

BW - DPS - Forecast Vs Booking / Component

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General presentation

Objective of the application

The objective of the application is to display Forecast & Booking data coming from Dynasys at component level (BOM Data from WPX system).

Forecast & Booking data have been recalculated proportionally to BOM base quantity and component quantity.

Report is expanded with Recipe & Capacity data coming from WPX system.

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IT leader of the application: Lei Shen (PP), Romain Clerc (Dynasys) Craig Wanamaker (BW)

Name of project: Solstice

PMO Project: 8612 Solstice AERO

Reporting Coordinator: Lei Shen

Usage information

Number of users: tbd

Critical period: none

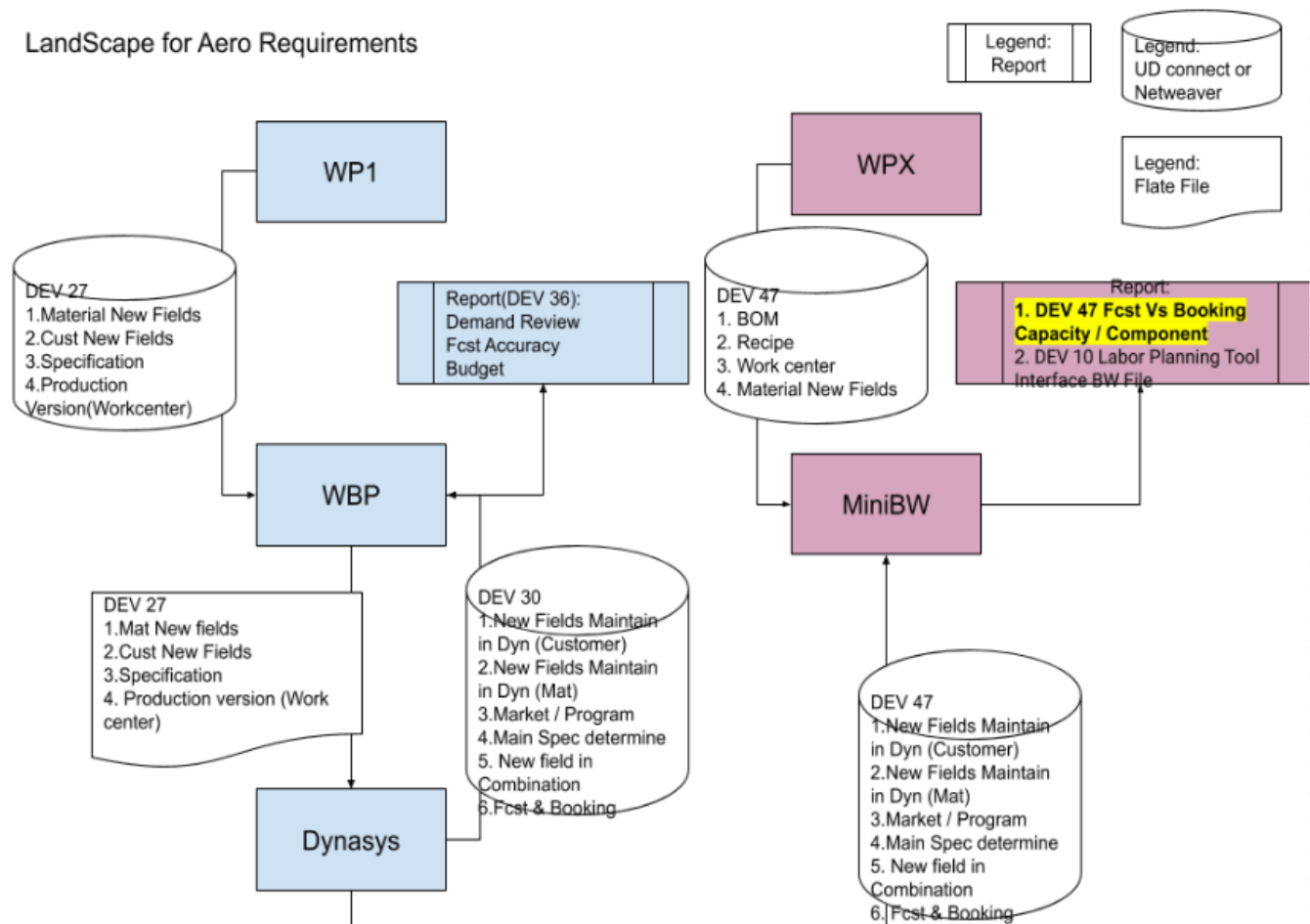
Geographical perimeter: worldwide

InfoArea:

- ▼ BW Repository
 - > [IA_RHODIA] RHODIA
 - ▼ [IA_SOLVAY] SOLVAY
 - ▼ [IA_DP] Demand Planning Scheduling
 - ▼ [IA_DP_DY] DPS - Data Import from Dynasys
 - > [IA_DP_DY_VIRTUAL] Dynasys Virtual
 - > [IA_DP_DY_BUSINESS] Dynasys Business
 - > [IA_DP_DY_PROPAGATION] Dynasys Propagation
 - > [IA_DP_DY_ACQUISITION] Dynasys Acquisition
 - > [IA_DP_DY_MD] Dynasys MasterData

History

This application is linked to the Solstice global project and this specific need was named "DEV47- Other MiniBW request for planning team". MiniBW (CPX) dedicated platform was created for Aero Requirements about Solstice project.



Roles & Access

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

Authorization objects

List of autorisation objects mandatory for the application.

Authorization object	Explanation

Dataflow overview

Reporting documentation drive folder:

https://drive.google.com/drive/folders/1Yd_vWT7i3hmTaFBBH3DAtYE3LaITzOz8

Dataflow overview :

Functional and Technical rules on Workbench + Reporting

Rules & Explanations

Specification document

Currency conversion

There are two "AMOUNT" key figures with currency in the application :

- Forecast Value (K_FFVAL)
- Sold & Booked Value (K_SOBVAL)

Both are extracted from Dynasys in Euros :

- Forecast Value (FF_REV)
- Sold & Booked Value (SOB_REV)

In the report, users have the possibility to convert them in USD (target currency choosen in the prompt of the query).

The conversion is directly done in the report with conversion type CTK_CAR4.

Quantity conversion

All "QUANTITY" key figures in the report are expressed in Production Unit of Measure. If for this material the Production Unit does not exists, the quantity is expressed in Base Unit of Measure.

Example of Production Unit of Measure from SAP system :

Display Material 157473 (/Finished pdt & RM & SF)

Additional Data Org. Levels

MRP 4 Work scheduling Plant data / stor. 1 Plant data / stor. 2 Qua...

Material 157473 CYCOM 977-3/IM7 49" 228 GSM

Plant 8365 7180 Greenville

General Data

Base Unit of Measure M m Unit of issue FT

Production unit FT P-S matl status Valid from

Prodn Supervisor Prod. Stor.Loc.

Prod.Sched.Profile 2001 Production Mat. Grouping

Serial no. profile SerLevel Overall profile

☐ Insp.stock ☐ Critical Part ☒ Version Indicator ☒ Batch Mgmt Rqt

☐ Batch rec. req. Batch entry

Tolerance data

Underdely tol. 0,0 percent Overdely tol. 0,0 percent ☒ Unlimited

In-house production time in days

Lot size dependent Lot size independent

Setup time 0,00 Interoperation 0,00 InhseProdTime 15

Processing time 0,00 Base quantity 0

To convert key figure in Production Unit of measure, first of all data have to be expressed in Base Unit of measure, then they will be converted to PUoM based on ADSO **UOMC_MAT2 (Material/plant Unit of Measure)**.

We can't use the ADSO **UOMC_MAT** because the PUoM is linked to the material and the plant as well.

There are 3 conversion type used :

Conversion Type	Reference Infobject	Comments
QCT_MATNR9	C_MATPLNT	Conversion type used for key figures at Product Level
QCT_MATNR6	C_BOMHEAD	Conversion type used for key figures at BOM Head Level
QCT_MATNR5	C_BOMCPNT	Conversion type used for key figures at BOM Component Level

Where the quantity has been converted ?

Key figure	Conversion in Base Unit of Measure	Conversion in Production Unit of Measure	Conversion Type (PUoM)	Comments
Costing Lot Size (EOQ) (K_COMPCLS)	Already in Base Unit of Measure when data is extracted	In the query	QCT_MATNR5	Key figure is stored in C_MATPLNT master data with the technical name K_LOSGR.

Recipe Base Qty (K_OPERQTY)	During Extraction. Extractor : DTS_ZBW_V_PLPO	In the query	QCT_MATNR5	Key figure is initially stored as field in AAPPRE02 ADSO with the name : BMSCH
Base Quantity for BOM (PUoM) (K_BQTYBOM)	During Extraction. Extractor : DTS_ZBW_MAST_BOM_LEVEL	In transformation between ADSO AADPDY05 -> APDPDY02.	QCT_MATNR6	Key figure is initially stored as field in AAPPBO02 ADSO with the name : BMENG
Component Quantity (PUoM) (K_COMPQTY)	During Extraction. Extractor : DTS_ZBW_MAST_BOM_LEVEL	In transformation between ADSO AADPDY05 -> APDPDY02.	QCT_MATNR5	Key figure is initially stored as field in AAPPBO02 ADSO with the name : ZZMENGE
Quantity Per 1 Puom (K_QTYPUOM)	Key figure is directly expressed in PUoM.	Key figure is assigned and calculated from K_SOBQTYB in transformation between ADSO AADPDY05 -> APDPDY02.		
Forecast (Dynasys) (K_FFQTY)	No conversion, the key figure is loaded from Dynasys in KG and stored as identical.	No conversion, the key figure is loaded from Dynasys in KG and stored as identical.		Key figure is initially stored as field in AADPDY01 ADSO with the name : FF_QTY
Forecast (PUoM) (K_FFQTYB)	In transformation between ADSO APDPDY01 (DYNASYS) -> ABDPDY01	In transformation between ADSO AADPDY05 -> APDPDY02.	QCT_MATNR9	
Forecast Quantity Level by Level (K_FFLVL)	Key figure is directly expressed in PUoM.	Key figure is assigned and calculated in transformation between ADSO AADPDY05 -> APDPDY02.		
Quantity Forecast Base (K_FFBASE)	Key figure is directly expressed in PUoM.	Key figure is assigned and calculated in transformation between ADSO AADPDY05 -> APDPDY02.		
Booking (Dynasys) (K_SOBQTY)	No conversion, the key figure is loaded from Dynasys in KG and stored as identical.	No conversion, the key figure is loaded from Dynasys in KG and stored as identical.		Key figure is initially stored as field in AADPDY01 ADSO with the name : SOB_QTY
Booking (PUoM) (K_SOBQTYB)	In transformation between ADSO APDPDY01 (DYNASYS) -> ABDPDY01	In transformation between ADSO AADPDY05 -> APDPDY02.	QCT_MATNR9	
Booking Quantity Level by Level (K_SOBLVL)	Key figure is directly expressed in PUoM.	Key figure is assigned and calculated in transformation between ADSO AADPDY05 -> APDPDY02.		
Quantity Booking Base (K_SOBBASE)	Key figure is directly expressed in PUoM.	Key figure is assigned and calculated in transformation between ADSO AADPDY05 -> APDPDY02.		

Forecast quantity calculation at component level

Forecast and Sold & Booked quantity are determined in Dynasys for a "main product".

Theses quantities have to be recalculated for each component composing the "main product" proportionally to component quantity.

To do it we need **BOM Data** (to have each component of the "main product" and associated quantities) and **Dynasys data** (to have Forecast and Sold & Booked quantities).

Both data flow are joined in the **calculation view Forecast Data level by level** (CV_FORECAST_LEVEL_BY_LEVEL).

The calculation is done on BW side in the ADSO **APDPDY02**.

Sample example

Please find below, Excel file with example of calculation and rules applied :

<https://drive.google.com/file/d/1qxOZq4EgVWkj7tzjhNdEcksmLgLLMpK6/view>

Dependencies with other applications

Main application and report are based on following BW application :

- BW - DPS - Demand Planning Scheduling (Dynasys)
- BW - PP - BO - Bill Of Material
- BW - PP - CP - Capacity Planning
- BW - PP - RE - Recipe

Data loadings

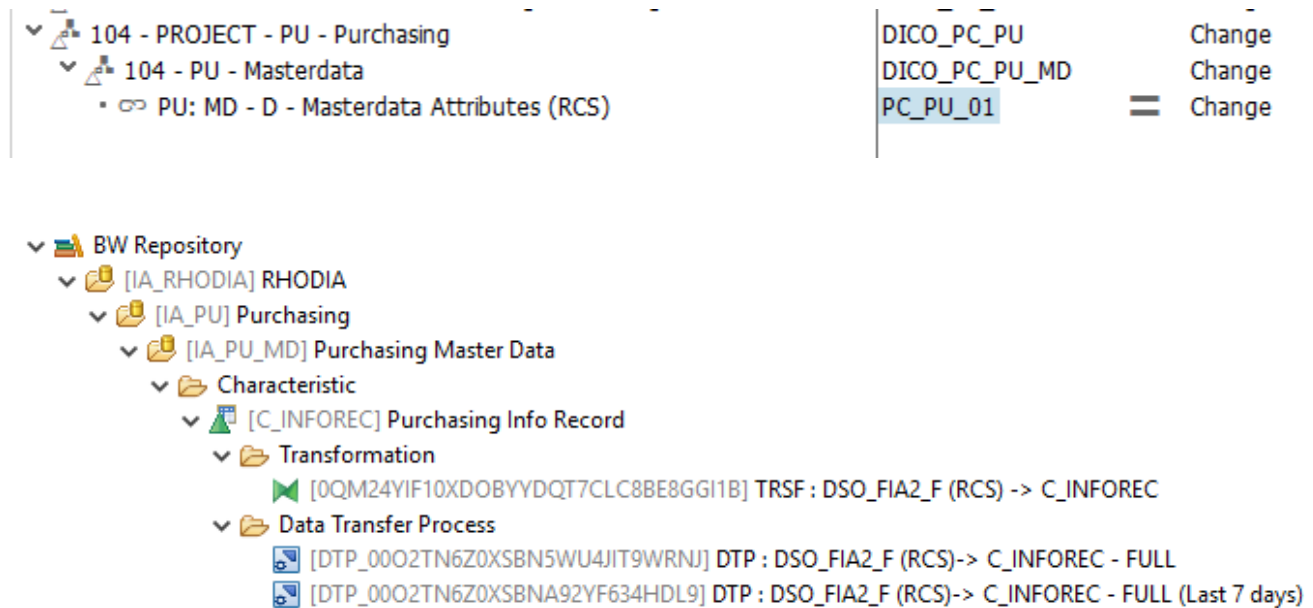
Info providers and objects loaded

Info record Master data

Info record master data (C_INFOREC) is loaded from WBP BW system with Rhodia data (WP1).

The extractor on CPX is based on DSO_FIA2_F from WBP.

The process chain used to load Info record Master Data on CPX is PC_PU_01 :



There are two DTP to load the master data :

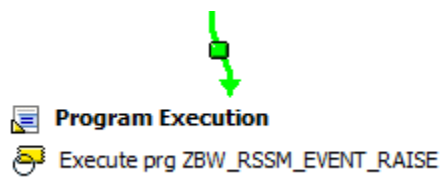
- DTP_00O2TN6Z0XSBNA92YF634HDL9 - DTP : DSO_FIA2_F (RCS)-> C_INFOREC - FULL (Last 7 days)=> DTP in the process chain used to load the last 7 days (filter on calendar day)
- DTP_00O2TN6Z0XSBNA5WU4JIT9WRNJ - DTP : DSO_FIA2_F (RCS)-> C_INFOREC - FULL
=> Used for the "init" data loading (no filter)

The process chain starter is configured with event **Z_EVT_PC_PU_01**.

This event is send from WBP after data loading of DSO_FIA2_F with process chain PIR :

Process Chains	Tech. Name	M..	Execute Func...
▼ Unassigned Nodes	NODESNOTCONNE...		Change
AP Sales Daily Extraction	PC_DAILY_AP_SALES	==	Change
Acct Assignmnt in Purchasing Doc Weekly Fu	PC_CUB_PUR02_W...	==	Change
Attributs Loding for C_RMVCT2	PC_MD_FI_C_RMVC...	==	Change
Audit Authorization objetscs for queries	PC_AUTH_01	==	Change
CO_OM_CCA delta+full extraction (PF1)	PC_CO_OM_CCA_01	==	Change
Capacity Planning	ZPC_CAPACITY	==	Change
Chargement des taux de change Carat	TAUX_CHANGE_CA...	==	Change
Compress cubes based on #1222775	PC_COMP_1222775	==	Change
Compression of cubes to improve colmar per	PC_CUBE_COMPRESS	==	Change
Compression of cubes to improve colmar per	ZTEST_COMP	==	Change
Content Master Data	OTCT_MD_C_FULL...	==	Change
Daily Inventory Aging Full Update Process Ch	RSP_INV_AGING_F...	==	Change
Daily Master Data ATTR for non RCS systems	ZPC_MD_ATTR_RC...	==	Change
Daily PIR	PIR	==	Change

Step used to send the event :



Global Master data

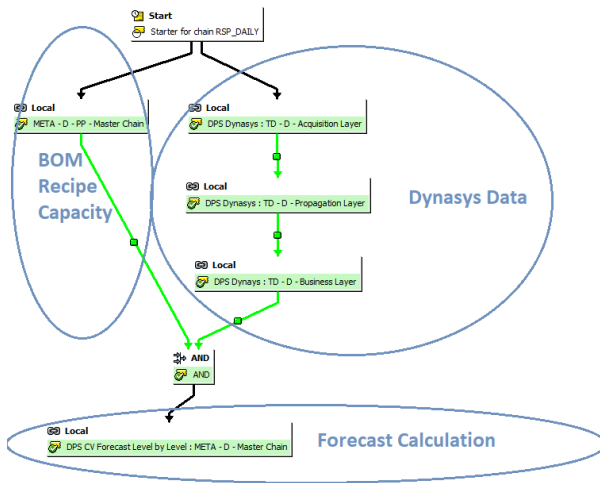
Master Data are loaded with process chain RSP_DAILY_GLOBAL.

▼ 010 - DAILY - META Chains at fixed time	DICO_PC_DAILY_01	Change
▼ META - D - Daily Process Chains (Attr, Texts, Unit conv)	RSP_DAILY_GLOBAL	== Change

Transactionnal data

Transactionnal data are loaded with process chain RSP_DAILY.

▼ 010 - DAILY - META Chains at fixed time	DICO_PC_DAILY_01	
> META - D - Daily Process Chains (Attr, Texts, Unit conv)	RSP_DAILY_GLOBAL	==
> META - D - Daily Process Chains (Transactional)	RSP_DAILY	==



Loading frequency

Data are loaded **every day**.

Average performance

Key Figure	Estimation
~ Average Process Chain Runtime	
~ Average nb of rows loaded per load	
~ Total nb of rows loaded (if full)	
~ Average Runtime for 10k lines	

Record Keeping

Reporting

Queries End User Documentation

Main queries

[BW - DPS - Forecast Vs Booking / Component \(Core Query\)](#)

Main functionalities

Broadcast

Maintenance

Known bugs

Recurring procedure

Planned Evolution