

FOR BEGINNERS

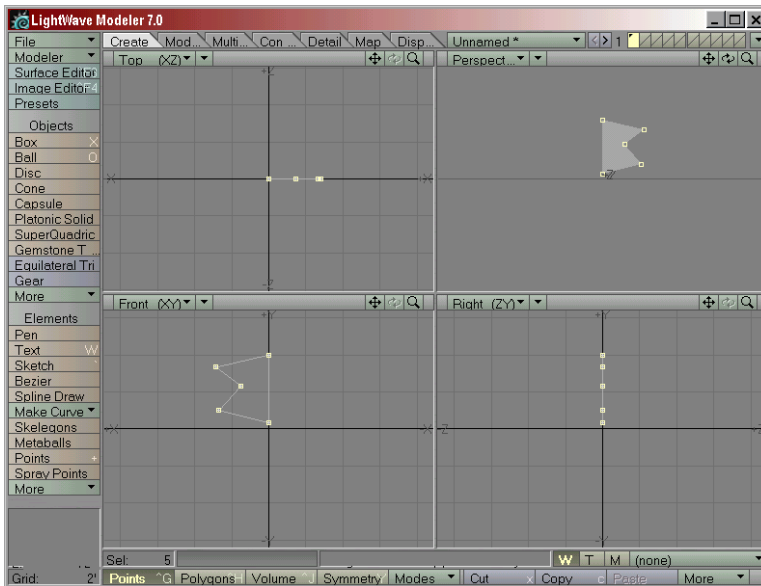
(How to make a wine glass using the lathe tool)

By Kyle Crawford

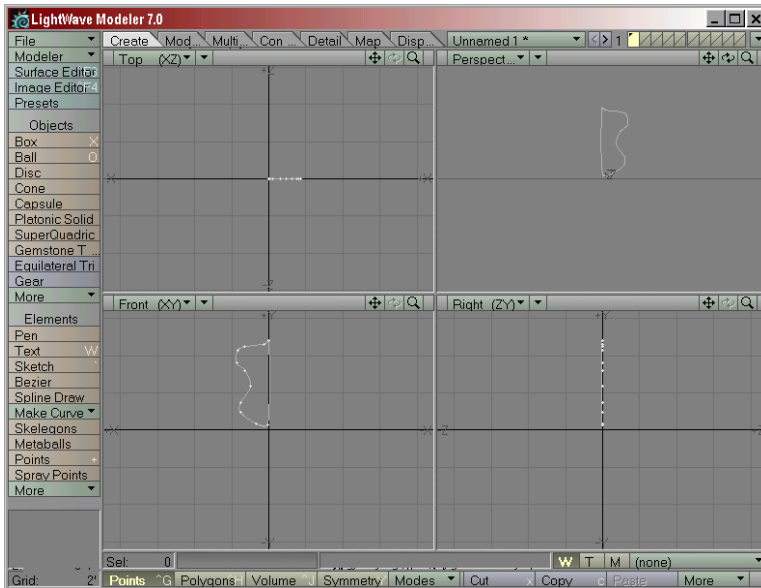
Many familiar with Lightwave know how to use the lathe tool. There are some, however, like myself who need slightly more in-depth instruction. The following is a tutorial for beginners.

1. Getting Familiar

In Lightwave modeler, you can lathe an object with a polygon or a curve. I've created a polygon (fig.1) by using the pen tool and left-clicking to make my points.

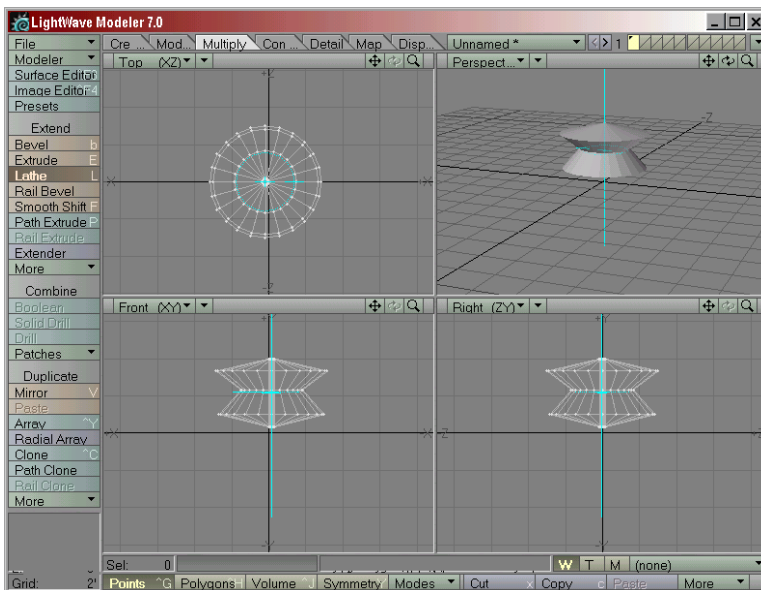


A more organic object can be achieved through making a curve (fig.2) with the sketch tool.



Once done, specific points can be moved or deleted to make your desired shape. An even smarter method is to create points separately (in order from bottom to top or vice versa), then create a polygon.

Now go to the multiply tab and select lathe. Click the left-mouse button next to your object and drag to define the axis direction of your lathe, release the button once finished (fig.3).

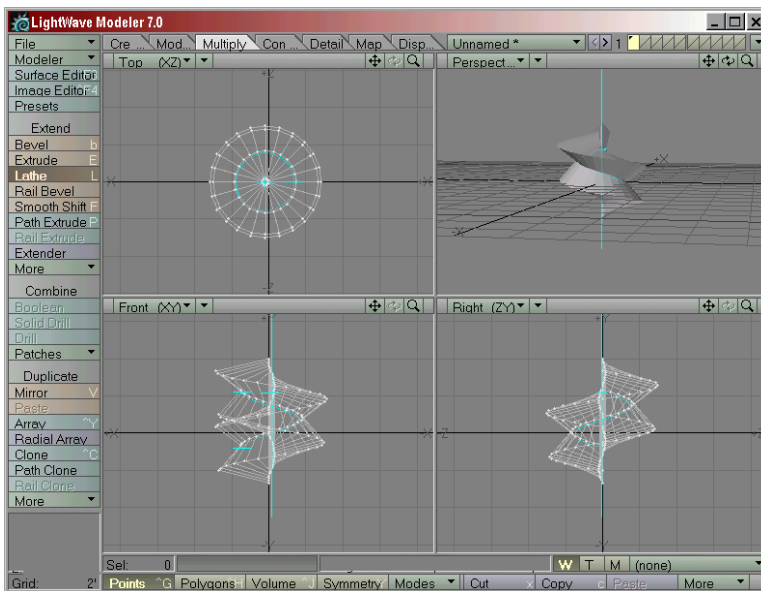


Now click and drag the left mouse-button horizontally to change the width of your object. You can let go and still change the width again, but once you're ready to set the lathe, hit the spacebar.

Pressing “n” will bring up the numeric values of the lathe (fig.4).



Some of the more obvious values to adjust are the number of sides, the axis, and the start & end values that determine whether the lathe is 360 degrees or less. The three middle values control where the lathe center is placed. Of course altering any these values will override your original positioning. The “offset” value is less obvious. Setting the offset value beyond zero will cause the geometry to be progressively pushed up (or down, if negative value) along the lathe axis. This will likely cause a mess. In this case however, by offsetting my object 3 feet, I create a corkscrew (fig.5).

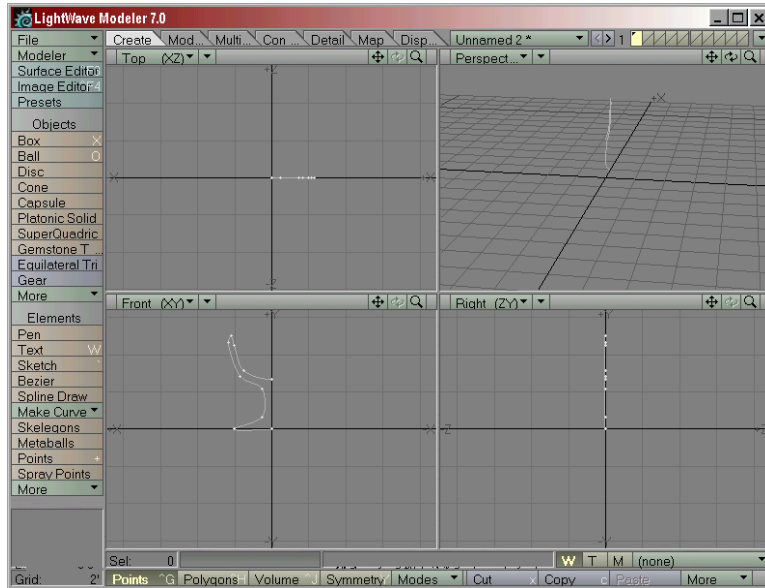


A little experimenting with these steps will help you get familiar with the basics of the lathe operation.

2. Making the Glass

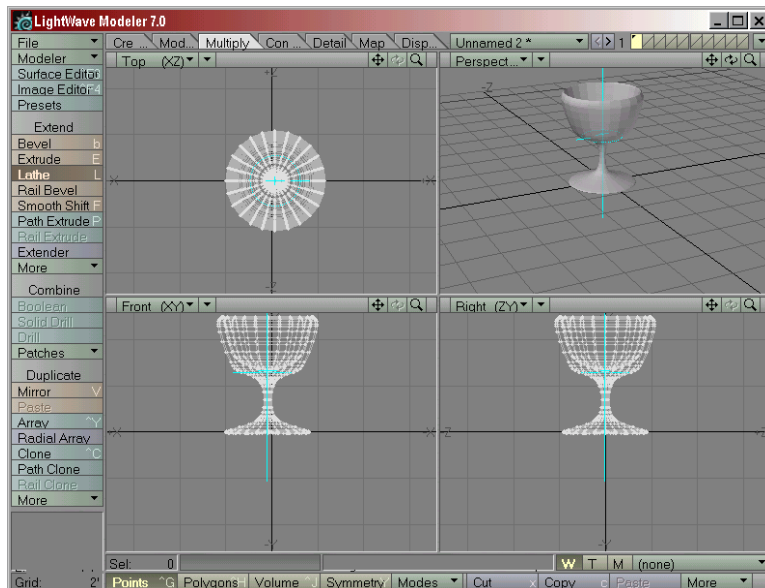
Now we'll make a glass. Start by opening Modeler and zoom in to a realistic size by clicking and dragging on the magnifying glass. Now follow these steps:

1. Draw the shape of a half wine glass (fig.6).



I achieved this by making points, adjusting them and pressing “Make Open Curve”. Keep in mind that the curve will be made in the order that the points are made. Also, make sure your first and last points are on the same vertical line so that you won't have any hole in your glass.

2. Activate the lathe tool just like you practiced (fig.7).



Also, remember you can be more exact by opening the numeric values.

3. Keep in mind that if you originally constructed the curve from the bottom to the top but created the lathe by dragging from the top down, the polygons on your glass will be inside out. If this happens, highlight the whole object and press “f” to flip the polygons the right way. Although it has a quick fix, it’s easier to make the lathe the same direction that you made your curve.
4. Another helpful hint, if you are unhappy with your finished lathe, just hit “u” and it will undo your lathe and bring you back to your original curve.
5. After you finish your lathe, select your whole glass and hit “q” to name it and you’ve completed a custom glass using the lathe tool (fig.8).

