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Lot Size Simulation

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1 Lot Size Simulation

With the **lot size simulation** (abbreviation SLS), it is possible to simulate the cost-related consequences of the lot-sizing procedures available in the ERP system for various input parameters.

All the lot-sizing procedures available in Customizing are available.

In addition, a fixed, economical lot size based on the Andler approach can be calculated and transferred to the material master.

Features of the lot size simulation





- Simulation of the lot-sizing procedures available for a material in the material master
- Determination of a fixed, economical lot size based on the Andler approach
- Consideration of scale prices in the Andler approach
- Consideration of maximum ranges of coverage in the Andler approach
- Calculation of the average lot size and average order interval
- Determination and maintenance of the replenishment quantity for storage location MRP
- Mass maintenance of lot-size-independent costs and storage costs indicators
- In principle, all MRP-relevant receipt and issue elements are taken into consideration as the data basis in the same way as in the MRP update run
- Fixed receipts can be deleted for the simulation
- The planning horizon can be manually restricted
- The safety stock and the current plant stock can also be set to 0 at the start of the simulation and on the result screen
- At the start of the simulation, the current parameters from the material master are used
- Options for configuring the parameters for lot size calculation as the basis for a repeat simulation.
 - Global settings for all materials as a percentage or percentage points: Lot-size-independent/fixed ordering costs, requirements, horizon, reorder point, safety stock
 - On a global level: Neutralization of safety stock and plant stock, as well as deletion of fixed receipts
 - Material-specific settings: Storage costs indicator, lot-size-independent costs, reorder point, safety stock, minimum lot size, maximum lot size, fixed lot size, purchase order quantity rounding value, maximum stock level
- Option of excluding individual lot-sizing procedures from the simulation
- Graphical display options of the cost scheduling (planning horizon, calendar weeks, months) and the stock situation (planning horizon)
- Display of procurement proposals for the simulated procedure including cost scheduling in table form
- Update the lot-size indicator in the material master
- Graphical display of aggregated stock values

2 General information

Note that executions of **SCM Consulting Solutions** require the prefix of `/n/SAPLOM/` before each transaction (`/n/SAPLOM/Transaction Code`).

If errors occur during use of the lot size simulation, create an OSS message under component XX-PROJ-CON-LGS.

In addition to this documentation, see also the following SAP Notes:

- [1363889](#)  **SCM Consulting Solutions: Lot size simulation**
- [1825791](#)  **Lot size simulation: Reorder Point Planning**
- [1825790](#)  **Lot size simulation: Storage Location MRP Special Case**
- [1830492](#)  **Update of Other Procedures for Other Parameters**

You can also use the **comprehensive functions**. These include the following functionalities:

- Measures and resubmissions
- Comment function
- Individual material groups
- Alerts
- Formula editor for creating your own formulas
You use the formula editor to create your own formulas to calculate your own key figures. The formulas can be used in all SCM consulting solutions.

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 **comprehensive functions** consist of various functions that can make your work with the **SCM Consulting Solutions** even more effective. 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**. You can use **material document aggregation** to create customized consumption and inventory histories that you can use for the analyses in the **MRP monitor**, **inventory controlling cockpit**, and **safety stock and buffer simulation**. The **stock development** shows you the current stock values and provides you with a variety of aggregation options.

Related Information

[Documentation on the comprehensive functions](#)
[Overview of SCM Consulting Solutions](#)

3 Start of simulation

To start the **lot size simulation**, you must first either have executed the **MRP monitor**, or selected the relevant materials using transaction `/n/SAPL0M/SLS`.

3.1 Start via the MRP monitor

If you choose to start the simulation using the **MRP monitor**, you select the relevant materials from the results display of the **MRP monitor**.

Total list...

Material	Plant	ABC	EFG	LMN	UVW	XYZ	Cycle	Counter	fin.	Rs Date	oMea	Comment	Material Description	MTyp	Dv	Matl Group	MS	Created On	Per.crea	New	Del.flag
P-100	0001	C	G	N	W	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	0110	C	G	N	W	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	1000	C	G	L	U	Z	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	1100	C	G	L	U	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	1300	C	F	N	U	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	2300	C	F	N	U	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	2400	C	F	N	U	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	2500	C	F	N	U	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	3000	C	F	L	U	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	3300	C	F	N	U	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	3800	C	F	N	W	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>
P-100	8592	C	E	N	W	X	D	1	⊗				Pump PRECISION 100	FERT	01	001		07.11.1994	11.1994	<input type="checkbox"/>	<input type="checkbox"/>

Results display in the MRP monitor

If you choose the *lot size simulation* pushbutton, you access the functions of the **lot size simulation**.

All other data from the material master that is needed for the simulation is retrieved during the simulation. At the start of the simulation, only the lot-sizing procedure currently defined in the material master is calculated with the available data from the material master and requirement table.

Other procedures can be selected on the result screen.

3.2 Start using transaction `/n/SAPLOM/SLS`

Lotsize Simulation

Maintain cost

Material select | Advanced Options | Shelf Life Analysis | Result

Level of Analysis

Plant
 MRP area
 Display Plant MRP area
 Storage Location

Analysis scope

Material	<input type="text"/>	to	<input type="text"/>	
Material Type	<input type="text"/>	to	<input type="text"/>	
Material Group	<input type="text"/>	to	<input type="text"/>	
Product hierarchy	<input type="text"/>	to	<input type="text"/>	
X-plant matl status	<input type="text"/>	to	<input type="text"/>	
Division	<input type="text"/>	to	<input type="text"/>	
Plant	<input type="text"/>	to	<input type="text"/>	
MRP Area	<input type="text"/>	to	<input type="text"/>	
Storage Location	<input type="text"/>	to	<input type="text"/>	
Procurement type	<input type="text"/>	to	<input type="text"/>	
Individual/coll.	<input type="text"/>	to	<input type="text"/>	
Special procurement	<input type="text"/>	to	<input type="text"/>	
Plant-sp.matl status	<input type="text"/>	to	<input type="text"/>	
MRP Controller	<input type="text"/>	to	<input type="text"/>	
MRP Type	<input type="text"/>	to	<input type="text"/>	
Profit Center	<input type="text"/>	to	<input type="text"/>	
Purchasing Group	<input type="text"/>	to	<input type="text"/>	
Prodn Supervisor	<input type="text"/>	to	<input type="text"/>	
Individual Material Group	<input type="text"/>	to	<input type="text"/>	

add. material parameters

Mapping of the selection screen - Material Selection tab

If you start the simulation using transaction `/n/SAPLOM/SLS`, the materials to be simulated are determined based on the selection parameters from the *Material Selection* tab.

Lotsize Simulation

Maintain cost

Material select | **Advanced Options** | Shelf Life Analysis | Result

Determination of Consumption

Analysis Period (Consump.) to

Data source

Table Material consumption

Total Consumption corrected total consumption

Material documents

MRP Settings

Lot size to

Andler lot size method

Setting Andler lot size

LS-Method for Andler

Considering price scales

Use EOQ as min. lot size (simulation)

max. range of coverage (days)

Horizon Limitation to

Neutralise plant stock

Neutralise safety stock

Delete fixed receipt elements

Avg. lot size and order interval

Settings avg. lot size and order interval

Horizon to

Data source

Orderhistory

Material documents

Range of coverage chec

Settings range of coverage check

(1)	(2)	(3)	(4)	Global value
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text" value="0,0"/>

(1) CS TAB (1. in days, if not maintained => relation), else global value

(2) CS TAB (1. Relation, if not maintained => in days), else global value

(3) max. range of coverage stock = max. safety stock

(4) global value

Determine RLT for relation calculation from...

(1)	(2)	(3)	(4)
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(1) CS Tab RLT (cal.days)

Mapping of the selection screen - Enhanced Options tab

On the *Enhanced Options* tab, numerous settings for the simulation are made.

In the *Determination of Consumption* area, it is defined which data source is used to determine consumptions, and in which horizon they are determined. Consumptions are required for functions such as the Andler lot size.

In the *MRP Settings* block, you can select the lot-sizing procedures to be simulated using *MRP Lot Size*. All the procedures configured in Customizing are available.

Settings in the *Andler lot size method settings* area are described in chapter [Andler lot size \[page 25\]](#).

In the block *MRP Settings*, you can set the following global parameters:

- *Date*: With this, you can restrict the horizon for the receipt and issue elements to be taken into consideration
- *Neutralize Plant Stock*: For the simulation, the plant stock is set to 0
- *Neutralize Safety Stock*: For the simulation, the safety stock is set to 0
- *Delete Fixed Receipt Elements*: The simulation assumes that fixed receipts do not exist
- *Average lot size and order interval*: You can use this function to determine the two key figures and display them on the result screen. For the calculation, you need to specify a horizon in the past and a data source.

Settings in the *range of coverage limits values* area are described in section [Days' Supply Check \[page 28\]](#).

The *Shelf Life Analysis* tab provides configuration options for the shelf life analysis. For more details, see section [Shelf Life Analysis \[page 29\]](#).

On the *Result* tab, you define how the simulation is executed:

- *Process Analysis for SLS Monitor*: This setting triggers a simulation.
 - *Display Result*: This setting causes the result of the simulation to be displayed on the result screen.
 - *Save Result*: You can use this setting to save the result of the simulation run in the database in combination with a description/key. You can access this result again later.
 - *Update Lot Size in Material Master*: With this flag, the best (most cost-effective) procedure determined by the simulation is updated in the material master.
- *Read result from database*: With this setting, you can read out a saved result from the database and display it on the result screen. (A resimulation and the changing of parameters is not possible here. Selections in block 2 and 3 do not take effect either.)
- *Delete result from database*: As soon as a saved result is no longer required, you should delete it using this function.

Related Information

[Andler lot size \[page 25\]](#)

[Days' Supply Check \[page 28\]](#)

[Shelf Life Analysis \[page 29\]](#)

3.2.1 Use of variants

Settings that are frequently needed in the **lot size simulation** can be stored as variants and accessed again if required.

Saved variants can be accessed as desired and then modified if required. To do this, choose the *Get Variant* pushbutton.

In a dialog box, you can select the variant you require.

3.2.2 Default Variants

You can save a default variant for the transaction of the consulting solution. The variant is loaded automatically each time you open the tool. Two types of standard variants are 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. Typically, system-wide variants are used to provide a predefined set of values that increases usability when fields such as plant, currency, or time are to be prefilled, for example. The user can change the values at any time before executing the program.

User-Specific Variants

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

❖ Example

A user with the logon name *JSMITH* would save their own variant as follows: *U_JSMITH*

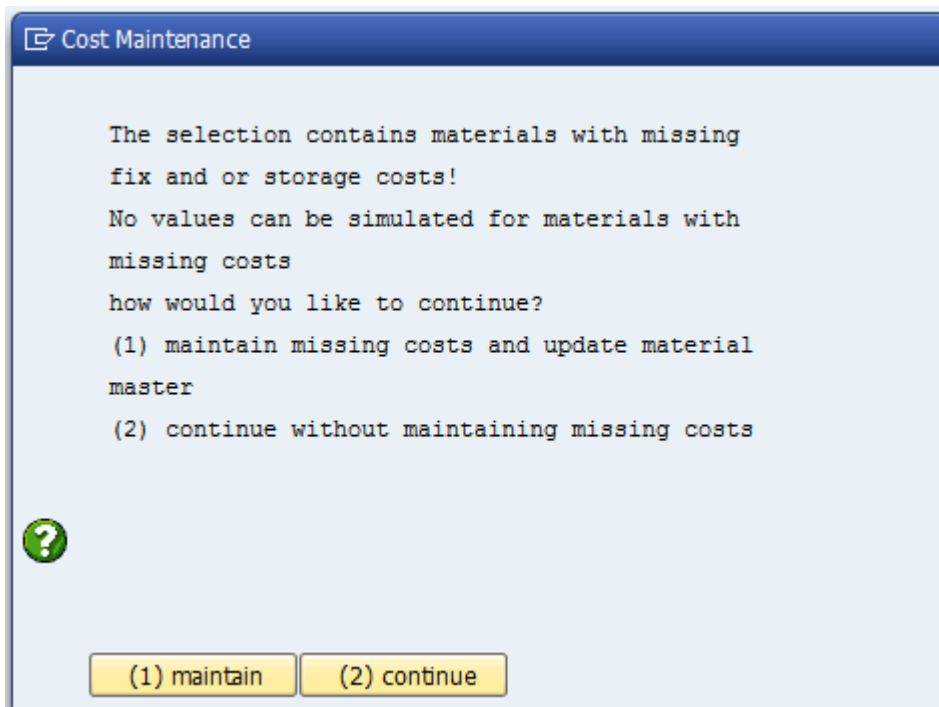
This can also improve usability since certain fields, such as plant, currency, or time, can be prefilled for a specific user. The user can change the values at any time before executing the program. Each user can have only one predefined variant per system, but the variant can be overwritten with new values.

4 Maintain costs

Since the two parameters ordering costs and storage cost indicator are mandatory for the **lot size simulation**, this monitor enables you to maintain these values in advance using mass maintenance.

One way of starting the cost maintenance is by choosing the *Maintain Costs* pushbutton on the selection screen. In addition, before the simulation is executed, a cost check is performed on the materials. This applies whether you start cost maintenance from the **MRP monitor** or via the separate transaction.

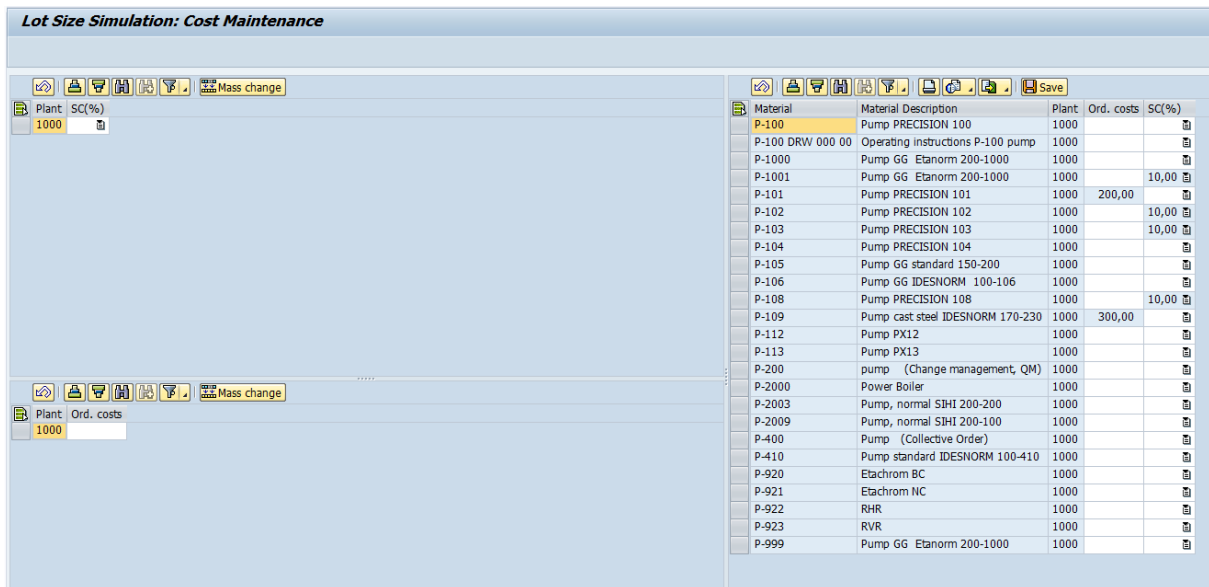
If materials exist in the selection for which at least one of the two pieces of cost information is missing, the following dialog box is displayed:



Dialog box for cost maintenance

The simulation continues with (2) *continue*, but cannot simulate materials without the cost information.

You access the following screen, whether you choose the pushbutton on the selection screen or (1) *maintain*:



Screen for cost maintenance

The Maintain Costs function is initially only possible for initial maintenance. A later update of the costs can be performed via the material master update on the result screen (pushbutton *Update Mat. Master*).

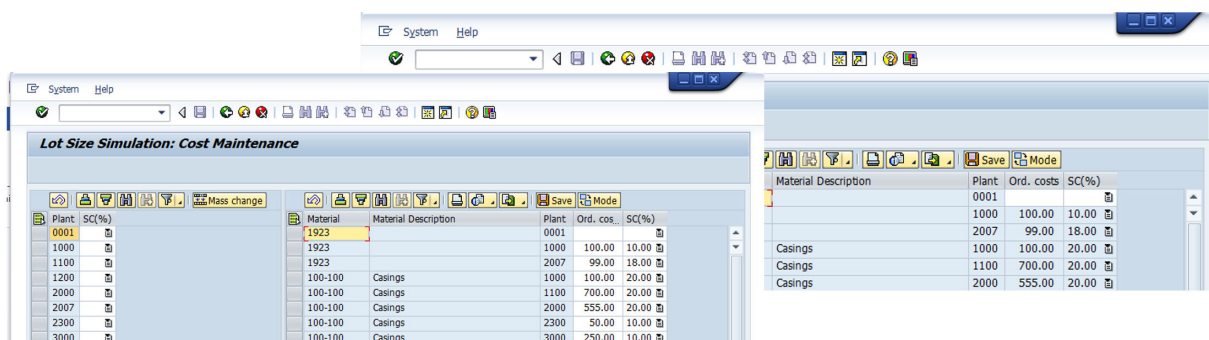
This means if values have already been maintained, they cannot be overwritten. Only materials with missing values are displayed.

On the left-hand side of the screen shown above, you can transfer values to the right-hand side of the screen at plant level using mass processing. You do this by entering a value for a plant and choosing *Mass Change* to trigger the transfer to the right.

In the right-hand half of the screen, you can also enter values manually for each material or adapt them after a mass transfer.

The *Mode* function permits you to lock or unlock fields that have already been maintained.

With the Mode function key in the right-hand screen area, fields that have already been maintained are ready for input and you can overwrite them either manually or by using the mass change function.



Editing mode for costs

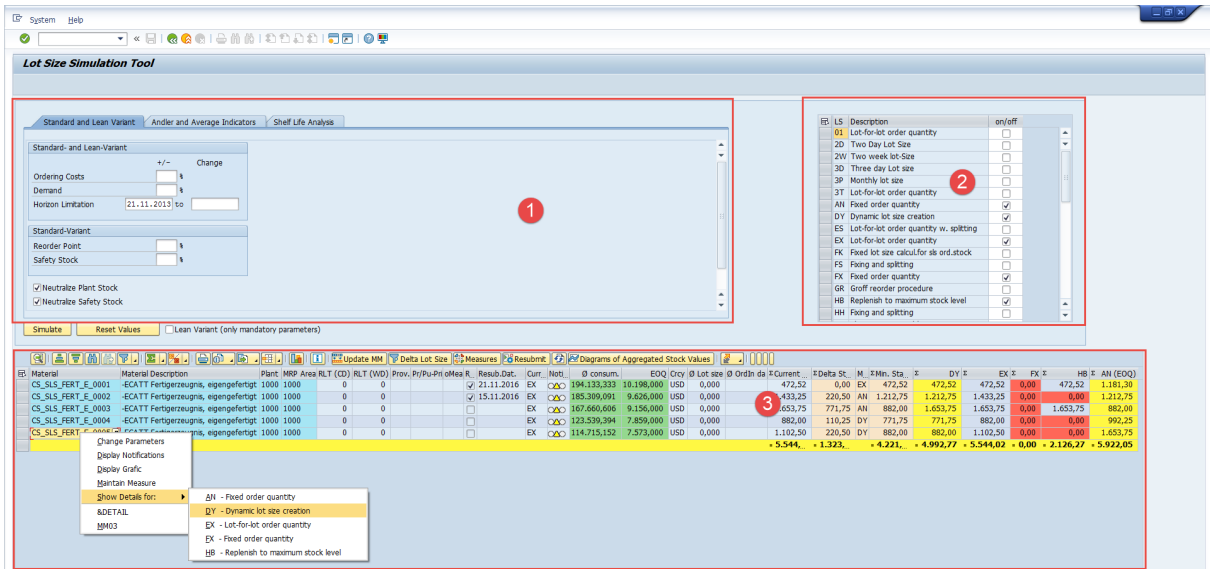
In addition, not only are those materials with missing costs selected, all materials from the selection are selected. An exception here is the cost maintenance after the simulation has been started.

Choose [Save](#) to transfer the entered values to the material master.

The update is carried out in the background. The result of the transfer can be viewed in the application log (transaction: [SLG1](#)).

5 Result

The main screen of the simulation tool displays the following:



Main screen of the simulation tool

5.1 Result calculation and output

On the result screen, you can make various settings for the simulation.

5.1.1 Global change to the material specifications

In area ¹, scenario analyses with input data changed proportionally can be performed for the standard variant and for the lean variant (see [The lean variant \[page 32\]](#)). You can change the percentages of these values in the input fields. In addition, you can increase or reduce the percentage for the requirements. All changes that are made in this area are discarded when you close the tool.

If a change to the global parameters was made, the absolute change in relation to the initial value is displayed on the right next to the input field. Multiple changes are cumulated.

The Horizon Limitation input field has a special role here. Usually, the relevant requirements of a material are read out, and the simulation is executed up to the last requirement date. As a result of the horizon limitation, it is possible to restrict the planning horizon for all materials from the result list simultaneously. As a result, only requirements whose dates fall between the From date and the To date are used in the simulation.

¹ Area name relates to the screen in the main section [Result \[page 13\]](#)

As soon as all changes for the global parameters have been made, you need to choose the Simulate button to start a new simulation run.

Settings for the Andler lot size can be understood as on the selection screen.

Related Information

[Result \[page 13\]](#)

5.1.2 Selection of lot-sizing procedures on the main screen

In area 2², all the available lot-sizing procedures are listed with a checkbox. By selecting or deselecting the checkboxes, you can exclude or include individual procedures from or in the simulation. The changes are transferred by choosing the *Simulate* pushbutton.

Related Information

[Result \[page 13\]](#)

5.1.3 Result list of the simulation run

The result list in area 3³ shows the total costs in the planning horizon for the relevant material and lot-sizing procedure. The *Notification* status display indicates that one or more parameters for the simulation of a procedure have not been maintained, or a situation exists that does not allow the material to be simulated.

Traffic light colors:

- Green: All the desired procedures could be simulated
- Yellow: One or more procedures could not be simulated because parameters are missing. Others may have been simulated if all the parameters for these were available.
- Red: No simulation was carried out for this material.

Related Information

[Result \[page 13\]](#)

² Area name relates to the screen in the main section [Result \[page 13\]](#)

³ Area name relates to the screen in the main section [Result \[page 13\]](#)

5.1.4 New simulation run and resetting of parameters

If you choose *Simulate*, a new simulation run is executed, taking changed parameters into account. *Reset Values* resets the parameters of all materials to the material master status.

The consequences for costs are displayed column-by-column for all selected lot-sizing procedures and materials selected in advance.

5.1.5 Delta display of lot-sizing procedure

The *Delta Lot Size* button causes the tool to compare the currently defined lot-sizing procedure with the most cost-effective procedure. If a delta could not be determined, the material in question is removed from the result list. The remaining materials in the result list have the potential to be optimized. Therefore, you should use the Save button to update the most cost-effective procedure in the relevant material master.

5.1.6 Context menu on the results table

You can access the following functions from the context menu:

- *Change parameters*
- *Display messages*
- *Display graphic*
- *Maintain measures*⁴
- *Display details* for the various procedures

⁴ see documentation on **comprehensive functions**.

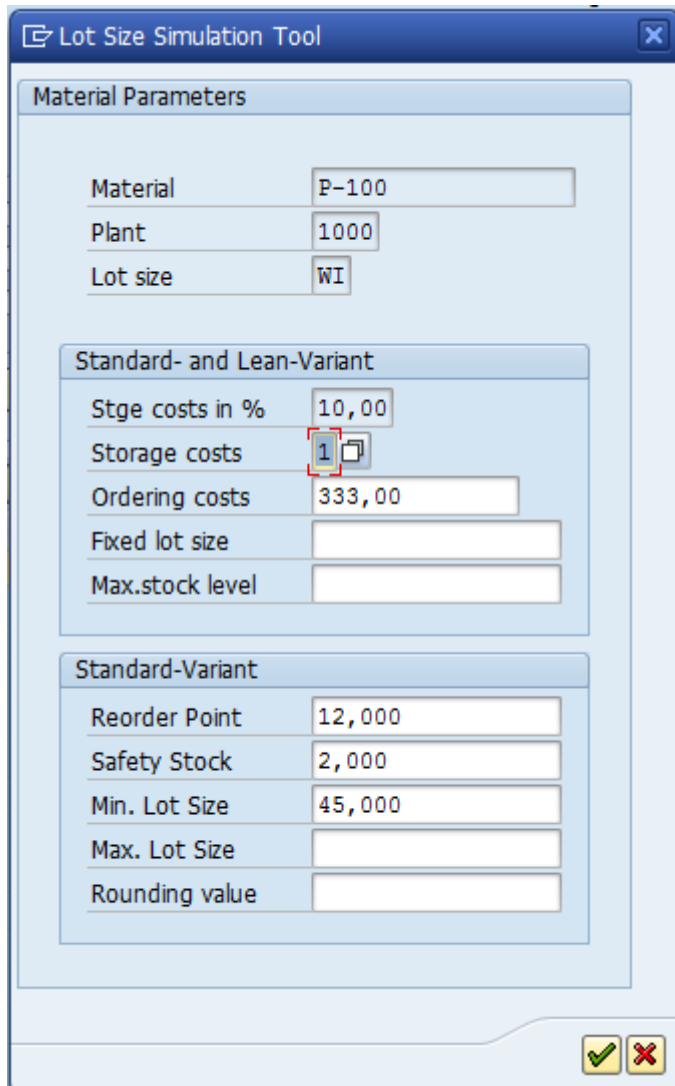
Material	Material Description	Plant	MRP Area	ABC	XYZ	EFG	LMN	UVW	PQR	HIJ
CS_SLS_FERT_E_0001	SCATT Fertigerzeugnis, eigengefertigt	1000	1000	C	Z	E	N	V	P	
CS_SLS_F	zeugnis, eigengefertigt	1000	1000	C	X	E	N	V	Q	
CS_SLS_F	zeugnis, eigengefertigt	1000	1000	C	X	E	N	V	R	
CS_SLS_F	zeugnis, eigengefertigt	1000	1000	C	X	E	N	V	R	
CS_SLS_F	zeugnis, eigengefertigt	1000	1000	A	X	E	N	V		

Change Parameters	
Display Notifications	
Display Grafic	
Maintain Measure	
Show Details for:	<ul style="list-style-type: none"> <u>2</u>D - Two Day Lot Size <u>2</u>W - Two week lot-Size <u>3</u>D - Three day Lot size <u>A</u>N - Fixed order quantity <u>D</u>Y - Dynamic lot size creation <u>E</u>X - Lot-for-lot order quantity <u>E</u>X - Fixed order quantity <u>H</u>B - Replenish to maximum stock level
&DETAIL	
MM03	

Context menu on the results table

5.1.6.1 Change parameters

You can access the context menu by right clicking a material. The functions available here are material-specific. If you choose the *Change Parameters* function, the following window is displayed:



The screenshot shows a dialog box titled "Lot Size Simulation Tool" with a close button (X) in the top right corner. The dialog is divided into three sections:

- Material Parameters:** Contains three input fields: "Material" with the value "P-100", "Plant" with the value "1000", and "Lot size" with the value "WI".
- Standard- and Lean-Variant:** Contains five input fields: "Stge costs in %" with the value "10,00", "Storage costs" with the value "1" (highlighted with a red box), "Ordering costs" with the value "333,00", "Fixed lot size" (empty), and "Max.stock level" (empty).
- Standard-Variant:** Contains five input fields: "Reorder Point" with the value "12,000", "Safety Stock" with the value "2,000", "Min. Lot Size" with the value "45,000", "Max. Lot Size" (empty), and "Rounding value" (empty).

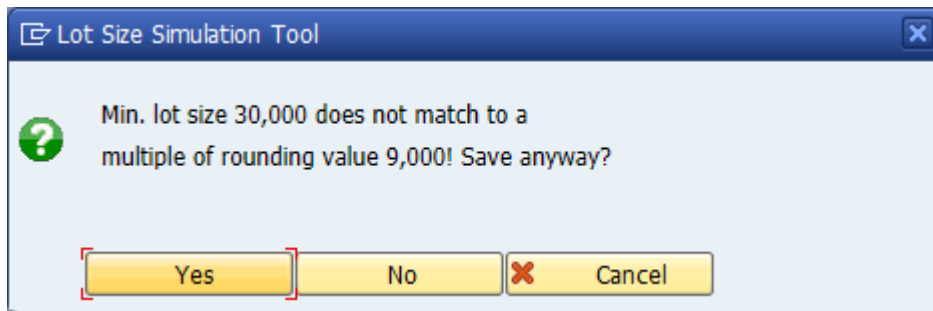
At the bottom right of the dialog, there are two buttons: a green checkmark icon and a red X icon.

Dialog box for changing parameters

The first time the window is opened, the parameters are read from the material master and displayed.

You can change the parameters for lot-size calculation.

Before the parameters are transferred, a check is performed for the combination of rounding value, minimum lot size, and maximum lot size. Checks are then carried out, for example, to determine whether the minimum lot size is a multiple of the rounding value. Depending on the combination involved, these checks may result in an error or warning.



Example of a warning following a check on the parameters

All changes are only relevant for the material in question. Furthermore, changes are only temporarily stored. When the simulation has been completed, the changes are discarded.

If parameters for one or more materials were changed, you must perform the simulation again by choosing the [Simulate](#) button. The newly specified material information is included in the new simulation run.

5.1.6.2 Display messages

The different lot-sizing procedures require different input parameters. Calculation can only take place if all parameters are available.

A red traffic light is displayed if important parameters for a material are not available and therefore the simulation cannot be performed.

❖ Example

The storage percentage or lot-size-independent costs are not maintained for a material. This means that the costs for this material cannot be calculated in any procedure.

Less critical issues receive a yellow traffic light.

❖ Example

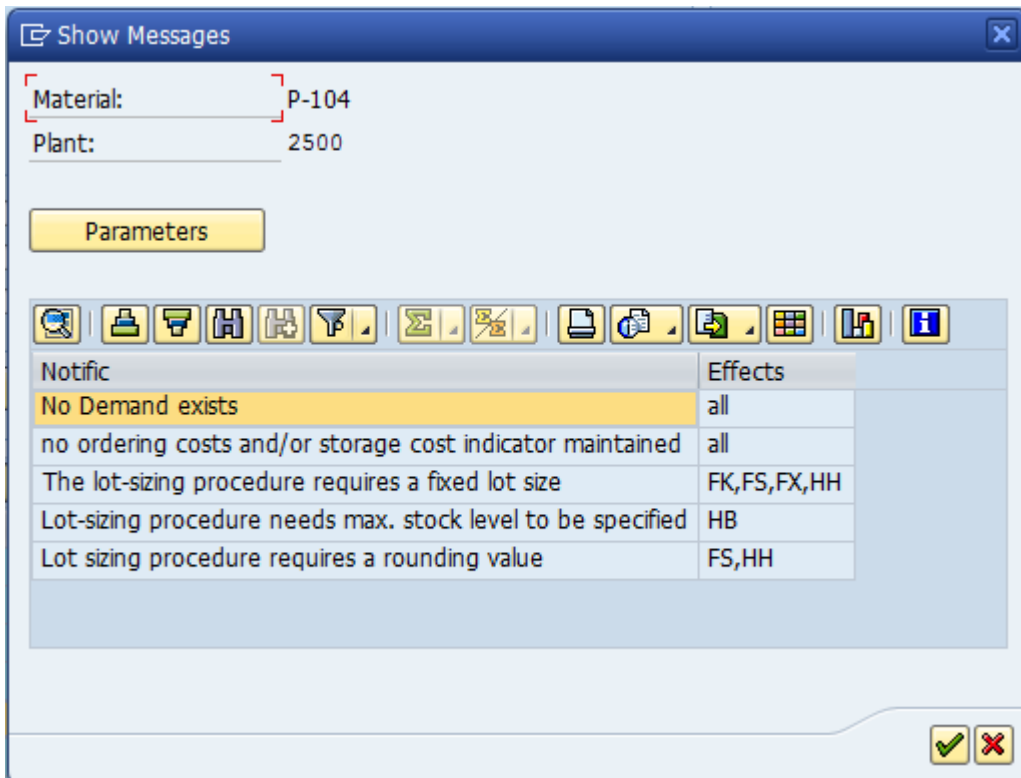
A missing fixed lot size or a missing maximum stock level trigger a yellow traffic light.

The traffic light is green only if the material parameters (see section [Change parameters \[page 17\]](#)) are maintained sufficiently for all procedures to be simulated.

P-103	Pump PREC...	1000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Green
P-102	Pump PREC...	1000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Red
P-101-TIO	Pump PREC...	1000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Yellow

Traffic light logic for problems in the simulation

If you select *Show Messages* from the context menu, the following screen is displayed:



Show messages

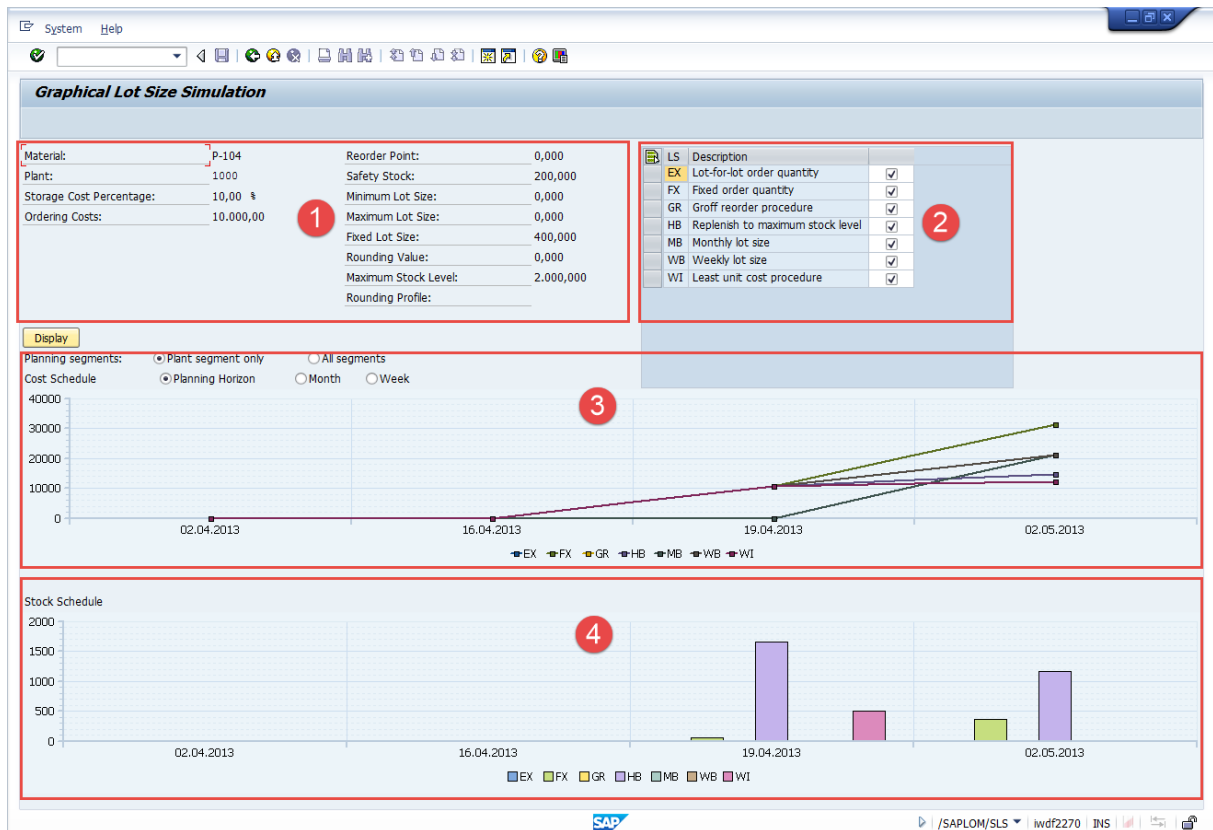
If you choose the pushbutton *Parameters*, the screen *Parameters* is opened for the material (see: [Change parameters \[page 17\]](#)). In the dialog box that is displayed, you can then adjust the required parameters for this material.

Related Information

[Change parameters \[page 17\]](#)

5.1.6.3 Display graphic

For this function, the cost scheduling and development of the stocking situation of the various lot-sizing procedures is represented graphically.



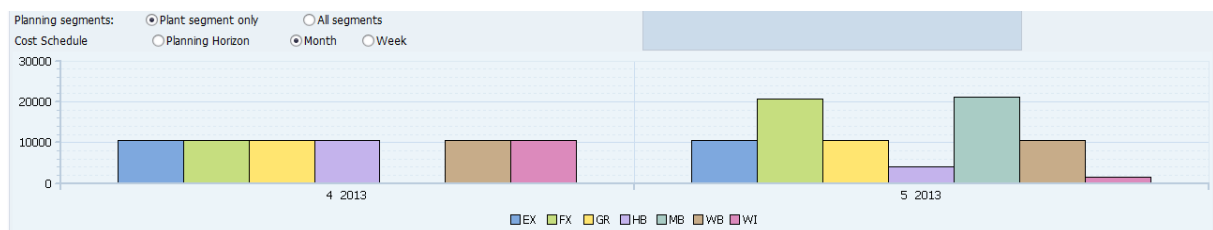
Graphical lot size simulation

Area 1 displays information for the selected material and the parameters configured currently.

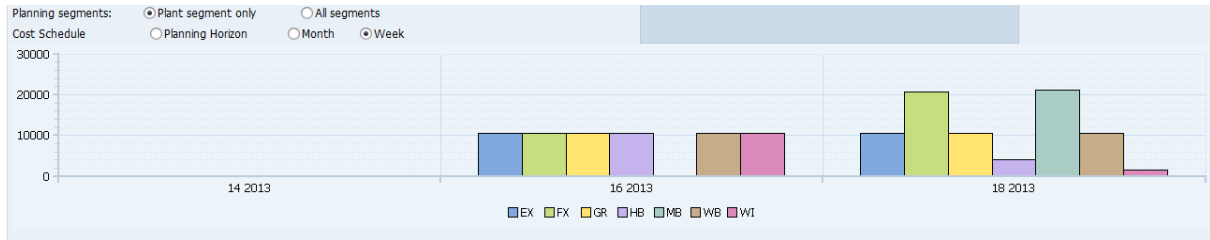
In area 2, you can select the lot-sizing procedures that are to be displayed in the graphics by means of a checkbox. Only those procedures that were activated in the current simulation run are available.

Area 3 shows the graphic for the cost scheduling. Here, it is possible to switch between three different display modes. In the *Planning Horizon* mode, the scheduling of the total costs is displayed in the form of a line chart across the whole planning horizon.

The *Months* and *Weeks* modes show the total costs of the respective months and weeks, in the form of a bar chart:



Cost scheduling (display in months)



Cost scheduling (display in weeks)

The selection of the planning segments controls whether only the plant segment or also, for example, subcontracting segments or individual customer segments are taken into account.

Planning segments: Plant segment only All segments

Selection of planning segments

Area 4 contains the graphic for the development of the stocking situation. Here, the stock for the relevant requirement date is displayed in the form of a bar chart.

If you choose the pushbutton *Back*, you return to the main screen of **lot size simulation**.

5.1.6.4 Display details

The *Show Details for:* function first calls a subcontext menu that enables you to select all simulated procedures.

Material	Material Description	Plant	MRP Area	ABC	XYZ	EFG	LMN	UVW	PQR	HD
CS_SLS_FERT_E_0001	FCATT Fertigerzeugnis, eigengefertigt	1000	1000	C	Z	E	N	V	P	
CS_SLS_F	zeugnis, eigengefertigt	1000	1000	C	X	E	N	V	Q	
CS_SLS_F	zeugnis, eigengefertigt	1000	1000	C	X	E	N	V	R	
CS_SLS_F	zeugnis, eigengefertigt	1000	1000	C	X	E	N	V	R	
CS_SLS_F	zeugnis, eigengefertigt	1000	1000	A	X	E	N	V		

- Change Parameters
- Display Notifications
- Display Grafic
- Maintain Measure
- Show Details for:
 - 2D - Two Day Lot Size
 - 2W - Two week lot-Size
 - 3D - Three day Lot size
 - AN - Fixed order quantity
 - DY - Dynamic lot size creation
 - EX - Lot-for-lot order quantity
 - EX - Fixed order quantity
 - HB - Replenish to maximum stock level
- &DETAIL
- MM03

Display details

When you call a procedure, the *Simulation Details* screen is called:

MRP segment	Date	Demand	Receipt	Stock	Safety st	No. rec.	No. dem.	Costs Per.	Strage co.	Order costs	Costs We	Costs Mo
	19.04.2013	0,000	0,000	48.800,000	0,000	0	0	0,00	0,00	0,00	0,00	0,00
	15.10.2012	2.000,000-	0,000	46.800,000	0,000	0	1	0,00	0,00	0,00	0,00	0,00
	22.10.2012	3.000,000-	0,000	43.800,000	0,000	0	1	359,01	359,01	0,00	359,01	359,01
	29.10.2012	4.000,000-	1,000	39.801,000	0,000	1	1	436,00	336,00	100,00	436,00	795,01
	31.10.2012	0,000	1,000	39.802,000	0,000	1	0	187,24	87,24	100,00	623,24	982,25
	14.12.2012	10.000,000-	0,000	29.802,000	0,000	0	1	1.919,22	1.919,22	0,00	1.919,22	1.919,22
	24.12.2012	0,000	1,000	29.803,000	0,000	1	0	426,60	326,60	100,00	426,60	2.345,82
	27.12.2012	0,000	1,000	29.804,000	0,000	1	0	197,98	97,98	100,00	624,58	2.543,80
	10.01.2013	10.000,000-	0,000	19.804,000	0,000	0	1	457,27	457,27	0,00	457,27	457,27
	18.01.2013	0,000	1,000	19.805,000	0,000	1	0	273,62	173,62	100,00	273,62	730,89
	21.01.2013	0,000	1,000	19.806,000	0,000	1	0	165,11	65,11	100,00	165,11	896,00
	18.02.2013	0,000	1,000	19.807,000	0,000	1	0	707,75	607,75	100,00	707,75	707,75
	14.03.2013	10.000,000-	0,000	9.807,000	0,000	0	1	520,95	520,95	0,00	520,95	520,95
	15.03.2013	0,000	1,000	9.808,000	0,000	1	0	110,75	10,75	100,00	631,70	631,70
	01.07.2013	10.000,000-	5.000,000	4.808,000	0,000	1	1	1.260,84	1.160,84	100,00	1.260,84	1.260,84
	01.08.2013	15.000,000-	15.000,000	4.808,000	0,000	3	2	463,34	163,34	300,00	463,34	463,34
	02.09.2013	8.000,000-	5.000,000	1.808,000	0,000	1	1	268,61	168,61	100,00	268,61	268,61
	01.10.2013	17.000,000-	20.000,000	4.808,000	0,000	4	1	457,46	57,46	400,00	457,46	457,46
	04.11.2013	12.000,000-	10.000,000	2.808,000	0,000	2	1	379,15	179,15	200,00	379,15	379,15
	02.12.2013	15.000,000-	15.000,000	2.808,000	0,000	3	1	386,16	86,16	300,00	386,16	386,16
	02.01.2014	1.000,000-	0,000	1.808,000	0,000	0	1	95,40	95,40	0,00	95,40	95,40
Order - 00000152120000100000	19.04.2013	0,000	0,000	800,000	0,000	0	0	0,00	0,00	0,00	95,40	95,40
Order - 00000152930000100000	19.04.2013	0,000	0,000	800,000	0,000	0	0	0,00	0,00	0,00	0,00	0,00
Order - 00000153570000100000	19.04.2013	0,000	0,000	800,000	0,000	0	0	0,00	0,00	0,00	0,00	0,00
Order - 00000154560000100000	19.04.2013	0,000	0,000	800,000	0,000	0	0	0,00	0,00	0,00	0,00	0,00
Project - 00002786000000000000	19.04.2013	0,000	0,000	3.200,000	0,000	0	0	0,00	0,00	0,00	0,00	0,00
MatSub - 0000001000	10.04.2012	0,000	0,000	1.600,000	0,000	0	0	0,00	0,00	0,00	0,00	0,00

Simulation Details screen

The lower area of the screen shows the requirements, the related dates, the receipts determined with the procedure, and the resulting stocks.

If a static rounding profile was maintained in the material master of a material, this is used to round the receipt.

Furthermore, the safety stock (if available for this material), the number of procurement transactions, and the costs determined for the period, divided into storage costs and lot-size-independent costs, as well as the cumulated costs on the basis of weeks, months, and the total planning horizon are shown. For the calculation of storage costs, it is always assumed that the safety stock (if defined for the material) is actually available as of the current date.

If there are several receipts for the same date, this is displayed by a red marking of the *Number of Receipts* column.

If several requirements were grouped together, this is highlighted in yellow in the *Number of Requirements* column.

The number of receipts is then greater than one if, for example, the lot size to be procured or produced is restricted by a fixed lot size or maximum lot size, and the determined, required lot size is greater. In the

current stock/requirements list, several lines would be generated in this case. For reasons of clarity, this has been omitted, and therefore only one line is always generated for the date in question. When you confirm, this window is also closed and you return to the results screen. All the functions described above can then be executed as required here.

To include new or additional materials in the simulation, you can choose the [Back](#) pushbutton to switch to the **MRP monitor** and select new materials in the result list.

5.2 Save material data

If you select one or more rows from the result list and choose the pushbutton [Update Mat. Master](#), you update the material master.

First, the following dialog box is displayed:

Update material master

Use calculated EOQ as...

- fixed lot size --> Lot size procedure for Andler will be taken ov
- min. lot size --> Lot size procedure will not be changed

Update lot size procedure:

- Best lot size procedure
- Individual Value:

Procedure dependent parameters:

Update Fixed lot size:

- Value of simulation
- Individual Value:
- initialize
- Check fixed lot size against avg. lot size
 - MEH avg. lot size
 - Simulation avg. lot size

Update Maximum stock level:

- Value of simulation
- Individual Value:
- initialize

Procedure independent parameters:

Update Minimum Lot Size:

- Value of simulation
- Individual Value:
- initialize

Update Maximum Lot Size:

- Value of simulation
- Individual Value:
- initialize

Update Ordering costs:

- Value of simulation
- Individual Value:

Update Storage cost ind.:

- Value of simulation
- Individual Value:

Update Rounding value:

- Value of simulation
- Individual Value:
- initialize

Lot Size Simulation
Result

You must activate all the parameters that are to be transferred to the material master by selecting the adjacent checkbox.

With the *Best Lot-Sizing Procedure* setting, the most cost-effective lot-sizing procedure for the selected material is determined first. If there are several procedures that are equally favorable, only the procedure from the *Min. Standard Lot Size Indicator* column is transferred.

By using the individual value, you can transfer a freely definable procedure.

For the other parameters, you can decide whether the value from the simulation, an individual value or an initialization of the value is transferred.

As storage cost indicators and ordering costs are mandatory for the simulation, these cannot be initialized.

You can use *Execute* to start the update process in the background.

The result of the transfer can be viewed in the application log (transaction: *SLG1*).

5.3 Andler lot size

With the Andler lot size function, you can calculate an "economical" fixed lot size using the Andler lot size formula.

i Note

This is a theoretical approach based on a large number of premises. See the business literature for more information.

The following formula is used:

$$X_o = \sqrt{(200 * C * F_c) / (P * S_c)}$$

where:

- X_o : Economic order quantity
- F_c : Ordering/lot-size fixed costs
- C : Average annual consumption
- S_c : Storage cost rate (%)
- P : Valuation price of the material

You must enter the following information:

Analysis period (consumption): Here, specify a horizon in the past in months. In this horizon, the consumption is then determined from table *MVER* (at plant level) or *DVER* (at MRP area level) and converted to an annual consumption.

LS procedure for Andler:

The lot-sizing procedure for Andler must be a static lot-sizing procedure with a fixed lot size.

→ Tip

If you want to use the calculated lot size based on Andler, we advise you to copy the standard lot-sizing procedure *FX*, for example, "AN - Andler lot size. Via the copied procedure, use of the Andler lot size

calculation can be uniquely identified and the *FX* procedure can continue to be used as originally intended in the **lot size simulation**.

If the Andler lot size function is active, two additional columns are displayed on the result screen containing information about the average consumption per year and the EOQ (economic order quantity).

In addition, the supplement (*EOQ*) is displayed in the column heading for the procedure specified for the Andler calculation.

Both the procedure and the calculated lot size can be transferred to the material master. The calculated lot size is stored in the *Fixed Lot Size* field provided a procedure with a fixed lot size is selected as the procedure (for example, "AN").

5.3.1 Consideration of pricing scales for Andler lot size

The calculation of the Andler lot size has been enhanced so that pricing scales are now taken into consideration as well.

5.3.1.1 Determination of pricing scales

In the standard system, source determination is used to determine the pricing scales. Alternatively, you can use a BAdI to determine pricing scales.

5.3.1.2 Source determination

The standard BAPI for source determination is used. The current day's date is used as the requirement date. This means only sources of supply that are currently valid are taken into consideration. If the BAPI identifies more than one source of supply, the first from the determined list is used.

5.3.1.3 BAdI /SAPLOM/SLS_PRICE_SCALES

You can use the BAdI */SAPLOM/SLS_PRICE_SCALES* to implement custom logic for setting pricing scales.

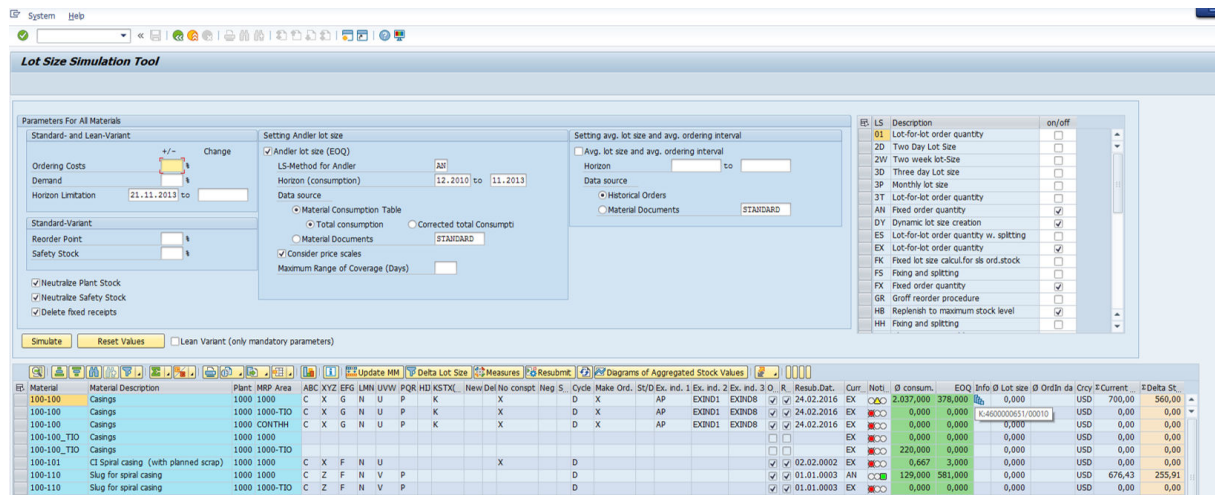
5.3.1.4 Key Features

On both the selection screen and the result screen, a *Consider Scale Prices* checkbox has been included in the settings area for the Andler lot size. This activates the scale price logic.

The following steps are now performed during EOQ determination:

1. Calculation of the EOQ for individual pricing scales until the calculated quantity falls within the interval.
2. After the first EOQ that falls within the interval, the total costs for higher intervals are then calculated.
3. Determination of the minimum, and thus selection of the EOQ

The *EOQ Info* column is displayed on the **lot size simulation** result screen when price scales are taken into consideration.



Displayed EOQ Info column

If a valid pricing scale was found for the material, and this led to a more economical EOQ, the icon for pricing scales is displayed. In the tooltip, the used source of supply is then displayed. The first letter indicates the type of source of supply:

- I – info record
- K – contract
- L – scheduling agreement

5.3.2 Maximum range of coverage as upper limit

You can use the *Maximum Range of Coverage (Days)* field to define an upper limit for calculating the optimum lot size according to Andler. The maximum range of coverage is specified in days.

If an upper limit in days is specified, this applies for all materials from the current simulation.

After the calculation of the optimum lot size, a check is performed using the following logic:

1. Conversion of the average annual consumption to maximum range of coverage (in days)
2. Comparison of the calculated lot size with the calculated maximum range of coverage
3. If the optimum lot size \leq maximum range of coverage \rightarrow calculated lot size is used and displayed. The field has a green background
 If the optimum lot size $>$ maximum range of coverage \rightarrow calculated lot size is replaced by maximum range of coverage and displayed. The field has a red background

5.3.3 EOQ as Minimum Lot Size (Simulation)

Using the function *EOQ as Minimum Lot Size*, the calculated EOQ is used as the minimum lot size within the simulation for each material.

Any existing minimum lot sizes from the material master will be ignored.

If the calculated EOQ is then to be transferred to the material master as the minimum lot size, the material master update function can be used for this.

5.4 Average lot size and average order interval

The two key figures Average Lot Size and Average Order Interval are, if activated, calculated during the **lot size simulation**.

The following sources are available for as the data basis:

1. Purchase/sales order history:

In the purchase order/production order history, the purchase orders or production orders are used for the calculation, depending on the procurement indicator. If the procurement indicator is "F", only purchase orders are read, if it is "E", production orders are read. In the case of "X" purchase orders and production orders are both taken into consideration.

The calculation is based on the following formulas:

Average lot size = (total from purchase orders/production orders) / (number of purchase orders/production orders)

Average order interval = (total of intervals between two purchase orders/production orders) / (number of purchase orders/production orders)

2. Material documents (consumption time series created with */SAPLOM/XCS*):

For the Material Documents data source, the consumption time series created with */SAPLOM/XCS* (table */SAPLOM/X_CS_TMS*) is used. The calculation is performed in the same way as for the purchase order/production order history.

5.5 Days' Supply Check

You can use the *Days' Supply Check* function to check the range of coverage limits values within the **lot size simulation**. In the event that this is exceeded, corresponding information is issued.

The range of coverage limits values or their origin are set by the selection of a radio button in the *settings for range of coverage limits values* area.

If the range of coverage limits value is exceeded, the system displays a message for the corresponding line and a yellow traffic light is generated.

5.6 Shelf Life Analysis

If you activate the shelf life analysis, when the simulation is started for each lot-sizing procedure, the system checks whether planned requirements and requirement coverage elements can actually be offset against each other and whether requirements cannot be satisfied due to shelf life violations.

On the *Shelf Life Analysis* tab, you first define which shelf life criteria are to be used for the simulation. To do so, select the checkbox *Consider Shelf Life Data*. Shelf life data can only be selected at the analysis level *Plant* or *MRP Area*. The following criteria are available for selection:

- *Total Shelf Life*
- *Minimum Remaining Shelf Life*
- *Expiration Time*
- *Maximum Storage Period*

It is possible to make more than one selection. If you choose the criterion *Minimum Remaining Shelf Life*, you also need to use the criterion *Total Shelf Life*. For each criterion selected, the data source is then defined. The following data sources are possible:

1. Material master; if not maintained, the *SCM CS* tab page, otherwise a global value
2. *SCM CS* tab page; if not maintained, the material master, otherwise a global value
3. Global value

Irrespective of the data source selected, you also need to maintain a global value per criterion. This is then used if no values are maintained in the other data sources, or if you have selected data source (3). The global value of the total shelf life must always be greater than the value of the minimum remaining shelf life.

i Note

From a business perspective, it is also useful to define the global value of the maximum storage period as smaller than each of the other global values.

Starting from the date of the simulated receipt, the criteria is used to calculate different shelf life end dates during the execution of the simulation. The calculation is based on the following formulas:

Shelf Life Expiration Date

$$\text{BBD} = \text{R} + \text{T}$$

- BBD: Best-before date
- R: Receipt date
- T: Total shelf life

Minimum Remaining Shelf Life

$$\text{MRSL}_E = \text{R} + \text{T} - \text{MRSL}_D$$

- R Receipt date
- MRSL_E : End date of minimum remaining shelf life
- T Total shelf life
- MRSL_D : Duration of minimum remaining shelf life (for $0 < \text{MRSL}_D < \text{T}$)

Expiration Date

$EXPD = R + EXPT$

- EXPD Expiration date
- R Receipt date
- EXPT Expiration time

Maximum Storage Period

$MXSP_E = R + MXSP$

- $MXSP_E$ End date of storage period
- R Receipt date
- MXSP Maximum storage period

After you have selected shelf life criteria and a data source, you can also choose whether to maintain the fixed costs per disposal process. Each time that products have not been consumed even after the respective end date has been exceeded, this amount is added to the value of the products to be disposed of.

Furthermore, you can define batch usage strategies, whereby you determine the consumption mode of receipts and issues. You can select from the following:

- *FIFO*
- *FILO*

It is useful to select the batch usage strategy FILO if materials management processes cannot guarantee that receipts will be consumed in their putaway order.

You use the stock strategy to define how to handle any existing plant stock. You can choose between the following:

- *Neutralize Plant Stock*
- *Consider Plant Stock as Receipt*

It is useful to exclude the existing stock if within material requirements planning there is no knowledge of the date of origin of the stock.

If you have activated the shelf life analysis, this has an effect on the result list. The number of columns to be added varies depending on the settings.

The result list contains a column that includes the value of the risk stock for the lot-sizing procedure currently maintained in the material master. There are a maximum of four columns for the current procedure, whereby each column represents a selected criterion. The shelf life criteria are abbreviated in the column headers. *Curr. Value RS BBD* stands for "current value of the risk stock due to the best-before date being exceeded". The abbreviations *MRSLS* (minimum remaining shelf life), *EXPD* (expiration date), and *MXSP* (maximum storage period) have similar behavior. In this context, the risk stock is a receipt that is not consumed completely by one or more requirements within its shelf life limits.

Furthermore, the result list contains columns for additionally simulated lot-sizing procedures. There are a maximum of four columns for each procedure, whereby each column represents a selected shelf life criterion. The lot size abbreviation of a procedure is at the end of each column.

If you use the context menu to call the detail view for a procedure, further details for the shelf life analysis are also displayed there.

For each shelf life criterion selected, three columns are displayed in the detail list. The columns contain the quantitative amount and the value of the risk stock, as well as the quantity of open requirements. If you

selected all four criteria, the detail list thus contains a maximum of 12 shelf-life-related columns. If a cell contains a value, meaning that there is a situation critical for shelf life, it is highlighted in red to make the MRP controller aware of the issue. For the value determination of the risk stock, based on the settings in the material master, either the standard price or the moving price is used.

In addition to the additional columns in the result list, the shelf life analysis also affects the Notifications column.

A yellow traffic light can have different causes.

❁ Example

For the shelf life analysis, a yellow traffic light appears if the period of the minimum remaining shelf life used is greater than the total shelf life used.

You can right-click on *Notifications* to see the cause differentiated and displayed as a notification.

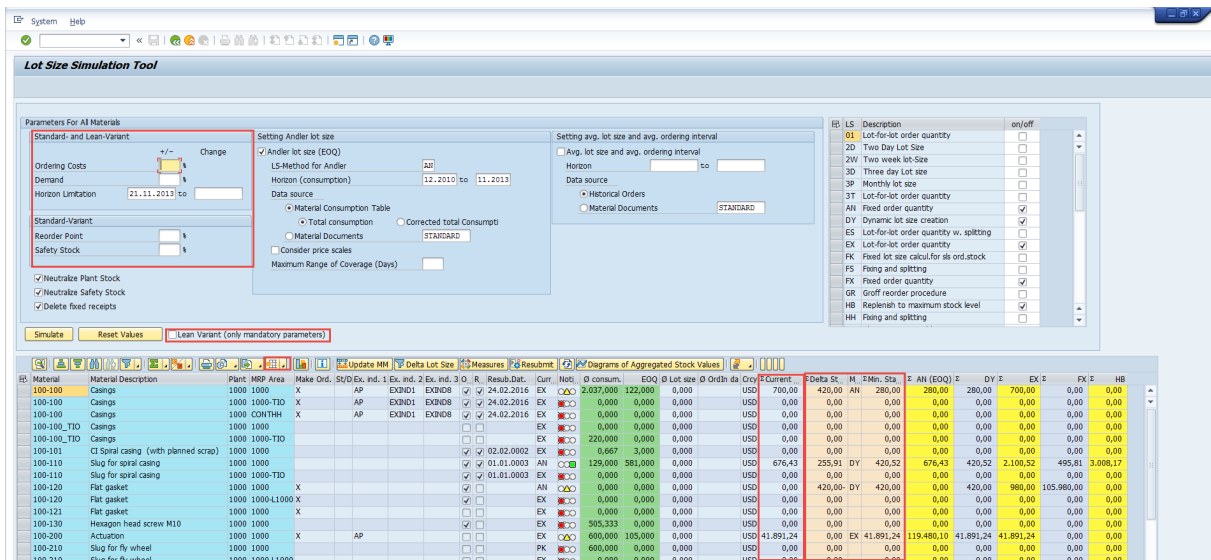
6 The lean variant

Select the checkbox *Lean Variant* and choose *Simulate* to activate the lean variant. In the results table, additional columns are displayed for the lean simulation variant. This is a calculation of the lot size costs without non-required parameters. For example, for lean variant calculation, the reorder point and the rounding values from the material master are not used, since they are not absolutely required for the **lot size simulation**.

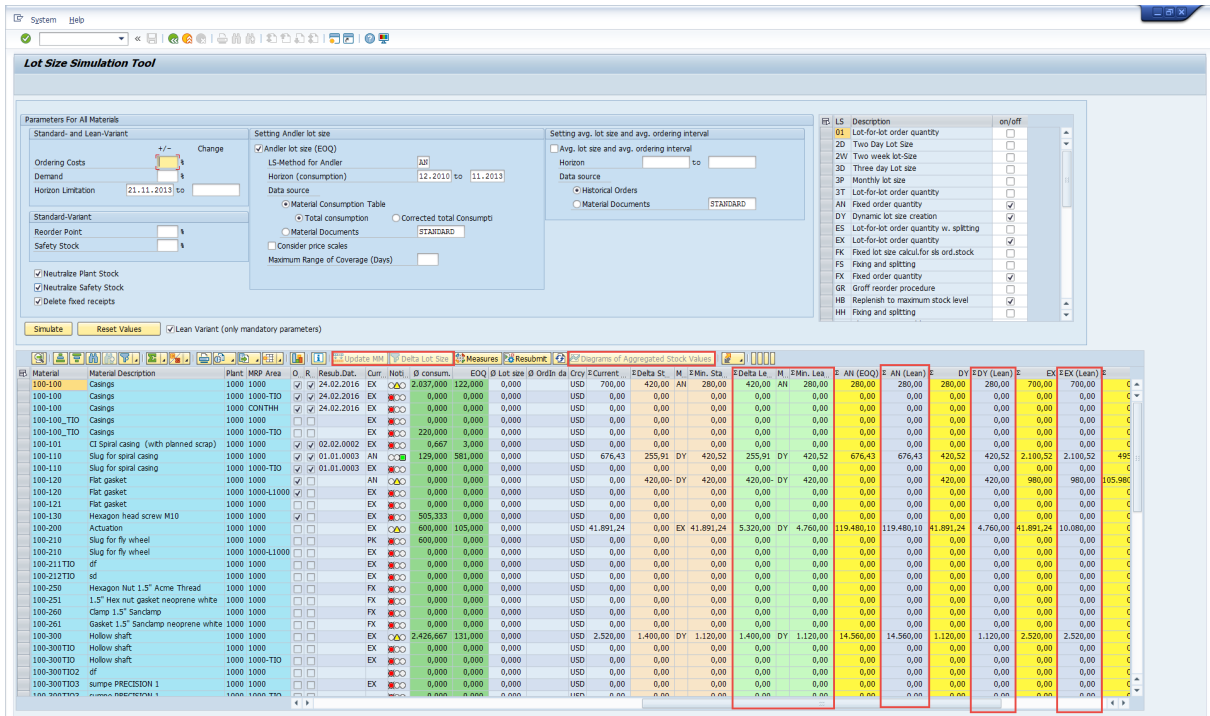
The results are shown in the *...(lean)* columns of the respective lot-sizing procedure.

The following informative columns were also added to the result list:

- *CurrentCosts*: Displays the costs corresponding to the *Current Lot Size Indicator* column
- *Standard Lot Size Indicator*: Displays the most cost-effective procedure according to the standard simulation
- *Minimum Standard Variant*: Displays the costs corresponding to the *Standard Lot Size Indicator* column
- Δ *Standard Variant* = *Current costs* – *minimum standard variant*
- *Lean Lot Size Indicator*: Displays the most cost-effective procedure according to the lean simulation
- *Minimum Lean Variant*: Displays the costs corresponding to the *Lean Lot Size Indicator* column
- Δ *Lean Variant* = *Current costs* – *minimum lean variant*



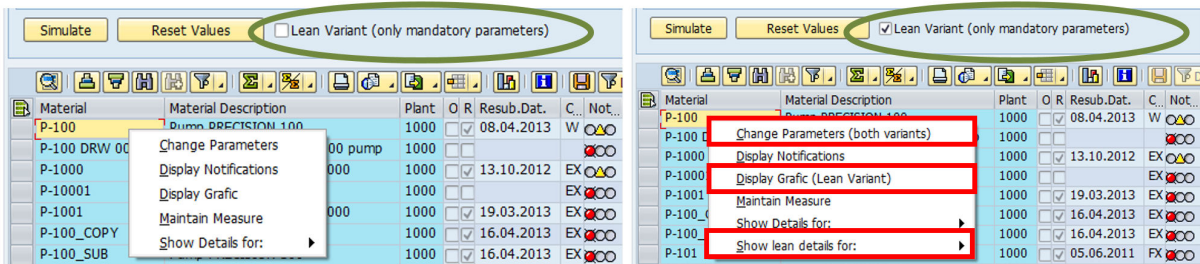
Screen in the standard variant



Screen with lean variant activated

Changes:

- Deactivation of buttons: *Save*, *Delta Lot Size*, and *Aggregated Stock Values*
- New columns with the results for the lean variant (green columns)
- There are two columns for each lot-sizing procedure. One for the standard variant, and one for the lean variant.



Changes in the context menu subject to the "Lean Variant" checkbox

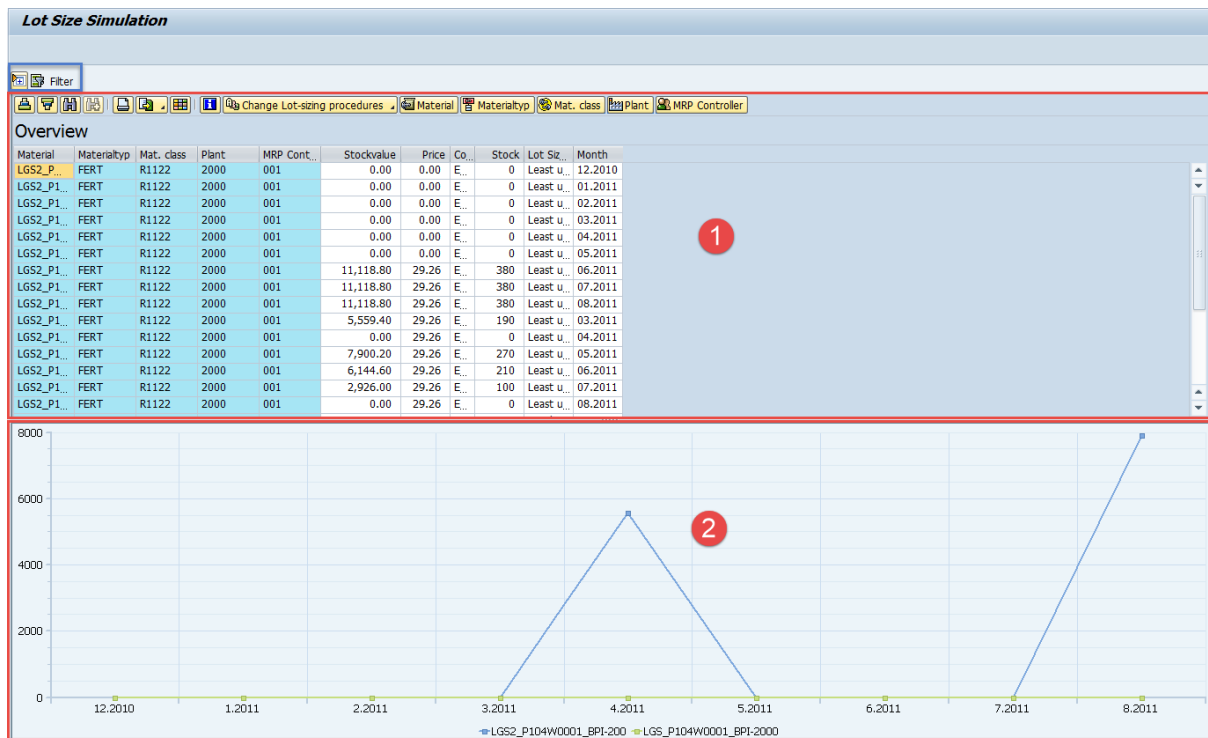
Functional changes resulting from the lean variant

- *Save*, *Delta Lot Size*, and *Aggregated Stock Values* are deactivated as soon as Lean Variant is selected.
- All parameters in the *Parameters for All Materials* area are taken into consideration in the standard simulation.
- In the lean variant, only the parameters in the box *Standard and Lean Variant* are taken into account.
- *Display Graphic* in the context menu of a material displays the relevant graphic dependent on the *Lean Variant* checkbox.
- *Show Details for:* in the context menu displays the relevant procurement proposals, dependent on the *Lean Variant* checkbox.

7 Display of aggregated stock values

The **lot size simulation** enables various graphical displays of stock values. The stock value is the product of the average stock quantity and the standard or moving average price. The periods are monthly. If several requirements exist within a month, the average is calculated and displayed.

If you select at least one material from the result list of the simulation run and then choose *Aggregated Stock Values*, a new, two-part window is opened:



Window for Aggregated Stock Values

In area 1 of the screenshot above, all selected materials are first listed in monthly time intervals with the most economical lot-sizing procedure.

The Stock Status column indicates that no stock information was found for a period (*N/A*) or that the stock value was transferred from the previous period (*From Previous Period*).

As with the list from area 1, area 2 displays the stock value development over time for each month. The five pushbuttons *Material*, *Plant*, *MRP Controller*, *Material Type*, and *Material Group*, and the available lot-sizing procedure can be used to display different aggregations. In each case, data can only be aggregated with one lot-sizing procedure. As a result, it is not possible to aggregate data from the overview list, because the lot-sizing procedures may differ.

If, from the overview list, you choose one of the five pushbuttons, by default the program selects the exact lot-sizing procedure for all materials.

You can use the *Change Lot-Sizing Procedures* selection menu to select a different lot-sizing procedure for the aggregation. The *Overview* entry in the selection menu determines the best lot-sizing procedure for each material.

Depending on the pushbutton selected, the columns in area 1 change.

For example, if you choose the *Material* pushbutton, only the material numbers are displayed as the first column.

The list (area 1) and the graphic (area 2) are updated when you choose one of the five pushbuttons, and when you change the lot-sizing procedure via the selection menu.

If you want to activate the filter, you need to choose the *Filter* pushbutton (outlined in black in the figure above).

You can use the filter to restrict the data by date, material, plant and MRP controller:

Lot Size Simulation

Filter

Date to

Material to

Plant to

MRP Controller to

Mat. class Lot-for-Lot

Mat. class	Stockvalue	Co...	Lot Siz...	Month
001	0.00	E..	Lot-for...	01.2011
001	0.00	E..	Lot-for...	02.2011
001	0.00	E..	Lot-for...	03.2011
00207	0.00	E..	Lot-for...	01.2011
00207	0.00	E..	Lot-for...	02.2011
00207	0.00	E..	Lot-for...	03.2011

1.0
0.8
0.6
0.4
0.2
0.0

1.2011 2.2011

001 00207

Restriction options by date, material, plant and MRP controller

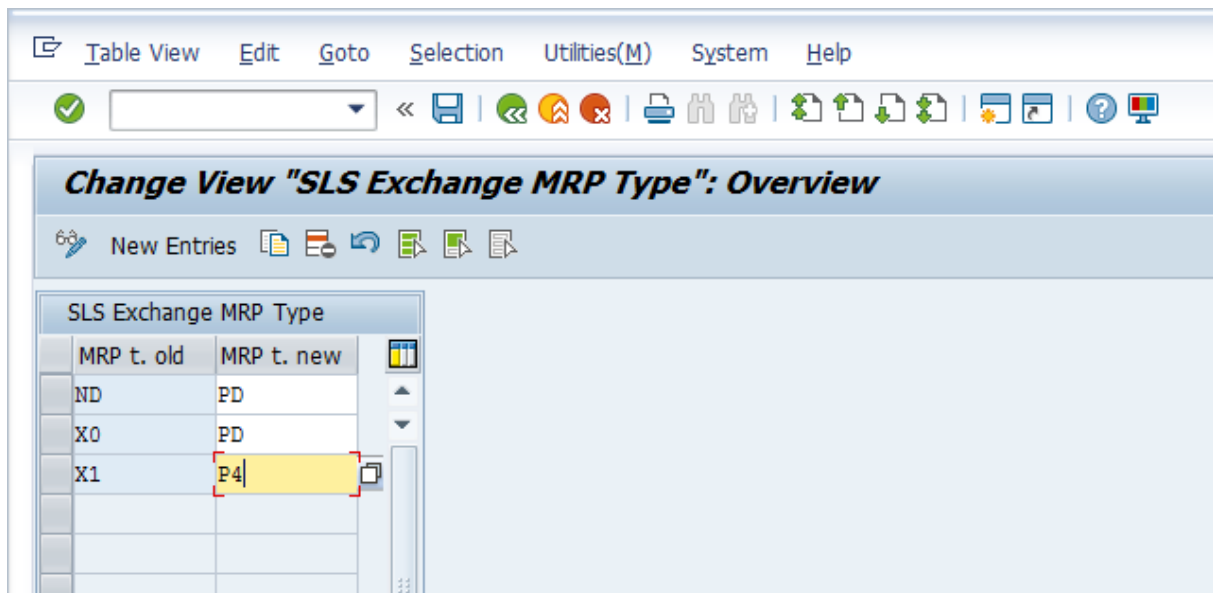
8 Exchange of MRP type

Background

To plan certain materials, you use an external system, and in the SAP ECC material master you have therefore configured an MRP type that does not use planning via the MRP planning run. However, you want to use the **SCM Consulting Solution lot size simulation** to simulate different procedures or to calculate an economical lot size using the Andler method. Provided requirements and consumptions exist, you can do this with the help of this add-on.

Maintenance transaction for the exchange of MRP types

MRP type combinations are maintained via transaction `/n/SAPLOM/SLS_DISMM`; these MRP type combinations are used for an exchange during **lot size simulation**.



Exchange of MRP type

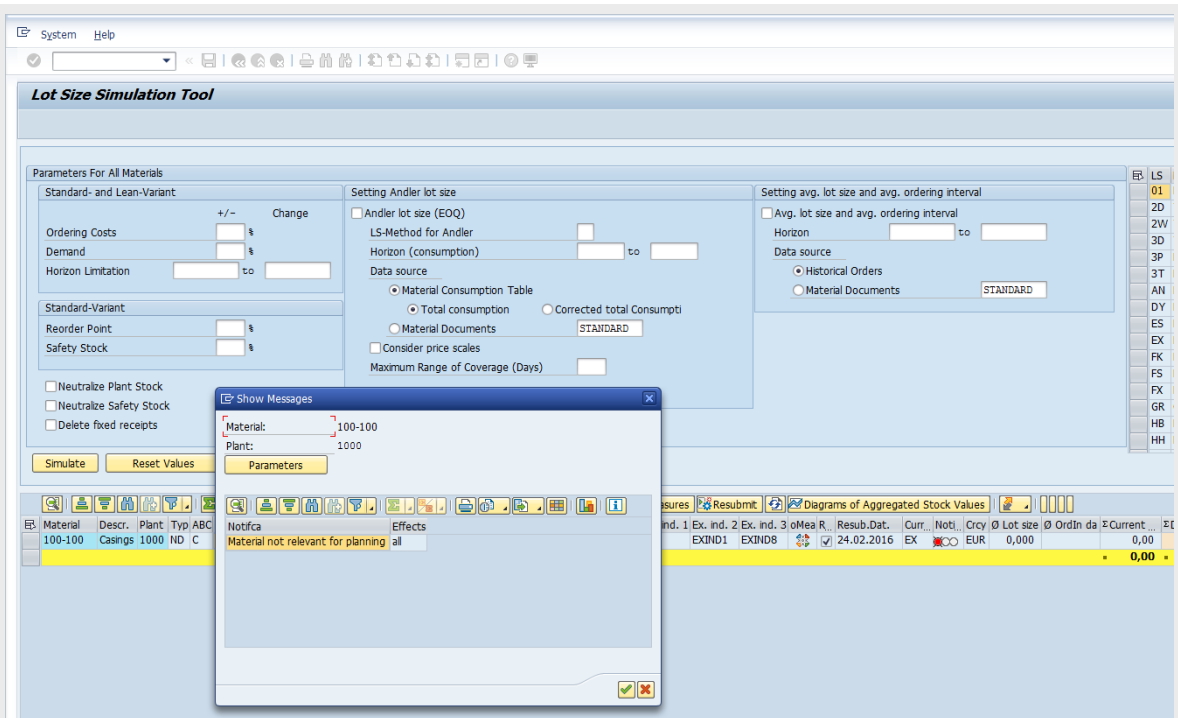
Function

Before a simulation run, a check on the aforementioned table is carried out for each material. If an entry matching the current MRP type of the material is found in the *Old MRP Type* column, this is exchanged.

❖ Example

Simulation without add-on

The following material currently has the MRP type "ND" for no materials planning.



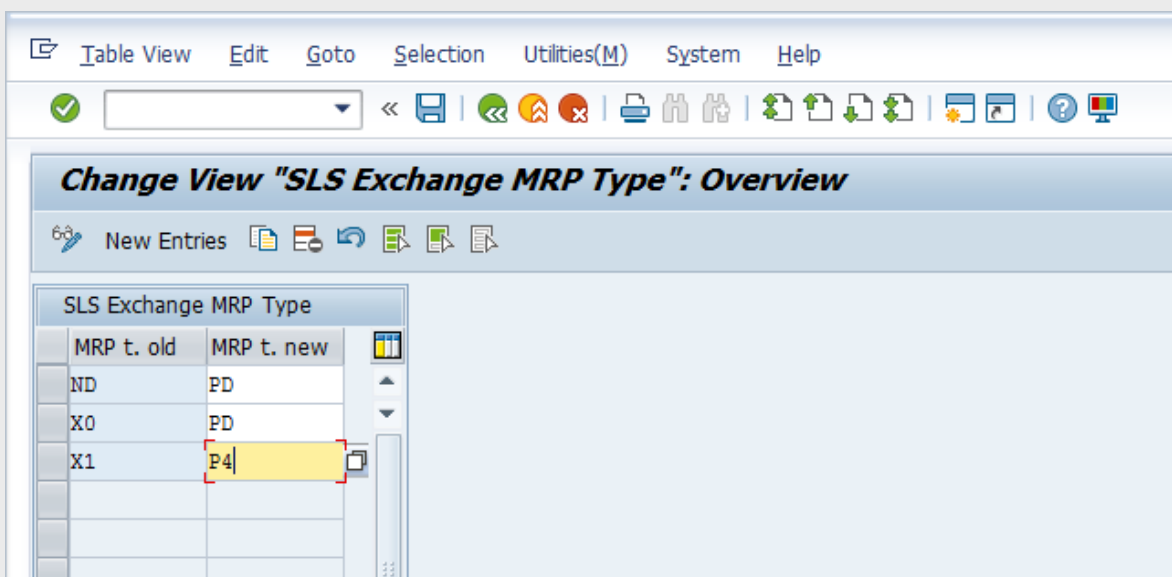
Simulation without add-on

In this case, the simulation cannot be carried out and the system displays the message “Material not relevant for planning”.

❖ Example

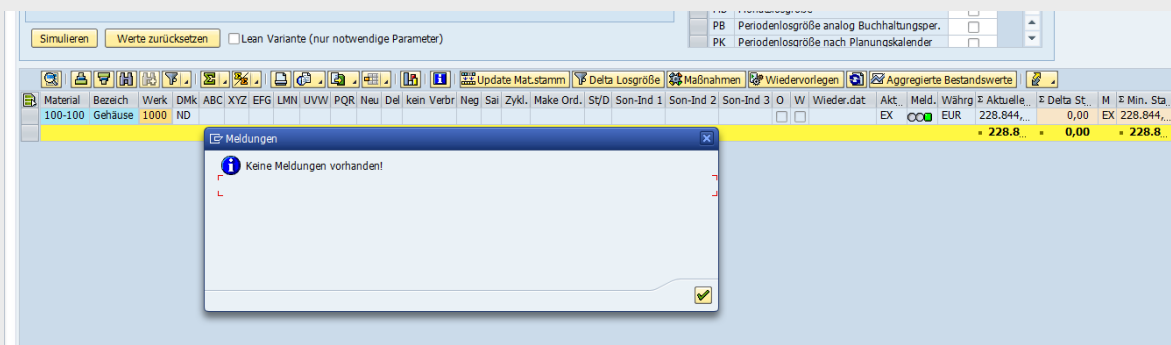
Simulation with add-on

The following MRP type pairs are maintained in table `/SAPL0M/SLS_DISM`:



Exchange of MRP type

As a result, ND is replaced by PD for the material:



Successful simulation

The simulation is executed with PD.

9 BAdI Material Master Update

Features

The BAdI enables you to intervene in the material master update process from the **lot size simulation**. Within the BAdI, you can change the values to be transferred for each material/plant (MRP area) combination once again before the update.

Enhancement spot [/SAPL0M/SLS_UPDATE_MM](#)

Details on enhancement spot [/SAPL0M/SLS_UPDATE_MM](#)

Enhancement spot	/SAPL0M/SLS_UPDATE_MM
Enhancement technology	Object plugin (BAdI)
Technical details	
BAdI definition	/SAPL0M/SLS_UPDATE_MM
Interface	/SAPL0M/IF_SLS_UPDATE_MM
Can be used multiple times?	No

Method [/SAPL0M/IF_SLS_UPDATE_MM~CHANGE_UPDATE_VALUES](#)

The enhancement consists of an interface method, which you can use to adapt the data before the update in the material master.

Interface

Method [/SAPL0M/IF_SLS_UPDATE_MM~CHANGE_UPDATE_VALUES](#) has the following interface:

Interface definition

IS_MT61D	Importing	Type	MT61D	Material Master: MRP old values
IO_MAT_LSP	Importing	Type Ref To	/SAPL0M/CL_SLS_LSP	SLS object
IS_MT61D_CHANGED	Importing	Type	MT61D	Material Master: MRP SLS changed values
CS_UPDATE_VALUES	Changing	Type	/SAPL0M/SLS_S_LOT_SIZE	Structure for update of lot size fields

- [IS_MT61D](#) contains all SLS-relevant fields in the original specification.
- [IO_MAT_LSP](#) is the object that is generated for each simulation run. It contains additional attributes from the simulation.

- [IS_MT61D_CHANGED](#) contains all SLS-relevant fields in the changed specification from the simulation.
- [CS_UPDATE_VALUES](#) represents the update structure that is described in more detail in the following.

Update structure [CS_UPDATE_VALUES](#)

The update structure [CS_UPDATE_VALUES](#) has the following fields:

Update structure CS_UPDATE_VALUES

Component	Type	Short description
MATNR	MATNR	Material number
WERKS	WERKS_D	Plant
BERID	BERID	MRP area
DISLS_OLD	DISLS	MRP lot size
BSTMA_OLD	BSTMA	Maximum lot size
BSTMI_OLD	BSTMI	Minimum lot size
BSTFE_OLD	BSTFE	Fixed lot size
LOSFX_OLD	LOSFX	Lot-size-independent costs
LAGPR_OLD	LAGPR	Ordering costs indicator
MINBE_OLD	MINBE	Reorder point
EISBE_OLD	EISBE	Safety stock
BSTRF_OLD	BSTRF	Purchase order quantity rounding value
MABST_OLD	MABST	Maximum stock level
DISLS_NEW	DISLS	MRP lot size
BSTMA_NEW	BSTMA	Maximum lot size
BSTMI_NEW	BSTMI	Minimum lot size
BSTFE_NEW	BSTFE	Fixed lot size
LOSFX_NEW	LOSFX	Lot-size-independent costs
LAGPR_NEW	LAGPR	Storage costs indicator
MINBE_NEW	MINBE	Reorder point
EISBE_NEW	EISBE	Safety stock
BSTRF_NEW	BSTRF	Purchase order quantity rounding value

MABST_NEW	MABST	Maximum stock level
DISLS_X	CHAR1	Single-character indicator
BSTMA_X	CHAR1	Single-character indicator
BSTMI_X	CHAR1	Single-character indicator
BSTFE_X	CHAR1	Single-character indicator
LOSF_X	CHAR1	Single-character indicator
LAGPR_X	CHAR1	Single-character indicator
MINBE_X	CHAR1	Single-character indicator
EISBE_X	CHAR1	Single-character indicator
BSTRF_X	CHAR1	Single-character indicator
MABST_X	CHAR1	Single-character indicator
NO_COSTS	CHAR1	Single-character indicator

Whereby fields *MATNR*, *WERKS*, *BERID*, and all *_OLD* fields should not be changed.

MATNR, *WERKS*, and *BERID* form the key. The *_OLD* fields contain the old value and are needed for the log.

In the event of an update, the new values are in the *_NEW* fields.

If a field is transferred to the material master, the related X-value must be filled with a "U".

❁ Example

For material 100-100 in plant 1000, the lot-sizing procedure should be converted from EX to WB. For this, the structure must be as follows:

MATNR = '100-100'

WERKS = '1000'

BERID = '1000'

DISLS_OLD = 'EX'

...

DISLS_NEW = 'WB'

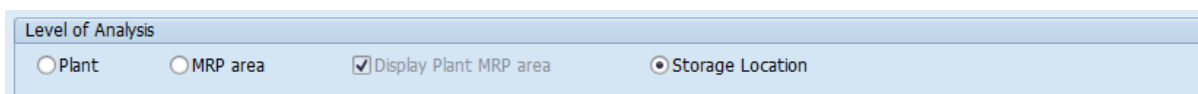
...

DISLS_X = 'U'

10 Replenishment quantity for storage location MRP

Selection and input data

You can choose *Plant*, *MRP Area*, and *Storage Location* as input data.



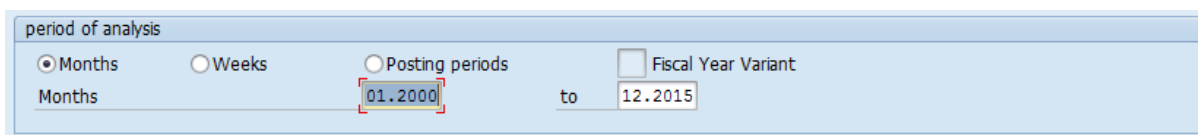
Level of Analysis

Plant MRP area Display Plant MRP area Storage Location

Analysis level with "Storage Location"

For the *storage location* level, it is possible to have the system calculate the replenishment level (MRP view 4) for storage location MRP on the basis of the Andler formula and transfer this to the material master.

If you select the *storage location* level, the previously available *MRP Settings* area on the selection screen is hidden, and a new *Analysis Period* area is displayed.



period of analysis

Months Weeks Posting periods Fiscal Year Variant

Months 01.2000 to 12.2015

Analysis period area

In this area, you must enter a period in which the consumptions for the calculation are determined.

For the *Storage Location* analysis level, the *Storage Location* selection option is also displayed in the analysis area.

Features

You can use the *Replenishment Quantity for Storage Location MRP* function to calculate the replenishment quantity for storage location MRP on the basis of the Andler formula. Within the calculation function, influencing factors such as requirement, storage costs, order costs or prices can be changed and different scenarios therefore tried out. The calculated replenishment quantity can also be adapted manually in the result list so that it can then be transferred to the material master.

Determination of consumption

Consumption at storage location level is read from info structure *S031*. For this, you must always enter a valid analysis period. In a first step, the calculated consumption values are then totaled up to determine the total consumption over the entire analysis period, and are then converted to an annual consumption. If the first consumption is within the selected period, the period is reduced and the start of the analysis period is set to the time of the first consumption.

Result screen

When you execute the calculation of the replenishment quantity, you go to the following result screen:

Material	Plant	SLoc	M	SPT	Reorder	Replenishment qty. old	Ord. costs	SC(%)	Price	Crpy	Ø cons	Replenishment qty. new	Delta Replenishment qty.
100-100	1000	0001	2		10,000	46,000	100,00	20,00	1.359...	EUR	554,308	20,000	26,000-
100-100	3000	0001			0,000	50,000	250,00	10,00	202,68	USD	124,102	55,000	5,000
100-100	2300	0001			0,000	6,000	50,00	10,00	207,30	EUR	6,736	6,000	0,000
100-100	6101	0001			0,000	0,000	20,00	10,00	1.147...	MXN	0,159	0,000	0,000
100-100	2000	0001			0,000	0,000	555,00	20,00	1,00	GBP	0,000	0,000	0,000
100-100	1100	0001			0,000	0,000	700,00	20,00	131,86	EUR	0,000	0,000	0,000
100-100	1000	0088			0,000	0,000	100,00	20,00	1.359...	EUR	0,000	0,000	0,000

Result screen for calculation of replenishment quantity

In the top screen area, you can change the percentages for different values to perform a new calculation. You can also change the analysis period.

Simulate triggers a new calculation.

Reset Values sets the changed values back to the original values.

Read material master again means that the material master values are re-read from the DB. This is necessary, for example, if you chose *Cost Maintenance*, maintained values, and then went back.

The result list displays the old replenishment quantity, all the values required for the calculation, and the result of the new calculation.

If a value needed for the calculation is missing, or if this value is 0, the field is highlighted in red.

You can manually overwrite calculated values before you save.

To transfer the new values to the material master, you must first select the relevant lines. Choose *Save* to trigger an update in the background.

11 Different currencies

The **MRP monitor** automatically converts all value fields into the same currency so that amounts can be compared. This currency is also transferred to the **lot size simulation**. You enter the target currency on the **MRP monitor** selection screen or the selection screen of transaction [/n/SAPLOM/SLS](#).

Related Information

[MRP monitor documentation](#)



Overview of [SCM Consulting Solutions](#)

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