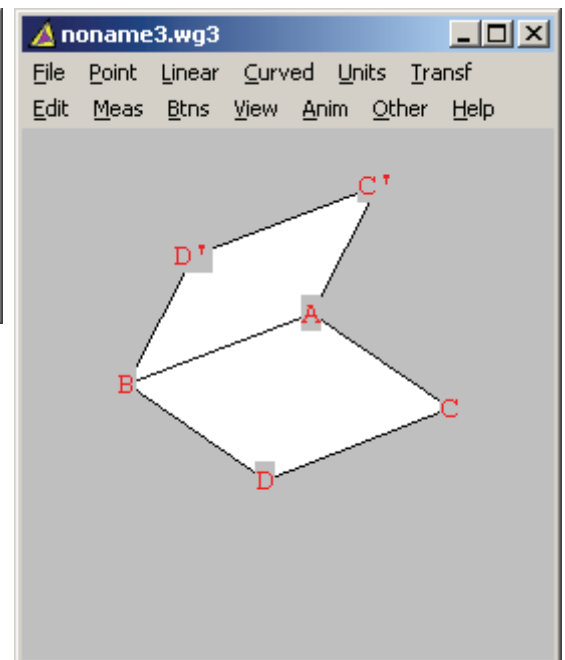
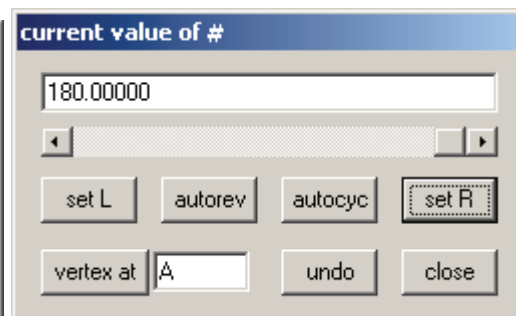
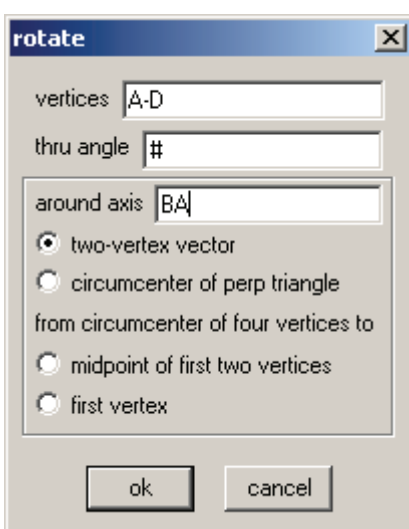
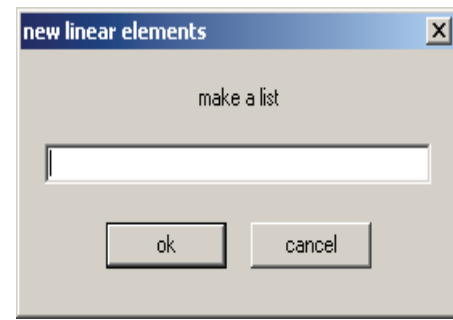
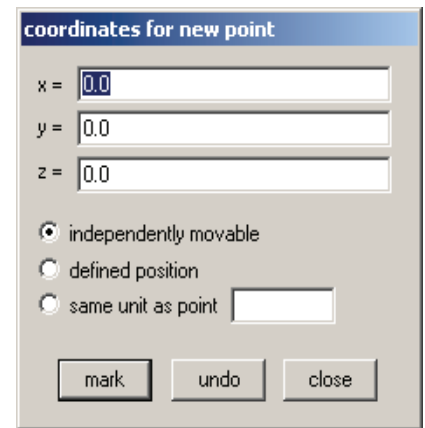


Nets

To show you how to use/create nets in Wingeom its best to start with an explicit example. In this example we will use nets to build a cube.

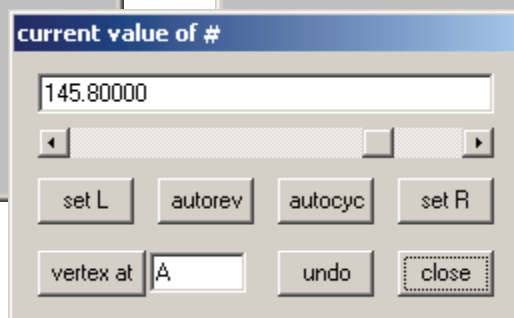
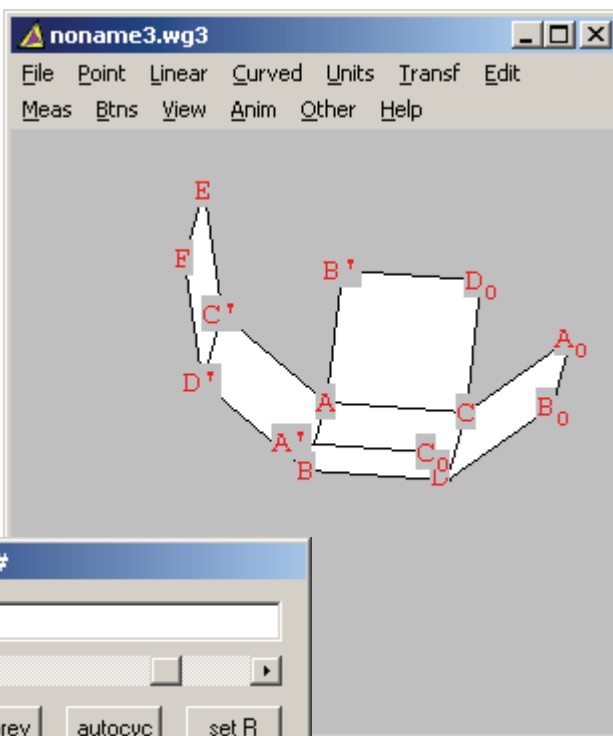
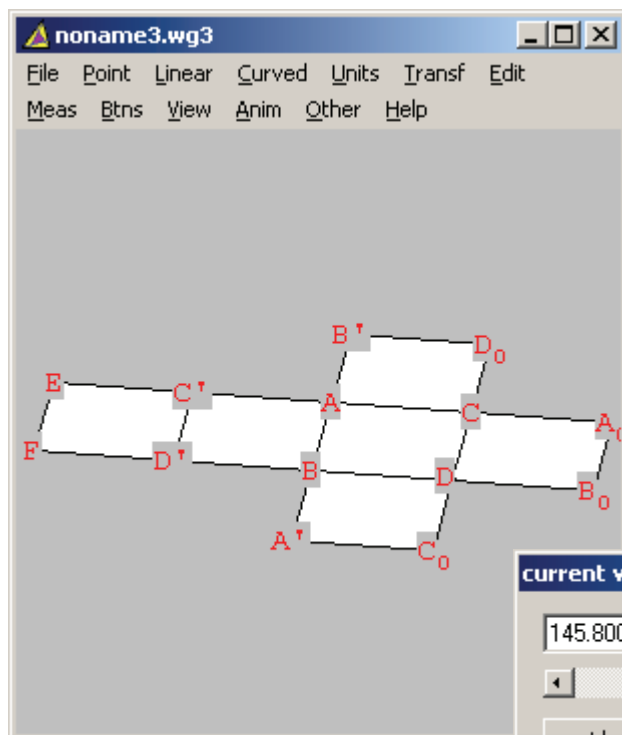
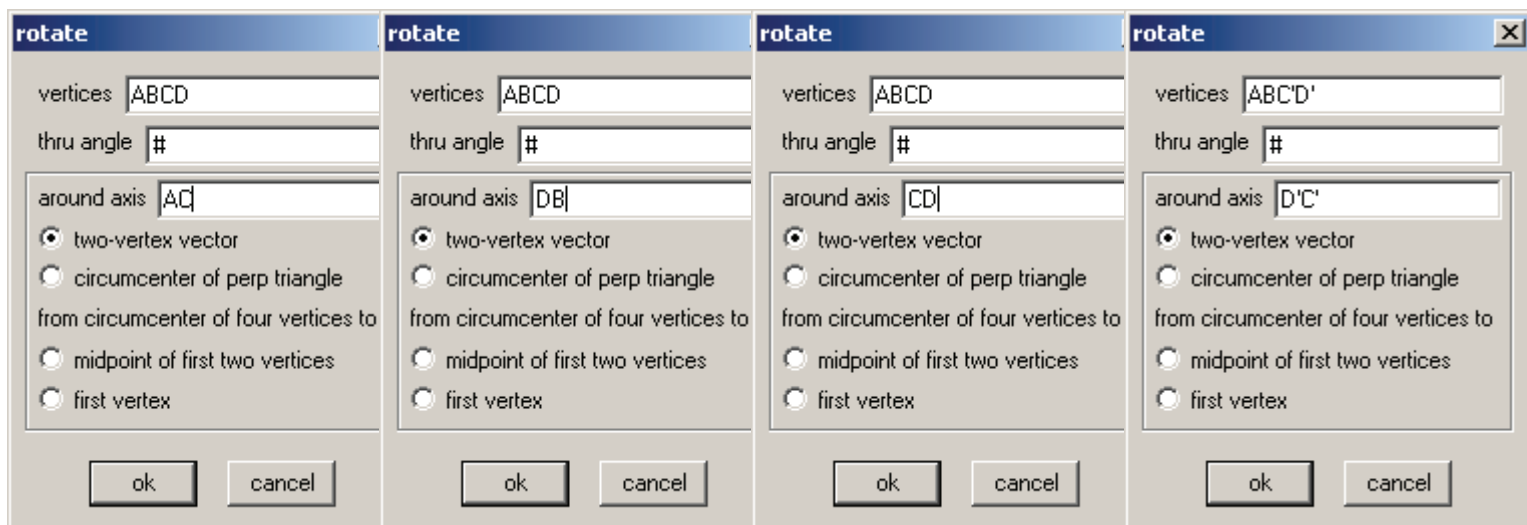
Procedure:

1. First open the Wingeom 3D window.
2. Go to **point-coordinate (absolute)**. Plot the following points: $(0,0,0)$, $(0,1,0)$, $(1,0,0)$, $(1,1,0)$. You must do this individually like in the window to the right and click **mark**.
3. Now that you have the points you will connect them by: **linear-segment or face** then you type in **ABDC** (here the order does matter, try a few different orders to see what happens)
4. Go to **transf-rotation**. Below/left is the window that appears. Mimic the values I have in the window. At first you will not see much of a change just an added square.
5. Now go to **anim- # slider**, you will see the window below/middle. Type in **0** then **set L** and **180** then **set R**. Move the bar to the left and right and see what you get. There is an example of one angle to the below/right.

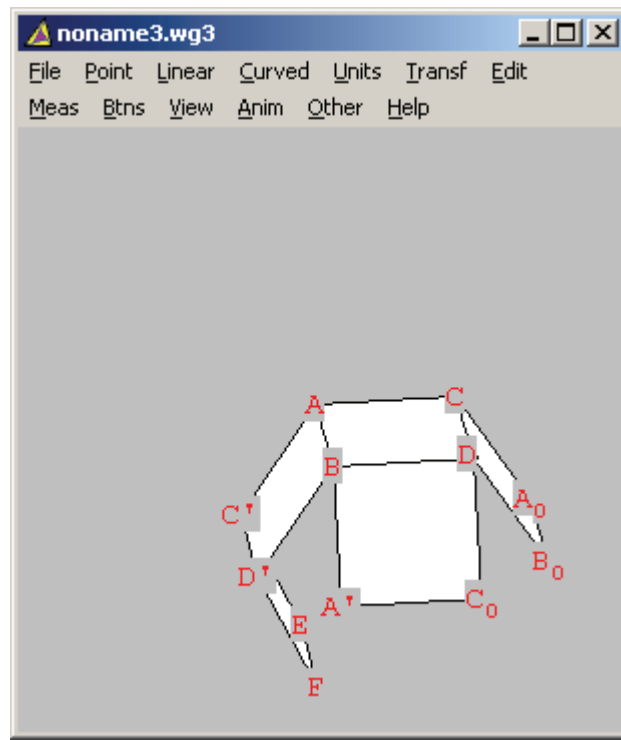
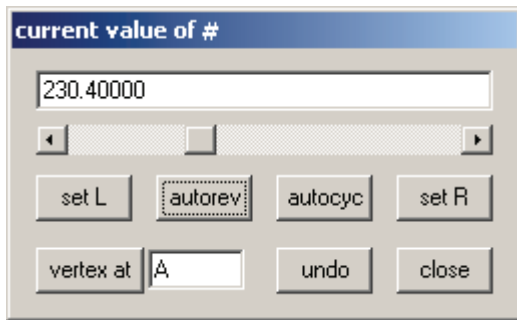


So how does this work? What we are doing is using the “right hand rule” you may be familiar with this from a physics class. We want the object to rotate in like the picture above. As the procedure continues you will get an idea of how this program follows the right hand rule. Now we continue.

6. Here we give you a series of rotations. Again, mimic these to get the figures at the bottom.



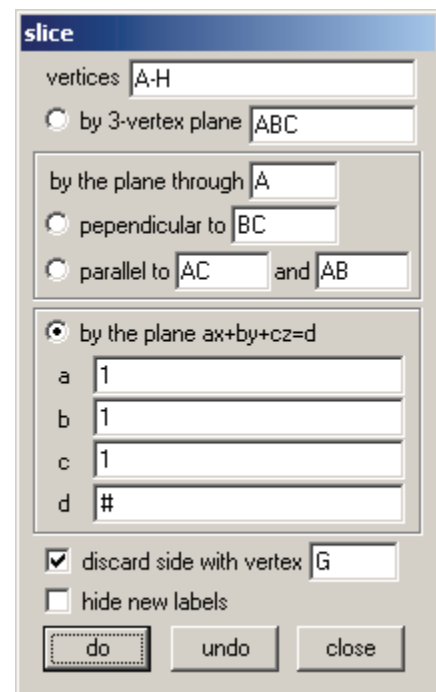
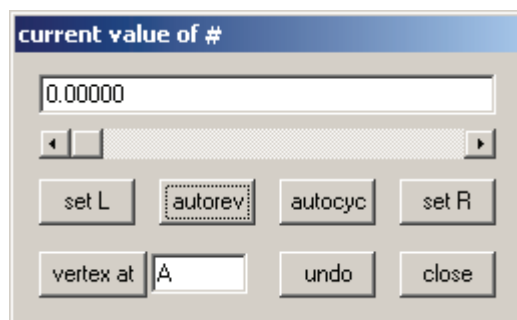
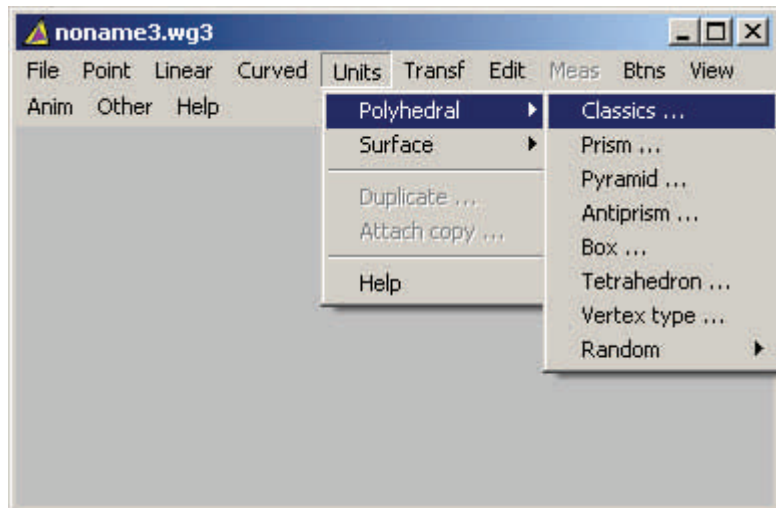
Now that you have the object built try different things with it. Maybe changing the parameters of the slider. For example: If you set the left and right hand limits from 0 to 360 you will see the object curl in the opposite way. See below



Slicing 3D objects

Once again we will show how to do this in Wingeom with an example

1. Open up Wingeom 3D window.
2. Go to **Units-Polyhedral-Classics-regular hexahedron**.
3. To see the labels you can type **ctrl and L**. Make sure you find the point that is (1,1,1). It should be the point on the cube in the center looking right at you! If you do not know how to look at the coordinates go to your toolbar and select **see coordinates**
4. Now that you have your cube we will slice it by the following: **Linear-cutting plane**. The window to the right/below will appear. Please input the same values we have.
5. Notice you have a # sign for the value of d, please go to **anim-#** and set the left and right values at 0 and 3. There is a window to your below for guidance.



Now we will have the following final pictures:

