

# **MM MRP Planning**

# Analysis of Release Performance MM (/n/WSWN/SPEEDI\_T039)

Automotive suppliers need to follow the increasing flexibility which OEM's ask. The SAP elements of the "normal" MRP controller are not the customer SD Scheduling Agreements but our call-off's to our suppliers (=MM Scheduling Lines). The a.m. transaction from software supplier WSW gives the MRP controller the chance to detect certain fluctuations in our call-offs. A "good" MRP controller knows proactively when she/ he has changed its call-off in a certain range before the supplier will response. Hence the MRP controller is prepared for escalation talks and concentrate in getting the parts even the call-off fluctuation was not caused by her/ him.

Another use case are analysis after a shortage occured to negotiate certain costs to be burden by the supplier or by us (e.g. special transport costs, costs for additional shifts etc.).

The objective of this transaction is

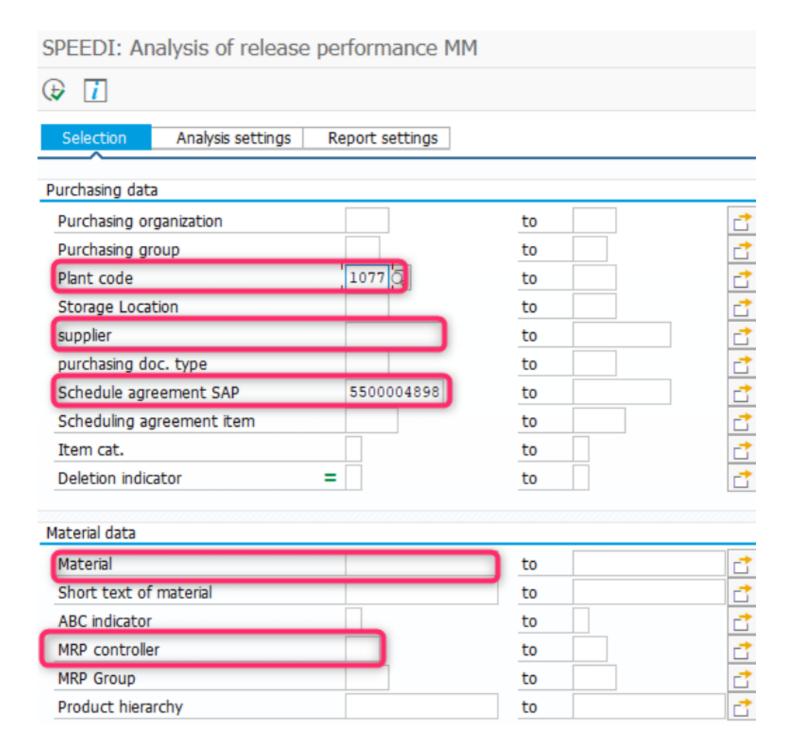
- Maximum flexibility during data selection, processing, and presentation
- Targeted search and access possibitlity to tolerance violations
- Quick detection of release order tendencies, also across longer time frames
- Practical result processing
- Time effort minimization

The result is a strategic and operative overview (long-term, medium-term, and short-term) of the release order situation in certain scheduling lines or per supplier.

The newly gained transparency about the release order behavior provides a very good argumentation basis towards the vendor.

## a) Selection options

The user has many parameters how to select certain MM-scheduling lines:



## b) Comparison settings

You also can use F1-help, e.g. for the determination of the base release:

The **base release** is determined based on the date entered in the field "Release date". If there is no release with exactly this release date, then a search is done "backwards" into the past until a release is found. The later visualization as well as calculation of differences and percentage values is basically realized in comparison of the **"basis release order"**.

Next you determine the qty. of releases which you like to compare to the base one. The selection options are quite flexible depending on you need of analysis. In this example the previous 15 releases being selected.

The final setting "Requirements determination and display" determines which periods/ horizon you like to compare. In our example the call-offs for the period 01.01.2022 until 30.04.2022. The requirements are outputted as absolute quantities or as the respective input cumulative quantities (CRQ=FZ). For further details refer to F1-Help.

The usage of traffic lights will be explained in chapter 1.4 below.

SPEEDI: Analysis of release pe	rformance MM
<b>₽</b>	
Selection Analysis settings Re	eport settings
Determination of base release  Rel.Date 21.03.2022  ▼ ForeDlvSched JITDlvSched	Base release
Determination of releases to compare	Compare releases  15 releases to compare  to
No. of rel. to compare  ✓ ForeDlvSched □ JITDlvSched	○ only one
Determination and view of requirements	Periods
Requirements from	01.01.2022 to 30.04.2022
Display	4 Day Week Month cumulative
Comp. with	absolute quantities
	○ CRQ □ Do not deduct deviation.

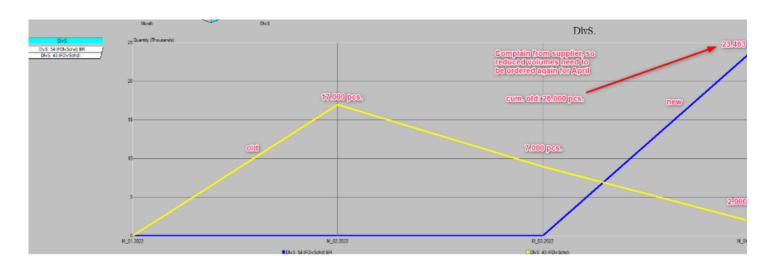
# c) Program output

First you receive the "Overview list" with certain "KPI" values to be displayed for your selection. For details how the values being caculated refer to F1-help.

More important are the Details which you can open by the icon "Details". A detailed result per release order / period can be reviewed:

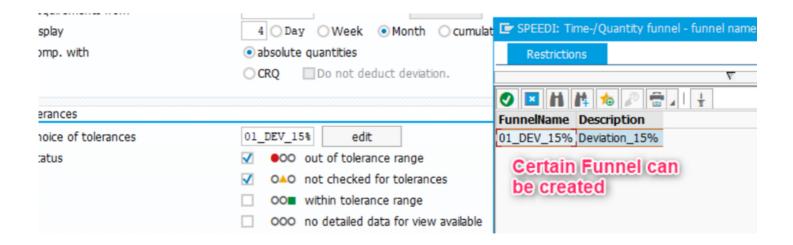
In our example with release 43 dated 09.02.2022 we still ordered 17.000 pcs. which we have reduced to 0 in our base call-off No. 54 dated 21.03.2022:

A good option is when you click the "Show graph". In our example we could see that we have reduced our call-off by approxm. 26.000 pcs. Then our supplier rejected such a volume drop and we had to order them again and placed approx. 23.500 pcs. for April again:

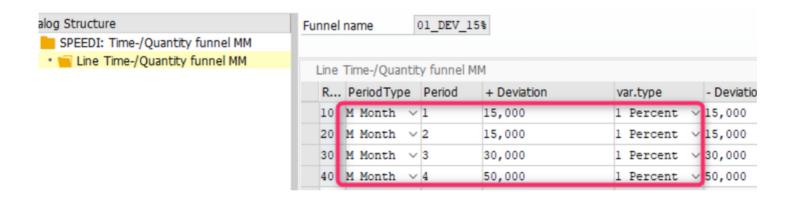


#### d) Tolerances

If the MRP controller runs daily the transaction for its respective materials an Alerting via Traffic Lights needs to be set to focus on the exceptions. Here the SPEEDI Time / Quantity Filter with individual tolerance settings needs to be set.



In the 2nd layer "Line Time-/ Quantity funnel MM" the traffic lights can be set based on Period, +/- Deviation and var. types (e.g. qty. percentage or values).



Further funnels will be set together with certain key MRP controllers.

## e) Training video

# **Bulk material (GER Schüttgut)**

Normally components being consumed by backflushing (GER retrograde Verbrauchsbuchung). For auxiliary materials or consumables it sometimes makes sense to use the SAP logic **Bulk material (GER Schüttgut)**.

Here the consumption being done by a manual warehouse task (GER Lageraufgabe) to destination storage bin 4500-001 (DPL), 4500-002 (EKB) & 4500-001/ 4510-001/ 4520-001 (TEM) which leads to a immediate consumption booking:

The respective production area needs to inform the warehouse manually that the material should be supplied to line (e.g. via manual KANBAN-two box logic).

# Settings

• Set tick in MM03 for auxiliary material or consumable

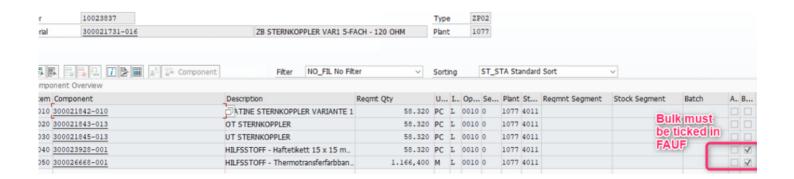
•	The settings of BOM for the semi-finished materials have to have following setting in the position
•	Warehousing has to be informed as well since certain settings to be done in EWM
•	No reservations being created so the orders need to be done manually. Here experience is necessary since the replenishment time and the consumption

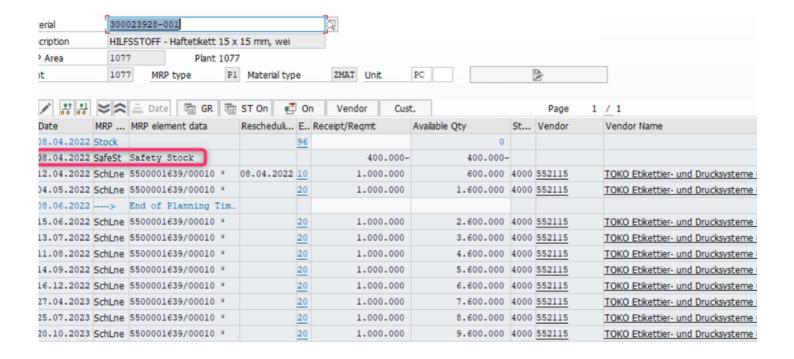
booking are not in sync so continous check and balance is necessary. It is recommended to even maintain a safety buffer

For application use following form:

#### Remarks

In case you need to change back, please note that existing production orders have to be set to TECO (GER Technisch abgeschlossen) as well closed in MES, so the bulk material indicator can be set again. Please inform Warehousing so the open Warehouse tasks can be closed as well. Then create new production orders. Please run afterwards an MRP with Planning Mode "3 Delete and Recrete Planning Data" so also the Planned Orders being refreshed.





# Establish MM-SA Release docu. for Intercompany ZLUE (SYNRE-1226)

MM-SA which were created by GAP-246 have automatically a release docu. for our 100% Intercompany MM-SA following setting needs to be established:

Create new MM-SA with Agreement Type ZLUE:

Create Scheduling	Agreement	: Initial Screen
🖍 📤 🛅 🗋 Re	eference to PRe	eq 🗋 Reference to
Vendor	577461	
Agreement Type	ZLUE	MEGAL
Agreement Date	25.04.2022	ME31L
Agreement		
Organizational Data		
Purch. organization	1000	
Purchasing Group	A36 Q	
Default Data for Items		
Item Category		
Acct Assignment Cat.		
Plant	1178	
Storage location		
Material Group		
Req. Tracking Number		
Supplier Subrange		
Acknowledgment Reqd		

• Then go via button "Details" and set "Creation Profile" to "0001":



Then Save and you will see the History:
<ul> <li>In addition, pls. check if the Shp.Cond. is set to "02" and respectively the "Route" which comes from Business Partner (BP):</li> </ul>
Training Video

# Usage of Product Group (table PGMI) (e.g. to deviate Pre-Series with Series Materials) SYNRE-1150

In the daily business Material Planner or Production Planner needs to distinguish materials, e.g.

- To distinguish Pre-Series against Series materials
- Select special products like Co-Products (GER Kuppelprodukte)
- To distinguish materials under allocation

The SAP Standard as well DRX-DGT offers the usage of Product Groups

# a) Create Product Group (MC84)

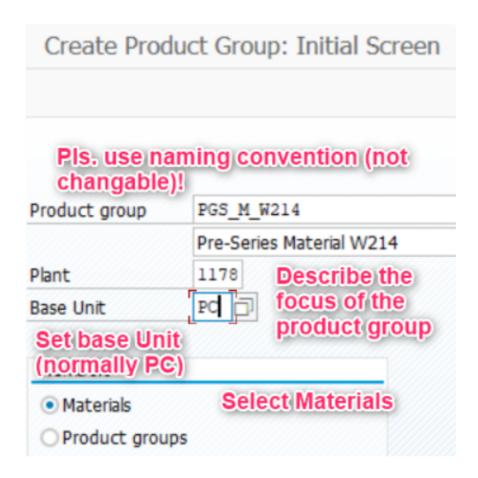
The naming of a product group is like the number of a material – it cannot be changed later. Therefore following naming convention must be followed:

- PGX\_M\_12 digits" for product groups which contains materials
- "PGX\_H\_12 digits" for product group which is a hierarchy level

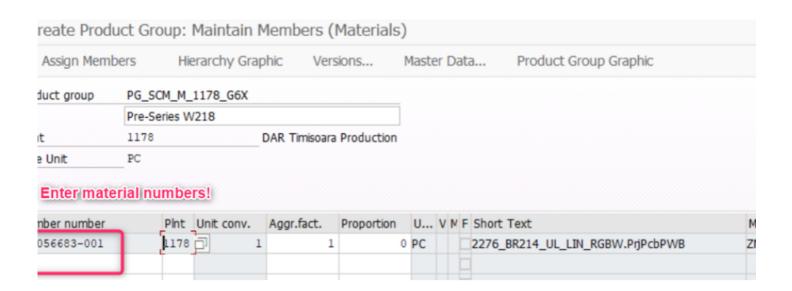
The X digit after the PG is according PDD nomenclature:

- P product group packaging
- S product group supply chain
- O product group sales
- C product group central purchasing

e.g. "PGS\_M\_12 digit" – product group supply chain\_materials\_12 digits to be completed

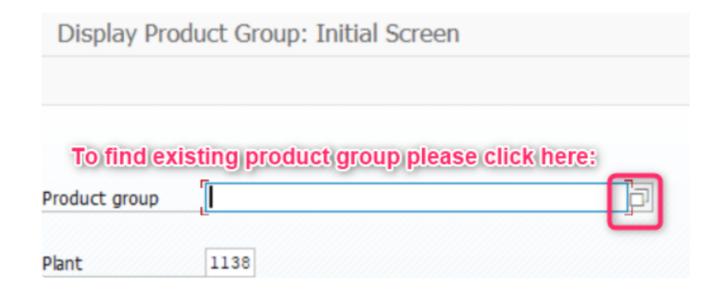


Then enter the relevant materials:



## b) Display Product Group (MC85)

To find existing Product Groups please click here:



Then click the green button and then the result list appears:

## c) Change Materials inside Product Group (MC86)

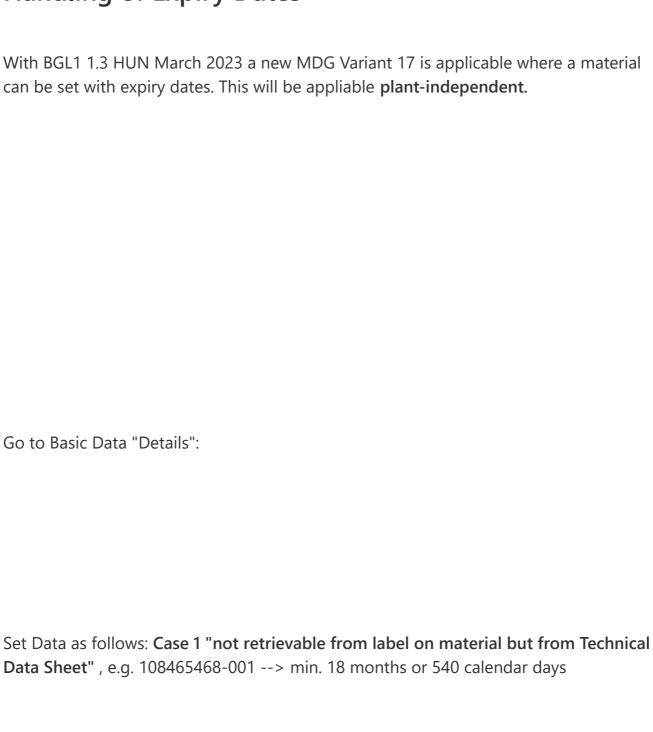
You either can add more materials or delete members in case the material becomes obsolete via the "Delete Member" button:

d)	Usage	in	certain	tran	sactions
- /					

• Stock/ Requirements List: MD07

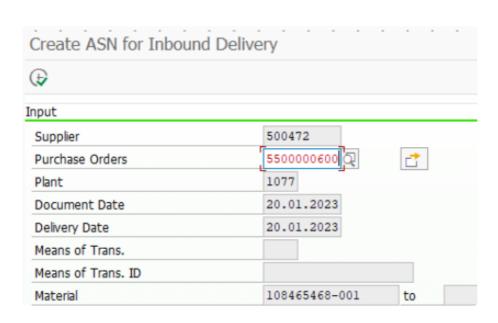
Training Video

# **Handling of Expiry Dates**



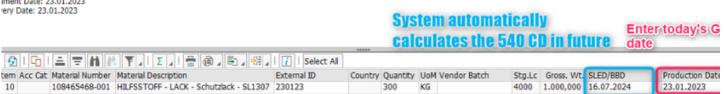
After the CR being released no further workstep applicable so MM03 is directly being updated:

After Receiving the Goods, the GR worker creates manual the ASN via ZMM\_Create\_ASN:

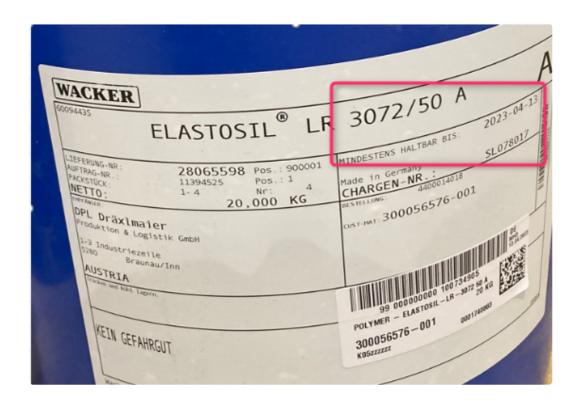


User must set manual a date in the field "Production Date" which might be the date of GR in case production day is missing:





Set Data as follows: Case 2 "expiry date is on the label of the Good", e.g. 300056577-001 --> e.g. min. shelf-life until 2023-04-13



Setting via MDG Variant 17:

#### helf Life Data



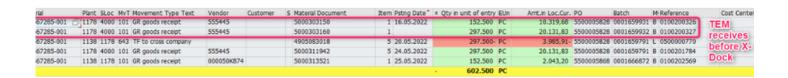
Alert will pop-up during ASN creation ZMM\_Create\_ASN:

Now the worker set the expiry date 2023.04.13 in the field "SLED/BBD". When the ASN being created the expiry date can be seen in the MSC3N:
<ul> <li>RUN regularly the MB5M Shelf Life List to detect potential expired materials to either:</li> <li>produce/ use up before</li> <li>get Quality Release</li> </ul>

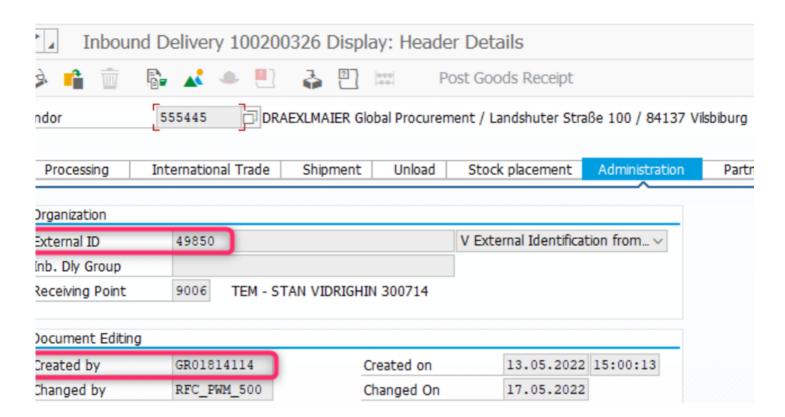
<u>Note:</u> Expired material in EWM storage locations (starting with 4 like 4010) will automatically booked under restricted use, so MRP will order new material. This should be avoided or at least known by material planner				
Training Video:				
How to use Expiry Dates-20230126_141640-Besprechungsau				

# Invoice Correction "Black" delivery ex X-Dock to Production Plant

In urgent cases or accidently material could be loaded on the truck from X-Dock to the production plant. Here an example from May 2022 (Mat.no. 200567285-001) where material already being booked into production plant before material being processed in X-Dock (line-stop item):

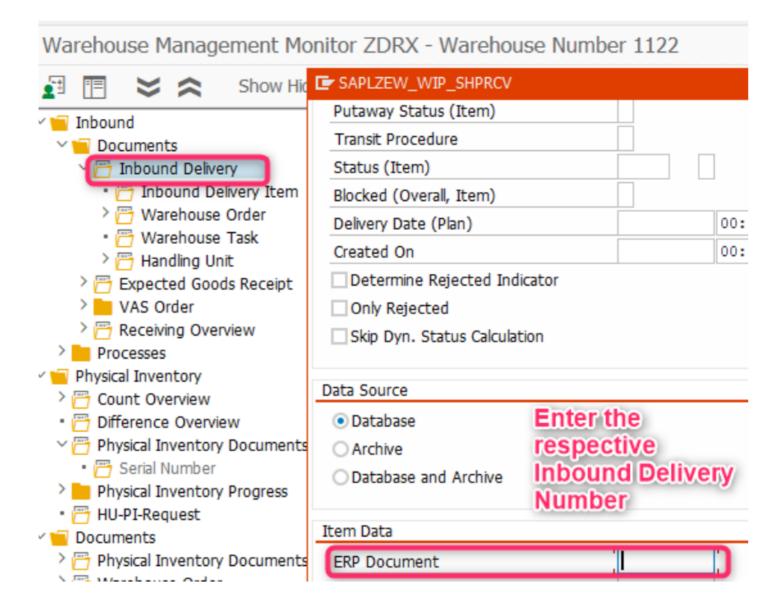


Since no "official" ASN/ Delivery Note from X-Dock 1138 could be created the worker @TEM had to book it manually with a Dummy D/N:



Consequently the later X-Dock processing will cause following major problems:

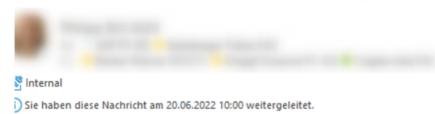
 A new ASN/ Delivery Note will be created when X-Dock makes its "official" booking -> ASN/ Inbound Delivery in 1178 must be manually deleted:



• X-Dock Invoice for the "deleted" ASN/ Inbound Delivery will fail since the GR Dummy 49850 does not fit to the "official" ASN/ Inbound Delivery (screenshot from another example how to check):

As you can see qty. are not in sync, especially "Rechnungseingang" due to the failed idoc. In such cases Brit Philipp needs to be contacted so she can edit the idoc with the right GR ref.:

W: Another Case: Another Manually Invoicing X-Dock

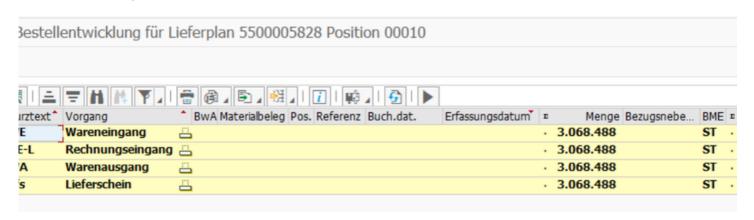


illo zusammen,

be das Idoc 36791796 (invoice 1040000310) angepasst und gebucht. leg Nr. 5105661479 wurde hinzugefügt

oc 36265336 dito (invoice 1040000275) leg Nr. 5105661481 wurde hinzugefügt

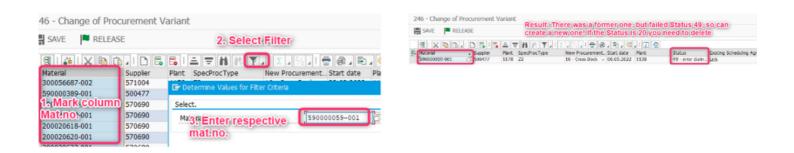
ın schaut der Lieferplan 5500005828 wieder sauber aus.



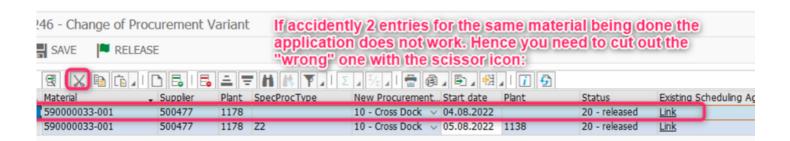
# Change of Supply Mode X-Dock to Direct or Direct to X-Dock

Please use below's button to get to the right site "Transaction" where the ZMM\_246N\_PROC\_CHANGE being explained:

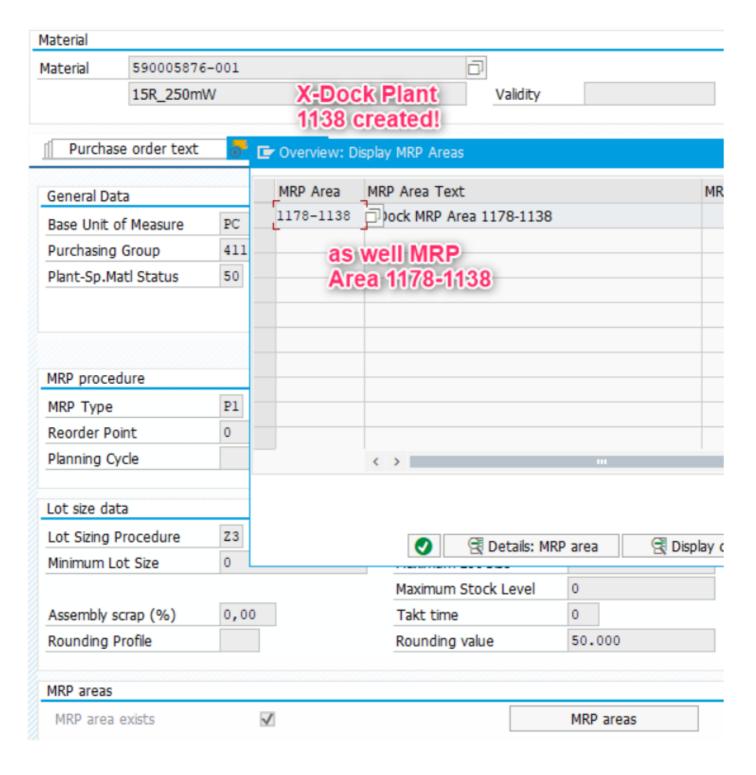
- **ZMM\_246N\_PROC\_CHANGE**: When you create master data via MDG the first time the supply mode (e.g. direct supply or X-Dock via SOBSK) is being defined and GAP246 is running and creating Inforecord, MMSA and order book. Even you change later the SOBSK which drives the supply mode e.g. to SOBSK Z2 X-Dock 1178-1138 it will **not re-start the GAP246!!!** The correct way is to use this transaction which will now being explained:
- Before inserting a new line check if a previous task is finished.



• 2 parallel released change tasks for one material is not allowed. In such case please delete the wrong one via the scissor icon:



• Before you start now pls. check if the plant 1138 and the MRP Area 1178-1138 is created via MDG before:



• Now you can make a new entry: There are two options a) Append Row Icon (Line will be created on the end):

• b) Insert Line Icon (Line wil be created on the top or below the marked line):

# • Pls. select the data as follows:

**EXPLANATION OF STATUS:** 

**UPDATE MASTER DATA VIA MDG VARIANT 14** 

The transaction ZMM\_246N\_PROC\_CHANGE is currently not correcting or updating several important MRP parameter as FXHOR, ROUNDING VALUE etc. Therefore it is necessary that after the transaction is excecuted that the MRP controller is checking the MD04 and makes updates:

- Is the PLANNING CALENDER correct?
- Should you run once the MRP with FXHOR 1 to create a clear first ok call-off and then increase the FXHOR again?
- Is the ROUNDING VALUE and/ or MINIMUM ORDER QTY. (MOQ) correct?

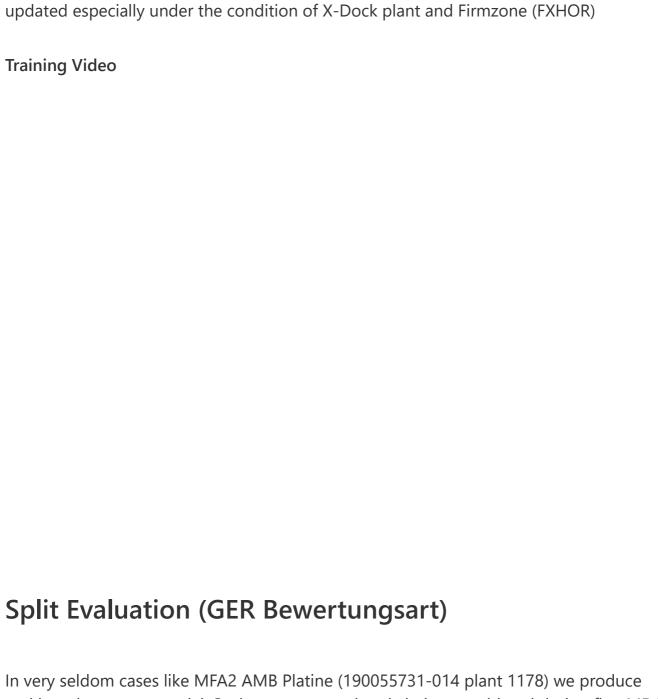
In addition, it is recommended to delete old not valid MMSA as well. Also check if you need to update the order book (ME01). Here the transaction **ME3M** helps:

# Evaluated Receipt Settlement (ERS) (GER Gutschriftsverfahren)

In SYNRE-934 the future design for Supplier ERS being development.

1st step would be that with Business Partner MDG the certain setting is being done:

Then a automatism will set the relevant "tick" in the contracts and via GAP-246 into the MMSA:
Unfortunately new MMSA need to be create hence the SYNRE-934 will enlage the transaction ZMM_246N_PROC_CHANGE. Further documentation will be added when application is Go-Live (planned Rel 1.3 May 2023).  Update MOQ or/ and Rounding Value

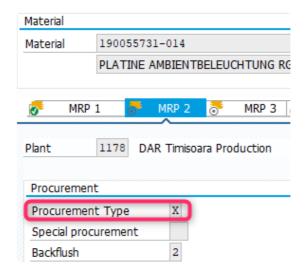


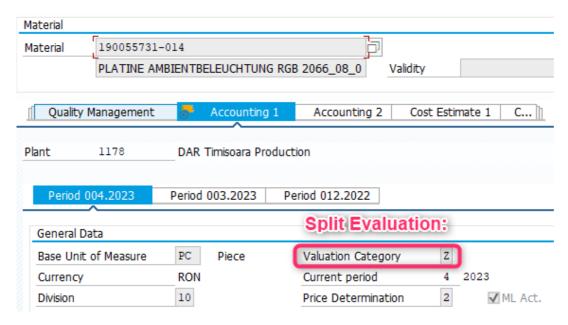
Following training video shows you have the MOQ or/and Rounding Value need to be

In very seldom cases like MFA2 AMB Platine (190055731-014 plant 1178) we produce and buy the same material. Such a case must already being considered during first MDG workflow and it is strongly recommended to leave a note in the workflow or inform Controlling (Morar/ Hritcan) via Prio 1 MDG Teams Channel to maintain split evaluation F & E.

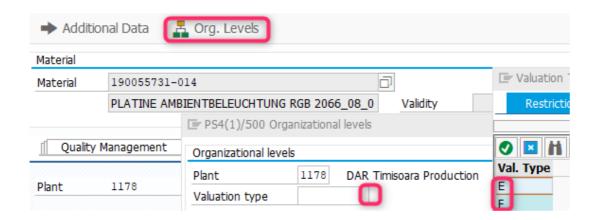
In addition, the procurement type must be a real "X".

<u>Please note:</u> A missing split evaluation cannot be adjusted in a later step when already booking occurred!

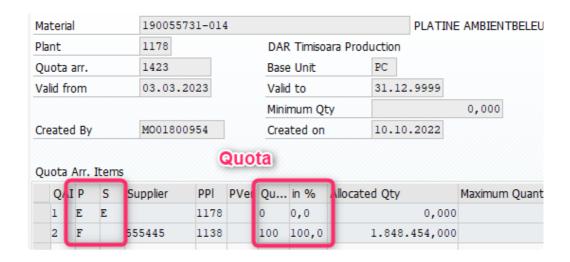




To see the values please select as follows:



Consequently, a Quota Arrangement needs to be maintained. In this example it was returned to 100% Buy part but before there was a quota for make and buy:



Further SAP elements needed: **Make** --> BOM (CS03) & BOP (CA03) & Production Version (C223)



# Support 1138 X-Dock VIB with VL10F

The business rule is that the plant 1138 X-Dock VIB (GER Warenverteilzentrum VIB) will ship all materials which was received being shipped out to the respective production plant like 1178 TEM & 1179 HUN.

The pre-condition is that open MM-Scheduling lines (ZLUE) exists independently from the date of delivery based on the rule MM-Scheduling Lines (ZLUE) >= stock @1138

Currently X-Dock workers write requests to the relevant MRP controllers to increase the Scheduling Lines. With following improvement this can be minimized.

1. <u>Step Apply a new Role "SCM\_MRP\_Controller" in UnITe service catalogue "SAP Synapsis..."</u>

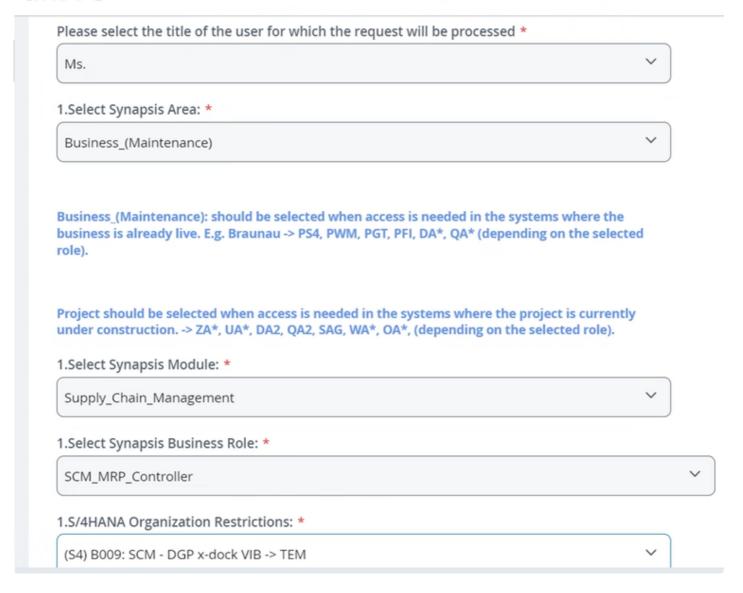


IT Anträge

SAP Synapsis Zugriffsberechtigung

Access SAP Synapsis request 1 Tag - Geschätzte Erfüllung





MRP controllers 1178 TEM: Choose Organization Restrictions B009: SCM - DGP x-dock VIB --> TEM

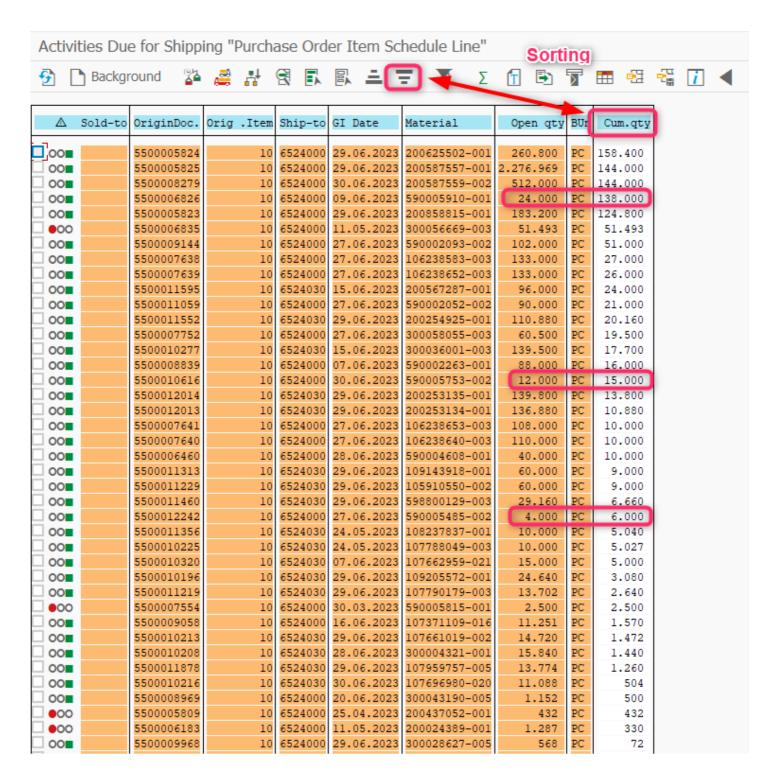
MRP controllers 1179 HUN: Choose Organization Restrictions B010: SCM - DGP x-dock VIB --> HUN

# 2. Run in daily MRP routine the transaction VL10F

Selection screen: Shipping Point 9001 for 1138 X-Dock

Purchase Or	der Item Schedule Line	VL10F		
<b>₽</b> [ i	H Collective Processing Lo	gs		
Shipping Point/Red	ceiving Pt 9001	to		
Deliv. Creation Dat	e	to	30.06.2023	
CalcRuleDefltDlvCrDt Reduce date to approx. 6 weeks in the future to increase performance				

Then sort the column "Cum.qty" to see the materials with stock:



Then search for the items with the condition:

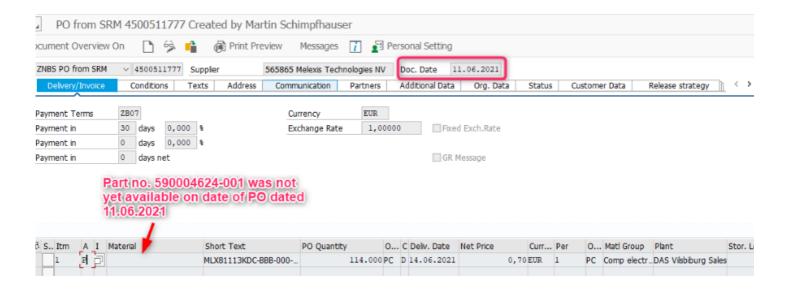
Open Qty. < Cum qty. (red marked frames)

Now the MRP controller proactively increases the scheduling lines of the respective ZLUE.

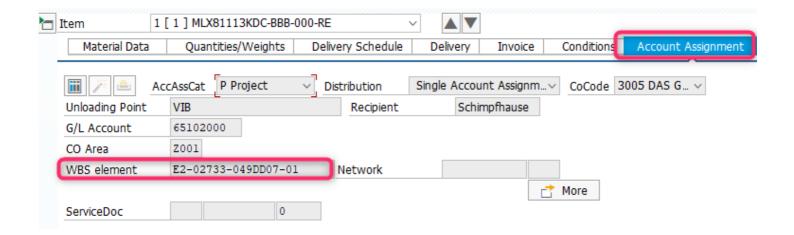
Remarks: To improve this evaluation you can copy separately the 3 columns with Control+Y (mark) and Control+C (copy) into Excel and make there a quick calculation:

# Shopping Card Parts: Normally not applicable

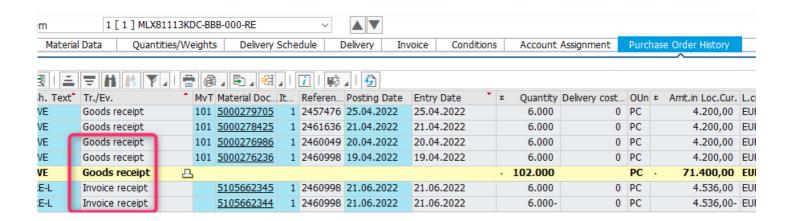
Sometimes when material number is not yet available during pre-series phase a so called shopping card PO might being created either in C-system or P-system. Such PO's always against a project WBS, e.g. 4500511777



In the Account Assignment you can retrieve the WBS:



Since Goods Receiving will be made against PO number a material number is not necessary. In addition, no stock being created in the system since it is a Project-PO with WBS:



So after Goods Receipt, the parts/ package being delivered physically to the responsible person for its purpose.

But what to do if the parts needs to be shipped to another plant. In the following a possible procedure will be explained which should only being applied as an **exception!!** 

First you need to evaluate "Accounting 1" view of the respective plant where stock should be created:



Material-Master-Data exists (finished MDG) Example 590005140-001

A) Material in Accounting 1 not valued and price control V (MM03-Accounting 1)



B) Material in Accounting 1 valued and price control V (MM03-Accounting 1)



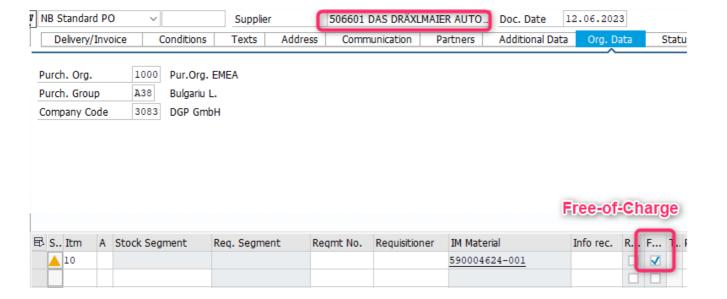
C) Material has **price control** (MM03-Accounting 1)

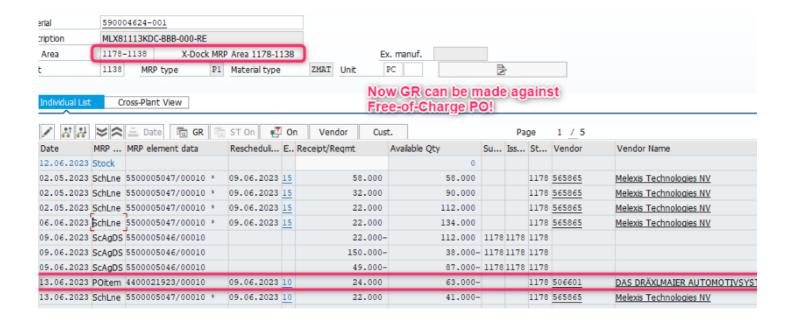


- A) Price Control V and value is 0. In other words, so far not Goods Receiving occurred so a free-of-charge PO can be utilized to create stock. Controlling does **NOT** need to be involved (no MR21)
- B) Price Control V and value is not 0. Here Controlling (MR21) needs to be involved after the GR being executed since the V-price will be dropped when doing GR against freeof-charge PO.
- C) Price Control S with value or value is 0. Controlling does **NOT** to be involved (no MR21) when using a Free-of-Charge PO.

ME21N Create Free-of-Charge PO e.g. 4400021923

Create a Free-Of-Charge PO like 4400021923





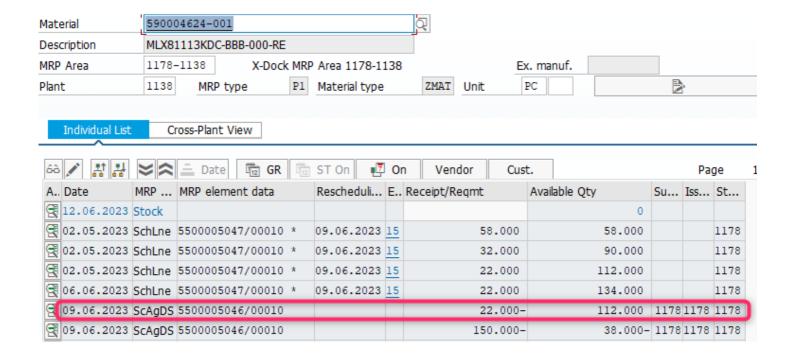
Now Goods Receiving can create stock.

### MR21 Price Change for variant B

Since the V price will be dropped when do GR against Free-of-Charge, pls. approach controlling to perform MR21 which needs to be documented for KPMG reasons.

### Outbound delivery to plant

When the receiving plant should pay for the parts then the normal Interco MMSA can be used, e.g. 5500005046



If not another Free-of-Charge PO from the receiving plant needs to be created as well. In out case use as supplier 555445 DGP.

Note: In our example the Accounting 1 in plant 1178 TEM shows Price Control S, so variant C and Controlling is not involved.

# Contact



SO Schmidhuber Susanne OG1212 Employee Warehouse Logistics

#### LINKS

Knowledge Transfer Home Page