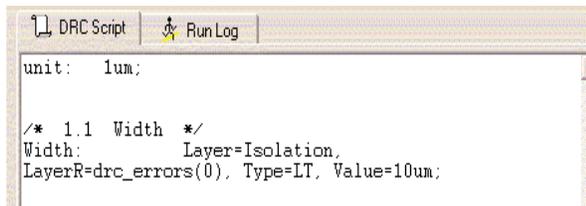


Hints, Tips and Solutions

Sherry Rauen, Applications and Support Engineer

Q: After I create my round curve and run a DRC check on my design, it comes up with hundreds of errors associated with curves. For example, I have the layer named Isolation in the shape of a rectangle with rounded corners; the curves have been designed such that the outer and inner curves are concentric. The DRC then needs to check that the width of the feature is not less than 10um all the way around (shown in Figure 1). After the DRC script is run, it finds errors around the curves as the curves are approximated with straight lines (shown Figure 2). How can I solve this problem?



```
unit: 1um;

/* 1.1 Width */
Width: Options=(O,D), Layer=Isolation,
LayerR=drc_errors(0), Type=LT, Value=10um;
```

Figure 1. DRC Script.

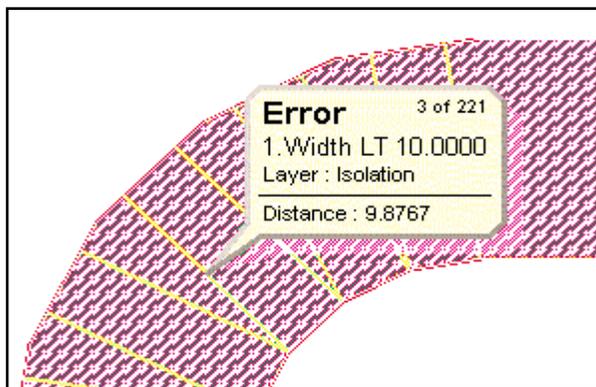
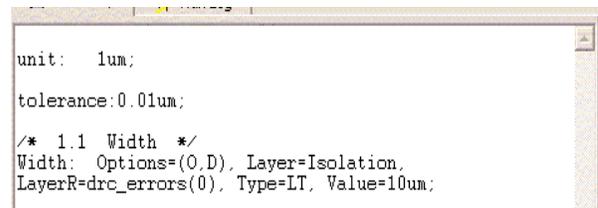


Figure 2. Curve Shape with DRC Error.

A: First of all, you need to create the better curve with larger vertex value, small grid, and polygonized object. If you go to Setup->Technology->General->Vertex Value = 100, the round corner will be drawn in much more smooth shape. Then if you setup grid as small as possible, select the object, and go to Tools -> Polygonize, all vertices will snap to the grid, and the round corner is converted into polygon.

Second, before we run DRC script on round curve, we need to add the command on DRC script. Any curve with concentric outer and inner curves will not get perfectly width 10um with any layout tools. In order to avoid to get some faulted errors, we have to set the tolerance command into DRC script to pass DRC. As shown in Figure 3, I add tolerance:0.01um into DRC script. After running the new script, we get DRC error free on curved object as shown in Figure 4.



```
unit: 1um;

tolerance:0.01um;

/* 1.1 Width */
Width: Options=(O,D), Layer=Isolation,
LayerR=drc_errors(0), Type=LT, Value=10um;
```

Figure 3. The new DRC script with added tolerance command.

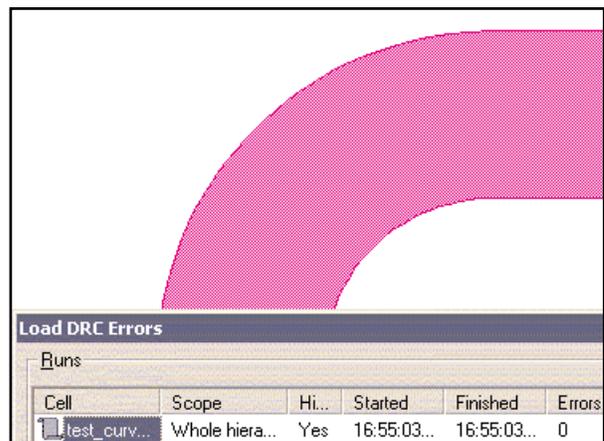


Figure 4 The new round corner curve with DRC error free.

Call for Questions

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