Technical Documentation - IMEP

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Access Management

Roles & Access

List of application role + menu role and explanation if we have several applications role with specials rules.

Role Code	Role Description	Explanation
ZR_RCS_CA_M55	IMEP - Integrated Manufacturing & Energy Performance	Gives access to queries & workbooks IMEP (Manufacturing & Energy reports)
ZBI_RCS_IMEP_A01	IMEP - Integrated Manufacturing & Energy Performance	Gives access to InfoArea IA_FMCO_CO_IMEP* Authorization object ZBI_IMEP
ZR_RCS_CA_M551	IMEP - Upload Data - Non-SAP Plant ZIMEP_FILE	Gives access to transaction ZIMEP_FILE which allows IMEP Flat Files upload. (same logic than for P&L / role ZR_RCS_CA_M432)

Authorization Objects

List of authorization objects mandatory for the application.

Authorization object	Explanation
GBU (CPFCTR1_2)	ZR_*_CA_P05
Plant (C_PLANT)	ZR_*_CA_P02 ZR_7866_CA_P02 => Plant 7866 - Chalampé (ex 7027) - (Cie ZFR9) ZR_TOUT_CA_P02 => All Plants "Solvay"
Company (C_COMPCDE)	ZR_*_CA_P01
C_PLANT__C_AUTHMA	ZR_*_CA_P00

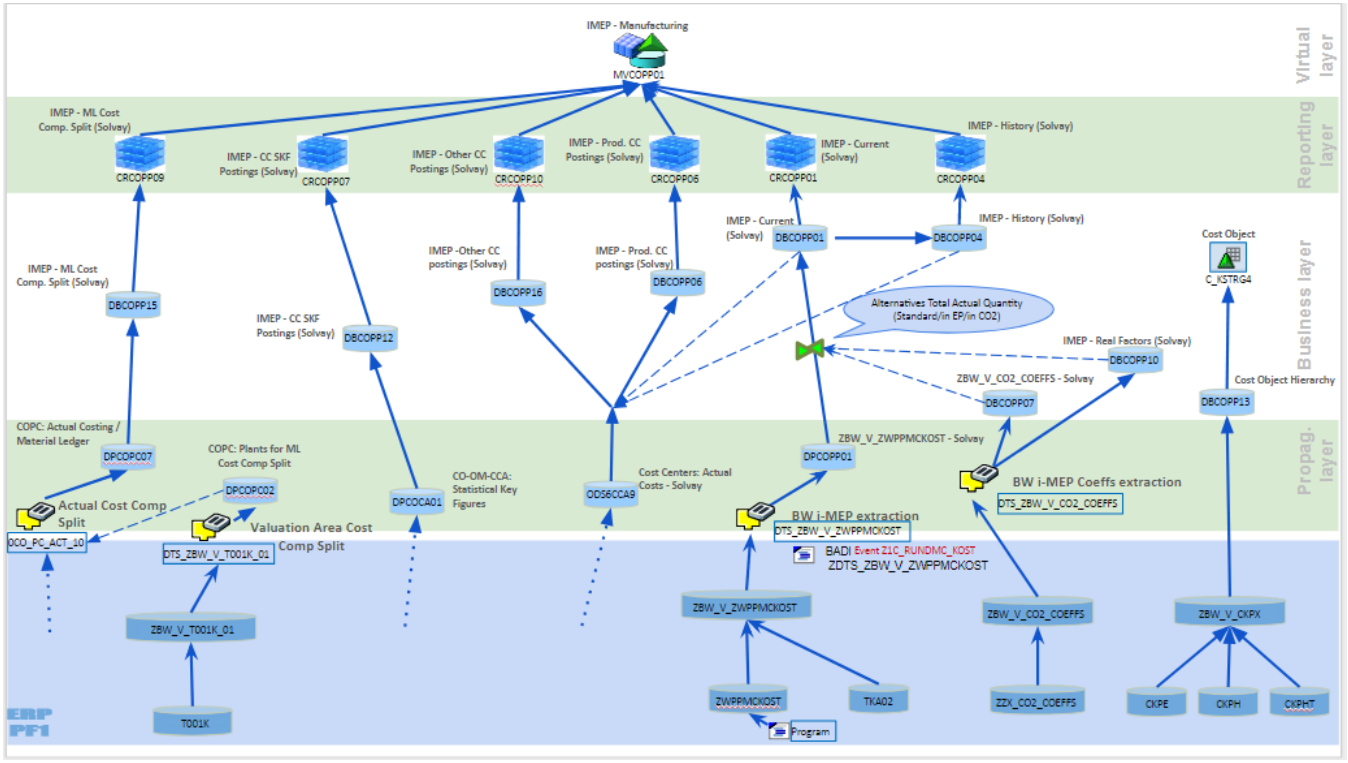
DataFlow

MVCODTS_ZBW_V_ZWPPMCKOSPP01

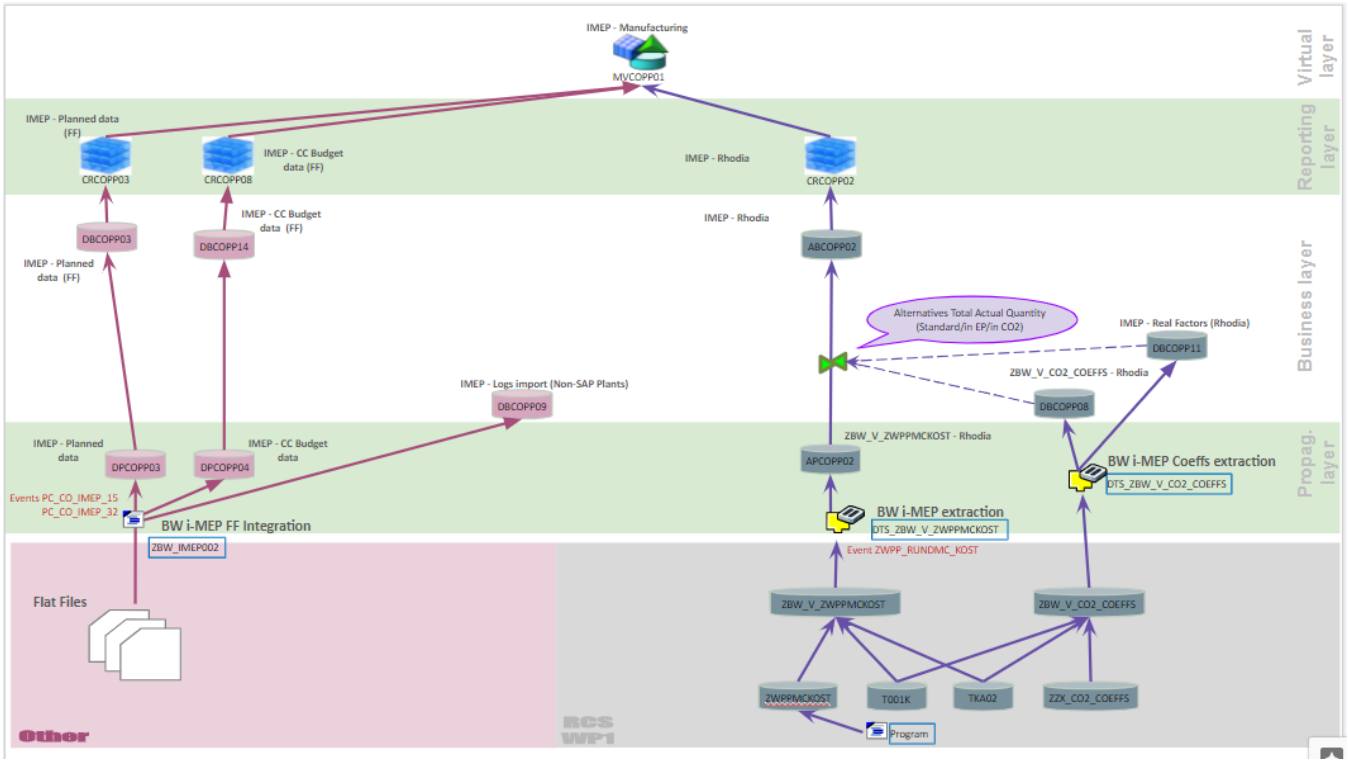
Overview

https://drive.google.com/file/d/1WU6drRUXJSeAiGALHh01-eouKNvEJCG2hlgNTaya_v4/view

PF1



Flat Files & WP1



General presentation

Objective of the application

i-MEP stands for **I**ntegrated **M**anufacturing & **E**nergy **P**erformance

The I-MEP application provides to business the possibility to analyze the production's target cost, actual cost, the variance for each cost item in process order, the cost collector, and to determine energy consumption and CO2 emission during production process.

BI manufacturing reports will replace house solutions :

- on RCS (WP1) : programs ZWPP40A/B/C
- on Solvay (PF1) : program Z1K_MATCOST (Prix de Revient)

Tool Leader + IT leader of the application:

Usage information

Around 400 users worldwide.

Access to ZIMEP_FILE transaction for Flat File Integration is limited to 17 users as of 26.07.2018.

History

2020.08:

- Update of WP1 Dataflow to make use of Hana. DPCOPP02 replaced by APCOPP02 and DBCOPP02/05 replaced by ABCOPP02.

2018.10:

- Update Current Month Loading Period to be reloaded every day of the month (except Sundays), including closing period.
- Split Global Filters SOLV_DEL, SOLV_LOAD, RCS_DEL and RCS_LOAD between Current Period and Previous Period to reduce risks of collisions between the chains.
- Update Main Process Chains to reduce risks of collisions: Coefficients, Plants for ML Split and Texts only loaded in Current Month chain (once a day).
- Creation of C_IMEPAPP and update of the AppLoadStatus program to load C_IMEPAPP at the same time as C_BWAPP for Applications "IMEP*"

2018.06-2018.07:

- Evolution of CC Postings flow (CRCOPP06). Data is now separated between Production CC postings (CRCOPP06) and Other CC postings (CRCOPP10)
- Creation of C_ORIMAP2, in reference to C_MATPNT2, to collect Cost Object from PF1
- Update of Programs ZBW_IMEP002/ZBW_IMEP003 to take into account the Fiscal Year and a list of Plants when importing Flat Files.
- Update of associated Process Chains to take these changes into account.
- Creation of Historical Process Chain, to store M-2 data from CRCOPP01 into CRCOPP04 once a month.
- Deployment of authorization ZR_RCS_CA_M551 to controllers for Flat Files Integration.

2018.04:

- Creation of C_ORIMAP3, in reference to C_MATPNT3, to collect Origin Group from PF1 table MBEW.
- Evolution of Main IMEP flow (CRCOPP01/04). Data is no longer separated by Index1, but in current data (CRCOPP01, M & M-1) and history (CRCOPP04, M-2 and older).
- Update of associated Process Chains to take this change into account.
- Creation of Program ZBW_IMEP004 to delete history data from DBCOPP01 after they have been moved to DBCOPP04.
- Update on how Real Factors are calculated in DSO DBCOPP10.

2018.03:

- Implementation of Cost Centers postings (CRCOPP06) & Cost Centers SKF postings (CRCOPP07) flows.
- Implementation of Cost Center Postings Budget Import (CRCOPP08) flows.
- Creation of Process Chains PC_CO_IMEP_32/33/34/35/36, for CC Posting Budget Import.
- Update of ZBW_IMEP002 to integrate CC Posting Budget Flat Files.
- Creation of C_CELTHX5, 5th and last level of XCS-ALL hierarchy in 0COSTELMNT.

2018.01:

- Creation of Process Chains PC_CO_IMEP_28/29/30, collecting Standard Key Figure Attributes and Texts from PF1.
- Implementation of Business Rules and Selective Deletion in InfoProviders for ZBW_IMEP002.
- Update of Flat File Integration structure - removed obsolete InfoProviders.

2017.12:

- Creation of C_KSTRG4 (Cost Object Hierarchy) and C_ETABR3 (R/3 Establishment)
- Implementation of new flows for above MDs
- Update of C_MATPNT2 to include above MDs as attributes
- Update of Flat File Integration structure

2017.11:

- Separation of Process Chains for daily loading for Current Month (events XXX) and Previous Month (events XXX_PREV_MTH) Loadings
- Implementation of Material Ledger Costing Split
- Implementation of Origin Split & Origin Group
- Implementation of Cost Element Group

Technical Rules on Workbench

Source tables

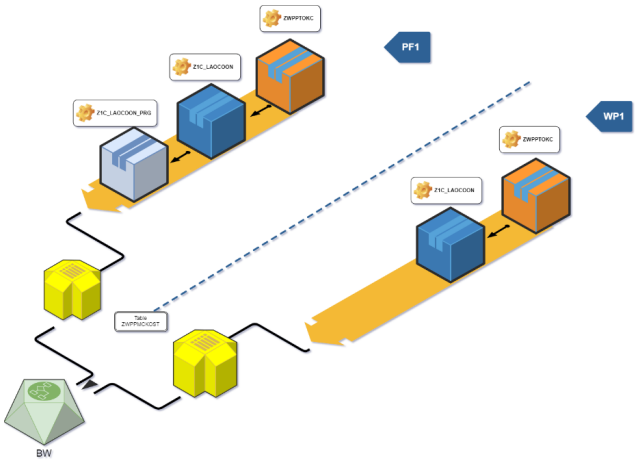
Table ZWPPMCKOST / i-MEP extraction table

This table exists on both systems PF1/WP1, but the structure is slightly different.

Following additional fields exists for PF1 table, but not for WP1 table : append ZWPPMCKOST_EXTRA

Process Chain	Code
Code établissement DSI	ETABL
Code édition	EDITI
Libellé de la ligne d'édition	LIBLI
Type: Fix/Var/Dep	FVD
Cost collector for production process PROCNR	PKOSA
Material Ledger Cost	MLWRT
Material Ledger Variable Cost	ML_VC
Material Ledger Fixed Cost	ML_FC
Material Ledger Dependencies Cost	ML_DEP
Material Ledger Unit Cost	ML_UCOST

This table is filled via programs Z1C_PPKTOUKC ---> Z1C_LAOCOON ---> Z1C_LAOCOON_PRG and contains only the values for the previous period (The table is emptied before each loading)



More informations here.

Table ZZX_CO2_COEFFS / Energy and CO2 Emission Coeffcients

This table exists on both systems PF1/WP1, and is filled manually by Energy Carbon team

Table TKKH2 / Origin Group Texts in CO Object

This table exists on system PF1 and contains texts for Origin Group.

View ZBW_V_TKKH2 / Origin Group Texts

This view exist on system PF1 and references table:

- TKKH2 / Text Table for Origin in CO Object

View contains Texts associated to Origin Group.

View is filtered on Controlling Area = CHEF, Origin Type = 02 and Language = English.

View ZBW_V_CKPX / Cost Objects Hierarchies

This view exist on system PF1 and references tables:

- CKPE / CO-PC Cost Object Hierarchy: Individual Objects
- CKPH / Master Record: Cost Object ID Number
- CKPHT / Texts for CKPH

View contains all levels of Cost Object Hierarchy as attributes, as well as the associated texts.

~~View is filtered on CKPHT Language = English.~~ (obsolete)

Tables are filled from table KKPHIE. (To be confirmed)

View ZBW_V_ETABR3 / Establishment Texts

This view exist on system PF1 and references tables:

- ZZRETABR3 / R3 establishment
- ZZRETAB / Establishment
- ZZRSITE / Site

View contains Texts associated to R/3 Establishments.

At datasource level (PF1/WP1)

For PF1 only:

- DataSource DTS_ZBW_V_TKKH2, based on view ZBW_V_TKKH2, returns Origin Group Texts.
- DataSource DTS_ZBW_V_CKPX, based on view ZBW_V_CKPX, returns Cost Object Attributes & Texts.
- DataSource DTS_ZBW_V_ETABR3, based on view ZBW_V_ETABR3, returns R/3 Establishment Texts.

Datasource : DTS_ZBW_V_ZWPPMCKOST based on view ZBW_V_ZWPPMCKOST:

Controlling Area (0CO_AREA)

The controlling area is unique on PF1 (value CHEF), but not on WP1 (Z006, Z025, Z026...)

The controlling Area is not available on ECC side specific tables, but, in order to match the BI referential, this information is necessary to get referential attribut and texts (example 'Cost Center' C_COSTCTR, 'Profit Center' C_PFT_CTR)

To get the information extractor are based on specific view with follow the business rule given :

- A plant belongs to a single company code (link found in table T001K where 'Valuation Area' (BWKEY) corresponds to the plant (WERKS)
- A company code belongs to a single controlling area (link found in table TKA02 / field 'Business Area' (GSBER) is always empty)

Cost Component Structure (0CCOMPSTRUC)

The Cost Component Structure id is not unique on PF1 (on WP1, only id Z1 is used), and the id is not part of source table ZWPPMCKOST.

The append ZEXTRA_FIELDS has been added to extract structure of the data source (ZOXDF10019). Fields belonging to the append are field within class **ZDTS_ZBW_V_ZWPPMCKOST**.

To get the information :

- by default set id to 'Z1' except for exception managed in table TCK07 'Costing Variants for Organizational Units'
- Exceptions for certain company codes (BUKRS)
  - ignore value '++++'
  - keep only one valid record by company code (the latest)

Cost Element Texts (0COSTELMNT) & Statistical Key Figure (0STKEYFIG)

Some Cost Elements do not fit the standard format for this Master Data - coded on 6 characters, they stand for Statistical Key Figures that are not used.

Because these Cost Elements do not exist in hierarchy CHEFXCS-ALL, values for attributes C_CELTHX1/2/3/4/5 are collected through Flat File flow based on DataSource DTS_FMCO_0COSTELMNT_01.

Statistical Key Figures are loaded using generic datasources 0STKEYFIG_ATTR (Attributes) and 0STKEYFIG_TEXT (Texts)

Texts from Statistical Key Figures are then copied in Cost Element texts (TRSF: IOBJ 0STKEYFIG -> IOBJ 0COSTELMNT).

Generic datasources exist in SOLVAY PF1 Dataflow only.

At business level (WBP)

GBU (CPFCTR1_2)

The GBU available for reporting is BFC Global Business Unit (CPFCTR1_2)

- For RCS WP1 data, the GBU is taken from the Profit Center (Navigational attribut 0PROFIT_CTR__CPFCTR1_2)
- For Solvay PF1 data, the GBU is calculated at Business Level following below rule

TRSF: ODSO DPCOPP01 -> ODSO DBCOPP04 (10/02/2023 DBCOPAP04 not loaded since sept 2020).

- **Case 1**: Profit Center (0PROFIT_CTR) & Company Code (C_COMPCDE)are filled

  Case 1a: Profit Center is 10 characters long + starting with 'F' + plant is filled

    - Concatenate Profit Center, Company Code, Plant
    - Read MasterData Technical Business Area (C_TECHBA) and get GBU (CPFCTR1_2)

  Case 1b: Profit Center on 5 positions starting by 'D'

    - Concatenate '00000', Profit Center, Company Code
    - Read MasterData Technical Business Area (C_TECHBA) and get GBU (CPFCTR1_2)

  Case 2 : Plant (C_PLANT) & Material (C_MATPNT2) are filled

    - Read MasterData Material Plant (C_MATPNT2) and get Profit Center (0PROFIT_CTR)
    - Then apply Case 1a and Case 1b

  Case 3: Controlling Area (0CO_AREA), Cost Center (C_COSTCTR) are filled

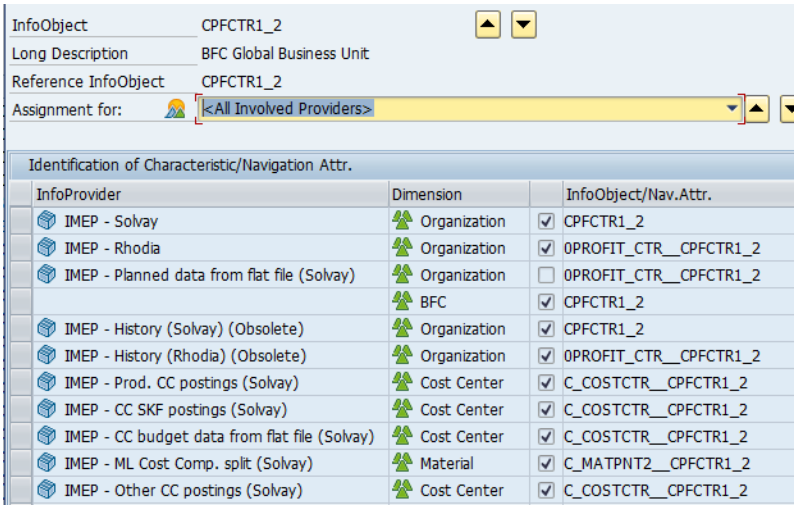
    - Read MasterData Cost Center (C_COSTCTR) and get GBU (CPFCTR1_2)

Other lookup:

TRSF: APCOPP01 -> ABCOPP01 (Solvay) & TRSF: ODSO DPCOPP01 -> ODSO DBCOPP01: matpnt2 or costctr.

TRSF: ODSO DPCOPP03 -> ODSO DBCOPP03: C_KSTRG4

Assignation in multiprovider MVCOPP01:



Exclude activity and Balancing movements (C_EXACBMO)

Table: /BIC/TC_EXACBMO

/BIC/C_EXACBMO	LANGU	TXTMD
	EN	
P	EN	Produced Component
X	EN	Activity/Balancing mvts

TRSF: ODSO DPCOPP01 -> ODSO DBCOPP04:

The flag is set to 'X' when :

- cost element, first 2 positions = '98'.
- index 1 = '9' and origin, first 2 positions = 'KL'.

```
"Set flag activity and balancing movements exclusion
IF <result_fields>-costelmnt(2) = '98'.
  <result_fields>-/bic/c_exacbmo = 'X'.
ELSEIF <result_fields>-/bic/c_index1 = 9
  AND <result_fields>-/bic/c_origin(2) = 'KL'.
  <result_fields>-/bic/c_exacbmo = 'X'.
ENDIF.
```

TRSF: ODSO DPCOPP01 -> ODSO DBCOPP01 & TRSF: APCOPP01 -> ABCOPP01 (Solvay):

The flag is set to 'X' when :

- cost element, first 2 positions = '98'.
- index 1 = '9' and origin, first 2 positions = 'KL'.

If index 1 = '3' and C_PLANT and C_ORIGIN have correspondance with the plant and material plant from DPCOPP01 / APCOPP01:

```
      "Set flag activity and balancing movements exclusion
      IF <RESULT_FIELDS>-COSTELMNT(2) = '98'.
        <RESULT_FIELDS>-/BIC/C_EXACBMO = 'X'.
      ELSEIF <RESULT_FIELDS>-/BIC/C_INDEX1 = 9
        AND <RESULT_FIELDS>-/BIC/C_ORIGIN(2) = 'KL'.
        <RESULT_FIELDS>-/BIC/C_EXACBMO = 'X'.
      ELSEIF <RESULT_FIELDS>-/BIC/C_INDEX1 = 3.
* BCR - 25.06.2018 - Determination of Intermediates
        READ TABLE ITB_EXACBMO TRANSPORTING NO FIELDS
          WITH KEY /BIC/C_PLANT = <RESULT_FIELDS>-/BIC/C_PLANT
          /BIC/C_MATPNT2 = <RESULT_FIELDS>-/BIC/C_ORIGIN+12.
        IF SY-SUBRC = 0.
          <RESULT_FIELDS>-/BIC/C_EXACBMO = 'P'.
        ENDIF.
      ENDIF.
```

TRSF: ODSO APCOPP02 -> ODSO ABCOPP02 & TRSF: ODSO DPCOPP03 -> ODSO DBCOPP03:

The flag is set to 'P' when field index 1 = 3, fields plant and origin have correspondance with the plant and material plant from APCOPP02 / D PCOPP01 (for index = 1):

```
* Determination of Intermediates
      IF <RESULT_FIELDS>-/BIC/C_INDEX1 = 3.
        READ TABLE ITB_EXACBMO TRANSPORTING NO FIELDS
          WITH KEY /BIC/C_PLANT = <RESULT_FIELDS>-/BIC/C_PLANT
          /BIC/C_MATPNT2 = <RESULT_FIELDS>-/BIC/C_ORIGIN+12.
        IF SY-SUBRC = 0.
          <RESULT_FIELDS>-/BIC/C_EXACBMO = 'P'.
        ENDIF.
      ENDIF.
```

Material Ledger Costs Split (K_MLWRT)

For SOLVAY PF1 (DBCOPP01/04/06/15, ABCOPP01) and Flat Files (DBCOPP03, DBCOPP14), Material Ledger Costs are split between 3 components:

- Material Ledger Fixed Costs (K_ML_FC)
- Material Ledger Variable Costs (K_ML_VC)
- Material Ledger Dependencies (K_ML_DEP)

From Flat File, for index1 = 3 or index1 = 9, we check that K_MLWRT is not null.

At all times, K_MLWRT = K_ML_FC + K_ML_VC + K_ML_DEP.

In TRSF: RSDS DTS_DPCOPP03_0001 PC_FILE -> ODSO DPCOPP03 & TRSF: RSDS DTS_DPCOPP03_0001 PC_FILE -> ODSO DPCOPP03

If index1 = 1 or 2, the value of /BIC/K_MLWRT is inverted:

```
LOOP AT RESULT_PACKAGE ASSIGNING <RESULT_FIELDS>
  WHERE /BIC/C_INDEX1 = 1 OR /BIC/C_INDEX1 = 2.
* FOR INDEX1 = 1 or 2, INVERT ENTERED VALUE
    <RESULT_FIELDS>-/BIC/K_MLWRT = - <RESULT_FIELDS>-/BIC/K_MLWRT.
    <RESULT_FIELDS>-/BIC/K_ML_FC = - <RESULT_FIELDS>-/BIC/K_ML_FC.
    <RESULT_FIELDS>-/BIC/K_ML_VC = - <RESULT_FIELDS>-/BIC/K_ML_VC.
    <RESULT_FIELDS>-/BIC/K_ML_DEP = - <RESULT_FIELDS>-/BIC/K_ML_DEP.
  ENDLOOP.
```

Origin Split (C_ORIGIN)

In DBCOPP01/04 ABCOPP01 (SOLVAY PF1), Origin details have been split between 5 infoObjects:

- Origin Activity Type (C_ORICACT)
- Origin Cost Center (C_ORICCTR)
- Origin Order (C_ORICORD)
- Origin WBS Element (C_ORICWBS)
- Origin Material (C_ORIMAT)

Their value is dependent on the Index1 value and C_ORIGIN structure:

- For index1 = 1 or 3, C_ORIMAT = C_ORIGIN+12(18). For index1 = 5 or 7, it is the same but first we check that LOGSYS/C_ORIGIN exists as C_MATNR2.
- For index 1 = 5 or 7, C_ORICACT = 0ACTTYPE (Activity Type) and C_ORICCTR = C_COSTCTR (Cost Center)
- For index1 = 9, depending on the first 2 characters of C_ORIGIN:
  - When 'KL', C_ORICCTR = C_ORIGIN+6(10) / C_ORICACT = C_ORIGIN+16(6)
  - When 'KS', C_ORICCTR = C_ORIGIN+6(10)
  - When 'OR', C_ORICORD = C_ORIGIN+2(12)
  - When 'PR', C_ORICWBS = C_WBS_EL2 where C_WBS_EL2__C_OBJNR = C_ORIGIN+0(10)
  - When '00', C_ORIMAT = C_MATNR2

The same split has been applied to DBCOPP02 ABCOPP02 (RCS WP1), with simplified rules:

- For Index1 = 1 or 2 or 3, C_ORIMAT = C_ORIGIN+12(18).

- For index 1 = 5, C_ORICACT = 0ACTTYPE (Activity Type) and C_ORICCTR = C_COSTCTR (Cost Center)

Origin Texts

Origin Texts are collected from PF1 and WP1. Loads are included in Main Chains and thus happen daily on Current Month (and Previous Month from 01 to 08 of each month).

Because of a large amount of missing texts, a corrective DTP runs every day to collect texts from other Master Data, once more based on the first 2 characters of C_ORIGIN (TRSF: IOBJ C_ORIGIN -> IOBJ C_ORIGIN):

- When 'KL', Short Text from C_COSTCTR & ' / ' & Medium Text from 0ACTTYPE
- When 'KS', Medium Text from C_COSTCTR
- When 'OR', Short Text from C_COORDER
- When 'PR', Medium Text from C_WBS_EL2
- When '00', Medium Text from C_MATNR2

There is also a special case where text exists but must be replaced: If INDEX1 = 5 and Text begins with 'ATY', apply the same text as 'KL' Origins.

Origin Group (C_HRKFT)

Origin Group is collected as a subchain of CO Key Subnumber (C_COKSNB).

TRSF: ODSO DPCOPP01 -> ODSO DBCOPP04 & TRSF: ODSO DPCOPP01 -> ODSO DBCOPP01 & TRSF: APCOPP01 -> ABCOPP01 (Solvay):

```
IF <RESULT_FIELDS>-/BIC/C_COKSNB(4) <> '0000'.
  <RESULT_FIELDS>-/BIC/C_HRKFT =
  <RESULT_FIELDS>-/BIC/C_COKSNB(4).
ENDIF.
```

Origin Group Texts are collected from SOLVAY PF1 by datasource DTS_ZBW_V_TKKH2 and from RHODIA with datasource DTS_ZV_TKKH2.

Origin Group is also collected as attribute of C_ORIMAP3, infoobject created in reference to C_MATPNT3 and identical to C_ORIMAT in our data. That Origin Group, C_ORIMAP3__C_HRKFT, is collected from SOLVAY PF1 by datasource DTS_MBEW_01.

Total Actual Quantity Conversion

Total Actual Quantity is converted to fill the values of the following attributes of Activities DSOs (DBCOPP04, DBCOPP01 & ABCOPP01 for SOLVAY PF1, DBCOPP02 & ABCOPP02 for RCS WP1):

- Total Actual Quantity Standard (K_ACQTSTD)
- Total Actual Quantity in EP (K_ACQTYEP)
- Total Actual Quantity in Scope 1 in CO2 (K_AQT1CO2)
- Total Actual Quantity in Scope 2 in CO2 (K_AQT2CO2)
- Total Actual Quantity in Scope 3 in CO2 (K_AQT3CO2)

Conversion is based on *Real Factors* DSOs (DBCOPP10 for PF1, DBCOPP11 for WP1) and *ZBW_V_CO2_COEFFS* DSOs (DBCOPP07 for PF1, DBCOPP08 for WP1).

If coefficient *Real Factor Conversion* (K_RFACONV) exists in *Real Factors* DSO, TAQ Standard and TAQ in EP are calculated using that coefficient. Otherwise, they are calculated using *Local To Standard UoM Conversion* (K_UOMCONV) and *Primary Energy Coefficient* (K_ENGCOEF), respectively, from *ZBW_V_CO2_COEFFS* DSO.

TAQ in CO2 are always calculated using coefficients *CO2 Emission Scope* (K_CO2EMI1/2/3) from *ZBW_V_CO2_COEFFS* DSO if they exist.

Master Data Cost Element (0COSTELMNT)

CHEFXCS-ALL Hierarchy Levels are stored in Master Data Cost Element, in attributes C_CELTHX1 to C_CELTHX5 in transformation TRSF: 0COSTELMNT -> 0COSTELMNT.

Levels are stored as follow:

Attribute	Hierarchy Level	Example
C_CELTHX1	2	XCS-SELL
C_CELTHX2	3	XCS-SELLA
C_CELTHX3	4	XCS-SELLB
C_CELTHX4	5	XCS-SELLC
C_CELTHX5	6	XCS-SALE01

Hierarchy Level 1 is always "XCS-ALL" and thus not stored.

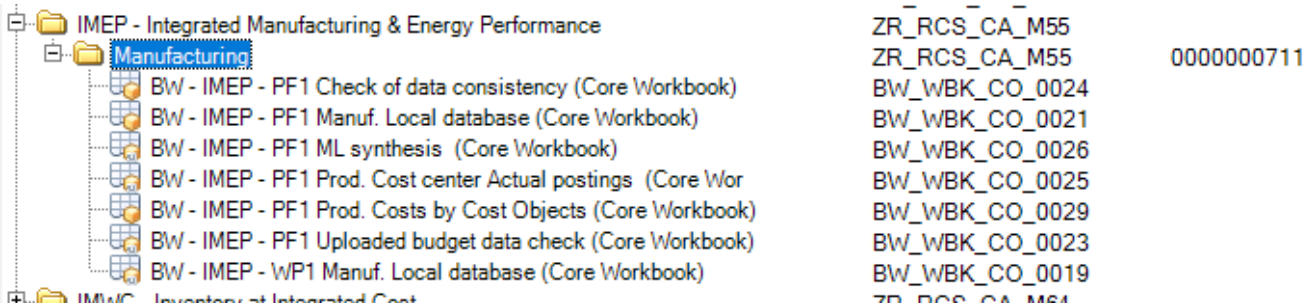
Reporting

Query	Query name	documentation
BW_QRY_MVCOPP01_0009	IMEP - WP1 Manuf. Local Report	
BW_QRY_MVCOPP01_0010	IMEP - Manuf. Mthly/Cum. N/N-1 Local Report	
BW_QRY_MVCOPP01_0011	IMEP - PF1 Manuf. Local database	
BW_QRY_MVCOPP01_0012	IMEP - PF1 Budget data check	
BW_QRY_MVCOPP01_0013	IMEP - PF1 Check of data consistency	
BW_QRY_MVCOPP01_0014	IMEP - PF1 SD Indus. report - IMEP & ML data	
BW_QRY_MVCOPP01_0015	IMEP - PF1 SP database	
BW_QRY_MVCOPP01_0016	IMEP - PF1 Cost center Actual postings	
BW_QRY_MVCOPP01_0017	IMEP - PF1 SD Steam costs database	
BW_QRY_MVCOPP01_0018	IMEP - PF1 ML synthesis	
BW_QRY_MVCOPP01_0019	IMEP - PF1 SD Stock effect - ML & IMEP data	
BW_QRY_MVCOPP01_0020	IMEP - PF1 SD Act. vs Bdgt Dashboard	
BW_QRY_MVCOPP01_0021	IMEP - WP1/PF1 data for PCF OH	
DE_BW_QRY_MVCOPP01_0021	IMEP - WP1/PF1 data for PCF Talend	
DI_BW_QRY_MVCOPP01_0020	IMEP - PF1 SD Act. vs Bdgt Dashboard	
QV_BW_QRY_MVCOPP01_0001	IMEP - Data for 1CP QS	

IMEP - Integrated Manufacturing & Energy Performance

IMEP Glossary : IMEP - Characteristics

Workbook



Workbook	Query associated
BW_WBK_CO_0019	BW_QRY_MVCOPP01_0009
BW_WBK_CO_0020	BW_QRY_MVCOPP01_0010
BW_WBK_CO_0021	BW_QRY_MVCOPP01_0011
BW_WBK_CO_0024	BW_QRY_MVCOPP01_0013

BW_WBK_CO_0023	BW_QRY_MVCOPP01_0012
BW_WBK_CO_0025	BW_QRY_MVCOPP01_0016
BW_WBK_CO_0026	BW_QRY_MVCOPP01_0018

"Special" KPIs

Short description	Explanation	Formula	Commen
AUQ AI	Actual Unit Quantity (in French QUR) in Active Ingredient	Total Actual Qty in AI : ratio K_AQTY_AI, origin field ACT_QTY_AI of table ZWPPMCKOST Qty Produced in AI : ration K_QTYPRAI, origin field MEGP_AI The produced quantity in AI is found only for Index 1 = '1'. The quantity has to be used to calculate the coefficient on others indexes	Restricted Keyfigure f Quantity P uced in AI with Const Selection f all characteris except Per /GBU /Company e /PlantMate Calculated Keyfigure f AUQ AI

QUS (Std consumpt. for 1 unit)	Standard Consumption factor of the item for one unit produced	**Formula**
		Formula:
		`NOERR(-NODIM('K_STQTSCE' /`
		`"[BW_RKF_MVCOPP01_0092] Produced Material - SCE Std Qty"))`
		
		Std Qty SCE: ratio K_STQTSCE, origin field MEVS5 of table ZWPPMCKOST
		
		Std Qty SCE (produced material): ratio K_STQTSCE limited on index 1 = '1' (Produced material)
			Restricted Keyfigure f Std Qty SC (produced material) w Constant Selection f all characteris except Per /GBU /Company e /PlantMate
			
			Calculated Keyfigure f QUS

QUR (Act consumpt. for 1 unit)	Actual Consumption factor of the item for one unit produced	**Formula: BW_CKF_MVCOPP01_0008 - QUR (Act consumpt. for 1 unit)**
		Formula
		Formula:
		`NOERR(-NODIM('K_ACT_QTY' /`
		`"[BW_RKF_MVCOPP01_0091] Produced Material - Produced Qty"))`
		
		Total Actual Quantity : ratio K_ACT_QTY, origin field ACT_QTY of table ZWPPMCKOST
		
		Produced Quantity : ratio K_PRODQT, origin field MEGP of table ZWPPMCKOST
		
		The produced quantity is found only for Index 1 = '1'. The quantity has to be used to calculate the coefficient on others indexes
			Restricted Keyfigure f Produced Quantity w Constant Selection f all characteris except Per /GBU /Company e /PlantMate
			
			Calculated Keyfigure f QUR

CUS
(Std unit cost for 1 unit)
	Standard unitary cost of the item for one unit produced	**Formula: BW_CKF_MVCOPP01_0010 - CUS (Std unit cost for 1 unit)**
		Formula
		Formula:
		`NOERR(-NODIM('K_STCSSCE' /`
		`"[BW_RKF_MVCOPP01_0092] Produced Material - SCE Std Qty"))`
		
		Std Cost SCE: ratio K_STCSSCE, origin field WKVS5 of table ZWPPMCKOST
		
		Std Qty SCE (produced material): see upper definition
			Calculated Keyfigure f CUS

CUR	Actual unitary cost of the item for one unit produced	**Formula: BW_CKF_MVCOPP01_0011 - CUR** **Formula** Formula: `-NODIM('K_ACT_CST' / "[BW_RKF_MVCOPP01_0091] Produced Material - Produced Qty")` Actual Cost : ratio K_ACT_CST, origin field WKGIB of table ZWPPMCKOST Produced Quantity & Lot Size: see upper definition	Calculated Keyfigure f CUR

SUQ AI	Standard Unit Quantity (in French QUS) in Active Ingredient	**Formula: BW_CKF_MVCOPP01_0013 - SUQ in AI (Std unit qty)**
		Formula
		Formula:
		`NOERR(-NODIM('K_SCEQ_AI' /`
		`"[BW_RKF_MVCOPP01_0094] Produced Material - SCE Std Qty in AI"))`
		
		Std Qty SCE in AI : ratio K_SCEQ_AI, origin field MEVS5_AI of table ZWPPMCKOST
		
		Std Qty SCE in AI (produced material) : ratio K_SCEQ_AI limited on index 1 = '1' (Produced material)
			Restricted Keyfigure f Std Qty SC in AI with Constant Selection f all characteris except Per /GBU /Company(e /PlantMate
			
			Calculated Keyfigure f SUQ AI

Lot Size	Lot Size used for calculating standard cost		This KPI is coming fro ZWPPMCK ST table. T value is repeated o each lines. Then in BV for aggregate analysis, th sum of all values is displayed which is nc correct. The Lot Siz should be a masterdata information
ML CUR		**Formula: BW_CKF_MVCOPP01_0016 - ML CUR** **Formula** Formula: `NOERR('K_MLWRT' / "[BW_RKF_MVCOPP01_0091] Produced Material - Produced Qty")`	

ML Price		Formula: BW_CKF_MVCOPP01_0017 - ML Price Formula Formula: NOERR('K_MLWRT' / 'K_ACT_QTY')	

Dependencies with other applications

Open Hub:

IMEP - WP1/PF1 data for PCF OH	OH_IMEP1
DTP: BW_QRY_MVCOPP01_0021 -> OH_IMEP1	DTP_04B9BB0HZDMR47YTB1QSNFSS2
TRSF: BW_QRY_MVCOPP01_0021 -> OH_IMEP1	0EY9Q65NWO029MZXPP8IXQS2NZZS52AI
IMEP - WP1/PF1 data for PCF OH (Core Query)	BW_QRY_MVCOPP01_0021

Data loadings

Main Chains

SAP events detail

PF1:

Z1C_RUNDMC_KOST for current month update

Z1C_RUNDMC_KOST_PREV_MTH for previous month update

WP1:

ZWPP_RUNDMC_KOST for current month update

ZWPP_RUNDMC_KOST_PREV_MTH for previous month update

Flat Files:

PC_CO_IMEP_15 for every Budget update

PC_CO_IMEP_32 for every CC Postings update

No chain runs on Sunday.

Process Chain	Code	Type	Frequency	Comments
IMEP: META - T - Current month (Solvay)	PC_CO_IMEP_01	MAIN	Daily not sunday	This chain is starting when event Z1C_RUNDMC_KOST is received from Solvay PF1. Global Filter IMEP/ SOLV_LOAD/1 is used in the decision block. Usually starts around 1:25 am (CET)
IMEP: META - T - Previous month (Solvay)	PC_CO_IMEP_20	MAIN	Days 01 to 08, 2 times per day.	This chain is starting when event Z1C_RUNDMC_KOST_PREV_MTH is received from Solvay PF1. Global Filter IMEP/SOLV_LOAD/2 is used in the decision block. DBCOPP10 (Solvay Real Factors) is updated and activated in this PC only. Usually starts around 7:40 am and 1:30 pm (CET)

IMEP: META - T - Current month (RCS)	PC_CO_IMEP_08	MAIN	Daily not sunday	This chain is starting when event ZWPP_RUNDMC_KOST is received from RCS WP1. Global Filter IMEP/RCS_LOAD/1 is used in the decision block. Usually starts around 00:15 am (CET)
IMEP: META - T - Previous month (RCS)	PC_CO_IMEP_25	MAIN	01 to 08	This chain is starting when event ZWPP_RUNDMC_KOST_PREV_MTH is received from RCS WP1. Global Filter IMEP/RCS_LOAD/2 is used in the decision block. Usually starts around 3:00 (CET)
IMEP: META - T - Planned data for Budget (Flat Files)	PC_CO_IMEP_15	MAIN	Manually (Trigger)	This chain is starting when event PC_CO_IMEP_15 is received from ZBW_IMEP002 Program.
IMEP: META - D - Cost Object Hierarchy (DBCOPP13/C_KSTRG4)	PC_CO_IMEP_26	MAIN	Daily (not saturday and sunday)	This chain is starting at 5:30 (CET)
IMEP: TXT - D - R3 Establishment	PC_CO_IMEP_27	MAIN	Daily (not saturday and sunday)	This chain is starting every day at 8:05 (CET)
IMEP: META - W - Standard Key Figure (Solvay)	PC_CO_IMEP_30	MAIN	Weekly	This chain is starting at 8:00 (CET)
IMEP: META - T - Cost Center postings (Flat Files)	PC_CO_IMEP_32	MAIN	Manually (Trigger)	This chain is starting when event PC_CO_IMEP_32 is received from ZBW_IMEP002 Program.
IMEP: TD - M - Historical Data (Solvay)	PC_CO_IMEP_37	MAIN	Monthly	This chain is starting every 24th of the month at 1:00 (CET) Delete obsolete periods in dso / cubes with program ZBW_IMEP003 & variant ZVAR_OBS_SOLV1
IMEP: TD - M - Historical Data (RCS)	PC_CO_IMEP_38	MAIN	Monthly	This chain is starting every 24th of the month at 1:00 (CET) Delete obsolete periods in dso / cubes with program ZBW_IMEP003 & variant ZVAR_OBS_RCS
IMEP: TXT - W - Texts (RCS & Solvay)	PC_CO_IMEP_39	MAIN	Weekly	This chain is starting every Saturday at 5:00 (CET). It loads texts for C_ORIGIN, C_FEVOR and C_DISPO.

Sub Chains

Process Chain	Code	Type	Main chain	Comments
IMEP: MD - Referential & Conversion factors (Solvay)	PC_CO_IMEP_02	subchain	PC_CO_IMEP_01	Data required for Business Rules
IMEP: TD - Delete period in DSOs (Current) (Solvay)	PC_CO_IMEP_03	subchain	PC_CO_IMEP_01	Before loading a period, the same period has to be deleted from target DSOs. The same is done in cubes using a Delete Overlapping DTP after they are loaded. Global Filter IMEP/SOLV_DEL/1 is used
IMEP: TD - Propagation (Current) (Solvay)	PC_CO_IMEP_04	subchain	PC_CO_IMEP_01	Load propagation dso solvay Global Filter IMEP/ SOLV_LOAD/1 is used to limit the InfoPackage
IMEP: TD - Business (Current) (Solvay)	PC_CO_IMEP_05	subchain	PC_CO_IMEP_01	Load business dso solvay
IMEP: TD - Reporting (Current) (Solvay)	PC_CO_IMEP_06	subchain	PC_CO_IMEP_01	Load cubes solvay
IMEP: MD - Texts (Solvay)	PC_CO_IMEP_07	subchain	PC_CO_IMEP_01	Master data text solvay
IMEP: MD - Referential & Conversion factors (RCS)	PC_CO_IMEP_09	subchain	PC_CO_IMEP_08	Data required for Business Rules
IMEP: TD - Delete period in targets (Current) (RCS)	PC_CO_IMEP_10	subchain	PC_CO_IMEP_08	Before loading a period, the same period has to be deleted from targets (DSO/Cubes) Global Filter IMEP/RCS_DEL/1 is used
IMEP: TD - Propagation (Current) (RCS)	PC_CO_IMEP_11	subchain	PC_CO_IMEP_08	Load propagation dso rhodia Global Filter IMEP/RCS _LOAD/1 is used to limit the InfoPackage
IMEP: TD - Business (Current) (RCS)	PC_CO_IMEP_12	subchain	PC_CO_IMEP_08	Load business dso rhodia
IMEP: TD - Reporting (Current) (RCS)	PC_CO_IMEP_13	subchain	PC_CO_IMEP_08	Load rhodia cube

IMEP: MD - Texts (RCS)	PC_CO_IMEP_14	subchain	PC_CO_IMEP_08	This load could be done once a week or once a month
IMEP: TD - Propagation (Flat Files)	PC_CO_IMEP_16	subchain	PC_CO_IMEP_15	Propagation dso flat file
IMEP: TD - Business (Flat Files)	PC_CO_IMEP_17	subchain	PC_CO_IMEP_15	Business dso flat file
IMEP: TD - Reporting (Flat Files)	PC_CO_IMEP_18	subchain	PC_CO_IMEP_15	Reporting flat file
IMEP: TD - Delete period in DSOs (Previous) (Solvay)	PC_CO_IMEP_21	subchain	PC_CO_IMEP_20	Before loading a period, the same period has to be deleted from target DSOs. The same is done in cubes using a Delete Overlapping DTP after they are loaded. Global Filter IMEP/SOLV_DEL/2 is used Program ZBW_IMEP003 variant ZVAR_DEL_SOLV2.
IMEP: TD - Reporting (Previous) (Solvay)	PC_CO_IMEP_22	subchain	PC_CO_IMEP_20	load solvay cube for previous period
IMEP: TD - Reporting (Previous) (RCS)	PC_CO_IMEP_23	subchain	PC_CO_IMEP_25	load rhodia cube for previous period
IMEP: TD - Delete period in targets (Previous) (RCS)	PC_CO_IMEP_24	subchain	PC_CO_IMEP_25	Before loading a period, the same period has to be deleted from targets (DSO/Cubes) Global Filter IMEP/RCS_DEL/2 is used program ZBW_IMEP003 variant ZVAR_DEL_RCS2
IMEP: TXT - Cost Element (through 0STKEYFIG) (Solvay)	PC_CO_IMEP_28	subchain	PC_CO_IMEP_30	Loads 0STKEYFIG Texts and copy them in 0COSTELMNT for Controlling Area CHEF
IMEP: MD - Standard Key Figure (Solvay)	PC_CO_IMEP_29	subchain	PC_CO_IMEP_30	Loads 0STKEYFIG Attributes
IMEP: TD - Delete period in DSOs for Budget (Flat File)	PC_CO_IMEP_31	subchain	PC_CO_IMEP_15	Before loading a period, the same period has to be deleted from targets (DSO/Cubes) Global Filter IMEP/FF_DATA/4 is used for Version, 5 for Plants, and 6 for Fiscal Year. program ZBW_IMEP003 variant ZVAR_DEL_FF1
IMEP: TD - Delete period in DSOs for CC postings (FF)	PC_CO_IMEP_33	subchain	PC_CO_IMEP_32	Before loading a period, the same period has to be deleted from targets (DSO/Cubes) Global Filter IMEP/FF_DATA/4 is used for Version, 5 for Plants, and 6 for Fiscal Year. program ZBW_IMEP003 variant ZVAR_DEL_FF2
IMEP: TD - Propagation (CC postings) (Flat Files)	PC_CO_IMEP_34	subchain	PC_CO_IMEP_32	
IMEP: TD - Business (CC postings) (Flat Files)	PC_CO_IMEP_35	subchain	PC_CO_IMEP_32	
IMEP: TD - Reporting (CC postings) (Flat Files)	PC_CO_IMEP_36	subchain	PC_CO_IMEP_32	
IMEP: TD - Business (Previous) (Solvay)	PC_CO_IMEP_40	subchain	PC_CO_IMEP_20	
IMEP: TD - Propagation (Previous) (Solvay)	PC_CO_IMEP_41	subchain	PC_CO_IMEP_20	Global Filter IMEP/ SOLV_LOAD/2 is used to limit the InfoPackage
IMEP: TD - Delete period in DSOs (Previous) (Solvay)	PC_CO_IMEP_21	subchain	PC_CO_IMEP_20	program ZBW_IMEP003 variant ZVAR_DEL_SOLV2
IMEP: TD - Reporting (Previous) (Solvay)	PC_CO_IMEP_22	subchain	PC_CO_IMEP_20	load cubes solvay
IMEP: TD - Propagation (Previous) (RCS)	PC_CO_IMEP_42	subchain	PC_CO_IMEP_25	Global Filter IMEP/ RCS_LOAD/2 is used to limit the InfoPackage
IMEP: TD - Business (Previous) (RCS)	PC_CO_IMEP_43	subchain	PC_CO_IMEP_25	
IMEP: TD - Reporting (Previous) (RCS)	PC_CO_IMEP_23	subchain	PC_CO_IMEP_25	
IMEP: TD - Delete period in targets (Previous) (RCS)	PC_CO_IMEP_24	subchain	PC_CO_IMEP_25	program ZBW_IMEP003 variant ZVAR_DEL_RCS2

Loading frequency

IMEP is loaded daily, excluding Sundays. Previous month is loaded from 01 to 08 only while Current month is loaded from 01 to the end of month.

Events on Solvay ECC (PF1) and RCS (WP1) start BW Process Chains. These events are not expected to run on Sundays.

Flat Files (Excel file) can be loaded manually in transaction ZIMEP_FILE, at will.

Global Filters (C_GLBFILT) used in Chains

Stream	Rule	Explanation
IMEP	RCS_LOAD	Period (YYYYPPP) to load, RCS. NO_LOAD to avoid loadings **Counter 1** = "Current Period" used by chains PC_CO_IMEP_01/20. **Counter 2** = "Previous Period" used by chains PC_CO_IMEP_08/25. Do not change active flag (Active = Y) This variable is used in decision block
IMEP	RCS_DEL	Period (YYYYPPP) to delete, RCS DSO/Cube. NO_DEL to avoid **Counter 1** = "Current Period" used by chains PC_CO_IMEP_01/20. **Counter 2** = "Previous Period" used by chains PC_CO_IMEP_08/25. Do not change active flag (Active = Y)ZBW_IMEP003
IMEP	RCS_HISTO	**Counter 1** = Number of Year to keep in all DSOs/Cubes RCS **Counter 2** = Delete all data in all DSOs/Cubes RCS older than The counter 1 is entered manually, it is a number of years to keep in all DSOs and Cubes. If '3' is entered, 3 full years + current year are kept. The counter 2 is determined within program ZBW_IMEP001 depending of the loaded period and the counter 1. Example : we are the 01/08/2016, the period 007.2016 is loaded. As the counter 1 is '3', the calculated counter 2 is 001.2013. All period previous to 001.2013 will be deleted via the main process chain
IMEP	SOLV_LOAD	Same explanation as RCS_LOAD
IMEP	SOLV_DEL	Same explanation as RCS_DEL
IMEP	SOLV_HISTO	Same explanation as RCS_HISTO
IMEP	FF_DATA	**Counter 1** = Input filename for ZBW_IMEP002 program. **Counter 2** = Store actual delta queue of running process chain PC_CO_IMEP_15. **Counter 3** = Total counter for ZBW_IMEP002 program file loading. **Counter 4** = Version to be updated by program ZBW_IMEP002 **Counter 5** = List of Plants to be updated by program ZBW_IMEP002 - Format: "PL1/PL2/PL3/...", up to 120 characters **Counter 6** = Fiscal Year to be updated by program ZBW_IMEP002 Data in counter 4 to 6 are read in program ZBW_IMEP003 to define Selective Deletion perimeter before import.

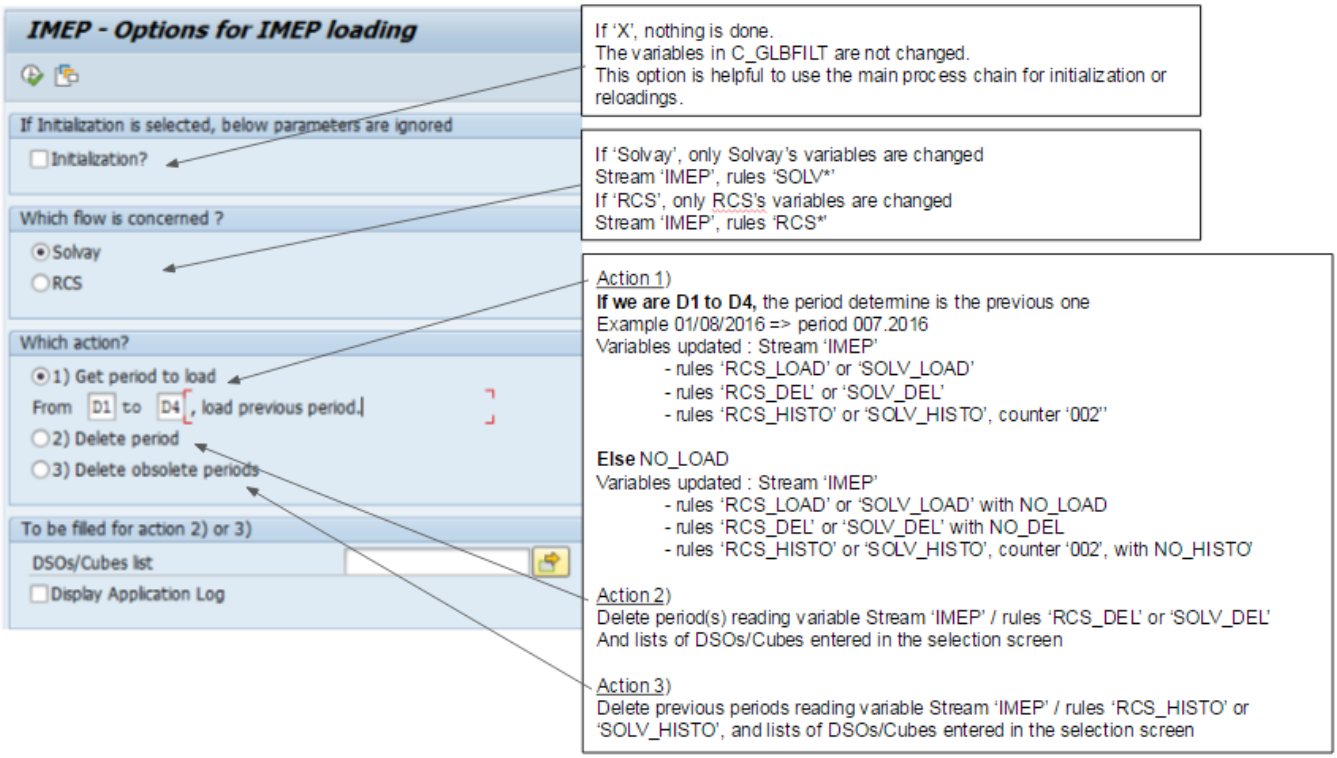
ABAP Programs used in Chains

Program	Variant	Explanation

ZBW_DELDIM	ZVAR_IMEP_01 ZVAR_IMEP_02 ZVAR_IMEP_03 ZVAR_IMEP_04 ZVAR_IMEP_05 ZVAR_IMEP_06	Existing program, reused to clean cube dimensions. It delete unused dimension elements
~~ZBW_IMEP001~~ (Obsolete)	~~ZVAR_DEL_RCS~~ ~~ZVAR_DEL_SOLV~~ ~~ZVAR_OBS_RCS~~ ~~ZVAR_OBS_SOLV~~ ~~ZVAR_PER_RCS~~ ~~ZVAR_PER_SOLV~~	~~Program created for the projet to :~~ • ~~Determine period to load from source system (and period to delete, obsolete periods)~~ • ~~Delete exercice/period (previously to new load)~~ • ~~Delete obsolete periods (to keep a constant perimeter of data)~~
ZBW_IMEP002		Program created for the project to allow users to load flat files to integrate additional IMEP data. Program is not used in Process Chain, but launches event PC_CO_IMEP_15 or PC_CO_IMEP_32, starting PC of the same name.

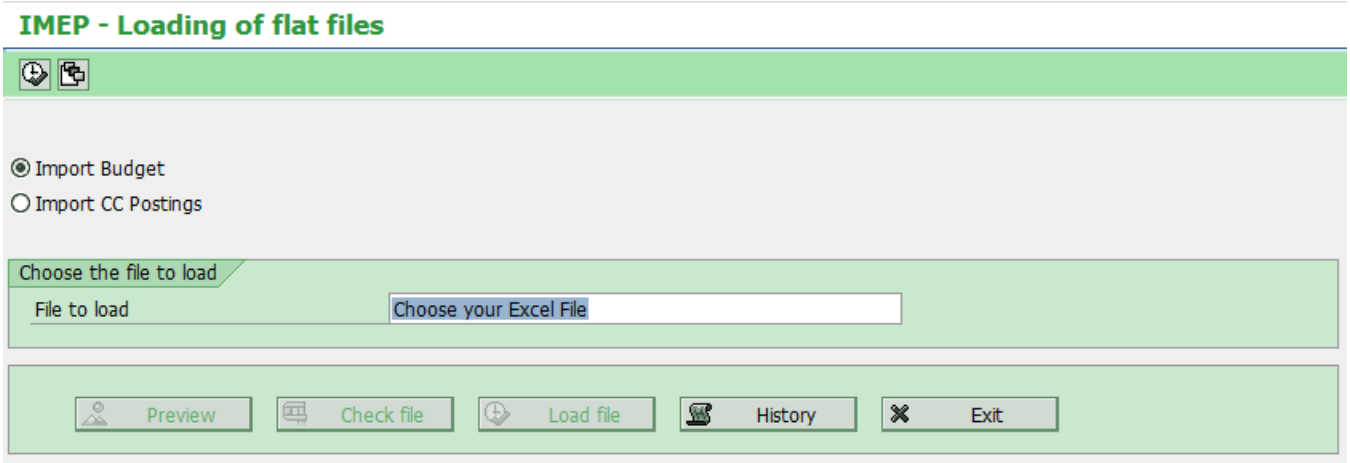
ZBW_IMEP003	ZVAR_DEL_RCS1 ZVAR_DEL_RCS2 ~~ZVAR_DEL_RCS3~~ ~~ZVAR_DEL_RCS4~~ ZVAR_DEL_SOLV1 ZVAR_DEL_SOLV2 ZVAR_DEL_SOLV3 ZVAR_DEL_SOLV4 ZVAR_OBS_RCS1 ZVAR_OBS_RCS2 ZVAR_OBS_SOLV1 ~~ZVAR_OBS_SOLV2~~ ZVAR_PER_RCS1 ZVAR_PER_RCS2 ZVAR_PER_SOLV1 ZVAR_PER_SOLV2 ZVAR_DEL_FF1 ZVAR_DEL_FF2	Program created for the projet to : • Determine period to load from source system (and period to delete, obsolete periods) • Delete exercise/period (previously to new load) • Delete obsolete periods (to keep a constant perimeter of data) Program replaces ZBW_IMEP001 and takes into account whether Current Month M (variants XXX1/XXX3) or Previous Month M-1 (variants XXX2/XXX4) is being reloaded. Variables ZVAR_DEL_FF* used for Flat File imports, modifying filters so that data is deleted in Budget DSOs and Cubes depending on Version C_VERSF, Fiscal Year 0FISCYEAR and Plant C_PLANT rather than Period 0FISCPER. Two instances of the program cannot run at the same time, to avoid incorrect data initialization in C_GLBFILT.
ZBW_IMEP004	ZVAR_COPP01 ZVAR_COPP02	Program created for the project to delete non-current data (M-2 and older) from InfoProviders. It is only used as of now to clear DBCOPP01/CRCOPP01 after the historical data has been sent to history flow (DBCOPP04) for SOLVAY PF1 and to clear DBCOPP02/CRCOPP02 after the hsitorical data has been sent to history flow (DBCOPP05) for RCS WP1.

Further explanations for program ZBW_IMEP001



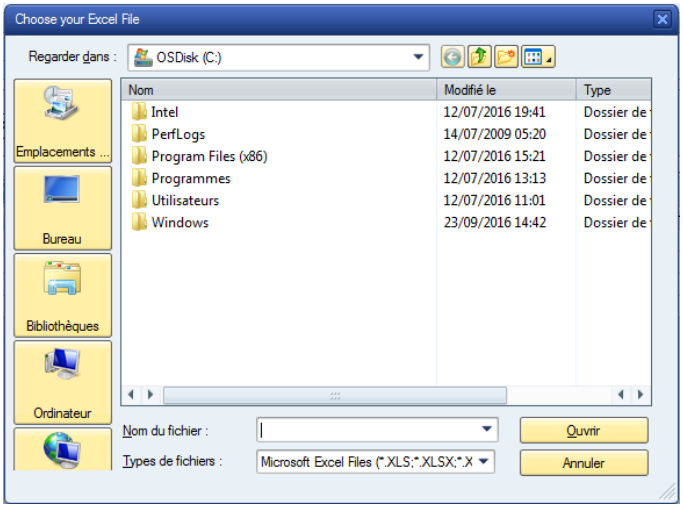
Further explanations for program ZBW_IMEP002

Interface



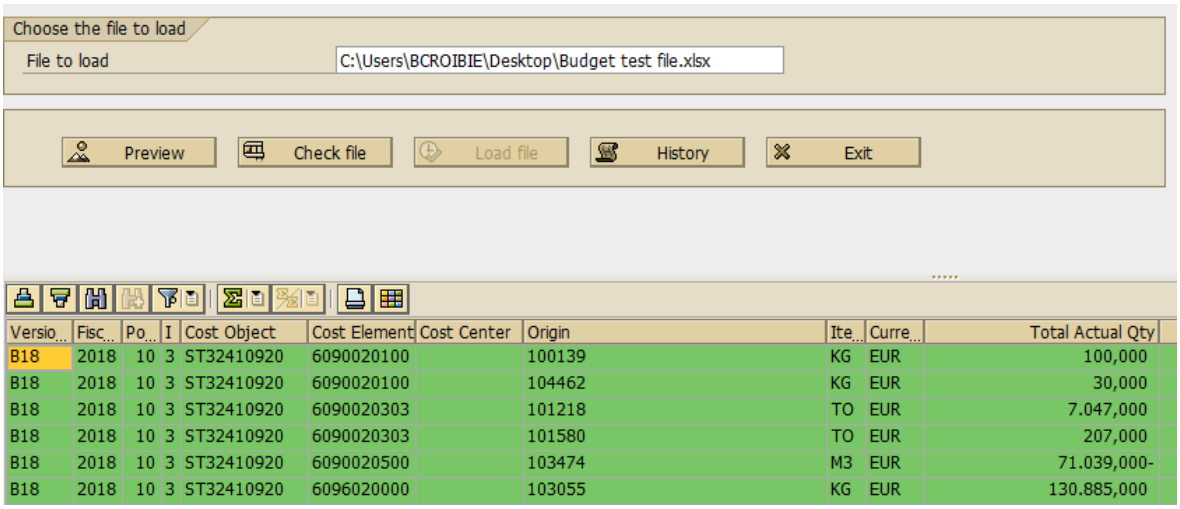
User must first indicate whether he is loading a Planned Data **Budget File** (Target: CRCOPP03, Event/Process Chain launched: PC_CO_IMEP_15) or a **C**ost **C**enter **Postings** Budget File (Target: CRCOPP08, Event/Process Chain launched: PC_CO_IMEP_32). Only one type of file can be loaded at once, and both types have different format.

User can choose an Excel flat file from his local computer by using the "File to load" browser.



Once the file is choosen, the user can preview the content to be uploaded from his selected file by clicking on "Preview" icon.

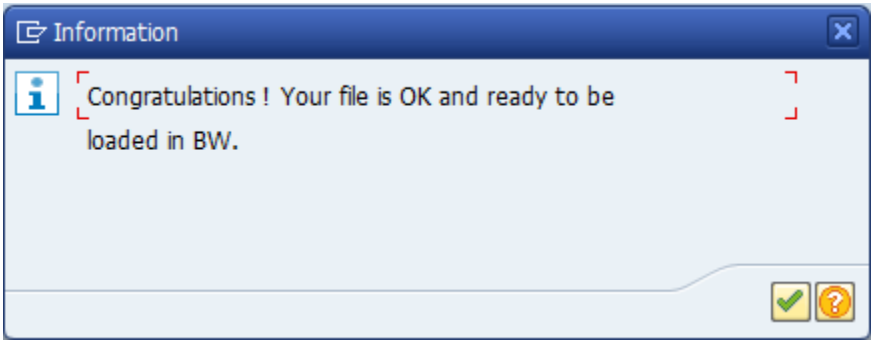
Preview is color-coded: green entries are correct, while yellow ones return warnings and red ones return one or more errors.



Versio...	Fisc...	Po...	I	Cost Object	Cost Element	Cost Center	Origin	Ite...	Curre...	Total Actual Qty
B18	2018	10	3	ST32410920	6090020100		100139	KG	EUR	100,000
B18	2018	10	3	ST32410920	6090020100		104462	KG	EUR	30,000
B18	2018	10	3	ST32410920	6090020303		101218	TO	EUR	7.047,000
B18	2018	10	3	ST32410920	6090020303		101580	TO	EUR	207,000
B18	2018	10	3	ST32410920	6090020500		103474	M3	EUR	71.039,000-
B18	2018	10	3	ST32410920	6096020000		103055	KG	EUR	130.885,000

Once the file is choosen, t he user can start the content checking of the file by clicking on "Check file" icon.

If errors and warnings exists, they will be listed with a description of the error at the end of each line.

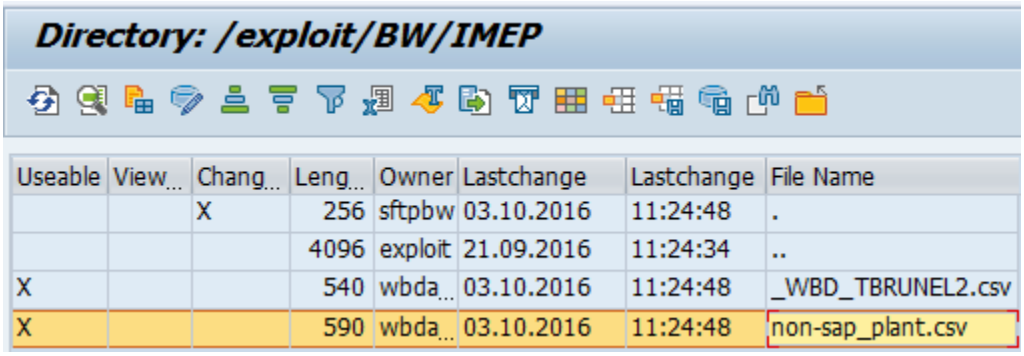


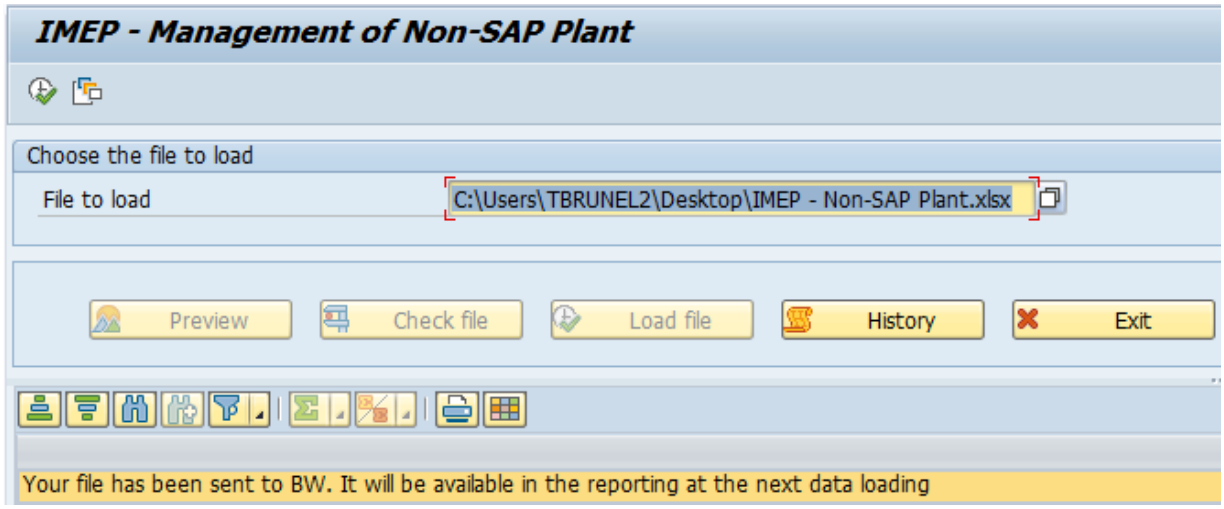
Once the file content is checked and all errors corrected, the user can load the file to BW application server (AL11) and raise the event associated with the type of import they chose by clicking on "Load file" icon .

The event PC_CO_IMEP_15 triggers the process chain PC_CO_IMEP_15 - "IMEP: META - T - Main (Flat Files)".

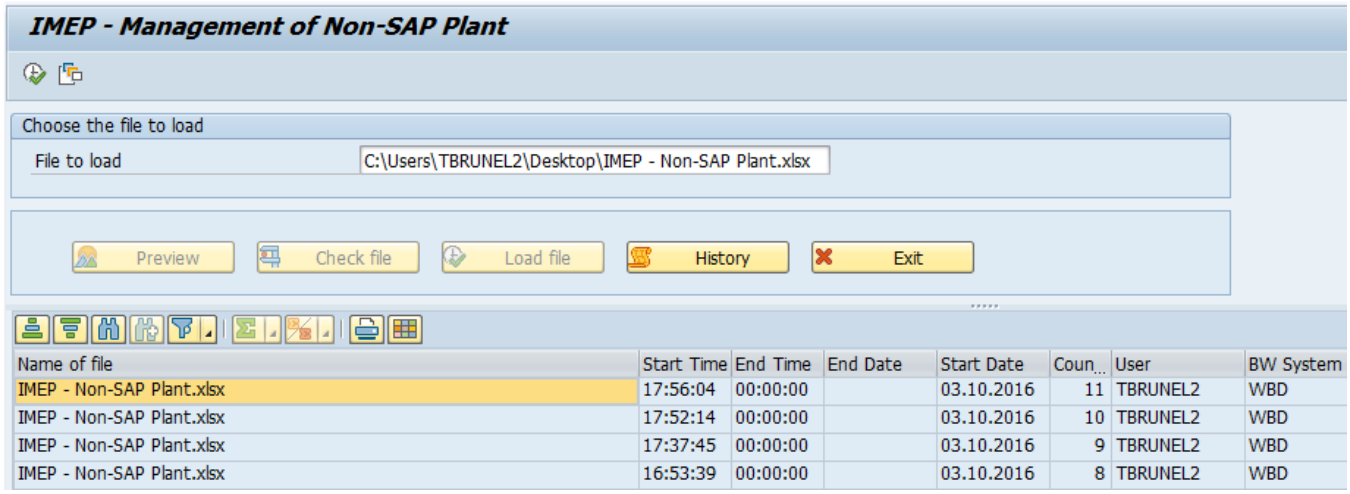
The event PC_CO_IMEP_32 triggers the process chain PC_CO_IMEP_32 - "IMEP: META - T - Main (CC postings) (Flat Files)".

Either process chain will load the user's file data into IMEP BW application.





U ser can view the history of loaded files by clicking on "History" icon.



The user can exit the program by clicking on "Exit" icon.

Source Code

Report ZBW_IMEP002 contains several distinct forms:

Interface

Selection screen.

Import File

f200-import_file: Import the XLS file from user's workstation.

f210-upload_excel: Convert the XLS file in Internal table.

f220-check_file: Check content of the file as follow, only for Planned Data Budget Files:

~~For more details, see file ZWPPMCKOST_table structure & contents_QF1.xlsx~~. (obsolete)

- BUSINESS RULE 1. **VERSION VALUE -** IMEP_BR1 (Rejection Code)
  BFR06 (Budget Forecast) or Byy (Yearly Budget, where yy between 00 and 99)
- BUSINESS RULE 2. **FISCAL YEAR VALUE -** IMEP_BR2
  Year, between 1900 and 2999
- BUSINESS RULE 3. **PERIOD VALUE -** IMEP_BR3
  Month, between 01 and 12
- BUSINESS RULE 4. **INDEX VALUE -** IMEP_BR4
  Index is 1 (Produced material), 3 (BOM Component) or 9 (SKF/Direct Posting)
- BUSINESS RULE 5. **COST OBJECT EXISTS -** IMEP_BR5
  Check DSO *DBCOPP13* for Cost Object. Empty Cost Object is accepted too.
    - BUSINESS RULE 5.2. **MATCHING COST OBJECT AND PLANT -** IMEP_BR5_2
      Check DSO *DBCOPP13* for Plant with Imported Cost Object. The Plant in the DSO must match imported Plant.
- BUSINESS RULE 6. **COST ELEMENT EXISTS -** RK14_2
  Check Master Data *0COSTELMNT* for Cost Element with Controlling Area *CHEF* and Level 1 Hierarchy *XCS-ALL*
- BUSINESS RULE 7. **COST CENTER**
    - BUSINESS RULE 7.1. **COST CENTER MANDATORY FOR INDEX 9 -** RK3_1
    - BUSINESS RULE 7.2. **COST CENTER EXISTS -** RK3_2
      Check Master Data *C_COSTCTR* for Cost Center with Controlling Area *CHEF*
- BUSINESS RULE 8. **ORIGIN**
    - BUSINESS RULE 8.1. **ORIGIN MANDATORY FOR INDEX 3 -** IMEP_BR8_1
    - BUSINESS RULE 8.2. **ORIGIN EXISTS (as MATERIAL) -** IMEP_BR8_2
      Check Master Data *C_MATNR2* for Origin with Source System *PF1_020*
- BUSINESS RULE 9. **UNIT EXISTS -** RD12_2
  Check Master Data *0UNIT* for Unit
- BUSINESS RULE 10. **CURRENCY EXISTS -** RD11_2
  Check Master Data *0CURRENCY* for Currency.
- BUSINESS RULE 11. **KEY FIGURES VALUES -** IMEP_BR11
  For index 3 and 9, check that Material Ledger Costs are not null (Sum of Fixed Costs, Variable Costs and Dependencies)
- BUSINESS RULE 12. **DUPLICATE ENTRIES -** RD14
- BUSINESS RULE 16: **KEY FIGURES ARE NUMERICS** - IMEP_BR16
  Key figures only contains the following characters: *'-0123456789.'*
- BUSINESS RULE 17: **MATERIAL EXISTS** - RD10
  Check Master Data *C_MATPNT2* for Material with imported Plant and Cost Object.

f230-check_file_cc: Check content of the file as follow, only for Cost Center Postings Budget Files:

Info: Business Rules sharing the same name are identical in both "check_file" forms.

- BUSINESS RULE 1. **VERSION VALUE -** IMEP_BR1 (Rejection Code)
  BFR06 (Budget Forecast) or Byy (Yearly Budget, where yy between 00 and 99)
- BUSINESS RULE 2. **FISCAL YEAR VALUE -** IMEP_BR2
  Year, between 1900 and 2999
- BUSINESS RULE 3. **PERIOD VALUE -** IMEP_BR3
  Month, between 01 and 12
- BUSINESS RULE 6. **COST ELEMENT EXISTS -** RK14_2
  Check Master Data *0COSTELMNT* for Cost Element with Controlling Area *CHEF* and Level 1 Hierarchy *XCS-ALL*
- BUSINESS RULE 7. **COST CENTER**
    - BUSINESS RULE 7.2. **COST CENTER EXISTS -** RK3_2
      Check Master Data *C_COSTCTR* for Cost Center with Controlling Area *CHEF*
    - BUSINESS RULE 7.3. **PARTNER COST CENTER EXISTS -** IMEP_BR7_3
      Check Master Data *C_COSTCTR* for Cost Center with Controlling Area *CHEF*
    - BUSINESS RULE 7.4. **MATCHING COST CENTER AND PLANT -** IMEP_BR7_4
      Check Master Data *C_COSTCTR* with Controlling Area *CHEF* and imported Cost Center. The attribute *C_RPLANT* must match imported Plant.
- BUSINESS RULE 9. **UNIT EXISTS -** RD12_2
  Check Master Data *0UNIT* for Unit
- BUSINESS RULE 10. **CURRENCY EXISTS -** RD11_2
  Check Master Data *0CURRENCY* for Currency.
- BUSINESS RULE 12. **DUPLICATE ENTRIES -** RD14
- BUSINESS RULE 13: **PARTNER ORDER EXISTS** - IMEP_BR13
  Check Master Data *C_COORDER* for Cost Order with Source System *%F1_020*
- BUSINESS RULE 14: **PARTNER WBSE EXISTS** - RK27_2
  Check Master Data *C_WBS_EL2* for WBS Element with Source System *%F1_020*
- BUSINESS RULE 15: **DEBIT/CREDIT INDICATOR IS SET** - IMEP_BR15
  Debit/Credit Indicator is either 'S' or 'H'
- BUSINESS RULE 16: **KEY FIGURES ARE NUMERICS** - IMEP_BR16
  Key figures only contains the following characters: *'-0123456789.'*

Program Output

f300-output_preview: Generate ALV grid to show Converted data from Excel.

f310-output_check: Generate ALV grid to show Converted data from Excel after check.

Program Load

f400-load_pchain: Check if process chain is already in progress.

f413-csv_file_data: Import Customer file in ALL11.

- Filename consumed by process chain PC_CO_IMEP_15 is hardcoded in this form: "/exploit/BW/IMEP/IMEP_flat_file.csv".
- Filename consumed by process chain PC_CO_IMEP_32 is hardcoded in this form: "/exploit/BW/IMEP/IMEP_cc_flat_file.csv".
- Flat file integrated manually by user, is saved as follow: ' /exploit/BW/IMEP/' w_file '_' sy-sysid '_' sy-uname '.csv'.
  Where *w_file* is the filename on user's local pc, *sy-sysid* is the BW environment and *sy-uname* is the user name which is running the program.

f423-filename_data: Update Global filter master data with new file name.

f433-savelog_data: Update log after loading (DSO DBCOPP09 - "IMEP - Log Import (Non-SAP Plant) (Direct Update)").

f440-finish_message: Pop - up message once the program's operations are complete .

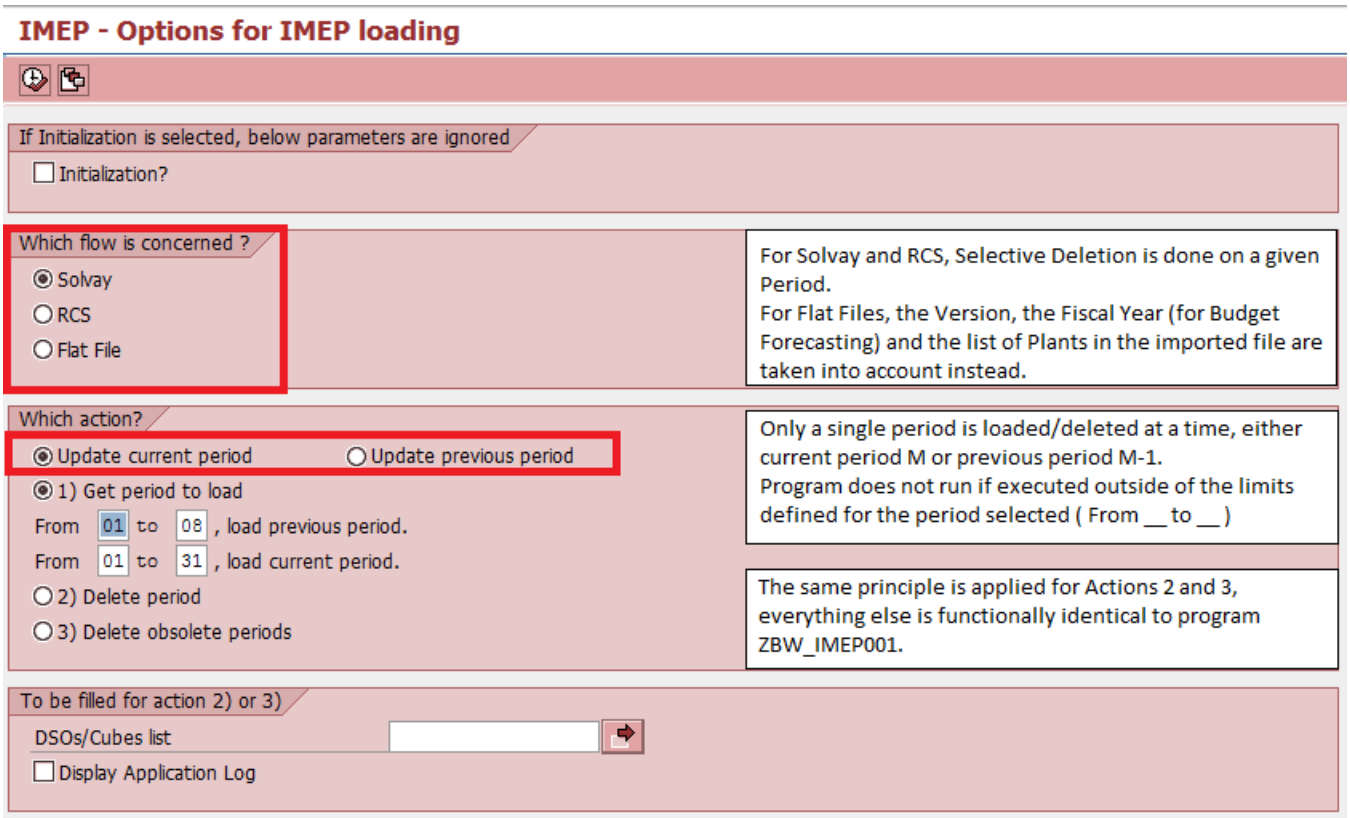
f453-send_email_data: Send an email after data loading.

f463-delete-obsolete-data: Selective deletion of data in either DPCOPP03/DBCOPP03/CRCOPP03 or DPCOPP04/DBCOPP14/CRCOPP08 based on *Version* (C_VERSF) and *Fiscal Period* (0FISCPER).

Program Log

f500-display_log: Display log.

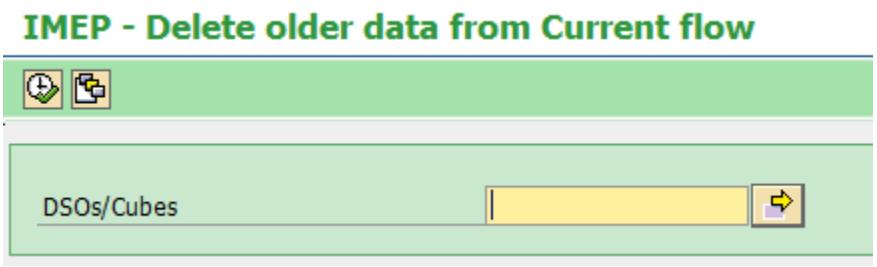
Further explanations for program ZBW_IMEP003



Program reads Global Filter to define Selective Deletion Perimeter. Depending on selected flow (and, for RCS and Solvay, selected period), Perimeter will be established reading different entries in Global Filter:

Stream	Rule	Counter	Global Filter Descri	Sign	Option	Low	Hight	Acti...
IMEP	FF_DATA	1	Input filename for ZBW_IMEP002 program			B19 upload file Rheinberg_V3_upload WBP.xlsx		Y
IMEP	FF_DATA	2	Store actual delta queue of running RSPC PC_CO_IMEP_15			0		Y
IMEP	FF_DATA	3	Total counter for ZBW_IMEP002 program file loading			156		Y
IMEP	FF_DATA	4	Version that will be updated in Budget DSOs/Cubes	I	EQ	B19		Y
IMEP	FF_DATA	5	List of Plants that will be updated in Budget DSOs/Cubes	I	EQ	RBAA/RBAB		Y
IMEP	FF_DATA	6	Fiscal Year that will be updated in Budget DSOs/Cubes	I	EQ	2019		Y
IMEP	RCS_DEL	1	Period (YYYYPPP) to delete, RCS DSO/Cube. NO_DEL to avoid	I	BT	2018010	2018010	Y
IMEP	RCS_DEL	2	Period (YYYYPPP) to delete, RCS (M-1)	I	BT	NO_DEL		Y
IMEP	RCS_HISTO	1	Number of Year to keep in all DSOs/Cubes RCS	I	EQ	6		Y
IMEP	RCS_HISTO	2	Delete all data in all DSOs/Cubes RCS older than	I	EQ	2012010		Y
IMEP	RCS_LOAD	1	Period (YYYYPPP) to load, RCS. NO_LOAD to avoid loadings	I	BT	2018010	2018010	Y
IMEP	RCS_LOAD	2	Period (YYYYPPP) to load, RCS (M-1)	I	BT	NO_LOAD		Y
IMEP	SOLV_DEL	1	Period (YYYYPPP) to delete, SOLVAY DSO/Cube. NO_DEL to avoid	I	BT	2018010	2018010	Y
IMEP	SOLV_DEL	2	Period (YYYYPPP) to delete, SOLVAY (M-1)	I	BT	NO_DEL		Y
IMEP	SOLV_HISTO	1	Number of Year to keep in all DSOs/Cubes Solvay	I	EQ	6		Y
IMEP	SOLV_HISTO	2	Delete all data in all DSOs/Cubes Solvay older than	I	EQ	2012010		Y
IMEP	SOLV_LOAD	1	Period (YYYYPPP) to load, SOLVAY. NO_LOAD to avoid loadings	I	BT	2018010	2018010	Y
IMEP	SOLV_LOAD	2	Period (YYYYPPP) to load, SOLVAY (M-1)	I	BT	NO_LOAD		Y

Further explanations for program ZBW_IMEP004



All DSOs and Cubes listed in the program variant will be cleared of all M-2 data and older, leaving only Current and Previous Month.

Record Keeping

Business requires 3 years of historical data in addition to current year. (Y to Y-3)

Cubes contain data since 2017. Historical data beyond this is stored in Propagation/Business level.

The number of years to keep can be maintained in Global Filter (C_GLBFILT) masterdata (Stream IMEP / Rule RCS_HISTO or SOLV_HISTO/ Counter '001')

Older data are deleted from DSOs/Cubes at the end of the RCS and Solvay process chains (PC_CO_IMEP_01/08/20/25).

Data availability for go live (01.2017)

From Solvay PF1 : 2014 + 2015 + 2016

From RCS WP1: 2015 + 2016 (2014 was not available anymore as year was archived in WP1)

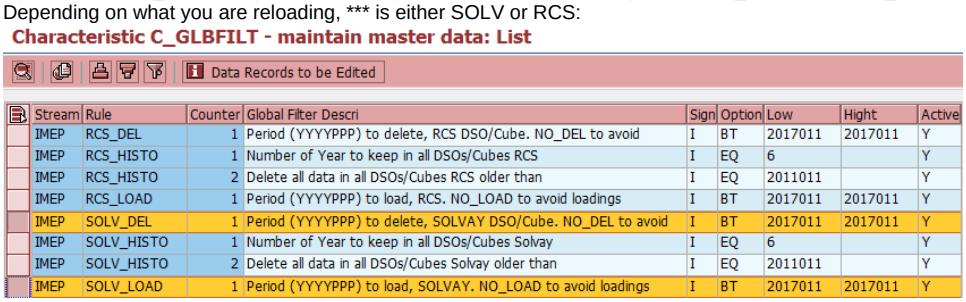
Recurring procedure

Reload data on a given period

Warning n°1 : Cost Center Postings Business data (DBCOPP06, DBCOPP16) must always be loaded **after** Current and Historical Business data (DBCOPP01, DBCOPP04). Failure to do so will lead to incorrect CC Postings data. (PS: The method below avoids this issue, but be careful if you only reload from Business Level without launching the Process Chain)

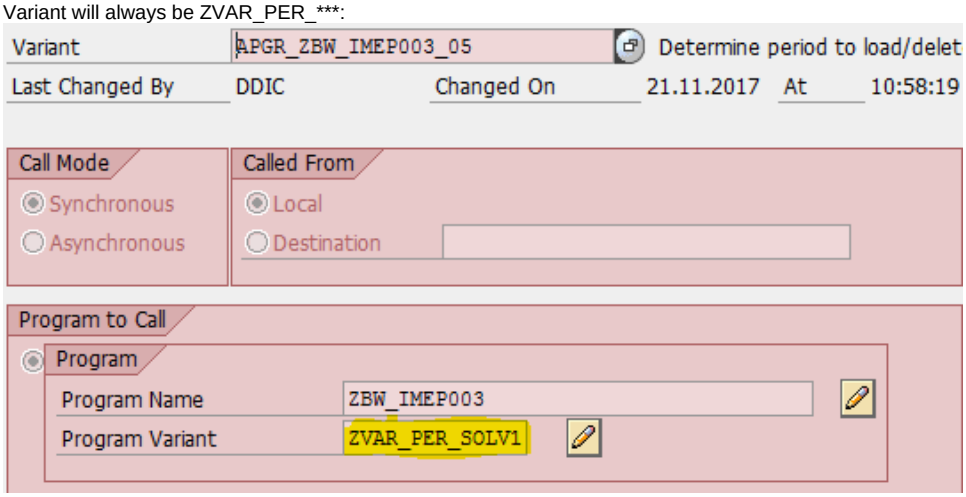
Warning n°2 : A "Delete Overlapping DTPs" step is applied on all Cubes reloaded daily. Always reload Current Month M (and Previous Month M-1 in closure period) in a **separate load** from the historical data, otherwise the data will be duplicated the next day as the Delete Overlapping cannot remove the data from a larger perimeter.

1. Update data in C_GLBFILT (Stream = IMEP). You need to change the period in ***_LOAD/1 and ***_DEL/1 to the period you are using. Depending on what you are reloading, *** is either SOLV or RCS:

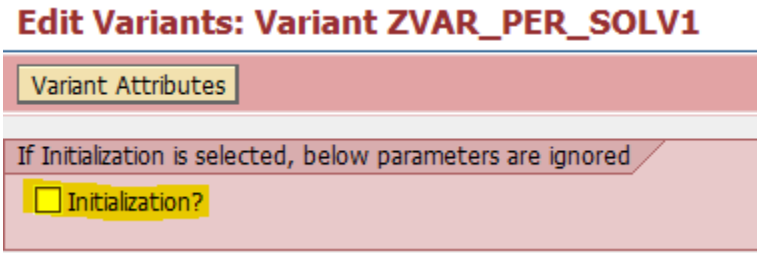


Stream	Rule	Counter	Global Filter Descri	Sign	Option	Low	Hight	Active
IMEP	RCS_DEL	1	Period (YYYYPPP) to delete, RCS DSO/Cube. NO_DEL to avoid	I	BT	2017011	2017011	Y
IMEP	RCS_HISTO	1	Number of Year to keep in all DSOs/Cubes RCS	I	EQ	6		Y
IMEP	RCS_HISTO	2	Delete all data in all DSOs/Cubes RCS older than	I	EQ	2011011		Y
IMEP	RCS_LOAD	1	Period (YYYYPPP) to load, RCS. NO_LOAD to avoid loadings	I	BT	2017011	2017011	Y
IMEP	SOLV_DEL	1	Period (YYYYPPP) to delete, SOLVAY DSO/Cube. NO_DEL to avoid	I	BT	2017011	2017011	Y
IMEP	SOLV_HISTO	1	Number of Year to keep in all DSOs/Cubes Solvay	I	EQ	6		Y
IMEP	SOLV_HISTO	2	Delete all data in all DSOs/Cubes Solvay older than	I	EQ	2011011		Y
IMEP	SOLV_LOAD	1	Period (YYYYPPP) to load, SOLVAY. NO_LOAD to avoid loadings	I	BT	2017011	2017011	Y

2. The previous step is usually done by program ZBW_IMEP003 when the Process Chain starts. Thus, you need to disable the variant used in the PC to keep the period entered manually.
To do so, open the Process Chain you will use for the reload (PC_CO_IMEP_01 for Solvay and PC_CO_IMEP_08 for RCS) and check the first program.
Variant will always be ZVAR_PER_***:



Open the variant to Change it, check the "Initialization?" button:



Save and leave. Don't forget to come back to uncheck the button once you are done.
3. Run the Process Chain using Function Module (SE37) RSPC_API_CHAIN_START, keep an eye on the process.

Data Quality Control

Data come from SAP system. To compare data between BW and sources systems, check propagation layers.

Operational Documentation

Procedures

<Describe the recurring procedures needed to operate the application (eg. start/pause/terminate/restart the app processes, data preparation, data ingestion, ETL, data visualization, data export, other manual activities)>

Scheduling

<Describe the scheduling in place for the application (eg. existing jobs, trigger time/event based, dependencies)>

Monitoring

<Describe the monitoring checks to confirm the application is performing well (eg. check the overall status, check performance metrics like runtime /data volume/memory/disk/CPU, maintain and react to alerts/notifications)>

Error Handling

<Describe how to handle errors (eg. error codes, description and respective resolution, alert users)>

Known Bugs

<List the existing bugs, its criticity, workarounds and resolution plan.>

Roadmap

<List past & future evolutions for the application (including links to MED/FSD/TSD)>