BEAS
MANUFACTURING

Beas Tutorials

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2019

Beas Manufacturing

Beas Manufacturing is the global solution for small to mid-sized discrete and process manufacturing businesses. Offering functionality from the planning phase through to control, implementation and fulfilment, Beas Manufacturing ensures efficiency and flexibility for manufactures.

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1 Using the MRP Wizard

With Beas MRP you will get an overview of all items you need to purchase or produce based on different parameters.

There are three primary functions of an MRP system:

- The system helps ensure that the appropriate materials are available for production and the necessary products are available for customers to avoid shortages.
- MRP reduces waste by maintaining only the lowest possible materials and product levels in stock.
- An MRP system helps plan manufacturing functions, delivery schedules and purchasing. When an MRP system is doing its job, it reduces material waste, while also avoiding product shortages.

However, it is a major issue for successful material requirements planning that the data fed into the system is accurate. Combining MRP with the Advanced Planning System (APS), you can manage your daily order recommendation in an efficient manner.

In this tutorial, we will learn how to set up the MRP Wizard, understanding the main fields in its master data for production and procurement planning.

1.1 Process

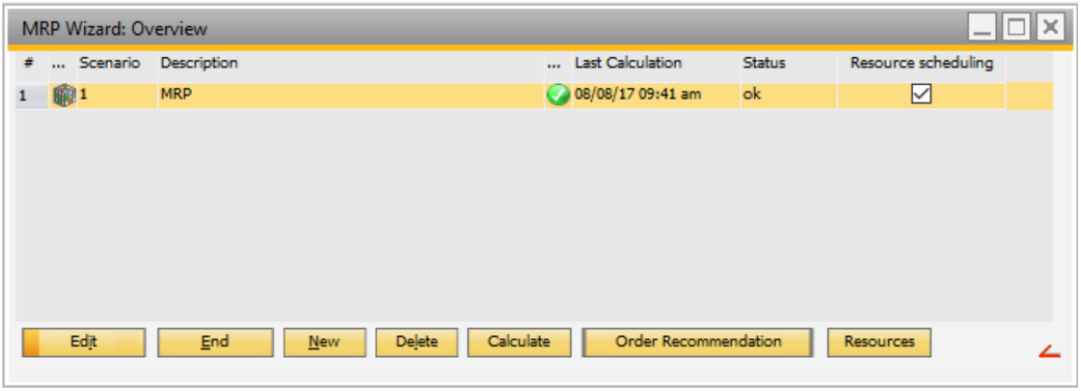
The Material Requirements Planning (MRP) module enables the user to plan material requirements for a manufacturing or procurement process based on the re-evaluation of existing inventories, demands, and supplies according to changing planning parameters, such as lead time determination, make or buy decisions, and holiday planning.

MRP calculates gross requirements for the highest bill of materials (BOM) level, based on existing inventory, sales orders, purchase orders, production orders, forecasts, and so on. It calculates gross requirements at the lowest BOM levels by considering net parent demands through the BOM structure. Dependent levels might have their own requirements, based on sales orders and forecasts.

The results of the MRP run are a report and recommendations that fulfill gross requirements by taking into consideration the existing inventory levels and existing purchase orders and production orders.

In order to use the MRP functionality, first an MRP scenario must be created. In this scenario, all parameters and display selections are set up.

PATH: MRP > MRP Wizard



This screen displays a list of the MRP scenarios with their descriptions, last calculation date and time, execution status and if the resource scheduling is activated for the scenario.

It is possible to work with several MRP scenarios. Each MRP scenario can have a setup with different parameters.

For example, one of the parameters can be the timeline in which you want to consider your requirements in future. If there is a short-term and a long-term planning view necessary, you can define two MRP scenarios and set up this specific parameter differently.

Additionally, you can filter parameters like items, item group, employee and much more, which are setup in several MRP scenarios in different way. Based on this setup, the results in order recommendation can be different.

Here, the user can manage the different scenarios for the material requirements planning, for example create new scenarios, edit, delete, execute and display the results.

Edit: Button used to edit the selected MRP scenario.

New: Button used to create a new MRP scenario.

Delete: Button used to delete the selected MRP scenario.

Calculate: Button used to execute the selected MRP scenario. For more information, please refer to the MRP tutorial.

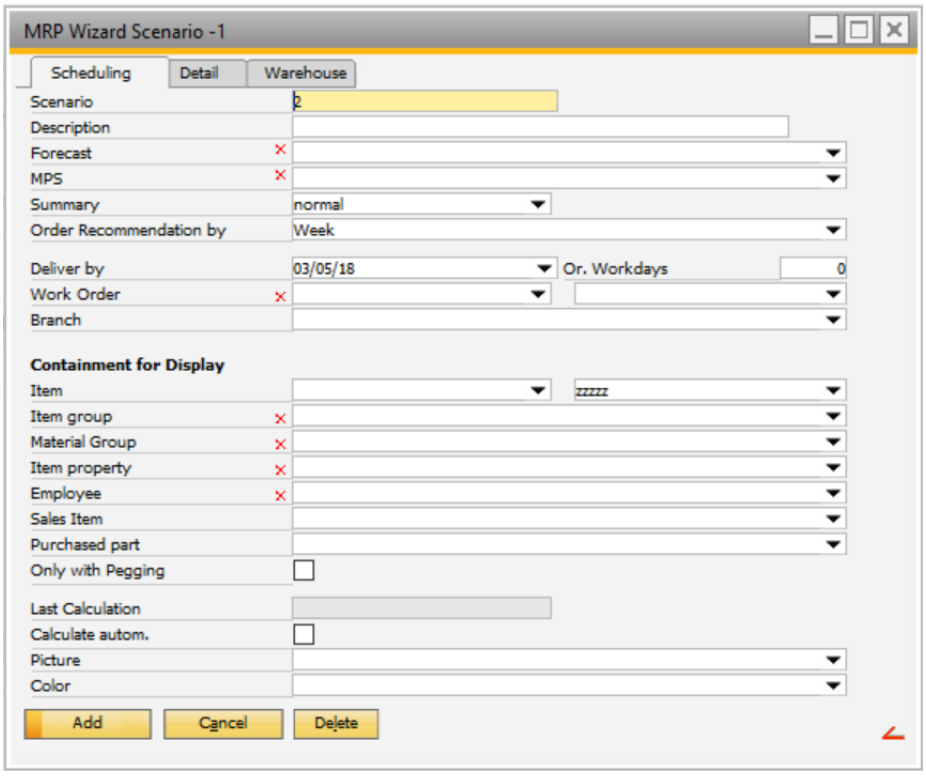
Order Recommendation: Button used to display the results from the MRP calculation. For more information, please refer to the MRP tutorial.

Resources: Button used to display the resource requirement view for the selected scenario (MRP2). For more information about MRP2, please refer to Capacity Planning tutorial.

Once the user clicks on **Edit** or **New**, a new screen is displayed.

1.1.1 Scheduling Tab

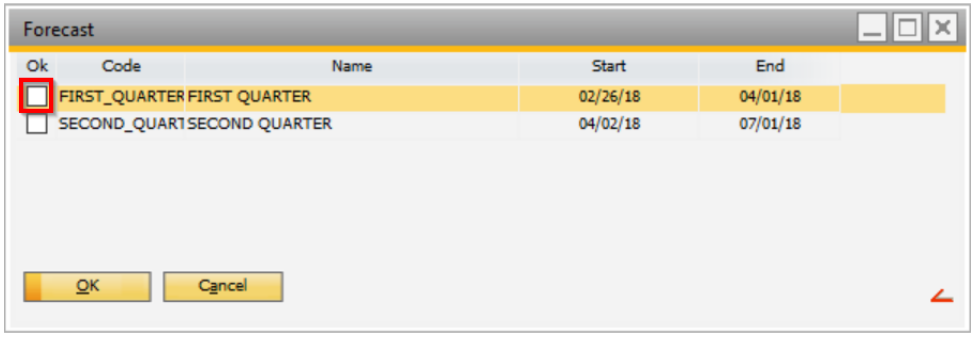
In this tab, the scenario is defined with a name, the timeframe to plan the material requirements and the filters to display the results.



Scenario: Field used to insert the ID.

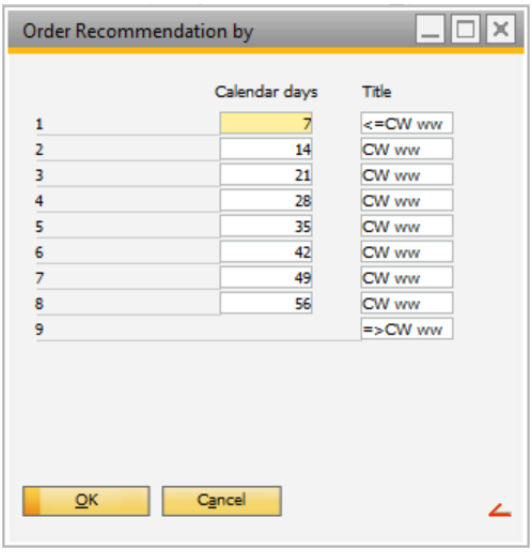
Description: Field used to insert a description.

Forecast: Field used to include SAP Business One forecast in the MRP run. More than one forecast can be added to this scenario. A new screen is displayed when forecast is selected.



Order Recommendation By: Field used to set a time period to display order recommendations: week, 2 weeks, month or manually.

If "manually" is selected, it can be specified:



Calendar days: Field used to specify the number of days for the period. This is counted from the end of the preceding period, 0:00. For the first period, Beas will take from 1/1/1900 until today + number of days indicated. The last period cannot be specified because 1/1/2099 is always used as the end date.

Title: Field used to indicate what is to be displayed in order recommendation report. Placeholders are allowed. The following letters represent: YY, year 2 digits; MM, month 2 digits; DD, day 2 digits; and, CC, calendar week 2 digits.

For example, YY/CC 15/30 for calendar week 30 in year 2015

Deliver By: Field used to set the date limit to take into account orders and forecasts. This is a fixed date.

Or. Workdays: Field used to set the date limit to take into account orders and forecast. This is used when the scenario has been created for multiple executions. This makes the date dynamic, for example the next 60 working days from the current date.

IMPORTANT: If a main demand is not taken into account due to the date, the requisites dependent on it are not calculated, even if the lead time, the order date, or the need date of these requisites fall within the period of computation.

Containment for Display

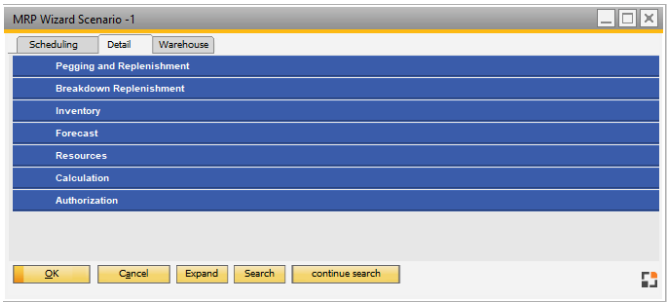
Sales Item: Field used to filter the results displayed by sales item. It can be a range of items, or selected sales items.

Purchase Part: Field used to filter the results displayed by purchase part. It can be a range of items, or selected purchase parts.

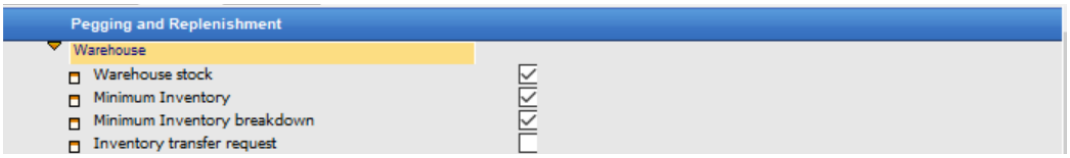
1.1.2 Detail Tab

In this tab, the MRP scenario can be set up in detail. MRP will consider these parameters for calculation and order recommendation display. This tab is divided into categories:

- Pegging and Replenishment
- Breakdown Replenishment
- Inventory
- Forecast
- Resources
- Calculation
- Authorization



The first section, **Pegging and Replenishment**, contains the documents that will be taken into account as input to calculate the material requirements. This section is split into: Warehouse, Production, Sales, Purchase and Computation Type.



Warehouse Stock: Field used to enable Beas to take into account the inventory of the items in the MRP.

Minimum Inventory: Field used to enable Beas to take into account the minimum inventory, defined in the item master data, in the MRP.

Minimum Inventory Breakdown: Field used to enable Beas to break down the minimum inventory requirements. There is only a breakdown if the warehouse inventory is smaller than the minimum inventory. Only the missing share will be broken down.

Example: the warehouse inventory is 100 pcs and the minimum inventory is 150. The program assumes that the missing 50 pcs must be produced to fulfill the minimum inventory.

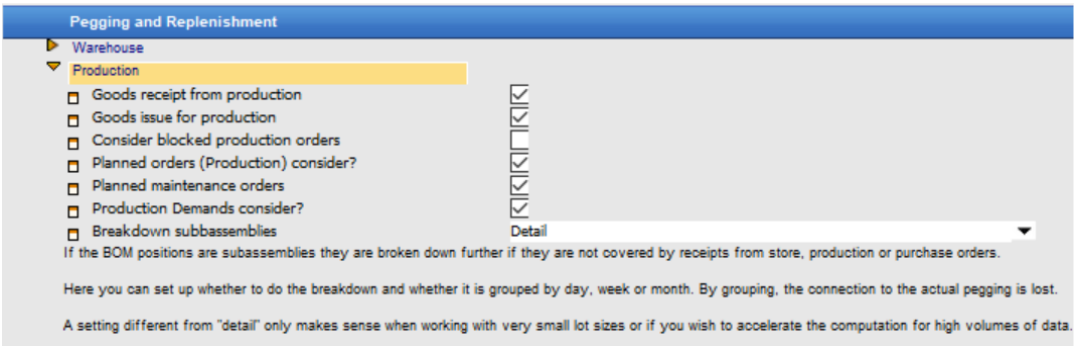
In case the minimum inventory is underrun, the scrap quantity is not considered. It will be taken into account at breakdown.

Example: the warehouse inventory is 100 pcs, the minimum inventory is 101 and scrap quantity is 10 pcs. A negative balance of 101 results, and a further breakdown occurs with

111. If a work order is created from this, it has a quantity of 101 + 10 from scrap.

For items managed by batches, if the option Locked Batches are Disposable in the section Inventory from the Details tab is deactivated, only the batches that are not locked will be used as warehouse reference.

Example: the warehouse inventory is 70 pcs, the minimum inventory is 100 and the locked batch quantity is 10 pcs. A negative balance of 40 arises.



Good Receipt from Production: Field used to include, in the MRP calculations, planned goods receipts from production and negative BOM items. These are used as "Inflow" when calculating MRP inventory flow.

Good Issue for Production: Field used to consider planned production issues from the bill of materials, in the MRP calculation.

IMPORTANT: Negative BOM items are not considered.

Planned orders (Production) Consider: Field used to consider planned work orders in the MRP calculation, even if they are blocked.

If the user disables the previous option Consider Blocked Production Orders and enables this option Planned Orders (Production) Consider, this option will override the previous one, so as a result the MRP will considered Planned and Blocked orders at the same time.

Planned Maintenance Orders: Field used to consider maintenance orders for which no work order has been created yet. For breakdown, the bill of material assigned in the maintenance plan is used. At the moment the work order is created for the maintenance order, the maintenance order will no longer be considered. The requirement will then be determined from the work order, but only if the above option Good Issue for Production was enabled.

Production Demands Consider: Field used to consider production demands created by order recommendations, which means that they were created from previous MRP calculations.

Breakdown Sub-assemblies: Field used to define how to breakdown sub-assemblies. If sub-assemblies are not covered by inventory, production, or purchases, these are further broken down. Here, the user can select if pegging is grouped by day, week or month. Creating groups of pegging will cut the link to the current pegging.

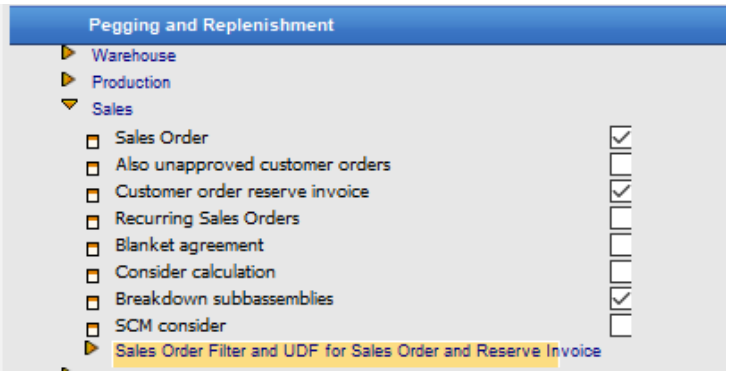
Example: There is a work order for item "A" with the following structure:

Finished Goods “A”

Sub-assembly “B”

Purchase Item “C”

Beas checks if there is enough inventory for sub-assembly “B” or if there is a scheduled receipt (requirement coverage calculation). If nothing is found, assembly B is broken down, thereby determining the requirement for material C, though there is no production order. Here, material C is firmly linked to the pegging (production order, assembly A).



Sales Order: Field used to consider sales orders in the MRP calculation, under the following conditions:

- Order position has not been closed
- Open quantity greater than zero
- Sales order status = “Approved”. This is located in the sales order > Logistic Tab > Approved option enabled
- It is an assembly, or the purchase part is included in the item area, defined in Item
- The delivery date is within the period of the MRP calculation

Customer Order Reserve Invoice: Field used to consider reserve order invoices in the MRP calculation. If this option is disabled, the sales order for which a customer order reserve invoice was created is no longer considered because SAP closes the sales order. In this case, the requirement originator is now the customer order reserve invoice, not the sales order. In order for this to be included in the MRP as the requirement originator, this option must be enabled.

Breakdown Subassemblies: Field used to break down sub-assemblies from sales orders.

Example: There is the following structure for item “A”:

Finished Goods “A”

Assembly “B”

Purchase Item “C”

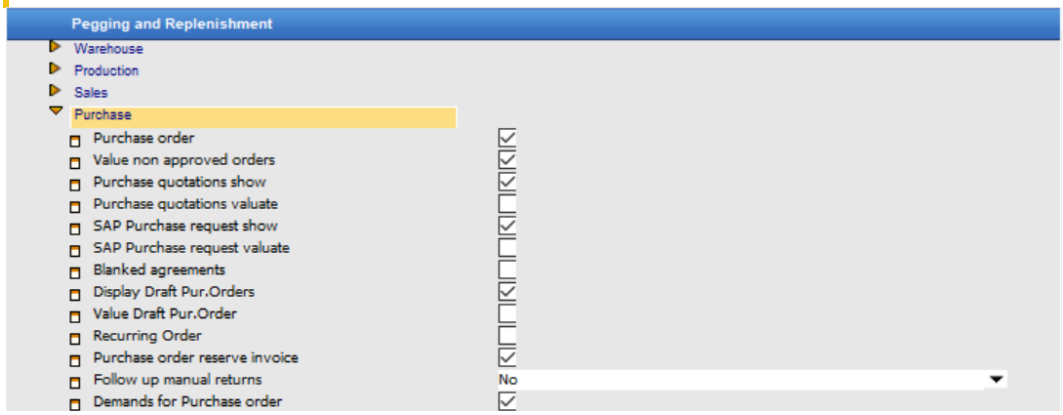
If the switch is enabled, Beas displays requirement for all three items: “A”, “B” and “C”.

If the switch is disabled, Beas displays requirement only for item “A”. In this case,

Assembly “B” is not further broken down. Purchase Item “C” is not displayed as a requirement.

UDFs: Up to 4 user defined fields can be set up to show in the inflow or outflow area. A UDF has a title and a SQL statement to define the data. For more information on how to set up UDFs, see Customizing an MRP Scenario with User Defined Fields.

IMPORTANT: Disable the switch if the company does not produce all the demand. That means during planning it can be decided to produce or to purchase the item.



Purchase Order: Field used to consider purchase orders in the MRP calculation. When disabled, purchase orders are completely ignored.

Value non-Approved Orders: Field used to consider non-approved orders in the MRP calculation, in the balance calculation. When disabled, the non-approved purchase orders are completely ignored.

Purchase Order Reserve Invoice: Field used to consider reserve order invoices in the MRP calculation. These invoices are displayed in MRP as long as they are not delivered or closed.

Follow Up Manual Returns: Field used to consider purchasing returns created without reference to a goods receipt. These will be displayed as a positive or negative inflow, depending on the selection.

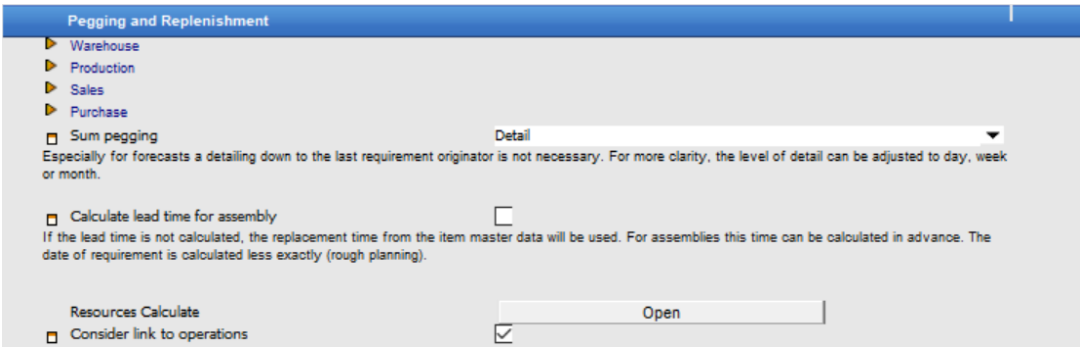
Example: This is used when an item is returned, and a replacement delivery is expected without a new purchase order being created.

A manual return can be created without a reference to the goods receipt.

As soon as the delivery takes place, the return is closed.

IMPORTANT: Manual returns are considered in the requirement coverage calculation.

Demands for Purchase Order: Field used to consider purchase requests from Beas, created from order recommendation.



Sum Pegging: Field used to set the sum requirement based on time: day, week, month. This function allows compression of the data and reduction in the calculation effort.

If the option is set to "Detail", every pegging (forecasts, purchase or sales orders) is displayed separately. This setting makes sense if purchases are issued related to orders or if it is goods of high value.

If the option is set to "Day/Week/Month/Sum", the peggings are accumulated corresponding to the chosen timeframe. This is recommended if no detailed declaration of the pegging or resource is necessary and one has to deal with high amounts of data. The calculation time is shortened, and the view is clearer. This setting can also be defined in the item master data. For more information, please refer to field Accumulation in Item master data.

Calculate Lead Time for Assembly: Field used to calculate lead time in the MRP calculation. This means that the lead time is calculated using the integrated capacity planning tool based on the routing production times defined. The date is calculated based on the Backward Scheduling. Existing capacities usage are not taken into account. If a material is assigned to an operation sequence directly, then the start date of the operation sequence is assigned.

If disabled, the item lead time serves as a reference and also the one defined in the MRP setup Configuration Wizard. This will shorten the calculation time significantly. The option Activate Resource Planning in the section Resources in the MRP wizard is automatically disabled.

> IMPORTANT: Lead time means production time of the assembly without consideration of sub-assemblies lead times.

Example: Here is the item structure:

Assembly A (Lead time = 10 work days)

Assembly B (Lead time = 5 work days)

The date of finished production A and B is the requirement date

Start date A: Requirement date – Lead time A (10 days)

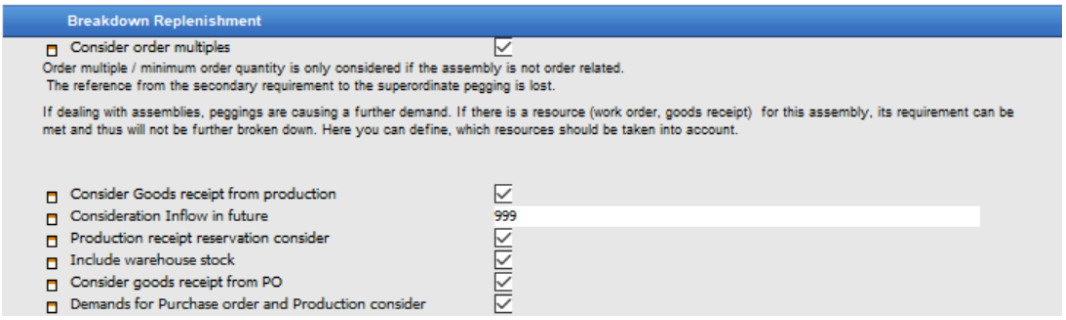
Start date B: Start date A – Lead time B (5 days)

Consider Link to Operations: Field used to calculate the requirement date for sales documents. Links between operation sequence and bill of material are considered. If this option is disabled, the links are not considered, which means that the calculated manufacturing start date is always

used as the requirement date for the bill of material items. By disabling this option, the calculation will take less time.

In production, if this option is enabled, the start date of the operation is used for calculating the requirement date of the bill of material items. Otherwise, the start date of the work order position is used. If this option is disabled, the delivery date is used.

The second section, **Breakdown Replenishment**, contains different options to manage the assemblies' breakdowns. Pegging causes another requirement in the case of assemblies. If there is a resource (Work order, goods issue by order, etc) for this assembly, its requirement can be covered with this and therefore it is not broken down further. Here, you can configure which resources should be considered. If all options are activated, the net breakdown is performed, if nothing is activated, the gross breakdown is performed.



Consider Goods Receipt from Production: Field used to consider production receipts if these are available at the requirement date.

Consideration Inflow in Future: Field used to set the number of days between planned outflow and planned receipt. By default, this value is set to 999. This means that if the planned receipt is within 999 calendar days after the requirement date, it will be taken into account.

> IMPORTANT: This option only applies to items where Breakdown is different from "Order Related".

Production Receipt Reservation Consider: Field used to consider only receipt reservations, the order assignment is ignored. This is only for order related items. When the option is disabled, there is only 1:1 link between customer order and work order, reservations are ignored.

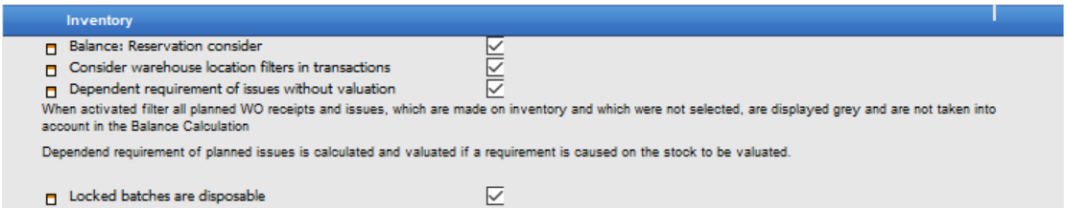
Include Warehouse Stock: Field used to include warehouse inventory for the sub-assemblies.

Consider Goods Receipt from PO: Field used to consider planned purchase receipts, if they are available on the requirement date. Buffered and blocked purchase orders are not considered.

Demands for Purchase Order and Production Consider: Field used to consider requests from purchase and production. This option is displayed only if the option Purchase Order is enabled. (PATH: **MRP Wizard > Detail Tab > Pegging and Replenishment > Purchase**)

To consider this option, also the option Demands for Purchase Orders must be enabled. (PATH: **MRP Wizard > Detail Tab > Pegging and Replenishment > Purchase**)

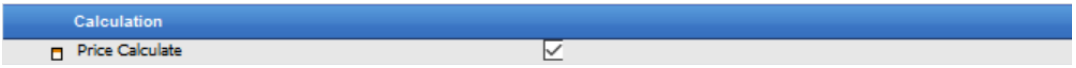
The third section, Inventory, contains different options related to inventory.



Balance: Reservation Consider: Field used to consider reservations in the calculation. If enabled, first, reservations are subtracted from stock. In the end, the balance does not change, this determines only the exact moment where the reservation is subtracted. When disabled, reservations are completely ignored.

Locked Batches are Disposable: Field used to value blocked batches as an available inventory at inventory calculation.

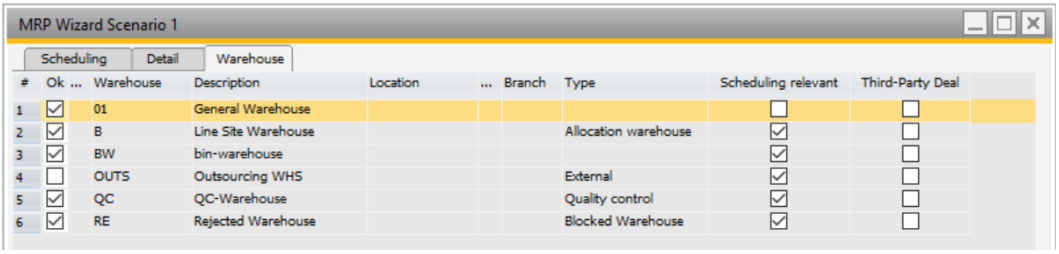
The sixth section, Calculation, contains only one parameter relating price calculation.



Price Calculation: Field used to allow the system to calculate prices during the MRP run and insert them into the results list. If disabled, it is calculated only if a purchase is created or the amount or the supplier is changed. This option can be disabled to shorten computation time.

1.1.3 Warehouse Tab

In this tab, warehouses can be selected, which will be included in the calculation.



#	Ok	...	Warehouse	Description	Location	...	Branch	Type	Scheduling relevant	Third-Party Deal
1	☑		01	General Warehouse					☐	☐
2	☑		B	Line Site Warehouse				Allocation warehouse	☑	☐
3	☑		BW	bin-warehouse					☑	☐
4	☐		OUTS	Outsourcing WHS				External	☑	☐
5	☑		QC	QC-Warehouse				Quality control	☑	☐
6	☑		RE	Rejected Warehouse				Blocked Warehouse	☑	☐

Ok: Field used to select the warehouse to be included in the MRP run, simply set the checkmark in the column on "OK".

Warehouse: Column that displays the warehouse code defined in SAP.

Description: Column that displays the warehouse name from the Warehouse column.

Location: Column that displays the SAP location (if applicable) linked to this warehouse.

Branch: Column that displays the SAP branch (if applicable) linked to this warehouse.

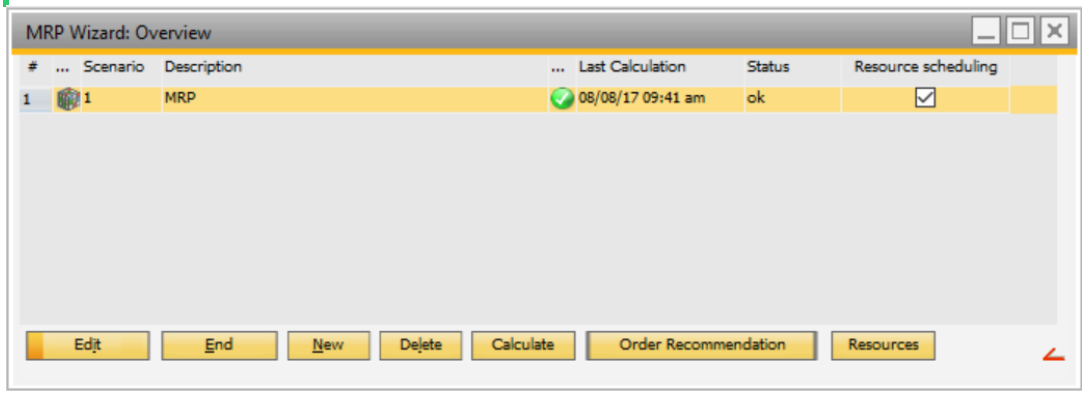
Type: Column that displays the warehouse type defined in Beas.

Scheduling Relevant: Column that displays if this specific warehouse is enabled to be automatically involved in the MRP calculation. This value is defined in SAP. For more information, please refer to the field Nettable in the SAP help documentation.

1.2 Field guide

In order to use the MRP functionality, first an MRP scenario must be created. In this scenario, all parameters and display selections are set up.

PATH: MRP > MRP Wizard



This screen displays a list of the MRP scenarios with their descriptions, last calculation date and time, execution status and if the resource scheduling is activated for the scenario.

Here, the user can manage the different scenarios for the material requirements planning like create new scenarios, edit, delete, execute and display the results.

Edit: Button used to edit the selected MRP scenario.

New: Button used to create a new MRP scenario.

Delete: Button used to delete the selected MRP scenario.

Calculate: Button used to execute the selected MRP scenario. For more information, please refer to the MRP tutorial.

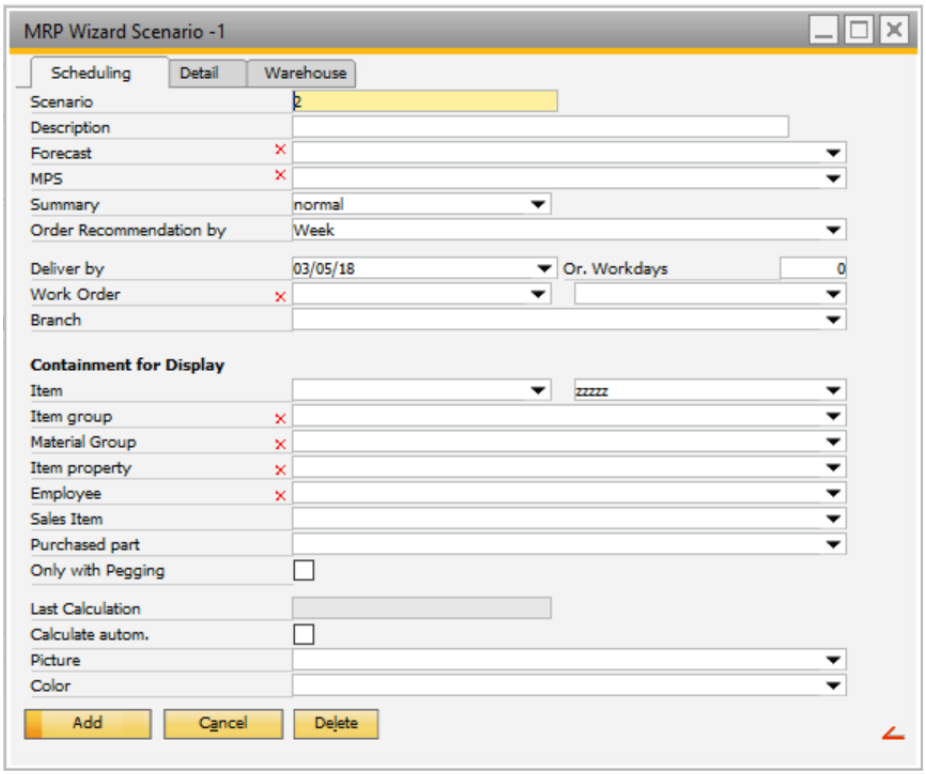
Order Recommendation: Button used to display the results from the MRP calculation. For more information, please refer to the MRP tutorial.

Resources: Button used to display the resource requirement view for the selected scenario (MRP2). For more information about MRP2, please refer to Capacity Planning tutorial.

Once the user clicks on **Edit** or **New**, a new screen is displayed.

1.2.1 Scheduling Tab

In this tab, the scenario is defined with a name, the timeframe to plan the material requirements, and the filters to display the results.



Scenario: Field used to insert the ID.

Description: Field used to insert a description.

Forecast: Field used to include SAP Business One forecast in the MRP run. For more information, please refer to the field Forecast in the Process section of this document.

MPS: Field used to include special forecasts for MPS features. MPS takes only place, if the respective item was marked as MPS item. This is done in the item master data, in the Planning tab.

Summary: Field used to summarize, by month, the forecast independent of its definition, by week or day.

Order Recommendation By: Field used to set a timeframe to display order recommendations: week, fortnight, month or manually. For more information, please refer to the field Order Recommendation By in the Process section of this document.

Deliver By: Field used to set the date limit to take into account orders and forecasts. This is a fixed date.

Or. Workdays: Field used to set the date limit to take into account orders and forecast. For more information, please refer to the field Or. Workdays in the Process section of this document.

Work Order: Field used to display only the item needed for the selected work order.

Branch: Field used to set a branch for this scenario.

Containment for Display

Item: Field used to filter the results displayed by item number. It can be a range of items.

Item Group: Field used to filter the results displayed by item group. It can be a range of groups, or selected groups.

Material Group: Field used to filter the results displayed by material group. It can be a range of material groups, or selected groups.

Item Property: Field used to filter the results displayed by item property. It can be a range of item properties, or selected properties.

Employee: Field used to filter the results displayed by employee. It can be a range of employees, or selected employees.

Sales Item: Field used to filter the results displayed by sales item. It can be a range of items, or selected sales items.

Purchase Part: Field used to filter the results displayed by purchase part. It can be a range of items, or selected purchase parts.

Only with Pegging: Field used to display only items that have a pegging or a planned receipt. By default, it is disabled and all items are displayed in MRP.

> IMPORTANT: If there are many items in the database, it is recommended to disable this option. Otherwise the calculation will take a long time.

Last Calculation: Field used to display the date when this scenario was last calculated.

Calculate automatic: Field used to set this scenario to be calculated automatically by the server. For more information about automatic calculation, please refer to System Tools: Beas Services tutorial.

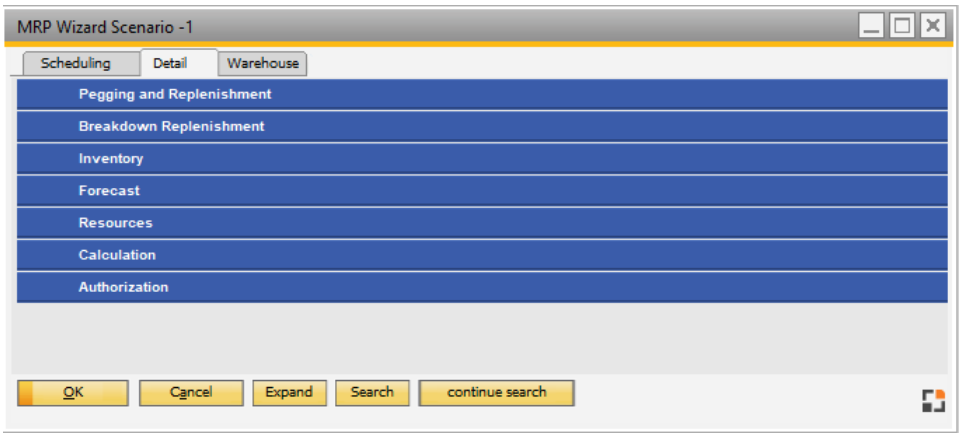
Picture: Field used to set a specific icon for the MRP scenario.

Color: Field used to set a specific color for the font of the selected MRP scenario.

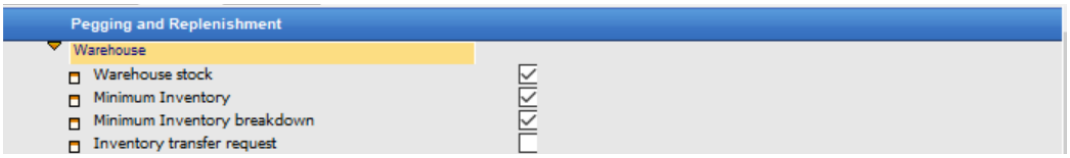
1.2.2 Detail Tab

In this tab, the MRP scenario can be set up in a detailed way. MRP will consider these parameters for calculation and order recommendation display. This tab is divided into categories:

- Pegging and Replenishment
- Breakdown Replenishment
- Inventory
- Forecast
- Resources
- Calculation
- Authorization



The first section, Pegging and Replenishment, contains the documents that will be taken into account as input to calculate the material requirements. This section is split into: Warehouse, Production, Sales, Purchase and Computation Type.

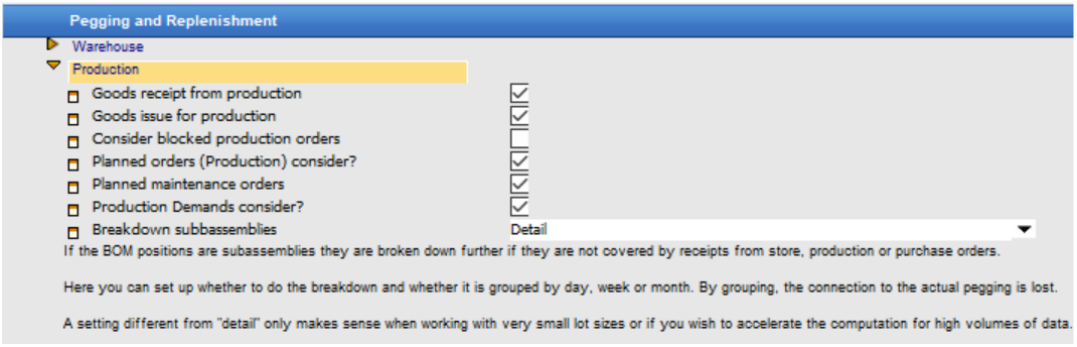


Warehouse Stock: Field used to enable Beas to take into account the inventory of the items in the MRP.

Minimum Inventory: Field used to enable Beas to take into account the minimum inventory, defined in the item master data, in the MRP.

Minimum Inventory Breakdown: Field used to enable Beas to breakdown the minimum inventory requirements. For more information, please refer to the field Minimum Inventory Breakdown in the Process section on this document.

Inventory Transfer Request: Field used to enable Beas to manage the inventory transfer request through the MRP. Each inventory transfer request generates two entries in the MRP, the first is similar to a sales order in the source warehouse, and the second is like a purchase order for the target warehouse.



Goods Receipt from Production: Field used to include in the MRP calculations planned goods receipts from production and negative BOM items. For more information, please refer to the field

Goods Receipt from Production in the Process section of this document.

Goods Issue for Production: Field used to consider planned production issues from the bill of materials, in the MRP calculation. For more information, please refer to the field Goods Issue for Production in the Process section of this document.

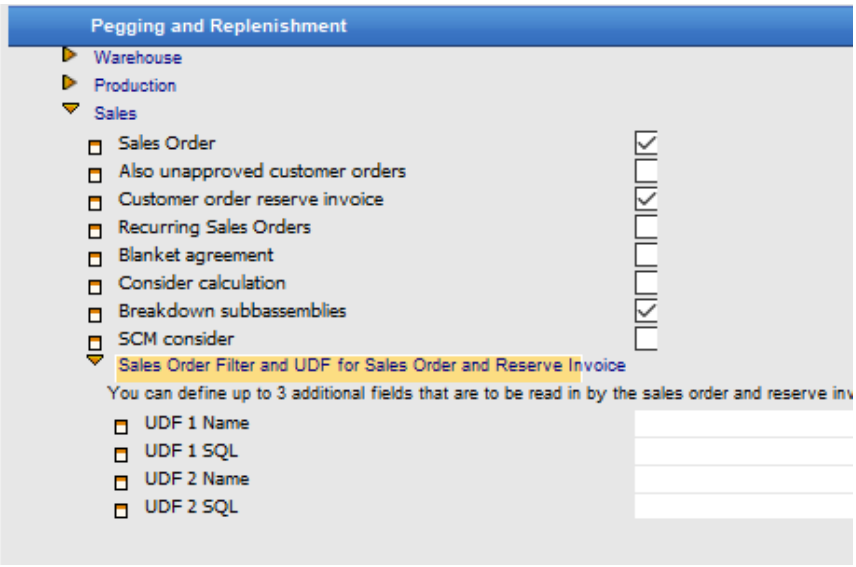
Consider Blocked Production Orders: Field used to consider blocked production orders in the MRP calculation.

Planned orders (Production) Consider: Field used to consider planned work orders in the MRP calculation, even if they are blocked. For more information, please refer to the field Planned Orders (Production) Consider in the Process section of this document.

Planned Maintenance Orders: Field used to consider maintenance orders for which no work order has been created yet. For more information, please refer to the field Planned Maintenance Orders in the Process section of this document.

Production Demands Consider: Field used to consider production demands created by order recommendations, which means that were created from previous MRP calculations.

Breakdown Sub-assemblies: Field used to define how to breakdown sub-assemblies. For more information, please refer to the field Breakdown Sub-assemblies in the Process section of this document.



Sales Order: Field used to consider sales orders in the MRP calculation. For more information, please refer to the field Sales Order in the Process section of this document.

Also Unapproved Customer Orders: Field used to consider non-approved orders in the MRP calculation, in the balance calculation. When disabled, the non-approved sales orders are completely ignored.

Customer Order Reserve Invoice: Field used to consider reserve order invoices in the MRP calculation. For more information, please refer to the field Customer Order Reserve Invoice in the

Process section of this document.

Recurring Sales orders: Field used to consider the SAP Business One Recurring Transactions function in the MRP calculation.

Blanket Agreement: Field used to consider blanket agreements in the MRP calculation. Only the blanket agreements with Type "Specific" and Status "Approved" are considered. If the sum of requirements of sales order linked to a specific blanket agreement is lower than quantity in the blanket agreement itself, Beas creates order recommendations for the quantity difference.

IMPORTANT: In the blanket agreement, in details, the date or the recurring period should be defined.

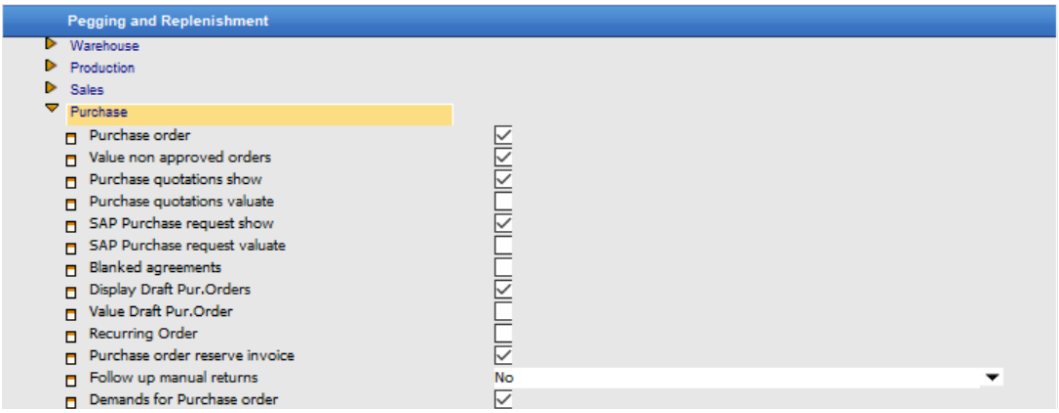
Consider Calculation: Field used to consider calculations in the MRP calculation. If a calculation is mapped to an item in the sales order, the material requirement for the sales order is not based on the master data but on the existing calculation. Calculations are always order related and the item structure is always broken down completely. Replenishment materials in between stages are not taken into accountnor is existing inventory.

Lead time is not calculated. Requirement dates do not consider the setup and processing times defined in the calculation.

Assemblies (storage related as well as order related) are broken down completely.

Breakdown Subassemblies: Field used to break down subassemblies from sales orders. For more information, please refer to the field **Breakdown Subassemblies** in the Process section of this document.

UDFs: Up to 4 user defined fields can be set up to show in the inflow or outflow area. A UDF has a title and a SQL statement to define the data. For more information on how to set up UDFs, see Customizing an MRP Scenario with User Defined Fields.



Purchase Order: Field used to consider purchase orders in the MRP calculation. For more information, please refer to the field Purchase Order in the Process section of this document.

Value non-Approved Orders: Field used to consider non-approved orders in the MRP calculation, in the balance calculation. For more information, please refer to the field Value non-Approved

Orders in the Process section of this document.

Purchase Quotations Show: Field used to only display purchase quotations. Usually this is not needed because purchase quotations are also displayed on the right side of the order recommendation screen.

Purchase Quotations Valuate: Field used to consider the purchase quotations in the MRP calculation. This field is only visible if the option Purchase Quotations Show is enabled. This is useful if the purchase quotations are used for other purposes like planned receipts.

SAP Purchase Request Show: Field used to only show purchase requests from SAP.

SAP Purchase Request Valuate: Field used to consider purchase requests from SAP in the MRP calculation. This field is only visible if the option SAP Purchase Request Show is enabled.

Blanket Agreement: Field used to consider blanket agreements in the MRP calculation. Only the blanket agreements with Type "Specific" and Status "Approved" are considered. The requirement is included in the balance calculation. After a demand was called off by a sales order, the requirement from the blanket agreement will display only the remaining quantity besides the sales order quantity.

IMPORTANT: In the blanket agreement, in the details tab, it should be defined the date or the recurring period.

Display Draft Purchase Orders: Field used to only display draft purchase orders.

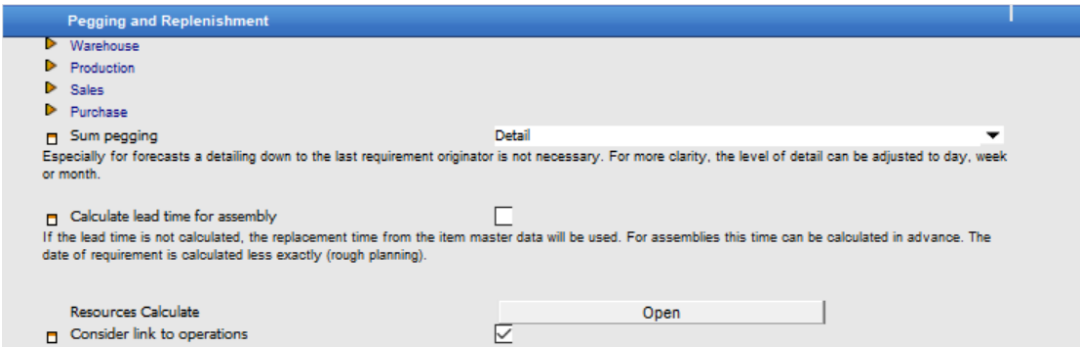
Value Draft Purchase Orders: Field used to consider the draft purchase orders in the MRP calculation. This field is only visible if the option Display Draft Purchase is enabled. This makes sense if the draft purchase orders are used for other purposes like planned receipts.

Recurring Order: Field used to consider the SAP Business One Recurring Transactions function in the MRP calculation.

Purchase Order Reserve Invoice: Field used to consider reserve order invoices in the MRP calculation. These invoices are displayed in MRP as long as they are not delivered or closed.

Follow Up Manual Returns: Field used to consider purchasing returns created without reference to a goods receipt. For more information, please refer to the field Follow Up Manual Returns in the Process section of this document.

Demands for Purchase Order: Field used to consider purchase requests from Beas, created from order recommendation.



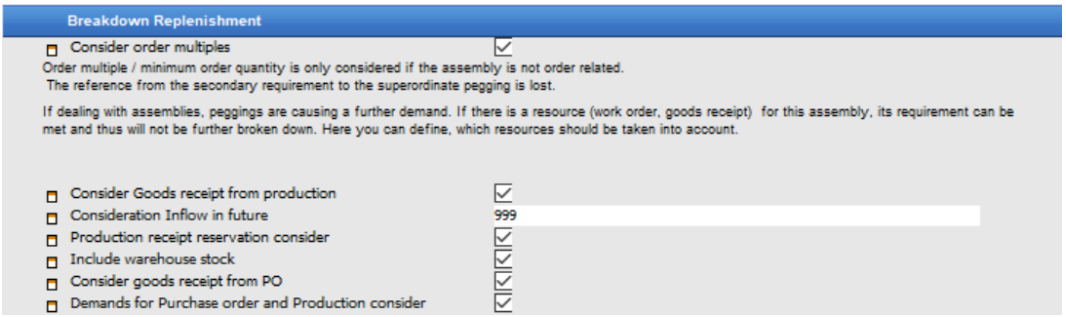
Sum Pegging: Field used to set to sum requirement based on time: day, week, month. For more information, please refer to the field Sum Pegging in the Process section of this document.

Calculate Lead Time for Assembly: Field used to calculate lead time in the MRP calculation. For more information, please refer to the field Calculate Lead Time for Assembly in the Process section of this document.

Resources Calculate: Field used to give direct access to the function Calculate Resources. This option is for calculating the material and resources requirements in advance. This field is only visible if the option Calculate Lead Time for Assembly is disabled. These resources (material and tools) are calculated based on the production lot size. This calculation type is faster than the upper one and it provides a good estimate.

Consider Link to Operations: Field used to calculate the requirement date for sales documents. For more information, please refer to the field Consider Link to Operations in the Process section of this document.

The second section, Breakdown Replenishment, contains different options to manage the assemblies' breakdowns. Pegging cause another requirement in the case of assemblies. If there is a resource (work order, goods issue by order, etc) for this assembly, its requirement can be covered with this and therefore it is not broken down further. Here, you can configure which resources should be considered. If all options are activated, the net breakdown is performed, if nothing is activated, the gross breakdown is performed.



Consider Order Multiples: Field used to consider order multiples at breakdown of assemblies. Minimum order quantity is always considered. This only affects the function requirement coverage calculation. Only material is affected and the sub-assemblies of the assembly which

has order multiples enabled in its master data. For more information, please refer to field Order Multiple in the Item Master Data tutorial.

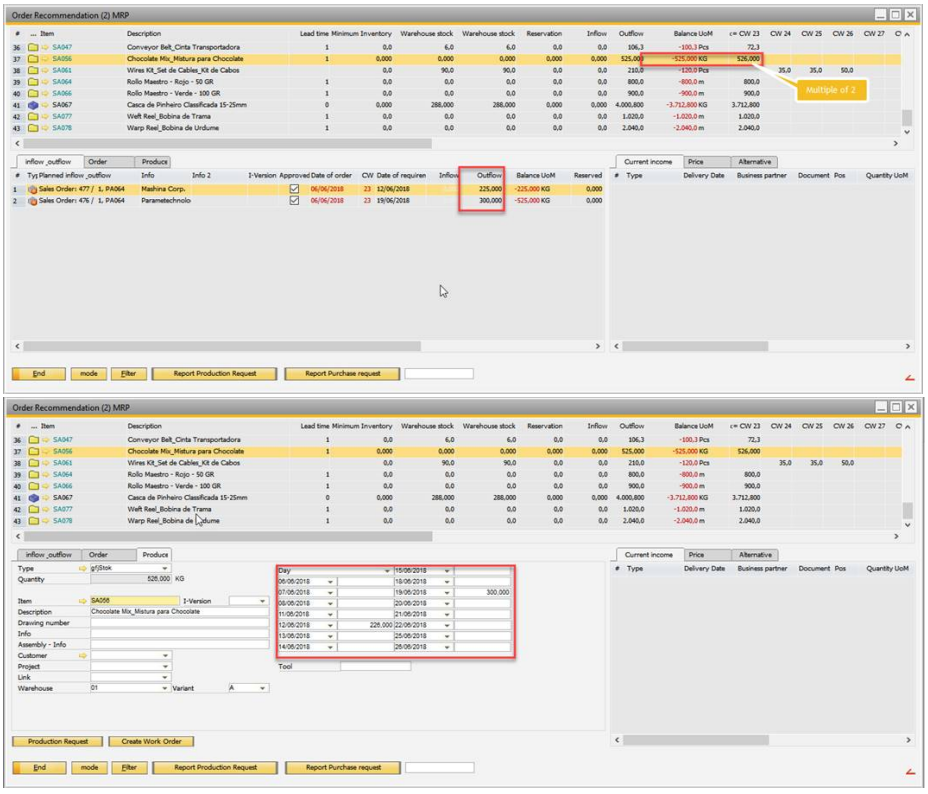
Example: there is a sales order #1 for "Assembly A" of 1500 pieces and "Sub-assembly B" of 225 pieces, and a sales order #2 for "Assembly A" of 2000 pieces and "Sub-assembly B" of 300 pieces. It has the following item structure:

Assembly A (order multiple = 0, storage related)

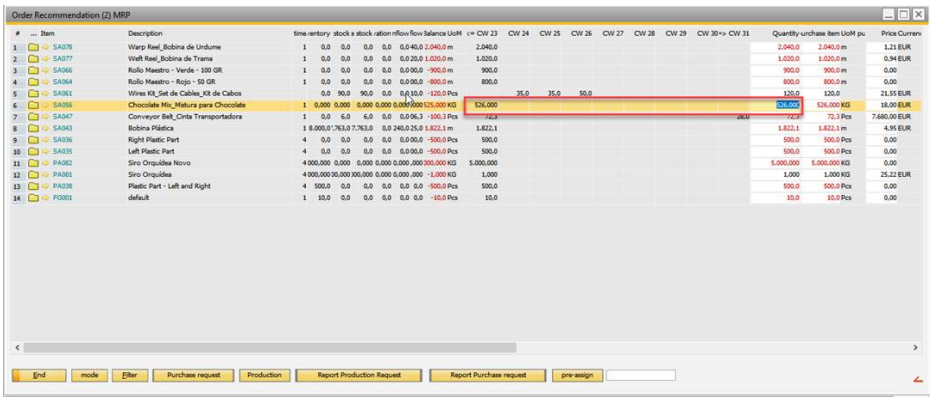
Sub-assembly B (order multiple = 2, storage related)

Results:

Total requirements for "Sub-assembly B" were rounded up according to 2, which is the order multiple. So, if the concept of production to stock is used, which is grouped production, instead of producing 1 sub-assembly to 1 finished product, Beas is able to round the requirements according to the Order Multiple field on the sub-assemblies, even if the quantities of the finished goods are changed when creating the work orders. In this case, it is necessary to rerun the MRP calculation.



When using the Pre-assign function, the recommendations are also rounded up according to the Order Multiple field.



Consider Goods Receipt from Production: Field used to consider production receipts if these are available at the requirement date.

Consideration Inflow in Future: Field used to set the number of days between planned outflow and planned receipt. For more information, please refer to the field Consideration Inflow in Future in the Process section of this document.

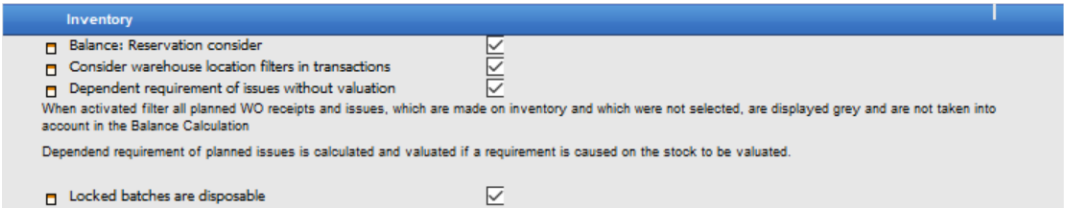
Production Receipt Reservation Consider: Field used to consider only receipt reservations, the order assignment is ignored. For more information, please refer to the field Production Receipt Reservation Consider in the Process section of this document.

Include Warehouse Stock: Field used to include warehouse inventory for the sub-assemblies.

Consider Goods Receipt from PO: Field used to consider planned purchase receipts, if they are available at the requirement date. For more information, please refer to the field Consider Goods Receipt from PO in the Process section of this document.

Demands for Purchase Order and Production Consider: Field used to consider requests from purchase and production. For more information, please refer to the field Demands for Purchase Order and Production Consider in the Process section of this document.

The third section, Inventory, contains different options related to inventory.



Balance: Reservation Consider: Field used to consider reservations in the calculation. For more information, please refer to the field Balance: Reservation Consider in the Process section of this document.

Consider Warehouse Location Filters in Transactions: Field used to consider planned documents such as purchases orders or sales orders, despite the inventory available in the specific warehouse.

If enabled, warehouse area filter is considered. Planned documents are greyed out and balance is not affected.

Example: Take into account only parameters from master data like minimum inventory, but not planned documents or transactions.

If disabled, warehouse area filter is not considered. Planned documents are always displayed, independent of the stored warehouse.

Documents involved:

- All kind of sales documents: sales orders, advanced invoices, etc
- Production inflow and outflow: work orders
- Purchase documents: purchase orders, quotations, etc

Documents that do not have a warehouse assigned, for example blanket agreements, or forecasts and SCM entries are always displayed.

IMPORTANT: Enabling the filter makes the option Dependent Requirement of Issues Without Valuation visible.

Dependent Requirement of Issues Without Valuation: Field used to consider planned issues without valuation into the MRP calculation. The work orders are not affected with this option because their bill of material requirement is already planned. This field is visible only if the field Consider Warehouse Location Filters in Transactions is enabled.

Example: There is a sales order for one (1) bicycle in warehouse 01. This bicycle consists of 2 wheels from warehouse 01.

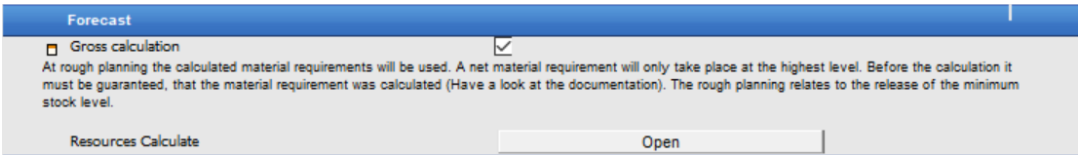
The MRP is set to not calculate warehouse 01.

If this option is enabled, as a result the MRP order recommendation displays the requirement for the bicycle in grey (not considered) and considers the requirement for the wheels (in black).

If this option is disabled, as a result the MRP order recommendation displays the requirement for the bicycle in grey and does not display any requirement for the wheels.

Locked Batches are Disposable: Field used to value blocked batches as an available inventory in inventory calculation.

The fourth section, Forecast, contains only one parameter to set the type of calculation to be used for the forecast.



Gross Calculation: Field used to calculate the material requirements in a fast mode. This is used for long period calculations where precise results are not necessary. The material requirement is determined using the function Resource Calculate and does not breakdown at the time of the

calculation of the purchase recommendation anymore. With this calculation method, the assembly structure is broken down completely. Requirement coverage calculation is not available, but balance calculation is. This option is disabled by default.

IMPORTANT: Order related assemblies are not displayed. These have no effect on balance calculation.

Example: There is a requirement of item "A" of 5 pieces, and there is stock available of "W" of 2 pieces.

Finished Goods "A"

Semi-finished Part (storage related) "W"

Purchase Item "P"

Net requirement calculation results:

"A" = 5 pieces, "W" = 5 pieces, "P" = 3 pieces, because "W" is covered from stock by 2 pieces.

Gross Calculation:

"A" = 5 pieces, "W" = 5 pieces, "P" = 5 pieces, because no requirement coverage calculation is performed.

Resource Scheduling or MRPII is based on the lead time calculation. Therefore, Gross Calculation must be disabled if this option is required.

IMPORTANT: If this method is enabled, then the material requirement must be calculated first, for all assemblies concerned or after greater changes.

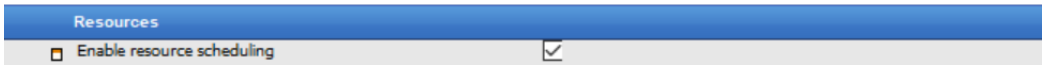
Resource Calculate: Field used to calculate the material requirement in advance for assemblies. This option is only visible if Gross Calculation is enabled.

Consider SCM Forecasts: Field used to consider forecasts from SCM into the calculation. This option is only visible if SCM is enabled in the database.

IMPORTANT: If SCM forecasts are considered, the value "Like Planned Customer Orders" from Forecast Consider in the configuration wizard is not taken into account. SCM forecasts are always considered based on SAP Business One Standard.

PATH: Material Management > MRP Wizard > Forecasts > Forecast Consider

The fifth section, Resources, contains only one parameter to set the scheduled resource needed for MRP II.



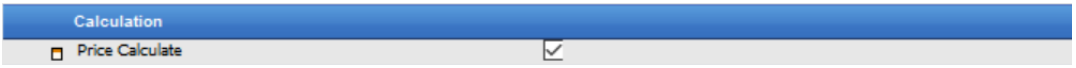
Enable Resource Scheduling: Field used to compute, besides the material requirement, the required resources for the scenario. The computation time can be longer. These results can be displayed by pressing the button Resources, in the MRP screen. This option is visible only if the option Calculate Lead Time of Assemblies is enabled. If this is enabled, the Gross Calculation

option is disabled.

IMPORTANT: If the option Calculate Lead Time for Assemblies is disabled, the option Enable Resource Scheduling is disabled and hidden.

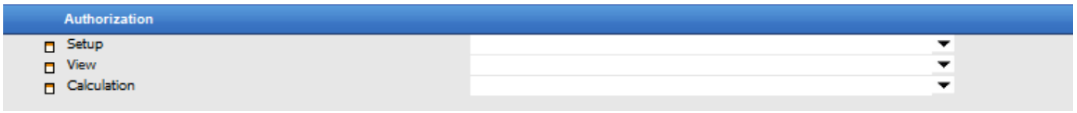
If the option Gross Calculation is enabled, the option Enable Resource Scheduling is disabled automatically.

The sixth section, Calculation, contains only one parameter for the price calculation.



Price Calculation: Field used to allow the system to calculate prices during the MRP run and insert them into the results list For more information, please refer to the field Price Calculation in the Process section of this document.

The Authorization section, contains settings to access rights for every scheduling separately adjusted from the standard right administration. Both right management systems are valid, for example, to get an access to the planning, one needs the standard right for purchase order recommendation list as well as the right to be defined here. If nothing is entered here, this authorization control is not activated.



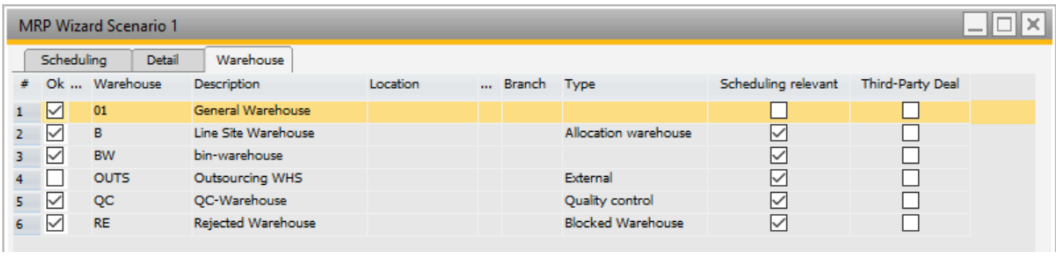
Setup: Field used to limit the access only to a specific user for changing planning settings.

View: Field used to limit the access only to a specific user for opening order recommendations.

Calculation: Field used to limit the access only to a specific user for calculating the MRP.

1.2.3 Warehouse Tab

In this tab, warehouses can be selected, which will be included in the calculation.



Ok: Field used to select the warehouse to be included in the MRP run, simply set the checkmark in the column on "OK".

Warehouse: Column that displays the warehouse code defined in SAP.

Description: Column that displays the warehouse name from the Warehouse column.

Location: Column that displays the SAP location (if applicable) linked to this warehouse.

Branch: Column that displays the SAP branch (if applicable) linked to this warehouse.

Type: Column that displays the warehouse type defined in Beas.

Scheduling Relevant: Column that displays if this specific warehouse is enabled to be automatically involved in the MRP calculation. For more information, please refer to the field Scheduling Relevant in the Process section of this document.

Third-Party Deal: Column that displays if this specific warehouse is a Drop-Ship warehouse. This value is defined in SAP. For more information, please refer to the field Drop-Ship in the SAP help documentation.

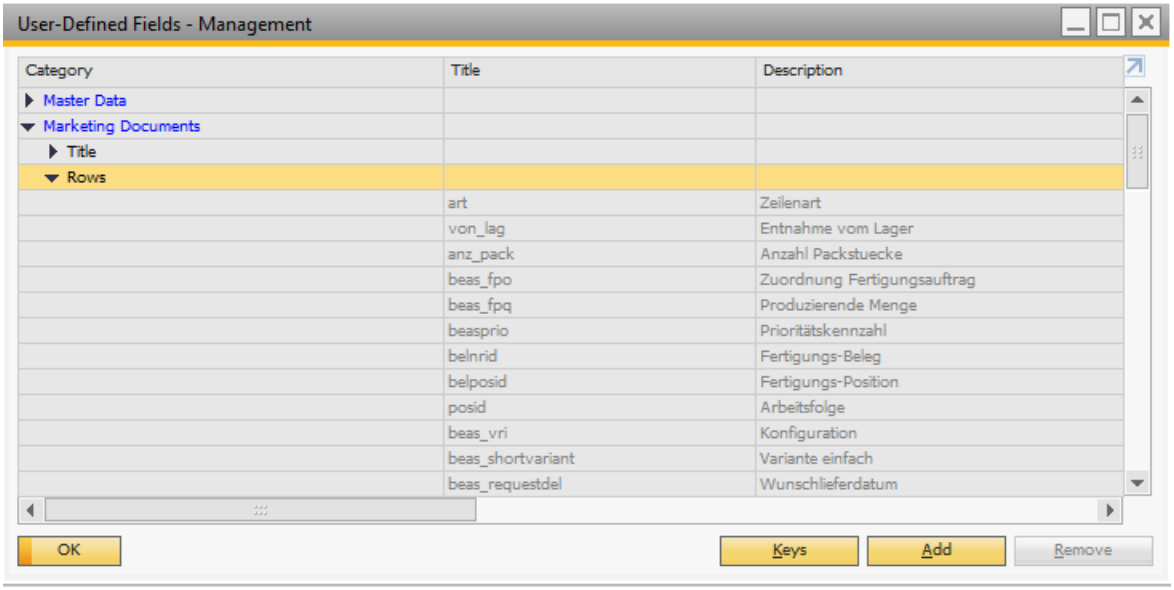
1.3 Special cases

1.3.1 Customizing an MRP Scenario with User Defined Fields

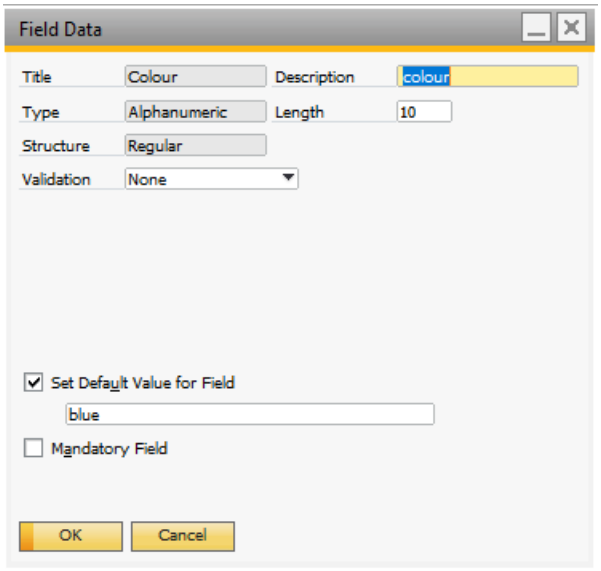
Up to four user-defined fields can be included as filters in the MRP calculation.

The field values can be displayed in the order recommendation screen.

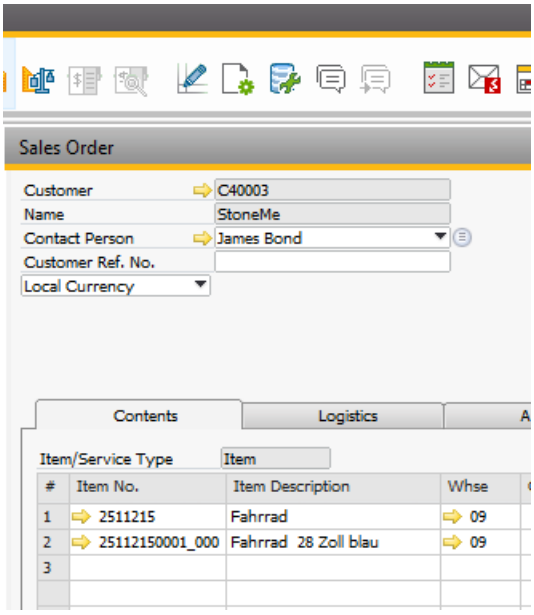
1. Define the field with the Customizing Tool.
   a. **Tools > Customization Tools > User-Defined Fields – Management**
   b. Click the **Add** button in the **Marketing Documents > Rows** section and add the field title and description.



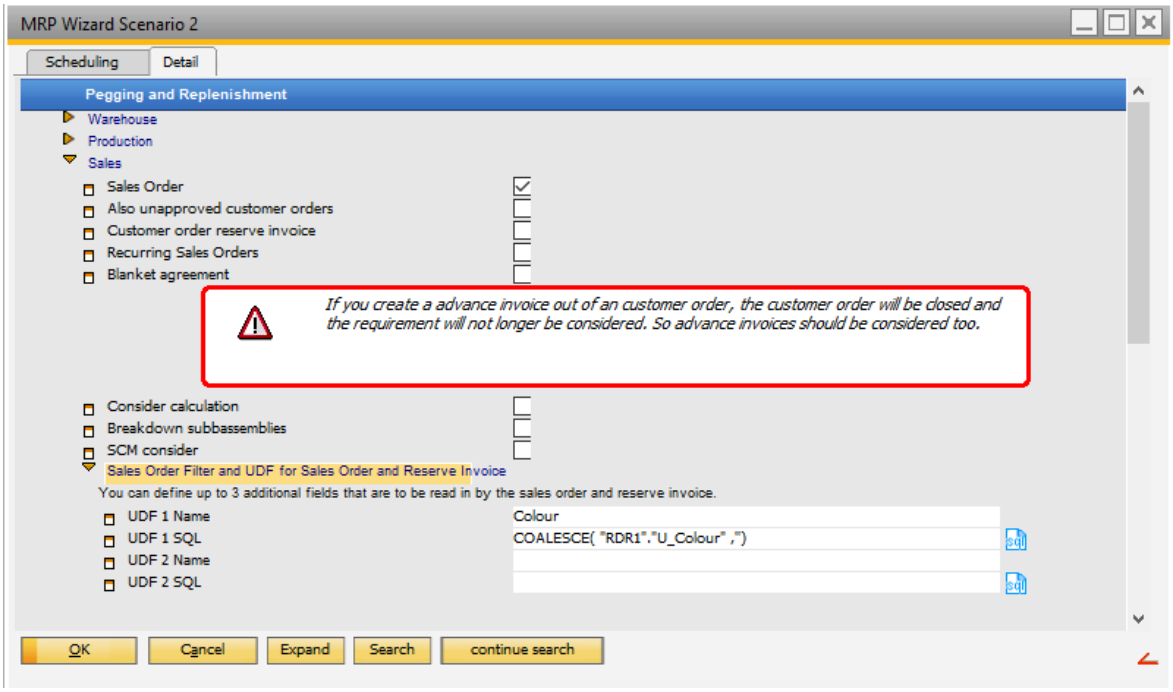
   c. Click **Add** and then **OK**.



2. Add this information to the Sales Order.
   a. On the **Sales Order > Form Settings** make the new field visible an active.

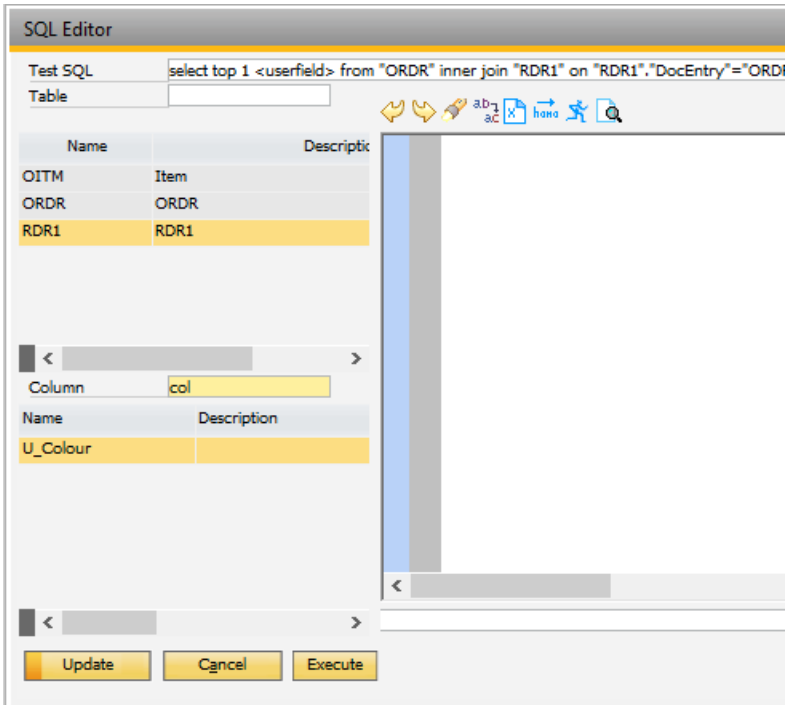


3. Add the information to the MRP.
   a. Set the field in **MRP Wizard> Edit a Scenario > Detail tab > Pegging and Replenishment > Sales >Sales Order Filter and UDF for SO and Reserve invoice**.

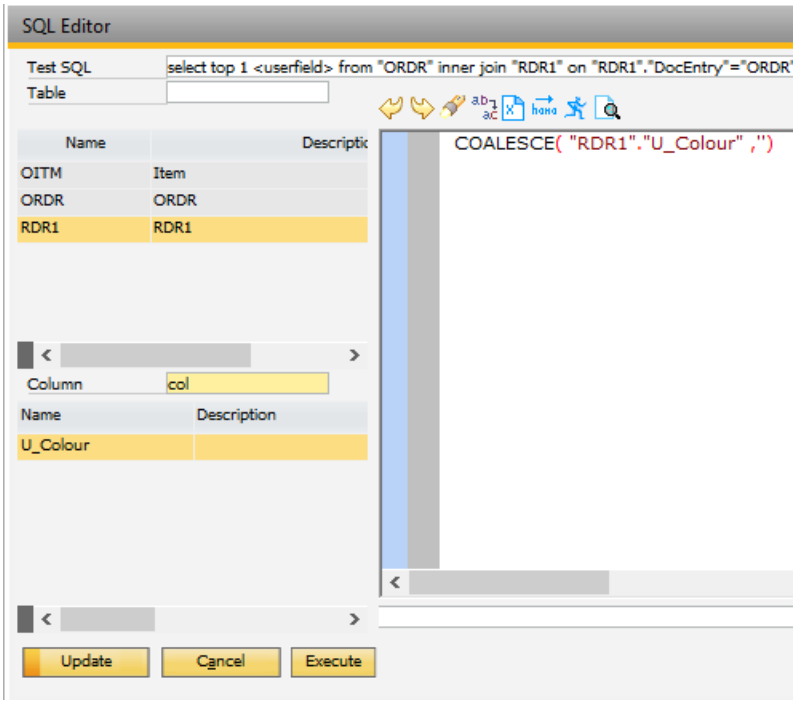


b. Give the UDF a name and use the SQL syntax generator. The SQL syntax generator shows the available tables.

c. Search for the field name field in the RDR1 table.



d. Double-click on the field and the syntax generator automatically inserts the correct SQL syntax.



e. Click the **Update** button.

4. After this is set, go to the order recommendation screen, right-click and in the window settings and select the required UDF. The UDFs are displayed with the names User1, User2, User3 and User4 in this screen. The UDF row can be dragged and dropped in the order of columns to the required position.

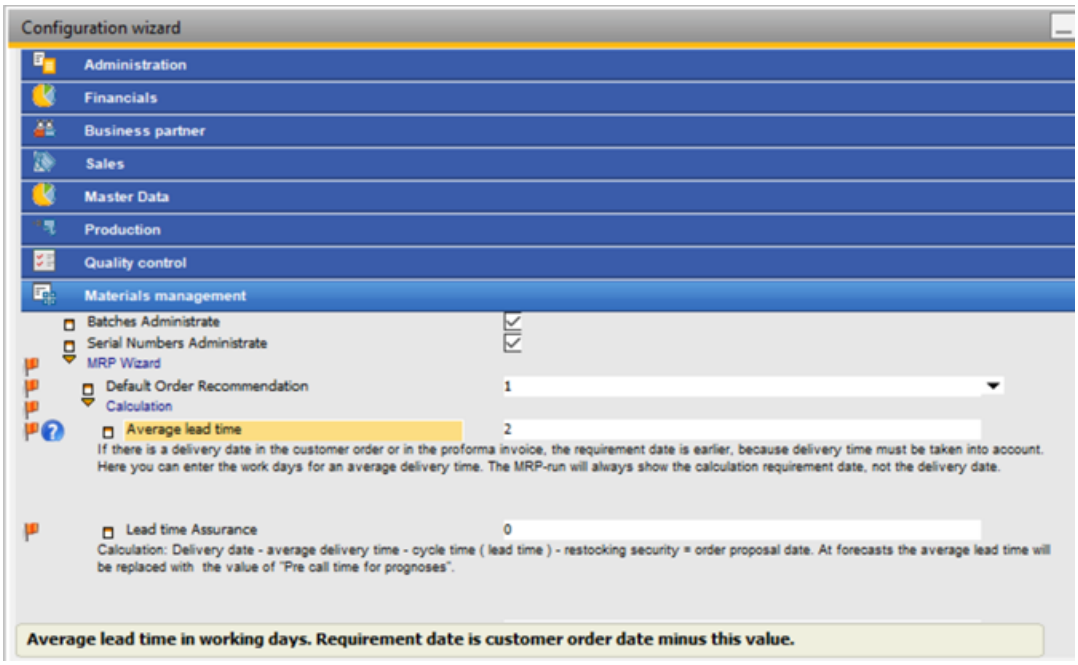
1.4 MRP setup Configuration Wizard

Details Tab

Calculate Lead Time for Assembly

If a delivery date is specified in the customer order or in the reserve invoice, the requirement is somewhat earlier as the shipping time must be considered. Here you can specify in work days how many work days the average delivery takes. The MRP run always displays the required date calculated in this way, not the delivery date. This setting is also considered for creating work orders from sales orders.

PATH: **Material Management > MRP Wizard > Calculation > Average Lead Time**


Configuration wizard
Administration
Financials
Business partner
Sales
Master Data
Production
Quality control
Materials management
Batches Administrate
Serial Numbers Administrate
MRP Wizard
Default Order Recommendation
1
Calculation
Average lead time
2
If there is a delivery date in the customer order or in the proforma invoice, the requirement date is earlier, because delivery time must be taken into account. Here you can enter the work days for an average delivery time. The MRP-run will always show the calculation requirement date, not the delivery date.
Lead time Assurance
0
Calculation: Delivery date - average delivery time - cycle time (lead time) - restocking security = order proposal date. At forecasts the average lead time will be replaced with the value of "Pre call time for prognoses".
Average lead time in working days. Requirement date is customer order date minus this value.

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