

BW OTC - Global Sales (PF1+WP1)



The new wiki link for this data flow is here:

Marketing and Sales

Please update the doc there and no longer here.



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General presentation

Objective of the application

Develop a new reporting solution for Sales & Distribution data coming from SAP/ERP/PF1&WP1 with a first deliverable the ORDER BOOK REPORT (Sold & Pending).

Detail on: Sales Orders, Purchase Orders (transfers), Sales Order Lines, Schedule Lines, Deliveries, Invoices.

Innovation: Process Core Rules integrated to the Order Book Report, generating 4 views:

1. **Order Book Business View:** Determine for each sales order item when it will BE INVOICED, so determine the best estimation for the billing date
FOCUS: BUSINESS / TOP MANAGEMENT / FINANCE
2. **Order Book Business View + contrib:** Available for WP1, this order book combine the figures of the order book and the contribution (actual for the invoiced part, estimated for the to be invoiced part).
3. **Order Book to Be Issued:** Determine for each sales order item when it will be issued, so determine the best estimation when the product will leave the plant
FOCUS SUPPLY CHAIN TEAM
4. **Order Book to Be Issued (PO+SO):** Determine for each sales order item and transfers order item when it will be issued, so determine the best estimation when the product will leave the plant
FOCUS SUPPLY CHAIN TEAM

Usage information

History

Global Sales started to replace BI4. This project is extension of OBAS project (PF1). At the end Global Sales is able to offer sales report for the ERPs PF1 and WP1.

Roles & Access

Roles and access

Two roles were created. The first one is the application role and the other one is the role menu.

Role Code	Role Description	Explanation
ZBI_RCS_SD_A01	Application role for Global Sales project / SD data / Orderbook	Role for the application
ZR_RCS_CA_M49	SD - Sales and Distribution	Role menu for the application

Authorization objects

The authorization is done regarding the BFC GBU, the legal company and the sales office.

Authorization object	Explanation
CPFCTR1_2	GBU

C_COMPCDE	Legal company
C_SAL_OF	Sales office

WARNING: For the PO part the notion of sales offices doesn't exist. The restriction in sales offices will not be considered for the reports PO and PO+SO.

Order book

Sales order book

Sales Order Book is a presentation in a detailed level of all sales orders placed in SAP/PF1 system, being possible to determine:

- Sales order on going and open
- Sales Orders Shipped Not Billed
- Sales Orders invoiced

The sales order book is defined at most detailed level. That means at the schedule line level. The concept of line is very important to understand how the order book works. Each sales document can generate an item, the combination of *document number / item number* is a line.

To generate the sales order book the documents lines below are used:

- Order line
 - Schedule line
 - Delivery line
 - Shipment⁽¹⁾
 - Billing line

Document line generation:

- Each sales order document can generate n order line.
- Each scheduled line can generate n delivery document.
- Each delivery document can generate n delivery line.
- Each delivery line can generate n billing document.
- Each Billing document can generate n billing line.

⁽¹⁾Global Sales doesn't use the shipment line. Informations which are necessaries to generate the sales order book are at the shipment to the end customer in the header level. For more detail please refer to Definitions and concepts (Shipment to the end customer).

Core rules

All rules used in Global Sales were determined by SAP experts.

IMPORTANT:

- *The sales order book excludes the order line which has a rejection code.*
- *The sales order book is defined at the most detailed level (the schedule line).*
- *Order line classification: An order line can be in one of the three class:*
 1. *If the country of legal company is difference than the country of plant.*
 2. *If the transportation mode is "SEA" (Export).*
 3. *The others cases*

Order line status

- *The status of the order line (from SAP) is not used in Global Sales.*

It's because in PF1, an order line is with the status "C" (completed). When the deliveries regarding the total confirmed quantity of the order line is planned or issued .

To be invoiced date

The to be invoiced date is used to know when an order line will be billed. This concept is used in the order book for the Open order and the Shipped but not billed part.

Important: the to be invoiced date can be calculated only if the type of sales order will generate a delivery document. That means the credit/debit memo are not included in the Open order and the shipped but not billed part. The returns are not considered in the Open order and shipped but not billed part.

The *to be invoiced date* is calculated by use the more update document in the document flow.

- More updated document:
 1. The shipment document.
 2. The delivery document.

3. The sales order document at the schedule line level.

Regarding the order line classification, the to be invoiced is calculated following the rules below:

PF1 rules:

- If the order line classification is "1" (the country plant is difference than the ship-to country):
 1. If a shipment document exist. **To be invoiced date = shipment end date (planned or actual)**
 2. If a delivery document exist with an actual GI date, but no shipment document. **To be invoiced date = the actual GI date + transit time.**
 3. If a delivery document exist without an actual GI date, but no shipment document. **To be invoiced date = the planned GI date + transit time.**
 4. If the delivery document not exist. **To be invoiced date = the scheduled GI date of the order line (at the schedule line level) + transit time.**
- If the order line classification is "2" (the transportation mode = "SEA" (Export)):
 1. If a shipment document exist. **To be invoiced date = shipment start date (planned or actual)**
 2. If a delivery document exist with an actual GI date, but no shipment document. **To be invoiced date = the actual GI date.**
 3. If a delivery document exist without an actual GI date, but no shipment document. **To be invoiced date = the planned GI date.**
 4. If the delivery document not exist. **To be invoiced date = the scheduled GI date of the order line (at the schedule line level).**
- If the order line classification is "3" (the others cases):
 1. If a shipment document exist. **To be invoiced date = shipment completion date (planned or actual)**
 2. If a delivery document exist with an actual GI date, but no shipment document. **To be invoiced date = the actual GI date.**
 3. If a delivery document exist without an actual GI date, but no shipment document. **To be invoiced date = the planned GI date.**
 4. If the delivery document not exist. **To be invoiced date = the scheduled GI date of the order line (at the schedule line level).**

WARNING: A shipment document can be created without the shipment dates. If this case appears, the shipment document will be ignored in the determination of the to invoiced date.

WP1 rules:

If incoterm CIP-CPT & order shipping condition group = SEA (New)

If SHIPMENT : date of shipment COMPLETION (Exec-Planned)

If DELIVERY-C : Despatch actual good issue

If DELIVERY-A : Despatch planned good issue

Else : Scheduled good issue

>>> POD - Proof of Delivery <<<

If POD + incoterm DAP-DDP-DDU + order shipping condition AC-AF (New)

If SHIPMENT : date END of shipment (Exec-Planned) + 2 days

If SCHEDULE : Schedule line delivery date when confirmed qty >0 - 2 days

Else : Order last Delivery date (ATP/Requested) - 2 days

If POD (OTHERS)

If SHIPMENT : date END shipment (Exec-Planned)

Else : Schedule line delivery date when confirmed qty >0

Else : Order last requested delivery date

Take in consideration just if there is a POD flag

>>> NON-POD <<<

If NON-POD + ROAD-RAIL-OTHER

If SHIPMENT : date START shipment (Exec-Planned)

If DELIVERY-C : Despatch actual good issue

If DELIVERY-A : Despatch planned good issue

Else : Scheduled good issue

If NON-POD + AIR-SEA

If SHIPMENT + (shipment COMPLETION (Exec-Planned) = shipment START (Exec-Planned))

: date START shipment + 3 (in case there is no date in the
shipment doc, so GI date (actual or planned))

If SHIPMENT + (shipment COMPLETION <> shipment START (Exec-Planned))

: date START shipment + 0

If DELIVERY-C : Despatch actual good issue + tolerance

If DELIVERY-A : Despatch planned good issue + tolerance

Else : Scheduled good issue + tolerance

>>> NON-POD Air-Sea TOLERANCE <<<

All GBU Legal Company country = BR +0

P&I	Plant 7822 +4	Plant 7544 +10
	Plant 7673 +3	Plant 7852 +10
	Plant 7603 +2	Plant 0273 +4
	Plant 8060 +0	Plant 8055 +0
	Plant 7860 +0	Other +0

EP	Plant country = BR	+7
	Plant = 7822	+7
	Plant = 0228	+4
	Other	+3

AROMA	Order delivery condition code AA-AB-AC-AD-AE-AF-BQ-BP	
	& Plant geo zone = AMERIQ	+14
	& Plant geo zone <> AMERIQ	+10
	Order delivery condition code 8-10-0	
	& Plant geo zone = AMERIQ	+14
	& Plant geo zone <> AMERIQ	+10
	Order delivery condition code 40-AG-AH-AI-AZ-BA	+7
	Other	+0

SILICA +7

RES	Order delivery condition code AA-AB-AC-AD-BQ-BP	+9
	Order delivery condition code 8-10-0	+9
	Order delivery condition code AE-AF	+5

	Order delivery condition code AH-AI	+3
	Other	+0
NOVECARE	Legal company zone "AMERIQ"	+11
	sinon	+7
TS	Plant zone AP	+2
	Plant zone NA	+7
	Plant zone EU	+5
	Plant zone LA	+3
Other GBU		+3

PF1+WP1 rules:

To be issued date

The to be issued date is used to know when an order line will be billed. This concept is used in the order book to be issued for the Open order and the Shipped but not billed part.

Important: like the to be invoiced date, the to be issued date can be calculated only if the type of sales order will generate a delivery document. That means the credit/debit memo are not included in the Open order and the shipped but not billed part. The returns are not considered in the Open order and shipped but not billed part.

The *to be issued date* is calculated by use the more update document in the document flow.

- More updated document:
 1. The delivery document if the quantity is issued.
 2. The shipment document.
 3. The delivery document if the quantity is not issued.
 4. The sales order document at the schedule line level.

To calculate the to be issued date we use the rules with the hierarchy below:

1. If a delivery document exist with an actual GI date. **to be issued date = the actual GI date.**
2. If a shipment document exist, and the delivery is not issued. **to be issued date = shipment completion date (planned or actual).**
3. If a delivery document exist without an actual GI date. **to be issued date = the planned GI date.**
4. If the delivery document not exist. **to be issued date = the scheduled GI date of the order line (at the schedule line level).**

WARNING: A shipment document can be created without the shipment dates. If this case appears, the shipment document will be ignored in the determination of the to issued date.

The rest to be delivered

The rest to be delivered is the quantity which need to be delivered to the customer to complete the requested quantity. The rest to be delivered is defined at the schedule line level. It is used in the Open order part, to determine the to be invoiced/issued quantities and the values. The calculation is done following the rules below:

- If the confirmed quantity = 0.
 - The rest to be delivered = the schedule line quantity - (the issued quantity + delivery tolerance)
- If the confirmed quantity > 0.
 - The rest to be delivered = the schedule line confirmed quantity - (the issued quantity + delivery tolerance)

IMPORTANT: If the rest to be delivered is negatif, the quantity: rest to be delivered is forced to 0.

Not invoiced

Definitions

The notion of Not Invoiced (or not billed) is very important to generate the order book. That will define the sales documents lines which are Open or Shipped not billed.

To know if a document line is invoiced or not (billed or not billed) 2 checks are done:

- The first check is done regarding a delivery line. If a billing document exist with reference the delivery line. The corresponding delivery line is billed (invoiced).
- The second check is done regarding the sales document line. If a billing document exist with reference, the sales order line. The corresponding order line is billed (invoiced).

IMPORTANT: An order line can be partially billed.

Open order

Definitions

If a rest to be delivered exist for an order line. The order line is open.

Two cases:

- The order line is open and no delivery is planned.
- The order line is open and a delivery is planned.

Open order without planned delivery

This case appear when an order line was created, but no delivery is yet planned.

Example:

Display TD Standard Order 4268469: Item Data



Sales Document Item	20	Item category	TDN	Standard item (SLV)
Material	198592	KALIX 2955 WH SS2 S25 P1000		

Document Flow						
 Status overview  Display document  Service documents						
Business partner 0000322362 GREEN POINT (SUZHOU) TECHNOLOGY Material 000000000000198592 KALIX 2955 WH SS2 S25 P1000						
						
Document	Quantity	Unit	Ref. value	Currency	On	Status
 TD Standard Order 0004268469 / 20	18.000,000	KG	1.284.095,50	CNY	28.06.2016	Open

The order line 4268469/20 has no delivery created. This order line is at the beginning of the sales process.

Open order with planned delivery

This case appear when an order line was created, and delivery is planned.

Example:

Display Deliv. Symb. SOrd.BR 4311472: Item Data



Sales Document Item	20	Item category	ZRCS	Shi.p/ cta. simpl.f.
Material	188110	PVC-B EB239/1100 S25		

Document Flow						
Status overview Display document Service documents						
Business partner 0003030148 TECBLAS IND. COM. DE PLÁSTICOS LTDA Material 000000000000188110 PVC-B EB239/1100 S25						
Document	Quantity	Unit	Ref. value	Currency	On	Status
Deliv. Symb. SOrd.BR 0004311472 / 20	1.500,000	KG	14.055,02	BRL	04.11.2015	Completed
Delivery BR 0087743333 / 10	0,000	KG			04.11.2015	Completed
• Shipment 4107480602 / 1 • NF Non Contabiliz.BR 0077265408 / 20	1.500,000	KG	14.055,02	BRL	05.11.2015	Completed
Delivery BR 0087743333 / 9000001	1.500,000	KG			05.11.2015	Completed
• Shipment 4107480602 / 1 • NF Non Contabiliz.BR 0077265408 / 21 • Picking request 20151105 / 21	0,000	KG	0,00	BRL	05.11.2015	Completed
	1.500,000	KG			05.11.2015	Completed

The order line 4311472/20 has the delivery lines 87743333/10 and 87743333/9000001 created.

Delivery BR 87743333 Display: Overview			
Post Goods Issue			
Outbound deliv.	87743333	Document Date	04.11.2015
Ship-to party	3030148	TECBLAS IND. COM. DE PLÁSTICOS LTDA / R. JOÃO ELUSTONDO FILHO 270 / 91140-450 PO	
Item Overview Picking Loading Transport Status Overview Goods Movement Data			
Planned GI	04.11.2015	00:0...	Total Weight 1.531,000 KG
Actual GI date			No.of packages 0

The delivery is planned but the material is not yet issued. The order line 4311472/20 is open.

Shipped but not billed

Definition

Order line which has a delivery line with an issued quantity but the issued quantity is not yet billed.

Example:

Display TD Standard Order 4357166: Item Data			
Sales Document Item	10	Item category	TDN Standard item (SLV)
Material	170295	PCS-S HC Cs1100 45MVSh PQ1	

Document Flow						
Status overview Display document Service documents						
Business partner 0000407398 TELLERINI SPA Material 000000000000170295 PCS-S HC Cs1100 4SMVSh PQ1						
Document	Quantity	Unit	Ref. value	Currency	On	Status
TD Standard Order 0004357166 / 10	24.200,000	KG	13.310,00	EUR	16.11.2015	Completed
Outbound delivery 0070367763 / 10 - Shipment 4108114665 / 1 - Confirmation of service 2677763000 / 1	0,000	KG			30.08.2016	Being processed
			0,00	EUR	23.09.2016	Completed
Outbound delivery 0070367763 / 900001 - Shipment 4108114665 / 1 - Picking request 20160923 / 1 - GD goods issue:delv 4929263978 / 1	24.200,000	KG			23.09.2016	Being processed
					19.09.2016	Comple.stat.set
	24.200,000	KG			23.09.2016	Completed
	24.200,000	KG	9.545,93	EUR	23.09.2016	complete

The order line 4357166/10 has the deliveries lines 70367763/10 and 70367763/900001 created.

Outbound delivery 70367763 Display: Overview			
Post Goods Issue			
Outbound deliv.	70367763	Document Date	30.08.2016
Ship-to party	407398	TELLERINI SPA / VIA BONAZZI 36/3 / I-40013 CASTEL MAGGIORE BO	
Item Overview Picking Loading Transport Status Overview Goods Movement Data			
Planned GI	23.09.2016	00:0...	Total Weight 24.756,600 KG
Actual GI date	23.09.2016		No.of packages 0

The material was issued, no billing exist for the delivery. The order line 4357166/10 is shipped not billed.

Billed

Definition

An order line is billed, when a billing line is created with reference document:

- the order line
- the order line's delivery

Example:

Display TD Standard Order 4204405: Item Data

Sales Document Item

Item category
Standard item (SLV)

Material

TECNOFLO
N VPL 55540
*SM Ca25CN

Document Flow

Status overview
 Display document
Service documents

Business partner
0000606062 DAETWYLER SCHWEIZ AG
Material
000000000000170840 TECNOFLO
N VPL 55540
*SM Ca25CN

Document	Quantity	Unit	Ref. value	Currency	On	Status
M3 Reference order 0000063123 / 320	0,000	KG	0,00	EUR	24.06.2008	
TD Standard Order 0004204405 / 10	100,000	KG	28.000,00	EUR	26.05.2015	Completed
Outbound delivery 0070386914 / 10	0,000	KG			09.09.2016	Completed
Shipment 4108102336 / 1					09.09.2016	Shipment started
F8 CUSTOMS INVOICE 0077351449 / 10	0,000	KG	0,00	EUR	12.09.2016	Completed
Confirmation of service 2566914000 / 10	0,000	KG	0,00	EUR	12.09.2016	Completed
Invoice 0093517681 / 10	0,000	KG	0,00	EUR	12.09.2016	Completed
Accounting document 6111008814	0,000	KG			12.09.2016	Not cleared
Outbound delivery 0070386914 / 900001	100,000	KG			09.09.2016	Completed
Shipment 4108102336 / 1					09.09.2016	Shipment started
Handling unit 0020750749 / 1	100,000	KG			09.09.2016	
Picking request 0020750749 / 1	100,000	KG			09.09.2016	Completed
F8 CUSTOMS INVOICE 0077351449 / 11	100,000	KG	28.000,00	EUR	12.09.2016	Completed
GD goods issue:delv 4929193411 / 1	100,000	KG	5.914,12	EUR	12.09.2016	complete
Invoice 0093517681 / 11	100,000	KG	28.000,00	EUR	12.09.2016	Completed
Accounting document 6111008814	100,000	KG			12.09.2016	Not cleared

The order line 4204405/10 has a billing document created in reference of the delivery line. The order line is billed.

Not Scheduled

The not scheduled part exists when a quantity is not yet scheduled in the ERP. For this part, it's not possible to determine a to invoiced date or a to be issue date.

Order book with estimated contribution:

[Link documentation](#)

Master data

List of mater data:

Technical name	Description
C_ITM_SD	Sales order item
C_ROUTE	Route
C_TRMODE	Transportation mode

C_SHIPCD2	Shipment condition
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IMPORTANT: The object C_ITM_SD AND C_ITM_GS are critical due to it useS to generate the order book.

C_ITM_SD__C_MANPLNT was designed at the time of Global Sales project back in 2018 at the request of Special Chem GBU (project sponsor). It is based on the batch assigned in the delivery of the order line, or if not available from the order line Shipping Plant:

Production/Manufacturing plant issued from the batch description (MSC3N / tab "Classification") :

- WP1 data = corresponding to the line "Manufacturing Plant"
- PF1 data = corresponding to the line "Industrial Origin" (even if manufacturing plant is existing, it's well the industrial origin taken as production plant.

In SAP, the batch number is :

- in the Order Line : tab "Sales A" of the order line for SO / tab "Material data" of the order line for PO
- in the delivery line

In the BW query we get the information Manufacturing Plant (ou Production Plant):

1. batch in the delivery
2. if more than one batch, we take the last one (the last in the document flow)
3. if no batch in the delivery, we take it in the order

4. if no batch in the order, by default we put the shipping plant

[Global Sales - Data Dictionary](#)

Data flow

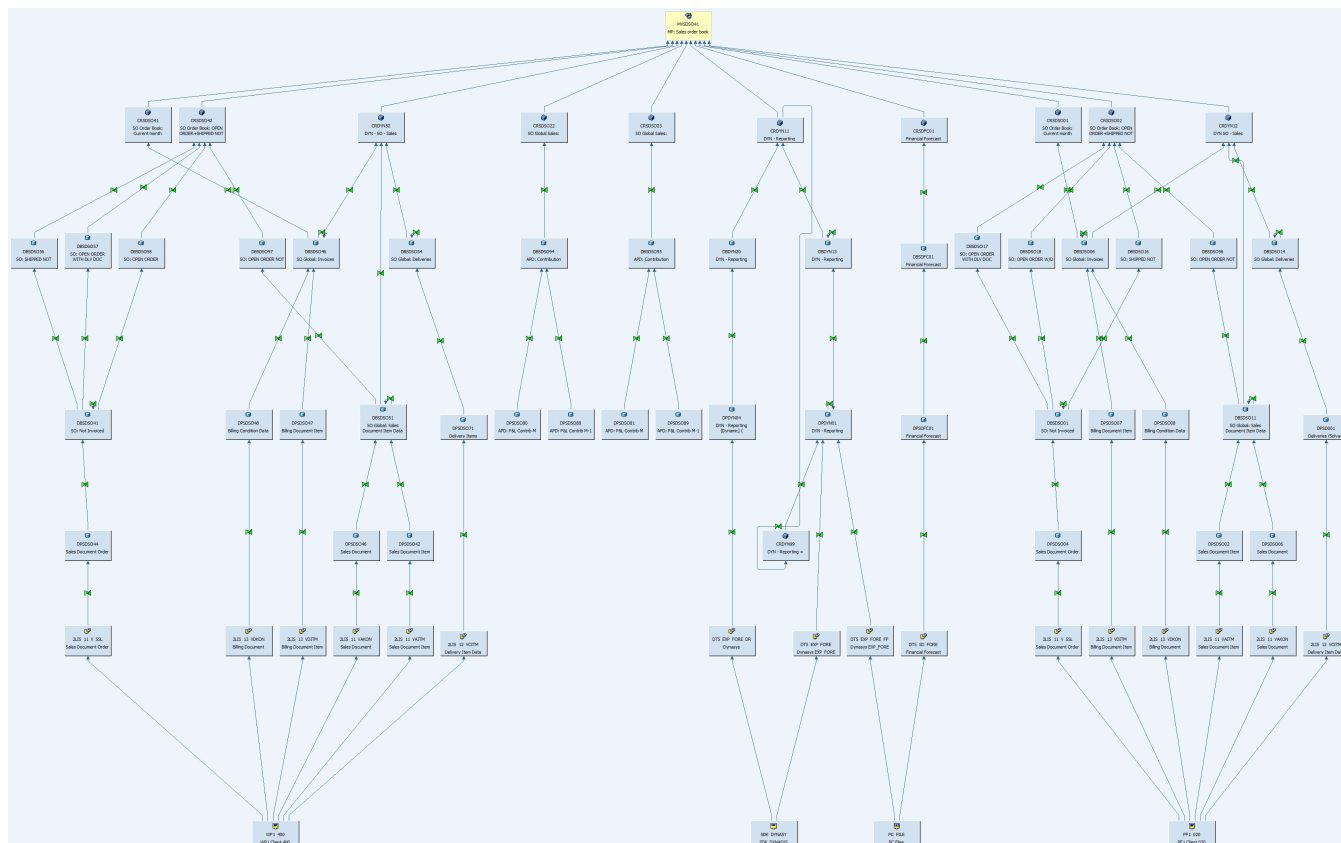
The data flow is based on the LSA method. The data visualization is done on the multiprovider MVSDSO41 (MP: Sales order book).

Global Sales data layers:

- Propagation Layer
- Business Layer
- Reporting Layer
- Virtual Layer
- Master Data

The draw below represent the data flow of the multiprovider MVSDSO41:

Click on the draw to enlarge.

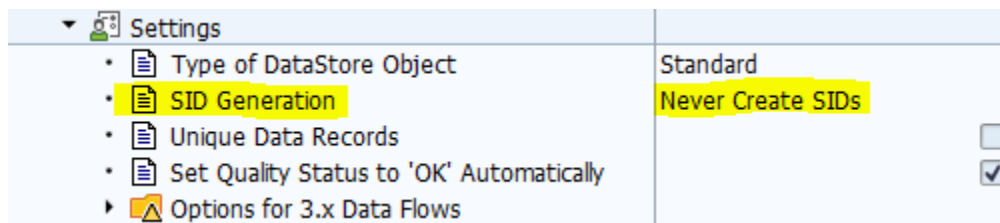


Propagation layer

List of infoproviders used by the Sales order book:

DSO tech. name	DSO description	DTS tech. name	DTS description	Comments
DPDSO02	Sales Document Item Data (Solvay)	2LIS_11_VAITEM	Sales Document Item Data	Global Sales
DPDSO04	Sales Document Order Delivery (Solvay)	2LIS_11_V_SSL	Sales Document Order Delivery	Global Sales
DPD001	Deliveries (Solvay)	2LIS_12_VCITEM	Delivery Item Data	Global Sales
DPDSO07	Billing Document Item Data (Solvay)	2LIS_13_VDITEM	Billing Document Item Data	Global Sales
DPDTR22	TR Prop: Shipments & Deliveries (Solvay)	2LIS_08RTLTP	Shipment: Delivery Item Data per Section	From TIERS
DPDTR28	TR Prop: Shipments & Deliveries Status 1-4 (Solvay)	DTS_BW_SHIP_SBS	Extract Shipment doc overall status 1 to 4	From TIERS
DPDSO42	Sales Document Item Data (Rhodia)	2LIS_11_VAITEM	Sales Document Item Data	Global Sales
DPDSO44	Sales Document Order Delivery (Rhodia)	2LIS_11_V_SSL	Sales Document Order Delivery	Global Sales
DPDSO70	Deliveries (Rhodia)	2LIS_12_VCITEM	Delivery Item Data	Global Sales
DPDSO47	Billing Document Item Data (Rhodia)	2LIS_13_VDITEM	Billing Document Item Data	Global Sales
DPDTR02	TR Prop: Shipments & Deliveries (Rhodia)	2LIS_08RTLTP	Shipment: Delivery Item Data per Section	From TIERS
DPDTR08	TR Prop: Shipments & Deliveries Status 1-4 (Rhodia)	DTS_BW_SHIP_SBS	Extract Shipment doc overall status 1 to 4	From TIERS

Technical point: We never use the propagation layer for reporting. No SIDs are generated in the propagation layer.



Business layer

List of infoproviders used by the Sales order book:

DSO tech. name	DSO description	source DSO tech. name	source DSO description
DBDSO01	SO: Not Invoiced (Solvay)	DPDSO04	Sales Document Order Delivery (Solvay)
BDSO11	SO Global: Sales Document Item Data (Solvay)	DPDSO02	Sales Document Item Data (Solvay)
DBDSO14	SO Global: Deliveries (Solvay)	DPD001	Deliveries (Solvay)
DBDSO06	SO Global: Invoices (Solvay)	DPDSO07	Billing Document Item Data (Solvay)
DBDSO18	SO: OPEN ORDER W/O DLV DOC (Solvay)	DBDSO01	SO: Not Invoiced (Solvay)
DBDSO17	SO: OPEN ORDER WITH DLV DOC (Solvay)	DBDSO01	SO: Not Invoiced (Solvay)
DBDSO16	SO: SHIPPED NOT INVOICED (Solvay)	DBDSO01	SO: Not Invoiced (Solvay)
DBDSO09	SO global: Shipments status 1 to 7 (Solvay)	DPDTR22	TR Prop: Shipments & Deliveries (Solvay)
		DPDTR28	TR Prop: Shipments & Deliveries Status 1-4 (Solvay)
DBDSO10	SO global: Deliveries and Shipment to the customer (Solvay)	DBDSO09	SO global: Shipments status 1 to 7 (Solvay)
DBDSO41	SO: Not Invoiced (Rhodia)	DPDSO44	Sales Document Order Delivery (Rhodia)
BDSO51	SO Global: Sales Document Item Data (Rhodia)	DPDSO42	Sales Document Item Data (Rhodia)
DBDSO54	SO Global: Deliveries (Rhodia)	DPDSO70	Deliveries (Rhodia)
DBDSO46	SO Global: Invoices (Rhodia)	DPDSO47	Billing Document Item Data (Rhodia)
DBDSO58	SO: OPEN ORDER W/O DLV DOC (Rhodia)	DBDSO41	SO: Not Invoiced (Rhodia)
DBDSO57	SO: OPEN ORDER WITH DLV DOC (Rhodia)	DBDSO41	SO: Not Invoiced (Rhodia)
DBDSO56	SO: SHIPPED NOT INVOICED (Rhodia)	DBDSO41	SO: Not Invoiced (Rhodia)

DBSDSO49	SO global: Shipments status 1 to 7 (Rhodia)	DPSDTR02 DPSDTR08	TR Prop: Shipments & Deliveries (Rhodia) TR Prop: Shipments & Deliveries Status 1-4 (Rhodia)
DBSDSO50	SO global: Deliveries and Shipment to the customer (Rhodia)	DBSDSO49	SO global: Shipments status 1 to 7 (Rhodia)

Reporting layer

List of infoproviders used by the Sales order book:

CUBE tech. name	CUBE description	source DSO tech. name	source DSO description	Comments
CRSDSO42	SO Order Book: OPEN ORDER+SHIPPED NOT INVOICED (Rhodia)	DBSDSO56	SO: SHIPPED NOT INVOICED (Rhodia)	
		DBSDSO57	SO: OPEN ORDER WITH DLV DOC (Rhodia)	
		DBSDSO58	SO: OPEN ORDER W/O DLV DOC (Rhodia)	
CRSDSO02	SO Order Book: OPEN ORDER+SHIPPED NOT INVOICED (Solvay)	DBSDSO16	SO: SHIPPED NOT INVOICED (Solvay)	
		DBSDSO17	SO: OPEN ORDER WITH DLV DOC (Solvay)	
		DBSDSO18	SO: OPEN ORDER W/O DLV DOC (Solvay)	
CRSDSO41	SO Order Book: Current month Invoices (Rhodia)	DBSDSO46	SO Global: Invoices (Rhodia)	
CRSDSO01	SO Order Book: Current month Invoices (Solvay)	DBSDSO06	SO Global: Invoices (Solvay)	
CRSDFC01	Financial Forecast	DBSDFC01	Financial Forecast	

For more detail on the propagation layer, click on this [LINK](#).

Virtual layer

List of infoproviders used by the Sales order book:

multiprovider tech. name	multiprovider description	source DSO tech. name	source DSO description	Comments
MVSDSO41	MP: Sales order book	CRSDSO01	SO Order Book: Current month Invoices (Solvay)	Global Sales
		CRSDSO02	SO Order Book: OPEN ORDER+SHIPPED NOT INVOICED (Solvay)	Global Sales
		CRSDSO41	SO Order Book: Current month Invoices (Rhodia)	Global Sales
		CRSDSO42	SO Order Book: OPEN ORDER+SHIPPED NOT INVOICED (Rhodia)	Global Sales
		CRDYN11	DYN - Reporting (forecast)	DYNASIS
		CRDYN12	From SO - Devileries and Invoices (Solvay)	DYNASIS
		CRDYN52	From SO - Devileries and Invoices (Rhodia)	DYNASIS

IMPORTANT: In the multiprovider MVSDSO41, they are data coming from DYNASYS (CRDYN11 and CRDYN12). These data are not used in the Order book.

Master data

List of master data used to generate the Sales order book:

Object tech. name	Object description	source tech. name	source description	Comments
-------------------	--------------------	-------------------	--------------------	----------

C_DOCNUMB	Sales document (with System ID)	DPFIAR06 DPFIAR05 DBSDSO9K DPSDSO6E DPSDSO6F DBSDSO11 DBSDSO51	FIAR: Credit blocked by Credit Reasons - Solvay FIAR: Credit blocked by Credit Reasons - Rhodia Global sales: Partner document VBPA (Solvay+Rhodia) VBAK/VBUK (Solvay) VBAK/VBUK (Rhodia) SO Global: Sales Document Item Data (Solvay) SO Global: Sales Document Item Data (Rhodia)	
C_ITM_SD	Sales document item	DBSDSO08 DBSDSO11 DBSDSO12 DBSDSO48 DBSDSO51 DBSDSO52 DPSDSO16 DPSDSO56	SO Global: Sales Document Schedule Line (Solvay) SO Global: Sales Document Item Data (Solvay) SO global: Sales Document Item Status (Solvay) SO Global: Sales Document Schedule Line (Rhodia) SO Global: Sales Document Item Data (Rhodia) SO global: Sales Document Item Status (Rhodia) Sales Document Header/Item Data Active docs (Solvay) Sales Document Header/Item Data Active docs (Rhodia)	Is the more critical object. Used to generate the data flow.
C_SHIPNU2	Shipment Number (Core)	DPSDTR21 DPSDTR28 DPSDTR01 DPSDTR08	TR Prop: Shipments header (Solvay) TR Prop: Shipments & Deliveries Status 1-4 (Solvay) TR Prop: Shipments header (Rhodia) TR Prop: Shipments & Deliveries Status 1-4 (Rhodia)	For more detail please see the TIERS documentation

For more detail on the master data layer, click on this [LINK](#).

Data update

Process chain

IMPORTANT: The same process chain is used to update the Order book and the Historical sales data.

The processes chains below are used to update the multiprovider MVSDSO41 (Sales order book):

For Solvay:

- SD - Main Process Chain - UPDATE DATA - (PC_SD_MAIN)
 - SD - Propagation Update (PC_SD_PROPAG)
 - SD - Business Layer (Solvay) (PC_SD_BUSINESS_LAYER)
 - Global Sales: Reporting layer (PC_Global Sales_REPORTING)

For Rhodia:

- PC: Global Sales: Main (Rhodia) - (PC_GLOBAL_SALES_MAIN)
 - Global Sales: Propagation Layer (Rhodia) (PC_GL_SALES_PROP_01)
 - Global Sales: Business Layer (Rhodia) (PC_GL_SALES_BUS02)
 - Global Sales: Reporting Layer (Rhodia) (PC_GL_SALES_REP02)

IMPORTANT: The sales order book is generated every day from scratch. No historic is done for the sales order book.

Loading frequency

The data is updated every day. The process chain start after the end of TIERS update.

Reporting

The reporting is based on Core workbooks based on Core queries.

The core workbooks give an aggregated view (SNAPSHOT), to have information on the documents detail jumps are done.

IMPORTANT: The core queries are not published on the role menu. Only the workbooks are published on the role menu, folder Order Book.

Data selection

Data selections are done at the query level:

- On the sales documents type.
- On the billing document type.
- On the consolidated method.
- On the sales unit.

For more detail on the selections, click on this [LINK](#).

Core queries

List of Queries

Workbook		Query	
Order Book: To be Invoiced	BW_WBK_MVSDSO41_SD 011	BW - Order Book: To be Invoiced Full (Core query)	BW_QRY_MVSDSO41_SD 011
Order Book: To be Invoiced (Open Order)	BW_WBK_MVSDSO41_SD 006	BW - Order Book: Open Order (Core)	BW_QRY_MVSDSO41_SD 006
Order Book: To be Invoiced (Shipped not Billed)	BW_WBK_MVSDSO41_SD 007	BW - Order Book: Shipped not billed (Core)	BW_QRY_MVSDSO41_SD 007
Order Book: To be Issued	BW_WBK_MVSDSO41_SD 012	BW - Order Book: To be Issued Full (Core)	BW_QRY_MVSDSO41_SD 012
Order Book: To be Issued (Open Order)	BW_WBK_MVSDSO41_SD 001	BW - Order Book: Open Order To be Issued (Core)	BW_QRY_MVSDSO41_SD 001
Order Book: To be Issued (Shipped not Billed)	BW_WBK_MVSDSO41_SD 002	BW - Order Book: Shipped not Billed To be Issued (Core)	BW_QRY_MVSDSO41_SD 002
Order Book: To be Invoiced (Snapshot)	BW_WBK_MVSDSO41_SD 004	BW - Order Book: Snapshots To be Invoiced (Core)	BW_QRY_MVSDSO41_SD 004
Order Book: To be Invoiced+Contribution (Snapshot)	BW_WBK_MVSDSO41_SD 014	BW - Order Book: Snapshots To be Invoiced + contrib (Core)	BW_QRY_MVSDSO41_SD 014
Order Book: To be Issued (Snapshot)	BW_WBK_MVSDSO41_SD 003	BW - Order Book: Snapshots To be Issued (Core)	BW_QRY_MVSDSO41_SD 003

The core queries are used to build the workbooks and to have the detail at the documents lines level (jumps).

Purchase order (Transfers) order book

Core rules

All the rules used in Global Sales were determined by SAP experts.

IMPORTANT:

Solvay:

- *The purchase order (Transfers) order book take in consideration just the PO's types UB and NB, the vendor must to be flagged as intra-group. Exception is done for purchase organization. The exception is done with the technical object C_POSD.*
- *The purchase order (Transfers) order book is defined at the purchase order line.*

Rhodia:

- *The purchase order (Transfers) order book take in consideration just the PO's types UB and NB, the purchase organization 3200 is used for the type UB. The purchase organization 3001 to 3008, 3200 and 3400 are used for the type NB.*
- *The purchase order (Transfers) order book is defined at the purchase order line.*

To be invoiced date

The to be invoiced date is calculated following the rules below (WP1 and PF1):

- If there is GR (good receipt) date, **the to be invoiced date = the last GR date.**
- If there is not yet a GR (Goods Receipt), **the to be invoiced date = the scheduled delivery date of the last schedule line.**

The rest to be delivered for PO's transfers

The rest to be delivered is the quantity which need to be delivered to the customer to complete the requested quantity. The rest to be delivered is defined at the purchase order line level. It is used in the Open order part, to determine the to be invoiced quantities and the values. The calculation is done following the rules below:

- If the confirmed quantity = 0.
 - The rest to be delivered = PO's line quantity - the goods receipt quantity
- If the confirmed quantity <> 0.
 - The rest to be delivered = the PO's line confirmed quantity - the goods receipt quantity

IMPORTANT: If the rest to be delivered is negative, the quantity: rest to be delivered is forced to 0.

Open order

Definitions

A PO transfers order is open if:

- the indicator Final delivery is empty (for NB document).
- the quantity of the PO line is issued (for UB document).

Example:

The screenshot shows the SAP Purchase Order (PO) line 4512394035/10. The header section displays the PO number, vendor (302303075 SOLVAY CHEMICALS...), and document date (01.06.2015). The item list shows three lines (10, 20, 30) for material 60102, all with a quantity of 220.000,000 LB and a delivery date of 24.06.2015. The 'Item' section is expanded, showing the 'Delivery' tab. The 'Final Delivery' indicator is checked, and the 'Part.Del./Item' indicator is also checked. The 'Incoterms' field is set to CIP.

S..	Itm	A	I	Material	Short Text	PO Quantity	O...	C	Deliv. Date	Net Price	Curr...
	10			60102	SDN REG D *GRM [LB]	220.000,000	LB	D	24.06.2015	295,50	USD
	20			60102	SDN REG D *GRM [LB]	220.000,000	LB	D	24.06.2015	295,50	USD
	30			60102	SDN REG D *GRM [LB]	220.000,000	LB	D	24.06.2015	295,50	USD

Item: 1 [10] 60102, SDN REG D *GRM [LB]

Material Data: Overdeliv. Tol. 25,0 %; Underdeliv. Tol. 0,0 %; Shipping Instr.; Stock Type: Unrestricted use; Rem. Shelf Life: 0 D; QA Control Key.

Quantities/Weights: 1st Rem./Exped. 4; 2nd Rem./Exped. 8; 3rd Rem./Exped. 12; No. Exped. 0; Pl. Deliv. Time 10; GR Proc. Time 0; Incoterms: CIP.

Delivery: ☒ Goods Receipt; ☐ GR non-valuated; ☒ Deliv. Compl.; ☒ Final Delivery; ☐ Part.Del./Item.

The PO's line 4512394035/10 is closed because the indicator Final Delivery is flagged.

Delivered quantity

Definition

Is the quantity issued (the delivery line has an actual GI date).

Example:

Outbound deliv. 87422928 Document Date 08.06.2015
 Ship-to party 2501100 SOLVAY MEXICANA S. DE R.L. DE C.V. / CARRETERA A GARCIA KM.

Item Overview Picking Loading Transport Status Overview Goods Movement Data

Planned GI 10.06.2015 00:0... Total Weight 98.542,942 KG
 Actual GI date 09.06.2015 No.of packages 1

Batch Structure for Item 10

Itm	Material	Deliv. Qty	Un	Description
10	60102	0,000	LB	SDN REG D *GRM [LB]
900001	60102	217.250,000	LB	SDN REG D *GRM [LB]

The delivery line 87422928/10 which contain the batch 900001 is issued. The quantity was delivered.

Billed

Definition

A PO transfers order line is billed, when a billing line is created with reference document:

- the PO transfers order
- the PO transfers order's delivery

IMPORTANT: On the transfers process, just purchase documents type NB will generate billing documents.

Example:

Document	On	Status
▼ Purchase Order 4511943102	26.11.2013	
▼ Replen.Cross-company 0086095478	20.09.2013	Completed
▼ Intercompany Billing 0095979173	21.10.2013	Completed
* Accounting document 6111010220	21.10.2013	Cleared

The PO 4511943102 has a billing document created in reference of the delivery document 86095478. The PO's transfers is billed.

Data flow

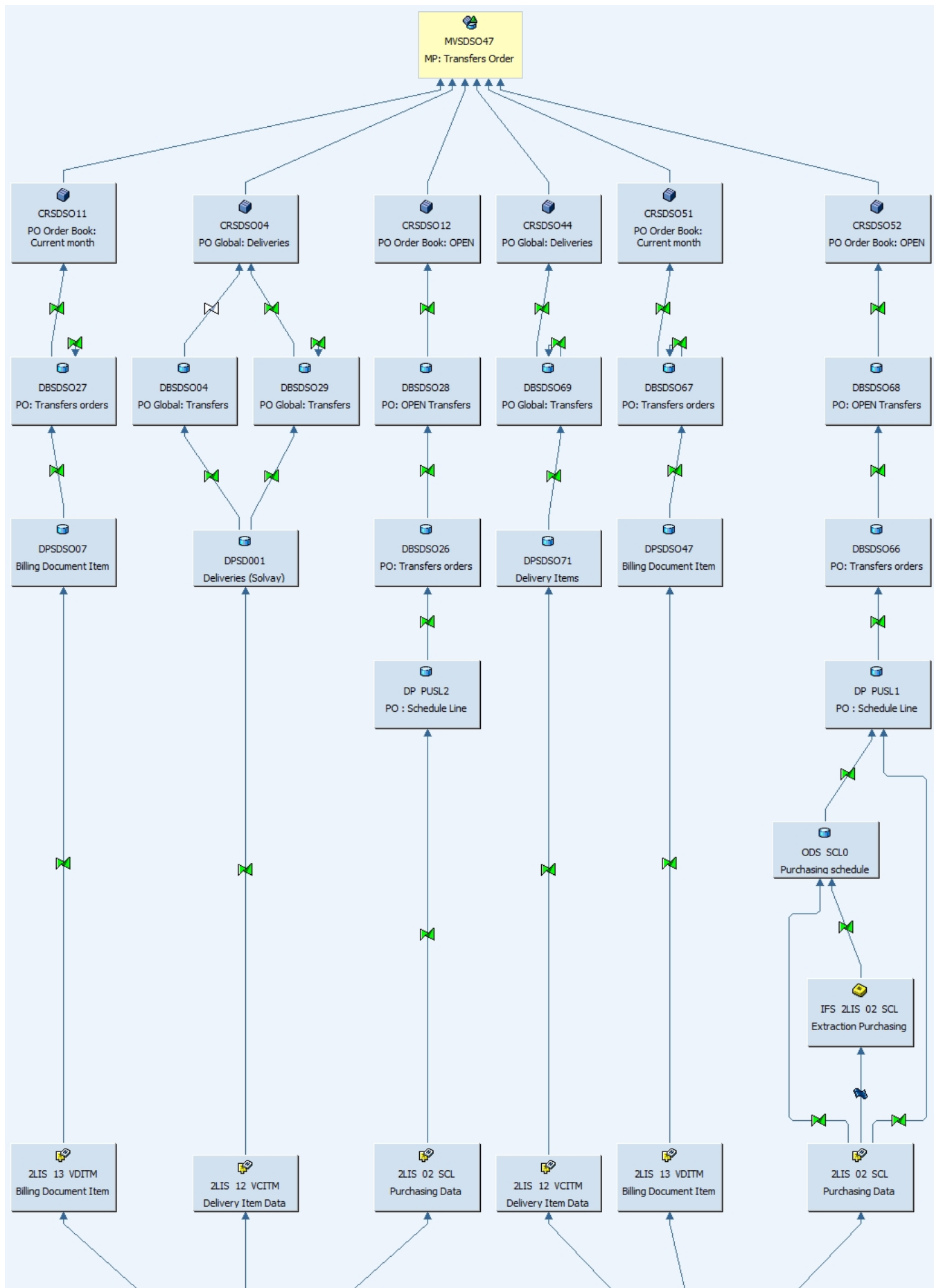
The data flow is based on the LSA method. The data visualization is done on the multiprovider MVSDSO47 (MP: Transfers Order Book (Global Sales)).

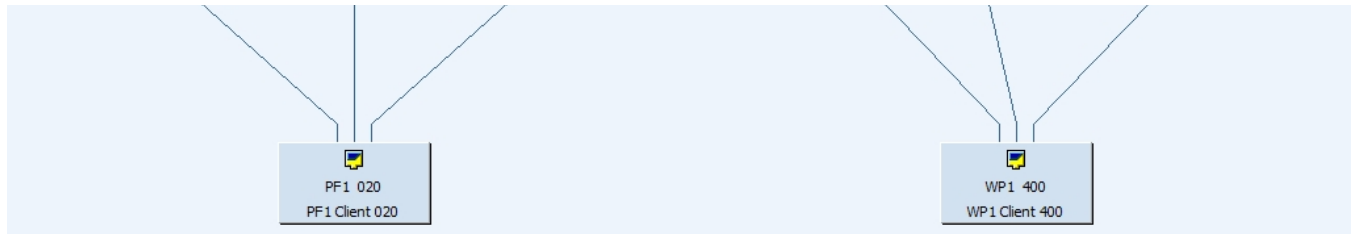
Global Sales data layers:

- Propagation Layer
- Business Layer
- Reporting Layer
- Virtual Layer
- Master Data

The draw below represent the data flow of the multiprovider MVSDSO47:

Click on the draw to enlarge.





Propagation layer

IMPORTANT: To build the PO's transfers order book, we use data coming from the propagation of SPRINT.

List of infoproviders used by the PO's transfers order book:

DSO tech. name	DSO description	DTS tech. name	DTS description	Comments
DPSDSO02	Sales Document Item Data (Solvay)	2LIS_11_VAITEM	Sales Document Item Data	Global Sales
DPSD001	Deliveries (Solvay)	2LIS_12_VCITM	Delivery Item Data	Global Sales
DPSDSO07	Billing Document Item Data (Solvay)	2LIS_13_VDITM	Billing Document Item Data	Global Sales
DP_PUSL2	PO: Schedule line (Solvay)	2LIS_02_SCL	Purchasing data (schedule line level)	SPRINT
DP_PUHD2	PO : Historical Data (Solvay)	DTS_BW_EKBE	PO Historical Data	SPRINT
DPSDSO42	Sales Document Item Data (Rhodia)	2LIS_11_VAITEM	Sales Document Item Data	Global Sales
DPSDSO71	Deliveries (Rhodia)	2LIS_12_VCITM	Delivery Item Data	Global Sales
DPSDSO47	Billing Document Item Data (Rhodia)	2LIS_13_VDITM	Billing Document Item Data	Global Sales
DP_PUSL1	PO: Schedule line (Rhodia)	2LIS_02_SCL	Purchasing data (schedule line level)	SPRINT
DP_PUHD1	PO : Historical Data (Rhodia)	DTS_BW_EKBE	PO Historical Data	SPRINT

For more detail on the propagation layer click on this [LINK](#).

Business layer

List of infoproviders used by the PO's transfers order book:

DSO tech. name	DSO description	source DSO tech. name	source DSO description
DBSDSO25	PO : Transfers Historical Data (Solvay)	DP_PUHD2	PO : Historical Data (Solvay)
DBSDSO26	PO: Transfers orders sched. line (Solvay)	DP_PUSL2	PO: Schedule line (Solvay)
DBSDSO28	PO: OPEN Transfers orders (Solvay)	DBSDSO26	PO: Transfers orders sched. line (Solvay)
DBSDSO27	PO: Transfers orders Invoices (Solvay)	DPSDSO07	Billing Document Item Data (Solvay)
DBSDSO29	PO Global: Transfers orders delivery (Solvay)	DPSD001	Deliveries (Solvay)
DBSDSO65	PO : Transfers Historical Data (Rhodia)	DP_PUHD1	PO : Historical Data (Rhodia)
DBSDSO66	PO: Transfers orders sched. line (Rhodia)	DP_PUSL1	PO: Schedule line (Rhodia)
DBSDSO68	PO: OPEN Transfers orders (Rhodia)	DBSDSO66	PO: Transfers orders sched. line (Rhodia)
DBSDSO67	PO: Transfers orders Invoices (Rhodia)	DPSDSO47	Billing Document Item Data (Rhodia)
DBSDSO69	PO Global: Transfers orders delivery (Rhodia)	DPSDSO71	Deliveries (Rhodia)

For more detail on the business layer click on this [LINK](#).

Reporting layer

List of infoproviders used by the PO's transfers order book:

CUBE tech. name	CUBE description	source CUBE tech. name	source CUBE description
CRSDSO12	PO Order Book: OPEN ORDER (Solvay)	DBSDSO28	PO: OPEN Transfers orders (Solvay)
CRSDSO11	PO Order Book: Current month Invoices (Solvay)	DBSDSO27	PO: Transfers orders Invoices (Solvay)
CRSDSO04	PO Global: Deliveries aggregated (Solvay)	DBSDSO29	PO Global: Transfers orders delivery (Solvay)

CRSDSO52	PO Order Book: OPEN ORDER (Rhodia)	DBSDSO68	PO: OPEN Transfers orders (Rhodia)
CRSDSO51	PO Order Book: Current month Invoices (Rhodia)	DBSDSO67	PO: Transfers orders Invoices (Rhodia)
CRSDSO44	PO Global: Deliveries aggregated (Rhodia)	DBSDSO69	PO Global: Transfers orders delivery (Rhodia)

For more detail on the reporting layer click on this [LINK](#).

Virtual layer

List of infoproviders used by the PO's transfers order book:

CUBE tech. name	CUBE description	source CUBE tech. name	source CUBE description
MVSDSO47	MP: Transfers order book	CRSDSO04	PO Global: Deliveries aggregated (Solvay)
		CRSDSO11	PO Order Book: Current month Invoices (Solvay)
		CRSDSO12	PO Order Book: OPEN ORDER (Solvay)
		CRSDSO44	PO Global: Deliveries aggregated (Rhodia)
		CRSDSO51	PO Order Book: Current month Invoices (Rhodia)
		CRSDSO52	PO Order Book: OPEN ORDER (Rhodia)

For more detail on the virtual layer click on this [LINK](#).

Master data

Just the master data of C_PO_ITM is used. Please refer to SPRINT documentation for more information.

Data update

Process chain

IMPORTANT: The same process chain is used to update the PO's (transfers) order book and the Historical PO's (transfers) data.

The processes chains below are used to update the multiprovider MVSDSO47 (MP: Transfers order book):

PF1:

- Global Sales: Transfers Orders Main chain (PC_OBAS_TRANSFERS_MAIN)
 - Global Sales: Business Layer Transfers Orders (Solvay) (PC_OBAS_TRANSFERS)
 - Global Sales: Reporting Layer Transfers Orders (PC_OBAS_TRANSFERS_ODB)

WP1:

- PC: Global Sales: Main (Rhodia) (PC_GLOBAL_SALES_MAIN)
 - Global Sales: Propagation Layer (Rhodia) (PC_GL_SALES_PROP_01)
 - Global Sales: Business Layer (Rhodia) (PC_GL_SALES_BUS02)
 - Global Sales: Reporting Layer (Rhodia) (PC_GL_SALES_REP02)

Reporting

The reporting is based on Core workbooks based on Core queries.

The core workbooks give an aggregated view (SNAPSHOT), to have information on the documents detail jumps are done.

IMPORTANTE: The core queries are not published on the role menu. Only the workbooks are published on the role menu, folder Order Book.

Data selection

Data selections are done at the query level:

- On the purchase documents type.
- On the sales unit.

For more detail on the selections, click on this [LINK](#).

Core queries

The core queries are used to build the workbook and to have the detail at the documents lines level (jumps).

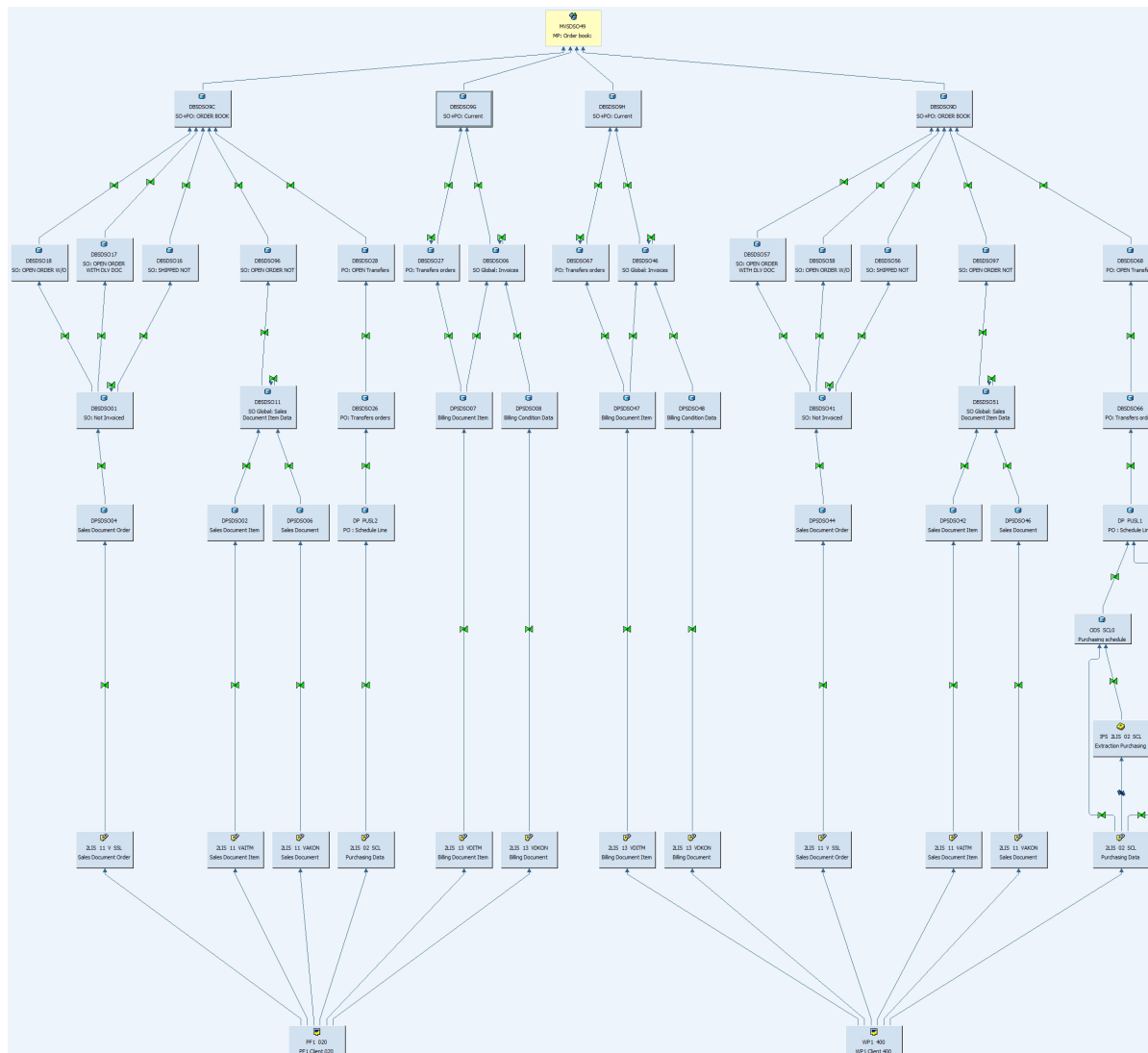
Order Book (PO+SO)

The order book (PO+SO) contains data from sales order (SO) and data from transfers order (PO). It is the combination of the order book to be issued (SO) and the order book to be issued (PO).

The view To be issued is the only one which exists for the order book (PO+SO).

The reports (snapshot and detail) are based on the multiprovider MVSDSO49.

Data flow:



Reporting layer

List of infoproviders used by the order book (PO+SO):

DSO tech. name	DSO description	source DSO tech. name	source DSO description
----------------	-----------------	-----------------------	------------------------

DBSDSO9H	SO+PO: Current month Invoices (Rhodia)	DBSDSO67	PO: Transfers orders Invoices (Rhodia)
		DBSDSO46	SO Global: Invoices (Rhodia)
DBSDSO9G	SO+PO: Current month Invoices (Solvay)	DBSDSO06	SO Global: Invoices (Solvay)
		DBSDSO27	PO: Transfers orders Invoices (Solvay)
DBSDSO9D	SO+PO: ORDER BOOK -OPEN ORDER (Rhodia)	DBSDSO56	SO: SHIPPED NOT INVOICED (Rhodia)
		DBSDSO57	SO: OPEN ORDER WITH DLV DOC (Rhodia)
		DBSDSO58	SO: OPEN ORDER W/O DLV DOC (Rhodia)
		DBSDSO68	PO: OPEN Transfers orders (Rhodia)
		DBSDSO97	SO: OPEN ORDER NOT SCHEDULED (Rhodia)
DBSDSO9C	SO+PO: ORDER BOOK -OPEN ORDER (Solvay)	DBSDSO68	PO: OPEN Transfers orders (Rhodia)
		DBSDSO16	SO: SHIPPED NOT INVOICED (Solvay)
		DBSDSO17	SO: OPEN ORDER WITH DLV DOC (Solvay)
		DBSDSO18	SO: OPEN ORDER W/O DLV DOC (Solvay)
		DBSDSO28	PO: OPEN Transfers orders (Solvay)
		DBSDSO96	SO: OPEN ORDER NOT SCHEDULED (Solvay)

Core queries

The core queries are used to build the workbook and to have the detail at the documents lines level (jumps). All the queries are based on the multiprovider MVSDSO49.

Order Book (SO+PO): To be Issued (Snapshot)	BW_WBK_MVSDSO49_0001	Order Book SO+PO Snapshots To be Issued (Core)	BW_QRY_MVSDSO49_0001
Order Book (SO+PO): Invoiced	BW_WBK_MVSDSO49_0004	Order Book SO+PO INVOICED CURRENT MONTH (Core)	BW_QRY_MVSDSO49_0004
Order Book (SO+PO): To be Issued (Open Order)	BW_WBK_MVSDSO49_0002	Order Book SO+PO OPEN ORDER To be Issued (Core)	BW_QRY_MVSDSO49_0002
Order Book (SO+PO): To be Issued (Shipped not Billed)	BW_WBK_MVSDSO49_0003	Order Book SO+PO SHIPPED NOT BILLED To be Issued (Core)	BW_QRY_MVSDSO49_0003

Historical data

Sales order

This part of Global Sales is used to have the historical data (last 3 years) for:

- Sales orders
- Schedule lines
- Delivery
- Shipment
- Billing

Sales documents types

Sales order

All the sales documents types are in the historic. Regarding the sales document type, a sales order line can be in one of the categories below:

- Sales
- Return
- Consignment
- Credit/Debit memo

The categories are stored in the object C_DOCTYP2 with the attribute C_GRPDOC. The attribute is updated manually.

IMPORTANT: This concept of categories isn't standard. It was created for Global Sales.

Delivery

All the delivery types are in the historic. Nothing is done to group the delivery type.

Billing

All the billing document types are in the historic. Regarding the billing document type, a billing line can be in one of the categories below:

- Sales
- Pro Format
- Inter-company

The categories are stored in the object C_BILLTYP with the attribute C_BILLCL. The attribute is updated manually.

IMPORTANT: This concept of categories isn't standard. It was created for Global Sales. An exclusion is done between the propagation layer and the business to don't have the billing Pro-format..

Data flow

The data flow is based on the LSA method. The data visualization is done on the multiproviders:

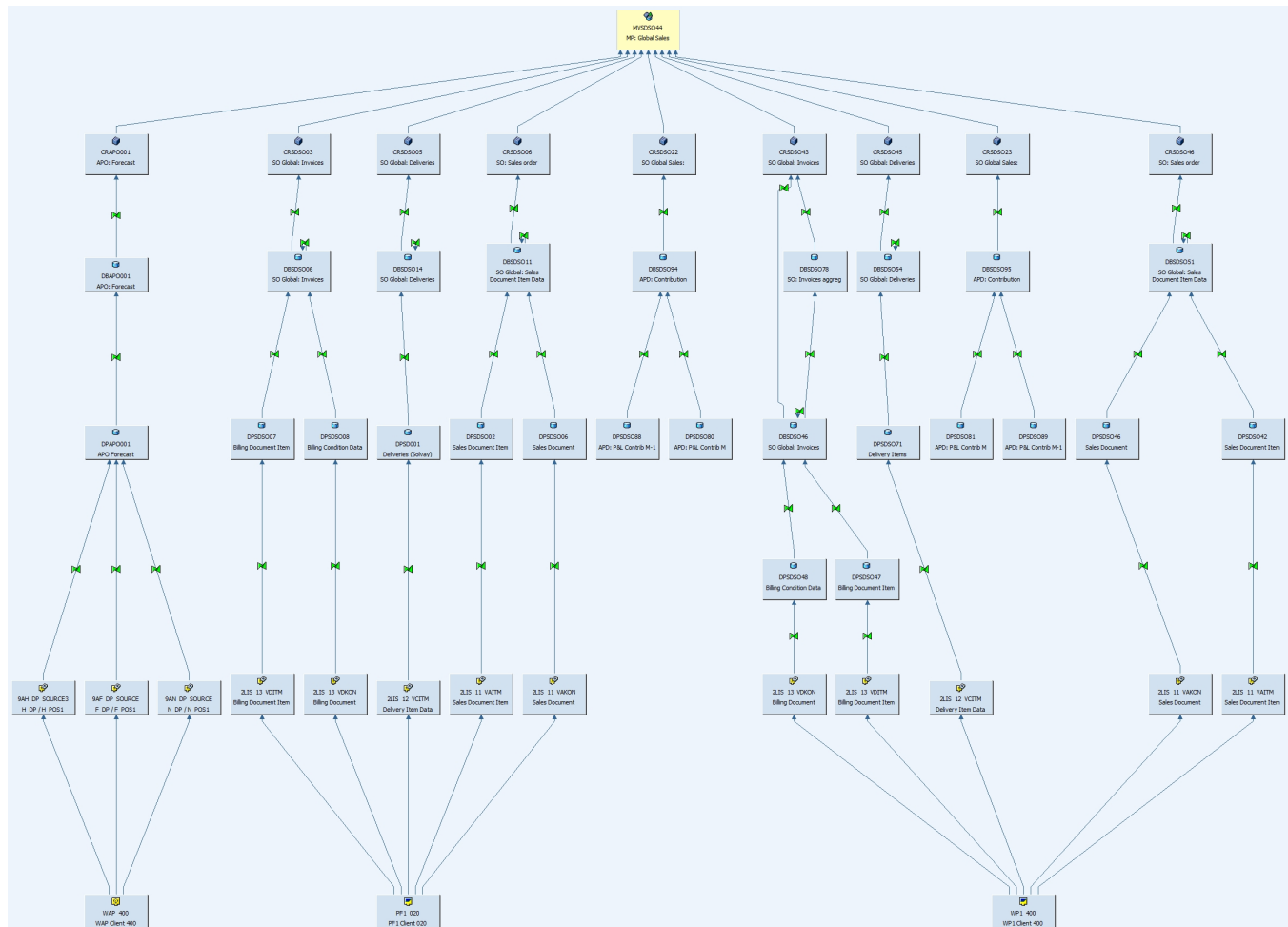
- MVSDSO44 (MP: Global Sales) for the aggregated queries.
- MVSDSO45 (MP: Detail Jump Query) for the detailed queries.

Global Sales data layers:

- Propagation Layer
- Business Layer
- Reporting Layer
- Virtual Layer
- Master Data

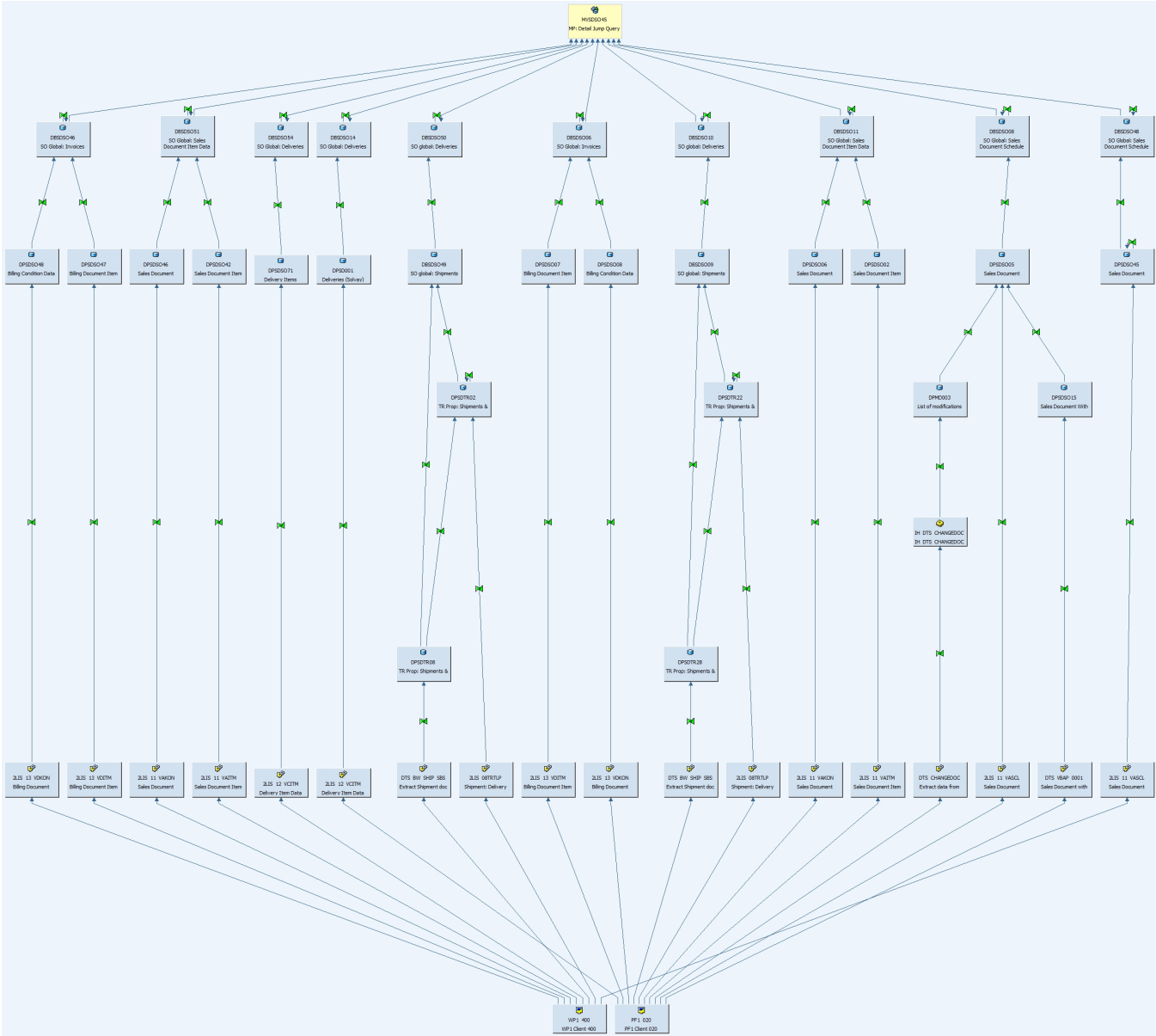
The draw below present the data flow of the multiprovider MVSDSO44 (MP: Global Sales) :

Click on the draw to enlarge.



The draw below present the data flow of the multiprovider MVSDSO45 (MP: Global Sales) :

Click on the draw to enlarge.



Propagation layer

List of infoproviders used by the Historical data:

DSO tech. name	DSO description	DTS tech. name	DTS description	Comments
DPDSO02	Sales Document Item Data (Solvay)	2LIS_11_VAIDM	Sales Document Item Data	Global Sales
DPDSO04	Sales Document Order Delivery (Solvay)	2LIS_11_V_SSL	Sales Document Order Delivery	Global Sales
DPDSO07	Billing Document Item Data (Solvay)	2LIS_13_VDITM	Billing Document Item Data	Global Sales
DPDSO47	Billing Document Item Data (Rhodia)	2LIS_13_VDITM	Billing Document Item Data	Global Sales

DPAPO001	APO Forecast	9AF_DP_SOURCE 9AH_DP_SOURCE3 9AN_DP_SOURCE	F_DP / F_POS1 H_DP / H_POS1 N_DP / N_POS1	DYNASYS
DPDYN20	DYNASYS Forecast			DYNASYS
DPDSO14	Output messages for eInvoicing (Solvay)	0FSSC_SLA_1	Message Status Data for FSSC	Global Sales
DPDSO54	Output messages for eInvoicing (Rhodia)	0FSSC_SLA_1	Message Status Data for FSSC	Global Sales
DPSDTR22	TR Prop: Shipments & Deliveries (Solvay)	2LIS_08TRTLP	Shipment: Delivery Item Data per Section	From TIERS
DPSDTR02	TR Prop: Shipments & Deliveries (Rhodia)	2LIS_08TRTLP	Shipment: Delivery Item Data per Section	From TIERS
DPSDTR28	TR Prop: Shipments & Deliveries Status 1-4 (Solvay)	DTS_BW_SHIP_SBS	Extract Shipment doc overall status 1 to 4	From TIERS
DPSDTR08	TR Prop: Shipments & Deliveries Status 1-4 (Rhodia)	DTS_BW_SHIP_SBS	Extract Shipment doc overall status 1 to 4	From TIERS

Technical point: We never use the propagation layer for reporting. No SIDs are generated in the propagation layer.

- Settings - Type of DataStore Object SID Generation - Unique Data Records - Set Quality Status to 'OK' Automatically - Options for 3.x Data Flows	Standard Never Create SIDs
--	--------------------------------------

Business layer

List of infoproviders used by the Historical data:

DSO tech. name	DSO description	source DSO tech. name	source DSO description
BDSDSO11	SO Global: Sales Document Item Data (Solvay)	DPDSO02	Sales Document Item Data (Solvay)
DBSDSO08	SO Global: Sales Document Schedule Line (Solvay)	DPDSO05	Sales Document Schedule Line (Solvay)
DBSDSO14	SO Global: Deliveries (Solvay)	DPSD001	Deliveries (Solvay)
DBSDSO06	SO Global: Invoices (Solvay)	DPDSO07	Billing Document Item Data (Solvay)
DBSDSO13	SO: PRE ATP Dates (Solvay)	DBSDSO08	SO Global: Sales Document Schedule Line (Solvay)
DBSDSO05	SO: ATP Dates (Solvay)	DBSDSO13	SO: PRE ATP Dates (Solvay)
DBSDSO09	SO global: Shipments status 1 to 7 (Solvay)	DPSDTR22 DPSDTR28	TR Prop: Shipments & Deliveries (Solvay) TR Prop: Shipments & Deliveries Status 1-4 (Solvay)
DBSDSO10	SO global: Deliveries and Shipment to the customer (Solvay)	DBSDSO09	SO global: Shipments status 1 to 7 (Solvay)
DBAPO001	APO: Forecast	DPAPO001	APO Forecast
BDSDSO51	SO Global: Sales Document Item Data (Rhodia)	DPDSO42	Sales Document Item Data (Rhodia)
DBSDSO48	SO Global: Sales Document Schedule Line (Rhodia)	DPDSO45	Sales Document Schedule Line (Rhodia)
DBSDSO54	SO Global: Deliveries (Rhodia)	DPDSO71	Deliveries (Rhodia)
DBSDSO46	SO Global: Invoices (Rhodia)	DPDSO47	Billing Document Item Data (Rhodia)
DBSDSO53	SO: PRE ATP Dates (Rhodia)	DBSDSO48	SO Global: Sales Document Schedule Line (Rhodia)
DBSDSO45	SO: ATP Dates (Rhodia)	DBSDSO53	SO: PRE ATP Dates (Rhodia)
DBSDSO49	SO global: Shipments status 1 to 7 (Rhodia)	DPSDTR02 DPSDTR08	TR Prop: Shipments & Deliveries (Rhodia) TR Prop: Shipments & Deliveries Status 1-4 (Rhodia)
DBSDSO50	SO global: Deliveries and Shipment to the customer (Rhodia)	DBSDSO49	SO global: Shipments status 1 to 7 (Rhodia)
DBDYN20	DYNASYS: Forecast	DPDYN04	Dynasys Forecast
BDSDSO11	SO Global: Sales Document Item Data (Solvay)	DPDSO02	Sales Document Item Data (Solvay)
DBSDSO08	SO Global: Sales Document Schedule Line (Solvay)	DPDSO05	Sales Document Schedule Line (Solvay)

Reporting layer

List of infoproviders used by the Historical data:

CUBE tech. name	CUBE description	source DSO tech. name	source DSO description	Comments
CRSDSO06	SO: Sales order aggregated (Solvay)	DBSDSO11	SO Global: Sales Document Item Data (Solvay)	
CRSDSO05	SO Global: Deliveries aggregated (Solvay)	DBSDSO14	SO Global: Deliveries (Solvay)	
CRSDSO03	SO Global: Invoices aggregated (Solvay)	DBSDSO06	SO Global: Invoices (Solvay)	
CRAPO001	APO: Forecast (monthly)	DBAPO001	APO: Forecast	
CRSDSO45	SO Global: Deliveries aggregated (Rhodia)	DBSDSO41	SO Global: Sales Document Item Data (Rhodia)	
CRSDSO43	SO Global: Invoices aggregated (Rhodia)	DBSDSO44	SO Global: Deliveries (Rhodia)	
CRSDSO46	SO: Sales order aggregated (Rhodia)	DBSDSO46	SO Global: Invoices (Rhodia)	
CRDYN11	DYNASYS: Forecast (monthly)	DBDYN20	DYNASYS: Forecast Dynamic	

Virtual layer

List of infoproviders used by the Historical data:

multiprovider tech. name	multiprovider description	source tech. name	source description	Comments
MVSDSO44	MP: Global Sales	CRAPO001	APO: Forecast (monthly)	
		CRSDSO05	SO Global: Deliveries aggregated (Solvay)	
		CRSDSO03	SO Global: Invoices aggregated (Solvay)	
		CRSDSO06	SO: Sales order aggregated (Solvay)	
		CRDYN11	DYNASYS: Forecast (monthly)	
		CRSDSO45	SO Global: Deliveries aggregated (Rhodia)	
		CRSDSO43	SO Global: Invoices aggregated (Rhodia)	
		CRSDSO46	SO: Sales order aggregated (Rhodia)	
MVSDSO45	MP: Detail Jump Query	DBSDSO14	SO Global: Deliveries (Solvay)	
		DBSDSO06	SO Global: Invoices (Solvay)	
		DBSDSO11	SO Global: Sales Document Item Data (Solvay)	
		DBSDSO08	SO Global: Sales Document Schedule Line (Solvay)	
		DBSDSO10	SO global: Deliveries and Shipment to the customer (Solvay)	
		DBSDSO44	SO Global: Deliveries (Rhodia)	
		DBSDSO46	SO Global: Invoices (Rhodia)	
		DBSDSO41	SO Global: Sales Document Item Data (Rhodia)	
		DBSDSO48	SO Global: Sales Document Schedule Line (Rhodia)	
		DBSDSO40	SO global: Deliveries and Shipment to the customer (Rhodia)	

Data update

IMPORTANT: The same process chain is used to update the Sales order and the Historical sales data.

The processes chains below are used to update the multiproviders MVSDSO44 and MVSDSO45

For Solvay:

- SD - Main Process Chain - UPDATE DATA - (PC_SD_MAIN)
 - SD - Propagation Update (PC_SD_PROPAG)
 - SD - Business Layer (Solvay) (PC_SD_BUSINESS_LAYER)
 - Global Sales: Reporting layer (PC_Global Sales_REPORTING)

For Rhodia:

- PC: Global Sales: Main (Rhodia) - (PC_GLOBAL_SALES_MAIN)
 - Global Sales: Propagation Layer (Rhodia) (PC_GL_SALES_PROP_01)
 - Global Sales: Business Layer (Rhodia) (PC_GL_SALES_BUS02)

- Global Sales: Reporting Layer (Rhodia) (PC_GL_SALES_REP02)

Reporting

The reporting is based on Core workbooks based on Core queries.

The core workbooks give an aggregated view, to have information on the documents detail jumps are done.

IMPORTANT: The core queries are not published on the role menu. Only the workbooks are published on the role menu, folder Historical data.

Core queries

The core queries are used to build the workbooks and to have the detail at the documents lines level (jumps).

Workbook		Query	
Historical Data: Deliveries (Detailed)	BW_WBK_MVSDSO45_SD0002	BW - Deliveries details (Core jump)	BW_QRY_MVSDSO45_SD0002
Historical Data: Invoices (Detailed)	BW_WBK_MVSDSO45_SD0001	BW - Invoices details (Core jump)	BW_QRY_MVSDSO45_SD0001
Historical Data: Invoices (Document Flow Detailed)	BW_WBK_MVSDSO45_SD0005	BW - Invoices document flow details (Core jump)	BW_QRY_MVSDSO45_SD0005
Historical Data: Invoices (Document Flow)	BW_WBK_MVSDSO45_SD0006	BW - Invoices documents flow (Core jump)	BW_QRY_MVSDSO45_SD0006
Historical Data: Sales Order (Detailed)	BW_WBK_MVSDSO45_SD0003	BW - Sales order details (Core jump)	BW_QRY_MVSDSO45_SD0003
Historical Data: Sales Order (Document Flow) by Last Req GI Date (detailed)	BW_WBK_MVSDSO45_SD0008	BW - Order (Documents flow) by last Req GI (Core)	BW_QRY_MVSDSO45_SD0008
Historical Data: Sales Order by Last Req GI Date (detailed)	BW_WBK_MVSDSO45_SD0007	BW - Sales order details per Last Req GI date (Core jump)	BW_QRY_MVSDSO45_SD0007
Historical Data: Schedule line (Detailed)	BW_WBK_MVSDSO45_SD0004	BW - Schedule line details (Core jump)	BW_QRY_MVSDSO45_SD0004
Historical Data: Consignments Overview	BW_WBK_MVSDSO44_SD0006	Historical Data: Consignments Overview (Core query)	BW_QRY_MVSDSO44_SD0006
Historical Data: eCommerce	BW_WBK_MVSDSO44_SD0007	Historical Data: eCommerce (Core query)	BW_QRY_MVSDSO44_SD0007
Historical Data: Manual Pricing	BW_WBK_MVSDSO44_SD0005	Historical Data: Manual pricing (Core query)	BW_QRY_MVSDSO44_SD0005
Historical Data: Sales Deliveries	BW_WBK_MVSDSO44_SD0001	Historical Data: Sales deliveries (Core query)	BW_QRY_MVSDSO44_SD0001
Historical Data: Sales Invoices	BW_WBK_MVSDSO44_SD0003	Historical Data: Sales Invoices (Core query)	BW_QRY_MVSDSO44_SD0003
Historical Data: Sales Order	BW_WBK_MVSDSO44_SD0002	Historical Data: Sales Orders (Core query)	BW_QRY_MVSDSO44_SD0002
BW_WBK_MVSDSO44_SD0004	Historical Data: Sales Overview (Core query)	BW_QRY_MVSDSO44_SD0004	

IMPORTANT: The calendar Year/month corresponding to:

- the last requested GI date for the sales orders part.
- the actual GI date for the sales deliveries part.
- the billing document date for the billing part.

BW Queries Feeding QV Queries

1. QV_BW_QRY_MVSDSO45_SD0001 - C_DOCNUMB_C_CUSTGR2 ia added to Rows as a part of change.
2. BW_QRY_MVSDTR01_0010 - C_DOCNUMB__C_SAL_ORG is added as free characteristics as a part of change.

PO's transfers

Purchase order documents types

All the rules used in Global Sales were determined by SAP experts.

IMPORTANT:

Solvay:

- *PO's types UB and NB, the vendor must to be flagged as intra-group. Exception is done for purchase organization. The exception is done with the technical object C_POSD.*

Rhodia:

- *PO's types UB and NB, the purchase organization 3200 is used for the type UB. The purchase organization 3001 to 3008, 3200 and 3400 are used for the type NB.*

Purchase order

Global Sales uses the data coming from SPRINT to have the PO's transfers order.

Delivery

The deliveries are coming from the DSO DBSDSO29 "PO Global: Transfers orders delivery (Solvay)".

The deliveries are coming from the DSO DBSDSO69 "PO Global: Transfers orders delivery (Rhodia)".

Billing

The billing are coming from the DSO DBSDSO27 "PO: Transfers orders Invoices (Solvay)".

The billing are coming from the DSO DBSDSO67 "PO: Transfers orders Invoices (Rhodia)".

IMPORTANT:

- *Transfers done with the PO type UB is always done between the same GBU.*
- *Transfers done with the PO type NB is always done between Solvay's entities.*

Master data

The master data used, is the master data of SPRINT, with the object C_PO_ITM (Purchase Order Item). Please refer to SPRINT documentation for more detail.

Data flow

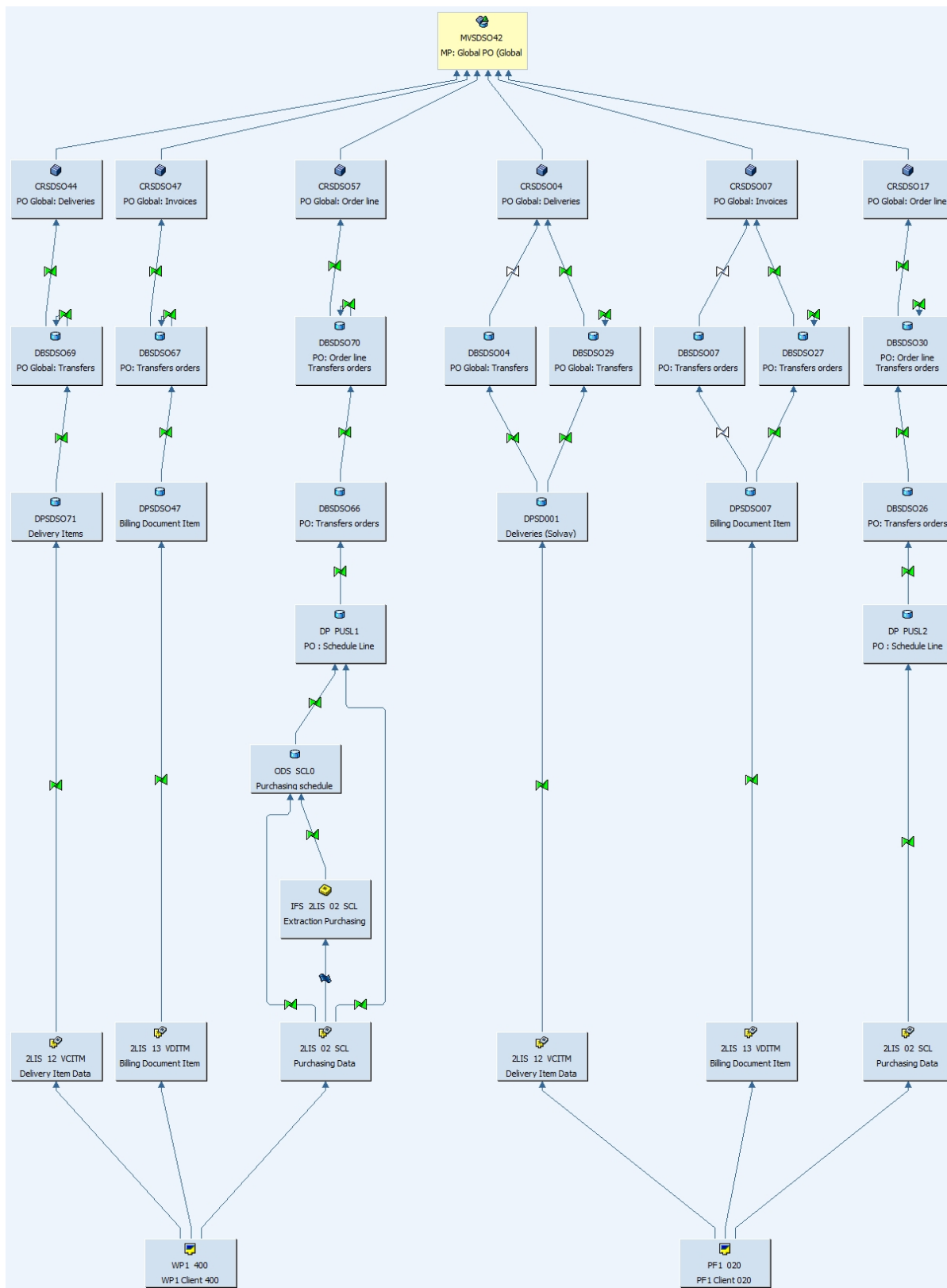
The data flow is based on the LSA method. The data visualization is done on the multiproviders MVSDSO42 (MP: Global PO (Global Sales)) and MVSDSO43 (MP: Detail PO Jump (Global Sales)).

Global Sales data layers:

- Propagation Layer
- Business Layer
- Reporting Layer
- Virtual Layer

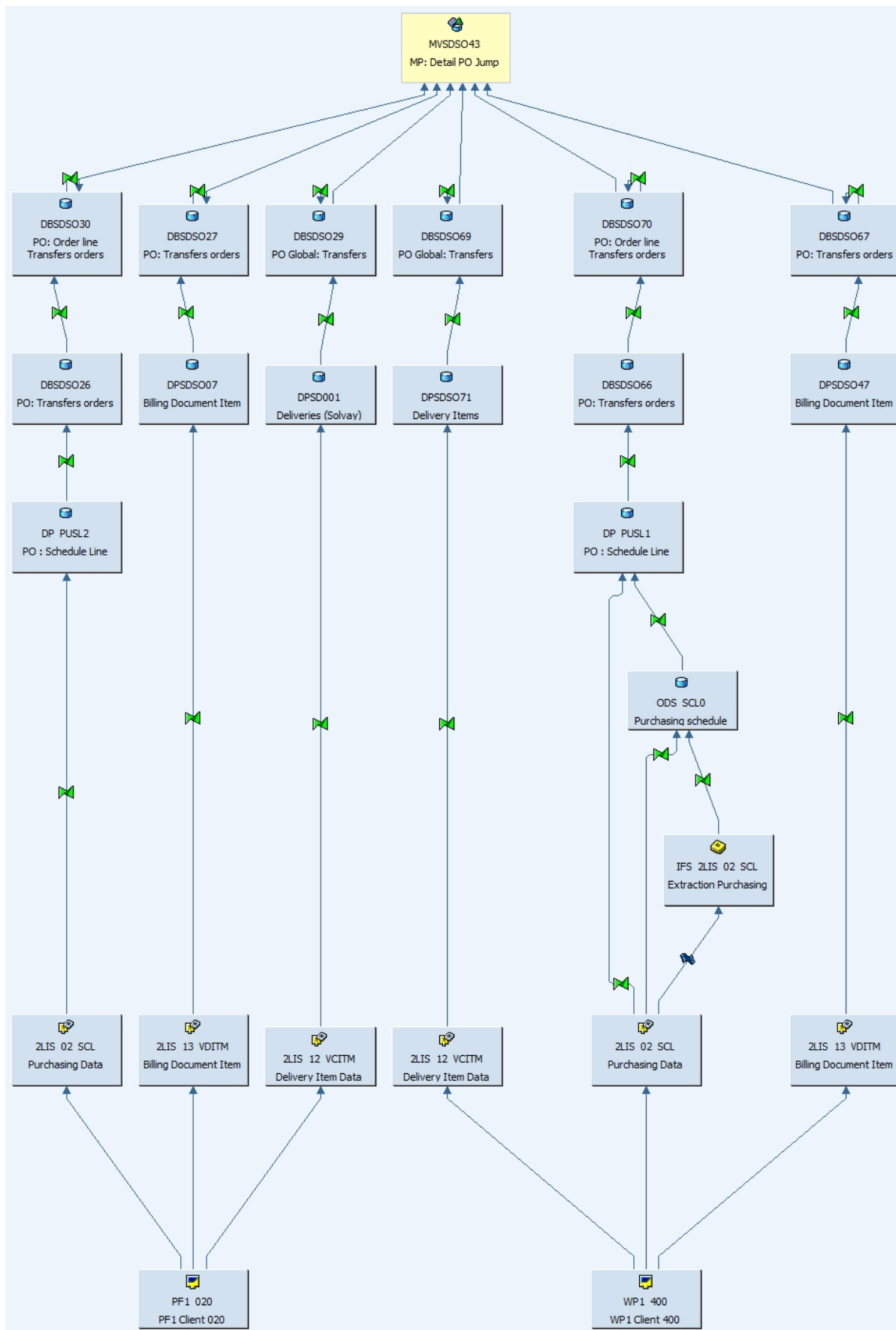
The draw below present the data flow of the multiprovider MVSDSO42 (MP: Global PO (Global Sales)):

Click on the draw to enlarge.



The draw below present the data flow of the multiprovider MVSDSO43 (MP: Detail PO Jump (Global Sales)):

Click on the draw to enlarge.



Propagation layer

IMPORTANT: To build the PO's transfers order book, we use data coming from the propagation of SPRINT.

List of infoproviders used by the PO's transfers order book:

DSO tech. name	DSO description	DTS tech. name	DTS description	Comments
DPSD001	Deliveries (Solvay)	2LIS_12_VCITM	Delivery Item Data	Global Sales
DPSDSO07	Billing Document Item Data (Solvay)	2LIS_13_VDITM	Billing Document Item Data	Global Sales
DP_PUSL2	PO: Schedule line (Solvay)	2LIS_02_SCL	Purchasing data (schedule line level)	SPRINT
DPSDSO71	Deliveries (Rhodia)	2LIS_12_VCITM	Delivery Item Data	Global Sales
DPSDSO47	Billing Document Item Data (Rhodia)	2LIS_13_VDITM	Billing Document Item Data	Global Sales
DP_PUSL1	PO: Schedule line (Rhodia)	2LIS_02_SCL	Purchasing data (schedule line level)	SPRINT

Business layer

List of infoproviders used by the PO's transfers order book:

DSO tech. name	DSO description	source DSO tech. name	source DSO description
DBSDSO26	PO: Transfers orders sched. line (Solvay)	DP_PUSL2	PO: Schedule line (Solvay)
DBSDSO27	PO: Transfers orders Invoices (Solvay)	DPSDSO07	Billing Document Item Data (Solvay)
DBSDSO29	PO Global: Transfers orders delivery (Solvay)	DPSD001	Deliveries (Solvay)
DBSDSO66	PO: Transfers orders sched. line (Rhodia)	DP_PUSL1	PO: Schedule line (Rhodia)
DBSDSO67	PO: Transfers orders Invoices (Rhodia)	DPSDSO47	Billing Document Item Data (Rhodia)
DBSDSO69	PO Global: Transfers orders delivery (Rhodia)	DPSDSO71	Deliveries (Rhodia)

Reporting layer

List of infoproviders used by the PO's transfers order book:

CUBE tech. name	CUBE description	source CUBE tech. name	source CUBE description
CRSDSO17	PO Global: Order line aggregated (Solvay)	DBSDSO30	PO: Order line Transfers orders (Solvay)
CRSDSO04	PO Global: Deliveries aggregated (Solvay)	DBSDSO29	PO Global: Transfers orders delivery (Solvay)
CRSDSO07	PO Global: Invoices aggregated (Solvay)	DBSDSO27	PO: Transfers orders Invoices (Solvay)
CRSDSO57	PO Global: Order line aggregated (Rhodia)	DBSDSO70	PO: Order line Transfers orders (Rhodia)
CRSDSO54	PO Global: Deliveries aggregated (Rhodia)	DBSDSO69	PO Global: Transfers orders delivery (Rhodia)
CRSDSO47	PO Global: Invoices aggregated (Rhodia)	DBSDSO67	PO: Transfers orders Invoices (Rhodia)

Virtual layer

List of infoproviders used by the Historical data PO's transfers:

MP tech. name	MP description	source CUBE tech. name	source CUBE description
MVSDSO42	MP: Global PO	CRSDSO04	PO Global: Deliveries aggregated (Solvay)
		CRSDSO07	PO Global: Invoices aggregated (Solvay)
		CRSDSO17	PO Global: Order line aggregated (Solvay)
		CRSDSO44	PO Global: Deliveries aggregated (Rhodia)
		CRSDSO47	PO Global: Invoices aggregated (Rhodia)
		CRSDSO57	PO Global: Order line aggregated (Rhodia)

MVSDSO43	MP: Detail PO Jump (Global Sales)	DBSDSO69	PO Global: Transfers orders delivery (Rhodia)
		DBSDSO29	PO Global: Transfers orders delivery (Solvay)
		DBSDSO70	PO: Order line Transfers orders (Rhodia)
		DBSDSO30	PO: Order line Transfers orders (Solvay)
		DBSDSO67	PO: Transfers orders Invoices (Rhodia)
		DBSDSO27	PO: Transfers orders Invoices (Solvay)

Data update

Process chain

IMPORTANT: The same process chain is used to update the PO's (transfers) order book and the Historical PO's (transfers) data.

The processes chains below are used to update the multiproviders MVSDSO42 and MVSDSO43 :

PF1:

- Global Sales: Transfers Orders Main chain (PC_OBAS_TRANSFERS_MAIN)
 - Global Sales: Business Layer Transfers Orders (Solvay) (PC_OBAS_TRANSFERS)
 - Global Sales: Reporting Layer Transfers Orders (PC_OBAS_TRANSFERS_ODB)

WP1:

- PC: Global Sales: Main (Rhodia) (PC_GLOBAL_SALES_MAIN)
 - Global Sales: Propagation Layer (Rhodia) (PC_GL_SALES_PROP_01)
 - Global Sales: Business Layer (Rhodia) (PC_GL_SALES_BUS02)
 - Global Sales: Reporting Layer (Rhodia) (PC_GL_SALES_REP02)

Reporting

Core queries

The core queries are based on the multiproviders MVSDSO42 and MVSDSO43.

Workbook		Query	
Historical Data: PO's Transfer deliveries (Detailed)	BW_WBK_MVSDSO43_SD001	DETAIL: Transfers PO deliveries (Core jump)	BW_QRY_MVSDSO43_SD001
Historical Data: PO's Transfer invoices (Detailed)	BW_WBK_MVSDSO43_SD003	DETAIL: Transfers PO invoices (Core jump)	BW_QRY_MVSDSO43_SD003
Historical Data: PO's Transfer orders (Detailed)	BW_WBK_MVSDSO43_SD002	DETAIL: Transfers PO orders (Core jump)	BW_QRY_MVSDSO43_SD002
Historical Data: PO's transfer deliveries	BW_WBK_MVSDSO42_SD001	Historical data: PO's deliveries (core)	BW_QRY_MVSDSO42_SD001
Historical Data: PO's transfer invoices	BW_WBK_MVSDSO42_SD003	Historical data: PO's invoices (core)	BW_QRY_MVSDSO42_SD003
Historical Data: PO's transfer orders	BW_WBK_MVSDSO42_SD002	Historical data: PO's orders (core)	BW_QRY_MVSDSO42_SD002

Historical data (PO+SO)

Data flow

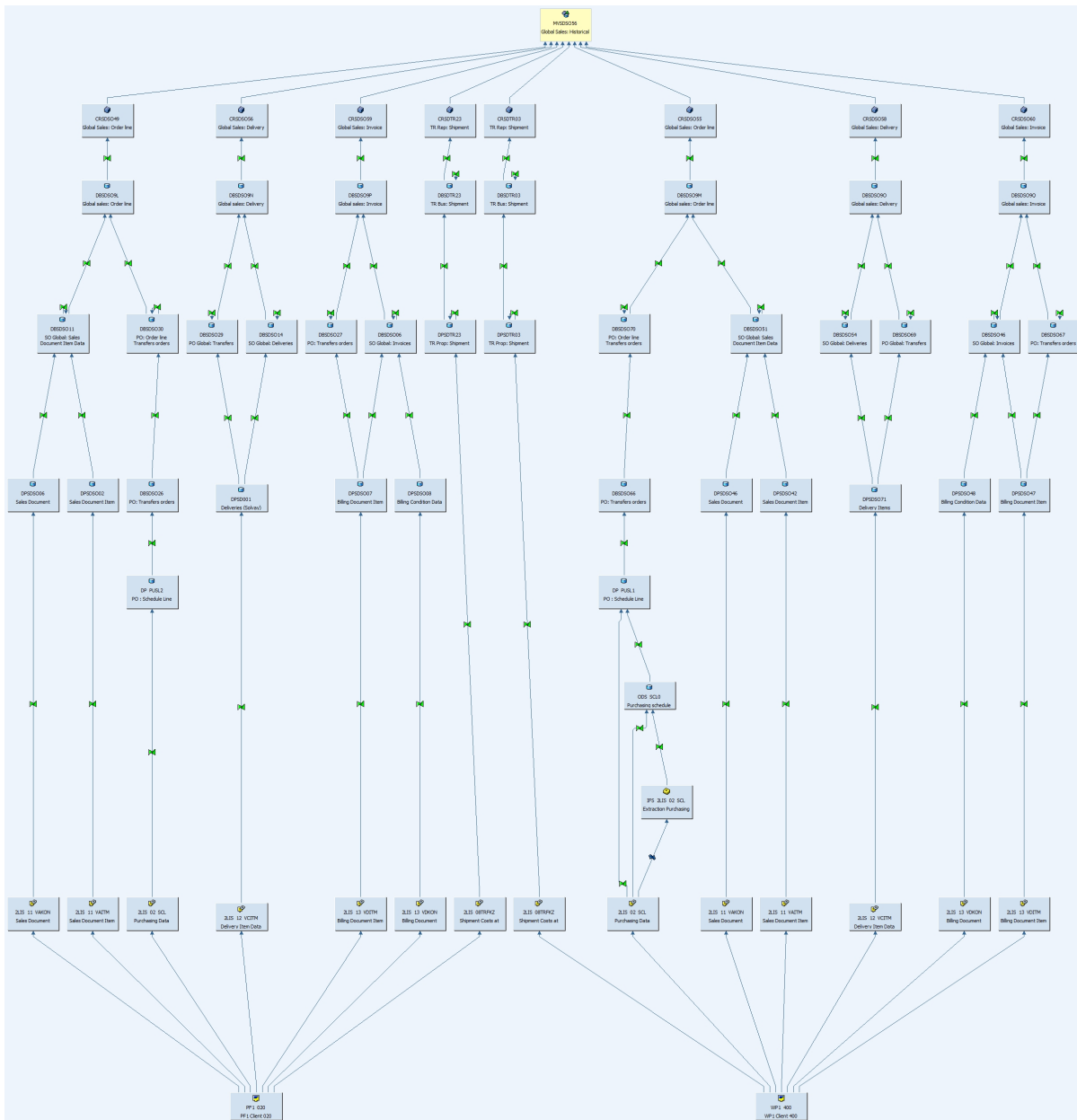
The data flow is based on the LSA method. The data visualization is done on the multiproviders MVSDSO56 (Global Sales: Historical data (SO+PO)) and MVSDSO57 (Global Sales: Historical data JUMP (PO+SO)).

Global Sales data layers:

- Propagation Layer
- Business Layer
- Reporting Layer
- Virtual Layer

The draw below present the data flow of the multiprovider MVSDSO56 (MP: Global PO (Global Sales)):

Click on the draw to enlarge.



The draw below present the data flow of the multiprovider MVSDSO57 (Global Sales: Historical data JUMP (PO+SO)):

Click on the draw to enlarge.

		DBSDSO27	PO: Transfers orders Invoices (Solvay)
DBSDSO9M	Global sales: Order line (PO+SO) (Rhodia)	DBSDSO51	SO Global: Sales Document Item Data (Rhodia)
		DBSDSO70	PO: Order line Transfers orders (Rhodia)
DBSDSO9L	Global sales: Order line (PO+SO) (Solvay)	DBSDSO11	SO Global: Sales Document Item Data (Solvay)
		DBSDSO30	PO: Order line Transfers orders (Solvay)

Reporting layer

List of infoproviders used in the reporting layer:

CUBE tech. name	CUBE description	source CUBE tech. name	source CUBE description
CRSDSO58	Global Sales: Delivery (PO+SO) (Rhodia)	DBSDSO9O	Global sales: Delivery (PO+SO) (Rhodia)
CRSDSO56	Global Sales: Delivery (PO+SO) (Solvay)	DBSDSO9N	Global sales: Delivery (PO+SO) (Solvay)
CRSDSO60	Global Sales: Invoice aggregated (PO+SO) (Rhodia)	DBSDSO9Q	Global sales: Invoice (PO+SO) (Rhodia)
CRSDSO59	Global Sales: Invoice aggregated (PO+SO) (Solvay)	DBSDSO9P	Global sales: Invoice (PO+SO) (Solvay)
CRSDSO55	Global Sales: Order line (PO+SO) (Rhodia)	DBSDSO9M	Global sales: Order line (PO+SO) (Rhodia)
CRSDSO49	Global Sales: Order line (PO+SO) (Solvay)	DBSDSO9L	Global sales: Order line (PO+SO) (Solvay)
CRSDTR03	TR Rep: Shipment Costs (Rhodia)	DBSDTR03	TR Bus: Shipment Costs (Rhodia)
CRSDTR23	TR Rep: Shipment Costs (Solvay)	DBSDTR23	TR Bus: Shipment Costs (Solvay)

Virtual layer

List of infoproviders used in the virtual layer:

MP tech. name	MP description	source CUBE tech. name	source CUBE description
MVSDSO56	Global Sales: Historical data (SO+PO)	CRSDSO58	Global Sales: Delivery (PO+SO) (Rhodia)
		CRSDSO56	Global Sales: Delivery (PO+SO) (Solvay)
		CRSDSO60	Global Sales: Invoice aggregated (PO+SO) (Rhodia)
		CRSDSO59	Global Sales: Invoice aggregated (PO+SO) (Solvay)
		CRSDSO55	Global Sales: Order line (PO+SO) (Rhodia)
		CRSDSO49	Global Sales: Order line (PO+SO) (Solvay)
		CRSDTR03	TR Rep: Shipment Costs (Rhodia)
		CRSDTR23	TR Rep: Shipment Costs (Solvay)
MVSDSO57	Global Sales: Historical data JUMP (PO+SO)	DBSDSO9O	Global sales: Delivery (PO+SO) (Rhodia)
		DBSDSO9N	Global sales: Delivery (PO+SO) (Solvay)
		DBSDSO9Q	Global sales: Invoice (PO+SO) (Rhodia)
		DBSDSO9P	Global sales: Invoice (PO+SO) (Solvay)
		DBSDSO9M	Global sales: Order line (PO+SO) (Rhodia)
		DBSDSO9L	Global sales: Order line (PO+SO) (Solvay)

Data update

The update is done every working days

Process chain

The processes chains used are the same than for the Historical data Sales orders and Historical data Transfers orders.

Reporting

Core queries

The core queries are based on the multiproviders MVSDSO56 and MVSDSO57.

Workbook		Query	
Historical Data : Deliveries SO/PO (Detailed)	BW_WBK_MVSDSO57_0002	BW - Deliveries details SO&PO (core query)	BW_QRY_MVSDSO57_0002
Historical Data: Invoices Document Flow by creation date (SO+PO)	BW_WBK_MVSDSO57_0005	BW - Invoices document flow details SO&PO (core query)	BW_QRY_MVSDSO57_0005
Historical Data: Invoices SO/PO (Detailed)	BW_WBK_MVSDSO57_0001	BW - Invoices details SO&PO (core query)	BW_QRY_MVSDSO57_0001
Historical Data: Orders SO/PO (Detailed)	BW_WBK_MVSDSO57_0003	BW - Orders details SO&PO (core query)	BW_QRY_MVSDSO57_0003
Historical Data: Invoices vs Transport. Costs (SO/PO)	BW_WBK_MVSDSO56_0007	Historical Data: Invoices vs Transp.Costs SO/PO (core query)	BW_QRY_MVSDSO56_0007
Historical Data: Sales & Purchase deliveries	BW_WBK_MVSDSO56_0001	Historical Data: Deliveries SO/PO (core query)	BW_QRY_MVSDSO56_0001
Historical Data: Sales & Purchase invoices	BW_WBK_MVSDSO56_0003	Historical Data: Invoices SO/PO (core query)	BW_QRY_MVSDSO56_0003
Historical Data: Sales & Purchase orders	BW_WBK_MVSDSO56_0003	Historical Data: Orders SO/PO (core query)	BW_QRY_MVSDSO56_0002
Historical Data: Sales & Purchase overview	BW_WBK_MVSDSO56_0004	Historical Data: Sales & Purchase Overview (core query)	BW_QRY_MVSDSO56_0004

Sales follow-up

The sales follow-up is a report which mix data from Global Sales, APO, Dynasys and P&L. The report give a complete view of the forecast and the sales.

Data flow

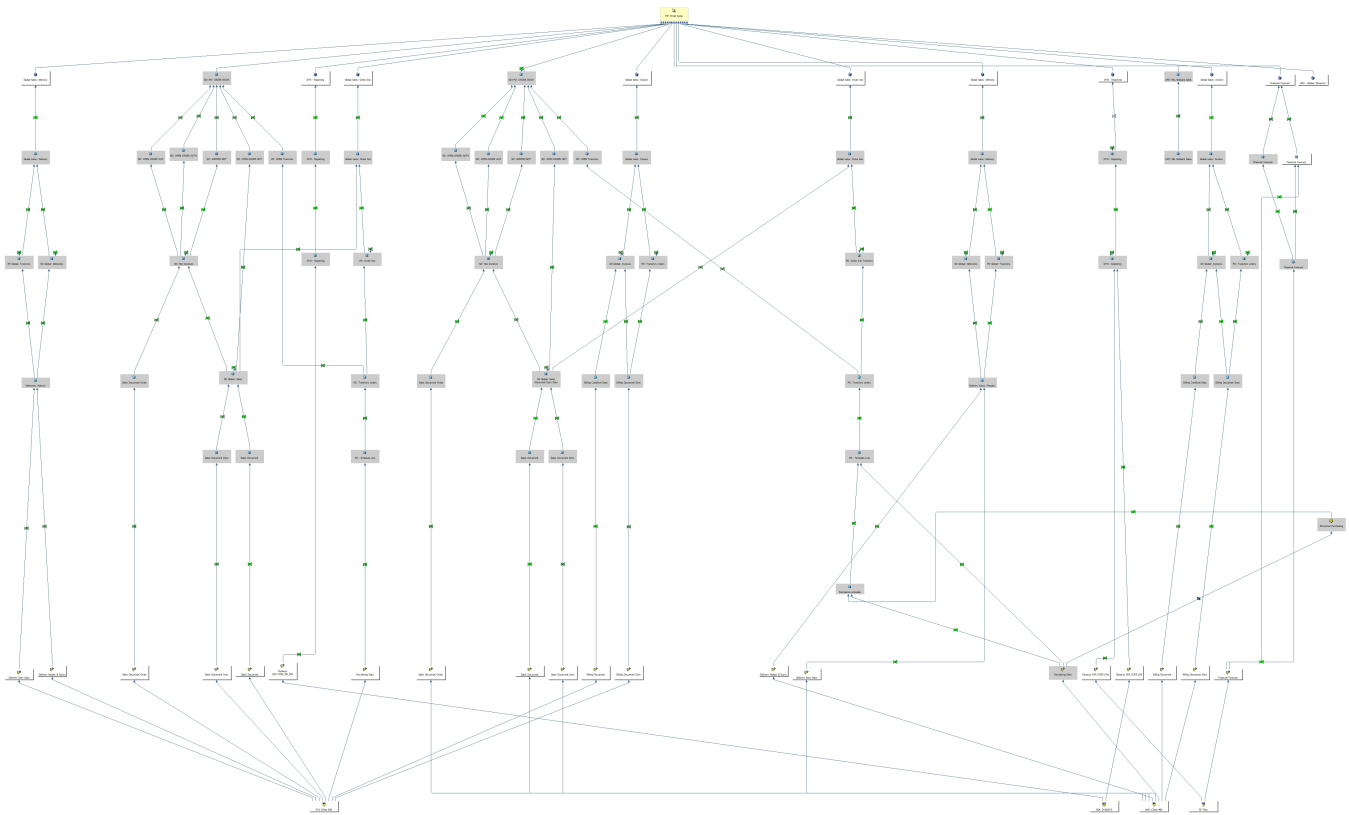
The data flow is based on the LSA method. The data visualization is done on the composite provider CPSDSO54 (MP: Order book & Forecast & historical (PO & SO)), previously multiprovider MVSDSO54 .

Global Sales data layers:

- Propagation Layer
- Business Layer
- Reporting Layer
- Virtual Layer

The draw below present the data flow of the composite provider (MP: Order book & Forecast & historical (PO & SO)):

Click on the draw to enlarge.



Beside the BW 7 objects mentioned in the dataflow downwards, the composite provider has another 3 views.

Propagation layer

The propagation layer used is the propagation of Global sales, Dynasys, APO. The data from P&L are extracted with APDs.

APD:

APD_PL_GS_0030 (Netback Sales P&L), based on the query APD_QRY_MVCOPA01_NBACK_0001 (BW COPA Netback query APD (Core Query))

APD_PL_GS_0031 (Netback Sales P&L (w/o interval)), based on the query APD_QRY_MVCOPA01_NBACK_0002 (BW COPA Netback query APD w/o month (Core Query))

Business layer

The propagation layer used is the propagation of Global sales (historical data, order book), Dynasys and APO.

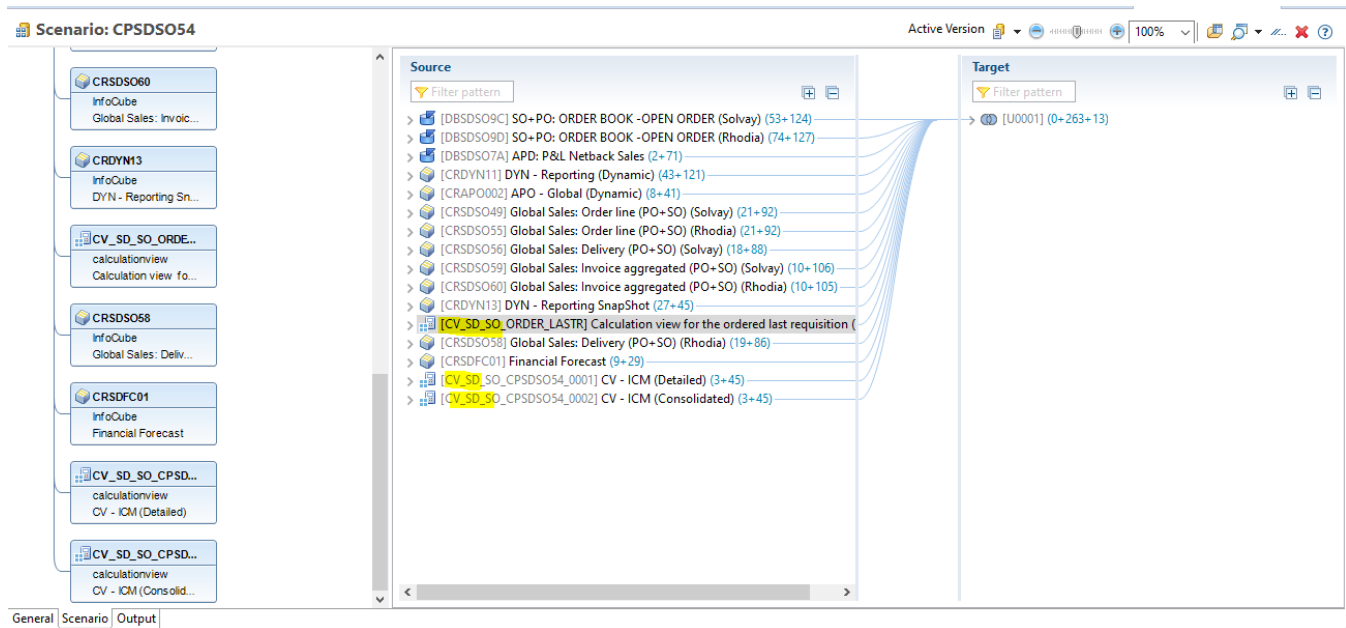
Reporting layer

List of infoproviders used in the reporting layer:

CUBE tech. name	CUBE description	source CUBE tech. name	source CUBE description
CRAPO002	APO - Global (Dynamic)	DBAPO002	APO - Special Chemicals / Rare Earth (Dynamic)
		DBAPO004	APO - Special Chemicals (Dynamic)
		DBAPO006	APO - Noveware (Dynamic)
		DBAPO008	APO - Polyamide Downstream (Dynamic)

		DBAPO010	APO - Polyamide Upstream (Dynamic)
CRDYN11	DYN - Reporting	DBDYN13	DYN - Reporting (SnapShots)
		DBDYN20	DYN - Reporting (Dynamic)
CRSDSO58	Global Sales: Delivery (PO+SO) (Rhodia)	DBSDSO9O	Global sales: Delivery (PO+SO) (Rhodia)
CRSDSO56	Global Sales: Delivery (PO+SO) (Solvay)	DBSDSO9N	Global sales: Delivery (PO+SO) (Solvay)
CRSDSO60	Global Sales: Invoice aggregated (PO+SO) (Rhodia)	DBSDSO9Q	Global sales: Invoice (PO+SO) (Rhodia)
CRSDSO59	Global Sales: Invoice aggregated (PO+SO) (Solvay)	DBSDSO9P	Global sales: Invoice (PO+SO) (Solvay)
CRSDSO55	Global Sales: Order line (PO+SO) (Rhodia)	DBSDSO9M	Global sales: Order line (PO+SO) (Rhodia)
CRSDSO49	Global Sales: Order line (PO+SO) (Solvay)	DBSDSO9L	Global sales: Order line (PO+SO) (Solvay)
DBSDSO7A	APD: P&L Netback Sales	DPDSO7A	APD: P&L Netback Sales (prop) (Direct Update)
DBSDSO9D	SO+PO: ORDER BOOK -OPEN ORDER (Rhodia)	DBSDSO56	SO: SHIPPED NOT INVOICED (Rhodia)
		DBSDSO57	SO: OPEN ORDER WITH DLV DOC (Rhodia)
		DBSDSO58	SO: OPEN ORDER W/O DLV DOC (Rhodia)
		DBSDSO68	PO: OPEN Transfers orders (Rhodia)
		DBSDSO97	SO: OPEN ORDER NOT SCHEDULED (Rhodia)
DBSDSO9C	SO+PO: ORDER BOOK -OPEN ORDER (Solvay)	DBSDSO16	SO: SHIPPED NOT INVOICED (Solvay)
		DBSDSO17	SO: OPEN ORDER WITH DLV DOC (Solvay)
		DBSDSO18	SO: OPEN ORDER W/O DLV DOC (Solvay)
		DBSDSO28	PO: OPEN Transfers orders (Solvay)
		DBSDSO96	SO: OPEN ORDER NOT SCHEDULED (Solvay)

Virtual layer



List of infoproviders used in the virtual layer:

MP tech. name	MP description	source CUBE tech. name	source CUBE description
---------------	----------------	------------------------	-------------------------

CPSDSO54	MP: Order book & Forecast & historical (PO & SO)	CRAPO002	APO - Global (Dynamic)
		CRDYN11	DYN - Reporting
		CRSDSO58	Global Sales: Delivery (PO+SO) (Rhodia)
		CRSDSO56	Global Sales: Delivery (PO+SO) (Solvay)
		CRSDSO60	Global Sales: Invoice aggregated (PO+SO) (Rhodia)
		CRSDSO59	Global Sales: Invoice aggregated (PO+SO) (Solvay)
		CRSDSO55	Global Sales: Order line (PO+SO) (Rhodia)
		CRSDSO49	Global Sales: Order line (PO+SO) (Solvay)
		DBSDSO7A	APD: P&L Netback Sales
		DBSDSO9D	SO+PO: ORDER BOOK -OPEN ORDER (Rhodia)
		DBSDSO9C	SO+PO: ORDER BOOK -OPEN ORDER (Solvay)
		CV_SD_SO_ORDER_LASTR	View created to provide the last requisition date
		CV_SD_SO_CPSDSO54_0001	ICM (Detailed)
		CV_SD_SO_CPSDSO54_0002	ICM (Consolidated)

CV_SD_SO_ORDER_LASTR - View created to provide a different last requisition date dynamically for the report.

Solvay.IA.ID.GLOBAL_SALES.SALES::CV_SD_SO_ORDER_LASTR WBP@WBP (PT99376211) 2 Warning(s) found.

Scenario

JO_SD_SO_0002

JO_SD_SO_0001

PJ_SD_SO_CUST

JO_SD_SO_0002

JO_SD_SO_0001

PJ_SD_SO_PLANT

JO_SD_SO_0001

JO_SD_SO_0010

JO_SD_SO_0011

PJ_SD_SO_F

C_PLANT

Calculated Column

View Calculated Column

Calculated columns are used to derive some meaningful information in the form of columns, from existing columns.

Name*

CC_CALDAY

Data Type

NVARCHAR

Length: 8

Scale:

Expression

Expression Editor

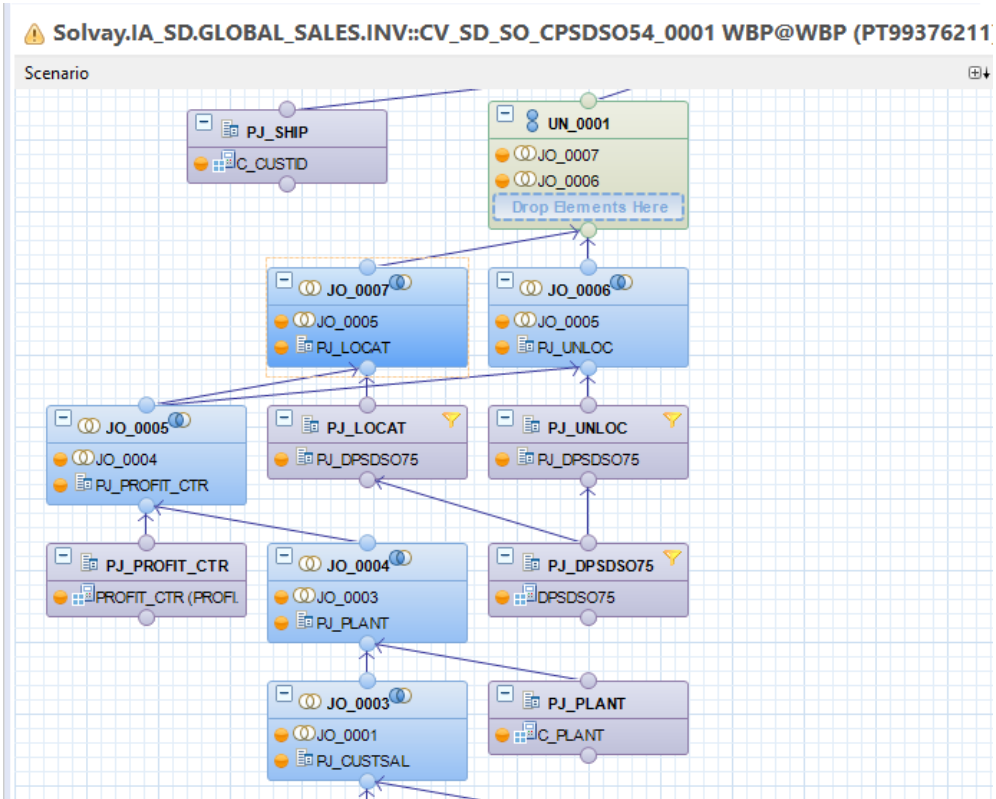
Validate Syntax

Language: Column Engine

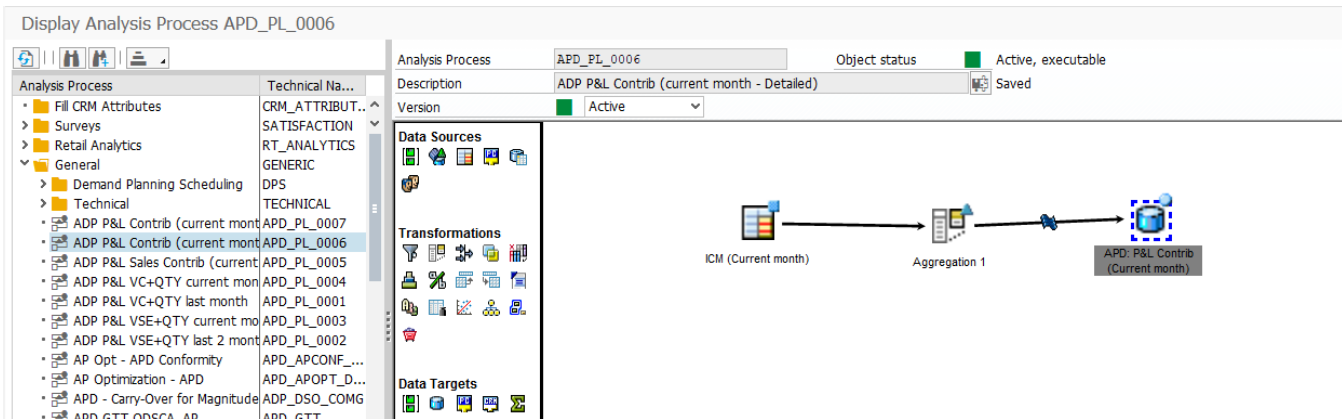
IF ("CHL_CF_QTY" = 0, "_BIC_C_LSTRQGI", IF ("ACT_GI_DTE" = '00000000' OR ISNULL("ACT_GI_DTE"), "_BIC_C_LASTGI", "ACT_GI_DTE"))

ICM information are splitted between detailed and consolidated and treated by the normalized view to have allocated and unallocated data at same level of invoices.

CV_SD_SO_CPSDSO54_0001 - ICM (Detailed)



The P&L data is linked to APD process APD_PL_0006 from query APD_QRY_MVCOPA01_0007 into table DPDSO75



CV_SD_SO_CPSDSO54_0002 - ICM (Consolidated)

The consolidate view uses DPDSO95 as target and a different variable from the same query mentioned above by the APD APD_PL_0007

Data flow

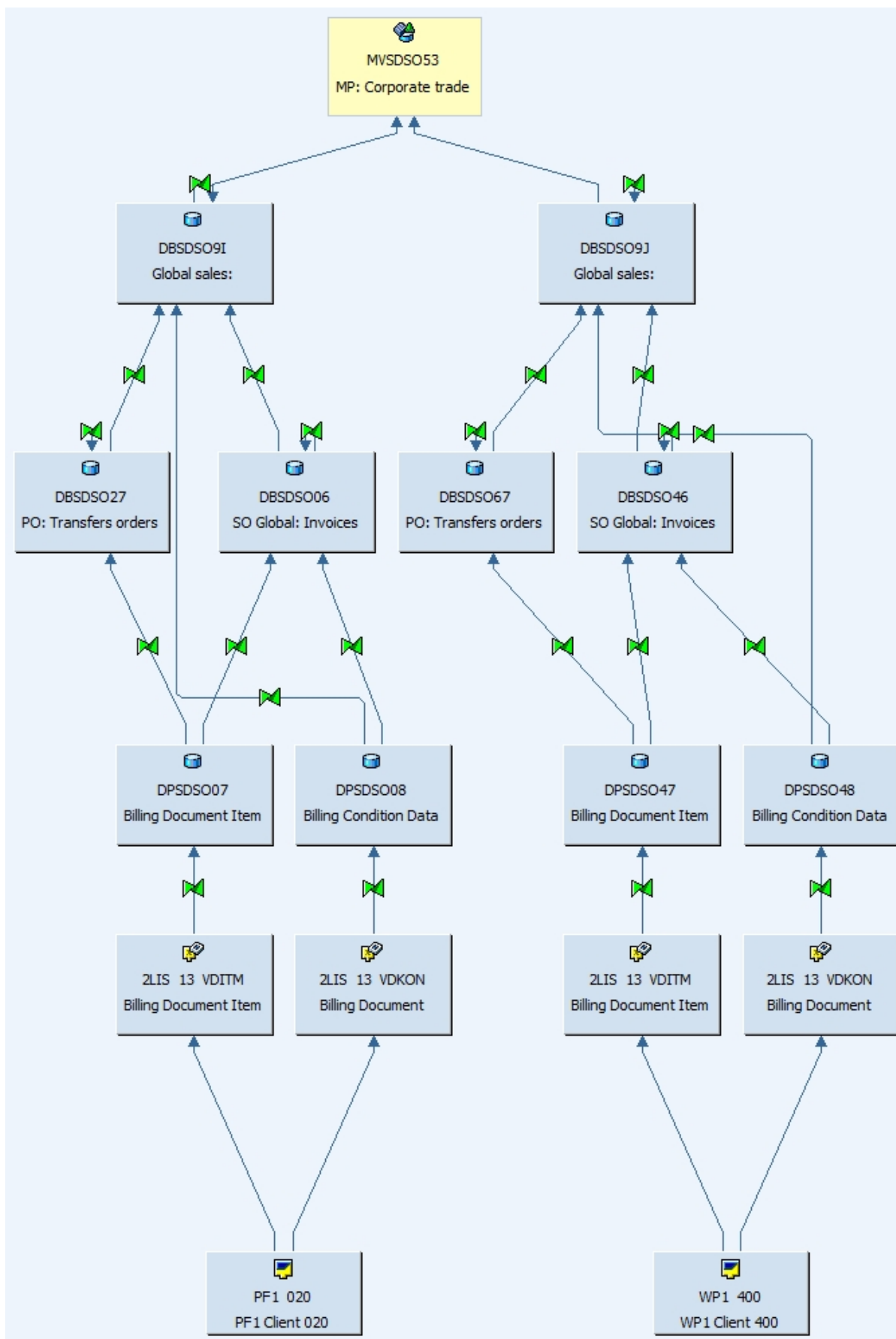
The data flow is based on the LSA method. The data visualization is done on the multiproviders MVSDSO53 (MP: Corporate trade (Global Sales)) .

Global Sales data layers:

- Propagation Layer
- Business Layer
- Reporting Layer
- Virtual Layer

The draw below present the data flow of the multiprovider MVSDSO53 (MP: Corporate trade (Global Sales)):

Click on the draw to enlarge.



Propagation layer

The propagation Layer is same than the billing propagation layer of Global sales.

Business layer

List of DSOs used in the business layer:

DSO tech. name	DSO description	source DSO tech. name	source DSO description
DBSDSO9J	Global sales: Corporate trade (Rhodia)	DBSDSO46	SO Global: Invoices (Rhodia)
		DBSDSO67	PO: Transfers orders Invoices (Rhodia)
		DPSDSO48	Billing Condition Data (Rhodia)
DBSDSO9I	Global sales: Corporate trade (Solvay)	DBSDSO06	SO Global: Invoices (Solvay)
		DBSDSO27	PO: Transfers orders Invoices (Solvay)
		DPSDSO08	Billing Condition Data (Solvay)

Reporting layer

The reporting layer is the same than the business layer.

Virtual layer

List of infoproviders in the virtual layer:

MP tech. name	MP description	source CUBE tech. name	source CUBE description
	MP: Corporate trade (Global Sales)	DBSDSO9J	Global sales: Corporate trade (Rhodia)
		DBSDSO9I	Global sales: Corporate trade (Solvay)

Data update

The data update is done every working day.

Process chain

Same processes chain used in Global sales for Sales and for Transfers.

Reporting

Core queries

The core queries are based on the multiproviders MVSDSO53:

Workbook		Query	
Historical Data: Corporate Trade (SO+PO)	BW_WBK_MVSDSO53_001	BW: Corporate trade by billing date (Core)	BW_QRY_MVSDSO53_0001
Historical Data: Corporate Trade by Actual GI (SO+PO)	BW_WBK_MVSDSO53_002	BW: Corporate trade by actual GI date (Core)	BW_QRY_MVSDSO53_0002

OTIF (On Time In Full)

See the complete content of OTIF process in link below:

[BW OTC - Global Sales - OTIF !\ Obsolete !\](#)

Concepts and definitions

ATP DATES

Available-to-promise (ATP) is a business function that provides a response to customer order inquiries, based on resource availability. It generates available quantities of the requested product, and delivery due dates.

BLOCKS

The sales process can be stop by block(s) on the sales document(s) or document(s) line(s).

If a block exists the sales process is stopped where the block is created (at the document or document level).

Types of blocks:

- Delivery block (Historic).
- Delivery block (Document item)
- Billing block (Document header)
- Billing block (Document item)
- Credit block (Historic)
- Credit block (Dynamic)

CLOSE ORDER

An order is close if the rest to be delivered = 0.

CO (CURRENCY ORIGIN)

it's the currency of the legal company responsible for the order line.

CONFIRMED QUANTITY

Is the quantity confirmed by the system. In other terms, what quantity the supply chain is able to deliver regarding the customer's requested delivery date. This quantity is defined at the schedule line level on the system. In BW the confirmed quantity is available on the data base, at the schedule line and at the sales

CONSOLIDATED RATE

Is the percentage of Solvay in a legal company.

IMPORTANT: The consolidated rate is maintained in the master data of the object C_COMPCODE (Company code). For more detail click on this [LINK](#).

DELIVERY LINE

A delivery line is the combination of a delivery document and an item.

Example:

▶  Outbound delivery 0070367763 / 10	0,000 KG
▶  Outbound delivery 0070367763 / 900001	24.200,000 KG

70367763/10 and 70367763/900001 are deliveries lines. The important delivery line is 70367763/900001 because is the quantity isn't null.

IMPORTANT: The delivery line with the "zero" quantity must to be in the data base (DSO DBSDSO14 (Global sales deliveries)). It because billing lines can be created regarding this delivery line.

DELIVERY TOLERANCE

DEPARTURE PLANT

The concept of departure plant is used for PO's transfers . The departure plant is the plant where the product is sent.

DESTINATION PLANT

The concept of destination plant is used for PO's transfers part. The destination is the plant where the product is delivered.

DISCOUNT & SURCHARGES

EXTRAPOLATION BY WORKING DAYS

An extrapolation by working days can be applied on the different keys figures. The objective is to be able in a commercial to know the number of working days for the current month and the number of working days passed until the last update date> The determination of the working days is done at the country's SAP standard calendar calendar.

Applications: In the sales follow-up's workbook, an extrapolation is done on the monthly delivery quantity. The references dates (number of working days for the current month and number of working days passed until the last update) are based on the SAP standard calendar of the plant's country.

IMPORTANT: The object C_TECHWD is calculated every day. If for a country code a SAP standard calendar exist. For more detail click on this [LINK](#).

FIRST CONFIRMED QUANTITY

The first confirmed quantity is: the first quantity, confirmed for an order line, received in BW during an update.

IMPORTANT: This quantity is available on the master data C_ITM_SD (Sales document item). For more detail click on this [LINK](#).

FIRST CUSTOMER GI DATE

FIRST REQUESTED DATE

FIRST REQUESTED QUANTITY

GBU SHIP-TO ZONES

INTRA GBU

An order is intra GBU when the sales is done in the same BFC GBU.

For WP1, we use the movement type from the table ZFAT0041/0042/0043/0044 to know this characteristic.

For PF1, we use the technical object C_TECPARA to know the GBU of the partner and we compare it with the GBU responsible of the sales.

INTRA GROUP

The intra group (flag) is defined at the customer level. The master data of the customer is used to know the characteristic.

For PF1, the intra group flag is defined regarding the Sold-to.

For WP1, the intra group flag is defined regarding the Payer.

IV DOCUMENTS

The IV documents are the billing done between Solvay's entities for intercompany flow.

Gross value

The Gross value, is the basic price of the material without discount, surcharges, rebates.

Net value

The Net value, is the Gross value + discount + surcharges + rebates.

GS CURRENT MONTH

The variable used for the current month in the report is based on the today date - 1. Example; on 01 Jan 2018 the current month will be 12/2017. It's because the data are on day late in BW.

ORDER LINE

An order line is the combination of the order document and the item. In the report the order line is displayed like this: DOCUMENT/ITEM

MANUAL PRICING:

An order is considered as manual pricing when the flag "Changed manually" is flagged on the pricing condition.

PRO-FORMAT DOCUMENTS

This kind of billing document is not counted in the sales result by the business. The proformat document is mandatory to be aligned with specifics countries's laws.

Technical: the pro-format documents are excluded on the business layer, reporting layer and virtual layer. The attribute X of ce master data C_BILLTYP (Billing document tyoe) is used as parameter to do the exclusion.

REJECTED ORDER

An order is rejected when a reason for rejection is added at the order level. An order with a delivery/billing done can be rejected.

Definition of the structure (BFC GBU, ACTIVITY,...)

For sales order, we follow the same way than P&L:

-PF1: the structure is defined regarding the object C_TECPECTR.

-WP1: the structure is defined regarding the object C_CDSA.

For transfers order, the structure is defined regarding the material and the plant.

SCHEDULE LINE

A scheduled line is the more detailed level in a sales order. By default each sales order line has only one scheduled line. If the business function ATP is activated for the order line. More than one scheduled line line can be generated.

Display TD Standard Order 4268469: Schedule Line Data

Schedule Line Number Sched.line cat. MRP
 Material KALIX 2955 WH SS2 S25 P1000

Confirmed quantity KG KG <=> KG

Date/deadline
 Delivery date Arrival time

Quantities
 Order quantity KG
 Rounded quantity KG
 Required quantity KG

Change status
 Engin. change BOM explosion number

SALES REPRESENTATIVE

The sales rep. is defined at the customer sales view. In PF1 it corresponds to the partner VE, in WP1 it corresponds to the sales group.

Partner CSR (customer sales representative)

The CSR is defined at the customer sales view. In PF1, it corresponds to the partner VW. In WP1, it corresponds to the partner ZI.

SHIPMENT TO THE END CUSTOMER

In Global sales we consider only the shipment which will deliver the goods to the customer. The preliminary shipment (if exists) is not considered. In Global Sales, on delivery document can have only on shipment document.

TRANSFERS ORDER

A transfers order is a purchase order. A transfers is always done between Solvay's entities. The transfers are done using the PO type NB and UB. With the type UB a transfers is done on the same GBU (restocking).

TRANSIT TIME

The transit time is defined at the route level.

TRANSPORTATION MODE

Transportation is a notion created for Global Sales, it depends of the shipping condition.

Global Sales interaction

TIERS - Transportation Costs

SPRINT - Purchasing

APO & DYNASYS