BW OTC - SPM /!\ Obsolete /!\

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The new wiki link for this data flow is here:

Technical Documentation - Sustainable portfolio management (SPM)

Please update the doc there and no longer here.

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General presentation

Objective of the application

SPM stands for **"Sustainability Portfolio Management".** It's a Solvay proprietary approach to assess business sustainability risks and opportunities that runs on PF7.

The objective of **SPM reporting in BW** is to provide a "Sustainability view" (Market Alignment, Operations Vulnerability) for the sales of the group.

Sales are extracted from P&L in WBP and then enhanced with an SPM dimension, through a sequence of steps (lookup in mapping tables).

SPM Master Data (SPM Product, SPM Application) is loaded from PF7.

Final report is in QlikView dashboards.

List of contacts

- Functional Owner: **Jean-Francois Goupillier** (previously **Marc Piret)**
- IS Reporting Leader: Diogo Paiva (IS Supply Chain M&S Data)
- BW Developer: Laressa Moretti (SBS IS)

Usage information

History

2017 - First development covering most of the GBUs (pilot: Aroma and Special Chem)

link to the project folder: https://drive.google.com/drive/folders/0BxkySrtHryoBejV1VG5CbmNwM3c

2018 - Extension for GBU Specialty Polymers and Composite Materials

link to the project folder: https://drive.google.com/drive/folders/18bJbaF-EfKSDfYl5X1uWe25xiwa99ClU

June/2021 - Project SPM Improvements (will be detailed hereafter)

User documentation:

https://docs.google.com/presentation/d/1CwoaT-wgde7CVazHWES1HsKtRuyxxK8w95ir1SG3zFo

Roles & Access

Roles and access

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

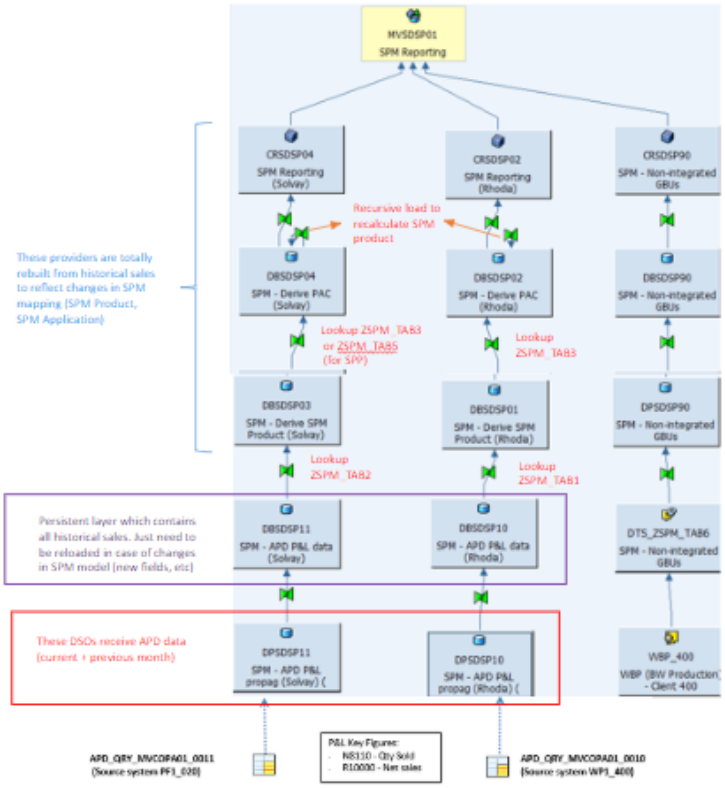
Role Code	Role Description	Explanation
ZBI_RCS_SPM_A01	Sustainable Portfolio Management - End User Role	Role for the application
ZR_RCS_CA_M58	SPM - Sustainable Portfolio Management	Role menu for the application

Authorization objects

List of authorization objects mandatory for the application.

Authorization object	Explanation
CPFCTR1_2	GBU

Dataflow overview



The InfoArea where SPM is located is **IA_SD_SPM.**

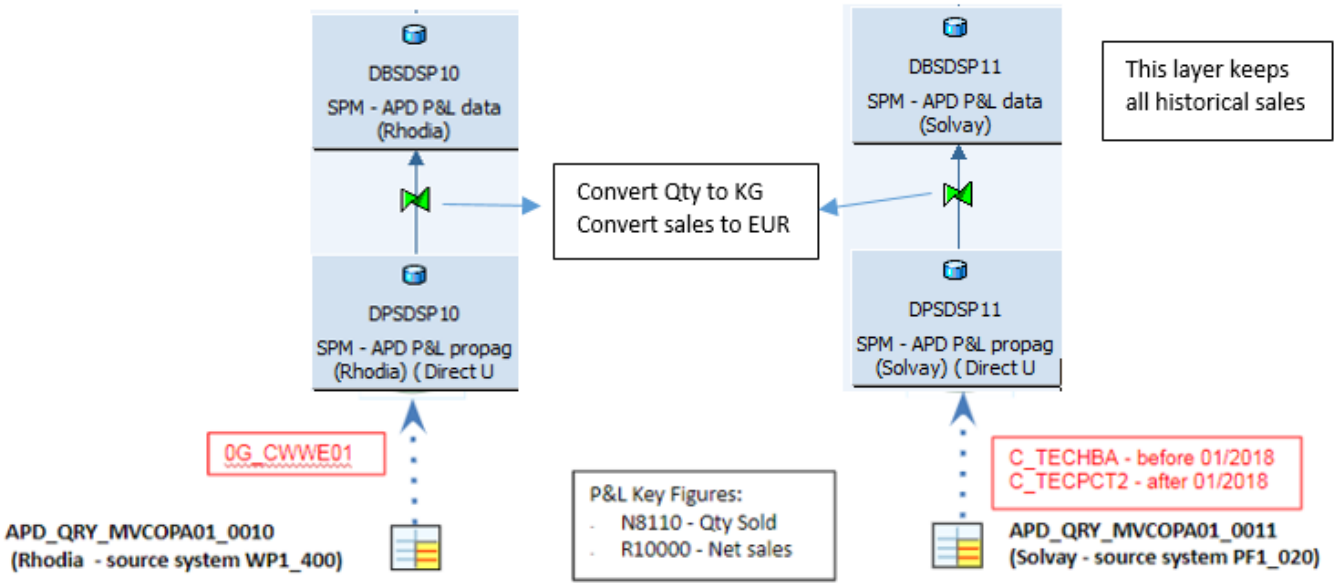
There is one MultiProvider named **MVSDSP01.**

SPM - Sustainable Portfolio Management	IA_SD_SPM
SPM - Master Data Layer	IA_SD_SPM_MD
SPM - Propagation Layer	IA_SD_SPM_PROP
SPM - Business Transformation Layer	IA_SD_SPM_BUSINESS
SPM - Reporting Layer	IA_SD_SPM_REPORTING
SPM - Virtual Layer	IA_SD_SPM_VIRTUAL
SPM Reporting	MVSDSP01
SPM - Non-integrated GBUs	CRSDSP90
SPM Reporting (Rhodia)	CRSDSP02
SPM Reporting (Solvay)	CRSDSP04

Functional and Technical rules on Workbench + Reporting Rules & Explanations

Acquisition of data

Sales data is loaded from P&L using **APDs.**



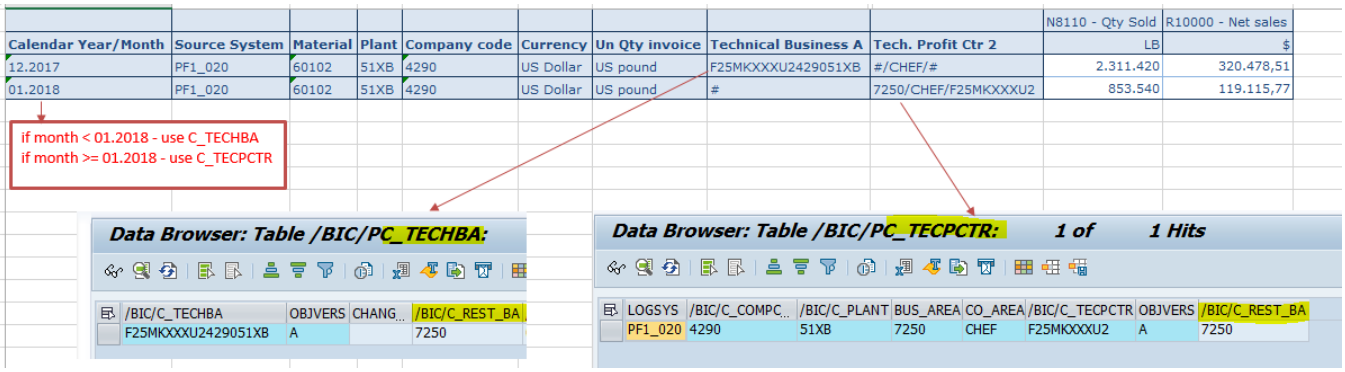
The APDs load **current + previous month** into Direct Update DSOs, then it goes to the next level DSOs, which keep all historical sales (allowing a complete recalculation of SPM data every day).

The Sub-Activity field (0G_CWWE01) is very important to define the GBU and Group of Activities.

From Rhodia query, it gets directly field C_TECMAT-0G_CWWE01 (normally IECRAxxx)

From Solvay query, (due to PQ1 decomission and SpS projects), it gets from different fields depending on the month being loaded. It takes C_TECHBA (old object from PQ1) if month < 01/2018 (kept for reloading purposes) and from C_TECPCT2 if month >= 01/2018. In any case, it takes the attribute C_REST_BA (Restated BA) and move to 0G_CWWE01 (single object in the query for both legacies).

Example:



List of APDs:

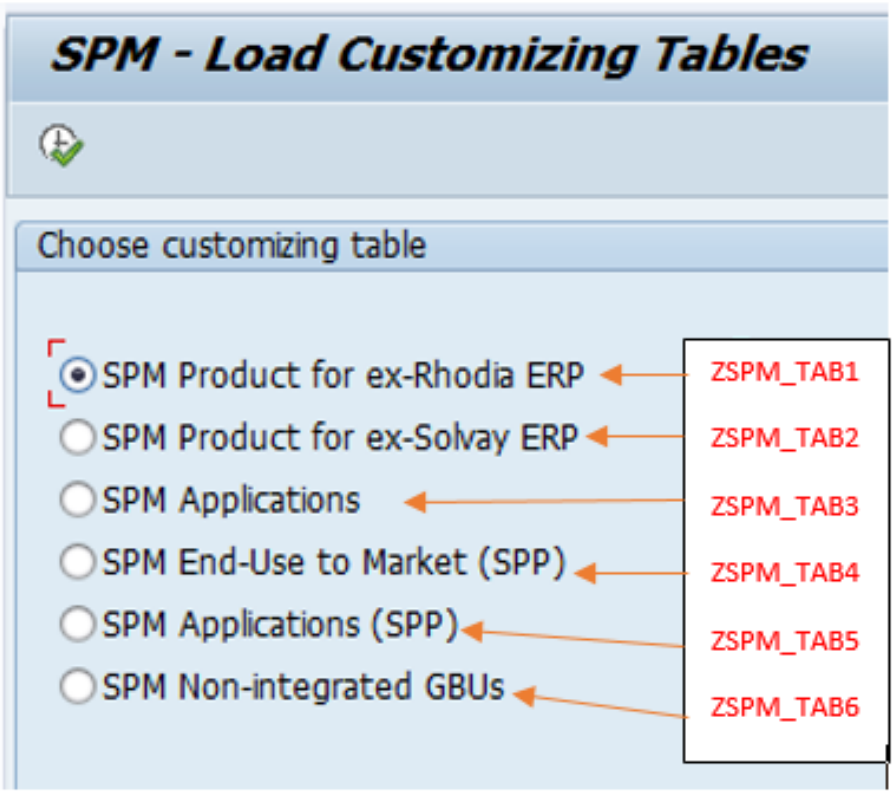
APD		Source (Query)	(Target) DSO
APD_PL_0010	SPM - APD P&L (Rhodia) - curr + prev month	**APD_QRY_MVCOPA01_0010**	DPSDSP10
APD_PL_0011	SPM - APD P&L (Solvay) - curr + prev month	**APD_QRY_MVCOPA01_0011**	DPSDSP11
APD_PL_0020	SPM - APD P&L (Rhodia) - any period	**APD_QRY_MVCOPA01_0020**	DPSDSP10
APD_PL_0021	SPM - APD P&L (Solvay) - any period	**APD_QRY_MVCOPA01_0021**	DPSDSP11

(The last 2 APDs are not scheduled on a regular basis. They were created for reloading purpose, allowing to inform the period to be loaded in the query variant).

Transformation of data (Derivation of SPM characteristics)

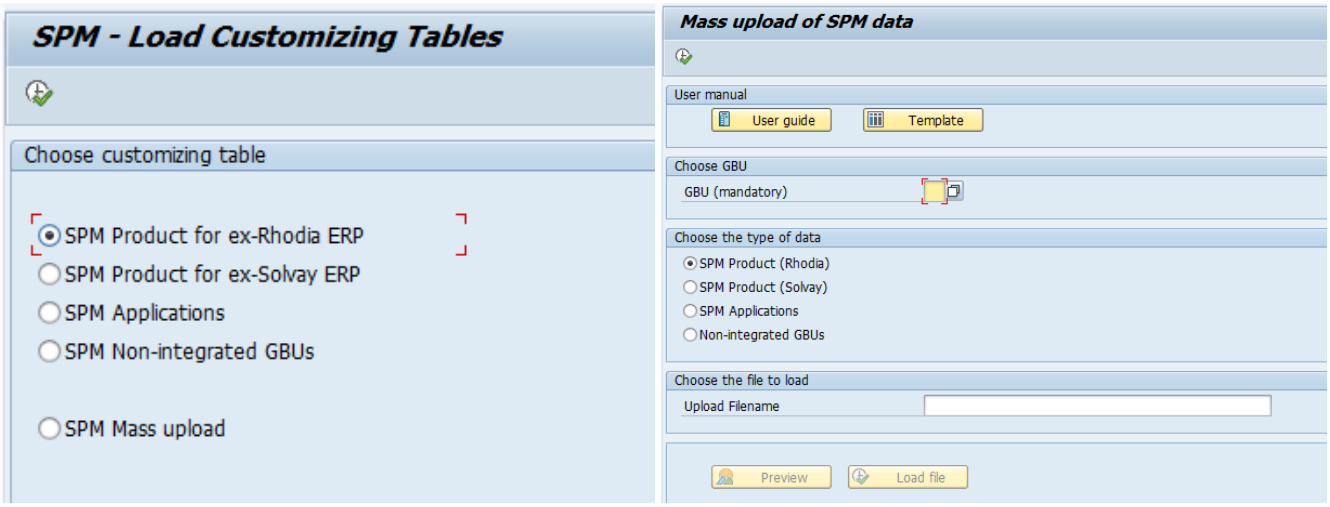
Some mapping tables were created in WBP with maintenance views (restricted to very few users).

The access is done via transaction **ZSPM** in WBP.



Update on June/2021

- **Tables ZSPM_TAB4 and ZSPM_TAB5 became obsolete and were removed from this menu**
- **Authority check based on GBU was implemented to display/edit data**
- **New transaction for mass upload was created**



There are basically 3 steps:

1) Derive SPM product

For **Rhodia** Legacy - based on GBU / Group of Activities / Sub-Activity / **Product Line 2 / Product Line 0 / Commercial Product**

For **Solvay** Legacy - based on GBU / Group of Activities / Sub-Activity / **PIF hierarchy / Product hierarchy / Material Group**

Example:

GBU	Group of Activity	Sub Activity	RCS : Line 2 PF1 : PIF Hierarchy	RCS : Line 0 PF1 : Mat Product Hierarchy	RCS : Coml Product PF1 : Mat Group	SPM Product Code
Aroma Performance	B.U. Diphenol	Inhibitors Solutions	PMP	PMP MOLTEN	*	764

How it's stored in mapping table

Maint.view ZSPM_V1

SPM Product (Rhodia)

BFC...	GBU name	BFC BU	BU name	Sub-activi	Sub-activ name	Line 02	Line 02 name	Line 00	Line 00 name	P	P	SPM Product	SPM Product name
PA	AROMA PERFORMA...											437	Z_Other (Aroma Perfo
PA	AROMA PERFORMA...	PADIP	B.U. DIPHENOL	IECRA01045	INHIBITORS SOLUTIONS							437	Z_Other (Aroma Perfo
PA	AROMA PERFORMA...	PADIP	B.U. DIPHENOL	IECRA01045	INHIBITORS SOLUTIONS	LIP0201198	TBC					499	TBC
PA	AROMA PERFORMA...	PADIP	B.U. DIPHENOL	IECRA01045	INHIBITORS SOLUTIONS	LIP0202114	HYDROQUINONE					498	Hydroquinone
PA	AROMA PERFORMA...	PADIP	B.U. DIPHENOL	IECRA01045	INHIBITORS SOLUTIONS	LIP0202954	PMP					500	PMP
PA	AROMA PERFORMA...	PADIP	B.U. DIPHENOL	IECRA01045	INHIBITORS SOLUTIONS	LIP0202954	PMP	LIP0020367	PMP MOLTEN			764	PMP Molten

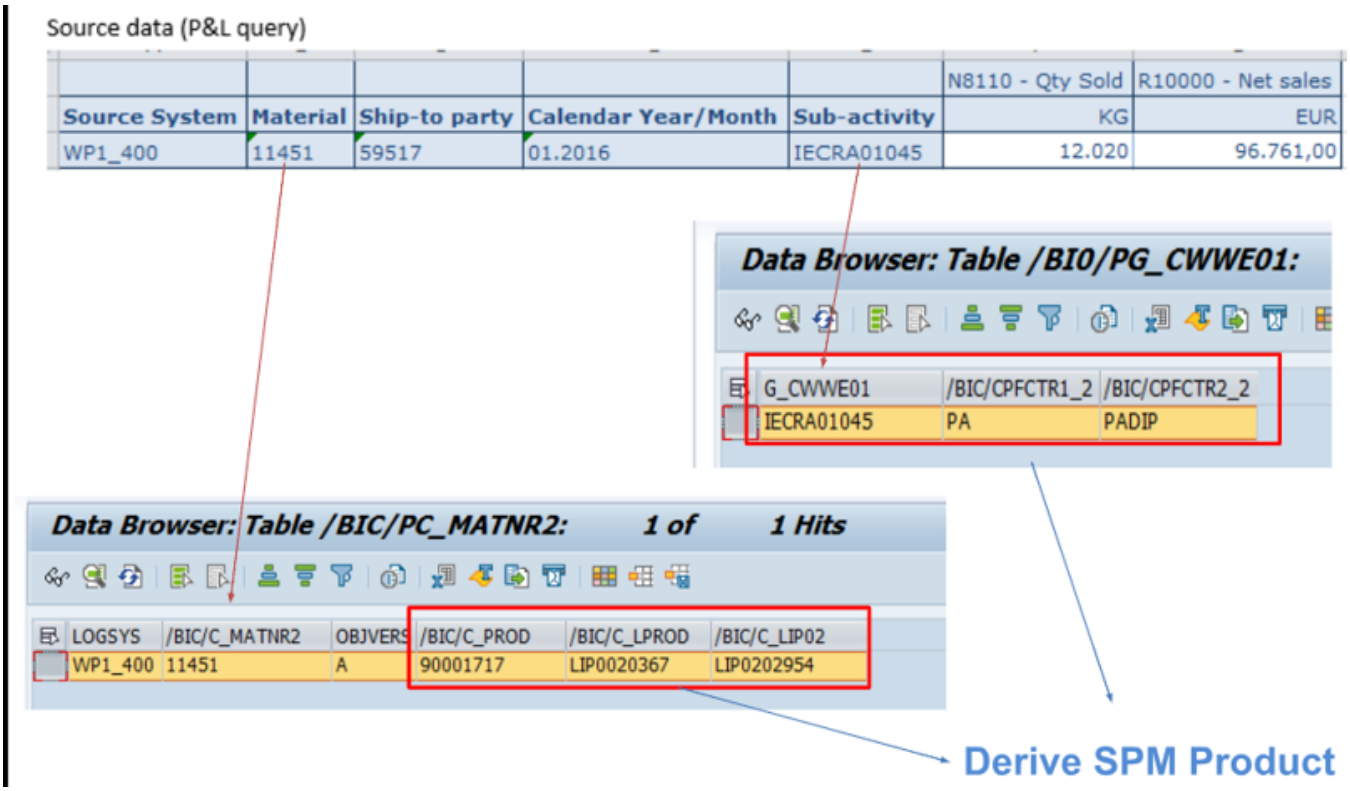
Table ZSPM_TAB1

Data Browser: Table ZSPM_TAB1: 31 of 31 Hits

Check Table...

MANDT	CPFCTR1_2	CPFCTR2_2	G_CWWE01	C_LIP02	C_LPROD	C_PROD	C_SPMPRO
400	PA						00437
400	PA	PADIP	IECRA01045				00437
400	PA	PADIP	IECRA01045	LIP0201198			00499
400	PA	PADIP	IECRA01045	LIP0202114			00498
400	PA	PADIP	IECRA01045	LIP0202954			00500
400	PA	PADIP	IECRA01045	LIP0202954	LIP0020367		00764
400	PA	PADIP	IECRA01045	LIP0210179			00988

How the derivation is done from a sales record



Important: the lookup in the mapping tables is done from the most specific case (complete key) to the most generic case, so for example, when reading ZSPM_TAB1 to get SPM product, it does the following:

1. Search with complete key = GBU + Group of act + Sub-act + Line 2 + Line 0 + Com.prod
2. If not found, search with GBU + Group of act + Sub-act + Line 2 + Line 0 + **Com.prod = space**
3. If not found, search with GBU + Group of act + Sub-act + Line 2 **+ Line 0 = space + Com.prod = space**
4. and so on ... until the search is done only with GBU + Group of act.

Update on June/2021 -

The SPM product can now be defined by informing directly GBU + com.prod (in ZSPM_TAB1) or GBU + mat.group (in ZSPM_TAB2)

2) Derive SPM PAC (Application)

For both legacies, based on SPM product obtained in step 1 + End-Use fields (Market, Application, Segment, End-Use)

Example:

Key	Key	Key	GBR END USE	GBR END USE	GBR END USE	GBR END USE	Key	key		ENTRY	
GBU	SPM Product	SPM Product Name	Market	Segment	Application	End Use	Ship-to	Bus Yea	%	SPM PAC Code	SPM PAC Name
Aroma Performa	764	PMP Molten	Industrial Applications	Chemical Industry	Monomers	*	*	*	100	2075	PMP Molten

How it's stored in mapping table

Maint.view ZSPM_V3

SPM PAC (Rhodia)

B..	GBU name	SPM...	SPM Prod...	Market code	Market name	Segment c...	Segment name	Appl. code	Appl. name	End use code	E...	Cus...	C..	Y..	SPM PAC	Perc
PA	AROMA PERFORMANCE	764	PMP Molten	COMAR00010	INDUSTRIAL APPLICATIONS	COSEG00045	CHEMICAL INDUSTRY	COAPP00160	MONOMERS					0	2075	100,000

Table ZSPM_TAB3

Data Browser: Table ZSPM_TAB3: 3 of 3 Hits

Check Table...

MANDT	CPFCTR1_2	C_SPMPRO	C_GBR2	C_GBR3	C_GBR1	C_GBR4	C_GBR5	CALYEAR	C_SPMPAC	K_PERC
400	PA	764							2822	100,000
400	PA	764	COMAR00010	COSEG00045	COAPP00160				2075	100,000
400	PA	764	COMAR00011	COSEG00032	COAPP00065	ENDUSEGPA00637			2821	100,000

How the derivation is done from a sales record

Source data (P&L query)

					N8110 - Qty Sold	R10000 - Net sales
Source System	**Material**	**Ship-to party**	**Calendar Year/Month**	**Sub-activity**	KG	EUR
WP1_400	11451	59517	01.2016	IECRA01045	12.020	96.761,00

Data Browser: Table /BIC/PC_GBR14: 4 of 4 Hits

LOGSYS	/BIC/C_PROD	/BIC/CPFCTR1_2	/BIC/C_GBR14	OBJVERS	CHANGED	/BIC/C_GBR1	/BIC/C_GBR2	/BIC/C_GBR3	/BIC/C_GBR4
WP1_400	90001658	PA	59517	A		COAPP00160	COMAR00010	COSEG00045	ENDUSEGPA00640
WP1_400	90001716	PA	59517	A		COAPP00160	COMAR00010	COSEG00045	ENDUSEGPA00621
WP1_400	90001717	PA	59517	A		COAPP00160	COMAR00010	COSEG00045	ENDUSEGPA00621
WP1_400	90066857	PA	59517	A		COAPP00160	COMAR00010	COSEG00045	ENDUSEGPA00640

+ SPM Product from step 1 ➔ Derive SPM PAC

Update on June/2021 -

In order to assign SPM PAC, the user can inform directly the End-Use, without having to inform Market / Application / Segment in table ZSPM_TAB3.

C_GBR14 was replaced by the new C_GBR34.

Multiple PACs

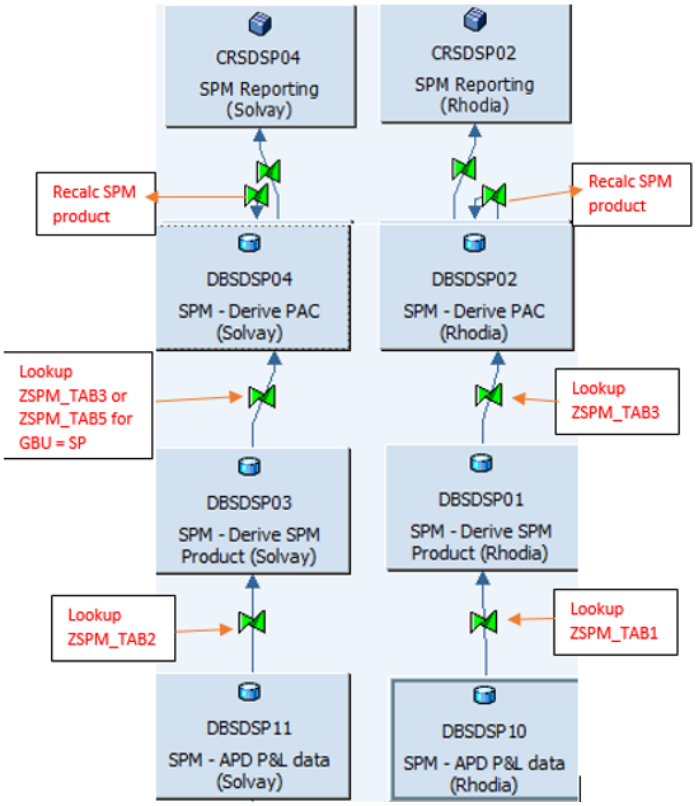
We can have **multiple PACs** assigned to the same combination of GBU + SPM prod + End-Use. In that case, the **percentage** field will define the **split** to be done among several PACs, so the routine takes into account this percentage in order to allocate the sales.

3) Recalculate SPM product

There are some cases, (for example in Novecare for Agro with "Formulations & Blends"), that we must **overwrite the SPM product derived in step 1** with the SPM product obtained directly from SPM PAC master data, because it splits in 3 different PACs in table 3, with a different product assigned to each PAC.

So this "recalculation" was implemented in a **recursive transformation** into DSOs DBSDSP02 (Rhodia) and DBSDSP04 (Solvay).

In terms of the data flow, this is where these lookups are implemented



List of SPM mapping tables

Table	View	Description	Comment
ZSPM_TAB1	ZSPM_V1	SPM Product (Rhodia)	
ZSPM_TAB2	ZSPM_V2	SPM Product (Solvay)	
ZSPM_TAB3	ZSPM_V3	SPM Applications	
ZSPM_TAB4	ZSPM_V4	SPM End-Use to Market (SPP)	Specific to GBU Specialty Polymers
ZSPM_TAB5	ZSPM_V5	SPM Applications (SPP)	Specific to GBU Specialty Polymers
ZSPM_TAB6	ZSPM_V6	SPM Non-integrated GBUs	Only for GBUs where sales doesn't come from P&L

Update on June/2021:

The specific objects developed for SpP described below were decomissioned as SpP started to use the Corporate End-Use in GBR.

Special case 1 - GBU Specialty Polymers

For GBU Specialty Polymers, sales figures are loaded normally from P&L (sales in PF1) and the derivation of SPM product (step 1) follows the normal SPM flow.

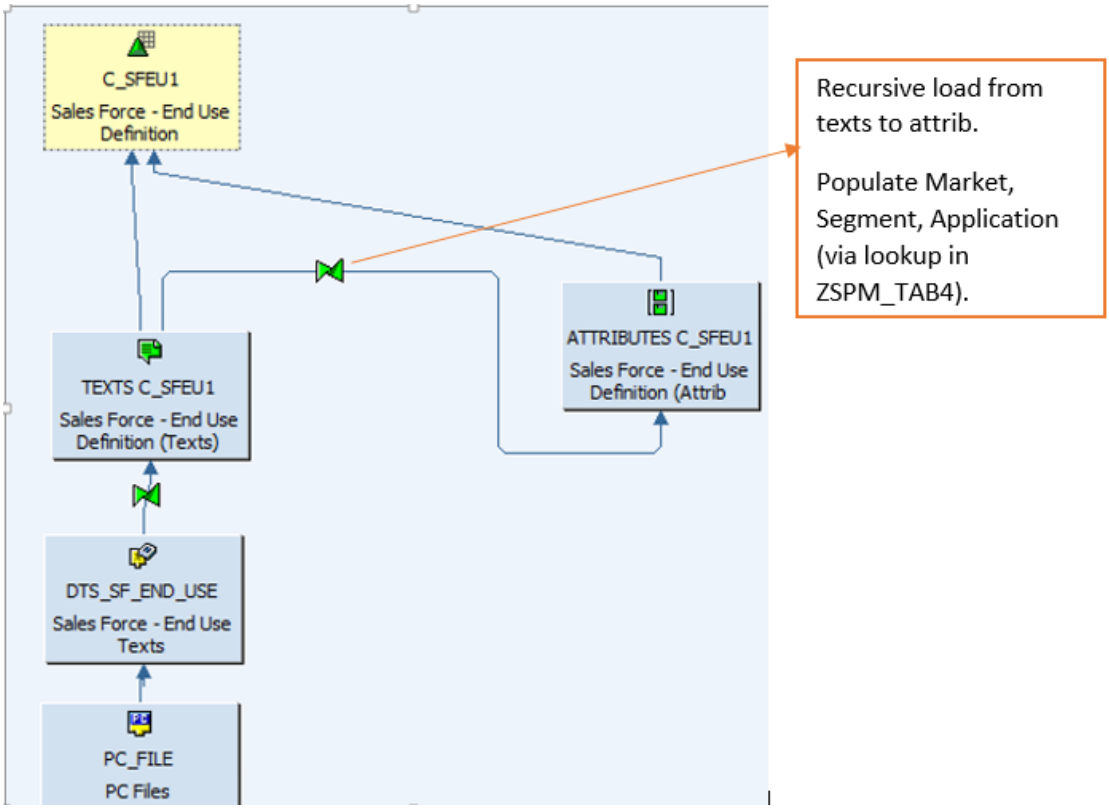
The only difference is in the PAC derivation (step 2) since **Specialty Polymers doesn't use the "Corporate End-Use" (C_GBR14).**

They maintain their own End-Use information in Sales Force, so some new objects were created in BW to load this data from Sales Force.

New InfoObjects

Sales Force - End Use Definition	C_SFEU1
Sales Force - End-Use (Sold-to)	C_SFEU2

C_SFEU1 is loaded with the existing End-Use values in SalesForce (code + text) from an excel file



And then updated with attributes below, which are maintained in WBP in table ZSPM_TAB4.

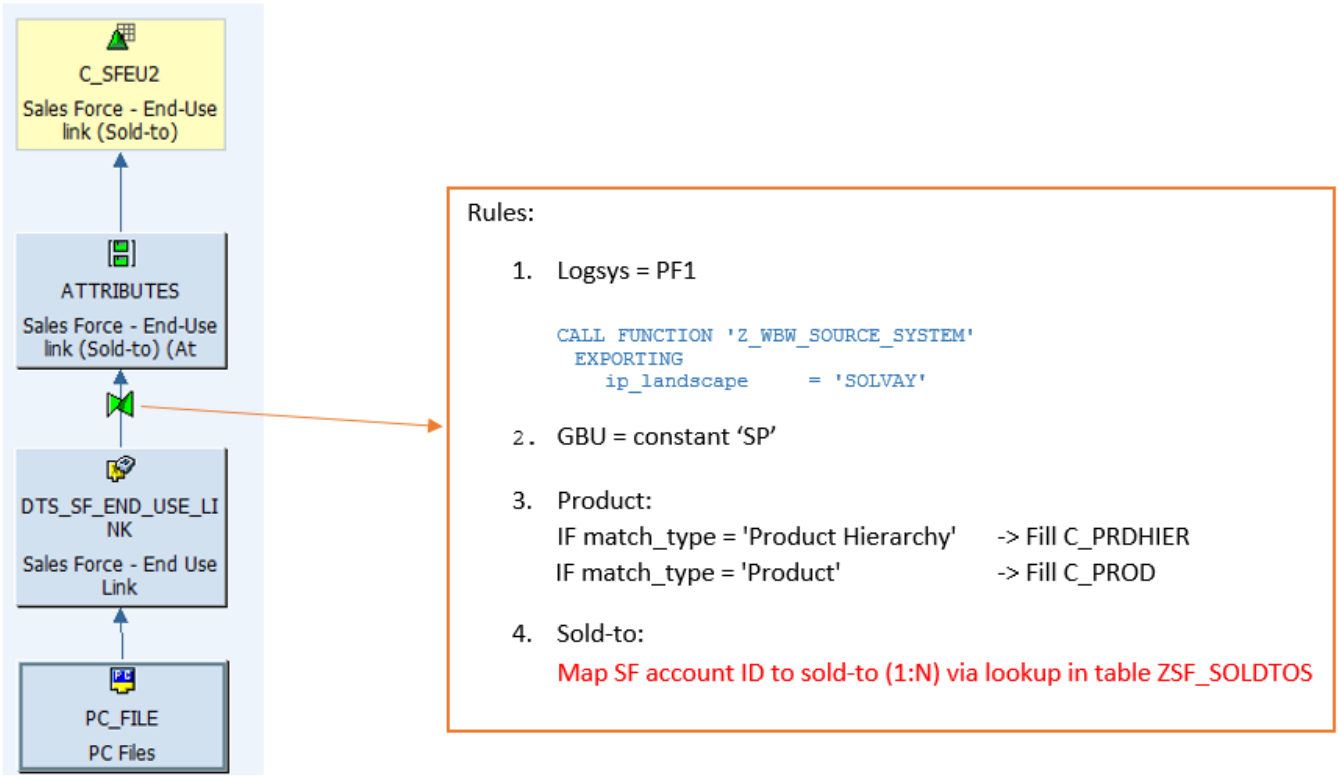
SPM End-Use to Market (SPP)

SF End Use	Medium description	Market	Long description	Segment	Long description	Application	Long description
ABA	AUTO - BATTERIES	COMAR00012	AUTOMOTIVE	COSEG00002	ELECTRIFICATION	COAPP00002	BATTERY SYSTEMS
ACM	CH - AUTO COMPOUNDER	COMAR00012	AUTOMOTIVE	COSEG00034	POWERTRAIN EFFICIENCY	COAPP00137	TRANSMISSION PARTS
ADD	IM - ADDITIVES	COMAR00010	INDUSTRIAL APPLICATIONS	COSEG00018	INDUSTRIAL & PROTECTIVE COATINGS	COAPP00033	INDUSTRIAL COATINGS
ADS	CH - AUTO DISTRIBUTOR	COMAR00012	AUTOMOTIVE	COSEG00034	POWERTRAIN EFFICIENCY	COAPP00137	TRANSMISSION PARTS
ADT	CP - ADDITIVES	COMAR00010	INDUSTRIAL APPLICATIONS	COSEG00018	INDUSTRIAL & PROTECTIVE COATINGS	COAPP00033	INDUSTRIAL COATINGS
AGE	AUTO - GEARS	COMAR00012	AUTOMOTIVE	COSEG00034	POWERTRAIN EFFICIENCY	COAPP00137	TRANSMISSION PARTS
ALE	WC - ALTERNATIVE ENERGY	COMAR00051	ENERGY SOLUTIONS	COSEG00033	POWER GENERATION	COAPP00047	PHOTOVOLTAIC

So this table **ZSPM_TAB4** was created to **map the SalesForce End-Use with Corporate "Market / Segment / Application"**

Regarding the **End-Use link with the customer**, in the case of SalesForce, it's done by the sold-to (and not ship-to). Actually, it's done for a SF account ID that can map to N sold-to codes. Also, the product level can vary, can be done at material group (commercial product) or product hierarchy.

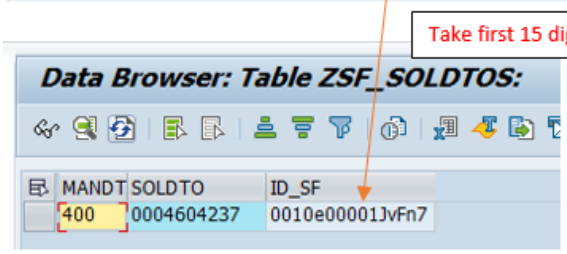
So we have the following rules into **C_SFEU2**:



Example of data received from SF (directory **/exploit/BW/SPM**) and the mapping of SF account to sold-to via table ZSF_SOLDTOS

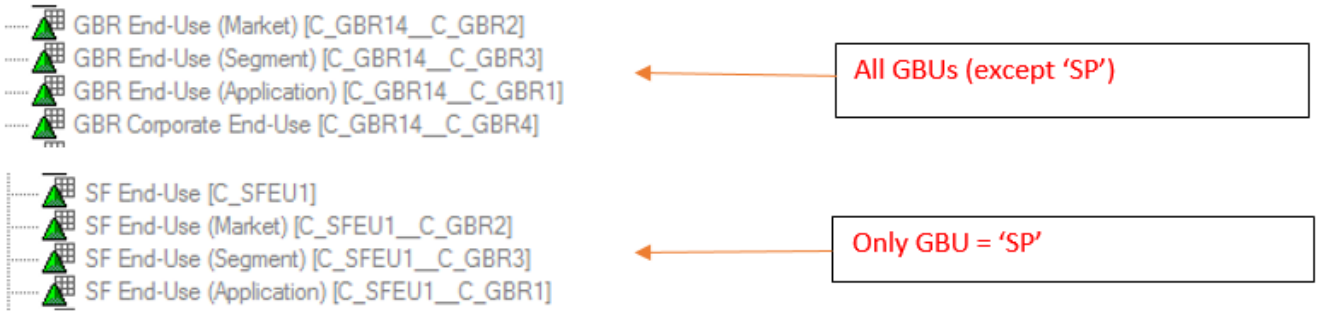
```
Directory:    /exploit/BW/SPM
Name:         END_USE_LINK.csv

"a2S0e0000005gmzEAA";"EU# 00207765";"0010e00001JvFn7AAF";"Product Hierarchy";;"JECA";"EED";"CH - EE DISTRIBUTOR"
"a2S0e0000005gn0EAA";"EU# 00207766";"00160000000U7EBRAA3";"Product Hierarchy";;"JECB";"OPI";"PI - OTHERS"
"a2S0e0000005gn1EAA";"EU# 00207767";"0010e00001JvlzpAAB";"Product Hierarchy";;"JEDA";"CFL";"PI - COMPONENT/FITTINGS/LININGS"
"a2S0e0000005gn2EAA";"EU# 00207768";"0016000000kZPclAAG";"Product Hierarchy";;"JEDA";"FLS";"PI - FILTRATION/SEPARATION"
"a2S0e0000005gn3EAA";"EU# 00207769";"00160000019L7LxAAK";"Product Hierarchy";;"JEDA";"CFL";"PI - COMPONENT/FITTINGS/LININGS"
```



For SPM PAC derivation, there is table **ZSPM_TAB5**, which assigns a PAC based on GBU + SPM Prod + SF End-Use (C_SFEU1).

Finally, in SPM query, attributes Market / Segment / Application come from different objects depending on the GBU



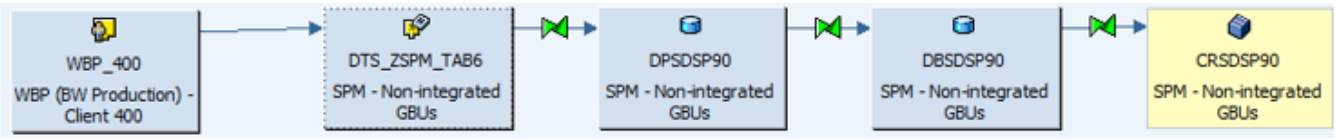
Special case 2 - Composite Materials

For Composite Materials (and potentially any other GBU not integrated in WP1/PF1 yet), it was developed a "light", temporary solution, where the sales are informed manually, in an aggregated way.

So in table **ZSPM_TAB6,** user can inform the sales amount directly at this level: by GBU, month, SPM product, SPM PAC, Corporate Group and Corporate End-Use.

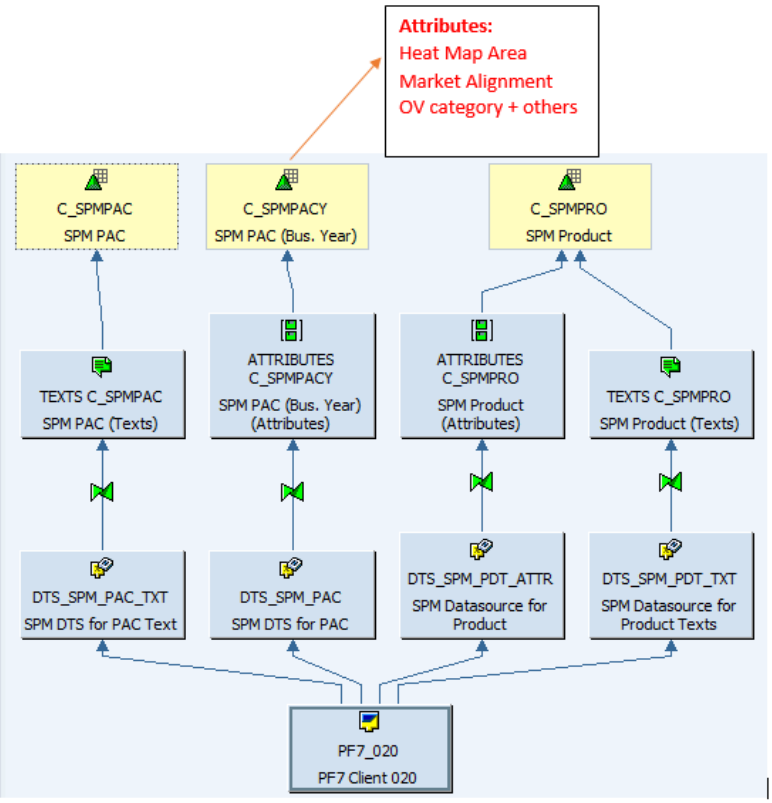
Since SPM Product and PAC are manually informed, there are no derivations in this case and the data goes straightforward to cube CRSDSP90, to be combined with the other cubes in MVSDSP01.

Sales amounts must be informed in EUR. There is no quantity (volume) information, and no detail on customer/material.



Master Data from PF7

Update on June/2021 - New source for SPM Master Data is WPE (replacing PF7)



Dependencies with other applications

Data loadings

Info providers and objects loaded

Loading frequency

PC SPM_MAIN is scheduled daily at 05:00 (CET).

SPM - Main Chain	PC_SPM_MAIN
• SPM - Master Data	PC_SPM_MD
• SPM - Transactional data - Other GBUs	PC_SPM_TRANS_90
• SPM - Transactional data - Rhodia	PC_SPM_TRANS_01
• SPM - Transactional data - Solvay	PC_SPM_TRANS_02

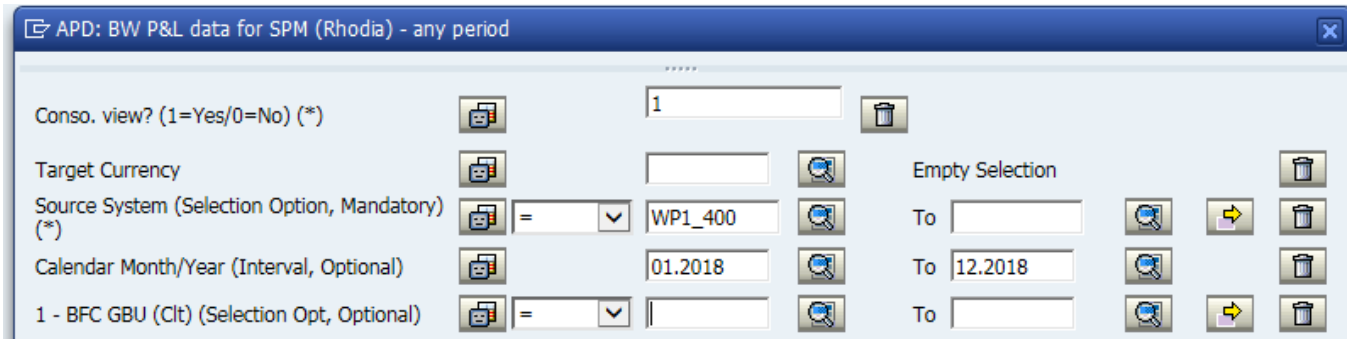
The following PCs do not run on a regular basis. They are used only to reload historical data

• SPM - Reload Rhodia	PC_SPM_RELOAD_01
• SPM - Reload Solvay	PC_SPM_RELOAD_02

They execute the corresponding APDs,

PC		APD	Query	Variant
PC_SPM_RELOAD_01	SPM - Reload Rhodia	APD_PL_0020	APD_QRY_MVCOPA01_0020	ZAPD_VAR_0020
PC_SPM_RELOAD_02	SPM - Reload Solvay	APD_PL_0021	APD_QRY_MVCOPA01_0021	ZAPD_VAR_0021

So for example, if we need to reload P&L data for Rhodia (WP1) for 2018, just update the variant in RSRT as follows and trigger the PC to reload.



This will take data up to business layer, then it will go the cubes with the regular daily load.

Average performance

Key Figure	Estimation
~ Average Process Chain Runtime	**35 minutes**
~ Average nb of rows loaded per load	
~ Total nb of rows loaded (if full)	
~ Average Runtime for 10k lines	

Record Keeping

SPM keeps current year + 3 previous years.

This is controlled with a routine in the DTPs into DSOs DBSDSP01 (Rhodia) and DBSDSP03 (Solvay)

Reporting

Queries End User Documentation

Main queries

Queries:

- **BW_QRY_MVSDSP01_0001** - Core query
- **QV_BW_QRY_MVSDSP01_0001** - copy used for QlikView

Main functionalities

Broadcast

Maintenance

Known bugs

Recurring procedure

Planned Evolution