all it is necessary to know which data type the selected data item has. Do this only if really necessary. It could be that the data is not readable after adding the function to the data item.



## **Common functions:**

```
∨ Common Functions
  VBA-C
       Ke abs
       Kw cast
       no ceil
       100 ceiling
       100 char_length
       ** character_length
       no coalesce
       am current_date
       and current_time
       a current_timestamp
  V ₱ D-G
       #w exp
       no extract
       sw floor
  VBH-L
       soo in
       an localtime
       p localtimestamp
       100 lower
```



```
V → M-Q
     #w mod
     soo nullif
     * occurrences_regex
     *w! octet_length
     rw! period
     re position
     (A) position_regex
     no power
VBR-Z
     #w _round
     100 random
     KO row
     no sqrt
     100 substring
     # substring_regex
     ros! trim
     (w) upper
     no width-bucket

→ Trigonometric functions

     (w) arccos
     no arcsin
     soo arctan
     KN COS
     no coshyp
     roo sin
```

Figure 386 - Insert a Query Calculation - Common Functions

These function are used to return a different value from the selected data item. You can return the position, the sinus, or if it is null able from the data item.



## **Dimensional functions:**

```
V Dimensional Functions
  VBA-C
       me! ancestor
       mu! ancestors
       ** bottomCount
       #01 bottomPercent
      ## bottomSum
      (w) caption
      100 children
       ** closingPeriod
       #w! cousin
     > Advanced
  VPD D-G
      ro! defaultMember
       me! descendants
       Kw! except
      so filter
      #w! firstChild
       161 firstSibling
     > Advanced
  VBH-L
       €w! head
       101! hierarchize
       100! hierarchy
       **! intersect
       ro! item
```





Figure 387 - Insert a Query Calculation - Dimensional Functions

These functions are used if you want to select a "partner" of the dimensional data item. You can choose the parent the Child or the previous member next to the data item you selected. For Example the selected data item is Month and you choose in the Source of the Data item the April 2019. Then will the function return the value the parent the second quarter, the Child all Days of April and the previous member the Month March 2019.

## 7.3.5 Guidelines for each reporting style

This user guide is divided into relational and dimensional reporting sections so that you can follow the best practices for using this product with the reporting style that you have chosen. The following table outlines the best practices for both reporting styles.



Item	Relational reporting		Dimensional reporting
Report type	Lists		Crosstabs
	Crosstabs pivoted from lists		Charts created from scratch or from
	Charts created from lists		crosstabs
	Maps created from scratch or from lists		Maps created from scratch or from crosstabs
Package tree	In the "Source" tab (————), click the "C	ptions" icon (	In the "Source" tab (), click the
	), and then click "Show members on	"Options" icon ( ), and then click	
	dimensional package".		"Show members only for
	If you are using dimensional data, hide me	dimensional package".	
	source tree by right-clicking the tree, clicking the tree setting		Ensure that the option "Create sets" is
	Tree Settings" (	), and	selected.
	clearing the check boxes for "Members"	•	Show members only for dimensional packages
	Settings		Insert
	✓ Members		Individual members  • Create sets
	- Members		Member insert options
	✓ Levels		Insert single member
	<ul> <li>Members for each level</li> </ul>		Insert children
	Member properties		Insert member with children
	Member properties	and	The view will include the following:
	✓ Levels ✓ Members for each level ✓ Member properties		I package
	Settings		I folder
	✓ Members		I measure
			I member
	✓ Levels		I named set
	✓ Members for each level		
	✓ Member properties		
	The view will include the following:		
	I package		
	I folder		
	I namespace		
	I query subject		



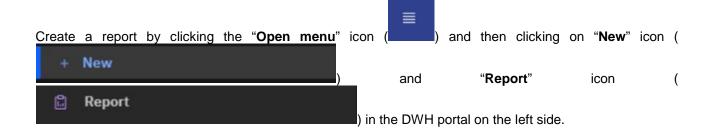
Inserting data	I query item I measure I level From the package tree, add oreport. Avoid using hierarchies direct Avoid using named sets.		From the package tree, add sets of members to the report.  You can also choose to insert just the member, just the children of the member, or the member and its children.
Calculating data	Add query calculations using common constructs.  Choose only "Other express  Create calculation  Calculated member Hierarchy: Calculated measure Set expression Other expression  Cancel	sion".	Add query calculations using only dimensional and common constructs.  Use "Other expression" only for value calculations.  Avoid "Common functions"  Create calculation  © Calculated member Hierarchy: Calculated measure Set expression Other expression  OK  Cancel  OK
Summarizing data	Headers and footers in lists Crosstab member summaries within detail	s; for example, aggregate	mark (!) because they have limited support.  Member set summaries; for example, aggregate within set



Focusing data	Add detail or summary filters to view only the data you want to see. For example, add the "Quarter" query item to a list and filter by Q3.	Add only the relevant members to an edge of the crosstab or to the context filter. For example, only add the Q3 member to your report.  Use a set expression such as "Topcount" or "Filter".
Drilling	Drilling through by value	Drilling through by member  Drilling up and down
Page and section breaks	Simple page breaks Page sets Sections Master detail relationships using parameterized filters	Simple page breaks  Page sets  Page layers  Master detail relationships using parameterized edge or slicer expressions

Table 98 - Guidelines for each reporting style

## 7.4 Create a report



## 7.4.1 Templates and themes

The DWH includes several basic report templates and colour themes that you can choose from when you create a new report.

The templates and themes are stored in the Templates.zip deployment file. If you do not see the list of templates and themes when you create a new report, ask your administrator to import the deployment file into the DWH Administration. After the deployment file is imported, the templates appear in the Templates folder in Team content.



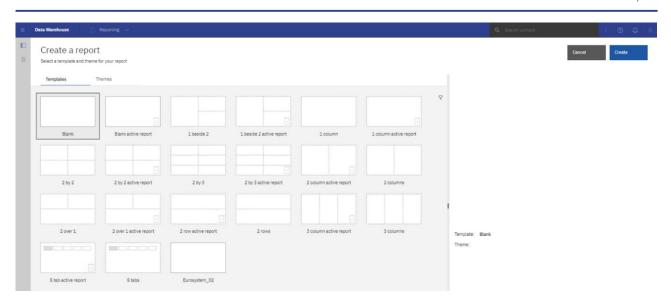


Figure 388 - Templates and themes - Templates



Figure 389 - Templates and themes - Themes

## 7.4.2 Adding data

You can add data from multiple packages that use the dynamic query mode, from a single package that uses the compatible query mode, or from a single data module.

The following list provides information about authoring reports that reference multiple packages.

You must set one of the packages as the default package.

When a report is run, the DWH checks the package capabilities of the package that is used by the report. In a report that references multiple packages, package capabilities are checked only for the default package.

A query can reference only one package.



- I Query set operations (join, union, intercept, except), master detail relationships, and the Build prompt page tool are not supported.
- I Drill through and external data are supported only for the default package.

Click the "Data items" icon (\_\_\_\_\_\_).

Click the "Add a source" icon ( † ).

Open the packages that you want or open a single data module.

If you opened multiple packages, to specify a package as the default package, right-click an item in the package and select "**Set default package**".

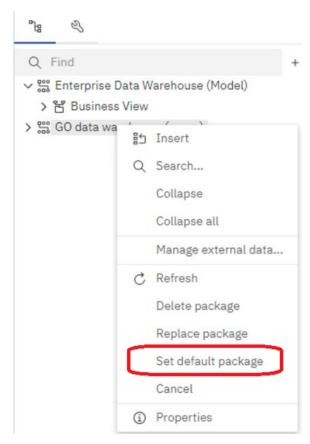


Figure 390 - Adding data - Add a source - Right click item - Set default package

To delete a package, right-click an item in the package and select "Delete package".



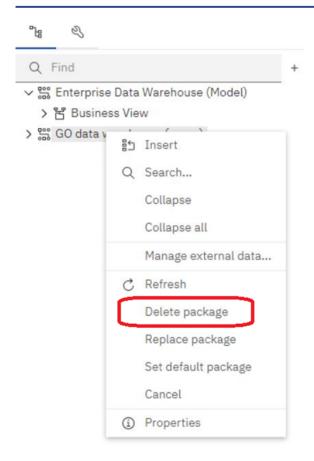


Figure 391 - Adding data - Add a source - Right click item - Delete package

To replace a package by another package, right-click an item in the package and select "Replace package".



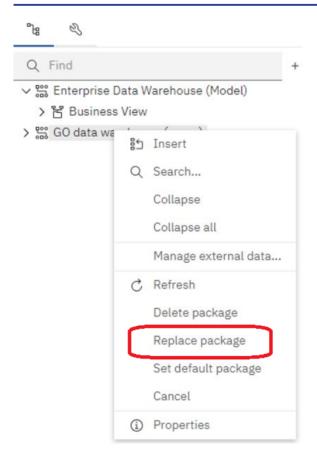


Figure 392 - Adding data - Add a source - Right click item - Replace package

If queries exist that use the package that you are replacing, model paths in the queries are updated to the new package.

## 7.4.3 Insert a single data item

You can insert a single data item anywhere in your report using the singleton object. The singleton object retrieves only the first row value for that query. Inserting a single data item is useful when you want to show a value that is independent from the rest of the values in the report or when you want to insert some boilerplate text, such as a company name and address. For example, you can add the total revenue value in the header of each page in a report.

You can associate multiple singleton objects with a single query in relational reporting and dimensional reporting to optimize performance, such as when all the data items in the singleton are from the same database table. In addition, two or more singletons can reference data items from the same query. This is useful when using a single query is more efficient to display a set of single values than using multiple queries.

You can also filter the data item in the singleton. For example, you can show the total revenue for only the year 2012.



Queries that are associated to a singleton object are not supported when producing report output in delimited text (CSV) format.

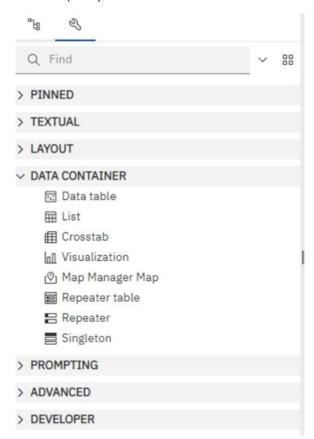


Figure 393 - Insert a single data item - Data container - Singleton

Click the "**Toolbox**" icon (———) and drag Singleton to the report. An empty data container is created.

Click the "**Source**" tab (————), and drag a data item into the Singleton container.

To change the query associated to the singleton object, select the singleton, click on the "Show properties" icon ( ) and in the Properties pane, click the down arrow at the right of the "Query" property VDATA

and make changes ( Query1 ).

## 7.4.4 Validate a report

Validate your report to ensure that it contains no errors. When you open a report created in a previous version, it is automatically upgraded and validated.

Click the "More" icon ( ), and click "Validate" Report ( ).

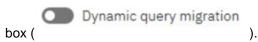


A message box appears indicating whether any errors were found in the report.

Validation level	Description
Error	Retrieves all errors returned from the query
Warning	Retrieves all errors and warnings returned from the query. This is the default validation level.
Key transformation	In addition to errors and warnings, retrieves informational messages describing important transformation steps from the report specification to the native query sent to the data source.  These messages can show the cause of errors and warnings returned from the query.
Information	Retrieves errors, warnings, key transformations and other information related to query planning and execution.

## Table 99 - Validate a report

- If you require more detail from the validation process, click the "More" icon ( ), click the "Validate options" property, and do the following:
  - Click one of the following validation levels.
  - Click the right side of the "Interactive data check" box (
     that no query optimization is to be used.
  - The Interactive data check box controls how queries will be processed during validation.
  - Clear the Interactive data check box to set the query property Execution optimization property to All Rows.
  - A message box appears indicating whether any errors were found in the report.
  - To view messages that result from the conversion of your report to use the dynamic query mode instead of the compatible query mode, click the right side of the "Dynamic query migration" check



- Revalidate your report.



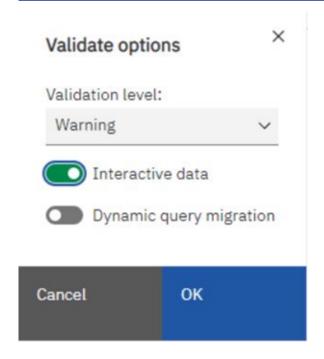
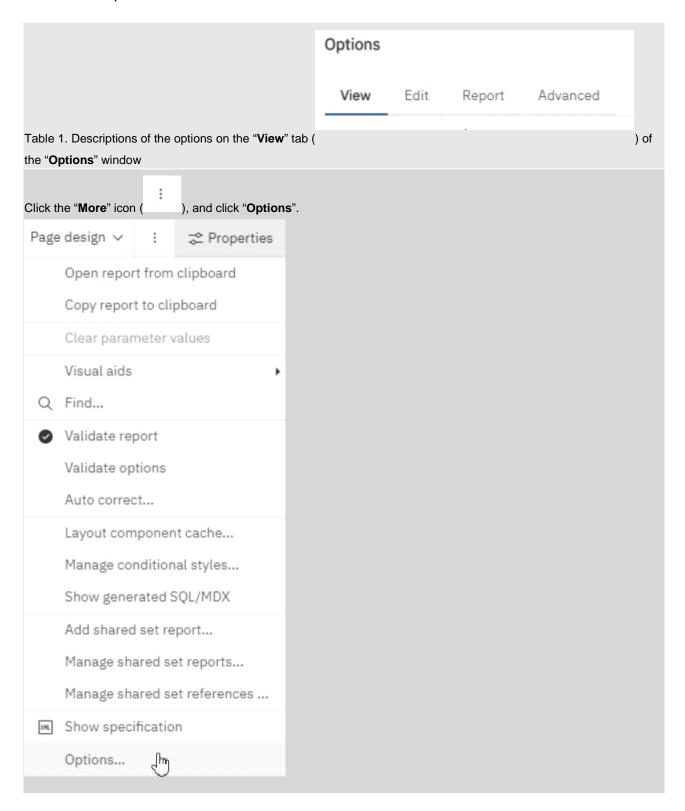


Figure 394 - Validate a report - Validate options

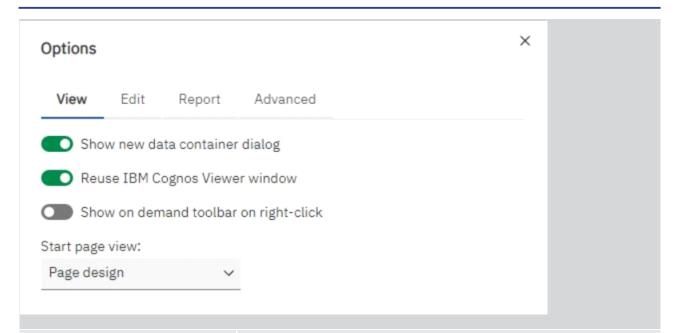


# 7.5 Options in Reporting

## 7.5.1 View Options





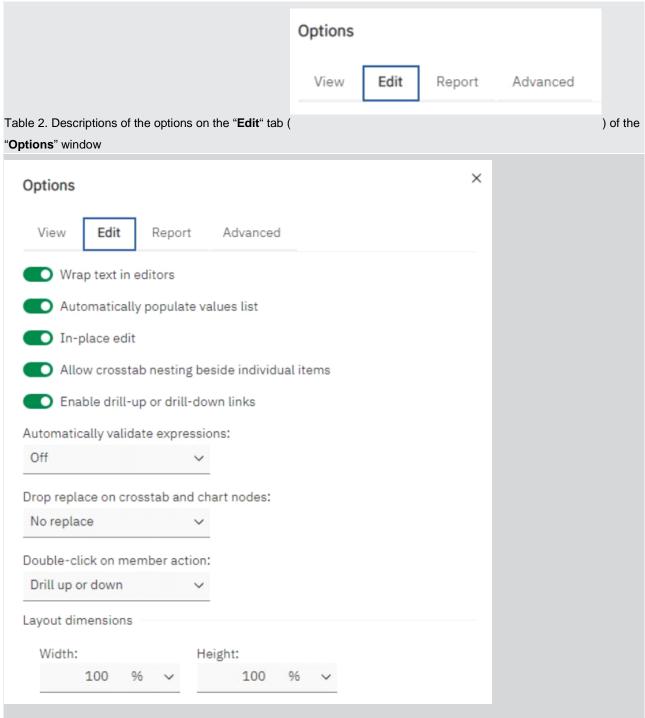


Option	Description
Show new data container dialog	Shows the new data container dialog boxes when the Show this dialog in the future check box was previously cleared.
Reuse IBM Cognos Viewer window	Reuses the same DWH Viewer window when you rerun a report without first closing the window.
Show on demand toolbar on right-click	Show the report object toolbar only when you right-click the object. The default setting is to show report object toolbars when you highlight an object. You can control when you want to see these toolbars by enabling this feature, which is also used for accessibility. When you author reports with accessibility features enabled, the Show on-demand UI on right click option is automatically selected. As a result, report object toolbars do not appear. To show an object's toolbar, navigate to the object and press the Enter key.
Start page view	Enables you to start Reporting in Design, Structure, or Preview view. For the change to take effect, you must close and then restart Reporting.

Table 100 - View Options



## 7.5.2 Edit Options



Option	Description
Wrap text in editors	Automatically wraps text in all editors where you can define expressions.
Automatically populate values list	When building expressions in the expression editor, automatically shows
	values when you browse the data of a data item.

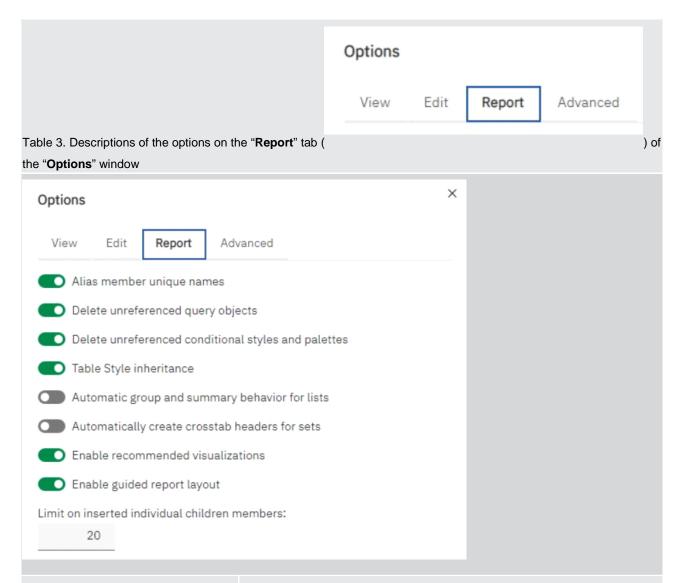


Automatically validate expressions	Automatically validates calculations, such as filters, created in the expression editor.
In-place edit	Enables the editing of text in place when double-clicking.
Allow crosstab nesting beside individual items	Specifies to create a crosstab node when a data item is inserted in a crosstab.  This option allows nesting under individual items instead of only on the entire crosstab edge.
Enable drill-up or drill-down links	For data items where drill-up or drill-down is possible, enables drill-up or drill-down links. When you select a data item, it becomes a link that you can click to drill up or down. Also, you can still double-click data items to drill up and down. By default, this option is enabled. You can also control drill options in the Properties pane. At the report level, in the Data section.
Drop replace on crosstab and chart nodes	When you use drag-and-drop techniques, this setting determines the behaviour for replacing an item.
Double-click on member action	When working with dimensional data, specifies what happens when you double-click a member data item.  By default, you drill down or up on the item that you double-click.
Layout dimensions	Specifies the width and height of the area where you will create reports.

Table 101 - Edit Options



## 7.5.3 Report Options



Option	Description
Alias member unique names	When working with a dimensional data source, creates an alias when you add a member to the report or to an expression.
Delete unreferenced query objects	Automatically deletes query objects linked to another object. For example, if you delete a list, the query linked to the list is deleted as well.
Delete unreferenced conditional styles and palettes	Automatically deletes conditional styles or palettes when the last data item that refers to the conditional style or palette is also deleted.
Table Style inheritance	When a table style is applied to a list or crosstab, specifies whether new objects inserted in the list or crosstab should inherit the style.
Automatic group and summary behaviour for lists	When working with lists, automatically adds an overall aggregate summary in the list footer and a summary for any groups in the list. When grouping a

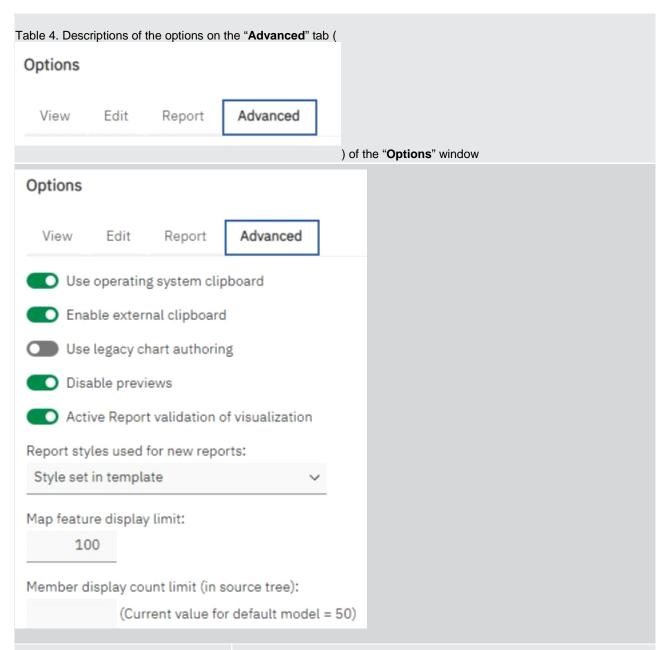


	column, automatically makes it the first column in the list.
Automatically create crosstab headers	When adding sets in a crosstab that uses a dimensional data source,
for sets	automatically adds header labels on new columns and rows. The headers help
	consumers of the report to understand where the data is in the hierarchy.
Enable recommended visualizations	Enable or disable the visualization recommender.
Enable guided report layout	Enable or disable guided report layout.
Limit on inserted individual members	This is an option used in dimensional data sources that is a different form than
	the one used in the DWH.

**Table 102 - Report Options** 



## 7.5.4 Advanced Options



Option	Description
Use operating system clipboard	Uses the Microsoft Windows (or other operating system) clipboard instead of the internal Reporting clipboard.
Use legacy chart authoring	Enables you to create new reports using the legacy charts instead of the default charts and disables the automatic upgrade of charts in existing reports to the current default charts. Select this check box if you do not want to upgrade the charts in your existing reports.
Disable previews	When editing properties such as date and number formatting, does not display a sample of the formatting that is applied to data. When this option is not



	enabled, either sample data or data from your data source is displayed with formatting options applied.  Additionally, when in Page Design view, displays a static image for a chart instead of updating the chart with a preview of your chart, using simulated data.
Active Report validation of visualization	Specifies whether to validate visualizations in an active report when the report is run from Reporting.
Report styles used for new reports	Specifies which report styles to use by default when creating new reports.
Map feature display limit	When working with maps, specifies the maximum number of features that can appear in a map.
Member display count limit (in source tree)	When working with dimensional data, specifies the maximum number of members that can appear in the Source tab before you must perform a search.

**Table 103 - Advanced Options** 

## 7.6 Working with lists

Lists are used to show detailed information from your database, such as product lists and customer lists.

A list shows data in rows and columns. Each column shows all the values for a data item in the database or a calculation based on data items in the database.

8.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				1003100310031003100310031	
	User ID	User Name	User BIC	Environment Name	Environment ID	
	<user id=""></user>	<user name=""></user>	<user bic=""></user>	<environment name=""></environment>	<environment id=""></environment>	
	<user id=""></user>	<user name=""></user>	<user bic=""></user>	<environment name=""></environment>	<environment id=""></environment>	
	<user id=""></user>	<user name=""></user>	<user bic=""></user>	<environment name=""></environment>	<environment id=""></environment>	

A list showing User ID, User Name, User BIC, Environment Name and Environment ID.

You can specify whether to automatically add an overall aggregate summary in the list footer and a summary for any groups in the list by selecting Automatic group and summary behaviour for lists in the DWH - Reporting options. The default aggregation as specified in your enterprise data source is used.

#### 7.6.1 Set list properties

Format lists to give them the appearance you want. You can specify formatting for individual column titles or bodies or for all columns in a list. When you specify formatting for all columns in a list, the formatting is automatically applied to new columns you subsequently add.



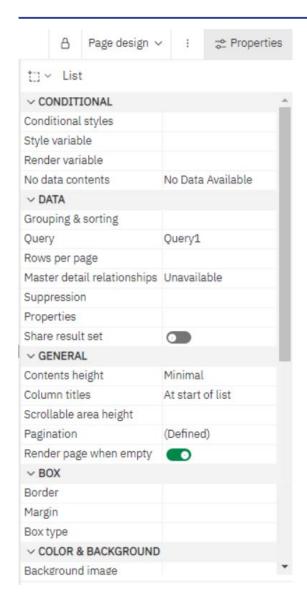


Figure 395 - Set list properties

You can also quickly format lists by applying table styles.

Formatting for specific columns overrides formatting for entire columns. For example, you specify red as the background colour for a specific column body and green as the background colour for all columns. When you run the report, the specific column body is red and the remaining columns in the list are green. New columns added to the list will be green.

#### **Procedure**

- 1. To format an individual column, do the following:
  - Click the column title or column body.
  - To format the text in the column title or the data in the column body, click the "More" icon ( ), then click on "Columns title style" ( ) or "Columns body style" ( Columns body style ), and then select the formatting style in the properties pane.





_	To format the whole column, click the	" <u>S</u> e	lect	ancestor	" ico	n (	1.3	)	in the	title	bar	of	the
		101	List	column									
	Properties pane and click "List column" (				).								

In the Properties pane, set the property value.
 For example, to specify a background colour, click "Background colour" and choose the colour.

#### 2. To format all columns, do the following:

- Click a column in the list.
- To format list column bodies, click the "Select ancestor" ( ) icon in the title bar of the Properties pane and click "List columns body style" ( List columns body style ).
- To format list column titles, click the "Select ancestor icon" ( ) In the title bar of the Properties pane and click "List columns title style" ( Tr List columns title style ).
- To format entire columns, click the "Select ancestor" icon ( ) in the title bar of the Properties pane and click "List columns" ( ).
- To format the entire list, click the "Select ancestor" button ( ) in the title bar of the Properties pane and click "List" ( ).

You can also click the container selector (three orange dots) of the list to select it.

In the Properties pane, set the property value.
 For example, to specify a background colour, click "Background colour" and choose the colour.

### 7.6.2 Hide column in reports

You can hide columns from the output of list reports. If you select to hide a column, the query for that column is still executed.

I Select the column that you want to hide.

ı	Click the "Select ancestor" icon	) in the title bar of the Properties pane and click "List column	"
	III List column		

Set the "Render" property to "No".





Figure 396 - Hide column in reports -List column properties - Conditional - Set Render to No

So the result is: When you run your report, the column is hidden in the report output.

#### 7.6.3 Create a scrollable list

When the list contains many rows of data, it is clever to use a list you can scroll:

Select the entire list by clicking the container selector (three orange dots) of the list.

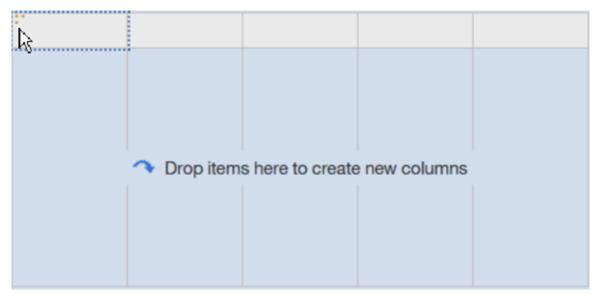


Figure 397 - Create a scrollable list

- In the DWH toolbar, click the "Show properties" icon ( Properties )
- In the properties sheet of the list, specify the height of the scrollable area, in pixels, that you want by typing a value in the Scrollable area height property.





Figure 398 - Create a scrollable list - Properties - General - Scrollable area height

## 7.6.4 Using Repeaters

Use repeaters to repeat items when you run the report. For example, you can use repeaters to create mailing labels, including customer names and addresses.

To build a repeater, drag the "Repeater" or "Repeater table" object from the "Toolbox" tab to the work area

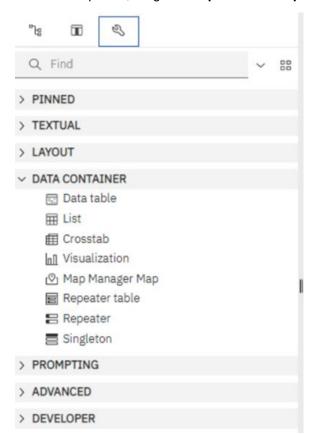


Figure 399 - Using Repeaters - Data container - Repeater/Repeater table

Use repeaters to repeat items across a single row without a particular structure. For example, you want to create a list that contains Year, and Number of Transactions. For each year, you want all "**Number of Transactions**" to appear in a single row. To do this, create a list with Year as a column and a repeater as a second column.



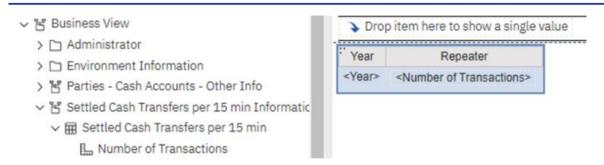


Figure 400 - Using Repeaters - List with all Number of Transactions in a single row

Then insert "Number of Transactions" into the repeater.

Use "Repeater table" to repeat items in a table structure. Drop the items in the repeater, and modify the properties of the repeater to obtain the results you want.

For example, you can specify how many frames appear per page in a repeater table by typing values in the "Across" and "Down" properties.



Figure 401 - Using Repeaters - Properties - General - Across and Down

Horizontal pagination is not supported for data containers, such as lists or crosstabs, which are nested in repeater tables.

## 7.6.5 Change a list into a crosstab

Change a list into a crosstab to view your data from a different perspective.

Click the columns to appear as columns or nested columns in the crosstab.

From the report object toolbar, click the "More" icon ( ) and choose "Pivot List to Crosstab".



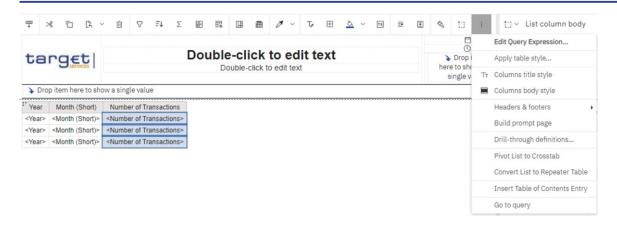


Figure 402 - Change a list into a crosstab - More icon - Pivot List to Crosstab

The list becomes a crosstab with the columns you selected in step 2 appearing as columns and nested columns. The unselected columns, except for measures, appear as rows and nested rows. If you have one measure, it becomes the cells of the crosstab. If you have more than one measure, they appear as columns.

To make all measures appear as rows, swap columns and rows ( ).

## 7.7 Working with crosstabs

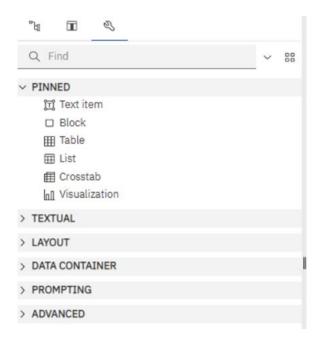


Figure 403 - Working with crosstabs - Data container - Crosstab

Use crosstab reports, also known as matrix reports, to show the relationships between three or more query items. Crosstab reports show data in rows and columns with information summarized at the intersection points.



Swap columns and rows to look at information from a different perspective. This may help you discover high and low points in the data that you had not previously noted.

You can only swap columns and rows in a crosstab or chart. In a chart, you swap the x- and y-axes.

From the toolbar, click the "Swap rows and columns" button ( )

In the report, the rows become the columns and the columns become the rows.

#### 7.7.1 Crosstab nodes and Crosstab nodes members

When you add data items to crosstabs rows and columns, you create crosstab nodes and crosstab node members. These objects allow you to easily create crosstabs, by dragging data items to crosstabs. Crosstabs are dimensional objects that have row edges and column edges. Each edge is composed of a set of crosstab nodes. Each crosstab node contains the following:

- One or more crosstab node members.
- I Zero or one nested crosstab node, which contains one or more crosstab node members or nested crosstab nodes.

Each crosstab node member refers to a data item that contains an expression to define the members in the crosstab. The following crosstab contains four crosstab nodes.

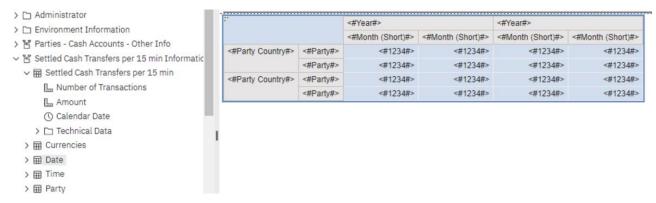


Figure 404 - Crosstab nodes and Crosstab nodes members

- 1. Crosstab node 1 contains a single node member for the total. This node refers to the data item Total (Party Country).
- Crosstab node 2 contains a crosstab node member that refers to the data item Party Country. This member has a nested crosstab node containing a crosstab node member that refers to the data item Party.
- 3. Crosstab node 3 contains a single node member for the average. This node refers to the data item Average (Party Country).
- 4. Crosstab node 4 contains a crosstab node member that refers to the data item "**Year**". This member has two nested crosstab nodes. The first node contains a crosstab node member that refers to the data item



"Month". The second node contains a crosstab node member for the total. This node refers to the data item "Total" (Month).

			4				
	"		<#Year#>		<#Year#>		
	1		<#Month (Short)#>	Total	<#Month (Short)#>	Total	
	Total		<#1234#>	<#1234#>	<#1234#>	<#1234#>	
2	<#Party Country#>	<#Party#>	<#1234#>	<#1234#>	<#1234#>	<#1234#>	
2	100 100	<#Party#>	<#1234#>	<#1234#>	<#1234#>	<#1234#>	
	Summary		<#1234#>	<#1234#>	<#1234#>	<#1234#>	
3	Average		<#1234#>	<#1234#>	<#1234#>	<#1234#>	

Figure 405 - Crosstab nodes and Crosstab nodes members (2)

Nodes are also created when you add data items to charts.

Crosstab nodes can be placed anywhere in the crosstab. For example, in the previous diagram, you can drag "Month" under "Average" to create a row edge.

To move nested items from one edge to another, ensure that you select the crosstab node and not the crosstab node member. For example, in the previous diagram, you want to move "Party Country" and "Party" to the column edge. To do this, click "Party Country" and, in the Properties pane, click the "Select

Node. Both "Party Country" and "Party" are selected.

The DWH - Reporting option Allow crosstab nesting beside individual items ("More" icon in the application bar ( ), Options, Edit tab) affects the drag-and-drop behaviour in crosstabs. When the option is turned on and you add a data item to a crosstab, the item is created as a crosstab node. In addition, you can nest items under individual items instead of only on the entire crosstab edge. If the option is turned off, the item is created as a crosstab node member to an existing crosstab node.

For example, in the previous diagram, if the option is turned on and you drag "Week" or "Day" from the "Source" tab to beneath Year, Day or Week becomes a new peer node to "Year". If the option is turned off, "Day" or "Week" becomes a new peer node to "Year" and has "Month" as a nested crosstab node. This happens because instead of adding a new node, you are adding a new member to the existing node that already contains "Year".

To create discontinuous crosstabs, turn the option on. If you want the items on the edges of crosstabs to be related (contain the same nested items), turn the option off.



#### 7.7.2 Set Crosstabs properties

Format crosstabs to give them the appearance you want. You can specify formatting for rows, columns, and fact cells in a crosstab or for the entire crosstab. When you specify formatting for all rows, columns, fact cells, or the crosstab, the formatting is automatically applied to any new items you add. If you apply the same styles, such as font colour, to crosstab rows, columns, and crosstab intersections, the styles are applied in the following order:

- Crosstab fact cells
- I fact cells in the outermost rows
- I fact cells in the innermost rows
- I fact cells in the outermost columns
- fact cells in the innermost columns
- I crosstab intersections

The style applied to the last object in the list overrides styles applied to previous objects. In addition, class styles are applied before styles that you apply manually.

You can also quickly format crosstabs by applying table styles and add white space to a crosstab by inserting crosstab space objects.

In cases where fact cell formatting applied to rows conflicts with fact cell formatting applied to columns, you can set the "Fact cells precedence" property in the Properties pane to determine whether the row formatting or the column formatting precedence has. To set this property, click anywhere in the crosstab,

click the "Select ancestor" icon ( ) in the title bar of the Properties pane, and click "Crosstab".



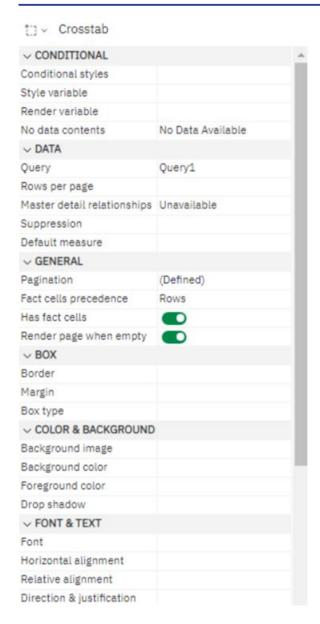


Figure 406 - Set Crosstabs properties

Or you can click the container selector (three orange dots) of the crosstab to select it.

- 1. To format the entire crosstab, do the following:
  - Click anywhere in the crosstab.
  - Click the "Select ancestor" icon ( ) in the title bar of the Properties pane and click "Crosstab".
  - In the Properties pane, set the property value.
     For example, to specify a background colour, click "Background colour" and choose a colour.
- 2. To format all rows, columns, or fact cells, click a row, column, or fact cell in the crosstab and then do the following:



	<ul> <li>If you clicked a row, click the "Select ancestor" icon (         and click "Crosstab rows".</li> </ul>
	<ul> <li>If you clicked a column, click the "Select ancestor" icon ( ) in the title bar of the Properties pane and click Crosstab Columns.</li> </ul>
	<ul> <li>If you clicked a fact cell, click the "Select ancestor" button ( pane and click "Crosstab fact cells".</li> </ul>
	<ul> <li>In the Properties pane, set the property value.</li> </ul>
	For example, to specify a background colour, click "Background colour" and choose the colour.
	You can also right-click the row or column and click "Select fact cells".
3.	To format all crosstab cells for a specific row or column, do the following:
	- Click the row or column.
	- Click the "Select ancestor" icon ( member fact cells".
	You can also right-click the row or column and click "Select member fact cells".
	<ul> <li>In the Properties pane, set the property value.</li> </ul>
	For example, to specify a background colour, click "Background colour" and choose the colour.
4.	To format all row or column titles, do the following:
	- Click a row or column title.
	- Click the "Select ancestor" icon ( rows" or "Crosstab columns".
	<ul> <li>In the Properties pane, set the property value.</li> </ul>
	For example, to specify a background colour, click "Background colour" and choose the colour.
5.	To format an individual row, column, or intersection, do the following:
	<ul> <li>Click the row, column, or intersection.</li> </ul>
	To format the data in a row, column, or intersection, click the "Lock page objects" ( ) icon to unlock then click the text item to format.
	<ul> <li>In the Properties pane, set the property value.</li> </ul>
	For example, to specify a background colour, click "Background colour" and choose the colour.



## 7.7.3 Create a Single-Edge crosstab

Create a single-edge crosstab report to show data in a list-like form. For example, to show the quantity of products sold for each year and for each order method, you could create a crosstab with Year and Month as rows and Number of Transactions per Day as the measure.

Click the "**Toolbox**" icon (\_\_\_\_\_\_), and drag a crosstab object to the work area.

From the "Sources" tab (———), drag data items to the "Rows" or "Columns" drop zone.

A black bar indicates where you can drop the data item.

Repeat step 2 to insert additional data items:

If you dragged the data item in step 2 to the "**Rows**" drop zone, drag the additional items above or below the first item.

If you dragged the data item in step 2 to the "Columns" drop zone, drag the additional items to the left or right of the first item.

To add measures to the crosstab, drag the measures to the "Measures" drop zone.

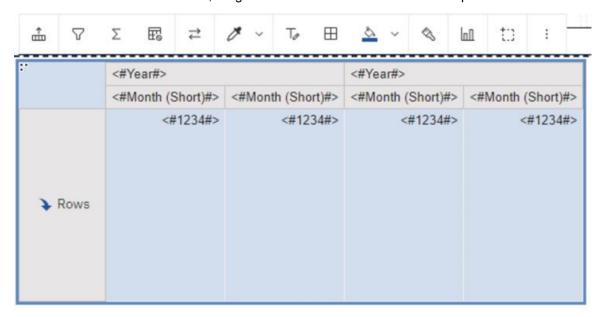


Figure 407 - Create a Single-Edge crosstab

When you run the report, a crosstab is produced that has only one edge.

#### 7.7.4 Create a nested Crosstab

Nest data in a crosstab report to compare information by using more than one data item in a column or row. For example, a report shows the number of transactions by country party per year. You decide to add a data



item to further break down the number of transactions by "**Month**". When nesting columns in a crosstab report, there are four distinct drop zones where you can insert a new data item. The drop zone you choose will define the relationship between the data item and the column.

The following relationships are created when you insert a data item as a row:

Inserting a data item to the left or right of a column creates a parent-child relationship between them. When you insert a data item to the left of a column, the data item becomes a parent to the column. When you insert a data item to the right of a column, the data item becomes a child of the column.

Inserting a data item above or below a column creates a union relationship between them.

The following relationships are created when you insert a data item as a column:

Inserting a data item to the left or right of a column creates a union relationship between them.

Inserting a data item above or below a column creates a parent-child relationship between them. When you insert a data item above a column, the data item becomes a parent to the column. When you insert a data item below a column, the data item becomes a child of the column.

For example, you have a crosstab with "Country Party" as rows and "Party" as nested row. For columns, you have "Year" with "Month short" or "Month" as a nested column.

In this crosstab, "Party Country" is a parent to "Party".

"Month" and "Month short" are peers.

"Year" is a parent to "Month" or "Month short".

- From the "Sources" tab (———), click the data item to add.
- I Drag the data item to the report as a nested column or nested row.

A black bar indicates where you can drop the data item.

I Repeat steps 1 to 2 to add other nested columns or rows.

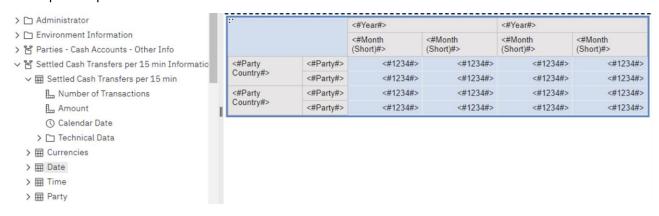


Figure 408 - Create a nested Crosstab



## 7.7.5 Creating headers automatically for sets in crosstabs

You can automatically add header labels on columns and rows when working with sets in a crosstab that uses a dimensional data source. The headers help consumers of the report to understand where the data is in the hierarchy.

Header labels are added only when you add new sets to your crosstab. The labels are not added to existing sets. After you enable this option, it remains on until you disable it, and applies to any new crosstabs that you create.

Click the "More" icon ( ), click "Options", then click the "Report" tab.

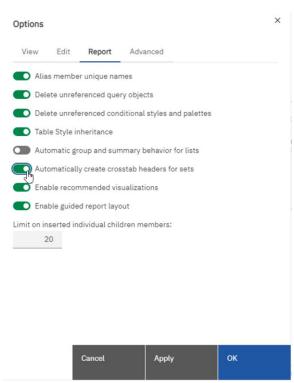


Figure 409 - Creating headers automatically for sets in crosstabs

Select "Automatically create crosstab headers for sets".

Click OK.

Header labels are now created in the rows and columns in a crosstab.

## 7.7.6 Showing Crosstab values as percentages

When you work with dimensional data sources, you can show crosstab values as a percentage of a summary instead of the actual values. When you show values as a percentage, you can compare the contribution of an item to the whole.



You can show crosstab values as a percentage of a summary on the rows, the columns, or the rows and columns.

By default, the summary type that is used to calculate the percentages is Automatic summary. When you show values as a percentage, a percentage measure data item is created.

You can also create a custom percentage calculation. For example, you can show values as a percentage of an intersection (tuple). Or you can show values as a percentage of a different summary type, such as "Maximum".

When you show values as a percentage, the fact cells are formatted with the percent data format. When you show the actual values, the fact cells are formatted with the number format. If you modify the data for-mat of the actual values, the change is lost when you switch between showing the actual values and percentage values.

You can show values as a percentage only in crosstabs. If you insert a chart, you cannot fill the chart with data from a crosstab that shows values as a percentage. If you create a chart from a crosstab that shows values as percentages, an empty chart is created in the report.

- I Select the measure for which you want to show values as a percentage.

  If there is only one measure in the crosstab, click the crosstab corner.
- From the report object toolbar, click the "More" icon ( ), click "Show value as", and click the percentage values that you want to show.
- If you click Custom, provide the information that is required to calculate the percentage values.
  - To change the default name of the percentage data item that you are creating, type the new name in the Name field.
  - In the Percentage based on box, choose to build the percentage data item based on a summary of sets in the crosstab or based on an intersection (tuple).
  - If you choose to build the percentage data item based on a summary of sets, in the Choose sets box, click the sets that you want to use. Then, click "Summary type" and select the summary that you want to use to calculate the percentage values.
    - If there is more than one data item on the crosstab edge that you chose for the sets, select which data item that you want to use.
  - If you choose to build the percentage data item based on an intersection (tuple), click the ellipsis and select the items that you want to use to create the intersection.
  - Click "OK".
- To edit a measure percentage data item, follow these steps.
  - Select the measure.
  - From the report object toolbar, click the "**More**" icon ( ), click "**Show value as**" > Edit.



- Modify the information for the data item as described in step 3.
- If you replaced a set in the crosstab with a different set, in the Choose sets box, click "Existing sets"
   when you want to base the percentage values on the set that you replaced.

### 7.7.7 Specify the Default Measure

You can specify the default measure for crosstabs and certain chart types. Specify the default measure to be used when the measures cannot be determined by what is on the edges. For example, you create a crosstab with "Order method" as rows and "Product line" as columns. You add "Quantity" and "Revenue" as nested rows, making "Order method" their parent. You then add "Country" or "Region" under "Order method". Since there is no measure specified for "Country" or "Region", you specify the default measure so that data is returned for each country or region.

In crosstabs, DWH - Reporting automatically sets the default measure when you insert a measure into the crosstab cells.

- To specify the default measure for a crosstab, do the following:
  - Click any part of the crosstab, and then click the "Select ancestor" icon ( ) in the title bar of the Properties pane.
  - Click Crosstab.

You can also click the container selector (three orange dots) of the crosstab to select it.

Set the "Default measure" property to the default measure.



Figure 410 - Specify the Default measure

I To specify the default measure for a chart, drag the measure to the Default measure box in the chart.

#### 7.7.8 Indent data

You can indent crosstab node members to set them apart from surrounding data.

When you insert a hierarchy in rows, all members are automatically indented according to their level. By default, the first member in a set is not indented. If you insert a hierarchy in columns, the members are not automatically indented. You can change the indentation properties of members in the report.



Relative indentation means that the member will shift by one tab when the member's level increases relative to the previous member in the hierarchy.

Indenting based on the level in the hierarchy means that the member will shift the number of tabs equivalent to the level in the hierarchy.

You can also indent objects by applying padding.

- I Click the crosstab node member to indent.
- In the Properties pane, set the "Level indentation" property to your indentation type, length, and direction.

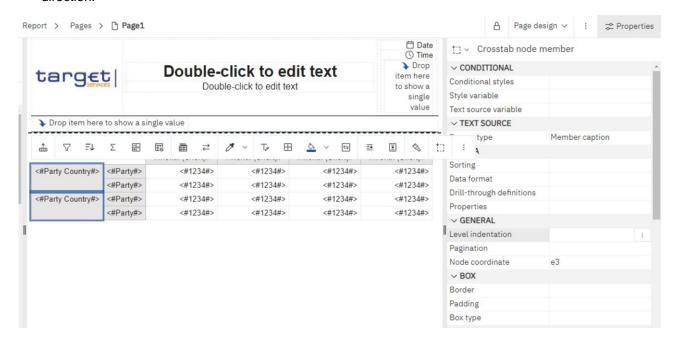


Figure 411 - Indent data - Properties pane - General - Level indentation

# 7.8 Working with Visualisations

Before creating visualizations, review the available visualisations to select the best type for your needs.

To view the available visualization types, add a Visualization object from the "**Toolbox**" pane (———) to an existing report.



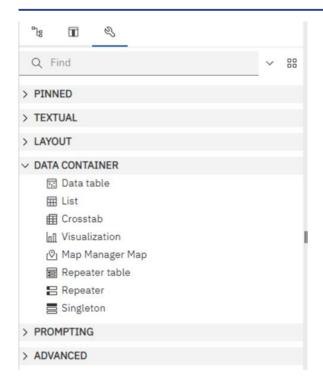


Figure 412 - Working with Visualisations - Data container - Visualization

In the Visualization gallery window, select "11.1 Visualizations" from the menu.

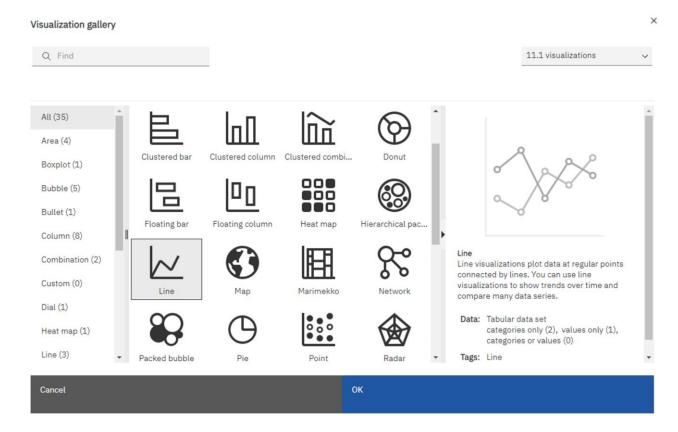


Figure 413 - Working with Visualisations - Visualization gallery

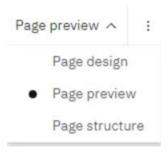


To create charts, drag data items from the "Source" tab (———) to the measures, data series and categories drop zones.

When you are working with dimensional data sources, do not insert member properties in the series or categories of a chart. By default, DWH - Reporting groups items that are inserted in these areas. Grouping member properties produces a warning when you validate the report.

To help you when creating visualizations, you can do the following:

I Preview your visualization style changes:



As you author your visualization and edit the visualization properties, DWH - Reporting provides you with a preview of your visualization, using simulated data. This allows you to view your style changes without running your report. You need to run your report to see the visualization with your actual data. You can disable the visualization preview in the options.

- Resize your visualization:
- Move the visualization drop zones into flyouts so that they appear only when you pause your pointer over the visualization.

After you create a basic visualization, modify the various chart objects to customize your visualization.

The DWH provides a number of recommended visualisations based on the data that you are working with.

Using a machine learning pipeline that is derived from training data and the input from visualization specialists, the DWH matches your data with the visualizations that illustrates your data.

When you drag a measure or column on to the canvas, the DWH chooses a recommended visualization for you. You can change it by selecting another visualization from either recommended visualizations or from all visualizations.

#### 7.8.1 Comparing measures in a visualization

You can compare measures from the same category in a visualization by adding multiple measures to the measure fields

For example, you can compare the unit price with the unit sale price.

I Create a bar or column visualization.



I Drag a member to the Bars field.

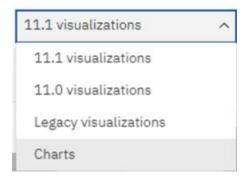
The visualization display different bars for the measures. The colouring is determined by the measures from the Length field.

Comparing measures is only available for the following visualization:

Area, Bar, Column, Hierarchical packed bubble, Packed bubble, Point, Clustered combination, Stacked combination, Line, Tiled map, Pie, Radar, Treemap, Waterfall and Wordcloud.

# 7.8.2 Adding a baseline to a visualization

Baselines are horizontal or vertical lines that cut through the "**chart**" to indicate major divisions in the data. Baselines can be used only in the "**Charts**"



For example, you can add a baseline to show a sales quota or break-even point.

In visualizations, you can define baselines by values on the numeric axis or the category axis.

Each baseline represents a value on an axis.

Depending on the type of visualization, you can use the following options to position the baseline.

Option	Description
Numeric Value	Uses a static numeric value.
Category Index	Uses the index value of the data item in the categories axis.
	For example, a Category index value of 1 indicates that the
	baseline is at the first data item. This is the default.
Percent on Axis (%)	Uses a percentage of the full range of the axis.

Table 104 - Adding a baseline to a visualization

For example, if the axis range is "-500 to 1100", a Percent on Axis value of 25% puts the baseline at "-100" (25% of the range, 1600).

Click the visualization in a report.



Depending on your chart and the type of baseline you want to add, in the Properties pane, under "Visualizations" > "Annotations", select the "Baselines"

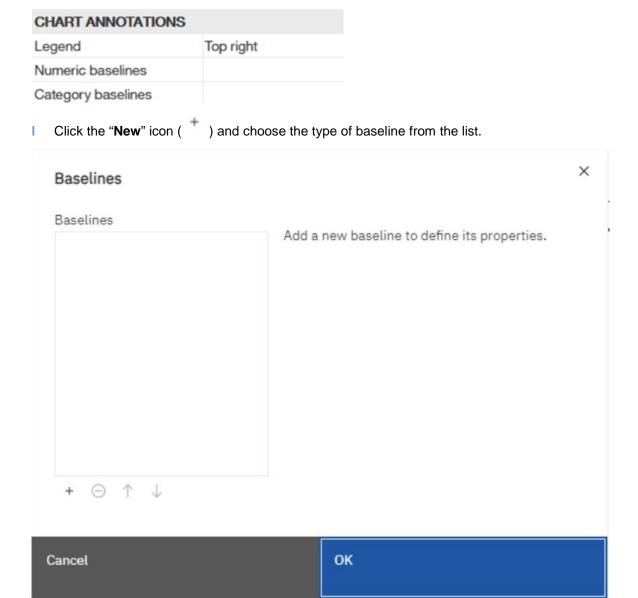


Figure 414 - Adding a baseline to a visualization



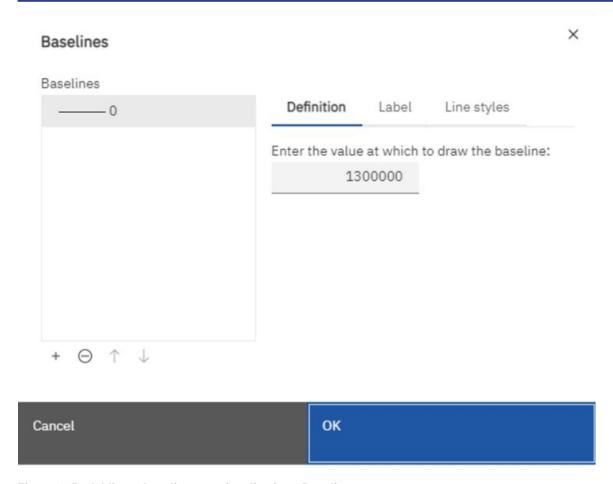


Figure 415 - Adding a baseline to a visualization - Baselines

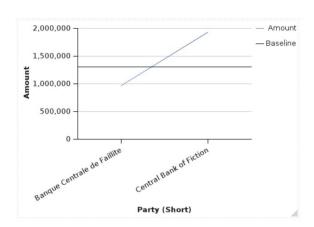


Figure 416 - Adding a baseline to a visualization - Baseline at 1.300.000

- I Specify the necessary criteria for the baseline position.
- I Under "Baseline Properties", type a label for the baseline and specify the line style and colour and the position of the label from the Baseline menu.



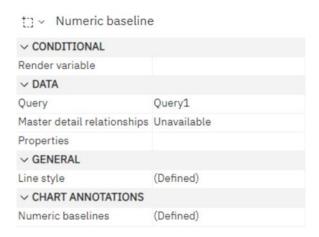


Figure 417 - Adding a baseline to a visualization - Baseline properties

The new baselines appear in the Baselines box.

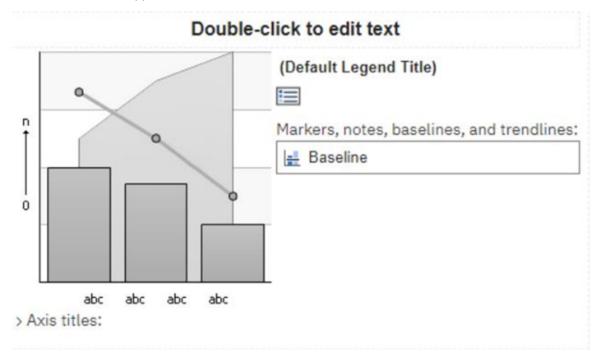


Figure 418 - Adding a baseline to a visualization - Baselines box

To delete a baseline, select the baseline in the Baselines box and click the "**Delete**" icon ( ...).

### 7.8.3 Change visualization from one type to another

You can change a visualization from one type (for example, a bar chart) to another type (for example, a line chart).

When you change an existing visualization to a new visualization type, DWH - Reporting keeps the properties from the existing visualization if those properties exist in the new chart type. For example, if you change a pie visualization to a bar visualization, Reporting maps your visualization palette to the new visualization,



but does not map the exploding slices, because the exploding slices property does not exist in a bar visualization.

- Click a visualization and, from the report object toolbar, click the "Change chart type" icon (
- I From the list, select a new chart type.
- If some chart properties cannot be converted, the "Chart property changes dialog box" appears notifying you of the properties that cannot be converted.

# 7.9 Charts

You can use reporting to create many chart types, such as column, bar, area, and line charts. To add a

"Chart" to your report, you have to click on the "Toolbox" (———) and select "Visualization". In the "Visualization gallery" window select "Charts" instead of "11.1 visualization".

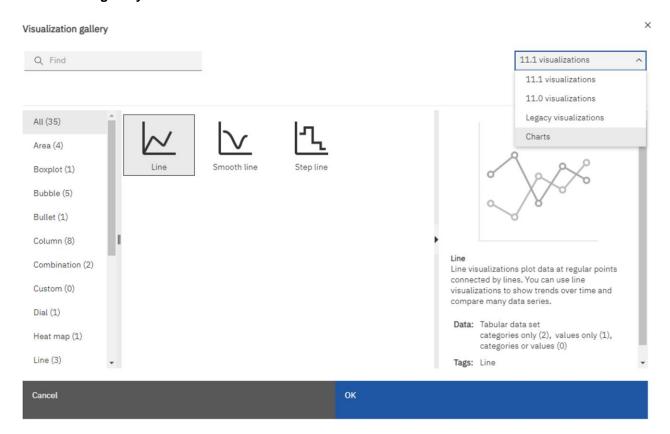


Figure 419 - Charts - Visualization gallery

### 7.9.1 Change Chart from one type to another

You can convert a chart from one type (for example, a bar chart) to another type (for example, a line chart).



When you convert an existing chart to a new chart type, DWH - Reporting keeps the properties from the existing chart if those properties exist in the new chart type. For example, if you convert a pie chart to a bar chart, Reporting maps your chart palette to the new chart, but does not map the exploding slices, be-cause the exploding slices property does not exist in a bar chart.

Click a chart and, from the report object toolbar, click the "Change chart type" icon (



From the list, select a new chart type.

If some chart properties cannot be converted, the "Chart property changes dialog box" appears notifying you of the properties that cannot be converted.

# 7.9.2 Customizing chart properties

After you create a chart, you can customize it by changing its properties.

You select the chart object in DWH - Reporting to view its properties. Some properties are dependent on the existence of other properties.

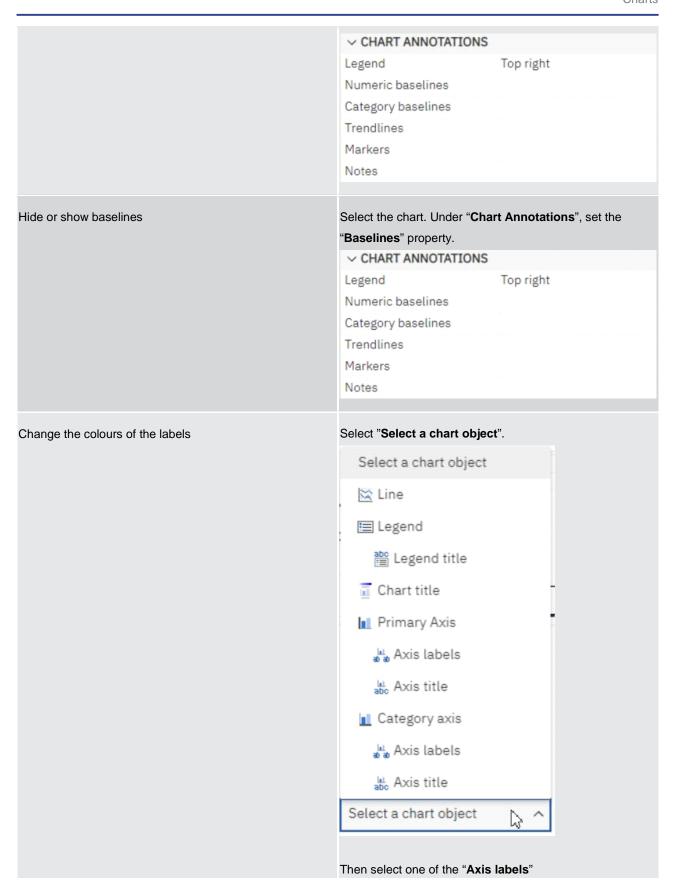
If you are familiar with using conditional variables, you can customize the chart to change its appearance or provide information in response to expressions or conditions.

As you edit the chart properties, Reporting provides you with a preview of your chart, using simulated data. This allows you to view your style changes without running the report. You can disable the chart preview in the options.

The following table shows some of the properties you can change in charts. These properties are available when you select the chart object unless specified otherwise in the Action to perform in the Properties pane column.

Goal	Action to perform	in the Properties pane	
Hide or show the title, subtitle, or footer	Select the chart. U	nder "Chart Titles", set the "Title",	
	"Subtitle", or "Footer" property.		
	→ CHART TITLES	→ CHART TITLES	
	Title	Show	
	Subtitle	Hide	
	Footer	Hide	
Hide or show the legend	Select the chart. U	nder "Chart Annotations", set the	
	"Legend" property.		

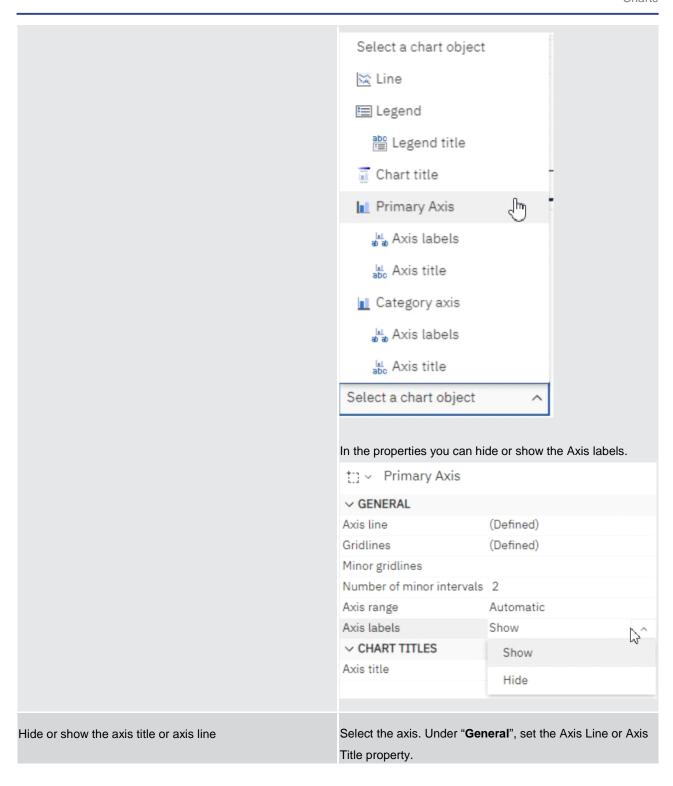




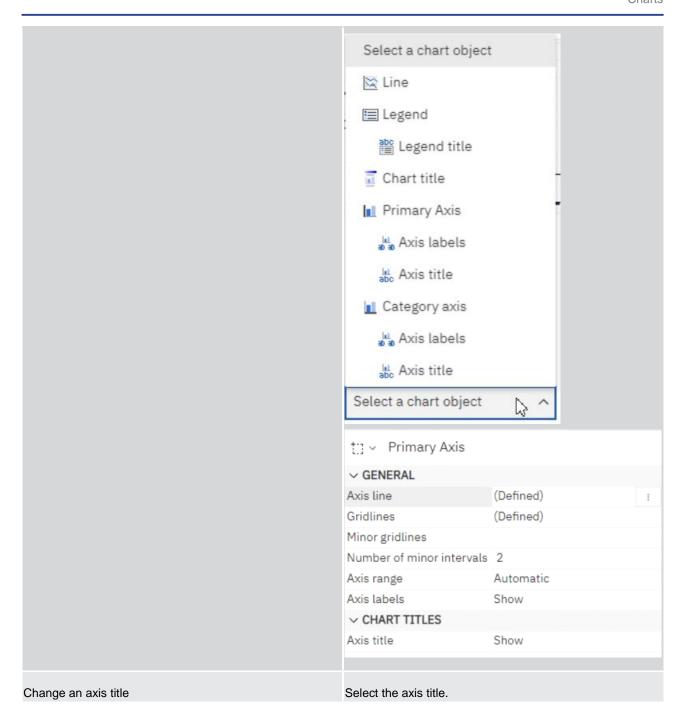


	,
	Primary Axis
	Axis labels
	abc Axis title
	In this properties you can change everything which is
	related to the labels.
	t:: v Axis labels
	∨ CONDITIONAL
	Conditional styles
	Render variable
	∨ DATA
	Data format
	∨ CHART LABELS
	Auto font size
	∨ COLOR & BACKGROUND
	Foreground color
	∨ FONT & TEXT
	Font
	∨ MISCELLANEOUS
	Classes Chart axis labels
Hide or show trendlines	Select the chart. Under "Chart Annotations", set the
	"Trendlines".
Hide or show markers	Select the chart. Under "Chart Annotations", set the "Markers" property.
Hide or show notes	Select the chart. Under "Chart Annotations", set the "Notes" property.
Hide or show the axes	Select the chart. Click "Select a chart object" Select the Y Axis (Primary Axis) or the X Axis (Category Axis).

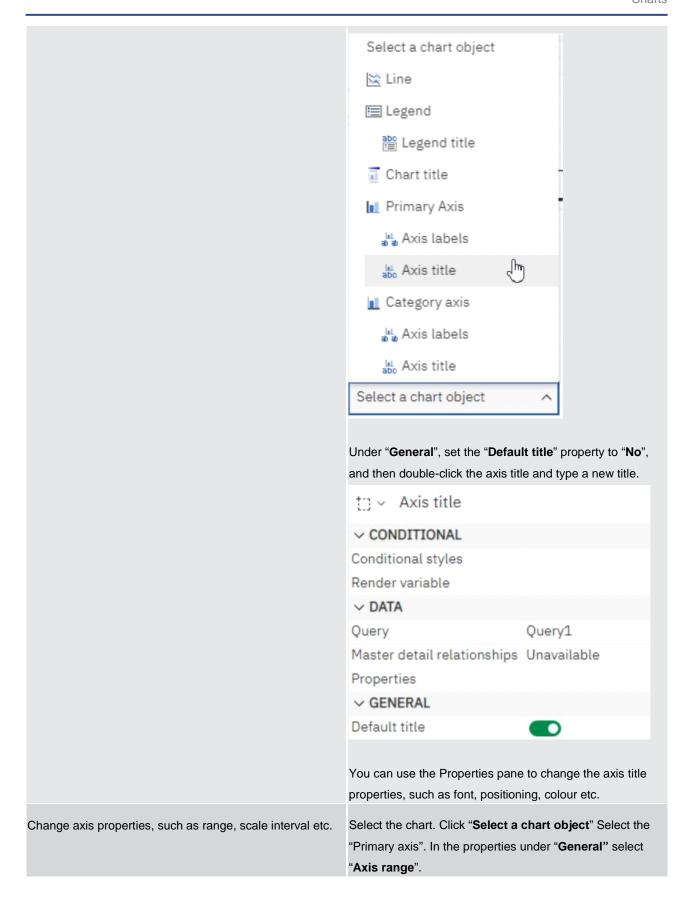




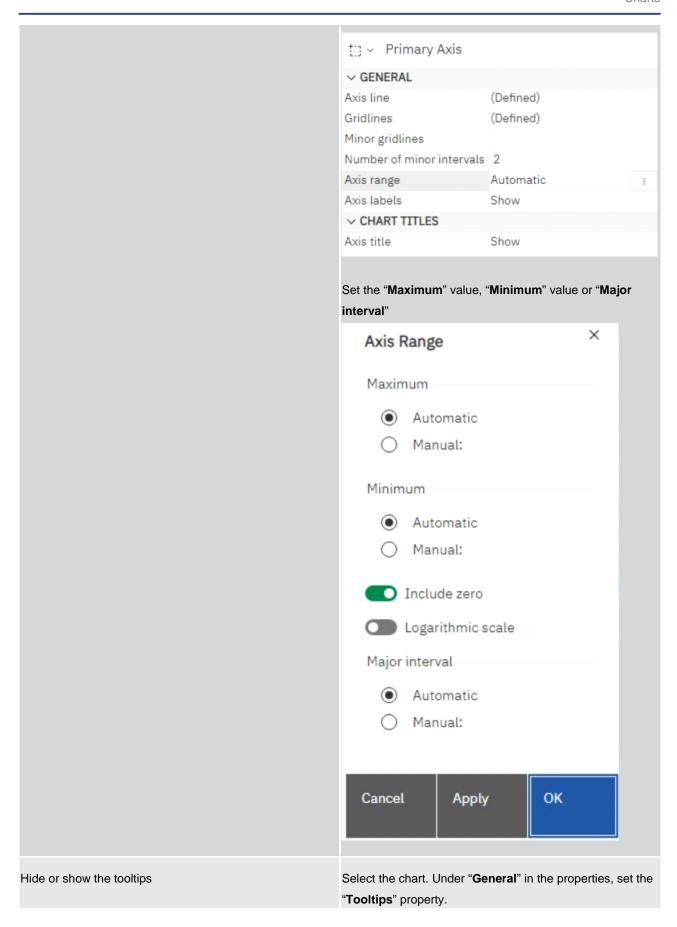




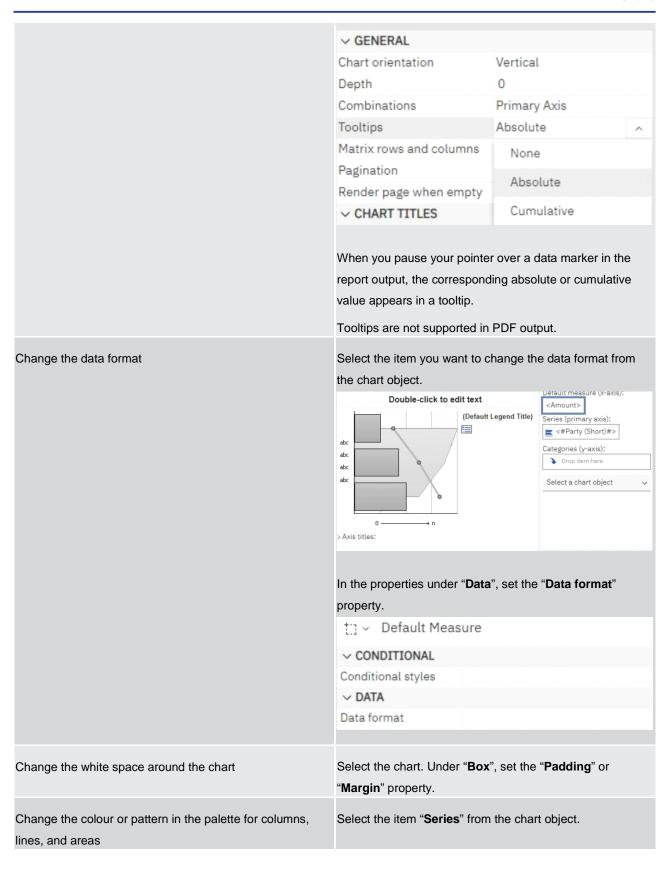




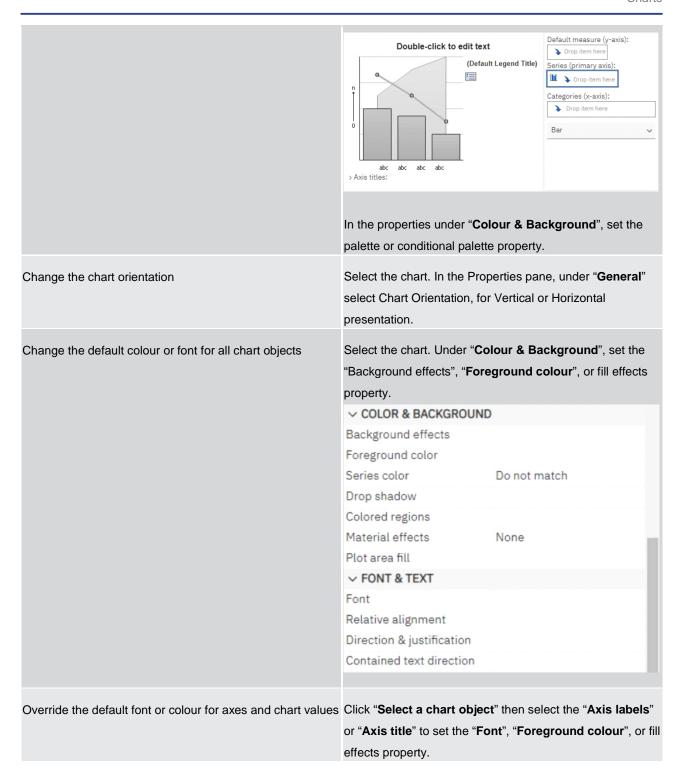




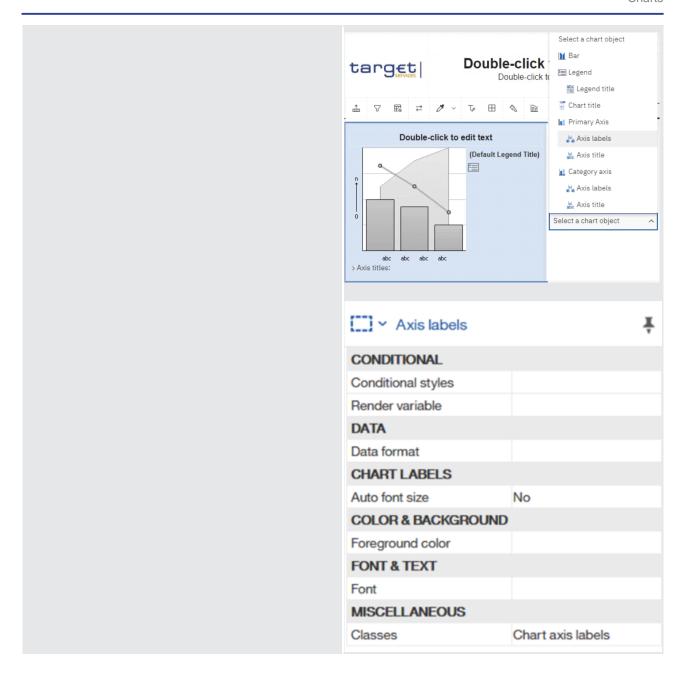




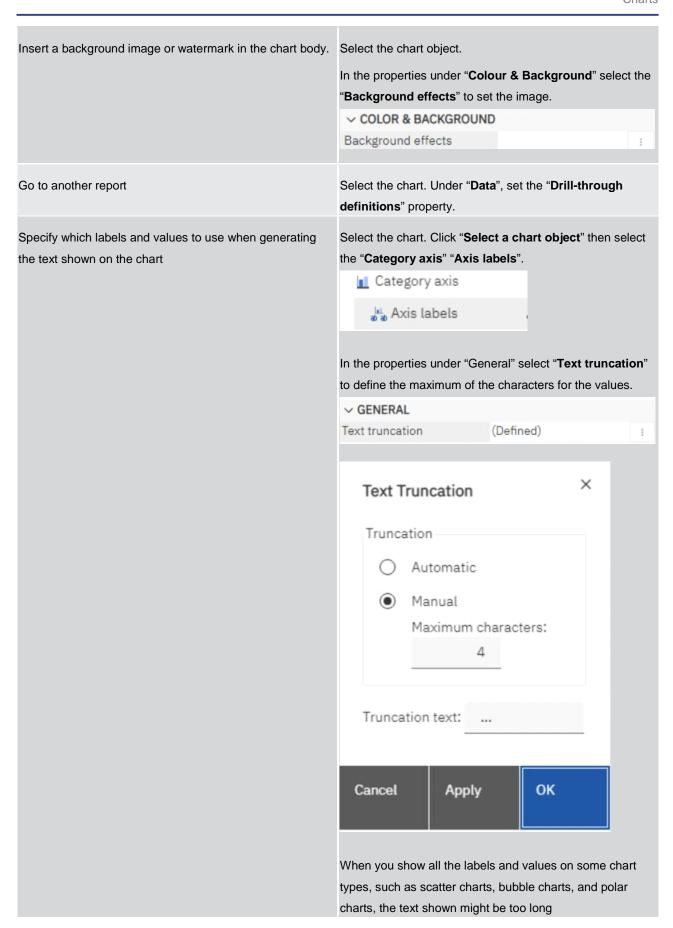














#### Table 105 - Customizing chart properties

## 7.9.3 Adding a note to a chart

You can add and position multiple notes on your chart.

- Select the chart object.
- I In the Properties pane ( Properties ), under "Chart Annotations", double-click the "Notes" property.
- Click the "New" icon ( † ).
- Type the note text in the "Text box" and click "OK".
- To delete a note, click the note and click the "**Delete**" button ( ist, click the up or down arrows.

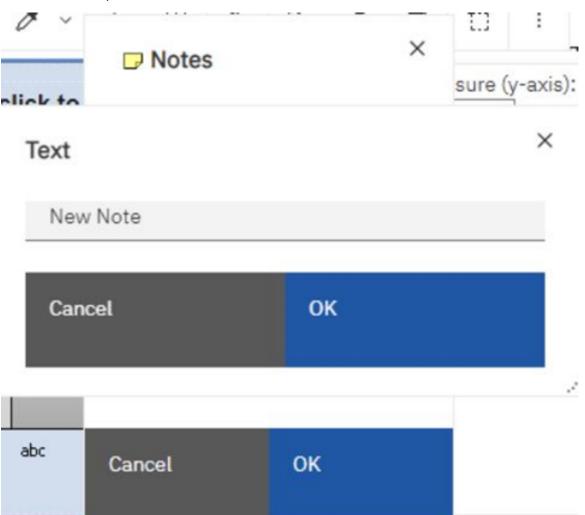


Figure 420 - Adding a note to a chart

In the "Notes dialog box", click "OK".



- Only for Current Default Chart:
- I To position the note, do the following:
  - Click the note icon ( □ ) in the chart.
  - In the Properties pane, under "Positioning", double-click the "Position" property.
  - To align the note horizontally, click the left, middle, or right alignment button.
  - To align the note vertically, click the top, middle, or bottom alignment button.
  - To set the margins around the chart body, type margin values and choose margin units.
  - To display the note at a set distance from the sides of the chart area, from the "Anchor" list, click
     "Relative to chart".
  - To display the note at a set distance from the sides of the chart body, from the "Anchor" list, click
     "Relative to chart body".
  - To display the note at a set distance from a data item, from the "Anchor" list, click "Report expression", click the three dots button beside "Expression", and enter an expression in the "Report expression dialog box".
  - To edit the text, double-click the text next to the note object (□) in the chart.

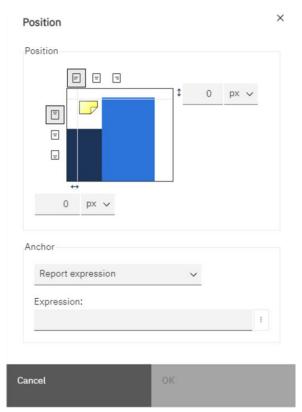


Figure 421 - Adding a note to a chart - Position the node / Expression



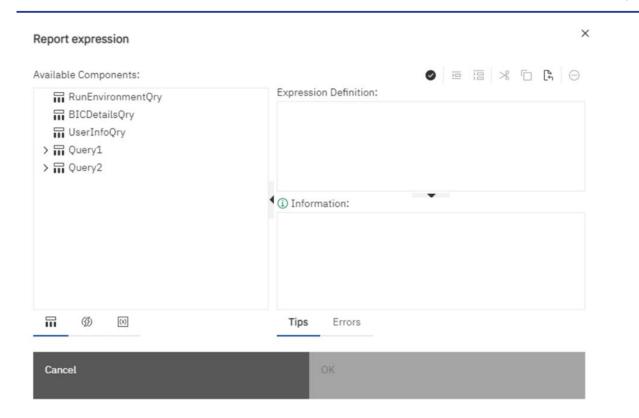


Figure 422 - Adding a note to a chart - Report expression

# 7.9.4 Adding a baseline to a chart

In charts, you can define baselines by values on the numeric axis or the category axis.

- I Click the chart object.
- Depending on your chart and the type of baseline you want to add, in the Properties pane, under "Chart Annotations", double-click the "Numeric baselines" or "Category baselines" property.



Click the "New" icon ( ) and choose the type of baseline from the list.



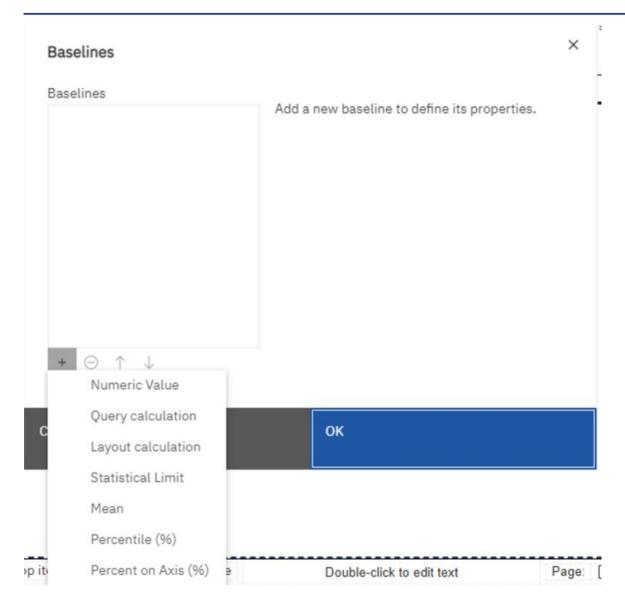


Figure 423 - Adding a baseline to a chart

- I Specify the necessary criteria for the baseline position
- Under "Baseline Properties", type a label for the baseline and specify the line style.
- I To remove the baseline from the legend, delete the label.
- If you add more than one baseline, specify their order using the up and down arrows.
- The new baselines appear in the markers, notes, baselines, and trendlines box.
- To change the label that appears next to the baseline, under the markers, notes, baselines, and trendlines box, double-click the placeholder text next to the "Baseline" icon ( ) numeric and type your text.
- I To change the line style, select the chart and in the Properties pane, under "Chart Annotations", double-click the "Baselines", "Numeric baselines", or "Category baselines" property.
- To delete a baseline, select the "Baseline" icon ( ) and click the "Delete" button ( ).



## 7.9.5 Adding a marker to a chart

Markers are symbols that you add to a chart to designate points of significance that can help you analyse or understand the data.

For example, you might want to add a marker to designate the time when a significant event happened, such as the date when a new product was launched.

You can add a marker to combination, progressive column, pareto, scatter, and bubble charts.

When you define the position of the marker, you define the X- and Y-axes coordinates for the placement of the symbol. You can position the marker in the chart using the following options.

Option	Position
Numeric Value	Uses a static numeric value.
Query Calculation	Uses a query calculation from the same query or from a different query.
Layout Calculation	Uses a layout calculation.
Statistical Minimum	Uses the following expression:
	25th percentile value - 1.5 * (75th percentile value - 25th percentile value)
	For example, if 2.5 is the 25th percentile and 7.5 is the 75th percentile, the statistical
	minimum is $-5 [2.5 -1.5(5) = -5]$ .
	Statistical minimum uses percentiles to determine values, and might not always
	appear in the chart if the values are off the axis.
Statistical Maximum	Uses the following expression:
	75th percentile value + 1.5 * (75th percentile value - 25th percentile value)
	For example, if 2.5 is the 25th percentile and 7.5 is the 75th percentile, the statistical
	maximum is 15 [7.5 +1.5(5) = 15]. Statistical maximum uses percentiles to determine
	values, so the marker might not always appear on the chart if its value is off the axis.
Mean	Uses the statistical mean plus or minus a number of standard deviations based on all
	charted data values on the specified axis.
Percentile	Uses a specified percentile.
Percent on Axis	Uses a percentage of the maximum axis value.

#### Table 106 - Adding a marker to a chart

If you apply more than one marker, you can specify the order in which they should be drawn when the report runs. If you have two markers with the same coordinates, the first one in the list is drawn first and the next one is drawn after the first.

To add a marker in a current default chart do the following:



- 1. Select the chart object.
- 2. In the Properties pane, under "Chart Annotations", double-click the "Markers" property.
- 3. Click the "**New**" icon ( † ), and then set the marker properties
- 4. In the Based on box, select the chart object that will determine the marker position.
- 5. In the "Numeric position" box, specify how you want to define the position on the numeric (Y) ax-is.
- 6. In the "Category position" box, specify how you want to define the position on the category (X) axis.
- 7. In the marker "Label" box, type the label that you want to give to the marker.
- 8. In the marker "Size" box, specify the size of the marker symbol.
- 9. To specify the colour, fill, and shape of the marker symbol, click the "Colour and style" box.
- 10. If you add more than one marker, specify their order by using the up and down arrows.
- 11. The new markers appear in the "markers, notes, and baselines box".

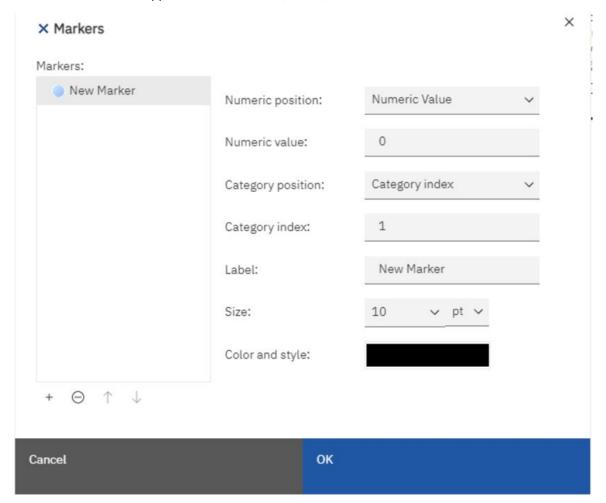


Figure 424 - Adding a marker to a chart



# 7.9.6 Creating a drill-down Chart

If you use a dimensionally-modelled data source, you can create a chart that allows you to drill down to low-er-level data or drill up to higher-level data.

Drilling up and down allows you to view more general or more detailed information on your data within a predefined dimensional hierarchy.

This is an example of a dimensional hierarchy:

All Years - Year - Quarter - Month

Before you begin, ensure that you are using a dimensionally-modelled data source.

I Open a chart that uses a dimensionally-modelled data source.

```
Click the "Show properties" icon ( ), click the "More" icon ( ), click "Options" ( Options... ), and then, in the "Edit" section, click on "Enable drill-up or drill-down links".
```

By default, the system determines which items can be drilled on based on the dimensional structure.

The chart generates links for any item that can be drilled down on.

You can drill down or drill up by right-clicking and choosing the action from the context menu. The menu items are unavailable if an item cannot be drilled up or down on.

# 7.10 Adding prompts to filter data

You can add prompts to a report to add interactivity for users. Prompts act as questions that help users to customize the information in a report to suit their own needs. For example, you create a prompt so that users can select a product type. Only products belonging to the selected product type are retrieved and shown in the report.

Prompts are composed of three interrelated components: parameters, prompt controls, and parameter values. Parameters are based on parameterized filters and form the questions to ask users. Prompt controls provide the user interface in which the questions are asked. Parameter values provide the answers to the questions.

The Reportstudio provides several ways to create prompts.

- build your own prompt and prompt page
- I create a parameter to produce a prompt
- I insert prompts directly into the report page

In dimensional reporting, you can also define prompts using context filters.



If you include reports from different packages in an interactive dashboard that uses global filters, ensure that you use the same parameter name for the prompt in all the reports. You can also use context filters, also known as slicer filters, to focus the data in your report.

Syntax of Prompt Expressions

Prompt expressions use the following syntax, where p represents the parameter name.

You can also use these expressions to create parameterized data items that you can then use in master detail relationships.

The type of expression you use depends on whether you have chosen relational or dimensional reporting style. For more information about reporting styles, see Relational and dimensional reporting styles.

Relational: Detail Filter Expressions	Dimensional: Context (Slicer) or Edge Expressions
[data item] = ?p?	[level or hierarchy]->?p?
for single-select prompts and master detail relationships	For single-select member prompts and master detail relationships
[data item] in ?p?	set([level or hierarchy]->?p?)
for multi-select prompts	For multi-select member prompts
	filter ([set], [property expression] = ?p?)
	For single-select value prompts and master detail
	relationships
	A property expression is an expression that is assigned to a
	property to enable dynamic update of the property when
	the report runs.
	filter ([set], [property expression] IN ?p?)
	For multi-select value prompts
	A property expression is an expression that is assigned to a
	property to enable dynamic update of the property when
	the report runs.

Table 107 - Adding prompts to filter data

# 7.10.1 Build your own Prompt and Prompt page

Create your own prompt and prompt page to control how they appear in a report.

#### **Procedure**

In the navigation menu, click "Report" and then click "Prompt pages".



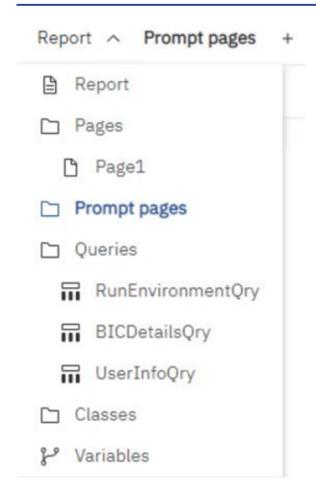


Figure 425 - Build your own Prompt and Prompt page

- Click the "Toolbox" icon (\_\_\_\_\_), and drag "Page" to the "Prompt pages box".
- I Double-click the page you just created.
- Click the "**Toolbox**" icon (———), expand "**Prompting**", and then drag one of the following prompt controls to the prompt page.



/ PF	ROMPTING
	I Text box prompt
	□ Value prompt
	Select & search prompt
	Date & time prompt
	🖰 Date prompt
	■ Interval prompt
	"lg Tree prompt
	Generated prompt
	Prompt button

Figure 426 - Build your own Prompt and Prompt page - Prompting

Prompt control	Description
Text box prompt	Retrieves data based on a value that user's type. Use this control when users know exactly what value they want to enter, such as a name or account number.
Value prompt	Retrieves data based on values that users select from a list.  Use this control to show a list of possible values from which users can choose. The maximum number of items that can appear in a list is 5000.
Select & search prompt	Retrieves values based on search criteria that users specify. Data is then retrieved based on values users select from the search results. Use this control instead of a value prompt if the list of values is very long, which can slow down performance. Users have the option of performing a case sensitive or case insensitive search. A case sensitive search is faster, while a case insensitive search usually returns more values. You cannot use this control if you are working with SAP BW data sources.
Date prompt	Retrieves data based on a date that users select. Use this control to filter a date column. Users can retrieve data for a specific day, a set of days, or a range of days.
Time prompt	Retrieves data based on a time that users select. Use this control to restrict a report to a particular time or time range. For example, users can see how many orders are received after business hours. Users can then use this information to determine the number of staff needed to work after hours.
Date & time prompt	Retrieves data based on a date and time that users select.



	Use this control to filter a datetime or timestamp column.
	This control is useful for specifying ranges. For example,
	users can retrieve all orders received from Monday at 12:00
	a.m. to Friday at 5:00 p.m.
Interval prompt	Retrieves data based on a time interval that users specify.
	Use this control to retrieve data that is related to the
	passage of time. For example, users can retrieve a list of
	products that were returned 30 or more days after they
	were purchased.
	word paramassa.
Tree prompt	Retrieves data based on values that users select from a list.
	Values are organized hierarchically. This control is useful
	when you are working with dimensional data sources. Data
	is shown from the top of a dimension hierarchy to the most
	detailed member, and users can choose the level of detail
	they want to view in the report. For more information about
	·
	tree prompts, see Control the Data That Appears in a Tree
	Prompt. Tree prompts let you page through large numbers
	of prompt values with a More link at the bottom of the tree.
Generated prompt	Selects a prompt control based on the data type of the data
Contrated prompt	item. This control acts like a placeholder. When users run
	·
	the report, the control is replaced by the appropriate prompt
	control. For example, if users are prompted for date values,
	the control is replaced by a date & time prompt.

## Table 108 - Build your own Prompt and Prompt page

The Prompt Wizard dialog box appears.

- If you are creating a text box, date, time, date and time, interval, or generated prompt, do the following:
  - Create a new parameter for the prompt or use an existing or global parameter.
  - Click "Next".



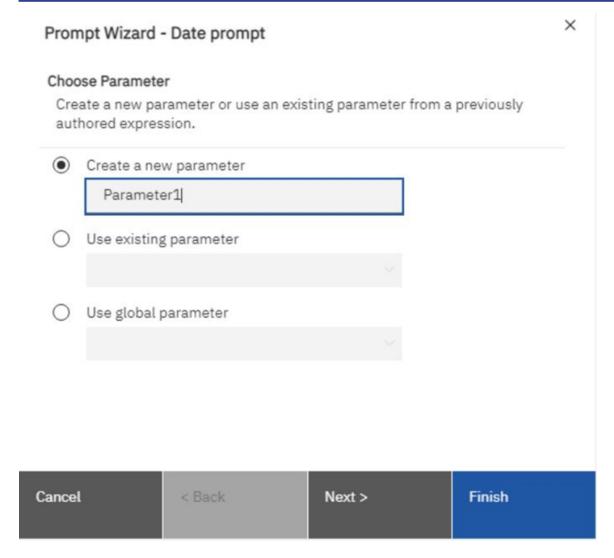


Figure 427 - Build your own Prompt and Prompt page - Prompt Wizard dialog box

- If you created a new parameter, define the expression by selecting a data item from the package and the operator to use.
- Make the prompt optional clicking the left side of the "Make the filter optional" check box.



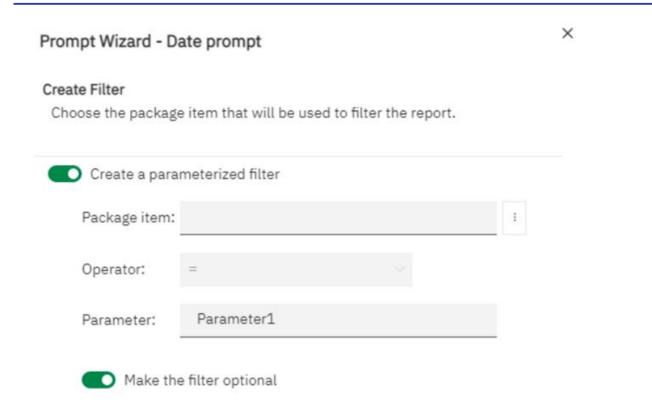




Figure 428 - Build your own Prompt and Prompt page - Prompt Wizard dialog box - Make the filter optional

- If you are creating a "Value", "Select & search", or "Tree" prompt, do the following:
  - Create a new parameter for the prompt or use an existing or global parameter.
  - Click "Next".
  - If you created a new parameter and you want to use the parameter to filter data, select the "Create a parameterized filter" check box and define the expression by selecting a data item from the package and the operator to use.
    - If you are creating a tree prompt, you must choose "in" in the "Operator" box.



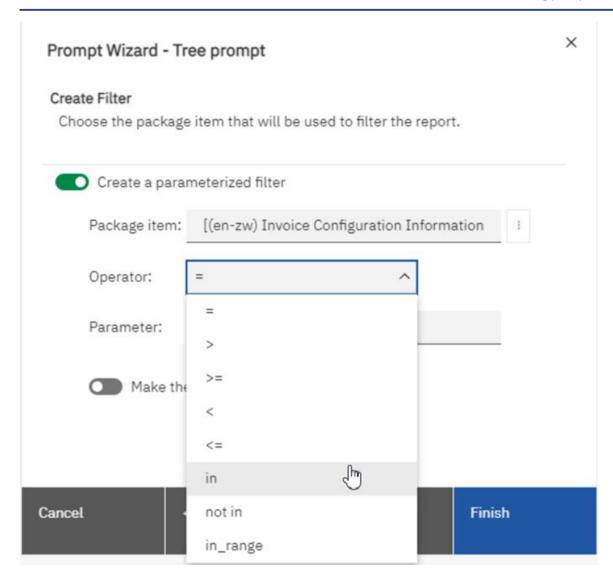


Figure 429 - Build your own Prompt and Prompt page - Prompt Wizard - Tree prompt

- You can also use a parameter to provide a value for a layout calculation, such as showing a user's name in the report. When the report is run, you can use a parameter to prompt the user to type his name and have it appear in the report.
- Make the prompt optional by clicking the left side of the "Make the filter optional" check box.
- Click "Next".
- If you created a parameterized filter and you have more than one query defined in the report, select the check box for the query on which to filter and click "Next".



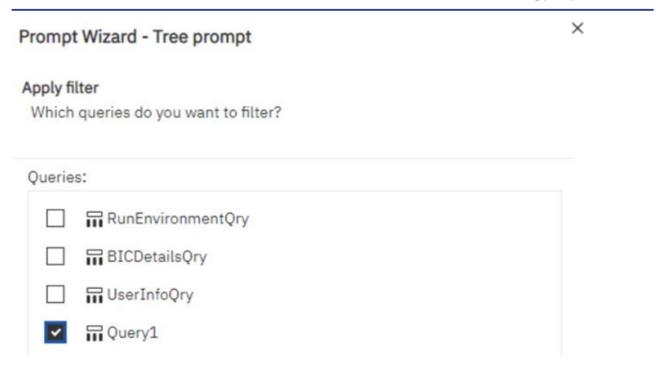


Figure 430 - Build your own Prompt and Prompt page - Prompt Wizard - Tree prompt - Apply filter

Select the "Create new query" check box to create the query that will be used to build the list of data values shown when the report is run.

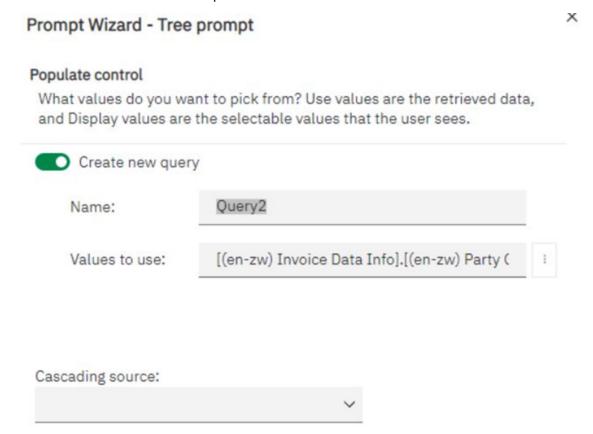


Figure 431 - Build your own Prompt and Prompt page - Prompt Wizard - Tree prompt - Create new query



- Do not create a new query if you want to link the prompt to an existing query or if you intend to create the query at a later time.
- Click the tree dots button beside Values to use and click the data item on which to prompt.
- To choose a data item that is different than what users will see when they are prompted, click the tree dots button beside "Values to display" and click the data item.
  - To create a cascading prompt, in the "Cascading source" box, click the parameter that represents the cascade source.

#### Click "Finish".

The prompt control is added to the prompt page. A prompt page is like a report page. You can insert graphics and text and apply formatting.

You can also modify the properties of the prompt control by clicking it and making changes in the Properties pane.

### 7.10.2 Create a Prompt Directly in a Report Page

You can add prompt controls directly in a report page instead of creating a prompt page.

Prompt controls that are added to report pages will not appear in the following:

- saved reports
- I PDF reports
- I scheduled reports

Prompt controls are interactive. They are used to satisfy parameter values before running a report. As a result, prompt controls added to a report page only appear when you run the report in HTML format. When you run a report in HTML format, users select which values they want to see, and the report is refreshed, producing a new report.

For the previously listed non-interactive reports, prompt parameter values must be collected and satisfied before the report is run. If you wish to create a prompt directly to the prompt page, make sure to set the "Required" under the "General" properties to "No", the "Auto-submit" to "Yes" and the "Usage" of the "Detail Filters" to "Optional".



To set the "**Detail Filters**" to "**Optional**" select the query that renders the results, click on the filter and set it up in the properties.



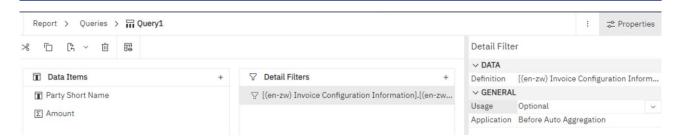


Figure 432 - Create a Prompt Directly in a Report Page

For inserting a prompt in your report page do the following:

Click the "Toolbox" icon (———), drag a prompt control to the report.

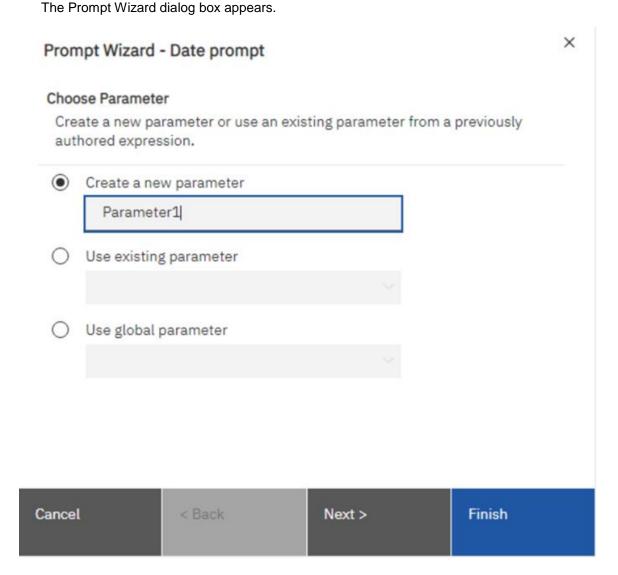


Figure 433 - Create a Prompt Directly in a Report Page - Prompt Wizard - Date prompt

Provide the information necessary to create the prompt.



Make the prompt optional by clicking the left side of the "**Make the filter optional**" check box. Otherwise, when you run the report for the first time, the prompt appears in a generated prompt page rather than in the report page. Alternatively, you can specify a default selection for the prompt.

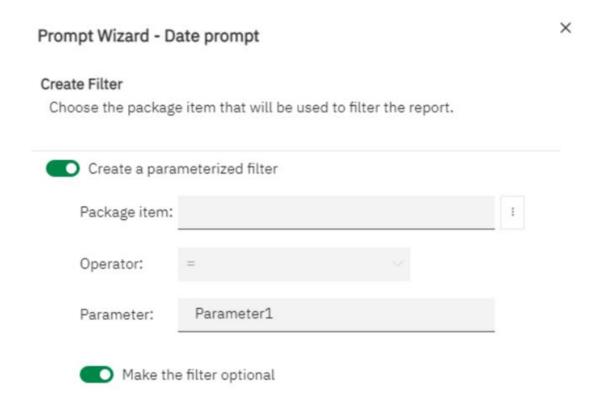




Figure 434 - Create a Prompt Directly in a Report Page - Prompt Wizard - Date prompt - Make the filter optional

- In the work area, click the prompt.
- In the Properties pane, set the "Auto-submit" property to "Yes".
  - If you do not set the "**Auto-submit**" property to "**Yes**", the report will not refresh when users select a different prompt value.

An alternative to setting the prompt to auto-submit is to add a prompt button from the "Toolbox" icon (

\_\_\_\_\_) and set its "Type" property to "Finish".





The prompt control is added to the report page. You can modify its properties by clicking it and making changes in the Properties pane.

## 7.10.3 Control the data that appears in a tree prompt

You can control what data appears in a tree prompt and how the data is structured to get the results that you want. To do this, you add various functions to the filter expression.

In addition, the operator that you chose in the "**Prompt Wizard**" dialog box controls what appears next to each prompt value. If the "**Operator**" is "**in**" or "**not in**", check boxes appear next to each prompt value. If the "**Operator**" is equals "(=)", no check boxes appear.

Please be advised that the tree prompt could only be used with multidimensional data.



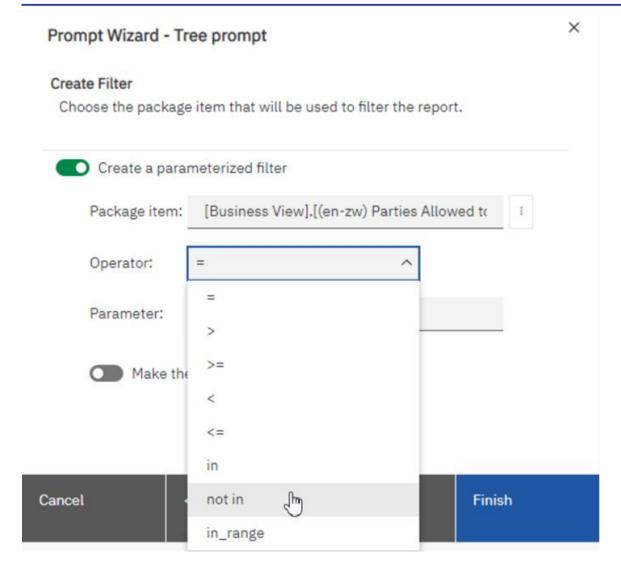


Figure 435 - Control the data that appears in a tree prompt - Prompt Wizard - Operator

- Click the "Data items" icon ( ), and click the query that is associated with the prompt.
- In the Data Items pane, double-click the data item on which you are prompting.
- In the "Expression Definition" box, type one of the following functions.



Goal	Function
Show the hierarchical structure of all members in the hierarchy. If this function is not used, all members are shown in a flat list.	rootmembers (data_item)
Show the descendants of the data item in a hierarchical structure where x represents the level. For example, if you are prompting on the Year hierarchy and x=1, you will see 2020, 2021, and 2022 in the tree. If x=2, you will see 2020 Q1, 2020 Q2 etc.	descendants (rootmembers (data_item), x)
Show the children of a member. For example, 2018 Q1, 2018 Q2, 2018 Q3, and 2018 Q4 appear for the member 2018.	children (member)

Table 109 - Control the data that appears in a tree prompt

### 7.10.4 Modifying prompts

For each prompt you create, you can modify its properties by specifying values in the Properties pane. Some properties you set for a prompt may be overridden under some conditions. For example, some properties set for the filter associated with a prompt may override the corresponding prompt property. By default, when you create a prompt, the Reportstudio selects the prompt control interface. You can change the prompt control interface depending on the type of prompt you created.

#### 7.10.4.1 Choose a drop-down list, a list box, or a radio button group:

The following example is made for a value prompt:

- Click the prompt control.
- In the Properties pane, set the "Select UI" property to the interface



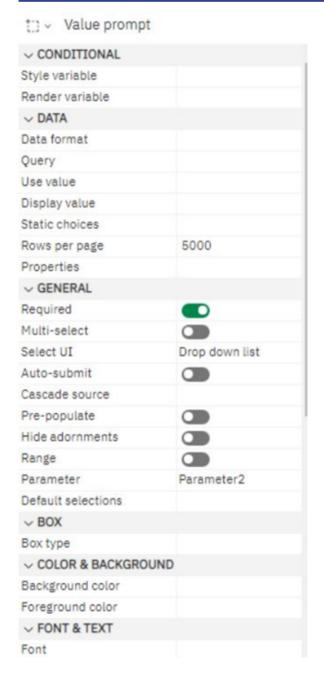


Figure 436 - Modifying prompts - Properties - General - Select UI - List box

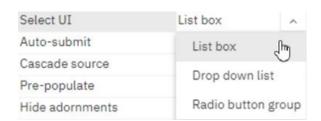


Figure 437 - Modifying prompts - Properties - General - Select UI - List box



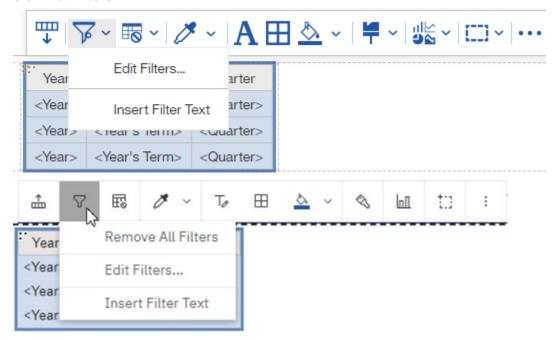
## 7.10.4.2 Prompt requires user input

You can specify that a prompt requires user input before the report can run.

- I Click the prompt control.
- In the Properties pane, click the left side of the "**Required**" property checkbox.



- Click the "Pages" icon ( ), and click a report page.
- Click the report object associated with the prompt, from the report object toolbar, click "Filters" and then click "Edit filters".



- Click the filter associated with the prompt.
- In the "Usage" box, click "Required".



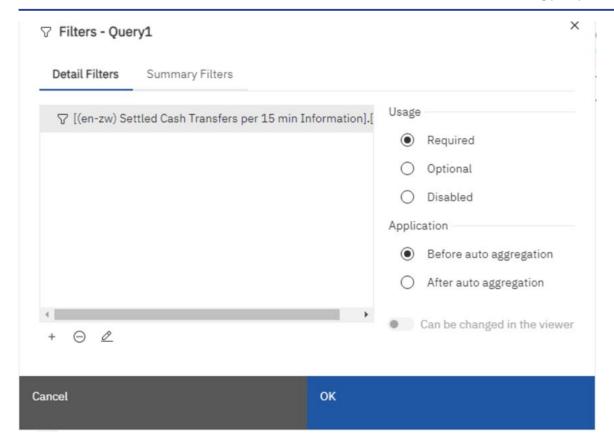


Figure 438 - Modifying prompts - Filters - Usage box

When you run the report, a star appears next to the prompt indicating that the user must select or type a value.

If you have a cascading prompt and the parent prompt control is required, the child prompt control is disabled. This ensures that users choose at least one value in the parent prompt before they can choose a value in the child prompt. Conversely, if the parent control is optional, then the child control is populated. This gives users the ability to choose values in the child prompt without having to choose a value in the parent prompt.

#### 7.10.4.3 Selecting multiple values in a prompt

You can create a prompt in which a user can select more than one value. For example, you have a prompt to select a product line. You can set the prompt so that users can select more than one product line. If you enable multiple selections, the "Autosubmit" property is always set to "No".

If you have a prompt that is used in both a single value context and a multivalue context, the most restrictive context (usually the single value context) takes precedence. If you run into a problem where you have a multivalue prompt but can only select one value, then check to see if the prompt is used in more than one context.

I Click the prompt control.



- In the Properties pane, choose whether to allow users to specify more than one value or a range of values:
  - To allow users to specify more than one value, set the "Multiselect" property to "Yes".

## t: v Value prompt

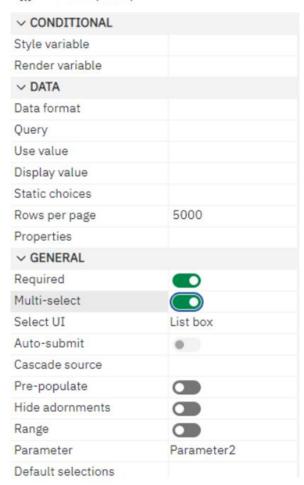


Figure 439 - Modifying prompts - Properties - General - Multi-select

Ĺ	Click the "Pages" icon (	Pages	), and click a report page

- Click the report object associated with the prompt, from the report object toolbar, click "Filters" ( ) and then click "Edit filters".
- Double-click the filter associated with the prompt.



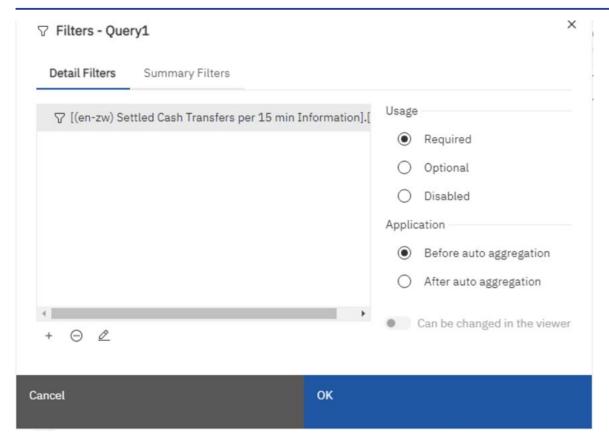


Figure 440 - Modifying prompts - Filters - Edit filters

Click the "Edit" icon ( — ) and type an operator like the following example:

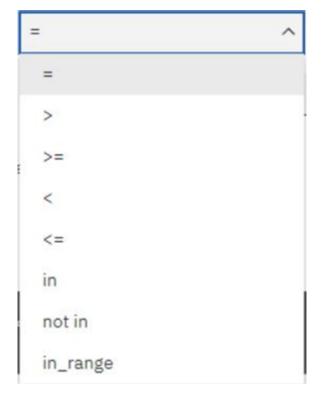


Figure 441 - Modifying prompts - Operator



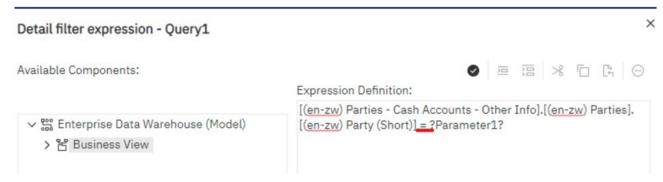


Figure 442 - Modifying prompts - Detail filter expression

- If you are creating a multi-select prompt, change the "**Operator**" to "**in**". For example, [Product\_line] in ?Product line? where [Product\_Line] is the name of the data item allows users to select multiple product lines.
- If you are creating a range prompt, change the "**Operator**" to "**in\_range**". For example, [Margin] in\_range ?Margin? where [Margin] is the name of the data item allows users to specify a margin range.

After creating the prompt you can hold "Strg" to select more than one value.

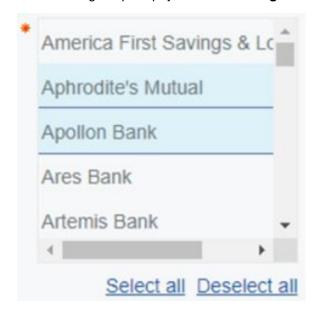
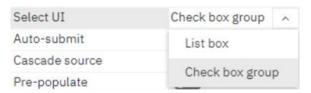


Figure 443 - Modifying prompts - Select more than one value

Another possibility is to click the prompt control and set the "Select UI" in the properties to "Check box group".





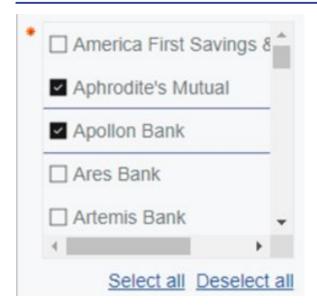


Figure 444 - Modifying prompts - Check box group - Select more than one value

#### 7.10.4.4 Show or Hide Prompt Status

Each prompt you create in a report provides dynamic validation when the report is run. Validity checks are performed to ensure that the data is correct and that required values are supplied. For example, a star appears next to each required prompt. Click the prompt control.

In the Properties pane, under "General" click the right side of the "Hide adornments" property to hide the prompt characters or click the left side to show them.

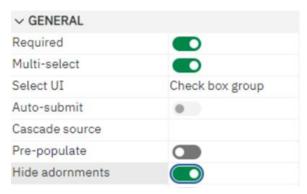


Figure 445 - Modifying prompts - Properties - General - Hide adornments

#### 7.10.4.5 Specify a Default Selection for a Prompt

You can specify a default selection for a prompt so that users do not have to select or type a value when they run the report.

- 1. Click the prompt control.
- 2. To define a range of values, in the Properties pane, click the right side of the "Range" property.



- 3. To specify more than one default selection, in the Properties pane, click the right side of the "Multi-select" property to "Yes".
- 4. In the Properties pane, double-click the "Default selections" property.
- 5. Click the "Add" button ( ) and do one of the following:
  - If you chose to define a single value, type the value as the default selection.
  - If you chose to define a range of values, type the minimum and maximum values of the range in the "Minimum value" and "Maximum value" boxes, respectively.

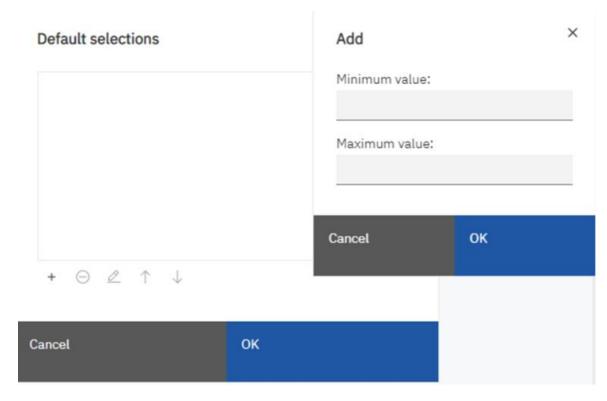


Figure 446 - Modifying prompts - Properties - Default selections - Minimum value/ Maximum value

6. Repeat step 4 to specify other default selections.

#### 7.10.4.6 Customize Prompt Text

You can customize the instructional text that appears around prompts. For example, a value prompt with multiple selections includes a "**Select all**" link below the choices that you can customize to text other than "**Select all**".

- I Click the prompt control.
- I To change the default prompt text, in the Properties pane, double-click any of the properties under "Prompt Text" which you want to change.

When you select a property in the Properties pane, its description appears in the information pane below the Properties pane.



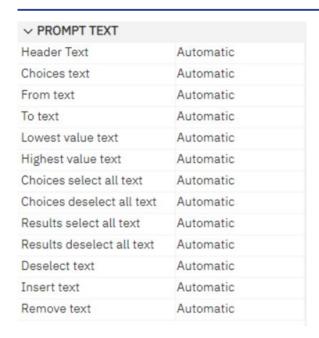


Figure 447 - Modifying prompts - Properties - Prompt Text

Click "Specified text", and then click the three dots button.

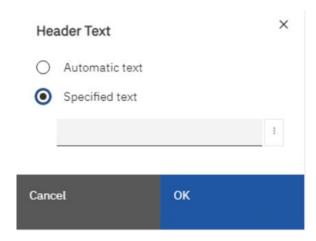


Figure 448 - Modifying prompts - Properties - Prompt Text - Header Text

In the "Localized text" dialog box, type the text that you want to appear.



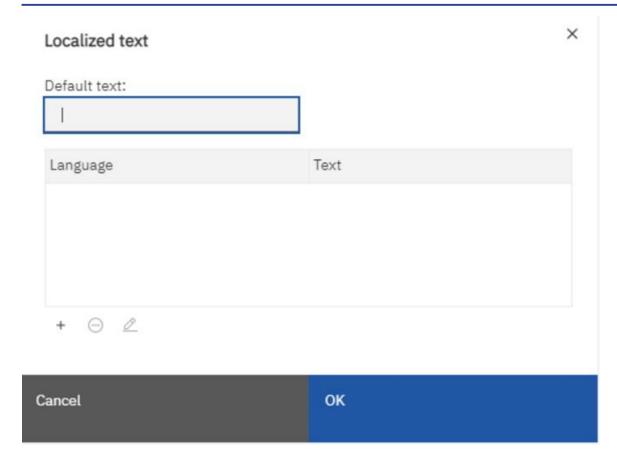


Figure 449 - Modifying prompts - Properties - Prompt Text - Header Text - Localized Text

## 7.10.4.7 Add prompt buttons

Add prompt buttons so that users can submit selected items, cancel reports, or navigate between pages. When you are building prompts and prompt pages, you may have to add "**Prompt buttons**" to submit selections. Some prompt controls, such as the "**Value prompt**", can be set to submit selections automatically. Other prompt controls, such as the "**Date prompt**", require a "**Prompt button**".

Click the "Toolbox" icon (\_\_\_\_\_\_), drag "Prompt button" to the work area.



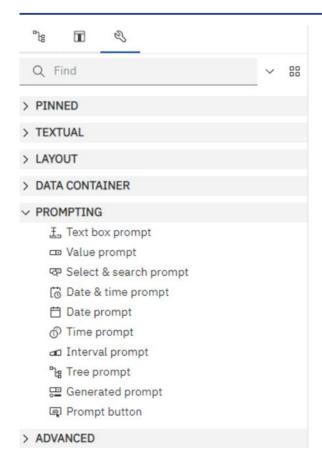


Figure 450 - Modifying prompts - Add prompt buttons - Toolbox - Prompt button

I Click the prompt button and, in the Properties pane under "General", set the "Type" property to one of the following actions.

Goal	Action
Cancel the report	Cancel
Go to the previous prompt page	Back



Go to the next prompt page	Next
Run the report	Finish
Reprompt the user	Reprompt
Reprompting users is useful when you have cascading	
prompts.	

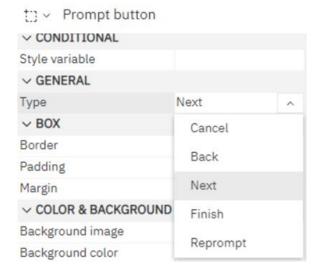


Figure 451 - Modifying prompts - Add prompt buttons - Prompt button properties - General - Type

## 7.10.4.8 Create a Cascading Prompt

Create a cascading prompt to use values from one prompt to filter values in another prompt. For example, a report contains the columns "Product line" and "Product type". You create prompts for these columns, and you specify that the "Product type" prompt is a cascading prompt that uses "Product line" as the source. When users select a product line, they see only the product types related to the selected product line.

- I To make the cascading source a required prompt, select it and, in the Properties pane, set the "Required" property under "General" to "Yes".
- I Click the prompt control to use as a cascading prompt.
- In the Properties pane, double-click the "Cascade source" property.



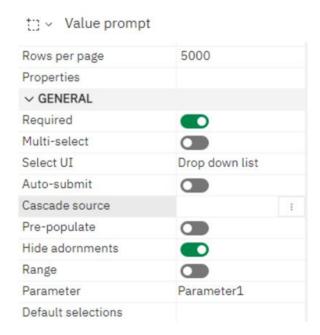


Figure 452 - Modifying prompts - Value prompt - Properties - General - Cascade source

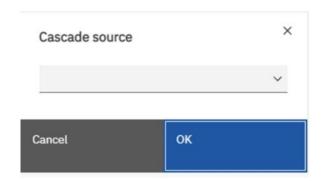
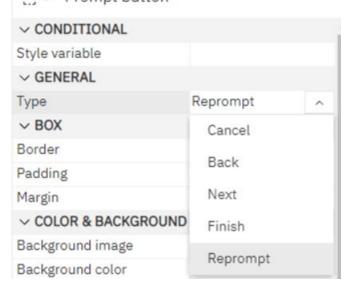


Figure 453 - Modifying prompts - Value prompt - Properties - General - Cascade source - Select Parameter

- I Click the parameter that represents the cascade source.
- If the prompt allows users to select multiple values, add a "**Prompt button**" to the cascade source to provide the cascading prompt with the appropriate values:
  - Click the "Toolbox" icon (———), drag "Prompt button" to the report.



Click the prompt button and in the Properties nane, set the "Type" property to "Reprompt"
 Prompt button



To change the text in the prompt button, click the "Toolbox" icon (\_\_\_\_\_\_), drag the "Text item" from the toolbox to the prompt button and type the text.



# 8 Additional information

# 8.1 DWH data objects

The following table contains all data objects used in predefined reports as prompt or output data. The user can also choose these objects for user defined reports. DWH data objects are attributes, which contain business information.

DWH objects	Description	Measure/Object
Account Balance at EoD	Account balance of a cash account per day at close of business	Measure
Account Balance at SoD	Account balance of a cash account per day at start of business	Measure
Account BIC	BIC11 of the account	Object
Account Monitoring Group name	Name of the Account Monitoring Group	Object
Account number	The account number is an alphanumerical string which uniquely identifies an account	Object
Account owner BIC	BIC11 of an account owning party	Object
Account owner name	Name of an account owning party	Object
Account type	Types of cash accounts which can be debited and credited, e.g. MCA	Object
Accrued excess reserve interest amount (non-exemption tier)	Accrued interest amount for Effective MR requirement reached, calculated Actual/360 using the "Excess reserve interest rate (non-exempt tier)" of the current maintenance period, and the average of MR amount totals during the current minimum reserve maintenance period, which exceeds the sum of MR obligation and exempt excess reserve.	Measure
Accrued excess reserve interest amount (exemption tier)	Accrued interest amount for Effective MR requirement reached, calculated Actual/360 using the "Excess reserve interest rate (exempt tier)" of the	Measure



DWH objects	Description	Measure/Object
	current maintenance period, and the average of MR amount totals during the current minimum reserve maintenance period, which exceeds the MR obligation up to the maximum amount of the exempt excess reserve.	
(Accrued) MR interest amount	Amount of MR interest for the displayed maintenance period	Measure
Accumulated balance	Accumulated EoD balance per Leading CLM account holder	Measure
Addressable BIC	BICs that are reachable as correspondent in the role of a correspondent or a branch (Participation types 05 – 08 according to the RTGS Directory).	Object
Adjustment balance	It is the balance, that is needed at the end of each future business day in order to exactly fulfil the minimum reserve requirement in the remainder of the current minimum reserve maintenance period.	Measure
Amount From/To	Identifies the settlement amount of a cash transfer order	Measure
Amount of payment	Settlement amount of a cash transfer order; for unsettled cash transfer orders the intended settlement amount	Measure
Ancillary system	A system in which payments or securities are exchanged and/or cleared, while the ensuing monetary obligations are settled in another system, typically an RTGS system.	Object
Ancillary system type	Type of an AS , identifying it as e.g. a clearing house, a security settlement system or a retail payment system	Object
AS BIC and short name	BIC11 and name of an ancillary system	Object
AS settlement procedure	A specific set of processes and	Object



DWH objects	Description	Measure/Object
	functions in the T2 Service that an ancillary system can use for the settlement of AS transfer orders.	
Attribute name	Name of the attribute	Object
Average value	Daily amount totals of settled cash transfer orders per day in a given time period	Measure
Average volume	Daily average number of settled cash transfer orders per day in a given time period	Measure
Balance of account (SoD)	Identifies a starting balance of a cash account.	Measure
Balance	Identifies a starting, running or closing balance of a cash account.	Measure
Banking Group name	Name of the Banking Group the party belongs to	Object
Beneficiary BIC	BIC of the beneficiary	Object
BIC	An eleven-digit code consisting of the BIC8 followed by a branch code of three characters which is used to identify any branch or reference of an institution.	Object
Bilateral limit	The maximum daily outflow of liquidity for payments with normal priority defined by an RTGS Account Holder for one of its RTGS DCAs towards another RTGS DCA.	Measure
Billing period end	End of the billing period	Object
Billing period start	Start of the billing period	Object
Business case code	A four-letter code indicating the business context of a business case to a cash transfer or a credit line	Object
	modification	



DWH objects	Description	Measure/Object
Calculation includes data until	Date of the last business day, which was imported into DWH as the base for minimum reserve interest calculations.	Object
Capital refund	Total value of cash transfer orders, which reduce the balance of an overnight deposit or a marginal lending account at a given date (off-leg).	Measure
Capital set-up	Total value of cash transfer orders, which build up the final balance of an overnight deposit or a marginal lending account until close of business of a given date (on-leg).	Measure
Cash Transfer Category	Category which is technically using the contents of field "Business case code" in CLM and RTGS cash transfer tables.	
Cash transfer type	Type of the cash transfer	Object
Charged party BIC	BIC of the charged party	Object
Charged party name	Name of the charged party	Object
Classification	Classification of transaction according to statistical classification	Object
Clearing System Reference	Clearing system reference, which an acting monetary financial institution can provide as an identifier of a cash transfer order	Object
Contingency account number	The account number of a contingency account	Object
Contingency session	Contingency sessions from opening to closing time of ECONSII	Object
Counterparty account BIC	Service name of the cash account, which is the opposite (debited or credited) cash account in a cash transfer order	Object
Counterparty country code	Country code (ISO 3166-1) of the monetary financial institution which is the opposite (debited or credited) party	Object



DWH objects	Description	Measure/Object
	in a cash transfer order	
Counterparty party BIC	BIC of the monetary financial institution which is the opposite (debited or credited) party in a cash transfer order	Object
Counterparty service	Service of the counterparty	Object
Country code	Two-digit alphabetic code identifying a country ISO 3166-1	Object
Credit	Settlement amount of a single cash transfer order or the total of settlement amounts of cash transfer orders, credited to a given cash account	Measure
Credit line amount	Commitment to grant intraday credit on demand based on collateral provided to a CB	
Credit line amount at EoD	Credit line amount per party and day at close of business	Measure
Credit line amount at SoD	Credit line amount per party and day at start of business	Measure
Credited Account	Identifies the credited account	Object
Credited Account Number	Number of a cash account, credited by a cash transfer order	Object
Credited Account BIC	BIC of a cash account, credited by a cash account order	Object
Credit based only flag	Flag indicating if the account is credit based only	Object
Credit line amount: Maxima	Maximum of the credit line amount at that day	Measure
Cross border	Identifies a cash transfer order where the debited and credited parties are subject to different CBs.	Object
Currency (code)	Three digit alphabetic code identifying a currency (ISO 4217) of a cash account, a party or a cash transfer order	Object



DWH objects	Description	Measure/Object
Daily average value	Identifies the average of settlement amounts of cash transfer orders of a certain state and priority in a given time period. When the order state indicates not-settled cash transfer orders, then the average is calculated on the base of intended settlement amounts.	Measure
Daily average volume	Identifies the average number of cash transfer orders of a certain state and priority in a given time period.	Measure
Date (from)	Business date (from)	Object
Date (to)	Business date (to)	Object
Debit	Settlement amount of a single cash transfer order or the total of settlement amounts of cash transfer orders, debited to a given cash account	Measure
Debited Account	Identifies the debited account	Object
Debited Account Number	Number of a cash account, debited by a cash transfer order	Object
Debited Account BIC	BIC of a cash account, debited by a cash account order	Object
Default MCA	A party must mark one of its MCAs as "Default" for its usage in automatic processes of Standing Facility Services, Minimum Reserve Management, BILL and Central Bank operations(CBO).	Object
Default MCA number	Account number of the default MCA of the party	Object
Deletion status	Indicates if a party is active or deleted	Object
Direct Participant	RTGS Account Holder	Object
Direct Participant name	Name of the RTGS Account Holder	Object
Direct Participants Overall	Number of Direct Participants in a system entity at a given date	Object



DWH objects	Description	Measure/Object
Domestic	Identifies a cash transfer order where the debited and credited parties are subject to the same CB.	Object
Effective MR requirement	Accumulated amount of minimum reserves within the maintenance period, which are held either under direct and indirect MR, obligation or within a MR pool of parties each day of the maintenance period.	Measure
Effective time	Time when the event actually occurs	Object
End time	Time when the event ended.	Object
End to End Reference	End-to-End reference which an acting monetary financial institution can provide as an identifier of a cash transfer order.	Object
Entity name	Name of the data entity in BILL (used for critical data)	Object
Entry Timestamp	Timestamp at which a cash transfer order entered CLM or RTGS (A2A or U2A).	Object
Error Code	Error code which CLM or RTGS assigned to a cash transfer order; is empty for correctly processed cash transfer orders.	Object
Error Description	Error description which CLM or RTGS assigned to a cash transfer order; may be empty for correctly processed cash transfer orders.	Object
Event	Business day event	Object
Event code	Code of the business day event	Object
Excess/deficiency of reserves	Difference between the average of MR amount totals during the current minimum reserve maintenance period and the minimum reserve requirement	Measure
Excess reserve exemption factor	Factor for the calculation of the excess	Object



DWH objects	Description	Measure/Object
	reserve exemption tier on the base of the minimum reserve amount	•
Excess reserve interest amount (exemption tier)	Amount of interest, paid for holdings exceeded the required minimum reserves within the exemption tier	Measure
Excess reserve interest amount (non-exemption tier)	Amount of interest, paid for holdings, which exceeded the required minimum reserves exemption tier.	Measure
Global Filters	Global Filters used in the Statistical Classification of Transaction for CLM and RTGS	Object
Highest community level	Highest community value (of the credit line amount)	Object
Highest community value	Highest community value of queued cash transfer orders for the default MCAs in CLM	Measure
Highest community volume/	Highest community volume of queued cash transfer orders for the default MCAs in CLM	Measure
Hour	Date and hour	Object
Injection or drain of liquidity	Sum of credited (injected) - Sum of debited (drained) amount of liquidity transfers on an account	Measure
Instruction Identification	Instruction identification which an acting monetary financial institution can provide as an identifier of a cash transfer order	Object
Interest	Interest amount paid or received for balances kept in an overnight deposit or marginal lending account.	Measure
Intraday credit use: Weighted average	Weighted average of the intraday credit line use of that day	Measure
Last update timestamp	Timestamp of the last update of an attribute	Object



DWH objects	Description	Measure/Object
Leading CLM Account Holder BIC	BIC11 of a Leading CLM Account Holder	Object
Leading CLM Account Holder name	Name of a Leading CLM Account Holder	Object
LEI	Legal entity identifier	Object
Liquidity Transfer Group name	Name of the Liquidity Transfer Group	Object
Local Filters	Local Filters used in the Statistical Classification of Transaction for CLM and RTGS	Object
Lowest community value	Lowest community value of queued cash transfer orders for the default MCAs in CLM	Measure
Lowest community value (credit line)	Lowest community value of the credit line amount in the chosen period	Measure
Lowest community volume	Lowest community volume of queued cash transfer orders for the default MCAs in CLM	Measure
Maintenance period	The period over which compliance with minimum reserve requirements is calculated and for which such minimum reserves must be held on reserve accounts.	
Maxima	Maximum of the credit line amount at that day and/or Maximum of the intraday credit line use at that day.	Measure
Message ID	Message Identifier provided in a cash transfer order message	Object
Message in XML-Format	Inbound message in XML format	Object
Message type	ISO 20022 conform identifier for the type of a message exchanged with T2	Object
MFI code	Monetary financial institution code	Object
Minima	Minimum of the credit line amount, the	Measure



DWH objects	Description	Measure/Object
	amount of IDC used and the sum of values of queued cash transfer orders for the time band	
Minimum reserve interest rate	Rate (in %) to calculate the interest amount on minimum reserve.	Object
Minimum reserve obligation	Minimum reserve obligation	Object
Minimum reserve requirement	Amount of minimum reserve to be held at the end of each day of the maintenance period.	Object
Month (from)	Month (from)	Object
Month (to)	Month (to)	Object
MR calculated penalty amount 1	Penalty calculated for a party, which missed the minimum reserve requirement in a maintenance period for the first time.	Measure
MR calculated penalty amount 2	Penalty calculated for a party, which already missed the minimum reserve requirement in the previous maintenance period.	Measure
Multi-addressee	An RTGS Actor which can submit/receive cash transfers directly to/from the system.	Object
Multilateral limit	The maximum daily outflow of liquidity for payments with normal priority defined by an RTGS Account Holder for one of its RTGS DCAs towards all RTGS DCAs for which no bilateral limit has been defined.	Measure
National Sorting Code	National Sorting Code of the party	Object
New field value	Value of the attribute after the change	Measure
Number of calendar days in the MP	Number of all calendar days within a maintenance period	Object
Number of events (amount of credit line)	Number of events within a system entity and a given time period, in which	Measure



DWH objects	Description	Measure/Object
	the total amount of credit lines changed	
Number of events (cash transfer order)	Number of events in a timeline, in which a credit line, intraday credit usage or a cash transfer order changed.	Measure
Number of MCAs with a credit line > 0	Number of all MCAs, which had a credit line > 0 at least once during a certain time.	Measure
Number of MCAs with a negative intraday balance	Number of those MCAs that had a negative account balance at least once during a certain time	Measure
Number of indirect participants	Number of indirect participants in a system entity at a given time	Measure
Number of rejected transactions	Cash transfer orders which were not settled due to technical and/or business reasons.	Measure
Old field value	Value of the attribute before the change	Measure
On behalf	Indicates if cash transfer was inserted on behalf	Object
Originator party BIC	BIC of the party originating the charge	Object
Originator party name	Name of the party originating the charge	Object
Parent party BIC	Party BIC of the responsible CB in case the Party is a PB or AS	Object
Participation Type	Identifies the participation type	Object
Party	Any legal entity or organisation interacting with one or more TARGET Service(s) that CRDM maintains in party reference data.	Object
Party address	Street, house number, postal code and city of a monetary financial institution	Object
Party BIC	BIC11 of a Party	Object
Party BIC and Name	BIC11 and short name of a Party,	Object



DM/II al-i-acc	Description	Massaura/Obitant
DWH objects	Description  delimited by a hyphen	Measure/Object
Party closing date	Closing date of the party	Object
Party long name	Long name of a monetary financial institution	Object
Party opening date	Opening date of the party	Object
Party short name	Short name of a monetary financial institution	Object
Payment banks with a least one RTGS DCA	Number of payment banks with a least one RTGS DCA at a given date	Measure
Payment type	The payment type divides cash payment orders into liquidity transfers, credit transfers and direct debits	Object
Peak Day	Identifies the business day at which the maximum value respective volume total of cash transfer orders was reported.	·
Peak Day value	In DWH the business day at which the maximum value total of cash transfer orders of a given status was reported	Measure
Peak Day volume	In DWH the business day at which the maximum volume total of cash transfer orders of a given status was reported.	Measure
Peak Hour	Identifies the hour at which the maximum value resp volume total of cash transfer orders was reported.	Object
Peak Hour value	In DWH the hour at which the maximum value total of cash transfer orders of a given status was reported.	Measure
Peak Hour volume	In DWH the hour at which the maximum volume total of cash transfer orders of a given status was reported.	Measure
Peak IDC use	Maximum of the used intraday credit in a given time interval.	Measure
Penalty rate 1 (single infringement)	Rate (in %) to calculate the penalty as an interest amount on minimum	Measure



DWH objects	Description	Measure/Object
	reserve balances which did not meet the minimum reserve requirement in a maintenance period	
Penalty rate 2 (repeated infringement)	Rate (in %) to calculate the penalty as an interest amount on minimum reserve balances which did not meet the minimum reserve requirement in one or more consecutive maintenance periods	Measure
Planned time	Time for which an event was originally planned	Object
Priority	Identifies the priority of a cash transfer order	Object
Published BIC	Account BIC that is published in the RTGS Directory	Object
Quantity	Number of service items	Measure
Quarter	Identifies the quarter of a year.	Object
Queued cash transfer order s for MCAs or RTGS DCAs	Value and volume of queued cash transfer orders	Measure
Queued cash transfer order value	DWH displays values of cash transfer order which in the course of a business day were released for settlement but could not be executed for an certain time interval due to the lack of liquidity.	Measure
Queued cash transfer order volume	DWH displays volumes of cash transfer order which in the course of a business day were released for settlement but could not be executed for an certain time interval due to the lack of liquidity.	Measure
Receiver BIC	BIC of the actor who is authorised to receive messages and/or files from CLM and/or RTGS.	Object
Receiver Name	Short name of the actor who is authorised to receive messages and/or files from CLM and/or RTGS.	Object



DWH objects	Description	Measure/Object
Reference	Unique identifier assign to any transaction	Object
Reference 1	Identifies a transaction identifier provided by an originating party. The used reference type depends on the message type and the cash transfer type of a cash transfer order.	Object
Reference 2	Identifies a transaction identifier provided by an originating party. The used reference type depends on the message type and the cash transfer type of a cash transfer order.	Object
Reservation amount	Amount of the reservation	Measure
Responsible party BIC	Party BIC of CB responsible for the charged party.	Object
Responsible party name	Name of the CB responsible for the charged party.	Object
Reversed Payment Indicator	Indicator to identify a payment order as the reversal of a previously settled payment order (occurs in AS settlement of type A and B)	Object
Revised time	The foreseen time for an event.	Object
Running average	The sum of daily balances from beginning of the maintenance period till the end of the maintenance period / total number of days in the maintenance period (for ongoing maintenance periods: sum of daily balances from beginning of the maintenance period till the day for which MR data is available in the DWH / total number of days in the maintenance period that have already been passed ).	Measure
Semester	Identifies the two halves of a year	Object



DWH objects	<b>Description</b>	Measure/Object
Sender BIC	BIC of the actor who is authorised to send messages and/or files to CLM and/or RTGS.	Object
Sender DN	Actor who is authorised to send messages and/or files to CLM and/or RTGS. The sender is identified by a distinguished name which is not part of the BAH or the Business File Header.	Object
Sender Message Reference	Message reference which is provided by the sender as an identifier of the message	Object
Sender Name	Short name of the actor who is authorised to send messages and/or files to CLM and/or RTGS.	Object
Service	Identifies the settlement service	Object
Service item category	Category of the service item	Object
Service item code	Code of the service item	Object
Service item description	Description of the service item	Object
Service Type	Identifies the settlement service	Object
Service party type	Identifies the settlement service a party belongs to	Object
Settlement Bank Account Group name	Name of the Settlement Bank Account Group	Object
Settlement Reference	Settlement reference which an acting monetary financial institution can provide as an identifier of a cash transfer order	Object
Settlement Status Description	User comprehensible description of the status of a cash transfer order	Object
Settlement timestamp	Timestamp of the settlement, cancellation or revocation of a cash transfer order, representing date, time at least milliseconds	Object
Share (%)	Share of the usage of a service item	Measure



DWH objects	Description	Measure/Object
	within the month compared to the total of service items charged (in %)	
Standard deviation	Average of the absolute deviations from an arithmetic average of amount totals of queued cash transfer orders.	Measure
Status	Identifies status of a cash transfer order	Object
Sum of consumptions	Number or consumptions of a given service item category	Measure
Time band	A given time period within a business day	Object
Timestamp of Effective Settlement	Timestamp at which a cash transfer order was effectively settled; empty for unsettled cash transfer orders	Object
Total daily average volume	The total daily average for a month as sum of daily averages	Measure
Total daily average value	The total daily average for a month as sum of daily averages	Measure
Total(s)	Sum of values or volumes listed in a report	Measure
Transaction Category	Transaction category distinguishes Interbank payments from "Customer payments".	Object
Transaction Classifier	Classifier of the Statistical Classification of Transaction	Object
Transaction Identification	Transaction identifier which an acting monetary financial institution can provide as an identifier of a cash transfer order	Object
Transaction Reference Number	Unique identifier which CLM and RTGS assign to any transaction.	Object
Type of Credited Account	Cash account type of the account, which is credited by a cash transfer order.	Object



DWH objects	Description	Measure/Object
Type of Debited Account	Cash account type of the account, which is debited by a cash transfer order.	Object
UETR	Universal-End-to-End-Transaction Reference which can be provided as an identifier of a cash transfer order	Object
Unpublished BIC	In DWH a cash account BIC is marked as "unpublished" that is not published in the RTGS Directory.	Object
User name	Name of the user	Object
Value (in million)	Sum of settlement amounts of cash transfer orders, displayed as the number in millions	Measure
Value of AS transfer orders – Settled	Sum of amounts of all AS transfer orders which were settled or partially settled for the respective AS.	Measure
Value of AS transfer orders – Not settled	Sum of amounts of all AS transfer orders which were not settled (i.e. cancelled (revoked) or rejected) for the respective AS.	Measure
Value of cash transfer orders debited/credited/sent/received	Settlement amount total of cash transfer orders debited/credited/sent/received to a cash account of a party in a given time interval.	Measure
Value of payments received	Settlement amount total of settled cash transfer orders, a party received in a particular RTGS cash account in a given time period, grouped by payment type or message type	Measure
Value of payments sent	Settlement amount total of sent payments	Measure
Value of Settlement	Settlement amount	Measure
Volume	The number of cash transfer orders in a given time period.	Measure



DWH objects	Description	Measure/Object
Volume of AS transfer orders – Settled	Number of AS transfer orders which were settled or partially settled for the respective AS	Measure
Volume of AS transfer orders – Not settled	Number of AS transfer orders which were not settled (i.e. cancelled (revoked) or rejected) for the respective AS	Measure
Volume of cash transfer orders debited/credited/sent/received	Number of cash transfer orders debited/credited/sent/received to a cash account of a party in a given time interval.	Measure
Volume of payments received	Number of received payments	Measure
Volume of payments sent	Number of sent payments	Measure
Weighted average	Weighted average value within a system entity or per party in a given time period.	Measure
Weighted average value	Weighted average value of payment amount totals of queued cash transfer orders within a system entity or per party.	Measure
Weighted average volume/value	Weighted average volume/value of queued cash transfer orders for the RTGS DCAs that are linked to a default MCA which had a credit line > 0 at least once a day.	Measure
Year (from)	Year (from)	Object
Year (to)	Year (to)	Object

Table 110 - DWH objects

# 8.2 CLM/RTGS inbound XML messages available in the DWH

The following list contains all xml message types available in the DWH which were processed in CLM or RTGS as inbound messages. Query messages as well as all outbound messages are not transferred to the DWH.



Source	Message type	Description	
CLM	camt.048	Modify reservation	
CLM	camt.049	Delete reservation	
CLM	camt.050	Liquidity credit transfer	
CLM (CB specific)	camt.056	FltoFl Cancellation request	
CLM (CB specific)	camt.998	Modify credit line, Authorize penalty MR, Insert value of MR, Insert balance MR	
CLM (CB specific)	pacs.009	FI Credit transfer	
CLM (CB specific)	pacs.010	FI Direct debit	
RTGS	camt.007	Modify transaction	
RTGS	camt.011	Modify limit	
RTGS	camt.012	Delete limit	
RTGS	camt.048	Modify reservation	
RTGS	camt.049	Delete reservation	
RTGS	camt.050	Liquidity credit transfer	
RTGS	camt.056	FItoFI Payment cancellation request	
RTGS	pacs.004	Payment return	
RTGS	pacs.008	Customer credit transfer	
RTGS	pacs.009	FI Credit transfer	
RTGS	pacs.010	FI Direct debit	
RTGS	pain.998	AS transfer initiation (ASTI)	

Table 111 - List of CLM/RTGS inbound messages

## 8.3 DXE file documentation

#### 8.3.1 Introduction

NCBs need an adequate technical solution to extract granular data from the DWH for T2 Services. NCBs require the national extractions of data from the data warehouse (DWH). The purpose of these extractions are to provide the local applications with granular data from the T2 Service so that they can be combined



with national payment system data and collateral data, and to share the data with respect to TARGET Services Guidelines with other Directorate Generals for analytical and research purposes (e.g. via a common data lake).

This specification replaces the current section of the DWH User Handbook that describes the DEX02 report, as the feedback on the current report emphasised that the documented solution is not fit-for-purpose for the following reasons:

- In order not to exceed the ESMIG file limitation of 99MB, the requirement in the UHB is that users to schedule the DEX02 report per Party BIC and for a single business day.
- I Central banks with a significant number of payments banks and ancillary systems would require significant effort to configure and schedule the reports.
- I Multiple record types in a single file is very complex to process by the receiving application
- I Combining different functional data objects (e.g. transaction, account, participant and event data) in one record in an output file would
- increase the file size due to repetitive information;
- I repeat general information, for instance about business day events, multiple times when data extractions are split;
- increase the complexity of the technical processing in local central bank environments.

In order to address the shortcomings that the central banks raised, the new reporting solution for the DEX02 reporting foresees:

- The separation of the DEX02 report into six distinct reports (now named DXE01 DXE06 to avoid confusion) that extracts a set of specific business data per report so that the report complexity is minimised;
- I The elimination of the scheduling of the report by Party BIC, i.e. the provision of the data in each report by central bank;
- Removes repetitive information that results from the reporting by Party BIC.
- In order to simplify the joining of data, the reports will provide both the internal reference data technical identifiers as well as the externally visible business identifiers.

#### 8.3.2 General information

#### 8.3.2.1 Scheduling

The scheduling of the DXE reports can take place for the current month, the current week or the current business day. Central banks with large transactional volumes should schedule their report on a daily basis for more manageable file sizes. Central banks with lower transactional volumes can schedule their reports on a weekly or monthly basis.



#### 8.3.2.2 File splitting

File splitting will be implemented for files that exceed the maximum file size of 99MB.

#### 8.3.2.3 File and field conventions

The interface will provide the extracted data in comma-separated files (csv). The files are encoded in UTF-16 Little Endian. The respective UDFS or UHB (CLM, RTGS or CRDM) document the full character set.

Fields will be provided without any start or ending delimiter (e.g. ""). As this is a valid character in few cases and can lead to misinterpretation or an abnormal termination.

#### Character type set:

Format Type	Definition
CHAR (n)	String with exactly n UTF-8 characters, is padded with blanks on right side
VARCHAR (n)	String with n UTF-8 characters maximum
DEC (p, s)	The precision (p) is the total number of binary or decimal digits excluding the sign. The scale (s) is the total number of binary or decimal digits to the right of the decimal point A dot '.' is used as decimal point.  Decimals without decimal places will end with "."  Field is padded with "0" on left side  First digit is a blank or minus
SMALLINT	Number, up to 5 digits
INTEGER	Number, up to 10 digits
DATE	Date in format "yyyy-mm-dd" with no time zone indication
TIME	Time in format "hh:mm:ss" with no time zone indication in CET/CEST
TIMESTAMP	Date in format "yyyy-mm-dd hh:mm:ss.mmmmmm" with no time zone indication in CET/CEST

- In case of NULL in csv, two separators will be provided after each other with no content in between. Date 9999-01-01 and Timestamp with 9999-01-01-00.00.00.000000 are NULL.
- Each line ends with line feed (LF, hexadecimal "0x0A").
- The general separator for attributes is a TAB (hexadecimal "09"). A TAB is not used at the end of a line.



#### 8.3.3 Relationship between files

#### 8.3.3.1 Use of technical identifiers

The interface files provide for reference data both a unique technical identifier and a business identifier. The technical identifier is always unique and should be used to link reference data to transactional data even though the transactional data contains the business identifiers of reference data redundantly.

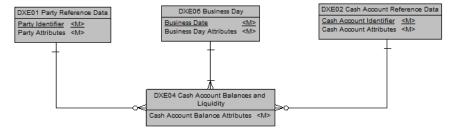
#### 8.3.3.2 Party to cash account reference data file relationship

Each cash account has a mandatory relationship to a party. The cash account reference data contains the party identifier as the attribute to link a party to a cash account.



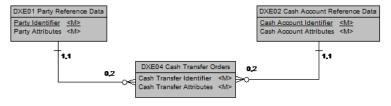
### 8.3.3.3 Cash account balance and liquidity to reference data file relationships

Each cash account balance and liquidity is uniquely identified through a combination of a business day and a cash account identifier. The cash account balance also has a relationship to party reference data.



#### 8.3.3.4 Cash transfers to reference data file relationships

Each cash transfer has a relationship to cash account reference data as well as to the party of the cash account. Each cash transfer specifies the cash account identifier and the party identifier.





### 8.3.3.5 Aggregation Group to Reference Data File Relationships

Each aggregation group has a relationship to cash account reference data as well as to the party of the cash account. An attribute in the aggregation group determine whether the relationship pertains to the cash account or the party.

### 8.3.4 DXE01 - party reference data file specification

A party in CRDM denotes any legal or organisational entity required in a Eurosystem market Infrastructure for processing. In this context, the party reference data file contains the attributes of party in their state as of the business day that the user selected.

No.	Logical Name	Data Type	Mandatory/Opti onal	Definition
1	Party Identifier	INTEGER	Mandatory	This attribute contains the unique technical identifier of the Party in Common Reference Data Management (CRDM) or in CRSS for historic data.
2	Business Day	DATE	Mandatory	This field specifies the business day of the Eurosystem market infrastructure for which the extraction took place.
3	System entity	VARCHAR(4)	Mandatory	This field contains the unique system entity mnemonic of a system entity in Common Reference Data Management (CRDM).
4	LEI	VARCHAR(20)	Optional	This field contains the Legal Entity Identifier that identifies a party according to ISO 17442.
5	BIC	VARCHAR(13)	Mandatory	This field contains the Business Identifier Code of a party according to ISO 9362.
6	Country Code	VARCHAR(2)	Mandatory	This field contains the ISO country code of the jurisdiction in which the party is legally registered.
7	Party Long Name	VARCHAR(350	Mandatory	This field contains the full legal name of a party.
8	Party Short Name	VARCHAR(35)	Mandatory	This field contains the user-define mnemonic to identify a party.
9	Party Type	VARCHAR(4)	Mandatory	This field provides the classification of the party in CRDM to identify its role in the respective Eurosystem market infrastructure.  Code and Description:



No.	Logical Name	Data Type	Mandatory/Opti onal	Definition
				<ul><li>T2SO: Operator</li><li>NCBK: Central Bank</li><li>PMBK: Payment Bank</li><li>ANSY: Ancillary System</li></ul>
10	Party Opening Date	DATE	Mandatory	This fields defines the actual date that the CSD or NCB established the contractual relationship with the party, i.e. the date from which the party is eligible to process its business transactions on the Eurosystem market infrastructure.
11	Party Close Date	DATE	Mandatory	This field defines the actual date that the contractual relationship of the party with CSD or NCB ended, i.e. the date as of which the party no longer is eligible to process its business transactions on the Eurosystem market infrastructure.
12	Deletion Status	VARCHAR(4)	Mandatory	This field specifies whether the record is active or is logically deleted.  Code and Description:  DELE: Deleted  ACTV: Active

### 8.3.5 DXE02 - Cash account reference data file specification

The cash account reference data file contains the attributes of a cash account in their state as of the business day that the user selected.

no.	Logical Name	Data Type	Mandatory/Opti onal	Definition
1	Cash Account Identifier	INTEGER	Mandatory	This attribute contains the unique technical identifier of the cash account in Common Reference Data Management (CRDM)
2	Cash Account Number	VARCHAR(34)	Mandatory	This field documents the externally visible cash account number that uniquely identifies a cash account across all Eurosystem market



			i	
no.	Logical Name	Data Type	Mandatory/Opti onal	Definition
				infrastructure services.
3	Cash Account BIC	VARCHAR(11)	Optional	This field specifies the BIC of the cash account according to ISO 9362.
4	Business Day	DATE	Mandatory	This field specifies the business day of a Eurosystem market infrastructure.
5	Currency Code	CHAR(3)	Mandatory	This field specifies the ISO currency code for the cash account.
6	Linked Cash Account Identifier	INTEGER	Optional	This field specifies the cash account identifier of the linked cash account. The determination of whether a link from one cash account to another cash account exists takes place using this attribute. When this field specifies a value, then this field contains a valid cash account to which the cash account, as identified by the cash account identifier, is linked.
7	Linked Cash Account Number	VARCHAR(34)	Optional	This field specifies the cash account number of the linked cash account. The determination of whether a link from one cash account to another cash account exists takes place using this attribute. When this field specifies a value, then this field contains a valid cash account to which the cash account, as identified by the cash account number, is linked.
8	Linked Cash Account Type	VARCHAR(4)	Optional	This field determines whether the cash account has a linked cash account associated to it in the CRDM data. CLM-RTGS does not use this field for its processing. This field also specifies the type of cash account to which the cash account is linked.  Code and Description  RDCA: RTGS DCA  CMCA: CLM Main cash account  CCAC: CLM CB account
9	Party Identifier	INTEGER	Mandatory	This field specifies the unique party identifier of the party in Common Reference Data (CRDM) that



	i		i	
no.	Logical Name	Data Type	Mandatory/Opti	Definition
			onal	
				holds the cash account.
10	Account Type	VARCHAR(4)	Mandatory	This field provides the role of the cash account in a Eurosystem market infrastructure
				Code and Description
				RTGS:
				RDCA: RTGS DCA
				RCBA: RTGS CB account
				ATEC: AS technical account for procedures A and B (ATEC)
				ATEC: AS technical account for procedures C and E (ATEC)
				ATEC: AS technical account for procedure D (ATEC)
				AGAC: AS guarantee funds account
				I RSAA: RTGS sub-account
				RTAC: RTGS dedicated transit account
				CLM:
				CMCA: CLM Main cash account
				CCAC: CLM CB account
				ONDP: Overnight deposit account)
				MGLD: Marginal lending account
				CEMA: ECB mirror account
				CECB: CB ECB account
				CTEC: CLM technical account for ECONS II
				CTTS: CLM dedicated transit account for T2S
				CTTI: CLM dedicated transit account for TIPS
				CTRT: CLM dedicated transit account for RTGS
				ECONS2:



no.	Logical Name	Data Type	Mandatory/Opti onal	Definition
				<ul> <li>ECCA: Contingency Cash Account</li> <li>ECCB: CB Contingency Account</li> <li>ECTA: Contingency Technical Account</li> <li>ECTR: Contingency Transit Account</li> <li>T2S:         <ul> <li>RTGS: RTGS Dedicated Transit Account</li> <li>NCBA: T2S Central Bank Account</li> <li>CSHA: T2S Dedicated Cash Account</li> </ul> </li> <li>TIPS         <ul> <li>TACC: TIPS Accounts</li> </ul> </li> <li>TAST: TIPS Ancillary System Transaction Account</li> </ul>
11	Ceiling Amount	DECIMAL(31,0)	Optional	This field specifies the ceiling (highest amount) for the balance on a on a cash account, the breach of which result in a notification to the cash manager.
12	Closing Date	DATE	Mandatory	This field defines the actual date that cash account is no longer eligible for settlement on the Eurosystem market infrastructure.



no.	Logical Name	Data Type	Mandatory/Opti onal	Definition
13	Floor Amount	DECIMAL(31,0)	Optional	This field specifies the floor lowest amount) for the balance on a on a cash account, the breach of which result in a notification to the cash manager.
14	Opening Date	DATE	Mandatory	This field defines the actual date that cash account is eligible for settlement on the Eurosystem market infrastructure.
15	Credit Based Only Flag	SMALLINT	Mandatory	This field specifies whether the cash account is a credit-based only account, i.e. whether the cash account owner must maintain a positive balance on the cash account to settle pending cash transfer orders.  Code and Description  T: Account is credit based only  F: Account is not credit based only

## 8.3.6 DXE03 - Cash account aggregation group file specification

This report extracts for all parties and cash accounts of a central bank, the aggregation groups of which a party or cash account is a member (depending on the type of aggregation). A party/cash account may be assigned to multiple groups of the same type depending on the aggregation group type.

no.	Logical Name	Data Type	Mandatory/ Optional	Definition
1	Party or Cash Account Identifier	INTEGER	Mandatory	This attribute contains the unique technical identifier of the cash account or the party in Common Reference Data Management (CRDM) depending on the value in the field Party or Account.
2	Party or Account	CHAR(1)	Mandatory	This field specifies the type of identifier that the grouping contains.  Code and Description  P: Party



no.	Logical Name	Data Type	Mandatory/ Optional	Definition
				C: Cash Account
3	Business Day	DATE	Mandatory	This field specifies the business day of a Eurosystem market infrastructure.
4	Aggregation Leader Party BIC	CHAR(13)	Optional	This field contains the Business Identifier Code of the aggregation party leader according to ISO 9362.
5	Cash Account Number or Party BIC	VARCHAR(34)	Mandatory	This field documents the externally visible cash account number that uniquely identifies a cash account across all Eurosystem market infrastructure services or the Party BIC, depending on the value in the field Party or Account.
6	Aggregation Group Type	VARCHAR(4)	Mandatory	This field specifies the type of grouping for parties or cash accounts.  Code and Description  BANK: Banking Group  ACCM: Account Monitoring Group  LQTR: Liquidity Transfer Group  SETL: Settlement Bank Account Group
7	Aggregation Group Name	VARCHAR(35)	Mandatory	This field specifies the data aggregation name. This column is restricted to the SWIFT X Character Set via BRs at U2A and A2A level.

## 8.3.7 DXE04 - Cash account balance and liquidity file specification

The Cash Account Liquidity file provides the end-of-day states of various balances in CLM-RTGS for a cash account. The DWH does not receive an intraday history. CLM-RTGS always overwrites the record when an amount changes.



no.	Logical Name	Data Type	Mandatory/Opti	Definition
1	Cash Account Identifier	INTEGER	onal Mandatory	This attribute contains the unique technical identifier of the cash account in Common Reference Data Management (CRDM)
2	Cash Account Number	VARCHAR(34)	Mandatory	This field documents the externally visible ISO 20022 cash account number that uniquely identifies a cash account across all services.
3	Cash Account Holder Party BIC	VARCHAR(13)	Mandatory	This field specifies the party BIC of the cash account holder as a party in in Common Reference Data Management (CRDM).
4	Business Day	DATE	Mandatory	This field specifies the business day of the Eurosystem market infrastructure for which the extraction took place.
5	Liquidity	DECIMAL(31,2)	Optional	This field specifies the available liquidity for the cash account.
6	Liquidity Position	DECIMAL(31,2)	Mandatory	This field specifies the position of the liquidity.
7	Liquidity at Start of Day	DECIMAL(31,2)	Mandatory	This field specifies the liquidity at the start of the day
8	Account Type	SMALLINT	Mandatory	This field specifies the type of account.  Code and Description  O: RTGS DCA  1: RTGS CB account  3: AS technical account for procedures A and B  4: AS technical account for procedures C and E  5: AS technical account for procedure D  7: AS guarantee funds account  9: RTGS sub-account  40: RTGS dedicated transit account  100: MCA  101: CLM CB account



no.	Logical Name	Data Type	Mandatory/Opti onal	Definition
				<ul> <li>105: Overnight deposit account</li> <li>106: Marginal lending account</li> <li>111: ECB mirror account</li> <li>112: CB ECB account</li> <li>113: CLM technical account for ECONS II</li> <li>130: CLM dedicated transit account for T2S</li> <li>135: CLM dedicated transit account for TIPS</li> <li>140: CLM dedicated transit account for RTGS</li> </ul>
9	Country Code CB	CHAR(2)	Mandatory	This field specifies the country code of the central bank.
10	Pending Urgent Reservation	DECIMAL(31,2)	Optional	This field specifies the pending urgent priority reservation.
11	Position of the Urgent Reservation	DECIMAL(31,2)	Optional	This field specifies the position of the urgent priority reservation.
12	Urgent Reservation at Start of Day	DECIMAL(31,2)	Optional	This field specifies the amount of the urgent priority reservation at the start of the day.
13	Pending High Reservation	DECIMAL(31,2)	Optional	This field specifies the pending high priority reservation.
14	Position of the High Reservation	DECIMAL(31,2)	Optional	This field specifies the position of the high priority reservation.
15	High Reservation at Start of Day	DECIMAL(31,2)	Optional	This field specifies the amount of the high priority reservation at the start of the day.
16	Limit Disabled Flag	SMALLINT	Optional	This field specifies the whether all bilateral limits for the current day are zero or set to zero so that for this participant no bilateral or multilateral limits should be applied.  Code and Description  O: No - there are bilateral limits  1: Yes - neither multilateral limit nor bilateral limits will be applied
17	Defined Multilateral	DECIMAL(31,2)	Optional	This field specifies the extended relationship limit



20	Logical Name	Data Type	Mandatory/Opti	Definition
no.	Logical Name	рата туре	onal	Definition
	Limit			('collecting' limit).
18	Defined Multilateral Limit Timestamp	TIMESTAMP	Optional	This field specifies the date and time of the last update of the multilateral limit.
19	Pending Multilateral Limit	DECIMAL(31,2)	Optional	This field specifies the multilateral limit amount to be activated.
				It is an intra-day change (reduction) of the multilateral limit, which cannot be activated at present because of a higher claim of the limit.  Nevertheless, it is taken into account by the entry disposition process in order to reduce the claim to the desired limit amount.
20	Pending Multilateral Limit Timestamp	TIMESTAMP	Optional	This field specifies the timestamp of the last activation of the multilateral limit.
21	Claimed Multilateral Limit of an Algo	DECIMAL(31,2)	Optional	This field specifies the current amount of a multilateral limit that the settlement algorithm reserved at the start of day.
22	Position of the Multilateral Limit	DECIMAL(31,2)	Optional	This field specifies the current (permanently updated) position of the multilateral limit.
23	Multilateral Limit at Start of Day	DECIMAL(31,2)	Optional	This field specifies the multilateral limit at the beginning of the day.
24	Bilateral Limits Sum	DECIMAL(31,2)	Optional	This field specifies the total of all bilateral limits.
25	Bilateral Limits Sum Timestamp	TIMESTAMP	Optional	This field specifies the date and time of the last update of the sum of the bilateral limits.
26	Bilateral Limit Positions Sum	DECIMAL(31,2)	Optional	This field specifies the sum of all current positions of the bilateral limit.
27	Amount of Automatic  Marginal Lending used	DECIMAL(31,2)	Optional	This field specifies the amount of automatic marginal lending used.
28	Amount of Marginal Lending on Request used	DECIMAL(31,2)	Optional	This field specifies the amount of marginal lending on request used.
29	Pending CBO Reservation	DECIMAL(31,2)	Optional	This field specifies the pending amount of the CBO reservation, i.e. it is the amount change to the CBO reservation that CLM could not yet apply. If a reservation order can only be partly changed, it is



no.	Logical Name	Data Type	Mandatory/Opti onal	Definition
				set with the remainder.
30	Position of the CBO Reservation	DECIMAL(31,2)	Optional	This field specifies the current (permanently updated) position of the CBO reservation.
31	CBO Reservation at Start of Day	DECIMAL(31,2)	Optional	This field specifies the amount of the CBO reservation at the beginning of the day. It is taken over from the standing order amount for a CBO reservation and may be less than that amount if it can only be partly executed. The amount can also be 0 if no standing order exists.
32	Pending Seizure of Funds Reservation	DECIMAL(31,2)	Optional	This field specifies the pending amount of the seizure of funds reservation. If a reservation order can only be partly set, it is set with the remainder.
33	Liquidity Position of the Seizure of Funds Reservation	DECIMAL(31,2)	Optional	This field specifies the current (permanently updated) position of the seizure of funds reservation. The funds are not part of the current liquidity position. The seizure of funds reservation is always taken away from the current liquidity position. It is different from the CBO reservation, which is always part of the liquidity position.
34	Seizure of Funds Reservation at Start of Day	DECIMAL(31,2)	Optional	This field specifies the amount of the seizure of funds reservation at the beginning of the day. It is taken over from the seizure of funds reservation position amount at the end of the previous business day.
35	Credit Line	DECIMAL(31,2)	Optional	This field specifies the granted disposition fund (credit line). Entries exist for Default MCAs. They can be adjusted by GUI orders, 'modify credit line' requests or 'connected payments'.



no.	Logical Name	Data Type	Mandatory/Opti onal	Definition
36	Credit Line at Start of day	DECIMAL(31,2)	Optional	This field specifies the granted disposition fund (credit line) at the beginning of the day (carried-over from the previous business day) for those cash accounts that have a credit line. The field is zero for all other types of cash accounts.
37	Pending Credit Line	DECIMAL(31,2)	Optional	This field specifies the pending credit line amount, i.e. the amount change to the credit line that CLM could not yet apply. If a credit line change order per U2A or connected payment cannot not settled the pending amount is stored here.
38	Pending Credit Line Mark	SMALLINT	Optional	This field specifies the pending credit line mark.  Code and Description  0: None  1: Fixed  2: Delta

## 8.3.8 DXE05 - Cash transfers orders/cash transfer file specification

This file provides all cash transfers of a central bank for a given T2 business day.

no.	Logical Name	Data Type	Mandatory/ Optional	Definition
1	Cash Transfer	DECIMAL(16,0)	Mandatory	This attribute contains the technical identifier of the cash transfer order in CLM or RTGS.
2	Credit Cash Account Identifier	INTEGER	Mandatory	This attribute contains the unique technical identifier of the credit cash account in Common Reference Data Management (CRDM).
3	Credit Cash Account Number	VARCHAR(34)	Mandatory	This field documents the externally visible ISO 20022 credit cash account number that uniquely identifies a cash account across all services.
4	Credit Cash Account Holder Party BIC	VARCHAR(13)	Mandatory	This field specifies the party BIC of the credit cash account holder as a party in in Common Reference Data Management (CRDM).



no.	Logical Name	Data Type	Mandatory/	Definition
			Optional	
5	Business Day	DATE	Mandatory	This field specifies the business day of a Eurosystem market infrastructure.
6	Debit Cash Account Identifier	INTEGER	Mandatory	This attribute contains the unique technical identifier of the debit cash account in Common Reference Data Management (CRDM).
7	Debit Cash Account Number	VARCHAR(34)	Mandatory	This field documents the externally visible ISO 20022 debit cash account number that uniquely identifies a cash account across all services.
8	Debit Cash Account Holder Party BIC	VARCHAR(13)	Mandatory	This field specifies the party BIC of the debit cash account holder as a party in in Common Reference Data Management (CRDM).
9	Related AS Party Identifier	INTEGER	Optional	This field specifies the unique technical identifier of the ancillary system as a party in in Common Reference Data Management (CRDM).
10	Related AS Party BIC	VARCHAR(13)	Optional	This field specifies the party BIC of the ancillary system as a party in in Common Reference Data Management (CRDM).
11	Related AS Counterpart Identifier	INTEGER	Optional	This field specifies the unique technical identifier of the counterpart ancillary system as a party in in Common Reference Data Management (CRDM).
12	Related AS Counterpart BIC	VARCHAR(13)	Optional	This field specifies the Party BIC of the counterpart ancillary system as a party in in Common Reference Data Management (CRDM).
13	From Service	VARCHAR(4)	Mandatory	This field documents the source service or service component that originated the cash transfer.
				Code and Description  CLM: T2 Service Central Liquidity Management  RTGS: T2 Real-time Gross Settlement  T2S: TARGET2-Securities  TIPS: TARGET Instant Payments
14	To Service	VARCHAR(4)	Mandatory	This field documents the target service or service



no.	Logical Name	Data Type	Mandatory/ Optional	Definition
			Орионаі	component that settles the cash transfer.  Code and Description  CLM: T2 Service Central Liquidity Management  RTGS: T2 Real-time Gross Settlement  T2S: TARGET2-Securities  TIPS: TARGET Instant Payments
15	Currency Code	CHAR(3)	Mandatory	This field specifies the three-character ISO 4217 currency code.
16	Unique End-to-End Transaction Reference (UETR)	VARCHAR(40)	Optional	This field contains a universal unique identifier to provide an end-to-end reference for a payment transaction (payment order).  Usage: pacs.008, pacs.009, pacs.010 and camt.050.
17	Instruction Identifier	VARCHAR(35)	Optional	This field shows the unique identification, set by the message sender, to identify the instruction (payment order).  Usage: pacs.008, pacs.009, pacs.010 and camt.050 (although optional for camt,050).
18	End-to-End Identification	VARCHAR(35)	Optional	This field shows the unique identification, set by the instruction initiator, to identify the instruction (payment order) and be passed on, unchanged, throughout the entire end-to-end-chain.  Usage: pacs.008, pacs.009, pacs.010 and camt.050
19	Cash Transfer Property	SMALLINT	Mandatory	This field documents the high-level category into which the cash transfer order falls for processing in CLM-RTGS.  Code and Description  O: Original payment  Return payment



no.	Logical Name	Data Type	Mandatory/ Optional	Definition
				<ul><li>1 2: Original cancelled</li><li>I 3: Not bookable</li></ul>
20	Message Type	VARCHAR(15)	Mandatory	The field specifies the ISO 20022 message type from which the cash transfer order was generated.
				I pain.998 I camt.050 I camt.056 I pacs.004 I pacs.009 I pacs.008 I pacs.010 I UNKNOWN
21	Settlement Type	SMALLINT	Mandatory	This field specifies the process that settled the cash transfer order.  Code and Description  O: Pending (not yet booked)  1: Entry disposition  2: Express algorithm  3: Settlement of a connected payment  4: AS settlements not booked by Entry disposition or algorithm  11: Algorithm 1  12: Algorithm 2  13: Algorithm 3  14: Algorithm 4  15: Algorithm 5  20: Liquidity transfer and other immediately booked ICM orders  80: End-of-day booking



no.	Logical Name	Data Type	Mandatory/ Optional	Definition
22	Settlement Timestamp	TIMESTAMP	Mandatory	This field specifies the actual date and time that the cash transfer order settled.
23	First Processing Timestamp	TIMESTAMP	Optional	This field specifies the actual date and time of the first processing of an MGPY2000 cash transfer order. It is used to monitor the performance of processing in RTGS.
24	First Queuing Timestamp	TIMESTAMP	Mandatory	In the case that the processing queues a cash transfer order for settlement, this field specifies the actual date and time that initial queuing of the cash transfer order took place. The contents of this field does not change if a subsequent queueing of the cash transfer order take place. This field does not specify a value if a cash transfer order settles without queueing.
25	Original Amount	DECIMAL(31,2)	Optional	This field specifies the instructed amount of the cash transfer order.
26	Cash Transfer Status Before Currency Specific Closing	SMALLINT	Optional	This field specifies the final state of a cash transfer order at the end-of-day closing for a settlement currency.  Code and Description  Output  Outp
27	Cash Transfer Status	SMALLINT	Mandatory	This field specifies the current processing status of a cash transfer order. However, at end of the business day, the status specifies the final state of the cash transfer order.  Code and Description



no.	Logical Name	Data Type	Mandatory/	Definition
110.		Jaia Typo	Optional	
				<ul> <li>62: warehoused</li> <li>561: settled</li> <li>562: not settled due to removal EOD or during the day</li> <li>563: reversed</li> <li>565: payment revoked including disagreement after blocking</li> <li>566: cancelled</li> </ul>
28	Error Code	VARCHAR(4)	Mandatory	This field specifies an error code in the case an error occurs in the processing of the cash transfer order.
29	AS Balance After Booking Debit	DECIMAL(31,2)	Optional	This field documents the balance of the debited cash account after the settlement of an AS transfer order. For example, in the case of AS return account.
30	AS Balance After Booking Credit	DECIMAL(31,2)	Optional	This field documents the resulting balance an AS subaccount or AS mirror account balance of the credited cash account after the settlement of an AS transfer order. RTGS report this balance in an AS Transfer Notice of a cross-AS cash transfer (CR493).
31	Entry Timestamp	TIMESTAMP	Mandatory	Timestamp of the first entry of the data. Part of the update control block.
32	Classification	VARCHAR(10)	Mandatory	This field provide the category and classification of the transfer order according to the Eurosystem statistical classification framework.  Code and Description
				For CLM:  I C.10.00: CLM Intra  I C.10.20: CLM LT RTGS  I C.10.30: CLM LT T2S



no.	Logical Name	Data Type	Mandatory/	Definition
			Optional	<ul> <li>C.10.40: CLM LT TIPS</li> <li>C.11.01: Open Market Operations</li> <li>C.11.02: Standing Facilities</li> <li>C.11.03: Reserve and Account Management</li> <li>C.11.04: Inter Central Bank transactions</li> <li>C.11.05: Connected payments for credit line changes</li> <li>C.11.06: Non-euro area Central Bank operations</li> <li>C.11.09: Other (including cash transactions)</li> <li>C.12: Billing</li> <li>C.13: TARGET Balances</li> <li>C.14.01: Levelling out of closed accounts</li> </ul>
				C.14.02: ECONS2 back transfers C.14.03: Seizure of funds C.19: Other  For RTGS:
				<ul> <li>R.20.00: RTGS Intra</li> <li>R.20.10: RTGS LT CLM</li> <li>R.20.30vRTGS LT T2S</li> <li>R.20.40: RTGS LT TIPS</li> <li>R.21.01: Payments Interbank</li> </ul>
				<ul> <li>R.21.02vPayments Customer</li> <li>R.21.09vOther</li> <li>R.22.01: AS Transactions HVPS</li> <li>R.22.02: AS Transactions RPS</li> <li>R.22.03: AS Transactions IPS</li> <li>R.22.04vAS Transactions SSS</li> <li>R.22.05vAS Transactions FXS</li> </ul>



no.	Logical Name	Data Type	Mandatory/ Optional	Definition
				<ul> <li>R.22.07: AS Transactions CCP</li> <li>R.22.09: AS Transactions Other</li> <li>R.23.01: Levelling out of closed accounts</li> <li>R.29: Other</li> </ul>
33	Liquidity Transfer Type	VARCHAR(10)	Mandatory	This field specifies categorises liquidity transfer orders according to their processing characteristics in T2.  Code and Description  A: Automated  I: Immediate  Q: Rule-based Queued  R: Rule-Based Floor/Ceiling  S: Standing order  N/A: Not applicable
34	Liquidity Transfer Direction	VARCHAR(10)	Mandatory	This field provides for a liquidity transfer order the category for the exchange of funds.  Code and Description  S: Intra-service liquidity  O: Outgoing liquidity  I: Incoming liquidity  T: Technical liquidity transfer (only for CLM)  N/A: Not applicable
35	Settlement Window	VARCHAR(10)	Mandatory	This field specifies the period during the T2 business day in which the cash transfer order settled.  Code and Description  1 1: CLM real-time settlement – Transactions settled during the CLM Real Time Settlement phase



		İ		
no.	Logical Name	Data Type	Mandatory/ Optional	Definition
				<ol> <li>2: RTGS real-time settlement I – Transactions settled during the RTGS Settlement Window 1</li> <li>3: RTGS real-time settlement II – Transactions settled during the RTGS Settlement Window 2</li> <li>N/A: Not applicable</li> </ol>
36	Initiator Type	VARCHAR(10)	Mandatory	<ul> <li>This field documents the type of party that instructed the cash transfer order.</li> <li>Code and Description</li> <li>A: Orders instructed by a third party which is an AS</li> <li>B: Orders instructed by a third party which is a central bank</li> <li>C: Orders instructed directly by the credit participant</li> <li>D: Orders instructed directly by the debited participant</li> <li>P: Orders instructed by a third party which is neither an AS nor a central bank</li> <li>S: System generated transactions</li> </ul>
37	Return Transaction	VARCHAR(10)	Mandatory	This field documents whether the cash transfer order is a return payment.  Code and Description  N: Not return payment  Y: Return payment
38	Contingency Payments	VARCHAR(10)	Mandatory	This field documents whether the cash transfer order is a contingency payment.  Code and Description  M: Mandated payments – payments that a central bank instructs on behalf of its RTGS Account Holder in contingency situations



no.	Logical Name	Data Type	Mandatory/	Definition
			Optional	<ul> <li>B: Back-up payments – payments inputted via an RTGS function on exceptional basis when an RTGS Account Holder through an incident on its side loses its ability to send payment orders to RTGS</li> <li>N: Regular intra-bank payment orders</li> <li>N/A: Not applicable</li> </ul>
39	Component System Payments	VARCHAR(10)	Mandatory	This field documents whether the cash account involved in the cash transfer order belong to the same central banks or different central banks.  Code and Description  E: Extra-Component system payments, for which the debited and the credited accounts belong to different central banks  I: Intra-Component system payments, for which the debited and the credited accounts belong to the same central bank
40	Intragroup Transactions	VARCHAR(10)	Mandatory	This field specifies whether the cash transfer order is intra-group.  Code and Description  N/A: Not applicable  Y: intra-group cash transfer  N: Not an intra-group cash transfer
41	Correspondent Banking	VARCHAR(10)	Mandatory	This field provides the corresponding banking classification of the cash transfer order.  Code and Description  N/A: Not applicable B: the transaction is correspondent banking on both sending and receiving sides N: the transaction is not correspondent banking



no.	Logical Name	Data Type	Mandatory/ Optional	Definition
				<ul> <li>on either side</li> <li>R: the transaction is correspondent banking on the receiving side and not on the sending side</li> <li>S: the transaction is correspondent banking on the sending side and not on the receiving side</li> </ul>
42	CLM Central Bank Operation Subtype	VARCHAR(10)	Optional	This field provides the classification for the central bank operation underlying the cash transfer order.  Code and Description  N/A: Not applicable  MLA: Automated Marginal Lending  MLO: Marginal Lending on request (setting-up order)  MLR: Marginal Lending reimbursement  MLI: Interest payment for Marginal Lending  ODO: Overnight Deposits (setting-up-order)  ODV: Overnight Deposits reverse order  ODR: Overnight Deposits refund  ODI: Interest payment for Overnight Deposits  OMR: Repayment of principal or interest  OMS: Set-up of operation  RMI: Interest payment for minimum reserves  REI: Interest payment for excess of reserves  RMP: Penalties for minimum reserves  RMP: Penalties for minimum reserves  RMO: Other reserve management transactions  SFO: Other standing facilities transactions
43	RTGS Intra Settlement Service Liquidity Transfers	VARCHAR(10)	Optional	This field provides the classification for RTGS intra- service liquidity transfers  Code and Description  1: RTGS DCA to RTGS DCA – Intra-service



2: RTGS DCA to RTGS sub-account ( settlement procedure C) – Liquidity tra from an RTGS DCA to a linked sub-ac dedicated to an an-cillary system using settlement procedure C.  3: RTGS DCA to Ancillary System Tec Ac-count (AS settlement procedure D) Liquidity transfers from an RTGS DCA technical account related to an ancillar using AS settlement procedure D  4: RTGS technical/sub-account to RTG (AS settlement procedure C) – Liquidit transfers from a technical or linked sub- account dedi-cated to an ancillary syst using the AS settle-ment procedure C RTGS DCA  5: Ancillary System Technical Account RTGS DCA (AS settlement procedure Liquidity transfers from a technical acc related to an ancillary system using AS settlement procedure D to an RTGS D  6: RTGS DCA to Ancillary System gua accounts – Liquidity transfers from an DCA to the guarantee account of an a system  7: Ancillary System guarantee account RTGS DCA – Liquidity transfers from to	า๐.	Logical Name	Data Type	Mandatory/ Optional	Definition
Ac-count (AS settlement procedure D) Liquidity transfers from an RTGS DCA technical account related to an ancillar using AS settlement procedure D  4: RTGS technical/sub-account to RTG (AS settlement procedure C ) – Liquidi transfers from a technical or linked sub account dedi-cated to an ancillary syst using the AS settle-ment procedure C RTGS DCA  5: Ancillary System Technical Account RTGS DCA (AS settlement procedure Liquidity transfers from a technical acc related to an ancillary system using AS settlement procedure D to an RTGS D  6: RTGS DCA to Ancillary System gua accounts – Liquidity transfers from an DCA to the guarantee account of an a system  7: Ancillary System guarantee account RTGS DCA – Liquidity transfers from to					
(AS settlement procedure C ) – Liquidit transfers from a technical or linked subsection account dedi-cated to an ancillary system using the AS settle-ment procedure C RTGS DCA  1 5: Ancillary System Technical Account RTGS DCA (AS settlement procedure Liquidity transfers from a technical accordance of the control of the					3: RTGS DCA to Ancillary System Technical     Ac-count (AS settlement procedure D) –     Liquidity transfers from an RTGS DCA to the     technical account related to an ancillary system     using AS settlement procedure D
RTGS DCA (AS settlement procedure Liquidity transfers from a technical acc related to an ancillary system using AS settlement procedure D to an RTGS D  1 6: RTGS DCA to Ancillary System gua accounts – Liquidity transfers from an DCA to the guarantee account of an account of account of an account of an account of an account of account					4: RTGS technical/sub-account to RTGS DCA     (AS settlement procedure C ) – Liquidity     transfers from a technical or linked sub- account dedi-cated to an ancillary system     using the AS settle-ment procedure C to an RTGS DCA
accounts – Liquidity transfers from an DCA to the guarantee account of an a system  1 7: Ancillary System guarantee account RTGS DCA – Liquidity transfers from the second					5: Ancillary System Technical Account to     RTGS DCA (AS settlement procedure D) —     Liquidity transfers from a technical account     related to an ancillary system using AS     settlement procedure D to an RTGS DCA
RTGS DCA – Liquidity transfers from t					6: RTGS DCA to Ancillary System guarantee     accounts – Liquidity transfers from an RTGS     DCA to the guarantee account of an ancillary     system
an RTGS DCA					7: Ancillary System guarantee accounts to     RTGS DCA – Liquidity transfers from the     guarantee ac-count of an ancillary system to     an RTGS DCA



no.	Logical Name	Data Type	Mandatory/ Optional	Definition
44	RTGS Ancillary System Settlement Procedure	VARCHAR(10)	Optional	The filter provides the classification for the AS settlement procedure.  Code and Description  A: AS settlement procedure A  B: AS settlement procedure B  C: AS settlement procedure C  D: AS settlement procedure D  E: AS settlement procedure E
45	Originator BIC	CHAR(11)	Optional	This field specifies the BIC of the originator of the cash transfer when the ISO message underlying the cash transfer specifies it in line with the definition in the Statistical Classification Framework Mapping.
46	Beneficiary BIC	CHAR(11)	Optional	This field specifies the BIC of the beneficiary of the cash transfer when the ISO message underlying the cash transfer specifies it in line with the definition in the Statistical Classification Framework Mapping.

## 8.3.9 DXE06 - Business day file specification

This file provides the execution times of business events on a specific user-selected business day.



no.	Logical Name	Data Type	Mandatory/Opti	Definition
1	Business Day	DATE	Mandatory	This field specifies the business day of a Eurosystem market infrastructure.
2	Event Code	VARCHAR(4)	Mandatory	This field documents an event the T2 schedules and executes during the business day.  Code and Description for CLM Events
				<ul> <li>CT01: Load CLM business day</li> <li>CSOD: Change of business day</li> <li>CRTI: Start of CLM RTS</li> <li>CESO: Execution of standing orders in CLM</li> <li>CSCC: Start of currency specific closing</li> <li>CSMW: Start of non-optional maintenance window</li> <li>CEMW: End of non-optional maintenance window</li> <li>CECC: End of currency specific closing</li> <li>CSOM: Start of optional maintenance window</li> <li>CEOM: End of optional maintenance window</li> <li>CCII: Cut-off for CLM RTS</li> <li>T2DP: Data propagation for T2</li> <li>CEOD: Start of EoD processing</li> <li>CCSF: General cut-off for standing facilities</li> <li>CCML: CB cut-off for marginal lending on request</li> <li>CCOS: EoD - close of service</li> </ul>
				Code and Description for RTGS Events  RT01: Load RTGS business day RSOD: Change of business day RRTI: Start of RTGS RTS RESO: Execution of standing orders in RTGS RSCC: Start of currency specific closing



no.	Logical Name	Data Type	Mandatory/Opti onal	Definition
				<ul> <li>RSMW: Start of non-optional maintenance window</li> <li>REMW: End of non-optional maintenance window</li> <li>RECC: End of currency specific closing</li> <li>RRII: Start of RTGS RTS II</li> <li>RSIC: Start of settlement window for interbank and customer payments</li> <li>RSOM: Start of optional maintenance window</li> <li>REOM: End of optional maintenance window</li> <li>RCOC: Cut-off for customer payments</li> <li>RCII: Cut-off for RTGS RTS II</li> <li>RLSO: Execution of standing orders after last settlement attempt in RTGS</li> <li>REOD: Start of EoD processing</li> </ul>
3	Scheduled Timestamp	TIMESTAMP	Mandatory	This field specifies the date and time at which the execution of the event is to take place during the business day.
4	Actual Timestamp	TIMESTAMP	Mandatory	This field specifies the date and time at which the execution of the event has been rescheduled to during the business day. This timestamp contains the value of the scheduled timestamp (TS_SCHED) when there was no rescheduling.