

BW OTC TIERS - Transportation Costs

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General presentation

The application loads data of the transportation shipments, deliveries and shipment costs from ECC (Solvay and Rhodia) into BW.

It is done daily using delta process via process chain schedule.

TIERS means Transport Integrated and Enhanced Reporting Solution

List of contacts

- Jean Baptiste Cercueil (SBS logistics Excellence) : Business Application Owner
- Sandra Silveira (SBS Information Services) : Reporting Coordinator
- Guillaume Thevenet (SBS Information Services) : BW Coordinator
- Nestor Araujo (SBS Information Services) : BW Technical Developer

Objective of the application

- One unique reporting solution for the group
- Rationalization of the "live" solutions and reduction of evolutions requested
- Maintainable and sustainable solution.
- Enabler for productivity actions on Shipment costs
- Drillable solution - allowing possibility to detect & analyse problems by showing the link from aggregated figures down to document in SAP.
- Few "core" queries/workbooks design for application (=> Use BW analysis functionalities and not just as extractor).
- One common & consolidated reporting space.

Reasons

- Revamped reporting BW solution based on RCS (WBP-TR002) but built on old historical architecture (no project on this application for years) - mainly designed for cost reporting.
- Only aggregated monthly data available on PF1.
- Specific solution (cross legacies) built for CO2 footprint with activation of some standard extractors on PQ1.
- More than 250 existing queries in SAP => almost impossible to maintain on an efficient way, most of them not or almost not documented.
- Some previous experiences of common transversal reporting tools : WISE (working cap.) and SPRINT (Purchasing and Procurement).
- "Drillable" solution - allowing possibility to detect & analyse problems by showing the link from aggregated figures down to document in SAP.
- Few "core" queries/workbooks design for application (=> Use BW analysis functionalities and not just as extractor).

History

The Transportation Costs analysis was developed in 2007 to attend the Rhodia users of Logistic processes. The solution had usage several DSO's and just one cube with many detailed information. The number of tickets about inconsistencies of data and bad performance some of triggers to develop a new application, in this case much more robust and covering also the Solvay data and its users.

The TIERS project was started in the begin of 2015, using a remodeling by layers Layered Scalable Architecture (LSA), in our case: propagation, business, reporting and virtual layers. The current transportation datasources from Rhodia were reused with low change and all datasources from Solvay were activated with low enhancements. Some additional master data were created to avoid duplication of data in different providers, like shipment document, shipment cost item and delivery item.

The development of project was request by the logistic areas and Jean Baptiste concentrated all the requests and generated the functional specification.

The project was started in April/2015 and it was deployed in December/2015 with all users trained.

Usage information

Around 300 users, worldwide with daily update

Statistics by infoproviders

InfoProvider Used	Calendar Year/Month	JAN 2016	FEB 2016	MAR 2016	APR 2016	MAY 2016	JUN 2016	JUL 2016
CUBE/A/CUB_TR001	Cube Transportation Costs	40	26	20	26	31	21	23
MPRO/A/MPR_TR002	TR: Deliveries, Shipments, S.Costs, Invoices, Conditions	18	4	13	24	8	14	4
MPRO/A/MVSDTR01	TR Vir: Shipm & Delivery & Cost & Cond & PO/Inv (Sol&Rho)	570	679	722	604	539	591	404
MPRO/A/MVSDTR02	TR Vir: Shipment Events (Solvay & Rhodia)	12	27	5	19	9	20	31
ODSO/A/ODS_FKZ3	Shipment Cost / Shipment / Delivery / Item (final)	4	2	1	1	1	1	1
ODSO/A/ODS_TLP1	Shipment Delivery Item Data per Stage	50	62	51	64	60	50	52
Overall Result		694	800	812	738	648	697	515

PS: The providers marked in blue are important to be monitored, the other ones are referent to the old TR solution that should be deactivated soon.

Statistics by queries

InfoProvider	Query		JAN 2016	FEB 2016	MAR 2016	APR 2016	MAY 2016	JUN 2016	JUL 2016
MVSDTR01	BW_QRY_MVSDTR01_0010	BW - Shipment costs detailed analysis	428	390	441	332	312	285	232
	BW_QRY_MVSDTR01_0011	BW - Accrual Costs vs Invoice analysis	75	133	156	159	131	155	73
	BW_QRY_MVSDTR01_0012	BW - Shipment status and events	40	133	93	110	88	139	92

	BW_QRY_MVSDTR01_0013	BW - CO ² Emissions	3	11	16	2	3	4	4
	QVEPSC_BW_QRY_MVSDTR01_0001	BW - Shipment Costs Analysis for E&P				0	1	0	0
	QVNVSC_BW_QRY_MVSDTR01_0001	BW - Shipment Costs Analysis for Novocare	2	1	0	0	0	0	0
	QVPISC_BW_QRY_MVSDTR01_0001	BW - Shipment Costs Analysis for P&I	5	0	3	0	0	1	0
	QVSBS_BW_QRY_MVSDTR01_0001	BW - SBS OTC Shipment Costs			0				
	QVSCE_BW_QRY_MVSDTR01_0010	BW - Economics part of activity SCE	1	4	0	0	0	0	0
	QVSCE_BW_QRY_MVSDTR01_0012	BW - Activity Haulier Evaluation SCE	1	3	0	0	0	0	0
	QVSCE_BW_QRY_MVSDTR01_0013	BW - CO ² Footprint SCE	15	3	10	0	2	0	0
MVSDTR02	BW_QRY_MVSDTR02_0001	BW - Shipment Events	12	27	5	19	9	20	30
Result			582	706	727	623	548	611	435

General Rules


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_M072	TR - Transportation costs New	role menu
ZBI_RCS_TR_A08	New Transport Costs Analysis - End User Role	role menu for TIERS, gives access to all cubes under infoarea IA_SD_TR* Authorization Object ZBI_TR2 / Authorization on Company Code This role has to be used with the role menu transportation costs

NB: The role menu ZR_RCS_ALL_MENU "Role composite with all role Menu and perimeters" gives access to all role menu. When asking for a new role menu, do not forget it is added to that one.

NB: ZBI_RCS_TR_A02 & ZR_RCS_TR_A02 are obsolete

Charact./Dimensions	Description	Intervals	Node
<u>OCO_AREA</u>	Controlling area	×	
<u>OEHS_AUTH</u>	Authorization Group	×	
<u>OEHS_SPEC</u> <u>OEHS_AUTH</u>	Authorization Group	×	
<u>OPERS_AREA</u>	Personnel Area	×	
<u>OPLANT</u>	Plant	×	
<u>OPROFIT_CTR</u> <u>OPLANT</u>	Plant	×	
<u>OPROFIT_CTR</u> <u>CPFCTR1_2</u>	BFC Global Business Unit	×	
<u>OPROFIT_CTR</u> <u>C_PFCCTR1</u>	1 - RCS Global Business Unit	×	
<u>OTCAACTVI</u>	Activity in Analysis Authorizations	[]	
<u>OTCAIPROV</u>	Authorizations for InfoProvider		
<u>OTCAKYFNM</u>	Key Figure in Analysis Authorizations	×	
<u>OTCAVALID</u>	Validity of an Authorization	×	
<u>OTCTAUTHH</u>	Authorization for hierarchy	×	
<u>C_BFCA_4</u>	BFC GBU (FC GBU)	×	
<u>C_BU_PS</u>	Business Unit (for Project System)	×	
<u>C_CCRESF</u>	Person Responsible	×	
<u>C_CNTRY_0</u>	Country of Origin	×	
<u>C_COMPCDE</u> <u>C_COMPPRS</u>	PRS Company code	×	
<u>C_COSTCTR</u>	Cost Center	×	
<u>C_COSTCTR</u> <u>C_FUNCT_2</u>	2 Function	×	
<u>C_FAMIL</u>	Family of WBS element	×	
<u>C_FAMINPR</u>	Family of investment project	×	
<u>C_FUNCT_2</u>	2 Function	×	
<u>C_FUNCT_3</u>	3 Sub-function Grouping	×	
<u>C_MATPLNT</u> <u>C_PFCCTR1</u>	1 - RCS Global Business Unit	×	
<u>C_MA_PR</u> <u>C_BFCA_4</u>	BFC GBU (FC GBU)	×	

C MA PR C FAMINPR	Family of investment project	×	
C MA PR C PLANT	Plant	×	
C PFCTR1	ERP Global Business Unit	×	
C PFCTR2	ERP Group of activities	×	
C PLANT	Plant	×	
C REG	Regulatory List	×	
C RESP CC C FUNCT 3	Resp CC - 3 Sub-function Grouping	×	
C SUBACT2 CPFCTR1 2	BFC Global Business Unit	×	
C VALSTR	Value Stream	×	
C WBS EL2 C FAMIL	Family of WBS element	×	
C WBS EL2 C PLANT	Plant	×	
C WBS EL2 C ZSECT	Global Business Unit	×	
C WBS ELE OPLANT	Plant	×	
C WBS ELE C FAMIL	Family of WBS element	×	
C WBS ELE C ZSECT	Global Business Unit	×	
C ZSECT	Global Business Unit	×	

ZBI_RCS_TR_A08 OO Transportation Costs Analysis TIERS - End User Role

- OO Manually Cross-application Authorization Objects
 - OO Manually Basis: Administration
 - OO Manually Basis - Central Functions
 - OO Manually Business Information Warehouse
- OO Manually Data Warehousing Workbench - Objects
 - OO Manually Analysis Office: Authority Object
 - OO Manually BI Analysis Authorizations in Role
 - OO Manually BI Analysis Authorizations in Role
 - * BW Analysis Authorizations: Na ZBI_TR2
- OO Manually Business Explorer - Components
 - OO Manually Business Explorer - Components: Enhancements to the Owner
 - OO Manually Business Explorer - Folder View On/Off
 - OO Manually Data Warehousing Workbench - Hierarchy
 - OO Manually Data Warehousing Workbench - InfoCube
 - OO Manually Data Warehousing Workbench - InfoSet
 - OO Manually Data Warehousing Workbench - MultiProvider
 - OO Manually Administrator Workbench - MultiProvider
 - * Activity Display
 - * InfoArea AREA_S_TR, AREA_S_TR_ODS*, IA_SD_TR*
 - * MultiProvider *
 - * MultiProvider Subobject All values

Authorization objects

List of autorisation objects mandatory for the application.

Authorization object	Explanation
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Company Code (C_COMPDE)	ZTOUTCAP01 => All Companies "Solvay" ZR_*_CA_P01 ZR_ZFR3_CA_P01 => Analysis company Rhodia Opérations (ZFR3)
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Authorization: ZTOUTCAP01
Description: company - All Compan
Charact. C_COMPDE

4 Value Authorizations Hierarchy Authorizations

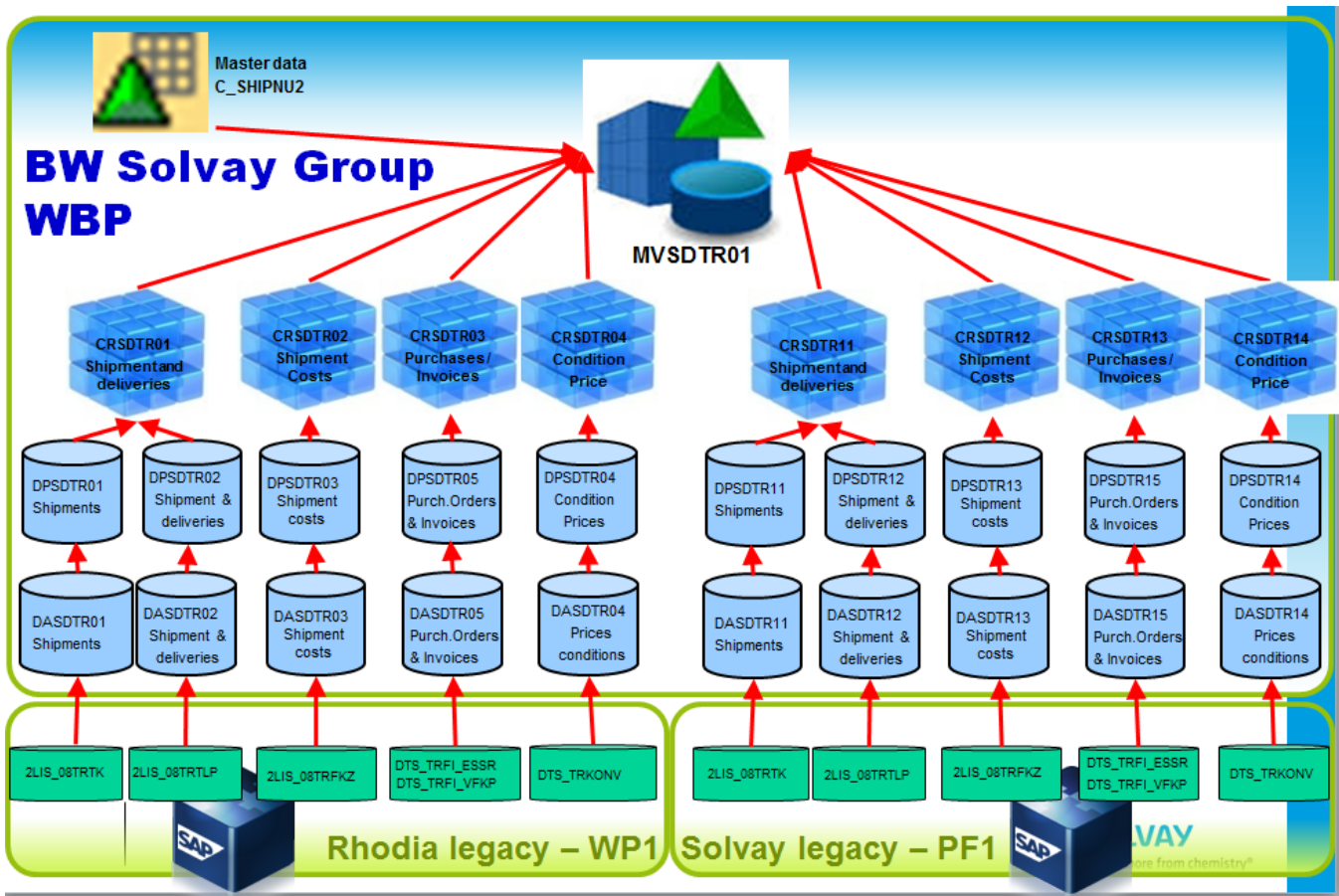
Single Intervals

I...	O...	Technical Character. (from)	Technical C
I	BT	0000	ZFR8
I	BT	ZFS0	ZUS3
I	BT	ZUS5	ZZZZ
I	EQ	#	

See also file maintained by Authorization team :

- BW Catalog of Roles: [Authorization catalog](#)
- BW Authorization: [BW Authorizations](#)

Dataflow overview



Functional and Technical rules on Workbench + Reporting

Rules & Explanations

Main documentation:

Preparation

- Kickoff
- Project Quality Plan
- Design Validation

Design

- Functional Specification
- Map of Datasources
- Profiles Management
- Queries Definition
- Technical documentation

Deployment

- [E Learning](#)

Rule to take the GBU code

Read the field C_SUBACT2 (profit center) from master data C_MATPNT3 using plant and material as key.

```

SELECT logsys
      /bic/c_plant
      /bic/c_matpnt3
      /bic/c_pfctr1
      /bic/c_subact2
      co_area
INTO TABLE itb_matpnt2
FROM /bic/pc_matpnt3
FOR ALL ENTRIES IN itb_dpsdtr02
WHERE /bic/c_plant = itb_dpsdtr02-c_plant
      AND /bic/c_matpnt3 = itb_dpsdtr02-c_matpnt2
      AND logsys = itb_dpsdtr02-logsys
      AND objvers = 'A'.

READ TABLE itb_matpnt2 INTO itb_matpnt2_w
WITH TABLE KEY logsys = <result_fields>-logsys
      c_plant = <result_fields>-/bic/c_plant
      c_matpnt2 = itb_dpsdtr02_w-c_matpnt2.
IF sy-subrc = 0.
<result_fields>-/bic/c_pfctr1 = itb_matpnt2_w-c_pfctr1.
<result_fields>-/bic/c_subact2 = itb_matpnt2_w-c_subact2.
<result_fields>-co_area = itb_matpnt2_w-co_area.

```

Rule to determine the partner code

```

IF itb_dpsdtr02_w-c_vendid IS NOT INITIAL.
<result_fields>-/bic/c_pnty3py = 'VEND'.
<result_fields>-/bic/c_3rparty = itb_dpsdtr02_w-c_vendid.
SHIFT <result_fields>-/bic/c_3rparty LEFT DELETING LEADING '0'.
ENDIF.
IF itb_dpsdtr02_w-c_shiptid IS NOT INITIAL.
<result_fields>-/bic/c_pnty3py = 'CUST'.
<result_fields>-/bic/c_3rparty = itb_dpsdtr02_w-c_shiptid.
SHIFT <result_fields>-/bic/c_3rparty LEFT DELETING LEADING '0'.
ENDIF.

```

Rule to determine the departure and destination code

```

IF itb_dpsdtr02_w-c_dpnode2 IS NOT INITIAL.

<result_fields>-/bic/c_pntydp = 'NODE'.
<result_fields>-/bic/c_pntdp2 = itb_dpsdtr02_w-c_dpnode2.
ENDIF.
IF itb_dpsdtr02_w-c_dpshpn2 IS NOT INITIAL.
<result_fields>-/bic/c_pntydp = 'SHIPP'.
w_shppnt = itb_dpsdtr02_w-c_dpshpn2.
<result_fields>-/bic/c_pntdp2 = w_shppnt.
ENDIF.
IF itb_dpsdtr02_w-c_dpplnt2 IS NOT INITIAL.
<result_fields>-/bic/c_pntydp = 'PLANT'.
<result_fields>-/bic/c_pntdp2 = itb_dpsdtr02_w-c_dpplnt2.
ENDIF.
IF itb_dpsdtr02_w-c_dpvend2 IS NOT INITIAL.
<result_fields>-/bic/c_pntydp = 'VEND'.
<result_fields>-/bic/c_pntdp2 = itb_dpsdtr02_w-c_dpvend2.
SHIFT <result_fields>-/bic/c_pntdp2 LEFT DELETING LEADING '0'.
ENDIF.
IF itb_dpsdtr02_w-c_dpcust2 IS NOT INITIAL.
<result_fields>-/bic/c_pntydp = 'CUST'.
<result_fields>-/bic/c_pntdp2 = itb_dpsdtr02_w-c_dpcust2.
SHIFT <result_fields>-/bic/c_pntdp2 LEFT DELETING LEADING '0'.
ENDIF.

```

Rule to determine the reference month

```

IF itb_dpsdtr01_w-dtcomplant IS NOT INITIAL. " (shipment completion date)
<result_fields>-rslt_rmnth = itb_dpsdtr01_w-dtcomplant(6).
ELSE.
IF itb_dpsdtr01_w-dtcompl_pl IS NOT INITIAL.
<result_fields>-rslt_rmnth = itb_dpsdtr01_w-dtcompl_pl(6). " (shipment planned completion date)
ELSE.
<result_fields>-rslt_rmnth = itb_dpsdtr01_w-erdat(6). " (shipment creation date)
ENDIF.
ENDIF.

```

Unit conversions

The Unit conversion is done in the Bex queries (Quantity Conversion Type), after user chooses the unit conversion on reports

Transactionnal data are stored in sales unit

- if base unit / po unit is managed in dimension MASS, conversion within table T006 works well
- if base unit / po unit is not managed in dimension MASS, conversions for KG/LB/TO have to be managed on ERP side (MM03 / Alternative Conversion).

There are many "special" units on Solvay ERP, ie: 1KG, 1TN, VKG, KRE,

Important :

Quantities are not converted when loading data, and are not store into cubes (The conversion is done when running the report)

So, if a conversion is missing for a material ask the material referent to

1- manage the conversion on ERP Side by managed the material master (MM03) / unit of measure tab

2- the day after, when the DSO UOMCMAT2 is filled, the conversion is applied in the reports. It applies to whole data without any reloading.

The conversion type created by TIERS queries is QCT_MATNR4 (see below the setup for it).

Quantity Conversion Type Display

Object Directory Entry

Conversion Type	QCT_MATNR4
Long Description	Qty Conversion Unit (based on C_MATNR2)
Short Description	Qty Conversion Unit

Hdr data | Conversion Factors | Unit of Meas.

Dynamic determination of conversion factor

Using Reference InfoObject, If Available, Otherwise Using Centr. UOMs (T006)

Reference InfoObject	C_MATNR2	Material
InfoSet		

Target Unit of Measure

Selection of Unit of Measure during Conv.

Fixed Unit of Measure

Target Quantity from Variable

	VBASE_UOM_05	Conversion Unit (Single, Required)
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[BW Quantity Conversion](#)

[BW Updated Qty Unit by Material](#)

Currency conversion

The reports are all based on amounts in **Local Currency** Those amounts come directly from RCS/PF1. If user selects a currency in the prompt the query will convert, otherwise it will return the values in local currency.

The X rate considered is the Daily Month Average (M) rate (table managed by finance team, source ECB - European Central Bank) based on Document creation date.

- See private documentation on [BW Currency Conversion](#)

The **current available rates** applied to **ALL data** (even past data) independently of the date.

We applied conversion type **Curr Conv based on M shpcst creation** - CTK_MTIERS (see setup below) :

Conversion Type: CTK_MTIERS
Description: Curr Conv based on M shpcst creation

Properties | Exchange Rate | Currncy | Time Ref.

ER Determ. Using FI Modules

Exchange Rate Type M Standard translation at average rate

Ex. Rate Type from Var.

Conversion Type: CTK_MTIERS
Description: Curr Conv based on M shpcst creation

Properties | Exchange Rate | Currncy | Time Ref.

Fixed Time Ref.

Current Date

Key Date

Time Reference from Variable

Use Query Key Date

Variable Time Reference To Exact Day

Standard InfoObject 0CALDAY Calendar Day

BW Currency Conversion

Dependencies with other applications

- It shares extractors (2LIS_08TRTK, 2LIS_08TRTLP, 2LIS_08TRFKZ) with the legacy TR application for WP1 and PF1.
 - It was created some master data in order to have the attributes shared with several applications: shipment doc, delivery doc and shipment cost item doc.
 - Data is consumed by Qlikview dashboard. The loadings in QV are daily. It runs a fixed scheduled, the loadings must be finished when the next start.
 - There is an integration with SPRINT (purchase schedule lines) to store there the service purchases (freight)
 - There are links between TIERS and Value Stream and Industrial dashboard (both for Rhodia legacy)
-
- There is an integration with SPRINT to store the profit center (C_SUBACT2) for purchase services

Rhodia PO schedule lines (DB_PUSL1)

InfoSource: Transport Cost to PO Schedule (Rhodia) (IFS_DPSDTR03_DB_PUSL1)				PO : Schedule Line (Rhodia) (DB_PUSL1) Rule Group: Standard Group							
Pos	Key	InfoObject	Icon	Descript.	Rule	Rule Name	Posit	Key	InfoObject	Icon	Descript.
1		0LOGSYS		Source System		0LOGSYS	1		0LOGSYS		Source System
2		ODOC_NUM		BW: Document Number		ODOC_NUM	2		ODOC_NUM		BW: Document Number
3		C_PO_ITM		Purchase Order Item		ODOC_ITEM	3		ODOC_ITEM		BW: Document Line Number
4		C_MATNR2		Material		See End Routine	4		OSCHED_LINE		Schedule line number
5		C_PLANT		Plant		See End Routine	5		OPSTNG_DATE		Posting date in the document
						See End Routine	6		OFISCVARNT		Fiscal year variant
						OSTORNO	8		OSTORNO		Reversal indicator

Solvay PO schedule lines (DB_PUSL2)

InfoSource: Transport Cost to PO Schedule (Solvay) (IFS_DPSDTR23_DB_PUSL2)				PO : Schedule Line (Solvay) (DB_PUSL2) Rule Group: Standard Group							
Pos	Key	InfoObject	Icon	Descript.	Rule	Rule Name	Posit	Key	InfoObject	Icon	Descript.
1		0LOGSYS		Source System		0LOGSYS	1		0LOGSYS		Source System
2		ODOC_NUM		BW: Document Number		ODOC_NUM	2		ODOC_NUM		BW: Document Number
3		C_PO_ITM		Purchase Order Item		ODOC_ITEM	3		ODOC_ITEM		BW: Document Line Number
4		C_MATNR2		Material		See End Routine	4		OSCHED_LINE		Schedule line number
5		C_PLANT		Plant		See End Routine	5		OPSTNG_DATE		Posting date in the document
						See End Routine	6		OFISCVARNT		Fiscal year variant
						OSTORNO	8		OSTORNO		Reversal indicator
						OPO_STATUS	9		OPO_STATUS		Status of purchasing document

- There is an integration with Value Stream to store there the cost of transports

Rhodia CUB_VS (value stream)

TR Bus: Shipment Costs (Rhodia) (DBSDTR03)				Infocube Value Stream (CUB_VS) Rule Group: Standard Group							
Posi	Key	InfoObject	Icon	Descript.	Rule	Rule Name	Posit	Key	InfoObject	Icon	Descript.
1		0LOGSYS		Source System		OCALMONTH	1		OCALMONTH		Calendar Year/Month
2		C_SHCSTN2		Shipment cost number (Core)		OCALQUART1	2		OCALQUART1		Quarter
3		C_SHCSTI2		Shipment Cost item (core)		OCALYEAR	3		OCALYEAR		Calendar Year
4		C_SHIPNU2		Shipment Number (Core)		OCALMONTH2	4		OCALMONTH2		Calendar month
5		C_DELNUM2		Delivery number		OFISCPER	5		OFISCPER		Fiscal year / period
6		C_DELTIM2		Delivery Item (Core)		OFISCPER3	6		OFISCPER3		Posting period
7		OCALDAY		Calendar Day		K4	7		OFISCVARNT		Fiscal year variant
8		C_TSRFO		Shipment Stage sequence		OFISCYEAR	8		OFISCYEAR		Fiscal year
9		C_VHILM2		Packaging materials		OCALQUARTER	9		OCALQUARTER		Calendar Year/Quarter
10		O RECORDMODE		BW Delta Process: Update Mode		C_MATPNT2	10		C_VALSTR		Value Stream
11		C_FWDAGID		Forward Agent (Core)		C_CELTHF1	11		C_CELTHF1		Fixed cost Group 1
12		C_COMPDE		Company code		C_OEECAT	12		C_OEECAT		Notification Cause
13		OCO_AREA		Controlling area		10	13		O VTYPE		Value Type for Reporting
14		C_SUBACT2		Sub-Activity 2		C_CELTHF2	14		C_CELTHF2		Fixed cost Group 2
15		C_PFCTR1		ERP Global Business Unit		Version	15		O VERSION		Version
16		C_MATNR2		Material		C_RAWMAT	16		C_RAWMAT		Raw Material
17		C_PLANT		Plant		C_UTILITY	17		C_UTILITY		Utilities
18		O LEGIND		Leg indicator		C_VHILM	18		C_VHILM		Packaging materials
19		C_MATPNT2		Material Plant		C_MATUTL	19		C_MATUTL		Raw Material/Packaging/Utilities

- There is an integration with Industrial dashboard to store there the cost of transports

Rhodia CUB_DIPL (industrial dashboard)

TR Bus: Shipment Costs (Rhodia) (DBSDTR03)				Infocube Industrial Dashboard by Plant (CUB_DIPLT) Rule Group: Standard Group						
Posi	Key	InfoObject	Ico	Rule	Rule Name	Posi	Key	InfoObject	Ico	Descript.
1		OLOGSYS	🏠		0CALMONTH	1		0CALMONTH	🕒	Calendar Year/Month
2		C_SHCSTN2	🏠		0CALQUART1	2		0CALQUART1	🕒	Quarter
3		C_SHCSTI2	🏠		0CALYEAR	3		0CALYEAR	🕒	Calendar Year
4		C_SHIPNU2	🏠		0CALMONTH2	4		0CALMONTH2	🕒	Calendar month
5		C_DELNUM2	🏠		0FISCPER	5		0FISCPER	🕒	Fiscal year / period
6		C_DELITM2	🏠		0FISCPER3	6		0FISCPER3	🕒	Posting period
7		0CALDAY	🕒		K4	7		0FISCVARNT	🕒	Fiscal year variant
8		C_TSRFO	🏠		0FISCYEAR	8		0FISCYEAR	🕒	Fiscal year
9		C_VHILM2	🏠		0CALQUARTER	9		0CALQUARTER	🕒	Calendar Year/Quarter
10		0RECORDMODE	🏠		C_CELTHF1	10		C_CELTHF1	🏠	Fixed cost Group 1
11		C_FWDAGID	🏠		C_OEECAT	11		C_OEECAT	🏠	Notification Cause
12		C_COMPDE	🏠		10	12		0VTYPE	🏠	Value Type for Reporting
13		0CO_AREA	🏠		C_CELTHF2	13		C_CELTHF2	🏠	Fixed cost Group 2
14		C_SUBACT2	🏠		0	14		0VERSION	🏠	Version
15		C_PFCCTR1	🏠		C_RAWMAT	15		C_RAWMAT	🏠	Raw Material
16		C_MATNR2	🏠		C_UTILITY	16		C_UTILITY	🏠	Utilities
17		C_PLANT	🏠		C_VHILM	17		C_VHILM	🏠	Packaging materials
18		0LEGIND	🏠		C_MATUTL	18		C_MATUTL	🏠	Raw Material/Packaging/Utilities
19		C_MATPNT2	🏠		C_TPCOMP	19		C_TPCOMP	🏠	Component type
20		C_PNTY3PY	🏠		C_SUBCMAT	20		C_SUBCMAT	🏠	Material Sub-Contracting
21		C_3RPARTY	🏠		K_OTIFS	21		K_OTIFS	🏠	OTIF - Supplier
22		C_PNTYDP3	🏠		K_OTIFC	22		K_OTIFC	🏠	OTIF - Customer
23		C_PNTDP3	🏠		KFIXCSTS	23		KFIXCSTS	🏠	Fixed Costs
24		C_PNTYDS3	🏠		KVARCSTS	24		KVARCSTS	🏠	Variable Costs - Total amount

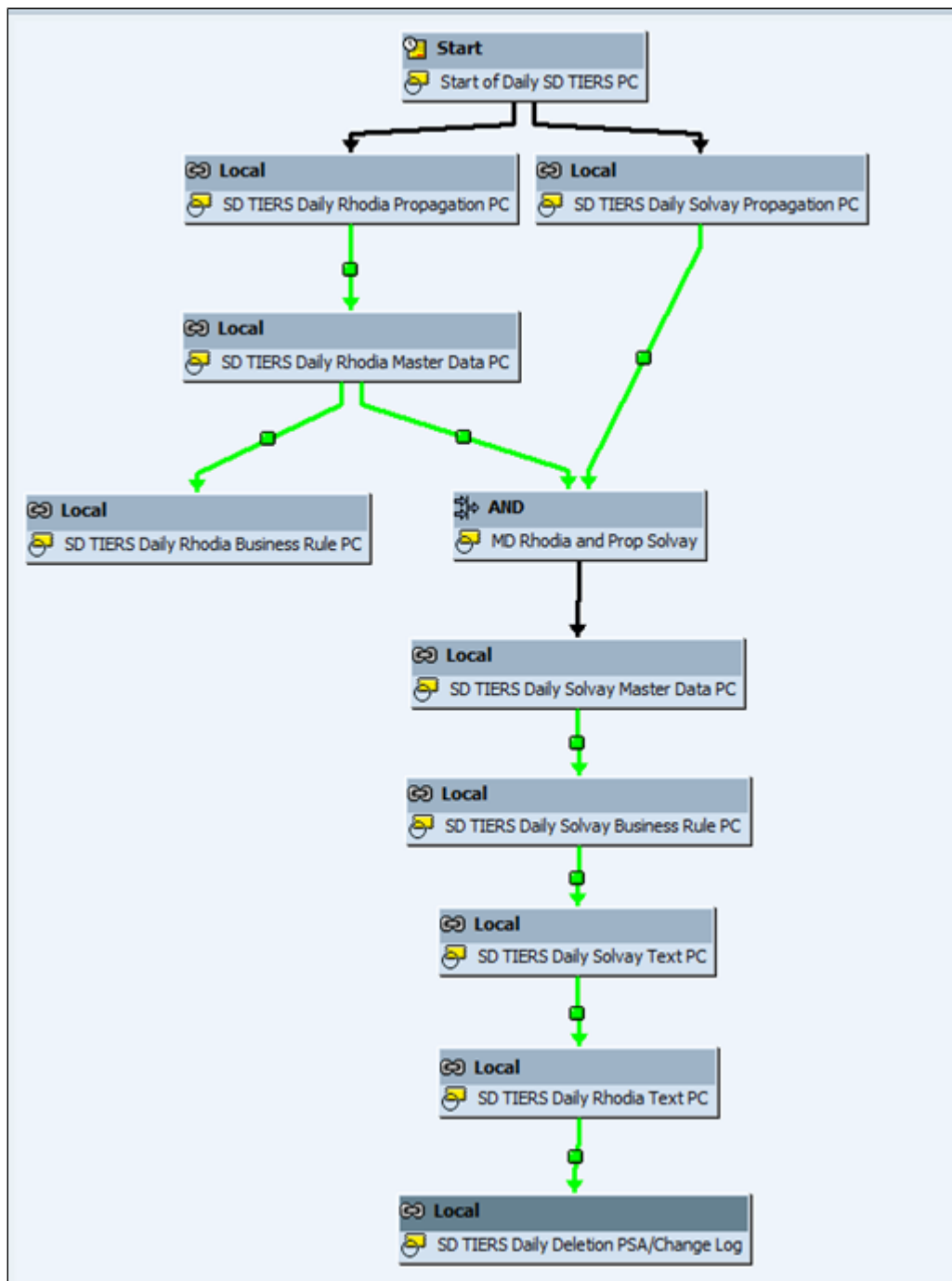
Data loadings

Info providers and objects loaded

1 - Main Process Chain

This process chain is responsible to trigger and synchronize all TIERS processes chains for Solvay and Rhodia. It is scheduled to run every workday inside the Daily process chain (RSP_DAILY) after general master data PC, around 3AM (French time).

- PC_SD_TIERS_001: SD TIERS Daily Main PC



2 - Propagation Layer

This process chain is responsible to run the loads between source system and first layer in BW.

- PC_SD_TIERS_020 à SD TIERS Daily Solvay Propagation PC
- PC_SD_TIERS_010 à SD TIERS Daily Rhodia Propagation PC

3 - Business Layer

This process chain is responsible to load the second and third layers from propagation layer.

- PC_SD_TIERS_021 à SD TIERS Daily Solvay Business Rule PC
- PC_SD_TIERS_011 à SD TIERS Daily Rhodia Business Rule PC

4 - Master data

This process chain is responsible to load all the master data attributes in BW.

- PC_SD_TIERS_MD_022 à SD TIERS Daily Solvay Master Data PC
- PC_SD_TIERS_MD_002 à SD TIERS Daily Rhodia Master Data PC

5 - Text & maintenance

This process chain is responsible to load all the master data texts in BW.

- PC_SD_TIERS_MD_TEXT022 à SD TIERS Daily Solvay Text PC
- PC_SD_TIERS_MD_TEXT002 à SD TIERS Daily Rhodia Text PC
- PC_SD_TIERS_DELETE à SD TIERS Daily Deletion PSA/Change Log

Loading frequency

Daily inside the daily process chain

Average performance & monitoring

Daily process chain is loaded in 2 hours with around 30k lines in DELTA mode for a total of 10M lines in cubes.

See below an extract of 1 month of monitoring

Status	Steps	Main	Chain	Log-Id	SubChains	Steps	Day	Date	Time	Runtime	Runtime [sec]	End Date	End Time
		<input type="checkbox"/>	PC_SD_TIERS_001	56M48CX0AZ2T2X644E2O6C6KF	9	277	WE	20.07.2016	21:18:46	02:14:11	8.051	20.07.2016	23:32:57
		<input type="checkbox"/>	PC_SD_TIERS_001	56LBZJ5F5T5NUA0C4U5CHIM9R	9	277	TU	19.07.2016	21:26:10	01:49:23	6.563	19.07.2016	23:15:33
		<input type="checkbox"/>	PC_SD_TIERS_001	56L7S17FPHF93C4ZD4B15ZY7	9	277	MO	18.07.2016	21:28:27	01:54:02	6.842	18.07.2016	23:22:30
		<input type="checkbox"/>	PC_SD_TIERS_001	56L6UIQ0YFI0AYF8MHEMXXBHR	9	277	MO	18.07.2016	02:42:08	08:31:20	30.680	18.07.2016	11:13:28
		<input type="checkbox"/>	PC_SD_TIERS_001	56J5MXZBWLXM2Z1S1L7WC0H1B	9	277	TH	14.07.2016	21:34:21	01:55:10	6.910	14.07.2016	23:29:31
		<input type="checkbox"/>	PC_SD_TIERS_001	56HT22JQOKHBFV90DPDQMJJGV	9	277	WE	13.07.2016	21:31:09	01:54:00	6.840	13.07.2016	23:25:09
		<input type="checkbox"/>	PC_SD_TIERS_001	56ISRC8JVAAS57J2E6XZM9B27	9	277	TU	12.07.2016	21:33:01	01:45:26	6.326	12.07.2016	23:18:28
		<input type="checkbox"/>	PC_SD_TIERS_001	56IK9ASM21RSQP554N6GPVE4F	9	277	MO	11.07.2016	21:26:54	01:47:23	6.443	11.07.2016	23:14:17
		<input type="checkbox"/>	PC_SD_TIERS_001	56GVT466386A56C0E133WJM0V	9	277	SU	10.07.2016	22:45:11	01:56:34	6.994	11.07.2016	00:41:45
		<input type="checkbox"/>	PC_SD_TIERS_001	56H0MYOET7U9FW0SDICGYX3JZ	9	277	TH	07.07.2016	21:23:27	01:57:51	7.071	07.07.2016	23:21:18
		<input type="checkbox"/>	PC_SD_TIERS_001	56FYVZADXYGYEQPAJMS1UUGON	9	277	WE	06.07.2016	21:28:26	01:50:21	6.621	06.07.2016	23:18:47
		<input type="checkbox"/>	PC_SD_TIERS_001	56G4PXJEXHLYWKB4X1557BMM7	9	277	TU	05.07.2016	21:37:05	07:03:23	25.403	06.07.2016	04:40:28
		<input type="checkbox"/>	PC_SD_TIERS_001	56FAHURHE9RMU6Z2N3ZRLCNCV	9	277	MO	04.07.2016	21:29:53	01:56:06	6.966	04.07.2016	23:25:59
		<input type="checkbox"/>	PC_SD_TIERS_001	56EPNYMBN624Y18FE8ETE1Q3J	9	277	SU	03.07.2016	23:09:37	01:50:15	6.615	04.07.2016	00:59:52
		<input type="checkbox"/>	PC_SD_TIERS_001	569OK5J4CL5JFEMJ0M11TTI67	9	277	TH	30.06.2016	21:39:58	01:57:02	7.022	30.06.2016	23:37:00
		<input type="checkbox"/>	PC_SD_TIERS_001	56C3K2J2MH19MB200CJ06CSOV	9	277	WE	29.06.2016	21:29:31	02:05:52	7.552	29.06.2016	23:35:22
		<input type="checkbox"/>	PC_SD_TIERS_001	56BK1QPZ8VWYOM5FWYQNB6K3J	9	277	TU	28.06.2016	21:34:01	01:47:33	6.453	28.06.2016	23:21:34
		<input type="checkbox"/>	PC_SD_TIERS_001	56C2OFHP6RJSPP1LTNNKQCRWF	9	277	MO	27.06.2016	21:18:23	02:00:50	7.250	27.06.2016	23:19:13
		<input type="checkbox"/>	PC_SD_TIERS_001	56BN9Z0D6LJRHZC7ML032GCF	9	277	SU	26.06.2016	21:20:07	03:14:51	11.691	27.06.2016	00:34:58
		<input type="checkbox"/>	PC_SD_TIERS_001	56BDJVAZEN21PP74IEHGGODDR	9	277	TH	23.06.2016	21:14:45	02:10:30	7.830	23.06.2016	23:25:15
		<input type="checkbox"/>	PC_SD_TIERS_001	56ARCPKRYFDVRHALORS56RJ1OF	9	277	TH	23.06.2016	03:15:37	01:51:22	6.682	23.06.2016	05:06:59
		<input type="checkbox"/>	PC_SD_TIERS_001	56AOG7ECCOC2W5SER4V6MQ41FJ	9	277	TU	21.06.2016	21:27:22	02:07:29	7.649	21.06.2016	23:34:51

Key Figure	Estimation
~ Average Process Chain Runtime	90 to 120 minutes
~ Average nb of rows loaded per load	Shipment Header: Solvay 6K, Rhodia 2K Shipment&Deliveries: Solvay 40K, Rhodia 10K Shipment Costs: Solvay 9K, Rhodia 4K Shipment&Purchases: Solvay 110K, Rhodia 24K Shipment Conditions: Solvay 32K, Rhodia 152K 1.200K records (all providers)

~ Total nb of rows loaded (if full)	Data is stored since 2014 Propagation Layer - Solvay 20.000K, Rhodia 10.000K Business Layer - Solvay 15.000K, Rhodia 8.000K Reporting - Solvay 15.000K, Rhodia 8.000K Master data - Solvay 11.000K, Rhodia 5.000K
~ Average Runtime for 10k lines	30 minutes

For details about application load monitoring, click in following link: [Application Monitoring](#)

Record Keeping

User defined that 3 full years stored is enough to be maintained in BW.

There is no automatic process to remove historical data, so any request about historical deletion should be done by user using Freshdesk ticket.

Modeling

Info areas

▼ Sales & Distribution & Transportation	IA_SD
▼ Transportation	IA_SD_TR
▶ 1 - Transportation - Master Data Layer	IA_SD_TR_MD
▶ 2 - Transportation - Propagation Layer	IA_SD_TR_PROPAGATION
▶ 3 - Transportation - Business Transformation Layer	IA_SD_TR_BUSINESS
▶ 4 - Transportation - Reporting Layer	IA_SD_TR_REPORTING
▶ 5 - Transportation - Virtual Layer	IA_SD_TR_VIRTUAL
▶ Sales & Distribution	IA_SD_SD

Master Data

1 - Transportation - Master Data Layer	IA_SD_TR_MD
3RD Party (Customer / Vendor)	C_3RPARTY
Condition Type (Core)	C_CNDTYP2
Connection Point ID (Core)	C_POINT2
Delivery Item (Core)	C_DELITM2
Departure Connection Point (core)	C_PNTDP2
Departure Node Points (Core)	C_DPNODE2
Departure Shipping point (core)	C_DPSPNP2
Departure zone	C_DPZONE
Destination Connection Point (core)	C_PNTDS2
Destination Node Points (Core)	C_DSNOPE2
Destination Shipping point (core)	C_DSSHPN2
Destination zone	C_DSZONE
Event Type (Core)	C_EVTTYP
Main Shipping Type	C_SHPTP_2
Pre Shipping Type	C_SHPTP_4
Route (core)	C_ROUTE
Ship Departure Connection Point (core)	C_PNTDP3
Ship Destination Connection Point (core)	C_PNTDS3
Shipment Cost item (core)	C_SHCSTI2
Shipment Number (Core)	C_SHIPNU2
Shipment Type (Core)	C_SHPMTP2
Shipping conditions (core)	C_SHIPCD2
Shipping point (core)	C_SHPPNT
Sub Shipping Type	C_SHPTP_3
Transportation Connection Points (Core)	C_NODPNT2
Transportation Zone	0TRZONE
Transportation planning point (core)	C_TRPPNT2

Propagation Layer

2 - Transportation - Propagation Layer	IA_SD_TR_PROP
TR Prop: Shipment Conditions (Rhodia)	DPSDTR04
TR Prop: Shipment Conditions (Solvay)	DPSDTR24
TR Prop: Shipment Costs (Rhodia)	DPSDTR03
TR Prop: Shipment Costs (Solvay)	DPSDTR23
TR Prop: Shipment Event Details (Rhodia)	DPSDTR07
TR Prop: Shipment Event Details (Solvay)	DPSDTR27
TR Prop: Shipment Events (Rhodia)	DPSDTR06
TR Prop: Shipment Events (Solvay)	DPSDTR26
TR Prop: Shipment Invoices & Purchases (Rhodia)	DPSDTR05
TR Prop: Shipment Invoices & Purchases (Solvay)	DPSDTR25
TR Prop: Shipments & Deliveries (Rhodia)	DPSDTR02
TR Prop: Shipments & Deliveries (Solvay)	DPSDTR22
TR Prop: Shipments & Deliveries Status 1-4 (Rhodia)	DPSDTR08
TR Prop: Shipments & Deliveries Status 1-4 (Solvay)	DPSDTR28
TR Prop: Shipments header (Rhodia)	DPSDTR01
TR Prop: Shipments header (Solvay)	DPSDTR21

Business Layer

3 - Transportation - Business Transformation Layer	IA_SD_TR_BUST
TR Bus: Shipment Conditions (Rhodia)	DBSDTR04
TR Bus: Shipment Conditions (Solvay)	DBSDTR24
TR Bus: Shipment Costs (Rhodia)	DBSDTR03
TR Bus: Shipment Costs (Solvay)	DBSDTR23
TR Bus: Shipment Event Details (Rhodia)	DBSDTR07
TR Bus: Shipment Event Details (Solvay)	DBSDTR27
TR Bus: Shipment Events (Rhodia)	DBSDTR06
TR Bus: Shipment Events (Solvay)	DBSDTR26
TR Bus: Shipment Invoices & Purchases (Rhodia)	DBSDTR05
TR Bus: Shipment Invoices & Purchases (Solvay)	DBSDTR25
TR Bus: Shipments & deliveries (Rhodia)	DBSDTR02
TR Bus: Shipments & deliveries (Solvay)	DBSDTR22
TR Bus: Shipments header (Rhodia)	DBSDTR01
TR Bus: Shipments header (Solvay)	DBSDTR21

Reporting Layer

4 - Transportation - Reporting Layer	IA_SD_TR_RE
TR Rep: Shipment & Deliveries (Rhodia)	CRSDTR02
TR Rep: Shipment & Deliveries (Solvay)	CRSDTR22
TR Rep: Shipment Conditions (Rhodia)	CRSDTR04
TR Rep: Shipment Conditions (Solvay)	CRSDTR24
TR Rep: Shipment Costs (Rhodia)	CRSDTR03
TR Rep: Shipment Costs (Solvay)	CRSDTR23
TR Rep: Shipment Events & Reasons (Rhodia)	CRSDTR06
TR Rep: Shipment Events & Reasons (Solvay)	CRSDTR26
TR Rep: Shipment Header (Rhodia)	CRSDTR01
TR Rep: Shipment Header (Solvay)	CRSDTR21
TR Rep: Shipment Invoices & Purchases (Rhodia)	CRSDTR05
TR Rep: Shipment Invoices & Purchases (Solvay)	CRSDTR25

Virtual Layer

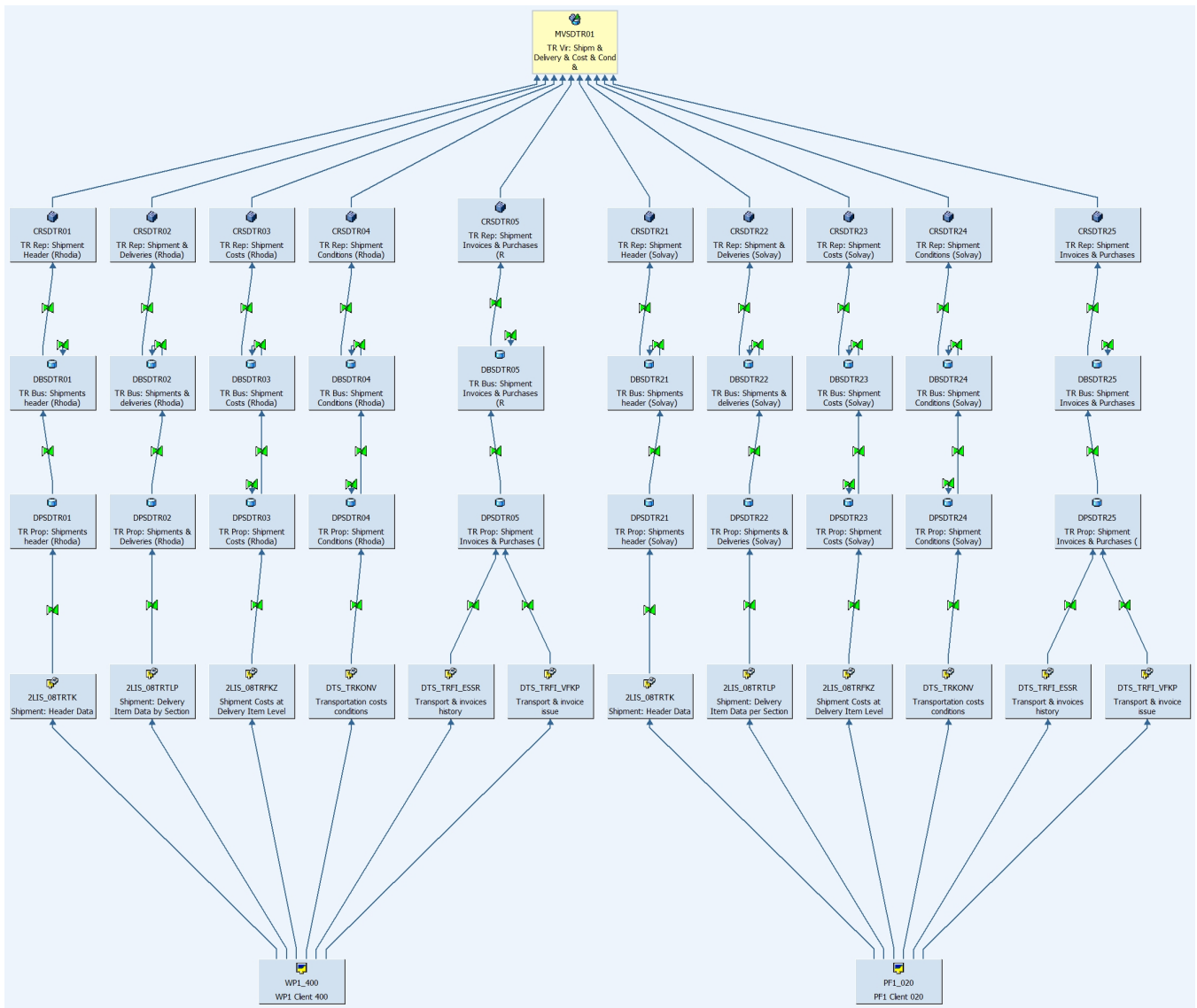
5 - Transportation - Virtual Layer	IA_SD_TR_VIRT
TR Vir: Shipm & Deliver & Cost & Condit & Invoice (Sol&Rho)	MVSDTR01
TR Vir: Shipment Events (Solvay & Rhodia)	MVSDTR02

Multi provider

1 - MVSDTR01 - Shipm & Delivery & Cost & Cond & PO/Inv (Sol&Rho)

MultiProvider	MVSDTR01	
Description	TR Vir: Shipm & Delivery & Cost & Cond & PO/Inv (Sol&Rho)	
<div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; padding-bottom: 5px;"> DataStores InfoCubes Sem.Part.Prov. HybridProvider InfoObjects </div>		
I...	InfoCube	Long Description
<input checked="" type="checkbox"/>	CRSDTR01	TR Rep: Shipment Header (Rhodia)
<input checked="" type="checkbox"/>	CRSDTR02	TR Rep: Shipment & Deliveries (Rhodia)
<input checked="" type="checkbox"/>	CRSDTR03	TR Rep: Shipment Costs (Rhodia)
<input checked="" type="checkbox"/>	CRSDTR04	TR Rep: Shipment Conditions (Rhodia)
<input checked="" type="checkbox"/>	CRSDTR05	TR Rep: Shipment Invoices & Purchases (Rhodia)
<input checked="" type="checkbox"/>	CRSDTR21	TR Rep: Shipment Header (Solvay)
<input checked="" type="checkbox"/>	CRSDTR22	TR Rep: Shipment & Deliveries (Solvay)
<input checked="" type="checkbox"/>	CRSDTR23	TR Rep: Shipment Costs (Solvay)
<input checked="" type="checkbox"/>	CRSDTR24	TR Rep: Shipment Conditions (Solvay)
<input checked="" type="checkbox"/>	CRSDTR25	TR Rep: Shipment Invoices & Purchases (Solvay)

Data Flow



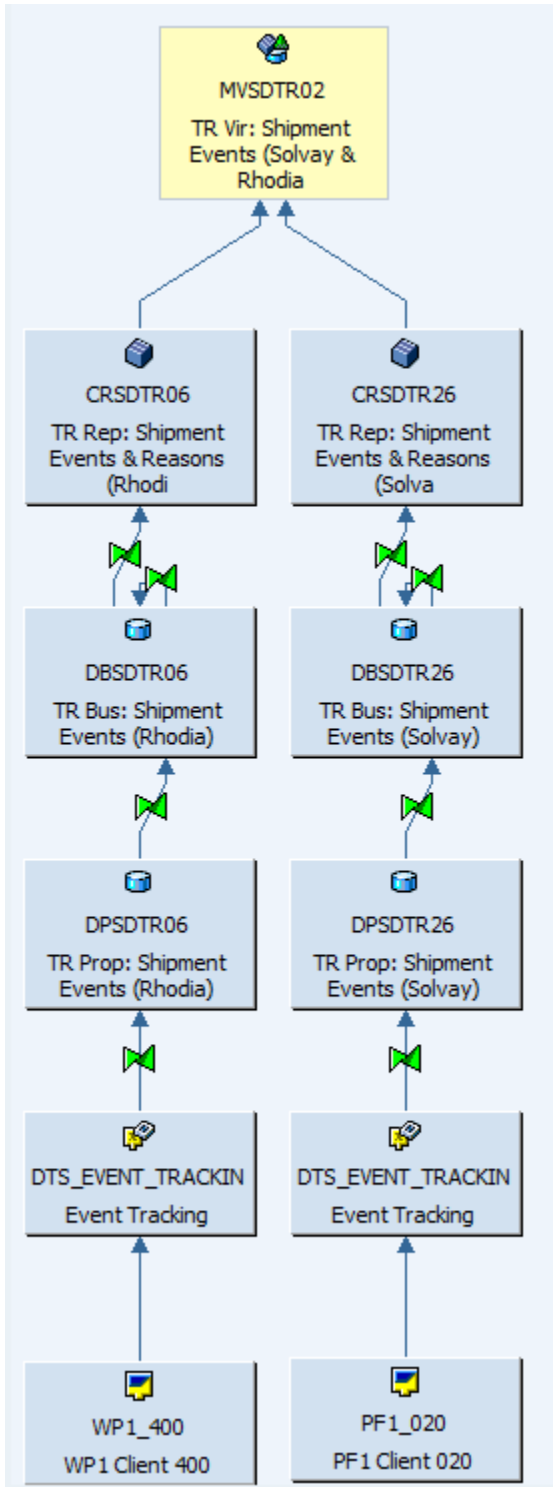
Dimensions

▼ Organization	MVSDTR011		
• Source System	0LOGSYS	CHAR	10
• Plant	C_PLANT	CHAR	04
• Company code	C_COMPCODE	CHAR	04
• ERP GBU	C_PFCTR1	CHAR	20
• Controlling area	OCO_AREA	CHAR	04
• Sub-Activity 2	C_SUBACT2	CHAR	10
▼ Material	MVSDTR012		
• Material	C_MATNR2	CHAR	18
• Material Plant	C_MATPNT2	CHAR	18
▼ Departure	MVSDTR013		
• Ship Departure Type	C_PNTYDP3	CHAR	06
• Ship Departure Point	C_PNTDP3	CHAR	10
• Stage Departure Type	C_PNTYDP	CHAR	06
• Stage Departure Point	C_PNTDP2	CHAR	10
▼ Partner	MVSDTR014		
• Forward Agent	C_FWDAGID	CHAR	10
• 3rd Party Type	C_PNTY3PY	CHAR	06
• 3rd Party (Cust / Vend)	C_3RPARTY	CHAR	10
▼ Destination	MVSDTR015		
• Ship Destination Type	C_PNTYDS3	CHAR	06
• Ship Destination Point	C_PNTDS3	CHAR	10
• Stage Destination Type	C_PNTYDS	CHAR	06
• Stage Destination Point	C_PNTDS2	CHAR	10
▼ Shipment	MVSDTR016		
• Shipment Number	C_SHIPNU2	CHAR	10
▼ Delivery	MVSDTR017		
• Delivery Number	C_DELNUM2	CHAR	10
• Delivery Item	C_DELITM2	CHAR	16
▼ Shipment Cost	MVSDTR018		
• Shipment cost number	C_SHCSTN2	CHAR	10
• Shipment Cost item	C_SHCSTI2	CHAR	16
▼ Conditions	MVSDTR019		
• Application	C_CONDAPP	CHAR	02
• Condition Type	C_CNDTYP2	CHAR	04
▼ Purchase/Invoice	MVSDTR01A		
• Invoice Number - Material Document	C_BELNR	CHAR	10
• Purchase Order	0DOC_NUM	CHAR	10
• Purchase Order Item	C_PO_ITM	NUMC	06
• PO Posting date	0PSTNG_D...	DATS	08
▼ Leg	MVSDTR01B		
• Leg indicator	0LEGIND	CHAR	01
• Stage sequence	C_TSRFO	NUMC	04
• Stage Shipping Type	C_SHPTP_2	CHAR	02
▼ Dates	MVSDTR01C		
• Reference Month	0RSTT_RM...	NUMC	06

Key figures

▼ Distance	DISTANCE		
• Distance	0DISTANCE	QUAN	09 Quant...
▼ Volume	VOLUME		
• Capacity volume shipment	0CAPA_VOL	QUAN	09 Quant...
• Volume per stage	0VOLUME...	QUAN	09 Quant...
▼ Costs	COST		
• Net value of shipment costs	0FCNETVA...	CURR	09 Amount
• Net value of transport condition cost	K_CONDCOS	CURR	09 Amount
• Cost charged	K_COUFAC	CURR	09 Amount
• Provision	K_PROV	CURR	09 Amount
• Service Entry Sheet Net Value	K_SESVAL	CURR	09 Amount
• Actual Costs	K_ACT_CST	CURR	09 Amount
• Maximum Price	K_TNDMAXP	CURR	09 Amount
▼ Time	TIME		
• On site duration (in min)	K_CHKCOMP	DEC	09 Numb...
• Queue time at plant (in min)	K_CHKLOAD	DEC	09 Numb...
• Transit time (in min)	K_ENDCOMP	DEC	09 Numb...
• Loading duration (in min)	K_LOADDUR	DEC	09 Numb...
• Booking leadtime (in min)	K_PLTCOMP	DEC	09 Numb...
• Planned transportation time in days (status)	0DURSHPL...	DEC	09 Numb...
• Actual transportation time in days (status)	0DURSHP_...	DEC	09 Numb...
• Delay in shipment completion (in min)	0DEL_COM...	DEC	09 Numb...
• Delay shipment end (in min)	0DEL_SHP...	DEC	09 Numb...
• Slot adherence (in min)	K_SADH	DEC	09 Numb...
▼ Counters	COUNTERS		
• Number of shipments with stages	0NUMSHP...	DEC	09 Numb...
• Number of stages	0NUMSTA...	DEC	09 Numb...
• Number of Containers (TR)	K_NUMCON	DEC	09 Numb...
• Number of Shipments	K_COUNTER	DEC	09 Numb...
• Number of stages for a delivery	0NUMSTA...	DEC	09 Numb...
• Number of handling units	K_HUNUM	DEC	09 Numb...
• Relevant for Booking leadtime duration	K_RBOOKNG	DEC	09 Numb...
• Relevant for HOTD	K_RHOTD	DEC	09 Numb...
• Relevant for HOTS	K_RHOTS	DEC	09 Numb...
• Relevant for Loading duration	K_RLOAD	DEC	09 Numb...
• Relevant for On Site duration	K_RONSITE	DEC	09 Numb...
• Relevant for Queue at plant duration	K_RQUEUE	DEC	09 Numb...
• Relevant for SADH	K_RSADH	DEC	09 Numb...
• Relevant for Transit time duration	K_RTRSIT	DEC	09 Numb...
▼ Weight	WEIGHT		
• Total of Gross weight of shipments	0SUM_GRS...	QUAN	09 Quant...
• Gross weight of deliveries	0DEL_GR_...	QUAN	09 Quant...
• Net weight of deliveries	0DEL_NT_...	QUAN	09 Quant...
• Conv Gross weight of deliveries in VKG	K_GRWTVKG	QUAN	09 Quant...
• Conv Gross weight of deliveries in VTN	K_GRWTV...	QUAN	09 Quant...
• Conv Net weight of deliveries in VKG	K_NTWTV...	QUAN	09 Quant...
• Conv Net weight of deliveries in VTN	K_NTWTV...	QUAN	09 Quant...
• Allowed Total Weight	K_ALLOW...	QUAN	09 Quant...
• Capacity weight shipment	0CAPA_WT	QUAN	09 Quant...
• Del.Item Gross Wt. (item unit)	K_DLITUGW	QUAN	09 Quant...

Data Flow



Dimensions

▼ Shipment	MVSDTR021		
• Shipment Number (Core)	C_SHIPNU2	CHAR	10
▼ Event	MVSDTR022		
• Event Type	C_EVTTYP	CHAR	20
• Event Count	C_EVTCNT	NUMC	10
▼ Event Reasons	MVSDTR023		
• Event Connection Point	C_KNOTE	CHAR	10
• Event Reason f.deviation	C_VSTGA	CHAR	04
▼ Event Dates	MVSDTR024		
• Event Plan Start Date	C_EVTPLST	DATS	08
• Event Plan End Date	C_EVTPLEN	DATS	08
• Event Actual Start Date	C_EVTACST	DATS	08
• Event Actual End Date	C_EVTACEN	DATS	08
• Event End Time	C_EVENDTI	TIMS	06
• Event Plan End Time	C_EVPENDT	TIMS	06
• Event Plan Start Time	C_EVPSTTI	TIMS	06
• Event Start Time	C_EVSTTI	TIMS	06
▼ Organization	MVSDTR025		
• Source System	0LOGSYS	CHAR	10
• Company code	C_COMPDE	CHAR	04
• ERP Global Business Unit	C_PFCTR1	CHAR	20
• Plant	C_PLANT	CHAR	04
• Sub-Activity 2	C_SUBACT2	CHAR	10
• Controlling area	0CO_AREA	CHAR	04
▼ Departure	MVSDTR026		
• Ship Departure	C_PNTDP3	CHAR	10
• Ship Departure Type	C_PNTYDP3	CHAR	06
▼ Destination	MVSDTR027		
• Ship Destination	C_PNTDS3	CHAR	10
• Ship Destination Type	C_PNTYDS3	CHAR	06
▼ Dates	MVSDTR028		
• Reference Month	0RSTT_RMNTH	NUMC	06
▼ Partner	MVSDTR029		
• Forward Agent (Core)	C_FWDAGID	CHAR	10

Key figures

Key Figures			
• Counter level 1	K_COUNT1	DEC	09 Numb...
• Actual Shpmt Duration	0EVT_ACTDUR	DEC	09 Numb...
• Planned Shpmt Duration	0EVT_PLNDUR	DEC	09 Numb...

Main KPI calculations

Queue time at plant (in min) = Actual loading start date - Actual check-in date

- $K_CHKLOAD = (((dtloadbact - dtchkinact) * 24 * 60) + ((c_ualbg - c_uareg) / 60))$

On site duration (in min) = Actual completion date - Actual check-in date

- $K_CHKCOMP = (((dtcomplact - dtchkinact) * 24 * 60) + ((c_uzabf - c_uareg) / 60))$

Booking leadtime (in min) = Actual loading start date - Actual check-in date

- $K_PLTCOMP = (((dtloadbact - dtchkinact) * 24 * 60) + ((c_ualbg - c_uareg) / 60))$

Transit time (in min) = Actual shipment end date - Actual completion date

- $K_ENDCOMP = (dtshp_eact - dtcomplact) * 24 * 60$

Loading duration (in min) = Actual loading end date - Actual loading start date

- $K_LOADDUR = (((dtloadeact - dtloadbact) * 24 * 60) + ((c_ualen - c_ualbg) / 60))$

Delay shipment end in min = Actual shipment end date - Planned shipment end date

- $ODEL_SHPM_E = (dtshp_eact - dtshp_e_pl) * 24 * 60$

Delay in shipment completion (in min) = Actual completion date - Planned completion date

- $ODEL_COMPL = (dtcomplact - dtcompl_pl) * 24 * 60$

Slot adherence = Planned checkin – Actual checkin

- $K_SADH = (((dtchkin_pl - dtchkinact) * 24 * 60) + ((c_upreg - c_uareg) / 60))$

Main functionalities

- [E Learning - user guide](#)
- [Leaflet Impression](#)
- [Q&A Synthesis](#)
- [WeLearn Course Description](#)

Main datasources based on SAP tables

- 2lis_08TRTK – Shipment Header
- 2lis_08TRTLP – Shipment & Deliveries
- 2lis_08TRFKZ – Shipment Costs
- DTS_TRKONV – Shipment Conditions
- DTS_TRFL_ESSR – Invoices & Purchases History
- DTS_TRFL_VFKP – Invoices & Purchases Issues

Main dimensions for the data

- C_POINT2 – Connection Point (it can be a customer, vendor, plant, node point or shipping point)
- C_3RPARTY – 3rd Party (Cust / Vend) - it can be a vendor or a customer
- C_ROUTE – Route
- C_SHIPNU2 – Shipment Number
- C_SHCSTI2 – Shipment Cost item
- C_DELITM2 – Delivery Item
- C_CNDTYP2 – Condition Type
- C_SHPTP_2 – Shipping Type
- C_SHPMTP2 – Shipment Type
- C_SHCITTY – Item category shipment costs
- C_VTADD01 – Ship. Shipping Line
- C_SHIPCD2 – Shipping conditions
- 0TRZONE – Transportation Zone
- C_TRPPNT2 – Transportation planning point
- C_VSTGA – Event Reason f.deviation
- C_EVTTYP – Event Type

Reporting

Calculated & Restricted key figures

Name	Description	Formula
BW_CKF_MVSDTR01_0001	No of Containers	
BW_CKF_MVSDTR01_0002	Distance (SUM ship)	
BW_CKF_MVSDTR01_0003	Gross W. dels. (SUM del item)	
BW_CKF_MVSDTR01_0004	Net W, dels. (SUM del item)	
BW_CKF_MVSDTR01_0005	Gross W, dels. (SUM delivery)	
BW_CKF_MVSDTR01_0006	Net W, dels. (SUM delivery)	
BW_CKF_MVSDTR01_0007	Gross W, dels. (SUM ship)	
BW_CKF_MVSDTR01_0008	Net W, dels. (SUM ship)	
BW_CKF_MVSDTR01_0010	No of handling units (MAX delitem)	
BW_CKF_MVSDTR01_0011	No of handling units	
BW_CKF_MVSDTR01_0014	Detailed Shpt. condition value	
BW_CKF_MVSDTR01_0015	Invoiced Value	
BW_CKF_MVSDTR01_0016	Accrual, Net value shipment	
BW_CKF_MVSDTR01_0017	# Ship Relevant for SADH below 30 min	
BW_CKF_MVSDTR01_0018	# Ship Relevant for SADH	
BW_CKF_MVSDTR01_0020	Distance (SUM stage)	
BW_CKF_MVSDTR01_0021	No of Shipments	
BW_CKF_MVSDTR01_0023	No of handling units (MAX stage)	
BW_CKF_MVSDTR01_0024	No of Stages (by detail)	
BW_CKF_MVSDTR01_0025	No of Stages (by Stage)	
BW_CKF_MVSDTR01_0026	No of Stages	
BW_CKF_MVSDTR01_0027	No of Delivery Items	
BW_CKF_MVSDTR01_0028	No of Deliveries	
BW_CKF_MVSDTR01_0032	CO ² Emission Factor	
BW_CKF_MVSDTR01_0040	#Ship Relevant for Loading duration	
BW_CKF_MVSDTR01_0041	#Ship Relevant for Queue time	
BW_CKF_MVSDTR01_0042	#Ship Relevant for On Site duration	
BW_CKF_MVSDTR01_0045	Number of HOTS	
BW_CKF_MVSDTR01_0046	#Ship Relevant for booking leadtime	
BW_CKF_MVSDTR01_0052	Net W. dels in VKG (SUM del item)	
BW_CKF_MVSDTR01_0053	Net W. dels in VKG (SUM delivery)	
BW_CKF_MVSDTR01_0054	Net W. dels in VKG (SUM ship)	
BW_CKF_MVSDTR01_0055	Net W. dels in VTN (SUM del item)	
BW_CKF_MVSDTR01_0056	Net W. dels in VTN (SUM delivery)	
BW_CKF_MVSDTR01_0057	Net W. dels in VTN (SUM ship)	
BW_CKF_MVSDTR01_0070	Gross W. dels. (MAX stage)	
BW_CKF_MVSDTR01_0071	Net W. dels. (MAX stage)	

BW_CKF_MVSDTR01_0072	Net W. dels in VKG (MAX stage)	
BW_CKF_MVSDTR01_0073	Net W. dels in VTN (MAX stage)	
BW_CKF_MVSDTR01_0081	Distance (max delivery)	
BW_CKF_MVSDTR01_0082	Distance (max delitem)	
BW_CKF_MVSDTR01_0090	Loading Duration (Days)	
BW_CKF_MVSDTR01_0091	Transit time (Days)	
BW_CKF_MVSDTR01_0092	Booking leadtime (Days)	
BW_CKF_MVSDTR01_0093	HOTD delay (in days)	
BW_CKF_MVSDTR01_0094	HOTS delay (in days)	
BW_CKF_MVSDTR01_0095	On site duration (Days)	
BW_CKF_MVSDTR01_0096	Queue time at plant (Days)	
BW_CKF_MVSDTR01_0097	Planned Transp Time (Days)	
BW_CKF_MVSDTR01_0098	SADH in min (by ship)	
BW_RKF_MVSDTR01_0001	Number of Legs	
BW_RKF_MVSDTR01_0002	Extra-costs accrual CP	

Main queries

1 - Shipment cost details analysis

- Technical Name: BW_QRY_MVSDTR01_0010
- Propose a detailed analysis of shipment cost accruals, detailed by materials. Make shipment costs accruals understandable.
- Allows benchmarking between materials, between customers.
- Gives some possibilities of drill down to get details on a macro figure.
- Public: sites log managers / GBU log process teams, base for Qlikview reportings

Configuration

Filter

Characteristic Restrictions

- Company code
- Source System
- BFC Global Business Unit
- BFC Group of activities
- Sub-activity
- Purchasing Site
- Ship Actual for Shipment Completion (Year/Month)
- Ship Dep Country
- Ship Dest Country
- Forward Agent
- Material hierarchy
- Material Plant
- Transportation Group (bulk/packed)
- 3rd Party (Cust / Vend)
- ShpCst Item category
- Plant
- Ship Dep Geo Zone
- Ship Transportation planning point
- Ship Planned date for shipment completion
- Ship Actual date for shipment completion
- Shipment Number
- Ship Shipping condition
- Ship Shipment Type
- Leg indicator
- InfoProvider

Free Characteristics

- 3rd Party Type
- 3rd Party (Cust / Vend)
- BFC Global Business Unit
- BFC Group of activities
- Company code
- Condition Type
- Controlling area
- Delivery Item
- Delivery Number
- ERP Group of activities
- Del DG Class
- Del DG UN number
- Del Distribution Channel
- Forward Agent
- Leg indicator
- Material
- Material hierarchy
- Material Plant
- Plant
- Reference Month
- Ship Actual date for shipment completion
- Ship Actual for Shipment Completion (Year/Month)
- Ship Actual for Shipment Completion (Year/Quarter)
- Ship Actual for Shipment Completion (Year)
- Ship Actual date for Start of Shipment
- Ship Departure Point

- Ship Departure Type
- Ship Dep Country
- Ship Dep Geo Zone
- Ship Destination Point
- Ship Destination Type
- Ship Packaging materials
- Ship Planned date for shipment completion
- Ship Planned for Shipment Completion (Year/Month)
- Ship Route
- Ship Shipment Type
- Ship Shipping condition
- Ship Shipping Type
- Ship Transportation Mode
- Ship Transportation planning point
- Shipment Cost item
- Shipment cost number
- Shipment Number
- ShpCst Item category
- ShpCst Posting date
- ShpCst Posting (Year/Month)
- ShpCst Service Agent
- Stage Departure Point
- Stage Departure Type
- Stage Destination Point
- Stage Destination Type
- Stage sequence
- Stage Shipping Type
- Sub-activity
- Transportation Group (bulk/packed)
- Transportation group detail

Columns

Key Figures

- Accrual, Net value shipment
- Accrual, Net value shipment (CP)
- Gross W. dels.
- Net W. dels.
- Gross W. dels. (PU)
- Net W. dels. (PU)
- Cost per Unit (Net)
- Cost per Unit (Gross)
- Distance
- Cost per Distance
- Detailed Shpt. condition value
- Detailed Shpt. condition value (CP)
- Extra-costs accrual (CP)
- Standard costs accrual (CP)
- Net W. dels (VKG)
- Net W. dels (VTN)
- Volume per stage

Rows

- Source System
- Purchasing Site
- Ship Dest Country

First Result

Source System	Purchasing Site	Ship Dest Country		Accrual, Net	Gross W, dels. (PU)	Net W, dels. (PU)	Cost per Unit (Net)	Cost per Unit (Gross)	Extra-costs	Standard costs
				value shipment (CP)					accrual (CP)	accrual (CP)
				EUR	TO	TO			EUR	EUR
PF1_020	ALEXANDRIA	EG	EGYPT	974,70	837,0	836,8	1,16 EUR / TO	1,16 EUR / TO		974,70
		Result		974,70	837,0	836,8	1,16 EUR / TO	1,16 EUR / TO		974,70
	ALORTON(M), IL	US	USA	102.343,22	712,5	709,4	144,26 EUR / TO	143,64 EUR / TO		102.343,22
		Result		102.343,22	712,5	709,4	144,26 EUR / TO	143,64 EUR / TO		102.343,22
	ALPHARETTA, GA	CN	CHINA	167,09	0,2	0,2	954,78 EUR / TO	900,74 EUR / TO		167,09
		JP	JAPAN		0,1	0,1				
		KR	SOUTH KOREA		0,0	0,0				
		US	USA	82,97	0,2	0,2	384,11 EUR / TO	351,32 EUR / TO		82,97
		Result		250,05	0,6	0,5	477,02 EUR / TO	448,54 EUR / TO		250,05
	AR STO/ADM SITE	AR	ARGENTINA	151.541,36	5.598,9	5.579,7	27,16 EUR / TO	27,07 EUR / TO		151.541,36
		Result		151.541,36	5.598,9	5.579,7	27,16 EUR / TO	27,07 EUR / TO		151.541,36
	AUGUSTA, GA	JP	JAPAN		0,1	0,1				
		US	USA	23.841,25	173,0	164,0	145,42 EUR / TO	137,83 EUR / TO		23.841,25
		Result		23.841,25	173,0	164,0	145,37 EUR / TO	137,79 EUR / TO		23.841,25
	BAD HOENN. GUET	AT	AUSTRIA	910,40	49,1	48,0	18,97 EUR / TO	18,53 EUR / TO		910,40
		BE	BELGIUM	24.787,27	967,9	946,3	26,19 EUR / TO	25,61 EUR / TO		24.787,27
		CZ	CZECH REPUBLIC	3.046,43	120,2	117,6	25,91 EUR / TO	25,34 EUR / TO		3.046,43
		DE	GERMANY	9.716,91	700,1	689,5	14,09 EUR / TO	13,88 EUR / TO		9.716,91

2 - Shipment cost vs invoice analysis

- Technical Name: BW_QRY_MVSDTR01_0011
- Propose advanced cost analysis functionalities including invoice / accrual comparison and other ratios that can't be available at material level.
- Detect / evaluate unbilled payables.
- Audit tarif calculation
- Public: finance / controlling, sites & GBU logistics managers, data log and support teams

Configuration

Filter

Characteristic Restrictions

- Company code
- BFC Global Business Unit
- BFC Group of activities
- Purchasing Site
- Ship Actual for Shipment Completion (Year/Month)
- Ship Dep Country
- Ship Dest Country
- Forward Agent
- Purchase Order
- ShpCst Item category
- Plant
- Ship Dep Geo Zone
- Ship Shipment Type
- Ship Transportation planning point
- Ship Actual date for shipment completion
- Ship Planned date for shipment completion
- Shipment Number
- Ship Shipping condition
- Source System
- InfoProvider

Free Characteristics

- BFC Global Business Unit
- BFC Group of activities
- Company code
- Condition Type
- Del Shipping conditions
- Invoice Number - Material Document
- Leg indicator
- Plant
- Purchase Order
- Reference Month
- Ship Actual date for shipment completion
- Ship Actual for Shipment Completion (Year/Month)
- Ship Actual for Shipment Completion (Year/Quarter)
- Ship Actual for Shipment Completion (Year)
- Ship Actual date for Start of Shipment
- Ship Departure Point
- Ship Departure Type
- Ship Dep Country
- Ship Dep Geo Zone
- Ship Destination Point
- Ship Destination Type
- Ship Dest Country

- Ship Hazardous Subst
- Ship Packaging materials
- Ship Planned date for shipment completion
- Ship Route
- Ship Shipment Type
- Ship Shipping condition
- Ship Shipping Line
- Ship Shipping Type
- Ship Transportation Mode
- Ship Transportation planning point
- Shipment Number
- Shipment cost number
- Shipment Cost item
- ShpCst Item category
- ShpCst Posting date
- ShpCst Posting (Year/Month)
- ShpCst Service Agent
- Stage Departure Point
- Stage Departure Type
- Stage Destination Point
- Stage Destination Type
- Stage sequence
- Stage Shipping Type

Columns

Key Figures

- Accrual, Net value shipment
- Accrual, Net value shipment (CP)
- Invoiced Value
- Invoiced Value (CP)
- Gross W, dels.
- Net W, dels.
- Gross W, dels. (PU)
- Net W, dels. (PU)
- Cost per Unit (Net)
- Cost per Unit (Gross)
- Distance by/ delivery
- Cost per Distance (KM)
- Detailed Shpt. condition value
- Detailed Shpt. condition value (CP)
- No of Containers
- No of handling units
- Invoice - Accrual gap (CP)
- Provisioning accuracy (CP)
- Total of Gross weigh
- Total gross weights (PU)
- Net W, dels (VKG)
- Net W, dels (VTN)

Rows

- Source System
- Purchasing Site
- Forward Agent

First Result

Source S	Purchasing Site	Forward Agent	Accrual, Net value shipment (CP)	Invoiced Value (CP)	Gross V, dels. (PU)	Net V, dels. (PU)	Cost per Unit (Net)	Cost per Unit (Gross)	Invoice - Accrual gap (CP)	Provisioning accuracy (CP)
					TO	TO				
PFL_020	ALEXANDRIA	1470006	534,33 EUR	0,00 EUR	54,2	54,0	9,89 EUR / TO	9,88 EUR / TO	-534,33 EUR	0,00
		1470091	440,37 EUR	0,00 EUR	118,4	118,4	3,72 EUR / TO	3,72 EUR / TO	-440,37 EUR	0,00
		DUMMY			664,4	664,4				100,00
		Result	974,70 EUR	0,00 EUR	837,0	836,8	1,16 EUR / TO	1,16 EUR / TO	-974,70 EUR	0,00
	ALORTON(M), IL	2109794	4.819,93 EUR	2.288,06 EUR	36,6	36,6	131,61 EUR / TO	131,61 EUR / TO	-2.531,87 EUR	47,47
		210263			22,3	20,1				100,00
		219199	16.114,17 EUR	11.610,47 EUR	34,6	34,6	465,12 EUR / TO	465,12 EUR / TO	-4.503,70 EUR	72,05
		219198	2.798,20 EUR	2.798,20 EUR	8,9	8,2	341,20 EUR / TO	314,97 EUR / TO	0,00 EUR	100,00
		2122191	6.508,75 EUR	6.508,75 EUR	81,7	81,7	79,71 EUR / TO	79,71 EUR / TO	0,00 EUR	100,00
		2122193	72.102,17 EUR	67.255,19 EUR	524,6	524,6	137,44 EUR / TO	137,44 EUR / TO	-4.846,98 EUR	93,28
		2126240			3,8	3,6				100,00
		Result	102.343,22 EUR	90.460,67 EUR	712,5	709,4	144,26 EUR / TO	143,64 EUR / TO	-11.882,55 EUR	88,39
	ALPHARETTA, GA	2101382			0,2	0,2				100,00
		2121608	82,97 EUR	82,97 EUR	0,2	0,2	460,93 EUR / TO	414,50 EUR / TO	0,00 EUR	100,00
		2126462	167,09 EUR	0,00 EUR	0,1	0,1	1.336,70 EUR / TO	1.261,04 EUR / TO	-167,09 EUR	0,00
		Result	250,05 EUR	82,97 EUR	0,6	0,5	477,02 EUR / TO	448,54 EUR / TO	-167,09 EUR	33,18
	AR STQ/ADM SITE	#			1198,4	1198,4				100,00
		2000000442	35.855,23 EUR	35.855,23 EUR	755,5	755,5	47,46 EUR / TO	47,46 EUR / TO	0,00 EUR	100,00
		2000001831	554,19 EUR	554,19 EUR	131,7	131,7	4,21 EUR / TO	4,21 EUR / TO	0,00 EUR	100,00
		2000002496	278,09 EUR	278,09 EUR	7,0	6,3	40,45 EUR / TO	39,54 EUR / TO	0,00 EUR	100,00
		2000003463	1.300,45 EUR	0,00 EUR	105,3	105,3	12,35 EUR / TO	12,35 EUR / TO	-1.300,45 EUR	0,00
		2000003993	10.092,92 EUR	10.092,92 EUR	403,3	395,0	25,65 EUR / TO	25,63 EUR / TO	0,00 EUR	100,00
		2000004438	19.047,14 EUR	0,00 EUR	997,3	997,3	19,10 EUR / TO	19,10 EUR / TO	-19.047,14 EUR	0,00

3 - Shipment status and events

- Technical Name: BW_QRY_MVSDTR01_0012
- Propose tracking of events on shipments. without cost considerations.
- Propose a reporting on volumetry : number of files (delivery or shipment) per flow, average value on some indicators...
- Load plan of shipping points
- Public: LOG data and support teams, GBUs sites log managers and sites operations supervisors, Transport managers

Configuration

Filter	Free Characteristics
Characteristic Restrictions	
<input checked="" type="checkbox"/> Source System	<input checked="" type="checkbox"/> 3rd Party (Cust / Vend)
<input checked="" type="checkbox"/> BFC Global Business Unit	<input checked="" type="checkbox"/> 3rd Party Descrip Location
<input checked="" type="checkbox"/> BFC Group of activities	<input checked="" type="checkbox"/> 3rd Party Transp Zone
<input checked="" type="checkbox"/> Company code	<input checked="" type="checkbox"/> 3rd Party Type
<input checked="" type="checkbox"/> Purchasing Site	<input checked="" type="checkbox"/> BFC Global Business Unit
<input checked="" type="checkbox"/> Ship Actual for Shipment Completion (Year/Month)	<input checked="" type="checkbox"/> BFC Group of activities
<input checked="" type="checkbox"/> Ship Dep Country	<input checked="" type="checkbox"/> Company code
<input checked="" type="checkbox"/> Ship Dest Country	<input checked="" type="checkbox"/> Del DG Class
<input checked="" type="checkbox"/> Forward Agent	<input checked="" type="checkbox"/> Del DG UN number
<input checked="" type="checkbox"/> Del DG Class	<input checked="" type="checkbox"/> Del Shipping condition
<input checked="" type="checkbox"/> Ship Transportation Mode	<input checked="" type="checkbox"/> Leg indicator
<input checked="" type="checkbox"/> Plant	<input checked="" type="checkbox"/> Plant
<input checked="" type="checkbox"/> Ship Dep Geo Zone	<input checked="" type="checkbox"/> Material hierarchy
<input checked="" type="checkbox"/> Ship Route	<input checked="" type="checkbox"/> Ship Actual date for shipment completion
<input checked="" type="checkbox"/> Ship Transportation planning point	<input checked="" type="checkbox"/> Ship Actual for Shipment Completion (Year/Month)
<input checked="" type="checkbox"/> Ship Planned date for shipment completion	<input checked="" type="checkbox"/> Ship Actual for Shipment Completion (Year/Quarter)
<input checked="" type="checkbox"/> Ship Actual date for shipment completion	<input checked="" type="checkbox"/> Ship Actual for Shipment Completion (Year)
<input checked="" type="checkbox"/> Shipment Number	<input checked="" type="checkbox"/> Ship Actual date for Start of Shipment
<input checked="" type="checkbox"/> Ship Shipping condition	<input checked="" type="checkbox"/> Ship Departure Point
<input checked="" type="checkbox"/> Ship Shipment Type	<input checked="" type="checkbox"/> Ship Departure Type
<input checked="" type="checkbox"/> InfoProvider	<input checked="" type="checkbox"/> Ship Dep Country
<input checked="" type="checkbox"/> Leg indicator	<input checked="" type="checkbox"/> Ship Dep Geo Zone
	<input checked="" type="checkbox"/> Ship Dep Postal Code
	<input checked="" type="checkbox"/> Ship Dep Transp Zone

Columns
<input checked="" type="checkbox"/> Key Figures
<input checked="" type="checkbox"/> Gross W, dels. (PU)
<input checked="" type="checkbox"/> Distance
<input checked="" type="checkbox"/> No of Stages
<input checked="" type="checkbox"/> No of Legs
<input checked="" type="checkbox"/> No of Deliveries
<input checked="" type="checkbox"/> No of Containers
<input checked="" type="checkbox"/> No of handling units
<input checked="" type="checkbox"/> Nb of Shipments
<input checked="" type="checkbox"/> Queue time at plant (Days)
<input checked="" type="checkbox"/> #Ship Relevant for Queue time
<input checked="" type="checkbox"/> Average Queue Duration (Days)
<input checked="" type="checkbox"/> On site duration (Days)
<input checked="" type="checkbox"/> #Ship Relevant for On Site duration
<input checked="" type="checkbox"/> Average On Site Duration (Days)
<input checked="" type="checkbox"/> Booking lead time (Days)
<input checked="" type="checkbox"/> #Ship Relevant for booking leadtime
<input checked="" type="checkbox"/> Average booking leadtime (Days)
<input checked="" type="checkbox"/> Loading Duration (Days)
<input checked="" type="checkbox"/> #Ship Relevant for Loading duration

Rows
<input checked="" type="checkbox"/> Source System
<input checked="" type="checkbox"/> Purchasing Site
<input checked="" type="checkbox"/> Forward Agent

First Result

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Source Site	Purchasing Site	Forward Agent		Gross W, dets: (FU)	No of Containers	No of handling units	Nb of Shipments	Queue time at plant (Days)	#Ship Relevant for Queue time	Average Queue Duration (Days)	On site duration (Days)	#Ship Relevant for On Site duration	Average On Site Duration (Days)	Booking lead time (Days)
				TC										
PFL_020	ALEXANDRIA	14700006	AHMED MOHAMED AHMED BARAK	54,2	0	54	3	0,0	3	0,000	0,1	3	0,046	0,9
		14700191	ALKHALIG ALARABI COMPANY	118,4	0	74	4	0,0	4	0,000	9,5	4	2,378	10,8
		DUMMY	DUMMY for FOCUS CUSTOMER COL	664,4	0	618	14	0,0	13	0,000	2,7	13	0,206	6,1
		Result		837,0	0	746	21	0,0	20	0,000	12,3	20	0,617	17,8
	ALORTON(M),IL	2109794	QUALITY CARRIERS INC	36,6	0	0	2	0,0	0	0,000	0,0	0	0,000	6,7
		2103263	CPU	22,3	0	0	6	0,0	0	0,000	0,0	0	0,000	58,5
		2119159	JADE TANK LINES INC	34,6	0	0	2	0,0	0	0,000	0,0	0	0,000	5,5
		2119198	TWIN LAKE TRUCKING LTD	9,9	0	0	2	0,0	0	0,000	0,0	0	0,000	7,8
		2122191	BNSF RAILWAY COMPANY	81,7	0	1	1	0,0	0	0,000	0,0	0	0,000	-0,4
		2122193	CTL DISTRIBUTION INC	524,6	0	0	32	0,0	0	0,000	0,0	0	0,000	180,3
		2125240	CRC - CUSTOMER REQUESTED CAR	3,8	0	0	2	0,0	0	0,000	0,0	0	0,000	15,9
		Result		712,5	0	1	47	0,0	0	0,000	0,0	0	0,000	274,4
	ALPHARETTA, GA	2101382	FEDERAL EXPRESS CORPORATION	0,2	0	0	5	0,0	0	0,000	0,0	0	0,000	5,9
		2121698	USF HOLLAND INC	0,2	0	0	1	0,0	0	0,000	0,0	0	0,000	1,2
		2128462	KINTETSU WORLD EXPRESS USA	0,1	0	0	1	0,0	0	0,000	0,0	0	0,000	-0,2
		Result		0,6	0	0	7	0,0	0	0,000	0,0	0	0,000	6,8
	AR STOIADM SITE		PFL_020/Not assigned	1198,4	0	0	45	1,6	45	0,036	1,7	45	0,037	325,5
		2000000442	EL CHARABON S.A.C.I.	755,5	0	0	27	1,2	27	0,043	1,2	27	0,043	85,3
		2000001831	TRANSPORTES JOSE BEPALDI S.A.	131,7	0	0	5	0,4	5	0,077	0,4	5	0,077	27,2
		2000002496	TRANSPORTES DIPE S.A.	7,0	0	0	1	0,0	1	0,046	0,0	1	0,046	7,2
		2000003463	ADONCAGUA TRANSPORTES SFL	105,3	0	0	4	0,3	4	0,074	0,3	4	0,075	24,5
		2000003393	TRANSPOLDO BAHIA SA	403,3	0	0	15	1,1	15	0,072	1,1	15	0,073	214
		2000004438	LOGISTICA Y SERVICIOS INTEGRALE	997,3	0	0	39	1,7	39	0,042	1,7	39	0,043	155,6
		2000004487	TRANSPORTES EL CHOLO S.A.	43,8	0	0	2	0,2	2	0,076	0,2	2	0,077	9,9
		2000006135	ALJANI Y MERCI S.R.L	858,5	0	0	30	1,1	30	0,035	1,1	30	0,036	140,9
		2000006553	TRANSPORTE DAMIAN SA	52,6	0	0	2	0,2	2	0,085	0,2	2	0,085	3,8

4 - CO² Emissions

- Technical Name: BW_QRY_MVSDTR01_0013
- The propose is to show the calculations about quantity of carbonic gas that is released in atmosphere considering all the shipments by zone
- Public: users that manage the environment effects and reports to governments

Configuration

Filter

Characteristic Restrictions

- ERP Group of activities
- Company code
- BFC Global Business Unit
- BFC Group of activities
- Source System
- Ship Actual for Shipment Completion (Year/Month)
- Purchasing Site
- Ship Dep Country
- Ship Dest Country
- Ship Transportation Mode
- Plant
- Ship Dep Geo Zone
- Ship Transportation planning point
- Ship Planned date for shipment completion
- Ship Actual date for shipment completion
- Shipment Number
- Ship Shipping condition
- Ship Shipment Type
- Leg indicator
- InfoProvider

Free Characteristics

- Company code
- Company Zone
- BFC Global Business Unit
- BFC Group of activities
- Delivery Item
- Delivery Number
- ERP Group of activities
- Forward Agent
- Plant
- Purchasing Site
- Ship Actual date for shipment completion
- Ship Actual for Shipment Completion (Year/Month)
- Ship Actual for Shipment Completion (Year/Quarter)
- Ship Actual for Shipment Completion (Year)
- Ship Departure Point
- Ship Departure Type
- Ship Dep Geo Zone
- Ship Dep Transp Zone
- Ship Destination Point
- Ship Destination Type
- Ship Planned date for shipment completion
- Ship Route
- Shipment Number
- Stage sequence
- Stage Shipping Type

Columns

Key Figures

- CO² Emission Factor
- Gross W, dels. (Tonnes)
- Distance (KM)
- Gross W, dels. (KG)
- Tonnes of CO² (max stage)
- Tonnes of CO²

Rows

- Source System
- Stage Transportation Mode

First Result

Source System	Stage Transportation Mode	Tonnes of CO ²
PF1_020	AIR	88,7
	BARGE	0,3
	INTERMODAL	22,5
	MAIL	0,0
	OCEAN	217,2
	RAIL	311,6
	ROAD	792,1
	Result	1.432,3
	WP1_400	AIR
BARGE		376,7
OCEAN		219,8
RAIL		56,7
ROAD		846,9
Result		1.500,1
Overall Result		2.932,4

5 - Shipment Events

- Technical Name : BW_QRY_MVSDTR02_0001
- The propose is to show the events (problems) involving the hauliers that happened during the logistic process
- Public: GBU's sites log managers and sites operations supervisors, transport managers

Configuration

Filter

Characteristic Restrictions

- + Company code
- + Source System
- + BFC Global Business Unit
- + BFC Group of activities
- + Purchasing Site
- + Ship Actual Completion Year/Month
- + Ship Dep Country
- + Ship Dest Country
- + Forward Agent
- + Event Type
- + Event Reason deviation
- + Plant
- + Transport Mode
- + Ship Dep Geo Zone
- + Ship Transportation planning point
- + Ship Planned completion date
- + Ship Actual completion date
- + Shipment Number
- + Ship Shipping condition
- + Ship Shipment Type

Free Characteristics

- Company code
- BFC Global Business Unit
- BFC Group of activities
- Event Actual End date
- Event Actual Start date
- Plant
- Ship Actual completion date
- Ship Actual Completion Year
- Ship Actual Completion Year/Quarter
- Ship Actual Completion Year/Month
- Ship Actual shipment start date
- Ship Departure
- Ship Dep Country
- Ship Dep Geo Zone
- Ship Departure Type
- Ship Destination
- Ship Dest Country
- Ship Destination Type
- Ship Planned completion date
- Transport Mode
- Ship Transportation planning point
- Shipment Number

Rows

- Source System
- Purchasing Site
- Forward Agent
- Event Type
- Event Reason deviation








Columns

- Key Figures
- Nb of Events
- Event duration

First Result

A	B	C	D	E	F	G	H
Source System	Purchasing Site	Forward Agent	Event Type	Event Reason deviation		Nb of Events	Event duration
PF1_020	BAD HOENN. GUET	FINSTERWALDER TRANSPORT &	Delivery	DA	Date & Time	1	0,00
			Result			1	0,00
		MARTIN WISMANS BV	Delivery	DA	Date & Time	2	0,00
			Result			2	0,00
		Result				2	0,00
		Result				3	0,00
	BAD WIMPFEN	LANDO Eurasia GmbH	Delivery	DA	Date & Time	1	0,00
			Result			1	0,00
			Loading	DA	Date & Time	1	0,00
			Result			1	0,00
			Result			2	0,00
		SCHENKER DEUTSCHLAND AG	Delivery	SA	Safety	1	0,00
			Result			1	0,00
			Loading	DA	Date & Time	7	0,00
				EQ	Equipment	1	0,00
			Result			8	0,00
			Result			9	0,00

Queries used to load QV applications

-  [QVEPSC_BW_QRY_MVSDTR01_0001] BW - Shipment Costs Analysis for E&P TIERS - Qlikview (
-  [QVNVSC_BW_QRY_MVSDTR01_0001] BW - Shipment Costs Analysis for Novicare TIERS - Qlikview (
-  [QVPISC_BW_QRY_MVSDTR01_0001] BW - Shipment Costs Analysis for P&I TIERS - Qlikview (Core)
-  [QVSBS_BW_QRY_MVSDTR01_0001] BW - SBS OTC Shipment Costs TIERS (QV SBS KPI)
-  [QVSCE_BW_QRY_MVSDTR01_0010] BW - Economics part of activity SCE (Core Query)
-  [QVSCE_BW_QRY_MVSDTR01_0012] BW - Activity Haulier Evaluation SCE (core query)
-  [QVSCE_BW_QRY_MVSDTR01_0013] BW - CO² Footprint SCE (QV Query)

Matrix between queries and info objects

Query description	Cost detailed analysis	Accrual vs invoice	Statuses and events	Event reporting	CO2 Footprint
Technical name	MVSDTR01_0010	MVSDTR01_0011	MVSDTR01_0012	MVSDTR002_0001	MVSDTR01_0013
General "Core entry keys"	COMPANY	COMPANY	COMPANY	COMPANY	COMPANY
	PROMPT UNIT	PROMPT UNIT	PROMPT UNIT		PROMPT UNIT
	PROMPT CURRENCY	PROMPT CURRENCY			
	System origin	System origin	System origin	System origin	System origin
	BFC GBU	BFC GBU	BFC GBU	BFC GBU	BFC GBU
	Site (PUSITE) - C-PSITE	Site (PUSITE)	Site (PUSITE)	Site (PUSITE)	Site (PUSITE)
	Actual completion Year / Month	Actual completion Year / Month	Actual completion Year / Month	Actual completion Year / Month	Actual completion Year / Month
	Shipment departure country	Shipment departure country	Shipment departure country	Shipment departure country	Shipment departure country
	Shipment destination country	Shipment destination country	Shipment destination country	Shipment destination country	Shipment destination country
	Forwd. Agent	Forwd. Agent	Forwd. Agent	Forwd. Agent	
Query Specific axes	Product Hierarchy				
	Material plant				
	Bulk / Packed	PO number	Route	Event type	Zone
	3RD Party	Shpiment cost item category	DG class	Event reason for deviation	
	Shpiment cost item category				
	Transportation Mode	Transportation Mode	Transportation Mode	Transportation Mode	Transportation Mode
For those who want to detail	Plant	Plant	Plant	Plant	Plant
	Departure Geo Zone	Departure Geo Zone	Departure Geo Zone	Departure Geo Zone	Departure Geo Zone
	Transportation planning point	Transportation planning point	Transportation planning point	Transportation planning point	Transportation planning point
	Planned completion date	Planned completion date	Planned completion date	Planned completion date	Planned completion date
	Actual completion date	Actual completion date	Actual completion date	Actual completion date	Actual completion date
	Shipment number	Shipment number	Shipment number	Shipment number	Shipment number
	Shipping condition	Shipping condition	Shipping condition	Shipping condition	Shipping condition
	Shipment type	Shipment type	Shipment type	Shipment type	Shipment type
"By default" shown Measures (among those available)	Accrual Net value shipment (CP)	Accrual Net value shipment (CP)	Gross weight	Nb of event	Gross Weight
	Gross Weight (PU)	Invoiced value (CP)	Nb of shipments	Event duration	Distance
	Net Weight (PU)	Net weight (PU)	Nb of containers		CO2 Tons
	Cost per Unit (Net)	Gross Weight (PU)	Nb of deliveries		
	Cost per unit (Gross)	Cost per unit (Net)	Nb of HU		
		Cost per unit (Gross)	# ship relevant for loading duration		
		Invoice - accrual Gap	# ship relevant for On site		

			duration		
		Provisionning accuracy	# ship relevant for Queue time		
			# ship relevant for Trnasit time		
			Average loading duration		
Keep all others as optional	Keep all others as optional		Average On site duration		
			Average Queue time		
			Average Transit duration		
			% OTD		
			% OTS		
			Average distance		
"By default" shown Rows (among those available)	Source sytem	Source System	Source sytem	Source System	Source system
	Site (CPLANT PSITE)	Site (CPLANT PSITE)	Site (CPLANT PSITE)	Site (CPLANT PSITE)	Site
	Shipment destination Country	Forward agent	Forward agent	Forward agent	Ship Shipping type
				Event type	
				Event reason	
All navigational attributes :					
Organization	Source system	Source system	Source system	Source system	Source system
	BFC GBU	BFC GBU	BFC GBU	BFC GBU	BFC GBU
	Plant	Plant	Plant	Plant	Plant
	Site (Plant C-PSite)	Site (Plant C-PSite)	Site (Plant C-PSite)	Site (Plant C-PSite)	Site (Plant C-PSite)
	Company code	Company code	Company code	Company code	Company code
Shipment	Shipment number	Shipment number	Shipment number	Shipment number	
	Departure country	Departure country	Departure country	Departure country	
	Destination country	Destination country	Destination country	Destination country	
	Forwarding agent	Forwarding agent	Forwarding agent	Forwarding agent	
	Transportation planning point	Transportation planning point	Transportation planning point	Transportation planning point	
	Actual Completion date	Actual Completion date	Actual Completion date	Actual Completion date	
	Actual completion date (Month) YYYY/MM	Actual completion date (Month) YYYY/MM	Actual completion date (Month) YYYY/MM	Actual completion date (Month) YYYY /MM	
	Actual completion date (Quarter) YYYY/Q	Actual completion date (Quarter) YYYY/Q	Actual completion date (Quarter) YYYY/Q	Actual completion date (Quarter) YYYY /Q	
	Actual completion date Year (YYYY)	Actual completion date Year (YYYY)	Actual completion date Year (YYYY)	Actual completion date Year (YYYY)	
	Actual date for Start of shipment	Actual date for Start of shipment	Actual date for Start of shipment	Actual date for Start of shipment	
	Planned shipment completion date	Planned shipment completion date	Planned shipment completion date	Planned shipment completion date	
	Planned shipment completion date (YYYY-MM)				
	Shipment destination point	Shipment destination point	Shipment destination point	Shipment destination point	
	Shipment destination point type	Shipment destination point type	Shipment destination point type	Shipment destination point type	
	Shipment departure point	Shipment departure point	Shipment departure point	Shipment departure point	
	Shipment departure point type	Shipment departure point type	Shipment departure point type	Shipment departure point type	
	Route	Route	Route		
	Shipment packaging material	Shipment packaging material	Shipment packaging material		

	Shipment shipping type	Shipment shipping type	Shipment shipping type		
	Transportation mode	Transportation mode	Transportation mode	Transportation mode	Transportation mode
			Departure point - TR zone		
			Departure point - Zip code		
			Destination point TR zone		
			Destination point Zip code		
		Shipment Shipping line	Shipment Shipping line		
Shipment stage	Ship Stage sequence number	Ship Stage sequence number	Ship Stage sequence number		
	Ship stage departure point	Ship stage departure point	Ship stage departure point		
	Ship stage departure point type	Ship stage departure point type	Ship stage departure point type		
	Ship stage destination point	Ship stage destination point	Ship stage destination point		
	Shipment stage destination point type	Shipment stage destination point type	Shipment stage destination point type		
	Leg indicator	Leg indicator	Leg indicator		
Delivery	Delivery				
	Delivery Item				
	Delivery distribution channel				
	Material				
	Material plant				
	DG class		DG class		
	UN number		UN number		
	3rd Party		3rd Party		
	3rd Party type		3rd Party type		
			3rd party - TRzone		
			3rd party - Location		
			3rd party - Zip code		
	Transportation group (Bulk / Packed)		Transportation group (Bulk / Packed)		
	Transportation group detail		Transportation group detail		
	Material hierarchy		Material hierarchy		
Shipment x delivery	Shipping condition	Shipping condition	Shipping condition		
Shipment cost item	Shipment cost number	Shipment cost number			
	Item number	Item number			
	Service agent	Service agent			
	Shipment cost item category	Shipment cost item category			
	Shipment cost posting date	Shipment cost posting date			
	Shipment cost posting date - Month (YYYY/MM)	Shipment cost posting date - Month (YYYY/MM)			
		PO Number			
		Invoice Number			
Cost condition	Condition type	Condition type			
Event				Event actual start date (day)	
				Event actual end date (day)	

For more details about each query please click in following link: [TIERS: Reporting Solution](#)

Broadcast

- None

Maintenance

Known bugs

- Shipment conditions deleted in ERP (WP1 & PF1) sometimes are not deleted in BW, because the extractor is generic based on a view, so the delta is not possible because several lines can be changed at the same time. When the shipment cost document is deleted in ERP, in this case the shipment condition is deleted in BW.
- The shipment condition value is not correctly linked with currency when there is more than 1 currency. The extractor DTS_TRKONV extracts data from ERP table KONV and the currency is not aligned correctly in this table. Solution proposed is to take the currency from shipment cost, that is aligned with shipment condition value.
- Sometimes the unit conversion is not done in query due the unit is not mapped correctly in table UOMCMAT2 by material.

Recurring procedure

- When the process chain fails, the process type must be analyzed and repeated.
- Sometimes a full load by period is required by user in order to synchronize all transportation data.

Planned Evolution

- Most part of enhancements in standard extractors should be removed in future in order to obtain a better performance.
- The old transportation flow (CUB_TR001, CUB_TR002, CUB_TR005, CUB_TR006, CUB_TR007, CUB_TR008) will be deleted and removed from schedule in 2016.
- Some broadcasts existed in old transportation flow should be developed in new TIERS.

Useful transactions to be used for checking data

Transaction	Description	Corresponding table	Comments
VT03N	Shipments	VTTK, VTTS	in ERP
VI03	Shipment Costs	VFKK, VFKP	in ERP
VL03N	Deliveries	LIKP, LIPS	in ERP
VA03	Sales Orders	VBAK, VBAP	in ERP
ME23N	Purchase Orders	EKKO, EKPO, EKBE	in ERP
RSUOM	Unit conversion	T005	in BW
RSCUR	Currency conversion	TCURR	in BW

<https://wiki.solvay.com/display/TECHREP/BW+Authorizations?src=contextnavpagetreemode>