# GBU Materials Planning IT Ecosystem (Picaso, EP, WebDP, Management Dashboard)


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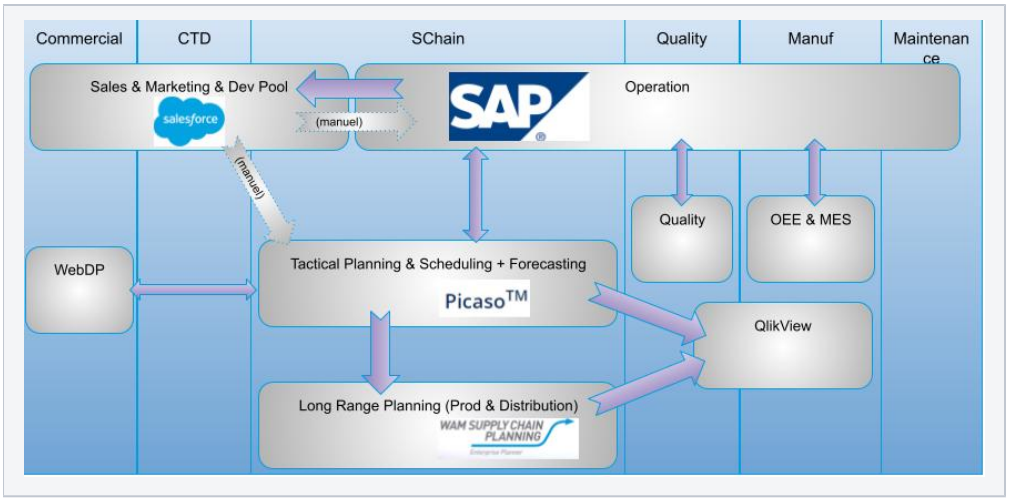
# Overview

## Simplified IT Ecosystem

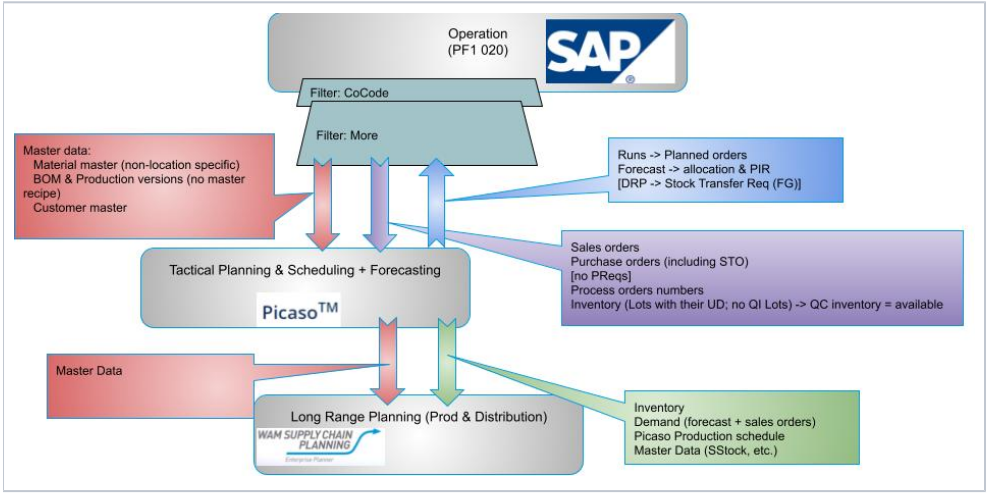
Picaso is the Scheduling, Demand Management, and Supply Chain monitoring system of the GBU.

The current name of Picaso is actually TPS (Tactical Planning and Scheduling). Picaso is the historical name of this application.




# Interfaces (zoom in on Picaso & EP)

## PF1  Picaso Interfaces




Find more about the PicasoSAP Production Schedule Upload Interface (Runs  Planned Orders)

Find out more about the Forecast  allocation & PIR interface (work in progress)

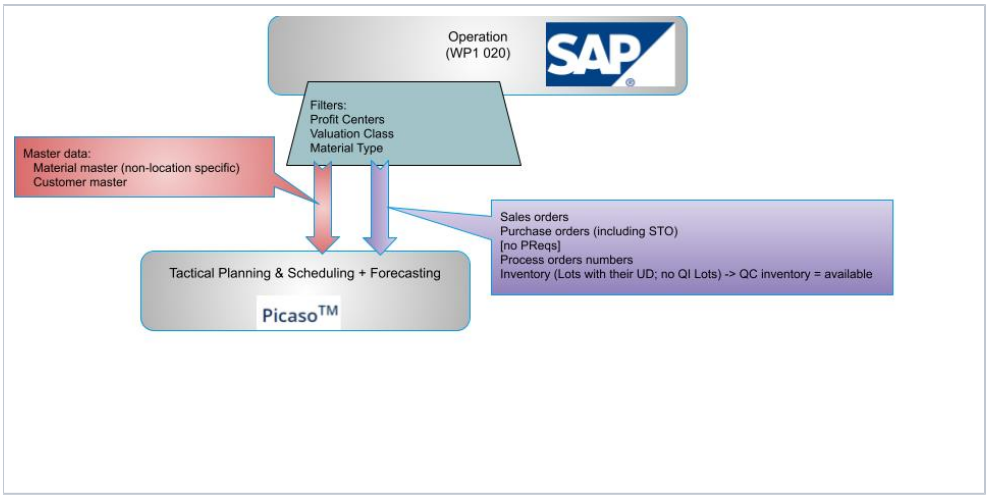
Find more about the SAPPicaso Master Data Interface.

Find more about the SAPPicaso Transactional Data Interface (Sales orders, Purchase Orders) (work in progress).

Find technical info about the Picaso  SAP interfaces

Find more about the Interfaces filters

## WP1  Picaso Interfaces




## List of Planning Applications

### Picaso Modules

- Demand Management
- Supply / Demand monitoring (aka the Grids)
  - Distribution Requirement Planning (DRP) - automated generation of a distribution plan
- Production schedule (hourly buckets) - full manual or automated (Detailed Scheduler)
  - (add-on) Dynamic Scheduling - automated generation of a production schedule

### Other Apps

- ADM: Advanced Data Management
- EP: Enterprise Planning
- Inventory targeting: calculation of target stock, setting safety stock
- WebDP: Web-based Demand Management
- PicReport: Access-based reporting system
- Management Dashboard
- and of course, SAP.

# Picaso Modules

## Demand Management

- Customer/product/pack/region (month)
- All key figures displayed/modifiable (security depending)
- Sales History: shipped orders
- Open orders: outstanding orders
- Inheritance logic
- Sales Rep -> Account Mgr forecast (manual)
- Adjusted Forecast -> netting (automated) (find the logic here)
- Sales Control goes to SAP for allocation (manual)
- Manger -> Planner forecast (manual)
- Final forecast goes into Supply/Demand
- Real time (no snapshot/frozen period) <-> Supply/Demand

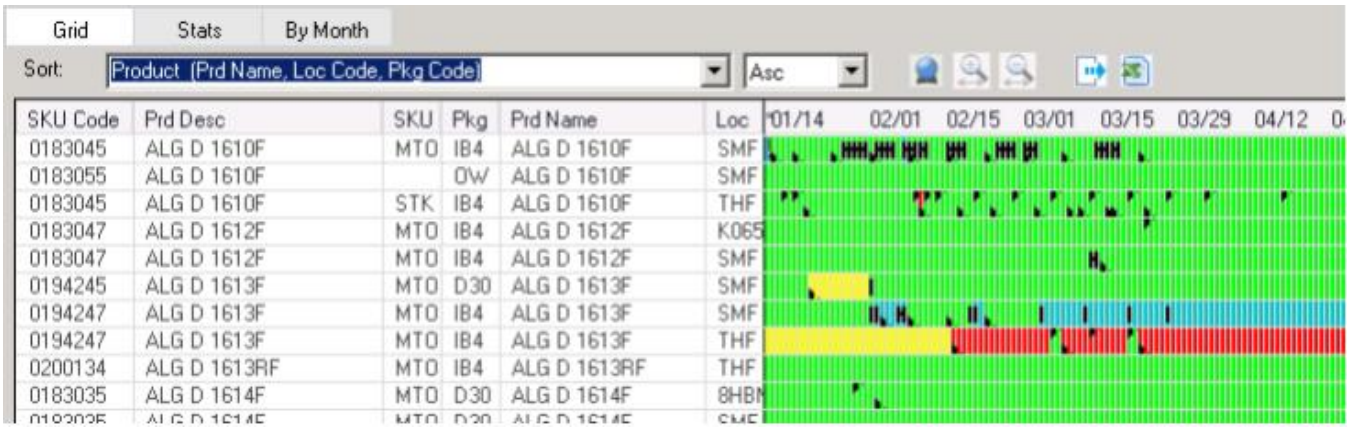
| Source | Jan 2021 | Feb 2021 | Mar 2021 | Apr 2021 | May 2021 |
|---|---|---|---|---|---|
| Sales History | 6,000 | 0 | 0 | 0 | 0 |
| Open Orders | 0 | 0 | 0 | 0 | 0 |
| Budget | 13,500 | 13,500 | 13,500 | 13,500 | 13,500 |
| Statistical | 18,914 | 16,389 | 11,511 | 8,718 | 11,841 |
| Sales Rep | 11,500 | 14,500 | 14,500 | 13,500 | 13,500 |
| Adjusted Fcst | *11,500* | *14,500* | *14,500* | *13,500* | *13,500* |
| Sales Control | 6,000 | *14,500* | *14,500* | *13,500* | *13,500* |
| Managers | *6,000* | *14,500* | *14,500* | *13,500* | *13,500* |
| Final | 6,000 | 14,500 | 14,500 | 13,500 | 13,500 |

more about Demand Management

## Supply / Demand monitoring

### The Grid

The grids are visual alert monitors, that give you a general feel of the projected inventory per product/package/location.

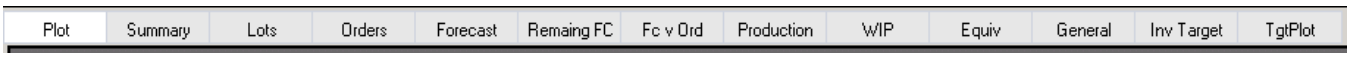



more about Supply / Demand Monitoring (aka, the grids)

### Product / Location specific supply / demand data

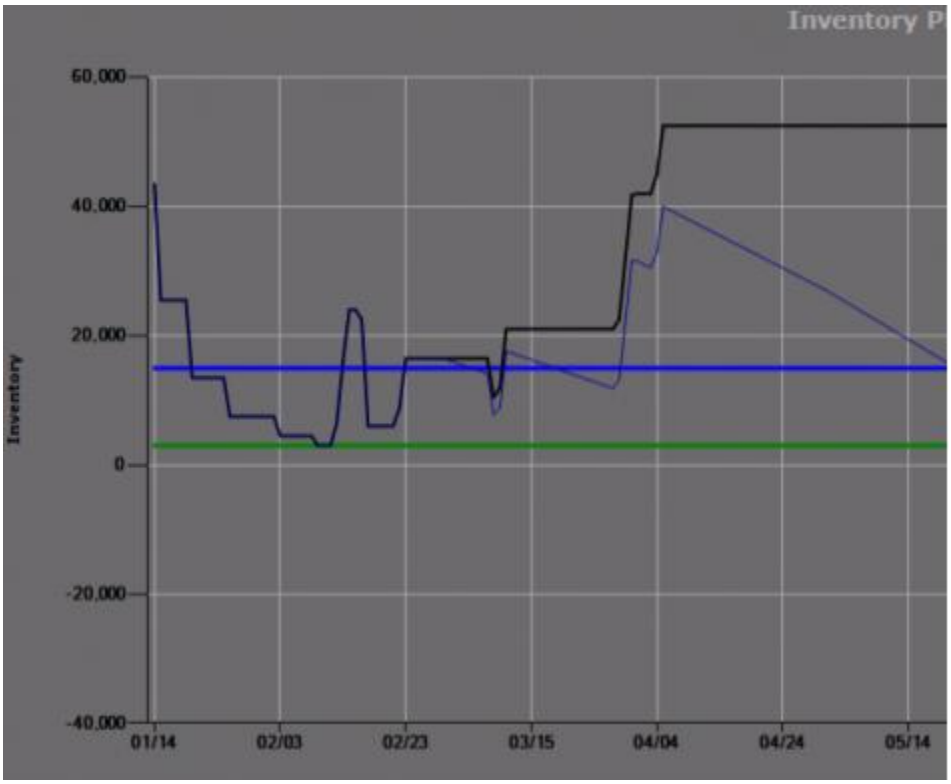
(aka: SKU Details)

A right click on a product/location takes you to the detailed screen that lets you analyze the situation of said product / location.



## Plot

A graphical view of the projected inventory.




## Summary

A monthly breakdown of the in- and outwards movements, with resulting EoM inventory and Days of Sale.

NB Stock transfer Orders
DRP records (where applies)

UB stock transfers (inbound)

UB stock transfers (outbound)

Sales orders

| Plot | Summary | Lots | Orders | Forecast | Remaing FC | Fc v Ord | Production | WIP | Equiv | General | Inv Target | TgtPlot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10/26/2022-10/31/2022 | | 11/01/2022-11/30/2022 | | 12/01/2022-12/31/2022 | | 01/01/2023-01/31/2023 | | 02/01/2023-02/28/2023 | |
| Inventory On 10/26/2022 | | 10 | | | | | | | | | | |
| + Unreported production | | 0 | | | | | | | | | | |
| - Unreported consumption | | -0 | | | | | | | | | | |
| - Past due transfers out | | 0 | | | | | | | | | | |
| + Past due transfers in | | 0 | | | | | | | | | | |
| - Past due customer orders | | 0 | | | | | | | | | | |
| **Opening Inventory Position** | | | | 10 | | -2 | | -8 | | -3 | | -1 |
| Purchases | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| Intercompany | | | | 0 | | 8 | | 0 | | 0 | | 0 |
| Stock Transports | | | | 0 | | 8 | | 0 | | 0 | | 0 |
| SAP Transport Orders | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| Picaso Recommended | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| Consignment Fillups | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| SAP Purchase Reqs | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| Permanent Orders | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| SAP Production | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| Production | | | | 0 | | 10 | | 5 | | 15 | | 15 |
| **+ Total Increase** | | | | 0 | | 26 | | 5 | | 15 | | 15 |
| Consumption | | | | -0 | | -0 | | -0 | | -0 | | -0 |
| SAP Customer Orders | | | | 0 | | 18 | | 0 | | 13 | | 0 |
| Intercompany | | | | 12 | | 6 | | 0 | | 0 | | 5 |
| Stock Transports | | | | 0 | | 8 | | 0 | | 0 | | 0 |
| SAP Transport Orders | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| Picaso Recommended | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| Consignment Fillups | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| SAP Purchase Reqs | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| Permanent Orders | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| SAP Consumption | | | | 0 | | 0 | | 0 | | 0 | | 0 |
| Forecast remaining | | | | 0 | | 0 | | 0 | | 0 | | 20 |
| **- Total Decrease** | | | | 12 | | 32 | | 0 | | 13 | | 25 |
| **= Closing Inventory** | | | | -2 | | -8 | | -3 | | -1 | | -11 |
| **Days of Sale** | | | | -2.9 | | 9999.0 | | -6.6 | | -1.1 | | -25.7 |

## Lots

On hand inventory, broken down by lot.

Plot | Summary | Lots | Orders | Forecast | Remaing FC | Fc v Ord | Production | WIP | Equiv | General | Inv Target | TgtPlot

| Location | Packag | Produc | Lot # | Car # | Bler | Statu | Qty | Ty | Desc | Ship | Ship Date | Ord | Use | New | Date Produced |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6006 | IB4 | ALG D | 5PO 273 | NONE5493 | | | 4500.00 | A | >1/ THE USAGE DECISION WAS MAD | | 01/14/202 | | 1 | 0 | 12/04/2020 |
| 6006 | IB4 | ALG D | 5PO 273 | NONE5494 | | | 4500.00 | A | >1/ THE USAGE DECISION WAS MAD | | 01/14/202 | | 1 | 0 | 12/04/2020 |
| 6006 | IB4 | ALG D | 5PO 285 | NONE5491 | | | 10500.00 | A | | | 01/14/202 | | 1 | 0 | 12/11/2020 |
| 6006 | IB4 | ALG D | 5PO 301 | NONE5492 | | | 10500.00 | A | >1/ THE USAGE DECISION WAS MAD | | 01/14/202 | | 1 | 0 | 12/20/2020 |
| 6006 | IB4 | ALG D | 5PS 007 | NONE14029 | | | 13500.00 | A | | | 01/14/202 | | 1 | 0 | 01/10/2021 |

## Inbound and Outbound orders

| Arrived | Trans | Order # | Avail | Cust Name | Cust Code | Entry | Loc | Order | Qty | Reqd | Ship | Ship To |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02/09/2021 | 26 | 4513604607-10-1 | 01/14/2021 | KATOEN NATIE EDISON | 2100875 | 10/22/2020 | 6006 | | 9000.00 | 01/11/2021 | 01/11/2021 | 53YA |
| 02/09/2021 | 26 | 4513639750-10-1 | 01/14/2021 | KATOEN NATIE EDISON | 2100875 | 12/28/2020 | 6006 | | 6000.00 | 12/31/9999 | 01/11/2021 | 53YA |
| 03/05/2021 | 50 | 4513606586-10-1 | 01/14/2021 | Prithvi | 4202015 | 10/27/2020 | 6006 | | 3000.00 | 12/31/9999 | 01/12/2021 | 9014 |
| 03/09/2021 | 49 | 4513615933-10-1 | 01/14/2021 | KOREA SOLEXIS | 9006 | 11/12/2020 | 6006 | | 12000.00 | 12/31/9999 | 01/19/2021 | 9006 |
| 02/20/2021 | 26 | 4513589132-30-1 | 01/14/2021 | KATOEN NATIE EDISON | 2100875 | 09/23/2020 | 6006 | | 6000.00 | 12/31/9999 | 01/25/2021 | 53YA |
| 02/09/2021 | 7 | 4513615089-20-1 | 01/14/2021 | KOREA SOLEXIS | 9006 | 11/11/2020 | 6006 | | 3000.00 | 12/31/9999 | 02/02/2021 | 9006 |
| 03/10/2021 | 35 | +0000293400 | 01/14/2021 | WEST DEPTFORD | 325405 | 01/13/2021 | SMF | | 1500.00 | 02/03/2021 | 02/03/2021 | THF |
| 02/10/2021 | 2 | 5475303-10-1 | 01/14/2021 | DHL LOGISTICS | 100025955 | 11/16/2020 | 6006 | Key Acc | 1500.00 | 02/08/2021 | 02/08/2021 | |

## Forecast Overview

Plot | Summary | Lots | Orders | Forecast | Remaing FC | Fc v Ord | Production | WIP | Equiv | General | Inv Target | TgtPlot

**Aggregate:**

| 1/21 | 2/21 | 3/21 | 4/21 | 5/21 | 6/21 | 7/21 | 8/21 | 9/21 | 10/21 | 11/21 | 12/21 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1500 | 3000 | 10500 | 15000 | 18000 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 | 7500 |

| Location | 01/21 | 02/21 | 03/21 | 04/21 | 05/21 | 06/21 | 07/21 | 08/21 | 09/21 | 10/21 | 11/21 | 12/21 | Cust Fld 4 | Cust Loc Code | Cust Stat Name |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 000102914 | 100023277 | CIRON SA |
| SMF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 001120273 | 100024067 | DDP SPECIALTY PRODUCTS G |
| SMF | 0.00 | 0.00 | 0.00 | 00.00 | 3000.00 | 3000.00 | 3000.00 | 3000.00 | 3000.00 | 00.00 | 00.00 | 00.00 | 000461658 | 100001063 | DEKO SRL |
| SMF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | DEVCHN | DEVCHN |
| SMF | 1500.00 | 00.00 | 0.00 | 00.00 | 1500.00 | 1500.00 | 1500.00 | 1500.00 | 1500.00 | 00.00 | 00.00 | 00.00 | 001131396 | 100025955 | DHL LOGISTICS |
| SMF | 0.00 | 0.00 | 00.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 004002252 | 100010667 | OKITSUMO PAINT (CHANGSHU |
| SMF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 000462919 | 100005704 | POLIS SRL |
| SMF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 000416397 | 100006966 | SABER S.R.L. |
| SMF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 000155456 | 100002981 | SAFT |
| SMF | 0.00 | 0.00 | 0.00 | 00.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 001103173 | 100017724 | VERSEIDAG INDUTEX GMBH |
| SMF | 0.00 | 0.00 | 0.00 | 0.00 | 3500.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 000324632 | 100002815 | ZHONGSHAN OKITSUMO CO., |

## Production Schedule Overview

Plot | Summary | Lots | Orders | Forecast | Remaing FC | Fc v Ord | Production | WIP | Equiv | General | Inv Target | TgtPlot

| Date | Time | Unit | Sku Code | Rate | Duration | Qty | Package | Responsible Prod |
|---|---|---|---|---|---|---|---|---|
| 02/11/2021 | 15:34:00 | UF | 0193717 | 9600.00 | 1.09 | 10500.00 | IB4 | ALG D 3511F |
| 02/12/2021 | 17:49:00 | UF | 0193717 | 9600.00 | 1.09 | 10500.00 | IB4 | ALG D 3511F |
| 02/21/2021 | 17:04:00 | UF | 0193717 | 9600.00 | 1.09 | 10500.00 | IB4 | ALG D 3511F |
| 03/09/2021 | 20:34:00 | UF | 0193717 | 9600.00 | 1.09 | 10500.00 | IB4 | ALG D 3511F |
| 03/28/2021 | 20:02:00 | UF | 0193717 | 9600.00 | 1.09 | 10500.00 | IB4 | ALG D 3511F |
| 03/29/2021 | 22:17:00 | UF | 0193717 | 9600.00 | 1.09 | 10500.00 | IB4 | ALG D 3511F |
| 04/03/2021 | 16:32:00 | UF | 0193717 | 9600.00 | 1.09 | 10500.00 | IB4 | ALG D 3511F |

## Inventory Target

Find more information about how Inventory Targets are calculated here

### TargetPlot

## Distribution Requirement Planning

automated generation of a distribution plan

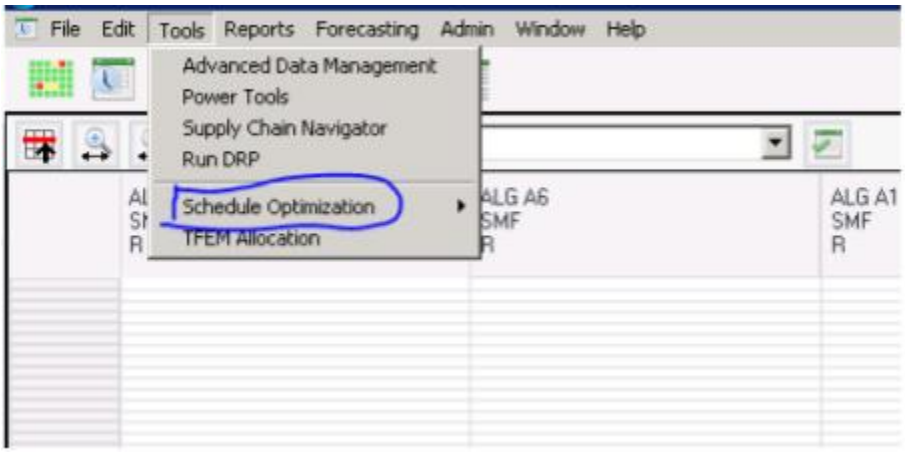
# Production schedule

- Finite capacity. One production line = 1 column
- Production campaign duration driven by qty (manual) and production rate (from master data)
    - Production rate updated in Picaso DB (no SAP interface)
    - BOM from SAP (daily interface)

- Automatic transition time calculation (optional)
- Each line scheduled individually
    - shared resource not supported
    - multisep production process to be managed by hand
- No feedback for in-process (manual update of in process runs)
- Daily interface w/SAP (one campaign = one planned order)
- One Schedule table used at a time (sharing conflict)
- Production Scheduling Scenario (what-if analysis)
- Navigation to output- / input product supply/demand balance
- Real time update within Picaso ecosystem

**Dynamic Scheduling**

- Automated Schedule builder
  - embedded in Picaso system (add-on)
  - No additional interface channel required
- Transparent to user: one add'l function in the menu
- Result goes into Picaso Schedule Table
  - No different from a manual schedule
  - Data flow to SAP goes from there




More about the Picaso Production Schedule module.

## Conventions in Picaso

Started as conventions, gradually morphed into guidelines.

| Grids | First Digit | Convention |
|---|---|---|
| | 0 | Aro US |
| | 1 | Aro EU |
| | 2 | Japan |
| | 3 | Greater China |
| | 4 | India |
| | 5 | Korea |
| | 6 | Plastomers, PVDC, PVDF |
| | 7 | Fluids |
| | 8 | |
| | 9 | Tecnoflon |

# Other Applications:

## ADM: Advanced Data Management

Picaso, EP, and WebDP master data are maintained in this central system.

A few other system monitoring, logging, and configurations are also found in ADM.

More about ADM

## EP (Enterprise Planning)

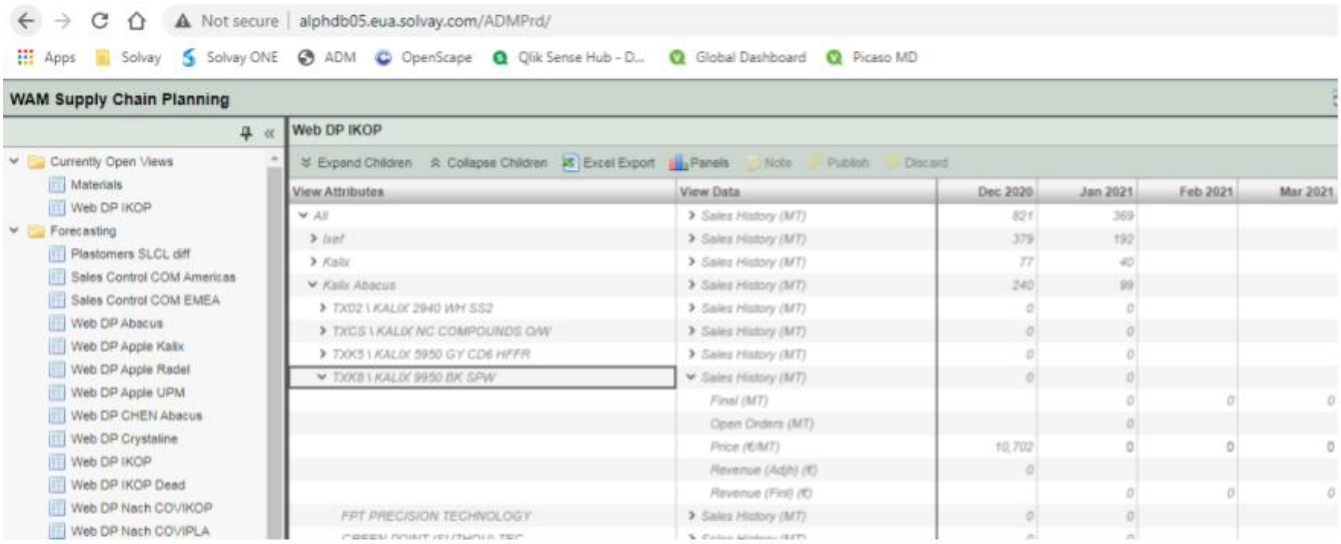
## Inventory targeting (calculation of target stock, setting safety stock)

How Inventory targeting works in Picaso

Extracting Inventory Target with Excel

More about Inventory Targeting by Jaide.

## WebDP (Web Demand Planning)




- Web enabled
- Horizon: 12 months(?)
- Accounts assigned to Account Mgrs (via Sales Force, manual synchronization[?])
- Forecast recorded at product / ship-to / month level
- Price: default (statistical), manual override possible
- No ‘forecast snapshot’. Picaso modules consider forecast from DP as soon as updated.
- Forecast accuracy (Sales Reps forecast of M-2, vs actual ship of M0)

## PicReport (Picaso Reporting)

PicReport is the reporting environment. We wanted to create our own ad-hoc custom reports.

It gives us access to all database in Picaso.

It is a read-only systems.

More about PicReport here

## Management Dashboard

## SAP

SAP is the key application for many departments in our company. The Planning group also uses a few SAP modules. Find training material for some of the most interesting ones.

| | |
|---|---|
| MD04 transaction & MRP setup | MD04 is a view on the projected inventory. |

# Interfaces

## Interfaces filters

### PF1 Picaso

| Materials and Inventory | |
|---|---|
| Profit Center | D310%, D3450, D3460, D3490, F10%, F42%, F45%, F46%, F49% |
| Valuation Class | Z000, Z049, Z050, Z053, Z061, Z100, Z101 |
| Material Type | Z700, Z707 |

| Orders, Production schedule status | |
|---|---|
| Profit Center | D310%, D3450, D3460, D3490, F10%, F42%, F45%, F46%, F49% |

| Formulations | |
|---|---|
| Profit Center | F42%, F45%, F46%, F49% |
| OR | |
| Profit Center | F10% |
| Plant | AUA, AQS, AIS, MJS, GDS, PNZ, 53ZD, CZ08, CZ37, SEM, 5D13, KAL |

| Team Clusters: | |
|---|---|
| Sales Organizations | 3470, 3383, 5642, 5685, 5835, 5782, 5846, 5876, 5978, 5991, 5955, 6246, 6267, 6327, 5726, 5785, P%CN |
| Distribution Channel | 11 |
| Division | 58, 61, 68 |

## WP1 Picaso

| We use the following selection criteria for WP1: | |
|---|---|
| Profit Center | 7523-I1176, 7523-I1199, 7523-I1201, 7723-I1176, 7723-I1199, 7723-I1201.<br>6409-I1176, 6409-I1199, 6409-I1200, 6409-I1201 |
| Valuation Class | Z130 |
| Material Type | ZMAT |

# PicasoSAP Production Schedule Upload Interface

The Picaso production schedule is uploaded into SAP every night (US late evening).

(Note that On-demand upload is also supported. Security must be given to a user to be allowed to upload the schedule. When running on-demand, runs on lines/locations that the user is allowed for are uploaded into SAP. More about this here.)

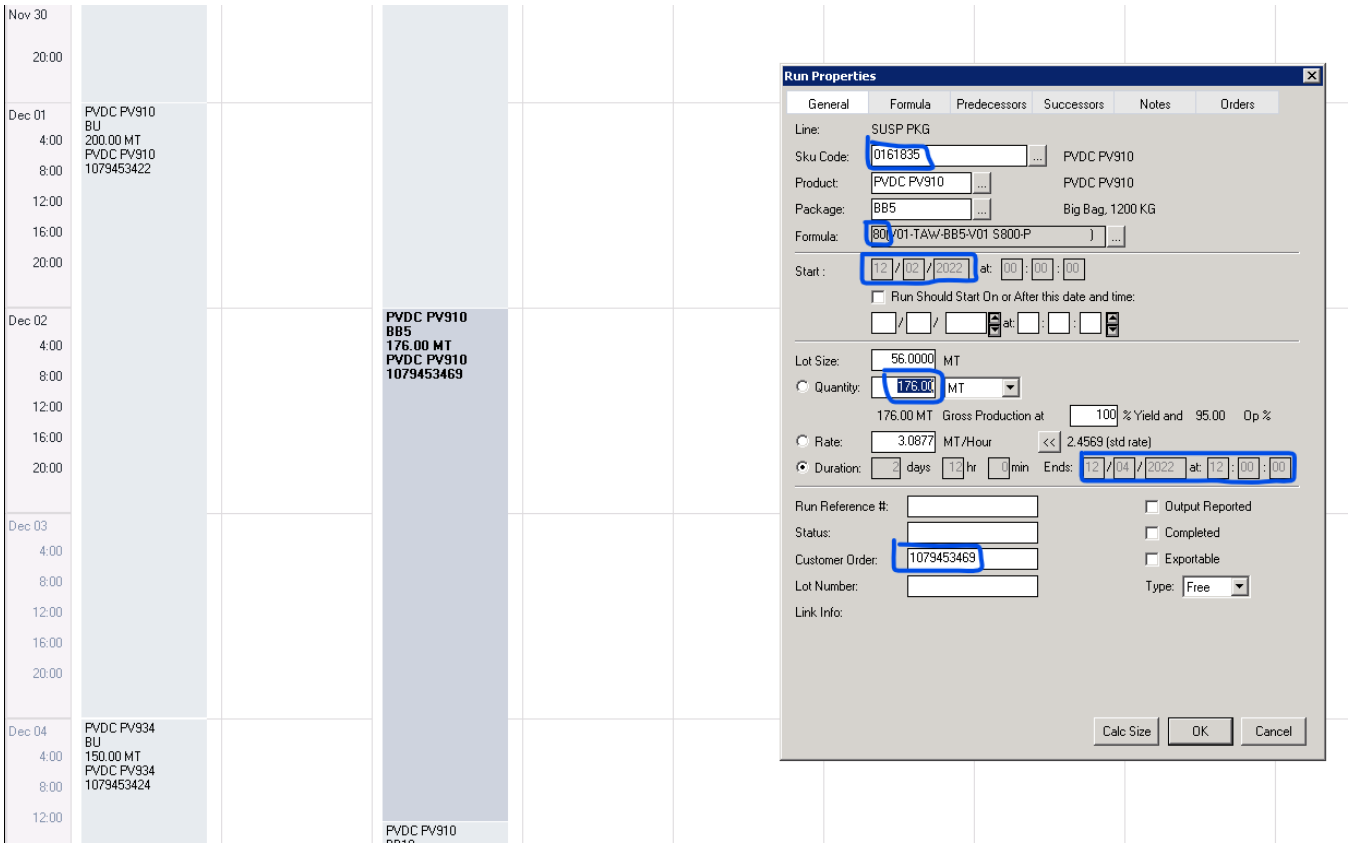
The interface creates one SAP Planned order for each Picaso run.

The production version of the SAP Planned order is either always 0001 or it is determined by the formula used for the run. Table Schedule Upload Unit Parameters drives what the interface works with (fixed PVersion or formula-driven).

The screencopy below is that of a Picaso run.

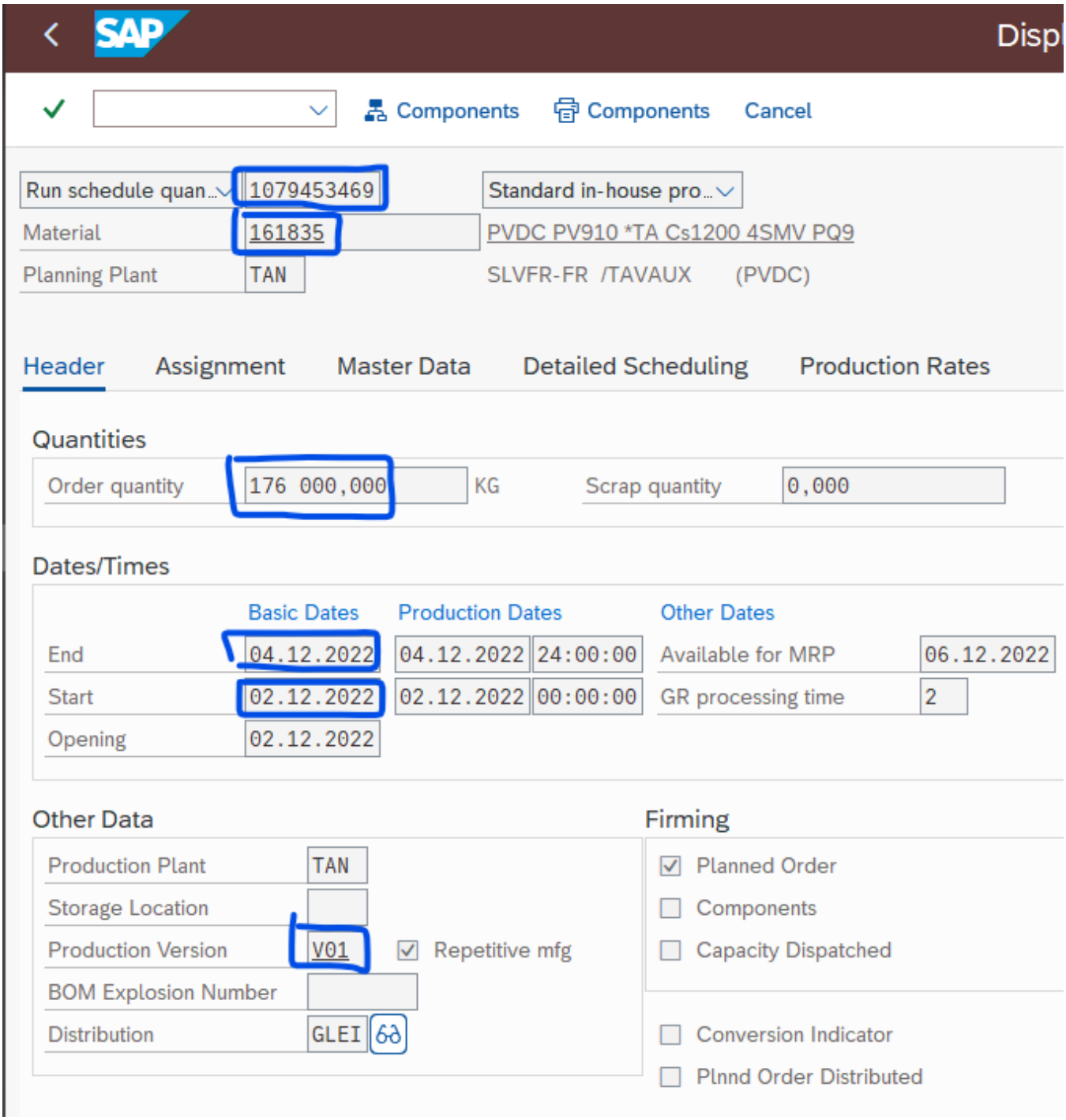
Its attributes:

- Product: PVDC PV910
- Package: BB5
  - the two above determine the SAP Material code (table SKU Code)
- Line: SUSP PKG
- Formula 80 (from possible formulas for that line, determined by Production Standard and Production Standard Effectivity)
  - the formula determines the SAP Production version (see above)
- Quantity 176 MT
- Start Date: Dec 02 2022
- End Date: Dec 04 2022 - 12:00 (determined by quantity and rate. Rate from Production Standard Effectivity)
- Customer Order: SAP Planned Order number. This Run has already been interfaced with SAP.




The corresponding SAP Planned order:

- Planned order 1079453469
- Material 161835
- Production Version V01
- Quantity 176 MT
- Start Date: Dec 02 2022
- End Date: Dec 04 2022
- Note that the GR Processing time (2 days) is pulled from SAP Master Data. Nothing to do with the Picaso interface.




The end date of the SAP Planned order is actually driven by multiple factors: the QC Lag, the Schedule upload Lag Adjustment, and the SAP Goods Receipt Processing Time also affect the Planned order. Read the corresponding note to know more about it.

## Best Practices

Daily Schedule Update Routine

DRP to SAP Interface

The DRP order upload runs only at 7 AM, noon, and 5:20 PM

No uploads are sent on Saturdays.  Any orders flagged on Saturday will be sent at 5:20 PM on Sunday.

I also added some messaging to the title of the grid extender to indicate when the next upload will be sent to SAP or if the last upload of the day has already been sent:

blocked URL