



Introduction

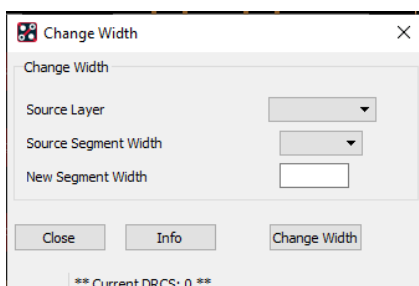
In some instances users may well setup Constraint Manager with a specific line width for your PCB and then route the board using this constraint. After a design review it may be decided that the design intent is incorrect and the line widths need to be changed (either increased or decreased). This technical note describes a couple of ways to make this change without unrouting everything and starting again.

Line Width change

For small changes use the pre-select mode. Enable Etch Edit as the Application Mode (from Setup > Application Modes > Etch Edit). Then hover over the cline(s) you wish to change. You can also use the TAB key to cycle through what is pre-selected. When the relevant cline(s) are highlighted use right click > Change Width then type in the value of the new width. If this new value is outside of the min/max values set in Constraint Manager, physical, you may invoke a DRC Marker. Adjust the values in Constraint Manager to suit.

For “bulk” changes, use the menu entries. Zoom out so that the entire board is in view. From the menu pick Edit > Change (Allegro) or Edit > Change Objects (OrCAD). In the Options pane, select required the Class and Sub-Class, such as Etch\Top, check the box for Line Width, specify the new Line width value, this will be in design units. On the Find tab, left click on “All Off” and then check the boxes for “Clines” and “Cline Segs”, Connect Lines and Connect Line Segments. Move the mouse onto the design canvas and left-Click and drag a box around the entire board, right click > Done to effect the changes. If this is new value is outside of the min/max values in Constraint Manager you may invoke a DRC Marker. Adjust the values in Constraint Manager to suit. Also beware of setting excessive widths, such as specifying 20 when the design units are mm, this may cause the tool to spend quite some time working on the change!

There is also a skill file called cwidth.il (available on request) that does slightly automate this process. To run the skill file make sure it is loaded (see Adding Skill Routines technical note) then type cwidth at the command line. The following GUI will appear:-



Specify the Source layer, source segment width and new segment then click on Change Width. This changes all clines on the source layer to the new width. As with the other methods if this is new value is outside of the min/max values in Constraint Manager you may invoke a DRC Marker. Adjust the values in Constraint Manager to suit.

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