# HOW TO CREATE A CUSTOM RAFTER TAIL

Creating custom library parts is a very important maneuver to learn in order to tap out the power of ArchiCAD. Use this same technique to create relief build-out around windows, pilasters, unique wall forms, etc.

1. Start a new worksheet and draw the profile of your rafter tail using the Line and Arc tools, taking care to draw the top of your profile at the angle or pitch of your roof.

2. Move the profile so that the top of your tail is on the project origin.
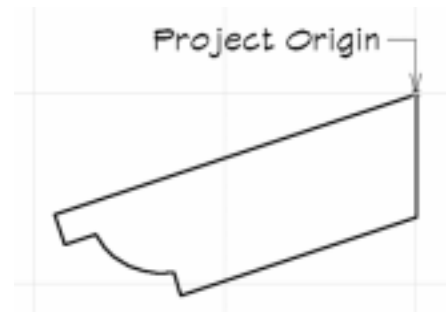
3. "Slabify" your profile using ArchiCAD's "transform" capabilities as follows: double-click on the Slab tool and set the thickness of the slab to be the thickness of your rafter, let's say 3 1/2 inches, and the elevation "to project Zero" to "0." Specify all other settings like model attributes, line color, section attributes, and layer. Press OK.

4. Click on the Magic Wand button (or hold down the Space Bar) and click on the edge of the rafter profile once you have obtained the "Mercedes" cursor. This will transform your 2D profile into the 3D world. Check your tail in the 3D window to verify its existence and accuracy.

5. We are now going to look at our rafter tail in the 3D window from what would be the top view when it is installed. Evoke the 3D Projection dialog box, choose Parallel Projection, choose the "Side View" option, and change your camera azimuth to 90 degrees. Click OK.
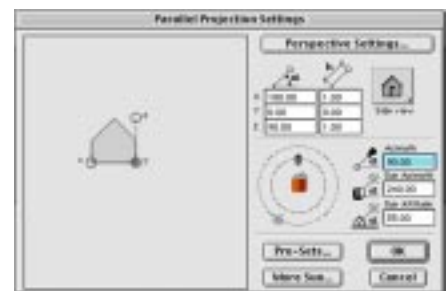
6. Verify that you are looking at what would be the top of your rafter in the 3D window and with the 3D window as the active window, choose "Save as" from the "File" menu. Choose "Library Part" as the File Format, name it Rafter Tail and direct it to be saved into your "Custom Library Parts" folder (if you don't have one you should create one and make sure it is one of your "loaded" libraries) and press "Save."

7. When the next dialog box comes up, choose the "Object" option and under "3D Description Format," choose "Editable GDL Script" and press OK. The new rafter tail library part will be "queued up" and ready to install when you select the Object tool.

8. Open up the object tool settings and specify the angle you wish to install, choose the insertion point hoe spot and specify the tail's elevation.

9. Click the tail into your plan and multiply it as required. (TIP: before you multiply, make sure the elevation of the tail is correct. The default elevation when creating a library part is to what would be the bottom of the object, in this case, the lowest "lip" of the rafter tail. Cut a "working section" through the rafter, wall and roof structure and drag the rafter tail up or down into proper position. Then go back to plan view and multiply at will using the "Multiply" command from the edit menu).