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MRP monitor

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1 MRP Monitor

Along with the **MRP monitor**, the following **SCM Consulting Solutions** are delivered in a package:

- **BOM analysis**
- **Stock level monitor**
- **Kanban monitor**

You use the **MRP monitor** to classify your materials and set your MRP-relevant master data accordingly.The **BOM analysis** provides information on the number of bills of material and BOM usages for a product. The **stock level monitor** makes suggestions for the stocking level based on a systematic analysis.The **Kanban monitor** provides transparency on relevant Kanban data and helps you to maintain control cycles using a mass operation.

Related Information

Main Functions of the MRP Monitor [page 6]
BOM Analysis [page 123]
Stock Level Monitor [page 92]
Kanban Monitor [page 132]
Documentation on the **comprehensive functions**
Overview of **SCM Consulting Solutions**

Comprehensive Functions

Using the **comprehensive functions**, you can document and coordinate objects to be processed.

These are primarily the following functions:

- Tasks and resubmissions
- Comment functions
- Defining and selecting individual material groups

The functions listed above are explained using the example of the **SCM Consulting Solution lot size simulation**. The explanations are also valid for all other **SCM Consulting Solutions**.

> ⚠ Caution
>
> Before you can use the tasks functionality in the **MRP monitor**, you need to select the *Re-read tasks and resubmission date* checkbox on the *Result* tab in the **MRP monitor** when displaying or reading a saved result.

> If *Re-read tasks and resubmission date* is not selected, the pushbuttons *Tasks*, *Resubmission*, and *Comment* are inactive on the result screen and therefore cannot be used.

In addition, the following **SCM Consulting Solutions** are part of the **comprehensive functions**:

- **Material master update**
- **Enhanced Material Master View**
- **Material Document Analysis**
- **Excel Upload/Download**
- **Flexible Material Master Update**

The material master update allows you to save data in standard SAP fields and fields of the **enhanced material master view**. You can edit the material master data directly from the results list of your SCM Consulting Solutions.You can use the **enhanced material master view** to access the material master data fields of the **SCM Consulting Solutions**.

> ℹ Note
>
> Please note that when executing **SCM Consulting Solutions**, you must enter the prefix */n/SAPLOM/* before each transaction.

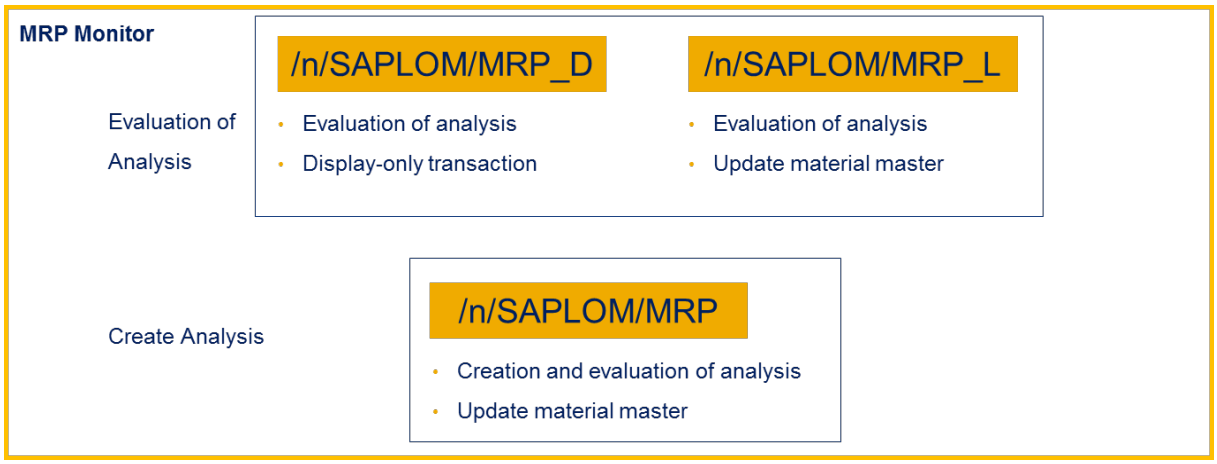
Related Information

Material Master Update
Enhanced Material Master View
Material Document Aggregation
Stock Development [page 147]

2 Main Functions of the MRP Monitor

Reduce your stock levels and increase the quality of your master data. You use the **MRP monitor** to classify your materials and set your MRP-relevant master data accordingly.

The **MRP monitor** is an integral component of the **SCM Consulting Solutions** and serves as an add-on program to the SAP ERP system. Using the **MRP monitor**, you can classify your materials based on business methods (for example, ABC/XYZ analysis). The **MRP monitor** is also an instrument for monitoring master data and key performance metrics during day-to-day material requirements planning.



MRP Monitor Overview

You access the **MRP monitor** using the following transactions:

/SAPLOM/MRP_D – Display transaction

/SAPLOM/MRP_L – Light Transaction

/SAPLOM/MRP – Main transaction

Alternatively, you can call the program via transactions *SE38*, *SA38*, or *SE80* using the package name */SAPLOM/MRP_MONITOR*.

This documentation is based on the structure of the main transaction */n/SAPLOM/MRP*, which includes all of the functions. In contrast, transactions */n/SAPLOM/MRP_D* and */n/SAPLOM/MRP_L* only capture partial functions.

Features

The functions of the **MRP monitor** are defined by the function descriptions in SAP Support Portal.

In the event of problems, please create a customer message under the component `XX-PROJ-CON-DM`.

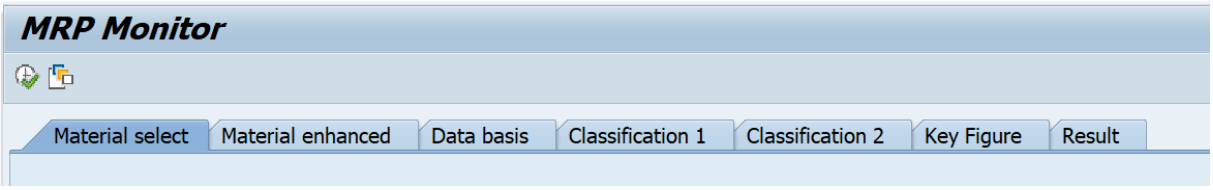
The main functions of the **MRP monitor** include:

- Classification of various analysis objects such as materials at the level of the plant, MRP areas, or storage locations according to the ABC/XYZ methodology
- Classification according to other methods such as lifecycle, replenishment lead time, price, bill of material characteristics, warehouse characteristics (weight, volume), picks, forecast characteristics, and so on
- Individually configurable data basis and periodicities (including independently of the logistics information system LIS)
- Identification of special case materials
- Analysis and mass update of MRP-relevant and forecast-relevant master data based on definable policies
- Key figure determination in the area of MRP (for example, stock value, range of coverage, inventory turnover, slow-mover status, or dead stock)
- Calculation of default values for the safety stock and reorder point based on various methods (mapping of the uncertainty of demand and replenishment lead time)

2.1 Selection

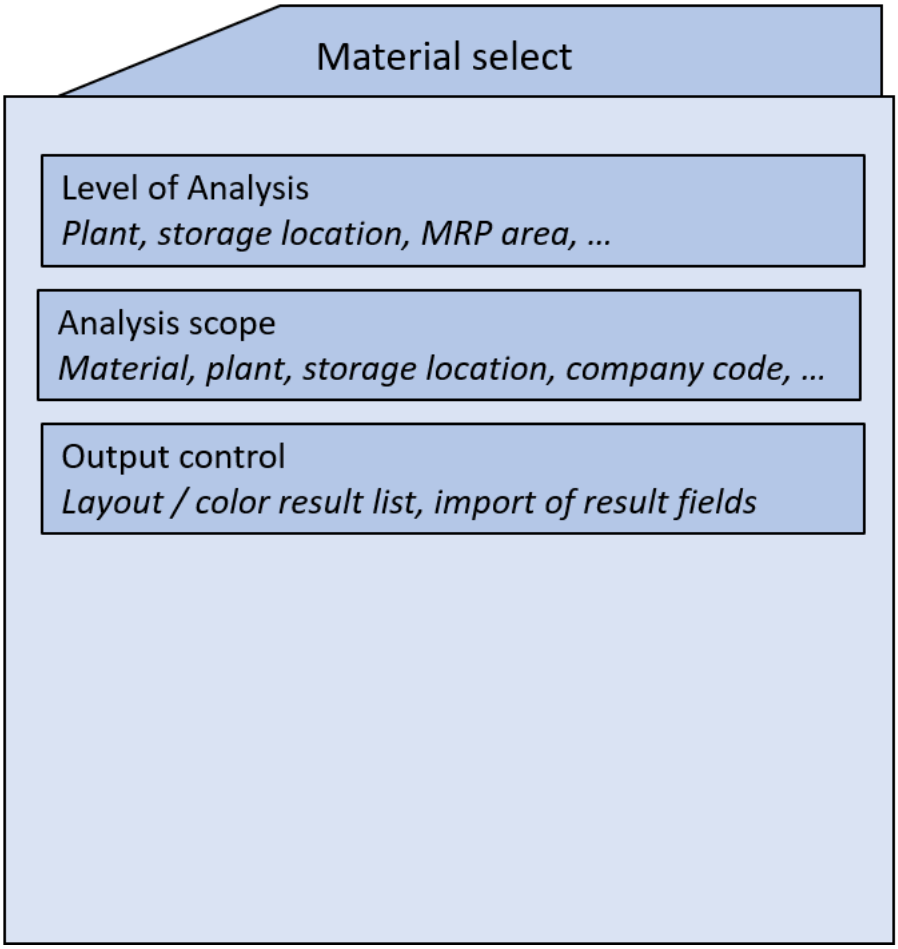
The selection screen is divided into several tab pages:

- *Material Selection*
- *Material Enhanced - depends on material selection*
- *Data Basis*
- *Classification 1*
- *Classification 2*
- *Key Figures*
- *Special Stock - dependent on data basis*
- *Result*



Tab pages of the MRP monitor

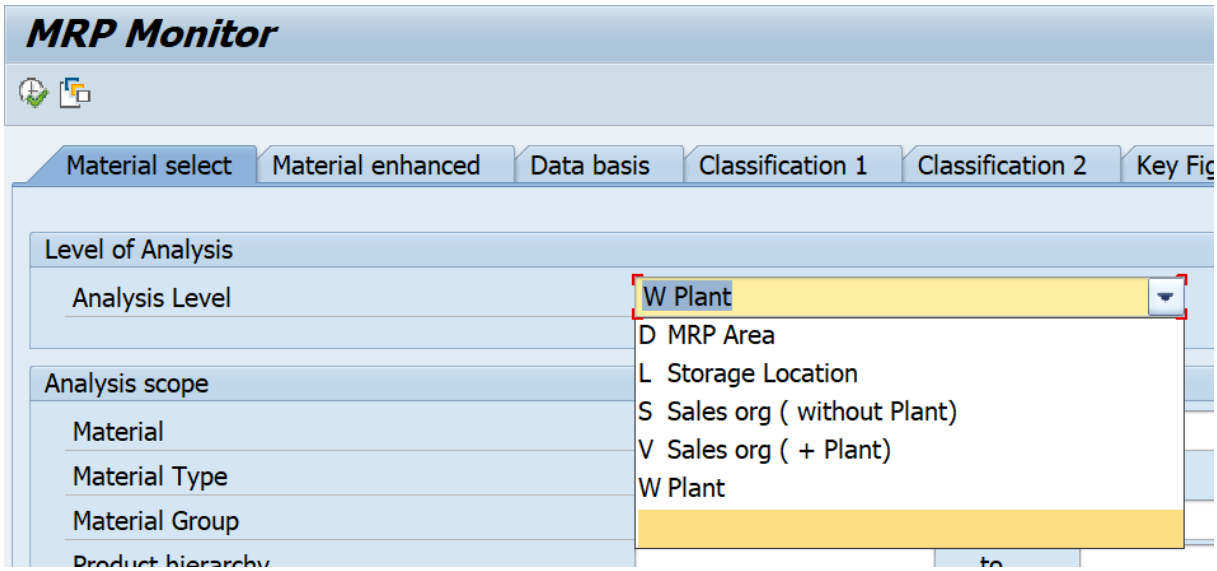
2.1.1 *Material Selection* Tab



Material Selection Tab

The *Material Selection* tab determines the data for the business analyses. Here you specify the analysis level, the area of analysis, and the output control.

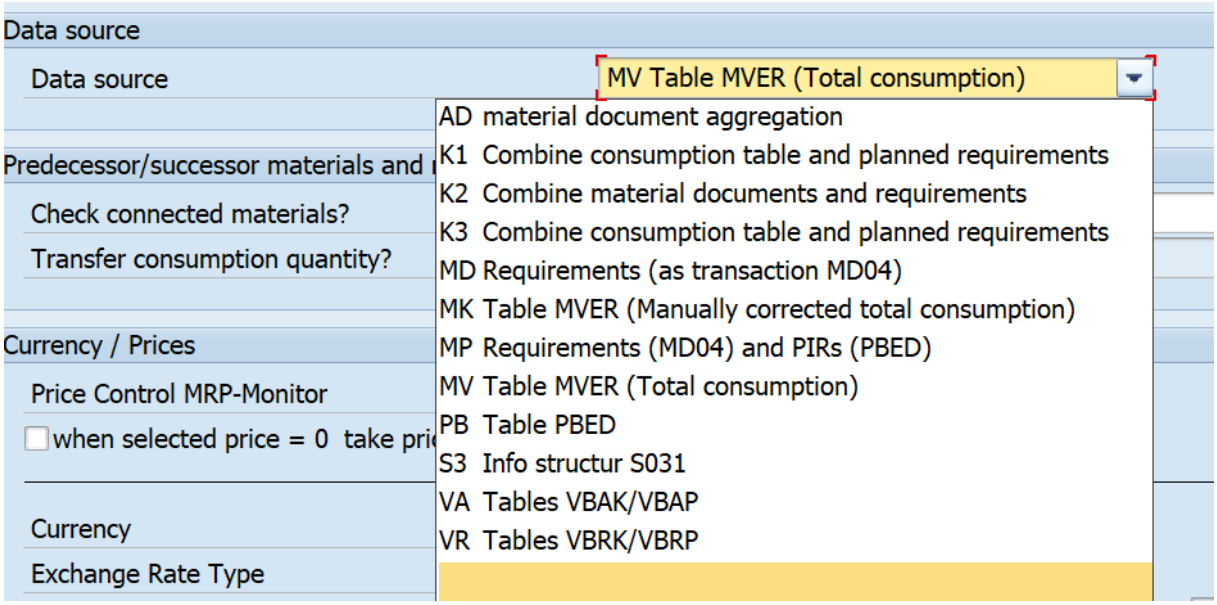
2.1.1.1 Level of Analysis and Data Source



Level of Analysis Area

In the *Level of Analysis* area, you specify which analysis is to be performed. The level you select affects the data source. You select the data source itself on the *Data basis* tab. Due to the strong interdependency, the two selection options are explained together in the following.

For example, it is not logical to run an analysis for a specific level (such as the storage location) while selecting a data source in which the corresponding data is not maintained for this analysis level (for example, the material consumption table *[MVER]*, in which consumption is updated at plant level).



Data Source Area

2.1.1.1.1 Plant Level of Analysis

A plant analysis is the same as the classic ABC-XYZ analysis for SAP ERP data. Which plant is analyzed depends on the entry in the analysis scope. The following data sources are possible for the plant analysis:

Material Consumption Table [Table *MVER*]

The analysis is only possible with the periodicity for which the update was activated (see period indicators). Make sure that the periodicity is the same for all selected materials and has not been changed in the analysis period. Otherwise, it can lead to data inconsistencies. Besides uncorrected total consumption, you can also use manually corrected total consumption as a basis.

Material Documents [Material Documents Aggregated Based on Table *MSEG* in Corresponding Tables of the MRP Monitor]

An analysis based on this data source is only possible if the material documents are first aggregated for the periodicity set in the period of analysis. To do this, you use **material document aggregation**. The **material document aggregation** is a program that is delivered with the **MRP monitor** (transaction */SAPLOM/MDA*). The **material document aggregation** is described in more detail in the documentation for the **comprehensive functions**.

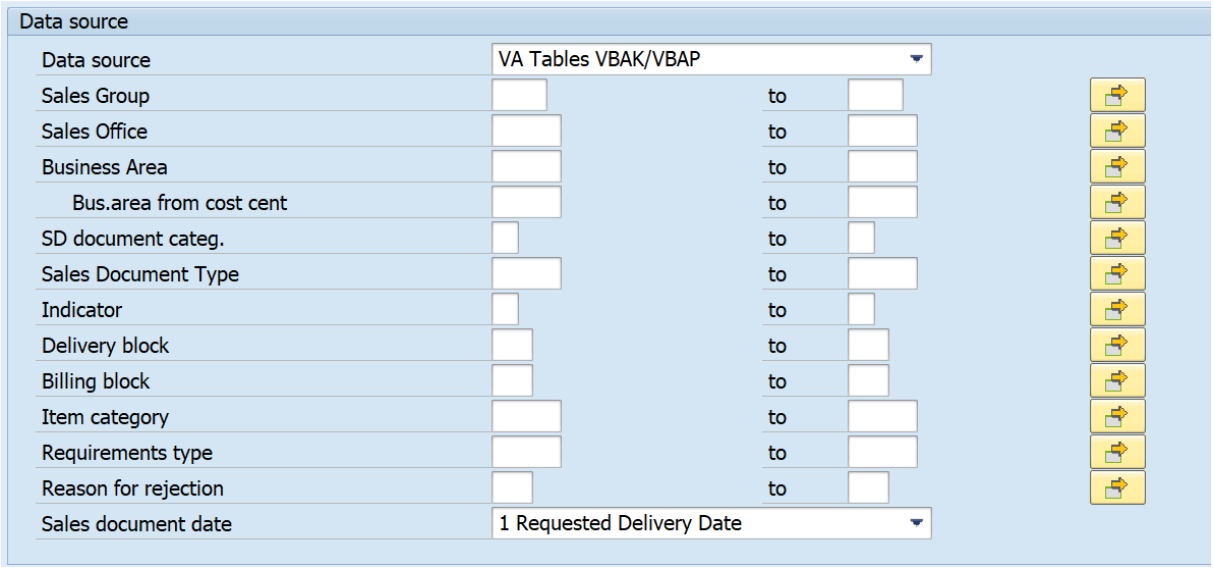
Info Structures

If you want to use this data source, you first need to activate the update of info structures in Customizing for the Logistics Information System (there may be deviations here depending on which info structure is activated in the system). Filling of different info structures is dependent on the system constellation. If the info structures contain the relevant data, an analysis can be run for info structures filled in this way. If you want to use info structures filled based on your own logic, open a ticket with the component `XX-PROJ-CON-DM`.

Sales Orders

In some cases, consumption irregularities may not be the result of irregular incoming orders. If there is a lack of delivery capacity, consumption accumulates at specific times even though incoming orders remain regular. To allow you to compare consumption irregularity in such cases, which may be caused by a lack of delivery capacity, against incoming order regularity, the **MRP monitor** supports the ABC/XYZ analysis for materials based on incoming orders. The only difference in this analysis is the data source of the underlying data. All other features of the ABC/XYZ analysis are the same as the material consumption analysis. Furthermore, this analysis selects sales orders that match the material, plant, and sales organization combination and the selected time period. This analysis is only useful for materials that are continuously used in sales orders.

You can further restrict the relevant sales orders using additional selection criteria such as the rejection reason. The selection criteria are visible on the *Data basis* tab as soon as you have selected *Sales Orders* as the data source.

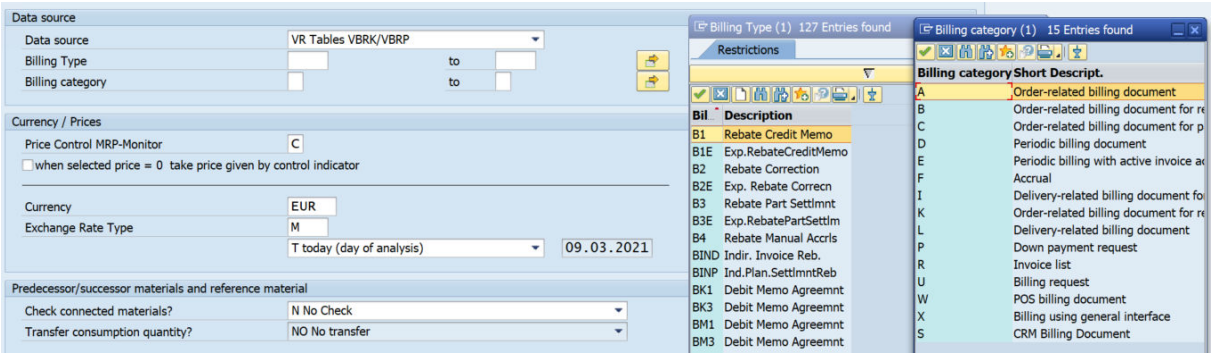


Data Source - Sales Orders

Invoices

As with the evaluation of sales orders, you can perform this analysis based on all billing documents that match a material, plant, and sales organization combination and the selected time period. Moreover, this analysis is only useful for materials that are continuously used in billing documents.

You can also use the billing type and billing category as selection criteria.



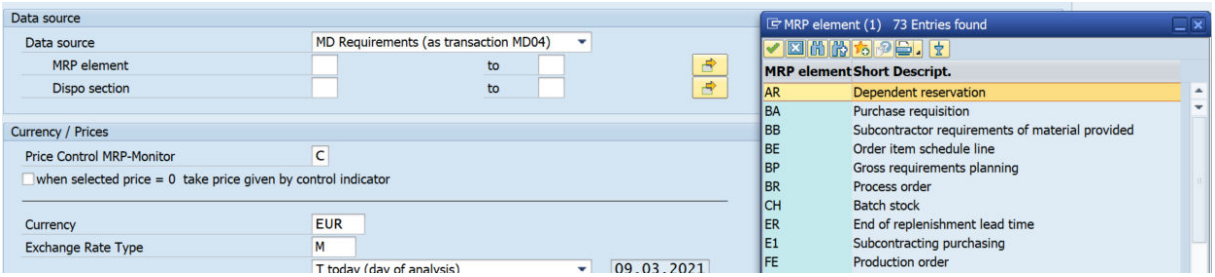
Data Source – Financial Documents

Planned Requirements

The analysis of planned requirements enables – in contrast to the aforementioned past-oriented data sources – the examination of future developments. However, you can only analyze materials for which planned requirements exist in the system. You can choose between the versions. This enables you to use the active or inactive version and the combination of versions.

Requirements

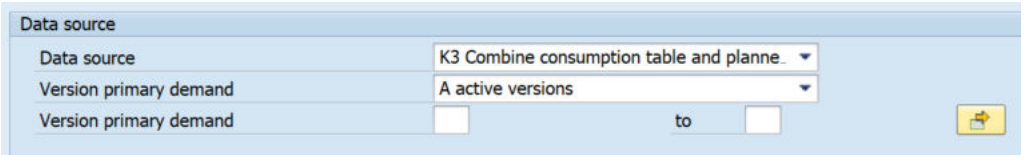
With the *requirements* data source, you can also perform a forward-looking analysis for non-planned materials. Here you can select which MRP elements you want to analyze.



Data Source: Requirements

Combine Material Consumptions and Planned Requirements

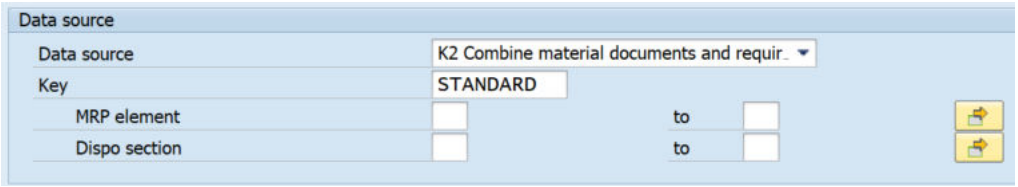
Not only historical data but future data can be relevant for an analysis. In this case, two different data sources need to be taken into account. The function for *combining consumption tables and planned requirements* therefore allows you to include material consumption for the historical values and the planned requirements for the future values in the selected analysis period. These values are totaled for each material and used as the basis for determining the classification into ABC/XYZ materials. For planned independent requirements, you can choose between the versions. This enables you to use the active or inactive version and the combination of versions.



Combine Material Consumptions and Planned Requirements

Combine Material Documents and Requirements

In contrast to the combination of material consumptions and planned requirements, this function involves the values that are determined from the *Material Documents and Requirements*. Here you can restrict the data using the same selection options as for the individual functions. In the case of requirements, for example, you can even analyze only the values of special requirement types (such as requirements in accordance with production orders, forecast values, and so on). Here, too, the values are totaled for each material and used as the basis for determining the classification into ABC/XYZ materials.



Data Source: Material Documents and Requirements

Related Information

Documentation on the **comprehensive functions**
Overview of **SCM Consulting Solutions**

2.1.1.1.2 Storage Location Level of Analysis

A storage location analysis is the same as the classic ABC-XYZ analysis for SAP ERP data. Which storage location is analyzed in which plant depends on the entry in the analysis scope. Only info structure *S031* and table *MSEG* are available as data sources for the storage location because these are the only objects in which storage location-specific data is updated.

You cannot select the material consumption table *MVER* as the data source because the data is not saved for a specific storage location here.

As with the plant analysis, the prerequisite also applies here that you aggregate material documents at storage location level or activate the update.

Related Information

Plant Level of Analysis [page 10]

2.1.1.1.3 MRP Area Level of Analysis

You can also perform analyses across MRP areas.

When doing so, you need to use a data source that updates consumption at MRP area level.

As the data source, you can select the *Material Consumption for MRP Area* option, which corresponds to table *DVER*. Analog to an analysis at plant level, it is possible to use either the total consumption or corrected total consumption for the analysis.

If you perform **material document analysis** at *MRP area* level, you can also select this data source for the analysis. The documentation for the **material document analysis** is part of the documentation for the **comprehensive functions**.

Alternatively, the data sources Demand and the combination of material documents and requirements are offered for this analysis level.

You can use the *Demand* data source to perform a forward-looking analysis. Here you can select which MRP elements you want to analyze.

The *combination of material documents and requirements* uses values that are determined from material documents and requirements. Here you can restrict the data using the same selection options as for the individual functions. In the case of requirements, for example, you can even analyze only the values of special requirement types (such as requirements in accordance with production orders, forecast values, and so on).

Here, as well, the values are totaled for each material and used as the basis for determining the classification into ABC/XYZ materials.

Related Information

Documentation on the **comprehensive functions**
Overview of **SCM Consulting Solutions**

2.1.1.1.4 Sales Organization Level of Analysis

You can also perform an analysis at sales organization level. The sales organization must be assigned to one specific plant only, otherwise the MRP parameters cannot be assigned correctly.

2.1.1.1.5 Sales Analysis Level

If you select the analysis level *Sales*, you can only use sales orders or invoices as a data source.

This analysis provides no information with respect to various key figures that are based on a plant analysis. These include "dead stock", "slow moving items", and "range of coverage", for example.

2.1.1.2 Analysis Scope

Under *Analysis Scope*, you specify the relevant analysis objects. Besides numerous master data fields, you can also select the fields of the **enhanced material master view**. You can find the documentation for the **enhanced material master view** as part of the **comprehensive functions**. Further selection criteria for the fields of the enhanced material master view are located on the Material Enhanced tab.

Analysis scope

Material		to	
Material Type		to	
Material Group		to	
Product hierarchy		to	
X-plant matl status		to	
Division		to	
Old material number		to	
Base Unit of Measure		to	
Industry sector		to	
Plant		to	
Procurement type		to	
Individual/coll.		to	
Special procurement		to	
Plant-sp.matl status		to	
MRP Controller		to	
MRP Type		to	
MRP profile		to	
Profit Center		to	
Purchasing Group		to	
Prodn Supervisor		to	
MRP group		to	
Prod. stor. location		to	
Quota arr. usage		to	
Period Indicator		to	

☐ Only materials which have view MRP material master

Storage Location		to	
MRP Area		to	
Sales Organization		to	
Distribution Channel		to	
Distr.-Chain-spec. status		to	
Company Code		to	
Valuation Class		to	
Individual Material Group		to	

☑ Additional Selection of Fields from Enhanced Material Master View

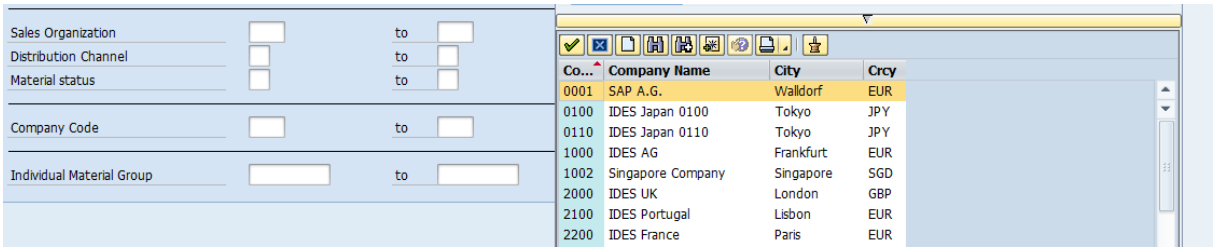
Analysis Scope

Related Information

Documentation on the **comprehensive functions**
Overview of **SCM Consulting Solutions**

2.1.1.2.1 Company Code

You can select the company codes that are to be considered in the analysis.



Company Code Selection Criterion

2.1.1.2.2 Individual Material Group

An individual material group is an additional field that can be filled differently for each user. The content of the material group field (SAP standard) remains unaffected by this.

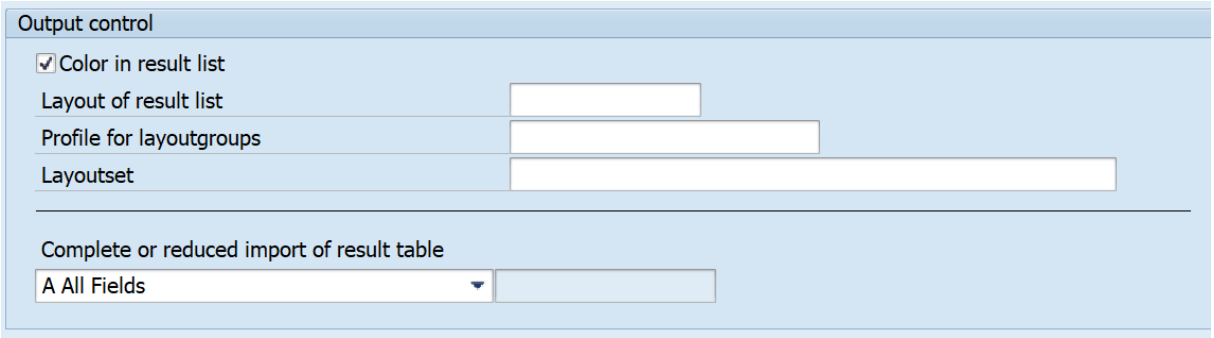
The individual material group serves to assign the materials to groups on a user-specific basis; a corresponding selection can be made for these groups.

For more information on individual material groups, see the documentation for the **comprehensive functions**.

Related Information

Documentation on the **comprehensive functions**
Overview of **SCM Consulting Solutions**

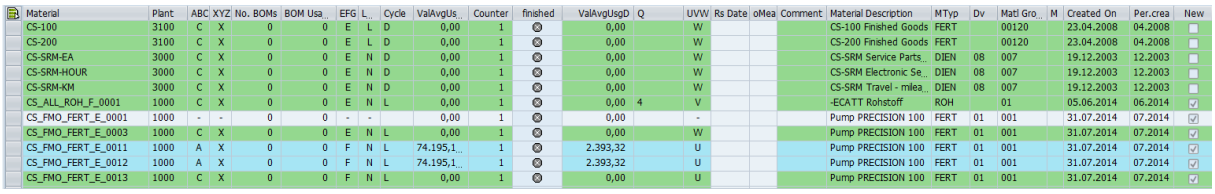
2.1.1.3 Output Control



Output Control Area

In the *Output Control* area, you can adjust the layout of the results list.

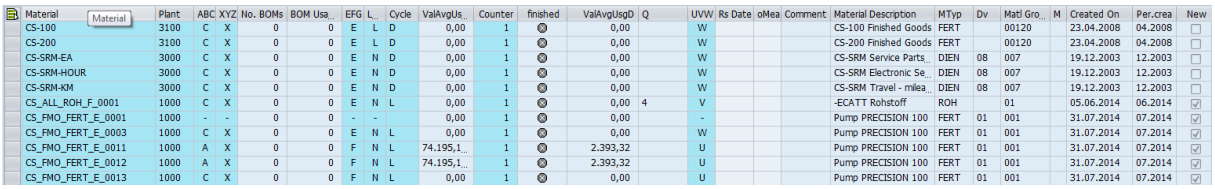
You can display each ABC-XYZ classification combination in the result list in a different color. This allows you to easily recognize which materials are classified in the same way. If you want to activate this function, select the *Color in result list*checkbox.



Material	Plant	ABC	XYZ	No. BOMs	BOM Usa...	EFG	L...	Cycle	ValAvgUs...	Counter	finished	ValAvgUsgD	Q	UVW	Rs Date	oMea	Comment	Material Description	MTyp	Dv	Matl Gro...	M	Created On	Per.crea	New
CS-100	3100	C	X	0	0	E	L	D	0,00	1		0,00		W				CS-100 Finished Goods	FERT		00120		23.04.2008	04.2008	
CS-200	3100	C	X	0	0	E	L	D	0,00	1		0,00		W				CS-200 Finished Goods	FERT		00120		23.04.2008	04.2008	
CS-SRM-EA	3000	C	X	0	0	E	N	D	0,00	1		0,00		W				CS-SRM Service Parts...	DIEN	08	007		19.12.2003	12.2003	
CS-SRM-HOUR	3000	C	X	0	0	E	N	D	0,00	1		0,00		W				CS-SRM Electronic Se...	DIEN	08	007		19.12.2003	12.2003	
CS-SRM-KM	3000	C	X	0	0	E	N	D	0,00	1		0,00		W				CS-SRM Travel - milea...	DIEN	08	007		19.12.2003	12.2003	
CS_ALL_ROH_F_0001	1000	C	X	0	0	E	N	L	0,00	1		0,00	4	V				-ECATT Rohstoff	ROH		01		05.06.2014	06.2014	☑
CS_FMO_FERT_E_0001	1000	-	-	0	0	-	-		0,00	1		0,00		-				Pump PRECISION 100	FERT	01	001		31.07.2014	07.2014	☑
CS_FMO_FERT_E_0003	1000	C	X	0	0	E	N	L	0,00	1		0,00		W				Pump PRECISION 100	FERT	01	001		31.07.2014	07.2014	☑
CS_FMO_FERT_E_0011	1000	A	X	0	0	F	N	L	74.195,1...	1		2.393,32		U				Pump PRECISION 100	FERT	01	001		31.07.2014	07.2014	☑
CS_FMO_FERT_E_0012	1000	A	X	0	0	F	N	L	74.195,1...	1		2.393,32		U				Pump PRECISION 100	FERT	01	001		31.07.2014	07.2014	☑
CS_FMO_FERT_E_0013	1000	C	X	0	0	F	N	L	0,00	1		0,00		U				Pump PRECISION 100	FERT	01	001		31.07.2014	07.2014	☑

Result List with Color

If you do not select the checkbox, the result list is displayed with only one color.

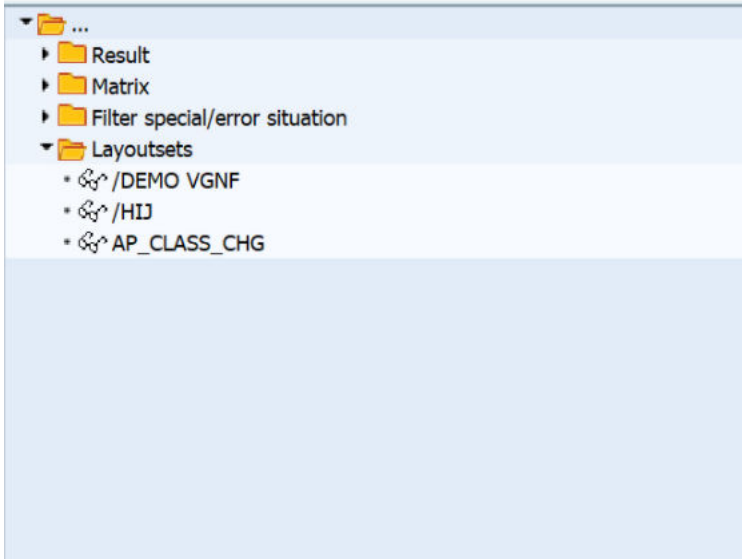


Material	Plant	ABC	XYZ	No. BOMs	BOM Usa...	EFG	L...	Cycle	ValAvgUs...	Counter	finished	ValAvgUsgD	Q	UVW	Rs Date	oMea	Comment	Material Description	MTyp	Dv	Matl Gro...	M	Created On	Per.crea	New
CS-100	3100	C	X	0	0	E	L	D	0,00	1		0,00		W				CS-100 Finished Goods	FERT		00120		23.04.2008	04.2008	
CS-200	3100	C	X	0	0	E	L	D	0,00	1		0,00		W				CS-200 Finished Goods	FERT		00120		23.04.2008	04.2008	
CS-SRM-EA	3000	C	X	0	0	E	N	D	0,00	1		0,00		W				CS-SRM Service Parts...	DIEN	08	007		19.12.2003	12.2003	
CS-SRM-HOUR	3000	C	X	0	0	E	N	D	0,00	1		0,00		W				CS-SRM Electronic Se...	DIEN	08	007		19.12.2003	12.2003	
CS-SRM-KM	3000	C	X	0	0	E	N	D	0,00	1		0,00		W				CS-SRM Travel - milea...	DIEN	08	007		19.12.2003	12.2003	
CS_ALL_ROH_F_0001	1000	C	X	0	0	E	N	L	0,00	1		0,00	4	V				-ECATT Rohstoff	ROH		01		05.06.2014	06.2014	☑
CS_FMO_FERT_E_0001	1000	-	-	0	0	-	-		0,00	1		0,00		-				Pump PRECISION 100	FERT	01	001		31.07.2014	07.2014	☑
CS_FMO_FERT_E_0003	1000	C	X	0	0	E	N	L	0,00	1		0,00		W				Pump PRECISION 100	FERT	01	001		31.07.2014	07.2014	☑
CS_FMO_FERT_E_0011	1000	A	X	0	0	F	N	L	74.195,1...	1		2.393,32		U				Pump PRECISION 100	FERT	01	001		31.07.2014	07.2014	☑
CS_FMO_FERT_E_0012	1000	A	X	0	0	F	N	L	74.195,1...	1		2.393,32		U				Pump PRECISION 100	FERT	01	001		31.07.2014	07.2014	☑
CS_FMO_FERT_E_0013	1000	C	X	0	0	F	N	L	0,00	1		0,00		U				Pump PRECISION 100	FERT	01	001		31.07.2014	07.2014	☑

Result List Without Color

In this section, you can make specifications for the layout. The maintenance and the inclusion of layout groups is described in the cross-monitor documentation.

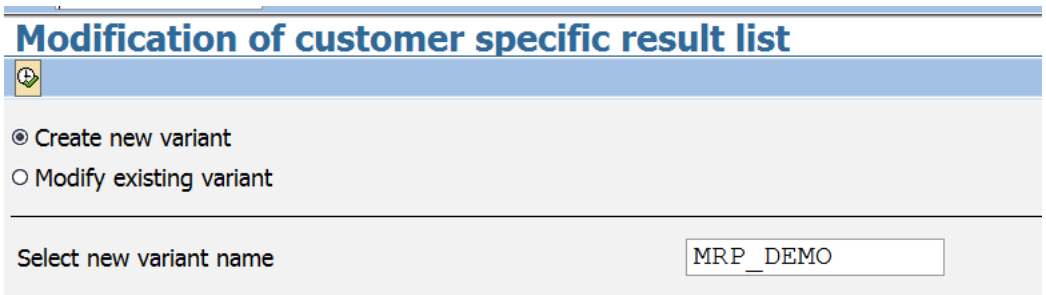
Here you can also choose a layout set. The layouts of the selected layout set are included in the folder structure of the results list. The maintenance and the inclusion of Layout Sets is described in the cross-monitor documentation.



In the lower part of the section, you can read a reduced, customized results table in the event of capacity issues or problems with the field size of the result list. The system only reads the fields you have defined. You can enter these fields manually in various variants in the table */SAPLOM/CUSTVARI*. In addition to the customer-specific fields, the objects that are relevant for the program run are also included in the selection.

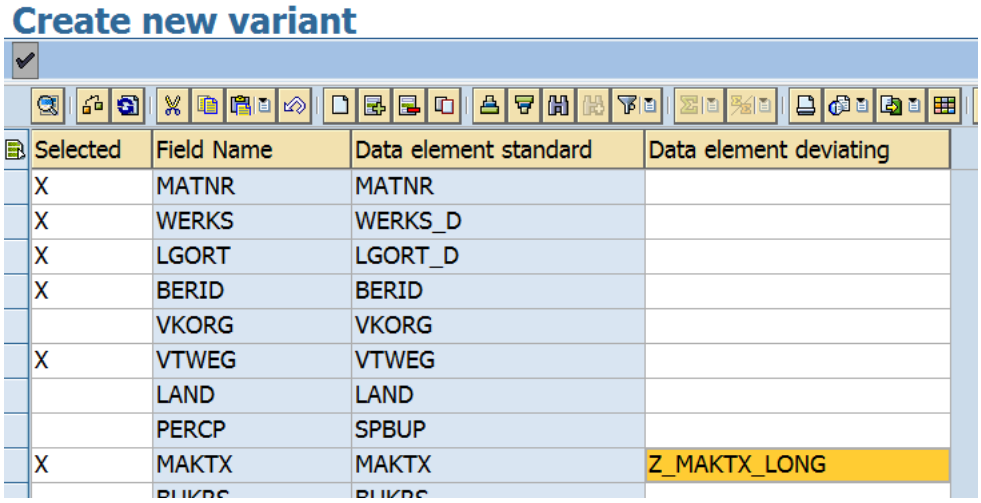
> **i Note**
>
> Before you can use the user-specific version, tables */SAPLOM/S_RESMIN* and */SAPLOM/DEPENDEN* must be filled. If they are not, please contact your SAP consultant.

You can create and edit variants in the transaction */SAPLOM/MRP_V*.



Transaction for Variant Maintenance

If you have entered the name of the variant that you want to create or edit, you can choose the required fields. You can choose to enter an alternative data element. After you save, your changes are saved in table */SAPLOM/CUSTVARI*. The user-specific variant can then be selected in the **MRP monitor**.



Selected	Field Name	Data element standard	Data element deviating
X	MATNR	MATNR	
X	WERKS	WERKS_D	
X	LGORT	LGORT_D	
X	BERID	BERID	
	VKORG	VKORG	
X	VTWEG	VTWEG	
	LAND	LAND	
	PERCP	SPBUP	
X	MAKTX	MAKTX	Z_MAKTX_LONG

Create New Variant

If you have selected a layout set, the stored layouts are available for selection in the folder structure of the results list.

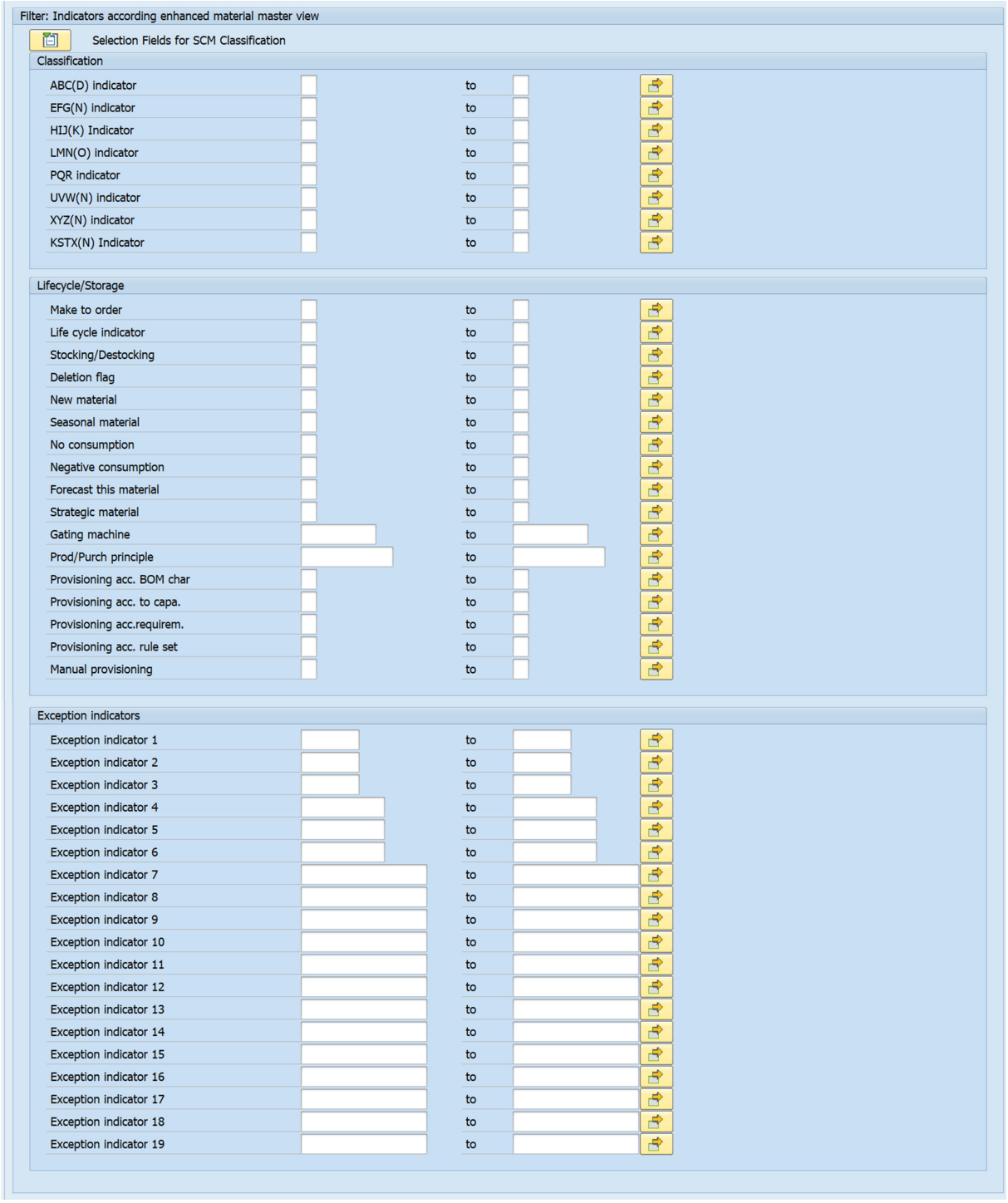
Related Information

Documentation on the Comprehensive Functions
Layout Groups
Layout Sets

2.1.2 Material Enhanced Tab

On the *Material Enhanced* tab, you can fill additional selection fields on the SCM tab.

The selection fields of the **enhanced material master view** are visible when you choose the *SCM tab page* button.



Selection According to Classification IDs and Key Figures

The current release also offers the classifications currently saved in the **enhanced material master view** as well as other characteristics/key figures as further selection options. These include:

- Material to be stored
- Deletion indicator
- NEW indicator

- Season indicator
- Negative usage
- No consumption

You can also use up to 19 custom exception indicators. For more information, see the sections of the **enhanced material master view** in the documentation for the **comprehensive functions**.

Selection data according to classifications and key figures are checked against the **enhanced material master view**. Only those materials that match the data entered are considered in the classification.

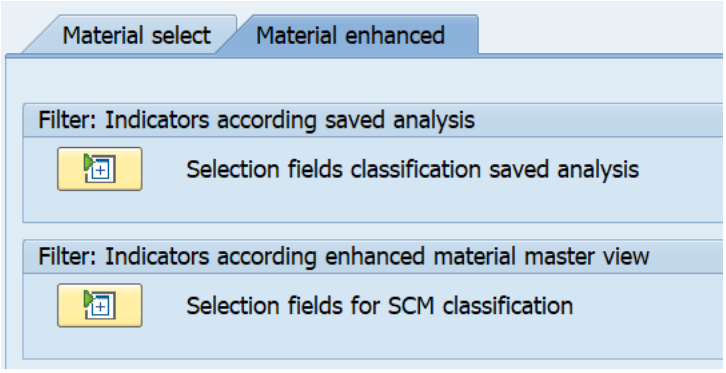
Exception: Importing a Saved Analysis

An exception is the import of a saved analysis, since a check can also be carried out against the existing values in this analysis.

This means you have four options:

- **No entry**: No check of the selection with regard to the **enhanced material master view** and no check of the saved analysis
- **Selection based on the SCM tab page**: Check against the **enhanced material master view**, no check against the data of the saved analysis
- **Selection based on the saved analysis**: Check against the data of the saved analysis, no check against the **enhanced material master view**
- **Selection with regard to saved analysis and SCM tab**: Check against the data of the saved analysis as well as against the **enhanced material master view**

If you want to import a saved analysis, two areas are available for entering the selection criteria.



Selection by Saved Analysis and SCM Tab

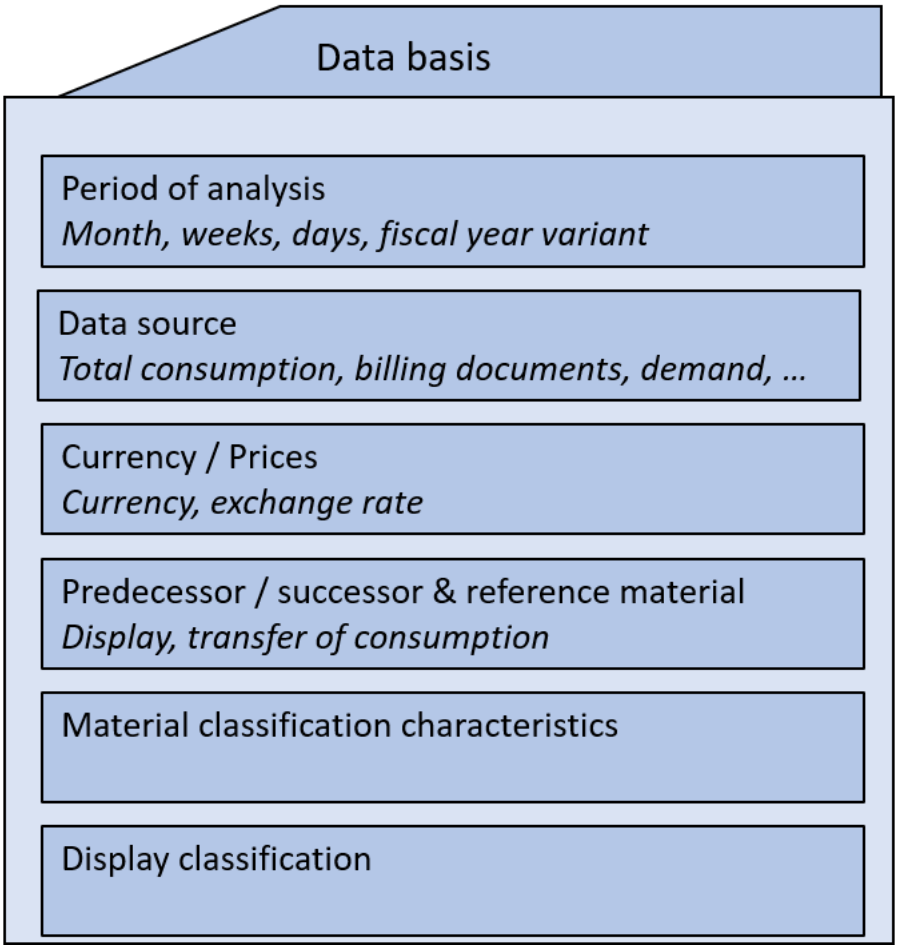
The results list displays the data records that match the selection.

Related Information

Documentation on the **comprehensive functions**

2.1.3 *Data Basis* Tab

On the *Data Basis* tab, you specify the period and the data source. You can also make settings here for determining currency and prices.



Schematic Display of the Data Basis Tab

2.1.3.1 Period of Analysis

Period of Analysis Area

Under *Period of Analysis*, you can select different periodicities. You can analyze the underlying values for months or weeks. You can also analyze posting periods if these differ from the calendar months in the company and corresponding fiscal year variants have been defined. If you select the *Posting Periods* option, the grayed-out *Fiscal Year Variant* field is ready for input.

Note that there is interaction with the selected data source. The chosen analysis mode (weekly or monthly analysis) must exist for the chosen data source.

> ✤ Example
>
> Consumptions are updated in table *MVER* dependent on the period indicator, meaning per material on either a monthly or weekly basis.

You need to maintain the analysis period in months if you select the monthly analysis, and in calendar weeks if you select the weekly analysis.

You have two options when specifying the period. You can specify the specific period, or you can enter a specific start date and a defined number of previous periods. If you decide to use this option, the last fully closed previous period calculated back from the specified date is used as the end of the analysis period, and the specified number of periods is calculated back from this point. The time span in the upper area is adjusted accordingly.

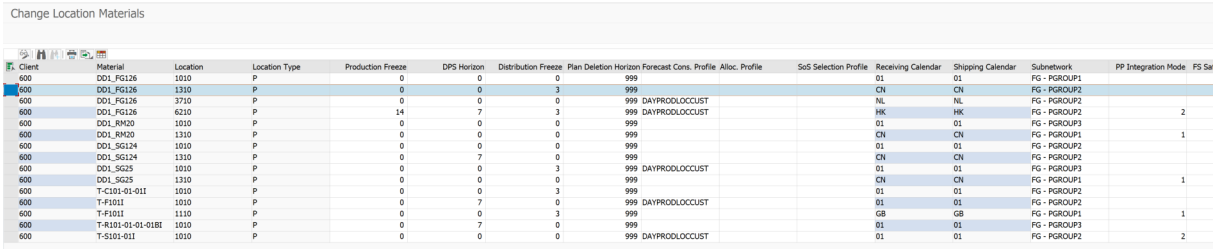
To simplify the periodic use of the **MRP monitor**, you can use a selection variable to set the period when saving as a variant.

2.1.3.2 Integrating Data for S/4HANA Functions

These are fields for DDP (demand-driven planning, eSPP (eSpare Part Planning), ePP/DS (eProduction Planning/Detailed Scheduling), and Integrated Business Planning (IBP).

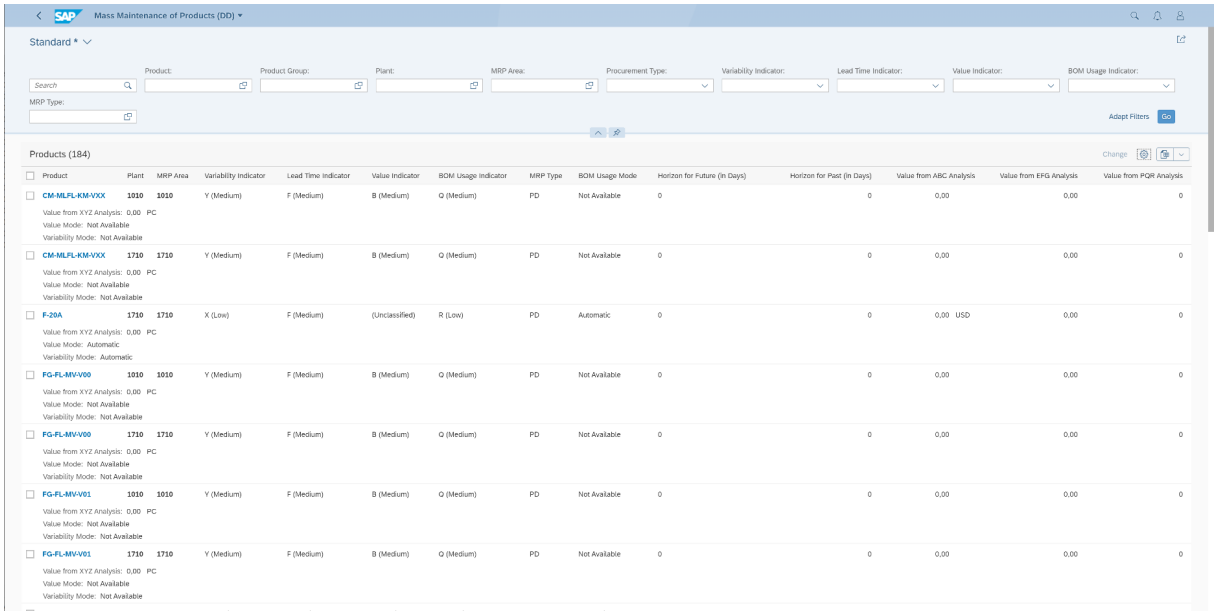
You can enhance/adapt the layout of the result list with these fields.

The following fields are also available: The screenshots shown here only show a selection. Changes/ enhancements are possible:



Client	Material	Location	Location Type	Production Freeze	DPS Horizon	Distribution Freeze	Plan Deletion Horizon	Forecast Cons. Profile	Alloc. Profile	SoS Selection Profile	Receiving Calendar	Shipping Calendar	Subnetwork	PP Integration Mode	FS Sa
600	DD1_FG126	1010	P	0	0	0	999				01	01	FG - PGROUP1		
600	DD1_FG126	1310	P	0	0	3	999				CN	CN	FG - PGROUP2		
600	DD1_FG126	3710	P	0	0	0	999	DAYPRODLOCCUST			NL	NL	FG - PGROUP2		
600	DD1_FG126	6210	P	14	7	3	999	DAYPRODLOCCUST			HK	HK	FG - PGROUP2	2	
600	DD1_RM20	1010	P	0	0	0	999				01	01	FG - PGROUP3		
600	DD1_RM20	1310	P	0	0	0	999				CN	CN	FG - PGROUP1	1	
600	DD1_SG124	1010	P	0	0	0	999				01	01	FG - PGROUP2		
600	DD1_SG124	1310	P	0	7	0	999				CN	CN	FG - PGROUP2		
600	DD1_SG25	1010	P	0	0	3	999	DAYPRODLOCCUST			01	01	FG - PGROUP3		
600	DD1_SG25	1310	P	0	0	0	999				CN	CN	FG - PGROUP1	1	
600	T-C101-01-01I	1010	P	0	0	3	999				01	01	FG - PGROUP2		
600	T-F101I	1010	P	0	7	0	999	DAYPRODLOCCUST			01	01	FG - PGROUP2		
600	T-F101I	1110	P	0	0	3	999				GB	GB	FG - PGROUP1	1	
600	T-R101-01-01-01BI	1010	P	0	7	0	999				01	01	FG - PGROUP3		
600	T-S101-01I	1010	P	0	0	0	999	DAYPRODLOCCUST			01	01	FG - PGROUP2	2	

IBP



Product	Plant	MRP Area	Variability Indicator	Lead Time Indicator	Value Indicator	BOM Usage Indicator	MRP Type	BOM Usage Mode	Horizon for Future (in Days)	Horizon for Past (in Days)	Value from ABC Analysis	Value from EFG Analysis	Value from PQR Analysis
CM-MLFL-KM-VXX	1010	1010	Y (Medium)	F (Medium)	B (Medium)	Q (Medium)	PD	Not Available	0	0	0,00	0,00	0
Value from XYZ Analysis: 0,00 PC; Value Mode: Not Available; Variability Mode: Not Available													
CM-MLFL-KM-VXX	1710	1710	Y (Medium)	F (Medium)	B (Medium)	Q (Medium)	PD	Not Available	0	0	0,00	0,00	0
Value from XYZ Analysis: 0,00 PC; Value Mode: Not Available; Variability Mode: Not Available													
F-20A	1710	1710	X (Low)	F (Medium)	(Unclassified)	R (Low)	PD	Automatic	0	0	0,00 USD	0,00	0
Value from XYZ Analysis: 0,00 PC; Value Mode: Automatic; Variability Mode: Automatic													
FG-FL-MV-V00	1010	1010	Y (Medium)	F (Medium)	B (Medium)	Q (Medium)	PD	Not Available	0	0	0,00	0,00	0
Value from XYZ Analysis: 0,00 PC; Value Mode: Not Available; Variability Mode: Not Available													
FG-FL-MV-V00	1710	1710	Y (Medium)	F (Medium)	B (Medium)	Q (Medium)	PD	Not Available	0	0	0,00	0,00	0
Value from XYZ Analysis: 0,00 PC; Value Mode: Not Available; Variability Mode: Not Available													
FG-FL-MV-V01	1010	1010	Y (Medium)	F (Medium)	B (Medium)	Q (Medium)	PD	Not Available	0	0	0,00	0,00	0
Value from XYZ Analysis: 0,00 PC; Value Mode: Not Available; Variability Mode: Not Available													
FG-FL-MV-V01	1710	1710	Y (Medium)	F (Medium)	B (Medium)	Q (Medium)	PD	Not Available	0	0	0,00	0,00	0
Value from XYZ Analysis: 0,00 PC; Value Mode: Not Available; Variability Mode: Not Available													

DDP

Zusatzdaten | OrgEbenen | Mehr

Erweiterte Planung | Erweiterte SPP | Prognose | Arbeitsvorbereitung | Werksdaten/Lagerung1 | Werksdaten/Lagerur

Material: D-PSTL001

Bezeich: D-PSTL001

Allgemein

☐ Erweiterte Planung

Produkt-Alerts: Direkte Alerts ermitteln, relevant für Netzwerk-Alerts

Terminierung

WE-Bearbeitungszeit:

Warenausgangszeit:

Durchgangszeit:

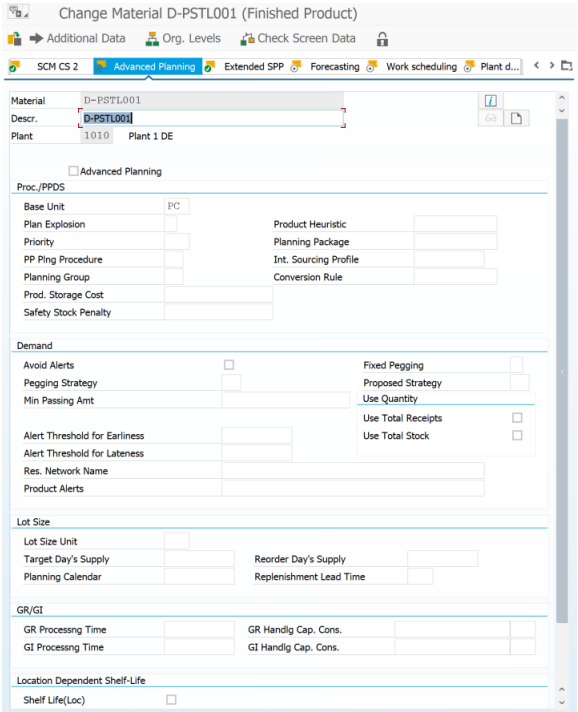
Bestandsplanung

Streckenabwicklung: Nein

Sicherheitsbest:	0	SB für vUL:	0
SB überg. Lokation:	0	SB Oberlokation vUL:	0
Reparatur SB:	0	Reparatur SB für vUL:	0
Meldebestand:	0	Meldebestand (vUL):	0
Höchstbestand:	6,500	Höchstbestand (vUL):	0

Kostenparameter

eSPP



ePP_DS

2.1.3.3 Data Source

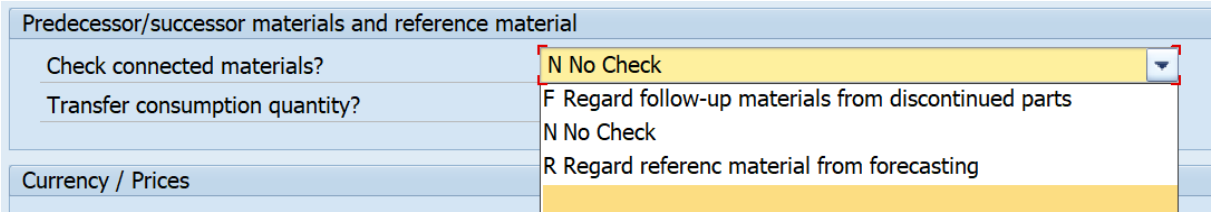
In this area, you can select the data source. Due to the strong interaction between the level of analysis and data source, these are explained together in section Level of Analysis and Data Source [page 9].

2.1.3.4 Predecessor/Successor and Reference Materials

In the lower area of the *Data Source* tab, you can activate the predecessor/successor functionality such that the single/parallel discontinued materials are considered within the framework of discontinuation control (material master: *MRP view 4*). Dependent discontinued materials are not included. By activating the checkbox "Transfer consumptions" and select the radiobutton "Transfer consumptions of predecessor to successor" the consumptions of a predecessor material are transported to the follow-up material. Thus, the consumptions of the predecessor material are no longer considered.

For a valid successor, the effective-out date field must be filled and be before the end of the analysis period. The setting in the discontinuation indicator field is not checked.

You can also copy the settings for the reference material (material master: *Forecast*). With this logic, you can assign one or more successors to a reference material in a reference plant.



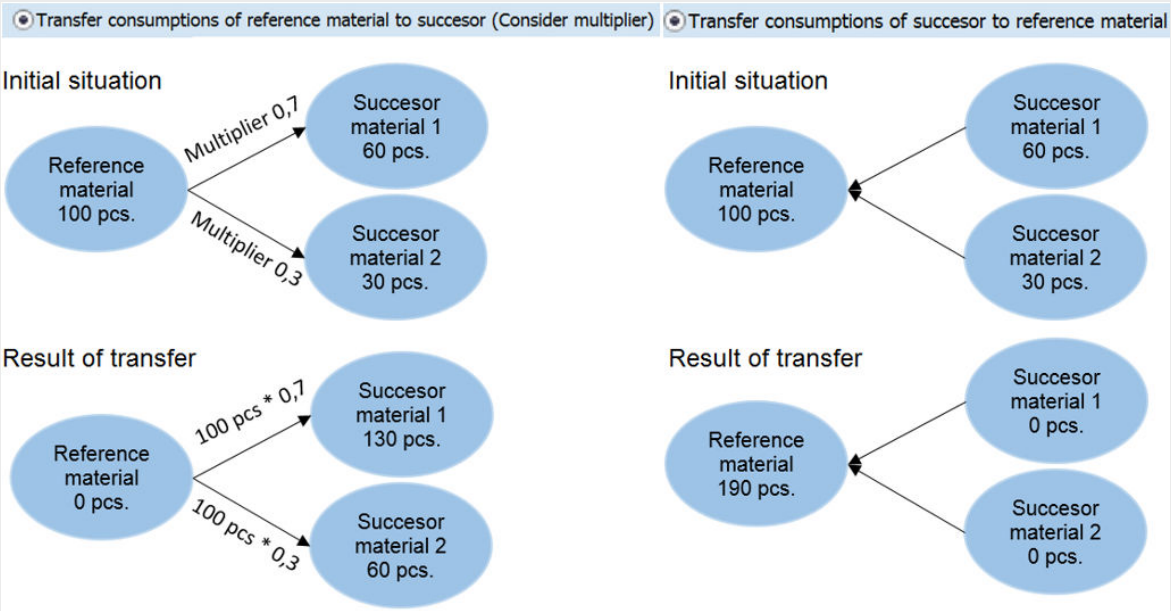
Area: Predecessor/successor materials and reference material

As with the predecessor/ successor logic, you can also transfer consumption quantities with the reference material logic.

> **i Note**
>
> You can only select one logic to transfer the requirements, that is, either the predecessor/successor logic or the reference material logic.

With the reference material logic, two directions are available for selection: Under the first option, the quantities of the reference material are distributed. To not generate additional consumption values the multiplier set in the material master is considered. In the second case, the quantities are transferred from one or more successors to the reference material.

> **Example**
>
> The graphic shows the differences with example values.

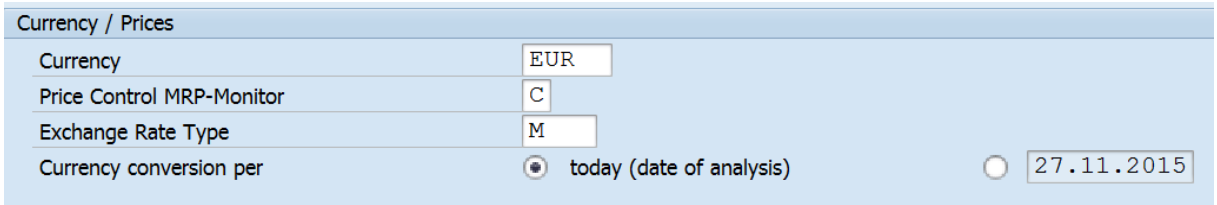


Options for transfer of consumption

The consumptions are transferred in total. Therefore, the XYZ consumption of the initial material becomes 0. The effective-out date is not considered for the transfer of consumptions.

If the effective-out date is not within the selection, the predecessor-successor functionality is not used. As the settings for the reference material are future oriented, this relationship is shown even if the effective-out date is outside the period of analysis.

2.1.3.5 Currency/Prices



Currency/Prices Area

In this area, you can specify the currency for the analysis and the currency translation.

For the price, you have the following options:

- No price (0)
- Valuation price based on commercial law: level 1
- Valuation price based on commercial law: level 2
- Valuation price based on commercial law: level 3
- Valuation price based on tax law: level 1
- Valuation price based on tax law: level 2
- Valuation price based on tax law: level 3
- Always use standard price
- Always use moving average price
- Depends on Price Control Indicator
- Use Moving Average Price when > 0, else Standard Price
- Use Standard Price when > 0, else Moving Average Price

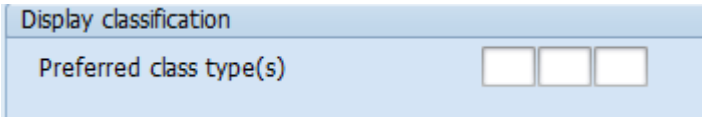
If the selected price is not maintained, you can use the checkbox to select the price according to the price control indicator instead.

You can hereby specify the exchange rate type and the key date for currency translation.

If you select *today* as the key date, the system uses the exchange rate that was valid on the date of the analysis. If you want to use the exchange rate from another date, you can select a specific date. The system then uses the exchange rate that is valid on this date.

2.1.3.6 Displaying Classifications

In this area, you can enter your preferences regarding the class types of a material:



Area: Display Classification

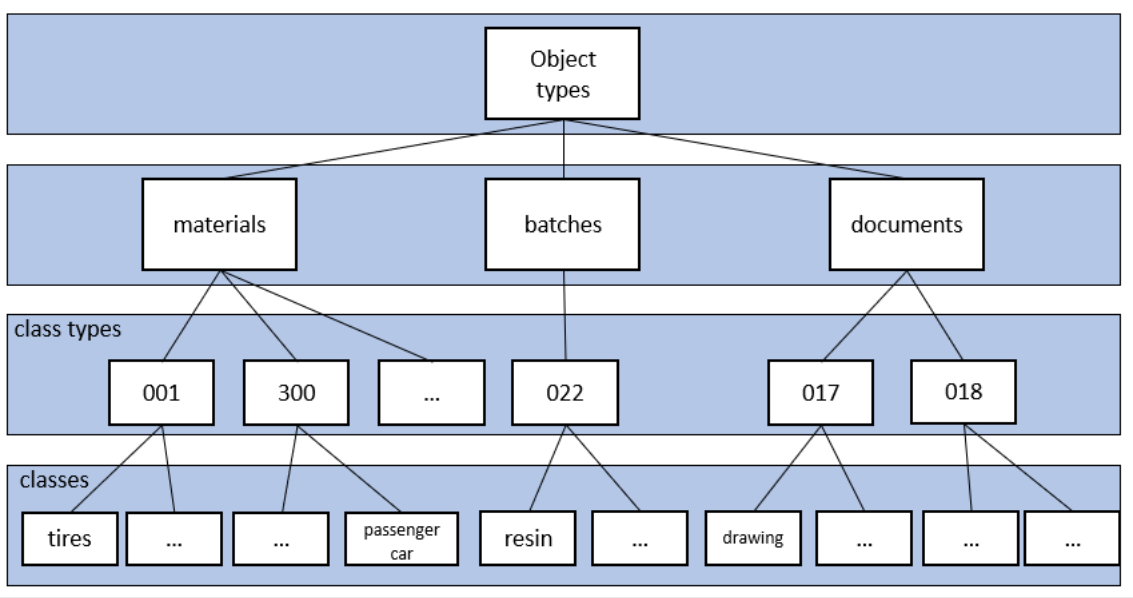
The classes you enter here must not be confused with the classification by the **MRP monitor**. These class types represent configuration data that can be displayed in the **MRP monitor**. Since a material can often have multiple class types, you need to specify here in which sequence you want to display the classification data.

Example

Examples of class types:

- 001: Material class
- 023: Batch
- 200: Configurable materials

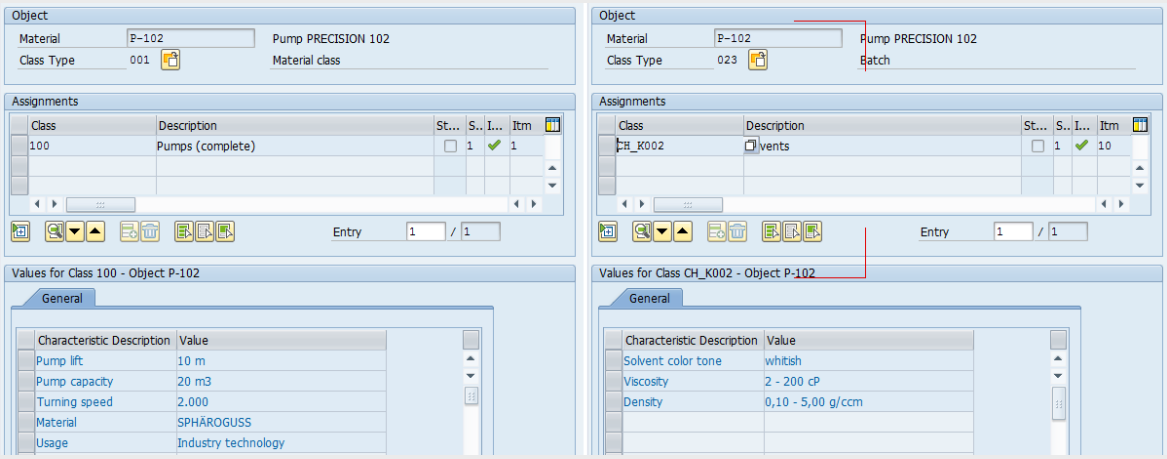
Example Class Types



This option has no effect on the result screen. In fact, it is more like a presetting for navigating from the context menu to the material master view classification.

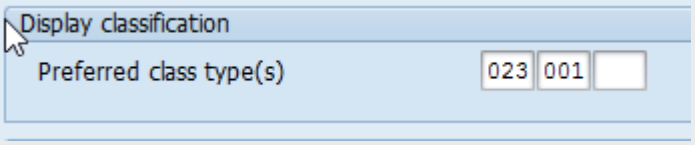
Example

The values for class types 001 and 023 are maintained for material P-102.



Class Types in the Material Master

On the selection screen of the **MRP monitor**, you select the following class types:

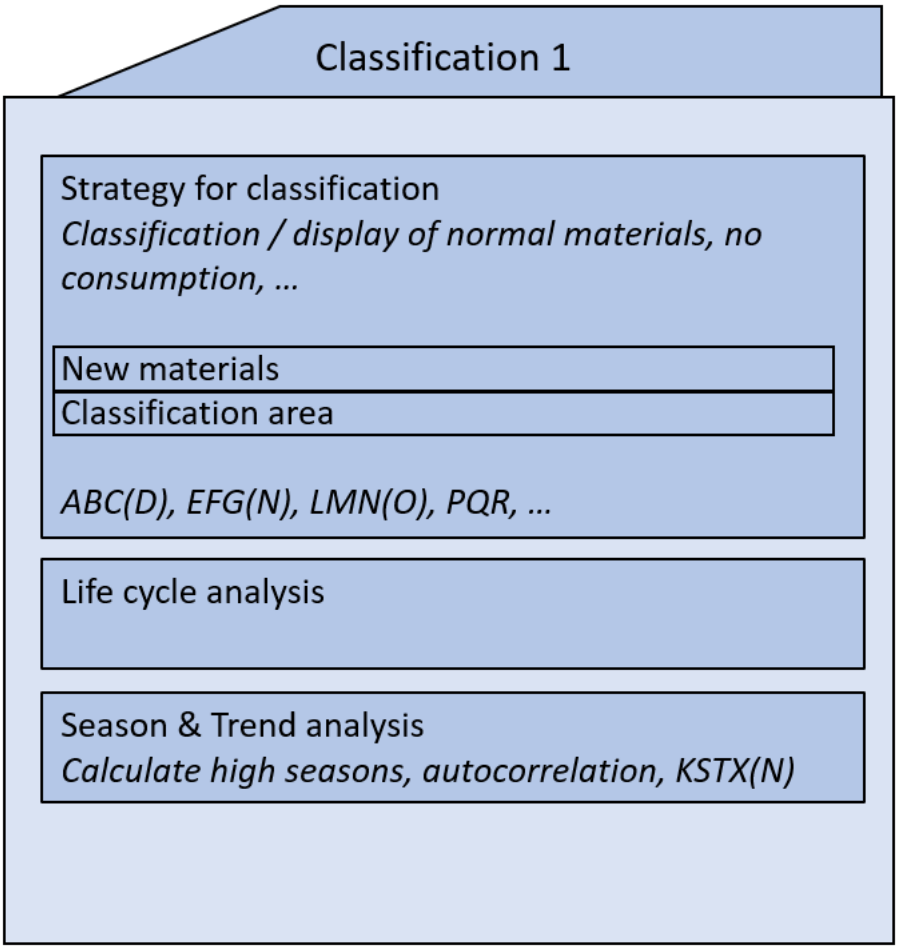


Completed Class Types Area

If you branch from the **MRP monitor** result list to the material master, the *Classification* tab displays class 023 automatically if data exists for this class. If no data exists, the system tries to display the data for class type 001.

You can enter up to three classes on the selection screen.

2.1.4 *Classification 1* tab



Schematic display of the Classification 1 tab

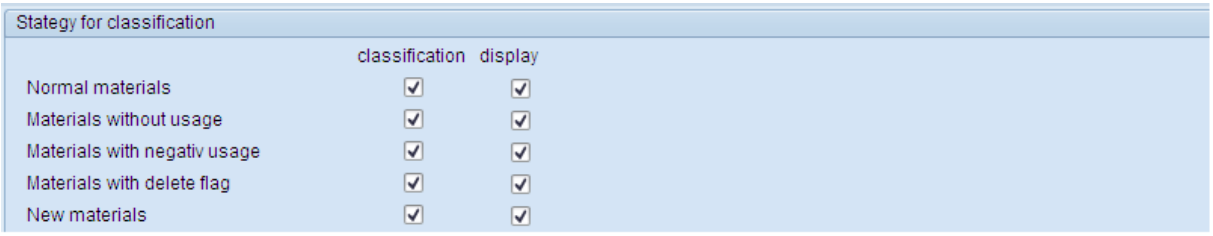
On the *Classification 1* tab, you can define the materials to be analyzed, and the analyses to be executed.

2.1.4.1 Materials to Classify

The “Strategy for classification" section defines which of the materials determined in the selection should be classified. This is the handling of exceptions. These are materials that, as a result of certain criteria, are to be analyzed separately from the MRP perspective.

For the materials grouped as exceptions, various options are provided on the selection screen. For each group displayed, you can separately select whether the materials are to be included in the classification and thus do not represent exceptions. During classification, the materials are then handled as "normal" materials, that is, materials that do not belong in one of the exception groups. You then see only by a column in the result view that a material belongs to an exception group. To consider a group of materials in the classification, you need to set the *Classify* indicator. You can also select whether these materials grouped as exceptions are to be displayed in the results overview of the **MRP monitor**. Even if no classification is to be made, these are materials are displayed in the results list with all of the key figures determined. In addition, you can perform master data reporting for all of the materials displayed. To use this option, you have to set the *Display* indicator. This alternative is particularly useful if the respective group is not to be included in the classification, that is, if you have not selected the *Classify* indicator.

You can also select the two options *Classify* and *Display* for materials that are not exceptions. This enables you to classify one or more exception groups by excluding the group of normal materials from the classification.



Stategy for classification

	classification	display
Normal materials	☑	☑
Materials without usage	☑	☑
Materials with negativ usage	☑	☑
Materials with delete flag	☑	☑
New materials	☑	☑

Classification Strategy

With exceptions, note that materials can be grouped into multiple groups. A new material, for example, can also show zero consumption. In this case, the total number of materials sorted into the individual groups exceeds the total number of existing materials due to multiple counting.

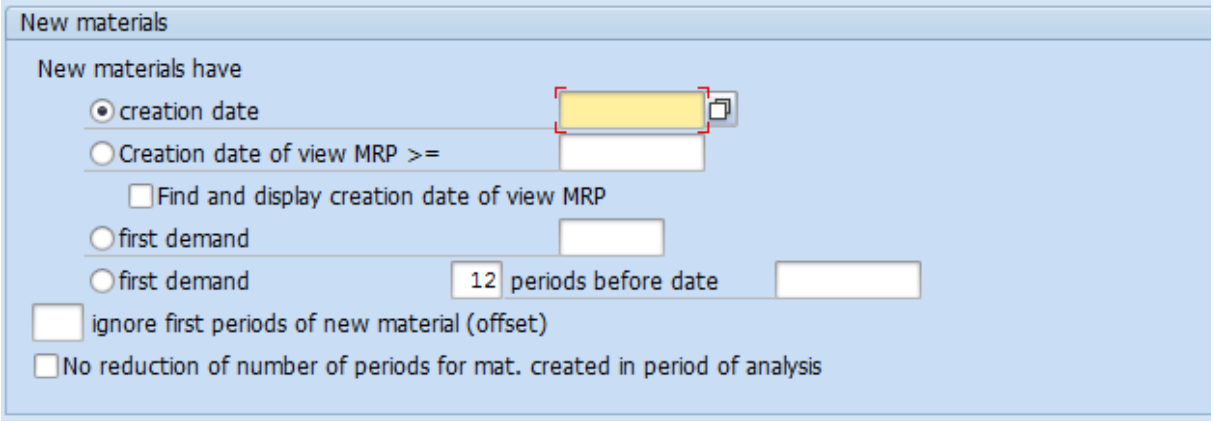
2.1.4.2 New Materials

You can control the classification of materials to be regarded as new on the selection screen.

If you do not specify a selection for new materials (meaning that you specify neither the creation date of the material, that of the MRP view, nor a date for the first consumption), all materials whose creation date is within the analysis period are identified as “new”

> ⚠ Caution
>
> During the migration of material masters from legacy systems, the creation date must be considered separately.

You have the following options:



Definition of New Materials

Creation Date From

You specify an exact date on the selection screen. All products with a creation date for plant-independent data that is on or after the specified date are classified as new materials.

Creation Date MRP View From

All materials with an MRP view created after the specified date are classified as new (plant-dependent). The date on which the maintenance status of a material was set D (field *MARC-PSTAT*) is decisive.

First usage

You enter a specific period on the selection screen (format: PP.YYYY). Materials with a first consumption in or after the specified month are classified as new materials.

First Consumption from x Periods Before Date

You specify an exact date on the selection screen, from which x periods are calculated back. All materials with a consumption on or after the calculated date (key date – number of periods) are classified as new. Materials without consumption are regarded as new. The date of first consumption is set to 31.12.9999.

First Receipt x Periods Before Date

You specify an exact date on the selection screen, from which x periods are calculated back. All materials with a receipt on or after the calculated date (key date – number of periods) are classified as new. Materials without receipt are regarded as new.

Reduction of analysis period

New materials often show zero consumption for a specific period at the start. If you include these periods in the analysis, the degree of data fluctuation increases due to the periods evaluated fully as zero periods. This means the past data of materials that are to be regarded as relatively regular are "distorted" by the zero periods before the creation date. These zero periods are therefore not deemed part of the analysis period for new materials in the standard version of the **MRP monitor**.

> Example
>
> The material 123 is created in August 2017. In the analysis at the end of the year with the analysis period 01/2017 to 12/2017, all materials that were created in this analysis period are classified as new. For the material 123 this means that only the period 08/2017 to 12/2017 is relevant for the analysis.

Offset

Depending on the option chosen, you can enter an offset in periods in the direction of the current date. An offset means that the data from the offset period is not taken into account. This is especially useful for new materials for which the observed consumption in the first periods is not representative. In this way you can avoid the effect of “start-up phases” in the classification of new materials.

> Example
>
> In the first month after the creation of a material in particular, replenishments are performed in the distribution centers, meaning that the first month is not representative. Since the replenishments occur once only, the analysis of the **MRP monitor** is configured such that the first month with consumption is not to be considered. To do this, in the field *No reduction of n periods for materials created in period of analysis*, enter a `1` .
>
> For the calculation of the key figures relevant for analysis, such as ABC value (consumption value in the analysis period) and XYZ quantity (consumption quantity in the analysis period) and the variation coefficient, the consumptions of the first month of the analysis period are not taken into consideration since the analysis period was reduced by the specified number of periods. So the material 123 with creation date in August and an offset of a month has an analysis period of 09/2017-12/2017.

If you set the indicator *No reduction of analysis period for materials created in period of analysis*, the analysis period is not reduced. The zero periods at the start are then included in the valuation in the same way as periods with consumption or zero periods, which in terms of time are surrounded by periods with consumption.

Example

After a release upgrade or integration of an acquired company, the systems are rebuilt and large part of the material master data is migrated. The table MARA contains a creation date for these materials, which is the migration date. Consumptions before that date will not be considered, since the material did not exist in the system previously, even though years of history was stored in table MVER. If you select this indicator, the creation date according to MARA is not considered and all consumptions in the analysis period are relevant for the analysis.

There is an interdependency between the settings for the offset and the indicator *No reduction of analysis period for materials created in period of analysis*.

Example

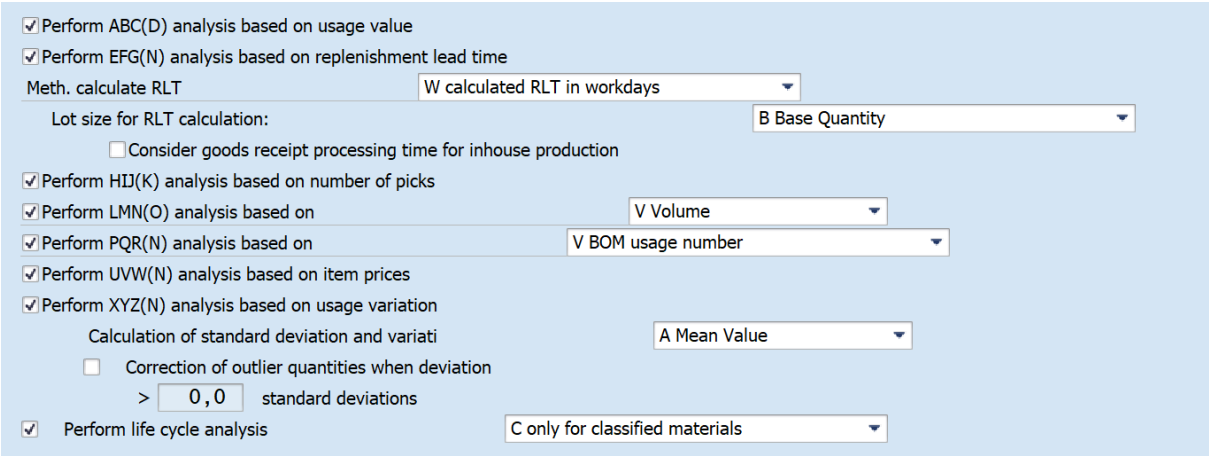
The analysis period is 01/2017-12/2017. The material is created in August 2017. Since there are no further details on the definition of "New Materials", the material is considered as new. If the indicator *No reduction of analysis period for materials created in period of analysis* is set, the **MRP monitor** also includes the months 01/2017-07/2017 in the analysis. A possible X material becomes a Z material since the consumption becomes irregular through the consideration of the first seven months in which the material did not yet exist. If this indicator is not set, the analysis period for this material is automatically reduced to 08/2017 – 12/2017.

It does not make sense to set this indicator and at the same time specify *No reduction of n periods for materials created in period of analysis* since the two entries would contradict one another. For example if you state that you do not want to consider two periods, the months of August and September would be excluded from the analysis (for the periodicity month).

The *new materials* indicator is based on past values. Therefore, the analysis is only useful, if you choose a data source oriented towards the past. Reclassification by consumption is not possible for the data sources requirements and planned requirements.

2.1.4.3 Analyses To Be Executed

As part of the classification strategy, you also need to define which analyses are to be carried out in the **MRP monitor**. The following nine analyses are possible:



Classification Analyses

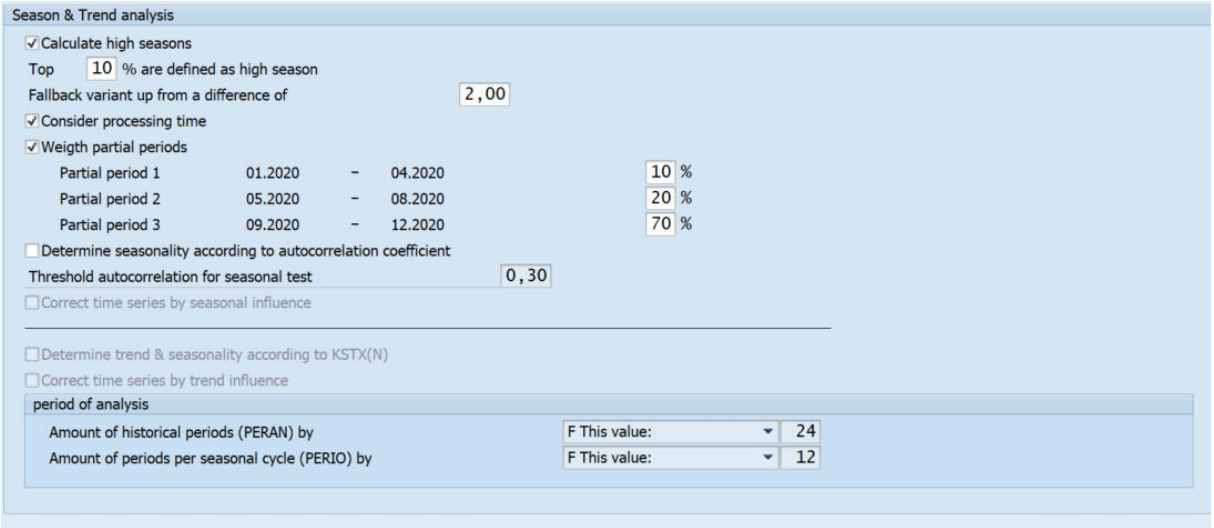
You can specify whether you want to analyze the list as a whole or each plant. If you choose the first option, classifications are carried out based on all of the selected materials, whereas if you choose the second option, they are carried out separately for each selected plant.

2.1.4.4 Season and Trend Determination

As part of *season & trend determination*, the MRP monitor provides three analysis options:

- Determine high seasons
- Determine seasonality with autocorrelation
- Determine trend & seasonality with KSTX(N)

> ⚠ Caution
>
> Since these options are CPU-intensive, the runtime increases considerably.



Season & Trend Determination Area

The *determination of high seasons* identifies the high seasonal consumption periods and helps to cover the increased demand in the high season.

In the *Period of Analysis* area, you specify which data is to be used for determining the high seasons. For both the number of historical periods and the number of periods for each season, you can retrieve material master entries. Alternatively, you can enter fixed values on the selection screen.

First, the seasonal numbers of the periods are determined, taking all historical values into account. The seasonal number represents the consumption portion of a period in relation to the entire year. You can find the calculation in the interpretation help for key figures. Using the weighting of the partial periods on the selection screen, certain periods are taken into account more closely.

In the next step, the season gap is determined as the difference between the minimum and maximum seasonal number. This represents the fluctuation over the season. The higher the gap, the greater the seasonal fluctuations. To identify a high season, select a percentage as the limit value on the selection screen. If this limit is exceeded, the corresponding period is evaluated as a high season. You can also choose a fallback variant as of a specific season gap. If this criterion is met, all periods with a seasonal number > 1 are identified as high seasons. From a technical point of view, these are periods with consumptions above the annual average.

The following example illustrates the calculation of the high season:

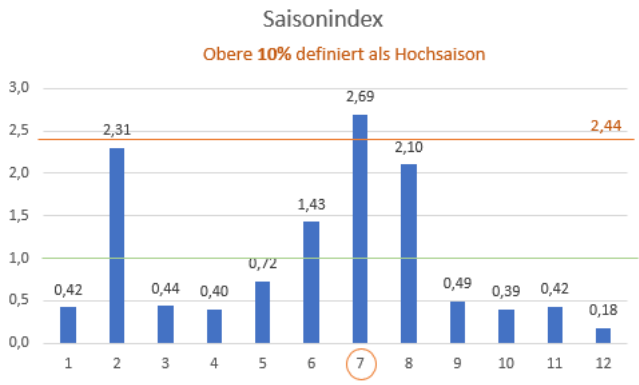
Example

1. The system uses the historical data from the last 6 years to calculate the seasonal number of the periods (months).

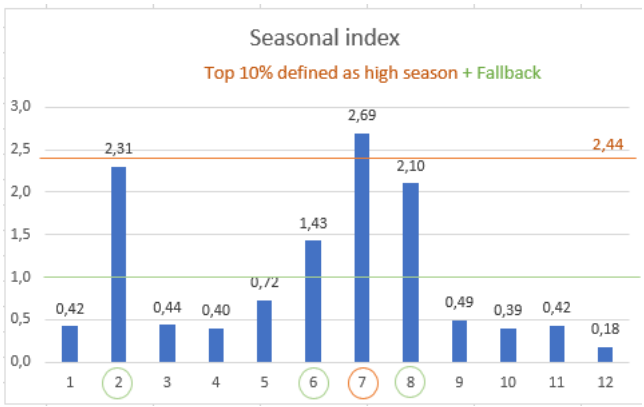
Material 1	1	2	3	4	5	6	7	8	9	10	11	12
year 1	20	150	25	12	35	65	120	95	25	11	20	5
year 2	10	110	10	11	35	65	110	95	25	11	11	10
year 3	5	50	5	5	35	65	120	95	5	5	5	5
year 4	25	250	25	25	35	65	110	95	25	25	25	25
year 5	40	100	40	40	40	65	140	95	40	40	40	4
year 6	25	25	25	25	35	99	200	150	25	25	25	5
Season index	0,42	2,31	0,44	0,40	0,72	1,43	2,69	2,10	0,49	0,39	0,42	0,18

2. The seasonal gap is determined as the difference between the minimum and maximum seasonal number. In the example, the seasonal gap is 2.51 (2.69-0.18).

3. The limit for high seasons is calculated according to the settings on the selection screen. In the example, the upper 10% has a limit value of 2.44 (2.69 - 10%*2.51).
4. The periods are compared with the limit value. Periods that exceed this value are considered to be highly seasonal. In this example, this only applies to period 7.

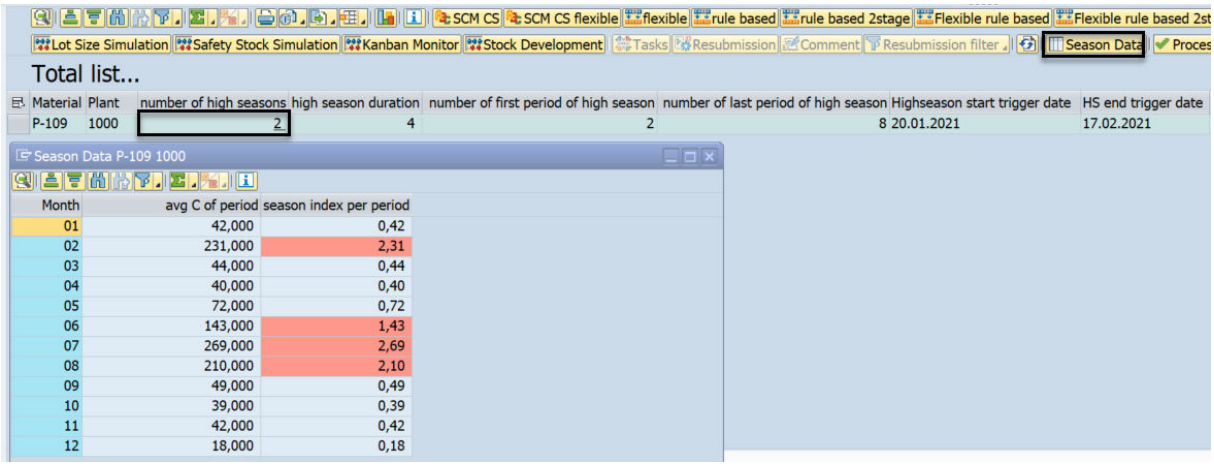


5. In the next step, the system checks whether the gap exceeds the fallback limit. In this example, a limit of 2.0 was defined on the selection screen. The gap of 2.51 exceeds this value. As a result, all periods with a seasonal number greater than 1 are considered to be highly seasonal. In this example, periods 2, 6, and 8 are therefore added to period 7.



6. Continuous high season periods are considered to be one high season. The example material therefore has two high seasons. The first high season consists of period 2, the second high season consists of periods 6, 7, and 8.

The information determined is displayed on the results screen of the MRP monitor.



You receive the following information:

- Number of high seasons: Number of continuous high seasonal periods
- Duration of high season: Number of high seasonal periods
- Number of the first period of the high season: First high seasonal period in analysis period
- Number of the last period of the high season: Last high seasonal period in analysis period
- High-season start trigger date: This is the determined procurement start for covering the increased requirement. The start date of the next high season is reduced by the replenishment lead time. On the selection screen, you can choose whether the goods receipt processing time is also to be taken into account in this calculation.
- End of high season trigger date: This is the determined procurement end with increased demand. The end date of the next high season is reduced by the replenishment lead time. On the selection screen, you can choose whether the goods receipt processing time is also to be taken into account in this calculation.
- Choosing the **Number of High Seasons** field or the **Season Data** pushbutton opens a window that displays the period details for season determination and highlights the high seasons in color.

In addition to determining the high season, other methods are available for season determination. The *procedure using autocorrelation coefficients* is a relatively simple procedure. The method is easier to track for the user and has a shorter runtime. Due to the procedure, the result may be distorted for certain data patterns. Trends in a time series may have an effect on the season determination.

The *analysis using KSTX(N)* removes this restriction by calculating the trend component separately. The array of calculation steps, compared with the calculation using autocorrelation coefficients, results in an increased runtime.

In the *Period of Analysis* area, you specify which data is to be used for calculating the autocorrelation coefficient and for the KSTX analysis. For both the number of historical periods and the number of periods for each season, you can retrieve material master entries. Alternatively, you can enter values on the selection screen.

> ⚠ Caution
>
> To achieve meaningful results, the number of analyzed historical periods must be a whole multiple of the number of seasonal periods.

> ⚠ Caution
>
> For this period of analysis, periods are not reduced when new materials are analyzed.

You can determine a season based on the autocorrelation coefficient. This determines the mathematical relationship between values of the consumption time series that occur at a specific interval after each other (for information about interpreting and using the autocorrelation coefficient, see: Appendix: Interpretation Help for Key Figures [page 91]).

The size of the autocorrelation coefficient calculated indicates whether a time series is seasonal. If the same periods of a season repeatedly contain high or low values, the **MRP monitor** detects a correlation between the same periods of a season and the autocorrelation coefficient increases. Seasonality is normally assumed as of an autocorrelation coefficient of 0.3. In the **MRP monitor**, you can change this threshold value if necessary. The default setting is 0.3.

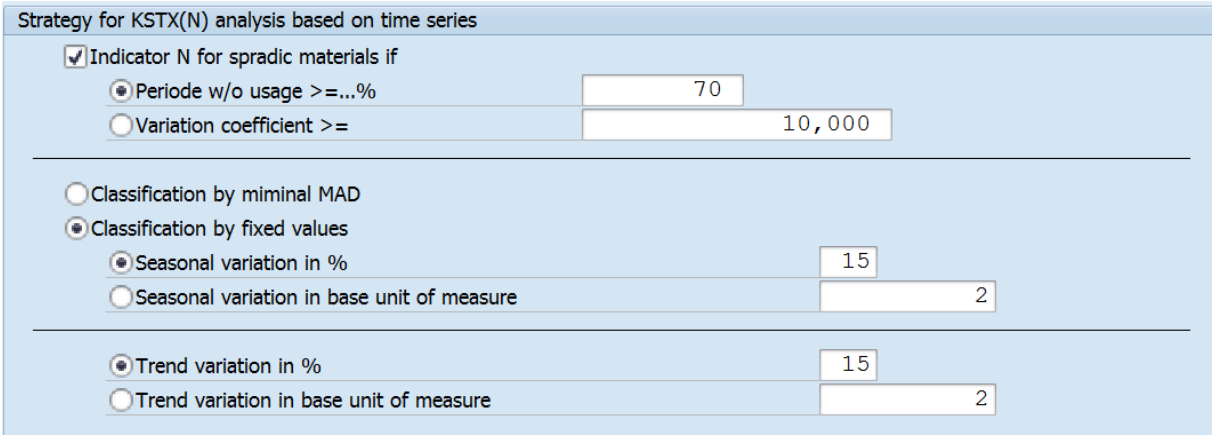
Whether a time series as classified as seasonal or not seasonal is decisive for the XYZ analysis. For example, there is a risk here that the **MRP monitor** could categorize a highly seasonal time series as having strong fluctuation and thus as Z, although the fluctuations are mainly due to the seasonality. Such a material can be forecast well with a seasonal model and categorizing it as a "Z" material is wrong. This is why the **MRP monitor** allows you to correct the seasonal influences in the time series before the XYZ analysis, so that you can restrict the analysis of fluctuations to non-seasonal changes. Thus, the **MRP monitor** first compares the determined autocorrelation coefficient against the defined threshold value. If the threshold value is exceeded and the flag *Correct seasonality in time series before XYZ analysis* is set, the time series is normalized with the seasonal factors and the seasonality is removed.

Another procedure available for determining season and trend in a time series is the KSTX(N) analysis.

Settings for the KSTX(N) Analysis

The aim of the KSTX (N) analysis is to classify a material with respect to its time series development. The following indicators are hereby set:

- If the development is constant, indicator K is set. A development of consumption is considered constant if the values fluctuate around a level that does not change.
- For seasonal development, the indicator S is assigned. A pattern exists in this case, which is repeated in the period examined. The duration of a seasonal cycle is usually one year. The phase average method is used to determine this.
- For trend development, the indicator T is assigned. This means there is a long-term systematic change of the mean level in the form of a positive or negative incline. Simple linear regression is used to determine this.
- For trend seasonality, the indicator X is assigned. Consumption here shows both seasonal fluctuations and a trend value.
- For sporadic developments, the optional indicator N is assigned. Such developments are distinguished by a high number of zero periods.



Strategy for KSTX(N) Analysis

In the *Strategy for KSTX (N) analysis* area, you first select whether the indicator N is to be assigned. The criteria for this are the same as for the XYZ analysis.

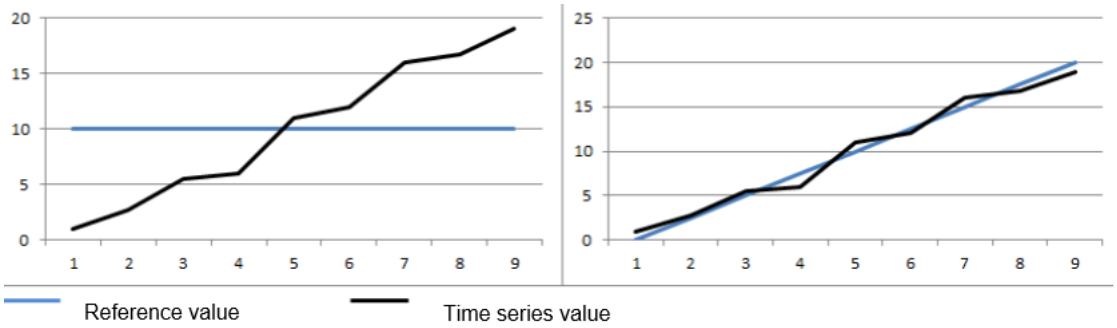
> ⚠ Caution
>
> When indicators are assigned, the time series analysis takes into account the interval that you have selected on the *Classification 1* tab, and not the analysis period on the *Data basis* tab.

Choosing meaningful limit values is fundamental for the significance of the KSTX(N) analysis. If a season and trend determination is performed using this method, it is recommended that you validate the settings. In the lower section, you can make settings for the classification variants. When doing so, you can choose between minimum mean absolute deviation (MAD) and absolute or relative threshold values for trend and season.

If you select the first option, the program determines the MAD for all developments. This value is calculated as the mean value of the absolute difference between the actual consumption values and the approximate solution. Afterwards the material receives the status of the consumption flow with the smallest deviation.

For classification according to threshold values, you specify the percentage or absolute thresholds for trend and season. If these values are exceeded, the relevant classification is made. The percentage is calculated as ratio of the trend value/maximal seasonal fluctuation and the basic value.

Similar to season correction, the XYZ analysis also supports trend correction. In this case, the variation coefficient is not calculated based on a constant reference value such as a mean value or median, but based on the idealized trend value. The difference is shown below.



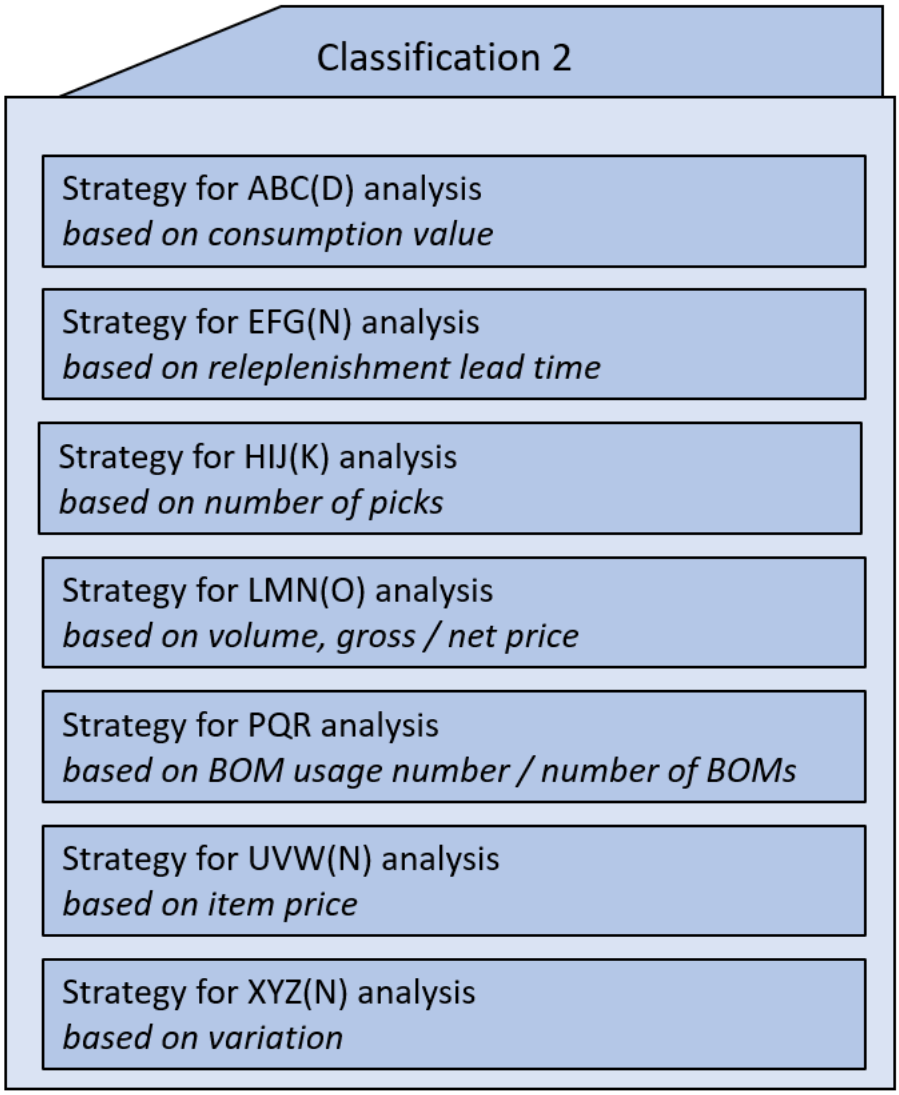
XYZ Analysis with Trend Correction

This function provides you with more precise information about consumption development. Consumption is no longer classified as irregular but as regular with a trend development. This allows you to identify which part of the fluctuations is based on regular trend or seasonal fluctuations and which part is actually irregular.

Related Information

Appendix: Interpretation Help for Key Figures [page 91]
Autocorrelation Coefficient

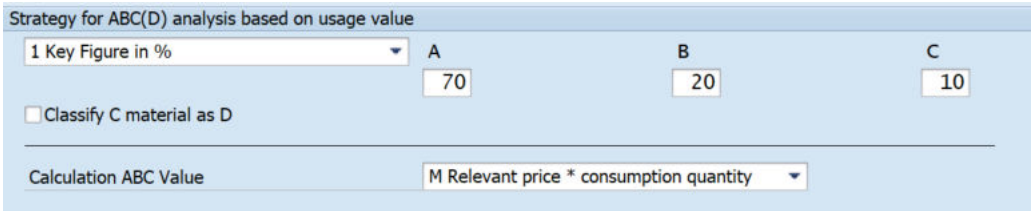
2.1.5 *Classification 2* tab



Schematic display of the Classification 2 tab

On the *Classification 2* tab, you can choose exact strategies and limit values for the analyses.

2.1.5.1 Strategy for ABC Analysis



Strategy for ABC(D) Analysis of Consumption Values

The ABC analysis is a business analysis procedure in which materials are classified with regard to their significance. Depending on the settings of the underlying data source, usage values, order or billing quantities, or forecast quantities are used as a basis. These are multiplied by a price in order to determine the value. There are different ways to calculate the ABC value:

Depending on the basis used, the **MRP monitor** determines the importance of a material by classifying the material in one of (by default) three groups. The A group represents the materials with the highest importance, B materials are materials of medium importance, and C materials are materials of low importance.

You can define the criterion for group formation, in addition to other basic settings for the data source, on the *Strategy 1* tab. You can choose between four procedures:

1) Consumption value in percent

This procedure is the classic approach for an ABC analysis. The value is calculated in the analysis period for all objects to be classified, for example, for the data source, price to be used, or analysis period. The value may vary according to the data source, for example, the consumption value, ordered value, invoiced value, or forecast value. The materials are sorted in descending order according to value and are grouped into three groups based on the percentages on the *Classification 2* tab.

2) Absolute consumption value

The analysis is similar to the procedure described under 1). The difference is that with this alternative, the limits between A and B materials and between B and C materials are determined by absolute values. This may be useful, for example, if there is one ABC analysis for the whole plant and calculations were thus performed on a plant-specific basis to determine how high the limits are between the groups from a plant point of view. If an ABC analysis now needs to be performed for a smaller section of the material range and the same classification is used as for the plant-wide procedure, the absolute values of the plant-specific analysis are to be used, since the ABC analysis can (and usually will) result in very different classifications if the range of materials to be analyzed changes. It is likely that a material classed as a C material from a plant point of view is classified as a B or even an A material in the analysis on the reduced range for a particular MRP controller. To

avoid this, the analysis with absolute values can be used to apply to an analysis of a separate range the same classification as is used for the plant-specific overall analysis.

3) Number of materials in %

In line with the procedures above, in this alternative the classification is based on percentage shares. This means, for example, that the top 10 % of materials are classified as A materials, the next 20 % as B materials, and the rest as C materials, based on the default values. You configure the percentage values on the selection screen.

4) Absolute number of materials

This procedure is similar to alternative 3). The difference is that instead of a percentage share, you specify an absolute number of materials that you want to classify.

Additional group D materials

In contrast to the standard ABC analysis, the **MRP monitor** offers a way of analyzing the materials more specifically. This means that in the ABC analysis, an additional, optional group - the D materials - can also be formed. You activate the D materials by setting the indicator *Classify C material as D*, and at the same time, maintaining a price, sales volume, and/or last consumption in percent. If the price is used, for example, all materials that were classified as C materials in accordance with the strategy specified above and whose price falls below the price specified via the price control indicator are classified as D materials. This makes it possible to classify C materials in more detail, which is often necessary to differentiate between relatively high-value materials that were only consumed rarely in the analysis period and actual C materials.

If you select the radio button *if value <=...%*, the inserted limit refers to the total value of the analyzed materials.

> ℹ Example
>
> If you enter 1% and the accumulated consumption value is EUR 100 000, these m materials are classified as D-materials, with accumulated consumption value as the last percentage of the total value, in this example EUR 1000. The materials with the lowest consumption values are summarized until the accumulated value reaches EUR 1000 (= 1% of EUR 100,000).

> ⚠ Caution
>
> This is not a calculation regarding a percentage of the usage value of the C-materials.

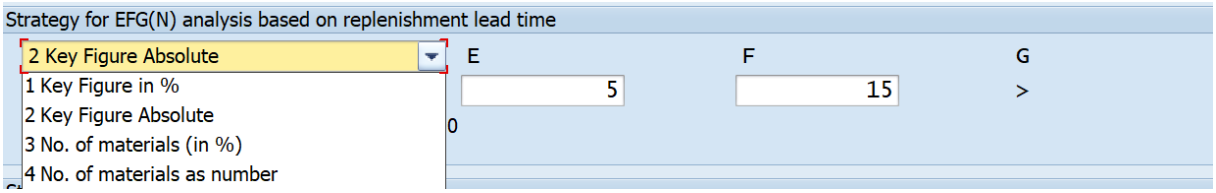
Analysis based on quantities

Under certain circumstances, you can perform an analysis on a quantity basis for the ABC part of the analysis. To do this, you set the indicator for price standardization to 1. However, this analysis only produces meaningful values if the units of measure of the materials are comparable.

> **Example**
>
> Comparing material consumption in pieces with that of a material consumption in liters is not meaningful.

You must take this into account when you use this option.

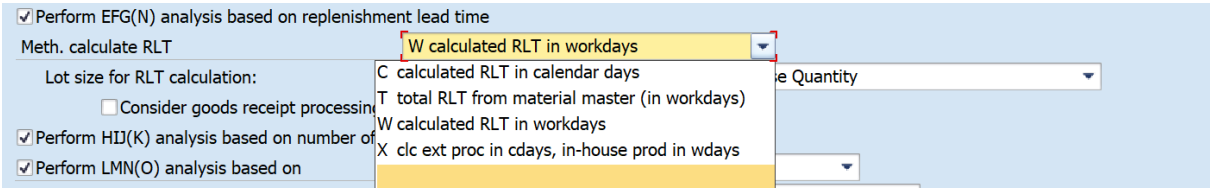
2.1.5.2 Strategy for EFG Analysis



Strategy for EFG(N) Analysis

With the EFG analysis, the materials are sorted according to their replenishment lead time (RLT) and then classified.

The replenishment lead time can be determined in different ways. On the selection screen *Classification 1* of the MRP monitor, you can select which calculation rules you want to take into account:



Calculation Rules for EFG Analysis

- Replenishment lead time from material master record view *MRP 3*
- Calculated replenishment lead time in working days
- Calculated replenishment lead time in calendar days
- Calculated replenishment lead time in calendar days for externally procured materials; in working days for materials produced in-house

Materials that do not have a procurement flag and materials that can be produced in-house as well as externally procured are treated in the same way as materials produced in-house.

> **Note**
>
> Note the detailed information in the PDF documentation that is provided with the software.

The planned delivery time in the material master is specified in calendar days. The other dates are specified in working days. Depending on the option selected, either the planned delivery time is converted to working days,

or the total other times are converted to calendar days, based on the number of working days per week taken from the factory calendar.

Three (four) alternative analysis options are available. The basis for the calculation is the replenishment lead time.

You need to specify the selection limits for the classification in ascending order.

If no RLT is maintained, you can classify these materials as N by selecting *Indicator N when no RLT is maintained for material*.

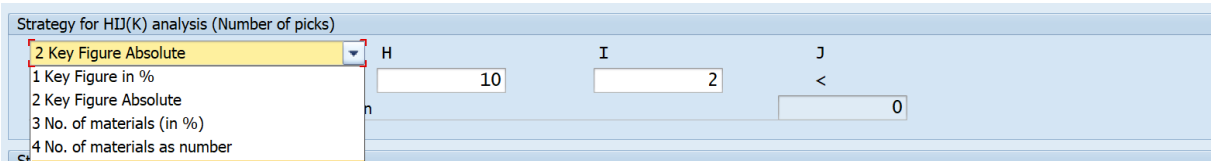
In the case of RLT in percent, the RLTs of all analyzed materials are added together unweighted, and then sorted in descending order. Based on the percentages set (here for example 10% in E), the materials are assigned to the E group until their totaled RLT is 10% of the overall RLT.

In contrast with the EFG replenishment lead time, which is relevant for scheduling in general, the calculated or used replenishment lead time is also determined in the **MRP monitor**. This value is used for the safety stock calculation.

The replenishment lead times can differ due to the goods receipt processing time being taken into account for the EFG time for materials produced in-house. If no lot-size-independent in-house production time is maintained on the tab *MRP 2*, the lot-size-dependent in-house production time on the work scheduling tab of the material master (that is, setup time + processing time x lot size + transition time) is used for the calculated or used RLT.

2.1.5.3 Strategy for HIJ Analysis

You can only perform a HIJ(K) analysis if you select *Material Documents* as the data source.



Strategy for HIJ(K) Analysis

HIJ analysis classifies the materials based on their number of picks. A pick is a material withdrawal. It is not relevant which quantity was taken.

i Example

The following data applies to material 123.

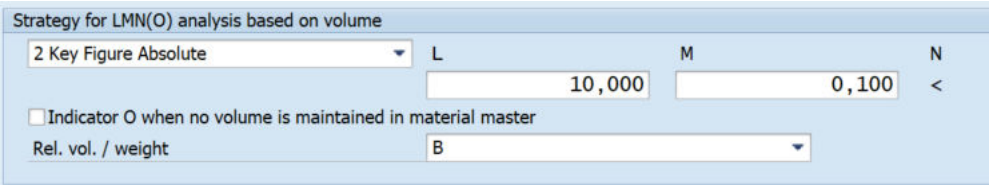
Date of Withdrawal	Quantity Withdrawn	Number of Picks
01.02.2015	100	1
10.02.2015	1	1
12.02.2015	10	1

Date of Withdrawal	Quantity Withdrawn	Number of Picks
23.02.2015	10	1

For February, the HIJ analysis identifies four picks for the material. It makes no difference whether 100 pieces or just 1 piece were taken.

Based on the classification results, you can perform storage optimization.

2.1.5.4 Strategy for LMN Analysis



Strategy for LMN(O) Analysis (Volume)

The LMN analysis classifies material by its volume. This is useful particularly if the results of the analysis results are to be used to draw conclusions on the required storage bin.

As analysis options, the same four methods are available as with the ABC analysis. However, the materials are sorted based on the stock volume. The basis for the calculation is the volume information in the basic data view 1 of the material master and the current stock level in the system.

If, during the selection, you want to flag those materials for which no volume is maintained in the material master, select the *Indicator O when no volume is maintained in the material master* checkbox.

You can perform the LMN analysis not only based on the volume but also based on the net or gross weight.

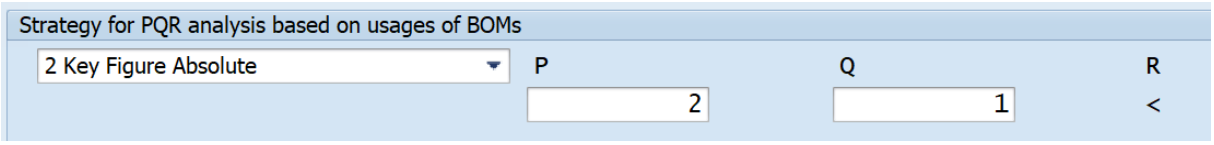
2.1.5.5 Strategy for PQR Analysis

The PQR analysis considers the bill of materials. This classification is possible only if you are also using the **SCM consulting solution SLM analysis**.

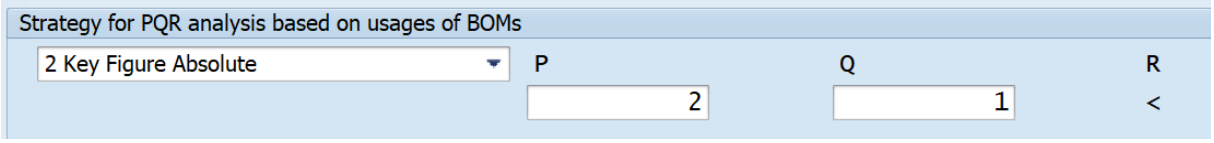
There are three options for the analysis, which answer the following questions:

- How often is the BOM for the material in question used? In how many higher-level BOMs is the material in question included as a component?
- How many BOMs are there for the material in question? In how many BOMs is the material in question the header material?
- How often is the BOM for the material in question used in multiple levels? In how many higher-level BOMs is the material in question included as a component looking across all levels?

You define the type of analysis on the *Classification 1* tab with the corresponding dropdown selection. Accordingly, you can configure the PQR analysis based on the number of BOM usages, number of BOMs, or number of BOM usages in multiple levels.

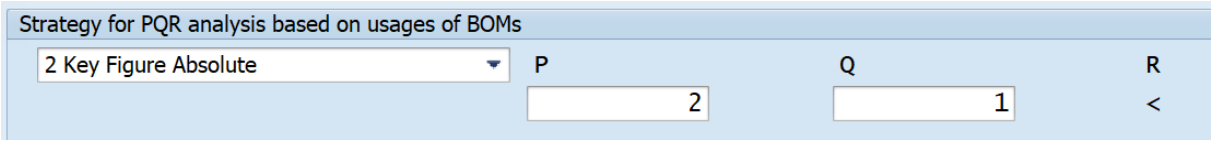


If you select *BOM Usages*:



PQR for BOM usages

If you select *Number of BOMs*:



PQR for Number of BOMs

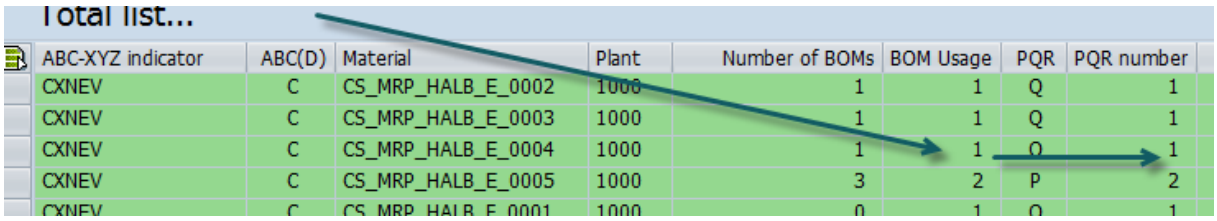
If you select *BOM Usages in Multiple Levels*:

If the number of BOM usages or number of BOMs (depending on the setting) is greater than or equal to the number entered under P, the material is classified as P-material. If it is smaller than this but greater than or equal to the number entered under Q, the material is classified as Q-material. All materials with a smaller number of BOM usages or number of BOMs are classified as R-materials.

> **Example**
>
> If you configure the settings as shown in the figure above, materials that have two or more BOMs (usages) are classified as P-materials. Materials with at least one BOM (usage) are classified as Q-materials and materials without a BOM (usage) as R-materials.

> **Caution**
>
> Only the material BOMs are taken into account.

Effects on the Result List



Total list...

ABC-XYZ indicator	ABC(D)	Material	Plant	Number of BOMs	BOM Usage	PQR	PQR number
CXNEV	C	CS_MRP_HALB_E_0002	1000	1	1	Q	1
CXNEV	C	CS_MRP_HALB_E_0003	1000	1	1	Q	1
CXNEV	C	CS_MRP_HALB_E_0004	1000	1	1	Q	1
CXNEV	C	CS_MRP_HALB_E_0005	1000	3	2	P	2
CXNEV	C	CS_MRP_HALB_E_0001	1000	0	1	Q	1

Result List: PQR Analysis for Number of BOMs

Total list...

ABC-XYZ indicator	ABC(D)	Material	Plant	Number of BOMs	BOM Usage	PQR	PQR number
CXNEV	C	CS_MRP_HALB_E_0002	1000	1	1	Q	1
CXNEV	C	CS_MRP_HALB_E_0003	1000	1	1	Q	1
CXNEV	C	CS_MRP_HALB_E_0004	1000	1	1	Q	1
CXNEV	C	CS_MRP_HALB_E_0005	1000	3	2	P	2
CXNEV	C	CS_MRP_HALB_F_0001	1000	0	1	Q	1
CXNEV	C	CS_MRP_HALB_F_0002	1000	0	1	Q	1
CXNEV	C	CS_MRP_HALB_F_0003	1000	0	1	Q	1
CXNEV	C	CS_MRP_HALB_F_0004	1000	0	1	Q	1
CXNEV	C	CS_MRP_HALB_F_0005	1000	0	1	Q	1
CXNEW	C	CS_MRP_HALB_F_99	1000	0	0	R	0

Result List: PQR Analysis for BOM Usage

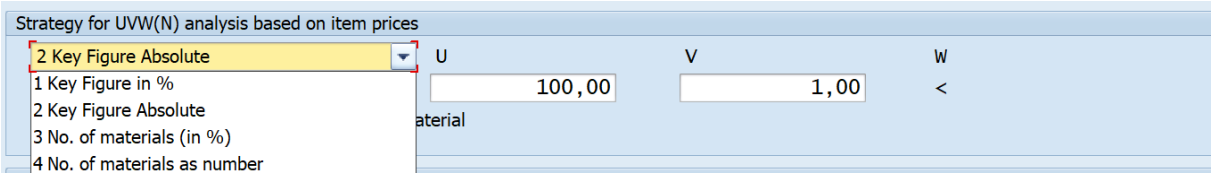
If the layout is structured accordingly, the result list contains additional columns for the PQR analysis.

The "PQR Number" column is important for the classification. It contains both the number of BOMs and the number of usages. What is transferred to the "PQR Number" column depends on which radio button you have selected.

Related Information

Stock Level Monitor [page 92]

2.1.5.6 Strategy for UVW Analysis



Strategy for UVW(N) Analysis

With the UVW analysis, the materials are sorted according to their unit price and then classified.

The calculation is based on the price information in the *Accounting1* view in the material master. The relevant unit price is determined based on the price control indicator and price unit. Depending on the settings, this can be the standard price or the moving price.

In the strategy for the UVW analysis, enter the selection limits for the classification. *Price per item* is selected by default. A material is hereby assigned to a class according to its unit price. In the standard settings, the limit for class U is 100,00. A high-priced material with a unit price of 100,00 is assigned to the class U. Alternatively, you can select the *Item price in %* strategy. There are no fixed limits for the classification in this case. From the analyzed materials, the total of all unit prices is calculation and the materials are sorted in descending order based on their unit price. Those materials that lie in the respective percentage segment with their unit price are assigned to the relevant class. You can also define the classes based on the number of materials. You can specify the *Number of Materials* or the *Number of Materials in %*.

The *Number of Materials* setting behaves as follows:

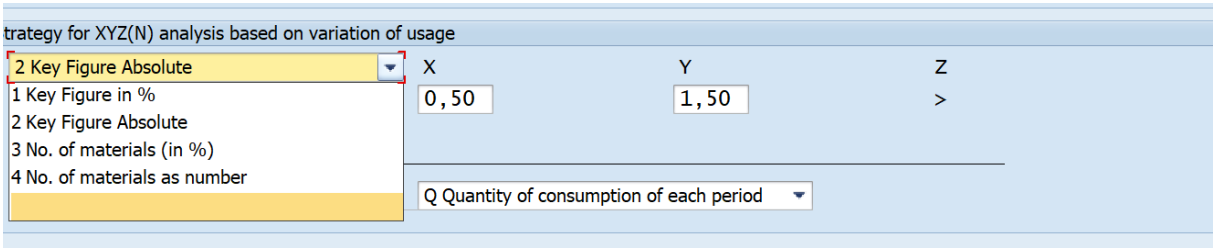
> **ℹ Example**
>
> 100 materials are analyzed. These materials are sorted by their unit price in descending order. The 10 materials with the highest unit price (10% of 100 = 10) receive the U-classification, the 70 materials with the lowest price the W, and the 20 materials between the V-classification.

If a unit price is not maintained, you can classify these materials as N by selecting the *Indicator N when no price is maintained for material* checkbox.

Related Information

Strategy for EFG Analysis [page 43]
Currency/Prices [page 27]

2.1.5.7 Strategy for XYZ Analysis



Strategy for XYZ(N) Analysis (Regularity of Usage)

The XYZ analysis is a business analysis procedure that classifies materials by their regularity of usage, which is measured using the variation coefficient.

> **→ Remember**
>
> The variation coefficient is a static measure for determining the regularity of values in a time series. For a detailed explanation of this key figure, see section Appendix: Interpretation Help for Key Figures [page 91].

As with the ABC analysis, consumptions, sales orders, billing documents, or planned independent requirements can be used as data sources, for example. The analysis options are the same as for the ABC analysis.

In the XYZ analysis, you can further subdivide master data objects that are classified as Z materials; namely into Z materials and N materials that include a certain number of zero periods in addition to the classification.

> **ℹ Note**
>
> This is comparable with the ABC analysis and its option of classifying D materials.

This is useful, for example, in identifying sporadic (that is, occurring on an infrequent basis) consumption and drawing valuable conclusions.

> **Example**
>
> This is, for example, decisive when you select forecast models, because sporadic consumption offers a sufficient data basis for performing a forecast only for certain forecast models.

Related Information

Appendix: Interpretation Help for Key Figures [page 91]
Variation Coefficient
Strategy for ABC Analysis [page 41]

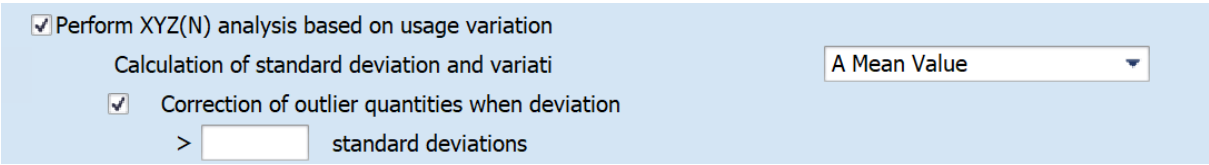
2.1.5.7.1 Side Note: XYZ Analysis: Percentage Classification of Materials in Accordance with Variation Coefficient

In the **MRP monitor**, you can classify materials in relation to the highest variation coefficient found. The **MRP monitor** hereby determines the highest variation coefficient of all selected materials. This value is then the reference value (100%). All of the other variation coefficients refer to this reference value during classification.

> **Note**
>
> Note the detailed information in the PDF documentation that is provided with the software.

2.1.5.7.2 Side Note: Outlier Correction

In the **MRP monitor**, you can specify whether the median or mean value is used as the expected value to calculate the standard deviation and variation coefficient.



Methods for Determining the Variation Coefficient

You can also determine whether an outlier correction takes place.

For the time series of a material, the selected expected value is then used to calculate the standard deviation. All values of the time series that deviate from the expected value by more than the defined multiple of the standard deviation are corrected to the expected value.

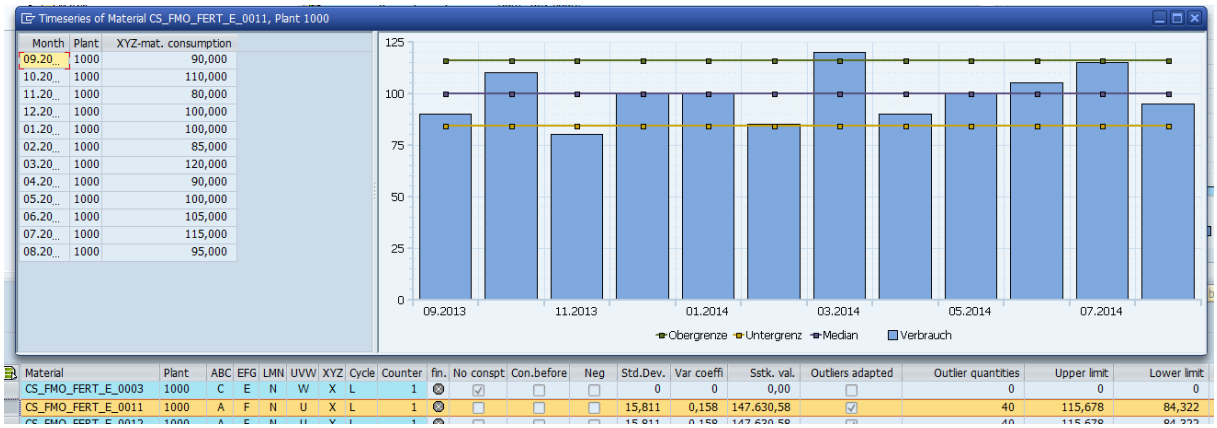
Additional columns in the result list show the upper and lower limits with which the values are compared. A checkbox indicates whether a correction has been carried out and the total number of corrections is shown in the “Quantity of outliers” column.

Total list...

Material	ABC-Value	XYZ-quantity	ABC	XYZ	Outliers adapted	Outlier	Upper limit	Lower lim.	Average consumpt (P)
CS_MRP_FERT_E_DB02	31.963,23	7.990,808	A	Z	☑	3.359,192	1.204,344	763,536-	166,475

Results Display: Quantity of Outliers

The graphic for the time series shows the original time series (without outlier correction). The upper and lower limits for values as well as the periods in which outliers were corrected can be seen.



Results Display without Correction of Outliers

In the figure, the consumption quantity in week 36 exceeds the upper limit and the quantity in week 41 falls short of the lower limit. In week 36, therefore, the value 2500 is corrected downward by 1550 to the median value of 950, while week 41 is corrected upward by 750. This results in an overall correction of 2300.

The corrected time series is used, in turn, to calculate the standard deviation, and from this, the coefficient of variation that is used for the XYZ indicator assignment is determined. Performing an outlier correction makes the time series appear more even so that it can be assigned a “better” XYZ indicator.

The selection as to whether the median or mean value is used as the expected value applies only to the key figures described here. For other key figures (such as those used to calculate the MAD), the mean value is always used.

Related Information

Mean Absolute Deviation
Variation Coefficient

2.1.5.8 Life Cycle Analysis (LRODI Analysis)

The life cycle analysis divides materials into phases in the life cycle.

The following conditions apply:

- If a material is flagged for deletion, it is given the status I (for inactive).
- If a material has status N for new, status L (for launch) is set.
- If the condition SMI3 (slow-moving item, for example, 360 days without consumption) is met, status D (for dying) is set.
- If the condition SMI1 (slow-moving item, for example, 180 days without consumption) is met, status O (for obsolete) is set.
- If none of the conditions are met and the material has the status "Not normal", status E (for exception) is set. This is an option that is specified customer-specifically in Customizing.

  > **Example**
  >
  > This case can occur, for example, if the material has no consumption but the SMI conditions are not met because consumption is negative (due to returns).

- All other materials are given the status R (for running).

When can a material be considered normal?

A material can be considered normal if the following conditions apply:

- Not flagged for deletion
- Not without consumption in the analysis period
- Not classified as new (in accordance with the criteria in section New Materials [page 30])

When is a material flagged for deletion?

There are different tables with deletion flag:

- *MARA* (mandant level)
- *MARC* (plant level)
- *MARD* (storage location level)
- *MDMA* (MRP area level).

The last two tables are only relevant if you have selected the corresponding level of analysis, that is, *MARD* for storage location and *MDMA* for MRP areas. For *MARC*, the material is considered to be deleted at the plant level. If the deletion flag is set in at least one of these tables, the material in the **MRP monitor** is considered as deleted.

If deletion is set at *MARA* level, this also applies to subordinate levels.

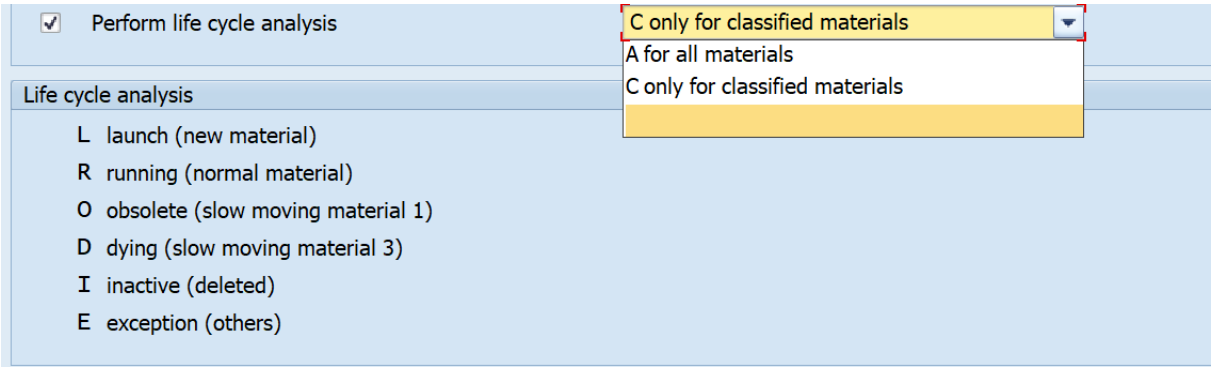
When does a material meet the slow-moving item conditions?

> **i Example**
>
> You enter 80 days as condition SMI1 and 120 days as condition SMI3. This means that a material 123, which has not been used for 130 days, is classified as SMI3.
>
> If the last usage for material 567 took place 110 days ago, then SMI3 is not applied but SMI1 (because 110 > = 80 days).
>
> In the LRODI analysis, the strongest criterion always applies:
>
> The material 123, which is without usage for 130 days according to the named criteria, would be assigned SMI3 and thus status D in the LRODI analysis, whereas material 567 would be assigned status O.

How is the trend direction determined within the life cycle?

You can determine the trend direction within the life cycle.

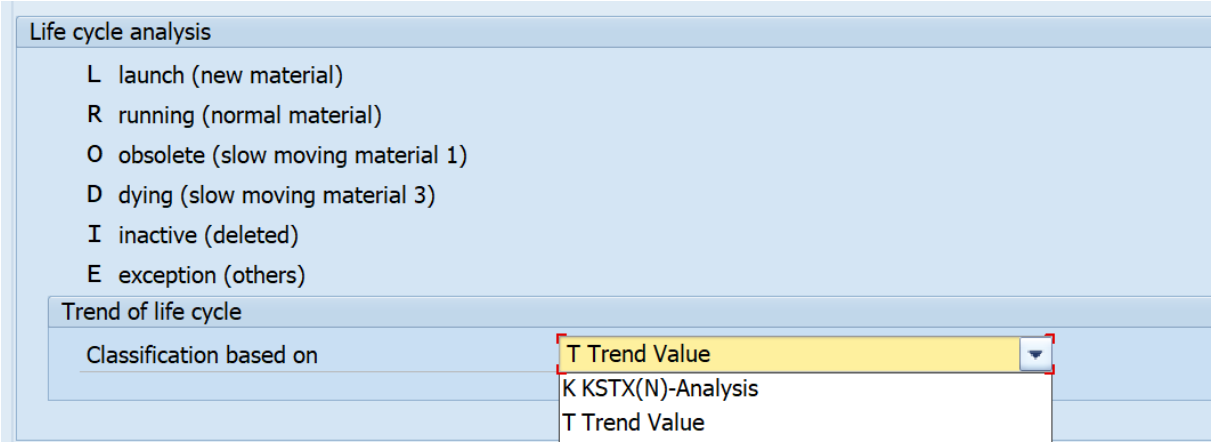
To do this, select the checkboxes for the life cycle analysis and for the KSTX (N) analysis. Materials with the life cycle indicator "Launch" or "Running" are classified since these materials are in the middle of the life cycle.



Conditions for Trend Direction

There are two options for the trend direction of the life cycle:

- Classification based on trend value
- Classification based on KSTX(N) analysis



Options for Trend Direction of Life Cycle

With the first variant, the trend direction is identified as ascending or descending if a positive or negative trend value exists. The indicator for a constant trend direction is set only for a trend value that equals exactly zero. With the second variant, the conditions behave in the same way as the input conditions for the KSTX(N) analysis. A material is only classified as ascending or descending if it has a positive or negative trend value and the time series is classified as "trend" because of a minimal MAD or exceeded threshold values. If a time series, for instance, has a positive trend value, but this value is below the selected limit, the trend of the life cycle is classified as constant.

The difference is shown below.

Option 1:

Trend of life cycle

- (●) Classification based on trend value
- ( ) Classification based on KSTX(N)-analysis

Total list...

Material	Plant	Basic value	Trend value	Cycle	KSTX(N)	Trend life cycle
CS_MRP_FER...	1000	25,446	0,069-	L	S	↘
CS_MRP_FER...	1000	1.535,958	9,750-	L	T	↘
CS_MRP_FER...	1000	162,213	34,993	L	X	↗
CS_MRP_FER...	1000	6.979,317	3,382-	L	K	↘
CS_MRP_FER...	1000	1.825,630	372,083	L	T	↗

Option 2:

Trend of life cycle

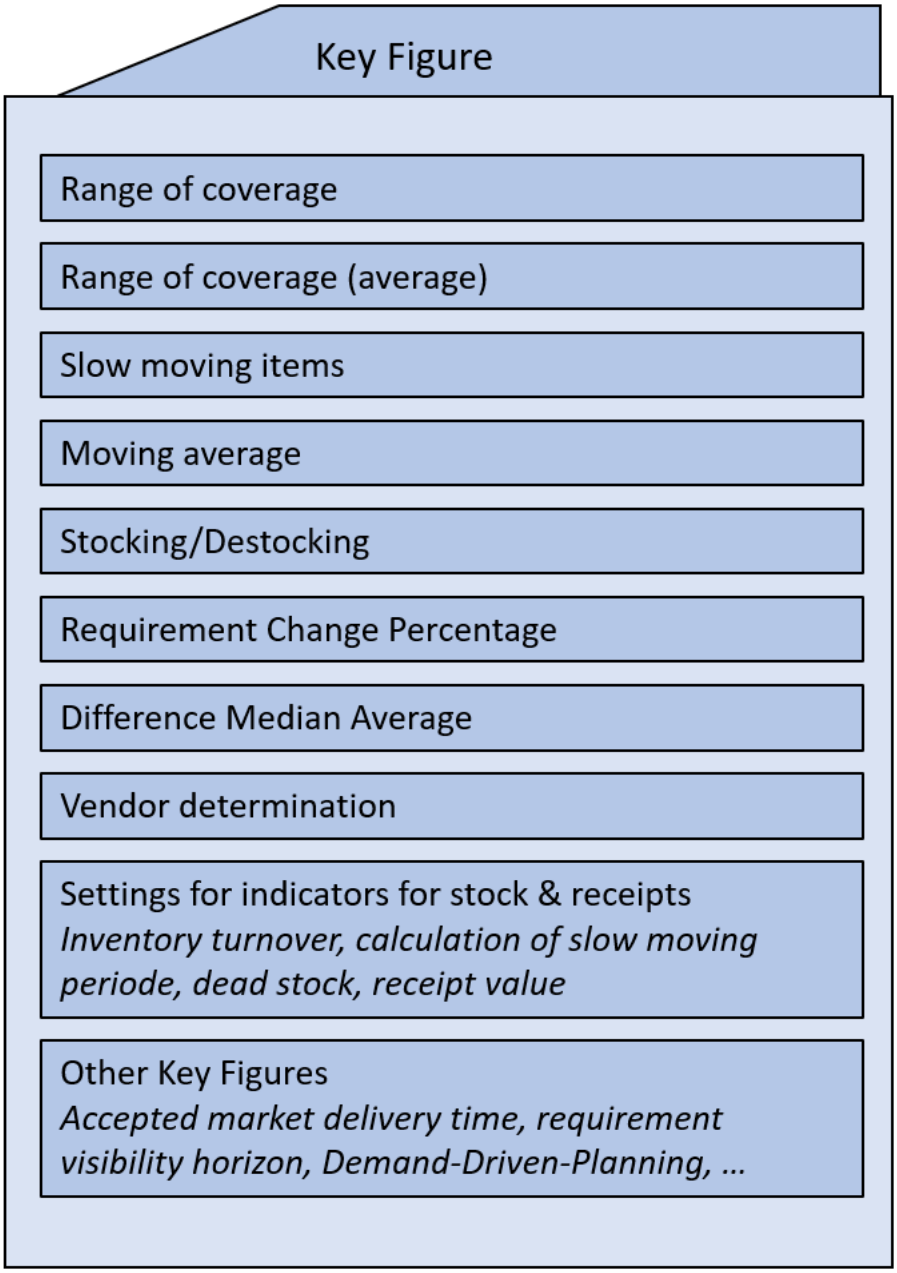
- ( ) Classification based on trend value
- (●) Classification based on KSTX(N)-analysis

Total list...

Material	Plant	Basic value	Trend value	Cycle	KSTX(N)	Trend life cycle
CS_MRP_FER...	1000	25,446	0,069-	L	S	→
CS_MRP_FER...	1000	1.535,958	9,750-	L	T	↘
CS_MRP_FER...	1000	162,213	34,993	L	X	↗
CS_MRP_FER...	1000	6.979,317	3,382-	L	K	→
CS_MRP_FER...	1000	1.825,630	372,083	L	T	↗

Variants of the Trend Direction

2.1.6 *Key Figure* Tab



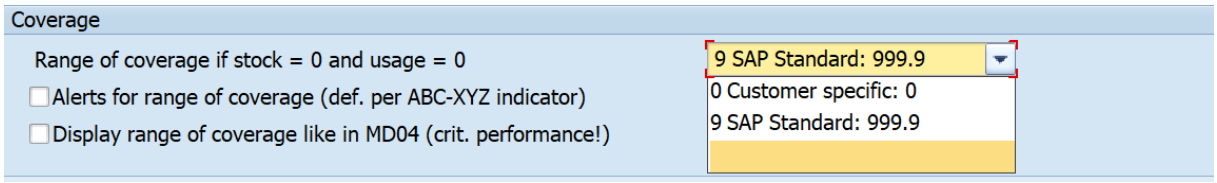
Schematic Display of the Key Figure Tab

On the *Key Figures* tab page, you define, for example, how the MRP monitor is to proceed when making key figures available.

2.1.6.1 Range of Coverage

For displaying results in the **MRP monitor**, on the *Key Figures* tab, you can select which rules are to apply for calculating the range of coverage.

In the *Coverage* area, you can make settings for calculating individual ranges of coverage.



Coverage

Outputting Range of Coverage Values

If the range of coverage is greater than 999, then 999 is displayed in the standard system. Alternatively, 0 can also be output on a customer-specific basis.

Ranges of Coverage from *MD04*

You can display the ranges of coverage from transaction *MD04*.

> ⚠ Caution
>
> If you choose this option, the runtime increases significantly. All three possible ranges of coverage from *MD04* are displayed: Stock Range of Coverage, 1st Receipt Range of Coverage, and 2nd Receipt Range of Coverage. In the results list of the **MRP monitor**, you can see three additional columns.

Alerts for Range of Coverage

If you want to receive range of coverage alerts (notifications), you can see two new columns on the result screen:

In the *Alert Limit* column, the notification limit for the ABC-XYZ indicator is displayed.

A traffic light icon is displayed in the *Alert Coverage* column. It displays how the calculated range of coverage in days behaves for the notification limit.

The traffic light colors have the following meaning:

- Green if limit value > coverage
- Yellow if limit value = coverage
- Red if limit value < coverage
- Gray if not classified

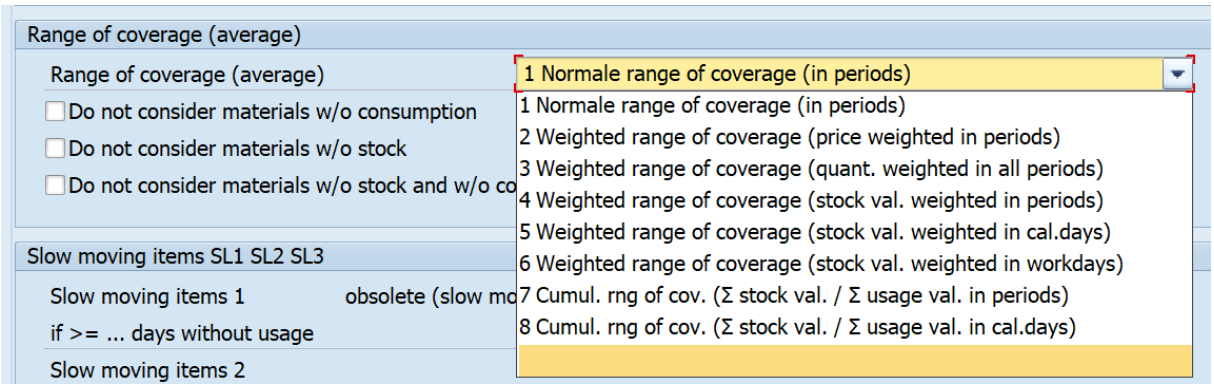
Total list...

Material	Plant	ABC	XYZ	EFG(N)	Alert Coverage	Range of cover. (P)	Range of cover. (D)	Cycle
P-105	1000	C	Z	G		1,3	40,75	D
P-103	1000	A	Y	F		406,3	999,90	D
P-103DISOPROFIL	1000	C	X	F		999,9	999,90	L
P-103_TIO	1000	C	X	F		999,9	999,90	L
P-104	1000	A	Z	G		794,1	999,90	D
P-104_CP	1000	C	X	F		999,9	999,90	L

Displaying Range of Coverage Alerts in the Overall List

Range of Coverage (Average)

In addition to individual coverage ranges, you can calculate the average range of coverage. The average range of coverage combines the range of coverage of several materials. It is relevant for the range of coverage of the groups in the matrix and the folder view.



Range of Coverage (Average)

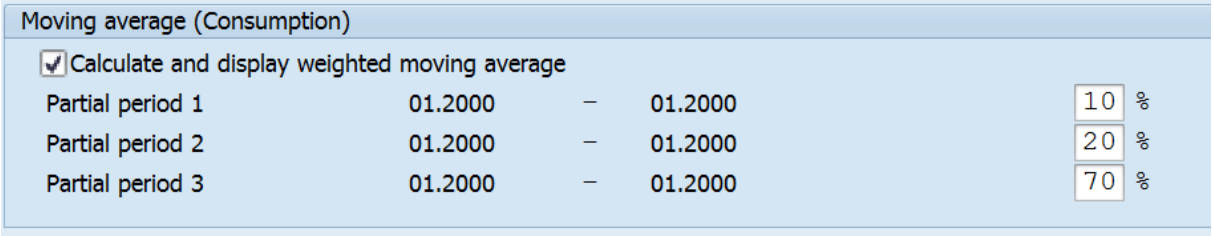
Eight calculation procedures are implemented in the **MRP monitor**:

> **i Note**
>
> Note the detailed information in the PDF documentation that is provided with the software.

2.1.6.2 Moving Average (Consumption)

The key figure *Moving Average (GgM)* is based on the arithmetic average value (that is, average consumption; see also Appendix: Interpretation Help for Key Figures [page 91]). The difference is that with the moving average, you can influence the calculation of the average consumption. The analysis period on the *Data Basis* tab is used and is split into three periods that are as equal as possible.

You can assign these three periods different weightings by entering corresponding percentages:



Moving Average Section

> **Example**
>
> You want to analyze the previous twelve months and you want the average value to be mostly based on the most recent or current consumption. You can assign 70% to this, for example. You then assign the remaining 30% to the two remaining partial periods.

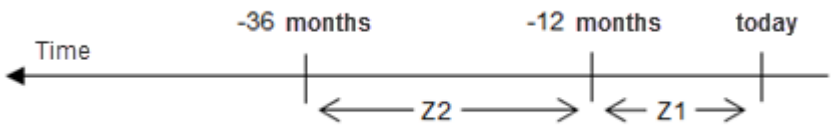
However, with the arithmetic average value, you cannot assign different weightings. The same weighting applies for the entire period.

Related Information

Appendix: Interpretation Help for Key Figures [page 91]
Moving Weighted Mean Value

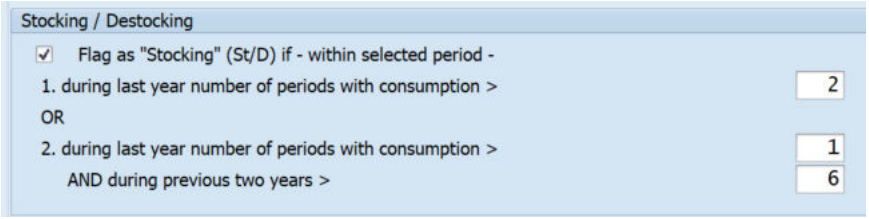
2.1.6.3 Stocking/Destocking

You use the *Stocking / Destocking* key figure to determine whether a material is to be stocked based on past consumption. For this purpose, the period of analysis (past) on the *Data basis* tab is first divided into two sections (period Z1 and Z2). The first 12 months are considered separately from the subsequent 24 months (month 13-36):



Schematic Display of Periods Z1 and Z2

Within these two periods Z1 and Z2, the number of periods in which usage occurred is determined separately. You now need to define thresholds so that the system can check whether a material is to be stocked:



Stocking / Destocking Section

As you can see in the figure above, you specify only the thresholds that must be exceeded for the state *Stocking* to be reached. If none of the conditions are met, the **MRP monitor** automatically assumes "Destocking". When filling the fields, note that the values specified refer to the period (month, week, and so on) selected. For example, if you select "weeks" as the basis for the analysis, the values of the three fields are also interpreted as weeks.

After you have selected the key figure on the selection screen, the result overview contains an additional column named *Stocking*. If the checkbox in this column is selected, "Stocking" is meant, if the checkbox is deselected, "Destocking" is meant. You need to decide yourself how you want to proceed based on the results. In the **MRP monitor**, no actions are triggered automatically. This key figure is not calculated by default and is therefore not available on the results screen.

For this key figure, note that the analysis always queries the first condition initially. If the number of consumption periods within the last 12 months (from today) is greater than the defined value, this check is successful and the "Stocking" indicator is selected immediately. If the first condition is not met, the **MRP monitor** continues to the second condition and checks its values. Here, the consumption periods of months 13 through 36 from the past are also taken into consideration. If both values are greater than the specified threshold, the "Stocking" indicator is selected. Otherwise the indicator remains empty for the material analyzed.

A few exceptions are described below that describe the system behavior when different analysis periods are specified. Months are assumed as the period of analysis in the example:

Period of Analysis > 36 Months

In this case, only the last 36 months are considered when the key figure is calculated. All periods beyond this (whether with or without consumption) are ignored.

12 Months < Period of Analysis < 36 Months

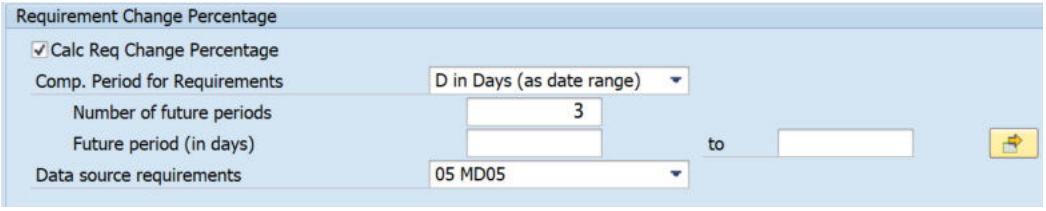
If the period of analysis is between 12 and 36 months, only the periods arising for period Z2 are taken into consideration. In this case, note that not all consumption periods for period Z2 can be counted because the selected period was too short.

Period of Analysis < 13 Months

If you select an analysis period that is shorter than 13 months, the number of consumption periods for period Z2 is automatically 0 because there is no data basis for this period. Take this into account when you select such a period of analysis.

2.1.6.4 Requirement Change Percentage

The requirement change percentage is a key figure that is used to compare the development of past values (consumption) and future values (future requirements). The stock/requirements list (MD04) or MRP list (MD05) serves as the data source for the future values.



Requirement Change Percentage Area

The analysis period is used as the past period. This is used to calculate the average consumption.

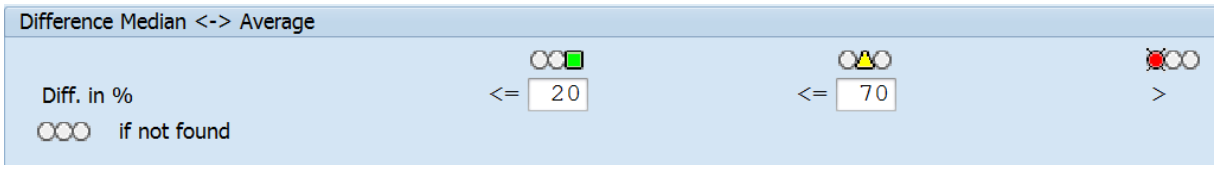
To determine the requirements, you can specify a comparison period in periods that is to be used for the future values. The periodicity always refers to the period type of the *Data Basis* tab.

Alternatively, you can choose the comparison period on a daily basis and specify a to-the-day period to determine the requirements.

> ⚠ Caution
>
> The requirement change percentage cannot be calculated for data sources that refer to the future. A relevant error message is displayed in this case.

The requirement change percentage is the ratio of the average requirement per future period to the average consumption of past periods. It is expressed in percent and (depending on the layout configuration) is displayed for each material in the results list.

2.1.6.5 Difference Median Average



Section “Difference Median <-> Average”

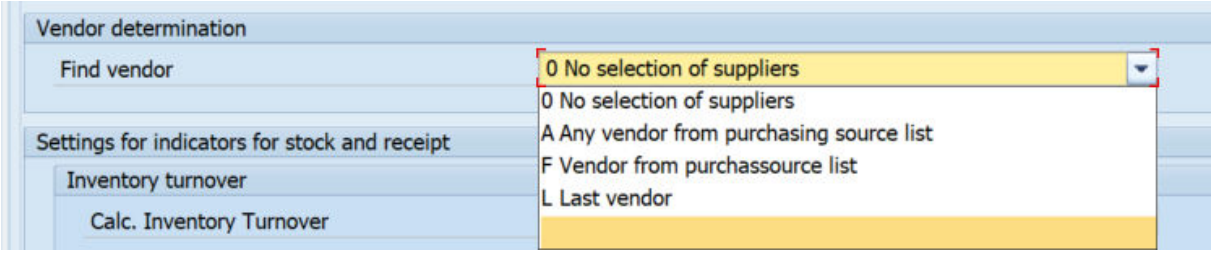
In this section, you can specify the limits for the percentage deviation of the median and average value. A huge deviation from the average points to spreading of characteristic values with extreme values. The result is shown as percentage and lights in the result list.

Material	Plant	Deviation of Average and Median in %	Lights median <-> mean val.
SF-100	1000	56,3	
Select All	1000	61,6	
SF-102	1000	3,5	
SF-103	1000	100,0	
SF-104	1000	7,4	
SF-105	1000	12,8	
SF-106	1000	100,0	

Result list deviation median and average

2.1.6.6 Vendor Determination

In the results list the vendor for a material/plant combination is displayed.



Vendor Determination

In this section, you can choose the criteria according to which the vendor is selected from the source list.

Fixed Vendor in Source List:

For a material, a vendor is selected from the source list if it is valid for the period in question, and the source of supply is taken into account by material requirements planning and the fixed vendor or fixed outline agreement item indicator is set.

Any Vendor in Source List:

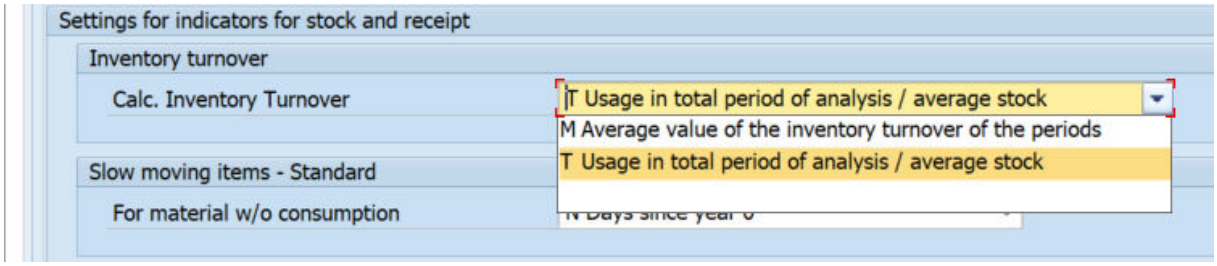
For a material, any vendor is selected from the source list if it is valid for the period in question and the source of supply is taken into account by material requirements planning.

Last Vendor:

For a material, the vendor from whom the material was last delivered is selected.

2.1.6.7 Inventory Turnover

For the inventory turnover, two alternative calculation procedures are available:



Inventory Turnover Area

You can determine the inventory turnover based on the entire analysis period or by period.

> **i Note**
>
> Note the detailed information in the PDF documentation that is provided with the software.

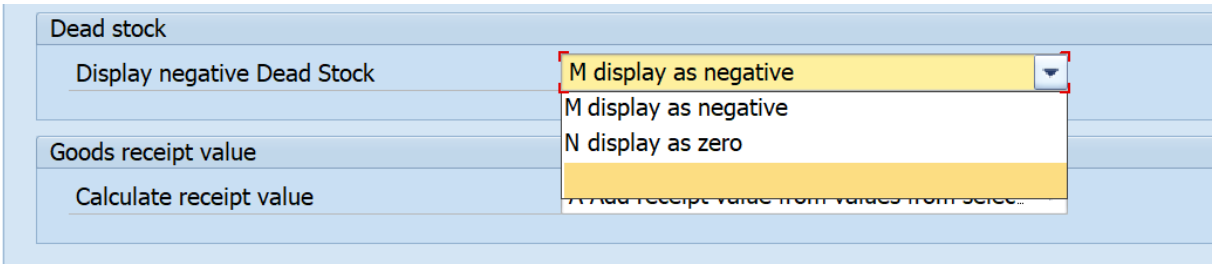
> **⚠ Caution**
>
> Use the **material document aggregation** as the data source. The inventory turnover can only be calculated if you use a data source that can also output inventory figures.

2.1.6.8 Dead Stock

In the dead stock area, you can select how you want the key figure for dead stock to be displayed in the results table in the case of negative dead stock.

> **→ Remember**
>
> Negative dead stock means that negative stock occurs in the analysis period. This is an exception, but depending on the data situation, it may occur.

You can select whether you want to display negative dead stock as such in the result list or replace it with 0.



Dead Stock

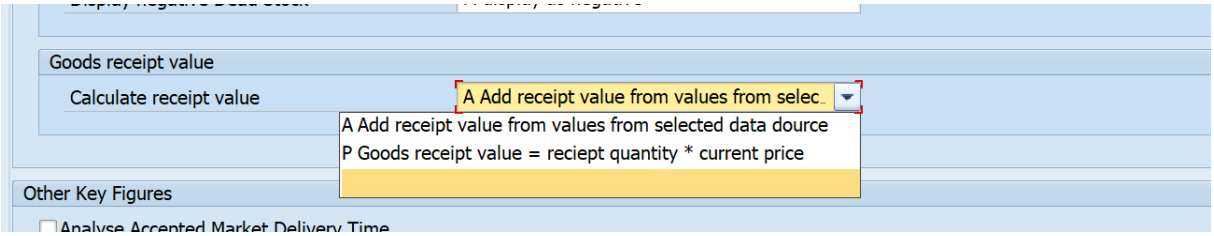
The dead stock is described in the **MRP monitor** result list in the Dead Stock, Number of Periods with Dead Stock, and Last Period of Dead Stock columns.

Related Information

Dead Stock

2.1.6.9 Goods Receipt Value

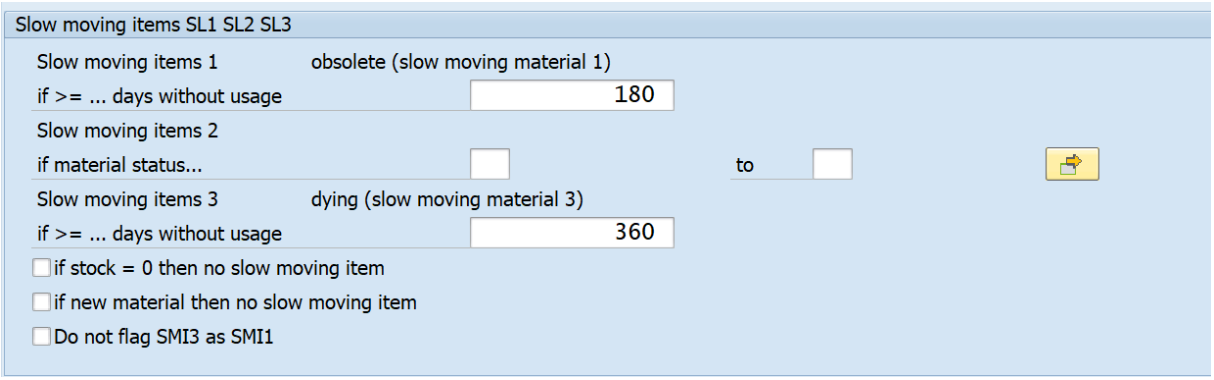
The goods receipt value quantifies the value of the receipts in the analysis period. This key figure is determined only if you select the material documents as data source. You can choose between the following two calculation options:



Goods Receipt Value

2.1.6.10 Slow-Moving Items

As a further option, on the *Key Figures* tab page, you can use the *Material Documents* data source to divide slow-moving items into three different categories. You can distinguish between potential, current, and future slow-moving items and materials whose status is already flagged as slow-moving. To do this, you enter two thresholds and multiple material statuses. The results display then displays in a separate field for each material whether it is a slow-moving item of a specific category (slow-moving items 1, 2, 3, or blank).



Slow-Moving Items

If stock = 0, a flag determines whether this material will be seen as a slow-moving item, regardless of the results calculated previously. You also have the option of excluding new materials from being flagged as slow-moving.

> **i Example**
>
> The condition for SL1 is 80 days, for SL3 120 days without usage.

> That means that a material that has not been used for more than 120 days is classified as both SL1 and SL3.
>
> The material meets both criteria.

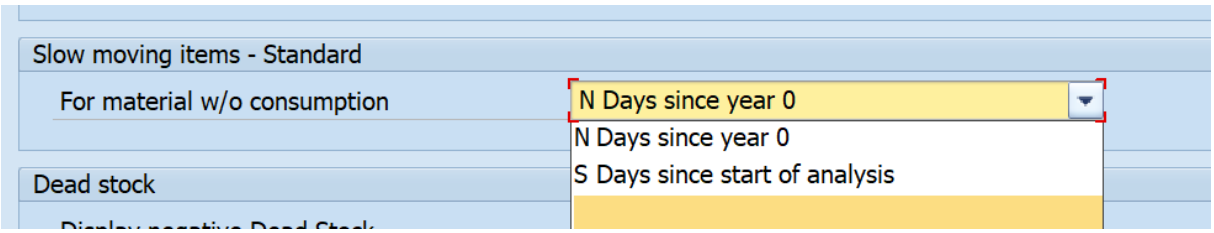
The number of days for LH3 must be greater than LH1. If LH3 is fulfilled, then LH1 is also fulfilled.

The status SL2 refers to the material status. In case the material has one of the selected status, SL2 is set.

A useful analysis requires day-based analysis. This requires a material document analysis.

If you select the material document analysis as the data basis, all SL indicators are visible in the **MRP monitor** result list. This means that if a selection criterion is entered for the slow-moving item condition, an additional column is displayed. If the criterion is met, the column is filled with an X.

In this context, in the subarea *Slow-moving items standard*, you can set the determination rule for the start of the slow-moving item analysis:



Section Slow-Moving Items Standard

> **i Note**
>
> For the first option, note that the display of materials without consumption in the analysis period suggests that the last consumption took place at the start of the analysis.

A material that has never been consumed has the last consumption date "00.00.0000". If an analysis were to be performed today, the number of days would be more than 736,500 days. Since a number like this can be irritating, in the system it is only possible to perform retroactive accounting up to the start of the analysis. This means the number of days is calculated as the difference between the current date and the analysis start date.

Related Information

Life Cycle Analysis (LRODI Analysis) [page 50]

2.1.6.11 Other Key Figures

In this section, you can select key figures for planning according to TOC (theory of constraints), DDMRP (demand-driven material requirements planning), and other key figures from the historical stock/requirements list (XMD). The results list of the **MRP monitor** is enhanced with the corresponding key figures.

Select Other Key Figures

For more information on the key figures, see the documentation for the cross-monitor functions.

Related Information

Data Processor

2.1.7 *Safety Stock* Tab

As of Release 2021, the safety stock calculation function is mapped as a cross-monitor function using the formulas. The Safety Stock tab page is therefore omitted. You can integrate the standard SAP formulas for calculating the safety stock, safety stock value, reorder point, reorder point value, and deltas in the **MRP monitor** or implement a customer-specific calculation.

For instructions on how to create the formulas, see the documentation on the **comprehensive functions**, under Formulas.

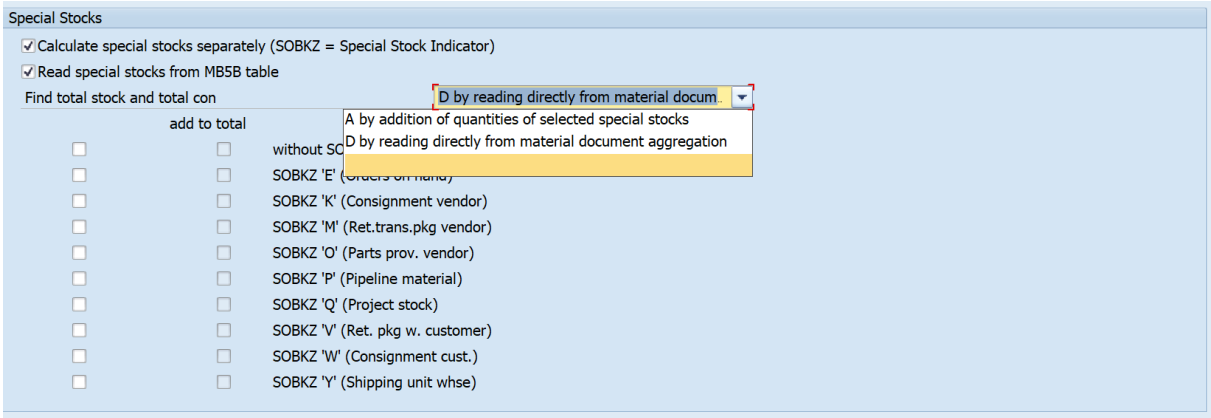
You can find the formula proposal, like the standard SAP formulas, as Best Practice Content. If you have any questions, contact SCM-Consulting-Solutions@sap.com.

Related Information

Formulas

2.1.8 *Special Stock* Tab

On the *Special Stock* tab, you can specify how special stock is to be handled. This option is only possible in combination with **material document aggregation** (see the section on selecting special stock for **material document aggregation** – this is contained in the documentation for the **comprehensive functions**).



Special Stock

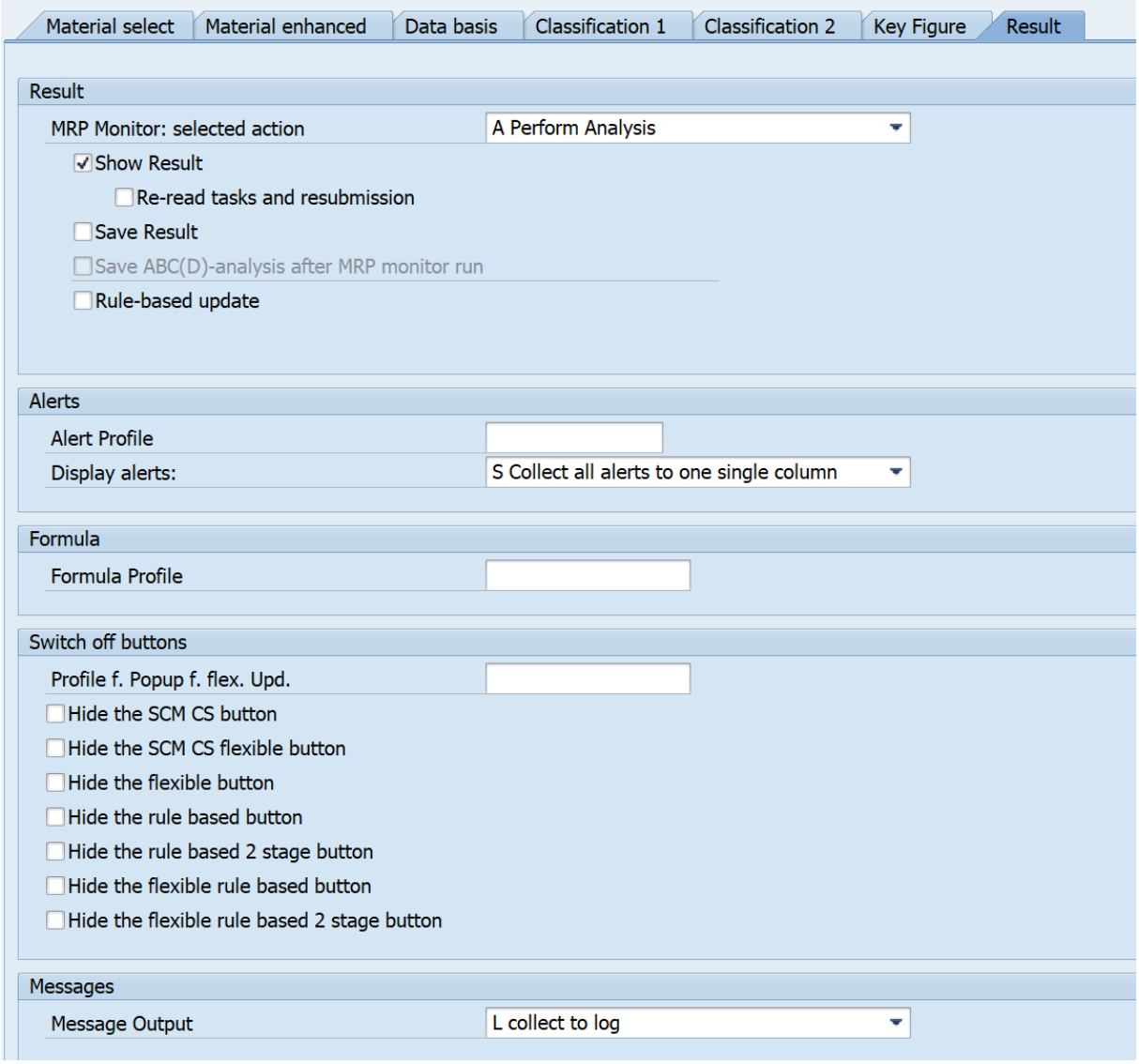
Here, you can decide which stock you would like to see and what is added to the total consumption. The left column specifies what is displayed in the results list of the **MRP monitor** in terms of special stock and consumption. The right column indicates which special stock values are included in the total stock or total consumption. To have a selection here, select *Add total stock/consumption from selected special stocks*. If you select *Total stock/consumption directly from material document aggregation*, you do not need to select anything in the right column.

Related Information

Aggregation of Material Documents [page 90]

Documentation of **SCM Consulting Solution comprehensive functions**

2.1.9 *Result* Tab



Result Tab

You can display the classification results on the screen and save them in a corresponding database table of the **MRP monitor**. The data of an analysis is identified using a key that is determined internally. To later read this analysis data from the table, you can define a text of your choice. With this text, you can also display the result on the *Result* tab. You can save results as a reference analysis only if you are using the **SCM Consulting Solution inventory controlling cockpit**.

To improve performance, you can use package processing. Here you can freely select a package size. Since the optimum package size depends on your installation, you need to perform corresponding test runs in your system to determine the suitable package size. We recommend that you select the *Package Processing* indicator particularly when analyzing a large number of materials if the number of materials to be analyzed exceeds the maximum selection size according to the system settings.

If you specify on the selection screen that you want to save the results in the database, you can later access these results from the database at any time.

In background processing, you must save the results in the database, otherwise you can no longer access them.

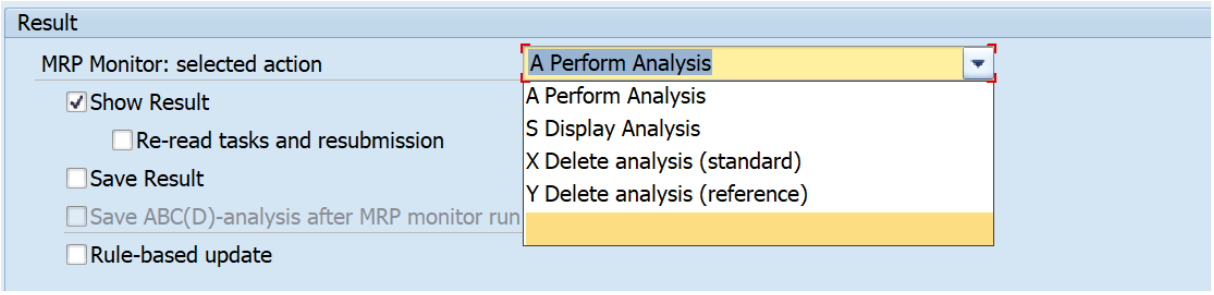
In addition, you can specify that classifications no longer needed are to be deleted from the database.

As with the standard SAP ERP system, you have the option to save frequently used selections as variants.

To simplify the periodic use of the **MRP monitor**, you can use a selection variable to set the period for saving as a variant.

2.1.9.1 Mode of Analysis

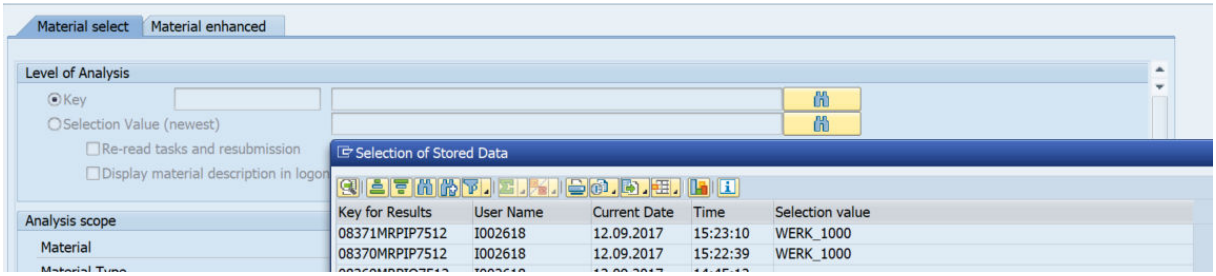
You can perform a new analysis, or read or delete analyses saved previously.



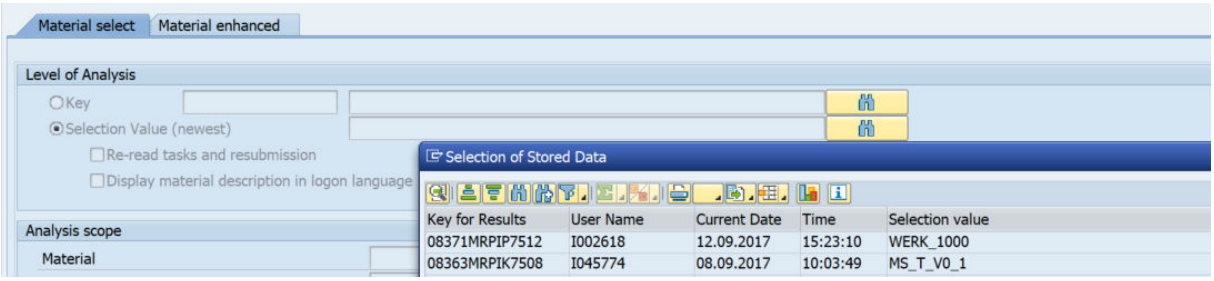
Mode of Analysis Area

To read saved analyses, choose the *Display Analysis* mode.

You can use the *Key* radio button on the binoculars icon to display all saved analyses. You can then select an analysis to display.



If you select the *Analysis Text (Latest)* radio button and select the binoculars icon, the system displays only the last saved analysis for each title. This function makes it easier for you to select the most recent analysis.



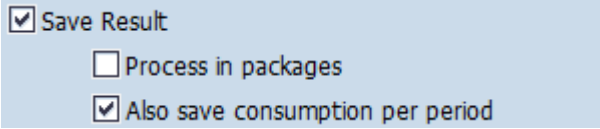
When reading saved analyses, you have the option of displaying the material description in the logon language.

Previously created analyses can be deleted from the database in the *Delete Saved Analysis* mode. If you select the radio button, you can define the scope of the analyses to be deleted. Alternatively, you can call these options via the transaction `/n/SAPLOM/MRP_DEL`. For a detailed description of rolling deletion, see section Best Practice - Job Chain of **comprehensive functions**.

Related Information

Best Practice - Job Chain
Documentation on the consulting solution **comprehensive functions**
Documentation of **SCM Consulting Solution comprehensive functions**

2.1.9.2 Saving Period Consumption

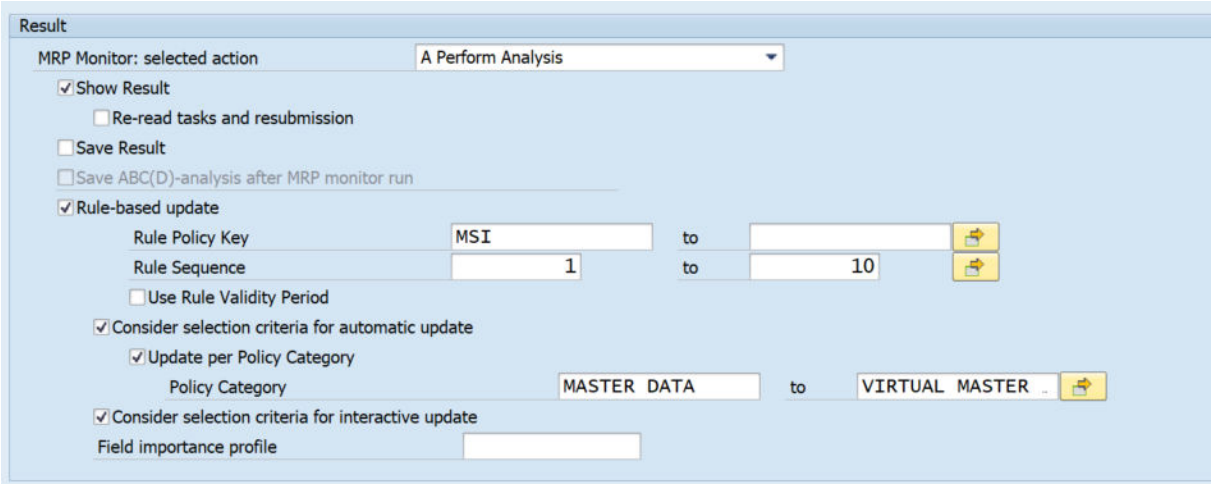


Saving Period Data

You have the option to save period data. This enables you to display the consumption graphic as at the time of the analysis.

2.1.9.3 Automatic Rule-Set-Based Update

With the *Automatic Rule-Set-Based Update* option, you can update the selected materials after the **MRP monitor** run, in accordance with the rules defined in transaction */SAPLOM/XMM_RULE*. The materials that fulfill the rule conditions are updated automatically with the specified parameters of the rule applied.



Automatic Rule-Set-Based Update

You can *further restrict the update rules* used. You can filter for rule keys, evaluation sequence, and rule validity. You can select the appropriate box to apply the filter for the automatic update or interactive update. The automatic update is performed with the analysis run.

> ⚠ Caution
>
> This function performs a mass automatic update of your material master parameters. Only execute this function if you are sure that your rules and selection settings are correct.

If you also want to perform an *update by rule set category*, the relevant rule - according to the evaluation sequence and other restrictions on the selection screen - is determined for each rule set category and used for the update. Allows you to maintain different categories of rules and apply them in parallel. You can maintain the rule set in transaction */SAPLOM/XMM_RULE*. You can assign a rule to a rule set category there. You maintain the rule set categories in transaction */SAPLOM/XMM_CAT*. For more information, see the Material Master Update section of the **comprehensive functions**.

In the case of an interactive update, the system only takes into account the rules that match the chosen criteria when you choose the update pushbuttons in the results list.

Related Information

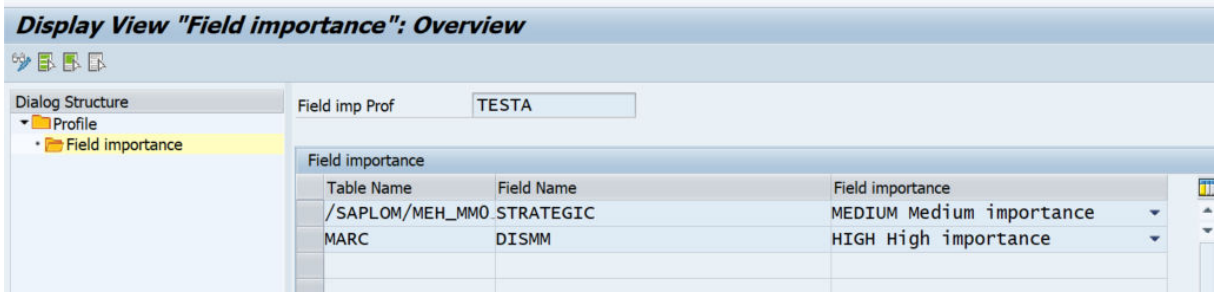
Documentation of **SCM Consulting Solution comprehensive functions**
Material Master Update

2.1.9.4 Field Significance Profile

The results list of the **MRP monitor** gives you a preview of the rules that apply to an object and valuates the proposed field changes with regard to their significance.

For this, create a field significance profile in the transaction `/SAPLOM/XMM_FIELDPRFL`.

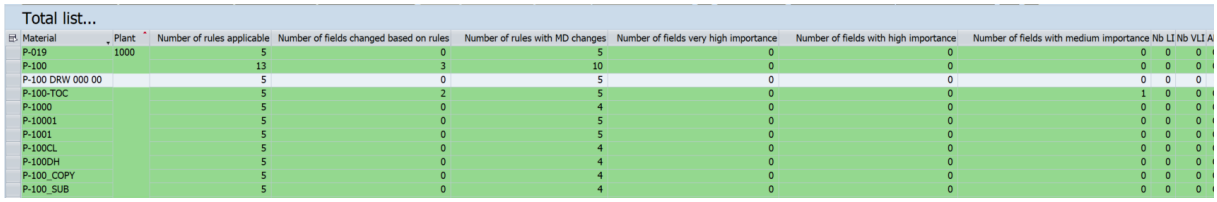
For each profile, you can specify fields and rate their importance. The categories Very High, High, Medium, Low, and Very Low are available.



Maintain Field Significance Profile

If you choose the options Rule-Based Update and Consider Selection Conditions for Interactive Update, you can specify the field significance profile for the analysis. You get additional columns on the result screen:

- Total Number of Applicable Rules
- Number of Fields Changed in Prioritized Rule
- Number of Applicable Rules with Material Master Changes
- Number of Fields with Very High Significance
- Number of Fields with High Significance
- Number of Fields with Medium Significance
- Number of Fields with Low Significance
- Number of Fields with Very Low Significance



Total list...

Material	Plant	Number of rules applicable	Number of fields changed based on rules	Number of rules with MD changes	Number of fields very high importance	Number of fields with high importance	Number of fields with medium importance	Nb LI	Nb VLI	A
P-019	1000	5	0	5	0	0	0	0	0	
P-100		13	3	10	0	0	0	0	0	
P-100 DRW 000 00		5	0	5	0	0	0	0	0	
P-100-TOC		5	2	5	0	0	1	0	0	
P-1000		5	0	4	0	0	0	0	0	
P-10001		5	0	5	0	0	0	0	0	
P-1001		5	0	5	0	0	0	0	0	
P-100CL		5	0	4	0	0	0	0	0	
P-100DH		5	0	4	0	0	0	0	0	
P-100_COPY		5	0	4	0	0	0	0	0	
P-100_SUB		5	0	4	0	0	0	0	0	

Display Field Significance Profile

No automatic update is performed with these settings. The fields should support the user during the interactive update.

2.1.9.5 Overwriting an Existing Analysis

Overwriting an Existing Analysis

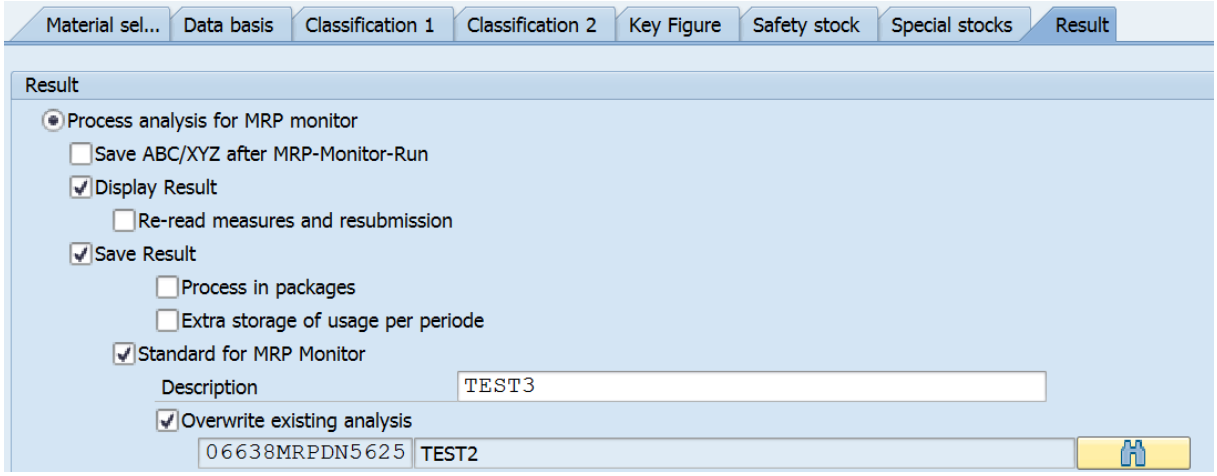
You can overwrite an existing analysis. If you do so, the key (DB key) is retained but the old data is deleted and the new analysis data is saved under this DB key.

You can enter a new description for the analysis. If you leave the description field empty, the description of the deleted analysis is used.

> **Example**
>
> In the figure above, the DB key 0027MRPDJ4505 is retained, but the description is changed from Test MSK DOKU to TEST MSK DOKU1.

The new analysis data is saved under this DB key with the new description. The old data for this DB key is deleted.

To overwrite an analysis in batch mode, you need to make the following settings on the *Result* tab:



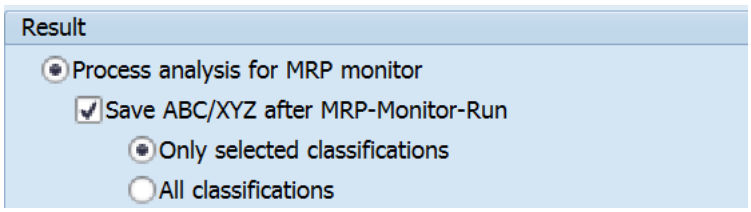
Settings to Overwrite in Batch Mode

The *Show Result* option has no effect in batch mode. You still need to select the relevant checkbox, however, because this option belongs to the condition check relating to overwriting the old analysis.

If tasks or resubmission dates were created for materials in a saved MRP monitor analysis, these are displayed in the corresponding columns for new analyses as well if you select the *Re-read tasks and resubmission date* checkbox. If you do not select this checkbox, the tasks and resubmission dates still exist, but the associated icons do not appear in the result list.

Tasks are used to remind MRP controllers that the corresponding material still has to be processed. You can decide, as the customer, how exactly you want to use tasks. Examples: Reminders related to purchase orders/deliveries, warehouse stock, but also calculations, simulations, and updates – for example, simulating safety stock. This function can therefore be used in very different ways. You can read more about tasks and resubmissions in the **comprehensive functions** documentation.

You can save the result of the classification automatically. To do this, select the checkbox *Save ABC(D) analysis after MRP monitor run*.



Saving ABC/XYZ Classifications

You can choose between two saving methods:

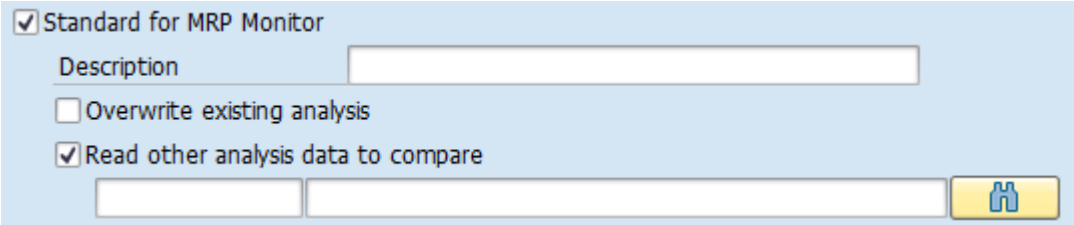
If you select the *Only selected classifications* radio button, only those classifications whose checkboxes were selected on the *Classification 1* tab are updated.

If you select the *All classifications* radio button, all classifications are updated, regardless of whether you have selected their checkboxes on the *Classification 1* tab.

> ⚠ Caution
>
> If you do not select the checkbox for an analysis, the corresponding classification indicator is deleted.

2.1.9.6 Reading Comparison Data

If you select the checkbox *Read Comparison Data from Existing Analysis*, the following columns from a previous analysis, for example, from the previous month, are also displayed: ABX indicator, XYZ indicator, ABC value, and XYZ quantity. Comparing these fields enables you to identify differences between an old analysis and the current analysis.



Reading Comparison Data from an Existing Analysis

2.1.9.7 Select Alerts

You have the option to output alerts on the result screen. For a description of how to create and select alerts, see the documentation on the **comprehensive functions**.

Related Information

Documentation on the **comprehensive functions**
Alerts

2.1.9.8 Select Formulas

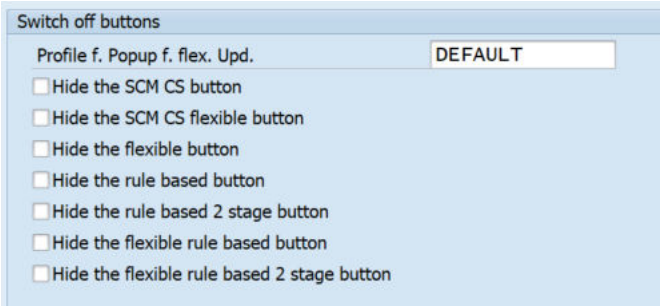
You have the option to output formula results on the result screen. For a description of how to create and select the formulas, see the documentation on the **comprehensive functions**.

Related Information

Documentation on the **comprehensive functions**
Formulas

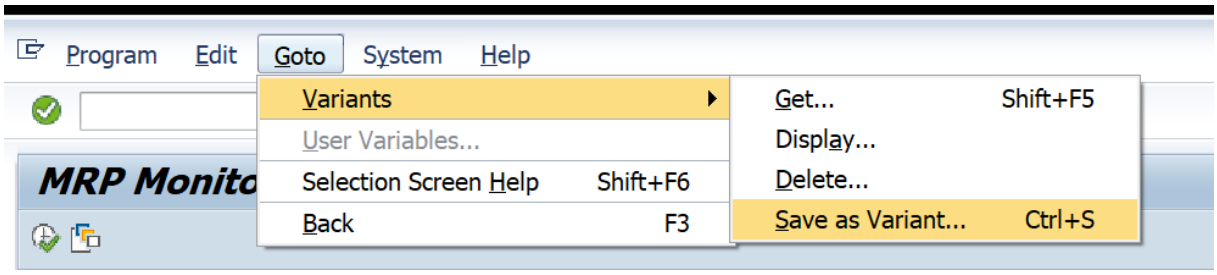
2.1.9.9 Hide Update Buttons

The MRP monitor provides various options for updating the material master fields. The results list contains a pushbutton for each function. You can use this block to hide the pushbuttons for the current run. You can also use the flexible update dialog box profile to determine the layout of the flexible update dialog box.



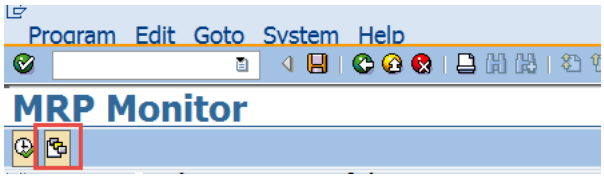
2.1.10 Use of Variants

You can save frequently used **MRP monitor** settings as variants and reuse them when required.



Saving Variants

You can reuse saved variants as you wish and modify them as required. To access a saved variant, choose the *Get Variant* pushbutton.



Calling Saved Variants

You can then select the variant you require in a dialog box.

2.1.10.1 Default variants

You can save a default variant for the transaction of the consulting solution. This variant will be loaded automatically every time you open the tool. There are two types of default variants available:

System-wide variant, valid for all users

If a variant exists with the same name as the transaction code (including /SAPLOM/), this variant will be the default for all users who start the tool, unless they have a user-specific variant saved on the same system. Normally system-wide variants are used to provide a predefined set of values that can enhance usability if, for example, certain fields like plant, currency or time will be pre-populated. The user can change these values any time before executing the program.

User-specific variants

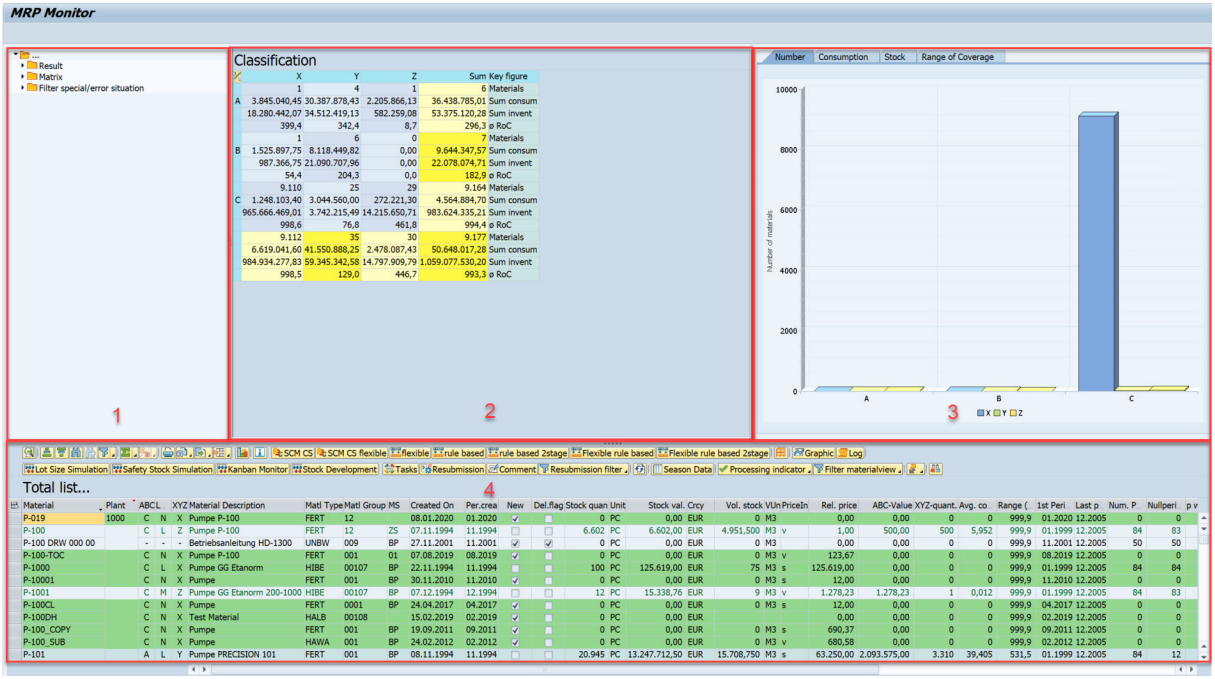
If a variant exists with the following naming convention *U_<username>*, then this variant will be defaulted for this specific user if they start the tool.

> **Example**
>
> A user with a logon name of *JSMITH* would save his own variant like this: *U_JSMITH*

This, too, can enhance usability, because certain fields like plant, currency or time can be pre-populated for a specific user. The user can change these values any time before executing the program. Although each user can have only one predefined variant per system, the variant can be overwritten with new values.

2.2 Results Display

In the following, results are described as "analyzed materials" or "analysis objects" synonymously.



Results Screen MRP Monitor

The results screen is divided into four sections:

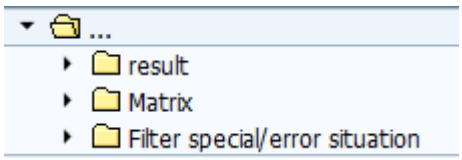
1. Result filter and filter by special/error situation
2. Result matrix (ABC(D) / XYZ(N) / LMN(O)/ and so on - matrix)
3. Graph Area
4. Material List

In the first three sections, the data is displayed according to the following four key figures:

- Number of materials of the corresponding group
- Total consumption values in the corresponding group
- Total stock values in the corresponding group
- Average range of coverage

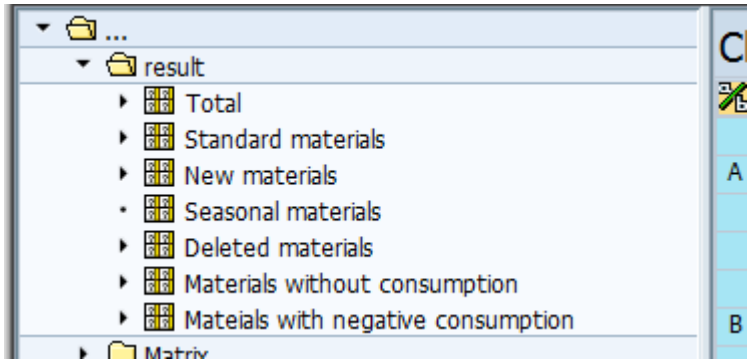
The displayed material list (4) in the lower area depends on which group of materials you select. You select the required group by double-clicking on it in the overview (1) or in the matrix (2). In this way, you can branch from the overview to the group of normal materials or exception groups. For example, when you double-click *New Materials* in the material list, an overview of all materials classified as new is displayed in accordance with the selection.

2.2.1 Filtering of Results and Filtering by Special and Error Situations



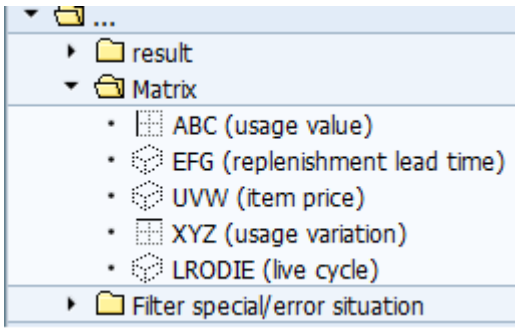
Tree Structure Overview

In area (1) of the results display (numbered areas refer to the graphic in the section Results Display [page 75]) , you can filter the results. In the upper area under *Result*, you can restrict the values given in the matrix (2) and the material list (4). You have the following options: All materials (total option), all normal materials (all materials not classified in an exception case group), four exception groups (new materials, materials with negative consumption or without consumption in the analysis period, materials flagged for deletion), plus seasonal materials



Filter Function for Results

Furthermore, you can display the matrix (2) in different variants resulting from the different combinations of the six possible analyses:



Tree Structure Matrix

You can change what is displayed and how by clicking the right mouse button at any time.

> **Example**
>
> Change from XYZ to UVW on the horizontal axis

Classification

	X	Y	Z	Sum
	0,00	0,00	14,00	14,00
A	0,00	0,00	215.262.294,75	215.262.294,75
	0,00	0,00	1.500,00	1.500,00
	0,0	0,0	0,0	0,0
	2,00	1,00	5,00	8,00
B	24.987,00	14.308,00	214.797,00	254.092,00

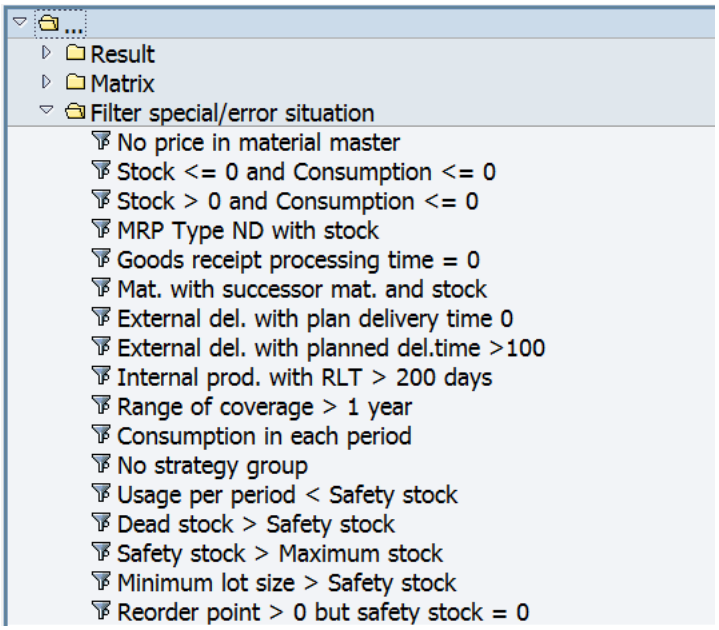
Horizontal Classification by XYZ

Classification

	U	V	W	Sum
	0,00	14,00	0,00	14,00
A	0,00	215.262.294,75	0,00	215.262.294,75
	0,00	1.500,00	0,00	1.500,00
	0,0	0,0	0,0	0,0
	0,00	8,00	0,00	8,00
B	0,00	254.092,00	0,00	254.092,00

Horizontal Classification by UVW

You can filter the results display not only by classification but also by specific error situations. To do so, double-click the relevant row in the lower area (1) of the results display. The material list (4) is filtered according to this criterion. All other materials are hidden.



Filter Function for Special/Error Situations

Related Information

Results Display [page 75]

2.2.2 Results Matrix

When you double-click a field of the matrix (2) (numbered areas refer to the graphic in the section Results Display [page 75]) , the lower area (4) displays a list of materials in the corresponding group. This allows you to branch to all higher-level groups (for example, to all A materials).

The colors used in the ALV serve to emphasize the ABC/XYZ indicators: ABC is indicated by different colors (blue for A, yellow for B, and green for C) and XYZ is indicated by shading (intensive color for X, pale color for Y and inverse display for Z).

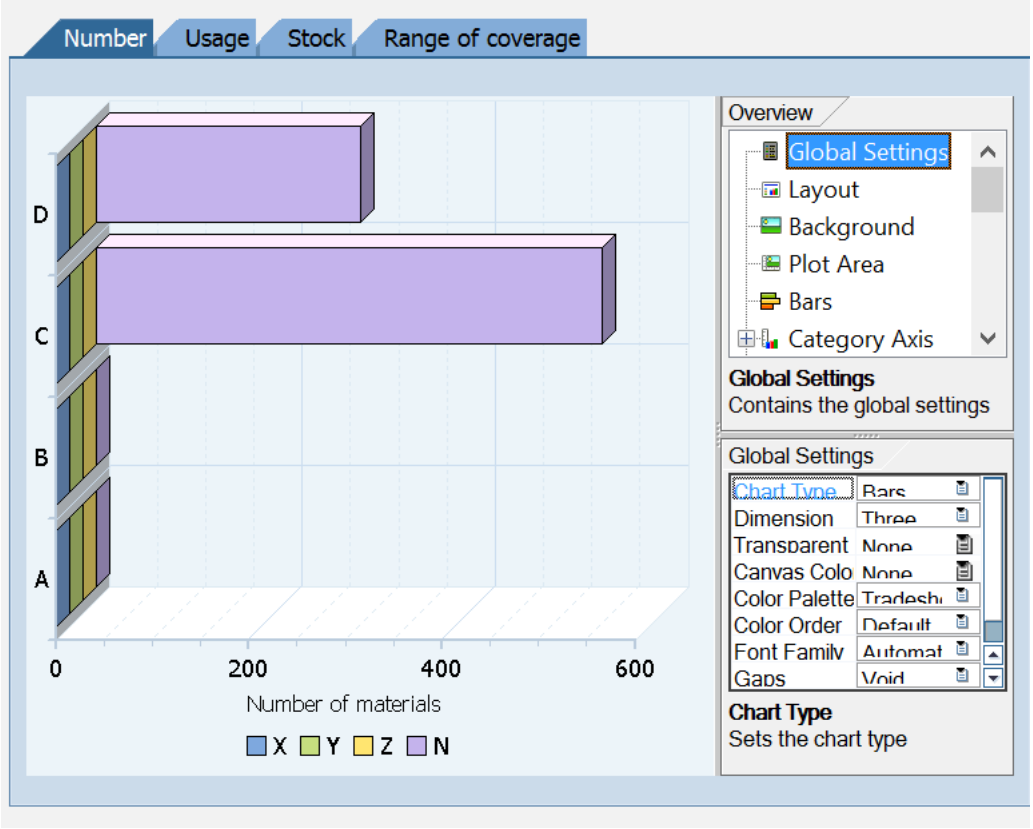
Related Information

Results Display [page 75]

2.2.3 Graph Area

In the graph area (3) (numbered areas refer to the graphic in the section Results Display [page 75]) at the top right of the results screen, the result is displayed graphically. The graph area is divided into four tabs. Each of them displays data on the four group-related key figures (number of materials, consumption, stock, and range of coverage), which are described in the general section of the results screen.

If you double-click the graphic, two windows are visible in the graph area. There you can modify the graphic to meet your requirements:

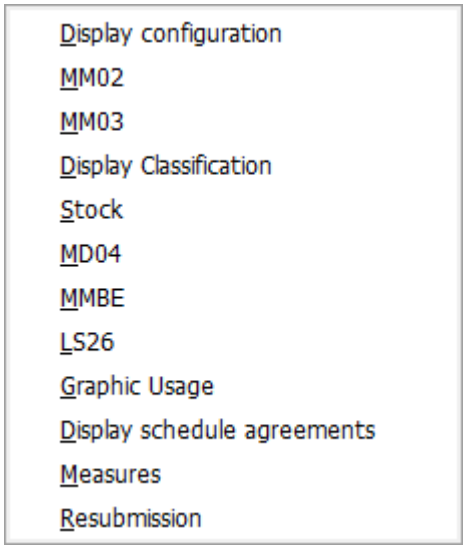


Output Results as Graphic

2.2.4 Material List

The color in which a material is displayed in the material list (4) (numbered areas refer to the graphic in the section Results Display [page 75]) depends on the group to which it belongs. Besides the filter functions in the material list, you can also use the standard functions of the ABAP List Viewer (ALV) to customize the list layout: show or hide fields, filter, sort, search, download, and so on. From the material list, you can also branch to various evaluation transactions (such as slow-moving materials analysis and so on) and processing transactions such as *MD04*. If you create layouts with the corresponding filtering and sorting specifications, you can selectively and systematically search for master data errors (for example, use of reorder-point-controlled MRP in the case of in-house production or for AZ classification and so on) and key figure characteristics.

If you right-click a material in the material list, a context menu is opened. From this menu, you can branch to standard transactions and execute other functions that are not offered in the application toolbar (for example, display the configuration of the selected material).



Context Menu: Material

Using BAdI definitions, you can enhance the **MRP monitor** with customer-specific fields containing customer-specific logic. These fields can be displayed in the results list of the **MRP monitor**. For more information, see /SAPLOM/MRP_ADDITION [page 89].

Related Information

Other (BAdIs) [page 88]
/SAPLOM/MRP_ADDITION [page 89]
Results Display [page 75]

2.2.5 Operating Functions in the Results List

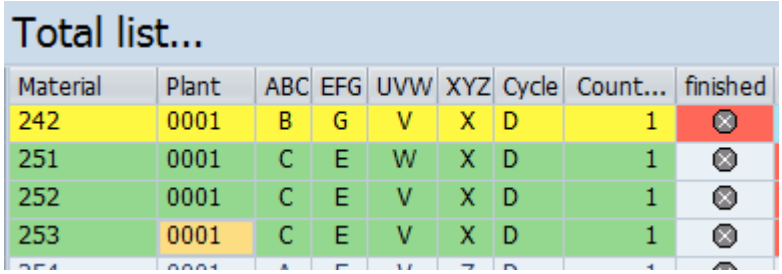
The operating functions in the results list are described in the following sections.

The navigation profile, the functions for tasks, the resubmission date, and the resubmission filter are described in the documentation for the **comprehensive functions**.

Related Information

Result list with processing indicator [page 82]
Determining Numbers Using Counters [page 83]
Migration Analysis [page 83]
Documentation of **SCM Consulting Solution comprehensive functions**

2.2.5.1 Result list with processing indicator



Total list...

Material	Plant	ABC	EFG	UVW	XYZ	Cycle	Count...	finished
242	0001	B	G	V	X	D	1	⊗
251	0001	C	E	W	X	D	1	⊗
252	0001	C	E	V	X	D	1	⊗
253	0001	C	E	V	X	D	1	⊗

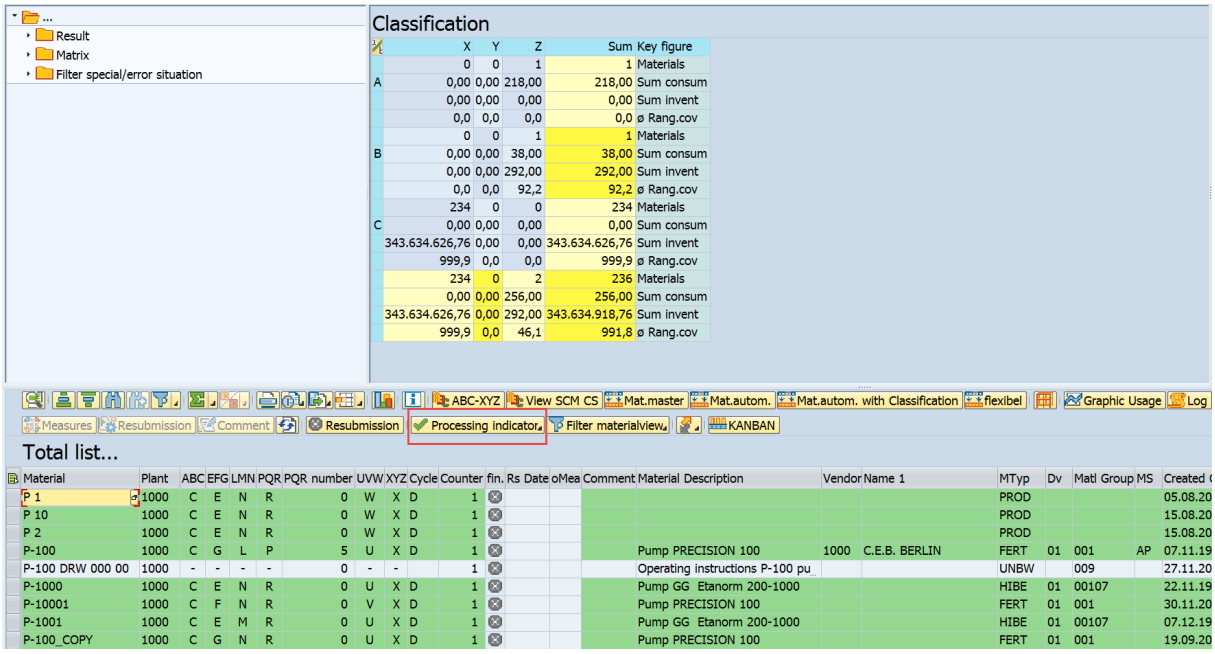
Result list with processing indicator

If you set the processing indicator for a row, this is identified as processed the next time the saved result is called.

The processing indicator is particularly useful if you save a result and call it up again. You can use it even if you do not save the result, however, only temporarily.

You set the processing indicator by double-clicking in the corresponding column of the desired row. You can also reset the processing indicator in the same way.

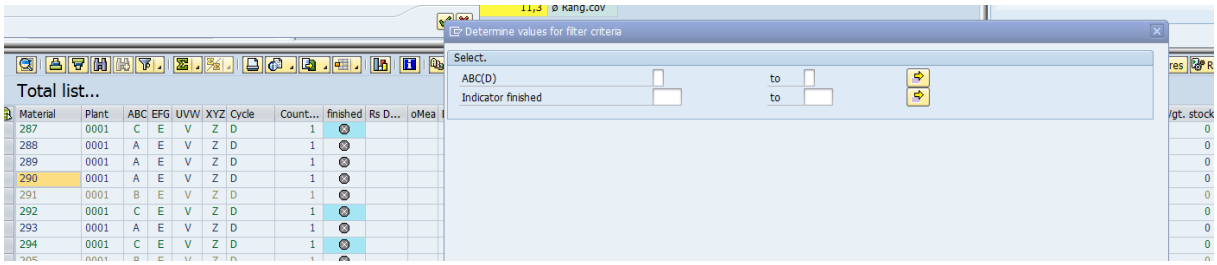
You can also set and delete the processing indicator using mass processing. To do so, select the radio button *Processing Indicator* in the results list.



Mass Mode for Processing Indicator

You can choose between the options *Set* and *Delete* in mass mode. The selected option is applied to all marked rows. Therefore, the processing indicator for all selected rows is set or deleted.

2.2.5.2 Determining Numbers Using Counters



Counter function

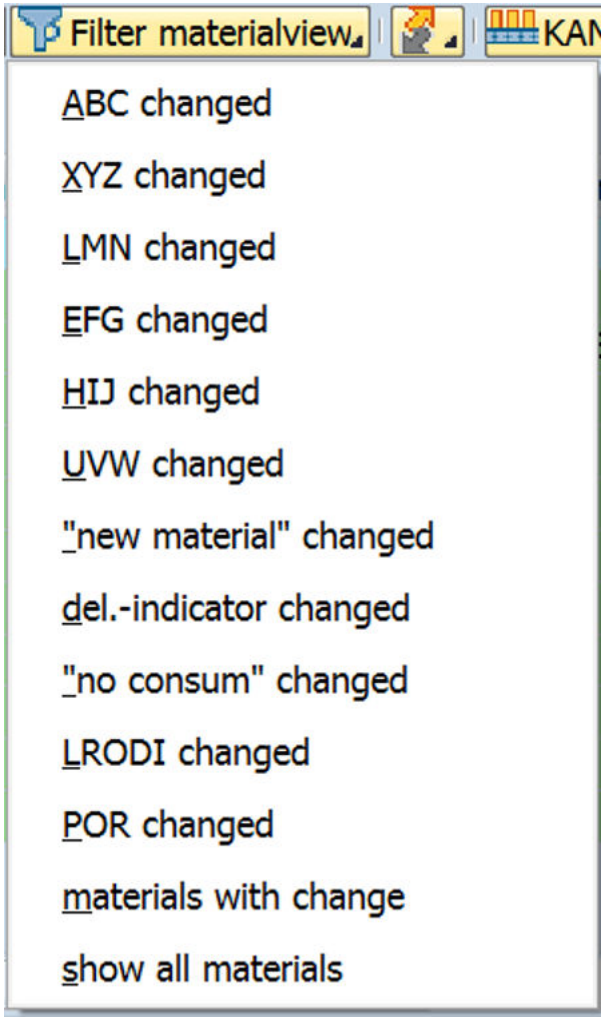
In the result list there is a counter column. You activate the counter function by clicking on the sigma sign in the menu bar above the material list.

If you filter by certain criteria, this column displays the number of materials that meet these criteria.

> **Example**
>
> In the screenshot, the counter column (yellow column at the bottom) shows a total of four entries.

2.2.5.3 Migration Analysis

You can use a pushbutton in the menu bar of the **MRP monitor** results display to filter records that have a changed classification indicator. The classification of the analysis is thereby checked against the saved classification indicators in the **enhanced material master view**.



Filter for Material Master View

You can filter materials for which the classification has changed.

The *Materials with changes* filter excludes the materials for which at least one of the classifications displayed has changed.

2.3 Customizing

For the **MRP monitor**, the Customizing report */SAPLOM/MRP_CUSTOM* exists, which triggers a Customizing transaction. Using this report, you can show and hide individual selection fields, define default values, and activate and deactivate the readiness for input.

> ⚠ Caution
>
> This transaction may only be executed by authorized SAP employees. Otherwise, it can lead to critical problems with the functions of the **MRP monitor**, the elimination of which is not covered by standard SAP support.

2.4 Additional Functions

The additional functions are available if the customer creates a custom additional field in the material master. For more information, contact your SAP representative.

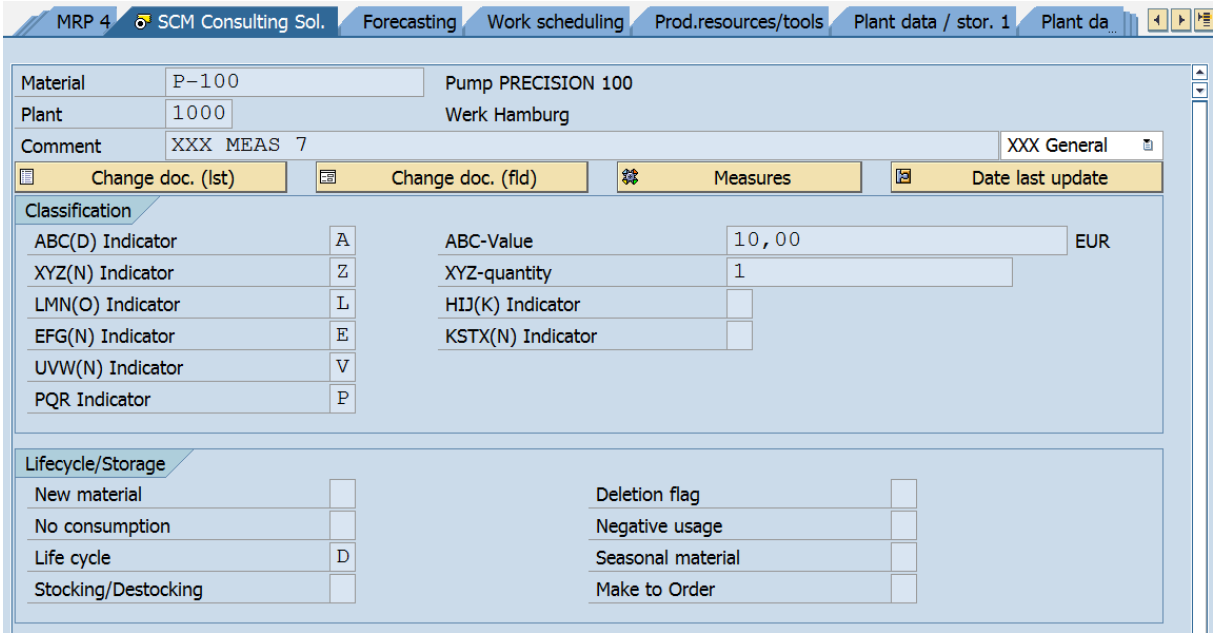
Related Information

Automated Update of Classifications [page 85]
Flexible Update of Classifications [page 86]
Flexible Update of Material Master Fields [page 86]
Rule-Based Update of Material Master Fields [page 87]
Two-Step Rule-Based Update [page 88]
Other (BAdIs) [page 88]

2.4.1 Automated Update of Classifications

You can maintain the classifications directly on the result screen of the **MRP monitor**.

To do so, you first need to select the result lines for which you want to update the classifications. You then choose the *SCM CS* pushbutton to trigger the update. This updates all classifications in the **enhanced material master view**.

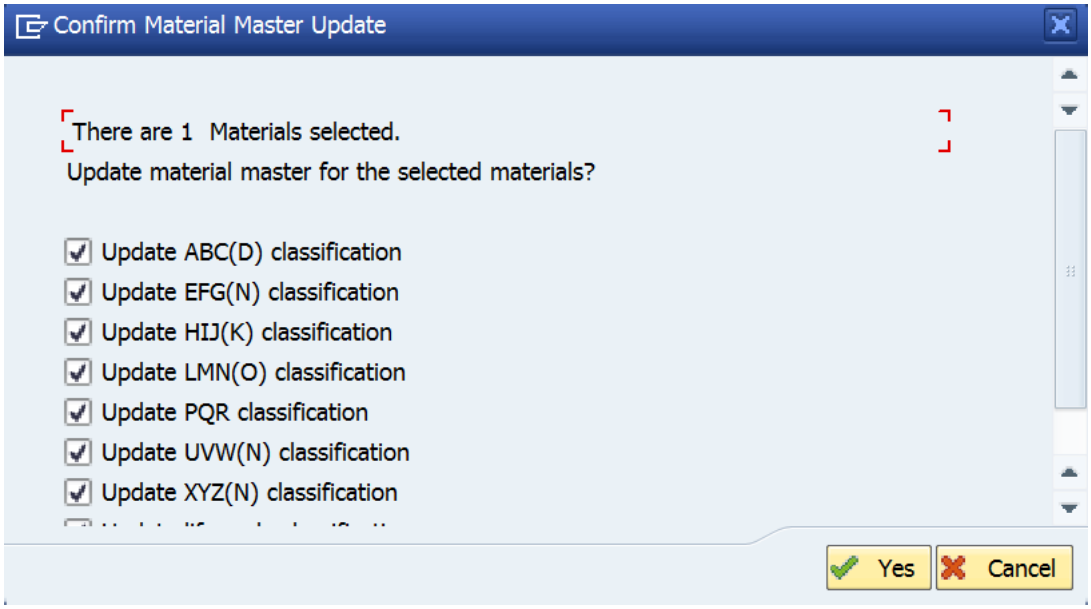


enhanced material master view

> **i Note**
>
> In transaction */SAPLOM/MRP_S*, you can configure whether the functions for automatically updating the **enhanced material master view** or the automatic rule set maintenance (zero step procedure) are to be ready for input on the *Result* selection tab of the **MRP monitor**.

2.4.2 Flexible Update of Classifications

From the **MRP monitor**, you can update the material master with selected classifications. To do this, you first select all of the materials in the material list of the **MRP monitor** for which you want to perform an update. You then choose the *SCM CS flexible* pushbutton in the header of the material list. A dialog box appears in which you can select which classification indicators are to be updated in the material master.

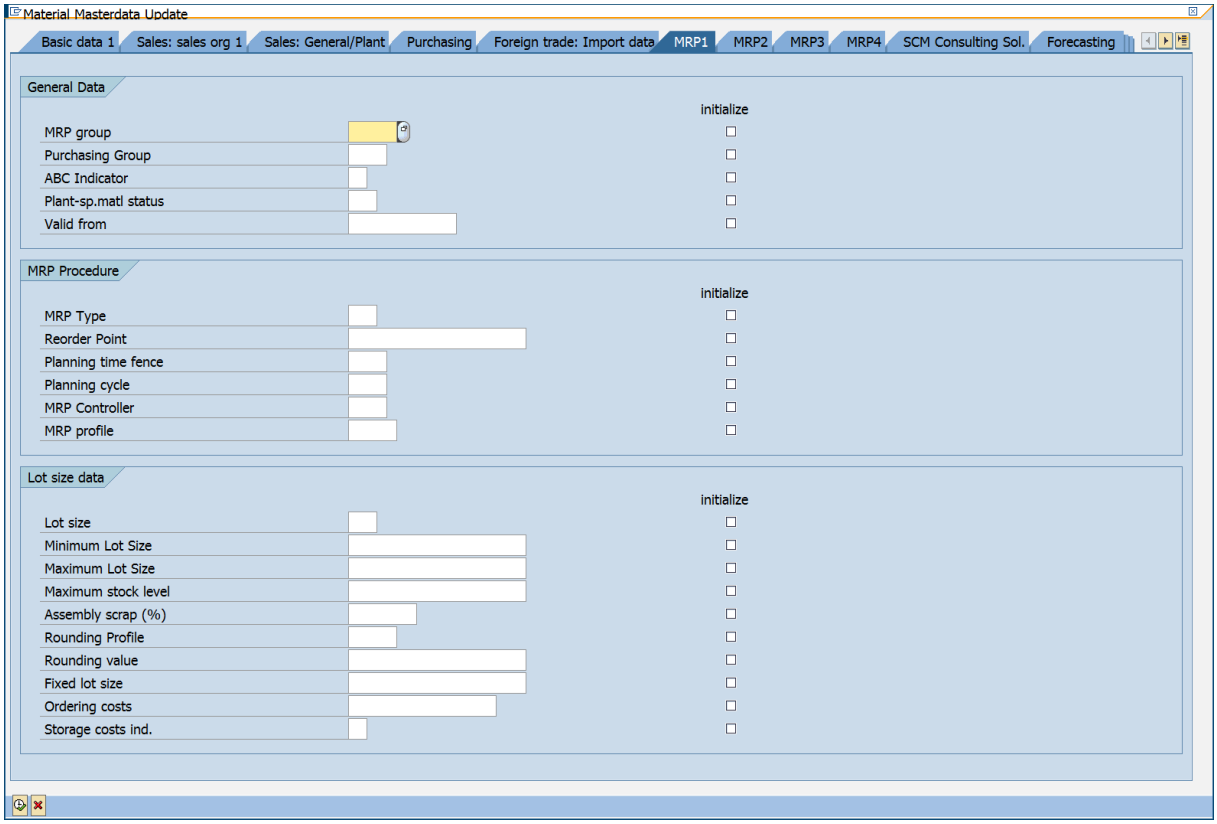


Confirm Material Master Update

If you choose *Cancel*, the process is aborted. The classification indicators of the selected materials are then not changed. If you choose *Yes*, a confirmation prompt appears. When you confirm with *Yes*, the classification indicators that you selected in the previous dialog box are updated.

2.4.3 Flexible Update of Material Master Fields

You can maintain the SAP material master fields from the **MRP monitor** (additional function). To do this, in the material list of the **MRP monitor**, you first select all the materials that you want to maintain. You then choose the *Flexible* pushbutton in the header area of the material list. The system displays a window in which you can edit the material master fields.



Input Fields for Flexible Material Master

You can change the fields when you enter new values.

If you set the *Initialize* indicator in the dialog box (for a field), the input field for the related parameter is grayed out and you cannot enter a value. In this case, the field is initialized in the material master.

Therefore, if you want to change the content of a field, you must not set the *Initialize* indicator.

You can use the flexible update dialog box profile on the Result tab to determine the layout of the dialog box.

For more information, see the documentation on the **comprehensive functions**.

Related Information

Documentation of **SCM Consulting Solution comprehensive functions**

2.4.4 Rule-Based Update of Material Master Fields

This function is described in the documentation for the **comprehensive functions**.

> **i Note**
>
> In transaction */SAPLOM/MRP_S*, you can configure whether the functions for automatically updating the **enhanced material master view** or the automatic rule set maintenance (zero step procedure) are to be ready for input on the *Result* selection tab of the **MRP monitor**.

Related Information

Documentation of **SCM Consulting Solution comprehensive functions**

2.4.5 Two-Step Rule-Based Update

The two-step rule-based update supplements the automatic material master update, which uses the rule set table. This function is described in the documentation for the **comprehensive functions**.

Related Information

Documentation of **SCM Consulting Solution comprehensive functions**

2.4.6 Other (BAdIs)

In the **MRP monitor**, the following BAdIs are available, which you can program:

Related Information

/SAPLOM/MRP_ADDFIELD [page 89]
/SAPLOM/MRP_ADDITION [page 89]
/SAPLOM/MRP_AUTH_CHK [page 89]
/SAPLOM/MRP_KEYADAPT [page 89]
/SAPLOM/MRP_KEYSLCTN [page 89]
/SAPLOM/MRP_MATERIAL [page 90]
/SAPLOM/MRP_MATSLCTN [page 90]
/SAPLOM/MRP_SHIFTVAR [page 90]
/SAPLOM/XBT_TIMESERI [page 90]

2.4.6.1 /SAPLOM/MRP_ADDFIELD

Still exists for compatibility reasons; replaced by */SAPLOM/MRP_ADDITION*.

Related Information

/SAPLOM/MRP_ADDITION [page 89]

2.4.6.2 /SAPLOM/MRP_ADDITION

In contrast with the predecessor, *_ADDFIELD* can be implemented more than once. It is used to fill and display customer-specific fields such as a 2-digit or 6-digit ABC-XYZ indicator. It can also be used for customer-specific Z fields.

This BAdI enables you to define a field with custom logic and display it in the **MRP monitor** result list.

Related Information

/SAPLOM/MRP_ADDFIELD [page 89]

2.4.6.3 /SAPLOM/MRP_AUTH_CHK

Authorization check for the **MRP monitor**; easy to implement; no default implementation; there is a shippable proposal for check on plant.

2.4.6.4 /SAPLOM/MRP_KEYADAPT

Can enhance standard selection of keys (material/plant combinations), for example, check of customer-specific selection criteria

2.4.6.5 /SAPLOM/MRP_KEYSLCTN

Allows you to replace the standard selection of keys (material/plant combinations)

2.4.6.6 /SAPLOM/MRP_MATERIAL

Still exists for compatibility reasons; replaced by */SAPLOM/MRP_MATSLCTN*.

2.4.6.7 /SAPLOM/MRP_MATSLCTN

Can be used to select customer-specific additional fields for the material master, together with other material master fields

2.4.6.8 /SAPLOM/MRP_SHIFTVAR

Used to adapt variable values customer-specifically; can be implemented more than once; can, for example, also be used to include customer-specific data sources for time series

2.4.6.9 /SAPLOM/XBT_TIMESERI

Selection of time series as the basis for **MRP monitor** key figures; multiple use supported; multiple standard implementations for the existing data sources; can be enhanced with additional implementations for customer-specific data sources.

This BAdI replaces its predecessor */SAPLOM/TIMESERIES*.

2.5 Aggregation of Material Documents

Material document aggregation is outsourced to a separate program. It needs to be scheduled as a regular job if you want to run analyses based on material documents (data source *MSEG*. In the case of monthly reports, run a monthly analysis, and for weekly reports, run a weekly analysis.

The documentation for **material document aggregation** is part of the documentation for the **comprehensive functions**.

Related Information

Documentation of **SCM Consulting Solution comprehensive functions**

2.6 Appendix: Interpretation Help for Key Figures

> **i Note**
>
> Note the detailed information in the PDF documentation that is provided with the software.

Related Information

Variation Coefficient
Autocorrelation Coefficient
Safety factor in the safety stock calculation according to the optimized ERP method
Mean Absolute Deviation
Range of Coverage
Material-Specific Range of Coverage
Weighted Range of Coverage
XYZ amount
ABC Consumption Value
Quantity/Value Received
Slow-Moving Items
Dead Stock
Average Stock Quantity
Inventory Turnover of Valuated Stock
Moving Weighted Mean Value
Trend Calculation
Seasonal Calculation

3 Stock Level Monitor and BOM Analysis

Determine the stocking level of your materials in a multilevel bill of material structure. The **stock level monitor** makes suggestions for the stocking level based on a systematic analysis. Analyze your products by number of BOM usages and number of bills of material. The **BOM analysis** provides information on the number of bills of material and BOM usages for a product.

3.1 Stock Level Monitor

Determine the stocking level of your materials in a multilevel bill of material structure. The **stock level monitor** makes suggestions for the stocking level based on a systematic analysis.

The monitor determines various stocking indicators and thus generates a proposal for an optimized stocking level. You can use these suggestions for the stocking level in the **MRP monitor** to correctly assign corresponding MRP parameters such as planning strategies and individual/collective indicators using the rule set of transaction */SAPLOM/XMM_RULE*.

For this **SCM Consulting Solution**, the following note exists: 1745268

You can create error messages under this component: `XX-PROJ-CON-SLM`

You can find additional information (such as presentation slides) here: Materials

3.1.1 Selection

You call the **stock level monitor** using transaction */SAPLOM/SLM*. Alternatively, you can start the monitor in transactions *SE38*, *SA38*, and *SE80* using the report name */SAPLOM/SLM_PROVISIONING*.

The selection screen is divided into several tabs:

On the *Material Selection* tab, you can restrict the analysis area. You can make a selection using material-specific characteristics such as material number, material type, material group, and so on. Plant-specific parameters are also available for the selection. These are located in the *Plant Data for Material* area. By choosing the *Additional Material Parameters* pushbutton, you can select the materials to be analyzed using parameters from the **enhanced material master view**.

In the *Restrict Material Selection* section, you define whether all materials available in the selection or only header materials at BOM level 0 are to be exploded for the determination of the stocking level and the determination of the BOM key figures. If the option *Explode all selected materials* is selected, note that both accepted market delivery time = 0 and maximum total replenishment lead time = 0 are to be handled as infinite (9999) on the *Stocking Indicator* tab, otherwise each component would be stocked.

Materials selection | Provisioning Flags | Key Figures | Analysis of aggregated data | Result

Material
Material Type to
Material Group to
Product hierarchy to
Division to

Additional material parameters

Plant Data for Material

Plant to
Plant-sp.matl status to
Purchasing Group to
MRP Controller to
MRP Type to
Procurement type to
Special procurement to
Individual/coll. to
Profit Center to
Prodn Supervisor to
Acc. MarketDeliveryTime CD to
Max.TotalRLT(BOM levels)CD to
Requirements.Visib.Hori.CD to

☐ Only materials which have an MRP view in MD

Bill of material

BOM Application PP01
Bill of material to
Valid from 28.06.2021

☐ Deletion Indicator

Restrict material selection

◉ Only dissolve materials, which have low-level code 0
○ Dissolve all selected materials

Storage Loc. Data for Material

Storage Location to

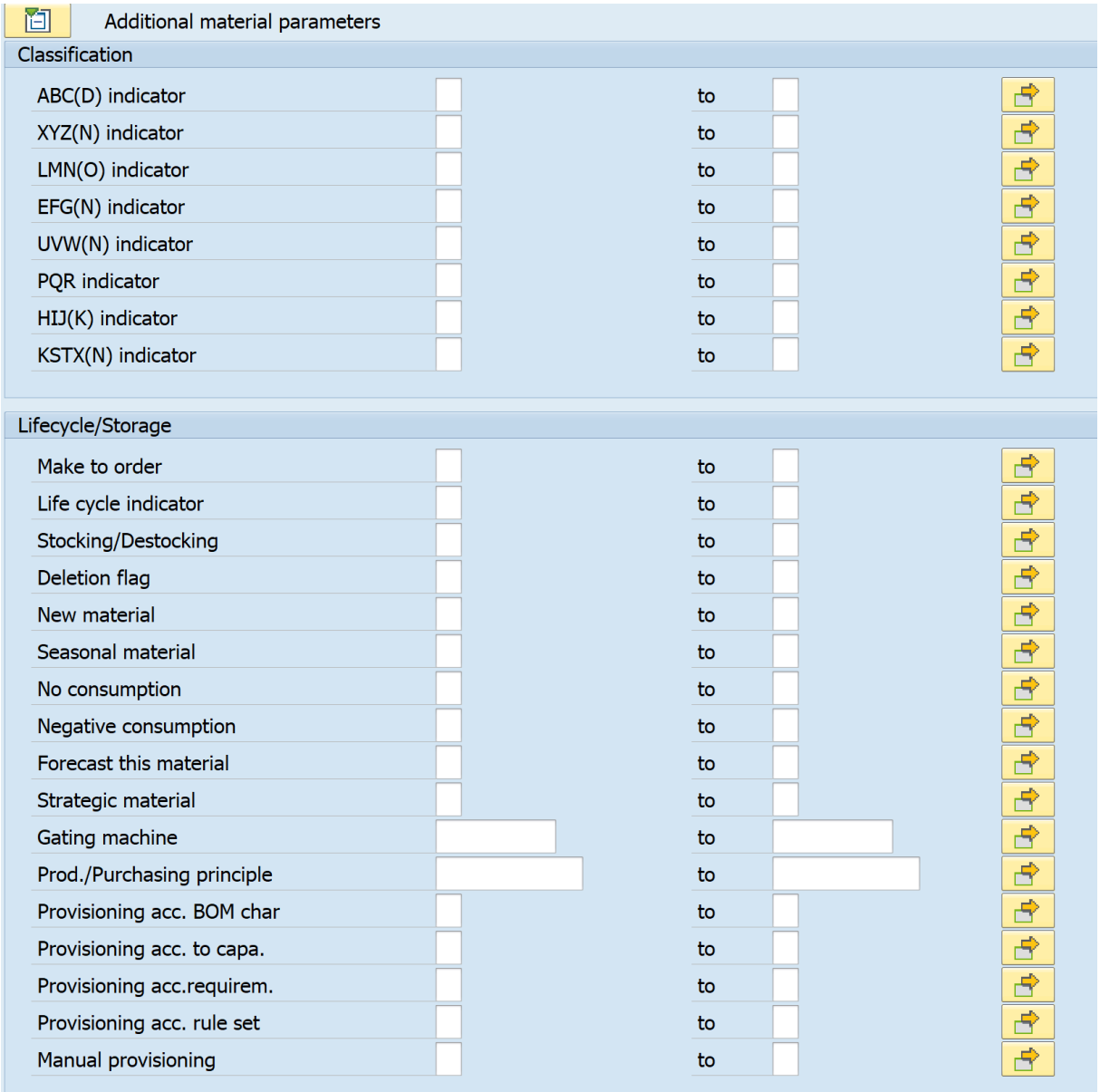
MRP Area data for Material

MRP Area to

Material group

Individual Material Group to

Selection Screen: Material Selection

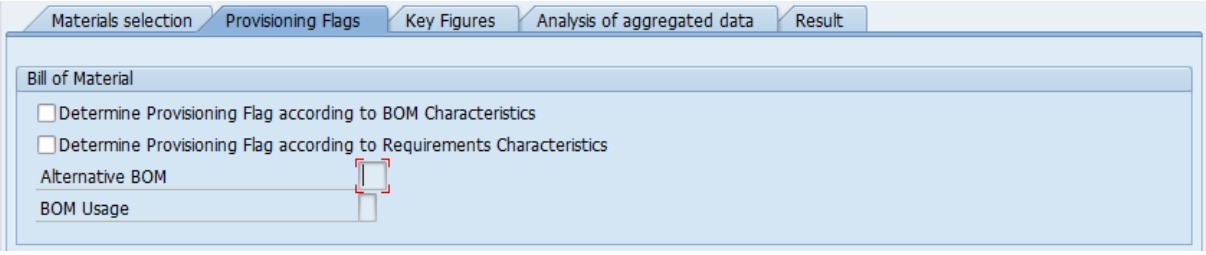


Selection Screen: Additional Material Parameters

You can also make a selection based on BOM characteristics, storage location data, MRP area data, or the individual material group.

For more information about the individual material group, see Individual Material Groups.

On the *Stocking Indicator* tab, you select which indicators are to be determined. In the first block, you can activate stocking indicators according to BOM characteristics and requirements characteristics.

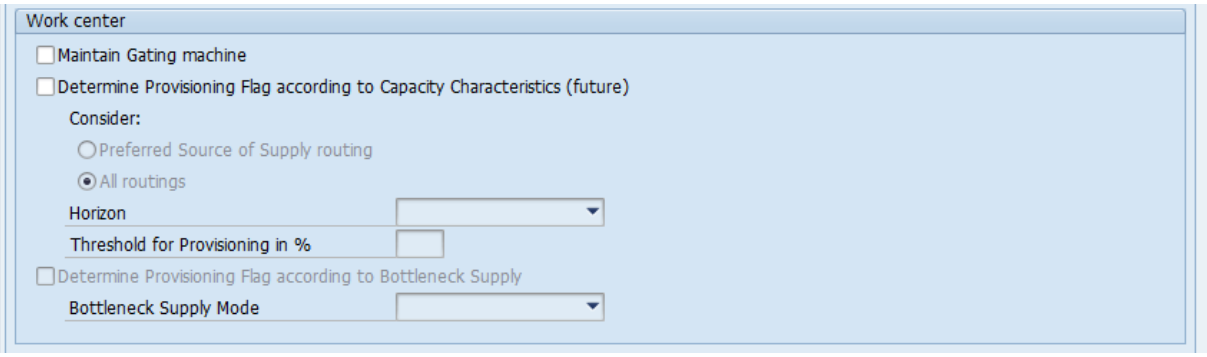


Selection Screen: Stocking Indicator

In the next block, stocking indicators can be determined according to capacity characteristics or bottleneck supply and the gating machine can be maintained. To use this analysis, you must also use the consulting solution **capacity requirements planning cockpit (CRP)** and perform an analysis in advance, as well as fill the table `/SAPLOM/CEH_CR01` with the relevant data.

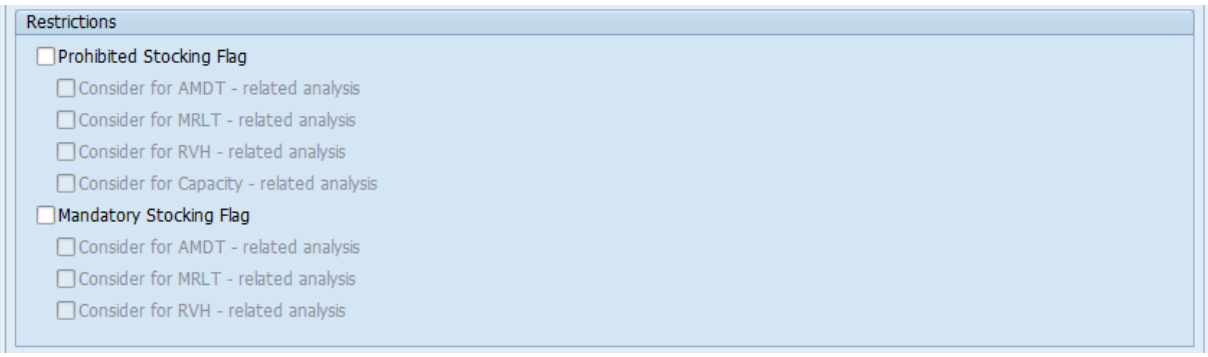
You can use a checkbox to select whether the stocking indicator is to be determined according to future capacity characteristics. If you select this option, use dropdown to determine which time horizon is taken into account. You also define a percentage reference value for the stocking. In addition, you use dropdown to determine whether only assigned components or all preceding components are to be taken into account. You can also maintain the gating machine.

For more information on **CRP**, see .



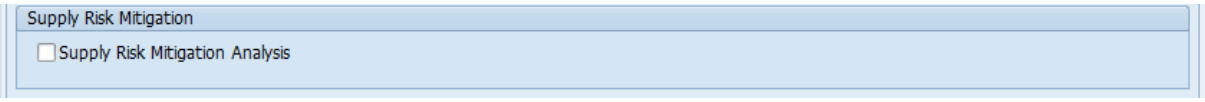
Selection Screen: Work Center

In the *Restrictions* block, you can select the two indicators *No Stocking* and *Mandatory Stocking*. In the **enhanced material master view**, you can set whether each individual material should never be stocked or whether it should always be kept in stock. The selection as to whether these indicators are to be taken into account in the program can be made individually for each analysis.



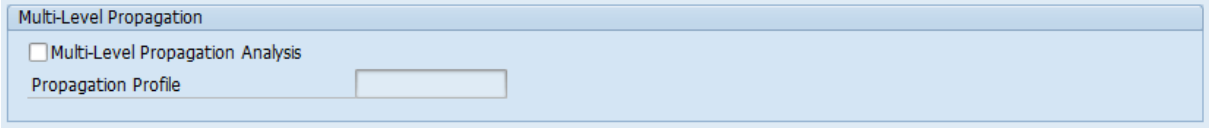
Selection Screen: Restrictions

The objective of the *sourcing risk analysis* is to mitigate the sourcing risk. A risk assessment is performed for each material using a profile maintained in Customizing transaction */SAPLOM/SLM_C*.



Selection Screen: Sourcing Risk Mitigation

The multilevel propagation analysis facilitates the propagation of information from top to bottom through the BOM. You can use the profile to set the required information. To do this, call transaction */SAPLOM/SLM_PP*.

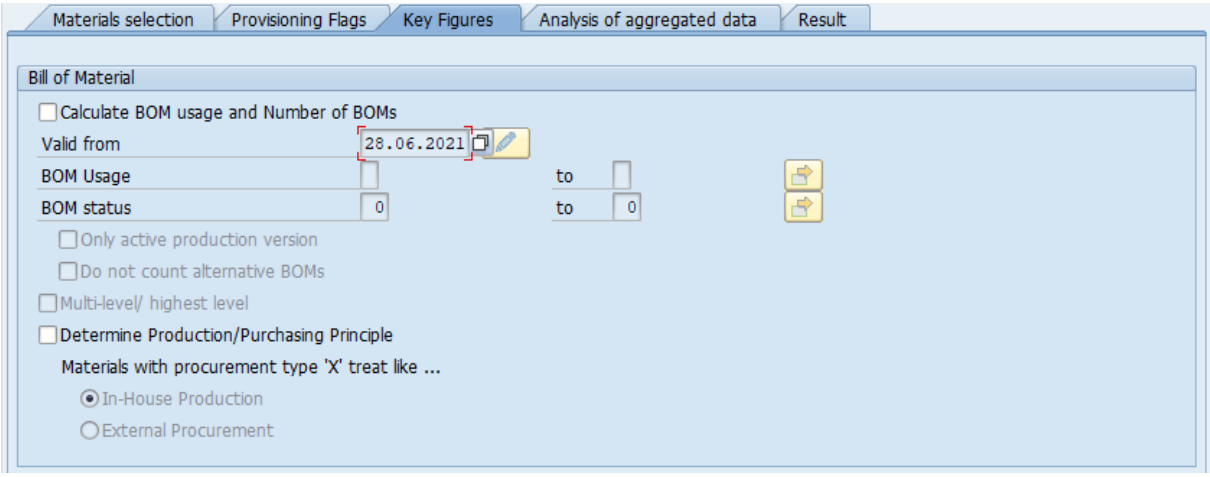


Multilevel Propagation Analysis

The last block on the tab contains options that affect the interpretation of certain data. Using the settings for the stocking level, you define whether you want to make an individual stocking decision at part level or whether you want to make a collective stocking decision at BOM level.

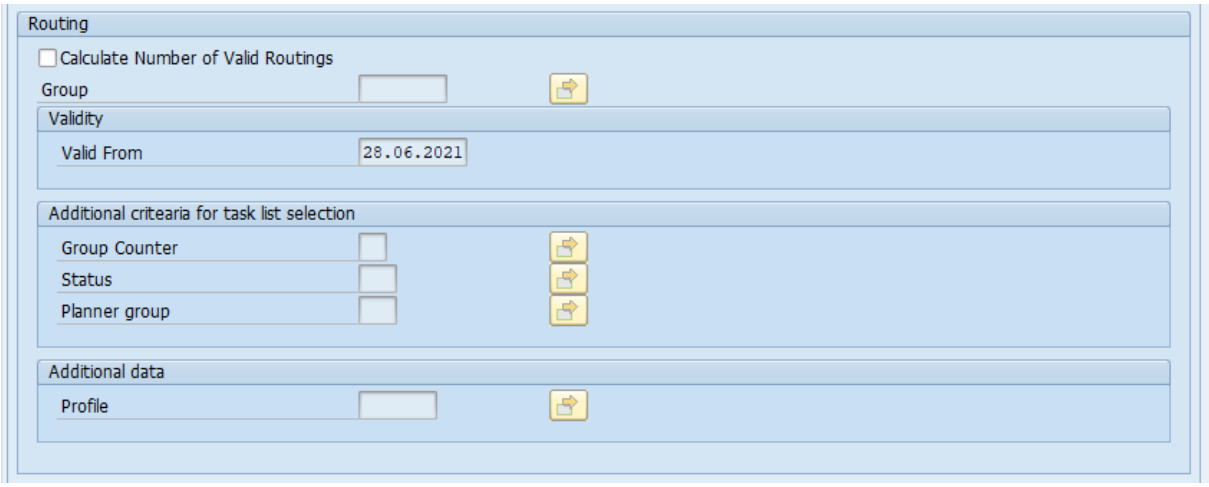
Selection Screen: Options

In the section *BOM Key Figures: Options*, specify the parameters that are relevant for the **BOM analysis**. The settings you make here do not affect the determination of the stocking indicator and the determination of the production/procurement principle. You can use a date to first select BOMs based on their validity. In addition, you can use a checkbox to select only BOMs that exist in active production versions for the **BOM analysis**. You also define whether alternative BOMs are also to be counted and whether the explosion is to be performed at one or multiple levels. Other selection options are BOM usage and BOM status. The **BOM analysis** is currently only supported for BOM category 'M' - material BOM.



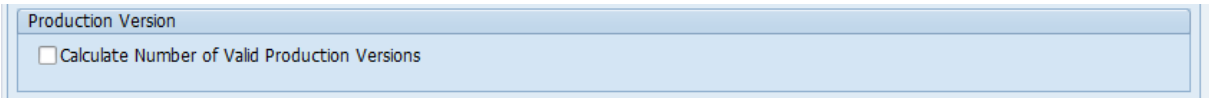
Selection Screen: BOM Key Figures

In the *Routing* section, you define the settings for calculating the number of valid routings. If this option is selected, an additional key figure is displayed on the results screen. You can use additional selection criteria, such as validity period, group counter, planning status, planner group, and the profile for processing routings to define which routings are to be taken into account for the calculation.



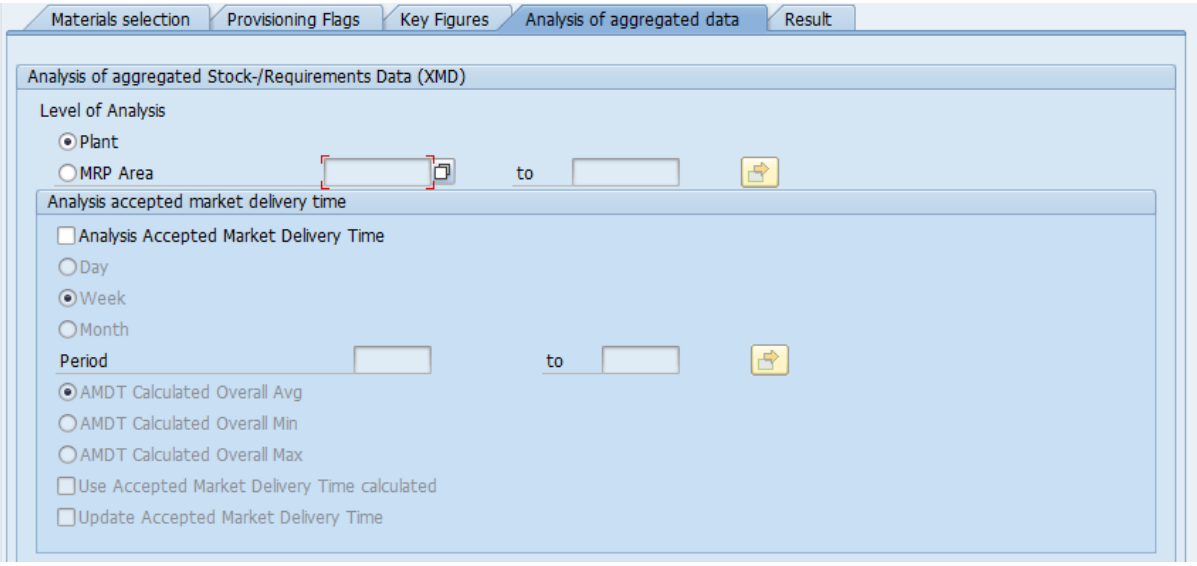
Selection Screen: Routing

In the section *Production Version*, you specify whether the number of valid production versions for the selected materials is to be calculated and displayed as an additional key figure on the results screen.

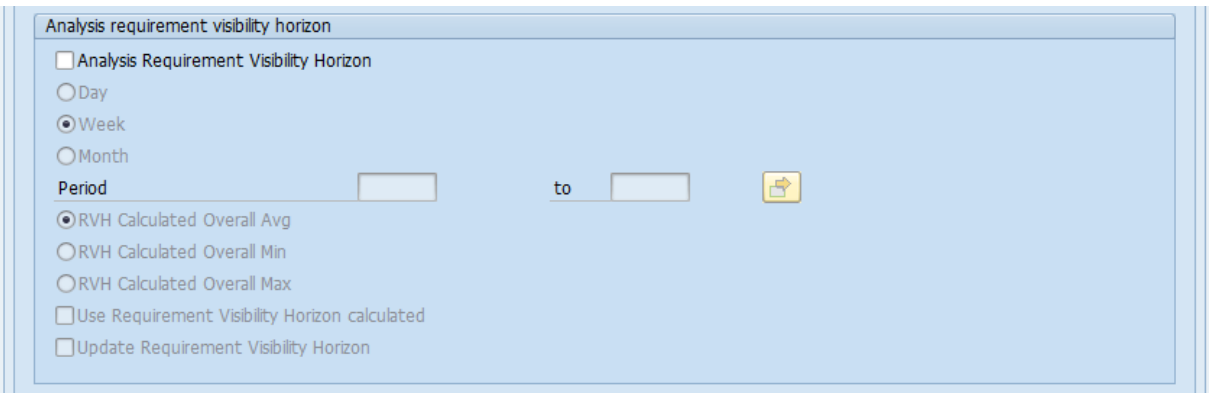


Selection Screen: Production Version

On the *Analysis of Aggregated Data* tab, you can calculate the accepted market delivery time and the demand visibility horizon, and use this to determine the stocking indicator. The values determined can also be stored in the **enhanced material master view**. To be able to determine and use these key figures, you must have made the relevant settings for the **XMD** tool and have executed the corresponding XMD jobs in advance. For more information, see the configuration of the **comprehensive functions** at Stock/Requirements List.



Accepted Market Delivery Time Analysis Selection Screen

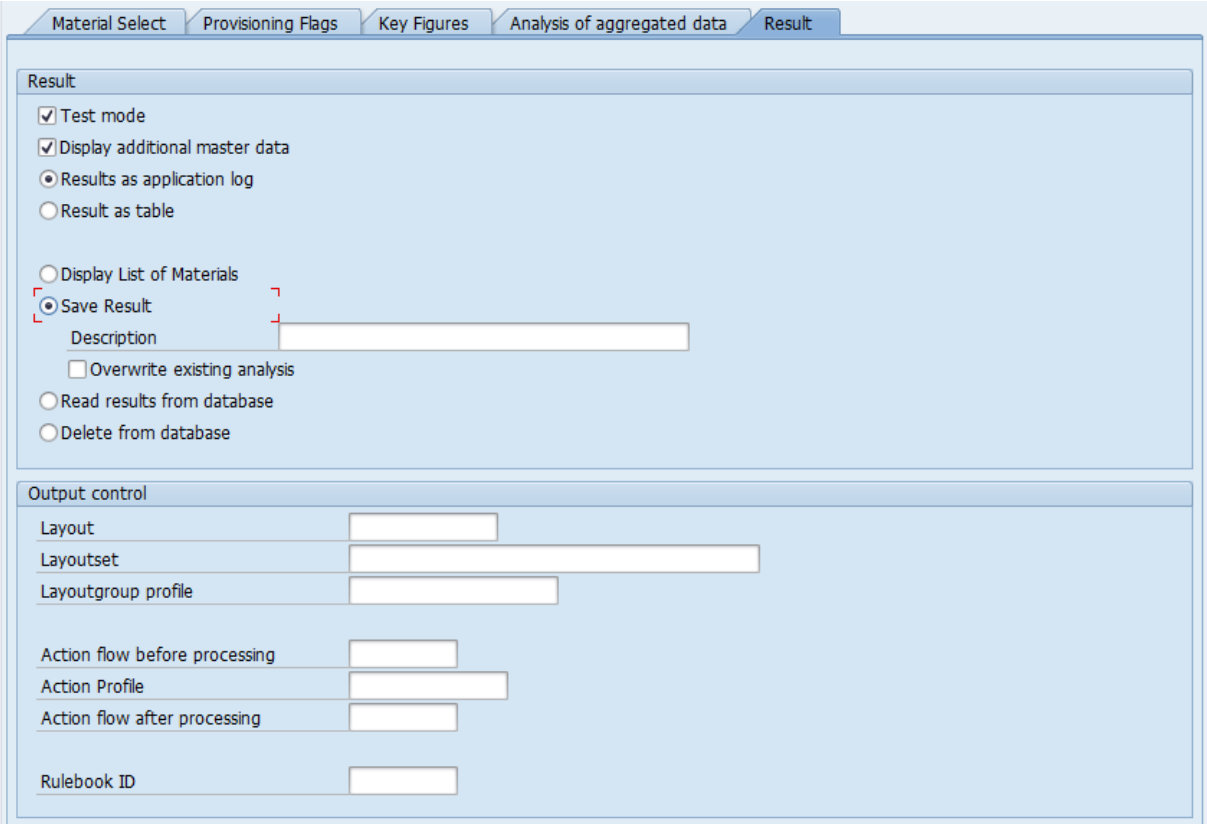


Selection Screen: Demand Visibility Horizon Analysis

On the *Result* tab, you first define the **SLM** execution and output mode. You can run the execution in test mode without updating parameters in the material master. If the consulting solution is not executed in test mode, the parameters determined, such as a stocking indicator, are saved directly to the corresponding fields in the **enhanced material master**. The application log or a table is available for results output.

In addition to the display, you can also save the result. This can also be loaded and displayed in a later **SLM** run. Results that are no longer used can be deleted from the database.

In the *Output Control* block, you can make settings for the *Layout*, *Layout Set*, and *Layout Group Profile*. If the user stores an *Action Profile*, actions can be defined before and after execution. As a result, the **SLM** can be integrated into a business process. The rule book ID comes from the default system and can also be specified here.



Selection Screen: Result

Related Information

Documentation on the consulting solution **comprehensive functions**
Documentation on the consulting solution **capacity requirement planning cockpit**
Individual Material Groups
Action Sequences
Proposals Management

3.1.2 Determining Stocking Indicator - Logics

Various logics are available in the **stock level monitor** for determining the stocking indicator. By selecting a checkbox on the selection screen, you can determine based on which criterion a stocking indicator is to be determined. Each of the logics has individual input parameters that must be maintained or determined beforehand. The logics are independent of each other and can be selected individually. Multiple selection is also possible because there are individual fields in the **enhanced material master view** for each logic.

The following logics are available for automatically determining the stocking indicator within the **SLM**: Determining stocking indicator based on

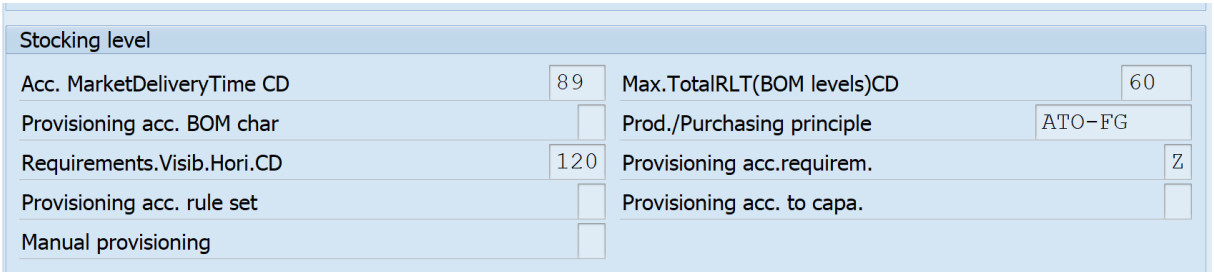
- BOM characteristics: Accepted market delivery time, maximum total replenishment lead time
- Capacity characteristics: Future-oriented, bottleneck offer

- Demand characteristics: Demand visibility horizon

In addition to automated determination of the stocking indicator using the **SLM**, it is also possible to determine a stocking indicator according to the rule set. For more information on the rule set, see the documentation of the **comprehensive functions** at Maintaining Rule Sets. It is also possible to assign a manual stocking indicator.

The determined or maintained stocking indicators and the input parameters relevant for certain logics can be found in the **enhanced material master view**.

It is also possible to perform a sourcing risk analysis to mitigate it. It examines the countries of origin and the number of different sources of supply.



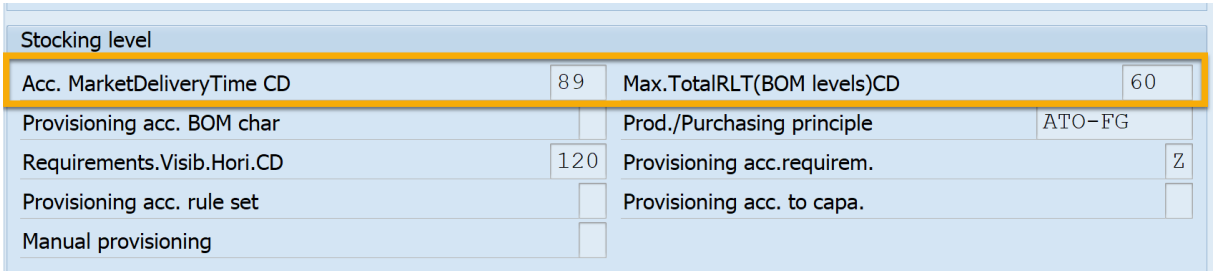
Enhanced Material Master View: Relevant Fields for the SLM

3.1.2.1 BOM Characteristics

The aim of determining a stocking indicator based on BOM characteristics is to be able to comply with an accepted market delivery time or maximum total replenishment lead time through systematic stocking.

To determine the stocking indicator by means of BOM characteristics, first select the relevant checkbox on the *Stocking Indicator* tab of the selection screen.

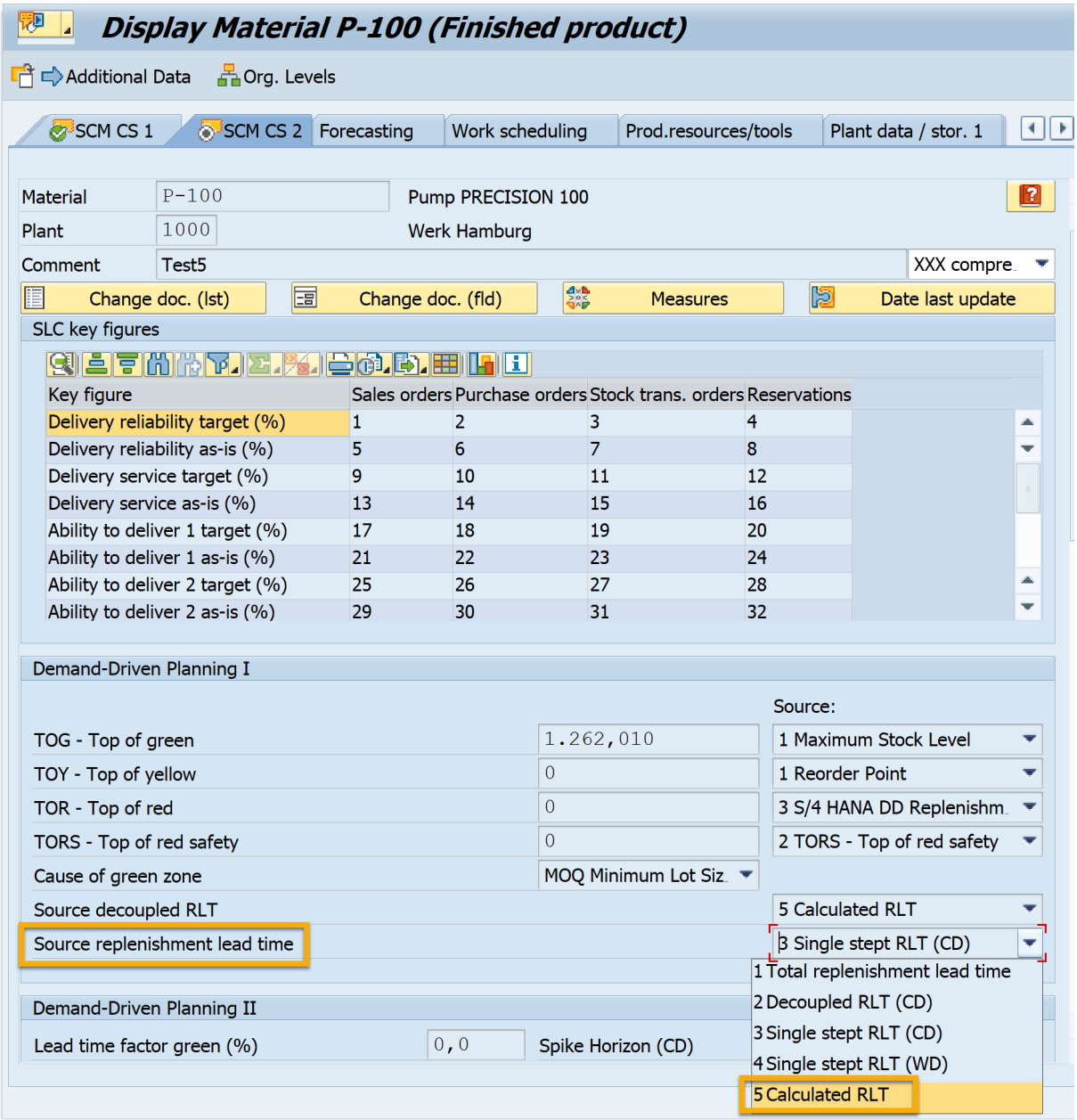
SLM now uses the cumulated replenishment lead times over several BOM levels to check when stocking should take place. Relevant parameters that are checked are the *Accepted Market Delivery Time* and *Maximum Total Replenishment Lead Time*. You can determine these parameters yourself in planning and maintain them in the **enhanced material master view**. Both values are maintained in calendar days. It is also possible to work with only one of the two parameters.



BOM Analysis: Relevant Parameters in the enhanced material master view

For the accepted market delivery time, it is still possible to determine a calculated value and then use it in the analysis. You make the necessary settings in the *XMD* section of the selection screen.

You can define which replenishment lead time is used in the check for each material in the **enhanced material master view**:



Enhanced material master view: Replenishment Lead Time Source

In the **enhanced material master view**, you can use the dropdown list to select which replenishment lead time is to be used. The following overview illustrates the origin and calculation of the different replenishment lead times.

Calculated RLT

Inhouse production

1) Lot-size-independent RLT = inhouse production time (MRP 2, workdays) + goods receipt processing time (MRP 2, working days)

2) Lot-size-dependent RLT = setup time + processing time x lot size / base unit of measure + interoperation time (all parameters in work scheduling view, working days) + goods receipt processing time (MRP 2, working days)

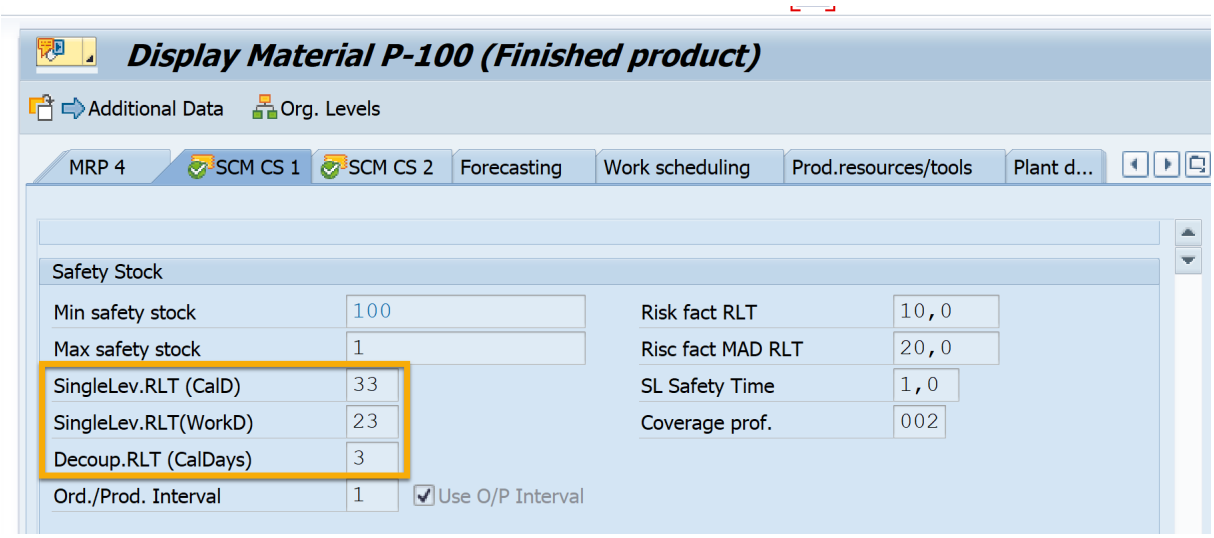
Approach to lot-sizing for lot-size-dependent RLT:

Use fixed lot size (if fixed lot size available), otherwise use base unit of measure while taking minimum/ maximum lot size into account.

External procurement

Purchasing processing time (plant Customizing, working days) + planned delivery time (MRP 2, calendar days) + goods receipt processing time (MRP 2, working days)

The parameters Decoupled RLT (CD), One-Level RLT (CD), and One-Level RLT (WD) are read from the **enhanced material master view**.



Enhanced material master view: Replenishment Lead Times

Note that working days are converted to calendar days for the calculation within SLM. For this, the values are multiplied by 7 and divided by 5.

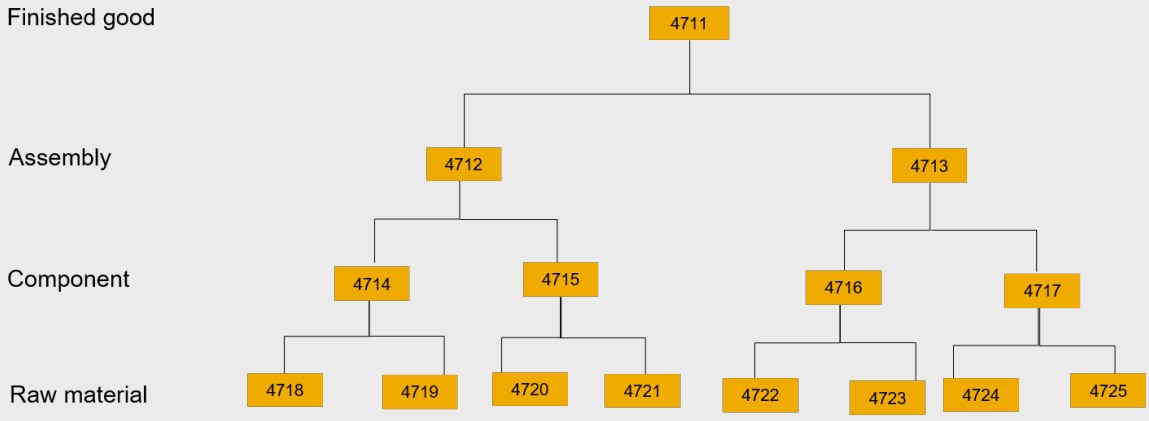
> **Example**
>
> Material 4711 has a replenishment lead time of 14 working days. A conversion using the formula results in a replenishment lead time of 10 calendar days.
>
> RLT 4711 (CD) = 14*7/5 = 10

The following example illustrates the determination logic of the stocking indicator based on BOM characteristics.

Example

For header material 4711, the BOM is exploded and checked against the accepted market delivery time and total replenishment lead time maintained in the material master. The example material has the following BOM:

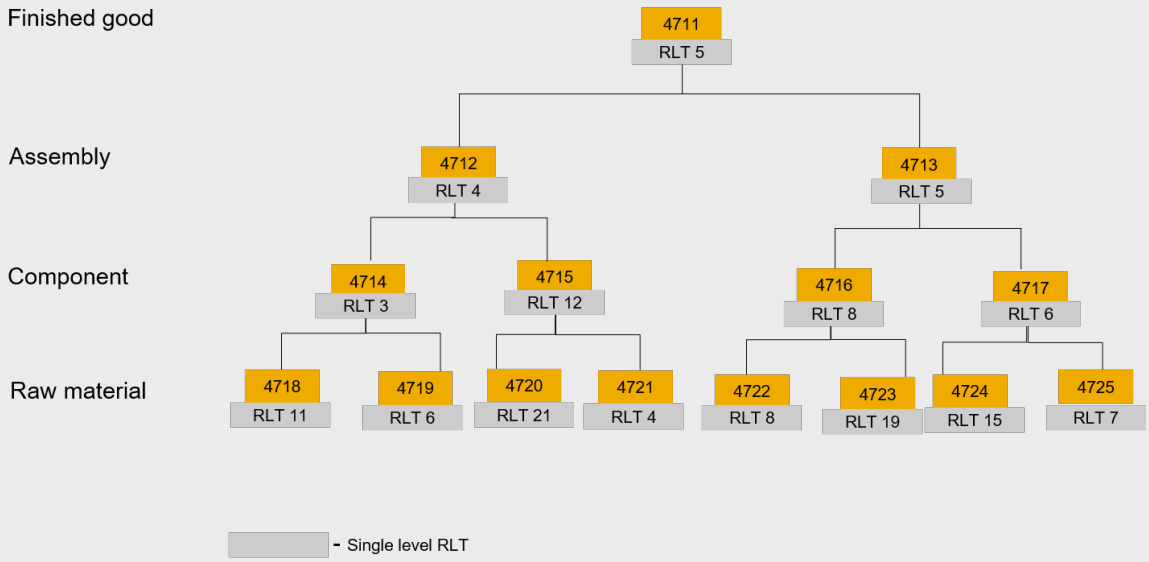
BOM structure



Example of BOM Analysis: BOM Structure

Based on the selected RLT source, the single-level replenishment lead times per material are determined and, if necessary, converted from working days to calendar days.

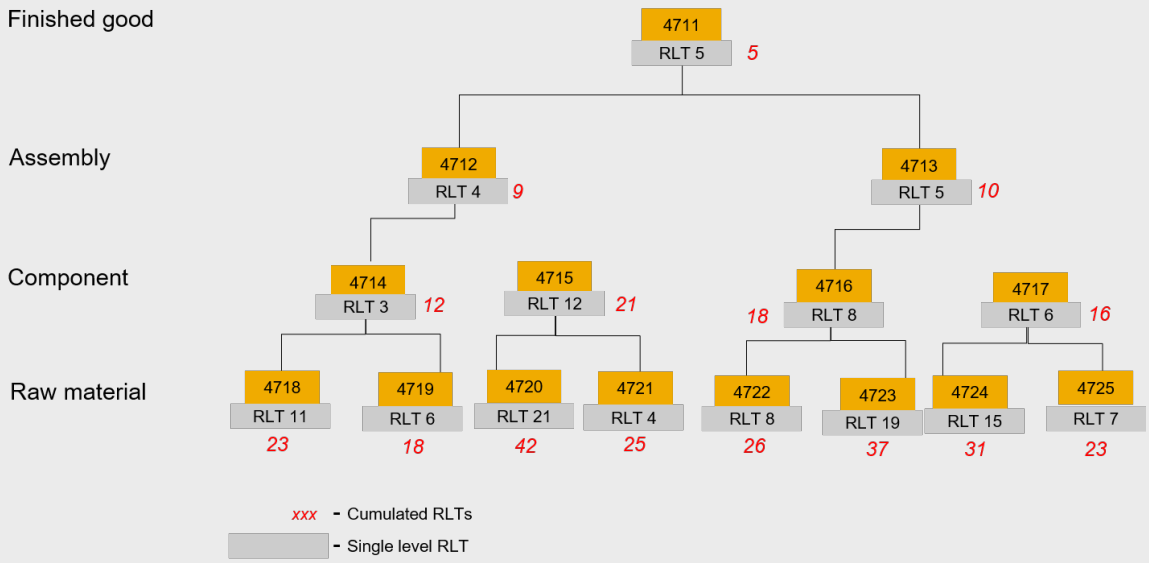
BOM structure with RLTs



Example of BOM Analysis: BOM Structure with Single-Level Replenishment Lead Times

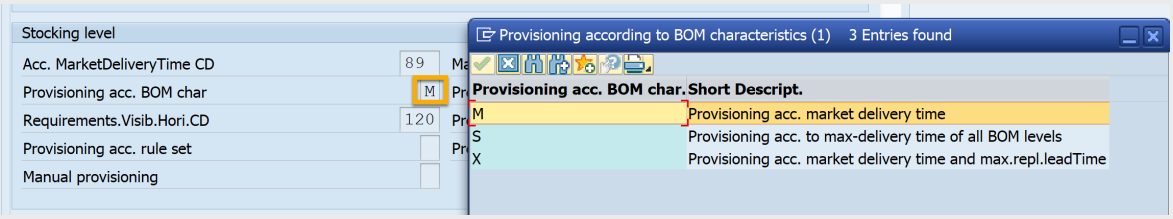
The single-level replenishment lead times are then cumulated.

BOM structure with RLTs



Example of BOM Analysis: BOM Structure with Cumulated Replenishment Lead Times

As soon as the accepted market delivery time or maximum total replenishment lead time is exceeded by the cumulated times, a stocking indicator is set. This can be updated in the **enhanced material master view** in the *Stocking According to BOM* field.



Enhanced material master view: Stocking Indicator According to BOM Characteristics

Depending on which criterion is used to make the stocking decision, a different identification code is assigned for the stocking indicator.

The following stocking indicators are available:

- M – Stocking according to market delivery time
- S – Stocking according to maximum total replenishment lead time
- X – Stocking according to accepted market delivery time and maximum total replenishment lead time

The determination or update takes place in accordance with the defined stocking level. You differentiate between the following:

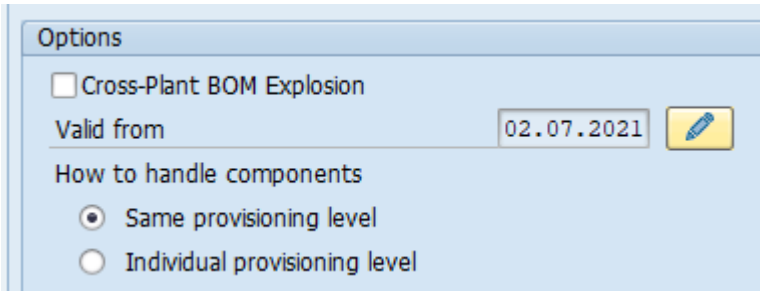
- Same stocking level
- Individual stocking level

In the case of the same stocking level, stocking always takes place for an entire BOM level as soon as a stocking indicator is set for a component/assembly of this level.

In the case of the individual stocking level, the system checks for each branch of the BOM where stocking is to take place. Stocking does not take place at the level of an entire BOM level, but individually for each material.

3.1.2.1.1 Same Stocking Level

On the selection screen, the option *same stocking level* is selected.

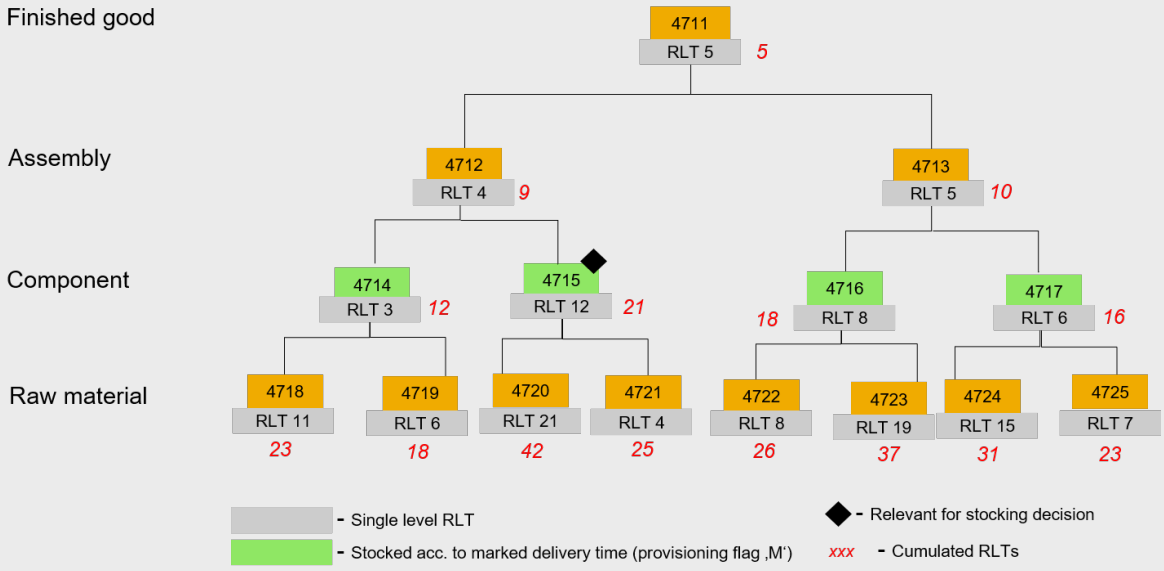


Determining Stocking Level: Same Stocking Level

As soon as the stocking indicator is set for a material of a BOM level according to the accepted market delivery time or the accepted total replenishment lead time, it is also set for all other materials of the same level in the same way. The **SLM** ends the analysis and lower BOM levels are not checked or stocked further.

Example

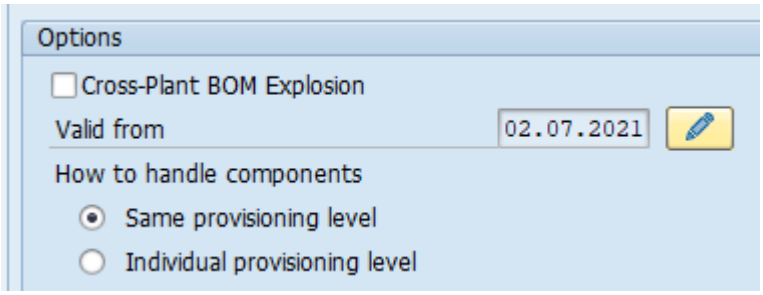
In this example, 20 days is maintained as the accepted market delivery time for header material 4711 in the material master. Material 4715 has a cumulated replenishment lead time of 21 days. Since 21>20, the stocking indicator is set for material 4715. By selecting the same stocking level, the stocking indicator 'M' is also set for 4714, 4716, and 4717.



Example: Determining Stocking Indicator Based on Accepted Market Delivery Time, Same Stocking Level

3.1.2.1.2 Individual Stocking Level

On the selection screen, the option *individual stocking level* is selected.

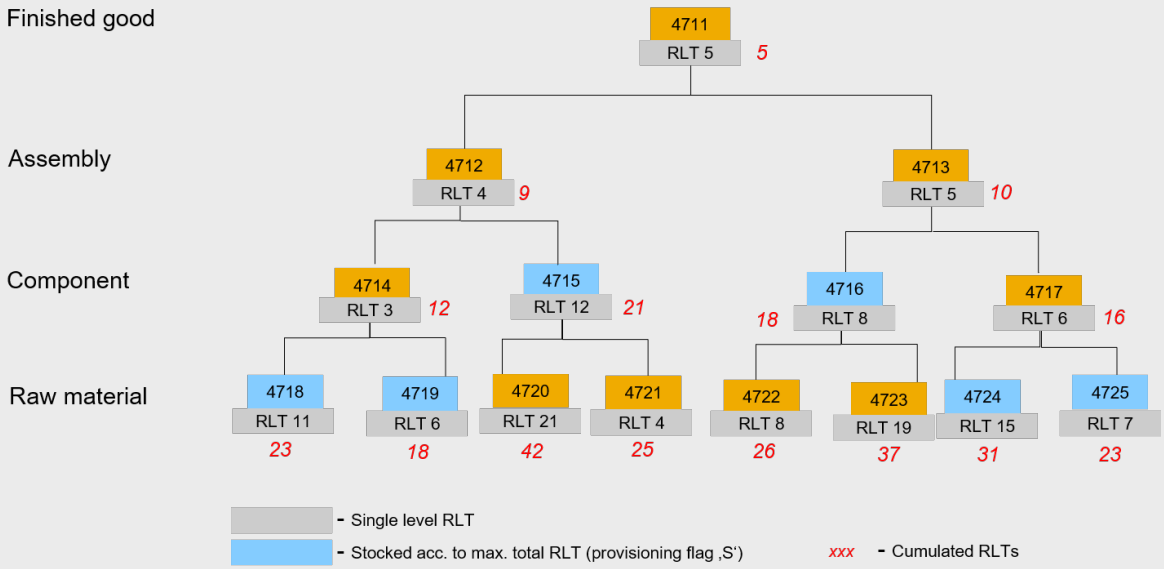


Determining Stocking Level: Individual Stocking Level

This option is used to check for each material/component individually whether stocking should take place, and if so, at which level.

Example

In this example, 17 days is maintained as the maximum total replenishment lead time for header material 4711 in the material master.



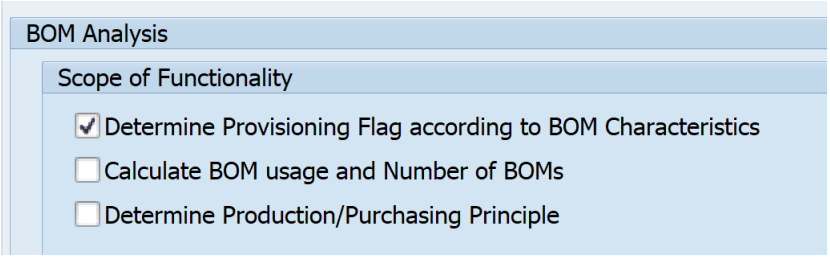
Example: Determining the Stocking Indicator Using the Maximum Total Replenishment Lead Time, Individual Stocking Level

Since the cumulated replenishment lead times of the blue materials are longer than 17 days, a stocking indicator – in this case S – is set for them.

3.1.2.1.3 Stocking According to BOM Characteristics

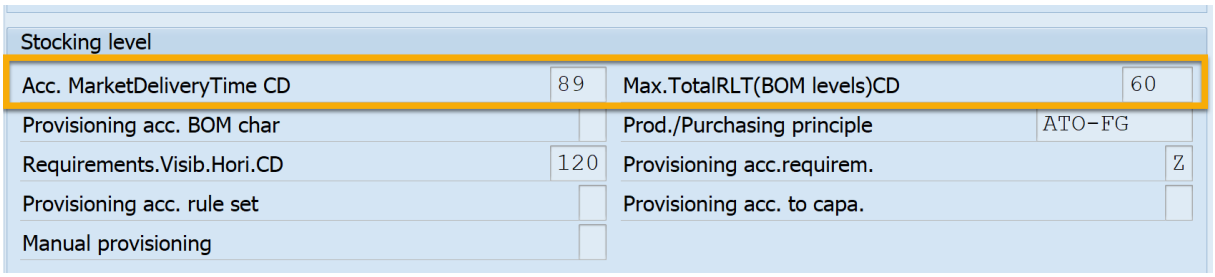
The aim of determining a stocking indicator based on BOM characteristics is to be able to comply with an accepted market delivery time or maximum total replenishment lead time through systematic stocking.

To determine the stocking indicator by means of BOM characteristics, first select the relevant checkbox on the selection screen.



BOM Analysis: Relevant Settings on the Selection Screen

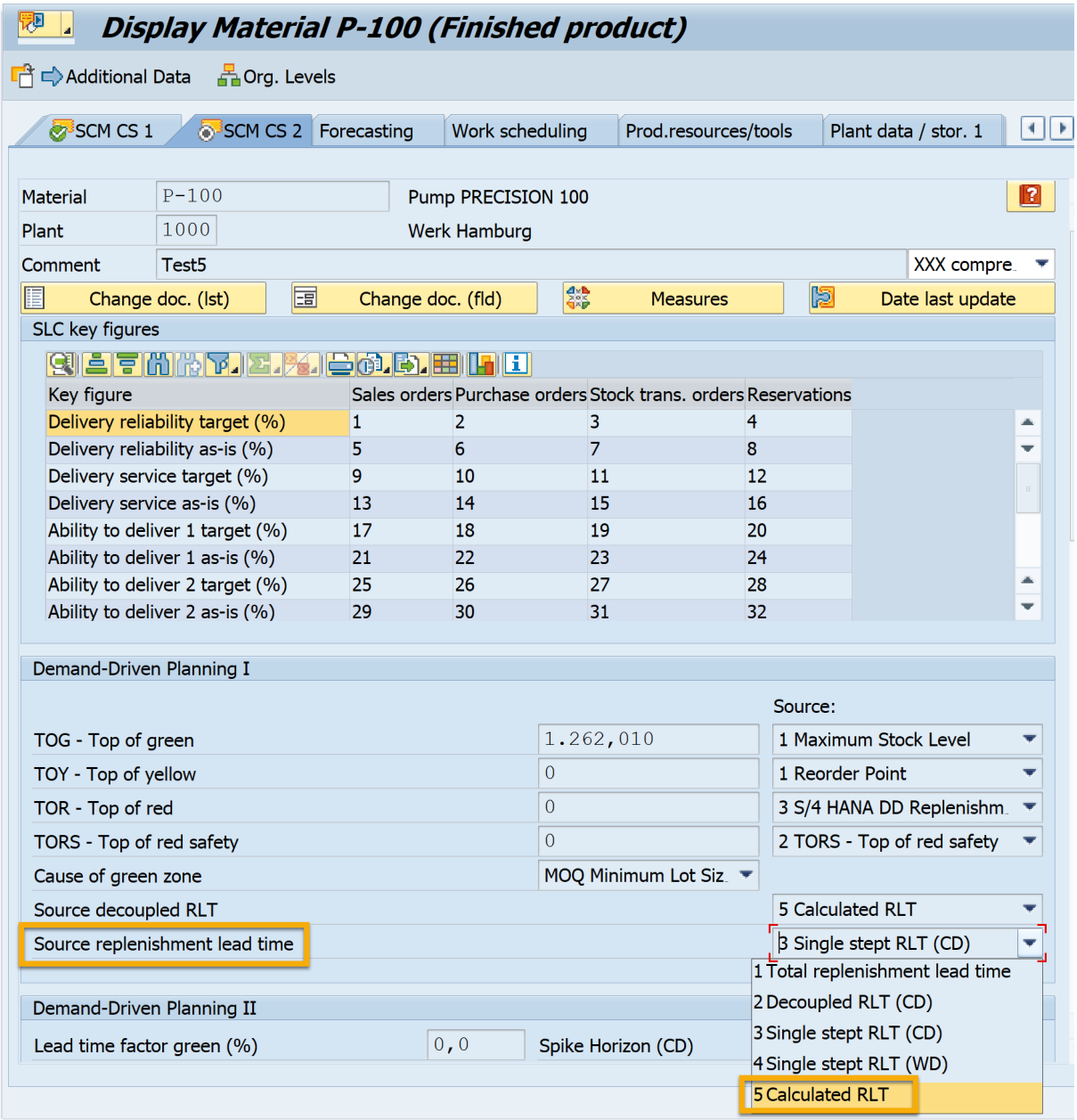
SLM now uses the cumulated replenishment lead times over several BOM levels to check when stocking should take place. Relevant parameters that are checked are the *Accepted Market Delivery Time* and *Maximum Total Replenishment Lead Time*. You can determine these parameters yourself in planning and maintain them in the **enhanced material master view**. Both values are maintained in calendar days. It is also possible to work with only one of the two parameters.



BOM Analysis: Relevant Parameters in the enhanced material master view

For the accepted market delivery time, it is still possible to determine a calculated value and then use it in the analysis. You make the necessary settings in the *XMD* section of the selection screen.

You can define which replenishment lead time is used in the check for each material in the **enhanced material master view**:



Enhanced material master view: Replenishment Lead Time Source

In the **enhanced material master view**, you can use the dropdown list to select which replenishment lead time is to be used. The following overview illustrates the origin and calculation of the different replenishment lead times.

Calculated RLT

Inhouse production

1) Lot-size-independent RLT = inhouse production time (MRP 2, workdays) + goods receipt processing time (MRP 2, working days)

2) Lot-size-dependent RLT = setup time + processing time x lot size / base unit of measure + interoperation time (all parameters in work scheduling view, working days) + goods receipt processing time (MRP 2, working days)

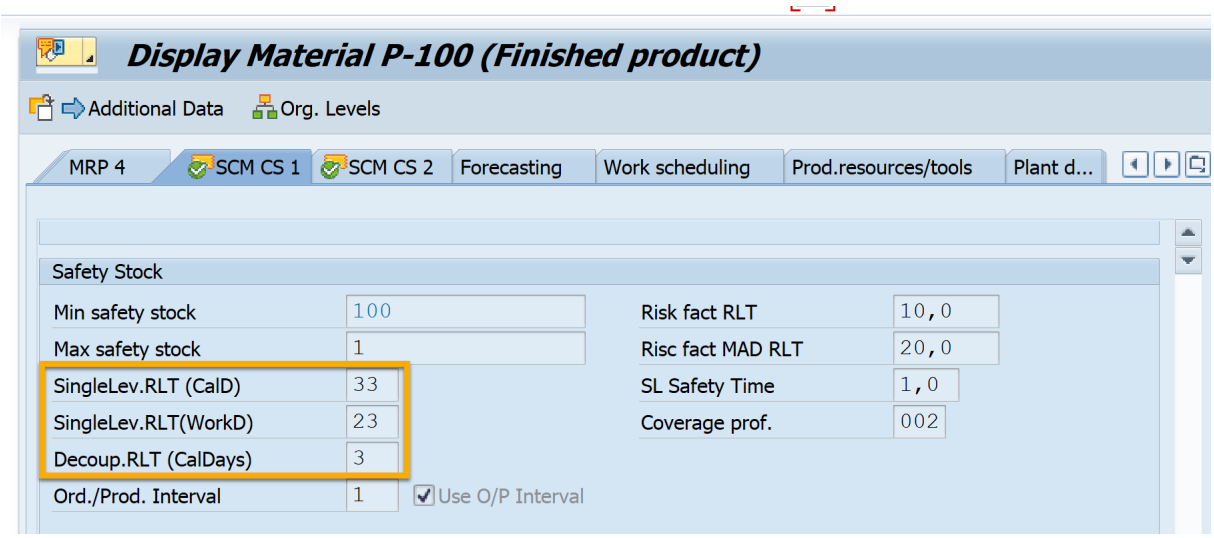
Approach to lot-sizing for lot-size-dependent RLT:

Use fixed lot size (if fixed lot size available), otherwise use base unit of measure while taking minimum/ maximum lot size into account.

External procurement

Purchasing processing time (plant Customizing, working days) + planned delivery time (MRP 2, calendar days) + goods receipt processing time (MRP 2, working days)

The parameters Decoupled RLT (CD), One-Level RLT (CD), and One-Level RLT (WD) are read from the **enhanced material master view**.



Enhanced material master view: Replenishment Lead Times

Note that working days are converted to calendar days for the calculation within SLM. For this, the values are multiplied by 7 and divided by 5.

> **Example**
>
> Material 4711 has a replenishment lead time of 14 working days. A conversion using the formula results in a replenishment lead time of 10 calendar days.
>
> RLT 4711 (CD) = 14*7/5 = 10

The following example illustrates the determination logic of the stocking indicator based on BOM characteristics.

Example

For header material 4711, the BOM is exploded and checked against the accepted market delivery time and total replenishment lead time maintained in the material master. The example material has the following BOM:

Example of BOM Analysis: BOM Structure

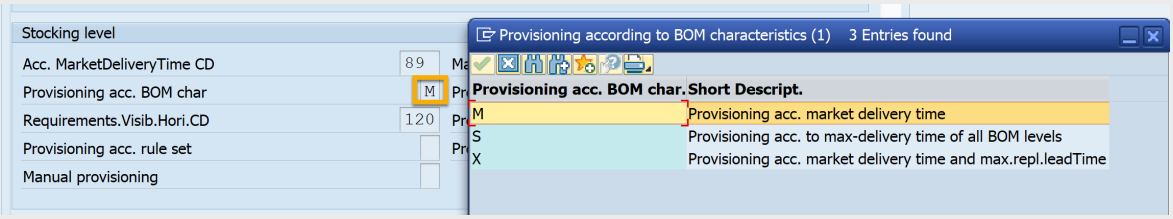
Based on the selected RLT source, the single-level replenishment lead times per material are determined and, if necessary, converted from working days to calendar days.

Example of BOM Analysis: BOM Structure with Single-Level Replenishment Lead Times

The single-level replenishment lead times are then cumulated.

Example of BOM Analysis: BOM Structure with Cumulated Replenishment Lead Times

As soon as the accepted market delivery time or maximum total replenishment lead time is exceeded by the cumulated times, a stocking indicator is set. This can be updated in the **enhanced material master view** in the *Stocking According to BOM* field.



Enhanced material master view: Stocking Indicator According to BOM Characteristics

Depending on which criterion is used to make the stocking decision, a different identification code is assigned for the stocking indicator.

The following stocking indicators are available:

- M – Stocking according to market delivery time
- S – Stocking according to maximum total replenishment lead time
- X – Stocking according to accepted market delivery time and maximum total replenishment lead time

The determination or update takes place in accordance with the defined stocking level. You differentiate between the following:

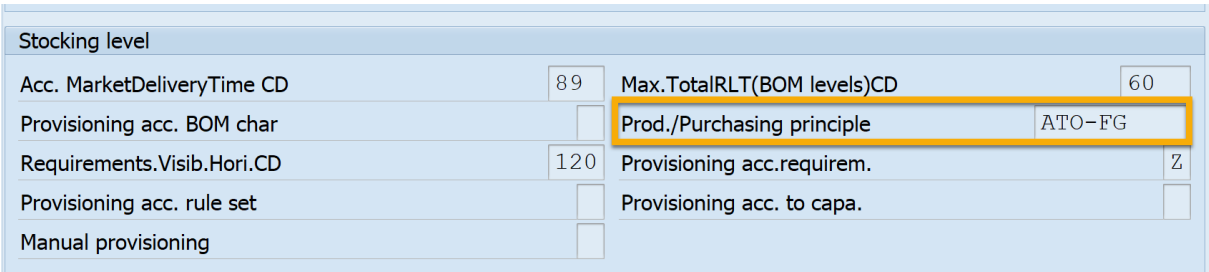
- Same stocking level
- Individual stocking level

In the case of the same stocking level, stocking always takes place for an entire BOM level as soon as a stocking indicator is set for a component/assembly of this level.

In the case of the individual stocking level, the system checks for each branch of the BOM where stocking is to take place. Stocking does not take place at the level of an entire BOM level, but individually for each material.

3.1.2.1.4 Determination of Manufacturing/Procurement Principle

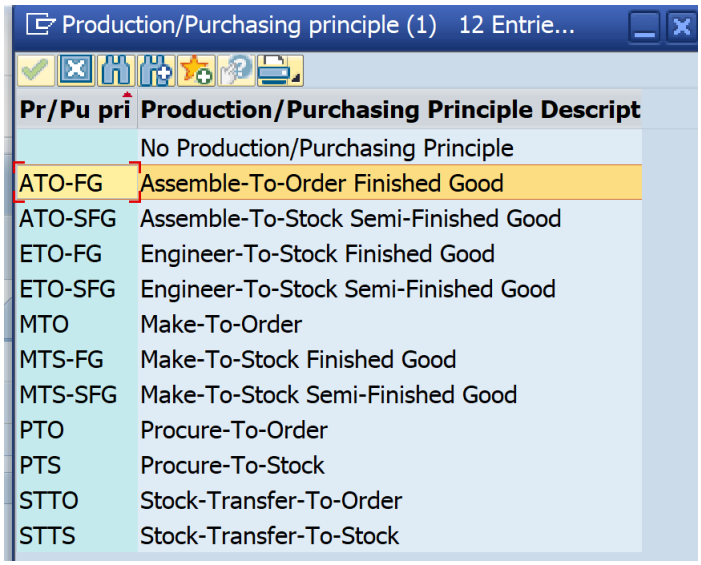
Based on the determined stocking indicators and the material characteristics, "procurement type", "special stock indicator", and "BOM level", the manufacturing/procurement principle can be identified in the **stock level monitor** and saved in the **enhanced material master view**.



Enhanced Material Master View: Production/Procurement Principle

This is additional information that can be used, for example, as input for automatic assignment of planning strategies through a rule set.

The F4 help displays the available procedures:



Enhanced Material Master View: Available Principles - Production/Procurement Principle

The following table provides an overview of determination and assignment of strategies to materials:

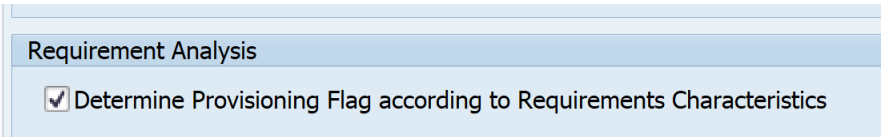
Principle	Name	Provisioning indicator	BOM level	Procurement type (MARC-SOBSL resp. T460-BESKZ)
STTO	Stock-Transfer-To-Order	Blank	*	Stock transfer-SOBSL
STTS	Stock-Transfer-To-Stock	x	*	Stock transfer-SOBSL
PTO	Procure-To-Order	Blank	*	F, no Stock transfer-SOBSL
PTS	Procure-To-Stock	x	*	F, no Stock transfer-SOBSL
ATO-FG	Assemble-To-Order-Finished Goods	Blank	Provisioning indicator on level below or no provisioning indicator, finished good	X, E
ATO-SFG	Assemble-To-Order-Semi-finished Goods	blank	Provisioning indicator on level below or no provisioning indicator, no finished good	X, E
MTO	Make-To-Order	Blank	Provisioning indicator on level above	X, E
MTS-FG	Make-To-Stock-Finished Good	x	Finished good	X, E
MTS-SFG	Make-To-Stock-Semi-Finished Good	x	No finished good	X, E
ETO-FG	Engineer-To-Order-Finished Good	Manual		
ETO-SFG	Engineer-To-Order-Semi-Finished Good			

Production Procurement Principle: Determination Overview

3.1.2.2 Demand Characteristics

The aim of determining a stocking indicator based on the demand is to be able to satisfy the demand within a certain period (future-oriented) through systematic stocking.

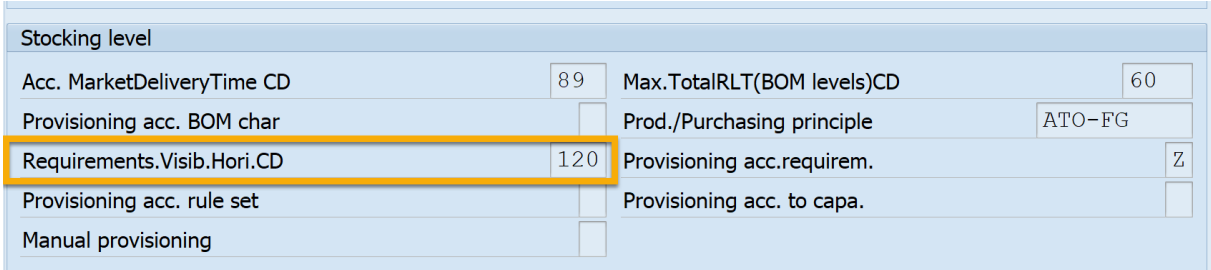
To determine the stocking indicator by means of demands, first select the relevant checkbox on the selection screen.



Demand Analysis: Selection

The **Replenishment Lead Time** per part and the **Demand Visibility Horizon** are required as **input parameters**. The demand visibility horizon specifies how long in the future demands exist or are to be fulfilled. You can

determine the demand visibility horizon manually or automatically. The parameter is maintained in calendar days in the **enhanced material master view**:



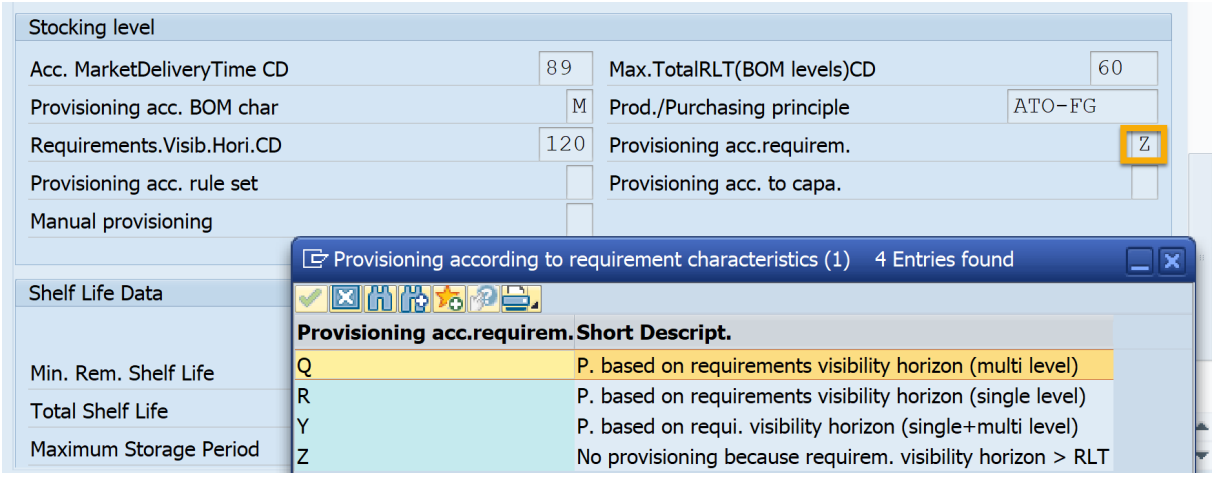
Demand Analysis: Relevant Parameters in enhanced material master view

You make the settings for automatic determination in section *XMD*. To be able to determine and use the demand visibility horizon, you must have made the relevant settings for the **XMD** tool and have executed the corresponding XMD jobs in advance. For more information, see Stock/Requirements List in the Configuration Guide for the comprehensive functions.

Depending on which criterion is used to make the stocking decision, a different identification code is assigned for the stocking indicator.

The following stocking indicators are available:

- Q – Stocking according to demand visibility horizon (multi level)
- R – Stocking according to demand visibility horizon (single level)
- Y – Stocking according to demand visibility horizon (single + multi level)
- Z – No stocking since demand visibility horizon > RLT



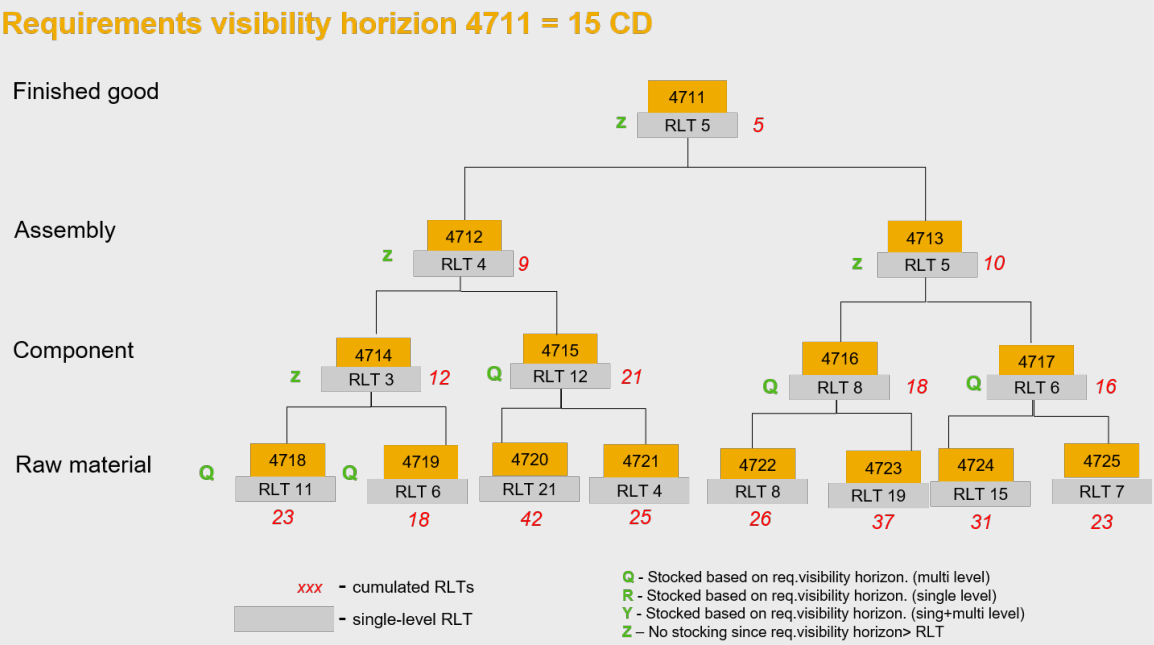
Demand Analysis: Available Stocking Indicators

The **stock level monitor** checks whether and when the single-level or cumulated replenishment lead times exceed the demand visibility horizon, and sets a stocking indicator accordingly. The stocking indicators are divided into "single level": Stocking according to the single-level RLT and "multi level": Stocking according to the cumulated RLT.

The following examples explain the inspection logic for the analysis of one or more materials according to demand.

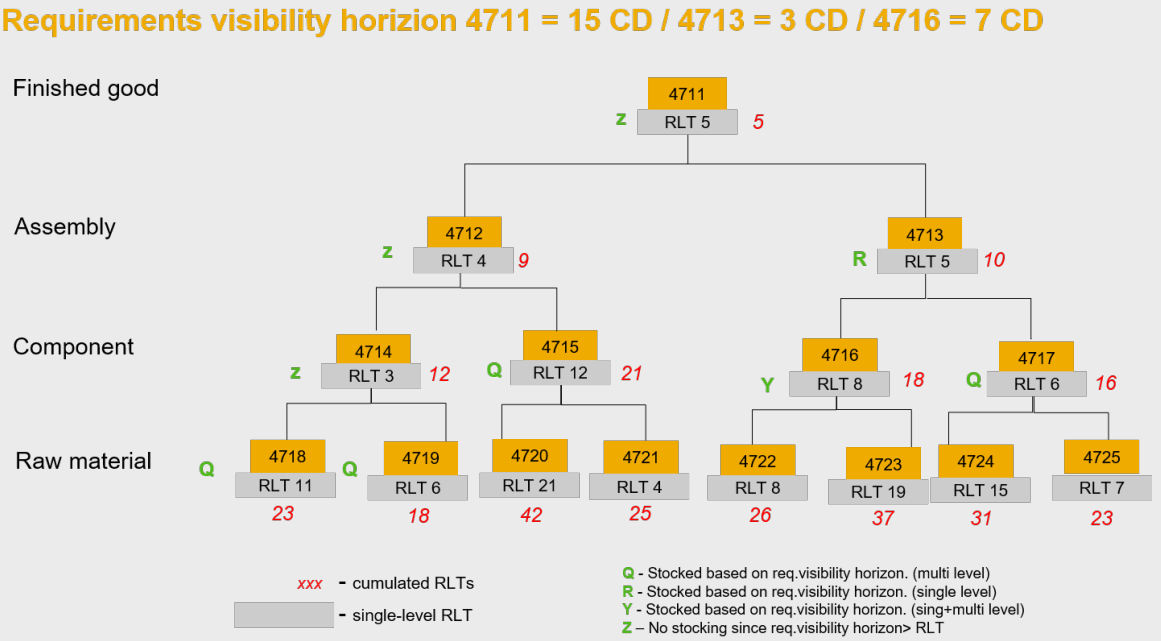
Example

For material 4711, a demand visibility horizon of 15 calendar days is maintained in the material master. The **SLM** now checks whether/when the single-level or cumulated replenishment lead times are exceeded. Since the cumulated RLT for materials 4715, 4716, 4717, 4718, and 4719 are > 15 calendar days, the indicator Q is set. Indicator Z is always set if no stocking decision has been made for the respective branch in the BOM and the **SLM** continues the check in the lower BOM level. No stocking indicator (indicator remains empty) is set if a stocking decision has already been made in the higher-level BOM level for the respective branch in the BOM and the **SLM** has therefore completed the check.



Determination of Stocking Indicator According to Demand, Example 1

In the second example, several materials are included in the selection and checked against the demand visibility horizon. Material 4713 has a demand visibility horizon of 3 calendar days maintained in the material master. Since the single-level RLT of material is 5 calendar days, the indicator 'R' is set. Material 4716 has a demand visibility horizon of 7 calendar days maintained in the material master. The single-level RLT of this material is 8 calendar days, which means that stocking is performed. Since the cumulated RLT based on header material 4711 is also exceeded for material 4716 (18 CD> 15 CD as defined in the material master of 4711), there is also stocking according to the cumulated replenishment lead times. This combination of single and multi level stocking decision sets the 'Y' indicator.



Determination of Stocking Indicator According to Demand, Example 2

Related Information

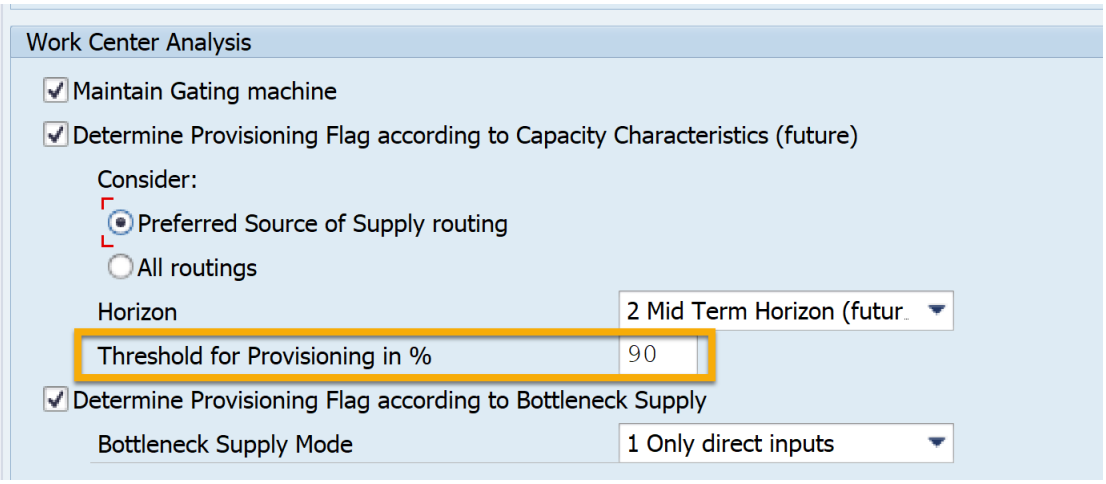
Stock/Requirements List

3.1.2.3 Capacity Characteristics

> **i** Note
>
> To use this analysis, you must also use the consulting solution **CRP – capacity requirements planning cockpit –** and perform an analysis in advance, as well as fill the table */SAPLOM/CEH_CR01* with the relevant data.
>
> For more information on **CRP**, see .

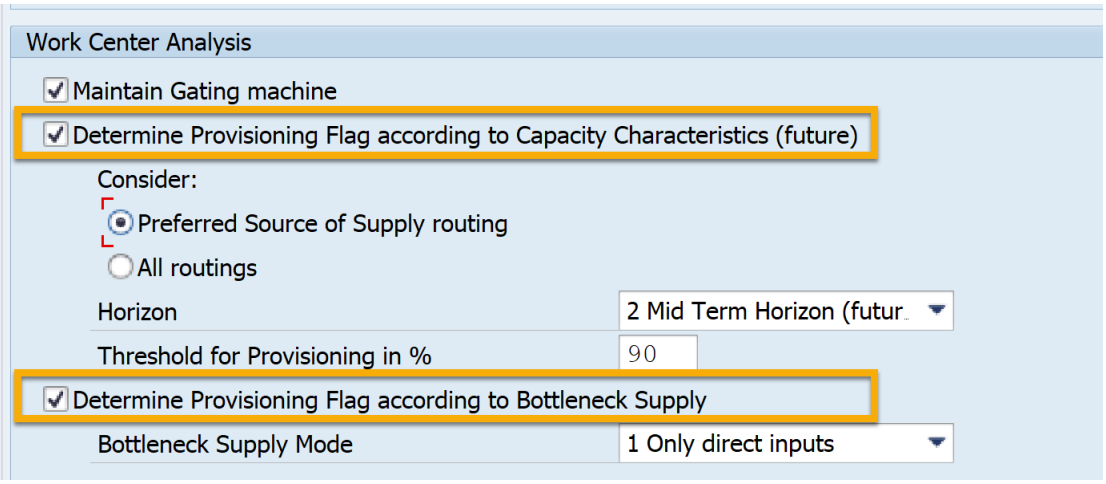
This approach is based on the fact that a material is produced on different resources (work centers), each of which has individual available capacity. For those resources that are particularly heavily utilized, strategic storage ensures that there are always enough input materials available for production. You define the utilization limit value of a resource, that is, as of when stocking is to take place, on the selection screen.

All work centers that exceed the specified limit value for stocking and whose operations have been assigned a relevant control key for the scheduling and creation of capacity requirements are considered to be bottleneck resources in **SLM**.



Work Center Analysis: Limit Value for Stocking

The stocking indicator can be determined according to future capacity characteristics. For this, select the relevant checkbox on the selection screen. You also use dropdown to determine whether only assigned components or all preceding components are to be taken into account.

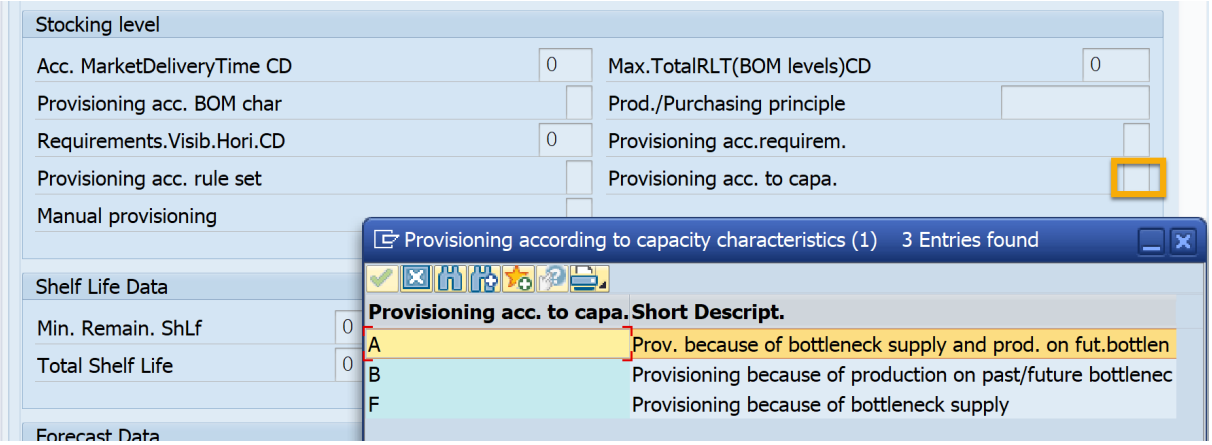


Work Center Analysis: Relevant Checkboxes

Depending on which criterion is used to make the stocking decision, a different identification code is assigned for the stocking indicator.

The following stocking indicators are available:

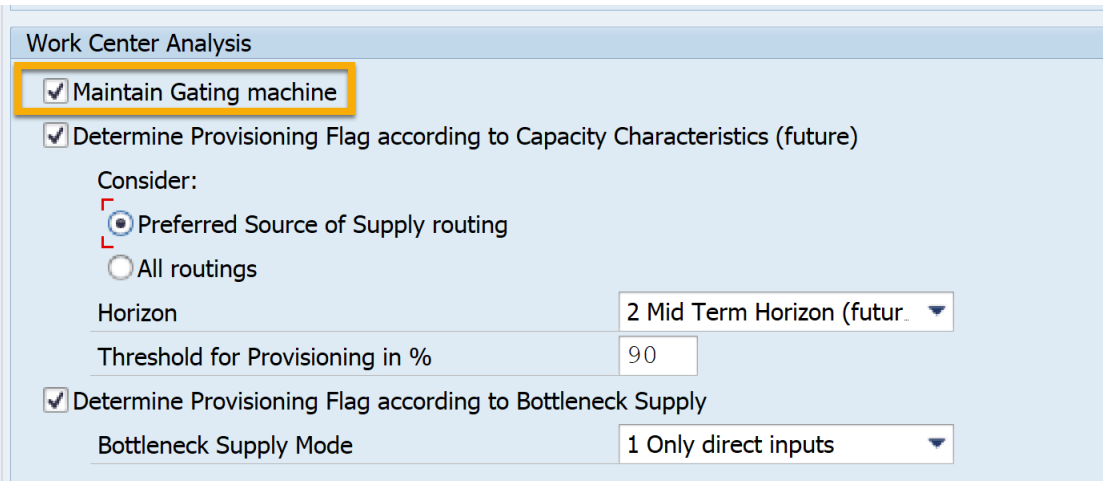
- A – Stocking due to bottleneck supply, production for future bottleneck
- B – Stocking due to production for past/future bottleneck
- F – Stocking due to bottleneck offer



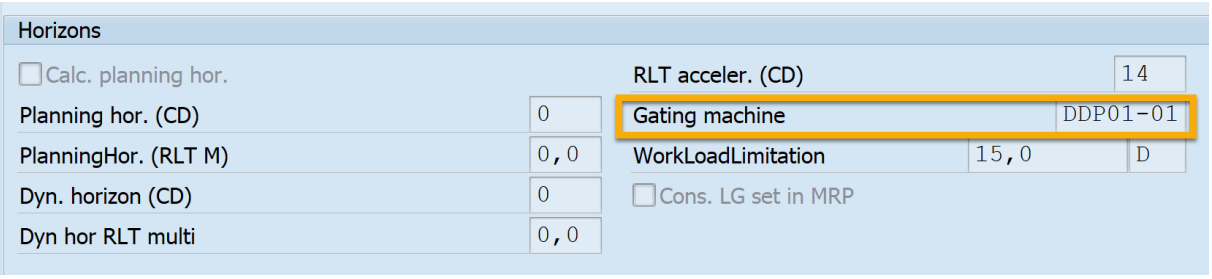
Enhanced material master view: Stocking Abbreviation According to Capacity

SLM uses the defined capacity characteristics to check which materials are to be stored and determines the stocking indicator.

If the option *Maintain Gating Machine* is selected on the selection screen, the gating machine determined for a material is updated in the **Enhanced material master view**.



Work Center Analysis: Selection for Updating Gating Machine



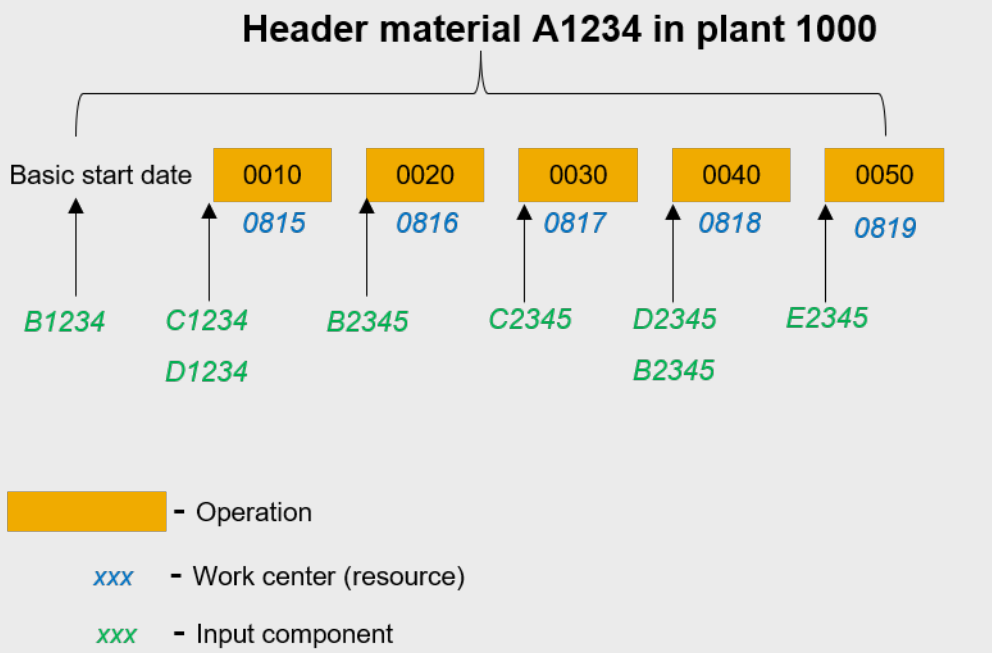
Work Center Analysis: Gating machine in the enhanced material master view

The gating machine is the work center with the highest capacity utilization in the selected horizon according to the entries in table **/SAPLOM/CEH_CR01**.

The following examples explain how the stocking indicator is determined based on capacity characteristics.

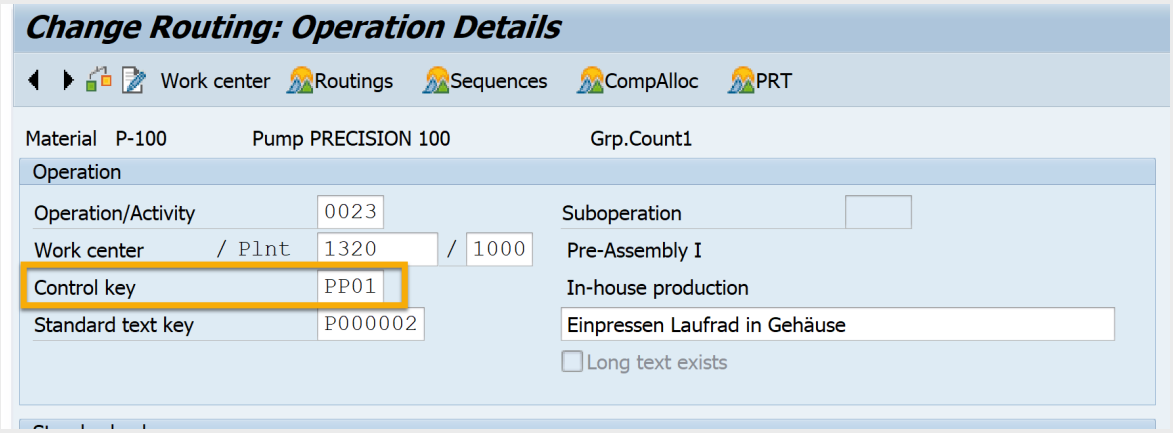
Example

Material A1234 is produced as a header material. Production contains several operations that are carried out at different work centers. One or more input components are required for each operation.

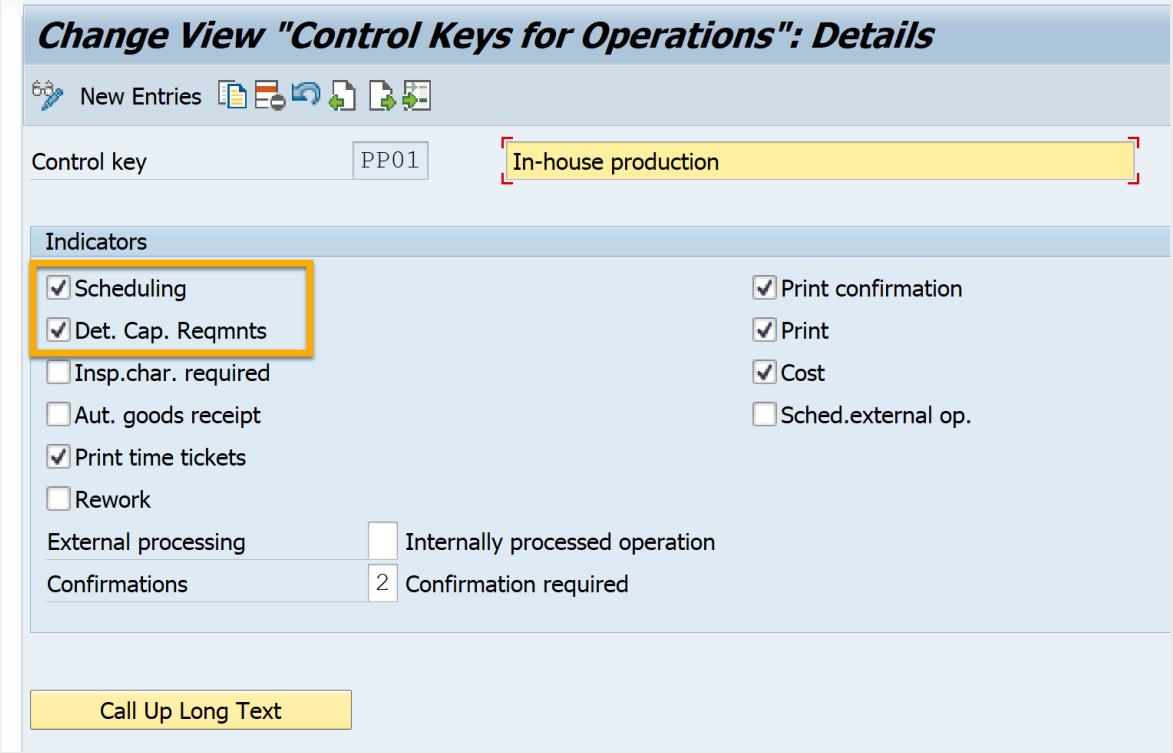


Example of Work Center Analysis: Operations, Work Centers, and Input Components

All operations are defined as relevant for scheduling and the creation of capacity requirements by means of the control key.



Work Center Analysis: Control Key in Operation Detail



Work Center Analysis: Control Key for Scheduling and Determining Capacity Requirements

The work centers involved in the production process have varying loads within the short-term, medium-term, and long-term horizons. The utilization in the overall horizon also differs for each work center.

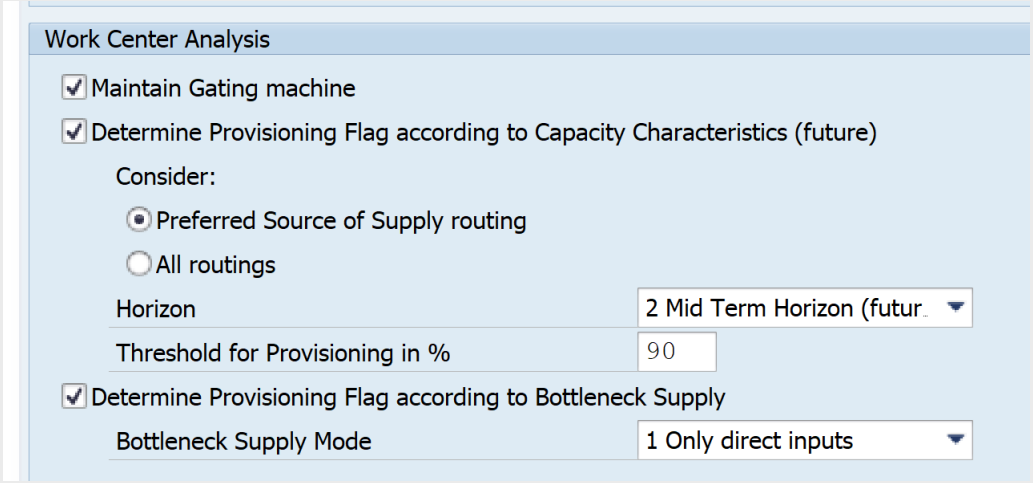
	0815	0816	0817	0818	0819
Short-term horizon (Future)	81,6%	75,4%	92,4%	95,4%	73,4%
Mid-term horizon (Future)	82,9%	76,3%	91,0%	90,1%	73,3%
Long-term horizon(Future)	81,9%	76,3%	84,0%	78,0%	73,3%
Entire horizon	82,3%	76,1%	88,9%	86,1%	73,3%

Example of Work Center Analysis: Utilization in Different Horizons

You define how many periods each horizon contains on the selection screen of the **CRP** tool. The relevant data is saved and read from table **/SAPLOM/CEH_CR01** by **SLM**.

Example 1.A.:

The *Medium-Term Horizon* is selected on the selection screen. The *Limit Value for Stocking* is set at 90%. *Only Assigned Components* are selected as the supply mode bottleneck.



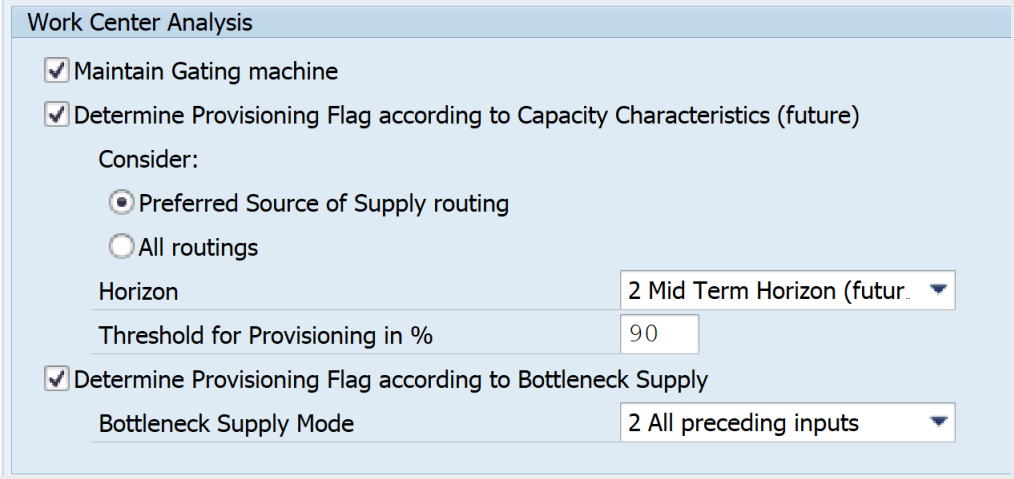
Work Center Analysis Example 1A: Settings on the Selection Screen

The **SLM** determines the following result:

- The gating machine is: 0817
- Stocking indicator B is set for material A1234 – stocking due to production for past/future bottleneck
- Stocking indicator F is set for material C2345 – stocking due to bottleneck offer

Example 1.B.:

The *Medium-Term Horizon* is selected on the selection screen. The *Limit Value for Stocking*is set at 90%. *All Predecessor Components* is selected as the bottleneck supply mode.



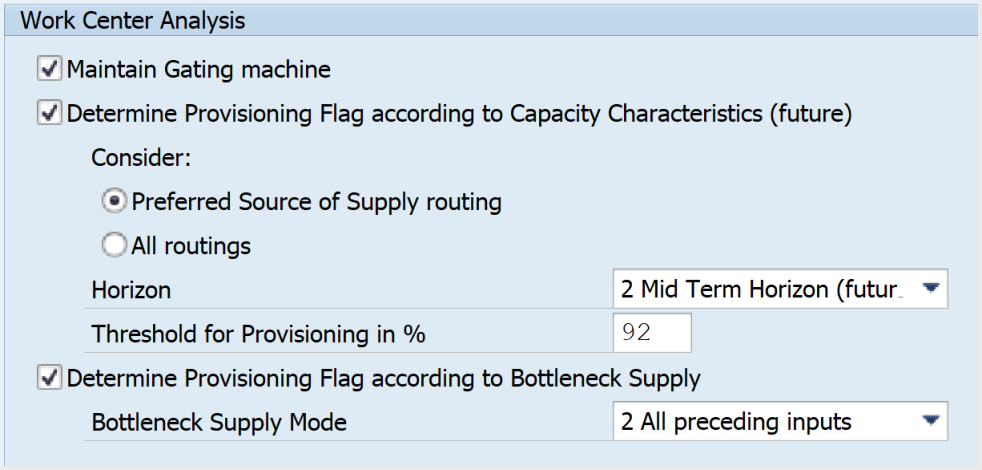
Work Center Analysis Example 1B: Settings on the Selection Screen

The **SLM** determines the following result:

- The gating machine is: 0817
- Stocking indicator B is set for material A1234 – stocking due to production for past/future bottleneck
- Stocking indicator F is set for materials B1234, C1234, D1234, B2345, and C2345 – stocking due to bottleneck offer

Example 2

The *Medium-Term Horizon* is selected on the selection screen. The *Limit Value for Stocking* is set at 92%.



Work Center Analysis Example 2: Settings on the Selection Screen

The **SLM** determines the following result:

- The gating machine is: 0817
- No stocking indicator is set because the limit value for stocking has not been exceeded.

The logic behaves in the same way when you select the short-term or long-term horizon.

3.1.2.4 Constraints and Fulfillment Status

There are two ways of overriding automatic stocking: the *No Stocking indicator* and the *Mandatory Stocking indicator*.

The indicators can be entered in the material master on the **enhanced material master view** tab. You cannot set both indicators at the same time. If the *No Stocking* option is activated, no stocking indicator is set even if this would be the result of an **SLM** run. If the *Mandatory Stocking* option is activated, the material is always assigned a stocking indicator, even if this would not be the case after an **SLM** run.

Both options can be switched on or off separately for the different analyses.

The fulfillment status of a material is used to make the effects of the two indicators visible. In the **enhanced material master view** in the material master, a status is displayed for the affected analyses. For the *No Stocking indicator*, the status can have the following values: *Overfulfillment* or *Underfulfillment*.

Example

If the *No Stocking indicator* is set for a material and the stocking proposal would result in stocking of the material, the next material in the BOM is stocked in the direction of the finished product. This results in *Overfulfillment*. If overfulfillment is not possible, the next material in the BOM must be stocked in the direction of the vendor, resulting in *Underfulfillment*.

For the *Mandatory Stocking indicator*, the status can have the following values: *Proposals*, *Partial Proposals*, and *No Proposals*.

> **Example**
>
> If the *Mandatory Stocking indicator* is set for a material and this material is selected for stocking, no further stocking proposals need to be made. The status is set to *No Proposals*. If, in a BOM, a material for which the indicator is set is to be stocked, and another material for which the indicator is not set is to be stocked, the status *Partial Proposals* is used for the header material.

3.1.2.5 Supply Risk Mitigation

The supply risk status is determined on a single-level and multilevel basis along the bill of material. The number of alternative sources of supply is considered.

The single-level determination of the supply risk status affects the material itself. Multilevel determination affects all components of the BOM, including cross-plant components.

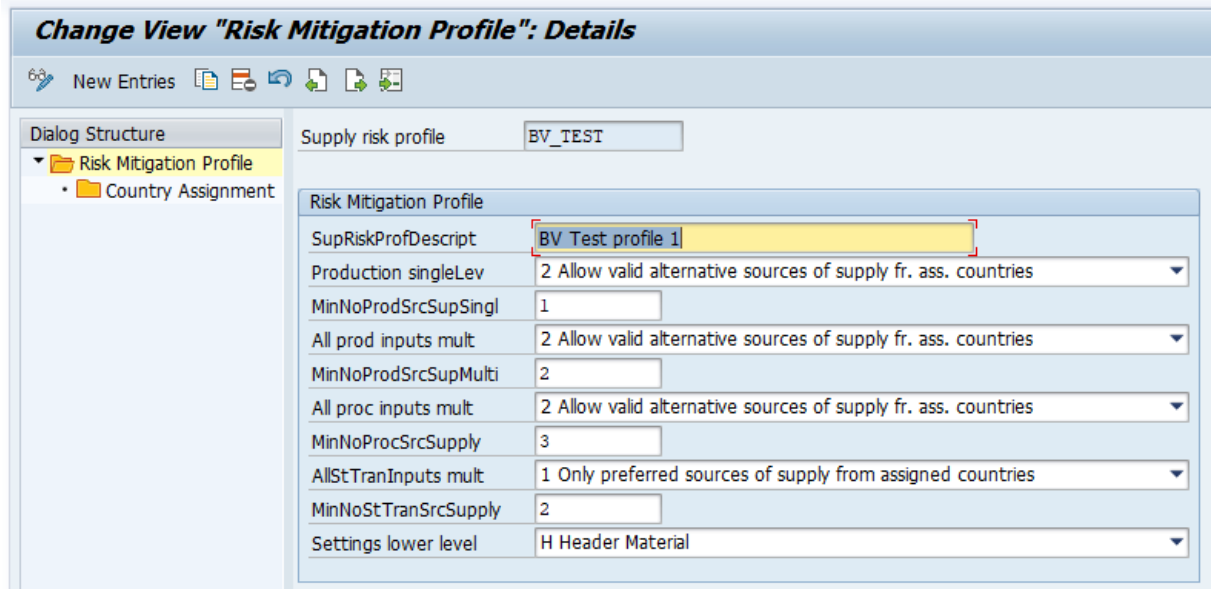
The following results affect the multilevel determination for materials that have a supply risk profile assigned:

- High Risk: The preferred sources of supply for the components do not meet the requirements set out in the supply risk profile, there is not a sufficient number of alternative sources of supply available, or the profile does not allow alternative sources of supply to be considered as alternatives.
- Medium Risk: Currently, not all preferred sources of supply of the components meet the requirements set out in the supply risk profile, but a sufficient number of valid sources of supply are available to meet the requirements for all components.
- Low Risk: All preferred sources of supply for all input materials meet the requirements defined in the supply risk profile.

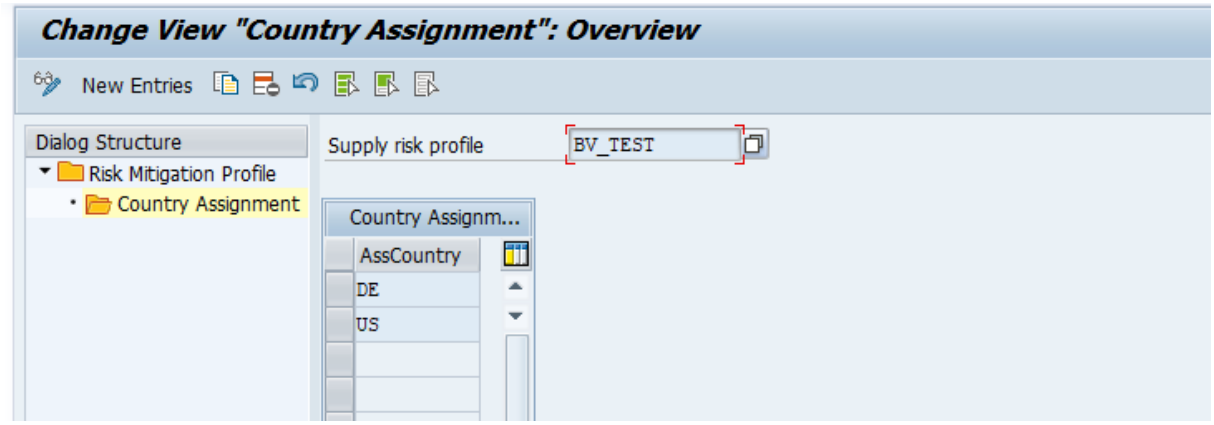
The following results affect the single-level determination for materials that have a supply risk profile assigned:

- High Risk: The preferred source of supply for this material does not meet the requirements set out in the supply risk profile, no alternative sources of supply are available, or the profile does not allow alternative sources of supply to be considered as alternatives.
- - Medium Risk: The preferred source of supply for the material to which the supply risk profile is assigned does not currently meet the requirements set out in the supply risk profile, but valid alternative sources of supply are available that meet the requirements
- - Low Risk: The preferred source of supply of the material meets the requirements set out in the supply risk profile

The possible sources of supply are determined from the purchasing source list, the preferred ones by determining the one that would be chosen by MRP. For purchasing-related sources of supply, the country in which the underlying supplier is located should be chosen; for internal sources of supply, the country of the plant should be chosen.



Customizing Supply Risk Profile



Customizing Country Assignment in Supply Risk Profile

3.1.3 BOM Analysis

Analyze your products by number of BOM usages and number of bills of material. The **BOM analysis** provides information on the number of bills of material and BOM usages for a product.

The **BOM analysis** is an **SCM Consulting Solution** for calculating key figures for bills of material. It is part of the **stock level monitor** and is delivered along with the **MRP monitor**.

The following key figures are calculated for selected materials:

- Number of BOMs
- Number of BOM usages
- Number of multilevel BOM usages
- Number of top-level BOM usages

Other BOM-related key figures can also be determined:

- Number of valid production versions
- Number of valid routings

The results of the calculation are saved in the material master and displayed in the **enhanced material master view**. The key figures are also output in the results table of the **MRP monitor**.

You can create error messages under this component: `XX-PROJ-CON-SLM`

For more information, see SAP Note 1745268.

3.1.3.1 Number of BOMs

The system identifies and counts all plant-related material BOMs that are assigned to the specified material and plant. If you have specified a material group, all of the materials in this group are considered.

Different usages and alternatives are counted as separate BOMs. If you have selected the *Active Production Version Only* checkbox, the system considers only the usage or alternative specified in a production version that is valid on the validity date. If multiple production versions are active, these are also taken into account. BOMs that do not appear in active production versions are not counted.

Only the BOMs that are valid on the validity date, including their components, are examined.

BOMs with deletion indicators and/or deletion flags are ignored.

The BOM status must be "Active" if no production version is used.

3.1.3.2 Number of BOM Usages

The system identifies all plant-related material BOMs in which the specified material exists or is included **directly** as a component.

If you have specified a material group, all of the materials in this group are considered.

Usage and alternatives are not taken into account because only the various header materials are counted.

Group BOMs without plant information are ignored.

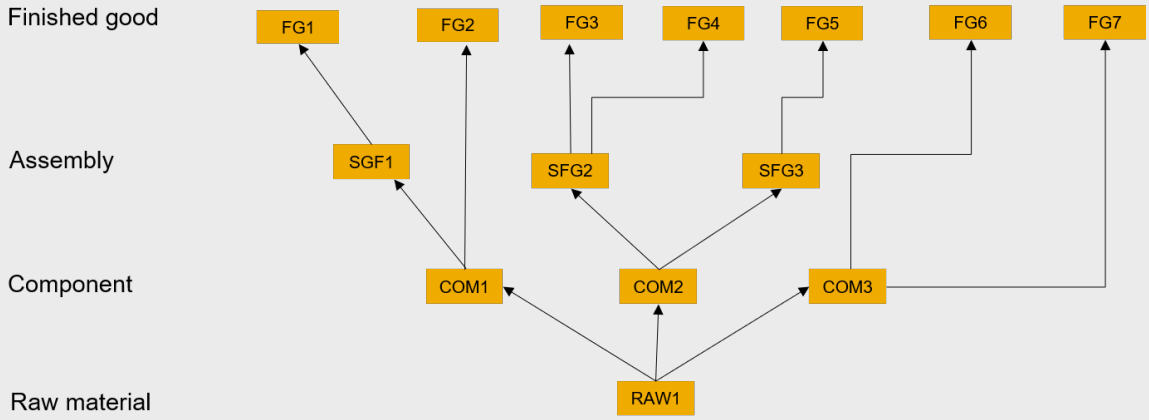
If you have selected the *Only Active Production Versions* checkbox, the system considers only the usage or alternative specified in a production version that is valid on the validity date. BOMs that do not appear in active production versions are not counted.

Only the BOMs that are valid on the validity date, including their components, are examined.

BOMs with deletion indicators and/or deletion flags are ignored.

The BOM status must be "Active" if no production version is used.

The following example provides the logic for determining the various key figures with regard to BOM usages:

> **Example**
>
> For material RAW 1, the number of BOM usages is to be determined. The raw material goes into other materials or their BOMs through different levels:
>
> **BOM usage and number of BOMs**
>
> 
>
>
> Example: Number of BOM Usages
>
> The **SLM** determines the following result: Number of BOM usages = 3, material RAW1 flows directly into components COM1, COM2, and COM3.

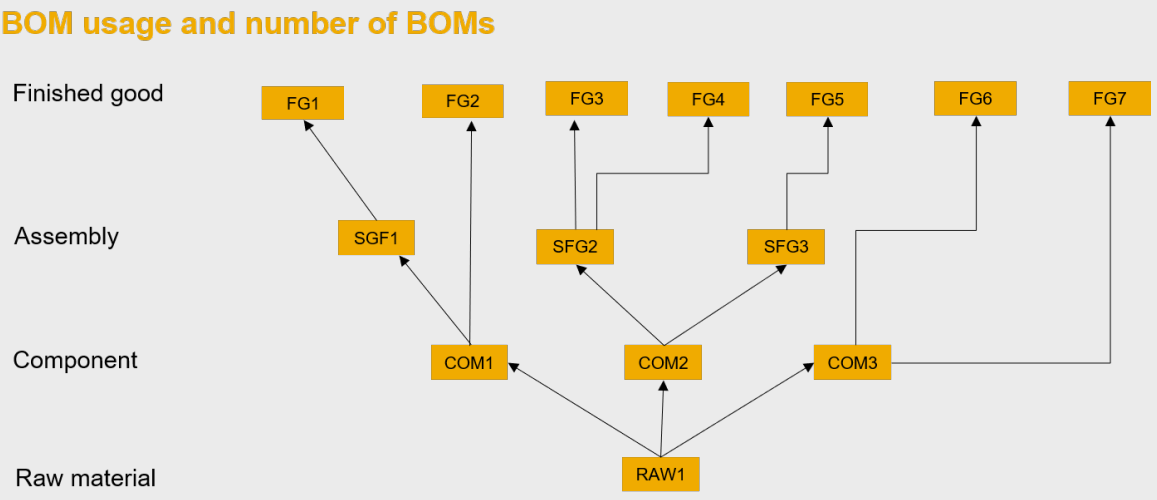
3.1.3.3 Number of Multilevel BOM Usages

The system identifies all plant-related material BOMs in which the given material exists as a component. The BOMs found (multilevel explosion) are counted. If you have specified a material group, all of the materials in this group are considered.

The following example provides the logic for determining the various key figures with regard to BOM usages:

> **Example**
>
> For material RAW 1, the number of BOM usages is to be determined on a multilevel basis.

The raw material goes into other materials or their BOMs through different levels:



Example: Number of Multilevel BOM Usages

The **SLM** determines the following result:

- Number of multilevel BOM usages = 13, material RAW1 flows directly or indirectly into 13 components/ materials.

3.1.3.4 Number of Top Level BOM Usages

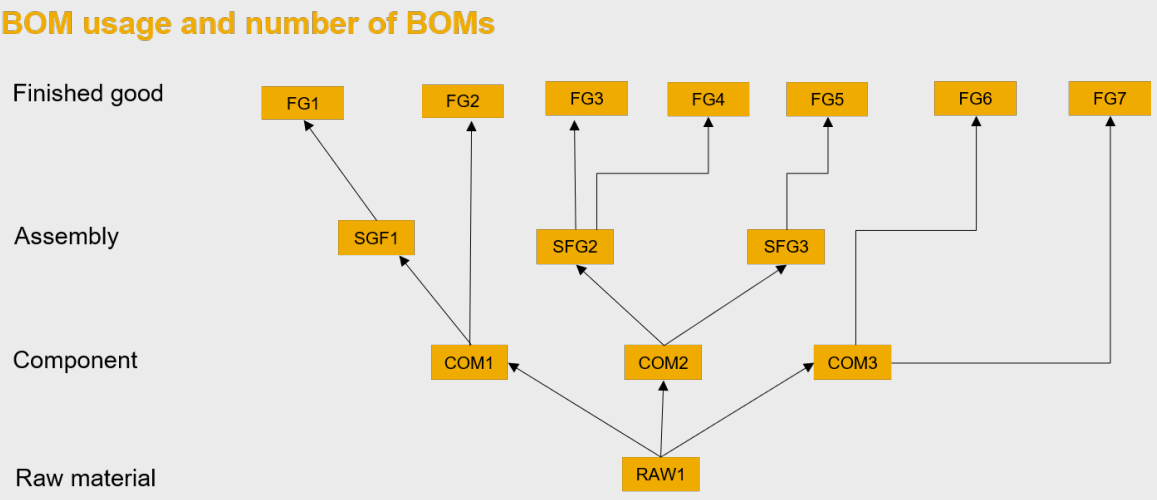
The system identifies all plant-related material BOMs in which the given material exists as a component and flows into the **header material**.

The following example provides the logic for determining the various key figures with regard to BOM usages.

Example

For material RAW 1, the number of BOM usages is to be determined on a highest level basis.

The raw material goes into other materials or their BOMs through different levels:



Example: Number of Top Level BOM Usages

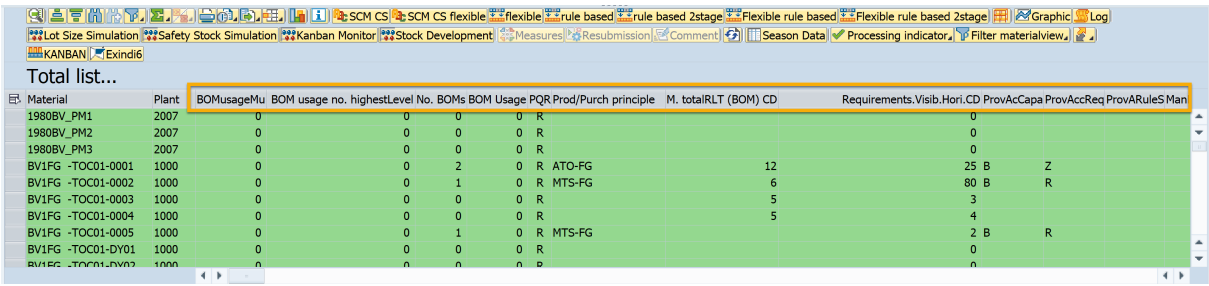
The **SLM** determines the following result:

- Number of BOM usages at highest level = 7, material RAW1 flows directly or indirectly into 7 finished products

3.1.4 Display in the MRP Monitor

The determined stocking indicators or parameters can be stored in the **enhanced material master view** during the **SLM** run, and then read as part of an **MRP monitor** run. This means that the key figures can be displayed in the result list of the **MRP monitor**. At runtime of the **MRP monitor**, they are read from the **enhanced material master view** table. No calculations are performed. This means that a previous dispatching or execution of the **stock level monitor** or the **BOM analysis** is required.

The key figures and the resulting classifications can each be displayed in a separate column in the result list of the **MRP monitor**:



Material	Plant	BOMusageMu	BOM usage no.	highestLevel	No. BOMs	BOM Usage	PQR	Prod/Purch principle	M. totalRLT (BOM)	CD	Requirements.Visib.Hori.	CD	ProvAcCapa	ProvAccReq	ProvARuleS	Man
1980BV_PM1	2007	0	0	0	0	R					0					
1980BV_PM2	2007	0	0	0	0	R					0					
1980BV_PM3	2007	0	0	0	0	R					0					
BV1FG -TOC01-0001	1000	0	0	2	0	R	ATO-FG		12		25	B		Z		
BV1FG -TOC01-0002	1000	0	0	1	0	R	MTS-FG		6		80	B		R		
BV1FG -TOC01-0003	1000	0	0	0	0	R			5		3					
BV1FG -TOC01-0004	1000	0	0	0	0	R			5		4					
BV1FG -TOC01-0005	1000	0	0	1	0	R	MTS-FG				2	B		R		
BV1FG -TOC01-DY01	1000	0	0	0	0	R					0					

Display Indicators and Parameters in the Result List of the MRP Monitor

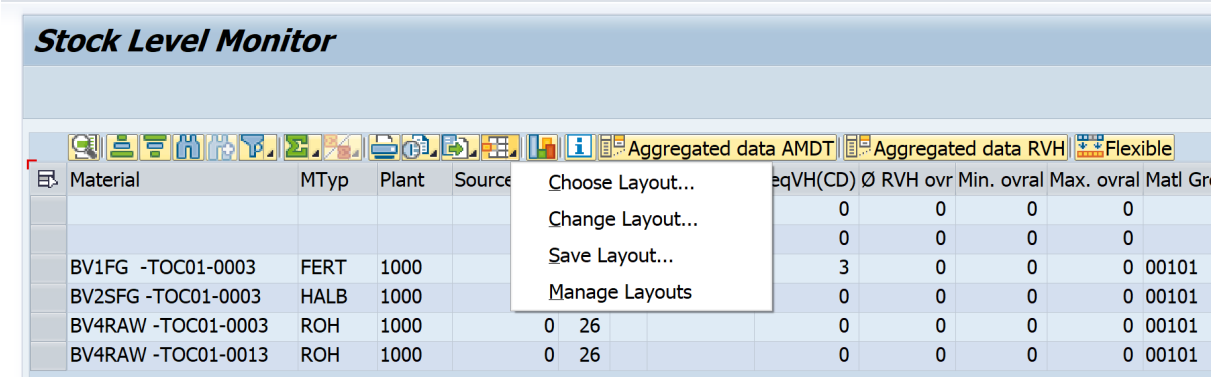
3.1.5 Results Display

After you have made the relevant settings on the selection screen and executed the **stock level monitor**, the results of the analysis are displayed in the form of a table or a log.

If you have activated the test mode on the selection screen, the parameters are not updated automatically in the **enhanced material master view**. If the test mode is deactivated, the determined stocking indicators and key figures are updated in the **enhanced material master view**.

If errors occur when you save the data, a message appears in the status bar. Warnings and errors are also recorded in the application log (transaction *SLG1*, object */SAPLOM/X*).

In the result list, separate columns with the determined information are displayed for each selected analysis type. You can use the layout function to show or hide relevant columns.



Result List: Layout Function

To determine the stocking indicators and the production/procurement principle, the following information is available in the result list, depending on the selection made:

Prov. acc. BOM	Prod./Purchasing principle	Provisioning acc.requirem.	Provisioning acc. to capa.	Gating machine
M	MTS-FG	Z	B	BTOC0101
S	MTS-SFG	Q	B	BTOC0103
	STTO	Z		
	ATO-SFG		B	BTOC0104
	PTO			
	PTO			
S	MTS-SFG	Z	B	BTOC0111
	ATO-SFG	Z		
	PTO	Q		
	PTO	Q		
	PTO	Q		

Result Screen: Separate Column for Each Analysis Type or Determined Parameter

The input sizes used for determination are also each displayed in a separate column:

Stock Level Monitor

Aggregated data AMDT | Aggregated data RVH | Flexible

Procurement type	Special procurement	Source RLT	Applied RLT	Max.TotalRLT(BOM levels)CD	Acc.MarketDelTime CD	Requirements.Visib.Hori.CD
		0	0			0
		0	0			0
X		3	0	12	25	25
X		1	29		2	1
F	40	0	6			2
X		0	3			0
F		1	4	3	6	0
F		0	4			0
E		0	12			0
X		0	3			5
F		0	29			0
F		0	29			0
F		0	25			0

Result Screen: Separate Column for Each Input Size Used

Depending on the selection made, the following information is available in the result list for the **BOM analysis**:

Number of BOMs	BOM Usage No	BOM usage no. multilevel	BOM usage no. highestLevel	No.valid prod.vers.	No of valid routings
0	0	0	0		
0	0	0	0		
2	0	0	0	2	2
1	3	7	3		2
1	2	2	2		
1	1	8	3		1
1	1	9	3		
0	3	11	4		
2	0	0	0	1	1
2	2	2	2		
0	1	3	2		
0	1	3	2		
0	4	4	2		

Result Screen: Separate Columns for BOM Usage, Routing Analysis, and Production Version Analysis

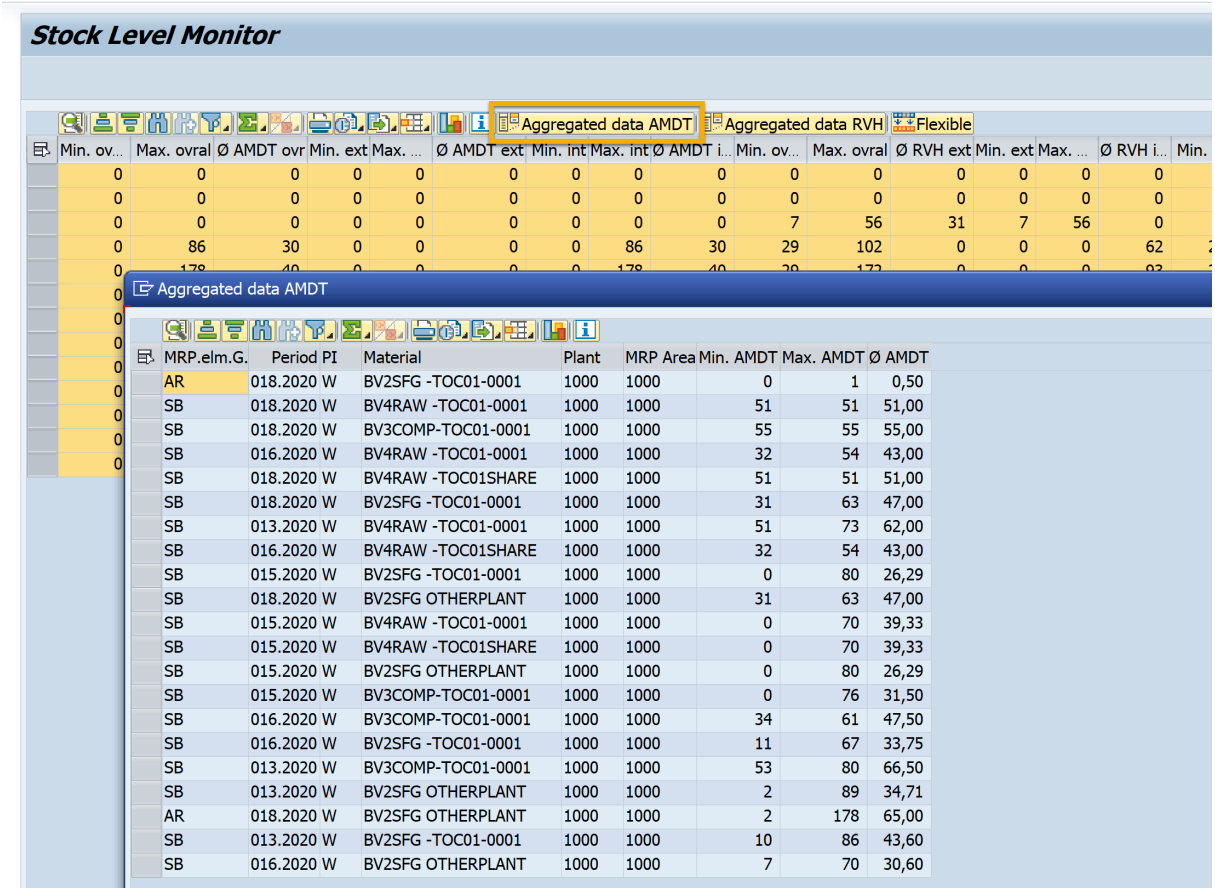
In addition to the parameters relevant for analysis, other material master data is also displayed in the result list, provided you have made the corresponding selection on the selection screen.

Key figures for the determined (accepted) market delivery time and for the demand visibility horizon are also available in additional columns.

Min. ov...	Max. ovral	Ø AMDT ovr	Min. ext	Max. ...	Ø AMDT ext	Min. int	Max. int	Ø AMDT i...	Min. ov...	Max. ovral	Ø RVH ext	Min. ext	Max. ...	Ø RVH i...	Min. int	Max. int
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	7	56	31	7	56	0	0	0
0	86	30	0	0	0	0	86	30	29	102	0	0	0	62	29	102
0	178	40	0	0	0	0	178	40	29	172	0	0	0	93	29	172
0	80	50	0	0	0	0	80	50	21	98	0	0	0	56	21	98
0	73	48	0	0	0	0	73	48	17	92	0	0	0	50	17	92
0	70	44	0	0	0	0	70	44	17	50	0	0	0	35	17	50
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Result Screen: Key Figures for Accepted Market Delivery Time and Demand Visibility Horizon

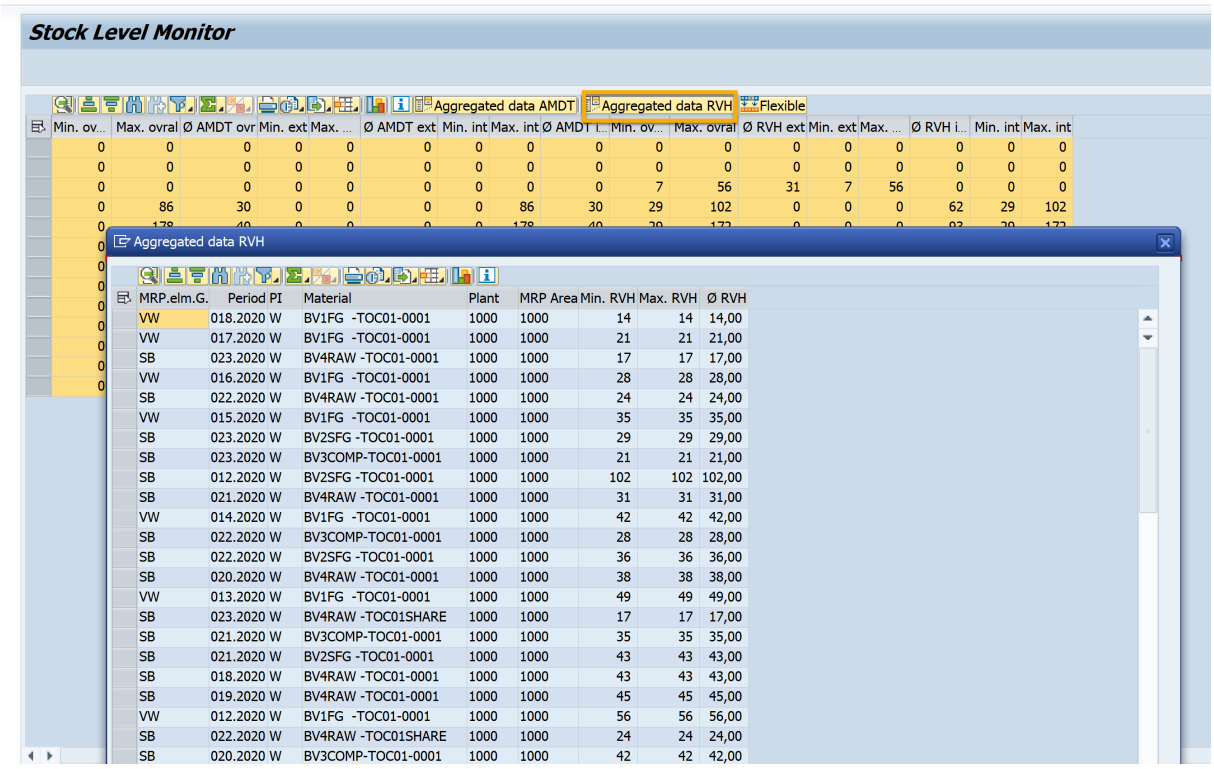
If you select a row and choose the pushbutton *Aggregated Data AMDT* or *Aggregated Data RVH*, the data at material-plant MRP area level is displayed clearly in a popup.



Min. ov...	Max. ovral	Ø AMDT ovr	Min. ext	Max. ...	Ø AMDT ext	Min. int	Max. int	Ø AMDT i...	Min. ov...	Max. ovral	Ø RVH ext	Min. ext	Max. ...	Ø RVH i...	Min.
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	7	56	31	7	56	0	
0	86	30	0	0	0	0	86	30	29	102	0	0	0	62	
0	178	40	0	0	0	0	178	40	29	172	0	0	0	93	
0															
0															
0															
0															
0															
0															
0															
0															

MRP.elm.G.	Period PI	Material	Plant	MRP Area	Min. AMDT	Max. AMDT	Ø AMDT
AR	018.2020 W	BV2SFG -TOC01-0001	1000	1000	0	1	0,50
SB	018.2020 W	BV4RAW -TOC01-0001	1000	1000	51	51	51,00
SB	018.2020 W	BV3COMP-TOC01-0001	1000	1000	55	55	55,00
SB	016.2020 W	BV4RAW -TOC01-0001	1000	1000	32	54	43,00
SB	018.2020 W	BV4RAW -TOC01SHARE	1000	1000	51	51	51,00
SB	018.2020 W	BV2SFG -TOC01-0001	1000	1000	31	63	47,00
SB	013.2020 W	BV4RAW -TOC01-0001	1000	1000	51	73	62,00
SB	016.2020 W	BV4RAW -TOC01SHARE	1000	1000	32	54	43,00
SB	015.2020 W	BV2SFG -TOC01-0001	1000	1000	0	80	26,29
SB	018.2020 W	BV2SFG OTHERPLANT	1000	1000	31	63	47,00
SB	015.2020 W	BV4RAW -TOC01-0001	1000	1000	0	70	39,33
SB	015.2020 W	BV4RAW -TOC01SHARE	1000	1000	0	70	39,33
SB	015.2020 W	BV2SFG OTHERPLANT	1000	1000	0	80	26,29
SB	015.2020 W	BV3COMP-TOC01-0001	1000	1000	0	76	31,50
SB	016.2020 W	BV3COMP-TOC01-0001	1000	1000	34	61	47,50
SB	016.2020 W	BV2SFG -TOC01-0001	1000	1000	11	67	33,75
SB	013.2020 W	BV3COMP-TOC01-0001	1000	1000	53	80	66,50
SB	013.2020 W	BV2SFG OTHERPLANT	1000	1000	2	89	34,71
AR	018.2020 W	BV2SFG OTHERPLANT	1000	1000	2	178	65,00
SB	013.2020 W	BV2SFG -TOC01-0001	1000	1000	10	86	43,60
SB	016.2020 W	BV2SFG OTHERPLANT	1000	1000	7	70	30,60

Result Screen: Display Aggregated Data for Accepted Market Delivery Time



MRP.elm.G.	Period PI	Material	Plant	MRP Area	Min. RVH	Max. RVH	Ø RVH
VW	018.2020 W	BV1FG -TOC01-0001	1000	1000	14	14	14,00
VW	017.2020 W	BV1FG -TOC01-0001	1000	1000	21	21	21,00
SB	023.2020 W	BV4RAW -TOC01-0001	1000	1000	17	17	17,00
VW	016.2020 W	BV1FG -TOC01-0001	1000	1000	28	28	28,00
SB	022.2020 W	BV4RAW -TOC01-0001	1000	1000	24	24	24,00
VW	015.2020 W	BV1FG -TOC01-0001	1000	1000	35	35	35,00
SB	023.2020 W	BV2SFG -TOC01-0001	1000	1000	29	29	29,00
SB	023.2020 W	BV3COMP-TOC01-0001	1000	1000	21	21	21,00
SB	012.2020 W	BV2SFG -TOC01-0001	1000	1000	102	102	102,00
SB	021.2020 W	BV4RAW -TOC01-0001	1000	1000	31	31	31,00
VW	014.2020 W	BV1FG -TOC01-0001	1000	1000	42	42	42,00
SB	022.2020 W	BV3COMP-TOC01-0001	1000	1000	28	28	28,00
SB	022.2020 W	BV2SFG -TOC01-0001	1000	1000	36	36	36,00
SB	020.2020 W	BV4RAW -TOC01-0001	1000	1000	38	38	38,00
VW	013.2020 W	BV1FG -TOC01-0001	1000	1000	49	49	49,00
SB	023.2020 W	BV4RAW -TOC01SHARE	1000	1000	17	17	17,00
SB	021.2020 W	BV3COMP-TOC01-0001	1000	1000	35	35	35,00
SB	021.2020 W	BV2SFG -TOC01-0001	1000	1000	43	43	43,00
SB	018.2020 W	BV4RAW -TOC01-0001	1000	1000	43	43	43,00
SB	019.2020 W	BV4RAW -TOC01-0001	1000	1000	45	45	45,00
VW	012.2020 W	BV1FG -TOC01-0001	1000	1000	56	56	56,00
SB	022.2020 W	BV4RAW -TOC01SHARE	1000	1000	24	24	24,00
SB	020.2020 W	BV3COMP-TOC01-0001	1000	1000	42	42	42,00

Result Screen: Display Aggregated Data for the Demand Visibility Horizon

You can use the *Flexible* pushbutton to execute a flexible update of the material master from the result screen. For more information on the flexible master material update, see the user documentation of the **comprehensive functions** at Flexible Material Master Update.

Related Information

Flexible Material Master Update
Layout Sets

4 Kanban Monitor

Simplify your Kanban maintenance and monitor central Kanban key figures. The **Kanban monitor** provides transparency on relevant Kanban data and helps you to maintain control cycles using a mass operation.

With the **Kanban monitor** you can effectively maintain master data and accurately measure key performance figures. The following core functions are included:

- Check of materials for their Kanban suitability based on an ABC/XYZ classification and other user-defined criteria such as replenishment lead time
- Mass maintenance (create, change, copy, delete) of control cycles.
- Exact-to-the-hour measurement of Kanban performance (for example, transportation time, error time, replenishment lead time, and so on)
- Monitoring of other key figures for Kanban (for example, number of in-house productions, number of replenishment operations, and so on)
- Evaluation of Kanban data and mass maintenance of Kanban-related master data

The **Kanban monitor** builds upon the add-on solution **MRP monitor**. It uses the ABC/XYZ analysis results to determine Kanban-capable materials.

For this **SCM Consulting Solution**, the following note exists: 1653329

You can create error messages under this component: `XX-PROJ-CON-KBM`

You can find additional information (such as presentation slides) here: Materials

Related Information

Main Functions of the MRP Monitor [page 6]

4.1 Starting the Kanban monitor

To run the **Kanban monitor**, first the **MRP monitor** must executed to get an ABC/XYZ classification for the materials.. To run the **MRP monitor**, call transaction */n/SAPLOM/MRP*, */n/SAPLOM/MRP_L* or */n/SAPLOM/MRP_D*.

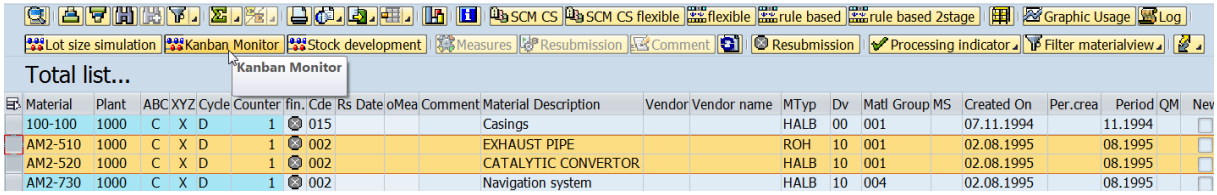
On the selection screen of the **MRP monitor** you choose the period to be analyzed, the analysis level and the data source to be used for the analysis. Since Kanban is a demand-oriented system, the following settings can be used:

- Choose an analysis period starting from today's date and ending in the future.
- Enter plant or storage location as the level of analysis, since MRP area and sales organization do not have any relevancy for Kanban.

- Choose requirements as the data source, recalling that Kanban is requirements-oriented.

Optionally, you can further choose the area of analysis, that is, the materials to be analyzed and adjust the ABC/XYZ classification strategy, if desired.

Execute the **MRP monitor** to get to the output screen. You see the results of the performed ABC/XYZ analysis in the form of an ABC/XYZ matrix, a graphic and a results table. Select the desired materials and press the Kanban button to navigate to the **Kanban monitor**.



Select Materials and press the Kanban Monitor Button

You can also call the **Kanban monitor** directly using transaction */n/SAPLOM/KBM*. Please keep in mind that the ABC/XYZ classification of the materials should be done beforehand using the **MRP monitor**.

Related Information

Main Functions of the MRP Monitor [page 6]

4.2 Results Views

The **Kanban monitor** comprises two output screens, referred to as views: master data view and controlling view. In short, the two views provide the following main functionalities:

The master data view displays classification results, categorizes materials into Kanban materials and Kanban-capable materials and ensures the mass processing of control cycles.

The controlling view displays statistical key figures for a given period such as the number of replenishments, sum of transport times or average replenishment lead time.

Related Information

Master Data View [page 134]
Controlling View [page 141]

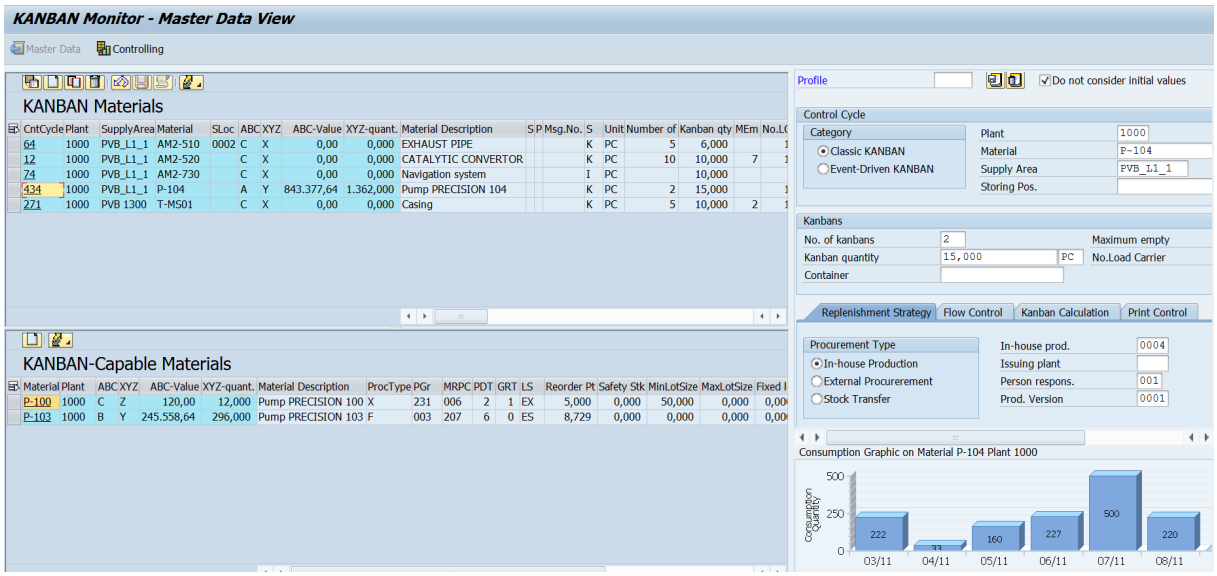
4.2.1 Master Data View

The master data view displays classification results, categorizes materials selected in the **MRP monitor** into Kanban materials and Kanban-capable materials; and ensures the mass processing of those. The master data view is divided into four blocks:

1. Table with Kanban materials
2. Table with Kanban-capable materials
3. Profile subscreen
4. Graphical representation of the consumption/requirements situation

Materials selected in the **MRP monitor** are categorized into:

- KANBAN materials, i.e. materials for which control cycles do exist
- KANBAN-capable materials, i.e. materials for which control cycles do not exist



Convert Kanban-Capable Materials into Kanban Materials

The table containing Kanban materials lists all those materials for which control cycles exist. Besides various control cycle data, the determined ABC-XYZ signs are displayed. A consumption graphic displays the consumptions that underlie the XYZ classification. The user can change, create, copy or delete multiple control cycles. These different maintenance processes are described in seperate chapters.

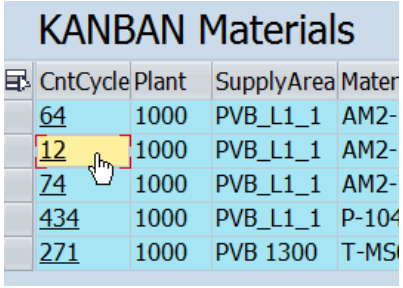
Related Information

Change control cycles [page 135]
Create control cycles [page 136]
Copy control cycles [page 137]
Delete a single or multiple control cycles [page 138]
Consistency and Process Status [page 138]
Protocol / Logging Messages [page 138]

Profiles [page 139]
Kanban-Capability [page 140]

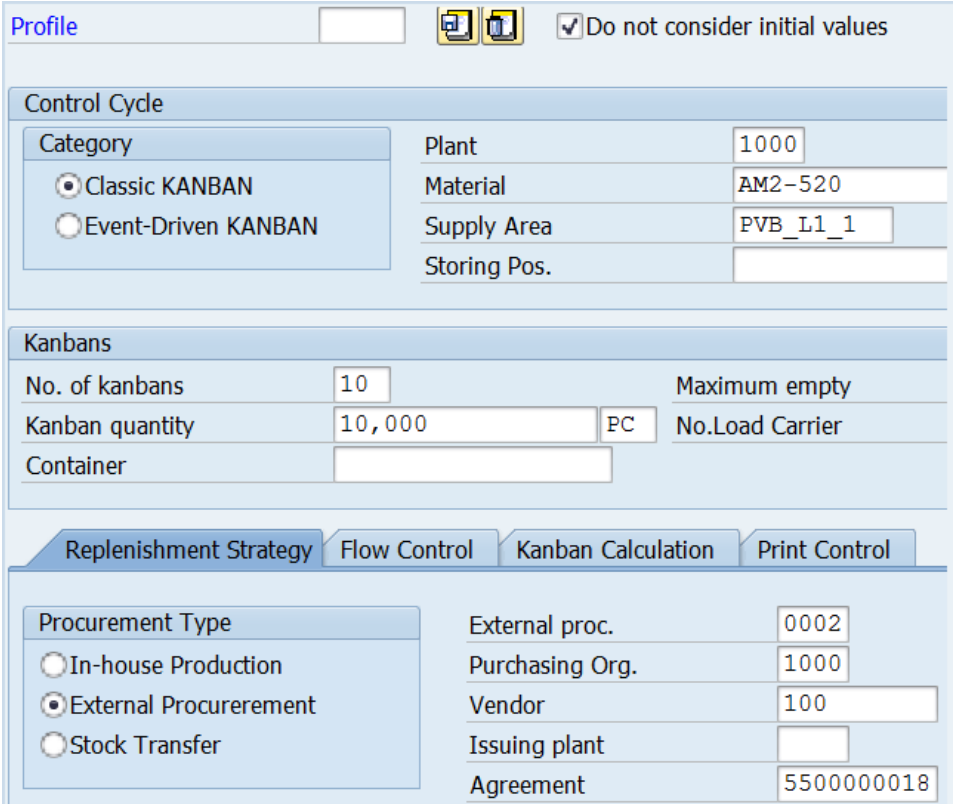
4.2.1.1 Change control cycles

To change a single control cycle, you first load the data of the control cycle to be changed into the profile subscreen.



Load data to be changed

Click on the control cycle number to load the control cycle data into the profile.

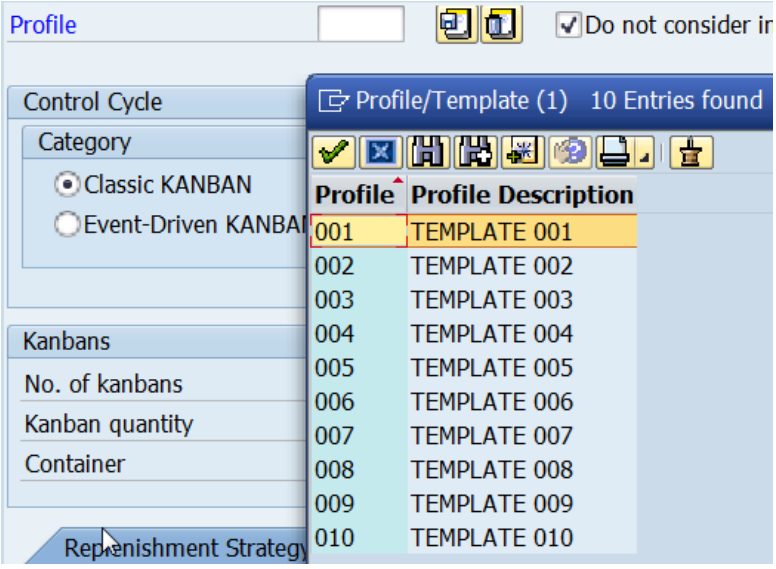


control cycle

After you made your changes and entered new values you presses the button *transfer profile data*.

If you want to change multiple control cycles, the process is as follows:

First you fill in the parameter fields in the profile subscreen with values to be transferred to the control cycles that you want to change. You can enter the values manually or load them by either pressing on one of the control cycles or loading a template from the database. To load a template you enter in the parameter field profile a profile number and presses the `Enter` key. The user can call an input help by pressing `F4` and display the profile numbers stored in the database.

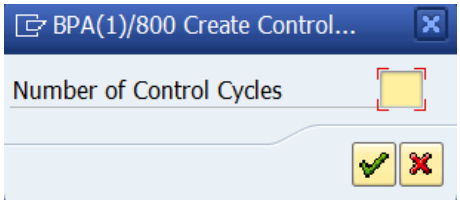


Input help

Once you filled the profile subscreen with the desired values, you select the control cycles you want to change and press the *transfer profile* button. You can select as many control cycles as you want and change them all at once.

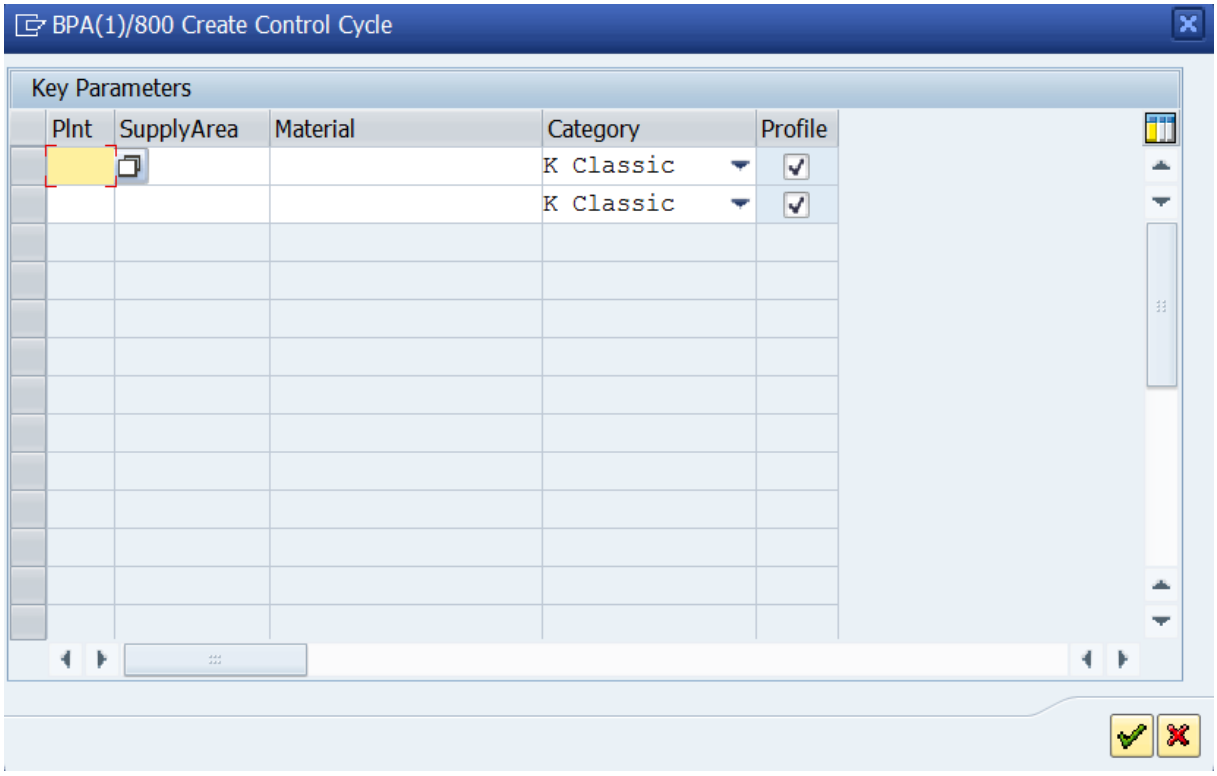
4.2.1.2 Create control cycles

To create a single or multiple control cycles, you press the *create* button. In the dialogue box you enter the number of control cycles you want to create.



Enter the number of control cycles you want to create

Confirm this with the `Enter` key. This opens another dialogue box asking you to set the key parameter fields and define the control cycle category. The creation of a control cycle is significantly facilitated by the fact that you can define via a checkbox whetherl values manually entered or loaded into the profile subscreen should be used as a template.



Create Control Cycle Screen

Press `Enter` to append the control cycles to the table. You can change and complete them in a next step.

Related Information

Change control cycles [page 135]

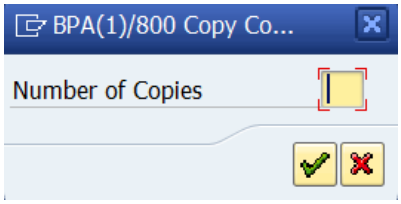
4.2.1.3 Copy control cycles

You can use one or more control cycles as template and copy them. There are two possibilities to do this:

1. You can make several copies of one control cycle
2. or a single copy of several control cycles

.

In the first case, you mark the control cycle to be copied, press the copy button, enter the number of copies to be created in the appearing dialogue box that appears, and press `Enter`. This process copies the selected control cycle and adopts all data except the material number from the control cycle.



Copy Control Cycle

In the second case you choose several control cycles and presses the copy button. This process creates a one-time copy of all the selected control cycles and adopts all data except plant and supply area. In this way, you can copy the control cycle data of a group of materials from one plant or PSA to another plant or PSA, for example. With just a few steps, you can copy multiple control cycles.

4.2.1.4 Delete a single or multiple control cycles

To delete one or more control cycles, you select them and press the *delete* button.

4.2.1.5 Consistency and Process Status

An automatic consistency checks the processed control cycles. You can see the status in a simple traffic light logic:

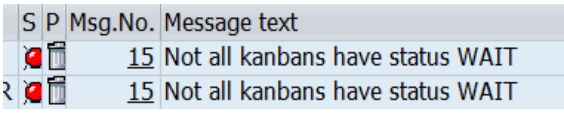
- The data is consistent and can be saved (yellow light)
- The data contains errors and requires correction (red light
- You saved the control cycle successfully (green light

Further you can see the processing status:

- The control cycle is in creation ( ).
- The control cycle is in change ( ).
- The control cycle is in deletion ( ).

4.2.1.6 Protocol / Logging Messages

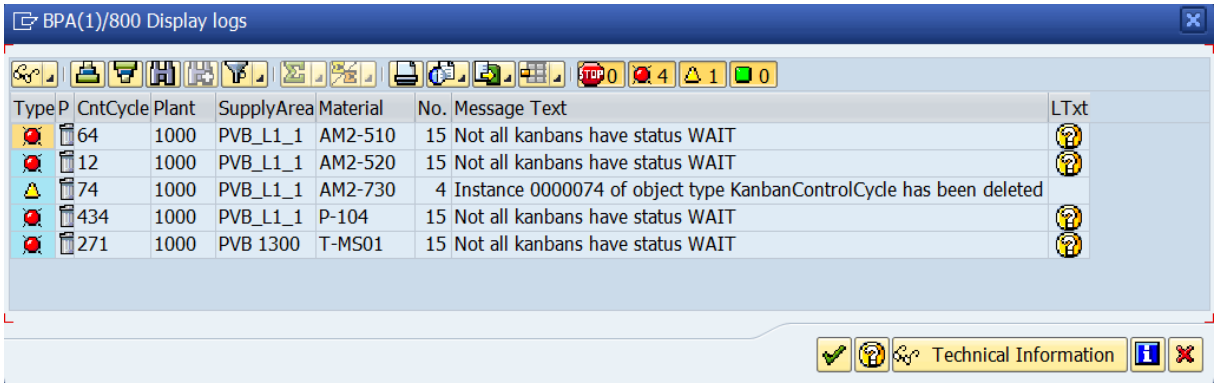
You get a message if the control cycle has been successfully processed or if errors have occurred. In case of an error, the corresponding error message is displayed.



S	P	Msg.No.	Message text
		15	Not all kanbans have status WAIT
		15	Not all kanbans have status WAIT

Error Messages

All messages are collected in a log, that you can display by pressing the display log button. You can filter errors, warning or success messages and very importantly display long texts for errors. Long texts contain detailed information on the errors and describe how to correct them.



Type	P	CntCycle	Plant	SupplyArea	Material	No.	Message Text	LTxt
		64	1000	PVB_L1_1	AM2-510	15	Not all kanbans have status WAIT	
		12	1000	PVB_L1_1	AM2-520	15	Not all kanbans have status WAIT	
		74	1000	PVB_L1_1	AM2-730	4	Instance 0000074 of object type KanbanControlCycle has been deleted	
		434	1000	PVB_L1_1	P-104	15	Not all kanbans have status WAIT	
		271	1000	PVB 1300	T-MS01	15	Not all kanbans have status WAIT	

Long Texts on errors

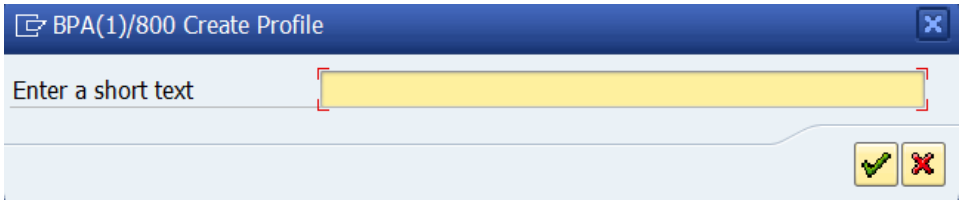
If processed control cycles are to be restored, the user can simply do this by selecting the control cycles to be restored and pressing the *restore* button.

4.2.1.7 Profiles

The use of profiles facilitates mass processing significantly. To create a profile you have two quick options.

- You can load the data of a control cycle into the profile subscreen, change this data if desired and save it as a template.
- You can load an existing profile into the profile subscreen, change this and save as a new profile

You save a profile by entering in the parameter field profile a profile number, presses the button *Save Entries as Template*, type a short descriptive text in the appearing dialogue box, and press the `Enter` key.



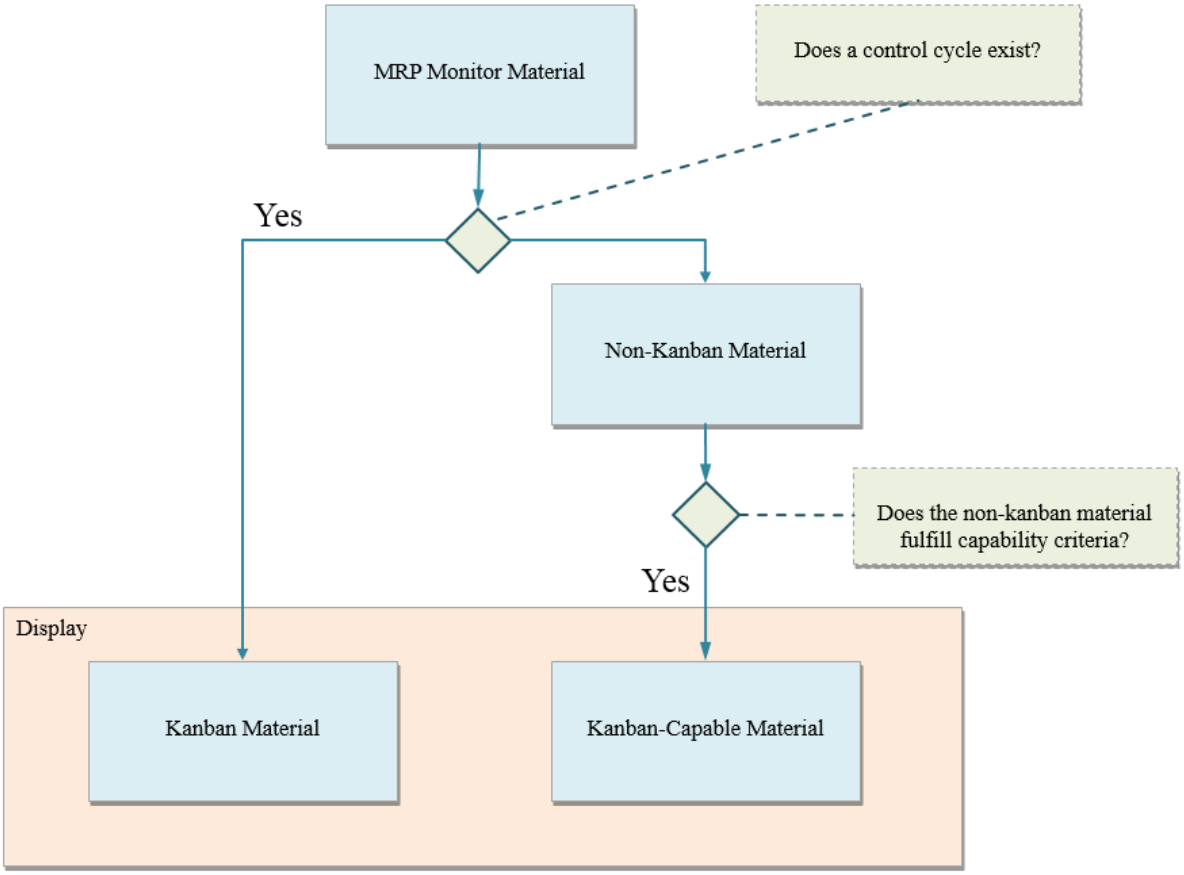
Create Profile dialogue box

4.2.1.8 Kanban-Capability

Materials that are not in control cycles are checked according specific criteria if they are Kanban-Capable.

The categorization if a material is a Kanban, Non-Kanban or Kanban-capable material is carried out when you start the **Kanban monitor**.

For each material selected in the **MRP monitor** the system checks whether a control cycle exists. If this is the case it is categorized as a Kanban material. If not, it is categorized as a Non-Kanban material. For a Non-Kanban material the system checks if it fulfills the criteria set in the Kanban capability report. If yes, the Non-Kanban material is categorized as Kanban-Capable.

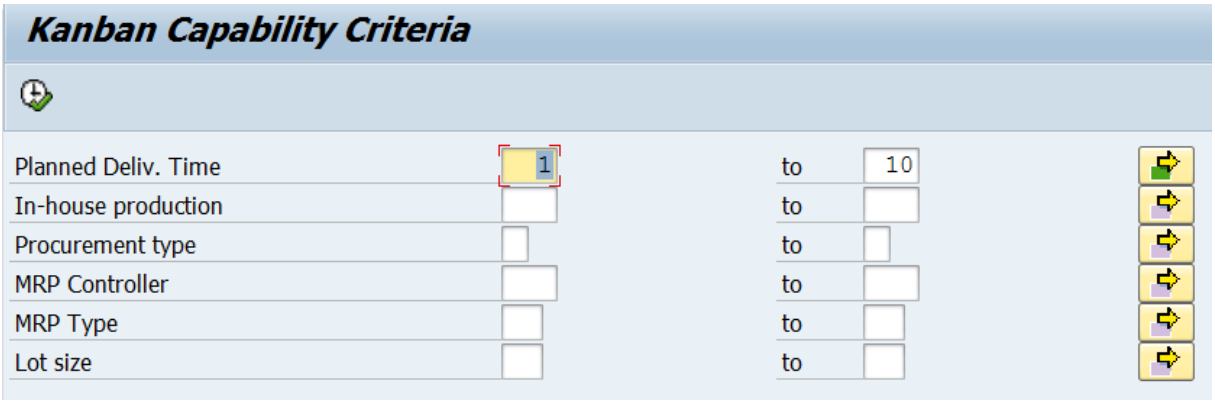


Flowchart decision: Kanban-Material / Kanban-Capable Material

A table in the master data view of the **Kanban monitor** shows you all Kanban-capable materials with some additional master data and classification information.

With the **Kanban monitor** you can convert one or more Kanban-capable materials into Kanban-materials by creating control cycles for them.

The criteria defining which materials are to be considered as Kanban-capable are set in a separate report which is called via the transaction */n/SAPLOM/KBM_C*. With this report you can enter and save settings with regard to material master data.



Kanban Capability Criteria

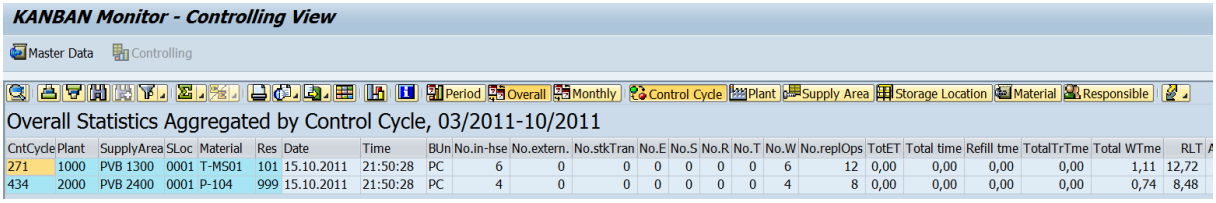
Related Information

Starting the Kanban monitor [page 132]
Master Data View [page 134]

4.2.2 Controlling View

The controlling view displays statistical key figures for a given period such as the number of replenishments, sum of transport times, or average replenishment lead time.

You access the controlling view from the master data view. You select the Kanban materials that you want to see and press the button *Controlling*.



CntCycle	Plant	SupplyArea	SLoc	Material	Res	Date	Time	BUn	No.in-hse	No.extern.	No.stkTran	No.E	No.S	No.R	No.T	No.W	No.replOps	TotET	Total time	Refill tme	TotalTrTme	Total WTme	RLT
271	1000	PVB 1300	0001	T-MS01	101	15.10.2011	21:50:28	PC	6	0	0	0	0	0	0	6	12	0,00	0,00	0,00	0,00	1,11	12,72
434	2000	PVB 2400	0001	P-104	999	15.10.2011	21:50:28	PC	4	0	0	0	0	0	0	4	8	0,00	0,00	0,00	0,00	0,74	8,48

Buttons in the Controlling view

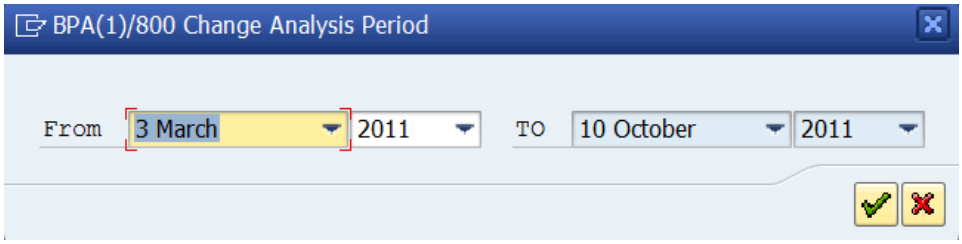
The controlling view displays numerous historical as well as current key figures. By default, these key figures are aggregated by control cycle. The user can quickly change the aggregation object by directly clicking on the corresponding button. The following aggregation objects are provided: *Control Cycle*, *Plant*, *Supply Area*, *Storage Location*, *Material* and person *Responsible*. Aggregation is particularly meaningful in case of quantity figures. For instance, you can determine the current stock quantity at certain production supply areas or the entire plant.

Key figures are:

- Number of Replenishments (In-house Productions, Extrenal Procurements,...)
- Number of Status Messages (Replenishment Operations, Errors,...)
- Total, Average and Actual Times of Status Messages (Replenishment Time, In Transit Time, ...)
- Quantity Control (Total Stock, Total Actual Quantity, ...)

- Current Container Statuses (Empty, Full, ...)

The analysis period is by default six months in the past as of today's date. If you want to change it, press the *period* button and enter your data in the dialogue box.



Change Analysis Period dialogue box

Further you can change the period pattern between overall and monthly. If overall is selected, the statistical data is aggregated over the whole period length. If monthly is selected, the data is aggregated per each month within the period length.

The controlling view of the **Kanban monitor** measures performance times on an hourly basis and therefore delivers accurate results which ensures efficient controlling of Kanban performance.

> **Example**
>
> You can compare the exactly measured RLT with the expected RLT (the RLT agreed with the supplier). This way you can evaluate the supplier's delivery reliability.

Related Information

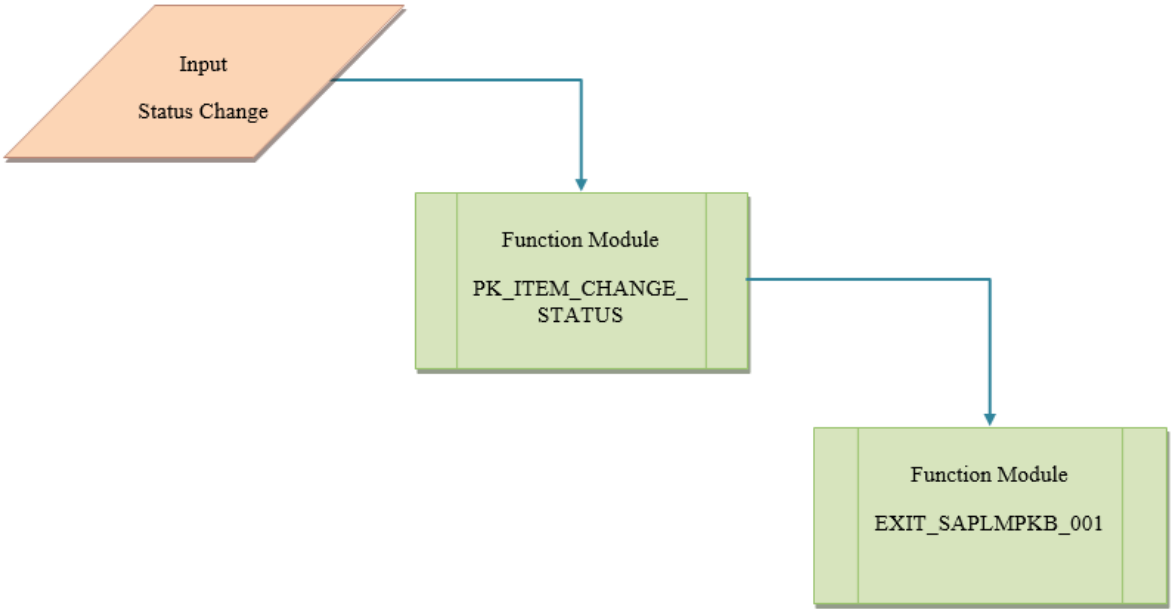
Master Data View [page 134]

4.2.2.1 Activating the Statistics

To create statistics you have to implement a customer exit.

In the following the core technical aspects are pointed out.

Whenever the status of a Kanban is changed using a standard SAP application, for instance the graphical Kanban board, the standard function `PK_ITEM_CHANGE_STATUS` is called, which in turn calls the customer exit module `EXIT_SAPLMPKB_001`. A function module call must be implemented within this exit which contains encapsulated functions for statistics creation and KPI measurement in hours.



Call hierarchy in case of a status change

In this exit implement following code.

Sample Code

```
CALL FUNCTION '/SAPLOM/KBM_CREATE_STATISTICS'
     EXPORTING
         iv_sfgsv = i_sfgsv
         iv_sfgsn = i_sfgsn
         is_pkhd = i_pkhd
         is_pkps = i_pkps
         is_pkpshd = i_pkpshd
         is_pvbe = i_pvbe
         is_tpksf = i_tpksf
         is_pker = i_pker
```

Within the function module `PK_ITEM_CHANGE_STATUS` the processing logic is as follows:

1. The status change is processed and posted.
2. It is checked whether the customer exit is active and an own coding implemented
3. If yes, the own coding is executed
4. Then the program continues and updates the standard statistics database

Normally it would do this with daily measured KPIs. Now the own program within the customer exit measures the KPIs in hours and updates the results to the database table */SAPLOM/KBM_STAM*. This has been specifically created for the Kanban add-on. This table contains all the Kanban key figures described in chapter Controlling View [page 141] – except average times – monthly aggregated by control cycle. Average key figures are calculated during program execution.

Caution

In order the exit to be called the following settings must be applied. In customizing *SAP Reference IMG* > *Production* > *Kanban* > *Status* > *Maintain status sequence*, activate the call of the user exit for the sequences you want by checking the corresponding checkbox.

In customizing ▶ *SAP Reference IMG* > *Production* > *Kanban* > *Status* > *Maintain activities for status change* ◀, activate the user exit checkbox for the sequences you want.

Ensure that the status sequence supporting user exit call is assigned to the control cycles for which statistics should be updated.

4.3 Appendix: Key Figures in the Controlling View

In the following all displayed key figures are shortly described.

Number of in-house production operations

Number of in-house production operations that have been triggered.

Number of external procurement operations

Number of external procurement operations that have been triggered.

Number of stock transfer operations

Number of stock transfer operations that have been triggered.

Number of errors

Number of errors that have occurred while processing a Kanban container.

Number of triggering operations

Number of signals, that is, status changes whereby the status of a Kanban has been changed from waiting to empty.

Number of refill operations

Number of refills, that is, status changes whereby the status of a Kanban has been changed from empty or in process to in transfer.

Number of transfer operations

Number of transfers, that is, status changes whereby the status of a Kanban has been changed from in process or in transfer to full.

Number of wait operations

Number of waits, that is, status changes whereby the status of a Kanban has been changed from full or in use to waiting or empty.

Number of replenishment operations

Number of replenishments, that is, status changes whereby the status of a Kanban has been changed from empty, in process or in transfer to full.

Total error time

Sum of the times the Kanban container has remained in the error status. The error time is the time needed to correct the error.

Total trigger time

Sum of the trigger times, that is, times the Kanban container has spent in between the statuses wait and empty. The trigger time is the time elapsed until replenishment has been triggered.

Total refill time

Sum of the refill times, that is, times the Kanban container has spent in between the statuses empty or in process and in transfer. The refill time is the time needed to refill the container.

Total transfer time

Sum of the transfer times, that is, times the Kanban container has spent in between the statuses in process or in transfer and full. The transfer time is the time needed to transfer the container from the supply source to the demand source.

Total wait time

Sum of the wait times, that is, times the Kanban container has spent in between the statuses full or in use and waiting or empty. The wait time is the time the Kanban container spends at the demand source.

Total replenishment lead time

Sum of the replenishment times, that is, times the Kanban container has spent in between the statuses empty, in process or in transfer and full. The replenishment lead time is the time needed to replenish the container.

Average error time

The average error time is calculated by dividing the total error time by the number of errors.

Average trigger time

The average trigger time is calculated by dividing the total trigger time by the number of triggering operations.

Average refill time

The average refill time is calculated by dividing the total refill time by the number of refill operations.

Average transfer time

The average transfer time is calculated by dividing the total transfer time by the number of transfer operations.

Average wait time

The average wait time is calculated by dividing the total wait time by the number of wait operations.

Average replenishment lead time

The average replenishment lead time is calculated by dividing the total replenishment lead time by the number of replenishment operations.

Total target quantity

Sum of the material quantities (target quantities) that would be acquired using Kanban, if with every goods receipt the Kanban quantity defined in the control cycle had been posted for the container.

Total actual quantity

Sum of the material quantities that were actually acquired, that is, for which a goods receipt has been recorded.

Total stock

Sum of the material quantities that are currently available at the demand source.

Number of Kanbans

Number of containers that has been defined in the control cycle.

Kanban quantity

Material quantity, that is, target quantity that has been defined for a container in the control cycle.

Maximum number of empty containers

Maximum number of containers that are allowed to be empty at one time from the point of the supply source. The producer or supplier must ensure that this limit is not exceeded. The maximum number of empty containers is maintained in the control cycle.

Number of Kanbans with status empty

Actual number of Kanban containers that have the status empty.

Number of Kanbans with status full

Actual number of Kanban containers that have the status full.

Number of Kanbans with status error

Actual number of Kanban containers that have the status error.

Actual error time

The most recently measured error time.

Actual trigger time

The most recently measured trigger time.

Actual refill time

The most recently measured refill time.

Actual transfer time

The most recently measured transfer time.

Actual wait time

The most recently measured wait time.

Actual replenishment lead time

The most recently measured replenishment lead time.

Expected replenishment lead time in days

The replenishment lead time in days maintained in the material or control cycle master data. It is used in the Kanban calculation, if the replenishment lead time in hours is not maintained.

Expected replenishment lead time in hours

The replenishment lead time in hours maintained in the control cycle. It is used in the Kanban calculation.

5 Stock Development

Gain an overview of the future stock value development. The **stock development** shows you the current stock values and provides you with a variety of aggregation options.

The **SCM Consulting Solution stock development** is an add-on program for the SAP ERP system.

You can use the **stock development** to gain an overview of the current stock values and of the future stock value development as of the current period. For this, based on a selection for each material, the goods movements from the stock/requirements list (*MD04*) is read and multiplied by the price.

You can use the SAP stock/requirements list *MD04* to display stock, receipts, and issues for a material. Aggregation, for example, by material number, plant, material type, or MRP controller is not possible in *MD04*. The **stock development** offers this aggregation option.

You access **stock development** by calling transaction */n/SAPLOM/STD*. Alternatively, you can start the program in transactions *SE38*, *SA38*, or *SE80* using the package name */SAPLOM/IOC_REDESIGN*.

> **! Restriction**
>
> **Stock development** can only be transported as of Basis Release 6.40 of the SAP ERP system.

> **i Note**
>
> Please note that when executing **SCM Consulting Solutions**, you must enter the prefix */n/SAPLOM/* before each transaction.

You can create error messages under this component: `XX-PROJ-CON-STD`

5.1 Selection

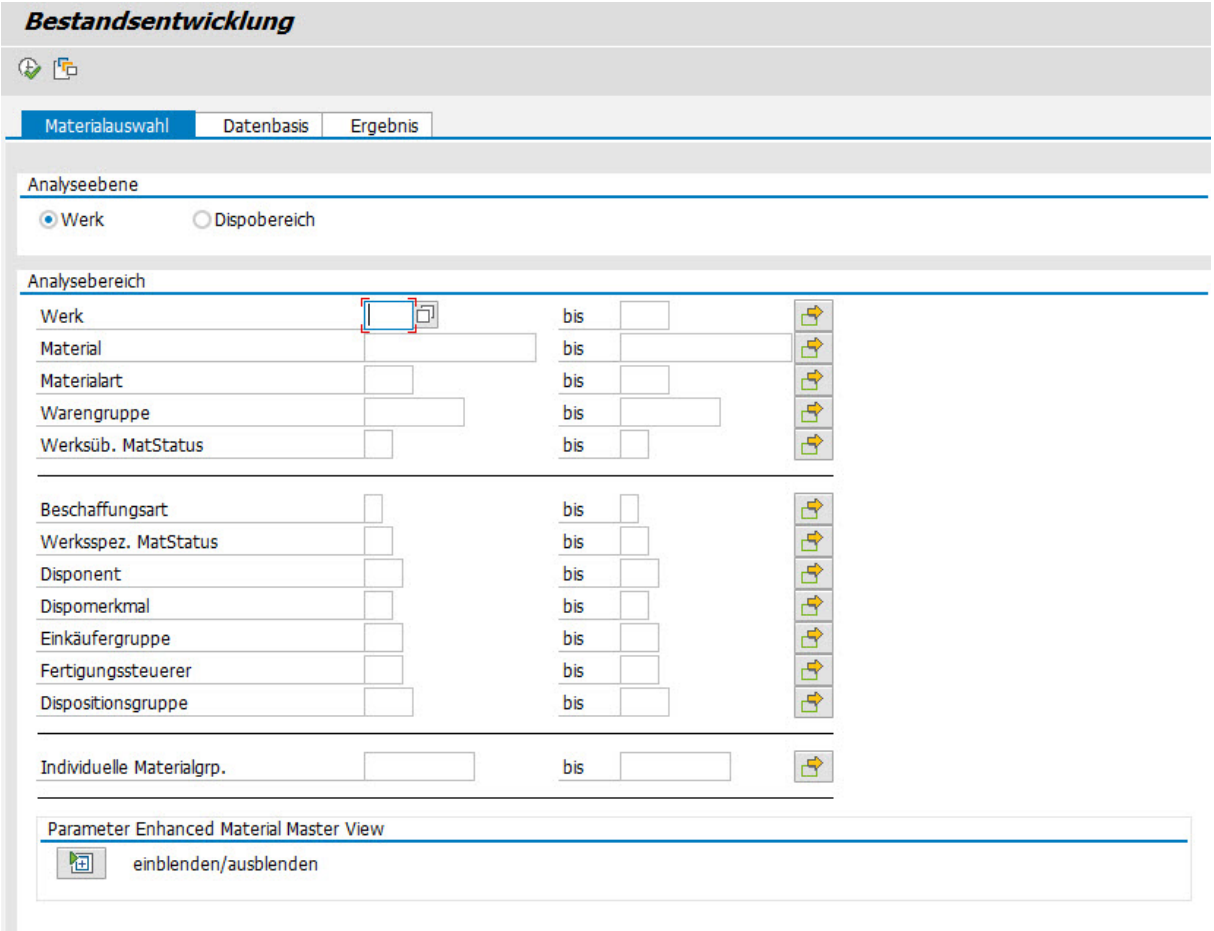
The selection screen is divided into multiple tabs:

- Material Selection
- Data Basis
- Result

5.1.1 *Material Selection* Tab

On the *Material Selection* tab, you specify the analysis data, the analysis level, and the analysis area.

The analysis level defines whether you want to display material-plant combinations or material-plant MRP area combinations as the lowest aggregation level.



Material Selection Tab

You select the required materials using standard SAP functions.

The *Plant* and *Material* fields are mandatory fields. Since the system checks whether the fields are filled before starting the analysis, you can navigate to the other tabs even before you enter values in these fields.

5.1.1.1 Individual Material Group

The individual material group is an additional field that each user can fill individually. The content of the *Material Group* field (SAP standard) remains unaffected by this.

The individual material group enables user-specific assignment of materials to groups. You can then use these for selection.

You create and maintain the individual material group in transaction */SAPLOM/X_IND_MGROUP*.

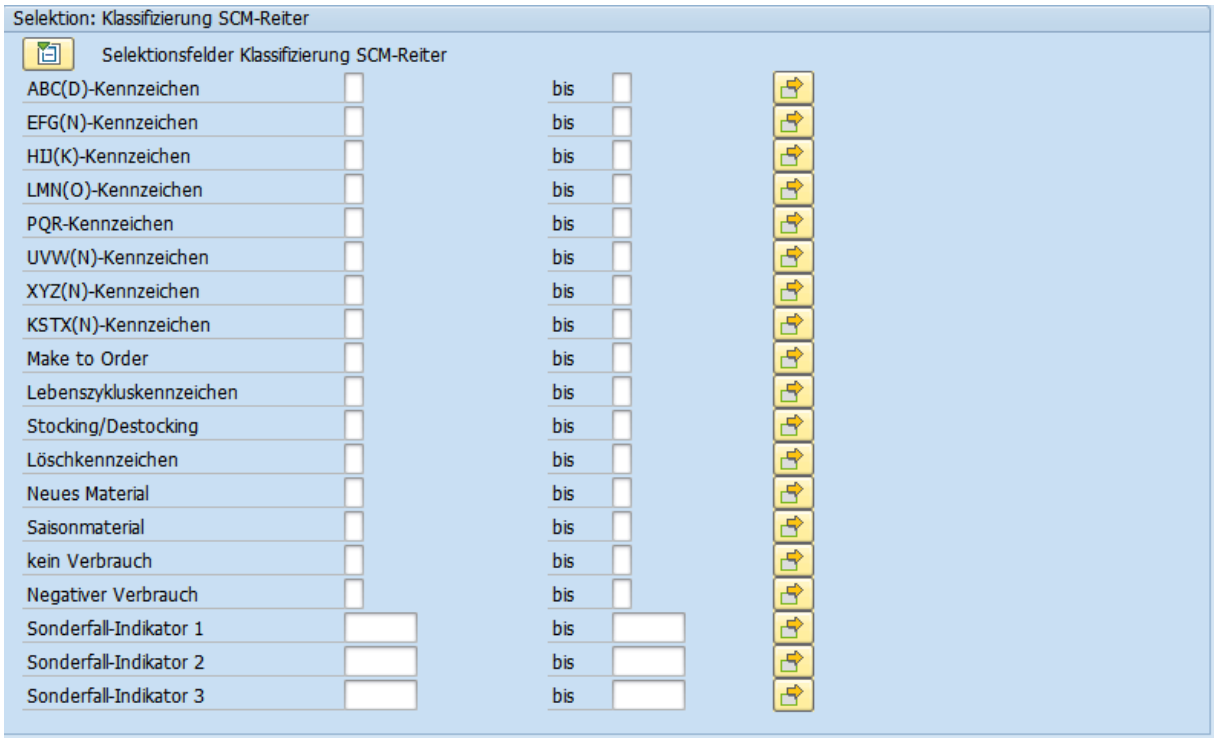
If you specify an individual material group, only those materials assigned to this group are included in the analysis. The assignment of a material/plant combination does not necessarily have to be unique. Therefore, a material/plant combination can be assigned to multiple individual material groups.

Related Information

Individual Material Groups

5.1.1.2 Selection According to Classification IDs and Key Figures

You can view the selection fields of the **enhanced material master view** in the material master by choosing the corresponding button.



Selection Using Fields of enhanced material master view

Furthermore, the **enhanced material master view** currently allows you to select saved classifications as well as other characteristics or key figures such as:

- Material to be stored
- Deletion indicator
- NEW indicator
- Season indicator
- Negative consumption
- No consumption

You can also define up to three exception indicators.

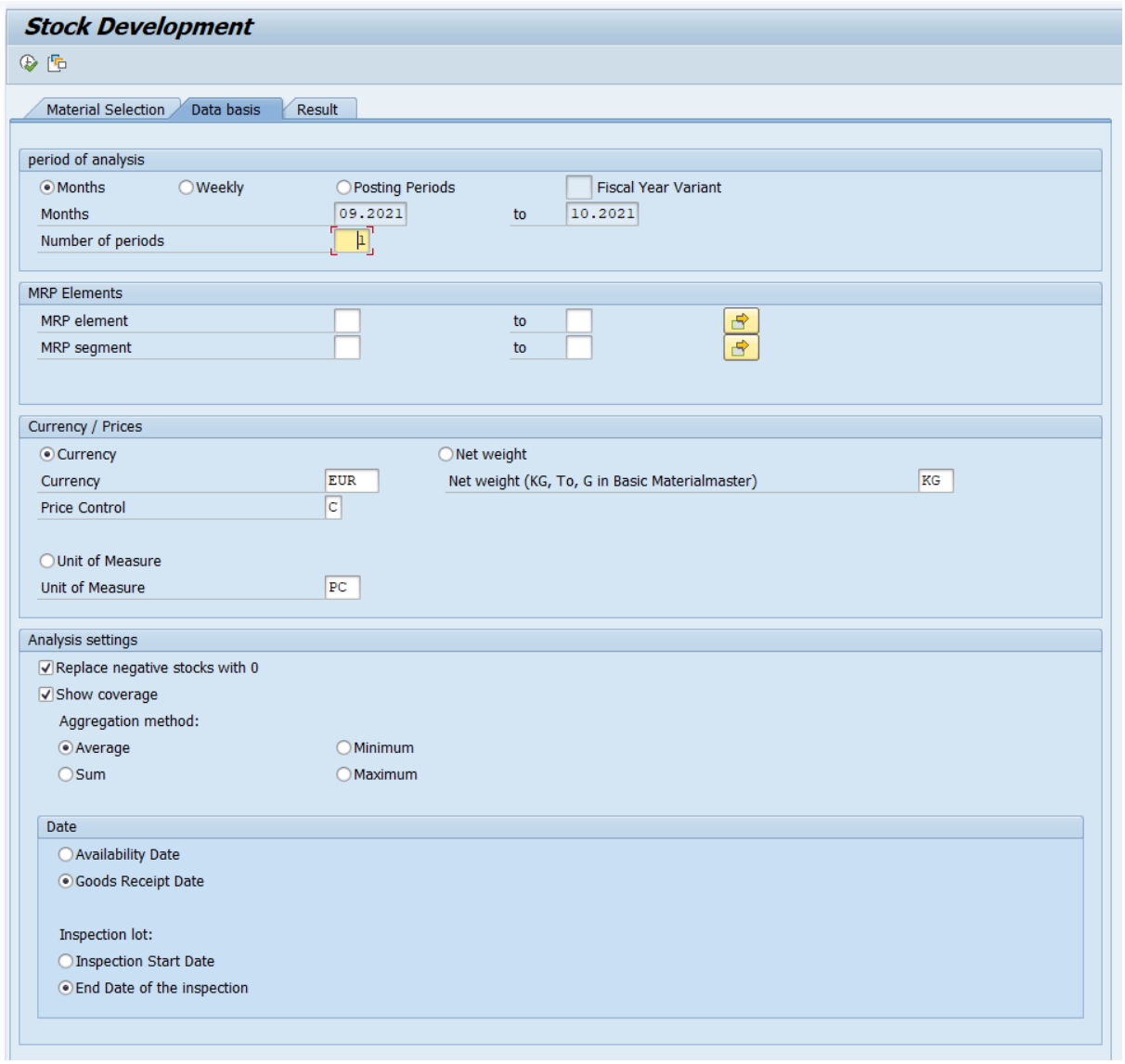
The data selected according to classifications and key figures is checked against the **enhanced material master view**. The classification then only takes into account materials that match the data entered.

Related Information

Exception Indicators
Enhanced Material Master View

5.1.2 *Data Basis* Tab

On the *Data Basis* tab, you can select the periods and MRP elements to be displayed and specify the currency and price determination.



Data Basis Tab

Analysis Period

Here you can choose between different period types. You can analyze the values for months or weeks and for posting periods, if these differ from the calendar months in your company and you have defined corresponding

fiscal year variants. If you select the *Posting Periods* option, the grayed-out *Fiscal Year Variant* field is ready for input.

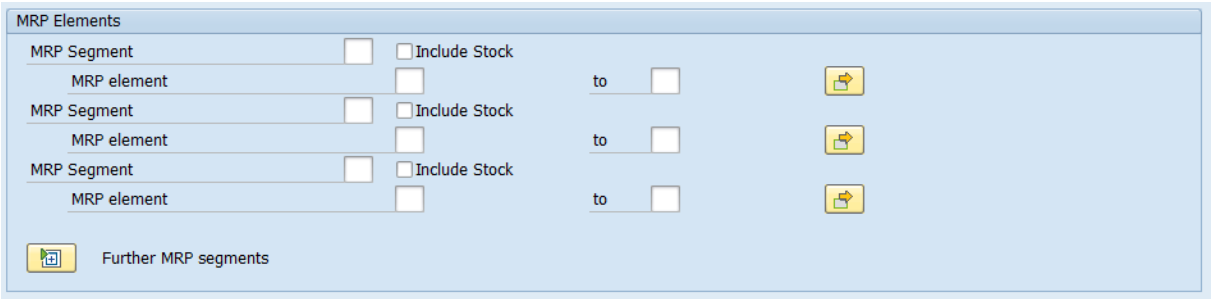
The period interval is calculated based on the selected number of periods.

If the *Number of Periods* field is empty, zero periods are used for the calculation, meaning that only the current period is issued.

MRP Elements

Here you can select the MRP elements to be taken into account when the stock/requirements list is read. Only MRP elements that you select here are considered in the **SCM Consulting Solution stock development**. If you do not make a selection, all MRP elements are taken into account. You can display and edit the texts for the MRP elements in transaction *OMD5*.

The MRP planning section is taken into account. If the *MRP Area* analysis level is selected on the *Material Selection* tab, the system displays enhanced selection options:



You can maintain information about which MRP elements are relevant for each MRP segment.

Analysis Method

In this area, you can define the currency for the analysis and the currency translation. The *Currency* and *Price Control* fields are mandatory fields. The following options are available for the price to be used:

- No price (0)
- Commercial valuation price - Level 1
- Commercial valuation price - Level 2
- Commercial valuation price - Level 3
- Tax-based valuation price - Level 1
- Tax-based valuation price - Level 2
- Tax-based valuation price - Level 3
- Always standard price
- Always moving average price
- Depending on price control indicator
- If the moving price is not 0, use the moving price, otherwise use the standard price
- If the standard price is not 0, use the standard price, otherwise use the moving price

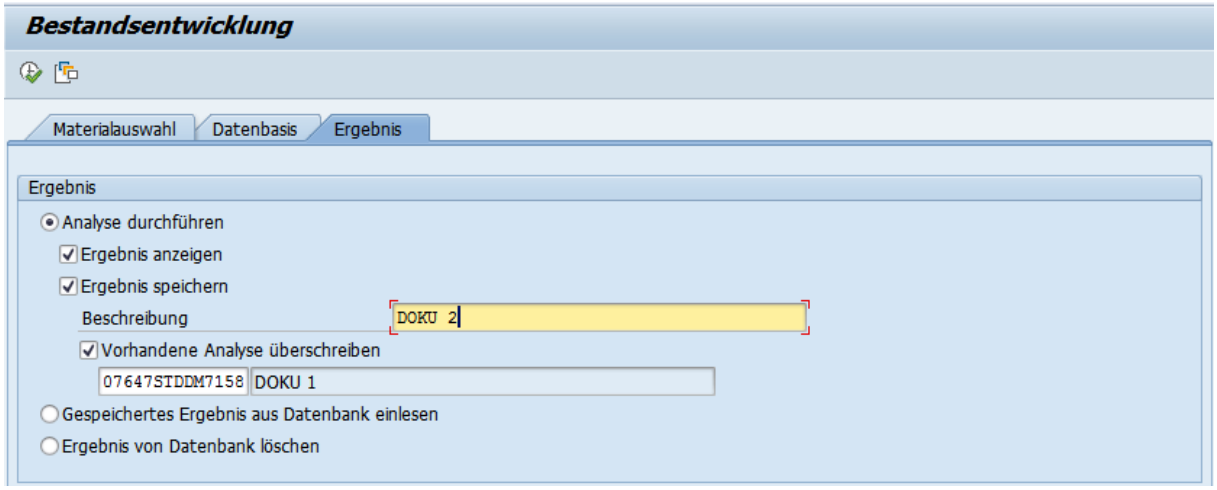
You can also output the results in units of weight or units of measure rather than in values. For the output in unit of weight, choose the option Net Weight and the unit. For the output in unit of measure, the required unit must be selected and the Unit of Measure option must be selected.

Analysis Settings

Here, you can make the settings for the analysis. It is possible to replace negative stocks with 0 and to display the range of coverage. If you also want to display the range of coverage, you can define the aggregation procedure for the range of coverage. You can choose from Average, Total, Minimum, and Maximum.

You can also select the **date** on which the analysis is based. Either the availability date or the goods receipt date is used. For inspection lots, you also have the option of using the start date of the inspection or the end date of the inspection.

5.1.3 *Result* Tab



Result Tab

On this tab page, you specify whether you want to see the calculation result only on screen or whether you also want to store it in a database table. When the data is saved to the database, the analysis data is identified using a key determined internally. To subsequently identify the analysis data in the table, you can enter a user-defined text, which you can then also use to call up the result on the *Result* tab.

If you specify that the result is to be stored in the database, you can read it from the database again later.

In the case of background processing, we recommend you save the result in the database, otherwise you can no longer access it.

On this tab (*Delete Result from Database*), you can delete calculations no longer required from the database.

Depending on the option chosen, fields are shown and hidden on the *Result* tab.

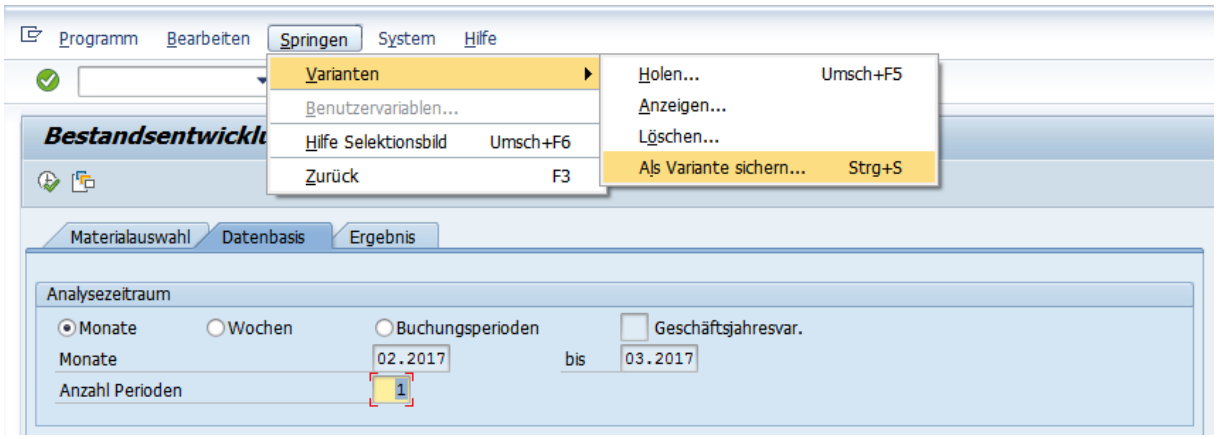
Overwriting an Existing Analysis

You can use this option to overwrite an existing analysis. The key (DB key) is retained. However, the data is deleted and the new analysis data is saved under this DB key.

You can enter a new description for the analysis in the *Description* field.

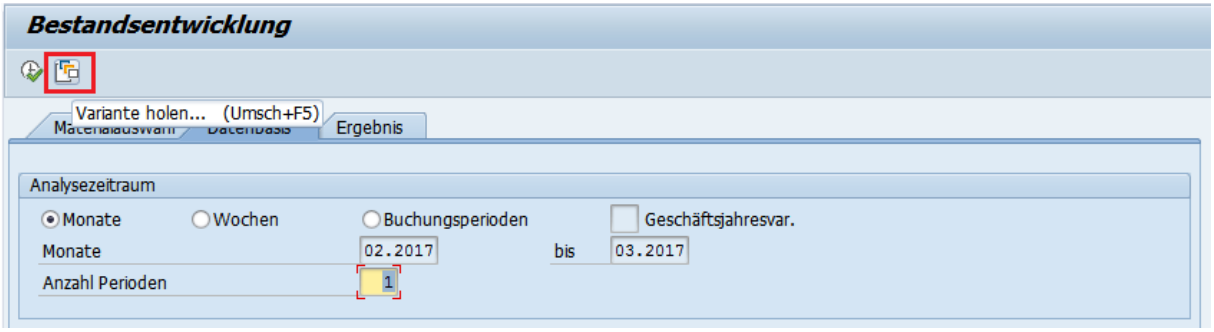
5.1.4 Use of Variants

You can save frequently required settings as variants and reuse the settings when you need them.



Saving Variants

You can access saved variants at any time and further modify them as needed. To do this, choose the *Get Variant* pushbutton.



Accessing Saved Variants

You can select the variant you require in a dialog box.

You can also define a global standard variant that is automatically entered when you access the tool. For this, you can define a variant with the name of the transaction.

> **Example**
>
> Variant name = /SAPLOM/STD

The standard variant can also be saved on a user-specific basis. To do so, specify a variant with the name "U_xxx", whereby "xxx" stands for the user name used to log on to the SAP system. A user-specific standard variant takes precedence over a global standard variant.

5.1.4.1 Default variants

You can save a default variant for the transaction of the consulting solution. This variant will be loaded automatically every time you open the tool. There are two types of default variants available:

System-wide variant, valid for all users

If a variant exists with the same name as the transaction code (including /SAPLOM/), this variant will be the default for all users who start the tool, unless they have a user-specific variant saved on the same system. Normally system-wide variants are used to provide a predefined set of values that can enhance usability if, for example, certain fields like plant, currency or time will be pre-populated. The user can change these values any time before executing the program.

User-specific variants

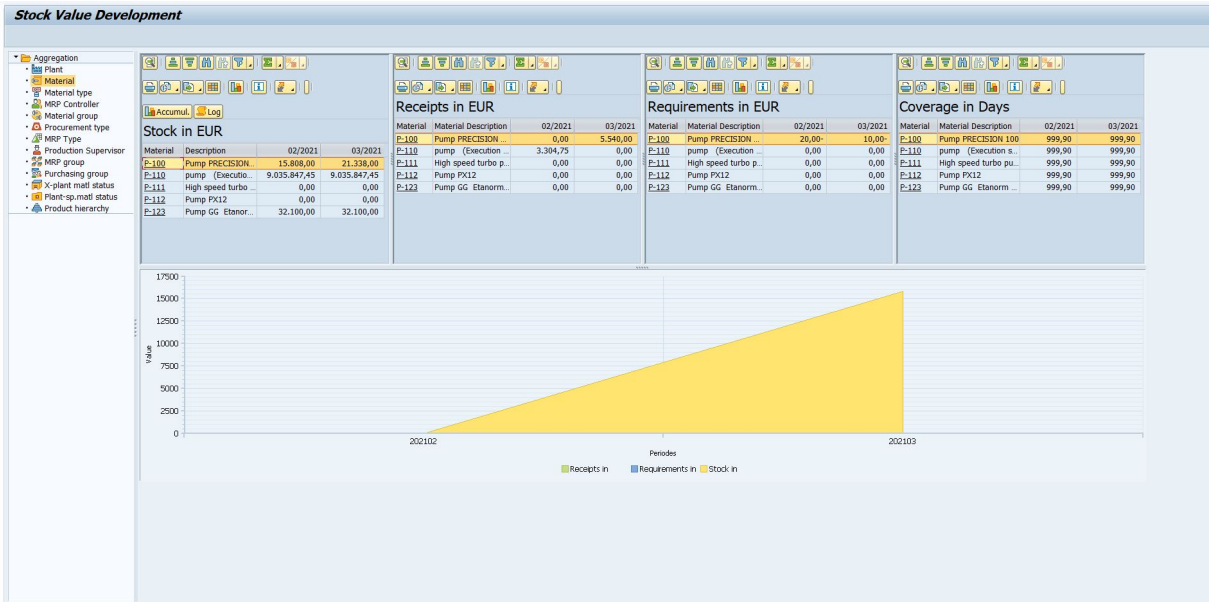
If a variant exists with the following naming convention *U_<username>*, then this variant will be defaulted for this specific user if they start the tool.

> Example
>
> A user with a logon name of *JSMITH* would save his own variant like this: *U_JSMITH*

This, too, can enhance usability, because certain fields like plant, currency or time can be pre-populated for a specific user. The user can change these values any time before executing the program. Although each user can have only one predefined variant per system, the variant can be overwritten with new values.

5.2 Results Screen

The results window is divided into three parts. A tree-like menu is located on the left. Here, you can the select the aggregation you require by double-clicking on the relevant name. The tables containing the stock, receipt, issue, and range of coverage (optional) are displayed in the top right of the screen. You see the corresponding graphic for the values in the bottom right of the screen. The right-hand side of the screen is updated according to the aggregation that you select on the left-hand side of the screen.



Result

Aggregation

In the menu tree on the left, you can select the required aggregation.

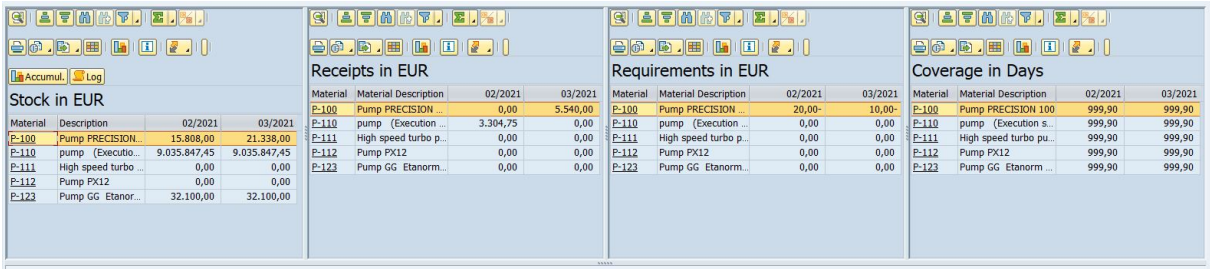
Aggregation by plant is set by default. By double-clicking on a material, for example, you can change the aggregation.

The following aggregation options are currently available:

- Plant
- Material
- Material Type
- MRP Controller
- Material Group
- Procurement Type
- MRP Type
- Production Supervisor
- MRP Group
- Purchasing Group
- Cross-Plant Material Status
- Plant-Specific Material Status
- Product hierarchy

5.2.1 Output Tables

In the upper three tables, you see the stock, receipt, issue, and range of coverage for the selected aggregation category in the selected currency.



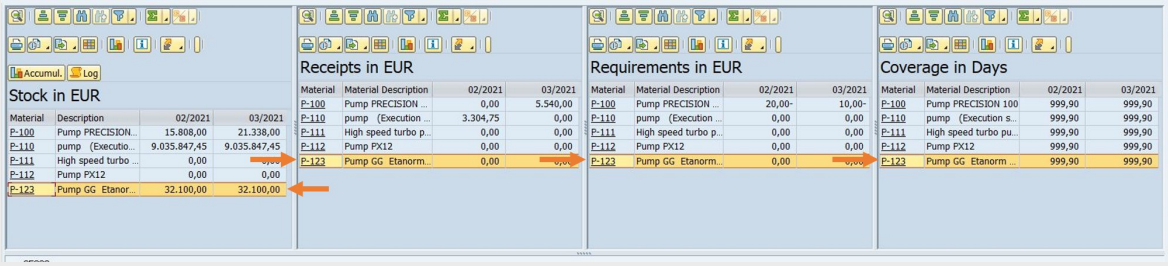
Stock/Receipt/Issue Tables

For the output tables, there is a single-click function (hotspot click) and a double-click function. If you click in the first column of one of the tables, the graphic is updated based on your selection.

If you double-click a value in the following columns (not the first column), the double-clicked row is copied to the first visible row of the table. This is also done simultaneously in the other two tables. The first row then contains the stock, receipts, issues, and range of coverage for this product.

Example

For example, if you double-click in the second column next to the product P-123 in the screenshot above, the display changes as follows:



Double-Click Function

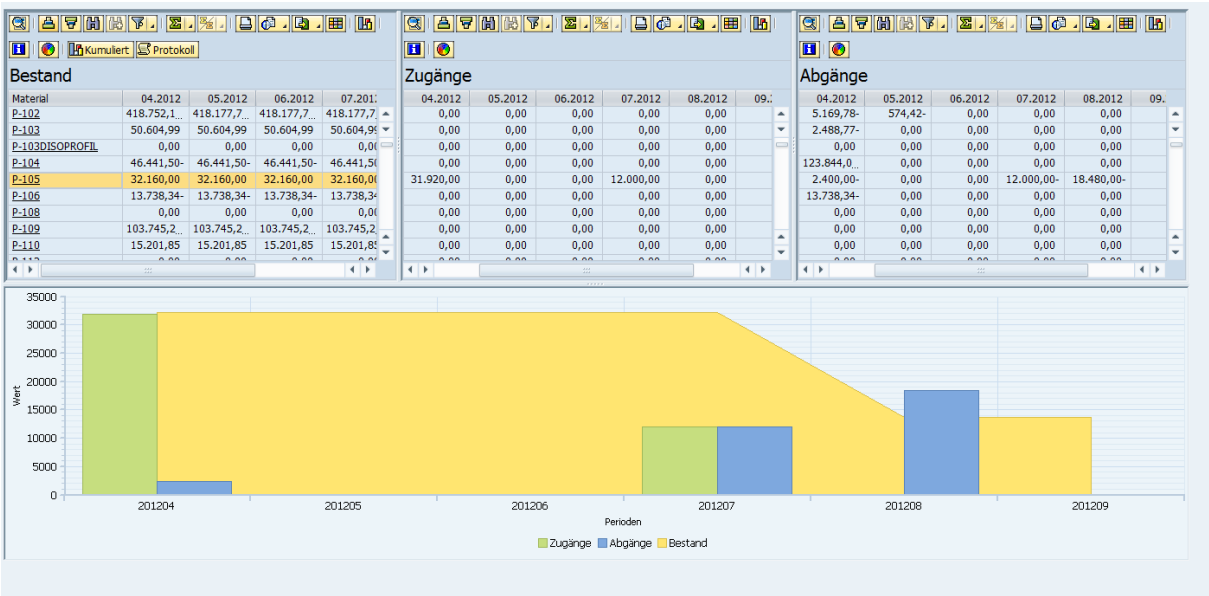
In each table, the focus is now on material P-123.

You can use this function, for example, to get the receipts and issues related to the corresponding stock. You can double-click in any of the tables. If the tables contain too few entries, the double-click function brings the columns only to the same level, but not to the first visible column.

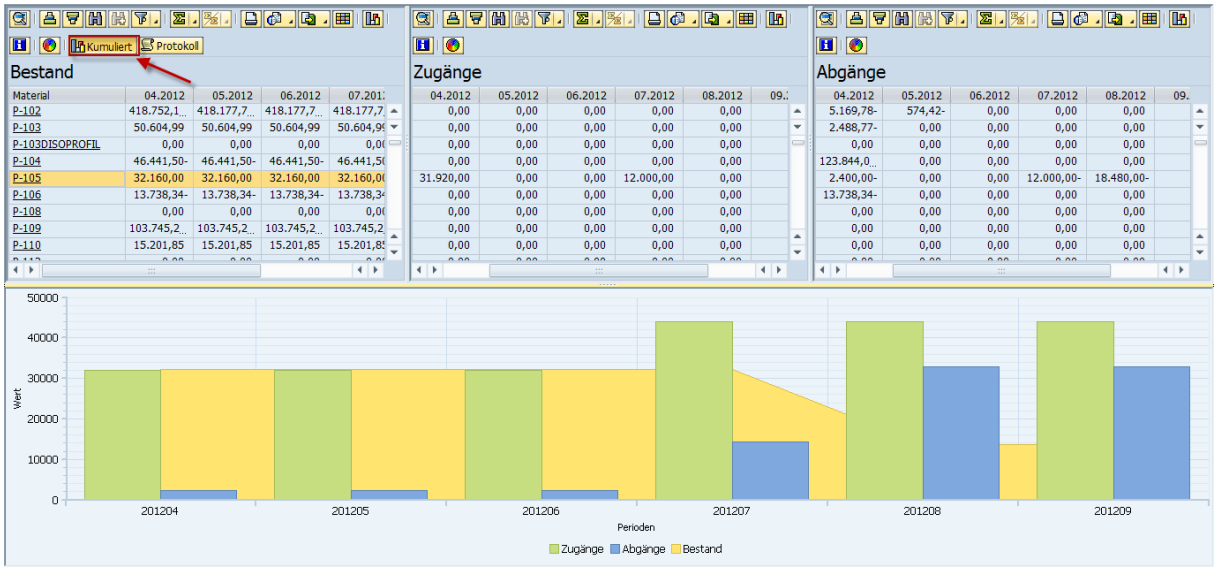
5.2.2 Graphic

The stock, receipts, and issues key figures are to be displayed in the graphic. The values refer to the entire selection. Issues are indicated with a minus sign in the results table, but all values are displayed as positive in the graphic. All values are cumulated per period and per aggregation category.

By choosing the *Cumulated* button, you can display the receipts and issues as cumulated or not cumulated.



Not Cumulated



Cumulated

5.3 More Information

Aggregation errors may occur for materials with categories that are not maintained that are to be used for aggregation. You either need to exclude these materials from the selection or subsequently maintain them. Materials that cannot be read using the function module *MD_STOCK_REQUIREMENTS_LIST_API* are not considered during the calculation. In this case, you see just one error message with the corresponding material number. If additional materials with errors occur, no further message is issued.

Results can only be saved using the standard ALV functions. 99 periods can be displayed.

> ⚠ Caution
>
> If you select more than 100 materials with a large number of periods (<50), this can lead to long wait times, memory problems, and related program crashes (for example, with the message runtime error *BCD_FIELD_OVERFLOW*). To avoid this, restrict your selection accordingly.

The length of the characters of a price per period may have no more than 11 digits including 2 decimal places.

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