

Raw Material Forecast

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Objective

The objective is to display Raw Material Costs in a Manufacturing query. This query will be used in Qlik Sense Dashboards.

Raw Material Forecast prices are first proposed to the Business in a dedicated Workbook.

Business has to confirm those prices in the Workbook for each forecast period.

If a monthly forecast price is unconfirmed by Business, it is extrapolated from the first previous confirmed price, at the time of pushing the data into the Manufacturing data flow (monthly on 7th).

Functional Logic

There are three key transactional sources supporting proposed Raw Material Unit Price:

Open Purchase Orders

For Raw Material and Plant combination : Purchase Orders with quantities and no Goods Receipt.

Scheduling delivery line date is used to allocate to relevant period.

Open Purchase Contracts

For Raw Material and Plant combination : Contracts quantity excluding quantities of Purchase Orders created in reference to Contract.

Validity dates at Header and Price Determination Date at line-item level

Material Standard Price

For Raw Material and Plant combination : Standard Price from Material Accounting information

Current date is used and extrapolated to allocate to all relevant periods.

The Forecast quantity for a Raw Material/Plant/Period is then consumed chronologically by relevant Purchase Orders and Contracts.

The proposed Unit Price is the weighted average price of the assigned documents.

In case of no document for Raw Material and Plant combination, the Material Standard Price is proposed.

Example :

For a Raw Material/Plant/Period a Forecast quantity of 50 KG is scheduled in Dynasys.

Looking for Purchase Orders :

This quantity can be partially consumed by a Purchase Order of 30 KG, with a unit price of 12 EUR.

Looking for Contracts :

The quantity left can be consumed by a Contract for 20 KG, with a unit price of 10 EUR.

Price Unit proposed :

The average price is the sum of the amounts, divided by the Forecast quantity to consume.

Purchase Order amount = 30 x 12 EUR = 360 EUR

Contract amount = 20 x 10 EUR = 200 EUR

Weighted Average Price = $360+200 / 50 = 11,20$ EUR

For the Raw Material/Plant/Period with a Forecast quantity of 50 KG, the proposed Unit Price is 11,20 EUR.

This price must be confirmed by Business on the relevant line in the Workbook.

The confirmed price will be populated in the Manufacturing data flow, and extracted to the Qlik dashboards.

BW Roles & Access

Roles and 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_M78	Forward Looking ICM - Raw Material	Role Menu
ZBI_RCS_CO_A06	Forward Looking ICM - Raw Material	Authorization objects

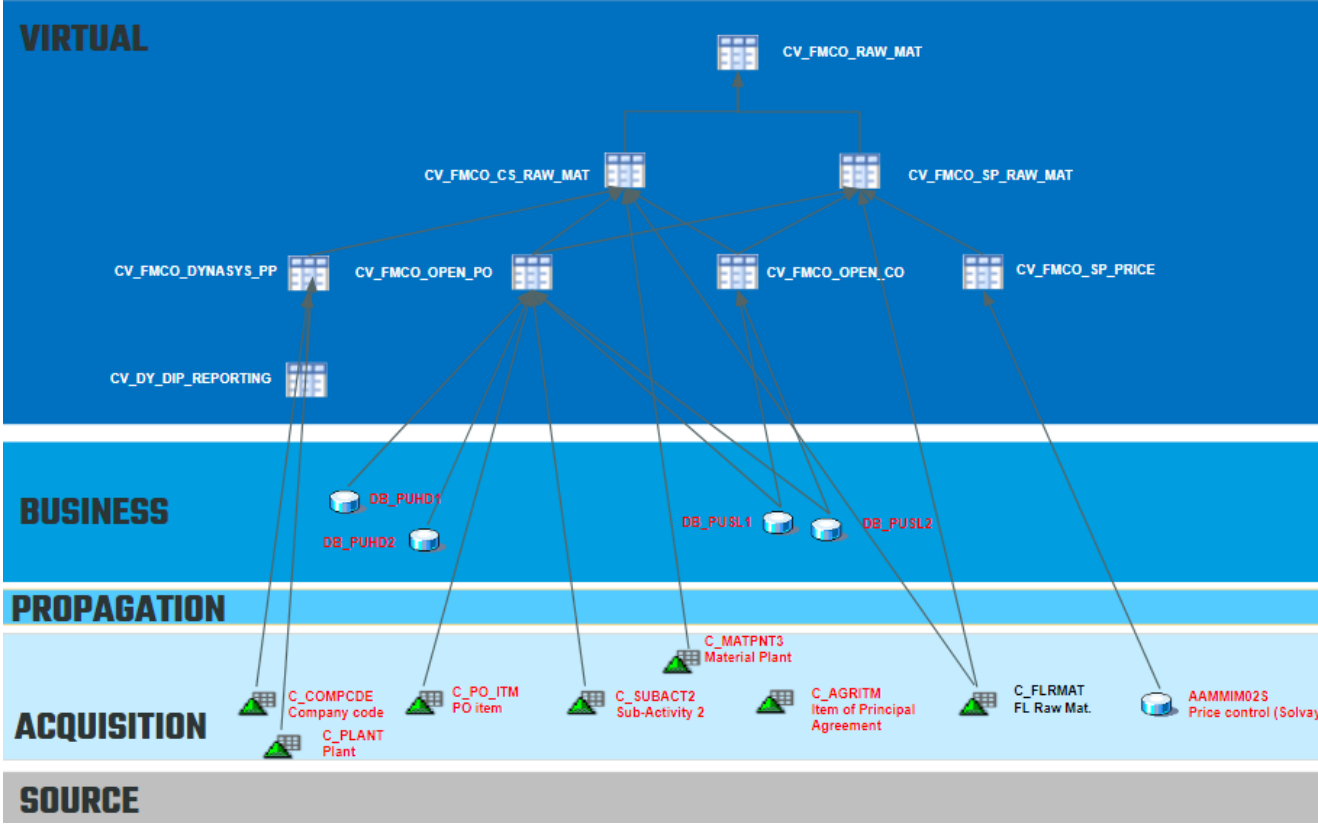
Authorization variables

List of authorization variables mandatory for the application.

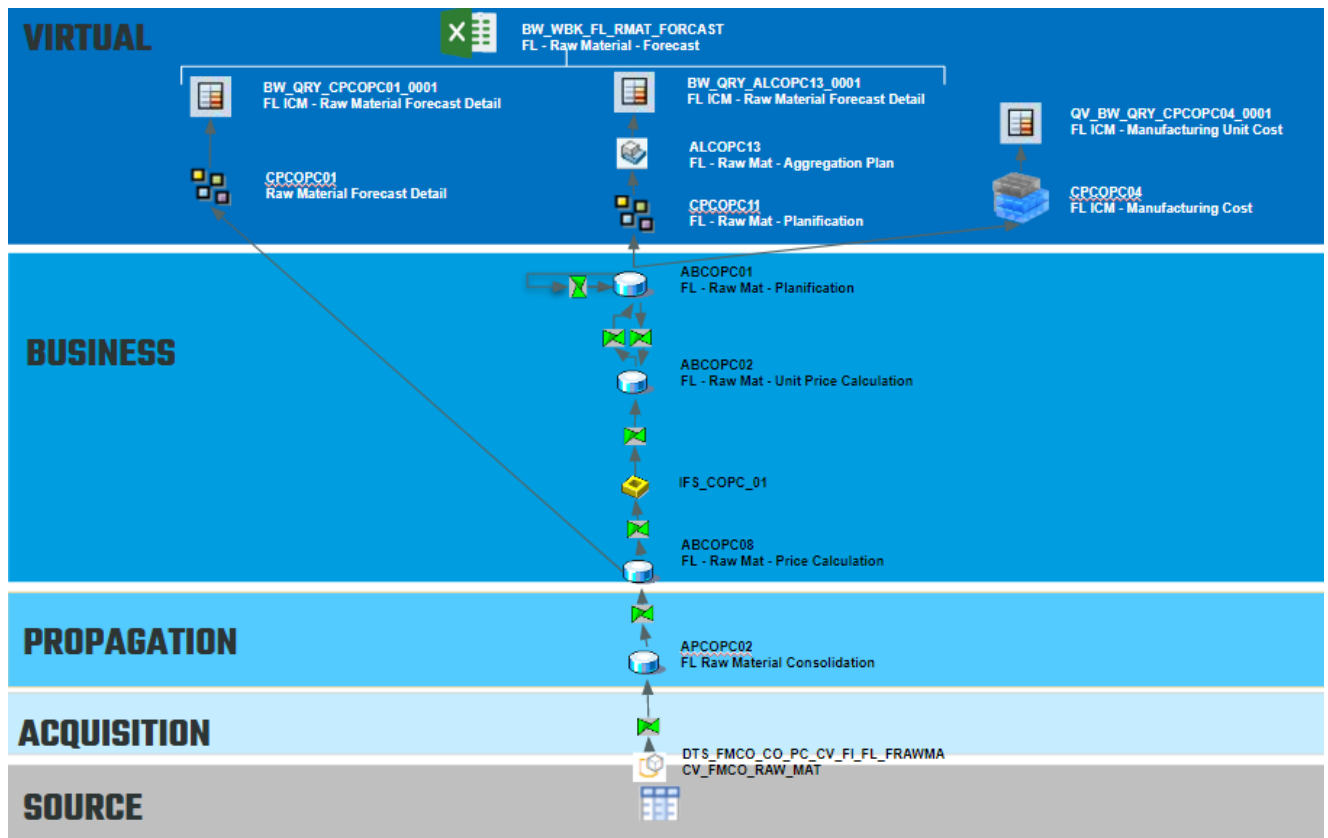
Authorization variables	Object
V_CPFCTR1_2_0006	CPFCTR1_2
V_C_PLANT_0012	C_PLANT

Dataflow overview

Data Flow 1: HANA Calculation Views



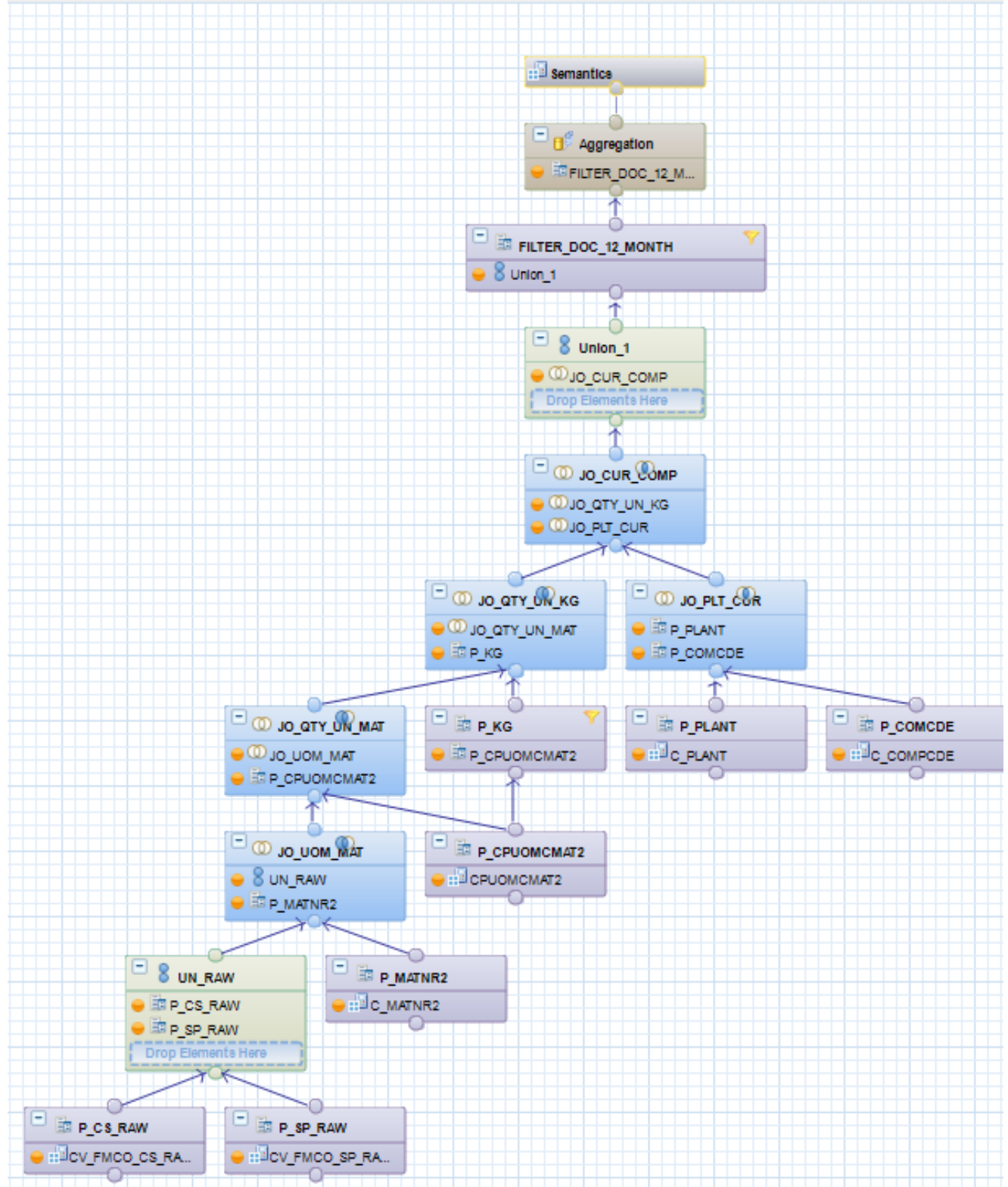
Data Flow 2: BW Stack



Source Layer

As shown in the data flow above, the BW data source is the Main Calculation View CV_FMCO_RAW_MAT:

Scenario



Calculation View Logic

Projection **P_CS_RAW** : Get Raw Material records for GBU NOVECARE (CS) from CV_FMCO_CS_RAW_MAT (see detail below).

Projection **P_SP_RAW** : Get Raw Material records for GBU SPECIALITY POLYMERE (SP) from CV_FMCO_SP_RAW_MAT (see detail below).

Further Projections are used in Joins to get unit and currency information from UOMCMAT2, C_PLANT, and C_COMPCODE.

```
CC_QTY_MAT = "CC_QTY_DOC"*"CC_RATIO" (Doc Qty converted in Material Base Unit of Measure with CC_RATIO from UOMCMAT2)
```

```
CC_QTY_KG = "CC_QTY_DOC"*"CC_RATIO" (Doc Qty converted in KG with CC_RATIO from UOMCMAT2)
```

Projection **FILTER_DOC_12_MONTH** : Expression to exclude all lines on periods before current month of loading, except ones with null value representing Contract lines.

```
( "CC_CALMONTH" >= "CC_ACTUAL_DATE" )  
OR  
("CC_CALMONTH" = '000000' OR isNull("CC_CALMONTH" ))
```

Until 14th December 2022, this expression was also excluding lines on periods after current month of loading + 12.

This exclusion has been moved to ABAP stack in order to do a specific process for Material without any line in range Current Month -> Current Month + 12.

Currency Conversion in HANA

At Semantic level, both values below are converted using CAR3 exchange rate type.

This Exchange Rate Type has been updated from 'M' to 'CAR3' on October 2022.

It uses an Input Parameter IP_EXCHGE_RT, reading from Master Data **C_GLBFI**L (Global Filter) thanks to parameters below :

```
C_STREAM = 'FMCO_COPC'
```

```
C_RULE = 'EXCHGE_RT'
```

```
C_GLBFI = '000'
```

```
C_SIGN = 'I'
```

```
C_OPTION = 'EQ'
```

```
C_LOW = 'CAR3'
```

```
C_ACTIVE = 'Y'
```

CC_VALUE_EUR : Conversion of Document Currency (CC_VALUE_DOC) in EUR :

Assign Semantics

Assign a suitable semantic type and maintain additional properties depending on the chosen semantic type

Semantic Type: Amount with Currency Code

Currency: € \$₣ EUR

Decimal shift Conversion Rounding Decimal shift back

Conversion

Schema for currency conversion:* ABAP (SAPSR3)

Client for currency conversion:* (Δ) IP_BW_CLIENT

Source Currency:* ⓘ DOC_CURRENCY

Target Currency:* \$₣ EUR

Exchange Type:* (Δ) IP_EXCHGE_RT

Conversion Date:* ⓘ CC_DATE

Exchange Rate:€

Generate result currency column:

Upon Conversion Failure: Ignore

CC_VALUE_COMP : Conversion of Document Currency (CC_VALUE_DOC) in Company Code Currency :

Assign Semantics

Assign a suitable semantic type and maintain additional properties depending on the chosen semantic type

Semantic Type:

Currency:

Decimal shift Conversion Rounding Decimal shift back

Conversion

Schema for currency conversion:*

Client for currency conversion:*

Source Currency:*

Target Currency:*

Exchange Type:*

Conversion Date:*

Exchange Rate:*

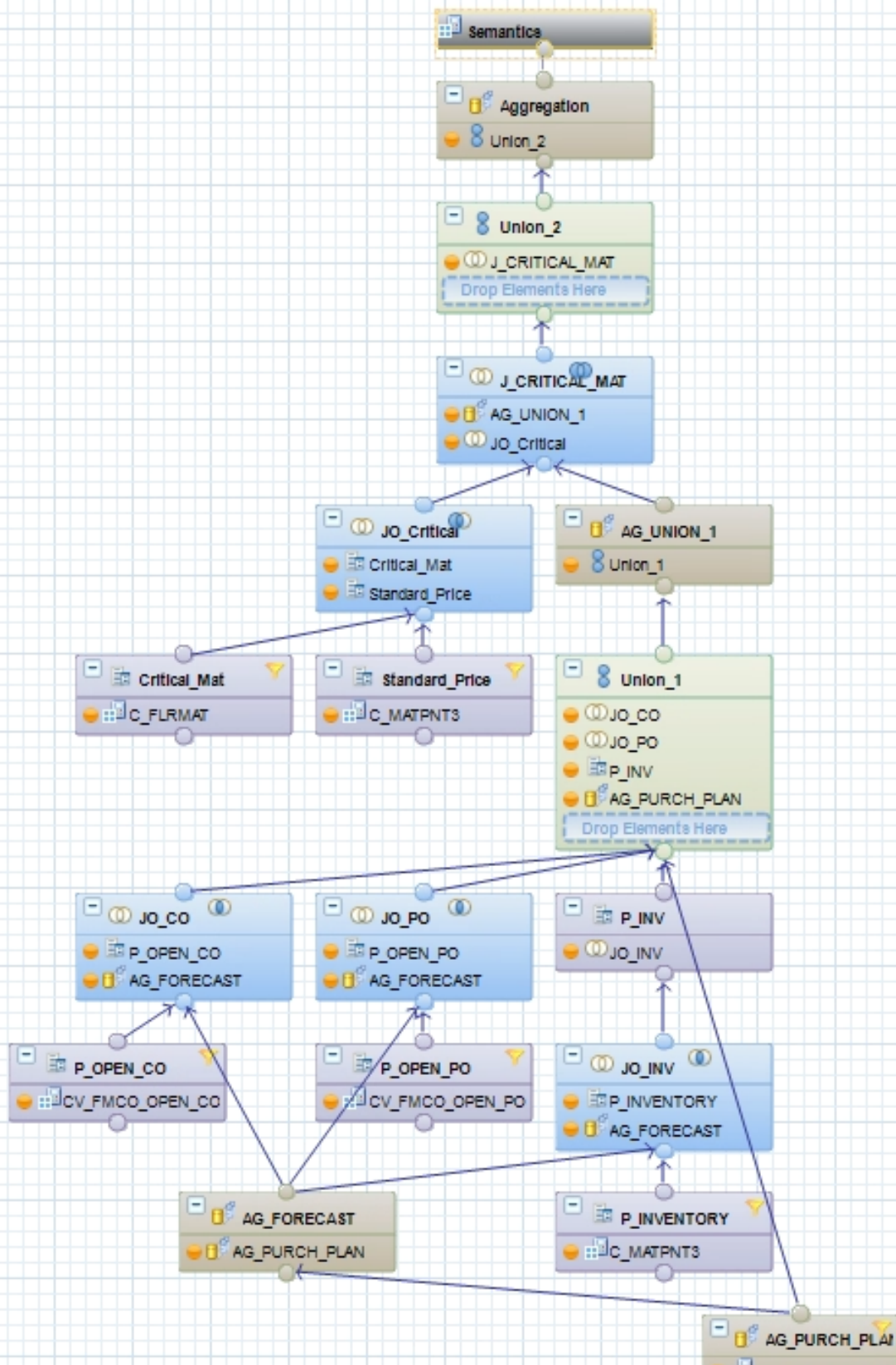
Generate result currency column:

Upon Conversion Failure:

The Main Calculation View above is sourced on CV_FMCO_CS_RAW_MAT and CV_FMCO_SP_RAW_MAT :

[CV_FMCO_CS_RAW_MAT](#)

Scenario



Aggregation **AG_PURCH_PLAN** : Is the main Forecast source from Dynasys. Built on CV_FMCO_DYNASYS_PP.

The filter expression is getting Forecast Dynasys lines (PLANNED_PURCH_MAT), for Novacare, Technology Solutions, and Aroma data, on periods after current month of loading.

```
("CPFCTR1_2" = 'CS' or "CPFCTR1_2" = 'TS' or "CPFCTR1_2" = 'PA') AND
"C_DATATYP" = 'PLANNED_PURCH_MAT'
AND "0CALMONTH" >= "ZACTUALDATE"
```

In this Forecast source from DYNASYS, value is always in Euro (EUR).

The retrieved Company Code currency must no be associated to the value in EUR.

At the time of the Union (Union_1), a constant EUR is used for this Forecast source.

Projection **P_OPEN_CO** : Extract all the Contracts with global quantity. Built on CV_FMCO_OPEN_CO.

The filter expression is getting Novacare, Technology Solutions, and Aroma data only.

```
"CPFCTR1_2" = 'CS' or "CPFCTR1_2" = 'TS' or "CPFCTR1_2" = 'PA'
```

Projection **P_OPEN_PO** : Extract all the Purchase Orders with quantity left to deliver. Built on CV_FMCO_OPEN_PO.

The filter expression is getting Novacare, Technology Solutions, and Aroma data only, and exclude orders without any quantity left to deliver.

```
("CPFCTR1_2" = 'CS' or "CPFCTR1_2" = 'TS' or "CPFCTR1_2" = 'PA')
and "CC_OPEN_PO">0
```

Projection **P_INVENTORY** : Extract list of Material/Plant with Standard Price from Master Data C_MATPNT3.

The filter expression is selecting lines with chart of accounts but without value type.

```
((("0CHRT_ACCTS" != ""))
AND (("C_VALTYPE" = ""))
```

Until 14th December 2022, the Projection P_INVENTORY was built on CV_FMCO_DYNASYS_PP to retrieve Inventory Price (INV).

From that date, the Projection P_INVENTORY is built on Master Data C_MATPNT3 to retrieve Material Standard Price instead.

For technical reason, the identification INV (Inventory) is kept to identify this source of data.

These projections are all Inner joined with the Forecast Dynasys lines coming from the Aggregation above.

Projection **C_FLRMAT** : Extract list of Critical Raw Material.

The filter expression is getting Novacare, Technology Solutions, and Aroma data only.

```
"CPFCTR1_2" = 'CS' or "CPFCTR1_2" = 'TS' or "CPFCTR1_2" = 'PA'
```

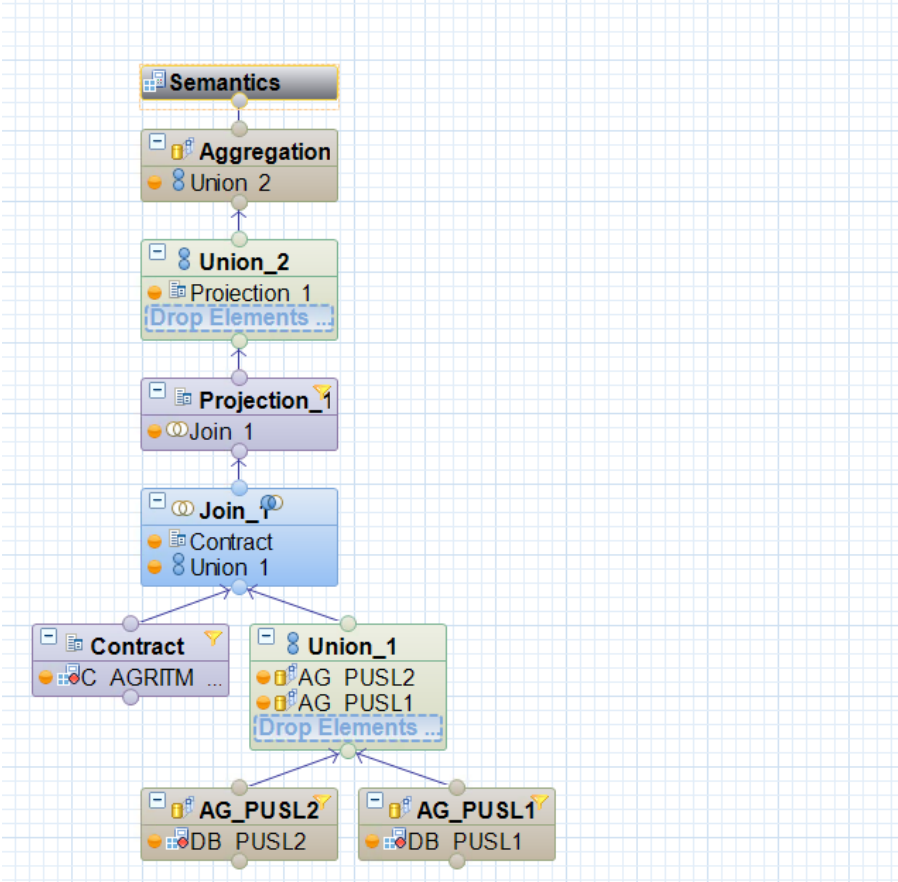
This projection is full outer joined in J_CRITICAL_MAT with the Union of previous lines from Dynasys Forecast, in order to display any Material without Forecast in the query.

A set of 11 calculated columns CC_ is merging data from Critical Raw Mat or Dynasys Forecast, thanks to Formulas.

Detail of CV_FMCO_OPEN_CO :

⚠ Solvay.IA_FMCO.IA_FMCO_COPC::CV_FMCO_OPEN_CO

Scenario



Aggregation **AG_PUSL1** and **AG_PUSL2** : Extraction of Purchase documents from Rhodia source system (DB_PUSL1) and Solvay source system (DB_PUSL2), with the PO quantity to use (CC_PO_QTY).

The filter expressions are getting Purchase documents not deleted with a Material code.

```
("C_MATNR2" !=) AND ("C_LOEKZ" =) AND ("C_LOEKZK" =)
```

Projection **Contract** : Extraction of Contract Items from Master Data C_AGRITM, with the Target Quantity to use (TARG_QTY).

The filter expression is getting Contract Items not deleted with a Material code, and with a period not null.

```
("C_MATNR2" !=) AND ("C_LOEKZ" =)
AND ( "CC_CALMONTH" != '000000' OR not(isnull("CC_CALMONTH" )))
```

This Projection is left joined with the Purchase information coming from above Aggregations.

Projection **Projection_1** : Purpose is to filter the Contract with full quantity already consumed by Purchase Orders.

```
"CC_OPEN_CO_KG" > 0
```

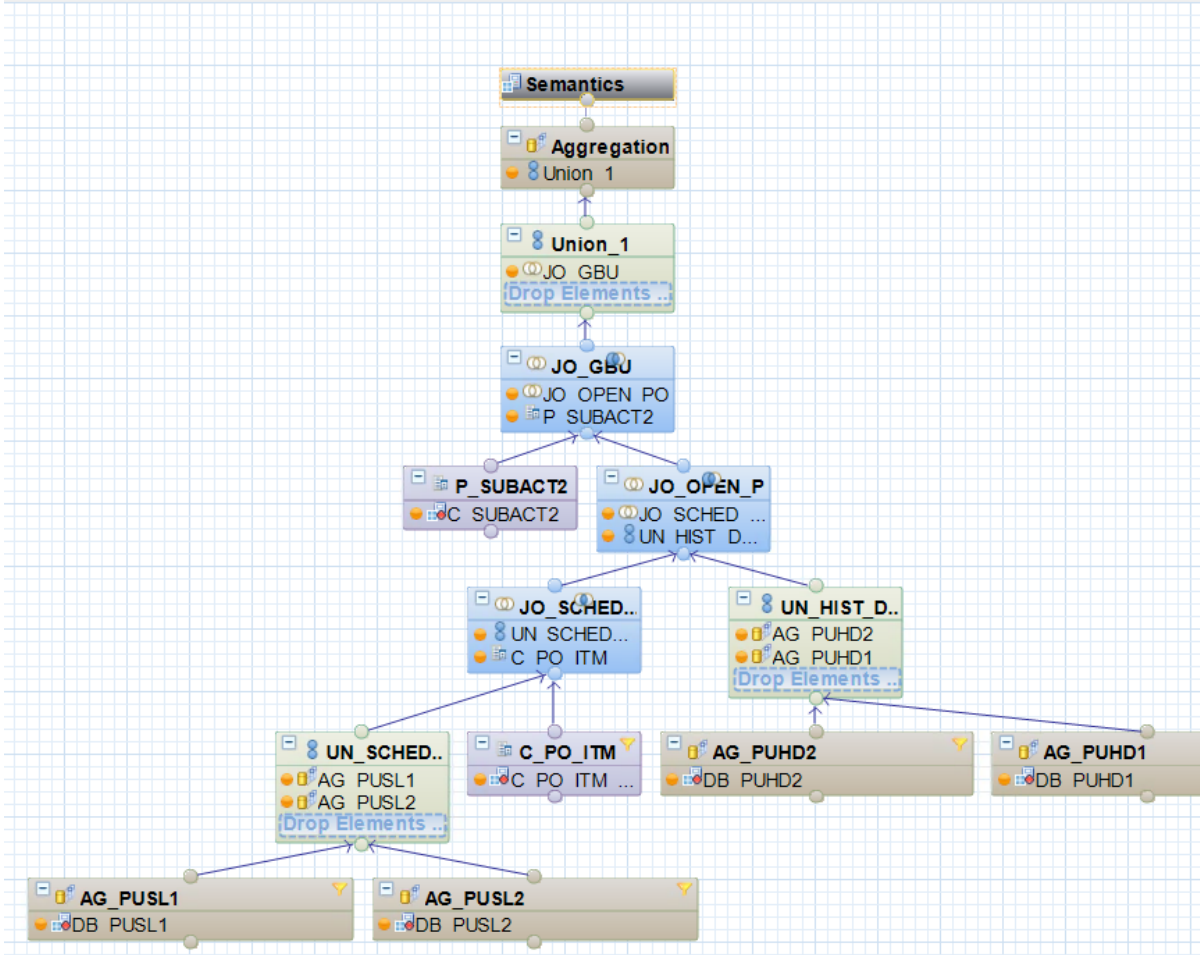
CC_OPEN_CO_KG is computed as below:

```
CC_PO_QTY = "K_QCDEUA"-"K_QCDEUAR" (Order qty - Order qty Returned)
```

```
CC_OPEN_CO_KG = CC_CO_QTY = "TARG_QTY"-"CC_PO_QTY"
```

Detail of CV_FMCO_OPEN_PO :

Scenario



Aggregation **AG_PUSL1** and **AG_PUSL2** : Extraction of Purchase documents from Rhodia source system (DB_PUSL1) and Solvay source system (DB_PUSL2), with the PO quantity and amount to use (CC_PO_QTY / CC_PO_AMNT).

The filter expressions are getting Purchase documents not deleted with a Material code.

("C_MATNR2" !=) AND ("C_LOEKZ" =) AND ("C_LOEKZK" =)

Aggregation **AG_PUHD1** and **AG_PUHD2** : Extraction of Good Receipts from Rhodia source system (DB_PUHD1) and Solvay source system (DB_PUHD2), with the GR quantity and amount to use (CC_PO_QTY / CC_PO_AMNT).

The filter expressions are getting Purchase documents type GR, not deleted with a Material code.

("C_MATNR2" !=) AND ("C_VGABE" =1) AND ("C_LOEKZ" =)

To filter the PO with full quantity already delivered, the expression is part of the main calling CV_FMCO_CS_RAW_MAT :

"CC_OPEN_PO_KG" > 0

CC_OPEN_PO_KG is computed as below:

CC_PO_QTY = "K_QCDEUA"- "K_QCDEUAR" (Order qty - Order qty Returned)

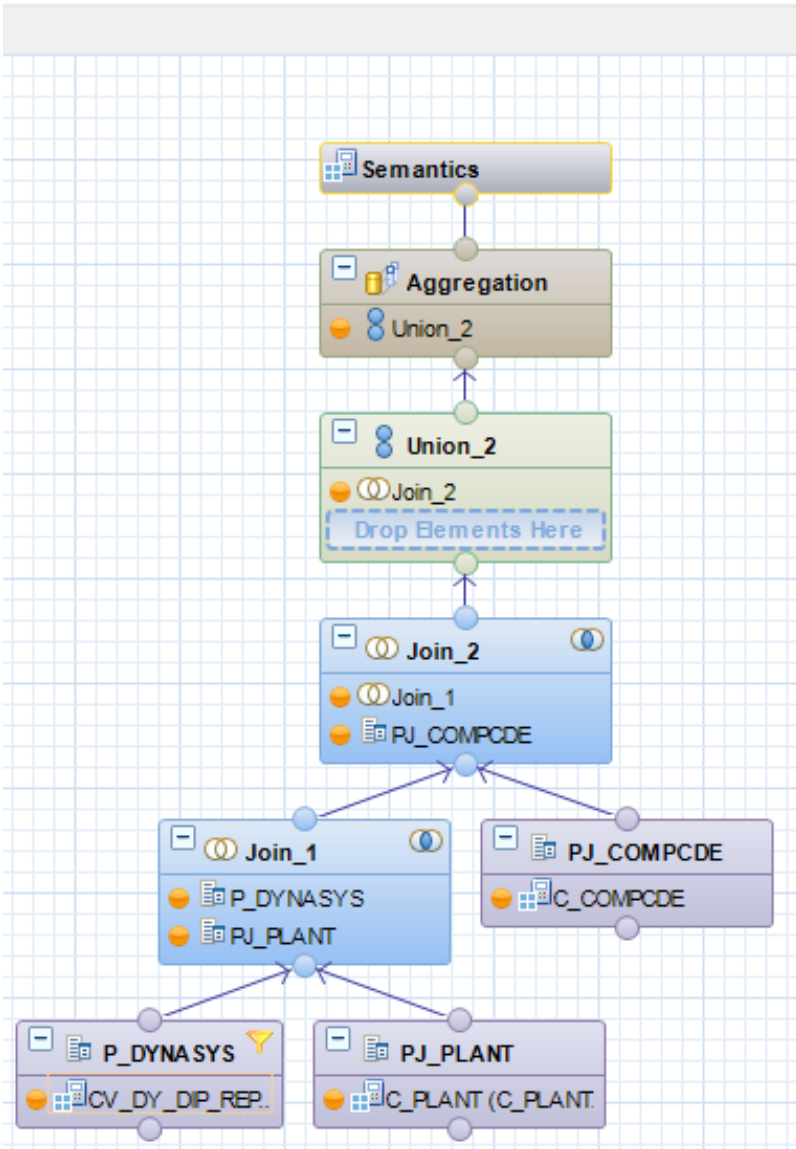
CC_GR_QTY = "K_QEMUA"- "K_QEMUAR" (Good Receipt qty - Good Receipt qty Returned)

CC_OPEN_PO_KG = "CC_PO_QTY"- "CC_GR_QTY"

CC_PO_AMNT = "K_VCDEDD"- "K_VCDEDDR" (Order amount - Order amount Returned)

Detail of CV_FMCO_DYNASYS_PP :

.IA_FMCO.IA_FMCO_COPC::CV_FMCO_DYNASYS_PP



Projection **P_DYNASYS** : Extraction of Forecast lines from DYNASYS Infoprovider

The filter expressions are filtering Forecast (PLANNED_PURCH_MAT) and Inventory (PROJECTED_INVENTORY or ACTUAL_PROJ_INV) lines from Dynasys, with a period from current period.

```
"OCALMONTH" >= "CC_ACT_MONTH"
AND ("C_DATATYP" = "PROJECTED_INVENTORY" OR "C_DATATYP" = "ACTUAL_PROJ_INV"
OR "C_DATATYP" = "PLANNED_PURCH_MAT")
```

Note : Inventory data is not used anymore since 14th December 2022, date from which the Main CV_FMCO_CS_RAW_MAT is using Standard Price from C_MATPNT3 and not Inventory price in Projection P_INVENTORY.

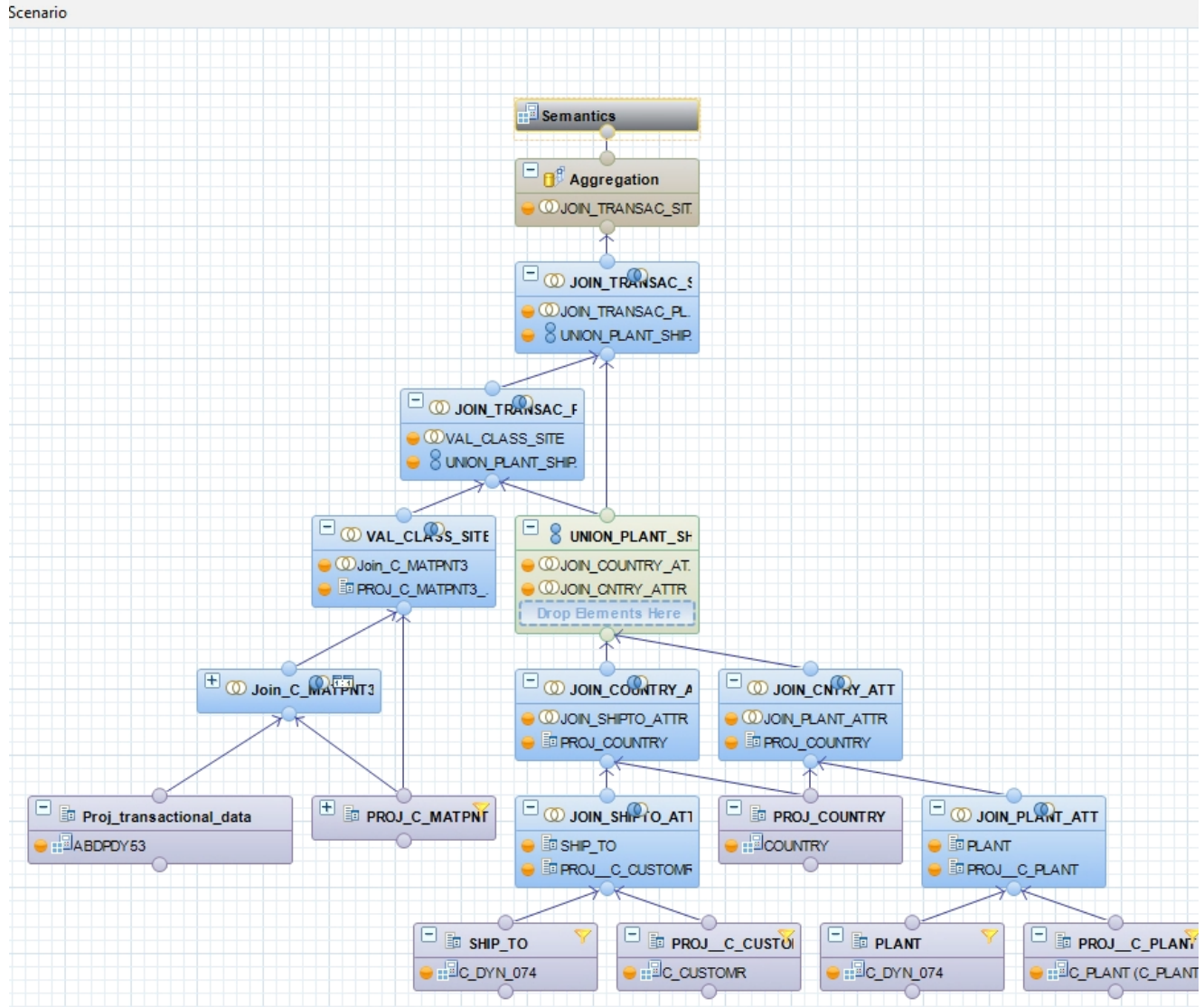
In this CV_FMCO_DYNASYS_PP used to retrieve Forecast (FOR) from DYNASYS, value is always in Euro (EUR).

The join with C_PLANT and C_COMPCODE to retrieve the Company Code currency must not be used in association with the value in EUR.

In the calling CV_FMCO_CS_RAW_MAT, a constant EUR is used for source Forecast (AG_PURCH) at the time of the Union (Union_1).

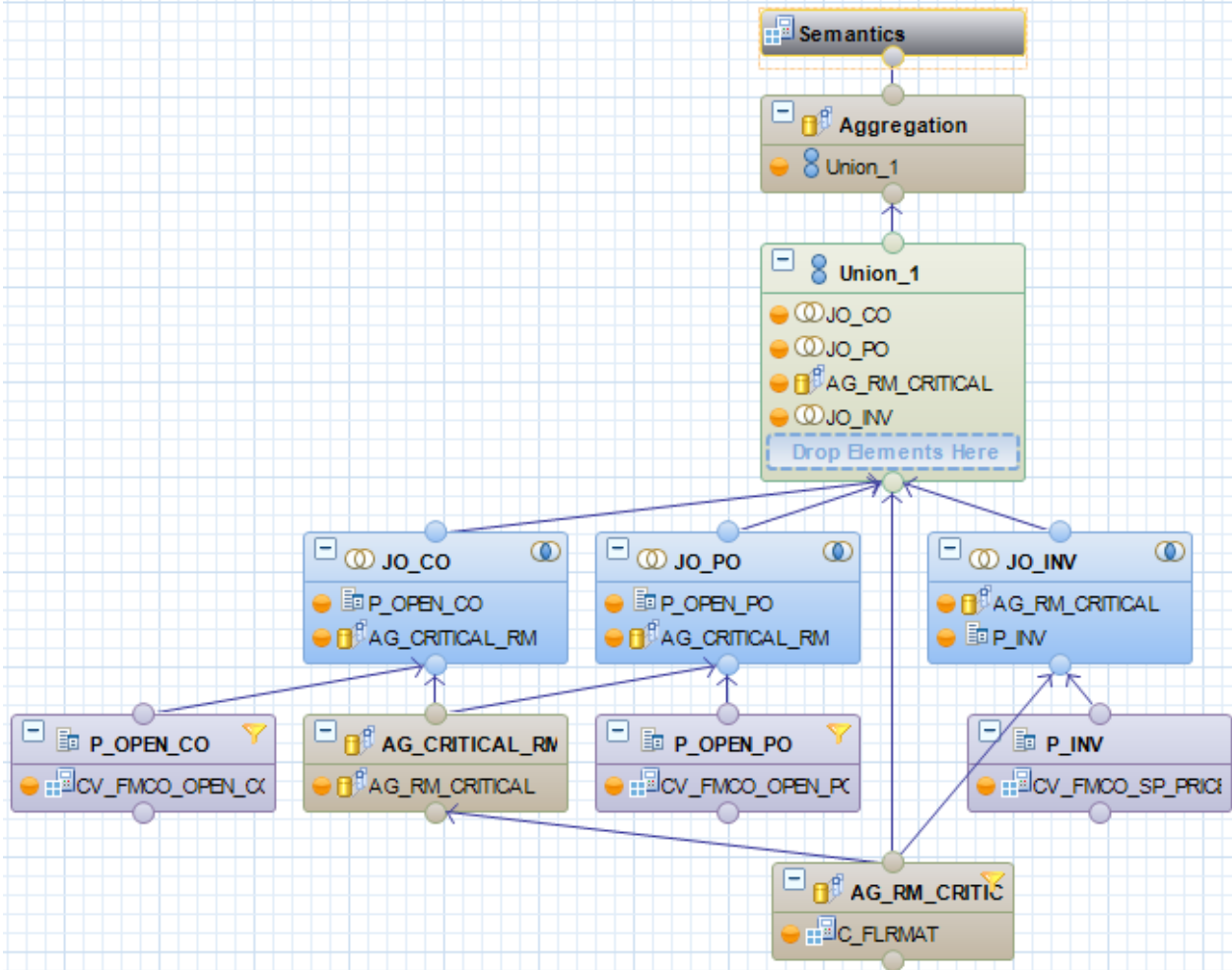
The Calculation View CV_FMCO_DYNASYS_PP is composed of CV_DY_DIP_REPORTING below, which is the DYNASYS View built for DIP Reporting.

Solvay.IA_DPS::CV_DY_DIP_REPORTING WBP@WBP (GRAN7967) [2 Warning\(s\) found.](#)



The Main Calculation View CV_FMCO_CS_RAW_MAT is also composed of CV_FMCO_SP_RAW_MAT for Specialty Polymers GBU (SpP) data.

CV_FMCO_SP_RAW_MAT



Aggregation **AG_RM_CRITIC** : Extract list of Critical Raw Material.

The filter expression is getting SpP data only.

"CPFCTR1_2" = 'SP'

Projection **P_OPEN_CO** : Extract all the Contracts with global quantity. Built on CV_FMCO_OPEN_CO.

The filter expression is getting SpP data only.

"CPFCTR1_2" = 'SP'

Projection **P_OPEN_PO** : Extract all the Purchase Orders with quantity left to deliver. Built on CV_FMCO_OPEN_PO.

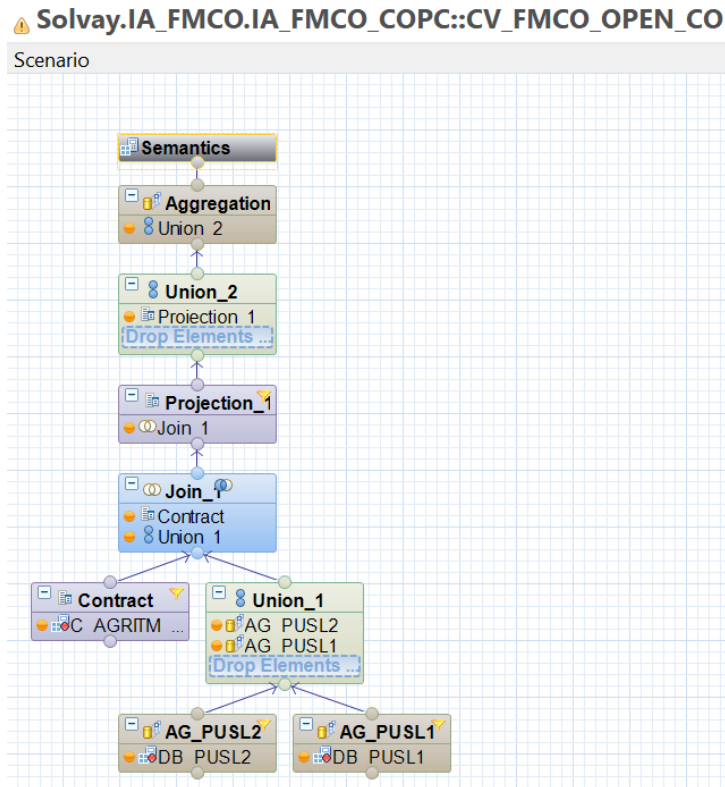
The filter expression is getting SpP data only, and exclude orders without any quantity left to deliver.

("CPFCTR1_2" = 'SP')
and "CC_OPEN_PO">0

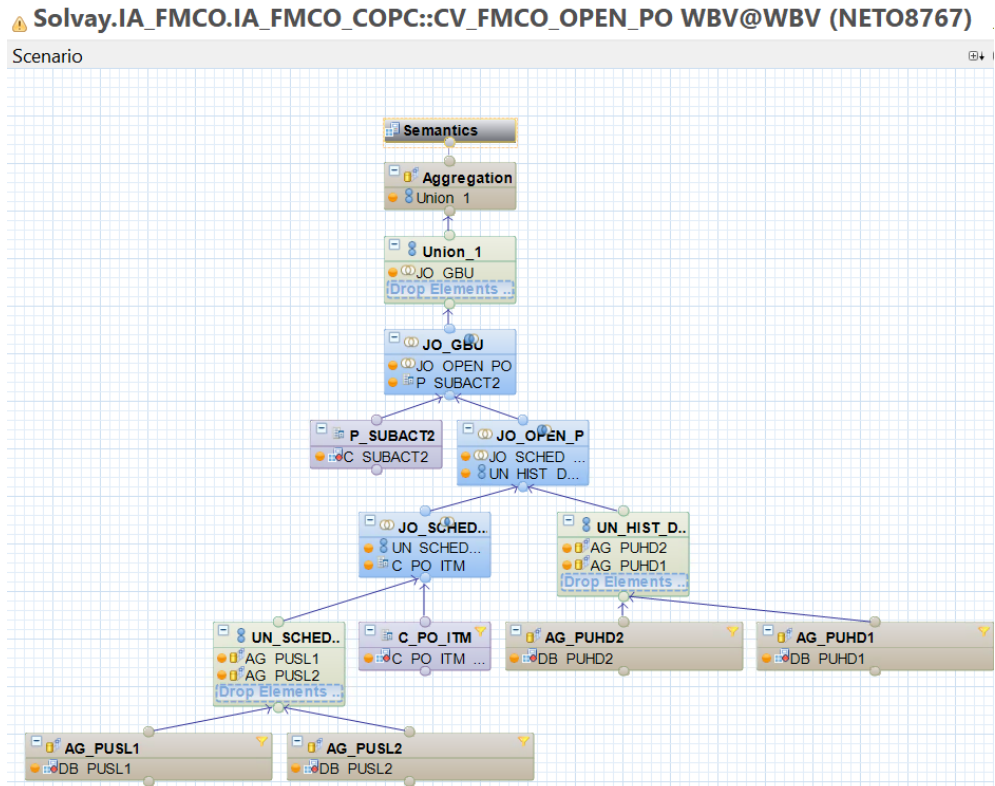
Projection **P_INV** : Extract latest Inventory Price of Material. Built on CV_FMCO_SP_PRICE.

These projections are all Inner joined with the list of Critical Raw Material coming from the Aggregation above.

The Calculation View CV_FMCO_SP_RAW_MAT is composed by:



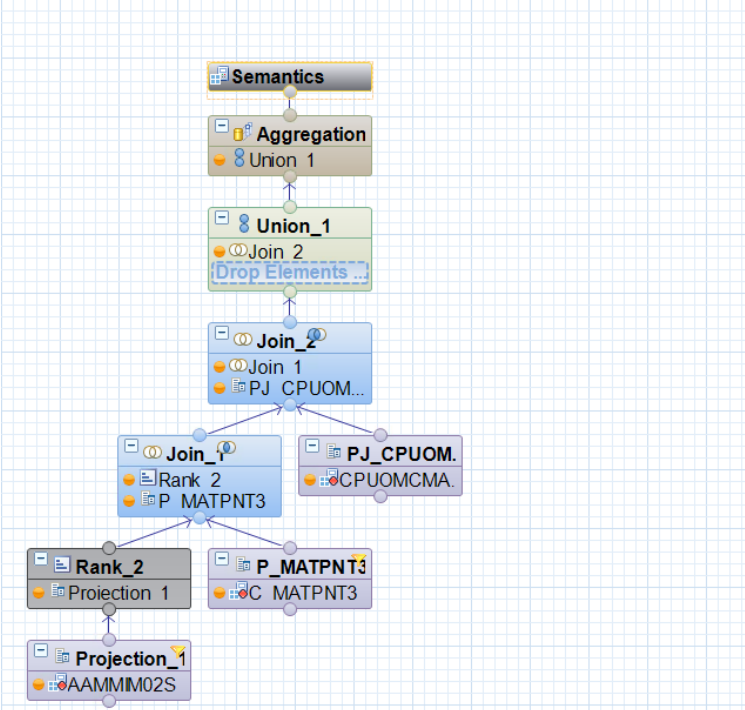
This CV is already detailed in the Novacare part above, in CV_FMCO_CS_RAW_MAT.



This CV is already detailed in the Novacare part above, in CV_FMCO_CS_RAW_MAT.

⚠ Solvay.IA_FMCO.IA_FMCO_COPC::CV_FMCO_SP_PRICE

Scenario



Projection **Projection_1** : Extract Inventory lines for Raw Material, from ADSO AAMMIM02S (Price control (Solvay)).

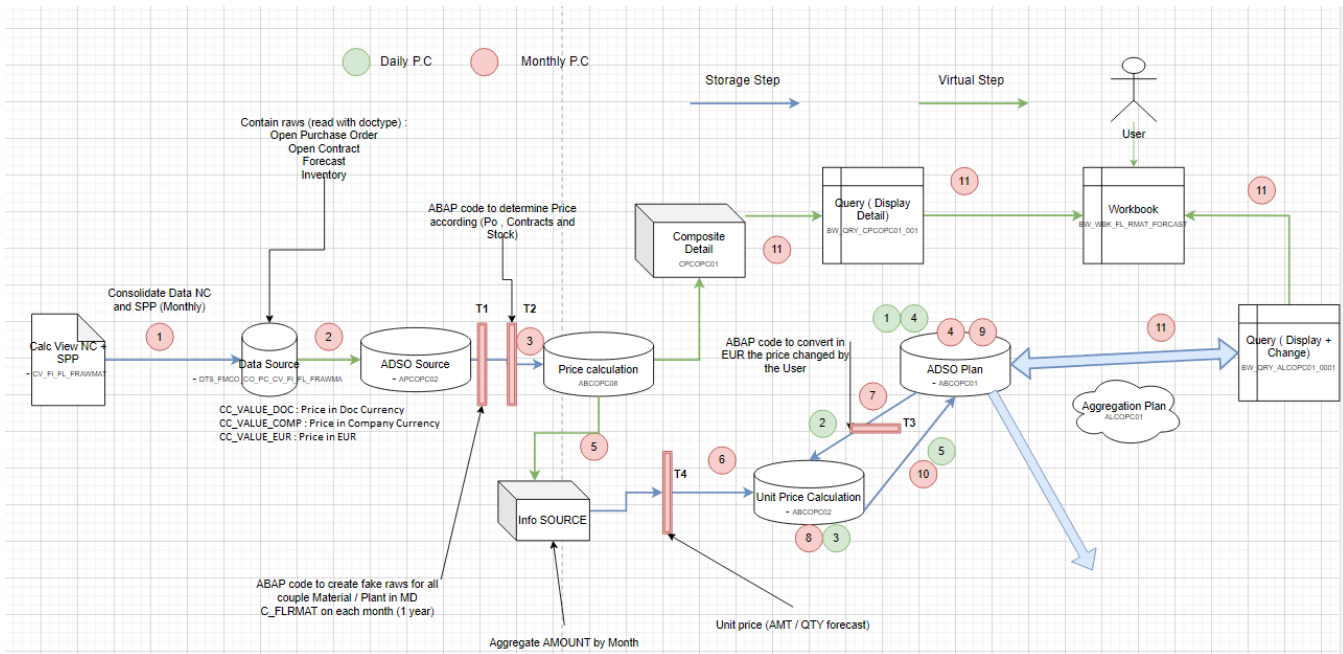
Filter expression is selecting Value Type initial only.

"C_VALTYPE" = ''

Latest Inventory line is kept in the Rank Rank_2 on 0CALDAY.

Further Projections are used in Joins to get Standard Price from C_MATPNT3, and unit conversion ratio from UOMCANT2.

BW Data Flow



BW Logic

From HANA Datasource with all Purchase documents identified for Raw Material Forecast, data is handled in several BW layers to deliver a detailed view of Forecast in one hand, and an overall view in another hand.

The global logic is as follow (see ABAP code comments for detail) :

Bullet 1 : Datasource DTS_FMCO_CO_PC_CV_FI_FL_FRAWMA built on HANA source CV_FMCO_RAW_MAT.

Bullet 2 : Consolidation of data into APCOPC02

Start Routine :

Creation of fake Raw Mat lines on current period, for Raw Mat without Forecast on any of the coming 12 months.

Deletion of all Forecast lines on period above current month + 12.

Bullet 3 : Price calculation of data into ABCOPC08

End Routine :

Creation of internal tables for each type of incoming lines (Forecast FOR, Order ORD, Contract CON, Standard Price INV)

Extrapolation of each Raw Material / Plant combination on all missing periods from current to current + 12 (with Forecast quantity null).

Loop at all Forecast lines (FOR) for each Raw Material / Plant combination, and read corresponding documents (ORD, CON) to determine quantity consumption, and compute each price accordingly.

Price conversion in Buyer currency (CAR3)

Path to the Overall view of data

Bullet 5/6 : Aggregation and distribution of fields into ABCOPC02

For each Raw Material / Plant combination, transposition of quantities and prices in columns, according to each type of source document (ORD, CON, INV, FOR).

End Routine :

Compute Unit Forecast Price for each Raw Material / Plant combination

Force Standard Unit Price if no Forecast quantity on period

Bullet 10 : Adjust structure for Planning layout into ABCOPC01

This is the object with BI Planning functionalities, used as a source of query.

It is encapsulated in Composite Provider CPCOPC11, used in Aggregation Level ALCOPC13 on which the query is built.

This is the source of Manufacturing data flow, started monthly on 7th.

Bullet Z : Retrieve and adjust Business updates into ABCOPC02

Conversion of quantities and prices updated by Business in workbook, according to Buyer information from Critical Raw Material C_FLRMAT.

Path to the Detail view of data

Bullet 11 : Detailed structure of Price calculation ABCOPC08 (Bullet 3) is used as source in Composite Provider CPCOPC01, on which the detail query is built.

Reporting

A global workbook BW_WBK_FL_RMAT_FORCAST is built on 2 queries :

- Overall view query BW_QRY_ALCOPC13_0001
- Detail view query BW_QRY_CPCOPC01_001

See details in Reporting layer.

Dependencies with other applications

There is a dependency from data flows:

InfoObjects: C_COMPCDE, C_PLANT, C_PO_ITM, C_SUBACT2, C_AGRITM and C_FLRMAT, C_GLBFLT, C_MATPNT3.

Infoproviders: DB_PUHD1, DB_PUHD2, DB_PUSL1, DB_PUSL2, ABDPDY53 and AAMMIM02S.

Critical Raw Material source in SAP

Master Data C_FLRMAT is used in the data flow to get critical information for Raw Materials.

Information are extracted from SAP source systems PF1 and WP1.

Transactions and tables used in SAP to handle those data are :

Transaction **ZCRIT**

Table ZFI_ICM_CRITIC for Novecare data.

Transaction **ZCRIT_TS**

Table ZFI_ICM_CRI_TS for Technology Solutions data.

Transaction **ZCRIT_PA**

Table ZFI_ICM_CRI_PA for Aroma data.

Currency Conversion in BW

BW Raw Material data flows are using function module 'CONVERT_TO_LOCAL_CURRENCY' to convert currencies.

The exchange rate type used is read from Master Data **C_GLBFLT** (Global Filter) thanks to parameters below :

C_STREAM = 'FMCO_COPC'

C_RULE = 'EXCHGE_RT'

C_GLBFLT = '000'

C_SIGN = 'I'

C_OPTION = 'EQ'

C_LOW = 'CAR3'

C_ACTIVE = 'Y'

The Exchange Rate Type value was 'M' until October 2022.

Propagation Layer

Data Loading from Datasource DTS_FMCO_CO_PC_CV_FI_FL_FRAWMA built on CV_FMCO_CS_RAW_MAT.

Target Infoprovder APCOPC02

FL Raw Material Consolidation	APCOPC02
RSDS DTS_FMCO_CO_PC_CV_FI_FL_FRAWMAWBP	02MNDTK16K79B0SBJ0Z4ORGYPOH10IVF
FL Raw Material Consolidation	DTS_FMCO_CO_PC_CV_FI_FL_FRAWMA
Data Transfer Processes	APCOPC02

Transformation Logic

If a monthly forecast price is unconfirmed by Business, it is extrapolated from the first previous confirmed price at the time of pushing this Forecast into Manufacturing data flow.

This process takes place in the Transformation ABCOPC01 on itself.

Loading frequency

Daily

Business Layer

Data Loading:

Infoprovders ABCOPC01, ABCOPC02 and ABCOPC08:

FL - Raw Mat - Planification	ABCOPC01
ADSO ABCOPC02 -> ADSO ABCOPC01	0338Q8NSWR1OQQOARCKV4MD62W1PMXL
FL - Raw Mat - Unit Price Calculation	ABCOPC02
ADSO ABCOPC01 -> ADSO ABCOPC02	0SG46OJG8EGWDD8YQALN42TA18HCMCNN
ADSO ABCOPC04 -> ADSO ABCOPC02	00LNWHHNXXNZP5QP8MOMQ9KC6358400V
TRCS IFS_COPC_01 -> ADSO ABCOPC02	0AWFVKB2MCLLSV1TLELN09K5BVJPET00
Infosource FL - Raw Mat - Aggregation	IFS_COPC_01
ADSO ABCOPC08 -> TRCS IFS_COPC_01	07TVNEFZXH8ZJMUQ970CN7V4UEMIFEYE
FL - Raw Mat - Price Calculation	ABCOPC08
ADSO APCOPC02 -> ADSO ABCOPC08	0GWM5H9BQ26F35W27GWBG1L00WOE8DNY
FL Raw Material Consolidation	APCOPC02
Data Transfer Processes	ABCOPC08
Data Transfer Processes	ABCOPC02
RSDS DTS_ABCOPC01_PC_FILE -> ADSO ABCOPC01	0N4WORUSYT6TTF6Z17QTMGN8TRX8BJYQ
Data Transfer Processes	ABCOPC01

Loading frequency

Daily

Reporting

Two queries are available in the Workbook : the Query Overall and the Query Detail.

The first one allows to modify the value of the Forecasted Price and automatically filters the second one to a more detailed view.

- The Query Detail is the detailed view of the Raw Material per month with a Forecast quantity for a minimum of one year. All documents (Purchase Order, Contract, and Inventory) are available for each month as well as the forecast price calculated for the forecast quantity.

- The Query Overall is the global view of the Raw Material aggregated by month without the detail by documents. The Forecast price is calculated from the detail and aggregated by month and Raw Material. The Quantity Assigned for each document is available in columns. This is the view where Business must confirm the proposed prices.

Only Raw Materials flagged as Critical are displayed in the queries.

The field "Critical flag" (C_FLRMATF) is used as global filter.

Available values for the field are :

- " " : Not critical
- "X" : Critical
- "B" : Critical No BOM
- "I" : Critical Internal
- "E" : Critical External

Reporting Layer

Aggregation Level

ALCOPC13

FL - Raw Mat - Aggregation Plan	ALCOPC13
FL - Raw Mat - Planification	CPCOPC11
FL - Raw Mat - Planification	ABCOPC01

Reporting (BW Query)

Description	FL - Raw Mat - Query Input ready
Technical Name	BW_QRY_ALCOPC13_0001
Application	COPC
Info-provider	CPCOPC11
Usage type	
Expected users	

Global properties

General: BW_QRY_ALCOPC13_0001 - FL - Raw Mat - Query Input Ready

General	
Technical Name:	BW_QRY_ALCOPC13_0001
Description:	FL - Raw Mat - Query Input Ready
InfoProvider:	ALCOPC13
Key Date:	<default>
Output Settings	
<input checked="" type="checkbox"/> Adjust Formatting after Refreshing	
<input type="checkbox"/> Suppress Repeated Key Values	
<input type="checkbox"/> Show Scaling for Measures	
Sign Format:	Before, for example -1
Zero Format:	With Currency/Unit
Custom Zero Format:	
Remote Access	
<input type="checkbox"/> By Easy Query	
<input type="checkbox"/> By OLE DB for OLAP	
<input type="checkbox"/> By OData	
<input type="checkbox"/> External SAP HANA View	
Variables Order	
Extended	
Result Location	
Rows:	<input type="radio"/> Above <input checked="" type="radio"/> Below
Columns:	<input type="radio"/> Left <input checked="" type="radio"/> Right
Zero Suppression	
Applies to:	<input type="checkbox"/> Rows <input type="checkbox"/> Columns
Condition:	Only result value must be zero
Universal Display Hierarchy	
<input type="checkbox"/> Active on rows	Expand to Level: 0
<input type="checkbox"/> Active on columns	Expand to Level: 0
Planning	

Variables

Definitions

Variable Name	Info-object	Selection Type	Required	Description /Explanation
CALMONT2	0CALMONTH	Interval	Yes	Calendar Year/Month
V_C_PLANT_0012	C_PLANT	Authorization with Input	No	Plant
V_CPFCTR1_2_0006	CPFCTR1_2	Authorization with Input	No	Global business Unit
V_C_MATNR2_0001	C_MATNR2	Select Option	No	Raw Material
V_FLRMATF_0001	C_FLRMATF	Single Value	No	Critical Raw Material Only. 'X', or 'B', or 'I', or 'E'
V_C_BNAME_0001	C_BNAME	Select Option	No	Buyer Name
V_C_AUTHMA_0001	C_PLANT__C_AUTH MA	Authorization	No	Authorization Scope

Variable Sequence

Filters

Filter: Fixed Values

- [0LOGSYS] Source System
- ▼ [0CALMONTH] Month
 - [CALMONT2] Calendar Month/Year (Interval, Mandatory)
- ▼ [C_FLRMATF] FL Raw Material Critical Flag
 - [V_FLRMATF_0002] Only Critical Raw Material (X, I, E, B)
- ▼ [C_MATNR2] Material
 - [V_C_MATNR2_0001] Material (Select option, Optional)
- ▼ [C_PLANT] Plant
 - [V_C_PLANT_0012] Plant (Authorization with input select option)
- ▼ [CPFCTR1_2] BFC Global Business Unit
 - [V_CPFCTR1_2_0006] GBU (Select Optional, Optional, Auth)
- ▼ [C_BNAME] Buyer
 - [V_C_BNAME_0001] Buyer
- ▼ [C_PLANT_C_AUTHMA] Authorization Scope
 - [V_C_AUTHMA_0001] Authorization Scope (Authorization, No input)
- ▼ [0INFOPROV] InfoProvider
 - [ABCOPC01] FL - Raw Mat - Planification

Key figures

Columns

- ▼ Key Figures
 - [0QUANTITY] Material Inventory Qty
 - [K_AMT_INV] Material Inventory Standard Unit Price
 - [K_QTY_PO] Open Purchase Order Qty
 - [K_QTY_CON] Open Contract Qty
 - [K_QTY_MFC] Forecast Material Purchase Qty
 - [K_SUBV] Previous Confirmed Material Purchase Unit Price
 - [K_AMT_PRO] Proposed Material Purchase Unit Price
 - [0AMOUNT] Confirmed Material Purchase Unit Price
 - [K_AMT_TMP] Confirmed Material Purchase Price (Buffer)
 - [K_AMT_EUR] Confirmed Material Purchase Unit Price (EUR)
 - [0CALMONTH] Calendar Year/Month

Characteristics

Rows

- [0LOGSYS] Source System
- [C_MATNR2] Material
- [C_PLANT] Plant
- [CPFCTR1_2] BFC Global Business Unit
- [C_FLRMATF] FL Raw Material Critical Flag
- [C_BNAME] Buyer
- [0CURRENCY] RM Unit Price Currency
- [0UNIT] Material Unit of measure

Cells

N/A

Conditions

N/A

Exceptions

N/A

Virtual Layer

Composite Providers

CPCOPC01

Raw Material Forecast Detail	CPCOPC01
FL - Raw Mat - Price Calculation	ABCOPC08

Reporting (BW Query)

Description	FL ICM - Raw Material Forecast Detail
Technical Name	BW_QRY_CPCOPC01_001
Application	COPC
Info-provider	CPCOPC01
Usage type	
Expected users	

Global properties

General: BW_QRY_CPCOPC01_001 - FL ICM Raw Material Forecast Detail

General	
Technical Name:	BW_QRY_CPCOPC01_001
Description:	FL ICM Raw Material Forecast Detail
InfoProvider:	CPCOPC01
Key Date:	<default>
Output Settings	
<input checked="" type="checkbox"/> Adjust Formatting after Refreshing	
<input type="checkbox"/> Suppress Repeated Key Values	
<input type="checkbox"/> Show Scaling for Measures	
Sign Format:	Before, for example -1
Zero Format:	With Currency/Unit
Custom Zero Format:	
Remote Access	
<input type="checkbox"/> By Easy Query	
<input checked="" type="checkbox"/> By OLE DB for OLAP	
<input type="checkbox"/> By OData	
<input type="checkbox"/> External SAP HANA View	
Result Location	
Rows:	<input type="radio"/> Above <input checked="" type="radio"/> Below
Columns:	<input type="radio"/> Left <input checked="" type="radio"/> Right
Zero Suppression	
Applies to:	<input type="checkbox"/> Rows <input type="checkbox"/> Columns
Condition:	Only result value must
Universal Display Hierarchy	
<input type="checkbox"/> Active on rows	Expand to Level: 0
<input type="checkbox"/> Active on columns	Expand to Level: 0

Variables

Definitions

Variable Name	Info-object	Selection Type	Required	Description /Explanation
CALMONTH2	0CALMONTH	Interval	Yes	Calendar Year/Month
V_C_PLANT_0012	C_PLANT	Authorization with Input	No	Plant
V_CPFCTR1_2_0006	CPFCTR1_2	Authorization with Input	No	Global business Unit
V_C_MATNR2_0001	C_MATNR2	Select Option	No	Raw Material
V_FLRMATF_0002	C_FLRMATF	Select Option	No	Critical Raw Material Only. 'X', or 'B', or 'I', or 'E'
V_C_AUTHMA_0001	C_AUTHMA	Authorization	No	Authorization Scope

Variable Sequence

Filters

Filter: Fixed Values

- ▲ [0CALDAY] Date of shedule line
- ▲ [0LOGSYS] Source System
- ▼ [0CALMONTH] Calendar Year/Month
 - ▲ [CALMONT2] Calendar Month/Year (Interval, Mandatory)
- ▼ [C_FLRMATF] FL Raw Material Critical Flag
 - ▲ [V_FLRMATF_0002] Only Critical Raw Material (X, I, E, B)
- ▼ [C_PLANT] Plant
 - ▲ [V_C_PLANT_0012] Plant (Authorization with input select option)
- ▼ [C_MATNR2] Material
 - ▲ [V_C_MATNR2_0001] Material (Select option, Optional)
- ▼ [CPFCTR1_2] BFC Global Business Unit
 - ▲ [V_CPFCTR1_2_0006] GBU (Select Optional, Optional, Auth)
- ▼ [C_PLANT_C_AUTHMA] Authorization Scope
 - ▲ [V_C_AUTHMA_0001] Authorization Scope (Authorization, No input)

Key figures

Columns

- ▲ [0CALMONTH] Calendar Year/Month
- ▼ [Key Figures]
 - ▲ [K_QTY_FOR] Forecast Quantity
 - ▲ [K_QTY_MFC] Document Quantity
 - ▲ [0QUANTITY] Assigned Document Quantity
 - ▲ [0PRICE_VAL] Document Unit Price
 - ▲ [K_AMTM] Document Unit Price in Buyer Currency
 - ▲ [K_AMT_PRO] Assigned Document Amount

Characteristics

Rows	
[0LOGSYS] Source System	
[C_MATNR2] Material	
[C_PLANT] Plant	
[0COUNTRY] Plant Country	
[CPFCTR1_2] BFC Global Business Unit	
[4CPCOPC01-DOC_SORT] Layout sort	
[4CPCOPC01-C_DATE] Date of schedule line	
[0DOC_NUM] Document Number	
[C_PO_ITM] Document Item	
[C_VENDID] Vendor	
[C_VENDID__C_VENDPRS] PRS Vendor	
[4CPCOPC01-DOC_TYPE] Document Category	

Free	
[0UNIT] Unit of measure	
[U_DYN_001] Forecast Unit	
[0CURRENCY] Currency key	
[0LOC_CURRCY] Local currency	

Cells

N/A

Conditions

N/A

Exceptions

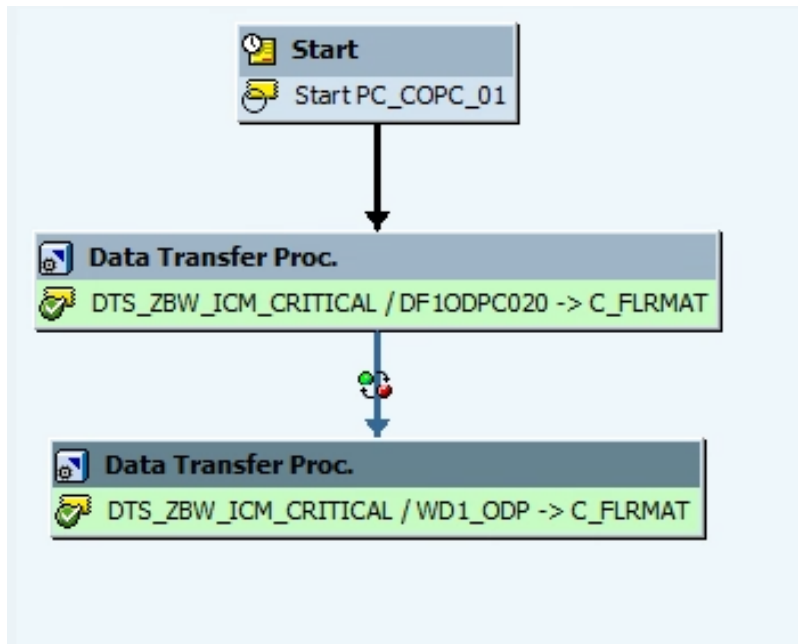
N/A

Process Chains

PC_COPC_01 COPC: MD - D - RMat Planning (Daily)

PC_COPC_01 COPC: MD - D - RMat Planning (Daily)

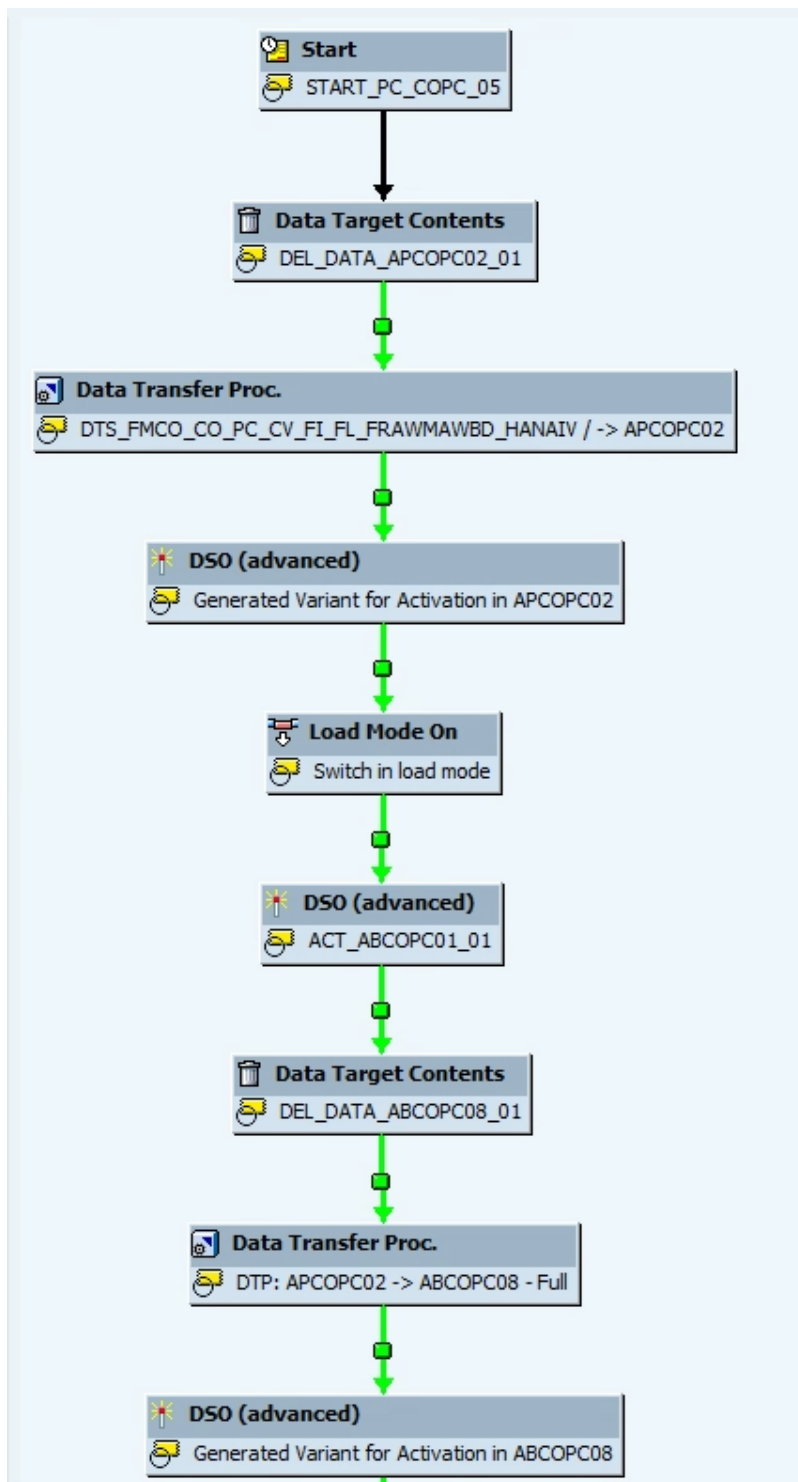
Loading of Master Data Critical Flag from WP1 and PF1 Datasources.

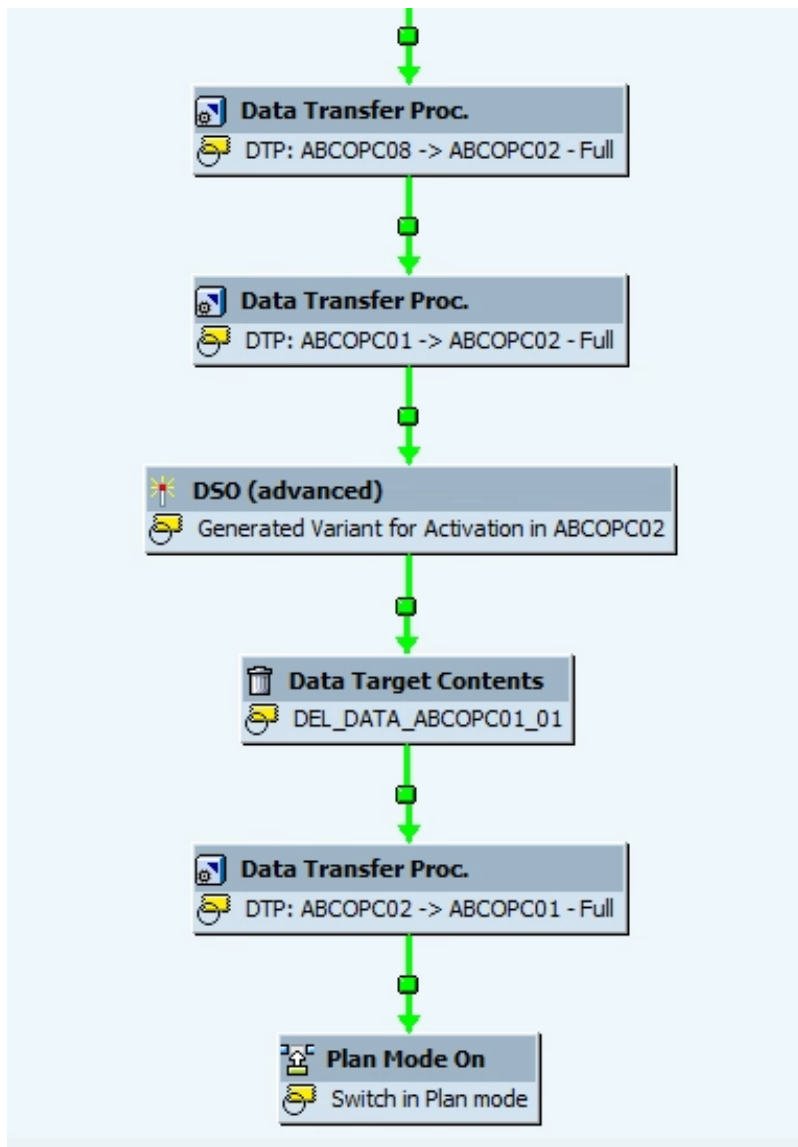


PC_COPC_05 COPC: TD - D - RMat Panning (Monthly)

PC_COPC_05 COPC: TD - D - RMat Panning (Monthly)

Loading of Transactional Forecast Price from Contract, Purchase Order, Inventory, and merge with already confirmed Forecast prices from Workbook.

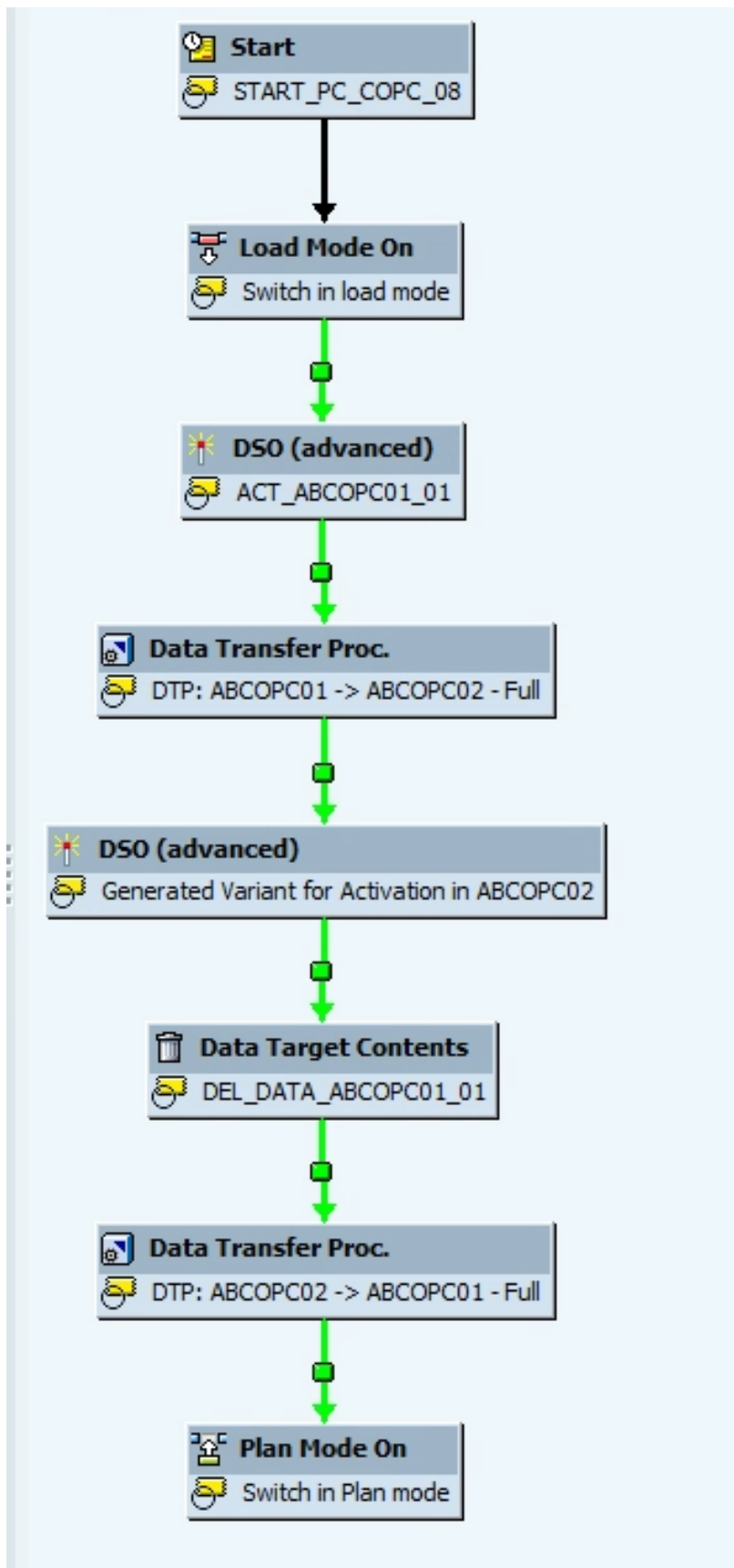




PC_COPC_08 COPC: TD - D - RMAT Planning (Daily)

PC_COPC_08 COPC: TD - D - RMAT Planning (Daily)

Loop logic to validate confirmed prices from Workbook (Currency conversion in EUR).



PC_COPC_12 COPC: TD - M CD7- RMat Planning (CD7)

PC_COPC_12 COPC: TD - M CD7- RMat Planning (CD7)

Extrapolation logic of Forecast prices across months.

This Process Chain is called by main Manufacturing Process Chain PC_COPC_10.

