

PCB Editor - DRC Violations Display

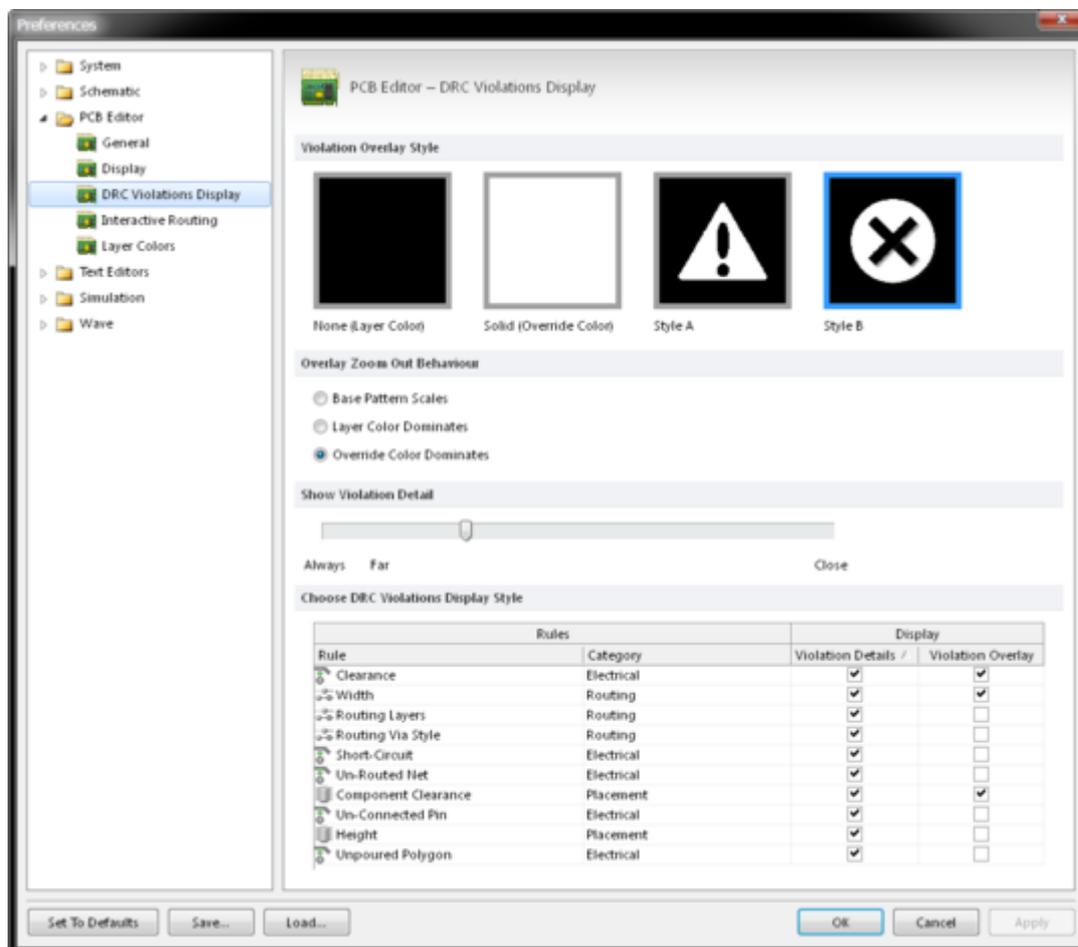
Modified by Rob Evans on Oct 3, 2014

Related Information

[PCB Rules and Violations panel](#)

[View Configurations dialog](#)

Parent page: [PCB Preferences](#)



The PCB Editor - DRC Violations Display page of the *Preferences* dialog.

Summary

The **PCB Editor - DRC Violations Display** page of the *Preferences* dialog provides a range of controls that determine the visual functionality of the DRC Violations Display feature within the PCB workspace.

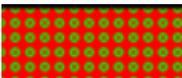
Access

The **PCB Editor - DRC Violations Display** page is part of the main *Preferences* dialog (**File | System Preferences...**) and is accessed by clicking the **DRC Violations Display** entry under the **PCB Editor** folder, in the left hand pane of the dialog.

Options/Controls

Violation Overlay Style

Select the visual overlay style to specify how violations appear in the PCB workspace. The example images in the table below illustrate the result of a Width Rule violation for routed track on the Top Layer.

Overlay Style	Description	Example
None	The DRC override color is ignored, leaving the default layer color visible only. (The Top Layer in the example)	
Solid	The DRC override color is used, totally overriding the default layer color. (See note below).	
Style A	The DRC override color is used in the display of an exclamation-type pattern, leaving the default layer color also visible.	
Style B	The DRC override color is used in the display of a cross-type pattern, leaving the default layer color also visible. (This is the default override pattern).	

The override color (the color associated with the display of a violation overlay) is that defined for the DRC Error Markers system color, on the **Board Layers and Colors** tab of the [View Configurations](#) dialog..

Overlay Zoom Out Behavior

These options determine how the overlay displays when you zoom out. For example, you can elect to have the override color become more dominant the further you zoom out, until the layer color is not noticeable, and vice-versa. Play with the options available to find the setting that best suits your needs and working preference.

Show Violation Detail

This option determines the zoom point at which the custom violation graphics for a violated design rule will be displayed. Setting the slider bar more towards **C**lose will result in the violation details appearing when you are more 'zoomed in'. Conversely, to keep the details visible while zooming out to a greater extent, set the slider bar more towards **F**ar. To keep the violation details displayed, irrespective of zoom level, set the slider bar to **A**lways.

Show Violation Detail

Always Far

Close

Experiment with the Violation Detail slider and Zoom Out Behavior settings for the most suitable DRC Violation display.

Choose DRC Violations Display Style

This region presents a grid allowing you to choose the display style used, on a per-rule basis.

- Enabling the **Violation Details** field for a rule type will use the associated custom violation graphics to display the DRC violations of that rule.
- Enabling the **Violation Overlay** field will display the violations using the specified overlay style.
- Using the two display types together can prove useful in terms of providing a 'coarse' and 'fine' indication of violations. When zoomed out, the overlay can flag where a violation exists, then zoom in to view the detail delivered by the associated custom violation graphic.

Right-click on a Rule type for a context menu to quickly enable or disable use of a violation display type for all rule types. You can also quickly enable the display of violations - detailed graphics or overlay styles - for only those rules currently being used in the design.

Choose DRC Violations Display Style

Rules		Display	
Rule	Category	Violation Details /	Violation Overlay
Clearance		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Width		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Routing Layers		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Routing Via Style		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Short-Circuit		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Un-Routed Net		<input checked="" type="checkbox"/>	<input type="checkbox"/>
SMD To Corner		<input type="checkbox"/>	<input type="checkbox"/>
Component Clearance		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fabrication Testpoint		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fabrication Testpoint Usage	Testpoint	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Use the grid and related commands to set up exactly how DRC violations will be displayed in the workspace.

By default, the **Violation Details** display option is enabled for all rule types and the **Violation Overlay** display option is enabled only for *Clearance*, *Width* and *Component Clearance* rules.

Using the two display types together can prove useful in terms of providing a 'coarse' and 'fine' indication of violations. When zoomed out, the violation overlay can flag where a violation exists, then zoom in to view the detail delivered by the associated custom violation graphic.

Source URL:

[http://documentation.circuitmaker.com/display/CMAK/PCB_Dlg-DRCOptionsFrame\(\(PCB+Editor++DRC+Violations+Dis](http://documentation.circuitmaker.com/display/CMAK/PCB_Dlg-DRCOptionsFrame((PCB+Editor++DRC+Violations+Dis)

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