

Rhino Nesting Plugin Tutorial

Digital Media Tutorial
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Rhino Nest Allows you to nest a series of 2D closed profiles onto a 2d Sheet. These nested parts can then be cut on the laser cutter, waterjet, or the CNC mills.

Step One:

Open Rhino and create or import the 2d profiles you wish to nest.

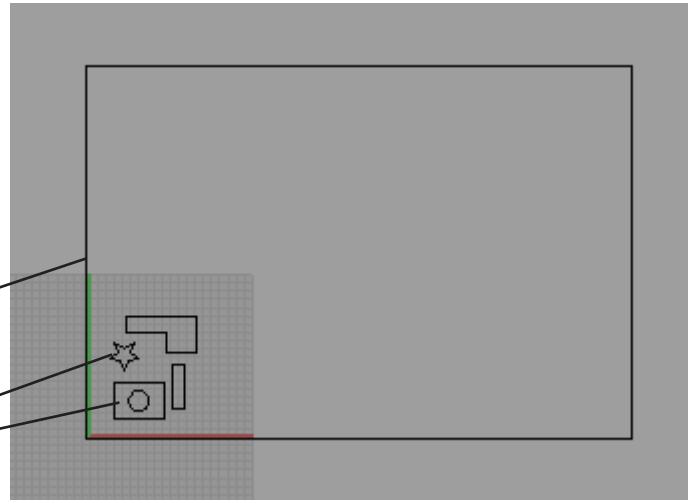
Make sure all of your profiles are flat in the top view.

In the top view, draw the size of the sheet sheet you want to nest the files into.

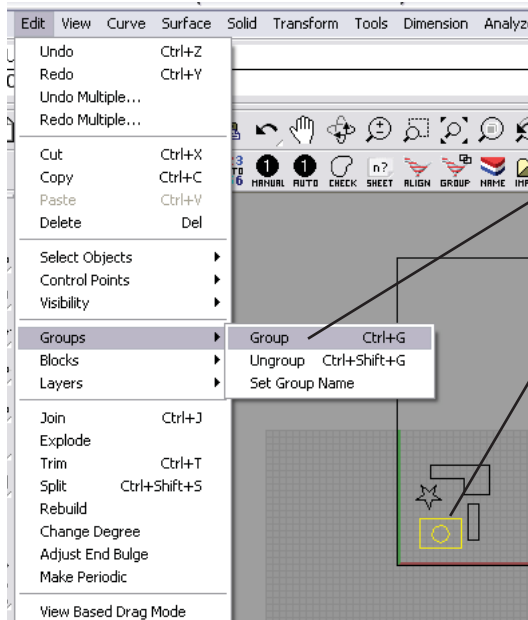
Note: the profiles and sheet need to be at 1:1 Scale

Sheet

Individual Profiles



Step Two:



If you have complex profiles that have holes or other closed shapes inside other closed shapes, these complex profiles will need to be grouped.

To group a series of profiles together, select all of the profiles to be grouped, and select: Edit>Groups>Group

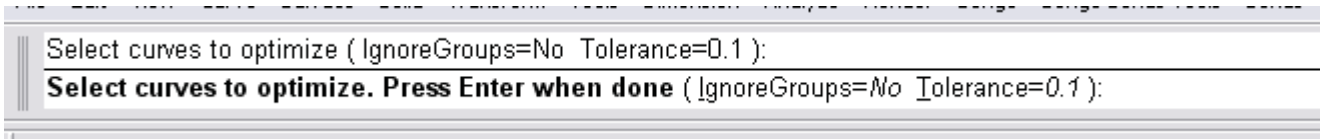
This will allow Rhino Nest to Nest this part as a single object.

Step Three:

Click on the Rhino Nest Tool icon.
(typically located at the top)

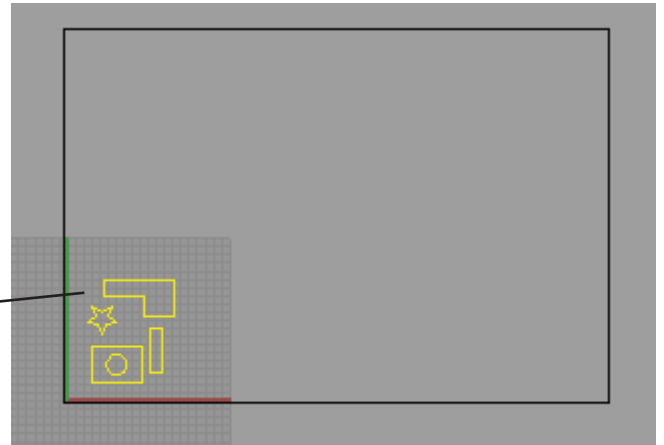


In the Prompt window, the following command appears:



Select the Curves to Nest (Optimize).
In the options, make sure Ignore Groups is set to NO

Select the Closed curves to nest.
Click Enter to continue.

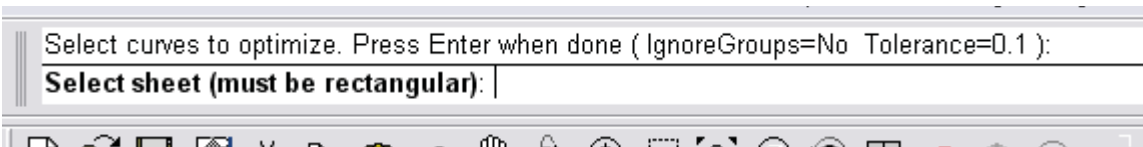


Click on the Rhino Nest Tool icon.
(typically located at the top)

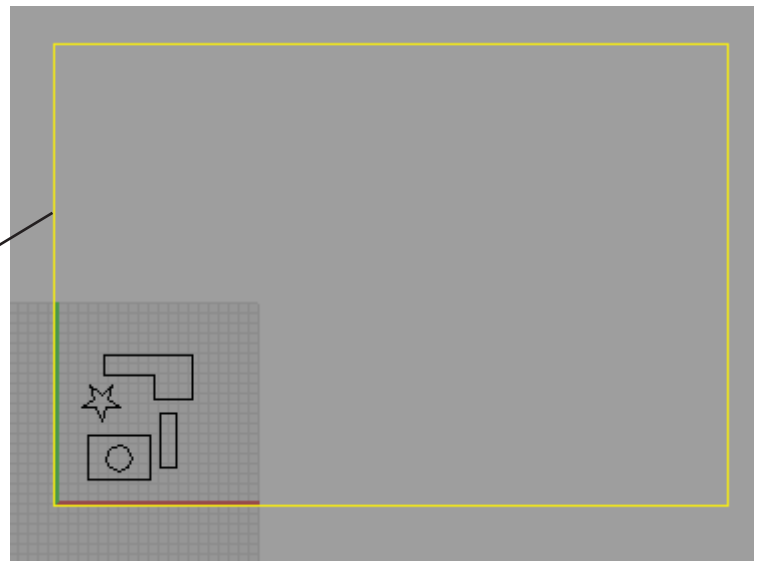
In the Prompt window, the following command appears:

Step Four:

At the Prompt Window, it says to select the sheet. Click on the rectangle that defines the sheet to nest within.



Select the Rectangular Sheet



Step Five:

The Following Settings window appears:

Double Click on Curve to set the number of parts to nest

Set the distance between parts and from sheet edge.
(In this case it is in Millimeters)

Preview of Selected curve

Max Time (sec): this sets how long the plugin
will work on the nesting algorithm.
(Leave at Default if unsure what to set)

Delete Original: Deletes original curves

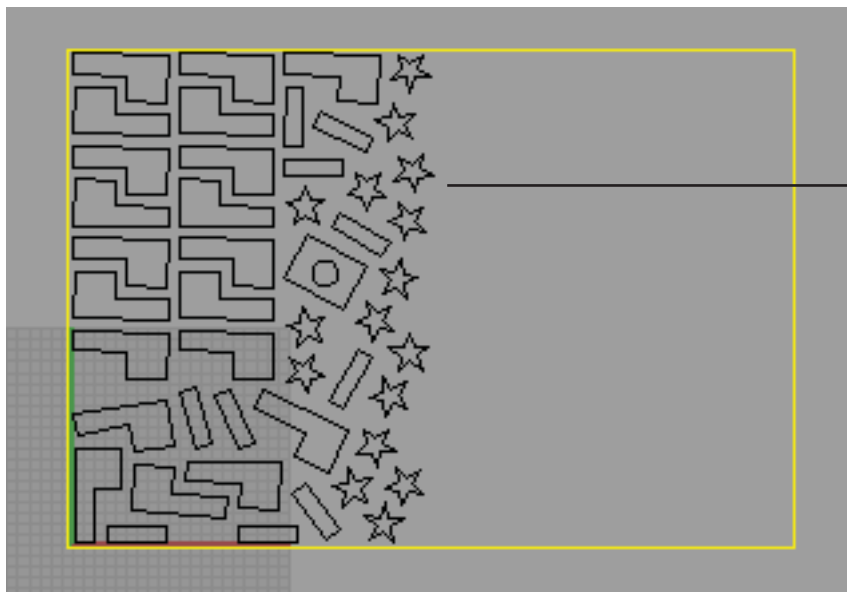
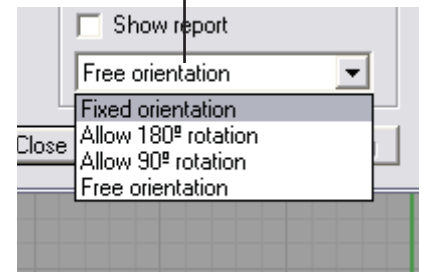
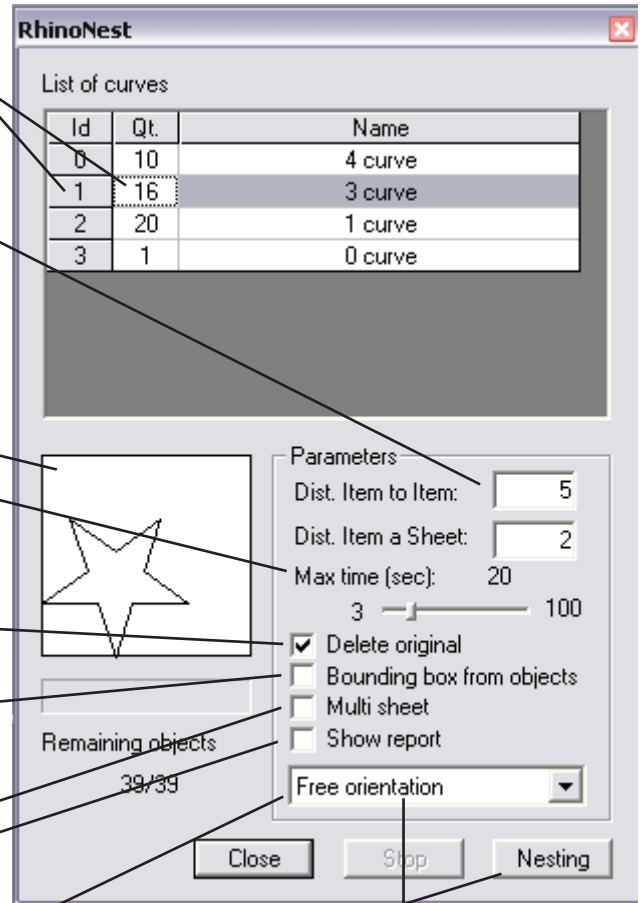
Bounding Box from Objects: Uses a bounding box to
nest parts, less efficient nesting but faster.

MultiSheet: If parts need multiple sheets, will automati-
cally create additional rectangles as needed

Show report: Leave unchecked

Under Free Rotation, you can set how much the objects will
rotate to fit together. this is important if you are cutting your parts
out of wood, where the grain of the material is important.

Click Nesting to Start the nesting Algorithm.



The Completed Nesting Function

You can export this as a DWG file from
Rhino.