

BW - Ship-pad report

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General presentation

Objective of the application

The ship-pad report is based on "**Order Book - To be Issued (SO + PO)**", that includes Sales and Transfer orders.

The scope of the report are all open orders that haven't been issued (without Actual Goods Issue date).

Rejected Order lines and Order Lines with "rest to be delivered" below the Tolerance are EXCLUDED from the report.

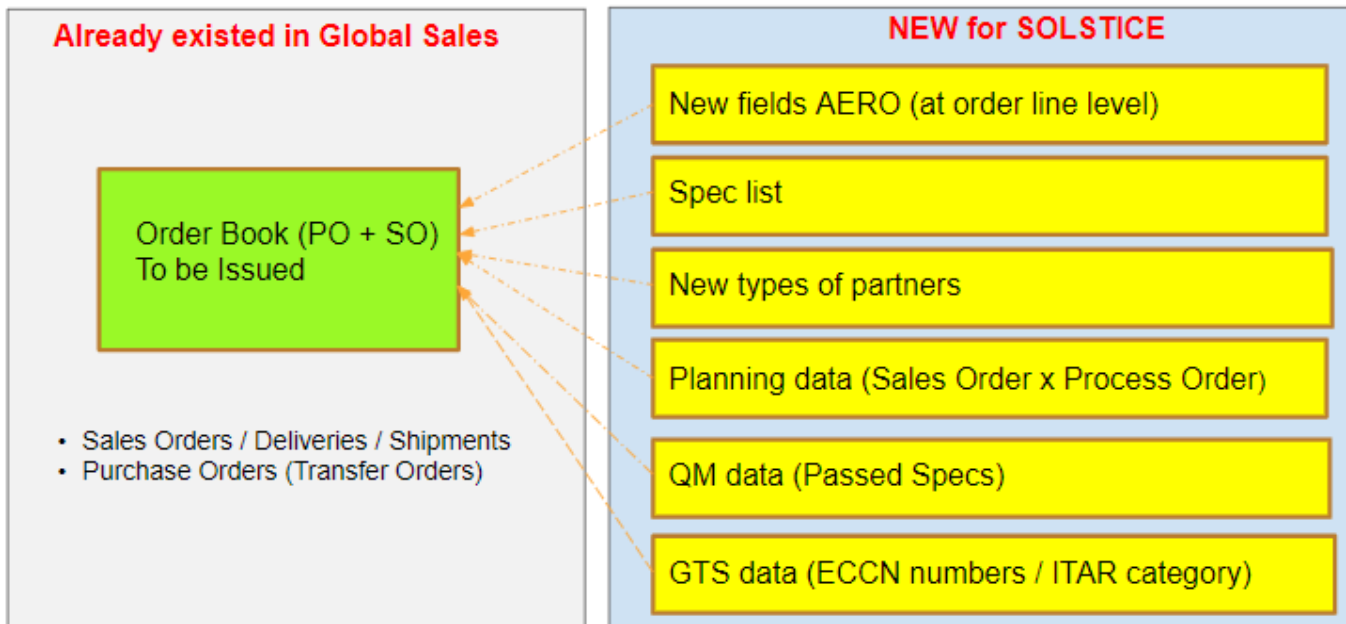
Tool Leader + IT leader of the application:

Craig Wanamaker + Diogo Paiva

Usage information

History

In order to meet ship-pad requirements, several elements were incorporated into existing Order Book.



Roles & Access

Roles and access

Same role from Global Sales

Role Code	Role Description	Explanation
ZR_RCS_CA_M49	SD - Sales and Distribution	role menu for the application

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/0B0qn89R0RGdqYkZZOFZyYXlXVke>

Exemple of dataflow overview :

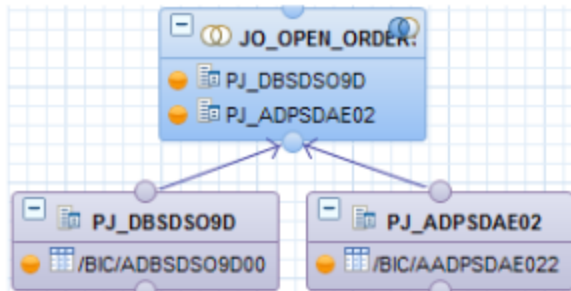
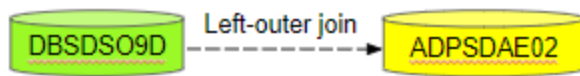
Template Application name DataFlow

New Composite Provider **CPSDAE03** based on HANA Calculation View **CV_SD_AE_CPSDAE03**

Initially joins DSOs below:

SO+PO ORDER BOOK
– OPEN ORDER

AERO – SALES ORDERS /
PROCESS ORDERS

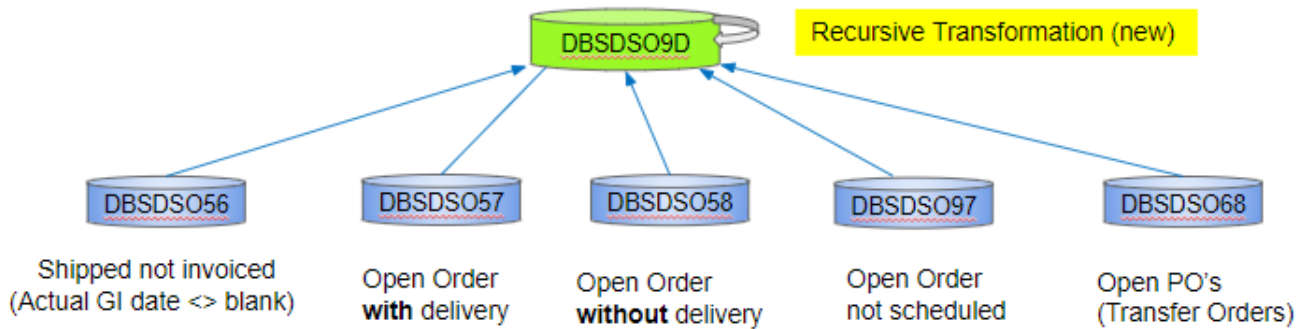


For Sales Order, the "rest to be delivered" (K_NONDEL) is stored, at delivery line level, in DBSDSO9D.

For Purchase Orders, it is calculated dynamically in the view accessing tables below:

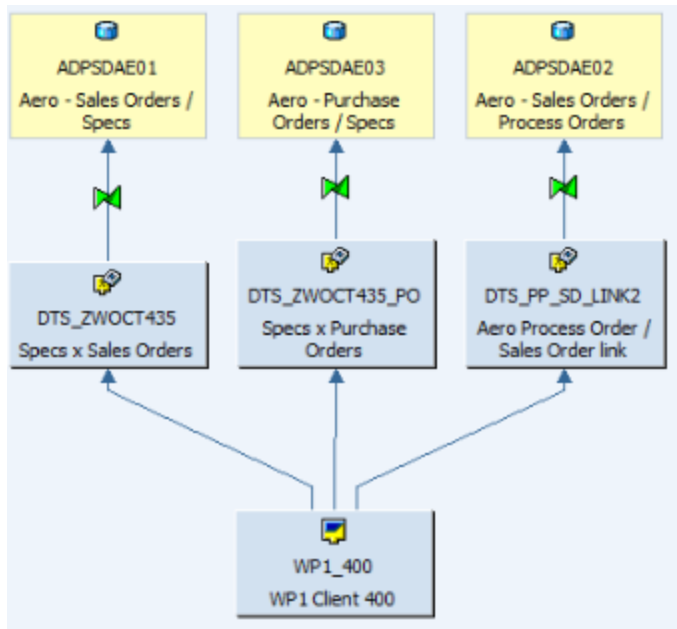
- DBSDSO66 - to get PO quantity / Confirmed quantity (by schedule line)
- DBSDSO69 - to get Delivery quantity

New fields were added to DBSDSO9D and populated in Transformations below



- Orders already shipped (DBSDSO56) are not relevant for Ship-pad. They are excluded in the query using filter "Actual GI date = blank".
- New recursive Transformation was created to populate "Passed Specs flag".

New Advanced DSOs::



Functional and Technical rules on Workbench + Reporting Rules & Explanations

New fields Aero - Sales Order

In WP1, new fields specific for Aero were added in VBAP (tab "Additional data B")

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They are then loaded as attributes in **C_ITM_SD** master data.

In the case of specs, which can be multiple for one order line (table ZWOCT435), they are first loaded into DSO ADPSDAE01 and then concatenated as attribute C_SPECLIS in C_ITM_SD.

New fields Aero - Purchase Order

In WP1, new fields specific for Aero were added in EKPO (tab "Aero Specific information")

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They are then loaded as attributes in **C_ITM_GS** master data.

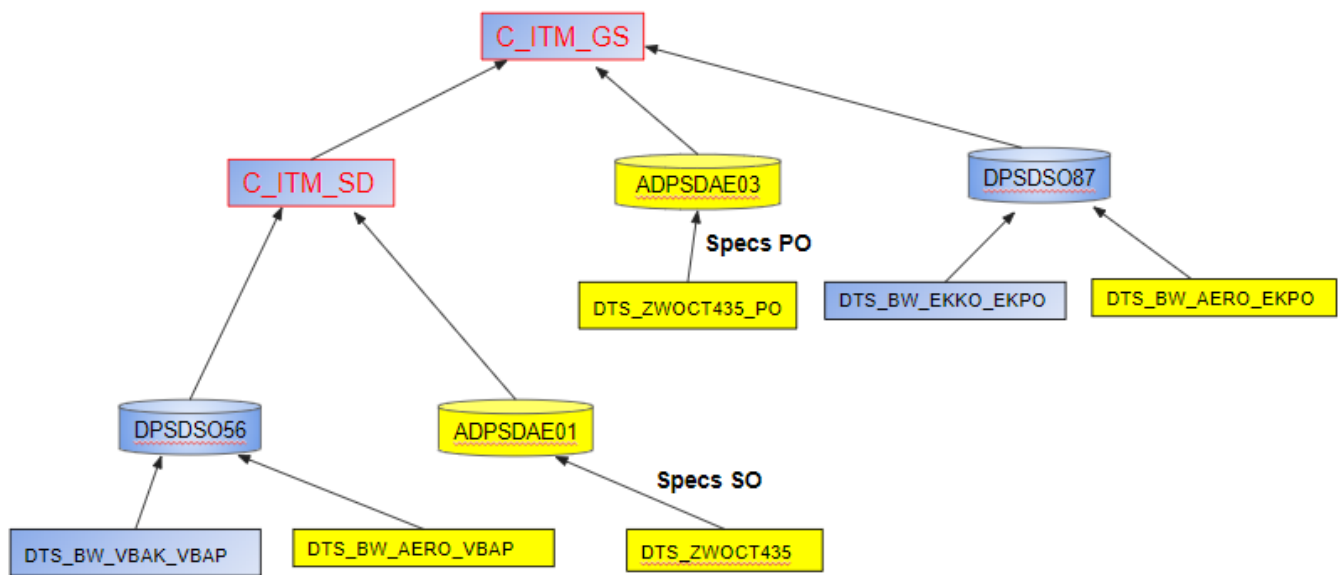
In the case of specs, which can be multiple for PO item, they are first loaded into DSO ADPSDAE03 and then concatenated as attribute C_SPECLIS in C_ITM_GS.

C_ITM_GS is the master data used in ship-pad report because it contains both Sales Order and Purchase Orders.

Data that comes from Sales Order item (VBAP) goes first to C_ITM_SD and then to C_ITM_GS.

Data that comes from Purchase Order item (EKPO) goes directly to C_ITM_GS.

New loads into order line master data (C_ITM_SD / C_ITM_GS)



(Objects in yellow were created during Solstice project)

Sales Orders x Process Orders

Some columns from ship-pad report bring production planning information (like workcenter, parent batch).

The link between Sales Orders and Process Orders comes from table **Z1C_PP_SD_LINK** in WP1 and is stored in DSO **ADPSDAE02**.

One sales order can be linked with multiple process orders.

In ship-pad report, this will generate additional lines, but the key figures from the order line are then repeated in each line of the report.

Passed Specs

New attribute **C_PASSPEC** was added to **C_BATCH2** master data and stores the passed specs (concatenated) from the batch.

Then the spec list from order line is compared against this batch attribute to generate **"Passed specs flag (Y/N)"** in ship-pad report.

Passed Specs (batch) is calculated at batch level comparing the spec list from order line with the passed specs from batch.

So you can have different values (Y or N) by batch, for the same order line, as in example below

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This is calculated in Transformation **DBSDSO57** -> **DBSDSO9D**.

Passed Specs (order) is an overall flag by order line.

If any of "passed specs (batch)" is "N", then "passed specs (order)" = 'N'.

This is calculated in Recursive Transformation into **DBSDSO9D**.

One-time customer

For one-time customers (VBPA-XCPDK = 'X'), same customer code can have different names, stored at sales order level.

New DSO AASDAE03R was created to store one-time customer name at order level. It's used as a lookup when loading data into DBSDSO9D.

If customer is found in this DSO, get its name from here, else get it from customer master data.

GTS data (ECCN numbers & ITAR category)

It's populated in DBSDSO9D via lookup in DP_GTS92 with material + following filters:

EU ECCN

Legal Regulation : DUALE

Numbering Scheme: EUECCN

US ECCN

Legal Regulation : EAR

Numbering Scheme: USECCN

ITAR Category

Legal Regulation : ITAR

Numbering Scheme: USITAR

Wave 2 and 3 - Enhancements

Batch

In the first Ship Pad Version, the batch data was retrieved from Delivery level, but users wants to see the Batches before the delivery creation and its possible according to the data from SAP transaction , ZWIM023 which was loaded in BW as C_BATCH2 attributes.

Transformation: DTS_C_BATCH -> C_BATCH2

Source: Material Batch (DTS_C_BATCH)

Target: Batch number (C_BATCH2)

Version: Active

Active Version: Executable

Runtime Status: Only ABAP runtime is supported

Line	Field	Source	Target	Field	Source	Target	Field	Source	Target
30	Z_IM_001	Parent lot	CHAR	000010	C_LOBTEXT	24	C_LOBTEXT	24	LO Text
31	Z_IM_002	Sub-lot	CHAR	000010	C_SALEPOT	25	C_SALEPOT	25	Sales POT
32	Z_IM_048	Net	DEC	000013	C_POTEDAT	26	C_POTEDAT	26	Sales Potential Date
33	Z_IM_052	Net UOM	CHAR	000003	C_QM_TEXT	27	C_QM_TEXT	27	Text
34	Z_IM_031	Previous Creel Position	CHAR	000008	C_QRB_ACT	28	C_QRB_ACT	28	Action
35	Z_IM_049	Length	DEC	000015	C_BMGR	29	C_BMGR	29	BMGR Input
36	Z_IM_012	Process Order Number	CHAR	000012	C_PRINPUT	30	C_PRINPUT	30	Prod Input
37	Z_IM_045	Production Finish Date	DATS	000008	C_TEINPUT	31	C_TEINPUT	31	Tech Input
38	Z_IM_046	Production Finish Time	TIMS	000006	C_FLGCROS	32	C_FLGCROS	32	Flag Cross System
39	Z_IM_029	Winder Number #	CHAR	000008	C_CROSSYS	33	C_CROSSYS	33	Cross Source System
40	Z_IM_028	Metering Pump #	CHAR	000011	C_ZUSTD	34	C_ZUSTD	34	Batch in Restricted-Use Stock
41	Z_IM_047	Carbon Spool Winder	CHAR	000008	C_B_SDOC	35	C_B_SDOC	35	Batch Attr - Sales Document
42	Z_IM_030	Creel Position	CHAR	000008	C_B_SITM	36	C_B_SITM	36	Batch Attr - Sales Item
43	Z_IM_036	Doff	CHAR	000011	OQUANTITY	37	OQUANTITY	37	Quantity
44	Z_IM_004	Sales Document	CHAR	000010	OUNIT	38	OUNIT	38	Unit of measure
45	Z_IM_005	Sales doc. item	NUMC	000006	C_PRCSORD	39	C_PRCSORD	39	Process Order Number
46	CUOBJ_BM	Int. object no.	NUMC	000018					
47	CLABS	Unrestricted	QUAN	000013					
48	Z_IM_006	Target quantity	QUAN	000013					
49	Z_IM_007	Target qty UoM	UNIT	000003					

Linked Quantity

Quantity available in the SAP transaction ZWIM023.

% Linked

Formula at query level: (Linked quantity / Document Item Quantity) * 100

Estimate GI Date

New field available in order to provide always a GI date for the Order Line, because when data comes from Open Order Not Scheduled DSO (DBSDSO97) the To Be Invoiced date has a constant value 01.01.1900.

This field is based in a formula at Calculation View level where it checks if the C_FLAG is Marked, if YES then considers the Goods Issue Date (GI_DATE), otherwise keep the To Be Invoiced Date (C_TBIDAT2).

Note: C_FLAG is marked only when the data comes from Open Order Not Scheduled DSO (DBSDSO97) .

Note: The next fields have been defined in the DBSDSO9D self loop transformation (Rec DBSDSO9D -> ODSO DBSDSO9D)

Usage Decision Complete (Concatenated)

Check the batch attribute (C_LOBMUD), Y if all batches linked do the Sales Order/Transfer Order Item have 'R04 A' , if one of them is N, then N.

Unrestricted (Concatenated)

Check the batch attribute (C_ZUSTD), Y if all batches linked do the Sales Order/Transfer Order Item have Y, if one of them is N, then N.

Process Order WPX (Concatenated)

Concatenates all the Process Order documents available to the Sales Order/Transfer Order Item.

Sched Prod End (Concatenated)

Concatenates all the Schedule Production End dates available to the Sales Order/Transfer Order Item.

Sched Prod Start (Concatenated)

Concatenates all the Schedule Production Start dates available to the Sales Order/Transfer Order Item.

Parent Batch WPX (Concatenated)

Concatenates all the Parent Batches available to the Sales Order/Transfer Order Item.

Backlog

Y - Last Requested Goods Issue date (C_LSTRQGI) is less then Current day

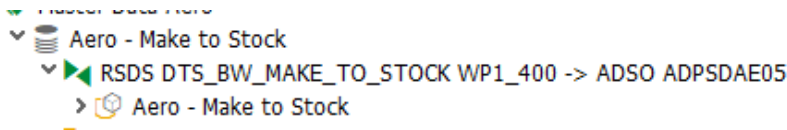
Credit block (C_CRDBLK) is empty, A or D

Delivery blockings (C_DELBLK and C_DELBLK2) are empty

N - Other conditions

Make to Stock

New extractor created to load data from SAP tables KOTH911 and KONDH.



```
ADPSDAE05
0C0YZ6LH71QSJNM3K0301PZ61UV59UK2
DTS_BW_MAKE_TO_STOCK
```

Definition:

KONDH-CHMVS	Make to Stock
913	MTO+SPEC
914	MTS
915	MTS+SPEC

Dependencies with other applications

Data loadings

Info providers and objects loaded

Loading frequency

Average performance

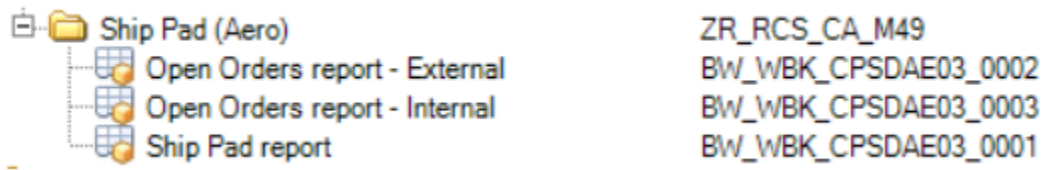
Key Figure	Estimation
~ Average Process Chain Runtime	
~ Average nb of rows loaded per load	
~ Total nb of rows loaded (if full)	
~ Average Runtime for 10k lines	

Record Keeping

Reporting

Queries End User Documentation

Workbooks:



Main queries

- BW_QRY_CPSDAE03_0001 – Ship pad report
- BW_QRY_CPSDAE03_0002 – Open Order – External
- BW_QRY_CPSDAE03_0003 – Open Order – Internal

Last 2 queries include only Sales Order (filter on C_ITM_GS-C_SDCATEG = 'SO').

Main functionalities

Broadcast

Maintenance

Known bugs

Recurring procedure

Planned Evolution