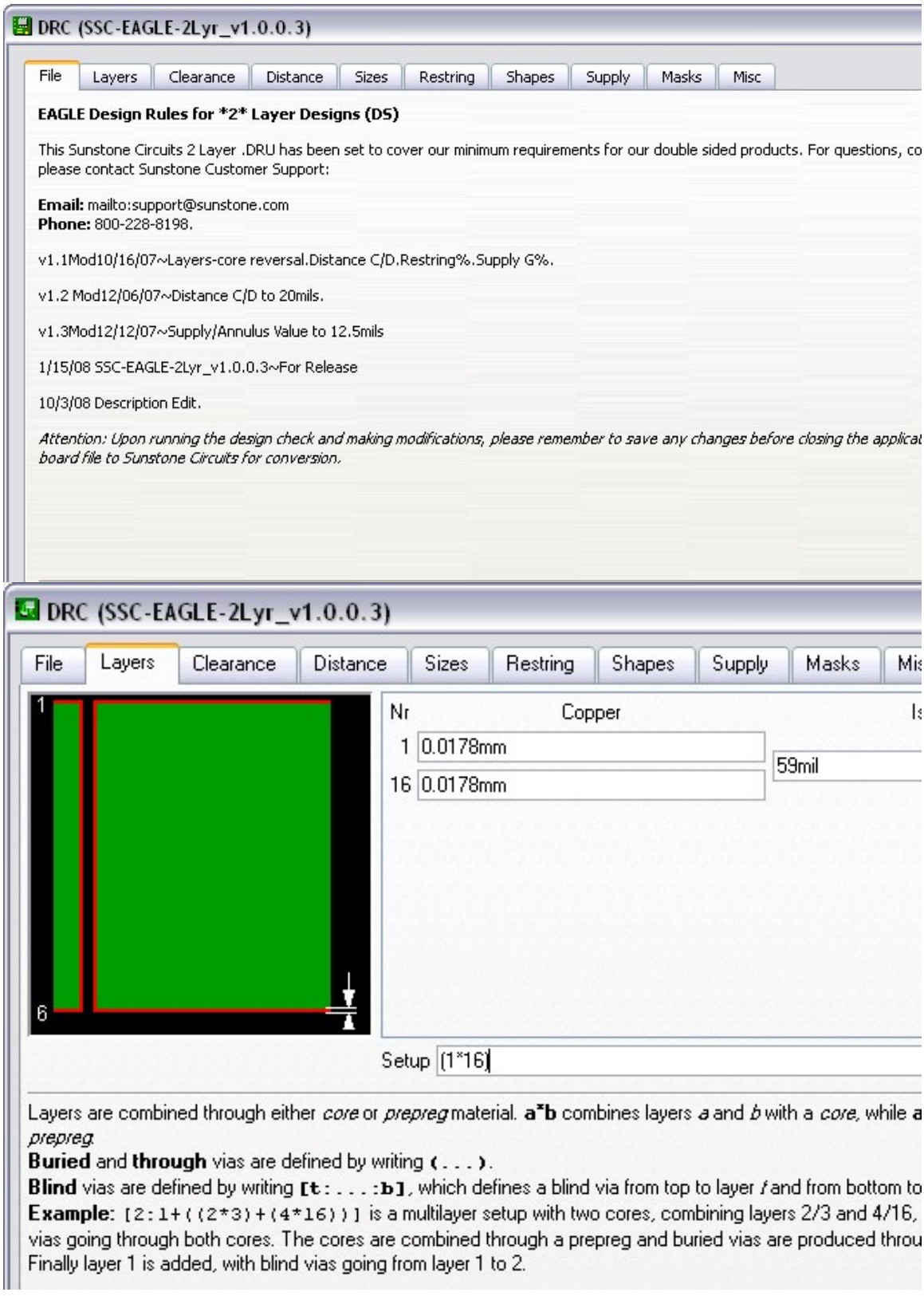
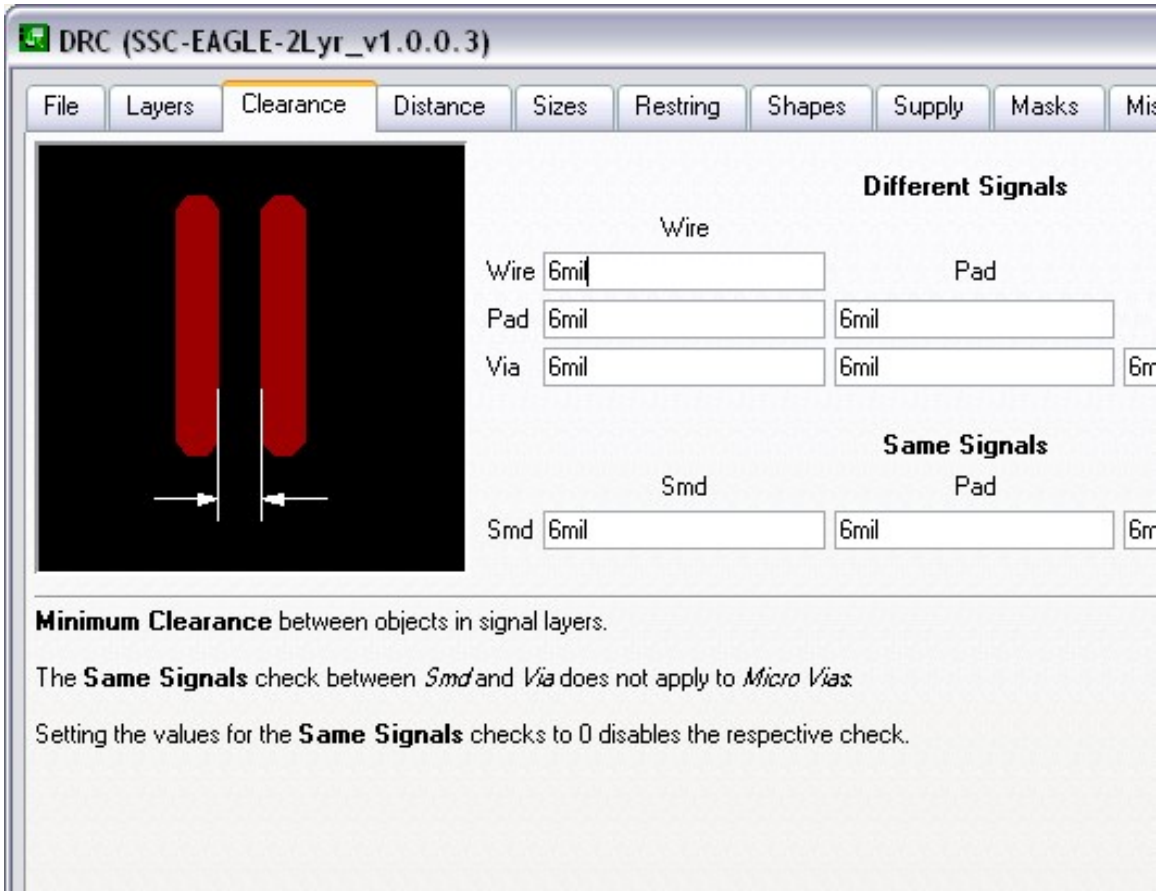
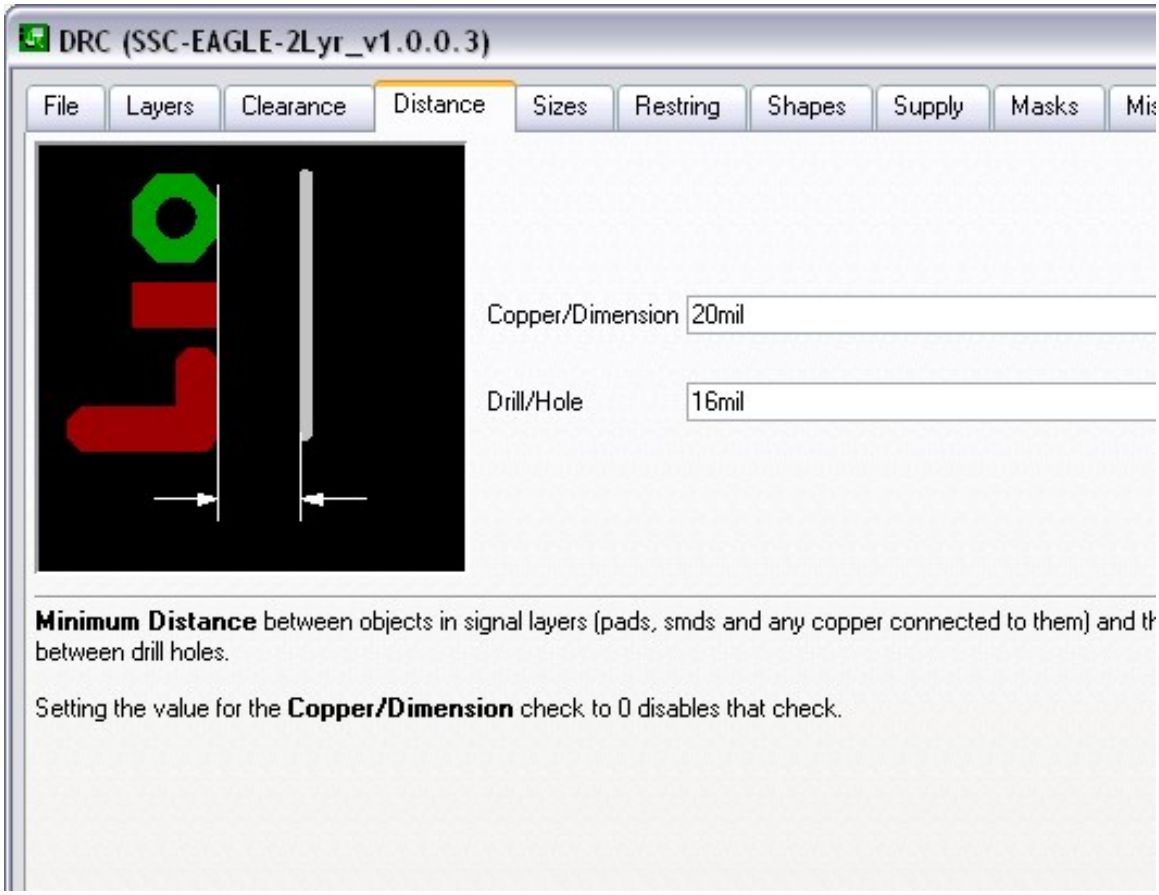
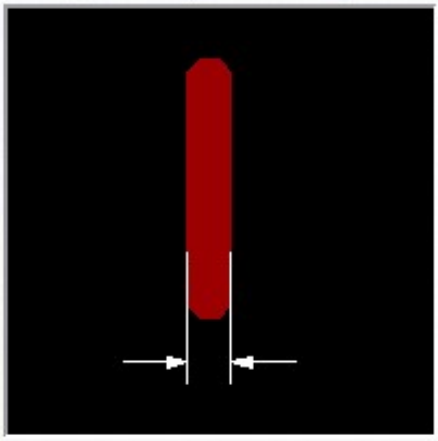

DRC (SSC-EAGLE-2Lyr_v1.0.0.3)
File
Layers
Clearance
Distance
Sizes
Restring
Shapes
Supply
Masks
Misc
EAGLE Design Rules for *2* Layer Designs (DS)
This Sunstone Circuits 2 Layer .DRU has been set to cover our minimum requirements for our double sided products. For questions, co
please contact Sunstone Customer Support:
Email: mailto:support@sunstone.com
Phone: 800-228-8198.
v1.1Mod10/16/07~Layers-core reversal.Distance C/D.Restring%.Supply G%.
v1.2 Mod12/06/07~Distance C/D to 20mils.
v1.3Mod12/12/07~Supply/Annulus Value to 12.5mils
1/15/08 SSC-EAGLE-2Lyr_v1.0.0.3~For Release
10/3/08 Description Edit.
Attention: Upon running the design check and making modifications, please remember to save any changes before closing the applicat
board file to Sunstone Circuits for conversion.
DRC (SSC-EAGLE-2Lyr_v1.0.0.3)
File
Layers
Clearance
Distance
Sizes
Restring
Shapes
Supply
Masks
Mis
1
6
Nr
Copper
Is
1
0.0178mm
16
0.0178mm
59mil
Setup
(1*16)
Layers are combined through either core or prepreg material. a*b combines layers a and b with a core, while a
prepreg.
Buried and through vias are defined by writing (...).
Blind vias are defined by writing [t:...:b], which defines a blind via from top to layer t and from bottom to
Example: [2:1+((2*3)+(4*16))] is a multilayer setup with two cores, combining layers 2/3 and 4/16,
vias going through both cores. The cores are combined through a prepreg and buried vias are produced throu
Finally layer 1 is added, with blind vias going from layer 1 to 2.


DRC (SSC-EAGLE-2Lyr_v1.0.0.3)
File
Layers
Clearance
Distance
Sizes
Restring
Shapes
Supply
Masks
Different Signals
Wire
Pad
Wire 6mil
Pad 6mil 6mil
Via 6mil 6mil
Same Signals
Smd
Pad
Smd 6mil 6mil
Minimum Clearance between objects in signal layers.
The Same Signals check between Smd and Via does not apply to Micro Vias.
Setting the values for the Same Signals checks to 0 disables the respective check.


DRC (SSC-EAGLE-2Lyr_v1.0.0.3)
File
Layers
Clearance
Distance
Sizes
Restring
Shapes
Supply
Masks
Copper/Dimension
20mil
Drill/Hole
16mil
Minimum Distance between objects in signal layers (pads, smds and any copper connected to them) and th
between drill holes.
Setting the value for the Copper/Dimension check to 0 disables that check.

DRC (SSC-EAGLE-2Lyr_v1.0.0.3)

File | Layers | Clearance | Distance | Sizes | Restring | Shapes | Supply | Masks | Mis



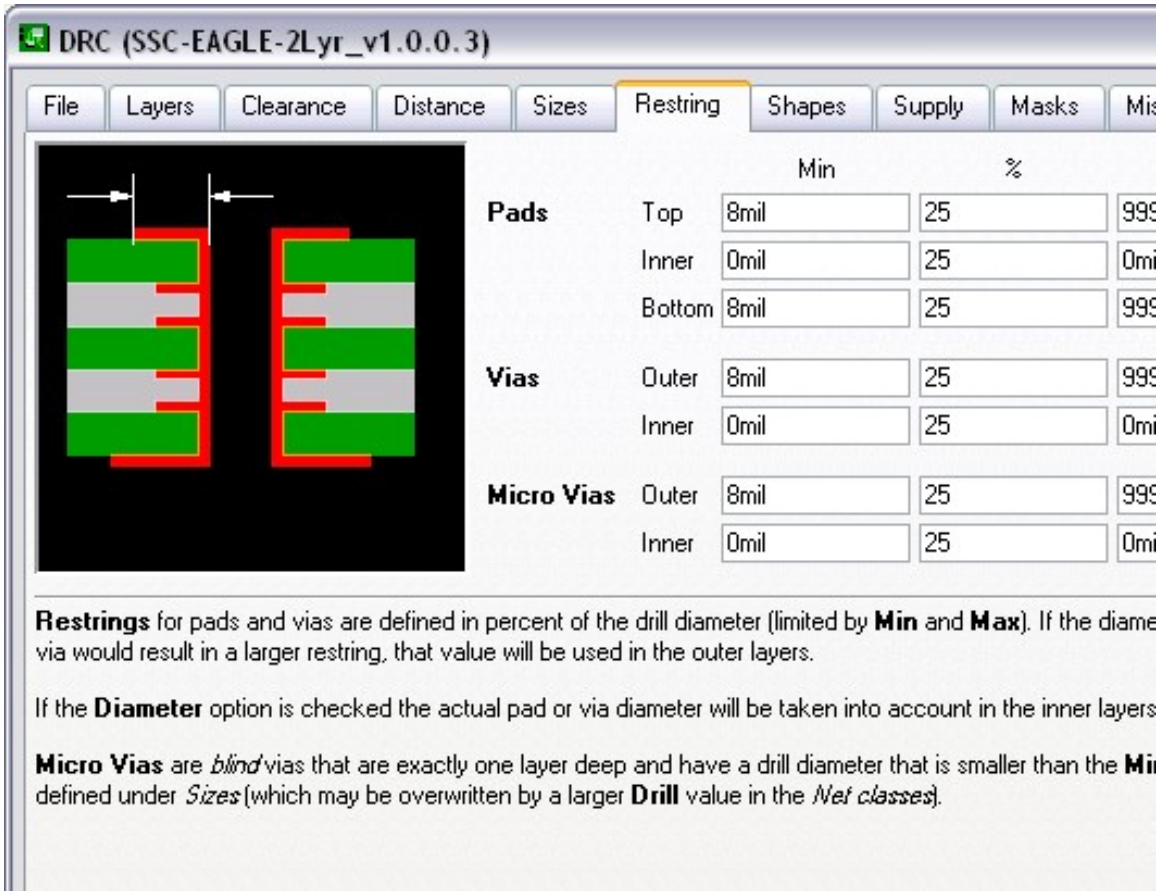
Minimum Width	6mil
Minimum Drill	14mil
Min. Micro Via	9.9898mm
Min. Blind Via Ratio	0.5

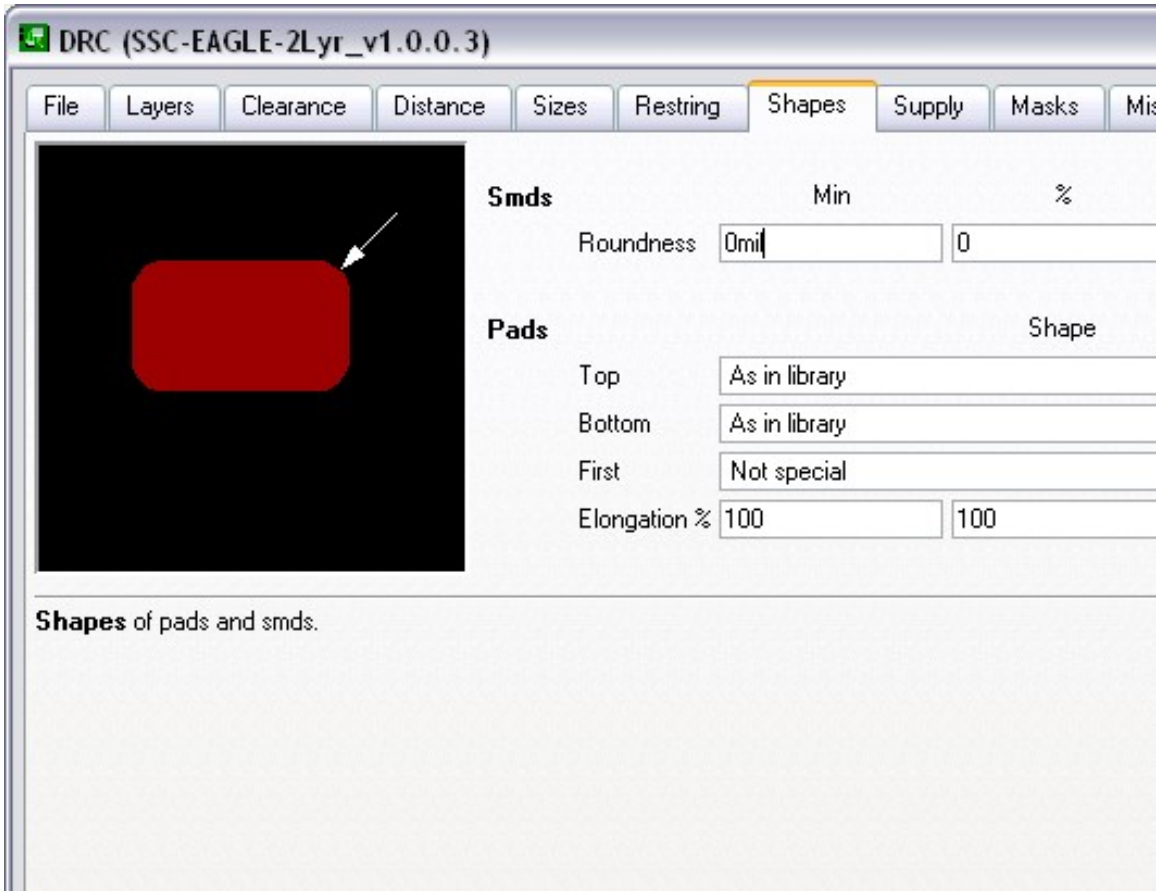
Minimum Sizes of objects in signal layers and of drill holes.

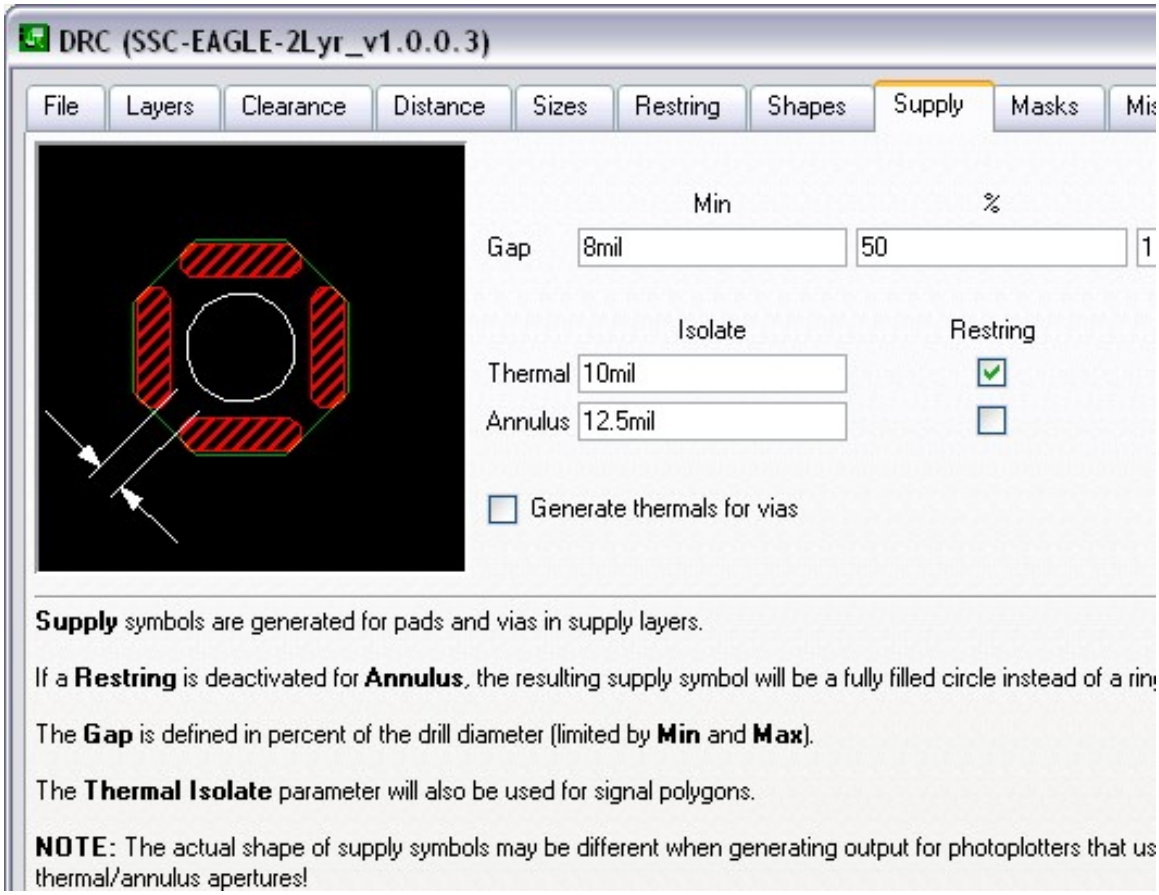
Minimum Width and **Minimum Drill** may be overwritten by larger values in the *Net classes* for specific sign

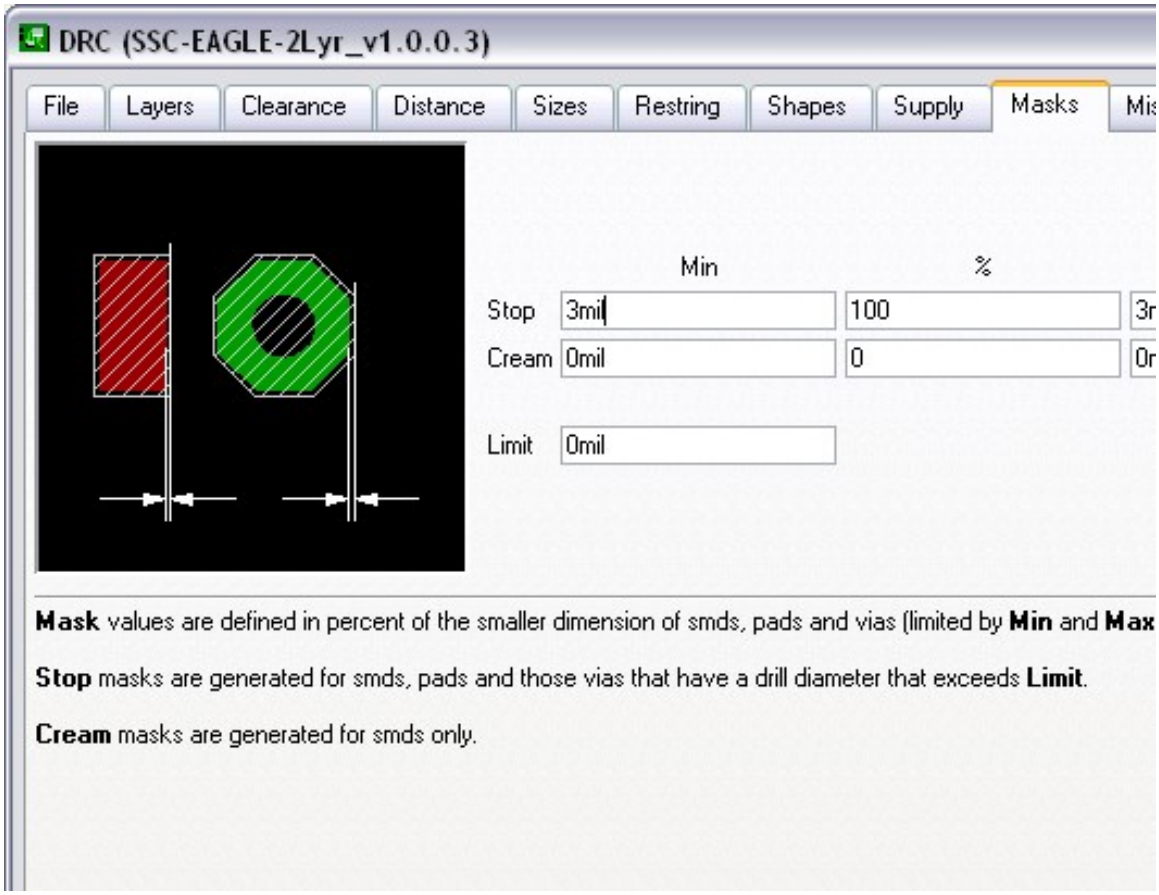
Min. Micro Via applies to *blind* vias that are exactly one layer deep. Typical values are in the range 50..100 than **Minimum Drill** (e.g. the default value of 9.99mm) means there are no micro vias.

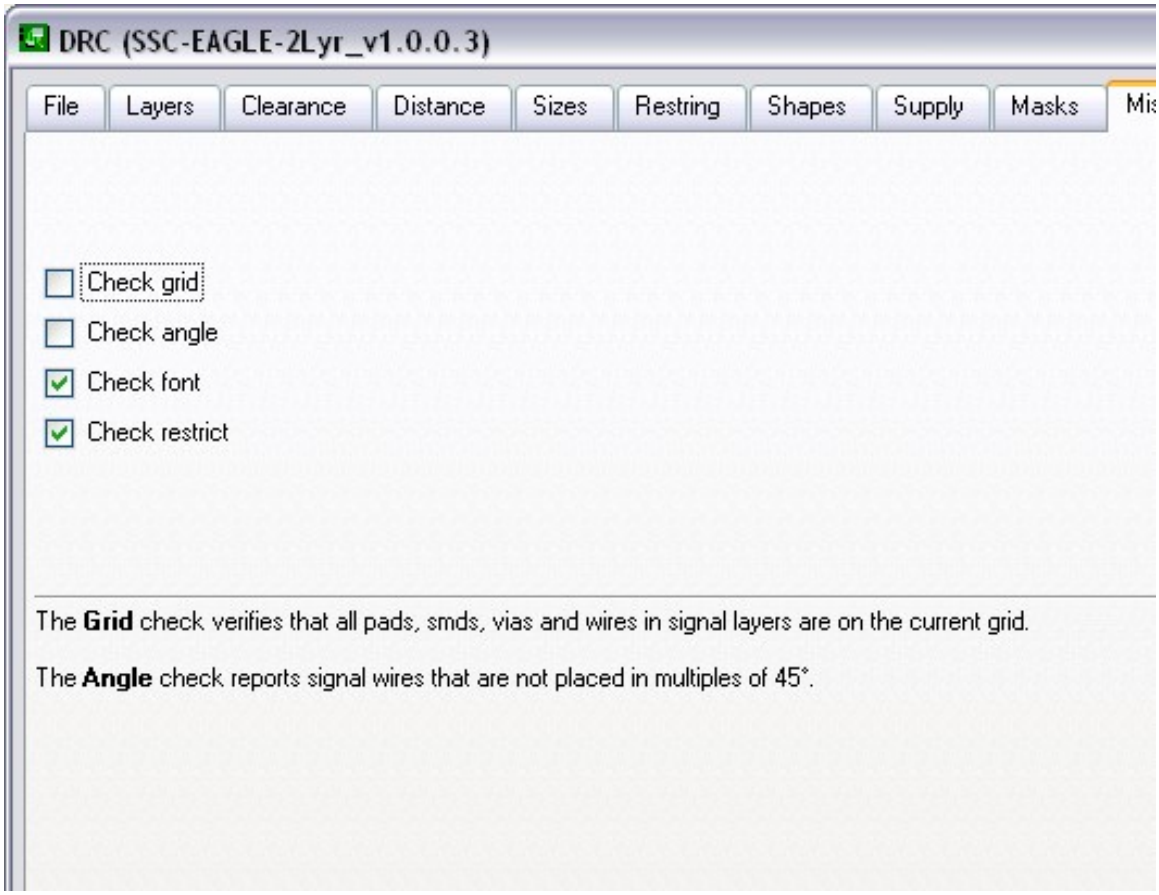
Min. Blind Via Ratio defines the minimum drill diameter *d* a blind via must have if it goes through a layer of t manufacturers usually give this "aspect ratio" in the form **1:0.5**, where 0.5 would be the value that has to b


DRC (SSC-EAGLE-2Lyr_v1.0.0.3)
File
Layers
Clearance
Distance
Sizes
Restring
Shapes
Supply
Masks
Min
%
Pads
Top
8mil
25
Inner
0mil
25
Bottom
8mil
25
Vias
Outer
8mil
25
Inner
0mil
25
Micro Vias
Outer
8mil
25
Inner
0mil
25
Restrings for pads and vias are defined in percent of the drill diameter (limited by Min and Max). If the diame
via would result in a larger restring, that value will be used in the outer layers.
If the Diameter option is checked the actual pad or via diameter will be taken into account in the inner layers
Micro Vias are blind vias that are exactly one layer deep and have a drill diameter that is smaller than the Mi
defined under Sizes (which may be overwritten by a larger Drill value in the Net classes).


DRC (SSC-EAGLE-2Lyr_v1.0.0.3)
File
Layers
Clearance
Distance
Sizes
Restring
Shapes
Supply
Masks
Smds
Min
%
Roundness
0mil
0
Pads
Shape
Top
As in library
Bottom
As in library
First
Not special
Elongation %
100
100
Shapes of pads and smds.


DRC (SSC-EAGLE-2Lyr_v1.0.0.3)
File
Layers
Clearance
Distance
Sizes
Restring
Shapes
Supply
Masks
Min
%
Gap
8mil
50
Isolate
Restring
Thermal
10mil
Annulus
12.5mil
Generate thermals for vias
Supply symbols are generated for pads and vias in supply layers.
If a Restring is deactivated for Annulus, the resulting supply symbol will be a fully filled circle instead of a ring
The Gap is defined in percent of the drill diameter (limited by Min and Max).
The Thermal Isolate parameter will also be used for signal polygons.
NOTE: The actual shape of supply symbols may be different when generating output for photoplotters that us
thermal/annulus apertures!


DRC (SSC-EAGLE-2Lyr_v1.0.0.3)
File
Layers
Clearance
Distance
Sizes
Restring
Shapes
Supply
Masks
Min
%
Stop
3mil
100
Cream
0mil
0
Limit
0mil
Mask values are defined in percent of the smaller dimension of smds, pads and vias (limited by Min and Max
Stop masks are generated for smds, pads and those vias that have a drill diameter that exceeds Limit.
Cream masks are generated for smds only.


DRC (SSC-EAGLE-2Lyr_v1.0.0.3)
File
Layers
Clearance
Distance
Sizes
Restring
Shapes
Supply
Masks
Mis
Check grid
Check angle
Check font
Check restrict
The Grid check verifies that all pads, smds, vias and wires in signal layers are on the current grid.
The Angle check reports signal wires that are not placed in multiples of 45°.