



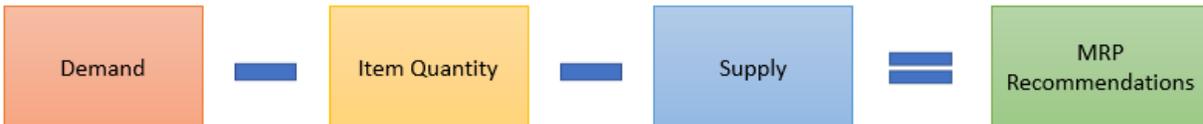
## 15 Minute Tip Talk – June 7, 2018

### MRP 101

#### Background

SAP Business One provides the Material Requirements Planning (MRP) module to help you plan inventory effectively so that components are available for production and products are available for sales when and where they are needed without having to keep overly high stock levels. MRP compares future demand for items against the item quantity in stock and the planned supply from purchasing, producing, or transferring those items to meet the demand.

The function of MRP recommendations can be simplified using the following formula:



The sources of demand and supply can be summarized as follows:

Demand	Supply
Sales Order	Purchase Order
Sales Blanket Agreement	Purchase Blanket Agreement
Reserve Invoice	Production Order (for parent items of a BoM)
Recurring Order Transactions	Inventory Transfer Request
Forecast	
Production Order (for child items of BoMs)	
Defined Inventory Levels*	
Inventory Transfer Request	

*\*Defined inventory levels are set in the item master data and include minimum, maximum, and required inventory levels.*

Based on these sources of supply and demand, MRP will generate recommendations to:

## Buy

- Purchase Order
- Purchase Request

## Transfer

- Inventory Transfer Request

## Make

- Production Order

### Item Master Data Settings

The screenshot shows the 'Item Master Data' window with the following settings:

- Item No.: Manual A00001
- Text: J.B. Officeprint 14205
- Foreign Name: printer
- Item Type: Items
- Item Group: J.B. Printers
- UoM Group: Media
- Price List: Base Price
- Bar Code: [Empty]
- Unit Price: Primary Cur: 400.00 \$ Each
- Inventory Item:
- Sales Item:
- Purchase Item:
- Planning Method: MRP
- Procurement Method: Buy
- Order Interval: Friday
- Order Multiple: [Empty]
- Minimum Order Qty: 0.000 Each
- Lead Time: 11 Days
- Tolerance Days: [Empty] Days

For MRP to be able to generate recommendations for an item, the planning method must be set to MRP in Item Master Data. The Procurement Method field determines whether MRP will recommend a purchasing document or a production order. If you select Make without creating a Bill of Materials for the item, you will not be able to add the production order.

The timing and quantity of recommendations are also affected by the following fields:

Quantity	Timing
Order Multiple (Planning Data)	Order Interval (Planning Data)
Minimum Order Quantity (Planning Data)	Lead Time (Planning Data)
Required (Inventory Data)	Tolerance Days (Planning Data)
Minimum (Inventory Data)	
Maximum (Inventory Data)	

**Item Master Data**

Item No. Manual A00001  Inv  
 Text J.B. Officeprint 14205  Sale  
 Foreign Name printer  Pur  
 Item Type Items  
 Item Group J.B. Printers  
 UoM Group Media Bar Code Each  
 Price List Base Price Unit Price Primary Curr

General Purchasing Data Sales Data **Inventory Data** Planning Data Production Data Pr

Planning Method MRP  
 Procurement Method Buy

Order Interval Friday  
 Order Multiple  
 Minimum Order Qty 0.000 Each

Lead Time 11 Days  
 Tolerance Days

**Item Master Data**

Item No. Manual A00001  Inventory Item  
 Text J.B. Officeprint 14205  Sales Item  
 Foreign Name printer  Purchase Item  
 Item Type Items  
 Item Group J.B. Printers  
 UoM Group Media Bar Code Each  
 Price List Base Price Unit Price Primary Curr 400.00 \$ Each

General Purchasing Data Sales Data **Inventory Data** Planning Data Production Data Properties Remarks A

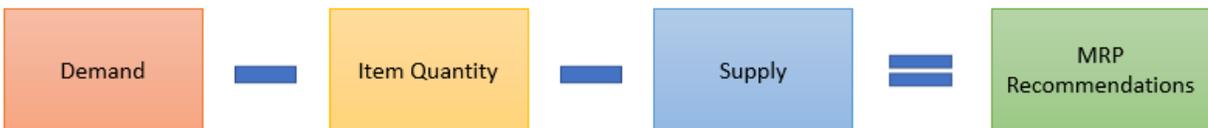
Set Inv. Method By Item Level  
 UoM Code Each  
 UoM Name Each  
 Weight  
 Inventory Counting UoM Code  
 Inventory Counting UoM Name

Manage Inventory by Warehouse

**Inventory Level**  
 Required (Purchasing UoM) 100  
 Minimum  
 Maximum

## MRP Wizard

Remember that the function of the MRP is to generate orders to satisfy the following:



The MRP Wizard allows you to create and select a scenario to define which items for which you would like to generate recommendations as well as the planning horizon and display preferences.

## MRP Wizard

### Scenario Selection

To run an existing scenario, select "Select Existing Scenario". If you select "Create New Scenario", enter a unique name for the scenario.

- Create New Scenario  
 Select Existing Scenario

Scenario Name   
Description

## MRP Wizard - Printers

### Scenario Details

Define the planning horizon that you want to display in the MRP report.

Description

#### Planning Horizon

Start Date

End Date

View Data in Periods Of  Days

Planning Horizon Length  Days

Consider Holidays For  Production Items  
 Purchase Items

Ignore Cumulative Lead Time

#### Display Preferences

Sort By

- Display Items with No Requirements  
 Display Selected Items Only  
 Simulation

## MRP Wizard - Printers

### Item Selection

To plan material requirements for all items with the planning method "MRP", select "All Items". To plan the requirements of specific items, select "Selected Items" and choose the "Add Items" button.

#### Item Selection

- All Items  
 Selected Items

#	Item No.	Item Description
1	➔ A00001	J.B. Officeprint 14205
2	➔ A00002	J.B. Officeprint 1111
3	➔ A00003	J.B. Officeprint 1186
4	➔ LM4029PS	LeMon 4029 Printer Power Supply

You can also select the locations for which you would like to run MRP:

## MRP Wizard - Printers

### Inventory Data Source

Define which storage locations and warehouse as well as which sources of demand and supply to include in the MRP run.

#### Run By

- Company - Consolidate existing inventory, demand, and supply into default warehouse only.  
 Warehouse - Include existing inventory, demand, and supply separately for each warehouse.

#### Include Data Source

Include Existing Inventory	Include Demand	Include Supply	Location	Warehouse Code	Warehouse Name
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	▼		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		➔ 05	Reserve Warehouse
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		➔ 06	Showroom Warehouse
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▼ New York		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		➔ 01	General Warehouse
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		➔ 03	Dropship Warehouse
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		➔ 04	Consignment Warehouse
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	▼ Los Angeles		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		➔ 02	West Coast Warehouse

In the final selection screen, you can select the time horizon for which to run MRP, sources of supply and demand, as well as the target document types for order recommendations:

## MRP Wizard - Printers

### Documents Data Source

Define the data sources as well as the documents to include in the MRP calculation.

#### Time Range

- Within Planning Horizon  
 Include Historical Data

#### Sources of Demand and Supply to Be Included in MRP Calculation

- |   |   |     |
|---|---|-----|
| <input type="checkbox"/> Purchase Requests                      | <input type="checkbox"/> Restrict Purchase Requests   | ... |
| <input type="checkbox"/> Purchase Quotations                    | <input type="checkbox"/> Restrict Purchase Quotations | ... |
| <input checked="" type="checkbox"/> Purchase Orders             | <input type="checkbox"/> Restrict Purchase Orders     | ... |
| <input checked="" type="checkbox"/> Blanket Purchase Agreements | <input type="checkbox"/> Restrict Purchase Agreements | ... |
| <input type="checkbox"/> Sales Quotations                       | <input type="checkbox"/> Restrict Sales Quotations    | ... |
| <input checked="" type="checkbox"/> Sales Orders                | <input type="checkbox"/> Restrict Sales Orders        | ... |
| <input checked="" type="checkbox"/> Blanket Sales Agreements    | <input type="checkbox"/> Restrict Sales Agreements    | ... |
| <input checked="" type="checkbox"/> Production Orders           | <input type="checkbox"/> Restrict Production Orders   | ... |
| <input type="checkbox"/> Inventory Transfer Requests            | <input type="checkbox"/> Restrict Transfer Requests   | ... |
| <input type="checkbox"/> Recurring Order Transactions           |   |     |
| <input type="checkbox"/> Reserve Invoices                       | <input type="checkbox"/> Restrict Reserve Invoices    | ... |

Inventory Level

Forecast

#### Recommendations

- Purchase
- Purchase Requests
  - Purchase Orders
- Production Orders
- Inventory Transfer Requests
- Generate to Default Warehouse for Item
- Generate to Warehouse with the Demand

## MRP Results

Running MRP will generate a report containing the results as well as recommendations. In the Report tab, you will be able to see sources of demand or supply (including recommendations) for a particular day within the planning horizon:

Planning Horizon **06/01/2018 - 06/30/2018**  
 Find Item No.

Report Recommendations

Preview MRP Run Results  Filter Possible Problem Items

#	Item No.	Item Description	Past Due Data	6/6	6/7	6/8	6/9	6/10	6/11	6/12	6/13	6/14
1	↔ A0000	J.B. Officeprint 1111										
		Initial I	1,003	1,003	1,003	1,003						
		Supply										
		Demar										
		Final Ii	1,003	1,003	1,003	1,003						
2	↔ A0000	J.B. Officeprint 14205										
		Initial I	1,119	1,119	1,119	1,119						
		Supply										
		Demar										
		Final Ii	1,119	1,119	1,119	1,119						
3	↔ A0000	J.B. Officeprint 1186										
		Initial I	1,076	1,076	1,076	1,076						
		Supply										
		Demar										
		Final Ii	1,076	1,076	1,076	1,076						
4	↔ LM402	LeMon 4029 Printer P										
		Initial I	44	44	34	34						
		Supply										
		Demar		10								
		Final Ii	44	34	34	34						
5	↔ LM402	LeMon 4029 Printer A										
		Initial I	700	700	700	700						
		Supply										

**Pegging Information - Printers**

Item Number ↔ LM4029PS  
 Description LeMon 4029 Printer Power Supply  
 Period From 06/06/2018 To 06/06/2018

Demand Details

Source	Type	Due Date	Quantity	W...
↔ 435	Sales Order	06/06/2018	10	01

OK

If there are potentially unfulfilled sources of demand, SAP will generate order recommendations in the Recommendations tab:

**MRP Wizard - Printers**

**MRP Results**  
 On the "Report" tab, you may toggle the final inventory quantity either before or after the MRP run with the "Preview MRP Run Results" checkbox.

Planning Horizon **06/01/2018 - 06/30/2018**  
 Find Item No.

Report Recommendations

#	Order Type	Item No.	Item Description	Quantity	UoM Code	UoM Name	Release Date	Due Date	Vendor Code
1	Production Order	↔ LM4029	LeMon 4029 Printer		33	Manual	06/20/2018	06/20/2018	
2	Inventory Transfer	↔ LM4029MC	Memory Chip		16	Manual	06/20/2018	06/20/2018	

Note: if you have sufficient quantities to fulfill the sources of demand within the selected scenario, the system will generate any recommendations.

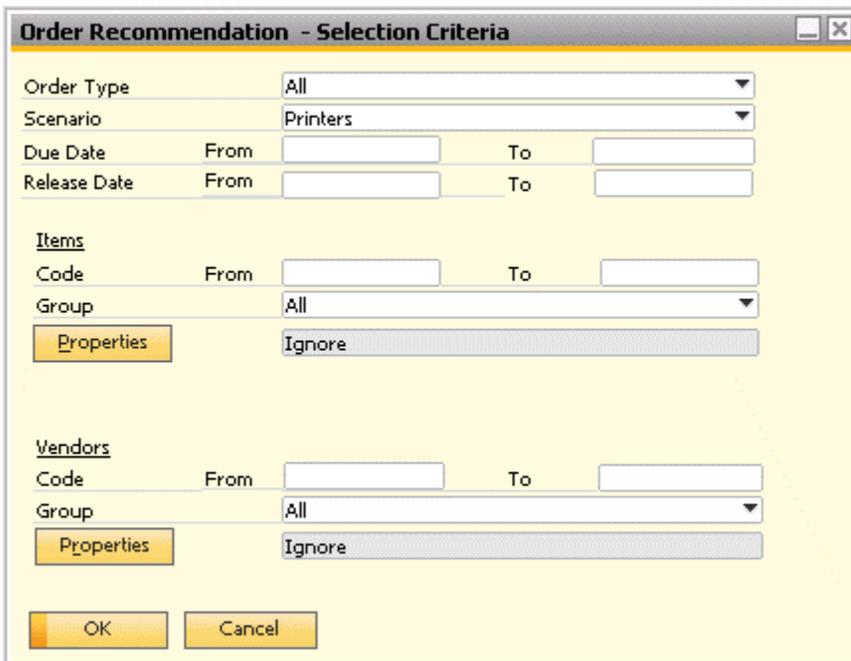
If you would like to add those orders, click Save Recommendations.

### Order Recommendation

To add the orders that MRP has recommended, navigate to MRP > Order Recommendation



In the Order Recommendation – Selection Criteria window, you must select the scenario which generated the recommendations. You may also filter the order recommendations by document type.



Upon hitting OK, the system will display the recommendations from the selected MRP run. You can select the checkboxes for the corresponding recommendations and click Update to generate the documents:

