

Collection Controls

Collection controls can show data related to collection of items and their relationships.

Table

Table control shows relationship or reference data of the context item. At the time of adding table control to the form, properties of RelationshipType or ReferenceType are mapped to table columns. Table control has multiple settings that control its appearance and behavior at runtime.

Supplier Name	Type	Weight(kg)	Max Order Quantity	Total Weight(kg)	Seller Notes	File
Aras	Electrical/Assembly	32	15	480.00	All parts need to be inspected for acceptance	Issue Tracker.xlsx
Siemens	Mechanical/Assembly	50	99	4,950.00	Siemens is a German multinational conglomerate corporation and the largest industrial manufacturing company in Europe. It is headquartered in Munich and has several foreign branch offices. Customer service: 1800 209 1850	
Autodesk	Electrical/Assembly	100	16	1,600.00	For more information visit Autodesk site	
Crompton	Electrical/Component	45	50	2,250.00	Crompton Greaves Consumer Electricals Limited is an Indian	

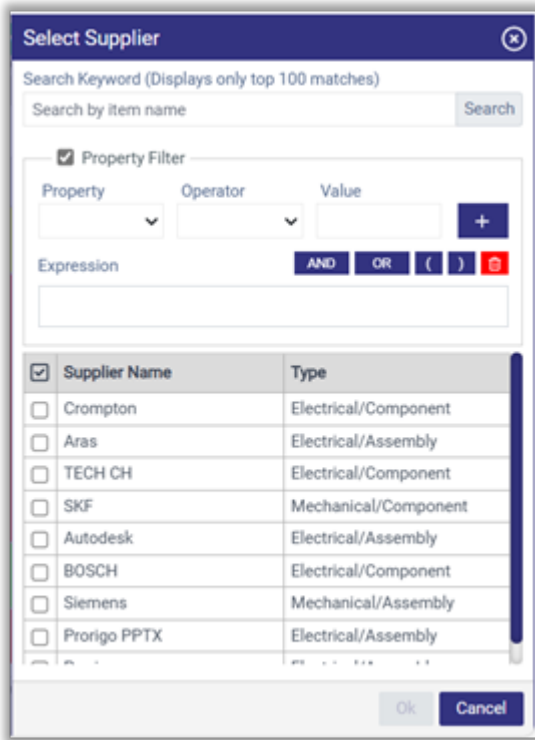
Above the table control, on the left end you will find the label and the Toolbar on the right end. If the label is absent the Toolbar is on the left.



Below are all the actions available in the Toolbar.

- **Add:** Add a row after the selected row. Added rows appear in light green color in the table. Updated rows will be shown in light orange color.
- **Insert:** An item selection flyout shows up. You can add rows to the Table from the items which are already available.





Components of item selection flyout will be as follows:

- **Search Options:** A search input field with a search button is available at the top within the flyout. By clicking on the search button, you filter the items grid.
- **Property Filter:** By clicking over the Property Filter check box available below the search, you perform advanced search operations on group containing various options to create custom expressions.
- **Items Grid:** All the items of that ItemType are shown in the grid with respect to the Search & Property Filter conditions.
- **Inserting Rows:** By clicking on the Ok button at the bottom right, you add all the items selected to the Table after the selected row or at the end. Added rows appear in light green color in the table.
- **Close:** By clicking on the Cancel button at the bottom right or the close button at the top right, you close the flyout without inserting.
- **Open Related Item:** By clicking on the Open Related Item action, you open a new tab by loading the related item of the selected row.
- **Open Relationship Item:** By clicking on the Open Relationship Item action, you open a new tab by loading the relationship item of the selected row.
- **Up:** By clicking on the Up action, you move the selected row above the previous row.
- **Down:** By clicking on the Down action, you move the selected row below the next row.
- **Delete:** By clicking on the Delete action, you delete the selected row from the Table.
- **Lock:** By clicking on the Lock action, you lock the selected row for exclusive edit. If the associated item with row is locked by someone else, you won't be able to lock the row.
- **Export Excel:** By clicking on the Export Excel action, you download all the visible data shown in the table to an excel file.
- **Export PDF:** By clicking on the Export PDF action, you download all the visible data shown in the table to a PDF file.
- **Filter:** By clicking on the Hidden dropdown, you select Simple option to show column filters on the table. You enter filter values on individual columns and click on the search icon beside the hidden dropdown to filter the rows based on the criteria. Beside the search icon there is also a clear option to clear all the filters
- **Custom Action Buttons:** Additionally, based on the requirements admins can configure custom action buttons for the table.

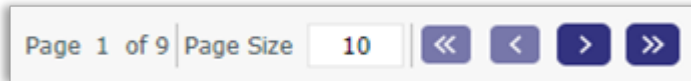


These two actions below are **exclusively** available in the **Toolbar for the Dashboards**:

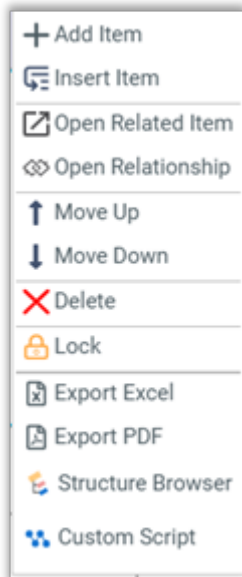
- **Property Filter**: By clicking over the Property Filter check box available below the search, you perform advanced search operations on group containing various options to create custom expressions. For more information regarding Property Filter, you can refer to section **Error! Reference source not found.** of this document.
- **Save**: By clicking over the save action button, save all the changes performed related to that table.

Below are other functionalities which are available for the table:

- **Sort**: Sort the table rows in ascending or descending order with respect to that column.
- **Drag & Drop**: Move and reorder the rows with ease. This feature is only available when the table is in scroll mode and reordering is enabled.
- **Column Filter**: By clicking over the filter icon in the column header, property filter containing various options to create custom expressions shows up automatically selecting property name and default first operator. You can enter filter values on individual columns and select search icon to filter the rows based on RelationshipType or ReferenceType properties. For table with RelationshipType properties, only “AND” logical operator is supported. Once property filter is applied, filter icon turns solid for the column on which filter is applied.
- **Pagination**: Pagination controls are shown at the bottom to navigate to other pages of the table. You can enter Page Size and select the search icon from the top action Toolbar to adjust the number of rows per page.



- **Context Menu**: By right clicking on any of the table rows, context menu shows up. All the Toolbar actions excluding the simple filter actions can also be accessed through the Context Menu.



- **Multi Select**: You can also use CONTROL & SHIFT buttons to select multiple rows based on the requirement.

If Table columns have a fixed width, the following features are enabled:

- **Freeze Columns**: The columns which are frozen will be visible to access at the left of the Table, while you scroll horizontally to other columns.



- **Column Resizing:** Based on requirement, you can increase or decrease the width of the columns. Columns can be resized by dragging the right edge of the column header.
- **Column Re-Ordering:** Drag-drop columns to re-order them based on the requirement.

Worksheet

Worksheet control provides Excel experience for creating datasheet. You use Worksheet control to show relationship data or reference data of the context item as datasheet. When you add worksheet control to the form, properties of Relationship and Related ItemType are mapped to worksheet columns. Columns in the Worksheet are constrained with property data types. It supports nested rows from child relationships. Worksheet control has multiple settings that control its appearance and behavior at runtime.

	Name	Part Number	Total Cost (\$)	Note Text created_on
1	Bicycle cover	Cover	1250	Material: Cloth Custom Stitched Multi color option 7/25/2024 5:07:22 AM
2	Frame	frame	1875	Frame purchased as welded part. To be painted black at supplier site. supplier to pack it properly. 7/25/2024 3:20:21 AM
3	Brake	BRKE	6750	Rim brakes and disc brakes are operated by brake levers are mounted on the handle bars 7/25/2024 5:03:41 AM
4	Axle	AXL	7000	a rod that serves to attach a wheel to a bicycle provides support for bearings on which the wheels rotates. 7/25/2024 3:10:30 AM
5	Belt Drive	BLT	9000	alternative to chain-drive 7/25/2024 5:00:05 AM
6	Chain	CHN	7000	a system of interlocking pins, plates and rollers that 7/25/2024 5:05:40 AM

Above the worksheet control, on the left end you will find the label and the Toolbar on the right end. If the label is absent the Toolbar is on the left.



Below are all the actions available in the Toolbar:

- **Add:** Add a new row after the selected row.
- **Insert:** Item selection flyout shows up. You can add rows to the Worksheet from the items which are already available.
- **Open Related Item:** Open a new tab by loading the related item of the selected row.
- **Open Relationship Item:** Open a new tab by loading the relationship item of the selected row.
- **Up:** Move the selected row above the previous row.
- **Down:** Move the selected row below the next row.



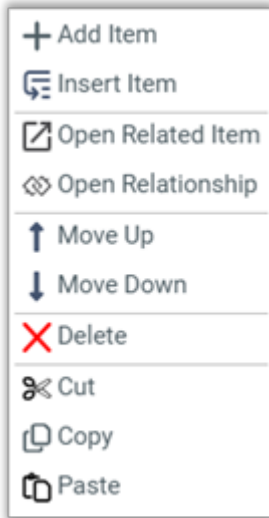
- **Delete:** Delete the selected row.
- **Cut:** Cut the selected cell or row.
- **Copy:** Copy the selected cells or rows to the clipboard.
- **Paste:** Paste the selected cells or rows from the clipboard.
- **Export:** Download all the data shown in the worksheet to an excel file.
- **Custom Action Buttons:** Admins can configure custom action buttons for the Worksheet.

These two actions below are **exclusively** available in the **Toolbar for the Dashboards:**

- **Property Filter:** By clicking over the Property Filter check box available below the search, you perform advanced search operations on group containing various options to create custom expressions.
- **Save:** Save all the changes performed related to that Worksheet.

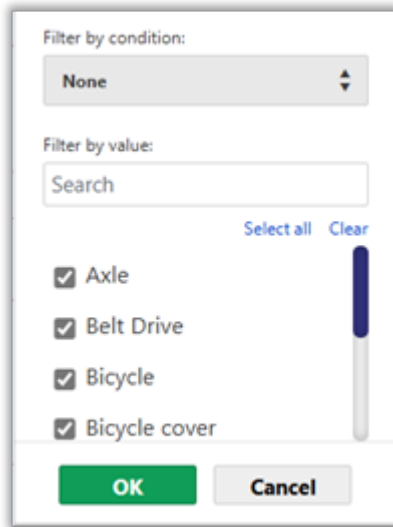
Below are other functionalities which are available for the Worksheet:

- **Context Menu:** By right clicking anywhere on the worksheet, context menu shows up. You access Toolbar actions excluding the Export action through the Context Menu.



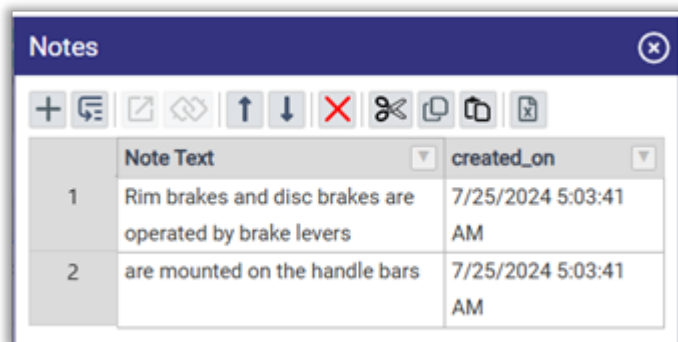
- **Sort:** Sort the rows in ascending or descending order with respect to that column.
- **Drag & Drop:** Select a row or multiple rows and use the drag & drop to move and reorder the rows with ease.
- **Multi Select:** Use CONTROL & SHIFT buttons to select multiple rows or cells based on the requirement.
- **Filter:** Available at the column level; access it by clicking on the arrow down icon in the column header to filter the rows with ease.





If the Worksheet columns have a fixed width, the following features are enabled:

- **Freeze Columns:** Frozen columns will be visible to access at the left of the Worksheet, while you scroll horizontally to other columns.
- **Column Resizing:** Increase or decrease the width of the columns. Columns can be resized by dragging the right edge of the column header.
- **Column Re-Ordering:** Drag-drop columns to re-order them based on the requirement.
- **Nested Rows:** Double click to edit nested rows data from the flyout.



TreeTable

TreeTable control shows the structure of items of the same ItemType. At the time of adding tree-table control to the form, properties of Relationship and Related Item Type are mapped to tree-table columns. TreeTable control has multiple settings that control its appearance and behavior at runtime.



Name	Part Number	Cost(\$)	Max Order Quantity	Total Cost(\$)	Created On	Author
Wheels	wheels	20.0000	40	800	7/25/2024 2:05:07 AM	Innovator Admin
Spokes	spokes	20.0000	60	1,200	7/25/2024 3:36:57 AM	Innovator Admin
Tyre	tyre	20.0000	20	400	7/25/2024 3:36:57 AM	Innovator Admin
Tyre Valve	tyre_valve	20.0000	20	400	7/25/2024 3:48:51 AM	Innovator Admin
Rim	rim	20.0000			7/25/2024 3:45:54 AM	Innovator Admin
Hub	hub	20.0000			7/25/2024 3:32:16 AM	Innovator Admin
Frame	frame	20.0000			7/25/2024 2:05:08 AM	Innovator Admin
Seat	seat	20.0000			7/25/2024 2:55:13 AM	Innovator Admin
Handle	handle	20.0000			7/25/2024 3:21:14 AM	Innovator Admin
Main Frame	main_frame	20.0000			7/25/2024 3:32:16 AM	Innovator Admin

Expand Level

Above the TreeTable control, on the left you will find the label and the Toolbar on the right. If the label is absent the Toolbar is on the left.

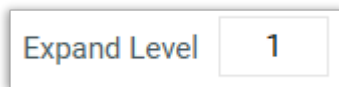


Below are all the actions available in the Toolbar:

- **Add:** Add an item as a child or a sibling of the selected node.
- **Insert:** Item selection flyout shows up. Add rows to the TreeTable from the items which are already available.
- **Open Related Item:** Open a new tab by loading the related item of the selected row.
- **Open Relationship Item:** Open a new tab by loading the relationship item of the selected row.
- **Up:** Move the selected row above the previous row. Up action will be enabled only when the parent item is locked.
- **Down:** Move the selected row below the next row. Down action will be enabled only when the parent item is locked.
- **Delete:** Delete the selected row from the TreeTable. Delete action will be enabled only when the item is locked.
- **Lock:** Lock the selected row for exclusive edit. If the associated item with the row is locked by someone else, you won't be able to lock the row.
- **Export Excel:** Download all the visible data shown in the TreeTable to an excel file.
- **Export PDF:** Download all the visible data shown in the TreeTable to a PDF file.
- **Custom Action Buttons:** Admins can configure custom action buttons for the TreeTable.

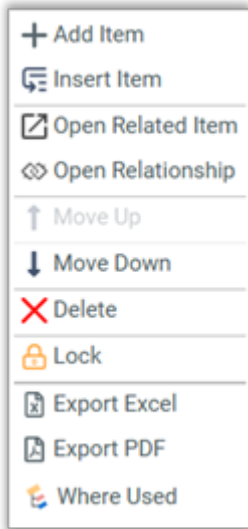
Below are other functionalities which are available for the TreeTable:

- **Expand Level:** When you expand the node, it only gets its first level children. If you want to expand to multiple levels, the Expand Level value can be set. Expand Level is available at the bottom left of the TreeTable.



- **Context Menu:** Right click on the rows of TreeTable to see Context Menu; access Toolbar actions.





If the TreeTable columns have a fixed width, the following features are enabled:

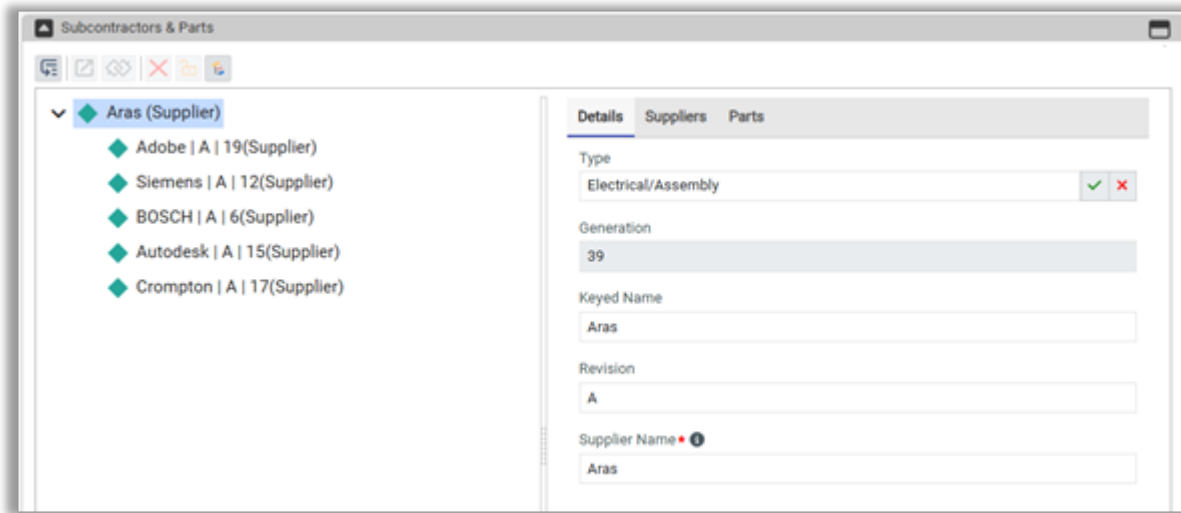
- **Freeze Columns:** Frozen columns will be visible to access at the left of the Worksheet, while you scroll horizontally to other columns.
- **Column Resizing:** Increase or decrease the width of the columns. Columns can be resized by dragging the right edge of the column header.

Structure

Use Structure control to show any structure with items of different ItemTypes and Relationship Types:

- It is defined on Query Definition which requires context item Id. Use it as StructureBrowser and WhereUsed controls for a given ItemType by defining appropriate Query Definition.
- In edit mode, you can modify and save fields returned from the Query Definition back to Innovator.
- In edit mode, you can insert children of any allowed type at any level in the structure and save back to Innovator.
- You can configure Structure control to show relationships in the structure as nodes in the tree or rows in the table based on the configuration.





Above the Structure control, at the left you will find the label and the Toolbar on the right. If the label is absent the Toolbar is on the left.



Below are all the actions available in the Toolbar:

- **Insert:** Item selection flyout shows up. Add rows to the Structure from the items which are already available.
- **Open Related Item:** Open a new tab will be opened by loading the related item of the selected row.
- **Open Relationship Item:** Open a new tab will be opened by loading the relationship item of the selected row.
- **Delete:** Delete the selected node. Delete action will be enabled only when the item is locked.
- **Lock:** Lock the selected node for exclusive edit. If someone locks the associated item of the node, you won't be able to lock the row.
- **Custom Action Buttons:** Admins can configure custom action buttons for the Structure.

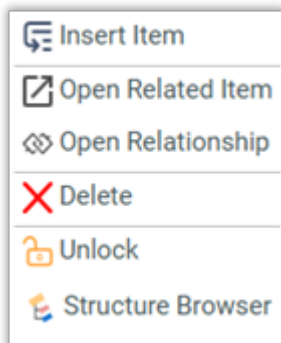
Other functionalities which are available for the TreeTable:

- **Separator:** Structure control is divided into two sections by the Separator. On the left, you have a Tree View of nodes and on the right there is a Details view of the selected node. By dragging the Separator, you can adjust width on both sections.
- **Tree View:** A classic tree view, with the current item as root node and all its relationships, references & related items configured are shown as its child nodes.



Details Suppliers Parts			
Name	Part Number	State	Thumbnail
Bicycle cover	Cover	Preliminary	
Frame	frame	Preliminary	
Brake	BRKE	Preliminary	
Axle	AXL	Preliminary	
Belt Drive	BLT	Preliminary	
Chain	CHN	Preliminary	

- **Details View:** Shows all the tabs configured. Details tab shows all the configured properties of the selected node item. Other tabs show relationships, references and related ItemTypes ("*" next to the tab name).
- **Sort:** Sort rows in ascending & descending order.
- **Context Menu:** Right click on the nodes of Structure to see Context Menu; access Toolbar actions.



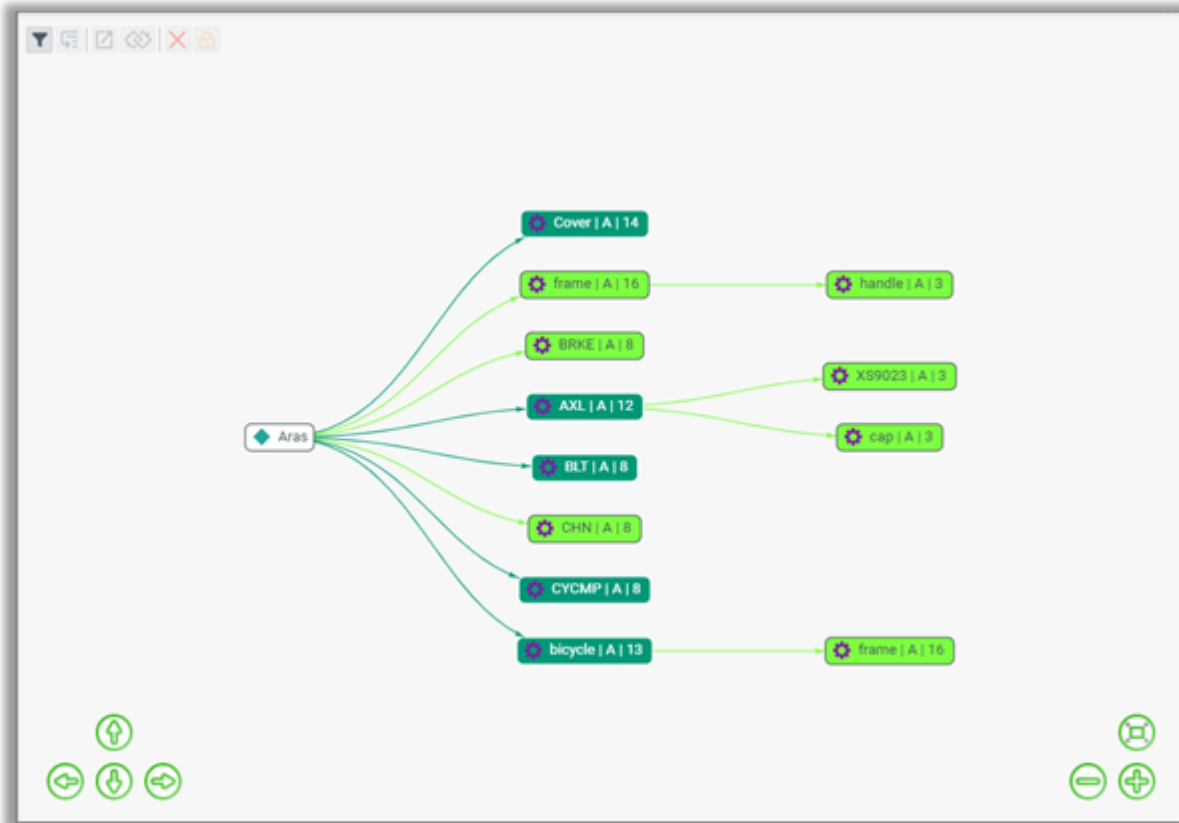
Graph

Use Graph control to show structure data of the context item in the graphical structure. Graph control is bound to a Query Definition which defines which Relationship Types, Related Item Types and properties to show in the control. By double clicking any node in the Graph, a flyout will show with the selected item properties along with its relationships. Each node in the graph will be shown with different color based on the background color set at RelationshipType or conditional formatting defined for the RelationshipType in the template definition.

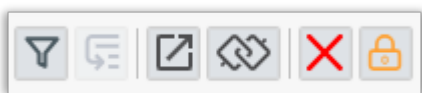


Graph control comes with two modes:

- **read-only** mode shows structure and properties, you can only navigate the structure and see properties of the selected node. You can also open the specific node in its own tab by selecting Open icon from the toolbar.
- in the **edit mode**, you can insert new nodes in the structure by selecting the Insert icon from the toolbar. In the InsertNode Flyout, allowed RelationshipTypes of the selected node are shown, by selecting specific RelationshipType and keyword. You can also edit properties or delete selected node.



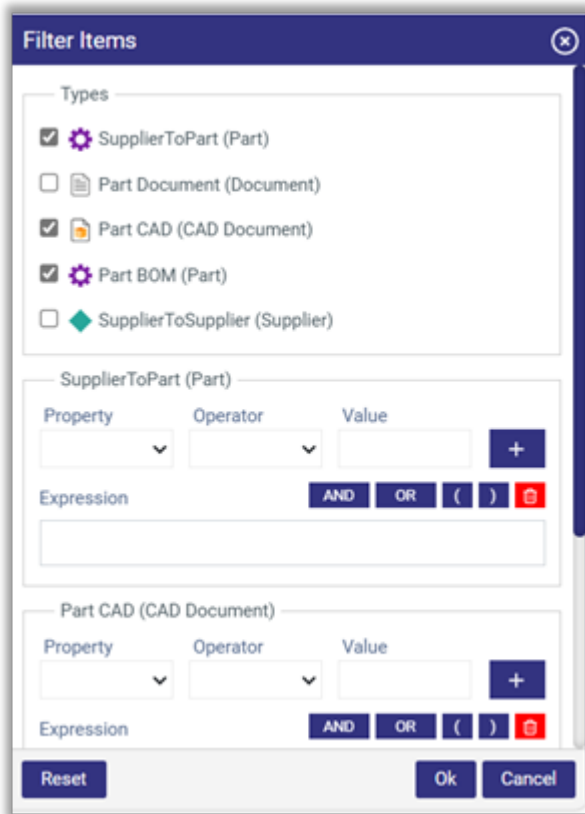
Above the Graph control, at the left you will find the label and the Toolbar on the right. If admin hides the label, the Toolbar is on the left.



Below are all the actions available in the Toolbar.

- **Item Filter:** A filter flyout shows up from which you can filter the items in the graph view. All the ItemTypes shown in the graph view are in the first group and for each selected ItemType, property filter is shown in its individual group.





- Filter flyouts layout will be as follows:
 - **Reset:** Reset all the filter selections to default.
 - **Ok:** Apply selection filters over the Graph and close the flyout
 - **Cancel:** Close the flyout.
- **Insert:** An item selection flyout appears. You can add nodes to the Graph from the items which are already available. All functionality and features are similar to those in the Table.
- **Open Related Item:** Open a new tab by loading the related item of the selected node.
- **Open Relationship Item:** Open a new tab by loading the relationship item of the selected node.
- **Delete:** Delete the selected node. Delete action will be enabled only when the item is locked.
- **Lock:** Lock the selected node for exclusive edit. If someone locks the associated item of the node, you will not be able to lock the row.
- **Custom Action Buttons:** Admins can configure custom action buttons for the Graph.

Other functionalities of the Graph are as following:

- **Graph Buttons:**
There are arrow buttons available at the bottom left of the graph that are used to move the graph in their respective directions.

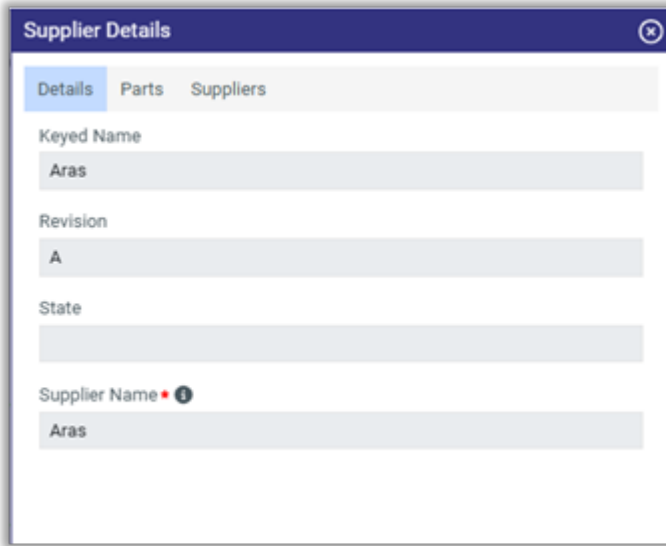


There are three other buttons available at the bottom right of the graph, those are Zoom In, Zoom

Out & Fit to Size.



- **Node Details Flyout:** By double clicking on the node of the graph, Node Details Flyout shows up. Shows all the tabs configured. Details tab shows all the configured properties of the selected node item. Other tabs show relationships, references and related ItemTypes (“*” next to the tab name).



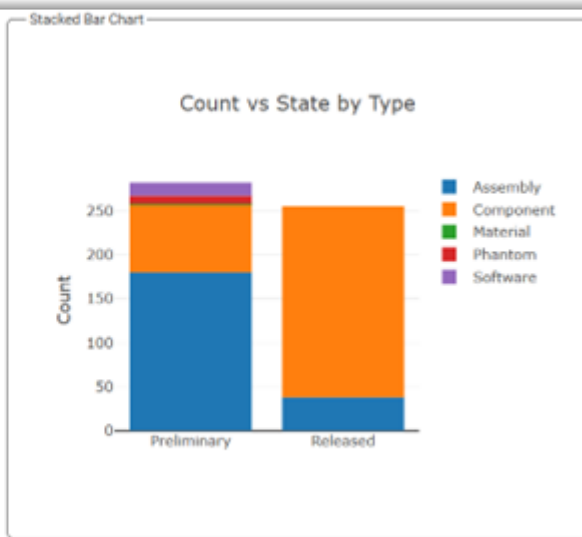
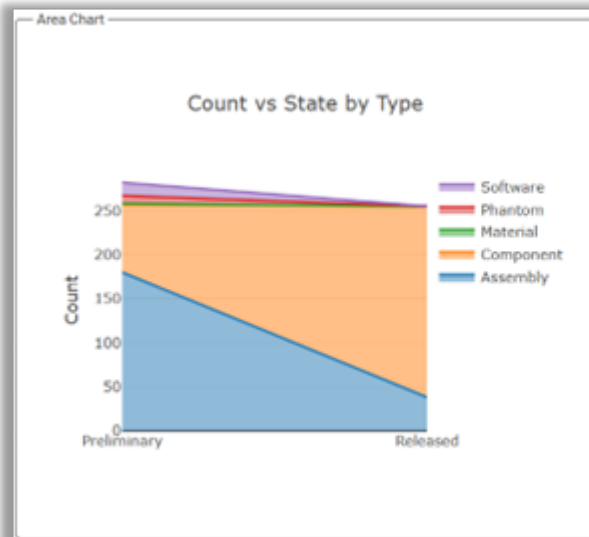
- **Sort:** Sort the rows in ascending and descending order.
- **Ok:** Apply all changes made in the flyout to the Graph and close the flyout.
- **Cancel:** Close the flyout.

Report

Use Report control to generate reports from the available data. Data is fetched for a report control based on the Query Definition selected for the control. Report is generated based on the data associated with the context item. It also can be generated based on global data of any other ItemType. Report control shows the data in the form of PivotTable, Line Chart, Bar Chart, Area Chart, TreeTable, PowerBI. Report control is displayed on Item Details and Dashboard pages.



Type	State	Preliminary	Released	Totals
Assembly		182	36	218
Component		97	197	294
Material		2		2
Phantom		9		9
Software		14		14
Totals		304	233	537



Drilldown Report ✕

Axis (Categories) Legend (Series)

State : Released Type : Component

Name	Part Number	State	Type	Make / Buy
Non-Threaded 63mm Bottom Bracket	BB-9090	Released	Component	Buy
Threaded 63mm Bottom Bracket	BB-9091	Released	Component	Buy
Non-Threaded 73mm Bottom Bracket	BB-9092	Released	Component	Buy
Threaded 73mm Bottom Bracket	BB-9093	Released	Component	Buy
Bell	BC-BELL	Released	Component	Make
Bell 2	BC-BELL-2	Released	Component	Make
4mm Steel Allen Bolt	BLT-0001	Released	Component	Buy
17.3" Aluminum Drop Bar	HB-1623	Released	Component	Buy
16.5" Aluminum Drop Bar	HB-2303	Released	Component	Buy

Cancel

