

# BW OTC - Global Sales - OTIF /\ Obsolete /\



The new wiki link for this data flow is here:

[Technical Documentation - Sales & distribution - OTIF report](#)

Please update the doc there and no longer here.



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## General presentation

OTIF is sub function of Global Sales (analysis of all documents for sales handling costumers or transfer with plants and GBUs).

The term OTIF means **On Time In Full**, that is an analysis if the delivery was done in correct time and the quantity was delivered as requested, considering the tolerances.

This sub function works with data handled by Global Sales about sales order lines, scheduled lines and deliveries.

The load is done daily using the process chain scheduled with delta process inside Global Sales Process Chain.

## List of contacts

- Functional Owner of this report: Jose Pablo Leyva (Supply Chain Excellence Project Leader) and Raphael Forlini (Logistics expert)

- IS Reporting Leader: Diogo Paiva (IS Supply Chain M&S Data)
- BW Coordinator: Guillaume Thevenet (SBS IS)
- BW Developer: Nestor Araujo (SBS IS) , Mathieu Lambert (SBS IS)

## Objective of the application

- The main purpose is to have a detailed core report for all GBU's and also be the data source for SCE Dashboard in Qlikview.
- Analyze the behaviour of sales processes since the goods issue until the shipment end process.
- Understand the reasons why the process was not finished with OTIF
- One common & consolidated reporting space for the group
- Rationalization of the "live" solutions and reduction of evolutions requested
- Maintainable and sustainable solution.
- Enabler for productivity actions on OTIF process
- 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 OTIF analysis is generated in BI 4 with data based on PPS application just for Rhodia side and load QV application for SBS SCE (Supply Chain Excellence).

The OTIF for Solvay was created in 2016 in BW after OBAS implementation and it is the source for SBS SCE also.

## Usage information

*Around 300 users, worldwide with daily update*

## General Rules

### Functional Specifications

SCE defines 6 different OTIF indicators:

- **OTIFD CR** : On Time Delivery in Full (Customer Request) : Concatenates In full Requested and OTD CR
- **OTIFD FC** : On Time Delivery in Full (1st Confirmed) : Concatenates In full Confirmed and OTD FC
- **OTIFD LC** : On Time Delivery in Full (Last Confirmed) : Concatenates In full Confirmed and OTD LC
- **OTIFS CR** : On Time Shipment in Full (Customer Request) : Concatenates In full Requested and OTS CR
- **OTIFS FC** : On Time Shipment in Full (1st Confirmed) : Concatenates In full Confirmed and OTS FC
- **OTIFS LC** : On Time Shipment in Full (Last Confirmed) : Concatenates In full Confirmed and OTS LC

All calculation in this query is managed at Order line level. When several schedule lines matching with one same order lines we consider the sum for quantities and maximum for dates.

#### 1 - Rules for OTIF Calculation

**1.1 - On Time Delivery** "On Time Delivery: it means that the calculation is based on date of arrival, they compare an achieved arrival date with a target arrival date. Achieved Delivery Date:

##### Achieved Delivery Date

=If([Transportation mode]="PICK UP" Or [Order Document Type Code]="KE";[V\_Max Actual GI Date];If(IsNull([V\_Max End of Shipment Calculated]);[V\_Max Actual GI Date];[V\_Max End of Shipment Calculated]))

For "PICK UP" transportation mode, Rhodia (WP1) : Last transfer order confirmation date for the order line --> FIELD LTAP-QDATU else Last Good Issue date

For "PICK UP" transportation mode, Solvay (PF1) : Last Good Issue date

For any other transportation mode : The last "Actual Shipment end" if it exists else the last " planned shipment end" if it exists else the last "Actual good Issue"

**OTD CR**: If Difference between Achieved delivery date and Order line requested delivery Date is lower than – Early tolerance then "EARLY" else if Difference between Achieved delivery date and Order line requested delivery Date is greater than Late tolerance then ""LATE"" else ""OTD""

=If([Transportation mode]="PICK UP";If(DaysBetween([Last Req Delivery];[Achieved Delivery Date])<0;0;DaysBetween([Last Req Delivery];[Achieved Delivery Date])))

**OTD FC:** If Difference between Achieved delivery date and Orderline 1st confirmed delivery Date is lower than – Early tolerance then "EARLY" else if Difference between Achieved delivery date and Order line 1st conf delivery Date is greater than Late tolerance then ""LATE"" else ""OTD""

=If([Transportation mode]="PICK UP";If(DaysBetween([V\_Max 1st ATP];[Achieved Delivery Date])<0;0;DaysBetween([V\_Max 1st ATP];[Achieved Delivery Date])))

**OTD LC:** If Difference between Achieved delivery date and Order line last confirmed delivery Date is lower than – Early tolerance then "EARLY" else if Difference between Achieved delivery date and Order line last conf delivery Date is greater than Late tolerance then ""LATE"" else ""OTD""

=If([Transportation mode]="PICK UP";If(DaysBetween([V\_Max Last ATP];[Achieved Delivery Date])<0;0;DaysBetween([V\_Max Last ATP];[Achieved Delivery Date])))

**1.2 - On Time Shipment** "On Time Shipment: it means that the calculation is based on date of good issue, they compare an achieved shipment date with a target shipment date (calculated in SAP from requested delivery date, 1confirmed delivery date and last confirmed delivery date). Achieved Shipment Date: For "PICK UP" transportation mode : Last transfer order confirmation date for the order line --> FIELD LTAP-QDATU else Last Good Issue date For other transportation mode : The last "Actual GI" date

#### Achieved Shipment Date

=If([Transportation mode]="PICK UP" Or [Order Document Type Code]="KE";[V\_Max Actual GI Date])

**OTS CR:** If Difference between Achieved shipment date and Order line requested GI Date is lower than – Early tolerance then "EARLY" else if Difference between Achieved shipment date and Order line requested GI Date is greater than Late tolerance then ""LATE"" else OTS.

=If([Transportation mode]="PICK UP";If(DaysBetween([V\_Max Last Req GI]; "[V\_Max Actual GI Date] )<0;0;DaysBetween([V\_Max Last Req GI]; "[V\_Max Actual GI Date]

**OTS FC:** If Difference between Achieved shipment date and Order line 1st confirmed GI Date is lower than – Early tolerance then "EARLY" else if Difference between Achieved shipment date and Order line 1st Conf GI Date is greater than Late tolerance then ""LATE"" else ""OTS""

=If([Transportation mode]="PICK UP";If(DaysBetween([V\_Max 1st ATP GI]; "[V\_Max Actual GI Date] <0;0;DaysBetween([V\_Max 1st ATP GI]; [V\_Max Actual GI Date] )))

**OTS LC:** If Difference between Achieved shipment date and Order line last confirmed GI Date is lower than – Early tolerance then "EARLY" else if Difference between Achieved shipment date and Order line Last confirmed GI Date is greater than Late tolerance then ""LATE"" else ""OTS""

=If([Transportation mode]="PICK UP";If(DaysBetween([V\_Max 1st ATP GI]; "[V\_Max Actual GI Date] <0;0;DaysBetween([V\_Max 1st ATP GI]; [V\_Max Actual GI Date] )))

#### 1.3 - Tolerances:

"Number of days based on Transportation Mode (Order Shipping Condition) OCEAN = 7 RAIL = 3 BARGE = 3 INTERMODAL = 2 ROAD = 1 AIR = 0 OTHER = 0 "

DAYS DELAY NET (APPLY THE TOLERANCE)

TOLERANCES by Shipping Conditions

AB";"AC";"AE";"AF => 7 days (ocean)

AJ => 1 day (LTL)

AK AH AI => 0 (FTL)

AU AP => 3 (Barge / Rail)

AV => 2 (multimodal)

“AL” “AW” “AX” => 0 999 days) (Pick Up)

=If([OTD CR - Delay Days]=999;999;If([OTD CR - Delay Days]=0;0;If(Abs([OTD CR - Delay Days])<=[Tolerance Days];0;If([OTD CR - Delay Days]<0;[Tolerance Days]+[OTD CR - Delay Days];[OTD CR - Delay Days]-[Tolerance Days])))

#### 1.4 - Exceptions:

"Customer Pick Up: uses Last transfer order confirmation date in calculation Customer Pick Up Early = OTIF Order Non OTIF Reason code starting with 7 = OTIF "

### 1.5 - IN FULL

**In Full Calculation** "In Full Request Order Quantity fits with Delivery Quantity In Full Confirmed Scheduled Line Confirmed Quantity fits with Delivery Quantity "

#### IN FULL REQUESTED – IFR

(Order line qty – Sum Delivery quantity) + tolerance that comes from the sales order

#### IN FULL CONFIRMED – IFC

(Sum Scheduled Confirmed Qty by sales order item – Sum Delivery quantity) + tolerance that comes from the sales order

### 1.6 - LEAD TIMES

7 lead-times have been defined by SCE (to be challenged for rationalisation)

**Leadtime 1 :** The Lead-time is the difference, in days, between the customer PO Date (order line level - VBKD-BSTDK), and the requested material availability date (Max in the scheduled line level).

=DaysBetween([V\_Max Cust PO];[V\_Max Req Material Availability])

**Leadtime 2 :** The Lead-time is the difference, in days, between the customer PO Date (VBKD-BSTDK), and the achieved GI date

=DaysBetween([V\_Max Cust PO];[Max Actual GI Date])

**Leadtime 3 :** The Lead-time is the difference, in days, between the customer PO Date, and the requested delivery date.

=DaysBetween([V\_Max Cust PO];[V\_Max Last Req Delivery])

**Leadtime 4 :** The Lead-time is the difference, in days, between the customer PO Date, and the achieved delivery date

=DaysBetween([V\_Max Cust PO];[Achieved Delivery Date])

**Leadtime 5 :** The Lead-time is the difference, in days, between the creation date and the last customer req Goods Issue date

**Leadtime 6 :** The Lead-time is the difference, in days, between the creation date and the schedule line 1st ATP (confirmed) GI date

**Leadtime 7 :** The Lead-time is the difference, in days, between the creation date and the actual GI date

1.7 - DOCUMENTS TYPES

The document types to be considered are:

|      |                      |
|------|----------------------|
| GCTA | Standard Order       |
| KE   | Consig issue         |
| SB   | SB Third-p.dir order |
| SO   | SO Rush Order        |
| TA   | Standard Order       |
| TAF  | Standard Order (FPI) |
| TAM  | Delivery Order       |
| TAV  | Standard Order (VMI) |
| TD   | TD Standard Order    |
| TDIV | TDIV Misc Op         |
| TSA  | Telesales            |
| ZITI | Sales Order ITI BR   |
| ZORB | Standard Order BR    |
| ZOUT | Other Outputs BR     |
| ZPVA | ZPVA Ord.immed.ship. |
| ZVEX | Fut. Dely Invoice BR |
| ZVEY | Fut. Dely Shipmnt BR |
| NB   | Standard PO          |
| UB   | Stock transport ord. |

1.8 - QUERY FILTER

1.8.1 – Flag Intra GBU = NO

1.8.2 – Reason for rejection: VBAP-ABGRU is null or equal 98

blocked URL  
blocked URL

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_M49 | SD - Sales and Distribution | Role menu |

## Authorization objects

List of authorization objects mandatory for the application.

| Authorization object | Explanation                      |
|----------------------|----------------------------------|
| ZR_SD_CA_P05         | Global Business Unit (CPFCTR1_2) |
| ZR_TOUT_CA_P01       | Company Code (C_COMPCDE)         |
| ZR_RCS_CA_P14        | Sales Office (C_SAL_OFF)         |

See also file maintained by Authorization team :

- BW Catalog of Roles: Authorization catalog
- BW Authorization: BW Authorizations

### *Statistics by infoproviders*

| InfoProvider Used | Description / Calendar Year/Month                     | JAN 2018 | FEB 2018 | MAR 2018 | APR 2018 | MAY 2018 | JUN 2018 | JUL 2018 | AUG 2018 | SEP 2018 |
|-------------------|-------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| MVSDSO50          | MP: Sales - OTIF (Global Sales)                       | 102      | 27       | 40       | 40       | 51       | 83       | 71       | 21       | 12       |
| MVSDSO51          | MP: Sales & Transfer - OTIF (Global Sales)            | 54       | 14       | 12       | 3        |          | 5        | 121      | 395      | 20       |
| MVSDSO60          | MP: Sales - OTIF with order book dates (Global Sales) |          |          |          |          |          | 9        | 33       | 39       | 49       |
| Overall Result    |                                                       | 156      | 41       | 52       | 43       | 51       | 97       | 225      | 455      | 81       |

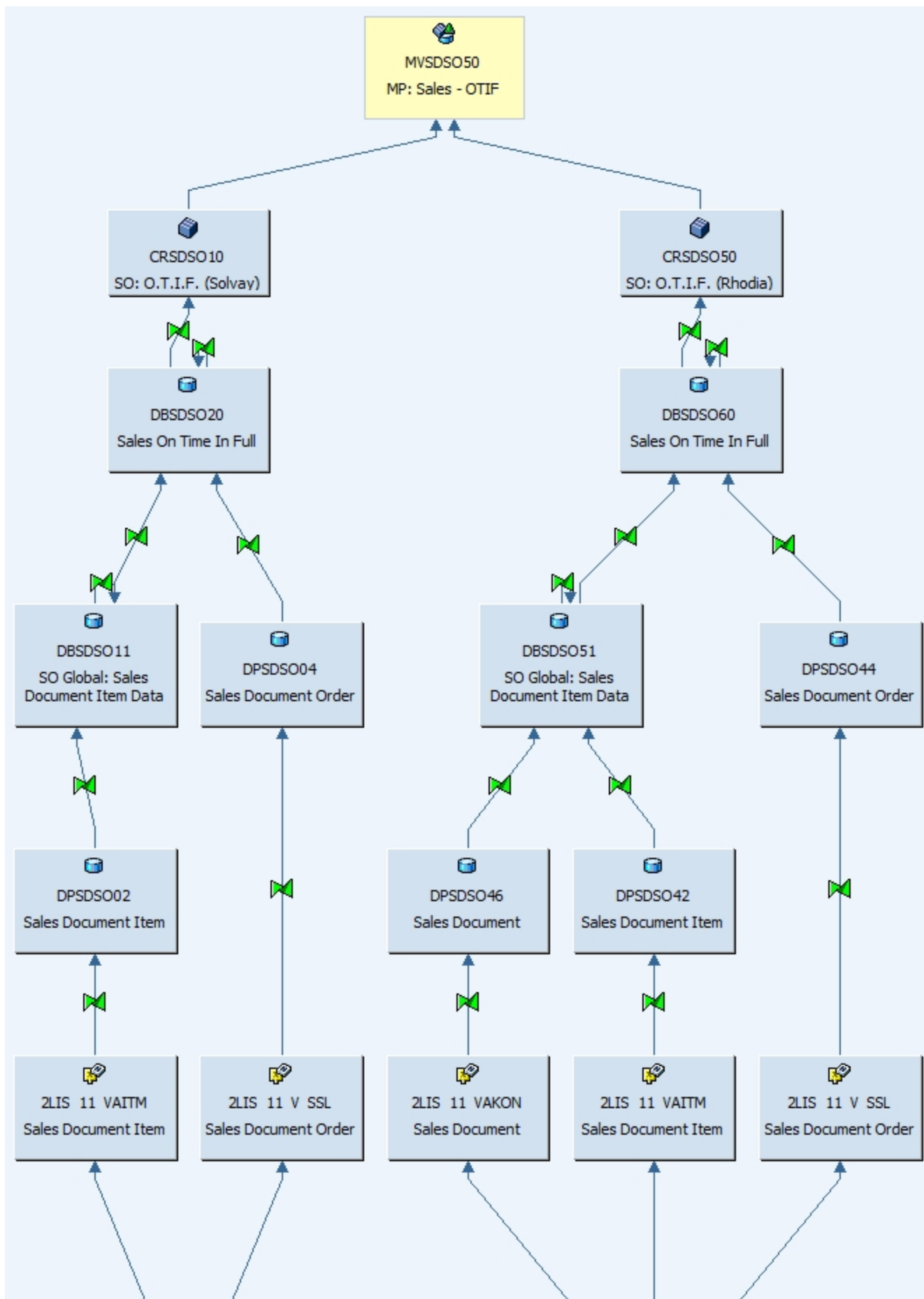
### *Statistics by queries*

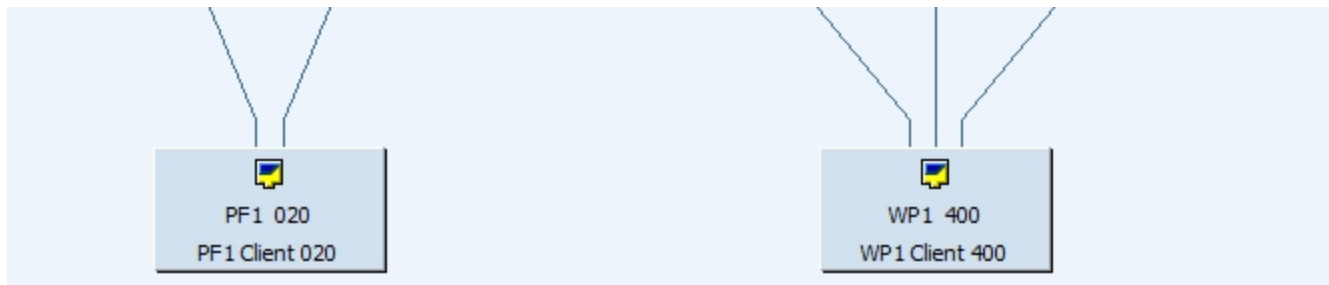
| InfoProvider | Query                      |                                                | JAN 2018 | FEB 2018 | MAR 2018 | APR 2018 | MAY 2018 | JUN 2018 | JUL 2018 | AUG 2018 | SEP 2018 |
|--------------|----------------------------|------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| MVSDSO50     | BW_QRY_MVSDSO50_0001       | BW Sales - OTIF - Details                      | 24       | 18       | 21       | 12       | 13       | 28       | 20       | 10       | 8        |
| MVSDSO50     | BW_QRY_MVSDSO50_0003       | BW Sales - OTIF - Summary                      | 6        |          |          |          |          | 15       | 2        |          | 0        |
| MVSDSO50     | BW_QRY_MVSDSO50_0002       | BW Sales - OTIF dashboard                      | 70       | 4        | 19       | 27       | 38       | 40       | 48       | 11       | 4        |
| MVSDSO50     | QVSCE_BW_QRY_MVSDSO50_0001 | BW Sales - OTIF QV                             | 2        | 5        |          | 1        |          |          | 1        |          |          |
| MVSDSO51     | QVSCE_BW_QRY_MVSDSO51_0001 | BW OTIF (Sales & Transfer) QV                  | 54       | 3        | 10       | 1        |          | 1        | 109      | 384      |          |
| MVSDSO51     | BW_QRY_MVSDSO51_0003       | BW Transfer & Sales - OTIF - Summary           |          |          |          |          |          |          |          | 2        | 5        |
| MVSDSO51     | /BW_QRY_MVSDSO51_0002      | BW Transfer PO OTIF - dashboard                |          | 3        |          | 1        |          |          | 6        | 4        | 11       |
| MVSDSO51     | BW_QRY_MVSDSO51_0001       | BW Transfer PO OTIF - Details                  |          | 8        | 2        | 1        |          | 4        | 6        | 5        | 4        |
| MVSDSO60     | BW_QRY_MVSDSO60_0001       | BW Sales - OTIF & Orderbook - Details          |          |          |          |          |          | 3        | 3        |          | 5        |
| MVSDSO60     | BW_QRY_MVSDSO60_0002       | BW Sales/Transfer - OTIF & Orderbook - Details |          |          |          |          |          | 6        | 28       | 39       | 44       |
| Result       |                            |                                                | 156      | 41       | 52       | 43       | 51       | 97       | 225      | 455      | 81       |

## Dataflow overview

### Multi Provider MVSDSO50 - OTIF Global - DATA FLOW

This multi provider is used to manage the OTIF indicators for all sales processes (Solvay & Rhodia)





MP Details - characteristics

| MultiProvider                             | Techn. name / val... | Dat... | L  |
|-------------------------------------------|----------------------|--------|----|
| ▼  MP: Sales - OTIF (Global Sales)        | MVSDSO50             |        |    |
| ▶  Object Information                     |                      |        |    |
| ▼  Dimensions                             |                      |        |    |
| ▶  Data Package                           | MVSDSO50P            |        |    |
| ▶  Time                                   | MVSDSO50T            |        |    |
| ▶  Unit                                   | MVSDSO50U            |        |    |
| ▼  Delivery Dates                         | MVSDSO501            |        |    |
| •  Actual goods issue date                | 0ACT_GI_DTE          | DATS   | 08 |
| •  Actual GI date (Year/Month)            | C_ACT_GI             | NUMC   | 06 |
| •  Actual GI date (Year)                  | C_ACT_GIY            | NUMC   | 04 |
| •  Actual Delivery Date                   | 0ACT_DL_DTE          | DATS   | 08 |
| •  Requested delivery date                | 0DSDEL_DATE          | DATS   | 08 |
| •  Material availability date             | 0MATAV_DATE          | DATS   | 08 |
| •  Planned Goods Issue Date of a          | 0PLD_GI_DTE          | DATS   | 08 |
| •  Customer PO date                       | C_PODATE             | DATS   | 08 |
| •  Transfer order confirmation date       | C_ERSDA              | DATS   | 08 |
| ▼  Organization                           | MVSDSO502            |        |    |
| •  Source System                          | 0LOGSYS              | CHAR   | 10 |
| •  Company code                           | C_COMPDE             | CHAR   | 04 |
| •  Plant                                  | C_PLANT              | CHAR   | 04 |
| ▼  Material                               | MVSDSO503            |        |    |
| •  Material                               | C_MATNR2             | CHAR   | 18 |
| •  Material Plant                         | C_MATPNT2            | CHAR   | 18 |
| •  Material group                         | C_MAT_GRP            | CHAR   | 09 |
| •  Commercial Product / Material Category | C_PROD               | CHAR   | 18 |
| ▼  Customer                               | MVSDSO504            |        |    |
| •  Sold-to party                          | C_SOLDID             | CHAR   | 10 |
| •  Ship-to party                          | C_SHIPID             | CHAR   | 10 |
| •  Customer (Sales View)                  | C_CUSTSAL            | CHAR   | 10 |
| ▼  Reason/Types                           | MVSDSO505            |        |    |
| •  Sales document type                    | C_DOCTYP2            | CHAR   | 04 |
| •  Ship date type                         | C_DTTYE              | CHAR   | 03 |
| •  Del date type                          | C_DTTYE2             | CHAR   | 03 |
| •  Reversal indicator                     | 0STORNO              | CHAR   | 01 |
| •  Incoterms part (Core)                  | C_INCOTRM            | CHAR   | 03 |
| •  Non OTIF Reason                        | C_AUGRU              | CHAR   | 03 |
| •  Sales document item category           | C_ITMCAT             | CHAR   | 04 |

|                                                                                                                   |           |      |    |
|-------------------------------------------------------------------------------------------------------------------|-----------|------|----|
| ▶  Shipment                      | MVSDSO506 |      |    |
| ▶  Order                         | MVSDSO507 |      |    |
| ▼  Sales Org/Office              | MVSDSO508 |      |    |
| •  Sales Office                  | C_SAL_OFF | CHAR | 04 |
| •  Sales Organization            | C_SAL_ORG | CHAR | 04 |
| •  Distribution Channel          | C_DISTCHN | CHAR | 02 |
| •  Division                      | C_DIVISN  | CHAR | 02 |
| ▼  GBU                           | MVSDSO509 |      |    |
| •  BFC GBU                       | CPFCTR1_2 | CHAR | 02 |
| •  Controlling area              | OCO_AREA  | CHAR | 04 |
| •  Sub-Activity 2                | C_SUBACT2 | CHAR | 10 |
| •  Sub-activity                  | OG_CWWE01 | CHAR | 10 |
| ▼  GBR                           | MVSDSO50A |      |    |
| •  GBR: Customer end-use (Ship-t | C_GBR5    | CHAR | 10 |
| •  GBR: Customer gbu account ty  | C_GBR11   | CHAR | 10 |
| •  GBR: Customer gbu account ty  | C_GBR12   | CHAR | 10 |
| •  GBR: Customer gbu account ty  | C_GBR13   | CHAR | 10 |
| •  GBR: Ship-to KA               | C_GBR15   | CHAR | 10 |
| •  GBR: Customer end-use Mat Gr  | C_GBR14   | CHAR | 10 |
| •  GBR: GBU Material Group       | C_GBR18   | CHAR | 18 |
| ▼  OTIF Groups                  | MVSDSO50B |      |    |
| •  In Full Confirmed Detailed  | C_INFULCD | CHAR | 05 |
| •  In Full Requested Detailed  | C_INFULRD | CHAR | 05 |
| •  OTDCR Accuracy              | C_OTDCRAC | CHAR | 05 |
| •  OTDCR Delay Group           | C_OTDCRDG | CHAR | 01 |
| •  OTDFC Accuracy              | C_OTDFCAC | CHAR | 05 |
| •  OTDFC Delay Group           | C_OTDFCDG | CHAR | 01 |
| •  OTDLC Accuracy              | C_OTDLCAC | CHAR | 05 |
| •  OTDLC Delay Group           | C_OTDLCDG | CHAR | 01 |
| •  OTSCR Accuracy              | C_OTSCRAC | CHAR | 05 |
| •  OTSCR Delay Group           | C_OTSCRDG | CHAR | 01 |
| •  OTSFC Accuracy              | C_OTSFCAC | CHAR | 05 |
| •  OTSFC Delay Group           | C_OTSFCDG | CHAR | 01 |
| •  OTSLC Accuracy              | C_OTSLCAC | CHAR | 05 |
| •  OTSLC Delay Group           | C_OTSLCDG | CHAR | 01 |

Details - Key Figures

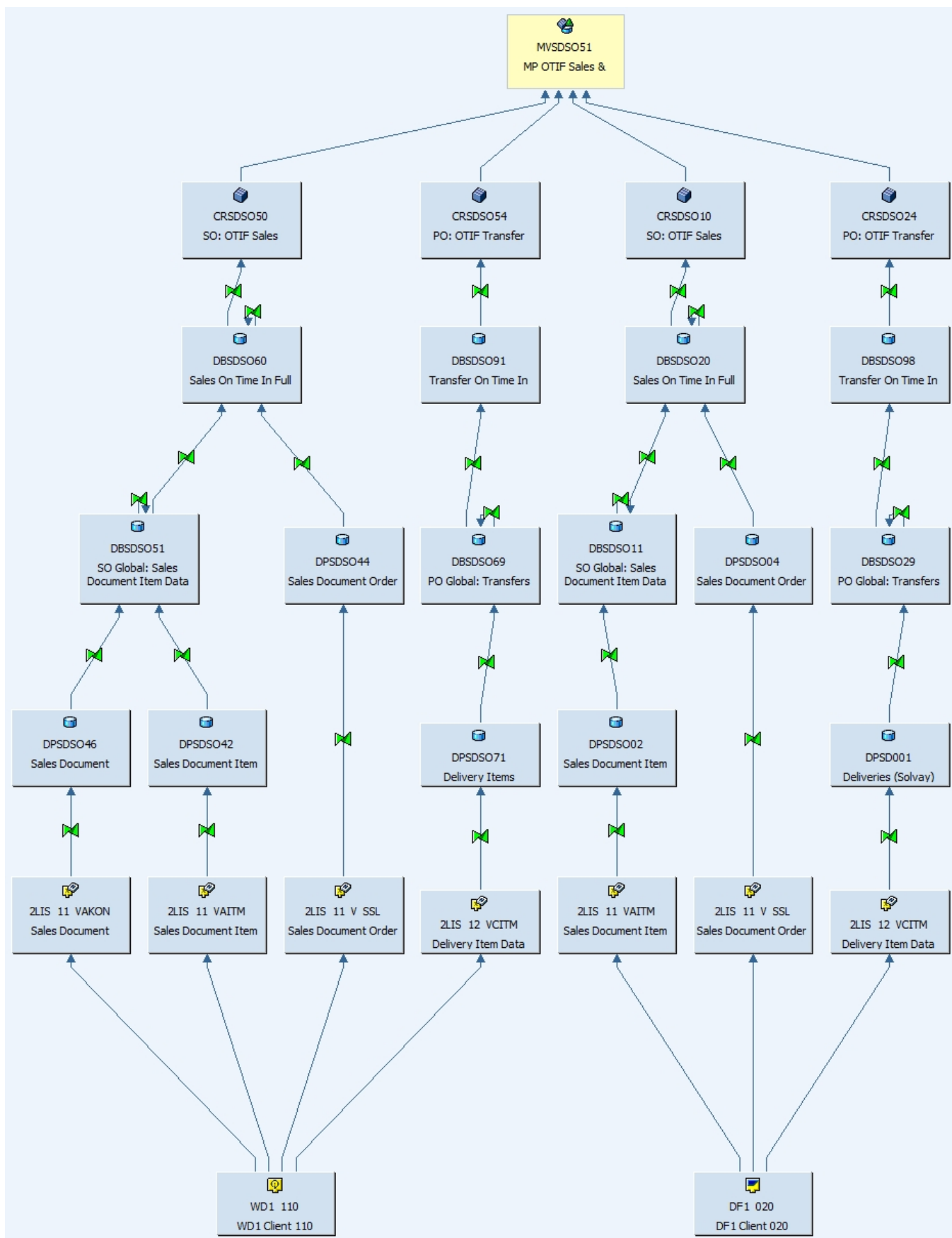
|                                                                                                                          |             |      |    |  |
|--------------------------------------------------------------------------------------------------------------------------|-------------|------|----|--|
| ▼  Key Figures                          |             |      |    |  |
| ▼  Tolerance                            | TOLERANCE   |      |    |  |
| •  Late Tolerance in days               | K_TOLDAY    | INT4 | 04 |  |
| •  Early Tolerance in days              | K_TOLDAY2   | INT4 | 04 |  |
| •  Tolerance Limit for Over Delivery    | 0UPPR_BND   | DEC  | 09 |  |
| •  Tolerance Limit for Under Delivery   | 0LOWR_BND   | DEC  | 09 |  |
| ▼  Quantity                             | QUANTITY    |      |    |  |
| •  Desired Delivery Quantity            | 0REQU_QTY   | QUAN | 09 |  |
| •  Confirmed quantity                   | 0CONF_QTY   | QUAN | 09 |  |
| •  Actual quantity delivered (in sales) | 0DLV_QTY    | QUAN | 09 |  |
| •  Cumulative order quantity in sales   | 0CML_OR_QTY | QUAN | 09 |  |
| •  Gap Quantity (order requested)       | K_GAPQTY    | QUAN | 09 |  |
| •  Gap Quantity (order confirmed)       | K_GAPQTY2   | QUAN | 09 |  |
| •  Gap Quantity (order requested)       | K_GAPQTY3   | QUAN | 09 |  |
| •  Cumulative confirmed quantity        | 0CML_CF_QTY | QUAN | 09 |  |
| ▼  OTIF                                 | OTIF        |      |    |  |
| •  In full Requested (IFR)              | K_INFULLR   | INT4 | 04 |  |
| •  In full Confirmed (IFC)              | K_INFULLC   | INT4 | 04 |  |
| •  On Time Delivery Customer Request    | K_OTDCR     | INT4 | 04 |  |
| •  On Time Delivery First Confirmation  | K_OTDFC     | INT4 | 04 |  |
| •  On Time Delivery Last Confirmation   | K_OTDLC     | INT4 | 04 |  |
| •  On Time Shipment Customer Request    | K_OTSCR     | INT4 | 04 |  |
| •  On Time Shipment First Confirmation  | K_OTSFC     | INT4 | 04 |  |
| •  On Time Shipment Last Confirmation  | K_OTSLC     | INT4 | 04 |  |
| ▼  Days                               | DAYS        |      |    |  |
| •  SO: Lead Time (Cust.PO x req.)     | K_SOLEAD1   | DEC  | 09 |  |
| •  SO: Lead Time (Cust.PO x achieved) | K_SOLEAD2   | DEC  | 09 |  |
| •  SO: Lead Time (Cust.PO x req.)     | K_SOLEAD3   | DEC  | 09 |  |
| •  SO: Lead Time (Cust.PO x achieved) | K_SOLEAD4   | DEC  | 09 |  |
| •  OTDCR Delay days                   | K_OTDCRDD   | INT4 | 04 |  |
| •  OTDFC Delay days                   | K_OTDFCDD   | INT4 | 04 |  |
| •  OTDLC Delay days                   | K_OTDLCDD   | INT4 | 04 |  |
| •  OTSCR Delay days                   | K_OTSCRDD   | INT4 | 04 |  |
| •  OTSFC Delay days                   | K_OTSFCDD   | INT4 | 04 |  |
| •  OTSLC Delay days                   | K_OTSLCDD   | INT4 | 04 |  |
| ▼  Counter                            | COUNTER     |      |    |  |
| •  Counter                            | K_COUNTER   | DEC  | 09 |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| ▼  SO: O.T.I.F. (Solvay)                                                                                                                                                                                                                                                                                                                                                               | CRSDSO10                                                                                                                                |
| ▼  Object Information                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                         |
| <ul style="list-style-type: none"> <li>•  Version</li> <li>•  Save</li> <li>•  Revised Version</li> <li>•  Object Status</li> </ul> | <ul style="list-style-type: none"> <li>◆ In Process</li> <li>✚ Saved</li> <li>≡ Active Version</li> <li>📦 Active, executable</li> </ul> |
| ▶  Settings                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                         |
| ▼  Dimensions                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                         |
| ▶  Data Package                                                                                                                                                                                                                                                                                                                                                                        | CRSDSO10P                                                                                                                               |
| ▶  Time                                                                                                                                                                                                                                                                                                                                                                                | CRSDSO10T                                                                                                                               |
| ▶  Unit                                                                                                                                                                                                                                                                                                                                                                                | CRSDSO10U                                                                                                                               |
| ▶  Req.Del Date                                                                                                                                                                                                                                                                                                                                                                        | CRSDSO101                                                                                                                               |
| ▶  Organization                                                                                                                                                                                                                                                                                                                                                                        | CRSDSO102                                                                                                                               |
| ▶  Material                                                                                                                                                                                                                                                                                                                                                                            | CRSDSO103                                                                                                                               |
| ▶  Reason / Type                                                                                                                                                                                                                                                                                                                                                                       | CRSDSO104                                                                                                                               |
| ▶  Customer                                                                                                                                                                                                                                                                                                                                                                            | CRSDSO105                                                                                                                               |
| ▶  Delivery date                                                                                                                                                                                                                                                                                                                                                                       | CRSDSO106                                                                                                                               |
| ▶  Cust PO                                                                                                                                                                                                                                                                                                                                                                             | CRSDSO107                                                                                                                               |
| ▶  Sales Order                                                                                                                                                                                                                                                                                                                                                                         | CRSDSO108                                                                                                                               |
| ▶  Sales Order Line                                                                                                                                                                                                                                                                                                                                                                    | CRSDSO109                                                                                                                               |
| ▶  Shipment                                                                                                                                                                                                                                                                                                                                                                            | CRSDSO10A                                                                                                                               |
| ▶  Dates                                                                                                                                                                                                                                                                                                                                                                               | CRSDSO10B                                                                                                                               |
| ▶  OTIF Groups                                                                                                                                                                                                                                                                                                                                                                        | CRSDSO10C                                                                                                                               |
| ▶  Mat.Availability                                                                                                                                                                                                                                                                                                                                                                  | CRSDSO10D                                                                                                                               |
| ▶  Navigation Attributes                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                         |
| ▶  Key Figures                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                         |

|                                                                                                             |                                                                                                |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| ▼  SO: O.T.I.F. (Rhodia)   | CRSDSO50                                                                                       |
| ▼  Object Information      |                                                                                                |
| •  Version                 | ◆ In Process  |
| •  Save                    | ✚ Saved                                                                                        |
| •  Revised Version         | ≡ Active Version                                                                               |
| •  Object Status           | 📦 Active, executable                                                                           |
| ▶  Settings                |                                                                                                |
| ▼  Dimensions              |                                                                                                |
| ▶  Data Package            | CRSDSO50P                                                                                      |
| ▶  Time                    | CRSDSO50T                                                                                      |
| ▶  Unit                    | CRSDSO50U                                                                                      |
| ▶  Req.Del Date            | CRSDSO501                                                                                      |
| ▶  Organization            | CRSDSO502                                                                                      |
| ▶  Material                | CRSDSO503                                                                                      |
| ▶  Reason / Type           | CRSDSO504                                                                                      |
| ▶  Customer                | CRSDSO505                                                                                      |
| ▶  OTIF Groups             | CRSDSO506                                                                                      |
| ▶  Delivery date           | CRSDSO507                                                                                      |
| ▶  Sales Order             | CRSDSO508                                                                                      |
| ▶  Order Line              | CRSDSO509                                                                                      |
| ▶  Shipment                | CRSDSO50A                                                                                      |
| ▶  Dates                  | CRSDSO50B                                                                                      |
| ▶  Cust PO               | CRSDSO50C                                                                                      |
| ▶  Mat.Availability      | CRSDSO50D                                                                                      |
| ▶  Navigation Attributes |                                                                                                |
| ▶  Key Figures           |                                                                                                |

## Multi Provider MVSDSO51 - OTIF Transfer Global - DATA FLOW

This multi provider is used to manage the OTIF indicators for all sales and transfer processes (Solvay & Rhodia)



Cubes:

CRSDSO54: PO: OTIF Transfer (Rhodia)

As part of the change # 4028391,excluded return items from this cube .Added filter in below DTP's to exclude Return Items.

DTP: DBSDSO91 -> CRSDSO54 (Rhodia)

DTP: DBSDSO91 -> DBSDSO9E (Rhodia)

DTP: DBSDSO98 -> CRSDSO24 (Solvay)

DTP: DBSDSO98 -> DBSDSO9F (Solvay)

CRSDSO24: PO: OTIF Transfer (Solvay)

As part of the change # 4028391,excluded return items from this cube .Added filter in below DTP's to exclude Return Items.

DTP: DBSDSO91 -> CRSDSO54 (Rhodia)

DTP: DBSDSO91 -> DBSDSO9E (Rhodia)

DTP: DBSDSO98 -> CRSDSO24 (Solvay)

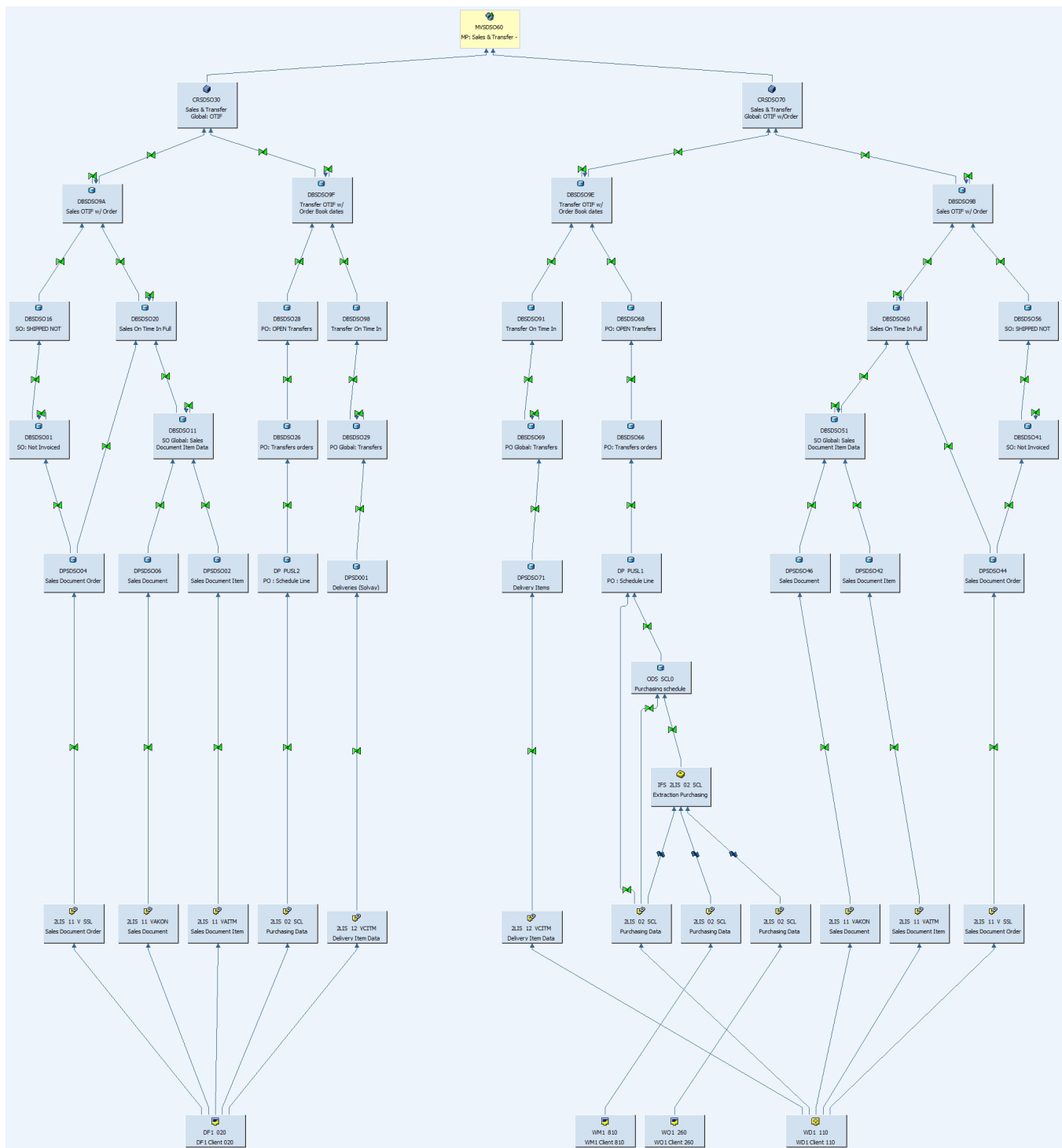
DTP: DBSDSO98 -> DBSDSO9F (Solvay)

CRSDSO50: SO: OTIF Sales (Rhodia)

CRSDSO10: SO: OTIF Sales (Solvay)

## **Multi Provider MVSDSO60 - MP Sales & Transfer for OTIF with Order Book dates - DATA FLOW**

This multi provider is used to manage the OTIF indicators for all sales and transfer processes (Solvay & Rhodia) matched with order book snapshot data, in order to know the opened orders



### Details - DSO's used in MP

This multi provider is based on two cubes that receive data from DSO's that mix data from OTIF and order book snapshot. The DSO's used here are: DBSDSO9A (OTIF Sales & order book Solvay), DBSDSO9B (OTIF Sales & order book Rhodia), DBSDSO9E (OTIF Transfer & order book Solvay), DBSDSO9F (OTIF Transfer & order book Rhodia)

### MP Details - Characteristics

|                                                                                                                                   |             |      |    |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------|------|----|
|  MP: Sales & Transfer - OTIF w/ orderbook dates  | MVSDSO60    |      |    |
| ‣  Object Information                            |             |      |    |
| ‣  Dimensions                                    |             |      |    |
| ‣  Data Package                                  | MVSDSO60P   |      |    |
| ‣  Time                                          | MVSDSO60T   |      |    |
| ‣  Unit                                          | MVSDSO60U   |      |    |
| ‣  Dates                                         | MVSDSO601   |      |    |
| •  Actual goods issue date                       | 0ACT_GI_DTE | DATS | 08 |
| •  Actual GI date (month)                        | C_ACT_GI    | NUMC | 06 |
| •  Actual GI date (year)                         | C_ACT_GIY   | NUMC | 04 |
| •  Actual GI date (week)                         | C_ACT_GI2   | NUMC | 06 |
| •  Shipment Planned GI Date                      | 0PLD_GI_DTE | DATS | 08 |
| •  Customer PO date                              | C_PODATE    | DATS | 08 |
| •  PO confirmation date                          | C_ERSDA     | DATS | 08 |
| •  Achieved Shipment Date                        | C_ACHSHIP   | DATS | 08 |
| •  Achieved Delivery Date                        | C_ACHDLV    | DATS | 08 |
| •  To be Invoiced (month)                        | C_TBI2      | NUMC | 06 |
| •  To be Invoiced (week)                         | C_TBI3      | NUMC | 06 |
| •  To be Issued (month)                          | C_TBI5      | NUMC | 06 |
| •  To be Issued (week)                           | C_TBI6      | NUMC | 06 |
| •  To be Issued date                            | C_TBIDAT2   | DATS | 08 |
| •  To be Invoiced date                         | C_TBIDATE   | DATS | 08 |
| •  Date for invoice/billing index and printout | 0BILL_DATE  | DATS | 08 |
| •  Billing Date (Year/Month)                   | C_INVDAT    | NUMC | 06 |
| •  Billing Date (Year)                         | C_INVDAT2   | NUMC | 04 |
| •  Last ATP GI date (Year/Month)               | C_LASTGIM   | NUMC | 06 |
| •  Last ATP GI date (Year/Week)                | C_LASTGIW   | NUMC | 06 |
| •  Last ATP GI date (Year)                     | C_LASTGIY   | NUMC | 04 |
| •  Sched. line Last ATP date (Year/Month)      | C_LSTATPM   | NUMC | 06 |
| •  Sched. line Last ATP date (Year/Week)       | C_LSTATPW   | NUMC | 06 |
| •  Sched. line Last ATP date (Year)            | C_LSTATPY   | NUMC | 04 |
| •  Customer last req. del. date (Month/Year)   | C_LSTREQM   | NUMC | 06 |
| •  Customer last req. del. date (Year/Week)    | C_LSTREQW   | NUMC | 06 |
| •  Customer last req. del. date (Year)         | C_LSTREQY   | NUMC | 04 |
| •  Last req. GI date (Year/Month)              | C_LTRQGIM   | NUMC | 06 |
| •  Last req. GI date (Year/Week)               | C_LTRQGIW   | NUMC | 06 |
| •  Last req. GI date (Year)                    | C_LTRQGIY   | NUMC | 04 |
| •  Sched. line 1st ATP (month)                 | C_FSTATPM   | NUMC | 06 |
| •  Sched. line 1st ATP (week)                  | C_FSTATPW   | NUMC | 06 |
| •  Sched. line 1st ATP (Year)                  | C_FSTATPY   | NUMC | 04 |
| •  1st ATP GI (month)                          | C_FRSTGIM   | NUMC | 06 |

|                                                                                                                          |            |      |    |
|--------------------------------------------------------------------------------------------------------------------------|------------|------|----|
| •  1st ATP GI (week)                    | C_FRSTGIW  | NUMC | 06 |
| •  1st ATP GI (year)                    | C_FRSTGIY  | NUMC | 04 |
| ▶  Organization                         | MVSDSO602  |      |    |
| ▶  Material                             | MVSDSO603  |      |    |
| ▶  Customer                             | MVSDSO604  |      |    |
| ▼  Reason/Types                         | MVSDSO605  |      |    |
| •  Order document type                  | C_DOCTYP2  | CHAR | 04 |
| •  Shipment date type                   | C_DTTYPE   | CHAR | 03 |
| •  Delivery date type                   | C_DTTYPE2  | CHAR | 03 |
| •  Reversal indicator                   | 0STORNO    | CHAR | 01 |
| •  Non OTIF Reason                      | C_AUGRU    | CHAR | 03 |
| •  Sales document item category         | C_ITMCAT   | CHAR | 04 |
| •  Service Level                        | C_SERVLVL  | CHAR | 03 |
| •  NON OTIF Type                        | C_NOTITYP  | CHAR | 10 |
| •  NON OTIF Reason Code Needed          | C_OTFNDCD  | CHAR | 01 |
| •  Incoterms (Order)                    | C_INCOTRM  | CHAR | 03 |
| •  Special Processing Indicator         | C_SDABW    | CHAR | 04 |
| •  Incoterms 2 (Order)                  | C_INCOTM2  | CHAR | 28 |
| •  Delivery type                        | C_DELTYPE  | CHAR | 04 |
| •  Alert 1 - Last ATP <> Last Req Deliv | C_OTIFAL1  | CHAR | 01 |
| •  To be Issued Type                    | C_TBISTYP  | CHAR | 01 |
| ▶  Shipment                             | MVSDSO606  |      |    |
| ▶  Order                                | MVSDSO607  |      |    |
| ▶  Sales Org/Office                    | MVSDSO608  |      |    |
| ▼  GBU                                | MVSDSO609  |      |    |
| •  GBU                                | CPFCTR1_2  | CHAR | 02 |
| •  Sub-activity                       | 0G_CWWWE01 | CHAR | 10 |
| ▼  OTIF Groups                        | MVSDSO60A  |      |    |
| •  In Full Confirmed Detailed         | C_INFULCD  | CHAR | 05 |
| •  In Full Requested Detailed         | C_INFULRD  | CHAR | 05 |
| •  OTDCR Accuracy                     | C_OTDCRAC  | CHAR | 05 |
| •  OTDCR Delay Group                  | C_OTDCRDG  | CHAR | 01 |
| •  OTDFC Accuracy                     | C_OTDFCAC  | CHAR | 05 |
| •  OTDFC Delay Group                  | C_OTDFCDG  | CHAR | 01 |
| •  OTDLC Accuracy                     | C_OTDLCAC  | CHAR | 05 |
| •  OTDLC Delay Group                  | C_OTDLCDG  | CHAR | 01 |
| •  OTSCR Accuracy                     | C_OTSCRAC  | CHAR | 05 |
| •  OTSCR Delay Group                  | C_OTSCRDG  | CHAR | 01 |
| •  OTSFC Accuracy                     | C_OTSFCAC  | CHAR | 05 |
| •  OTSFC Delay Group                  | C_OTSFCDG  | CHAR | 01 |
| •  OTSLC Accuracy                     | C_OTSLCAC  | CHAR | 05 |

MP Details - Key figures

|                                                           |             |      |    |
|-----------------------------------------------------------|-------------|------|----|
| ▼ Amount                                                  | AMOUNT      |      |    |
| • Net value of the order item in document currency        | ONET_VALUE  | CURR | 09 |
| • Net value of rest to be delivered (SU)                  | K_TBI1      | CURR | 09 |
| • Net value of not scheduled                              | K_NSCHEVL   | CURR | 09 |
| ▼ Tolerance                                               | TOLERANCE   |      |    |
| • Late Tolerance in days                                  | K_TOLDAY    | INT4 | 04 |
| • Early Tolerance in days                                 | K_TOLDAY2   | INT4 | 04 |
| • Tolerance Limit for Over Delivery in %                  | 0UPPR_BND   | DEC  | 09 |
| • Tolerance Limit for Under Delivery in %                 | 0LOWR_BND   | DEC  | 09 |
| ▼ Quantity                                                | QUANTITY    |      |    |
| • Actual quantity delivered (in sales units)              | 0DLV_QTY    | QUAN | 09 |
| • Cumulative order quantity in sales units                | 0CML_OR_QTY | QUAN | 09 |
| • Gap Quantity (order requested X delivery)               | K_GAPQTY    | QUAN | 09 |
| • Gap Quantity (order confirmed X delivery)               | K_GAPQTY2   | QUAN | 09 |
| • Gap Quantity (order requested X confirmed)              | K_GAPQTY3   | QUAN | 09 |
| • Cumulative confirmed quantity in sales unit             | 0CML_CF_QTY | QUAN | 09 |
| • Rest to be delivered (in sales unit)                    | K_NONDEL    | QUAN | 09 |
| • Not Scheduled Requested Quantity                        | K_NSCHERQ   | QUAN | 09 |
| ▼ OTIF                                                    | OTIF        |      |    |
| • In full Requested (IFR)                                 | K_INFULLR   | INT4 | 04 |
| • In full Confirmed (IFC)                                 | K_INFULLC   | INT4 | 04 |
| • On Time Delivery Customer Request (OTD CR)              | K_OTDCR     | INT4 | 04 |
| • On Time Delivery First Confirmation (OTD FC)            | K_OTDFC     | INT4 | 04 |
| • On Time Delivery Last Confirmation (OTD LC)             | K_OTDLC     | INT4 | 04 |
| • On Time Shipment Customer Request (OTS CR)              | K_OTSCR     | INT4 | 04 |
| • On Time Shipment First Confirmation (OTS FC)            | K_OTSFC     | INT4 | 04 |
| • On Time Shipment Last Confirmation (OTS LC)             | K_OTSLC     | INT4 | 04 |
| ▼ Days                                                    | DAYS        |      |    |
| • OTDCR Delay days                                        | K_OTDCRDD   | INT4 | 04 |
| • OTDFC Delay days                                        | K_OTDFCDD   | INT4 | 04 |
| • OTDLC Delay days                                        | K_OTDLCDD   | INT4 | 04 |
| • OTSCR Delay days                                        | K_OTSCRDD   | INT4 | 04 |
| • OTSFC Delay days                                        | K_OTSFCD    | INT4 | 04 |
| • OTSLC Delay days                                        | K_OTSLCDD   | INT4 | 04 |
| • SO: Lead Time (Cust.PO x req.mat.avail)                 | K_SOLEAD1   | DEC  | 09 |
| • SO: Lead Time (Cust.PO x achieved GI)                   | K_SOLEAD2   | DEC  | 09 |
| • SO: Lead Time (Cust.PO x req. delivery)                 | K_SOLEAD3   | DEC  | 09 |
| • SO: Lead Time (Cust.PO x achieved delivery)             | K_SOLEAD4   | DEC  | 09 |
| • SO: LeadTime Requested (Creation X last customer order) | K_SOLEAD5   | DEC  | 09 |
| • SO: LeadTime FirstComm (Creation X scheduled li         | K_SOLEAD6   | DEC  | 09 |

## Functional and Technical rules on Workbench + Reporting

### Rules & Explanations

Main documentation:

Preparation

Global Sales Presentation

Design

OTIF Requirements

OTIF Specification for Rhodia (BI4)

Deployment

OTIF Proofing

## Business Rules

### Get the GBU code

For Rhodia

Using distribution channel and division from material, get the IECRA code in master data C\_CDSA

```
** NEW for subactivity (IECRA)
UNASSIGN <fs_cdsa>.
READ TABLE itb_cdsa ASSIGNING <fs_cdsa>
WITH KEY c_cdsa = <result_fields>-/bic/c_distchn
        division = <result_fields>-/bic/c_divisn.
IF sy-subrc = 0
AND <fs_cdsa> IS ASSIGNED.
    <result_fields>-g_cwwe01 = <fs_cdsa>-g_cwwe01.
ENDIF.
```

Using IECRA code, get the sub-activity in master data g\_cwwe01

```
UNASSIGN <fs_subact>.
READ TABLE itb_subact ASSIGNING <fs_subact>
WITH KEY g_cwwe01 = <result_fields>-g_cwwe01.
IF sy-subrc = 0
AND <fs_subact> IS ASSIGNED.
    <result_fields>-/bic/cpfctrl_2 = <fs_subact>-cpfctrl_2.
ENDIF.
```

For Solvay

using business area, get the technical business area in master data C\_techba

```
READ TABLE itb_gbu INTO itb_gbu_w
WITH KEY c_techba = <result_fields>-/bic/c_techba.

IF sy-subrc EQ 0.
    IF itb_gbu_w-cpfctrl_2 IS NOT INITIAL.
        <result_fields>-/bic/cpfctrl_2 = itb_gbu_w-cpfctrl_2.
    ENDIF.

    IF itb_gbu_w-c_rest_ba IS NOT INITIAL.

        <result_fields>-g_cwwe01 = itb_gbu_w-c_rest_ba .

        CALL FUNCTION 'CONVERSION_EXIT_ALPHA_INPUT'
            EXPORTING
                input = itb_gbu_w-c_rest_ba
            IMPORTING
                output = <result_fields>-/bic/c_subact2.
```

The function above is used to fill zeros left

The code below takes the GBU code from master data sub-activity (g\_cwwe01)

```
IF <result_fields>-g_cwwe01 IS NOT INITIAL.  
  UNASSIGN <fs_subact>.  
  READ TABLE itb_subact ASSIGNING <fs_subact>  
  WITH KEY g_cwwe01 = <result_fields>-g_cwwe01.  
  IF sy-subrc = 0  
    AND <fs_subact> IS ASSIGNED.  
      <result_fields>-/bic/cpfctrl_2 = <fs_subact>-cpfctrl_2.  
    ENDIF.  
  ENDIF.
```

### Calculation Rules

Define the ship end date type according to the content of fields actual shipment, planned shipment of GI date

```
IF <result_fields>-/bic/c_dtttype NE 'PGI'.  
  " Pick Actual Good Issue  
  
  IF v_shp_eact EQ '00000000'.  
    v_shp_eact = <result_fields>-dtshp_eact.  
    <result_fields>-/bic/c_dtttype2 = 'ASE'.  
    " Actual Shipment End  
  ENDIF.  
  
  IF v_shp_eact EQ '00000000'.  
    v_shp_eact = <result_fields>-dtshp_e_pl.  
    <result_fields>-/bic/c_dtttype2 = 'PSE'.  
    " Planned Shipment End  
  ENDIF.  
  
  IF v_shp_eact EQ '00000000'.  
    v_shp_eact = v_gi_date.  
    <result_fields>-/bic/c_dtttype2 = 'AGI'. " Actual Good Issue  
  ENDIF.  
  
ENDIF.
```

Define the good issue date reference

```
IF <result_fields>-act_gi_dte NE '00000000'.  
  v_gi_date = <result_fields>-act_gi_dte.  
ELSE.  
  IF <result_fields>-pld_gi_dte NE '00000000'.  
    v_gi_date = <result_fields>-pld_gi_dte.  
  ELSE.  
    v_gi_date = <result_fields>-gi_date.  
  ENDIF.  
ENDIF.
```

Redefine the good issue date reference when the order is a pickup

```
IF <result_fields>-/bic/c_pickflg = 'X' OR
   <result_fields>-/bic/c_doctyp2 = 'KE'.
```

```
   <result_fields>-/bic/c_dtttype = 'PGI'. "Picking Good Issue
   <result_fields>-/bic/c_dtttype2 = 'PGI'.
```

```
   IF <result_fields>-/bic/c_ersda NE '00000000'.
```

```
* Last Transfer Order Confirmation Date
```

```
   v_gi_date = <result_fields>-/bic/c_ersda.
```

```
   v_shp_eact = <result_fields>-/bic/c_ersda.
```

```
ELSE.
```

```
* Last Requested Good Issue Date
```

```
*   v_gi_date = <result_fields>-/bic/c_lstrqgi.
```

```
*   v_shp_eact = <result_fields>-/bic/c_lstrqgi.
```

```
* Last Actual Good Issue Date
```

```
   v_gi_date = <result_fields>-act_gi_dte.
```

```
   v_shp_eact = <result_fields>-act_gi_dte.
```

```
ENDIF.
```

Define the achieved delivery date and achieved shipment date

```
<result_fields>-/bic/c_achdlv = v_shp_eact.
<result_fields>-/bic/c_achship = v_gi_date.
```

Determine In Full requested considering the lower and upper tolerance

```
v_tol_uppr = <result_fields>-cml_or_qty *
             ( 100 + <result_fields>-uppr_bnd ) / 100.
v_tol_lowr = <result_fields>-cml_or_qty *
             ( 100 - <result_fields>-lowr_bnd ) / 100.

IF <result_fields>-dlv_qty BETWEEN v_tol_lowr AND v_tol_uppr.
   <result_fields>-/bic/k_infullr = 1.
ELSE.
   <result_fields>-/bic/k_infullr = 0.
ENDIF.
```

Generate the in full requested detailed with terms light, heavy or yes

```
IF <result_fields>-dlv_qty < v_tol_lowr.
   <result_fields>-/bic/c_infulrd = 'Light'.
ENDIF.
IF <result_fields>-dlv_qty > v_tol_uppr.
   <result_fields>-/bic/c_infulrd = 'Heavy'.
ENDIF.
IF <result_fields>-dlv_qty BETWEEN v_tol_lowr AND v_tol_uppr.
   <result_fields>-/bic/c_infulrd = 'Yes'.
ENDIF.
```

Determine In Full confirmed measure considering the lower and upper tolerance

```

v_tol_uppr = <result_fields>-cml_cf_qty *
              ( 100 + <result_fields>-uppr_bnd ) / 100.
v_tol_lowr = <result_fields>-cml_cf_qty *
              ( 100 - <result_fields>-lowr_bnd ) / 100.

IF <result_fields>-dlv_qty BETWEEN v_tol_lowr AND v_tol_uppr.
  <result_fields>-/bic/k_infullc = 1.
ELSE.
  <result_fields>-/bic/k_infullc = 0.
ENDIF.

```

Generate the in full confirmed detailed with terms light, heavy or yes

```

IF <result_fields>-dlv_qty < v_tol_lowr.
  <result_fields>-/bic/c_infulcd = 'Light'.
ENDIF.
IF <result_fields>-dlv_qty > v_tol_uppr.
  <result_fields>-/bic/c_infulcd = 'Heavy'.
ENDIF.
IF <result_fields>-dlv_qty BETWEEN v_tol_lowr AND v_tol_uppr.
  <result_fields>-/bic/c_infulcd = 'Yes'.
ENDIF.

```

Determine the differences between delivery quantity and requested quantity

```

<result_fields>-/bic/k_gapqty    = <result_fields>-dlv_qty -
                                   <result_fields>-cml_or_qty.

<result_fields>-/bic/k_gapqty2   = <result_fields>-dlv_qty -
                                   <result_fields>-cml_cf_qty.

<result_fields>-/bic/k_gapqty3   = <result_fields>-cml_or_qty -
                                   <result_fields>-cml_cf_qty.

```

Generate on time delivery customer request (OTD CR)

```

IF v_lstreq          EQ '00000000' OR
   v_shp_eact        EQ '00000000'.
   v_dif_date = '999'.
ELSE.
   v_dif_date = v_shp_eact - v_lstreq .
ENDIF.

IF v_dif_date BETWEEN <result_fields>-/bic/k_tolday2 AND
   <result_fields>-/bic/k_tolday.
   <result_fields>-/bic/k_otdcr  = 1. "on time delivey
   <result_fields>-/bic/c_otdcrac = 'OTD'.

ELSE.

   <result_fields>-/bic/k_otdcr = 0. "not on time delivey

   IF v_dif_date < <result_fields>-/bic/k_tolday2.
     <result_fields>-/bic/c_otdcrac = 'EARLY'.

     IF <result_fields>-/bic/c_pickflg = 'X'.
       <result_fields>-/bic/k_otdcr  = 1. "on time delivey
       <result_fields>-/bic/c_otdcrac = 'OTD'.
     ENDIF.

   ENDIF.

   IF v_dif_date > <result_fields>-/bic/k_tolday.
     <result_fields>-/bic/c_otdcrac = 'LATE'.
   ENDIF.
ENDIF.

```

Consider special NON OTIF reasons as OTIF

```

READ TABLE itb_augru INTO itb_augru_w
WITH KEY logsys = <result_fields>-logsys
      c_augru = <result_fields>-/bic/c_augru.

IF sy-subrc NE 0.
  itb_augru_w-c_otifok = ''.
ENDIF.

IF itb_augru_w-c_otifok = 'X' .

  <result_fields>-/bic/k_otdcr = 1.
  <result_fields>-/bic/k_otdcrdd = 0.
  <result_fields>-/bic/c_otdcrac = 'OTD'.
  <result_fields>-/bic/c_otdcrdg = 'A'.

  <result_fields>-/bic/k_otdfc = 1.
  <result_fields>-/bic/k_otdfcdd = 0.
  <result_fields>-/bic/c_otdfcac = 'OTD'.
  <result_fields>-/bic/c_otdfcdg = 'A'.

  <result_fields>-/bic/k_otdlc = 1.
  <result_fields>-/bic/k_otdlcdd = 0.
  <result_fields>-/bic/c_otdlcac = 'OTD'.
  <result_fields>-/bic/c_otdlcdg = 'A'.

  <result_fields>-/bic/k_otscr = 1.
  <result_fields>-/bic/k_otscrdd = 0.
  <result_fields>-/bic/c_otscrac = 'OTS'.
  <result_fields>-/bic/c_otscrddg = 'A'.

  <result_fields>-/bic/k_otsfc = 1.
  <result_fields>-/bic/k_otsfcdd = 0.
  <result_fields>-/bic/c_otsfcac = 'OTS'.
  <result_fields>-/bic/c_otsfcddg = 'A'.

  <result_fields>-/bic/k_otslc = 1.
  <result_fields>-/bic/k_otslcdd = 0.
  <result_fields>-/bic/c_otslcac = 'OTS'.
  <result_fields>-/bic/c_otslcdg = 'A'.

ENDIF.

```

Generate group of delays for OTDCR

```

IF v_dif_date < 0.
  v_dif_date = v_dif_date * ( -1 ).
ENDIF.

SELECT /bic/c_delgrp
  INTO <result_fields>-/bic/c_otdcrdg
FROM /bic/pc_delgrp
WHERE /bic/k_lowdays <= v_dif_date
  AND /bic/k_higdays >= v_dif_date
  AND /bic/c_delgrp <> ''.
ENDSELECT.

```

Generate OTDCR delay days

```

<result_fields>-/bic/k_otdcrdd = v_dif_date.

```

The same rules are applied for OTDFC, OTDLC, OTSCR, OTSFC, OTSLC just changing the date to be considered, see below:

For OTDFC uses the dates  $v\_dif\_date = v\_fstap - v\_shp\_eact$  (difference between max first ATP and shipment end date)

For OTDLC uses the dates  $v\_dif\_date = v\_lstap - v\_shp\_eact$  (difference between max last ATP and shipment end date)

Define the dates used in OTS CR (ON TIME SHIPMENT Customer request)

```

IF <result_fields>-/bic/c_dtttype NE 'PGI'.
  <result_fields>-/bic/c_dtttype = 'AGI'.
ENDIF.

```

```

DATA: v_lstrqgi TYPE /bic/oic_lstrqgi,
      v_firstgi TYPE /bic/oic_firstgi,
      v_lastgi  TYPE /bic/oic_lastgi,
      v_endcomp TYPE /bic/oik_endcomp.

```

```

v_lstrqgi = <result_fields>-/bic/c_lstrqgi.
v_firstgi = <result_fields>-/bic/c_firstgi.
v_lastgi  = <result_fields>-/bic/c_lastgi.

```

For OTSCR uses the dates  $v\_dif\_date = v\_lstrqgi - v\_gi\_date$  (difference between max actual GI date and last req delivery)

For OTSFC uses the dates  $v\_dif\_date = v\_firstgi - v\_gi\_date$  (difference between max actual GI date and first ATP GI)

For OTSLC uses the dates  $v\_dif\_date = v\_lastgi - v\_gi\_date$  (difference between max actual GI date and last ATP GI)

Generate OTIF necessary comment or reason

```

CLEAR v_otfndcd.

IF <result_fields>-/bic/k_otdcr = 0 OR
   <result_fields>-/bic/k_otdfc = 0 OR
   <result_fields>-/bic/k_otdlc = 0 OR
   <result_fields>-/bic/k_otscr = 0 OR
   <result_fields>-/bic/k_otsfc = 0 OR
   <result_fields>-/bic/k_otslc = 0 OR
   <result_fields>-/bic/k_infullc = 0 OR
   <result_fields>-/bic/k_infullr = 0.

   v_otfndcd = 'X'.
ENDIF.

IF v_otfndcd = 'X' AND
   <result_fields>-/bic/c_augru = ''.

   <result_fields>-/bic/c_otfndcd = 'X'. ''REASON CODE NEEDED'.
ENDIF.

```

Generate NON OTIF Type

```

CASE <result_fields>-/bic/c_augru.
  WHEN '740' OR '741' OR '742' OR '743' OR '744' OR '745'.
    <result_fields>-/bic/c_notityp = 'RED'. ''REDRESS'.
  WHEN '750' .
    <result_fields>-/bic/c_notityp = 'REDF'. ''REDRESS FCA'.
ENDCASE.

IF <result_fields>-/bic/c_notityp IS INITIAL.
  IF v_otfndcd = 'X'.
    <result_fields>-/bic/c_notityp = 'NOFP'. ''NON OTIF-Process'.
  ELSE.
    <result_fields>-/bic/c_notityp = 'OTIFOK'. ''OTIF-Process OK'.
  ENDIF.
ENDIF.

```

Determine LEADTIME calculations

Leadtime 1: difference between the customer PO Date (order line level - VBKD-BSTDK), and the requested material availability date

```

IF <result_fields>-/bic/c_podate EQ '00000000' OR
   <result_fields>-matav_date EQ '00000000'.
   <result_fields>-/bic/k_solead1 = '999'.
ELSE.
   <result_fields>-/bic/k_solead1 =
     <result_fields>-matav_date - <result_fields>-/bic/c_podate.
ENDIF.

```

Leadtime 2: difference between the customer PO Date (VBKD-BSTDK), and the achieved GI date (Max Actual GI Date)

```

IF <result_fields>-/bic/c_podate EQ '00000000' OR
  <result_fields>-act_gi_dte      EQ '00000000'.
  <result_fields>-/bic/k_solead2 = '999'.
ELSE.
  <result_fields>-/bic/k_solead2 =
    <result_fields>-act_gi_dte - <result_fields>-/bic/c_podate.
ENDIF.

```

Leadtime 3: difference between the customer PO Date, and the requested delivery date (Max Last Req Delivery)

```

IF <result_fields>-/bic/c_podate EQ '00000000' OR
  <result_fields>-dsdel_date      EQ '00000000'.
  <result_fields>-/bic/k_solead3 = '999'.
ELSE.
  <result_fields>-/bic/k_solead3 =
    <result_fields>-dsdel_date -
    <result_fields>-/bic/c_podate.
ENDIF.

```

Leadtime 4: difference between the customer PO Date and the achieved delivery date (Achieved Delivery Date)

```

IF <result_fields>-/bic/c_podate EQ '00000000' OR
  <result_fields>-act_dl_dte      EQ '00000000'.
  <result_fields>-/bic/k_solead4 = '999'.
ELSE.
  <result_fields>-/bic/k_solead4 =
    <result_fields>-act_dl_dte - <result_fields>-/bic/c_podate.
ENDIF.

```

Leadtime 5 : LeadTime Requested = Order line creation date - order line last customer req Goods Issue date

```

IF <fs_order>-createdon EQ '00000000' OR
  <result_fields>-/bic/c_lstrqgi  EQ '00000000'.
  <result_fields>-/bic/k_solead5 = '999'.
ELSE.
  <result_fields>-/bic/k_solead5 =
    <result_fields>-/bic/c_lstrqgi - <fs_order>-createdon .
ENDIF.

```

Leadtime 6 : LeadTime FirstCommitted = Order line creation date - schedule line 1st ATP (confirmed) GI date

```

IF <fs_order>-createdon EQ '00000000' OR
  <result_fields>-/bic/c_fstatp    EQ '00000000'.
  <result_fields>-/bic/k_solead6 = '999'.
ELSE.
  <result_fields>-/bic/k_solead6 =
    <result_fields>-/bic/c_fstatp - <fs_order>-createdon.
ENDIF.

```

Leadtime 7 : LeadTime Actual = Order line creation date - actual GI date

```

IF <fs_order>-createdon EQ '00000000' OR
  v_gi_date      EQ '00000000'.
  <result_fields>-/bic/k_solead7 = '999'.
ELSE.
  <result_fields>-/bic/k_solead7 =
    v_gi_date - <fs_order>-createdon.
ENDIF.

```

Leatime 8 : Last Req GI date - Customer PO

```

IF <result_fields>-/bic/c_podate EQ '00000000' OR
  <result_fields>-/bic/c_lstrqgi EQ '00000000'.
  <result_fields>-/bic/k_solead8 = '999'.
ELSE.
  <result_fields>-/bic/k_solead8 =
    <result_fields>-/bic/c_lstrqgi -
    <result_fields>-/bic/c_podate.
ENDIF.

```

Leatime 9 : First Req GI date - Customer PO

```

IF <result_fields>-/bic/c_podate EQ '00000000' OR
  <fs_order>-c_fstrqgi      EQ '00000000'.
  <result_fields>-/bic/k_solead9 = '999'.
ELSE.
  <result_fields>-/bic/k_solead9 =
    <fs_order>-c_fstrqgi - <result_fields>-/bic/c_podate.
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 Global Sales queries is QCT\_MATNR4 (see below the setup for it).

BW Quantity Conversion

BW Updated Qty Unit by Material

## Dependencies with other applications

- It was created some master data in order to have the attributes shared with several applications: Sales Order line (C\_ITM\_SD), PO Line (C\_ITM\_GS)
- 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) in order to take the PO schedule lines and identify all the transfers
- There is a link with TIERS in order to get the main shipment for each delivery

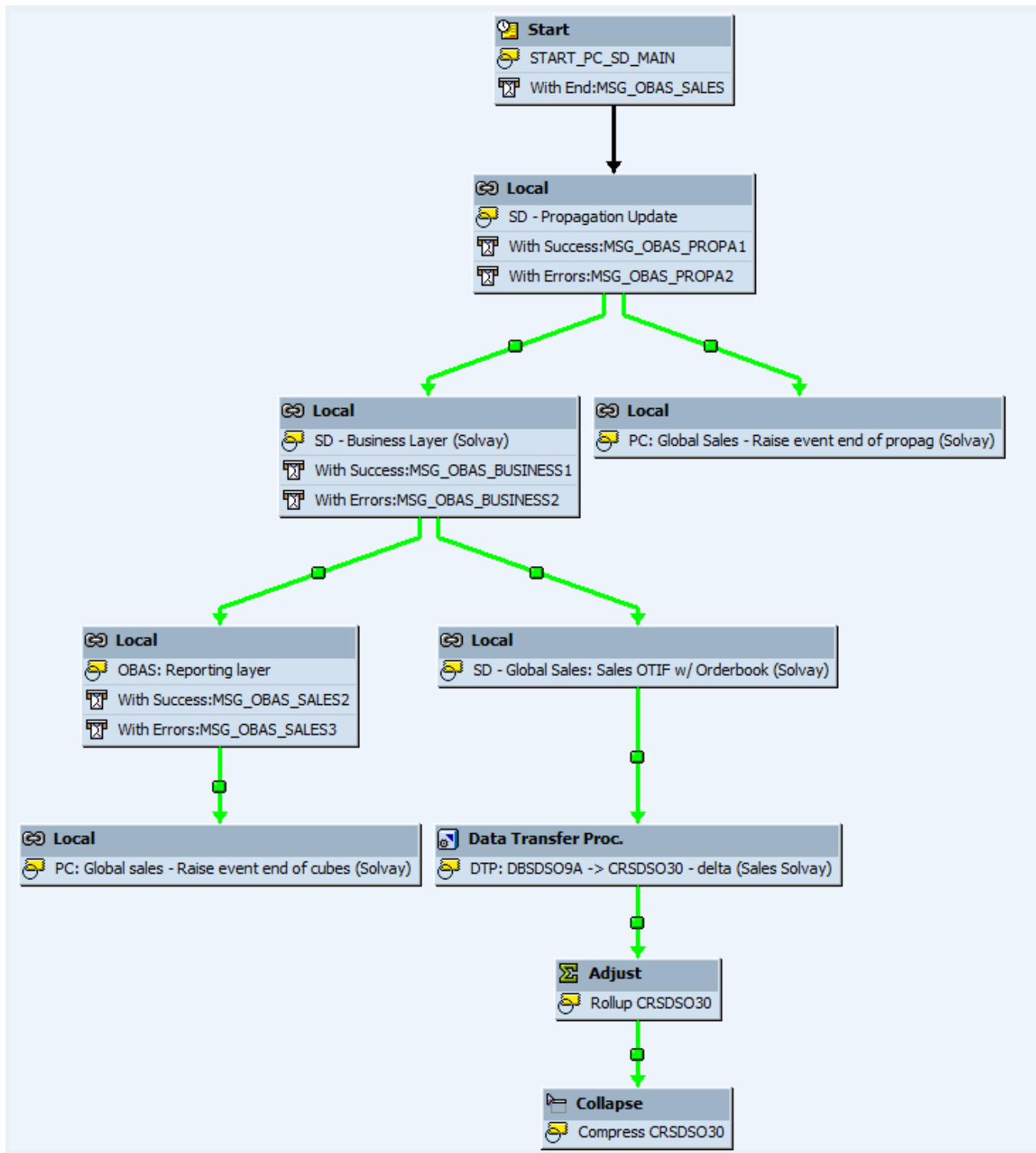
## Data loadings

### Info providers and objects loaded

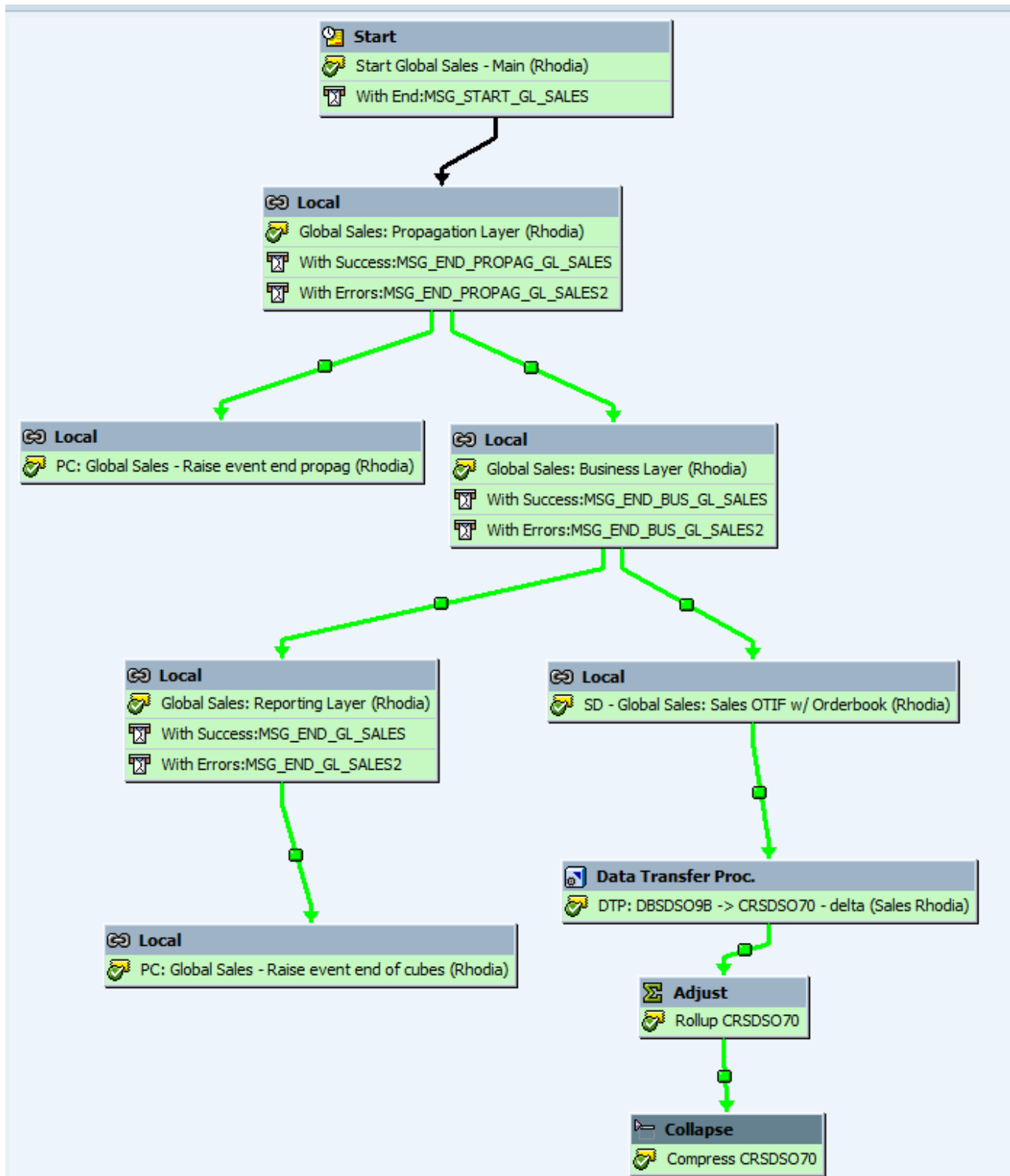
#### 1 - Main Process Chain

This process chain is responsible to trigger and synchronize all Global Sales 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) and TIERS.

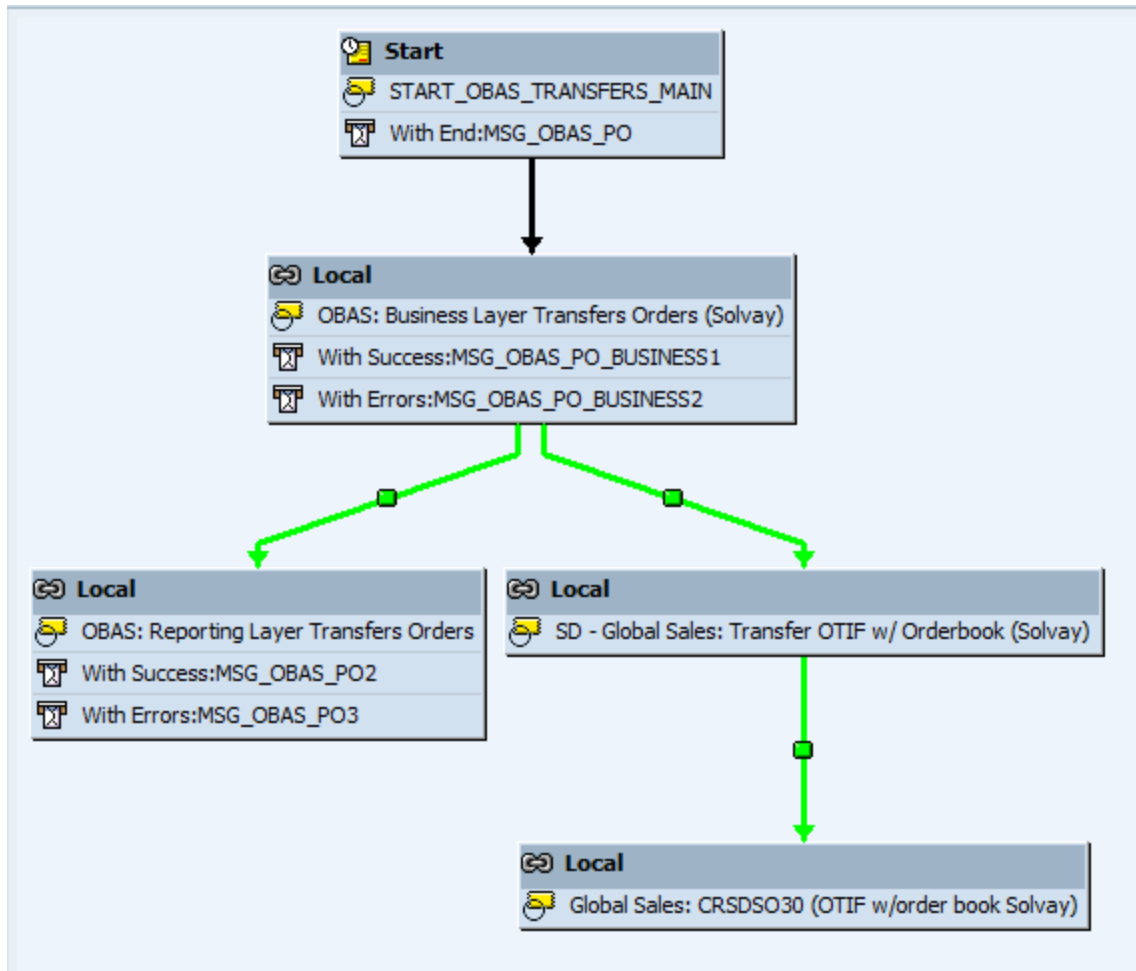
Sales - Part Solvay: PC\_SD\_MAIN (SD - Main Process Chain - UPTDATE DATA -)



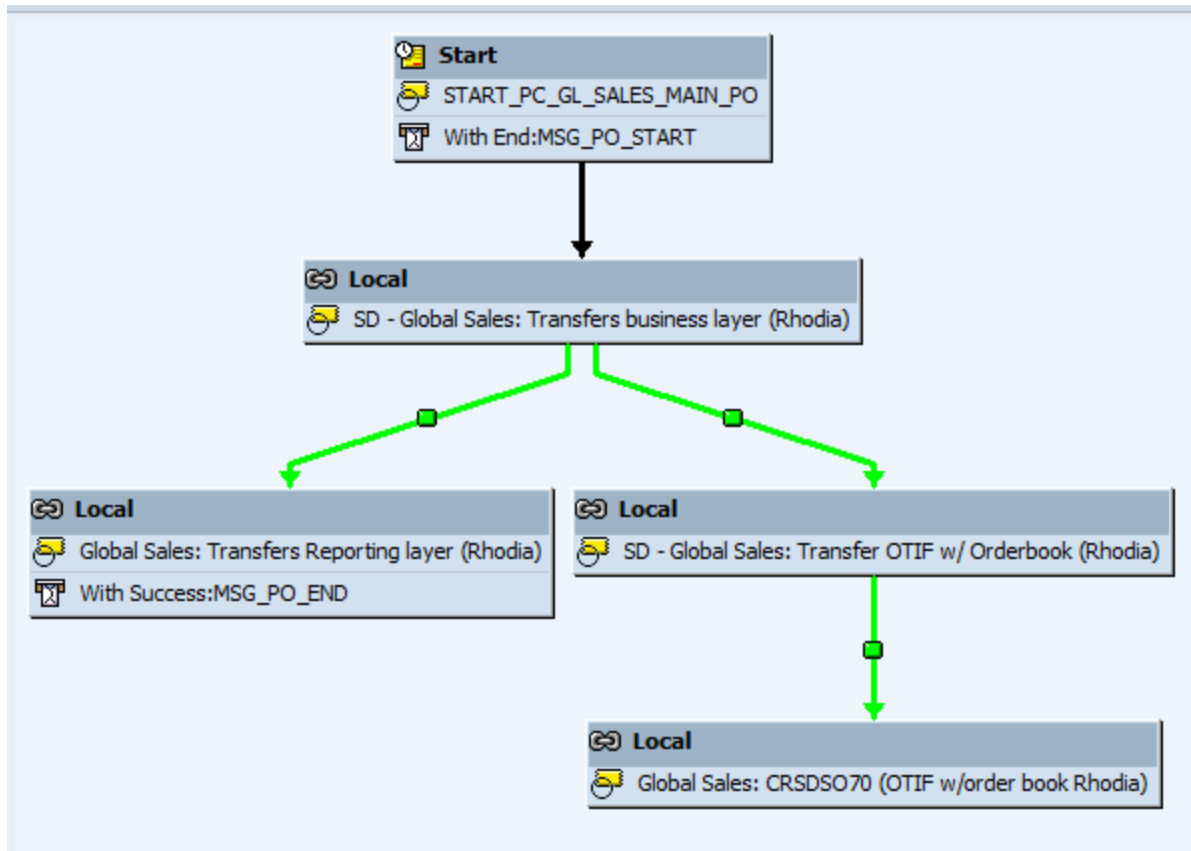
Sales - Part Rhodia : PC\_GLOBAL\_SALES\_MAIN (PC: Global Sales: Main (Rhodia))



Transfer - Part Solvay: PC\_OBAS\_TRANSFERS\_MAIN (OBAS: Transfers Orders Main chain)



Transfer - Part Rhodia: PC\_GL\_SALES\_MAIN\_PO (PC: Global Sales: Main transfers (Rhodia))



## 2 - Propagation Layer

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

For OTIF process, all the processes in propagation layer are run in general Global Sales Process Chain

## 3 - Business Layer

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

Main Processes for OTIF

PC\_GL\_SALES\_DBSDSO20 (SD - Global Sales: OTIF (Solvay)) and PC\_GL\_SALES\_DBSDSO60 (SD - Global Sales: OTIF (Rhodia))

**Start**  
START PC\_GL\_SALES\_DBSDSO20 (Solvay)

**Data Transfer Proc.**  
DTP: DBSDSO11 -> DBSDSO20 - delta (Solvay) TAS

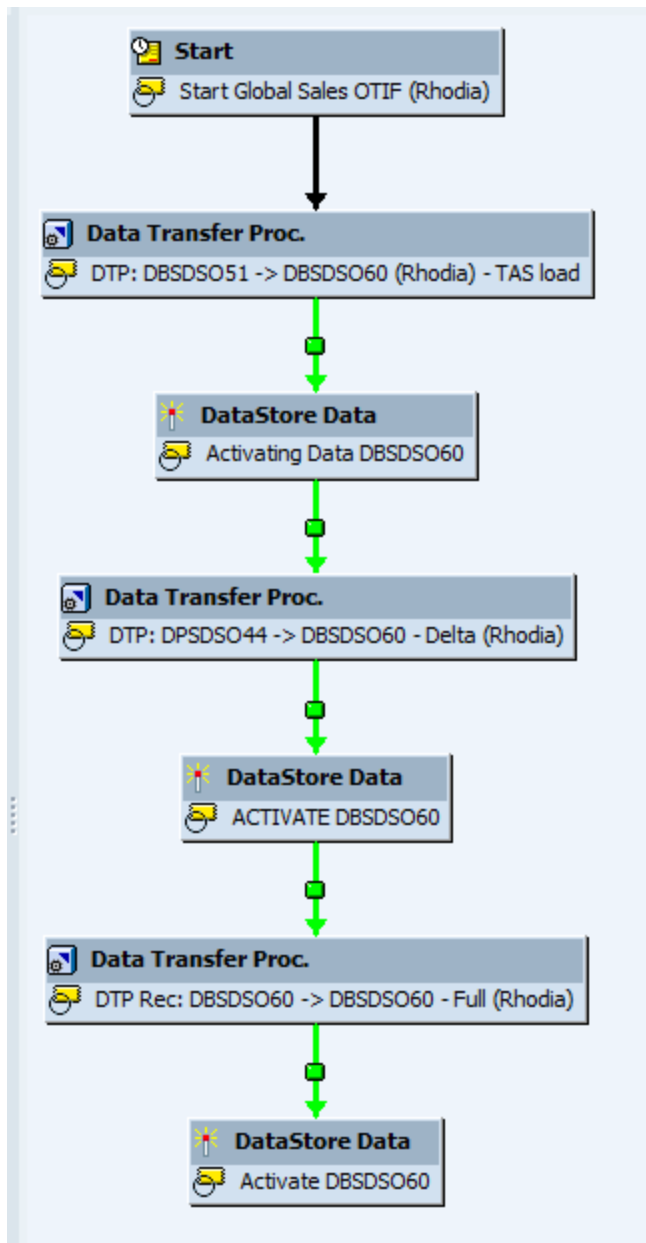
**DataStore Data**  
Activate DBSDSO20

**Data Transfer Proc.**  
DTP: DPSDSO04 -> DBSDSO20 - Delta (Solvay)

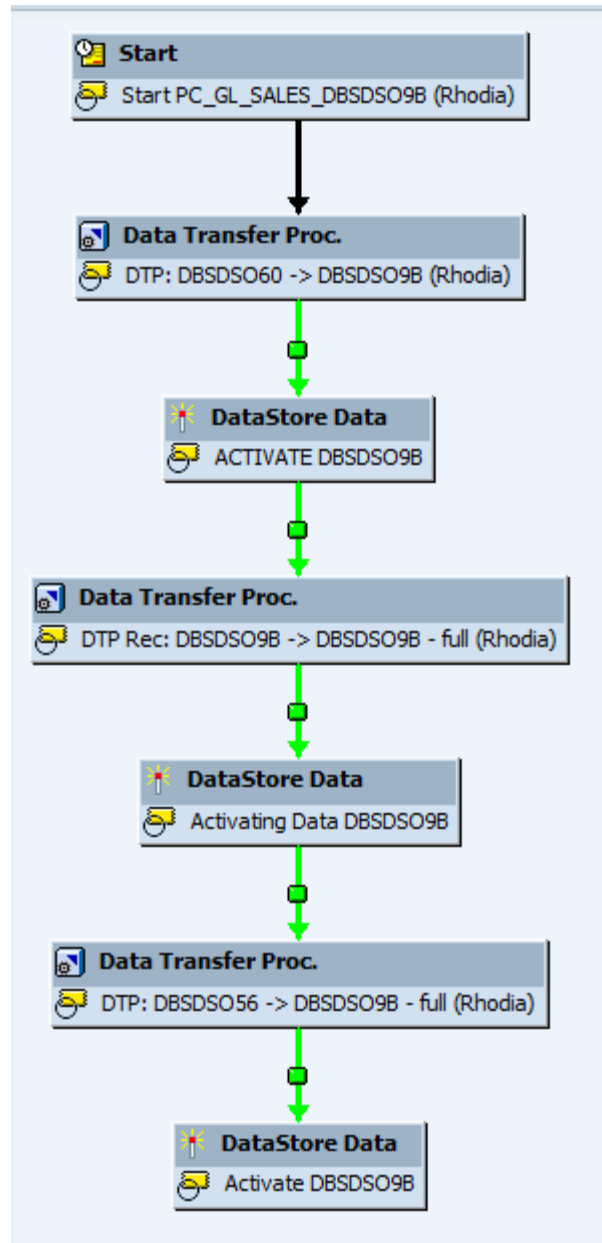
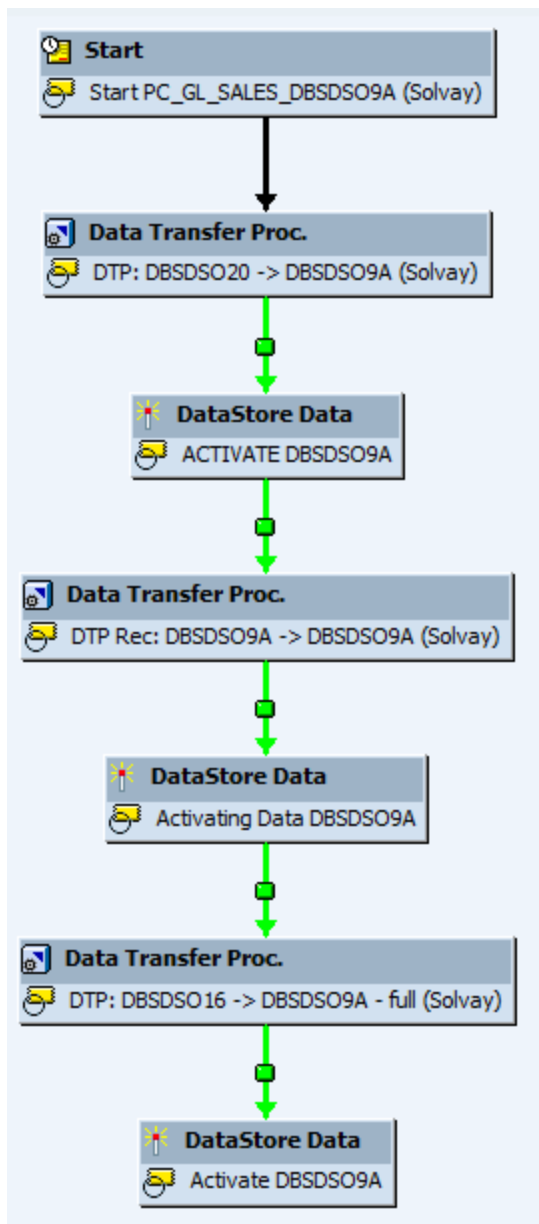
**DataStore Data**  
ACTIVATE DBSDSO20

**Data Transfer Proc.**  
DTP Rec: DBSDSO20 -> DBSDSO20 - Full (Solvay)

**DataStore Data**  
Activating Data DBSDSO20



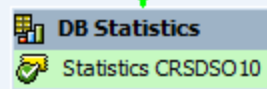
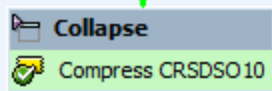
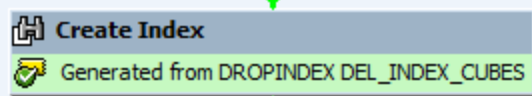
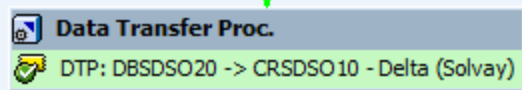
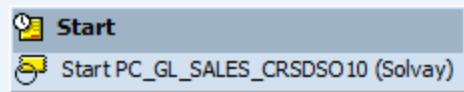
PC\_GL\_SALES\_DBSDSO9A (SD - Global Sales: Sales OTIF w/ Orderbook (Solvay)) and PC\_GL\_SALES\_DBSDSO9B (SD - Global Sales: Sales OTIF w/ Orderbook (Rhodia))

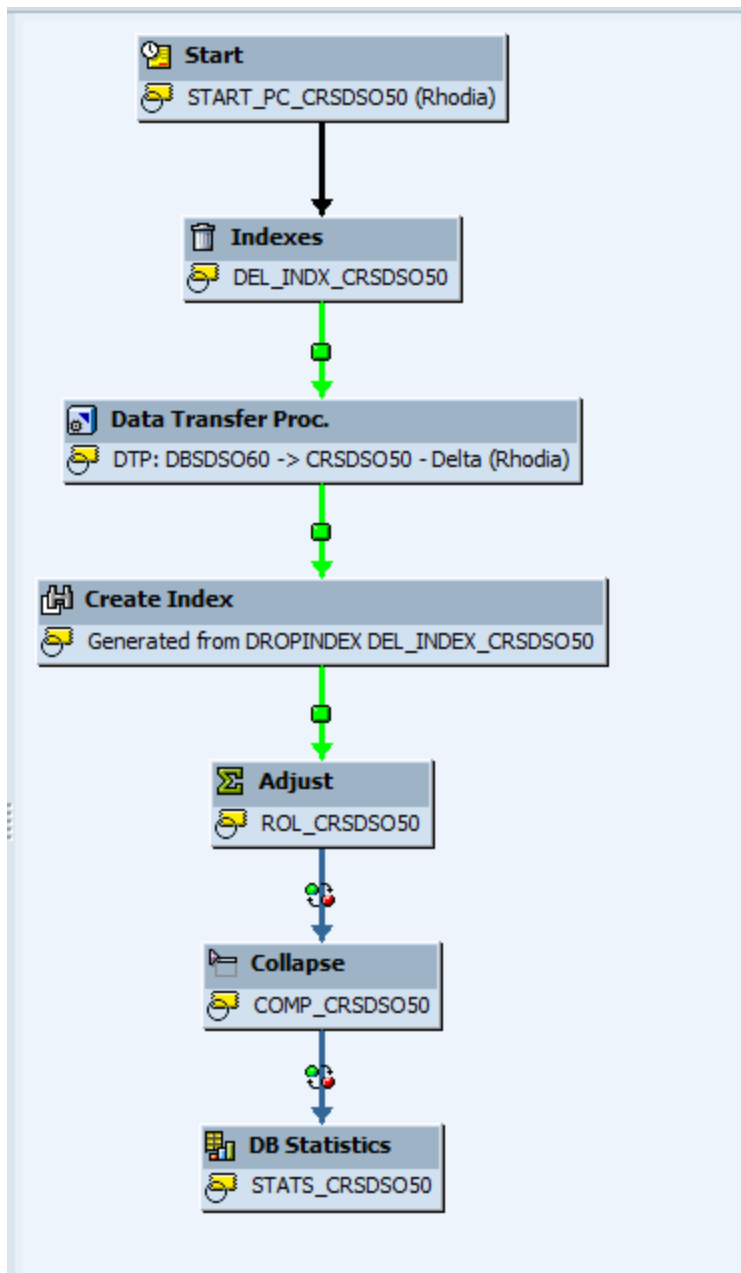


#### 4 - Reporting Level

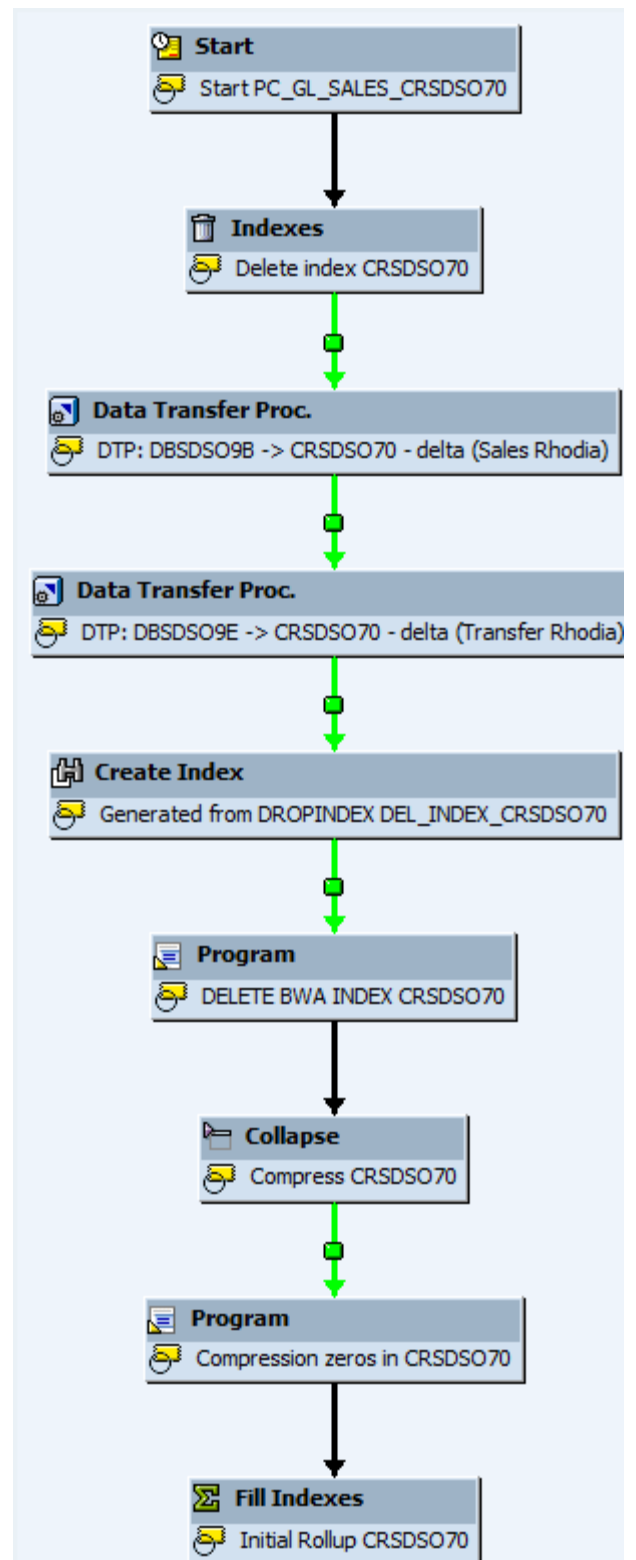
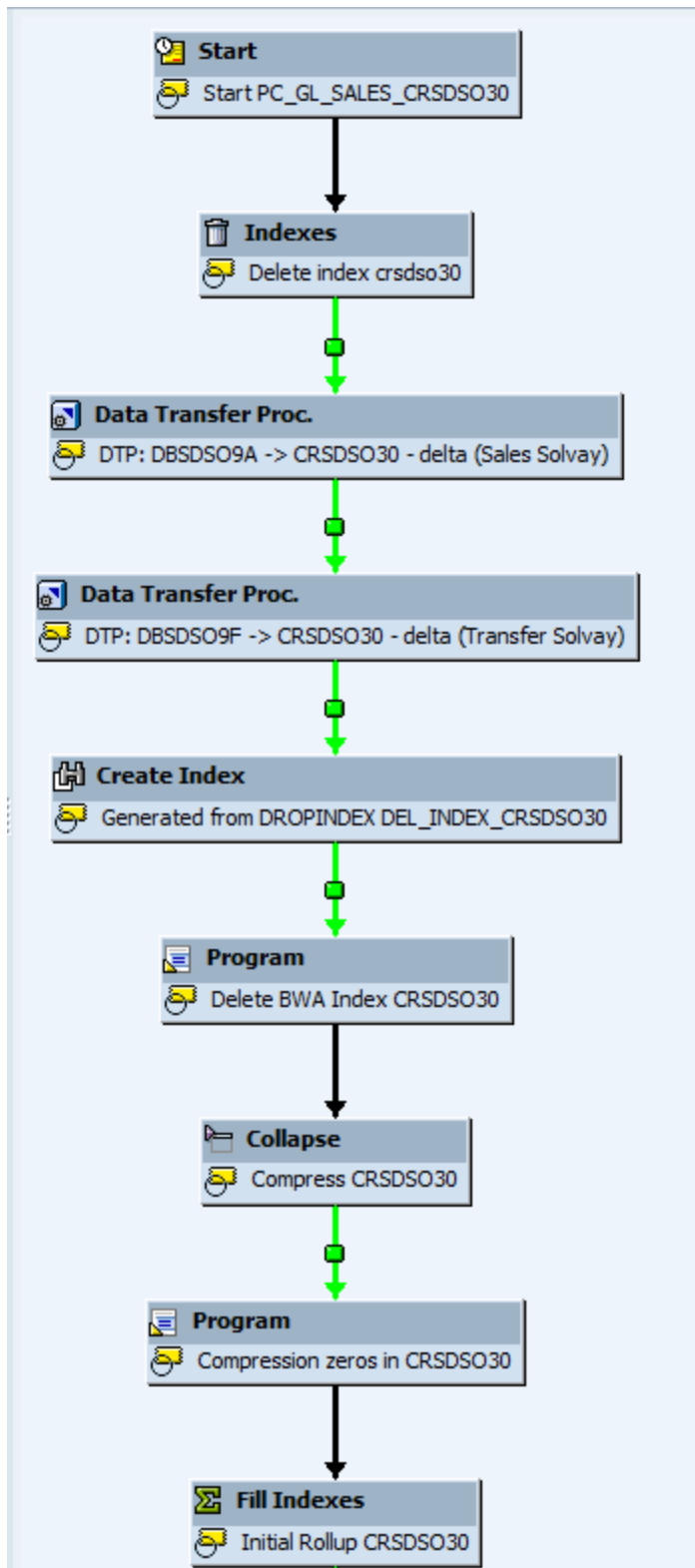
This process chain is responsible to load all the cubes

The most important ones are: PC\_GL\_SALES\_CRSDSO10 (SD - Global Sales: Cube CRSDSO10 OTIF Sales (Solvay)) and PC\_GL\_SALES\_CRSDSO50 (SD - Global Sales: Cube CRSDSO50 OTIF Sales (Rhodia))





PC\_GL\_SALES\_CRSDSO30 (Global Sales: CRSDSO30 (OTIF w/order book Solvay)) and PC\_GL\_SALES\_CRSDSO70 (Global Sales: CRSDSO70 (OTIF w/order book Rhodia))



## 5 - Master data

The most part of master data loads are splitted inside business process chains

## 6 - Text & maintenance

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

## Loading frequency

Daily loading 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

| Key Figure                           | Estimation                                                                                                                                                                                                                                    |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ~ Average Process Chain Runtime      | 90 to 120 minutes                                                                                                                                                                                                                             |
| ~ Average nb of rows loaded per load | Sales Order: Solvay 6K, Rhodia 2K<br><br>Sales order deliveries: Solvay 40K, Rhodia 10K<br><br>Sales order invoices: Solvay 9K, Rhodia 4K<br><br>1.200K records (all providers)                                                               |
| ~ Total nb of rows loaded (if full)  | Data is stored since 2014<br><br>Propagation Layer - Solvay 20.000K, Rhodia 10.000K<br><br>Business Layer - Solvay 15.000K, Rhodia 8.000K<br><br>Reporting - Solvay 15.000K, Rhodia 8.000K<br><br>Master data - Solvay 11.000K, Rhodia 5.000K |
| ~ Average Runtime for 10k lines      | 60 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

### Virtual Layer

MVSDSO50

MVSDSO51

MVSDSO60

### Main datasources based on SAP tables

- 2LIS\_11\_VAHDR - Sales Document Header Data
- 2LIS\_11\_VAITM - Sales Document Item Data
- 2LIS\_11\_VASTI - Sales Document Item Status
- 2LIS\_11\_VASCL - Sales Document Schedule Line
- 2LIS\_11\_VAKON - Sales Document Condition
- 2LIS\_11\_V\_SSL - Sales order delivery
- 2LIS\_12\_VCITM - Delivery Item Data
- 2LIS\_13\_VDITM - Billing Document Item Data
- 2LIS\_13\_VDKON - Billing Document Condition
- DTS\_BW\_EKKO\_EKPO - PO Order & details (EKKO/EKPO/EKET)
- DTS\_BW\_VBAK\_VBAP - Sales Order & Items

Main dimensions for the data

- C\_ITM\_SD - Order Line
- C\_ROUTE - Route
- C\_SHIPNU2 - Shipment Number
- C\_DELITM2 - Delivery Item
- C\_SHIPCD2 - Shipping conditions
- 0TRZONE - Transportation Zone
- C\_GBR11 - GBR: Customer gbu account type (Sold-to)
- C\_GBR12 - GBR: Customer gbu account type (Payer)
- C\_GBR13 - GBR: Customer gbu account type (Ship-to)
- C\_GBR14 - GBR: Customer end-use Mat Grp (Ship-to)
- C\_GBR15 - GBR: Ship-to KA
- C\_GBR19 - GBU Material Group
- C\_GBR20 - GBU Material Sub-group
- C\_GBR21 - GBR Enterprise segment (CS)
- C\_CUSTSAL - Customer (Sales View)
- C\_CUSTSA2 - Customer sales area (ship-to)
- C\_CUSTSA3 - Customer Sales area (Payer)
- C\_ITM\_GS - PO / SO order line

Reporting

Calculated & Restricted key figures

| Type | Tech Name            | Description                               | Formula                                            |
|------|----------------------|-------------------------------------------|----------------------------------------------------|
| CKF  | BW_CKF_MVSDSO50_0001 | Confirmed Qty (PUQ)                       | CML_CF_QTY                                         |
| CKF  | BW_CKF_MVSDSO50_0002 | Order Qty (PUQ)                           | CML_OR_QTY                                         |
| CKF  | BW_CKF_MVSDSO50_0003 | Delivery Qty (PUQ)                        | DLV_QTY                                            |
| CKF  | BW_CKF_MVSDSO50_0010 | In Full                                   | IF K_INFULLR = 1 AND K_INFULLC = 1, then K_COUNTER |
| CKF  | BW_CKF_MVSDSO50_0011 | Not In Full                               | IF K_INFULLR = 0 OR K_INFULLC = 0, then 0          |
| CKF  | BW_CKF_MVSDSO50_0012 | Not in Full but OTDCR                     | IF K_INFULLR = 0 AND K_OTDCR = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0013 | In Full & OTDCR                           | IF K_INFULLR = 1 AND K_OTDCR = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0014 | In Full & OTDFC                           | IF K_INFULLR = 1 AND K_OTDFC = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0015 | In Full & OTDLC                           | IF K_INFULLR = 1 AND K_OTDLC = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0016 | Not In Full but OTDLC                     | IF K_INFULLR = 0 AND K_OTDLC = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0017 | Not in Full but OTDFC                     | IF K_INFULLR = 0 AND K_OTDFC = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0018 | In Full & OTSCR                           | IF K_INFULLR = 1 AND K_OTSCR = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0019 | In Full & OTSFC                           | IF K_INFULLR = 1 AND K_OTSFC = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0020 | In Full & OTSLC                           | IF K_INFULLR = 1 AND K_OTSLC = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0021 | Not In Full but OTSCR                     | IF K_INFULLR = 0 AND K_OTSCR = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0022 | Not In Full but OTSFC                     | IF K_INFULLR = 0 AND K_OTSFC = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0023 | Not In Full but OTSLC                     | IF K_INFULLR = 0 AND K_OTSLC = 1, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0024 | Not In Full Not OTDCR                     | IF K_INFULLR = 0 AND K_OTDCR = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0025 | Not In Full Not OTDFC                     | IF K_INFULLR = 0 AND K_OTDFC = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0026 | Not In Full Not OTDLC                     | IF K_INFULLR = 0 AND K_OTDLC = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0027 | Not In Full Not OTSCR                     | IF K_INFULLR = 0 AND K_OTSCR = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0028 | Not In Full Not OTSFC                     | IF K_INFULLR = 0 AND K_OTSFC = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0029 | Not In Full Not OTSLC                     | IF K_INFULLR = 0 AND K_OTSLC = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0030 | In Full but Not OTDCR                     | IF K_INFULLR = 1 AND K_OTDCR = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0031 | In Full but Not OTDFC                     | IF K_INFULLR = 1 AND K_OTDFC = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0032 | In Full but Not OTDLC                     | IF K_INFULLR = 1 AND K_OTDLC = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0033 | In Full but Not OTSCR                     | IF K_INFULLR = 1 AND K_OTSCR = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0034 | In Full but Not OTSFC                     | IF K_INFULLR = 1 AND K_OTSFC = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0035 | In Full but Not OTSLC                     | IF K_INFULLR = 1 AND K_OTSLC = 0, then K_COUNTER   |
| CKF  | BW_CKF_MVSDSO50_0040 | Lead Time 1 (Cust.PO X req.mat.avail)     | K_SOLEAD1                                          |
| CKF  | BW_CKF_MVSDSO50_0041 | Lead Time 2 (Cust.PO X achieved GI)       | K_SOLEAD2                                          |
| CKF  | BW_CKF_MVSDSO50_0042 | Lead Time 3 (Cust.PO X req.delivery)      | K_SOLEAD3                                          |
| CKF  | BW_CKF_MVSDSO50_0043 | Lead Time 4 (Cust.PO X achieved delivery) | K_SOLEAD4                                          |

|     |                      |                                           |                                                |
|-----|----------------------|-------------------------------------------|------------------------------------------------|
| CKF | BW_CKF_MVSDSO50_0044 | Lead Time (Creation X Last Cust Req GI)   | K_SOLEAD5                                      |
| CKF | BW_CKF_MVSDSO50_0045 | Lead Time (Creation X Sched line 1st ATP) | K_SOLEAD6                                      |
| CKF | BW_CKF_MVSDSO50_0046 | Lead Time (Creation X Actual GI date)     | K_SOLEAD8                                      |
| CKF | BW_CKF_MVSDSO50_0047 | Rush Orders                               | IF K_SOLEAD5 < 2, THAN 1                       |
| CKF | BW_CKF_MVSDSO50_0050 | OTD CR - Class 1                          | IF OTD CR - Class 1 = 1 and K_OTDCR = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0051 | OTD CR - Class 2                          | IF OTD CR - Class 2 = 1 and K_OTDCR = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0052 | OTD CR - Class 3                          | IF OTD CR - Class 3 = 1 and K_OTDCR = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0053 | OTD CR - Class 4                          | IF OTD CR - Class 4 = 1 and K_OTDCR = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0054 | OTD FC - Class 1                          | IF OTD FC - Class 1 = 1 and K_OTDFC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0055 | OTD FC - Class 2                          | IF OTD FC - Class 2 = 1 and K_OTDFC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0056 | OTD FC - Class 3                          | IF OTD FC - Class 3 = 1 and K_OTDFC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0057 | OTD FC - Class 4                          | IF OTD FC - Class 4 = 1 and K_OTDFC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0058 | OTS CR - Class 1                          | IF OTS CR - Class 1 = 1 and K_OTSCR = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0059 | OTS CR - Class 2                          | IF OTS CR - Class 2 = 1 and K_OTSCR = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0060 | OTS CR - Class 3                          | IF OTS CR - Class 3 = 1 and K_OTSCR = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0061 | OTS CR - Class 4                          | IF OTS CR - Class 4 = 1 and K_OTSCR = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0062 | OTD LC - Class 1                          | IF OTD LC - Class 1 = 1 and K_OTDLC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0063 | OTD LC - Class 2                          | IF OTD LC - Class 2 = 1 and K_OTDLC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0064 | OTD LC - Class 3                          | IF OTD LC - Class 3 = 1 and K_OTDLC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0065 | OTD LC - Class 4                          | IF OTD LC - Class 4 = 1 and K_OTDLC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0066 | OTS FC - Class                            | IF OTS FC - Class 1 = 1 and K_OTSF = 0 THEN 1  |
| CKF | BW_CKF_MVSDSO50_0067 | OTS FC - Class 2                          | IF OTS FC - Class 2 = 1 and K_OTSF = 0 THEN 1  |
| CKF | BW_CKF_MVSDSO50_0068 | OTS FC - Class 3                          | IF OTS FC - Class 3 = 1 and K_OTSF = 0 THEN 1  |
| CKF | BW_CKF_MVSDSO50_0069 | OTS FC - Class 4                          | IF OTS FC - Class 4 = 1 and K_OTSF = 0 THEN 1  |
| CKF | BW_CKF_MVSDSO50_0070 | OTS LC - Class                            | IF OTS LC - Class 1 = 1 and K_OTSLC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0071 | OTS LC - Class 2                          | IF OTS LC - Class 2 = 1 and K_OTSLC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0072 | OTS LC - Class 3                          | IF OTS LC - Class 3 = 1 and K_OTSLC = 0 THEN 1 |
| CKF | BW_CKF_MVSDSO50_0073 | OTS LC - Class 4                          | IF OTS LC - Class 4 = 1 and K_OTSLC = 0 THEN 1 |
| RKF | BW_RKF_MVSDSO50_0001 | # orderline with actual arrival date      | C_DTYPE2 = ASE, KF=K_COUNTER                   |
| RKF | BW_RKF_MVSDSO50_0002 | OTD CR - Class 1                          | C_OTDCRDG = A, KF=OTD CR - Class 1             |
| RKF | BW_RKF_MVSDSO50_0003 | OTD CR - Class 2                          | C_OTDCRDG = B, KF=OTD CR - Class 2             |
| RKF | BW_RKF_MVSDSO50_0004 | OTD CR - Class 3                          | C_OTDCRDG = C, KF=OTD CR - Class 3             |
| RKF | BW_RKF_MVSDSO50_0005 | OTD CR - Class 4                          | C_OTDCRDG = D, KF=OTD CR - Class 4             |
| RKF | BW_RKF_MVSDSO50_0006 | OTD FC - Class 1                          | C_OTDFCDG = A, KF=OTD CR - Class 1             |
| RKF | BW_RKF_MVSDSO50_0007 | OTD FC - Class 2                          | C_OTDFCDG = B, KF=OTD CR - Class 2             |
| RKF | BW_RKF_MVSDSO50_0008 | OTD FC - Class 3                          | C_OTDFCDG = C, KF=OTD CR - Class 3             |
| RKF | BW_RKF_MVSDSO50_0009 | OTD FC - Class 4                          | C_OTDFCDG = D, KF=OTD CR - Class 4             |
| RKF | BW_RKF_MVSDSO50_0010 | OTS CR - Class 1                          | C_OTSCRDG = A, KF=OTS CR - Class 1             |
| RKF | BW_RKF_MVSDSO50_0011 | OTS CR - Class 2                          | C_OTSCRDG = B, KF=OTS CR - Class 2             |
| RKF | BW_RKF_MVSDSO50_0012 | OTS CR - Class 3                          | C_OTSCRDG = C, KF=OTS CR - Class 3             |
| RKF | BW_RKF_MVSDSO50_0013 | OTS CR - Class 4                          | C_OTSCRDG = D, KF=OTS CR - Class 4             |
| RKF | BW_RKF_MVSDSO50_0014 | OTD LC - Class 1                          | C_OTDLCDG = A, KF=OTD LC - Class 1             |
| RKF | BW_RKF_MVSDSO50_0015 | OTD LC - Class 2                          | C_OTDLCDG = B, KF=OTD LC - Class 2             |
| RKF | BW_RKF_MVSDSO50_0016 | OTD LC - Class 3                          | C_OTDLCDG = C, KF=OTD LC - Class 3             |
| RKF | BW_RKF_MVSDSO50_0017 | OTD LC - Class 4                          | C_OTDLCDG = D, KF=OTD LC - Class 4             |
| RKF | BW_RKF_MVSDSO50_0018 | OTS FC - Class 1                          | C_OTSFCDG = A, KF=OTS FC - Class 1             |
| RKF | BW_RKF_MVSDSO50_0019 | OTS FC - Class 2                          | C_OTSFCDG = B, KF=OTS FC - Class 2             |
| RKF | BW_RKF_MVSDSO50_0020 | OTS FC - Class 3                          | C_OTSFCDG = C, KF=OTS FC - Class 3             |
| RKF | BW_RKF_MVSDSO50_0021 | OTS FC - Class 4                          | C_OTSFCDG = D, KF=OTS FC - Class 4             |
| RKF | BW_RKF_MVSDSO50_0022 | OTS LC - Class 1                          | C_OTSLCDG = A, KF=OTS LC - Class 1             |
| RKF | BW_RKF_MVSDSO50_0023 | OTS LC - Class 2                          | C_OTSLCDG = B, KF=OTS LC - Class 2             |
| RKF | BW_RKF_MVSDSO50_0024 | OTS LC - Class 3                          | C_OTSLCDG = C, KF=OTS LC - Class 3             |
| RKF | BW_RKF_MVSDSO50_0025 | OTS LC - Class 4                          | C_OTSLCDG = D, KF=OTS LC - Class 4             |

PS: same calculated and restricted key figures were created for MVSDSO51 and MVSDSO60 multi providers.

## Main queries

| Folder | Sub-folder       | Workbook                                  |                      | Query                                                       |
|--------|------------------|-------------------------------------------|----------------------|-------------------------------------------------------------|
| OTIF   | Detailed Reports | OTIF & Order Book: Sales & Purchase Order | BW_WBK_MVSDSO60_0002 | BW Sales/Transfer - OTIF & Orderbook - Details (core query) |
|        |                  | OTIF & Order Book: Sales Order            | BW_WBK_MVSDSO60_0001 | BW Sales - OTIF & Orderbook - Details (core query)          |
|        |                  | OTIF: Sales & Purchase Order              | BW_WBK_MVSDSO51_0001 | BW Transfer PO OTIF - Details (core query)                  |
|        |                  | OTIF: Sales Order                         | BW_WBK_MVSDSO50_0004 | BW Sales - OTIF - Details (core query)                      |
|        |                  | OTIF: Sales & Purchase Order (Summary)    | BW_WBK_MVSDSO51_0003 | BW Transfer & Sales - OTIF - Summary (core query)           |
|        |                  | OTIF: Sales & Purchase Order (Synthesis)  | BW_WBK_MVSDSO51_0002 | BW Transfer PO OTIF - dashboard (core query)                |
|        |                  | OTIF: Sales Order (Synthesis)             | BW_WBK_MVSDSO50_0001 | BW Sales - OTIF - dashboard (core query)                    |
|        |                  | OTIF: Sales Order (Summary)               | BW_WBK_MVSDSO50_0003 | BW Sales - OTIF - summary (core query)                      |

## Queries used to load QV applications

| InfoProvider | Query                      |                                     |
|--------------|----------------------------|-------------------------------------|
| MVSDSO50     | QVBW_QRY_MVSDSO50_0001     | BW Sales - OTIF details (qv query)  |
| MVSDSO51     | QVBW_QRY_MVSDSO51_0001     | BW Sales - OTIF Transfer (qv query) |
| MVSDSO51     | QVSCE_BW_QRY_MVSDSO51_0001 |                                     |
| MVSDSO50_    | QVSCE_BW_QRY_MVSDSO50_0001 |                                     |

## Broadcast

- None

## Maintenance

### Known bugs

- 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 if possible.
- Sometimes a full load by period is required by user in order to synchronize all global sales data.

### Planned Evolution

- The Global Sales is deployment phase and sometimes the GBU key user requests additional informations to be added in project.
- The New field ZI Partner will be available for reporting in the queries:Queries- BW\_QRY\_MVSDSO51\_0001 and QVSCE\_BW\_QRY\_MVSDSO51\_0001 with the requirement in the FD 4699751.

### Useful transactions to be used for checking data

| Transaction | Description    | Corresponding table | Comments |
|-------------|----------------|---------------------|----------|
| VT03N       | Shipments      | VTTK, VTTTS         | in ERP   |
| VI03        | Shipment Costs | VFKK, VF KP         | in ERP   |
| VL03N       | Deliveries     | LIKP, LIPS          | in ERP   |
|             |                |                     |          |

|       |                      |                  |        |
|-------|----------------------|------------------|--------|
| VA03  | Sales Orders         | VBAK, VBAP       | in ERP |
| ME23N | Purchase Orders      | EKKO, EKPO, EKBE | in ERP |
| MM03  | Material maintenance | MARA             | in ERP |
| RSUOM | Unit conversion      | T005             | in BW  |
| RSCUR | Currency conversion  | TCURR            | in BW  |

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