



## Configurator with Manufacturing

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### Overview

The Configurator is a tool that allows the user to create items that can be configured to customer specifications (i.e. computers, custom t-shirts, furniture, etc.) by selecting the available options (i.e. monitor, hard-drive, color, etc.) when entering an order. Upon order entry, options will be selected and the customer-specified selection will be saved to the relative line item in the form of a string code. The configured items can have items (components) attached to them.

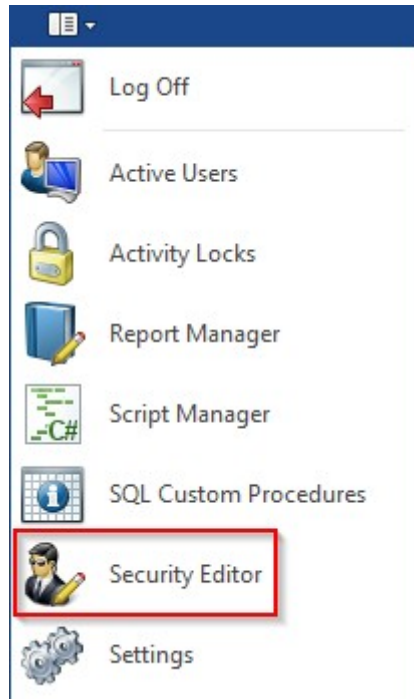
This documents explains how Configurator works in conjunction with Manufacturing. This requires the manufacturing module to be installed in Great Plains, as well as the Manufacturing module/DLL in SalesPad.

Please refer to [Configurator documentation](#) for basic description of the Configurator tool and examples of configurations.

### Settings, Security, and Setup

#### Security

1. Go to the **Actions** dropdown and click Security Editor.



2. Search Configurator for all Configurator Securities.

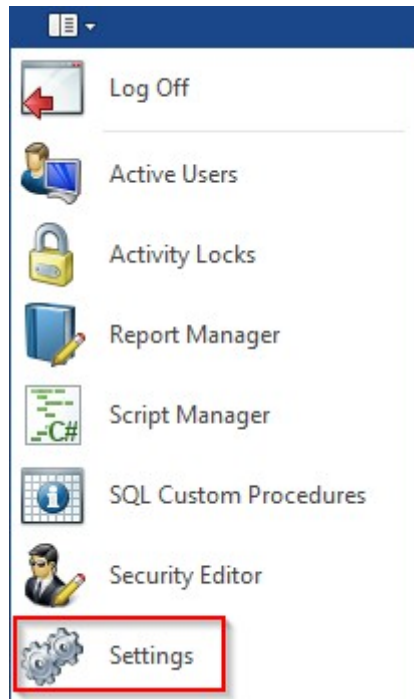
The following Security is required for Configurator Manufacturing.

*Configurator Manufacturing BOM* – A tab in the Configurator form that allows users to set up details related to Manufacturing Bill of Materials.

Security	
✔ Select All   Select None   Copy From...	
A...	Name
<input type="checkbox"/>	Configurator
<input checked="" type="checkbox"/>	Configurator*
<input checked="" type="checkbox"/>	Configurator Dynamic Configured Items
<input checked="" type="checkbox"/>	Configurator Manufacturing BOM
<input checked="" type="checkbox"/>	Configurator Pricing
<input checked="" type="checkbox"/>	Configurator Restrictions
<input checked="" type="checkbox"/>	Configurator Search*

#### Settings

1. Click Settings from the **Actions** dropdown.



2. Search Configurator for all Configurator Settings.

The following Settings are required for Configurator Manufacturing.

*Can Reuse Custom Configured Items* – If set to True, the Configurator will use Manufacturing BOM and Item Master objects created previously (if any exist for other customers); otherwise Configurator will create new items each time (this requires the Manufacturing module to be installed in SalesPad); defaults to True.

*Set Backorder Quantity For Generated Manufacturing BOM Items* – It determines whether or not the newly created items are immediately set to backorder when added to the Sales Document. If set to True, it will allow users to create Manufacturing Orders directly from the

document (this requires the Manufacturing module installed in SalesPad); defaults to False.

Filter: configurator	
<b>Configurator</b>	
Can Reuse Custom Configured Items	True
Configuration Summary Option Selection Field	Name
Configuration Summary Sales Line Item Field	Item_Description
Configurator String Code Delimiter	-
Configured Item Number Fields	
Set Backorder Quantity For Generated Manufacturing BOM Items	False

## Manufacturing

Configurator allows users to create configurations that represent a manufacturing BOM object. In order to do that, set the Configuration Type to Manufacturing BOM.

The screenshot shows the Configurator interface with a toolbar at the top containing icons for Close, Refresh, Save, Delete, and Test Configuration. The main area is divided into two panels: Properties and Status.

**Properties Panel:**

Item Number:	COMPUTER	...
Version:	2	...
Configuration Name:	COMPUTER	
Configuration Type:	Manufacturing BOM	
Description:	Configured Computer	
String Code:	COMPUTER	
Price:		0.00

A red arrow points to the 'Configuration Type' dropdown menu, which is currently set to 'Manufacturing BOM'.

**Status Panel:**

Status:	Active
Begin Date:	6/17/2014
End Date:	

Creating a configured item in a sales order for a configuration that is set to Manufacturing BOM will:

- Create a new item in Dynamics GP, with an auto-generated item number
  - The item number generated will depend on the setting *Configured Item Number Fields*.
  - The configuration item (for instance, COMPUTER) will be used as a template for information like unit of measure, sites, etc.
- Create a Manufacturing BOM in Dynamics GP (with the same auto-generated item number)
  - The components of the Manufacturing BOM will be the configured items, as shown in the Sales Line Configurator plugin
- Create a Routing Number (with the same auto-generated item number)
  - The user will have to specify an existing routing as template

**Sales Line Configurator**

CHAIR  
Standard wooden chair

Width: 20 \$0.00 ✓  
Back Height: 18 \$0.00 ✓  
Legs Height: 17" \$0.00 ✓  
Style: Classic \$0.00 ✓  
Color: Wood \$50.00 ✓  
Gloss Paint: ☒ \$0.00 ✓

Item Details

Classic

Item Number: CHAIR  
String Code: CHAIR-20-18-17-CLS-001-GLOSS  
Quantity: 1  
Unit of Measure: EACH  
Unit Price: 50.00  
Extended Price: 50.00  
Configuration Complete ✓

Configured Items

Item Number	Item Description	Quantity
000112WD	17" Chair Leg Wood	4
0002CLWD	Chair Back Classic Wood	1
000300WD	Chair Seat Wood	1
GLOSS PAINT	Gloss Paint	13.2

Routing Information  
Routing Name: FAXX-SHP-0172 PRIMARY  
Item Number: FAXX-SHP-0172

Line Item AARONFIT0001\_WAREHOUSE\_4993914 has been added to the document.

Add Add & Close Cancel

### Components Quantity

The items that generate the component list for the bill of materials have two types of quantities:

- Quantity: This corresponds to the quantity build in the Manufacturing BOM screen in GP
- Quantity Fixed: This corresponds to the quantity fixed in the Manufacturing BOM screen in GP

Quantity and Quantity Fixed are available in both the Details and Dynamic Configured Items tabs:

Details Dynamic Configured Items Restrictions Pricing Manufacturing BOM

Options  
New Delete Move Up Move Down

Attribute

Sequence	Name	Description	String Code	Price	Control Type
4	Style			0.00	Drop Down Single

Options

Sequence	Name	Description	String Code	Price	Item Number	Quantity	Quantity Fixed	Backflush Item	UOM	Default Option
1	Classic		CLS	159.00		1	0	<input type="checkbox"/>		<input type="radio"/>
2	Modern		MDR	299.00		1	0	<input type="checkbox"/>		<input type="radio"/>

Quantity fixed also has the correspondent field Qty Fixed Formula:

Details Dynamic Configured Items Restrictions Pricing Manufacturing BOM

Configured Items

New Copy Delete Move Up Move Down

Sequence	String Format	Description	UOM	Quantity	Qty Formula	Quantity Fixed	Qty Fixed Formula
1	0001{LEG.1}{COLOR.1}	Leg component	EACH	4		0	
2	0002{STYLE.1}{COLOR.1}	Back component	EACH	1		0	
3	000300{COLOR.1}	Seat component	EACH	1		0	

### Backorder Quantity

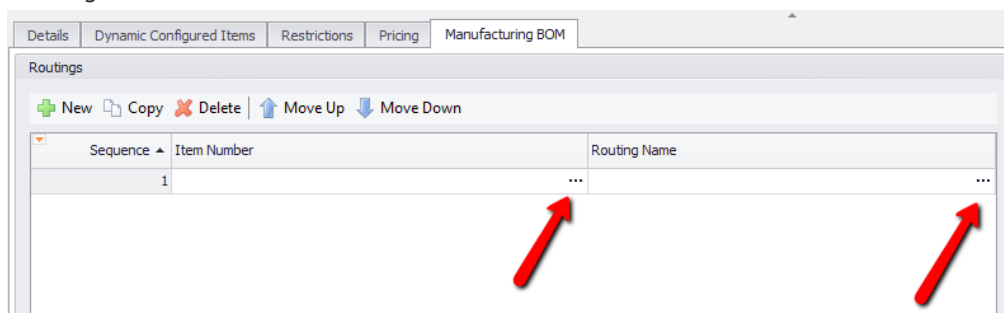
The Sales Line Item Configurator plugin can be set to automatically backorder the items through the setting *Set Backorder Quantity For Generated Manufacturing BOM Items*. Having the items backordered will allow users to create Manufacturing Orders directly from the document (this requires the Create MO plugin from the Manufacturing module in SalesPad).

### Routing Information

With the Manufacturing module/DLL in SalesPad, users will also have access to the Manufacturing BOM tab in Configurator (if not visible, turn it on in Security). This tab allows users to set, among other things, the routings information.

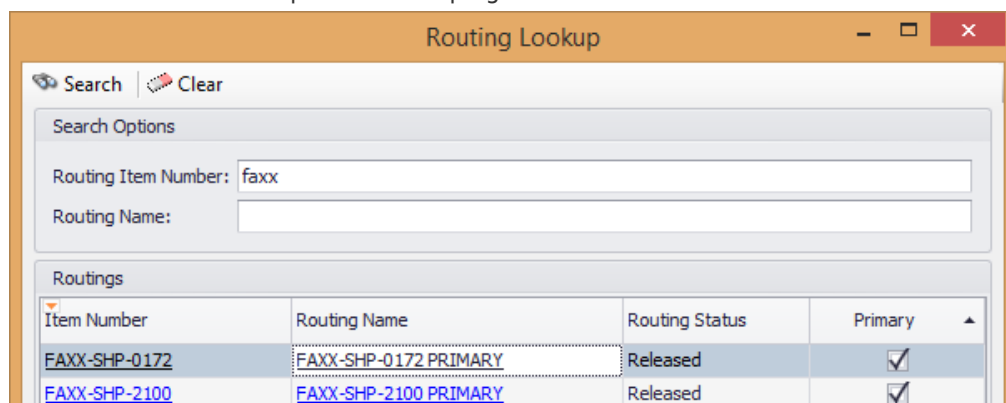
Steps to add routing information:

1. Select the Manufacturing BOM tab and click **New** to add a new routing information.
2. Type in the Item Number or the Routing Name, or click either ellipsis to load the Routing Search screen.



**Note:** The Routing Search plugin (from the Manufacturing module) must be enabled in Security.

3. In the Routing Search screen select the routing information and click **OK** to add it to the configuration.
4. Users can add multiple routings in your configuration and define conditions to determine which one is picked in the plugin.



The Conditions screen is the same as the one in Dynamic Configured Items tab. See [Configurator Advanced](#), specifically the Configured Items (Components) section for more details.

Details   Dynamic Configured Items   Restrictions   Pricing   Manufacturing BOM			
Routings			
Sequence	Item Number	Routing Name	
1	FAXX-SHP-0172	FAXX-SHP-0172 PRIMARY	
2	FAXX-SHP-2100	FAXX-SHP-2100 PRIMARY	

In the example above, the routing FAXX-SHP-0172 will be selected when the Width is less than 20.

Details   Dynamic Configured Items   Restrictions   Pricing   Manufacturing BOM			
Routings			
Sequence	Item Number	Routing Name	
1	FAXX-SHP-0172	FAXX-SHP-0172 PRIMARY	
2	FAXX-SHP-2100	FAXX-SHP-2100 PRIMARY	

In example above, the routing FAXX-SHP-2100 will be selected when the Width is greater than or equal to 20.

### Backflush Option

The Manufacturing BOM tab has the option to backflush all the components in the configuration. Checking the **Backflush Item** check box in this tab will enable Backflush for all the items in the configuration:

Details	Dynamic Configured Items	Restrictions	Pricing	Manufacturing BOM
<b>General Options:</b>				
Backflush Item <input type="checkbox"/>				
<b>Routings</b>				

Configurator also allows the user to specify backflush components at the item level:

Details   Dynamic Configured Items   Restrictions   Pricing   Manufacturing BOM							
Configured Items							
Sequence	String Format	Description	UOM	Quantity	Qty Formula	Quantity Fixed	Qty Fixed Formula
1	HD-20			1		0	
2	HD-40			1		0	
3	HD-60			1		0	

### Custom versus Standard Manufacturing BOM

Configurator treats existing Manufacturing Bill of Materials in two different ways:

- Standard: Manufacturing BOMs manually created in Great Plains or SalesPad
  - These items do not have a Configuration ID but they may have Configuration String Code (manually entered in SalesPad by the user).
- Custom: Manufacturing BOMs created through Configurator
  - These items will always have a Configuration ID and a Configuration String Code.

When using configurations as a type of Manufacturing BOM, Configurator may or may not create new Manufacturing BOM items in Dynamics GP, depending on the configuration rules and user settings. These are the four possible outcome scenarios when creating a new configuration from the Sales Line Configurator plugin in a Sales Document:

1. If there is an existing standard Manufacturing BOM in Great Plains (with the same String Code as the configuration to be entered by CSR), then Configurator will not create a new BOM; instead, it will add that one in the Sales Document:

The image shows two screenshots from a software application. The top screenshot is the 'Mfg. BOM Search' window. It has a search criteria section with fields for BOM Number, BOM Name, BOM Type, BOM Category, and BOM Revision Level. Below this is a 'Search Results' table. The table has columns: Mfg BOM Number, Configuration String Code, Configuration ID, and BOM Type. A single result is shown: 'CHAIR-18-18-18-MDR-001' in the first two columns, '0' in the third, and 'Manufacturing BOM' in the fourth. A red rectangle highlights the 'Configuration String Code' cell, and a red arrow points from it towards the bottom screenshot. The bottom screenshot is the 'Sales Line Configurator' window. It is divided into two main sections. The left section is for configuration options: 'CHAIR', 'Standard wooden chair', and a list of attributes (Width, Back Height, Legs Height, Style, Color, Gloss Paint) with their respective values and status indicators. The right section is 'Item Details', which includes an image of a wooden chair, the label 'Modern', and a form for item information. In this form, the 'String Code' field is highlighted with a red rectangle and contains the value 'CHAIR-18-18-18-MDR-001'. Other fields include Item Number (CHAIR), Quantity (1), Unit of Measure (EACH), Unit Price (400.00), and Extended Price (400.00). At the bottom right of the 'Item Details' section, it says 'Configuration Complete' with a green checkmark. At the very bottom of the window are three buttons: 'Add', 'Add & Close', and 'Cancel'.

Mfg BOM Number	Configuration String Code	Configuration ID	BOM Type
CHAIR-18-18-18-MDR-001	CHAIR-18-18-18-MDR-001	0	Manufacturing BOM

**Sales Line Configurator**

**CHAIR**  
Standard wooden chair

Width: 18 ✓  
Back Height: 18 ✓  
Legs Height: 18" ✓  
Style: Modern ✓  
Color: Wood ✓  
Gloss Paint: ☐

**Item Details**

Image: Modern chair  
Label: Modern

Item Number: CHAIR  
String Code: CHAIR-18-18-18-MDR-001  
Quantity: 1  
Unit of Measure: EACH  
Unit Price: 400.00  
Extended Price: 400.00

Configuration Complete ✓

Add Add & Close Cancel

2. If there is an existing custom Manufacturing BOM (with the same String Code as the configuration to be entered by CSR), and the Setting Can Reuse Custom Configured Items is set to True, the existing configured item will be used in the document.

Mfg. BOM Search X

Close Search New

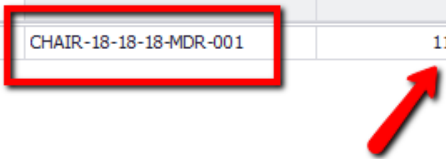
Search By

BOM Number:  BOM Type:  X BOM Revision Level:

BOM Name:  BOM Category:  X

Search Results

Mfg BOM Number	Configuration String Code	Configuration ID	BOM Type
<a href="#">CHAIR-18-18-18-MDR-001_8522472</a>	CHAIR-18-18-18-MDR-001	1124	Manufacturing BOM



3. If there is an existing custom Manufacturing BOM (with the same String Code as the configuration to be entered by CSR), and the Setting Can Reuse Custom Configured Items is set to False, then Configurator will create a new Manufacturing BOM item:

Line Items	Notes	Addresses	Holds	User Fields	Audit	Related Do
<div> <div>New Delete Insert</div> <div>Configurator</div> <div>Item Number</div> <div>CHAIR-18-18-18-MD</div> </div>						
Item	Description					
!	CHAIR-18-18-18-MDR-001_1701714	Standard wooden c...				
!	CHAIR-18-18-18-MDR-001_4235588	Standard wooden c...				

**Note:** The resulting item may have a random number at the end in order to differentiate the new items from the existing custom BOMs.

4. If Configurator does not find a standard or custom Manufacturing BOM with the same String Code as the configuration to be entered by CSR, then it will simply create a new item.

#### Sub (Nested) Configurations

Configurator will create always one Manufacturing BOM item, even when nesting sub configurations; it does not create separate items for the sub configurations. See [Configurator Advanced documentation](#), specifically section Nested Configurations for more details.