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

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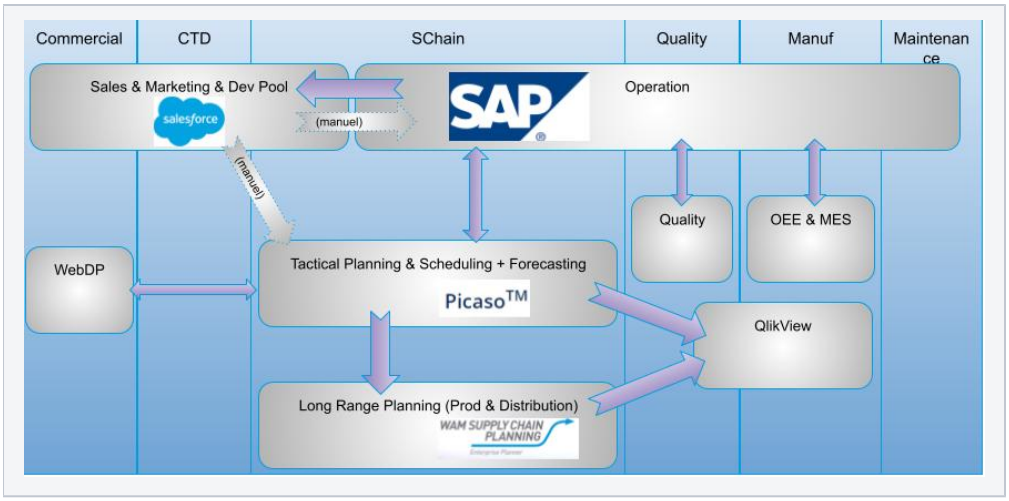
Overview

Simplified IT Ecosystem

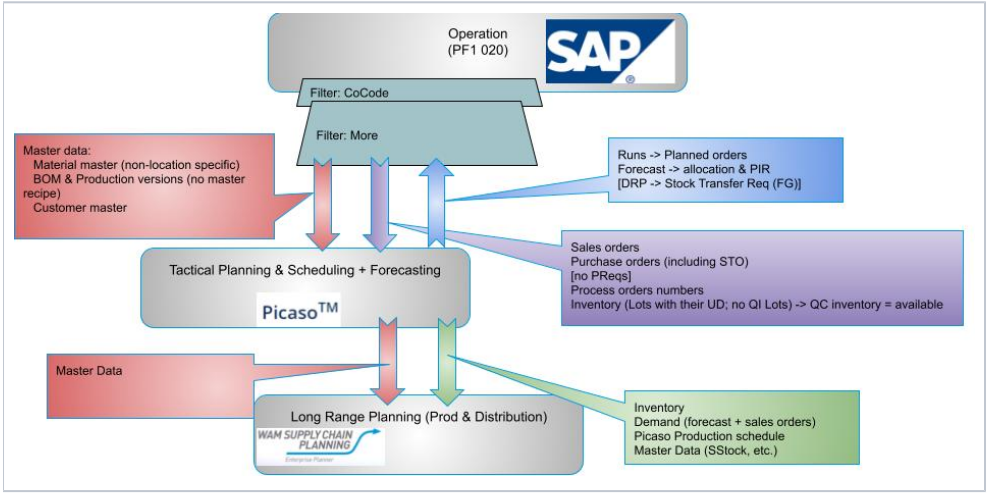
Picaso is the Scheduling, Demand Management, and Supply Chain monitoring system of the GBU.

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)

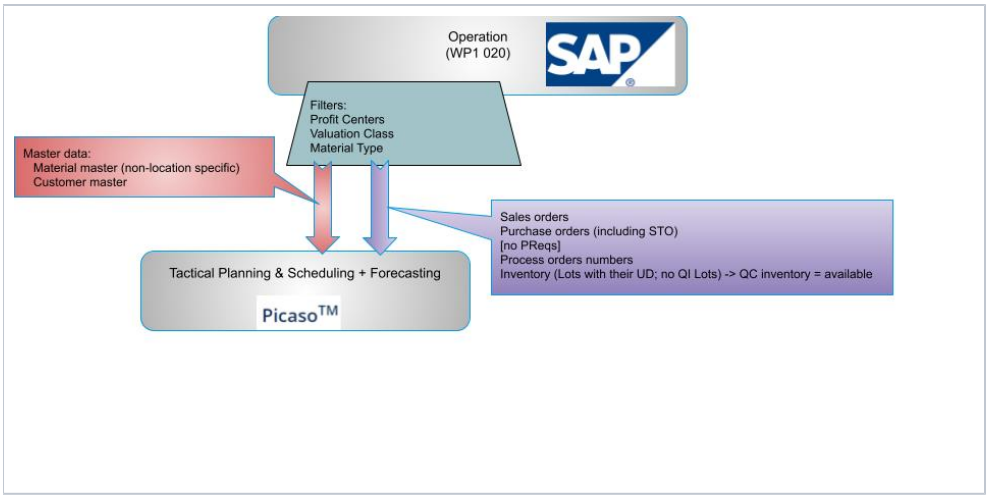
Find more about the SAPPicaso Master Data Interface.

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

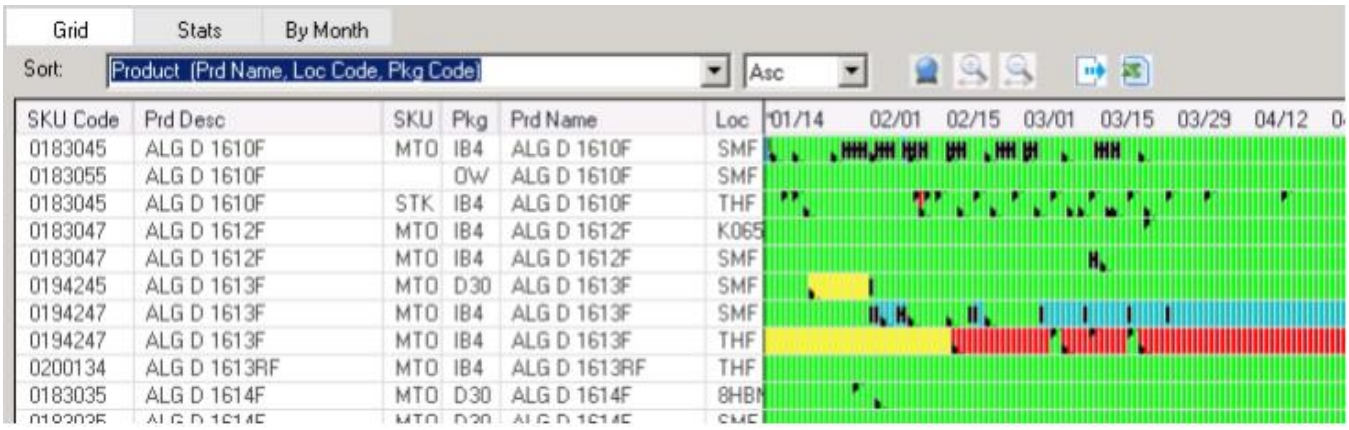
Source	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021
Sales History	6,000	0	0	0	0
Open Orders	0	0	0	0	0
Budget	13,500	13,500	13,500	13,500	13,500
Statistical	18,914	16,389	11,511	8,718	11,841
Sales Rep	11,500	14,500	14,500	13,500	13,500
Adjusted Fcst	*11,500*	*14,500*	*14,500*	*13,500*	*13,500*
Sales Control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

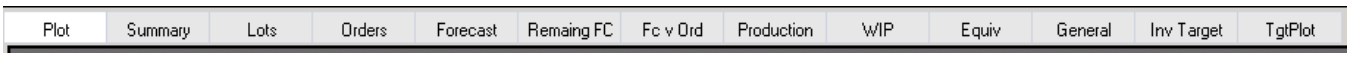


more about Supply / Demand Monitoring (aka, the grids)

Product / Location specific supply / demand data

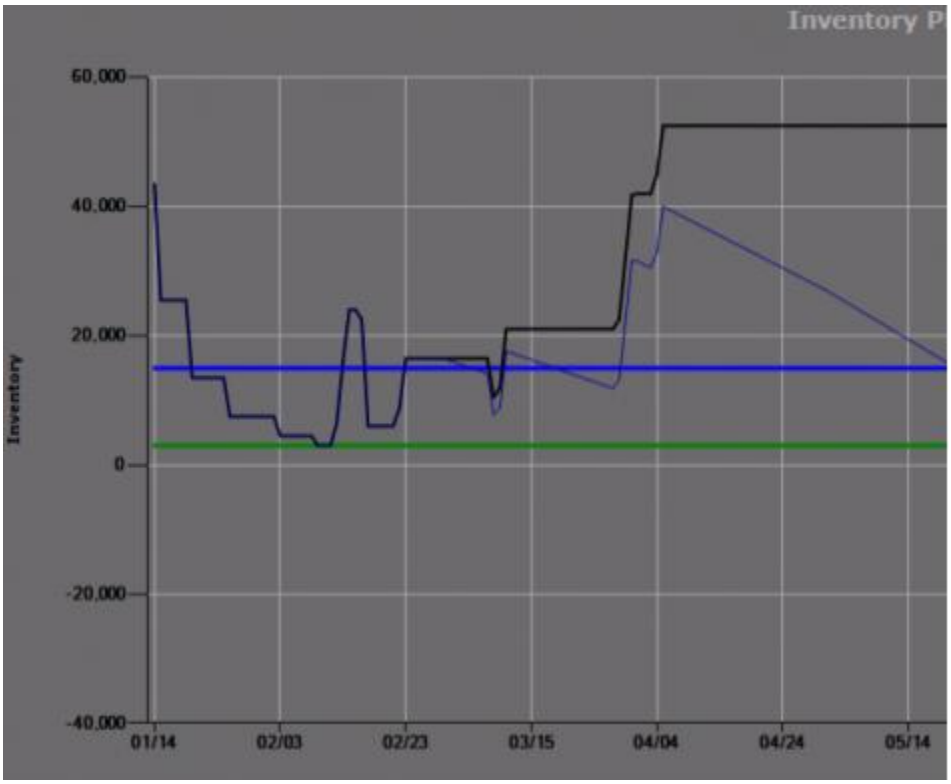
(aka: SKU Details)

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

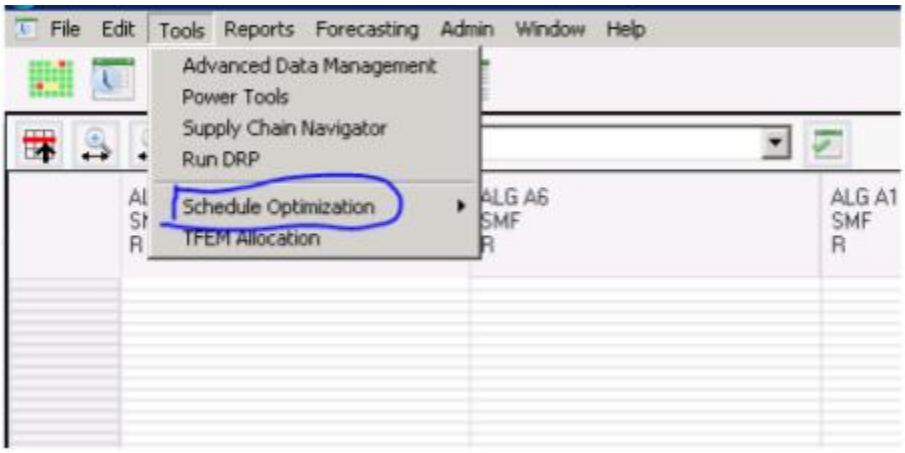
Production schedule

- 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)

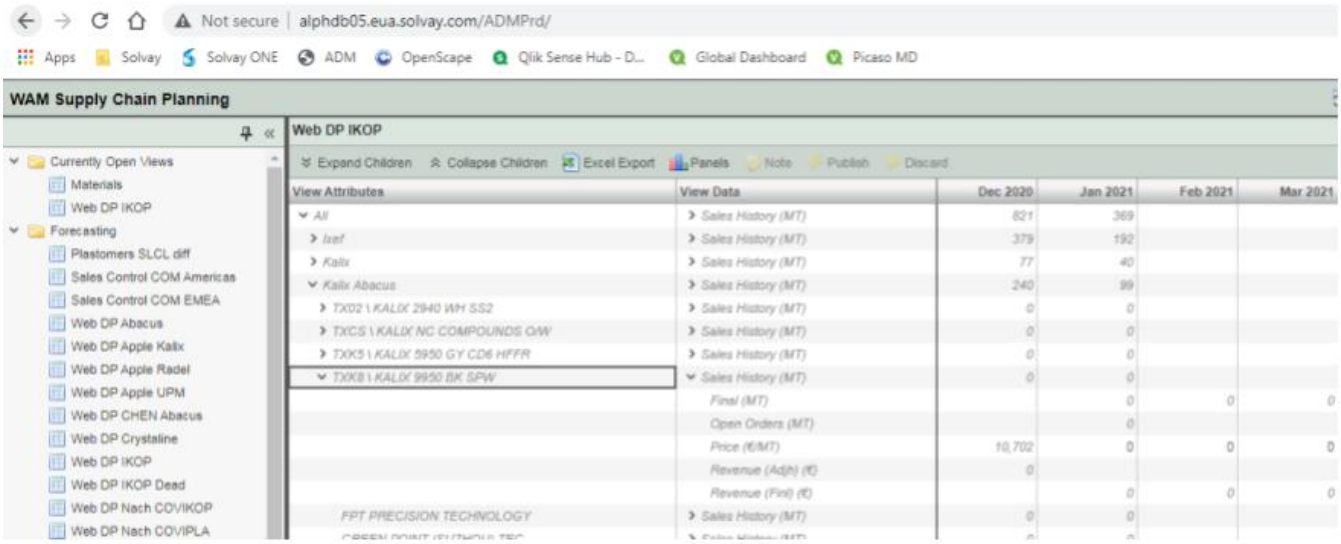
Inventory targeting (calculation of target stock, setting safety stock)

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. 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.)

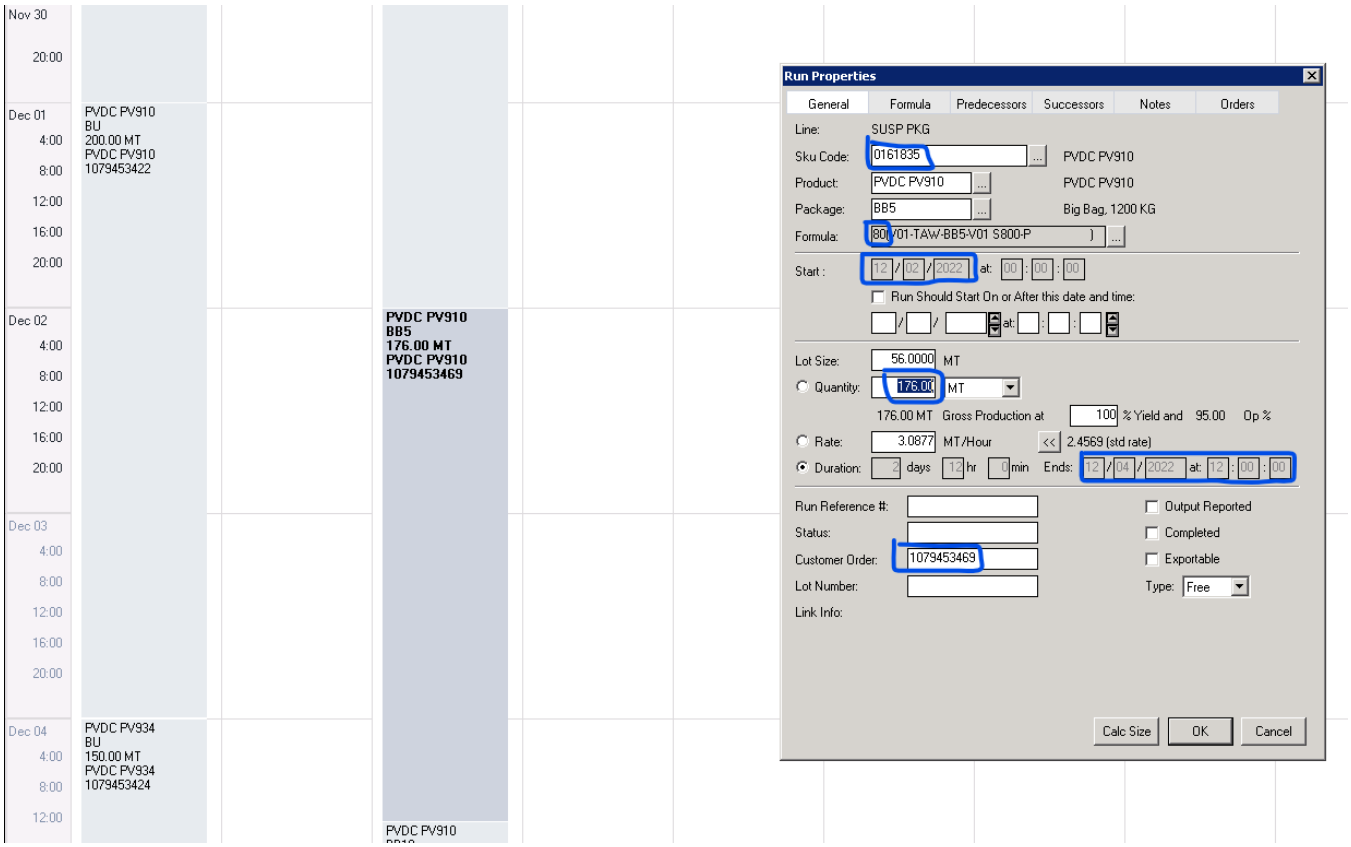
The interface creates one SAP Planned order for each Picaso run.

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.

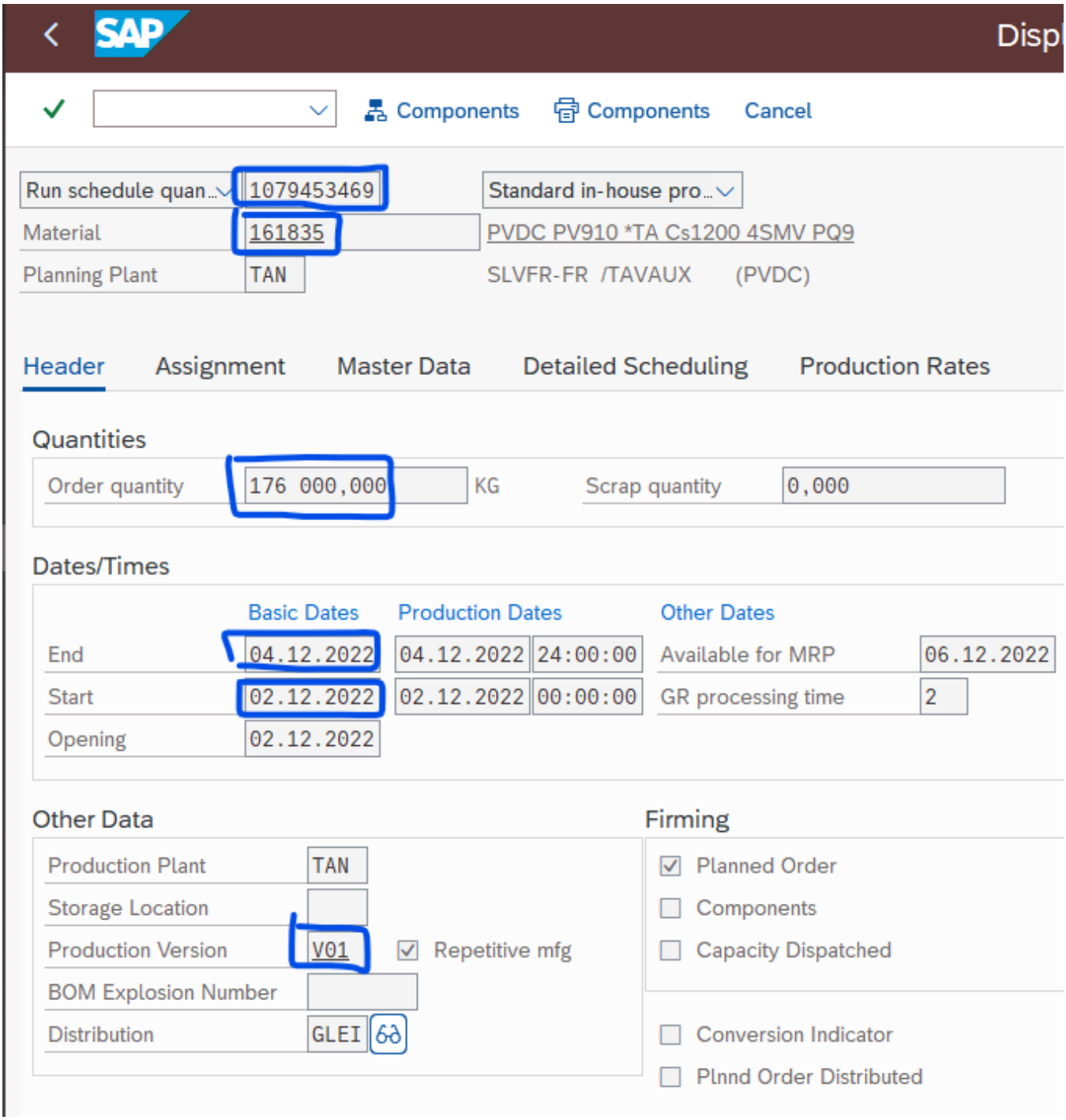
Its attributes:

- 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