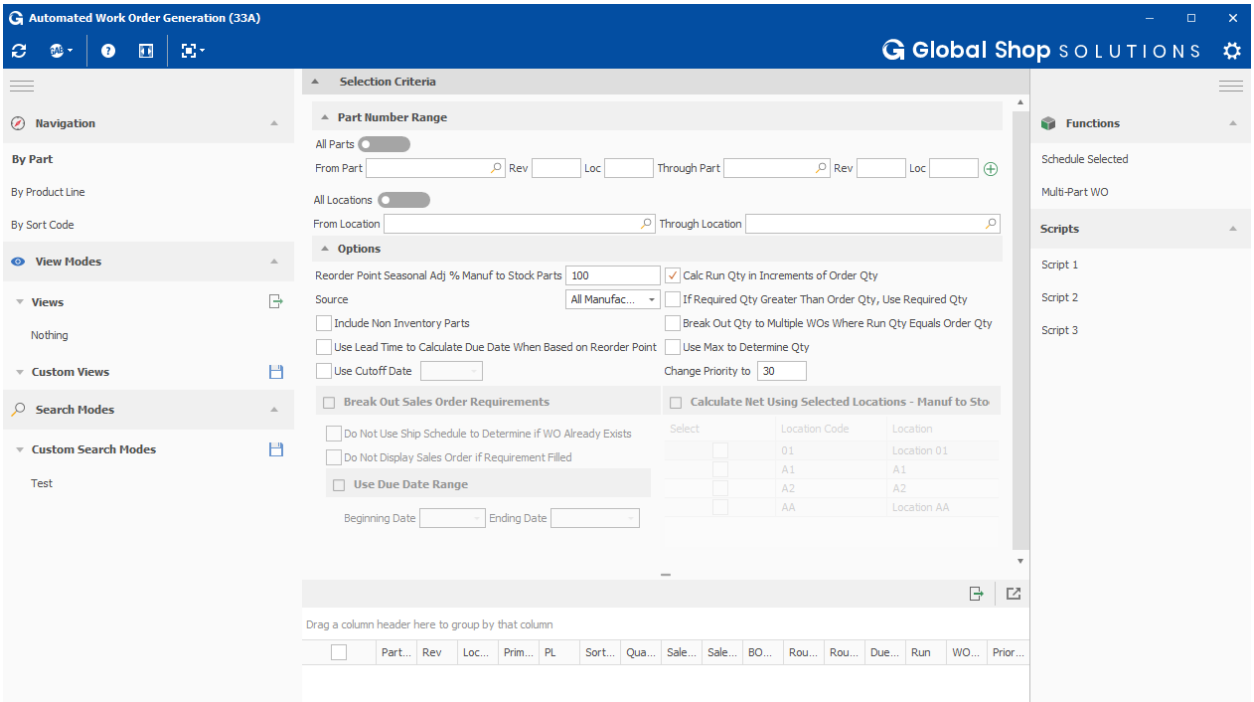
If the Net Quantity of a manufactured part falls below the Reorder Point, Automatic Work Order Generation can be used to create work orders to satisfy the inventory deficit. To be considered by this program, the manufactured part must have a Source Code of *Manufactured to Stock* or *Manufactured to Job* in the Inventory Master.

Note: If a BOM component has a Source of *Manufactured to Job* and is temporarily flagged for Temporarily Purchase on its Inventory master, it is treated as if its Source is *Manufactured to Stock*.

When a part is marked as *Temporarily Purchase* and Standard Cost is used, if the Standard Cost is updated, the part is treated as a purchased part. The purchasing history, not the router for this part, is used to calculate the cost.

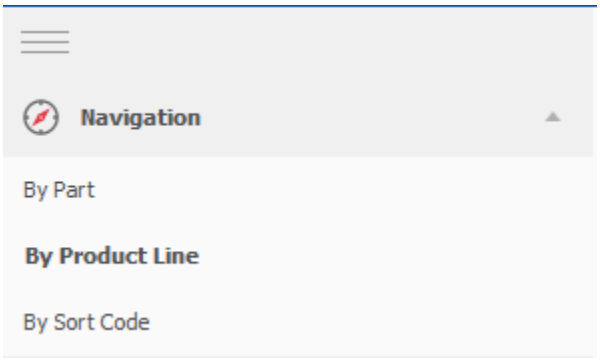
There is a Crystal-version of the Auto Work Order Worksheet available. The Business Intelligence report name and Id are: SF_AutoWO_Wksht.rpt, 1868

Shop Floor Control > File > Automated Work Order Generation



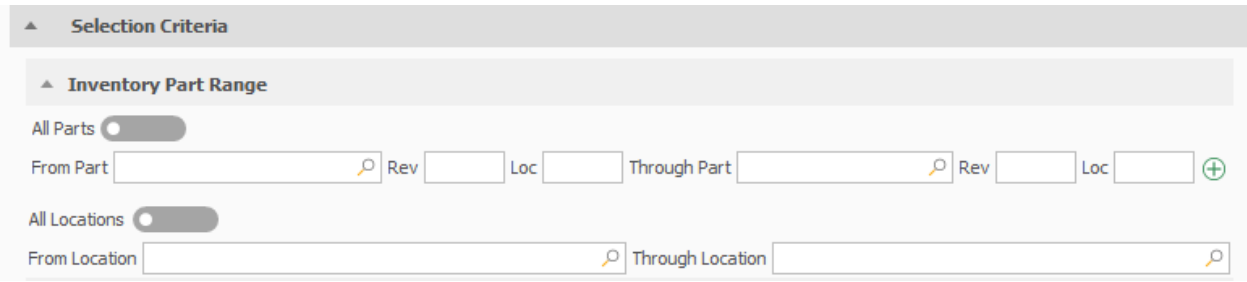
Selection Criteria

Use the **Navigation** Panel to change the selection criteria. The default selection method is **By Part**. Click on **By Product Line** or **By Sort Code** in the *Navigation* panel to change the selection method.



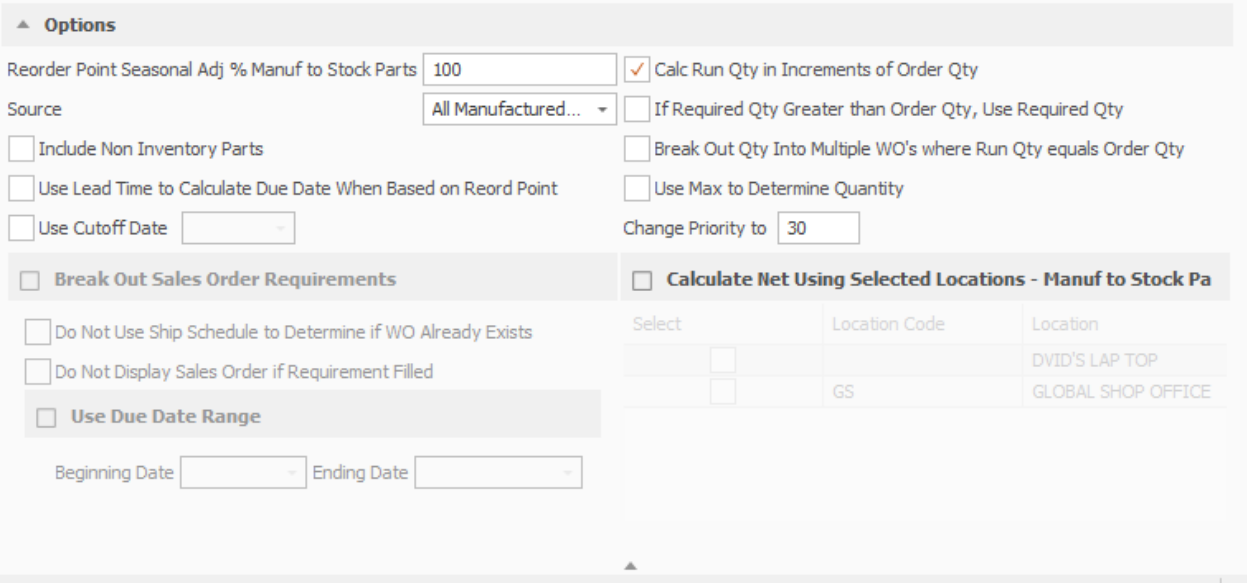
Use the **All Parts**, **All Product Lines**, or **All Sort Codes** toggle to choose from all parts, product lines, or sort codes. To choose a range of parts, product lines, or sort codes, slide the **All Parts/Product Lines/Sort Codes** toggle to the left and use the **From/Through** look ups.

Multiple ranges and individual parts of up to four can be selected by using the ⊕ icon next to the look ups.



If location codes have been established in the Advanced Manufacturing Tables Location Table, a **From** and **Through Location** code can be entered/selected to only include parts in the location range. Slide the toggle to the right to include parts from **All Locations**.

Options



Reorder Point Seasonal Adj % Manuf to Stock Parts. This field defaults to 100%. Modifying this percentage increases or decreases the reorder point for manufactured to stock parts by the percentage entered. Increasing this percentage increases the reorder point for manufactured to stock parts by the percentage entered. Decreasing this percentage decreases the reorder point for manufactured to stock parts by the percentage entered. When this value is modified, the reorder point for manufactured to stock parts is adjusted as follows:

(Current Reorder Point * Seasonal Adjustment %)/100

The newly calculated reorder point is used in the calculation to determine if the part needs a work order generated.

Example of increasing the reorder point:

Reorder Point of a part is 500. Required Quantity of this part for sales order or work orders is 310. The Order Quantity on the part's inventory master is 100. The Reorder Point Seasonal Adjustment % is entered at 150%. The calculation would be:

Reorder Point x Seasonal Adjustment = Total. Total + Requirements = New Run Total

500 x 1.5 = 750. 750 + 310 quantity required = 1060

If the option "Calc Run by Order Quantity" is selected the calculation would be

500 x 1.5 = 750. 750 + 310 = 1060.

The run quantity of this part is 100. A quantity of 40 would be added to the calculated run quantity of 1060 to roll to the next hundred. The run quantity using this option would be 1100.

Example of decreasing the reorder point:

Reorder Point of a part is 500. Required quantity of this part for sales order or work orders is 310. The Order Quantity on the part's inventory master is 100. The Reorder Point Seasonal Adjustment % is entered at 50%. The calculation would be:

Reorder Point x Seasonal Adjustment = Total. Total + Requirements = New Run Total

500 divided by .50 = 250. 250 + 310 quantity required = 560

If the option **Calc Run Quantity in Increments of Order Quantity** is selected the calculation would be:

500 divided by .50 = 250. 250 + 310 = 560.

The Run Quantity of this part is 100. A Quantity of 40 would be added to the calculated Run Quantity of 560 to roll to the next hundred. The Run Quantity using this option would be 600.

Source. Select to filter parts by their source code. Select from **All Manufactured Parts**, **Only Manufactured to Stock Parts**, or **Only Manufactured to Job Parts**.

Include Non-Inventory Parts. If a sales order line is for a non-inventory part, this option includes non-inventory parts that have a Product Line on the sales order line and the product line has the Manufactured Parts (Non-Inventory Auto WO Gen) option active.

Use Lead Time to calculate Due Date when Based on Reorder Point. If the system identifies the part is going to be included because the Net Quantity falls below the Reorder Point, this option uses the part's Lead time when calculating a suggested date in the Due Date column.

Check **Use Cutoff Date** to calculate the required quantity needed for each part through the cutoff date. Enter the cutoff date in the field.

Check **Break Out Sales Order Requirements** to tie the sales order number to the work order enabling the user to create the COGS association. If the *Break Out Sales Order Requirements* option is checked, sub-options *Do Not Use Ship Schedules to Determine if WO Already Exists, Do Not Display Sales Order if Requirement Filled* and *Use Due Date Range* can be used.

- **Do Not Use Ship Schedules to Determine if WO Already Exists.** If the option is checked and any work orders exist for a sales order line, the line is not brought into the list; if the option is not checked and a ship schedule exists, the system checks if a work order has been generated for each specific ship schedule record. Records without work orders are shown in the list.
- **Do Not Display Sales Order if Requirement Filled**.

  Sales Order lines With Ship Schedules: If *Do Not Use Ship Schedules to Determine if WO Already Exists* is checked, select this option to have the automated work order generation program ignore a sales order line when there is sufficient Net quantity of the part to fulfill the sales order's requirement. The sales order line only displays when the Net quantity is less than the sales order requirement.

  Sales Order Lines Without Ship Schedules: Select this option to have the automated work order generation program ignore a sales order line when there is enough **Net** quantity to fulfill the sales order's requirement or a work order already exists for that sales order line.

  Note: If a work order already exists for the sales order line, the Net quantity test is skipped even when the Net quantity is a negative balance. When a work order is created against a sales order line, a flag is set on the sales order line indicating a work order has already been generated. This causes the sales order line to be ignored when Automated WO Generation is run regardless of the net quantity of that part. An example where this could happen is if a sales order line is for a quantity of 100 parts but the work order created against the sales order line is only for 50 parts. If the on hand quantity is zero, there would be a net of -50 (0 (On Hand Qty) – 100 (SO line requirement) + 50 (work order supply) = -50 (net quantity). However, the negative net quantity would not be

considered because the flag on the sales order line indicates that a work order has already been created.

- **Use Due Date Range**. Check this option to enter a date range. The system only displays sales orders with due dates that fall within the entered range. Enter a **Beginning** and **Ending Date** range.

Calc Run Qty in Increments of Order Qty. If this calculation is selected, the following options may also be selected:

- **If Required Quantity is greater than the Order Quantity, use the Required Quantity.** This option uses the required quantity if this quantity is greater than the order quantity.

- **Break Out Qty into Multiple WO's where Run Qty equals Order Qty**. Select this option to create multiple work orders for the calculated required quantity of the part, with each work order having a Run Qty equal to the Order Quantity found on the part's Inventory Master.

Enter a priority in the **Change Priority to** field to reassign a new priority to the group of work orders. The priority defaults from the Advanced Manufacturing company option, *Default Scheduling Priority Number*. The priority entered in this field applies only to this group of work orders. The Priority can also be added or modified individually later at the line level by selecting the Priority field and manually typing in the Priority level desired.

The Run quantity can be calculated in two ways:

Increments of Order Quantity: The quantity required is compared to the order quantity and the system will calculate the order quantity increment greater than the required quantity.

If **Calc Run Qty in Increments of Order Qty** calculation is selected there are two sub-options you may also select.

- **Break Out Qty into Multiple WO's where Run Qty Equals Order Qty**. Select this option to create *multiple* work orders for the calculated required quantity of the part, with *each* work order having a Run Qty equal to the Order Quantity found on the part's Inventory Master.

- **Use Max to Determine Qty**. Select this option to calculate the required quantity of the part as (Max – Net = required quantity). The Max is found on the part's Inventory

If Required Quantity is greater than the Order Quantity, use the Required Quantity.

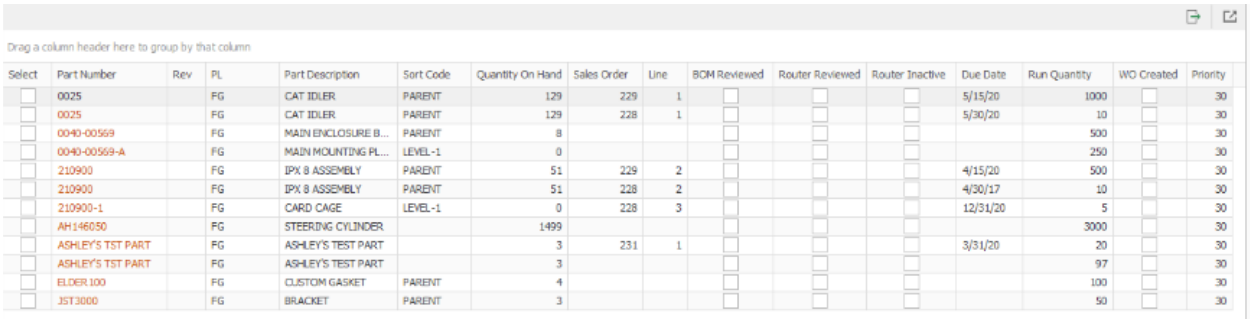
Select this option to use the Required Quantity if the Required Quantity is greater than the Order Quantity.

Calculate Net using Selected Locations-Manuf to Stock Parts. This option is available if the Advanced Inventory option Multiple Locations Used is active and the same Location code is entered in the Beginning and Ending Location fields. Checking this option allows other Location codes to be used in the calculation to determine the net of manufactured to stock parts at the Beginning/Ending Location code entered on this screen. Click the **Select** box next to each Location code that should be used to determine net calculation of the parts at the Beginning/Ending Location code. The net of the part(s) at the selected location code(s) is combined with the net of the part at the Beginning/Ending Location code to determine if a work

order is needed at the main location. If a **Cutoff Date** is entered on this screen, the net of the part through the entered due date at each of the selected locations is used to determine the net of the main part.
Note: If the Beginning and Ending Location fields contain different values, this option is not available for selection. If the **All Locations** box is checked on this screen, this option is not available for selection. This option is also mutually exclusive with the option **Break Out Sales Order Requirements**.

Grid View

Once all the desired options have been selected, select the ***Refresh*** button. A list of work orders that meet the selection criteria display in the grid.



Drag a column header here to group by that column

Select	Part Number	Rev	PL	Part Description	Sort Code	Quantity On Hand	Sales Order	Line	BOM Reviewed	Router Reviewed	Router Inactive	Due Date	Run Quantity	WO Created	Priority
	0025		FG	CAT IDLER	PARENT	129	229	1				5/15/20	1000		30
	0025		FG	CAT IDLER	PARENT	129	228	1				5/30/20	10		30
	0040-00569		FG	MAIN ENCLOSURE B...	PARENT	8							500		30
	0040-00569-A		FG	MAIN MOUNTING PL...	LEVEL-1	0							250		30
	210900		FG	IPX 8 ASSEMBLY	PARENT	51	229	2				4/15/20	500		30
	210900		FG	IPX 8 ASSEMBLY	PARENT	51	228	2				4/30/17	10		30
	210900-1		FG	CARD CAGE	LEVEL-1	0	228	3				12/31/20	5		30
	AH146050		FG	STEERING CYLINDER		1499							3000		30
	ASHLEY'S TST PART		FG	ASHLEY'S TEST PART		3	231	1				3/31/20	20		30
	ASHLEY'S TST PART		FG	ASHLEY'S TEST PART		3							97		30
	ELDER 100		FG	CUSTOM GASKET	PARENT	4							100		30
	JST3000		FG	BRACKET	PARENT	3							50		30

The system displays the parts with a Net quantity below the Reorder quantity (Net quantity = On-hand + In Transit + On Order PO + On Order WO - Requirements).

The **On Hand Qty** is displayed for quick reference while reviewing the screen.

Click on the **Part Number** to open the part in Supply and Demand. **Note**: If the Advanced Manufacturing Option Drill to Sales Order in Edit Mode from MRP Screen when called from Auto WO Generation is active, drilling to the SO from the Supply and Demand screen allows the user to edit the Sales Order; the edits do not refresh immediately on the *Auto Work Order Generation* screen. Select the ***Refresh*** button to see the changes.

If the Break Out Sales Order Requirements was selected on the option screen and the requirement is from a sales order, the **Sales Order/Line** is displayed.

If a priority was entered in the Change Priority to field on the option screen, the priority is listed in the **Priority** column. The priority code automatically populates in the Priority field on the work order header when the work order is selected for scheduling. The Priority can also be added or modified individually at the line level by selecting the Priority field and manually typing in the Priority level desired.

If the Advanced Bill of Material option Use BOM Completion Flag is checked/active, the **BOM Reviewed** column contains a **Y** for BOM parts that have the *BOM Complete* flag checked in BOM > File > Bills of Material. **Note**: If the option Do Not Allow Work Orders to be Created Until BOM is Complete is turned on, work orders cannot be created for parts that do not have a **Y** in the **BOM Complete** column. **Note**: If the option Do Not Allow Work Orders to be Created Until

Router is Complete is turned on, all router(s) used to build the BOM work order(s) must be flagged as Router Complete before the series of BOM work orders can be created.

If the Advanced Estimating/Quoting option Use Router Completion Flag is checked/active, the **RTR Reviewed** column contains a **Y** for parts that have the *Router Complete* flag checked in Estimating/Routing > File > Estimating/Standard Routers. **Note**: If the option Do Not Allow Work Orders to be Created Until Router is Complete is turned on, work orders cannot be created for parts that do not have a **Y** in the **RTR Complete** column.

If the router for the part is Inactive, a *Y* displays in the **RTR Inactive** column for visibility purposes. Parts with an inactive router cannot be scheduled for work orders.

Enter or edit the **Due Date**, if required, for each suggested work order. Modify the **Run Qty**, if desired. After the **Due Date** and **Run Qty** for the desired parts are established/ or reviewed, select to schedule all work orders or schedule each work order individually by checking the ***Select*** box. To schedule all work orders, click ***Select All*** on the *Functions* panel. Click ***Deselect All*** on the *Functions* panel to uncheck the select box for all parts.

Multiple Work Orders

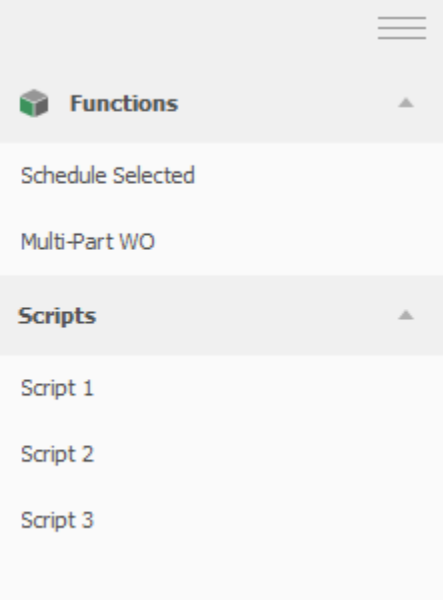
Work Orders can be copied to a new line so multiple work orders can be created. Right click on the desired row and select **Copy Row**. The line is duplicated and the Due Date, Run Quantity, Project, and Phase can be modified.

Note: To remove a copied row, select the ***Refresh*** button and the program executes the chosen selection criteria again. The row can be removed if the work order has not been scheduled.

 Select the ***Export*** button to export the grid to an excel file.

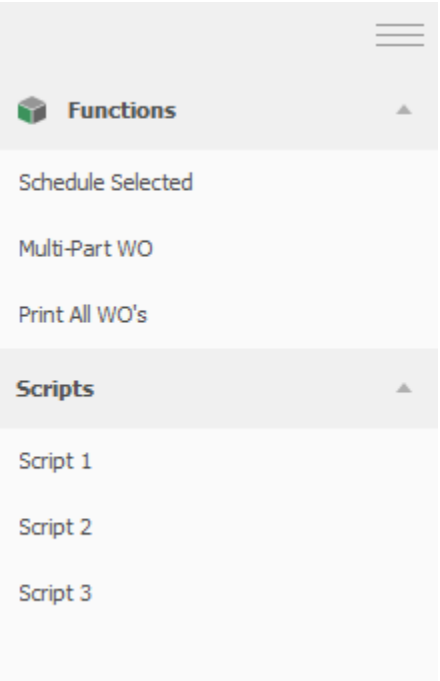
 Select the ***Pop-Out*** button to pop out the grid and view it as a separate screen.

Functions



From the *Functions* panel, select ***Schedule Selected*** to schedule the work orders selected in the grid. The panel displays additional options after selecting the Schedule Selected button.

If using Multi-Part Work Orders, on the *Auto Work Order Generation* screen, highlight the multiple parts to combine onto a single work order and select ***Multi-Part WO*** from the *Functions* panel; this opens a *Work Order Entry* screen for the Multi-Part Work Order. Review the *Multi Part WO* instructions as defined in Shop Floor Control > File > Work Orders > New.



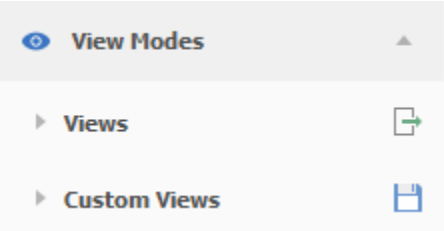
Print All WOs. Select this button to print all the work orders that were selected to be scheduled. **Note**: If this program is closed without printing them the work orders, print the work orders manually from Shop Floor Control > File > Work Orders > Open or Shop Floor Control > Reports > Barcode WOs.

Note: This button appears after scheduling the work orders.

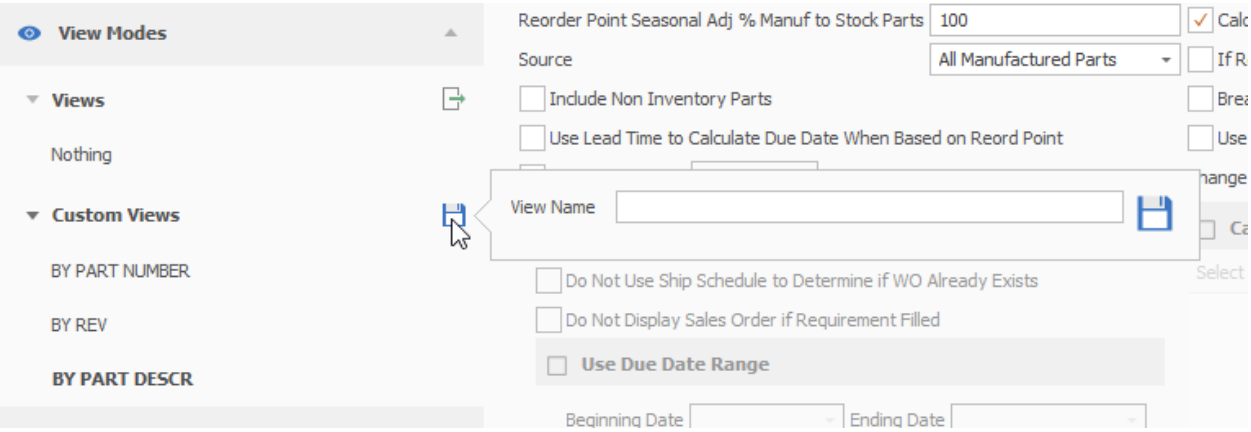
Select All. This option checks the **Select** button for all parts.

Deselect All. This option unchecks the **Select** button for all parts.

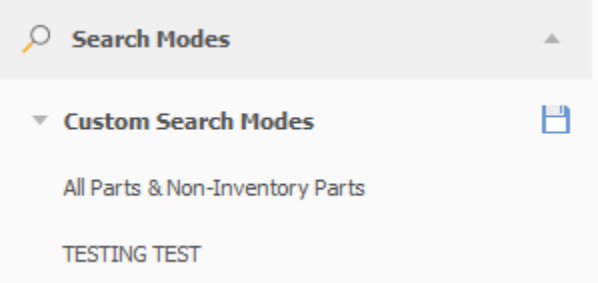
View Modes



Use View Modes to save the grid layout into custom view modes. To create a Custom View, resize, set the visibility, set a filter, set the ordering and then select the ***Save*** button. Enter a name for the custom view. The custom view is saved under **Custom Views** and is available for use when desired.



Search Modes



Use Search Modes to save custom search criterion. This panel functions similarly to View Modes. Enter search parameters and select the ***Save*** button to save the search mode. Enter a name for the search mode. The search mode is added to the list of custom search modes. When the custom search mode is selected, the search parameters are populated to the screen.