

# Technical Documentation - Demand & Planning - Forecast report

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## Access Management

### Roles & Access

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

| Role Code      | Role Description                  | Explanation   |
|----------------|-----------------------------------|---|
| ZP2_RCS_DP_A02 | Demand Planning - Dynasys         | Authorization object <b>ZP2_DPS</b>   |
| ZBI_RCS_DP_A02 | Demand Planning - Dynasys         | Authorization object <b>ZBI_DPS</b>   |
| ZBI_RCS_DP_A03 | Demand Planning - Dynasys Keyuser | Authorization object <b>ZBI_DPS_K</b> <ul style="list-style-type: none"><li>• gives access to transaction ZMAINT_MATPLANT + ZMAINT_MATVENDOR</li><li>• gives access to Application Area <b>IA_DPS_DYNASYS</b></li></ul> |
| ZR_RCS_CA_M52  | DP - DiP/PP - Dynasys             | Role menu for queries & workbooks.  |

### Authorization Objects

List of authorization objects mandatory for the application.

| Authorization object | Explanation          |
|----------------------|----------------------|
| CPFCTR1_2            | GBU role ZR_*_CA_P05 |

## DataFlow

### Overview

### Technical Rules on Workbench

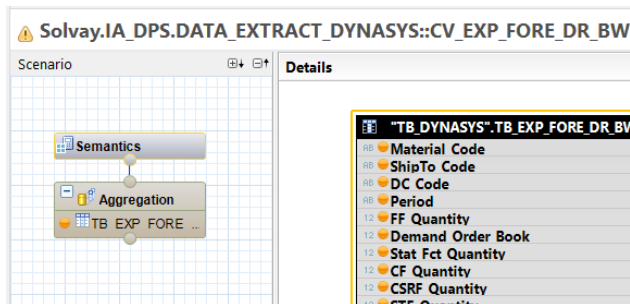
MVDYN11 - DYN - Reporting is composed by 16 cubes, but only fw of them are still loaded:

| Cube     | Description            | last loading (checked in 12.06.2023) |
|----------|------------------------|--------------------------------------|
| CRAPO002 | APO - Global (Dynamic) | No data                              |

|          |   |            |
|----------|---|------------|
| CRAPO006 | APO - Novecare (Snapshot History)                       | No data    |
| CRAPO005 | APO - Novecare (Snapshot)                               | No data    |
| CRAPO008 | APO - Polyamide Downstream (Snapshot History)           | No data    |
| CRAPO007 | APO - Polyamide Downstream (Snapshot)                   | 07.06.2020 |
| CRAPO010 | APO - Polyamide Upstream (Snapshot History)             | No data    |
| CRAPO009 | APO - Polyamide Upstream (Snapshot)                     | 07.06.2020 |
| CRAPO012 | APO - Special Chemicals (Snapshot History)              | No data    |
| CRAPO011 | APO - Special Chemicals (Snapshot)                      | 10.23.2020 |
| CRAPO004 | APO - Special Chemicals / Rare Earth (Snapshot History) | No data    |
| CRAPO003 | APO - Special Chemicals / Rare Earth (Snapshot)         | 10.23.2020 |
| CRDYN11  | DYN - Reporting (Dynamic)                               | 12.06.2023 |
| CRDYN14  | DYN - Reporting PAX Historic                            | No data    |
| CRDYN15  | DYN - Reporting PV/PY/PV since 2019(OBS)                | No data    |
| CRDYN13  | DYN - Reporting SnapShot                                | 12.06.2023 |
| CRLOG01  | LOG - Reporting (Dynamic)                               | No data    |
| CRLOG02  | LOG - Reporting (SnapShots)                             | No data    |

### CRDYN11

source data comes from hana calculation view CV\_EXP\_FORE\_DR\_BW based on table and view TB\_EXP\_FORE\_DR\_BW / VT\_EXP\_FORE\_DR\_BW.



TRSE : DTS\_CV\_EXP\_FORE\_DR\_BW (Dynasys) -> DPDYN04

End routine: if in master data global filter C\_GLBFILTR for stream DPS and rule PROSPECTS the low value = X AND if the size of C\_DYN\_025 is > 11 then C\_DYN\_003 (Customer with System Extension) = C\_DYN\_025 (Ship-to (including Prospects) with extension). If low value is not equal to X, C\_DYN\_025 takes the 11 characters after the first seven and C\_DYN\_003 (Customer with System Extension) = C\_DYN\_025 (Ship-to (including Prospects) with extension).

ODSO DPDYN04 -> ODSO DBDYN20

Start routine defines the source system (logsys) with help of last character of C\_DYN\_005 (R = Rhodia, S = Solvay).

Fields routines:

- C\_MATNR2 determined with module function CONVERSION\_EXIT\_MATN1\_INPUT with field C\_DYN\_005 in input.
- 0DISTR\_CHAN = two first characters from field C\_DYN\_006 (Distribution Channel with System Extension).
- C\_DYN\_GBU (BFC GBU for Dynasis) = C\_DYN\_003 (Customer with System Extension) without the last characters.
- C\_SHIPTID (Ship-to party (Core)) = C\_DYN\_003 (Customer with System Extension) without the last characters.
- C\_FLGMTH (Concerned Period (Flag)) = M
- 0UNIT (Unit of measure) = KG
- C\_SAL\_OFF (Sales Office) = DYN
- C\_DOCTYP2 (Order document type) = DYN
- C\_COMPCDE (Company code) = DYN

End routine:

C\_DYN\_010 & CPFCTR1\_2 come from master data C\_DYN\_005. If no corespondance found with C\_DYN\_005, fields come from master data G\_CWWE01.

CPFCTR2\_2 & C\_MAGNITU come from master data C\_DYN\_018 (internal filled with selection on field C\_DYN\_005), we check if in internal table we have data in function of fields C\_DYN\_018 =<RESULT\_FIELDS>-/BIC/C\_DYN\_003 and C\_DYN\_005 =<RESULT\_FIELDS>-/BIC/C\_DYN\_005. If we have a correspondance, master data C\_MATPNT2 is read to fill field CPFCTR3\_2. Else, CPFCTR2\_2 & C\_MAGNITU & CPFCTR3\_2 are empty.

C\_SHTCTRY comes from master data C\_DYN\_024.

C\_SOLDID & C\_SOLDTO come from master data C\_DYN\_014 (in function of field C\_DYN\_003).

C\_PROD comes from master data C\_MATNR2.

IECRA (G\_CWWE01) for RCS records is searched from master data G\_CWWE01 with the logsys and the division found in master data C\_MATNR2 we we searched the C\_PROD.

If IECRA is found, we read again master data G\_CWWE01 with the IEACRA (and with CPFCTR1\_2 and C\_PFCTR2 not empty).

If record found, we fill fields C\_DYN\_010 with C\_PFCTR2 from G\_CWWE01, CPFCTR1\_2 with CPFCTR1\_2 from G\_CWWE01, CPFCTR2\_2 with CPFCTR2\_2 from G\_CWWE01 and CPFCTR3\_2 with CPFCTR3\_2 from G\_CWWE01 (else fields are empty).

### TRSF: DBDYN20 (DynaSys) -> CRDYN11

Start routine:

Internal table itb\_c\_dyn\_017 is filled with data from master data itb\_c\_dyn\_017 where C\_DYN\_017 = SOURCE\_PACKAGE-/bic/C\_DYN\_003 and C\_DYN\_006 = SOURCE\_PACKAGE-/bic/C\_DYN\_006.

Internal table itb\_C\_GBR14 is filled with data from master data C\_GBR14 in function of fields logsys, C\_PROD, CPFCTR1\_2 and C\_SHIPTID.

Field routines:

C\_DYN\_017 & C\_DYN\_021 If in master data global filter C\_GLBFLT for stream DPS and rule PROSPECTS the low value is empty, field equal C\_DYN\_025 else field = C\_DYN\_003.

C\_SOTCTRY Sold-to Country comes from master data C\_SOLDTO

End routine

Fields C\_SALEMP & C\_ZIPART come from internal table itb\_c\_dyn\_017 (or fields are empty).

Field C\_GBR4 comes from internal table itb\_C\_GBR14 or equal source field C\_SHIPTID.

### **CRDYN13**

#### TRSF: DTS\_CV\_EXP\_FORE\_BW (DynaSys) -> DPDYN01

source data comes from hana calculation view CV\_EXP\_FORE\_BW based on table and view TB\_EXP\_FORE\_BW / VT\_EXP\_FORE\_BW.

In start routine the records with SHIPTO\_CODE with size > 11 are deleted.

Field routine: C\_FCSTMTH (End of Month View) comes from master data global filter (only if C\_ACTIVE = Y):

#### Table: /BIC/PC\_GLBFLT

| ES | /BIC/C_STREAM | /BIC/C_RULE | /BIC/C_GLBFLT | OBJVERS | CHANGED | /BIC/C_DESC                                     | /BIC/C_SIGN | /BIC/C_OPTION | /BIC/C_LOW | /BIC/C_HIGH | /BIC/C_ACTIVE |
|----|---------------|-------------|---------------|---------|---------|---|-------------|---------------|------------|-------------|---------------|
|    | DPS           | PHOTO_MTH   | 001           | A       |         | To fix the SnapShot month (end of month) YYYYMM | I           | EQ            | 201703     |             | N             |

#### ODSO DPDYN01 -> ODSO DBDYN13

For C\_DYN\_010, CPFCTR1\_2, CPFCTR2\_2, C\_MAGNITU, C\_SOLDID and C\_SOLDTO and IECRA it's the same rules as transformation ODSO DPDYN04 -> ODSO DBDYN20.

C\_SHTCTRY comes from master data C\_CUST\_ID.

For IECRA, we search for Solvay source system, not Rhodia.

## ODSO DBDYN13 -> ODSO DBDYN13 Compute GH/BIAS 1

End routine:

Data in source package are stored in internal table ITB\_GH (sorted in descending mode in function of fields C\_DYN\_003, C\_DYN\_005, C\_DYN\_006, LOGSYS, CALMONTH and C\_FCSTMTH) and records with same C\_DYN\_003, C\_DYN\_005, C\_DYN\_006, LOGSYS and CALMONTH are deleted to avoid duplicate entries.

Then we search for each records of source package if there are a correspondance in ITB\_GH (with keys C\_DYN\_003, C\_DYN\_005, C\_DYN\_006, LOGSYS and CALMONTH)

If correspondance found:

- $K\_BIASM1 = ( /BIC/K\_FFM1QTY - <FS\_GH>/BIC/K\_GHQTY )$  in absolute value.
- $K\_BIASSTF = ABS(<RESULT\_FIELDS>/BIC/K\_STFM1QT - <FS\_GH>/BIC/K\_GHQTY)$
- $K\_BIASSTA = ABS(<RESULT\_FIELDS>/BIC/K\_RFM1QTY - <FS\_GH>/BIC/K\_GHQTY)$
- $K\_DYN\_278 = ABS(<RESULT\_FIELDS>/BIC/K\_DYN\_277 - <FS\_GH>/BIC/K\_GHQTY)$
- $K\_DYN\_279 = ABS(<RESULT\_FIELDS>/BIC/K\_SHFM1QT - <FS\_GH>/BIC/K\_GHQTY)$

For C\_DYN\_010, CPFCTR1\_2, CPFCTR2\_2, C\_MAGNITU, C\_SOLDID and C\_SOLDTO and IECRA it's the same rules as transformation ODSO DPDYN04 -> ODSO DBDYN20.

C\_SHTCTRY comes from master data C\_CUST\_ID.

## TRSF: DBDYN13 (DynaSys) -> CRDYN13

Same rules as transformation TRSF: DBDYN20 (DynaSys) -> CRDYN11.

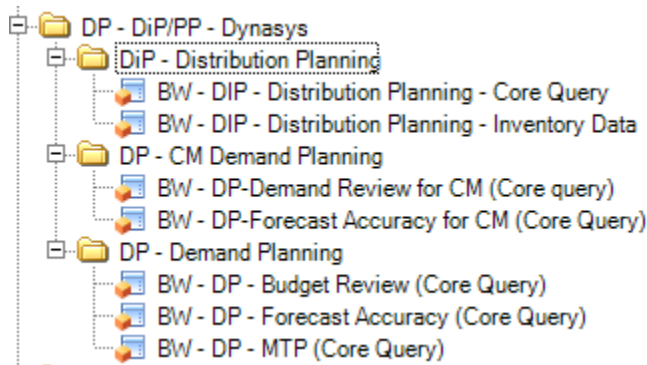
# Reporting

## Queries

| Query                     | Description                                       |
|---------------------------|---|
| BW_QRY_MVDYN11_0001       | BW - DP - Budget Review (Core Query)              |
| BW_QRY_MVDYN11_0003       | BW - DP - Demand Review for Logility (Core query) |
| BW_QRY_MVDYN11_0005       | BW - DP - Forecast Accuracy (Core Query)          |
| BW_QRY_MVDYN11_0006       | BW - DP - Demand Review (Core query)              |
| BW_QRY_MVDYN11_0007       | BW - DP - Segmentation Report (Core Query)        |
| DI_BW_QRY_MVDYN11_0001    | BW - DP - Budget Review (Core query)              |
| QV_BW_QRY_MVDYN11_0005    | BW - DP - Forecast Accuracy (QV query)            |
| QVSBS_BW_QRY_MVDYN11_0001 | BW - DP - Demand Review for SBS Dashboard (QV)    |

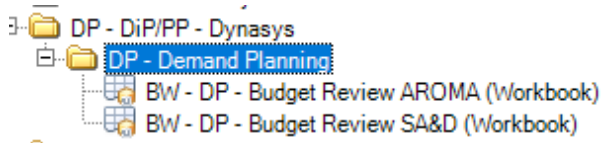
Workbooks BW\_WBK\_DPS\_0001 & BW\_WBK\_DPS\_0001 contain query BW\_QRY\_MVDYN11\_0001.

Role menu queries



ZR\_RCS\_CA\_M52  
 0000005418  
 BW\_QRY\_CPDYN13\_0001  
 BW\_QRY\_CPDYN13\_0002  
 0000005414  
 BW\_QRY\_CPDYN11\_0006  
 BW\_QRY\_CPDYN12\_0001  
 0000005417  
 BW\_QRY\_MVDYN11\_0001  
 BW\_QRY\_MVDYN11\_0005  
 BW\_QRY\_CPDYN14\_0001

Role menu workbooks:



ZR\_RCS\_CA\_M52  
 ZR\_RCS\_CA\_M52 000000018  
 BW\_WBK\_DPS\_0001  
 BW\_WBK\_DPS\_0002

## Dependencies with other applications

We should have the information where the application is sending or receiving information (e.g. APD open hub)

## Data Loading

### Info Providers and objects loaded

Detail of process chain, list + link between or special event done for the loading

| Main Process Chain   | Final Provider Loading        | Frequency                             | Time start   |
|--|-------------------------------|---------------------------------------|--|
| PC_DPS_DYNASYS_09<br><br>DPS<br>Dynasys:<br>META - M - 6.Reporting<br>DynaSys (Snapshots)    | DPDYN01<br>DBDYN13<br>CRDYN13 | 1 time per month the 6th day of month | 06:00 am   |
| PC_DPS_DYNASYS_15<br><br>DPS<br>Dynasys:<br>META - D - 6.Reporting<br>DynaSys (Dynamic KPIs) | DPDYN04<br>DBDYN20<br>CRDYN11 | Hourly, everyday with decision.       | Hourly<br><br>Decision linked to values in master data global filter |

Table: /BIC/PC\_GLBFLT

| EB | /BIC/C_STREAM | /BIC/C_RULE | /BIC/C_GLBFLT | OBJVERS | CHANGED | /BIC/C_DESC                                       | /BIC/C_SIGN | /BIC/C_OPTION | /BIC/C_LOW | /BIC/C_HIGH | /BIC/C_ACTIVE |
|----|---------------|-------------|---------------|---------|---------|---|-------------|---------------|------------|-------------|---------------|
|    | DPS           | PCH_DYN15   | 001           | A       |         | PC_DPS_DYNASYS_15 => 1st load (HHMMSS)            | I           | BT            | 040000     | 041500      | N             |
|    | DPS           | PCH_DYN15   | 002           | A       |         | PC_DPS_DYNASYS_15 => 2nd load (HHMMSS)            | I           | BT            | 070000     | 071500      | Y             |
|    | DPS           | PCH_DYN15   | 003           | A       |         | PC_DPS_DYNASYS_15 => 3rd load (HHMMSS)            | I           | BT            | 140000     | 141500      | Y             |
|    | DPS           | PCH_DYN15   | 004           | A       |         | PC_DPS_DYNASYS_15 => 4th load (HHMMSS)            | I           | BT            | 180000     | 181500      | Y             |
|    | DPS           | PCH_DYN15   | 005           | A       |         | PC_DPS_DYNASYS_15 => 5th load (HHMMSS)            | I           | BT            | 230000     | 231500      | Y             |
|    | DPS           | PCH_DYN15   | 999           | A       |         | PC_DPS_DYNASYS_15 => For tests only !!!!          | I           | BT            | 070000     | 180000      | N             |
|    | DPS           | PCH_DYN15A  | 001           | A       |         | Bypass decision bloc 1 in chain PC_DPS_DYNASYS_15 | I           | EQ            | N          |             | N             |
|    | DPS           | PCH_DYN15M  | 000           | A       |         | Sub Chain PC_DPS_DYNASYS_33 => 1st load (HHMMSS)  | I           | BT            | 080000     | 081500      | Y             |
|    | DPS           | PCH_DYN15M  | 001           | A       |         | Sub Chain PC_DPS_DYNASYS_33 => 1st load (HHMMSS)  | I           | BT            | 090000     | 091500      | Y             |
|    | DPS           | PCH_DYN15M  | 002           | A       |         | Sub Chain PC_DPS_DYNASYS_33 => 1st load (HHMMSS)  | I           | BT            | 100000     | 101500      | Y             |
|    | DPS           | PCH_DYN15M  | 003           | A       |         | Sub Chain PC_DPS_DYNASYS_33 => 1st load (HHMMSS)  | I           | BT            | 110000     | 111500      | Y             |
|    | DPS           | PCH_DYN15M  | 004           | A       |         | Sub Chain PC_DPS_DYNASYS_33 => 2nd load (HHMMSS)  | I           | BT            | 140000     | 141500      | Y             |
|    | DPS           | PCH_DYN15M  | 005           | A       |         | Sub Chain PC_DPS_DYNASYS_33 => 3rd load (HHMMSS)  | I           | BT            | 180000     | 181500      | Y             |
|    | DPS           | PCH_DYN15M  | 006           | A       |         | Sub Chain PC_DPS_DYNASYS_33 => 4th load (HHMMSS)  | I           | BT            | 230000     | 231500      | Y             |

## Data Quality Control

# Operational Documentation

## Procedures

<Describe the recurring procedures needed to operate the application (eg. start/pause/terminate/restart the app processes, data preparation, data ingestion, ETL, data visualization, data export, other manual activities)>

## Scheduling

<Describe the scheduling in place for the application (eg. existing jobs, trigger time/event based, dependencies)>

## Monitoring

<Describe the monitoring checks to confirm the application is performing well (eg. check the overall status, check performance metrics like runtime /data volume/memory/disk/CPU, maintain and react to alerts/notifications)>

## Error Handling

<Describe how to handle errors (eg. error codes, description and respective resolution, alert users)>

## Known Bugs

<List the existing bugs, its criticality, workarounds and resolution plan.>

## Roadmap

<List past & future evolutions for the application (including links to MED/FSD/TSD)>