The *Components* panel provides direct access to all available server-based *Managed Components* and file-based *Library Components* in Altium Designer.

The panel sources components from a connected *managed content server* and any open or installed *Library* files. The panel offers full details of the selected component (Parameters, Models, Part Choices, Supplier data, etc.), component comparison, and for Managed Components, a filter-based parametric search capability for specifying target component parameters.

The *Components* panel uses the basic search engine functionality and view that is applied in the *Manufacturer Part Search* panel. While the *Manufacturer Part Search* panel harnesses the *Altium Parts Provider* service and focuses on component manufacturer and supplier data searches, the *Components* panel is populated with ready-to-place components from your *managed content server* and file-based library sources.

**Panel Access**

To open the *Components* panel, select View » Panels » Components from the main menu or the *Components* option from the *Panels* button menu at the lower right of the main screen. Using a responsive design configuration, the panel layout will dynamically adapt between full screen (wide) mode and its narrow docked mode where the Categories/Filters options collapse to menus.

From within a Schematic document, use the PP keyboard shortcut to open the *Components* panel. From within a PCB document, use the PC keyboard shortcut.
The panel's Categories pane (or drop-down menu in docked mode) lists any installed/open libraries
and all available Managed Components under the All category entry. When the panel is in its wide
mode, click the Categories list icon ( ) (or the « icon) to collapse or expand the display of the
column, and use the button (top right) to toggle the visibility of the component Details pane.
When sifting through the Categories pane, the Up/Down and PgUp/PgDn keyboard shortcuts may
be used to walk through the list. The Left/Right keyboard shortcuts may be used to to open and
close the individual branches.

**File-based Libraries**

The file-based (non-managed) library menu options provides you the ability to set preferences,
perform searches, and migrate filed-based library content. To access these options, select the library
menu button at the top right of the panel.

Select the File-based Libraries Preferences command to open the Available File-based
Libraries dialog, where you may view controls to add or remove libraries, install libraries, and specify
library search paths.

The current listing of file-based library components may be filtered by entering a search phase in the
Components panel Search field. To access more advanced search capabilities for component
Libraries, select the File-based Libraries Search option from the panel's menu (top right),
which opens the File-based Libraries Search dialog. The dialog offers flexible search options including
query-based filter constraints, and the ability to search through all available file-based libraries or
those within a specified path.

![File-based Libraries Search Dialog](image)

If you have selected a file-based library from the Categories pane (or a file-based library from the
drop-down menu in docked mode), the Migrate Library command will be available from the panel's
menu (top right). Clicking the command will open the Migrator dialog (simple mode), which you
may use to migrate your exiting library to a managed content server.
The Categories grouping for managed components is derived from the ComponentType parameters associated with each component. To specify or change a component's type on-the-fly, right click on its entry then select the Operations » Change Component Type option from the context menu to open the Choose component type dialog.

Components that have been Acquired from the Manufacturer Part Search panel to your managed content server will be assigned a Component Type as part of the acquisition process.

When viewing managed components, the Filters pane is populated by selected filter options based on the current search and available parameters. Note that filters are only supported for server-based Managed Components. Use the Filter Search field to find a specific parameter filter, and in the panel's narrow/docked mode, click the to pop out the Filters as a panel extension.

Components List

Within the component listing grid itself, the content that is included in the list is managed by:

- Setting the component listing sort order – click a column heading to sort the component listing by that column data. Click the heading again to reverse the sort order.
- Setting the order of the displayed columns – drag and drop a column heading to a new position.
- Specifying which parameter columns are shown – right-click in a column header and choose Select Columns to open the Select Columns dialog then toggle a parameter column’s visibility and move its positional order with the Up/Down buttons.
- Grouping the list by column data – right-click in a column header, select the Enable Columns Grouping option then drag a column header (e.g., Footprint) into the grouping space at the top of the list. The list entries will be collected under each unique parameter (e.g., type of footprint) from the specified grouping column.
  When using Grouping to collate components in the listing, there is a limit of 10,000 entries that can be accommodated.
- Filtering the listing by a specific column entry – select in a column header to display a list of its unique parameter entries then select an entry to constrain the listed components to those that include the specified parameter (e.g., a footprint type code). Select the All option to reset the filter. Select (Custom) to open the Filter Editor dialog in order to further refine the filtering in the selected column.

Displaying Columns

There are various manners in which you may display the contents within the Components panel. When right-clicking on the names of each column (Name, Description, Footprint) you may select from the following options, depending on how you wish to display the components:

- **Best Fit** - merges the contents from the Name and Descriptions columns together so they are closely placed, with no excess room between each column.
• **Best Fit All Columns** - merges the contents from all columns together so they are closely placed, with no excess room between each column.
• **Clear Sorting** - used to undo the sorting of columns.
• **Enable Columns Grouping** - allows you to drag column headers by a specific column, allowing you to change the order of the **Name**, **Description**, and **Footprint** columns.
• **Select Columns** - opens the Select Columns dialog, which allows you to select other columns you would like visible in this section.
• **Apply Column Visibility to Child Categories** - in cases when the selected category has a child categories, use this command to ensure the possibility of pushing column visibility settings from parent categories to child categories.

**Component Search and Functions**

**Searching for components**

To search for available components in the Components panel, enter a phrase in the Search field and/or use the panel’s Categories and Filters selections to narrow the component listing to your specific needs. Filters are supported for Managed Components only, and as in the Manufacturer Part Search panel, the Components panel supports unit-aware (text to number) search filters.

The Search function allows you to select then edit or add to an active Search string. Click the ‘active’ search string to enter it into the Search field. You can re-use or edit that search from the Search field.

The Search field also supports for searching with wildcards, denoted by an asterisk (*) in the string.

**Placing Components**

A selected component is placed on a schematic by dragging and dropping, by selecting **Place** from its right-click context menu, by using the **Place** button in the Details pane, or by using the Enter hotkey.
The parametric search capability of the panel's Filters relies on suitable component parameter data being passed from the server that hosts the Managed Components. As a result, the Filter functionality may be disabled when the software is connected to an older Altium server product. To enable the Filter for previous server versions, check the ComponentSearch.LegacyAFS.Filters option in the Advanced Settings dialog, which is accessed by clicking the Advanced button in the System – General page of the Preferences dialog.

Filtering

The panel Filters options can be tailored your needs by selecting particular parameter types as Favorites, which then shift to the top of the list for the current component Category. Hover to the right of a parameter filter's name and click the icon to set the filter as a Favorite. Favorite filter settings apply to and are saved for individual component Categories.
To reset your favorites to the five default parameters, right-click then choose **Reset Favorite Parameters**.
For Managed Components, the right-click menu offers options to edit the component through the **Single Component Editor** (Edit) and perform component management functions such as component creation and cloning, or editing the selected component's Part Choices and Type (Operations).

Additional information options in the component **Details** pane include: viewing a model image,
viewing online datasheets (References) live Supplier information (Part Choices), seeing where the part has been used in Managed Projects (Where Used), and through the right-click menu, the ability to copy selected or all component parameter data (technical details) in a tab-delimited format, and resetting favorites.

You may use custom filtering feature to further refine filtering in the Components panel. The feature is available by clicking the filter (_filters) icon in the header, then selecting (Custom). This will open the Filter Editor dialog, which allows you to define the condition, operator, value, operator type, etc., for which you want to filter results.
Component Data Caching

When using the Components panel, the data for Managed Components are cached to the local machine from the Server. This provides an offline access mode for Managed Components when Altium Designer is not connected to the Server, and therefore allows normal component browsing and placement, etc. Note that Filters are not enabled in this mode.

This condition is indicated by the 'Offline mode – cached data is being used' warning text in the lower bar of the panel's component list pane. The cache builds up component data over time and may be cleared (for all servers) using the Clear Cache option that is available under Known Servers in the Data Management – Servers page of the Preferences dialog. Component data caching is available in new Altium server products only.

Part Choices List

Edit the Part Choices List associated with a managed component by selecting the Operations » Create/Edit PCL option from the entry’s right click menu.

Use the following Edit Part Choices dialog’s button to open the Add Part Choices dialog, which will automatically search for part manufacturers by the selected component's Name parameter. Deselect the predefined search term to manually search for alternatives – functionally, the dialog is a modal version of the Manufacturer Part Search panel.
Part Choice entries in the list can be ranked by selecting an appropriate star icon level, where the list will automatically be reordered with the highest ranked manufacturer choice at the top.
A Part Choices List is carried with the component wherever its data is applied, such as in a Schematic design, BOM document, Output Report and so on.

Note: With the currently available Altium Server platform, Part Choice rankings are not saved.

**Compare Feature**

The Compare feature allows you to compare parameters of two selected parts. This feature is accessed by selecting two components (parts) in the grid region with the icon enabled (blue). The Selected Component Details region opens to the right of the grid region. The upper region (region 1 in the image below) displays an image, the name, description, and price of the selected parts side-by-side. Click the Datasheet button to open the manufacturer's datasheet (if available) for the associated component. Click the Place button to place the component in the design workspace. The component will appear floating in the workspace; click to place the component in the desired location. You can continue to place additional components or right-click or Esc to leave placement mode and return to the Components panel.

The lower region (region 2 in the image below) displays a side-by-side view of the components' parameters, with differences highlight in red text for easy comparison.
The **Compare** feature is also available when the **Components** panel is in compact mode, though works a tad differently. This feature is accessed by selecting two components (parts) in the grid region. The **Selected Component Details** region opens below the grid region. The upper region displays the name, price, and view of the components' parameters, with differences highlighted in red text for easy comparison. The lower region displays a side-by-side view of the components' **Symbols** and **Models**.
### Components

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Footprint</th>
</tr>
</thead>
<tbody>
<tr>
<td>110K 5% 0603(160)</td>
<td>110K 0.1W 5% 0603 ... RESCO063(160)_N</td>
<td>RESCO063(160)_N</td>
</tr>
<tr>
<td>11R 5% 0603(160)</td>
<td>11R 0.1W 5% 0603 ... RESCO063(160)_L</td>
<td>RESCO063(160)_L</td>
</tr>
<tr>
<td>12R1 1% 0603(160)</td>
<td>12R1 0.1W 1% 0603 ... RESCO063(160)_L</td>
<td>RESCO063(160)_L</td>
</tr>
<tr>
<td>14R1 1% 0603(160)</td>
<td>14R1 0.1W 1% 0603 ... RESCO063(160)_L</td>
<td>RESCO063(160)_L</td>
</tr>
<tr>
<td>14K2 1% 0603(160)</td>
<td>14K2 0.1W 1% 0603 ... RESCO063(160)_N</td>
<td>RESCO063(160)_N</td>
</tr>
<tr>
<td>17R4 1% 0603(160)</td>
<td>17R4 0.1W 1% 0603 ... RESCO063(160)_L</td>
<td>RESCO063(160)_L</td>
</tr>
<tr>
<td>1M 1% 0603(160)</td>
<td>1M 0.1W 1% 0603 ... RESCO063(160)_L</td>
<td>RESCO063(160)_L</td>
</tr>
</tbody>
</table>

### Selected Component Details

- **Value**: 110K 0.033 MΩ (1MΩ) 11R 0.033 MΩ (1MΩ)
- **Name**: RESCO063(160) RESCO063(160)
- **Description**: 110K 0.1W 5% 0603 ... RESCO063(160)_N RESCO063(160)_N
- **Tolerance**: 5% 5%
- **Technology**: SMT SMT
- **Power**: 0.1 W 0.1 W
- **Note**: Acquired from... Acquired from...
- **Language**: en en
- **Component Type**: Resistor Resistor
- **Case Metric**: 1608 1608
- **Case-DA**: 0603 0603

### Symbol

- ![Symbol](image)

### Models

- ![Model](image)
The Compare feature and functionality also is available in the Manufacturer Part Search panel.

**Editing and Adding Footprints**

The symbol and footprint of a given component can now be hidden within the **Models** section of the Details pane, which is accessed by clicking in the upper right. Once hidden, the symbol and footprint will be replaced with clickable links that revert the hidden items to their original view. Also included is the ability to scale the size of the displayed models. For both the symbols and footprints, click and drag the lower perimeter of the model area to resize the image.

Note that ability to hide and rescale the model views is also available in the Details pane of the Manufacturer Part Search panel.
The ability to edit a footprint is made available when accessing the Components panel from within a Schematic Library (.SchLib) file, so long as valid and linked footprints are already present.

**Finding Similar Components**

The Find Similar Components dialog provides the possibility to define search preferences based on the selected component.
The *Find Similar Components* dialog is used to define your search preferences based on the selected component. The final search results will depend on the selected component type, be it managed or unmanaged components, and your server connection status. For example, managed components will often display more parameters than a unmanaged component. To specifically gather components and parameters that are the same or different from the one selected, the drop-downs may be utilized to select **Same**, **Any**, or **Different** choices.

The dialog can be accessed by right-clicking on a listed component, then selecting *Find Similar Components*.

**Component Selection Dialogs**

The search engine and view used in the *Components* panel is also applied in other Altium Designer applications where a component choice is made. The component search functionality is included in these (modal) dialogs, along with an **OK** confirmation button and minor variations in the available action commands. The dialog is typically called *Component Search*.

- **ActiveBOM** document – the Components search view is used when changing a managed component to an alternative component. Right-click on a listed component item and select **Change [component name]** from the context menu to open the *Replace Component* dialog.
- **Item Manager** – the Components search view is used when manually choosing a managed component to replace the current component. Right-click on a listed component item and select **Choose manually** from the context menu to open the *Replace Component* dialog.
- **Variant Management** – the Components search view is used when choosing an alternate component project variation. Select an Alternate part as a Component Variation, then **Choose** in the *Edit Component Variation* dialog to open the *Replace Component* dialog.