Functional Documentation - Inventory Management

1.0 Overview

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Business Context and Application Overview

What is Inventory management?

Inventory management is a critical component of supply chain management that involves overseeing and controlling the flow of goods from manufacturers to warehouses and, ultimately, to retailers or end consumers. The primary goal of inventory management is to ensure that Solvay maintains optimal inventory levels to meet customer demand while minimizing holding costs and the risk of stockouts or overstock situations.

Overview of Inventory Management Application

This application is a new inventory model responsible for providing data from both source system, PF1 and WP1, in a single model. It works at operational detailed level (material document) and also non cumulative evolution data (at batch level).

This model gives the stock according to the type of movement /processing like mentioned by SAP papers regarding the new inventory, coming from 2LIS_03_BX / 2LIS_03_BF, such as to perform the valuations and revaluations according to the changes in price definition in the material x plant x valuation type and reference dates from MBEW / MBEWH.

Key Processes

- BW OTC - In transit
- BW OTC - Scrapping & Reworking
- BW OTC - SMOG
- Inventory Check : Comparing MSEG vs BW

Application User Profile

Describe the key User profiles that exist for the application.

General role/Viewer role:

Approver role:

Target Users:

Around 200 worldwide users and running the reports ~400 times per month.

Application Type

Data Product Type	☑ Dashboard ☑ Report ☐ Advanced analytics ☐ AI ☐ Others <specify which one>
Technologies	☑ BW ☐ Tableau ☐ Qliksense ☐ Talend ☐ Dataiku ☐ Others <specify which one>
Data Sources *Note: list of all applications and various environment*	☐ SAP PF1 (Production environment) ☑ SAP WP1 ☑ SAP PI1 ☑ BW (versions) ☐ iCare CRM ☐ CORE CRM ☐ Others <specify the name of the source>

VERSION	DATE	MODIFIED BY	DESCRIPTION
0.01	dd.mm.yyyy	<Insert name>	Initial draft

2.0 Business Process

BW OTC - Scrapping & Reworking

BW OTC - Delta/Production reports

The two reports are built over the Stocks data adding other information (Dynasys, OTIF, Open Order and SMOG) in order to provide some Production analysis.

Tool Leader + IT leader of the application: Carolina Camacho + Diogo Paiva

BW OTC - In transit

Process responsible for providing the inbound and outbound for in transit process following the finance information from tables ZFI_GIT_OUTBOUND and ZFI_GIT_INBOUND. In case of issues with this table, the SAP Finance team should be contacted.

BW OTC - SMOG

Process responsible for providing the slow movement, obsolete and blocked batches.

Material in transit (Inbound) (ABMMIM07*)

The provider creates a key like the inventory model using plant, material, batch and date reference for summing all inbound and outbound quantity/ values linked with the in transit financial process.

3.0 Application Feature Overview

Main key figures

Restrict Key Figure	Description	Object	SIGN	OPT	Value
BW_RKF_CPIMMM01_0003	Issued Quantity: Blocked Stock	0STOCKCAT	I	EQ	U
		0STOCKCAT	I	EQ	Q
		0STOCKCAT	I	EQ	M
		0STOCKCAT	I	EQ	E
		0STOCKCAT	I	EQ	#
		0STOCKTYPE	I	EQ	D
		1KYFNM	I	EQ	0ISSTOTSTCK
BW_RKF_CPIMMM01_0004	Stock in Quality Inspection	0STOCKCAT	I	EQ	#
		0STOCKCAT	I	EQ	E
		0STOCKCAT	I	EQ	M
		0STOCKCAT	I	EQ	Q
		0STOCKCAT	I	EQ	U
		0STOCKTYPE	I	EQ	B
		0STOCKTYPE	I	EQ	L
		0STOCKTYPE	I	EQ	O
		0STOCKTYPE	I	EQ	R
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0005	Received Quantity: Stock in Quality Inspection	0STOCKCAT	I	EQ	U
		0STOCKCAT	I	EQ	Q
		0STOCKCAT	I	EQ	M
		0STOCKCAT	I	EQ	E
		0STOCKCAT	I	EQ	#
		0STOCKTYPE	I	EQ	R

		0STOCKTYPE	I	EQ	O
		0STOCKTYPE	I	EQ	L
		0STOCKTYPE	I	EQ	B
		1KYFNM	I	EQ	0RECTOTSTCK
BW_RKF_CPIMMM01_0006	Issued Quantity: Stock in Quality Inspection	0STOCKCAT	I	EQ	U
		0STOCKCAT	I	EQ	Q
		0STOCKCAT	I	EQ	M
		0STOCKCAT	I	EQ	E
		0STOCKCAT	I	EQ	#
		0STOCKTYPE	I	EQ	R
		0STOCKTYPE	I	EQ	O
		0STOCKTYPE	I	EQ	L
		0STOCKTYPE	I	EQ	B
		1KYFNM	I	EQ	0ISSTOTSTCK
BW_RKF_CPIMMM01_0007	Stock in Transit	0STOCKTYPE	I	EQ	F
		0STOCKTYPE	I	EQ	H
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0008	Received Quantity: Stock in Transit	0STOCKTYPE	I	EQ	H
		0STOCKTYPE	I	EQ	F
		1KYFNM	I	EQ	0RECTOTSTCK
BW_RKF_CPIMMM01_0009	Issued Quantity: Stock in Transit	0STOCKTYPE	I	EQ	H
		0STOCKTYPE	I	EQ	F
		1KYFNM	I	EQ	0ISSTOTSTCK
BW_RKF_CPIMMM01_0010	Unrestricted Stock	0STOCKCAT	I	EQ	U
		0STOCKCAT	I	EQ	Q
		0STOCKCAT	I	EQ	M
		0STOCKCAT	I	EQ	E
		0STOCKCAT	I	EQ	#
		0STOCKTYPE	I	EQ	A
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0011	Vendor Consi Consumption	0BWAPPLNM	I	EQ	MM
		0INFOPROV	I	EQ	ABIMMM03S
		0INFOPROV	I	EQ	ABIMMM03R
		0PROCESSKEY	I	EQ	100
		0PROCESSKEY	I	EQ	101
		0PROCESSKEY	I	EQ	104
		0PROCESSKEY	I	EQ	105
		0PROCESSKEY	I	EQ	106
		0PROCESSKEY	I	EQ	110
		0STOCKCAT	I	EQ	K
		0STOCKRELEV	I	EQ	1
		1KYFNM	I	EQ	0CPSVLC
BW_RKF_CPIMMM01_0012	Scrap Quantity	0BWAPPLNM	I	EQ	MM
		0INFOPROV	I	EQ	ABIMMM03S
		0INFOPROV	I	EQ	ABIMMM03R
		1KYFNM	I	EQ	0CPQUABU
		C_MOVETYP	I	EQ	551

		C_MOVETYP	I	EQ	552
		C_MOVETYP	I	EQ	553
		C_MOVETYP	I	EQ	554
		C_MOVETYP	I	EQ	555
		C_MOVETYP	I	EQ	556
BW_RKF_CPIMMM01_0013	Scrap Value	0BWAPPLNM	I	EQ	MM
		0INFOPROV	I	EQ	ABIMMM03S
		0INFOPROV	I	EQ	ABIMMM03R
		1KYFNM	I	EQ	0CPSVLC
		C_MOVETYP	I	EQ	556
		C_MOVETYP	I	EQ	555
		C_MOVETYP	I	EQ	554
		C_MOVETYP	I	EQ	553
		C_MOVETYP	I	EQ	552
		C_MOVETYP	I	EQ	551
BW_RKF_CPIMMM01_0014	Project Stock in Q	0STOCKCAT	I	EQ	Q
		0STOCKTYPE	I	EQ	R
		0STOCKTYPE	I	EQ	O
		0STOCKTYPE	I	EQ	L
		0STOCKTYPE	I	EQ	B
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0015	Sales Order Stock in Q	0STOCKCAT	I	EQ	E
		0STOCKTYPE	I	EQ	R
		0STOCKTYPE	I	EQ	O
		0STOCKTYPE	I	EQ	L
		0STOCKTYPE	I	EQ	B
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0016	Returnable Transport Packaging in Q	0STOCKCAT	I	EQ	M
		0STOCKTYPE	I	EQ	R
		0STOCKTYPE	I	EQ	O
		0STOCKTYPE	I	EQ	L
		0STOCKTYPE	I	EQ	B
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0017	Returnable Packaging Stock at Customer in Q	0STOCKCAT	I	EQ	Q
		0STOCKCAT	I	EQ	M
		0STOCKCAT	I	EQ	E
		0STOCKCAT	I	EQ	#
		0STOCKCAT	I	EQ	U
		0STOCKTYPE	I	EQ	O
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0018	Stock of Material provided to Vendor in Q	0STOCKCAT	I	EQ	U
		0STOCKCAT	I	EQ	Q
		0STOCKCAT	I	EQ	M
		0STOCKCAT	I	EQ	E
		0STOCKCAT	I	EQ	#
		0STOCKTYPE	I	EQ	R
		1KYFNM	I	EQ	0TOTALSTCK

BW_RKF_CPIMMM01_0019	Stock in Quality Inspection (own Storage)	0STOCKCAT	I	EQ	U
		0STOCKCAT	I	EQ	Q
		0STOCKCAT	I	EQ	M
		0STOCKCAT	I	EQ	E
		0STOCKCAT	I	EQ	#
		0STOCKTYPE	I	EQ	B
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0020	Project Stock Blocked	0STOCKCAT	I	EQ	Q
		0STOCKTYPE	I	EQ	D
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0021	Sales Order Stock Blocked	0STOCKCAT	I	EQ	E
		0STOCKTYPE	I	EQ	D
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0022	Returnable Transport Packaging Blocked	0STOCKCAT	I	EQ	M
		0STOCKTYPE	I	EQ	D
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0023	Project Stock in Transit	0STOCKCAT	I	EQ	Q
		0STOCKTYPE	I	EQ	H
		0STOCKTYPE	I	EQ	F
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0024	Sales Order Stock in Transit	0STOCKCAT	I	EQ	E
		0STOCKTYPE	I	EQ	H
		0STOCKTYPE	I	EQ	F
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0025	Vendor Consignment Stock Quantity Receipt	0STOCKCAT	I	EQ	K
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0030
BW_RKF_CPIMMM01_0026	Vendor Consignment Stock Quantity Issued	0STOCKCAT	I	EQ	K
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0031
BW_RKF_CPIMMM01_0027	Vendor Consignment Stock	0STOCKCAT	I	EQ	K
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0032
BW_RKF_CPIMMM01_0028	Vendor Consignment Stock in Q	0STOCKCAT	I	EQ	K
		0STOCKTYPE	I	EQ	B
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0032
BW_RKF_CPIMMM01_0029	Vendor Consignment Stock Unrestricted	0STOCKCAT	I	EQ	K
		0STOCKTYPE	I	EQ	A
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0032
BW_RKF_CPIMMM01_0030	Vendor Consignment Stock Restricted	0STOCKCAT	I	EQ	K
		0STOCKTYPE	I	EQ	E
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0032
BW_RKF_CPIMMM01_0031	Vendor Consignment Stock Blocked	0STOCKCAT	I	EQ	K
		0STOCKTYPE	I	EQ	D
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0032
BW_RKF_CPIMMM01_0032	Consignment Stock at Customer Quantity Receipt	0STOCKTYPE	I	EQ	L
		0STOCKTYPE	I	EQ	K
		0STOCKTYPE	I	EQ	M
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0030
BW_RKF_CPIMMM01_0033	Consignment Stock at Customer Quantity Issued	0STOCKTYPE	I	EQ	M

		0STOCKTYPE	I	EQ	K
		0STOCKTYPE	I	EQ	L
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0031
BW_RKF_CPIMMM01_0034	Consignment Stock at Customer	0STOCKTYPE	I	EQ	M
		0STOCKTYPE	I	EQ	K
		0STOCKTYPE	I	EQ	L
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0032
BW_RKF_CPIMMM01_0035	Consignment Stock at Customer in Q	0STOCKTYPE	I	EQ	L
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0032
BW_RKF_CPIMMM01_0036	Consignment Stock at Customer Unrestricted	0STOCKTYPE	I	EQ	K
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0032
BW_RKF_CPIMMM01_0037	Consignment Stock at Customer Restricted	0STOCKTYPE	I	EQ	M
		1KYFNM	I	EQ	BW_CKF_CPIMMM01_0032
BW_RKF_CPIMMM01_0038	Quantity of Valuated Project Stock (Total)	0STOCKCAT	I	EQ	Q
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0039	Quantity of Valuated Project Stock in Q	0STOCKCAT	I	EQ	Q
		0STOCKTYPE	I	EQ	B
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0040	Quantity of Valuated Project Stock, Unrestricted	0STOCKCAT	I	EQ	Q
		0STOCKTYPE	I	EQ	A
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0041	Quantity of Valuated Project Stock Blocked	0STOCKCAT	I	EQ	Q
		0STOCKTYPE	I	EQ	D
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0043	Quantity of Valuated Sales Order Stock (Total)	0STOCKCAT	I	EQ	E
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0042	Quantity of Valuated Project Stock in Transit	0STOCKCAT	I	EQ	Q
		0STOCKTYPE	I	EQ	H
		0STOCKTYPE	I	EQ	F
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0044	Quantity of Valuated Sales Order Stock in Q	0STOCKCAT	I	EQ	E
		0STOCKTYPE	I	EQ	B
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0045	Quantity of Valuated Sales Order Stock, Unrestricted	0STOCKCAT	I	EQ	E
		0STOCKTYPE	I	EQ	A
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0046	Quantity of Valuated Sales Order Stock Blocked	0STOCKCAT	I	EQ	E
		0STOCKTYPE	I	EQ	D
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0047	Quantity of Valuated Sales Order Stock in Transit	0STOCKCAT	I	EQ	E
		0STOCKTYPE	I	EQ	H
		0STOCKTYPE	I	EQ	F
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0068	Stock by type (SMOG)	0STOCKTYPE	I	EQ	C
		0STOCKTYPE	I	EQ	D
		0STOCKTYPE	I	EQ	E
		1KYFNM	I	EQ	0TOTALSTCK

BW_RKF_CPIMMM01_0069	Receipt Cons Stock (Cat)	0STOCKCAT	I	EQ	K
		1KYFNM	I	EQ	0RECTOTSTCK
BW_RKF_CPIMMM01_0070	Receipt Cons Stock (Type)	0STOCKCAT	I	EQ	#
		0STOCKTYPE	I	EQ	E
		0STOCKTYPE	I	EQ	K
		0STOCKTYPE	I	EQ	L
		1KYFNM	I	EQ	0RECTOTSTCK
BW_RKF_CPIMMM01_0071	Issued Cons Stock (Cat)	0STOCKCAT	I	EQ	K
		1KYFNM	I	EQ	0ISSTOTSTCK
BW_RKF_CPIMMM01_0072	Issued Cons Stock (type)	0STOCKCAT	I	EQ	#
		0STOCKTYPE	I	EQ	L
		0STOCKTYPE	I	EQ	K
		0STOCKTYPE	I	EQ	E
		1KYFNM	I	EQ	0ISSTOTSTCK
BW_RKF_CPIMMM01_0073	Consgt Tot Stock (Cat)	0STOCKCAT	I	EQ	K
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0074	Consgt Tot Stock (Type)	0STOCKCAT	I	EQ	#
		0STOCKTYPE	I	EQ	L
		0STOCKTYPE	I	EQ	K
		0STOCKTYPE	I	EQ	E
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0075	Total Stock (Convertible)	1KYFNM	I	EQ	0TOTALSTCK
		C_FLAG	I	EQ	#
BW_RKF_CPIMMM01_0077	Quantity Total Stock (in transit conv. PE)	1KYFNM	I	EQ	BW_CKF_CPIMMM01_0019
		CPFCTR1_2	I	EQ	PE
BW_RKF_CPIMMM01_0076	Quantity Valuated Stock	0STOCKRELEV	I	EQ	1
		1KYFNM	I	EQ	0TOTALSTCK
BW_RKF_CPIMMM01_0078	Quantity Total Stock (in transit other)	1KYFNM	I	EQ	BW_CKF_CPIMMM01_0019
		CPFCTR1_2	E	EQ	PE

Calculated Key Figure	Description	Formula	Aggregation	Conversion
Calculated Key Figure	**Description**	**Formula**	**Aggregation**	**Conversion**
BW_CKF_CPIMMM01_0001	Scrap Proportion of Total Stock Value	"[BW_RKF_CPIMMM01_0013] Scrap Value" %A ("[BW_CKF_CPIMMM01_0017] Value Tot Stock" + "[BW_RKF_CPIMMM01_0013] Scrap Value")	N/A	N/A
BW_CKF_CPIMMM01_0002	Scrap Proportion of Total Stock Quantity	"[BW_RKF_CPIMMM01_0012] Scrap Quantity" %A ('0TOTALSTCK' + "[BW_RKF_CPIMMM01_0012] Scrap Quantity")	N/A	N/A
BW_CKF_CPIMMM01_0003	Material Range of Coverage in Days	'0TOTALSTCK' / '0ISSTOTSTCK' * 365	N/A	N/A
BW_CKF_CPIMMM01_0004	Average Stock Quantity	'0ISSTOTSTCK'	Average: 0CALDAY	N/A
BW_CKF_CPIMMM01_0005	Inventory Aging	"[BW_CKF_CPIMMM01_0004] Average Stock Quantity" %A '0ISSTOTSTCK'	N/A	N/A
BW_CKF_CPIMMM01_0006	Blocked Stock (PUQ)	[BW_RFK_CPIMMM01_0001] Blocked Stock	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0007	Stock in Quality Inspection (PUQ)	[BW_RKF_CPIMMM01_0004] Stock in Quality Inspection	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0008	Stock In Transit (PUQ)	[BW_RKF_CPIMMM01_0007] Stock in Transit	N/A	Unit: QCT_MATNR4

BW_CKF_CPIMMM01_0009	Unrestricted Stock (PUQ)	[BW_RKF_CPIMMM01_0010] Unrestricted Stock	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0010	Vendor Consi Consumption (PUQ)	[BW_RKF_CPIMMM01_0011] Vendor Consi Consumption	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0011	Scrap Quantity (PUQ)	[BW_RKF_CPIMMM01_0012] Scrap Quantity	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0012	Val Stock Issue (CP)	'K_VALISS'	N/A	Currency: CTK_GS04
BW_CKF_CPIMMM01_0013	Val Stock Receipt (CP)	'K_VALREC'	N/A	Currency: CTK_GS04
BW_CKF_CPIMMM01_0014	Scrap Value (CP)	[BW_RKF_CPIMMM01_0013] Scrap Value	N/A	Currency: CTK_GS04
BW_CKF_CPIMMM01_0015	Val Tot Stock (CP)	IF("[BW_CKF_CPIMMM01_0017] Value Tot Stock" <> 0; "[BW_CKF_CPIMMM01_0017] Value Tot Stock"; 0)	N/A	Currency: CTK_GS04
BW_CKF_CPIMMM01_0016	Qty Tot Stock (PUQ)	IF('0TOTALSTCK' <> 0; '0TOTALSTCK'; 0)	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0017	Value Tot Stock	'K_VALTOT'	N/A	N/A
BW_CKF_CPIMMM01_0018	Receipt Total Stock (PUQ)	'0RECTOTSTCK'	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0019	Quantity Total Stock (+ in transit)	0TOTALSTCK' + "[BW_CKF_CPIMMM01_0020] Quantity Stock (in transit)"	N/A	N/A
BW_CKF_CPIMMM01_0020	Quantity Stock (in transit)	'K_QIBTRAN' + 'K_QOBTRAN'	Summation: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0021	Issue Total Stock (PUQ)	'0ISSTOTSTCK'	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0022	Cnsgt stock qty (PUQ)	[BW_CKF_CPIMMM01_0032] Consignt Stock Qty	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0023	SMOG (Slow moving)	IF(("[VF_0DATE_0001] End of month (V_0CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") > 365 AND "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)" > DATE(730237) AND '0TOTALSTCK' <> 0; ("[VF_0DATE_0001] End of month (V_0CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") * '0TOTALSTCK'; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0024	SMOG (Obsolete)	IF("[VF_0DATE_0001] End of month (V_0CALMONTH_0008)" > "[VF_C_BATCH_2_001] Date of expiration" AND "[VF_C_BATCH_2_001] Date of expiration" > DATE(730237) AND '0TOTALSTCK' <> 0; ("[VF_0DATE_0001] End of month (V_0CALMONTH_0008)" - "[VF_C_BATCH_2_001] Date of expiration") * '0TOTALSTCK'; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0025	SMOG (Type)	NODIM("[BW_RKF_CPIMMM01_0068] Stock by type (SMOG)") <> 0	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0026	SMOG	IF(("[BW_CKF_CPIMMM01_0023] SMOG (Slow moving)" + "[BW_CKF_CPIMMM01_0024] SMOG (Obsolete)" + "[BW_CKF_CPIMMM01_0025] SMOG (Type)") > 0; 1; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0027	Count batch (with stock)	'0TOTALSTCK'	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0028	Amount SMOG	[BW_CKF_CPIMMM01_0017] Value Tot Stock * NODIM ("[BW_CKF_CPIMMM01_0026] SMOG")	Summation: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0029	Quantity SMOG	'0TOTALSTCK' * NODIM("[BW_CKF_CPIMMM01_0026] SMOG")	Summation: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0030	Receipt Cons Stock	"[BW_RKF_CPIMMM01_0069] Receipt Cons Stock (Cat)" + "[BW_RKF_CPIMMM01_0070] Receipt Cons Stock (Type)"	N/A	N/A

BW_CKF_CPIMMM01_0031	Issued Cons Stock	"[BW_RKF_CPIMMM01_0071] Issued Cons Stock (Cat)" + "[BW_RKF_CPIMMM01_0072] Issued Cons Stock (type)"	N/A	N/A
BW_CKF_CPIMMM01_0032	Consignt Stock Qty	"[BW_RKF_CPIMMM01_0073] Consgt Tot Stock (Cat)" + "[BW_RKF_CPIMMM01_0074] Consgt Tot Stock (Type)"	N/A	N/A
BW_CKF_CPIMMM01_0033	SMOG (Slow moving) M-1	IF(("[VF_0DATE_0002] End of month - 1 (V_CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") > 365 AND "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)" > DATE(730237); ("[VF_0DATE_0002] End of month - 1 (V_CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") * '0TOTALSTCK'; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0034	SMOG (Obsolete) M-1	IF("[VF_0DATE_0002] End of month - 1 (V_CALMONTH_0008)" > "[VF_C_BATCH_2_001] Date of expiration" AND "[VF_C_BATCH_2_001] Date of expiration" > DATE(730237); ("[VF_0DATE_0002] End of month - 1 (V_CALMONTH_0008)" - "[VF_C_BATCH_2_001] Date of expiration") * '0TOTALSTCK'; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0035	SMOG (Slow moving) M-2	IF(("[VF_0DATE_0003] End of month - 2 (V_CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") > 365 AND "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)" > DATE(730237); ("[VF_0DATE_0003] End of month - 2 (V_CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") * '0TOTALSTCK'; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0036	SMOG (Obsolete) M-2	IF("[VF_0DATE_0003] End of month - 2 (V_CALMONTH_0008)" > "[VF_C_BATCH_2_001] Date of expiration" AND "[VF_C_BATCH_2_001] Date of expiration" > DATE(730237); ("[VF_0DATE_0003] End of month - 2 (V_CALMONTH_0008)" - "[VF_C_BATCH_2_001] Date of expiration") * '0TOTALSTCK'; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0037	SMOG (M-1)	IF(("[BW_CKF_CPIMMM01_0033] SMOG (Slow moving) M-1" + "[BW_CKF_CPIMMM01_0034] SMOG (Obsolete) M-1" + "[BW_CKF_CPIMMM01_0025] SMOG (Type)") > 0; 1; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0038	SMOG (M-2)	IF(("[BW_CKF_CPIMMM01_0035] SMOG (Slow moving) M-2" + "[BW_CKF_CPIMMM01_0036] SMOG (Obsolete) M-2" + "[BW_CKF_CPIMMM01_0025] SMOG (Type)") > 0; 1; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0039	Amount SMOG (M-1)	"[BW_CKF_CPIMMM01_0017] Value Tot Stock" * NODIM("[BW_CKF_CPIMMM01_0037] SMOG (M-1)")	Summation: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0040	Amount SMOG (M-2)	"[BW_CKF_CPIMMM01_0017] Value Tot Stock" * NODIM("[BW_CKF_CPIMMM01_0038] SMOG (M-2)")	Summation: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0041	Quantity SMOG (M-1)	'0TOTALSTCK' * NODIM("[BW_CKF_CPIMMM01_0037] SMOG (M-1)")	N/A	N/A
BW_CKF_CPIMMM01_0042	Quantity SMOG (M-2)	0TOTALSTCK' * NODIM("[BW_CKF_CPIMMM01_0037] SMOG (M-2)")	N/A	N/A
BW_CKF_CPIMMM01_0043	0 - 4 months (SMOG Aging)	IF(("[VF_0DATE_0001] End of month (V_0CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") < 120; 1; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0044	4 - 12 months (SMOG Aging)	IF(("[VF_0DATE_0001] End of month (V_0CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") > 120 AND ("[VF_0DATE_0001] End of month (V_0CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") < 365; 1; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0045	12 - 24 months (SMOG Aging)	IF(("[VF_0DATE_0001] End of month (V_0CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") > 365 AND ("[VF_0DATE_0001] End of month (V_0CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") < 731; 1; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A

BW_CKF_CPIMMM01_0046	> 24 months (SMOG Aging)	IF(("[VF_0DATE_0001] End of month (V_0CALMONTH_0008)" - "[ZSVR_IA_BATCH2MFDT] Batch2 Manufacture Date (Replacement)") > 730; 1; 0)	Counter: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A
BW_CKF_CPIMMM01_0047	Qty Tot Stock - Only Convertible (PUQ)	IF("[BW_RKF_CPIMMM01_0075] Total Stock (Convertible)" <> 0; "[BW_RKF_CPIMMM01_0075] Total Stock (Convertible)"; 0)	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0048	Quantity SMOG - Only Convertible	"[BW_RKF_CPIMMM01_0075] Total Stock (Convertible)" * NODIM("[BW_CKF_CPIMMM01_0026] SMOG")	Summation: C_PLANT C_MATNR2 0LOGSYS C_BATCH2 0STOCKTYPE	N/A
BW_CKF_CPIMMM01_0049	Qty. Valuated Stock (PUQ)	[BW_RKF_CPIMMM01_0076] Quantity Valuated Stock	N/A	Unit: QCT_MATNR4
BW_CKF_CPIMMM01_0050	Qty. Total Stock (+ in transit) SAC	"[BW_RKF_CPIMMM01_0077] Quantity Total Stock (in transit conv. PE)" + "[BW_RKF_CPIMMM01_0078] Quantity Total Stock (in transit other)"	N/A	N/A
BW_CKF_CPIMMM01_0051	Value Total Stock (+ in transit) SAC	'K_VALTOT' + "[BW_CKF_CPIMMM01_0052] Valuated Stock (in transit)"	N/A	N/A
BW_CKF_CPIMMM01_0052	Valuated Stock (in transit)	'K_VIBTRAN' + 'K_VOBTRAN'	Summation: C_PLANT C_MATNR2 0LOGSYS C_BATCH2	N/A

Reports	Definition	Prompts	BW Workbook Query	Query Technical Name
MM-IM: SMOG (Core)	Master query with all the main objects available in the composite			BW_QRY_CPMMIM02_0001
MM-IM: SMOG Detailed (SAC)	Query used in the SAC model to detailed information from SMOG			SAC_BW_QRY_CPMMIM02_0003
MM-IM: SMOG x Stock (SAC)	Query used in the SAC model to compare information from stock and SMOG aggregated at plant level.			SAC_BW_QRY_CPMMIM02_0004
MM-IM: Under Observation (SAC)	Query used in the SAC model to control anticipation cases mixed with SMOG.			SAC_BW_QRY_CPMMIM02_0005
Number of movements evolution (Core Query)	Number of movements evolution (Core Query)			
Critical material Movements (Core Query)	Critical material Movements (Core Query)			
Consignment Stock Analysis (Core Query)	Consignment Stock Analysis (Core Query)			
Material Prices (Core Query)	Material Prices			
Scheduling Adherence Monthly (Core Query)				
MM: IM - COPQ Scrapping costs (QV Query)	Calculates Scrapping Cost for Qlik application			QV_BW_QRY_CPMMIM07_0001
MM: IM - COPQ Reworking costs (QV Query)	Calculates Reworking Cost for Qlik application			QV_BW_QRY_CPMMIM07_0002
MM: IM - Scrapping & Reworking filters (Control Query)	Control query, displays values in APMMIM05			BW_QRY_CPMMIM07_0001

4.0 Business Objects

This section should contain a table with the business objects used in the reports and the link for the Data Catalog.

Data Catalog Link: *XXXXXX*

Data Domain	Business Object (Leanix)	Business Object Description (used whenever we don't have this in Leanix)
Supply Chain	*ex: Customer*	

5.0 Functional Specification

5.1 General Data/Calculations

BW OTC - In transit

Material in transit (Inbound) (ABMMIM07*)

The provider creates a key like the inventory model using plant, material, batch and date reference for summing all inbound and outbound quantity/ values linked with the in transit financial process.

AMDP

- Calendar date - The date used in GIT table is the sy-datum from snapshot, in the business layer we changed it because this snapshot corresponds the previous working day.
- Plant - For inbound process, if the plant is not filled, the process get data from shipping plant.
- Controlling Area - If the controlling area is null, get the data from the corresponding attribute of "company code" (c_compcde);
- GBU - Get the data from the attribute of "Sub-activity 2" (c_subact2);
- Material conversion - If the corresponding material and unit of measure is not convertible into 'KG' according to the DSO UOMCMAT2, the object is flagged.
- Once the GIT table is daily snapshot, the key figure uses aggregation last position based on calday and the recursive is used to identify if some material x plant x batch are not available anymore in the current date or end of month.

BW OTC - Scrapping & Reworking

Info providers and objects loaded

Technical name	Description	Loading frequency	Explanations
PC_MMIM_42	MM: IM - T - Filters for Scrapping & Reworking	Trigger, ~Monthly	Load Flat File data imported through Program ZBW_COPQ_FILE to APMMIM05. Triggered by event PC_MMIM_42.
PC_MMIM_43	MM: IM - D - Scrapping and Reworking	Daily at 09:00	Clear ABMMIM04, then load Current and Previous Month into ABMMIM04 from CPIMMM01, applying relevant filters from APMMIM05.
PC_MMIM_44	MM: IM - M - Scrapping and Reworking M-2	Monthly, 1st at 09:00	Load Month M-2 into ABMMIM04B from CPIMMM01, applying relevant filters from APMMIM05. Contains all historical data.

Average performance

To be completed once WBP is available again.

Key Figure	Estimation
~ Average Process Chain Runtime	A few minutes

~ Average nb of rows loaded per load	Less than a thousand per load
~ Total nb of rows loaded (if full)	N/A
~ Average Runtime for 10k lines	N/A

Record Keeping

ABMMIM04 only contains M & M-1 Data.

ABMMIM04B contains all older data. As it is an Inventory ADSO, it cannot be partially cleared by an automated job. Currently contains data from 01.2021 onwards. We do not expect to need data more than 12 months old, to be cleared manually (selective deletion) if needed.

Main functionalities

Main key figures

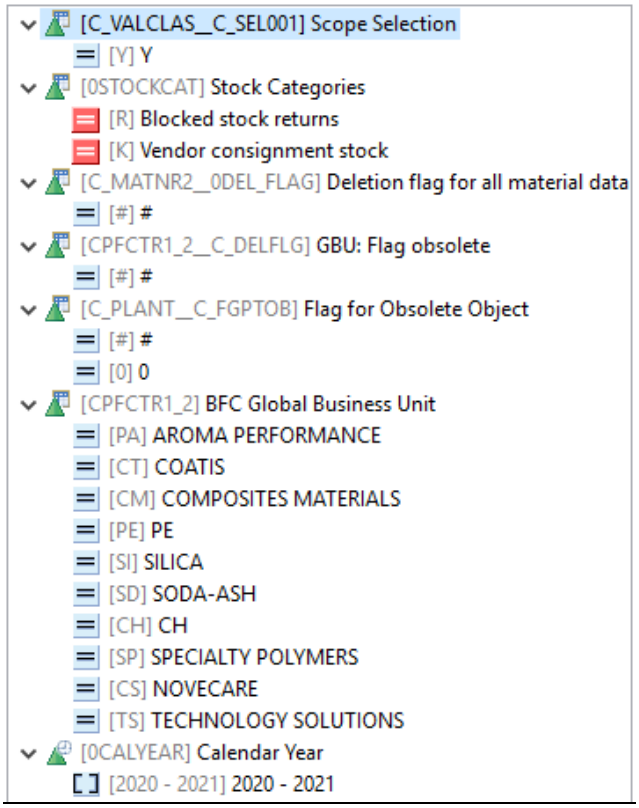
Calculated Key Figure	Description	Formula	Aggregation	Conversion
BW_CKF_CPMMIM07_0001	Total Stock Qty (VKG)	'0QUANT_B'	N/A	QCT_MATNR4
BW_CKF_CPMMIM07_0002	Total Stock Val (Eur)	IF('0VALUE_LC' <> 0; '0VALUE_LC'; 0)	N/A	CTK_GS04

SMOG

Functional and Technical rules on Workbench + Reporting

MM-IM: SMOG (HANA Ext. View) (BW_QRY_CPIMMM03*_0001)

BW query with filter to get only the 10 GBUs used in the SAC dashboard, material and plants not obsoletes and with the valuation class corresponding to relevant according to the business units.



- 0CALYEAR was defined with only 2 years per time in a fix value because query as external view doesn't allow HANA or ABAP variables.

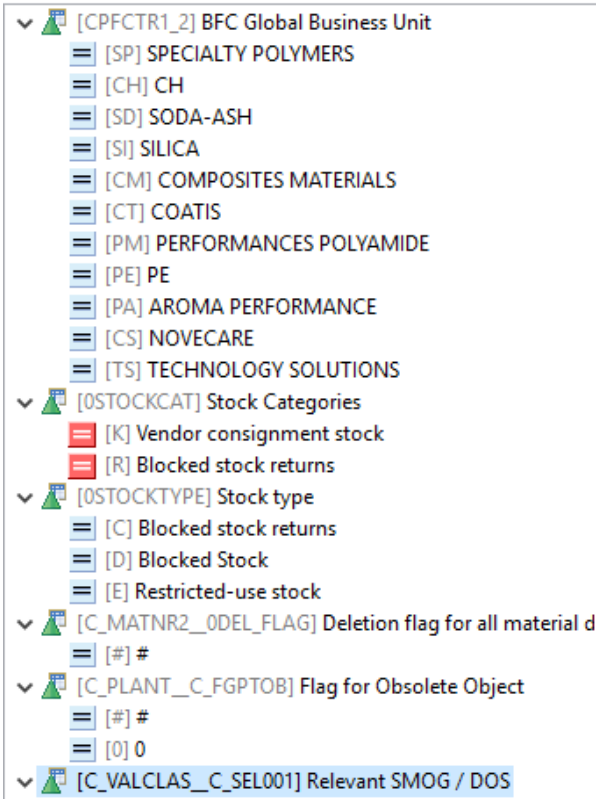
- The provider CPMMIM03R provides two queries because of the volume of data processed by the total stock in Rhodia model; BW_QRY_CPIMMM03R_0002 (only CS) and BW_QRY_CPIMMM03R_0001 (other GBUs).

Calc. view for position of last month (CV_MM_IM_ABMMIM05*_M1)

Calculation view based on the query bw_qry_cpimmm03*_0001, filtering the previous month and the situations where the batch expire date or manufacture date from batch is not initial. The data come back to BW by the datasource CV_MM_IM_ABMMIM05*_M1 (WBP_HANAIV).

MM-IM: SMOG Evolution (Only Stock Type) (BW_QRY_CPIMMM01_0011)

BW query with filter to get only the stockt type 'C', 'D' or 'E', the 10 GBUs used by the SAC dashboard, material and plants not obsoletes and with the valuation class corresponding to relevant according to the business units.



The are two DTP when retrieving data to the provider ABMMIM06*, M-3 M-1 and M-6 M-4.

Material Movement - SMOG (ABMMIM06*)

The provider concatenate the results respecting the sequence batches blocked, obsolete and slow moving, if the same batch is classified in more than one condition.

AMDP

- Blocked - All batch with the stock type equal 'C', 'D' or 'E'
- Obsolete - If the last day of respective month of the load is greater than batch expiry date
- Slow moving - If the last day of respective month minus the batch manufacture date is bigger than 365 days
- Batch aging - According to the difference of days for the previous 2 classifications, it was created the aging 0 - 90 days, 90-120 days, 121 - 360 days, 361 - 720 days and greater than 720 days.

Material Movement - SMOG (ABMMIM06*) Recursive Load

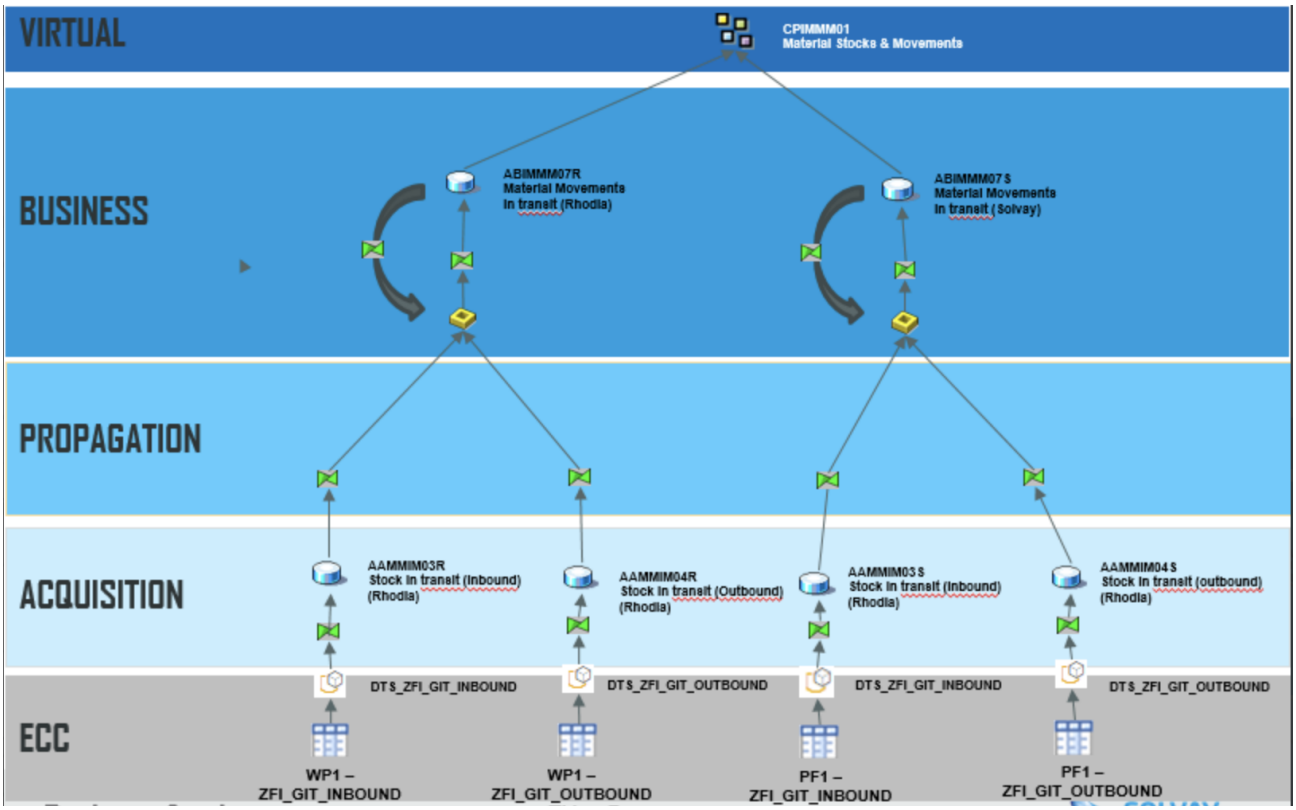
Once the provider concatenates the results respecting the sequence batches blocked, obsolete and slow moving with the corresponding values converted into EUR and quantities in VKG, the objects are order with the differences about the in and out results, split into I (IN) when the values and quantities are assigned at the first time according to the key or they rose, we keep without flag when the values don't change among the months or the difference between IN and the results from the month before, beyond that we classify as O (outbound) when the results reduce or they are not available anymore with the corresponding key in the sequent month.

AMDP

- The rules to assign IN and OUT is done at this level in the end routine comparing values for the same key with the month treated in the load with the month before and after.

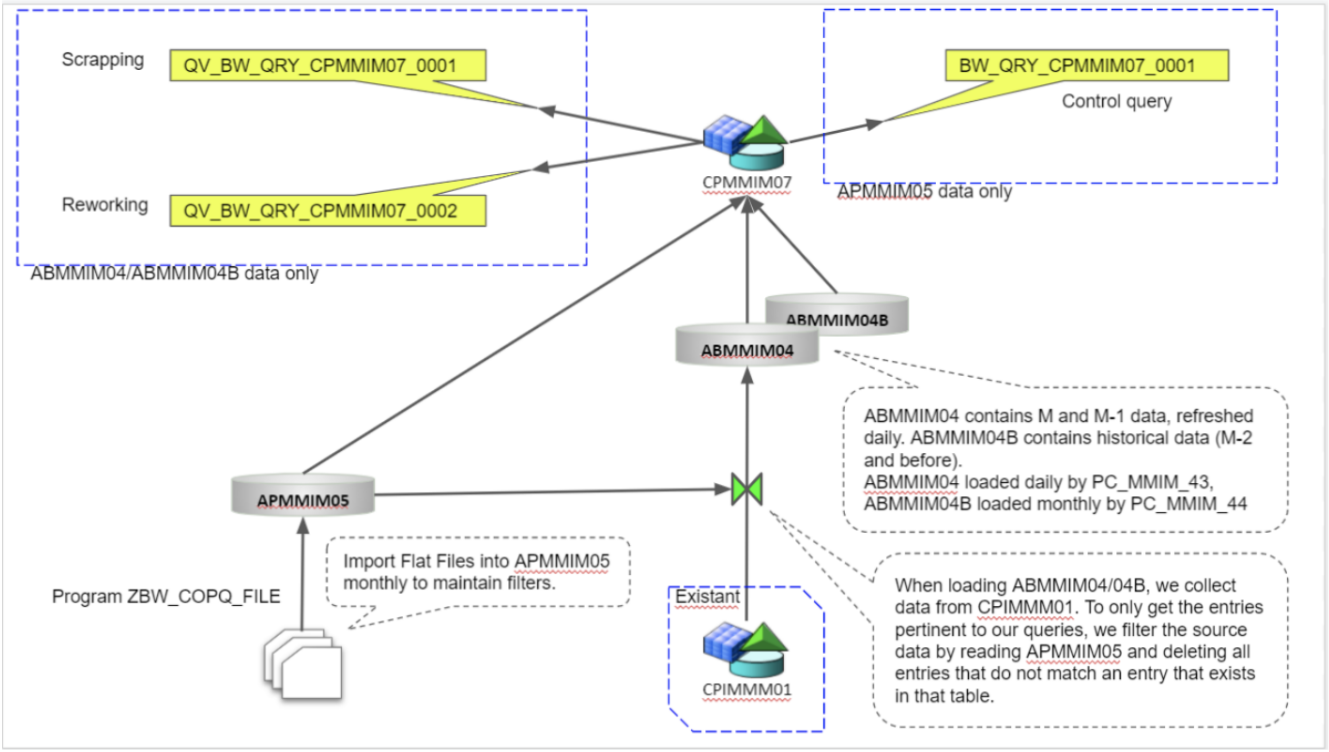
Data Flow

Process responsible for providing the inbound and outbound for in transit process following the finance information from tables ZFI_GIT_OUTBOUND and ZFI_GIT_INBOUND. In case of issues with this table, the SAP Finance team should be contacted.



All aDSO above the acquisition layer (basically a provider with the same fileds from datasource) uses an infosource in the link to become easier the implementation of different type of code: AMDP (recommend for look up at db level) and ABAP (better in treatments at row level).

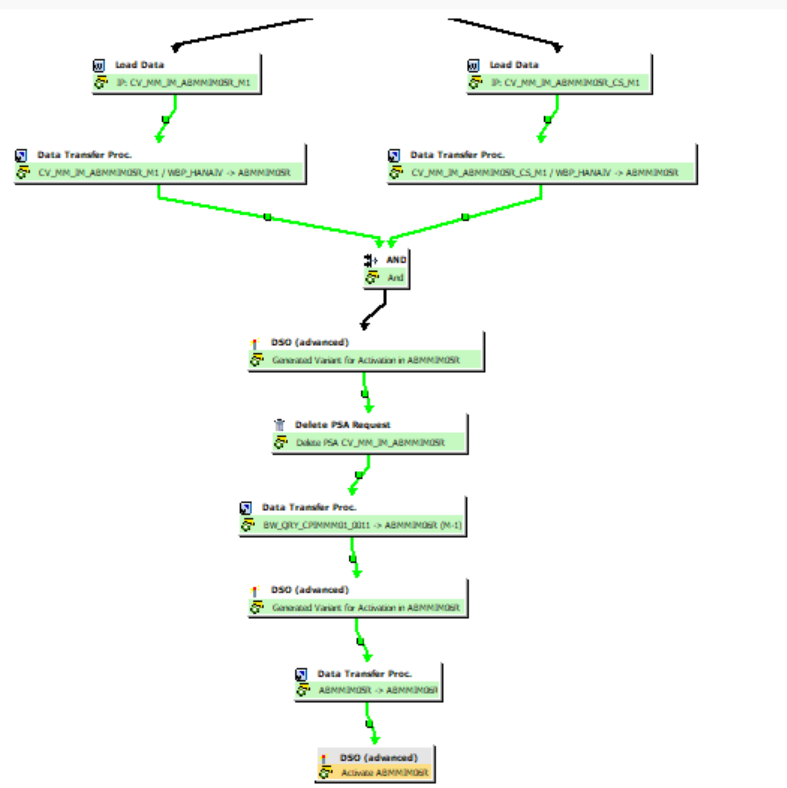
BW OTC - Scrapping & Reworking



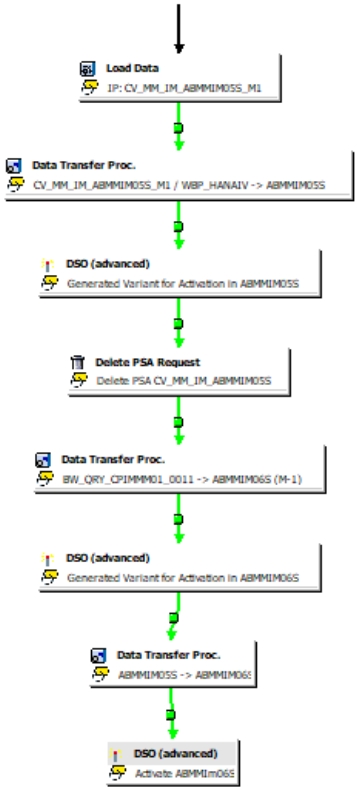
Data loading

Monthly process chain loaded at the day 05 for getting the data from previous month.

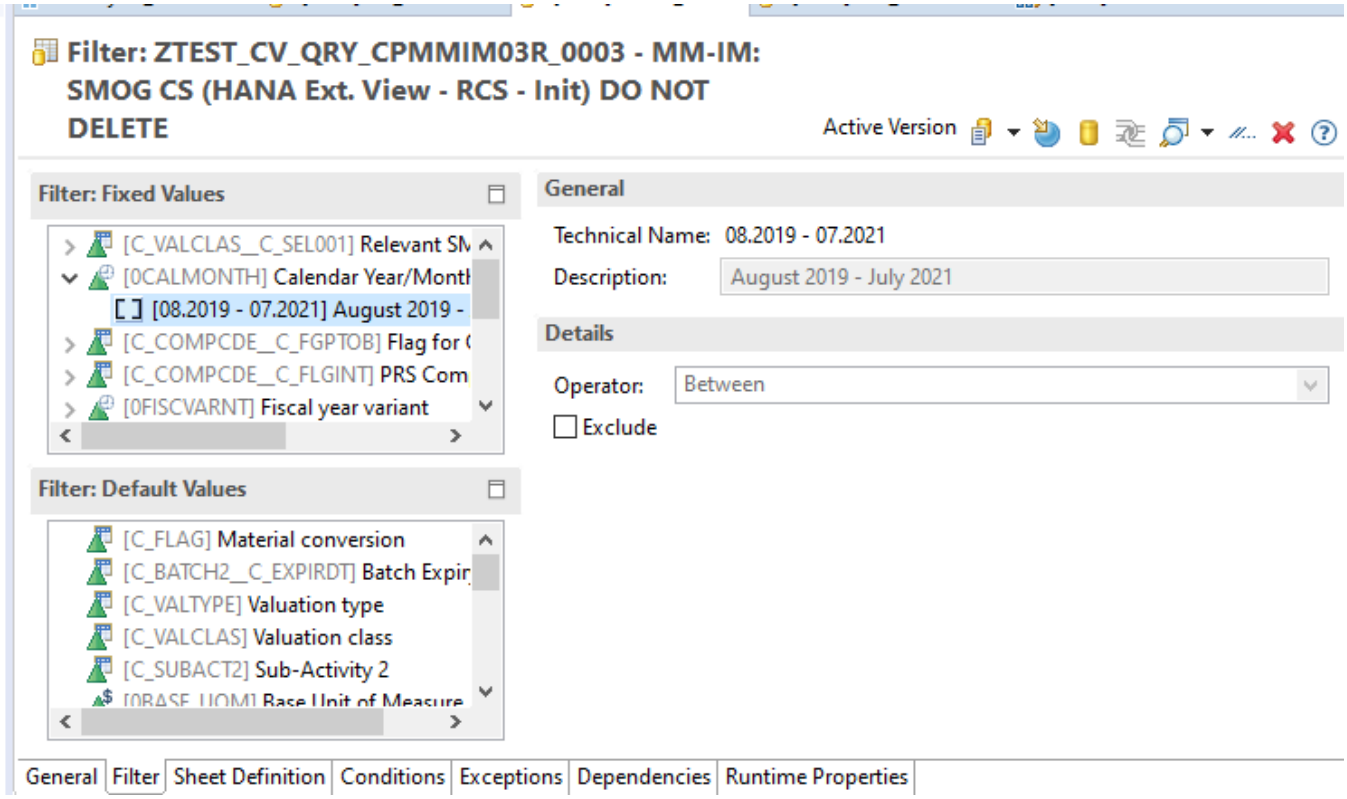
PC_MMIM_19 - MM: IM - M - SMOG Rhodia



PC_MMIM_20 - MM: IM - M - SMOG Solvay



The **INIT** process has a specific view on top of the ztest query Rhodia (ztest_cv_qry_cpmmim03r_0003) and Solvay (ztest_cv_qry_cpmmim03s_0002). They are ztest as an alternative to set the months to be loaded in the process, reinforcing that is important to have the last 24 months in SMOG.



Loading frequency

Once a month.

Reporting

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_M03	IM Stocks	Menu role

Authorization objects

List of authorization objects mandatory for the application.

Authorization object	Explanation
C_COMPCDE__C_AUTHMA	Company authorization scope
C_PLANT__C_AUTHMA	Plant authorization scope
CPFCTR1_2	Business unit

5.2 Process Detail

5.2.1. Report/Process Definition

Domain	Supply Chain
Application	Inventory Management
Provider	• Material Movement - ABMMIM03 • Price control - AAMMIM02 • Material movements - Price (APMMIM02* / APMMIM04*) • Material stock non cumulative (ABMMIM02*) • Material stock - Initialization (ABMMIM01*)

This section represents the process with detail information for the application. Can include specific or special cases, complex logics , calculations, flows, among others.

6.0 Non-functional Descriptions

Please populate the relevant section and delete those that are not applicable.

6.1 Usability

Usability is about the ease with which a User can learn to start using the solution and the ease with which they can use the system. In addition to ease of learning and ease of use, usability also includes areas such as ease of recall, error avoidance and handling, accessibility among others e.g., 99% of metadata entry Users who have use the Maintenance Dashboard should be able to change filters, extract etc., when required. Maintenance data will be centrally stored in the Google Cloud platform, which will be available to other applications e.g., and Dashboards if needed.

6.2 Regulatory Compliance

Software systems must comply with legal and regulatory e.g., GDPR requirements, this can change depending on country, organisation industry and / or region. The software systems must be secure from unauthorized access. The Maintenance Dashboard will comply with Solvay's regulations and compliance e.g., access only granted to authorized Users.

6.3 Security

Security refers to essential aspects that assure a solution and its components will be protected against unauthorized access or malware attacks. Important considerations related to security aspects of a system are User authentication, User authorization or User access privileges, data theft, malware attacks, data encryption, and maintaining audit trails, e.g., only Users with administrator access shall be able to create new accounts and assign data access privileges to the new accounts e.g.,

- *All data will be encrypted in the dashboard*
- *Only authorised Users / Administrative Users will be able to access data.*
- *Maintenance data will be split between either SCO or ECO, and Users will only have authority to one Entity data.*

6.4 Performance

Performance defines how fast a software system or a particular section of it responds to certain User actions under a certain workload. In most cases, this metric explains how long a User must wait before the target operation happens e.g., the page renders, a transaction is processed, etc., given the overall number of Users now. Performance requirements may describe background processes invisible to Users, e.g., backup and speed of data transfers.

6.5 Reliability

Reliability is the ability of a solution or its component to perform its required functions without failure under predefined conditions for a specified time / period. Reliability can possibly be specified in terms of average time system runs before failure occurs, percentage of operations completed successfully within a time / period, maximum acceptable failure probability, or number of failures within a period. Reliability aspects are in reference to (but not limited to) evaluation of the system to be considered as reliable, classification of reliability defining failures vs. regular failures, and the impact of failure on business operations. The Maintenance Dashboard will display data from the previous refresh of data.

6.6 Scalability

Scalability refers to the degree to which a solution can evolve to handle increased amounts of work. The increased amount of work could be in terms of the user base, transactions, data, network traffic, or other factors e.g., the system should be able to handle an additional load of a maximum of 5,000 Users every month for the next 6 months without any noticeable performance impacts.

6.7 Compatibility

Interoperability is the degree to which the solution is compatible with other components. It is a measure of how effectively the system interoperates with other software systems and how easily it integrates with external hardware devices.

Interoperability aspects to be discussed during elicitation are in reference to (but not limited to) software systems to be interfaced with along with data / messages to be exchanged and any standard data formats, hardware components to be integrated with, and any standard communication protocols to be followed e.g., Order Management system will push the order file into a secured file transfer protocol server from where it will be loaded into the system through a daily job. To guarantee between Google Cloud platform and SAP BW Queries e.g., BW_QRY_MVPMOR01_0002, Solvay has introduced a new tool called Xtract (Xtract).

6.8 Availability

Availability is the degree to which the solution is operable and accessible when required. It is a measure of time during which the system is fully operational e.g., available for use and sometimes included as a Service Level Agreement (SLA) considering its criticality to the business, e.g., the system shall be at least 99% available on weekdays between 09:00 to 18:30 Central European Time (CET).

6.9 Refresh of the Data

Frequency, data, and time of the data refresh in the data product.