



Configurator Kits and Packages

Megan De Freitas - 2024-12-03 - Configurator

Overview

Configurator is an extended module for SalesPad Desktop that makes it possible to create advanced configurations for items that need selections made on-the-fly for sales orders. This module already supported Manufacturing BOMs (aka MBOMs) and Distribution BOMs (aka DBOMs or Assembly BOMs), and now it also provides configuration types for GP kits and SalesPad packages.

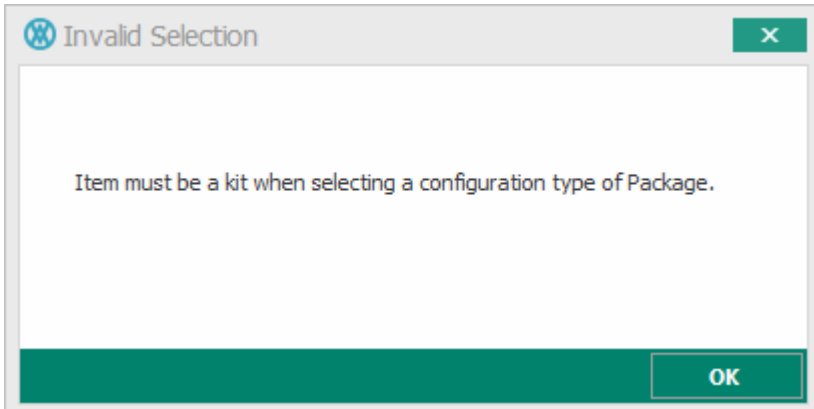
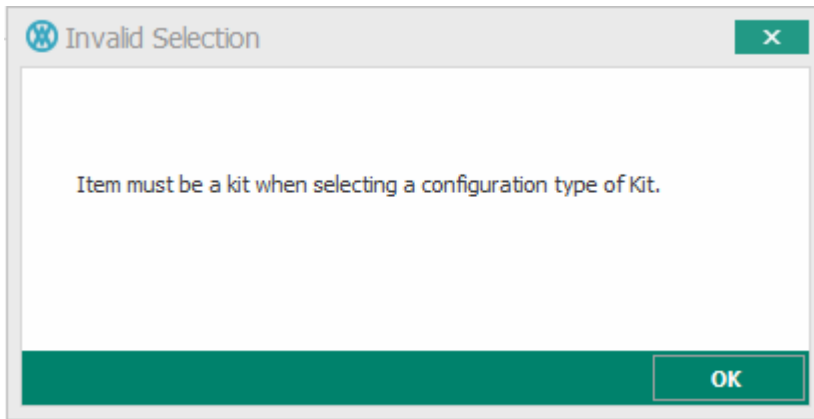
For more information on configuring and using GP kits and SalesPad packages, please refer to [this documentation](#).

Kit and Package Configuration Types

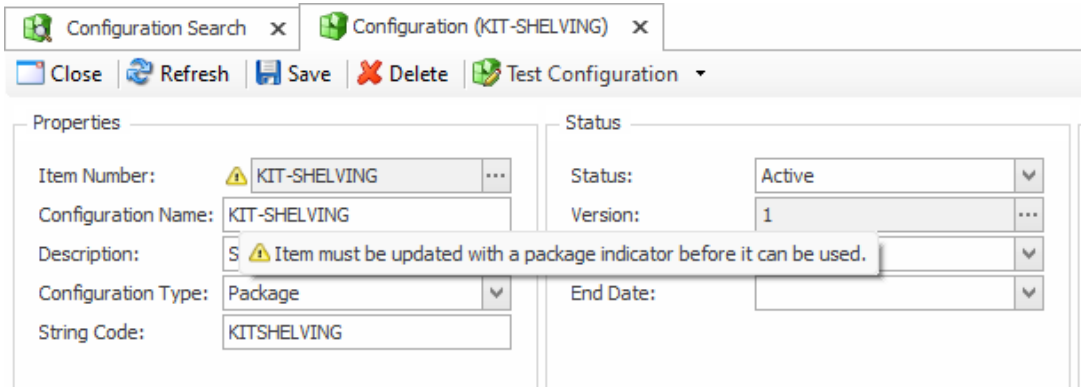
The Configuration Type dropdown now provides options for Kit and Package. The Configuration Type controls the other options that will be possible for this configuration, and it affects how the sales line is created when this configuration is added to a sales order.

The screenshot shows a software window titled 'Configuration (KIT-SHELVING)'. The interface includes a toolbar with 'Close', 'Refresh', 'Save', 'Delete', and 'Test Configuration' buttons. Below the toolbar, there are two main sections: 'Properties' and 'Status'. The 'Properties' section contains fields for 'Item Number' (KIT-SHELVING), 'Configuration Name' (KIT-SHELVING), 'Description' (Shelving kit), 'Configuration Type' (Package), and 'String Code'. The 'Status' section contains fields for 'Status' (Active), 'Version' (1), 'Begin Date' (7/1/2023), and 'End Date'. A dropdown menu is open for the 'Configuration Type' field, showing options: 'Package', 'Assembly BOM', 'Manufacturing BOM', and 'Kit'. At the bottom, there are tabs for 'Details' and 'Dynamic C', and a section for 'Attributes'.

Kit and package configurations both require the base Item Number to be an Item Master with a type of Kit. Attempting to select an item that is not configured as a GP kit will display an error message and prevent selecting that item.



Package configurations require the Item Master to be configured to automatically explode into a package when it is added to a sales order. This means that the item's Item Description must include the value set in the Package Indicator setting.



Some configuration options are not available for kit and package configurations. This includes the Dynamic Root Item tab, because the root item must match the GP kit item. This also includes the Manufacturing BOM tab, and other MBOM-related functionality for attribute options like Scrap Percentage and Backflush Item.

Configuration Search x Configuration (KIT-SHELVING) x

Close Refresh Save Delete Test Configuration

Properties

Item Number: KIT-SHELVING
 Configuration Name: KIT-SHELVING
 Description: Shelving kit
 Configuration Type: Package
 String Code: KITSHELVING

Status

Status: Active
 Version: 1
 Begin Date: 7/1/2023
 End Date:

Cost/Price

Costing Type: Default
 Price Per Qty: 0.00
 Flat Fee: 0.00
 Pricing Type: Configurator

Details Dynamic Configured Items Restrictions Pricing Dynamic Root Item Manufacturing BOM

Attributes

Dynamic Root Item - Disabled for package and kit type configurations.

New Delete Move Up Move Down

Sequence	Name	String Code	Control Type	Price	Roll Up Price
1	Shelf Type	Shelf	Drop Down Single	0.00	<input checked="" type="checkbox"/>
2	Mounting Type	Mount	Drop Down Single	0.00	<input checked="" type="checkbox"/>
3	Hardware	Hardware	Check Box	1.00	<input checked="" type="checkbox"/>

Configuration Search x Configuration (KIT-SHELVING) x

Close Refresh Save Delete Test Configuration

Properties

Item Number: KIT-SHELVING
 Configuration Name: KIT-SHELVING
 Description: Shelving kit
 Configuration Type: Package
 String Code: KITSHELVING

Status

Status: Active
 Version: 1
 Begin Date: 7/1/2023
 End Date:

Cost/Price

Costing Type: Default
 Price Per Qty: 0.00
 Flat Fee: 0.00
 Pricing Type: Configurator

History

Created By: alyss
 Created On: 7/17/
 Updated By: alyss
 Updated On: 10/2/

Details Dynamic Configured Items Restrictions Pricing Dynamic Root Item Manufacturing BOM

Attributes

Manufacturing BOM - Disabled for non-manufacturing BOM type configurations.

New Delete Move Up Move Down

Sequence	Name	String Code	Control Type	Price	Roll Up Price	Required	Validation Scri
1	Shelf Type	Shelf	Drop Down Single	0.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2	Mounting Type	Mount	Drop Down Single	0.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3	Hardware	Hardware	Check Box	1.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Both kit and package configurations will always include any base components that are configured on the GP kit item. If there are components that should always be included in a configuration regardless of the other selections made, then they can simply be set as the base components for the Item Master.

Kit Configurations

When a kit configuration is added to a sales order, a variant item is created from the base GP kit item. This variant item has its Item Number altered based on the selections made, and it is saved as a new Item Master in the system. If any of the selections correspond to items in the system, they are added as components for that new kit item variant.

This configuration type is recommended when one or more of the following applies:

- There are only a handful or dozens of different possible combinations for a given configuration.
- It is helpful or necessary to save the final combinations for later use.
- Users do not need to add, update, or delete individual component lines based on customer specifications or later changes, or they can manage that entirely by updating the selected combination within Configurator.

Creation

In order to create a kit configuration, select the Item Number of a kit item in the system, and set the Configuration Type to Kit. All other instructions on [the base Configurator documentation](#) are still valid for kit configurations.

Below are screenshots needed to mimic the example used in this documentation.

The screenshots show the configuration tool interface for a printer bundle configuration. The first screenshot shows the Properties and Status sections. The second screenshot shows the Attributes section with a table of items. The third screenshot shows the Options section with a table of options.

Properties Section:

- Item Number: PRINTER-BUNDLE
- Configuration Name: PRINTER-BUNDLE
- Description: Printer bundle
- Configuration Type: Kit
- String Code: PRINTERBUNDLE
- Status: Active
- Version: 1
- Begin Date: 10/26/2023
- End Date: (empty)
- Costing Type: Default
- Price Per Qty: 0.00
- Flat Fee: 0.00
- Pricing Type: Configurator
- History: Created By: alyssa.strand, Created On: 10/26/2023, Updated By: alyssa.strand, Updated On: 10/26/2023

Attributes Section:

Sequence	Name	String Code	Control Type	Price	Roll Up Price	Required	Validation Script
1	Printer	PRT	Drop Down Single	0.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2	Ink	INK	Drop Down Single	0.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Options Section (Printer):

Sequence	Name	Description	String Code	Item Number	Quantity	UORM	Picture	Default Option	Price Per Qty
1	Standard	Printer	STD	3-D2094A	1	EACH		<input type="radio"/>	1,700
2	Laserjet	Laserjet Printer	LSR	4-E2094A	1	EACH		<input type="radio"/>	3,600

Options Section (Ink):

Sequence	Name	Description	String Code	Item Number	Quantity	UORM	Picture	Default Option	Price Per Qty
1	1	Black ink cartridge	1	BLACK INK	1	EACH		<input type="radio"/>	50
2	Case	Black ink cartridge	CS	BLACK INK	1	CASE		<input type="radio"/>	500
3	None	No Ink	NA		1			<input type="radio"/>	0

Usage

Add a new sales line to a sales document and type in the base Item Number for a package configuration. For this example, the base Item Number is PRINTER-BUNDLE. If configured correctly, the Sales Line Configurator plugin will automatically launch and show the options for this configuration.

Make selections for all required attributes and any desired optional attributes. The Unit Price and Extended Price will automatically calculate based on the selections made.

Sales Line Configurator

PRINTER-BUNDLE

Printer bundle

Printer: Standard \$1,700.00

Ink: 1 \$50.00

Item Details

Item Number: PRINTER-BUNDLE

String Code: PRINTERBUNDLE-PRT-STD-INK-1

Quantity: 1

Unit of Measure: EACH

Flat Fee: 0.00

Unit Price: 1,750.00

Extended Price: 1,750.00

Configuration Complete

Configured Items

Item Number	Quantity	UoM
3-D2094A	1	EACH
BLACK INK	1	EACH

Add Add & Close Cancel

Click the Add & Close button to add this configuration to the sales document. Notice the Item Number has been modified to account for the selections made.

Line Items	Notes	Addresses	Holds	User Fields	Audit	Related Documents	Purchases	Quick Report	FedEx Quote	Email Audit	Assemblies	Tracking Numbers	Interactions	Shipm
New	Delete	Insert	Sales Line User Fields											
Item Number	Item Class Code	UoM Schedule		Current Cost	Available	Onhand								
PRINTERBUNDLE-PRT-STD-INK-1		EACH		0.00	-1.00	0.00								
Item	Description	Whse	UoM	Qty	Qty Al...	Qty Fu...	Qty BO	Cost	Ext Cost	Price	Ext Price	Price Level	Price Source	Margin %
PRINTERBUNDLE-PRT-STD-INK-1	Printer = Standard	WAREHOUSE	EACH	1	0	0	0	850.50	850.50	1,750.00	1,750.00	RETAIL	ITEM CFG OVERRIDE	51.40%

At any point, the Sales Line Configurator plugin can be relaunched to make further changes to this configuration. However, it is important to note that doing this will wipe out any manual changes that have been made to this sales line! The sales line will be deleted and re-created based on the updated selections. This can be a helpful way to start from scratch if a manual error is made.

Generated Kit Items

Kit item variants are automatically created as new kit items in the system. The Item Number will match the sales line and provide visibility into the selections made. The Kit Components tab in the Inventory Lookup will show the kit component items that have been assigned to this variant, which will match the selections that are associated with items in the system.

Item Search

Search By

Item #: printer Description: Warehouse: (ALL)

Custom Search: Search Field: Item Type Search Value:

Search Options

Match Beginning Search Alternate Items

Search Vendor Items Show Inactive

Inventory Items (3 items found)	Alternate Items (0 items found)	Vendor Items (0 items found)									
Item Number	Description	Short Descr	UoM Sched	Availa...	On Hand	Item Class	Gene...	Item Ty...	Current Cost	Standard Cost	Shipping Weight
PRINTER-BUNDLE	Printer bundle	Printer bundle	EACH	=	=	Kit	Printe...	Kit	0.00	0.00	0.00
PRINTERBUNDLE-PRT-STD-INK-1	Printer bundle	Printer bundle	EACH	-1	0	Kit	Printe...	Kit	0.00	0.00	0.00

Item Type Contains Kit

Inventory	Properties	Sales	Purchases	Notes	Serial/Lot Numbers	Analysis	Quick Report	User Fields	Item Substitutes	Sales Options	Inventory Analysis	Kit Components	Serial Att
Item Number	Item Description	Kit Number	Qty / Kit	Component U of M	Item Shipping Weight	Total Weight	Item Generic Description	Item Type	Onorder	Avail	Onhand		
3-D2094A	Printer	PRINTERBUNDL...	1	EACH	0.00	0.00	Printers	Sales Inventory	0.00	-1.00	0.00		
BLACK INK	Black ink cartridge	PRINTERBUNDL...	1	EACH	0.00	0.00		Sales Inventory	0.00	14.00	15.00		

Package Configurations

When a package configuration is added to a sales order, the base GP kit item is exploded into a package, and then the selections that correspond to items in the system are added as components for that package. This does not modify the base GP kit item's components, and it does not create new GP kit variants in the system.

This configuration type is recommended when one or more of the following applies:

- There are 100s or 1000s of different possible combinations for a given configuration.
- It is not helpful or is not necessary to save the final combinations for later use.
- It is desired to avoid Item Master data bloat.
- Users need to add, update, or delete individual component lines based on customer specifications or later changes.

Creation

In order to create a package configuration, select the Item Number of a kit item in the system, and set the Configuration Type to Package. All other instructions on [the base Configurator documentation](#) are still valid for package configurations.

Below are screenshots needed to mimic the example used in this documentation. Note that the Hardware attribute does not have any options, because it is a Check Box attribute.

The screenshot shows the Configuration Search window for 'KIT-SHELVING'. The Properties section includes: Item Number: KIT-SHELVING, Configuration Name: KIT-SHELVING, Description: Shelving kit, Configuration Type: Package, and String Code: KITSHELVING. The Status section shows: Status: Active, Version: 1, Begin Date: 7/1/2023, and End Date: (empty). The Cost/Price section shows: Costing Type: Default, Price Per Qty: 0.00, Flat Fee: 0.00, and Pricing Type: Configurator. The History section shows: Created By: alyssa.strand, Created On: 7/17/2023, Updated By: alyssa.strand, and Updated On: 10/25/2023.

Attributes

Sequence	Name	String Code	Control Type	Price	Roll Up Price	Required	Validation Script
1	Shelf Type	Shelf	Drop Down Single	0.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2	Mounting Type	Mount	Drop Down Single	0.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3	Hardware	Hardware	Check Box	1.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Options

Sequence	Name	Description	String Code	Price	Control Type
1	Shelf Type	Shelf type	Shelf	0.00	Drop Down Single

Sequence	Name	Description	String Code	Item Number	Quantity	UOM	Picture	Default Option	Price Per Qty
1	Black	Black shelf	BLK	SHELF-BLK	1	EACH		<input type="radio"/>	7
2	Brown	Brown shelf	BRN	SHELF-BRN	1	EACH		<input type="radio"/>	7

Sequence	Name	Description	String Code	Price	Control Type
2	Mounting Type	Mounting type	Mount	0.00	Drop Down Single

Sequence	Name	Description	String Code	Item Number	Quantity	UOM	Picture	Default Option	Price Per Qty
1	Single	Single mount	SINGLE	MOUNT-SIN	1	EACH		<input type="radio"/>	3
2	Double	Double mount	DOUBLE	MOUNT-DUB	1	EACH		<input type="radio"/>	4

Price Rollup

There is a new Roll Up Price column that is available in the Attributes grid. This functionality allows configuring whether components should retain their individual prices, or roll their prices up into the top package line. This is only available for package configurations, because this is the only configuration that breaks out all of its components onto individual sales lines.

The configuration must have a Pricing Type of Configurator for the price rollup logic to be applied properly. Price rollup takes into account attribute-level pricing (Price in the Attributes grid) as well as option-level pricing (Price Per Qty in the Options grid).

Usage

Add a new sales line to a sales document and type in the base Item Number for a package configuration. For this example, the base Item Number is KIT-SHELVING. If configured correctly, the Sales Line Configurator plugin will automatically launch and show the options for this configuration.

Make selections for all required attributes and any desired optional attributes. The Unit Price and Extended Price will automatically calculate based on the selections made. Note that this takes into account all individual component prices.

Sales Line Configurator
✕

KIT-SHELVING
Shelving kit

Shelf Type: Black ✓ \$7.00

Mounting Type: Single ✓ \$3.00

Hardware: ✓ \$1.00

Item Details

Item Number: KIT-SHELVING

String Code: KIT-SHELVING-Shelf-BLK-Mount-SINGLE-Hardware ...

Quantity: 1

Unit of Measure: EACH

Flat Fee: 0.00

Unit Price: 11.00

Extended Price: 11.00

Configuration Complete ✓

Configured Items

Item Number	Quantity	UOM
SHELF-BLK	1	EACH
MOUNT-SIN	1	EACH

Add
Add & Close
Cancel

Click the Add & Close button to add this configuration to the sales document. Notice the package indicator on the far left, with the red dot indicating the top package line, and the

connected branches indicating that package's component lines.

The following screenshot shows what the lines would look like if all the components were configured to Roll Up Price. Note that the Margin % field does not calculate for top package lines.

Item	Description	Whse	UORM	Qty	Qty Alloc...	Qty Fulfilled	Qty BO	Cost	Ext Cost	Price	Ext Price	Price Level	Price Source	Margin %
PKG-KIT-SHELVING	Shelf Type = Black	WAREHOUSE	EACH	1	0	1	0	0.00	0.00	11.00	11.00		ITEM CFG OVERRIDE	100.00%
SHELF-BLK	Black shelf	WAREHOUSE	EACH	1	1	0	0	3.00	3.00	0.00	0.00	RETAIL	CFG COMPONENT	0%
MOUNT-SIN	Single mount	WAREHOUSE	EACH	1	1	0	0	1.00	1.00	0.00	0.00	RETAIL	CFG COMPONENT	0%

The following screenshot shows what the lines would look like if all the components were not configured to Roll Up Price.

Item	Description	Whse	UORM	Qty	Qty Alloc...	Qty Fulfilled	Qty BO	Cost	Ext Cost	Price	Ext Price	Price Level	Price Source	Margin %
PKG-KIT-SHELVING	Shelf Type = Black	WAREHOUSE	EACH	1	0	1	0	0.00	0.00	1.00	1.00		ITEM CFG OVERRIDE	100.00%
SHELF-BLK	Black shelf	WAREHOUSE	EACH	1	1	0	0	3.00	3.00	7.00	7.00	RETAIL	CFG COMPONENT	57.14%
MOUNT-SIN	Single mount	WAREHOUSE	EACH	1	1	0	0	1.00	1.00	3.00	3.00	RETAIL	CFG COMPONENT	66.67%

At this point, manual changes can be made to the sales lines, either directly or via the Package Editor sales line plugin. New components can be added to the package by inserting sales lines in the middle of the package.

At any point, the Sales Line Configurator plugin can be relaunched to make further changes to this configuration. However, it is important to note that doing this will wipe out any manual changes that have been made to this package! The entire package will be removed and re-created based on the new selections. This can be a helpful way to start from scratch if a manual error is made.

New Scripts

There are new script settings available to customize the validation and processing around kit and package configurations.

Filter:	
Configurator Script	
<input type="checkbox"/> Expand <input type="checkbox"/> Collapse	
Configurator	
Configurator Post Package Explosion Script	
New Configurator Distribution BOM Script	
New Configurator Kit Script	
New Configurator Manufacturing BOM Script	
New Configurator Package Script	
Run Validation Scripts When Reopening Configurator	False

New Configurator Kit Script - A C# Script run on new kit items created through configurator, before the new item is first saved. Parameters: SalesPad.Bus.ItemMaster kit, SalesPad.Bus.ConfigRoot root, System.ComponentModel.CancelEventArgs e.

New Configurator Package Script - A C# Script run on Packages created through configurator, before the kit is exploded into a package. Parameters:

SalesPad.Bus.ItemMaster kit, SalesPad.Bus.ConfigRoot root,
System.ComponentModel.CancelEventArgs e.

Configurator Post Package Explosion Script - A C# Script that runs after a configurator package is exploded into a package. Parameters: SalesPad.Bus.SalesDocument sd, SalesPad.Bus.SalesLineItem kitLine, SalesPad.Bus.SalesLineItems pkgCompLines, System.ComponentModel.CancelEventArgs e.