CIRCUITMAKER

SCHLIB Inspector

Modified by Rob Evans on Jun 2, 2015

Related panel

[SCH Library panel](#)

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Manually select Schematic objects to populate the *SCHLIB Inspector* panel with component objects to be viewed or edited.

Summary

The *SCHLIB Inspector* panel enables you to interrogate and edit the properties of one or more objects in the current component. The panel can be used to make changes to multiple objects of the same kind, from one convenient location.

Panel access

Access the *SCHLIB Inspector* panel by:

- Clicking **View | Schematic |** from the main menu.
- Using the **F11** keyboard shortcut.

> Panels can be configured to be floating in the editor space or docked to sides of the screen. If the *SCHLIB Inspector* panel is currently in a group of docked panels, use the **SCHLIB Inspector** tab located at the bottom of the panels to bring it to the front.

Defining panel display scope

When a large number of objects have been selected in the editor workspace, there is often a need to edit the properties of certain object types only, without losing or having to alter your selection. This can be achieved using the underlined controls at the top of the panel, to essentially define a 'display scope' for the panel:

Use the left-hand underlined control to set the type of objects that can be displayed. Clicking on the control will reveal a selection pop-up.
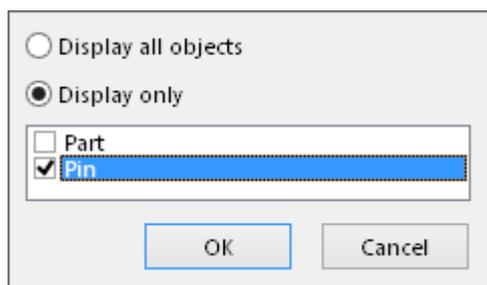
Use the pop-up to choose, or filter, which object types to include in the panel for display and editing – either all objects or specific objects. To choose one or more specific object types, enable the **Display only** option and then enable the check box next to the required object(s) in the list beneath. The list will only contain those object types currently selected in the main workspace.

When enabling specific object types for display, the control will reflect the choice by listing the enabled types, separated by commas. Note that Information will only appear in the *PCBLIB Inspector* panel when one or more objects have been selected in the design editor window.

✅ If you have enabled filtering for one or more object types, a control will appear at the bottom right corner of the panel, allowing you to quickly toggle between display of all objects ✖ (no filter) and only those specified by the **Display Only** option ▼.

Inspecting object attributes

Clicking on a single object in the library editor window will select the object and display attributes associated to it in the *SCHLIB Inspector* panel. Information is displayed under the following common collapsible sections:

Kind

This section of the panel contains one entry only, relating to the kind of component object that is being 'inspected'. For example, clicking on a pin will display the entry Pin, clicking on a rectangle will display the entry Rectangle, and so on.

Design

This section of the panel also contains one entry only, relating to the parent schematic library document in which the component(s) reside.

Graphical

This section of the panel contains graphical attributes of the selected object. Attributes here may include the location of the object, its orientation and colors used in its display.

Object Specific

This section of the panel contains attributes specific to the object being inspected and which are not graphical attributes. For example, selecting a pin will display attributes that are specific to a pin, such as:

- Name
- Description
- Pin Designator
- Electrical Type
- ...etc

Other selected objects will have different attributes displayed. For example, selecting a Rectangle graphic will not offer any attributes specific to that object.

> When multiple objects are selected, common attributes that have differing values between those objects will be displayed as `<...>`.

Parameters

For an object to which parameters can be 'attached', this section allows Parameters to be inspected, added and deleted for single or multiple objects.

Editing object attributes

The attributes of a selected object can be edited by modifying the relevant entry in the panel. The change will take effect once you click outside of the field you are editing. This is one of the advantages of using the panel to edit object properties – the panel will remain open, allowing a sequence of attributes to be changed as required, without having to close and reopen a properties dialog each time.

> If the object being inspecting has child objects associated with it, they will appear in blue in the **Object Specific** section (rather like a hyperlink). Click on these entries to display the attributes pertaining specifically to these child objects. For each child object, a link will be available back to the parent object – the [Owner](#) link in the Object Specific section of the panel.

The main advantage of using the panel for editing is that multiple objects can be modified from the one place without having to edit, through dialogs, one object at a time. Selected objects can be of the same or differing type. Those attributes that are common to all objects in the selection will be displayed in the panel. Common attributes that have differing values between objects will be displayed as `<...>`. Edit the attributes as required – the changes made will be conveyed instantly to each object in the selection.

Editing attributes with numeric values

For a numerical-based attribute of a selected object, the simplest modification to that attribute's value is made by typing a new value to replace the existing one. The plus and minus operators can be used to specify the value's sign. A value entered without a specified sign is assumed to be positive. Therefore entering `20` is the same as entering `+20`.

Specific units of measurement can be entered for a value. The software will convert the value into the current units defined for the document. If no units are specified, the default units set for the document will be used.

When multiple objects are selected, changing a common attribute will affect all those selected. For example, to shift a set of selected Pins to left or right, edit their common **X1** position attribute.
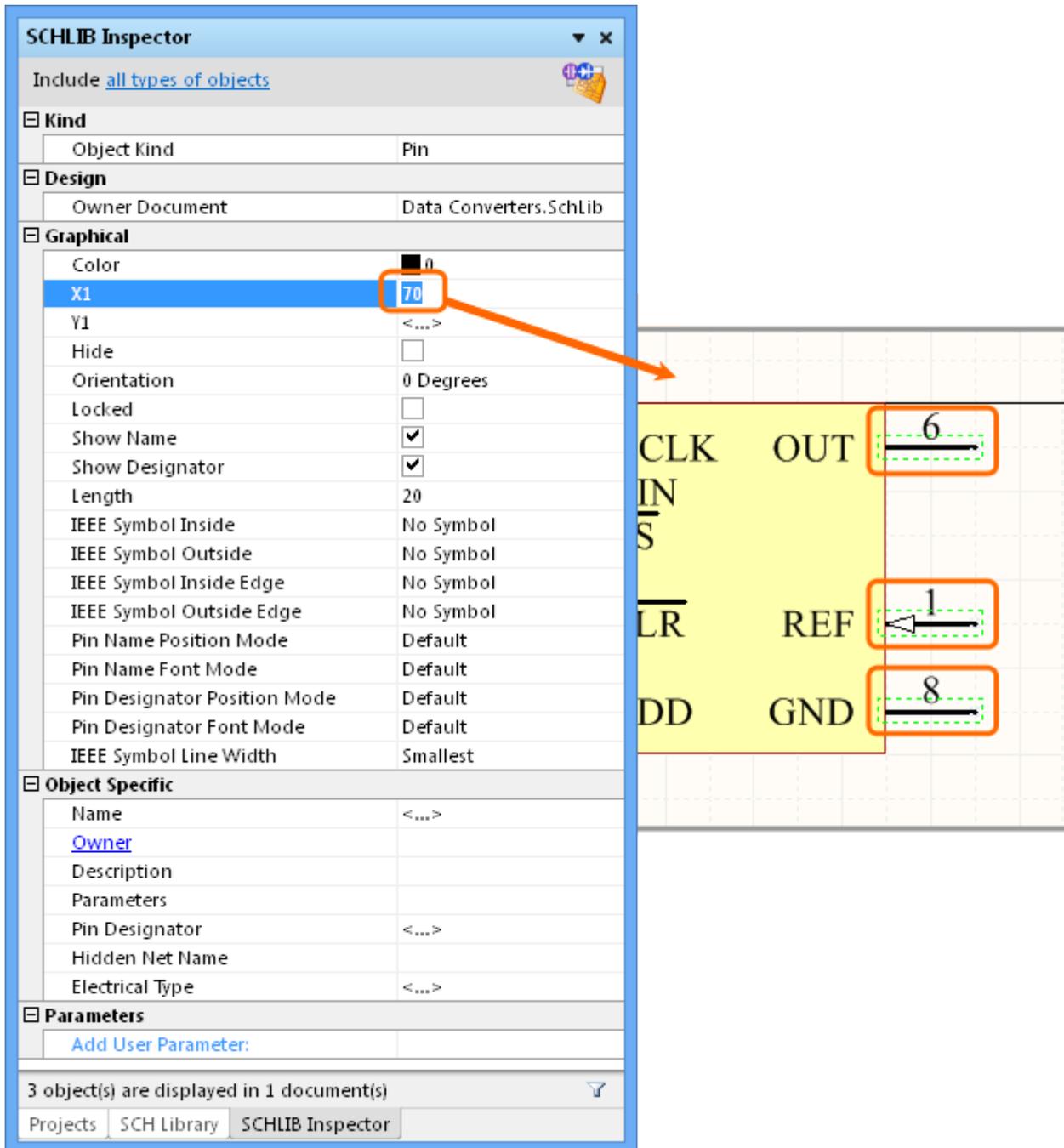
An attribute value that applies to multiple objects can be edited through one field.

Batch replacement of string-based attributes

There are occasions when it's desirable to modify a string-based attribute that is common to multiple selected objects in the workspace. For example to rename selected Pin object Names from AIN1, AIN2, AIN3, etc, to Alog1, Alog2, Alog3, etc – the component's Analog Input pins. To perform this type of batch replacement, the use of string substitution syntax is supported in the panel.

A string substitution entry is enclosed in braces and has the form: `{oldstring=newstring}`

An entry of this form causes all occurrences of `oldstring` found in the attribute's value to be replaced with `newstring`. In the case of the analog input net labels, you would enter {AIN=Alog} in the value field for the **Name** attribute.
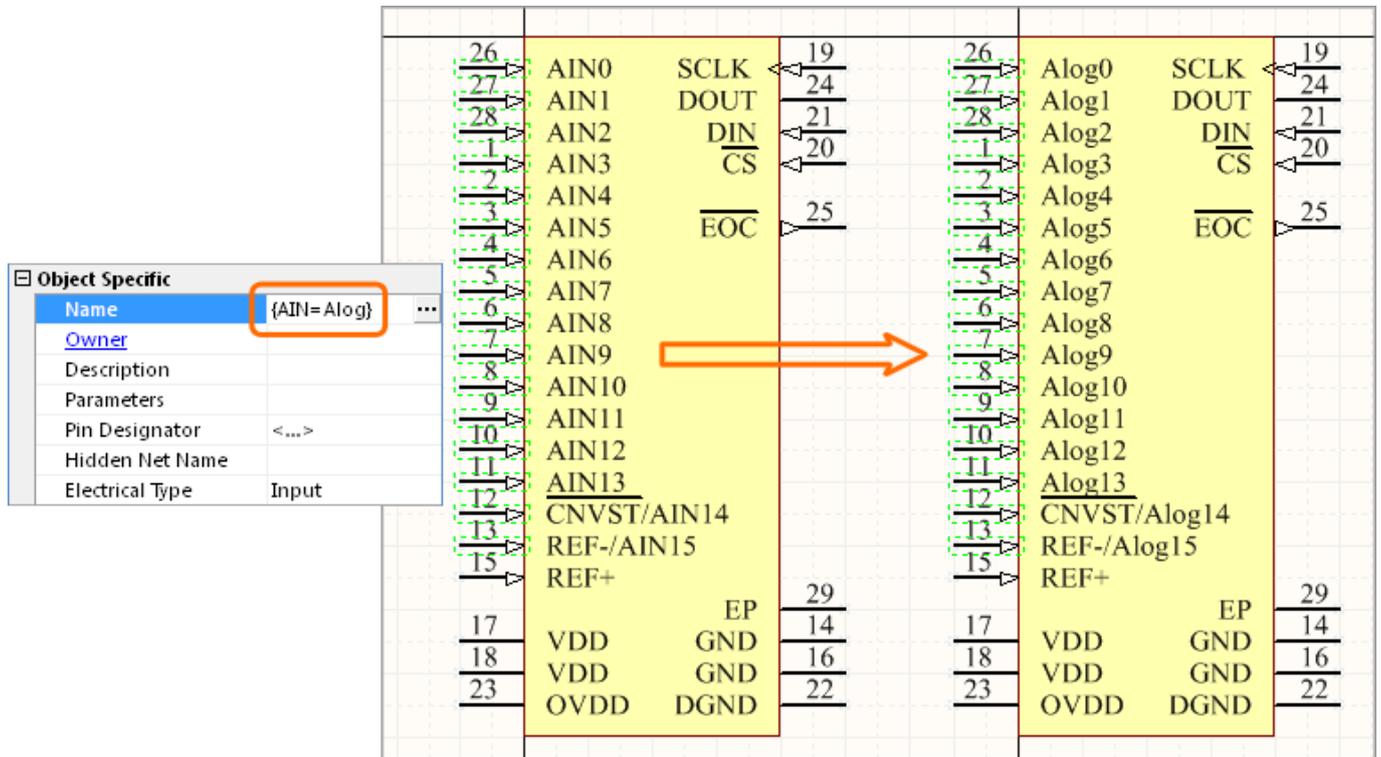
The string substitution instruction syntax is entered directly into an attribute field.

To replace multiple, differing string portions in the same target string, type multiple substitution entries, each enclosed in its own set of curly braces. The software takes this entry and effectively performs a batch substitution – substituting for the first expression, then the second, and so on.

Smart Editing of string-based attributes

The *SCHLIB Inspector* panel offers further support for string modification through its **Smart Edit** feature. Simply click on a shared attribute of the selected objects, whose value is a string. A ▪▪▪ button will become available at the far right of the cell. Click on this button to access the *Smart Edit* dialog.
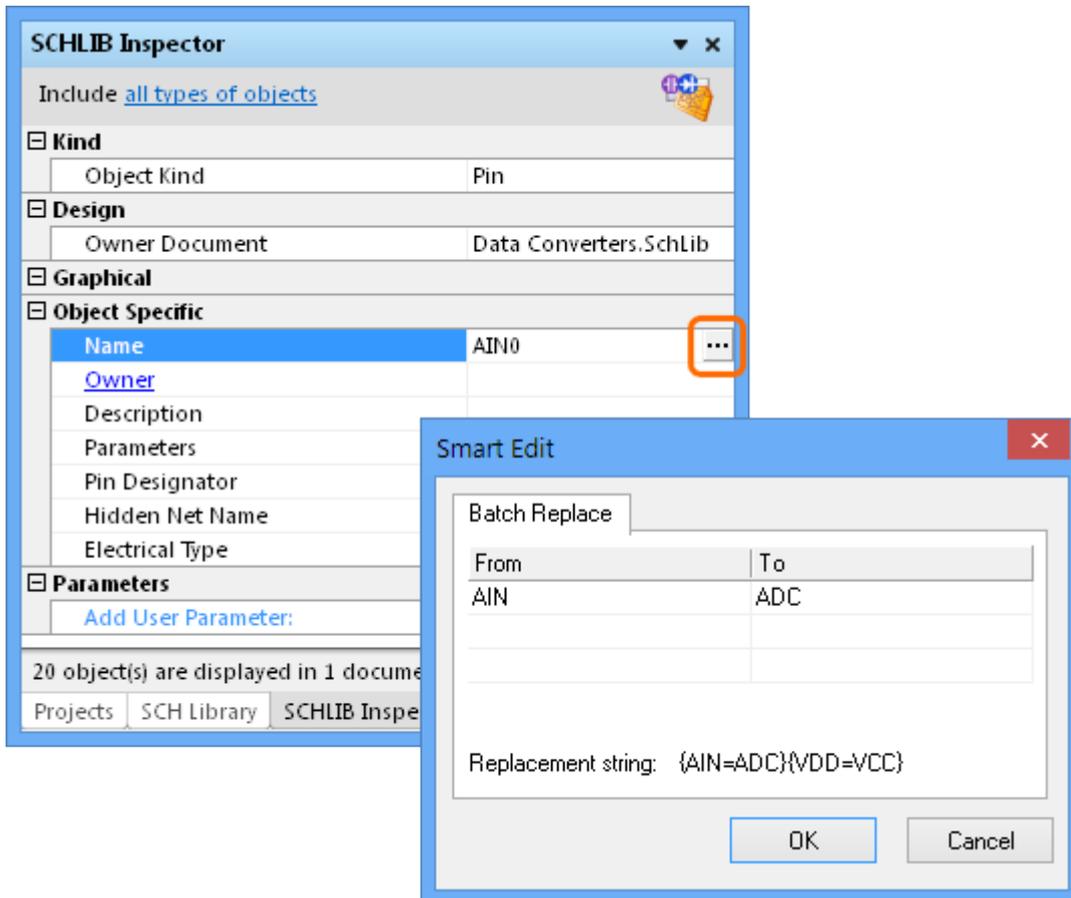
Batch string substitution performed in the *Smart Edit* dialog is equivalent to the direct manual method (detailed above), but is simpler to implement.

The dialog offers a streamlined method for performing single or multiple string modifications, accessed from the **Batch Replace** tab.

The **Batch Replace** tab in the *Smart Editor* dialog provides simple straightforward substitution, along the lines of the string substitution mentioned above (but without having to enter the curly braces). Click inside the **From** field and enter the portion of the current string to be replaced. Then click inside the **To** field and enter the string to be used as the replacement. The familiar string substitution syntax is displayed at the bottom of the tab.

As with basic string substitution, the **Batch Replace** tab provides for replacement of multiple, differing string portions in the same target string. For example, for a range of component pins where the names need to be edited so that:

- Those with the prefix AIN are changed to ADC.
- Those with the suffix DD are changed to CC.

In this case, select the components, click on the **Name** attribute in the panel and access the *Smart Edit* dialog. Then on the **Batch Replace** tab, enter AIN in the **From** field and ADC in the **To** field (the replacement string is therefore {AIN=ADC}). Note that just entering IN and DC in the **From/To** fields is equivalent, as the A character is unchanged. Add the second string substitution change by entering VDD and VCC in the next set of **From/To** fields.

After clicking **OK**, the component pin names will be modified accordingly.
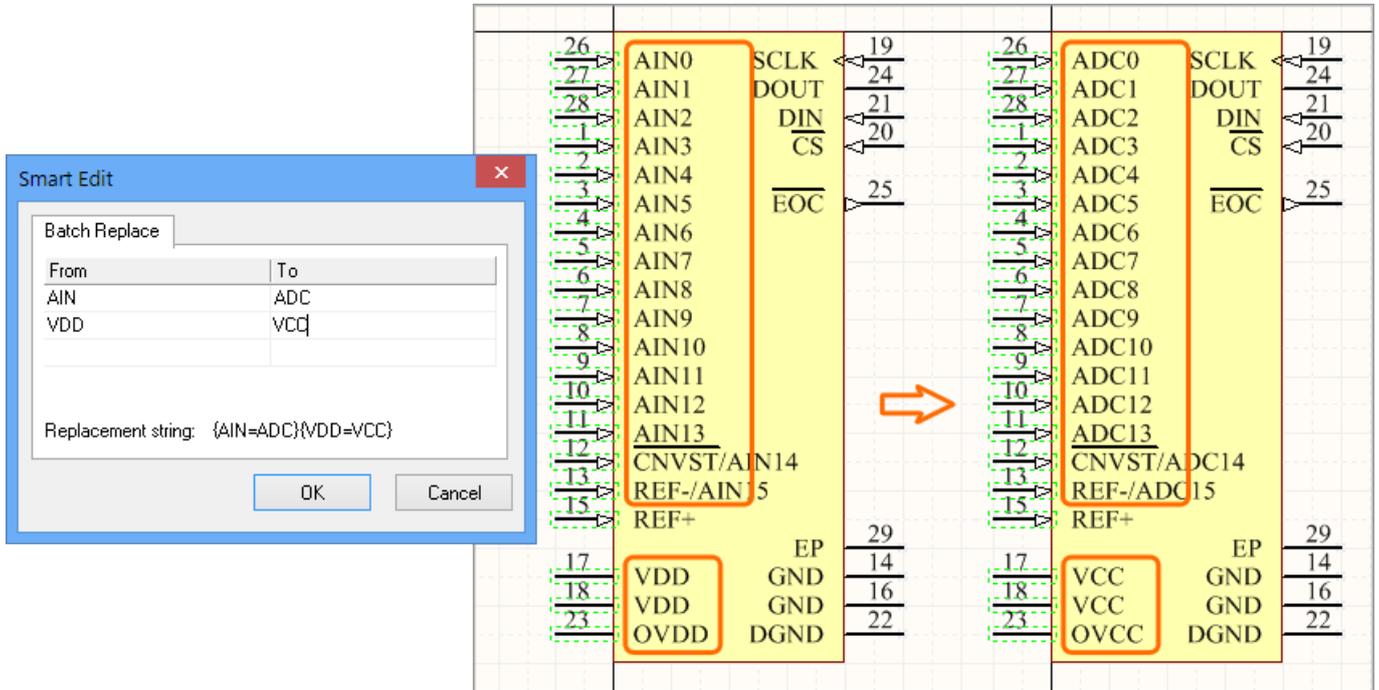
Any number of batch replacement entries can be added for complex multi-attribute changes.

Editing/Adding Parameters

For an object to which parameters can be 'attached', an additional section is displayed in the *SCHLIB Inspector* panel – **Parameters**. For a single selected object, this section lists all of the parameters currently defined for that object. For multiple selected objects, the section displays only those parameters that are common to all objects in the selection.

Click on the hyperlink for a parameter name to display and edit the properties for that parameter directly from within the panel – panel changes focus to the Parameter properties. Click on the Owner link to go back to editing the parent object to which the parameter belongs.
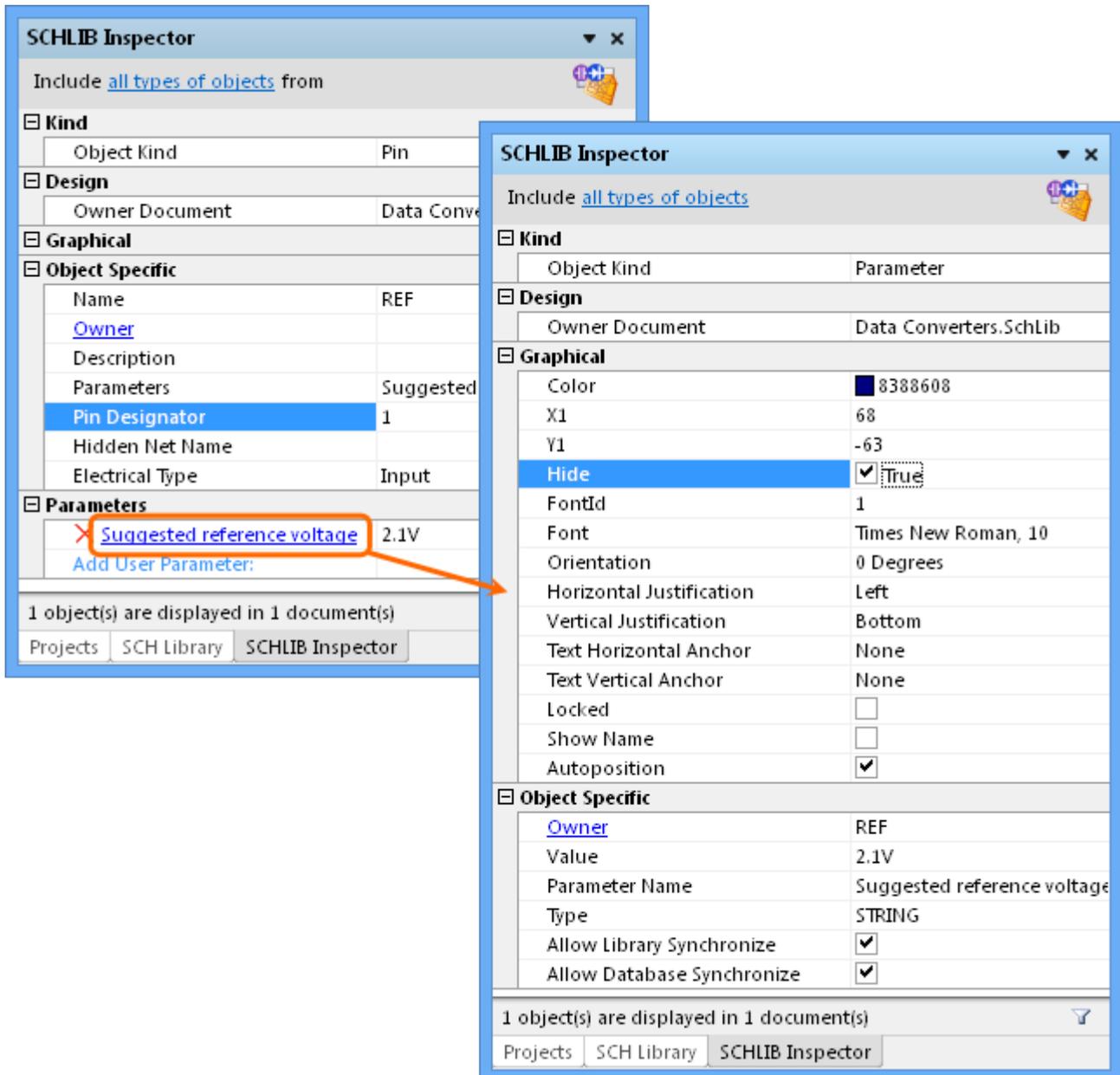
Added object parameters are edited within the panel. Here, a pin parameter's **Hide** attribute has been checked so that it will not be seen in the editor workspace.

> When editing multiple objects possessing the same parameter, you can switch between editing the parameter properties (which will be applied to all instances of the parameter in the selection) and the properties of the parent objects, without losing the selection.

Any number of user-defined parameters can be added from within the **Parameters** section of the panel. Simply enter the value for the new parameter in the field to the right of the **Add User Parameter** entry.

When you press **Enter** or click out of the field, the *Add new parameter to n object(s)* dialog will appear, where **n** represents the number of selected objects to which this new parameter will be simultaneously added.
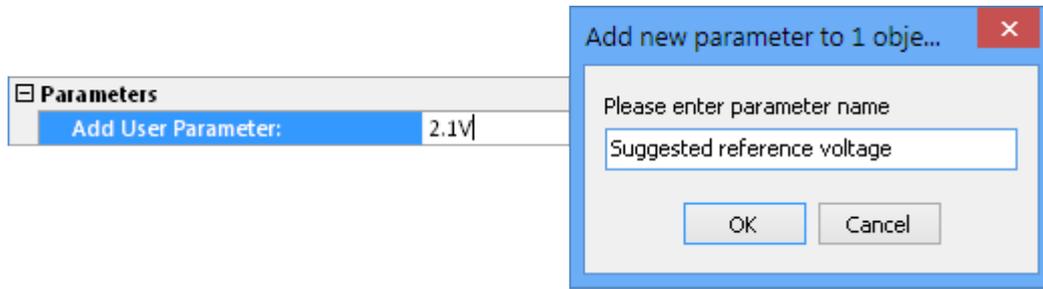
Enter the name for the new parameter as required and click **OK** –the parameter will be added to the list of parameters for the selected object(s).

To remove a parameter from the selected object(s), click on the ✕ symbol to the immediate left of the parameter name. A dialog will appear prompting for confirmation to proceed with the deletion.

Notes

1. Pressing the **F11** key will toggle the visibility of the panel in the workspace.
2. Information will only appear in the panel when one or more objects have been selected in the component editor window.
3. If you have defined the display scope for the panel to display specific object types, this scope will remain when the selection is cleared in the main workspace. If you subsequently select an object that is not part of this previously defined scope, the panel will display a control at its center –'Click here to display all objects' – which, when clicked will reset the Include portion of the display scope to all types of objects.
4. You can use the **Up/Down Arrow** keys to pass up and down the list of attributes in the panel respectively.

Source URL: http://documentation.circuitmaker.com/display/CMAK/Sch_Pnl-SCHLIBInspector((SCHLIB+Inspector))_CM