

BW RTR - Costa - BW Level 5 integration in Anaplan /\n Obsolete /\n



The new wiki link for this data flow is here:

[BW RTR - Costa - BW Level 5 integration in Anaplan](#)

Please update the doc there and no longer here.



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General presentation

Objective of the application

New BW L5 hierarchy definition a

nd integration to Anaplan.

Tool Leader: Charlotte Rollier

IT leader of the application: Guillaume Thevenet

History

The L5 hierarchy was before defined with the steps below, coming from Anaplan to BW via flat files.

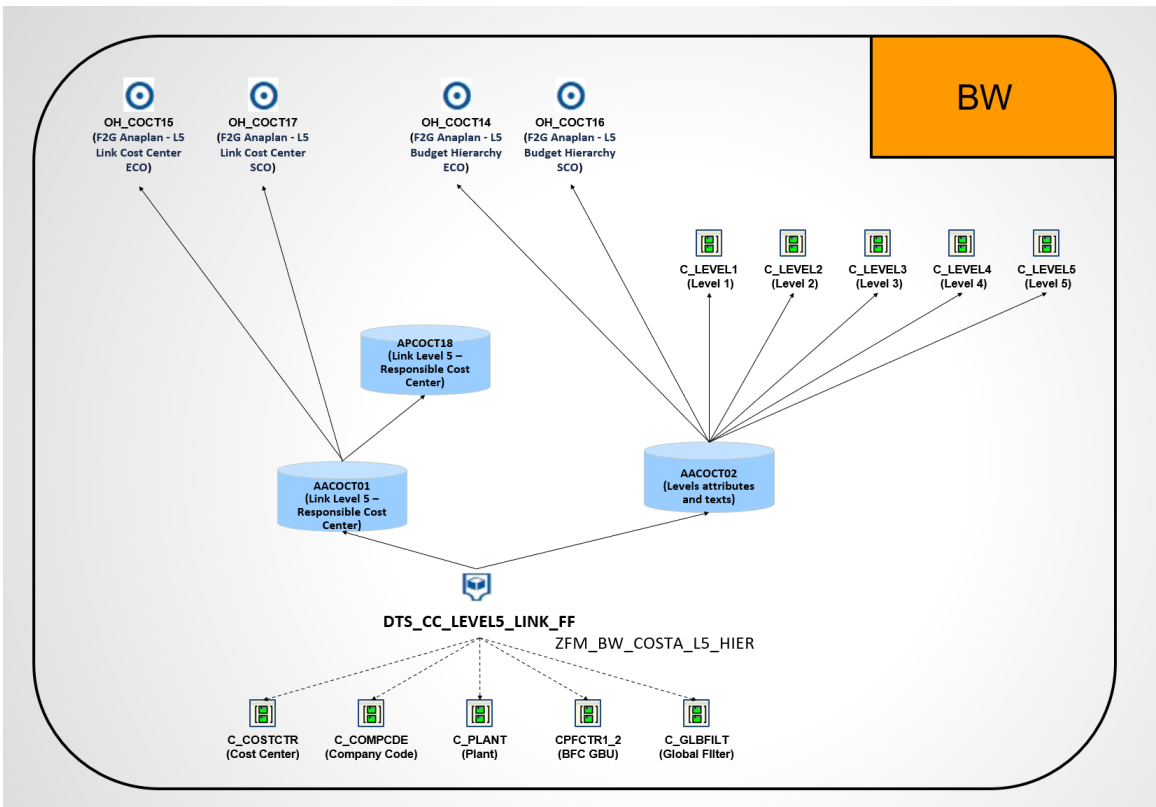
AS-IS : The management of the L5 Budget hierarchy is the following one :

1. The data are managed in many google spreadsheets (maintain by SU MAC Data team)
2. Anaplan admin team generated 2 files from the google spreadsheet one for L5 budget hierarchy detail with all the nodes L1 to L5 + attributes like BSA, GBU etc and second files with the link between L5 code and Cost center
3. Anaplan admin load these 2 files on F2G model
4. Automatic process generate 2 files from F2G model to AWS S3 bucket
5. Webmethods process in recurrent mode (several times per day) transfer the 2 files from AWS S3 Bucket to BW folder
6. A BW process chain uploads the data on BW objects (master data and ADSO)

In this new solution we define the Levels applying rules to the existing BW Cost Center data, then generate outbound files to Anaplan.

Dataflow overview

The DSOS (AACOCT01 and AACOCT02) and InfoObjects (C_LEVEL1, C_LEVEL2, C_LEVEL3, C_LEVEL4 and C_LEVEL5) from previous solution were reused.



Rules & Explanations

Level Rules definition

Levels of ZCB_GRP (target hierarchy)	Attributes of Cost Center C_COSTCTR sources and business rules	Rules for the descriptions (texts) of the levels
Level 1 ZCBS_GRP	IF GBU/Function (C_GBUFUCT) = GRP_GBU then Level 1 = CPFCTR1_2 (BFC GBU code) Else GBU/Function (C_GBUFUCT) (values = GRP_FUNCT or GRP_SBS)	For C_GBUFUCT = GRP_GBU => name of the GBU else the description linked to C_GBUFUCT
Level 2 ZCBS_GRP	IF GBU/Function (C_GBUFUCT) = GRP_GBU then concatenation of Group Function (C_GRPFUCT) & CPFCTR1_2 (BFC GBU code) with "_" as separator Else Group Function (C_GRPFUCT)	No GBU in the description only the description linked to Group Function (C_GRPFUCT)

<p>Level 3 ZCBS_GRP</p>	<p>%case 1 : Function and SBS If C_GBUFACT= GRP_FUNCT or GRP_SBS Then Level 3 = value of 3 sub function (C_FUNCT_3)</p> <p>%case 2 : C_FUNCT_2 Else IF C_FUNCT_2 = in the list EPRD ; ELOCO ; EMISC; ESTLO (Added in Global Filter) (global filter) THEN level 3 = concatenation of C_FUNCT_2 & Log Sys & Responsible Plant code of the CC and & CPFCTR1_2 (BFC GBU code) with "_" as separator</p> <p>%case 3 :others cases ELSE concatenation value of 3 sub function (C_FUNCT_3) & CPFCTR1_2 (BFC GBU code) with "_" as separator</p>	<p>%case 1 : Function and SBS Description linked to 3 sub function (C_FUNCT_3)</p> <p>%case 2 : C_FUNCT_2 First the G_ZONE code from company code C_COMPCODE and code of the plant and description of the plant as space as separator</p> <p>%case 3 :others cases Description linked to 3 sub function (C_FUNCT_3) no need GBU description</p>
<p>Level 4 ZCBS_GRP</p>	<p>%case 1 : Function and SBS If C_GBUFACT = GRP_FUNCT or GRP_SBS then Level 4 = 4 function (C_FUNCT_4)</p> <p>%case 2 : C_FUNCT_2 Else IF C_FUNCT_2 = in the list EPRD ; ELOCO ; EMISC; ESTLO (Added in Global Filter) (global filter) THEN level 4 = concatenate 3 sub function (C_FUNCT_3) & log sys & responsible Plant code of the CC & CPFCTR1_2 (BFC GBU code) with "_" as separator</p> <p>%case 3 : others cases ELSE Level 4 = concatenation value of 4 function (C_FUNCT_4) & CPFCTR1_2 (BFC GBU code) of the CC with "_" as separator</p>	<p>%case 1 : Function and SBS 4 function (C_FUNCT_4)</p> <p>%case 2 : C_FUNCT_2 3 sub function (C_FUNCT_3) & '_' & Medium description of the plant (C_PLANT)</p> <p>%case 3 : others cases 4 function (C_FUNCT_4)</p>

<p>Level 5 ZCBS_GRP</p>	<pre> %case 1 : Function If C_GBUFUCT = GRP_FUNCT then Level 4 = 4 function (C_FUNCT_4) & 4 function (C_FUNCT_4) with "_" as separator %case 2 : SBS Else IF GBU/Function = GRP_SBS* THEN concatenate 4 function (C_FUNCT_4) & Code country of the company %case 3 : C_FUNCT_2 Else IF C_FUNCT_2 = in the list EPRD ; ELOCO ; EMISC; ESTLO (Added in Global Filter) (global filter) THEN level 4 = concatenate 3 sub function (C_FUNCT_3) & 3 sub function (C_FUNCT_3) & Log Sys & Responsible Plant code of the CC & CPFCTR1_2 (BFC GBU code) with "_" as separator %case 4 : Others cases ELSE Level 4 = concatenation value of 4 function (C_FUNCT_4) & 4 function (C_FUNCT_4)& CPFCTR1_2 (BFC GBU code) of the CC with "_" as separator </pre>	<pre> %case 1 : Function 4 function (C_FUNCT_4) %case 2 : SBS code country code + 4 function (C_FUNCT_4) space as separator %case 3 : C_FUNCT_2 3 sub function (C_FUNCT_3) (if EPRD etc) & '_' & Medium description of the plant (C_PLANT) %case 4 : Others cases 4 function (C_FUNCT_4) </pre>
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Extraction rules

Extract from cost center master data (C_COSTCTR) with the filters below :

- + C_FGPTOB (Flag for Obsolete Object) = 0 (only active cost center have to be integrated in the scope)
- + 0CO_AREA (Controlling area) of the list below only :
 - + CHEF
 - + Z006
 - + Z013
 - + Z025
 - + Z026
 - + Z028

Only ECO and SCO scope data. (C_COMPCODE-C_SCOPE - 02 for ECO and 03 for SCO)

Remove records where Level 5 is empty or only "_".

Remove records where Level 1 is empty.

Dependencies with other applications

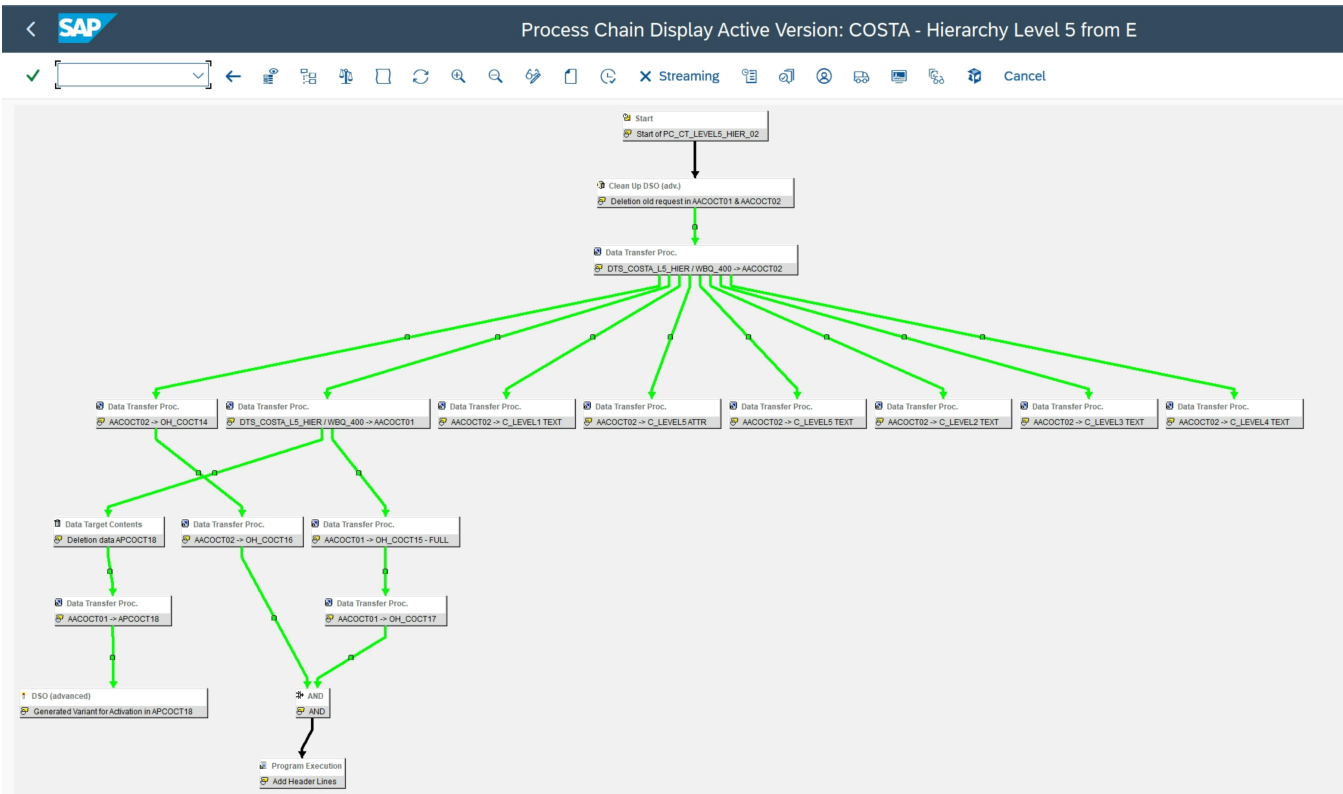
Global Filter variables for the Level Exceptions, Controlling Areas, GBU Functions and Scopes.

Table: /BIC/PC_GLBFLT

	/BIC/C_STREAM	/BIC/C_RULE	/BIC/C_GLBFLT	OBJVERS	CHANGED	/BIC/C_DESC	/BIC/C_SIGN	/BIC/C_OPTION	/BIC/C_LOW	/BIC/C_HIGH	/BIC/C_ACTIVE
<input type="checkbox"/>	COSTA	L5_COAREA		000 A		Controlling Area	I	EQ	CHEF		Y
<input type="checkbox"/>	COSTA	L5_COAREA		001 A		Controlling Area	I	EQ	Z006		Y
<input type="checkbox"/>	COSTA	L5_COAREA		002 A		Controlling Area	I	EQ	Z013		Y
<input type="checkbox"/>	COSTA	L5_COAREA		003 A		Controlling Area	I	EQ	Z025		Y
<input type="checkbox"/>	COSTA	L5_COAREA		004 A		Controlling Area	I	EQ	Z026		Y
<input type="checkbox"/>	COSTA	L5_COAREA		005 A		Controlling Area	I	EQ	Z028		Y
<input type="checkbox"/>	COSTA	L5_GRP_FNC		000 A		GBU Funct: GRP_FUNCT	I	EQ	GRP_FUNCT		Y
<input type="checkbox"/>	COSTA	L5_GRP_GBU		000 A		GBU Funct: GRP_GBU	I	EQ	GRP_GBU		Y
<input type="checkbox"/>	COSTA	L5_GRP_SBS		000 A		GBU Funct: GRP_SBS	I	EQ	GRP_SBS		Y
<input type="checkbox"/>	COSTA	L5_HIER		000 A		Level Exception	I	EQ	EPRD		Y
<input type="checkbox"/>	COSTA	L5_HIER		001 A		Level Exception	I	EQ	ELOCO		Y
<input type="checkbox"/>	COSTA	L5_HIER		002 A		Level Exception	I	EQ	EMISC		Y
<input type="checkbox"/>	COSTA	L5_HIER		003 A		Level Exception	I	EQ	ESTLO		Y
<input type="checkbox"/>	COSTA	L5_SCP_ECO		000 A		Scope ECO = 02	I	EQ	02		Y
<input type="checkbox"/>	COSTA	L5_SCP_SCO		000 A		Scope SCo = 03	I	EQ	03		Y

Data loadings

Process Chain: PC_CT_LEVEL5_HIER2 - COSTA - Hierarchy Level 5 from ECC



Loading frequency

Daily.

To allow the filling of the cost center master data BW attributes linked to L5 NASA Hierarchy, some pre-requisites are mandatory :

- A) loads of the attributes of the cost center from ERP's (WP1, PF1 and PI1) and transaction code ZBW_CBS
- B) Load of the ZCB hierarchies
- C) Load of L5 fields

A-1) The load of the cost center master data from PF1 :

Process chain : RPC_COOM_MD_PF1

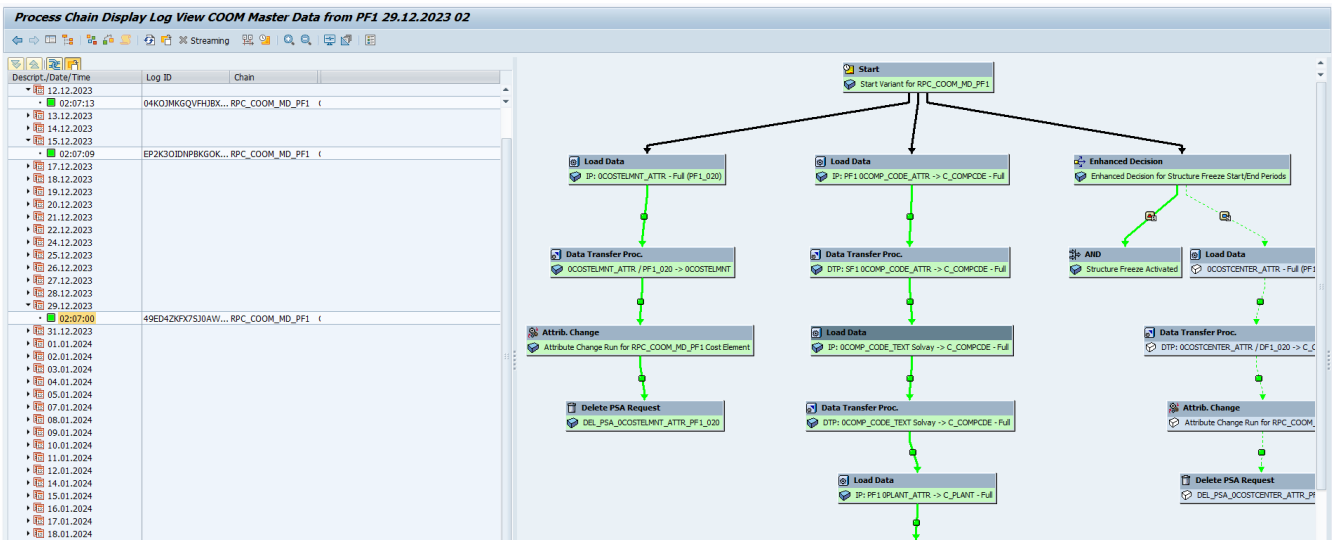
Daily schedule at around 02:00am (CET Time)

+ linked to the frozen period, during the yearly frozen period

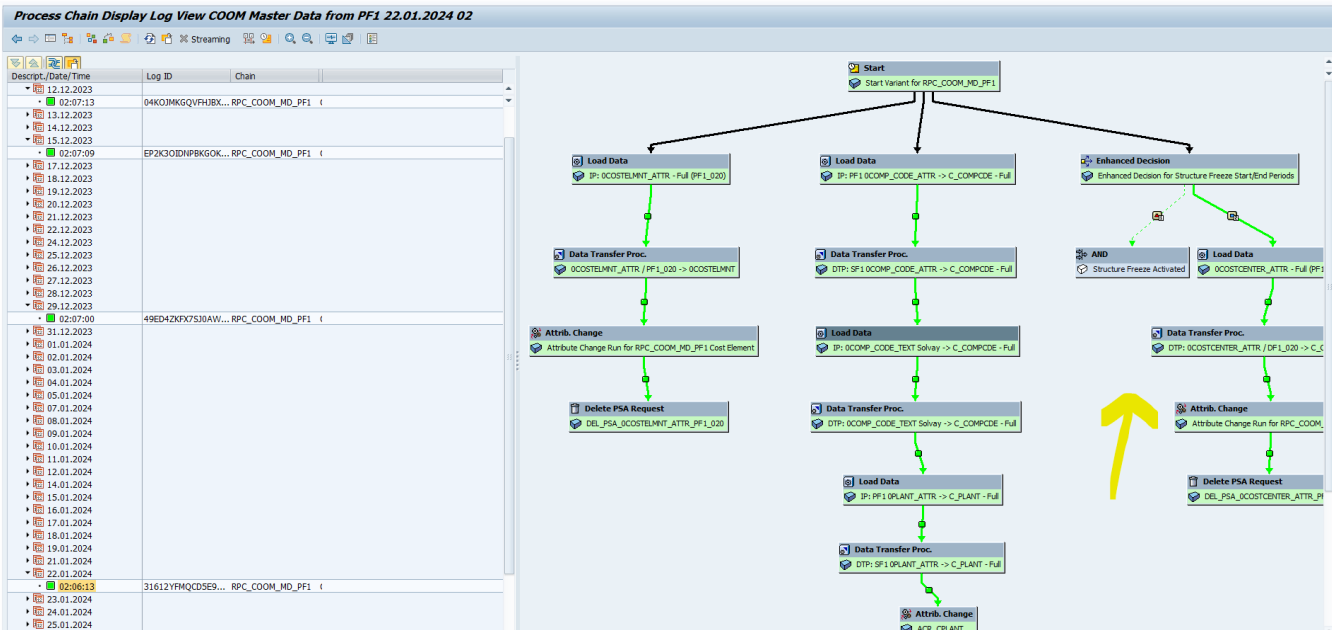
Frozen period :

(period from end of December until around 20th of January which is not allow to reflect the update done in master data to not impact the end yearly closing period which should be done with th scope of the current year and not the future year)

load during the frozen period :



Load after frozen period :



The data from PF1 are loaded only once time per day during the night loading at around 02:00am (CET Time)

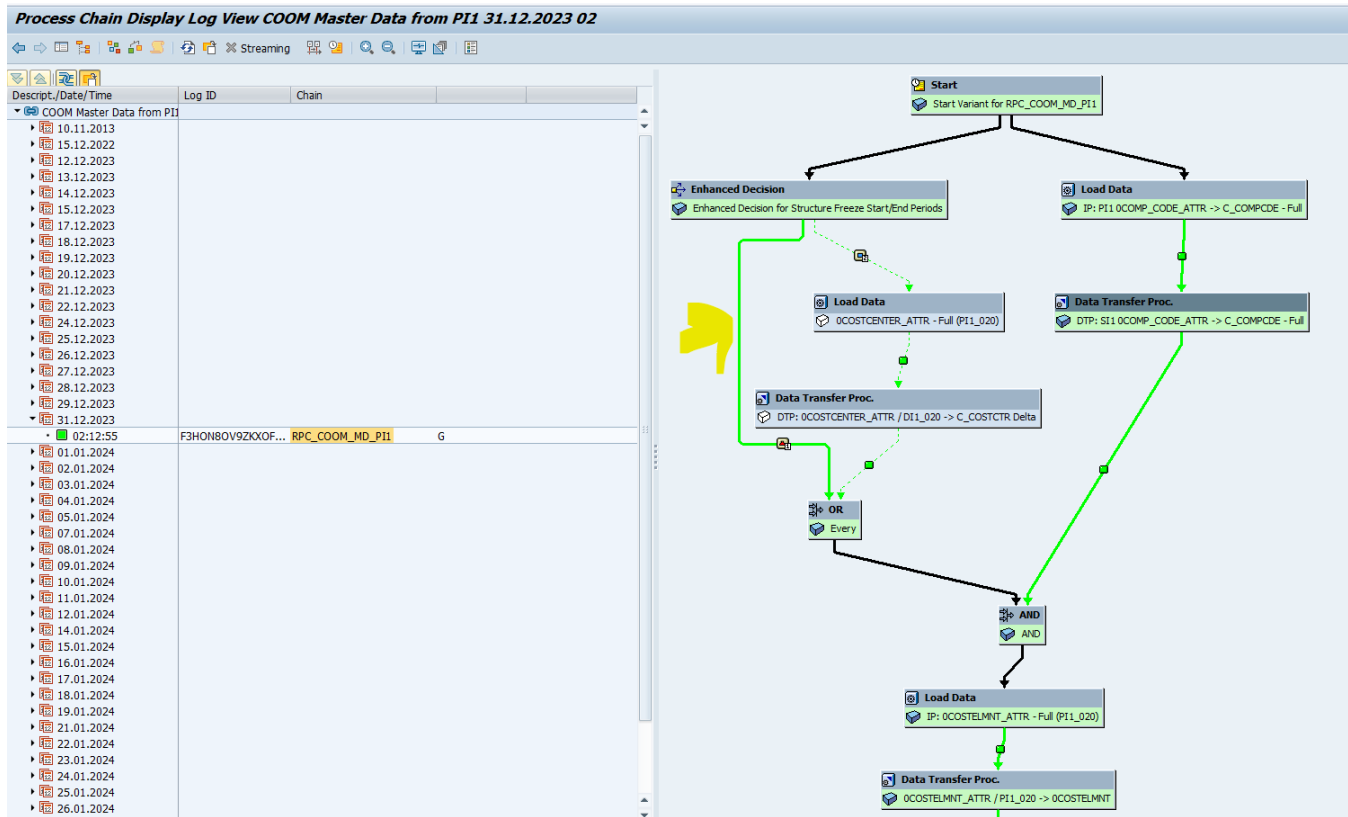
A-2) The load of the cost center master data from PI1 :

Process chain : RPC_COOM_MD_P11

Daily schedule at around 02:00am (CET Time)

+ linked to the frozen period, during the yearly frozen period

During the frozen period :



Out of frozen period :

Process Chain Display Log View COOM Master Data from PI1 22.01.2024 02

The screenshot displays the SAP Process Chain Display Log View for COOM Master Data. The left pane shows a list of dates from 15.12.2023 to 29.01.2024. The right pane shows a process chain diagram. The process starts with 'Start' (Start Variant for RPC_COOM_MD_PI1) and branches into two paths: 'Enhanced Decision' (Enhanced Decision for Structure Freeze Start/End Periods) and 'Load Data' (IP: PI1 0COMP_CODE_ATTR -> C_COMPCODE - Full). The 'Enhanced Decision' path leads to 'Load Data' (OCOSTCENTER_ATTR - Full (PI1_020)), which then leads to 'Data Transfer Proc.' (DTP: OCOSTCENTER_ATTR / DLI_020 -> C_COSTCTR Delta). The 'Load Data' path leads to 'Data Transfer Proc.' (DTP: S11 0COMP_CODE_ATTR -> C_COMPCODE - Full). Both paths converge at an 'AND' node, which then leads to 'Load Data' (IP: OCOSTELMNT_ATTR - Full (PI1_020)). A yellow arrow points to the 'Enhanced Decision' node.

3) From WP1

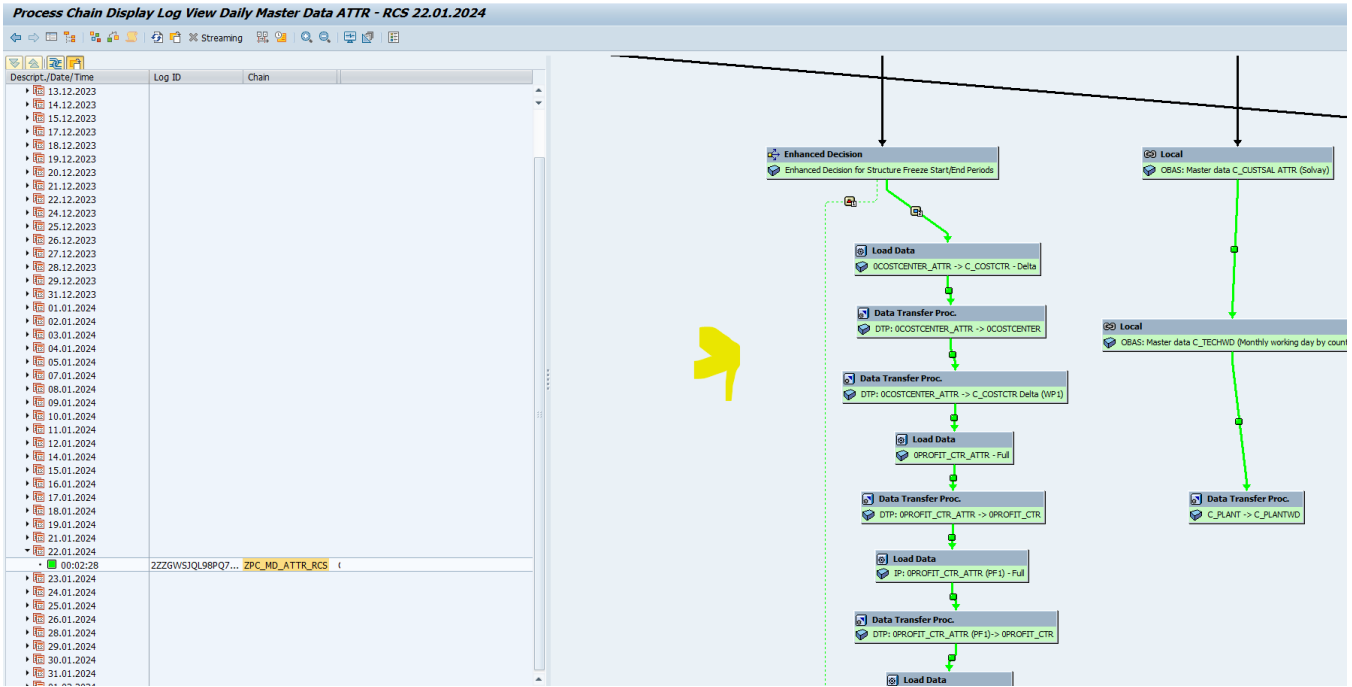
ZPC_MD_ATTR_RCS

During frozen period :

Process Chain Display Log View Daily Master Data ATTR - RCS 31.12.2023

The screenshot displays the SAP Process Chain Display Log View for Daily Master Data ATTR - RCS. The left pane shows a list of dates from 10.09.2007 to 26.01.2024. The right pane shows a process chain diagram. The process starts with 'Enhanced Decision' (Enhanced Decision for Structure Freeze Start/End Periods) and leads to 'Load Data' (OCOSTCENTER_ATTR -> C_COSTCTR - Delta). This leads to 'Data Transfer Proc.' (DTP: OCOSTCENTER_ATTR -> OCOSTCENTER), which then leads to 'Data Transfer Proc.' (DTP: OCOSTCENTER_ATTR -> C_COSTCTR Delta (WP1)). This leads to 'Load Data' (OPROFIT_CTR_ATTR - Full), which leads to 'Data Transfer Proc.' (DTP: OPROFIT_CTR_ATTR -> OPROFIT_CTR). This leads to 'Load Data' (IP: OPROFIT_CTR_ATTR (PF1) - Full), which leads to 'Data Transfer Proc.' (DTP: OPROFIT_CTR_ATTR (PF1) -> OPROFIT_CTR). This leads to 'Load Data' (ZZK_PRCTR_ATTR (PF1) Full), which leads to 'Data Transfer Proc.' (DTP: ZZK_PRCTR_ATTR / PF1_020 -> OPROFIT_CTR). A yellow arrow points to the 'Enhanced Decision' node.

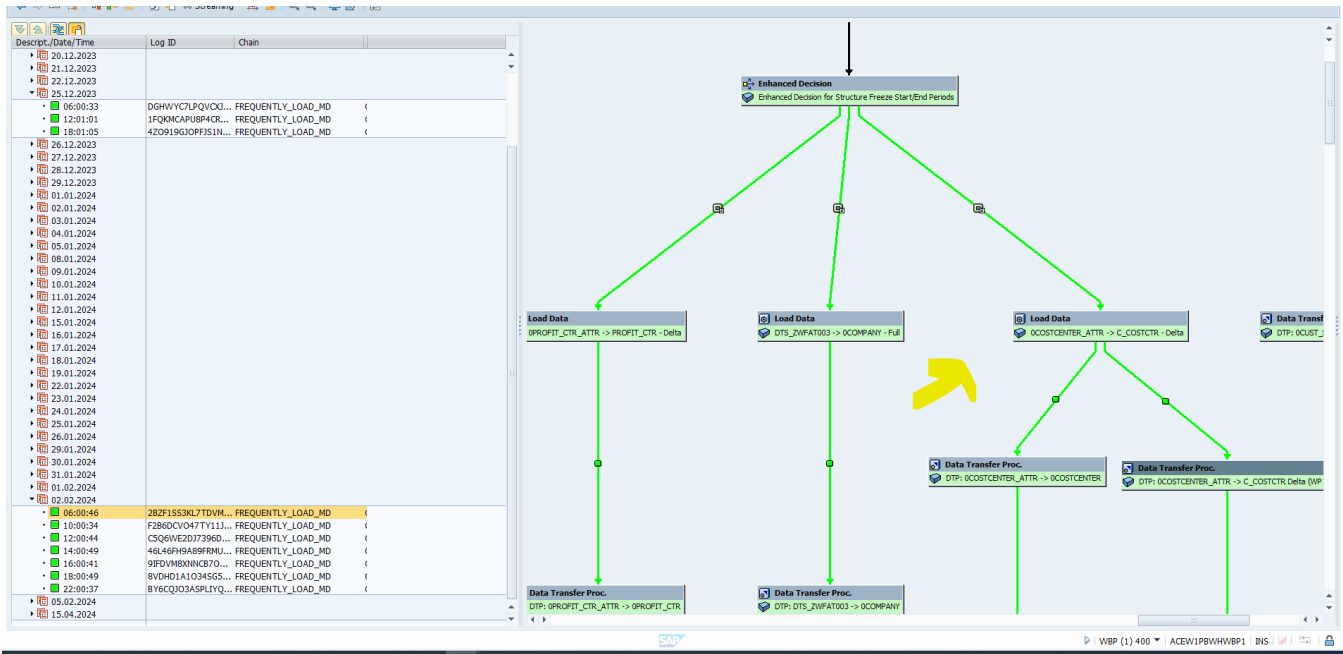
After frozen period



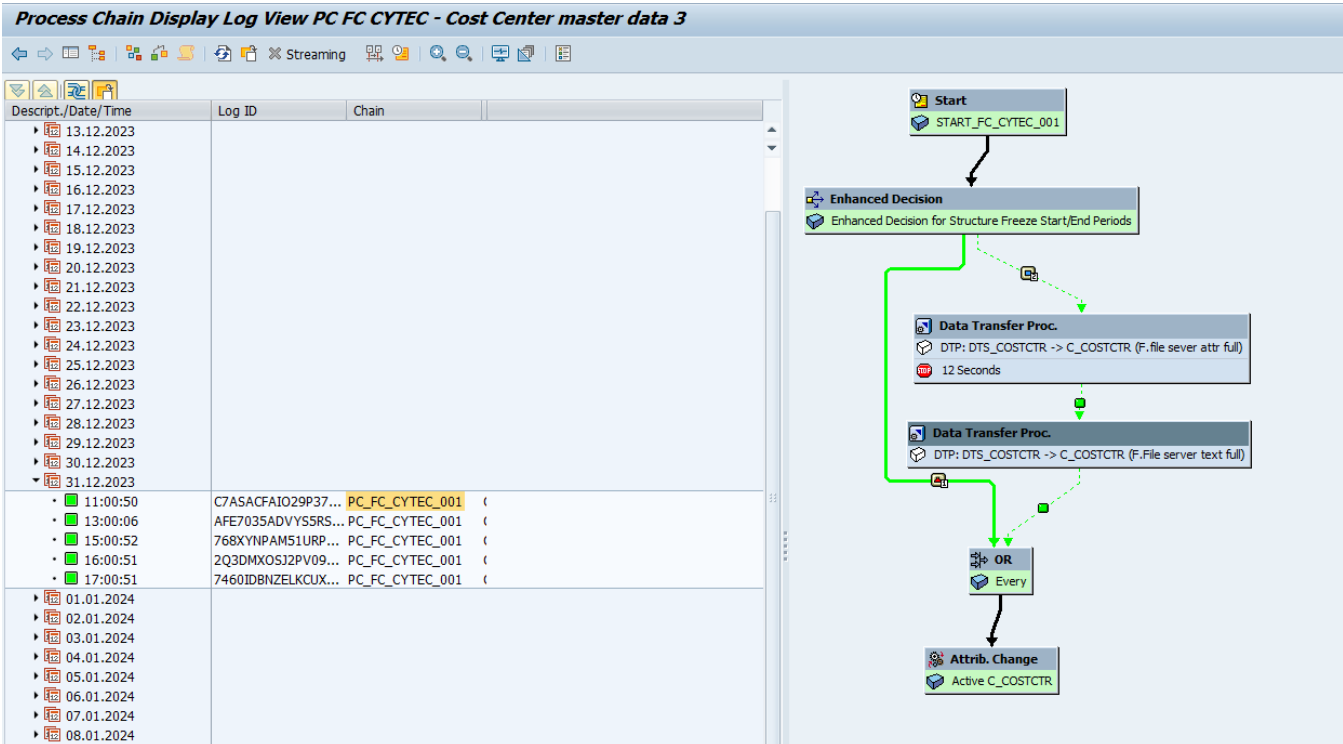
+ loads done with process chain : FREQUENTLY_LOAD_MD

During frozen period :





From PC_FC_CYTEC_001



Process Chain Display Log View PC FC CYTEC - Cost Center master data 2

Descript./Date/Time	Log ID	Chain
23.12.2023		
24.12.2023		
25.12.2023		
26.12.2023		
27.12.2023		
28.12.2023		
29.12.2023		
30.12.2023		
31.12.2023		
01.01.2024		
02.01.2024		
03.01.2024		
04.01.2024		
05.01.2024		
06.01.2024		
07.01.2024		
08.01.2024		
09.01.2024		
10.01.2024		
11.01.2024		
12.01.2024		
13.01.2024		
14.01.2024		
15.01.2024		
16.01.2024		
17.01.2024		
18.01.2024		
19.01.2024		
20.01.2024		
21.01.2024		
22.01.2024		
23.01.2024		
24.01.2024		
25.01.2024		
26.01.2024		
27.01.2024		
11:00:37	CXNEZ5QC7SBOYR...	PC_FC_CYTEC_001 (
13:01:01	S17RDM3MS2YQ8G...	PC_FC_CYTEC_001 (
15:00:06	AKQJMPW15W9PEF...	PC_FC_CYTEC_001 (
16:00:07	DCNSQP3P0ZFLW...	PC_FC_CYTEC_001 (
17:01:00	AKDRH0K3ZEEES7D...	PC_FC_CYTEC_001 (
28.01.2024		
29.01.2024		

B-1) Load of the hierarchy every days at 07:00pm (CET time) CO_DAILY_MASTER_DATA (Daily Hierarchies CO 1/2)

For WP1 data :

Master process chain : DAILY_PC_HIER_TXT

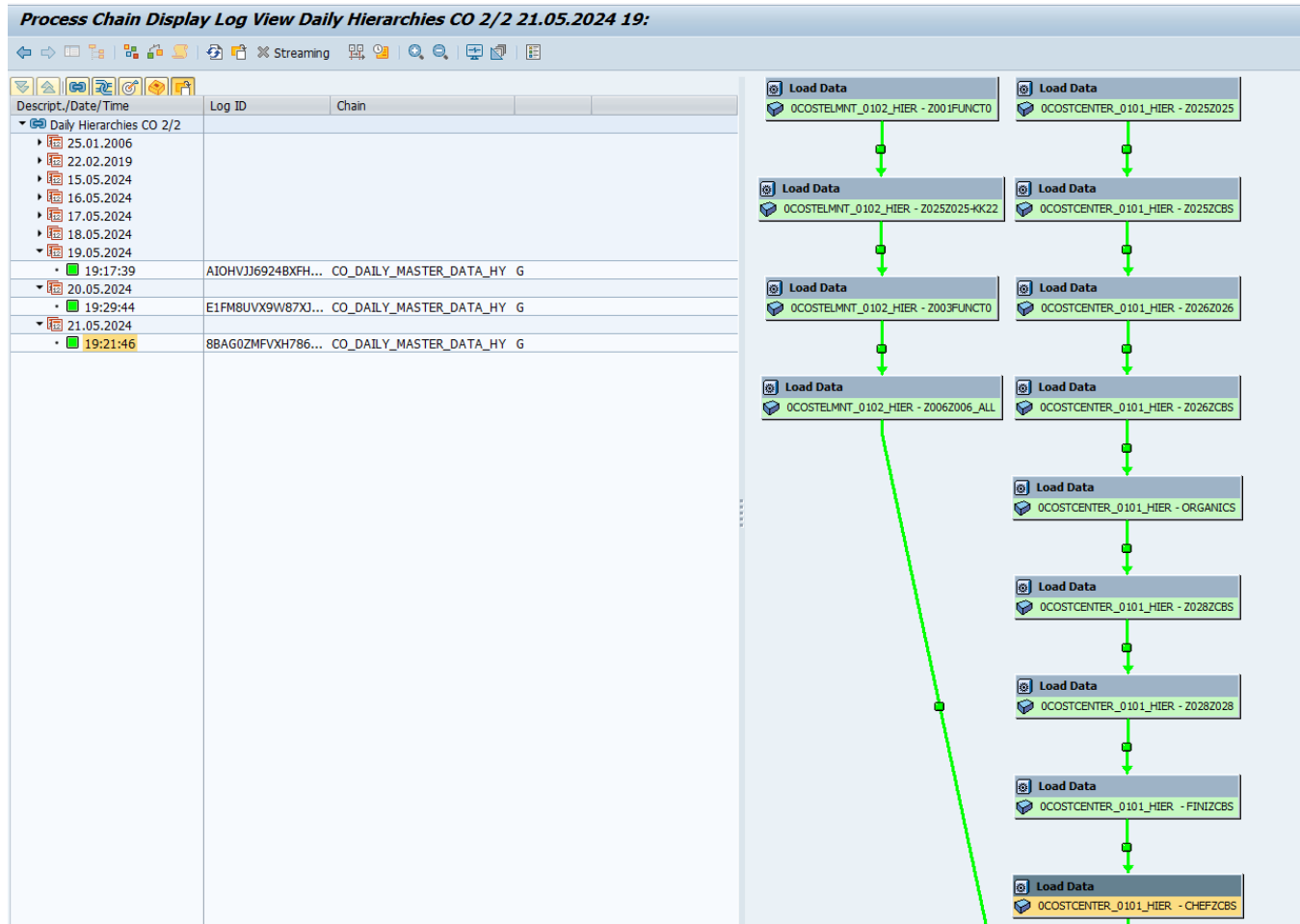
Process Chain Display Log View Daily Hierarchies CO 1/2 21.05.2024 19:

Descript./Date/Time	Log ID	Chain
Daily Hierarchies CO 1/2		
18.01.2005		
10.11.2021		
15.05.2024		
16.05.2024		
17.05.2024		
18.05.2024		
19:00:19	8DPCT97G6AJHT...	CO_DAILY_MASTER_DATA G
19:05:2024		
19:00:39	A5EGFV2AT93QI9...	CO_DAILY_MASTER_DATA G
20:05:2024		
19:00:15	40J3QHV46U7I6AX...	CO_DAILY_MASTER_DATA G
21:05:2024		
19:00:13	DCT2KLEWLG1MVB...	CO_DAILY_MASTER_DATA G

B-2) Load of the hierarchy every days at 07:00pm (CET time) CO_DAILY_MASTER_DATA_HY (Daily Hierarchies CO 2/2)

For PF1 and PI1 data

Master process chain : DAILY_PC_HIER_TXT



C-1) Load of L5 fields on Cost center (C_COSTCTR) BW master data :

L5 update with PC_CT_LEVEL5_HIER_02 every days at 10:00pm cet time BUT following the BE Factory calendar, so the process chain is not running during Belgium public holidays.

Process Chain Display Log View COSTA - Hierarchy Level 5 from ECC 21.0

The screenshot displays a process chain for 'COSTA - Hierarchy Level 5'. On the left, a table lists log entries with columns for Description, Date/Time, Log ID, Chain, and Status. The main area shows a flowchart starting with 'Start' (Start of PC_CT_LEVEL5_HIER_02), followed by 'Clean Up DSO (adv.)' (Deletion old request in AACCOCT01 & AACCOCT02), and then a central 'Data Transfer Proc.' (DTS_COSTA_L5_HIER / WBP_#00 -> AACCOCT02). This central process branches into four parallel 'Data Transfer Proc.' steps: AACCOCT02 -> OH_COCT14, AACCOCT02 -> C_LEVEL5TEXT, AACCOCT02 -> C_LEVEL5 ATTR, and DTP: DTS_COSTA_L5_HIER -> C_COSTCTR - Full. The first three lead to a 'Data Transfer Proc.' (AACCOCT02 -> OH_COCT16), and the last one leads to an 'Attrib. Change' (Active C_COSTCTR).

Descr./Date/Time	Log ID	Chain	Status
COSTA - Hierarchy Level 5			
30.01.2023			
13.06.2023			
15.05.2024			
22:00:22	3UFZTOGMCV2CK0...	PC_CT_LEVEL5_HIER_02	G
16:05:2024	59DMW21YML0JA6...	PC_CT_LEVEL5_HIER_02	G
22:00:27	888MZ3YXD54002...	PC_CT_LEVEL5_HIER_02	G
17:05:2024			
22:00:27	888MZ3YXD54002...	PC_CT_LEVEL5_HIER_02	G
21:05:2024			
22:00:31	1UWKRXHQH21C2...	PC_CT_LEVEL5_HIER_02	G

The screenshot shows the configuration for a job's start time and date restrictions. The 'Start Time' section includes options for 'Immediate', 'Date/Time', 'After Job', 'After Event', and 'Operation Mode'. The 'Date/Time' section is selected, showing 'Scheduled' and 'No Start A'. The 'Start Date Restrictions' dialog is open, showing 'Factory calendar' with 'Calendar ID: BE'. Under 'Calendar-Driven Job Execution', the option 'Not on Sundays or public holidays' is selected. At the bottom, 'Periodic Job' is checked, and 'Period values' and 'Restrictions' are also checked.

For example for 2024 :

Year Overview 2024

◀ Year ▶ Year

Yearly Overview

Number of Days	
Workdays	252
Free Days	114

Calendar Overview

	WN	MO	TU	WE	TH	FR	SA	SU
2024/8	31	29	30	31	1	2	3	4
	32	5	6	7	8	9	10	11
	33	12	13	14	15	16	17	18
	34	19	20	21	22	23	24	25
	35	26	27	28	29	30	31	1
2024/9	36	2	3	4	5	6	7	8
	37	9	10	11	12	13	14	15
	38	16	17	18	19	20	21	22
2024/10	39	23	24	25	26	27	28	29
	40	30	1	2	3	4	5	6
	41	7	8	9	10	11	12	13
	42	14	15	16	17	18	19	20
2024/11	43	21	22	23	24	25	26	27
	44	28	29	30	31	1	2	3
	45	4	5	6	7	8	9	10
	46	11	12	13	14	15	16	17
	47	18	19	20	21	22	23	24
2024/12	48	25	26	27	28	29	30	1
	49	2	3	4	5	6	7	8
	50	9	10	11	12	13	14	15
	51	16	17	18	19	20	21	22
	52	23	24	25	26	27	28	29
2025/1	1	30	31	1	2	3	4	5
	2	6	7	8	9	10	11	12

Public Holidays

Date	Explanation
01.01.2024	New Year's Day
31.03.2024	Easter Sunday
01.04.2024	Easter Monday
01.05.2024	May Day
09.05.2024	Ascension
10.05.2024	Ascension Friday
20.05.2024	Whit Monday
21.07.2024	National Holiday Belgium
22.07.2024	National Holiday Belgium , moved
15.08.2024	Assumption
01.11.2024	All Saints' Day
25.12.2024	Christmas Day

Open Hubs for Anaplan

BW folder for the files: /exploit/BW/Anaplan_outbound

Format: in TXT, Unicode format and comma as separator.

Add " " for the descriptions fields as some of them could contain comma and raise issues in the Anaplan upload process.

Custom Program ZBW_ANAPLAN_OUTBOUND_HEADER created to add the files header lines, this is the last step from Process Chain PC_CT_LEVEL5_HIER2.

OH_COCT14 - F2G Anaplan - L5 Budget Hierarchy ECO

File name: L5_budget_hierarchy_ECO.txt

Structure definition:

L1 Code (mandatory) (extraction only L1 not empty)

L1 Description (mandatory)

L2 Code (mandatory)

L2 Description (mandatory)

L3 Code (mandatory)

L3 Description (mandatory)

L4 Code (mandatory)

L4 Description (mandatory)

L5 Code (mandatory)

L5 Description (mandatory)

Scope (mandatory)

Filter: Only Scope (C_COMPCODE-C_SCOPE = 02 - ECO)

OH_COCT15 - F2G Anaplan - L5 Link Cost Center ECO

File name: L5_link_cc_ECO.txt

Structure definition:

CC Code (mandatory)

CC Description (mandatory)

LVL5 Code (mandatory)

BSA (not mandatory)

Scope (mandatory)

Filter: Only Scope (C_COMPCODE-C_SCOPE = 02 - ECO)

OH_COCT16 - F2G Anaplan - L5 Budget Hierarchy SCO

File name: L5_budget_hierarchy_SCO.txt

Structure definition:

L1 Code (mandatory) (extraction only L1 not empty)

L1 Description (mandatory)

L2 Code (mandatory)

L2 Description (mandatory)

L3 Code (mandatory)

L3 Description (mandatory)

L4 Code (mandatory)

L4 Description (mandatory)

L5 Code (mandatory)

L5 Description (mandatory)

Scope (mandatory)

Filter: Only Scope (C_COMPCODE-C_SCOPE = 03 - SCO)

OH_COCT17 - F2G Anaplan - L5 Link Cost Center SCO

File name: L5_link_cc_SCO.txt

Structure definition:

CC Code (mandatory)

CC Description (mandatory)

LVL5 Code (mandatory)

BSA (not mandatory)

Scope (mandatory)

Filter: Only Scope (C_COMPCODE-C_SCOPE = 03 - SCO)