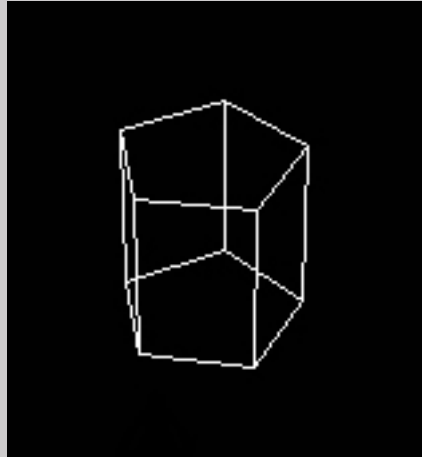


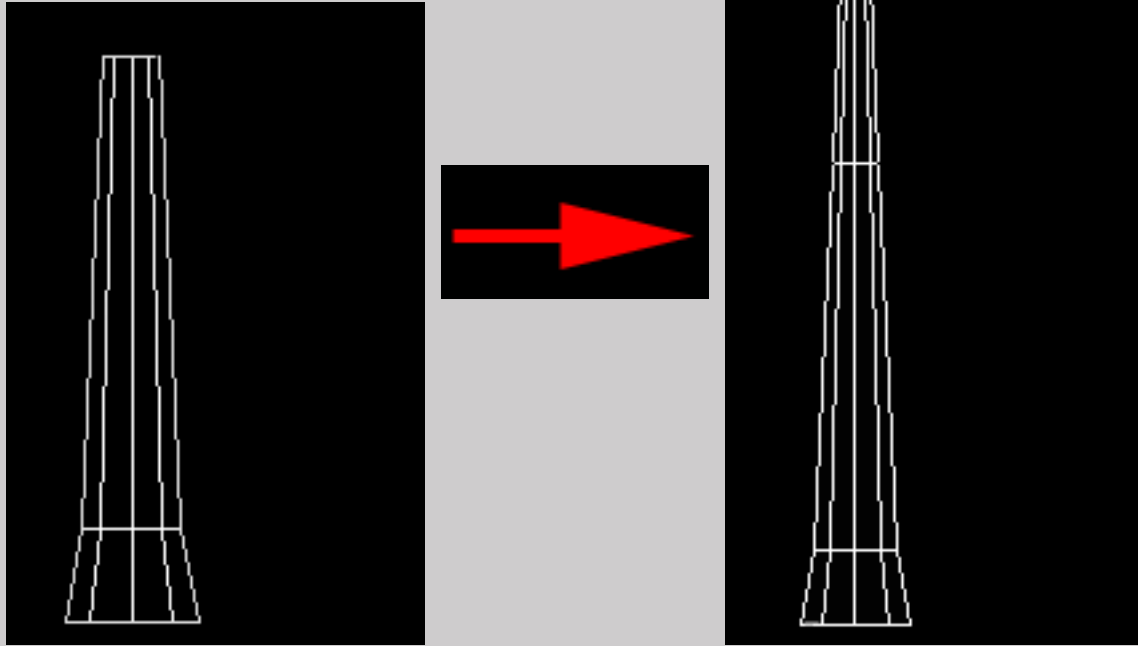
Tree Tutorial © Kenneth Webb

Here is a little simple tutorial on how to make a low poly count tree for animation or a big forest.

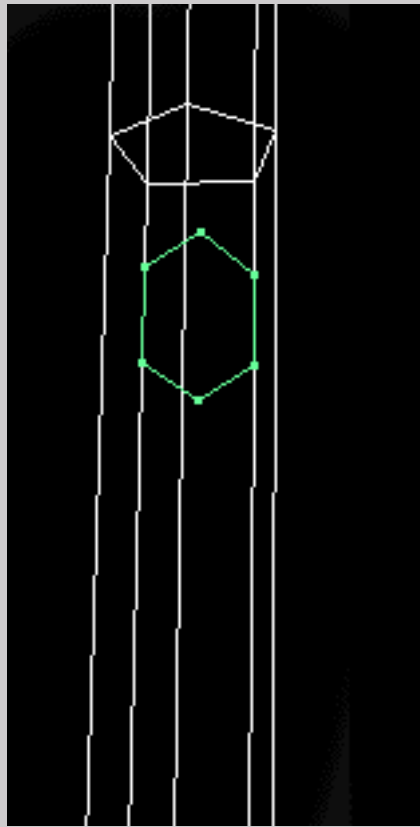


Pop up a cylinder with the LATITUDE 1 LONGITUDE 5 and place it in the center of the scene.

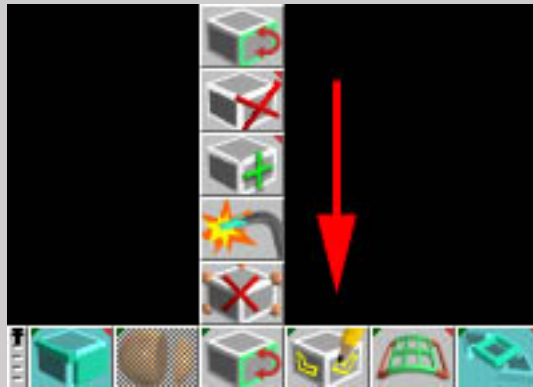
Now select the top face of the cylinder and scale it down slightly, and move it down a bit, this will be your roots



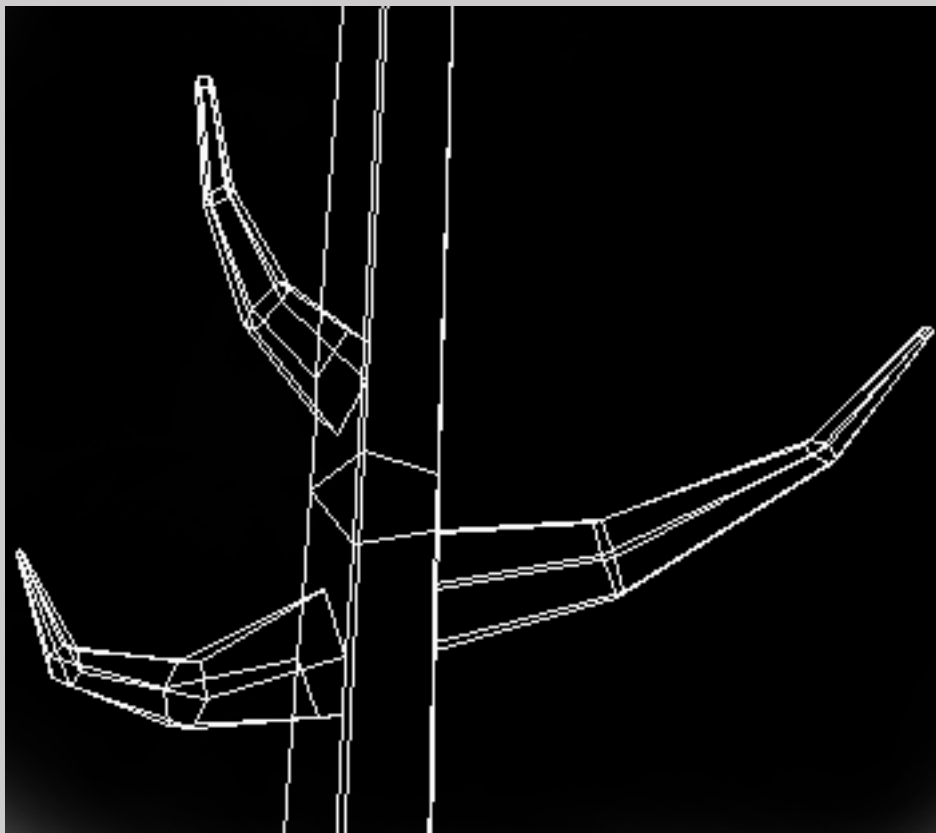
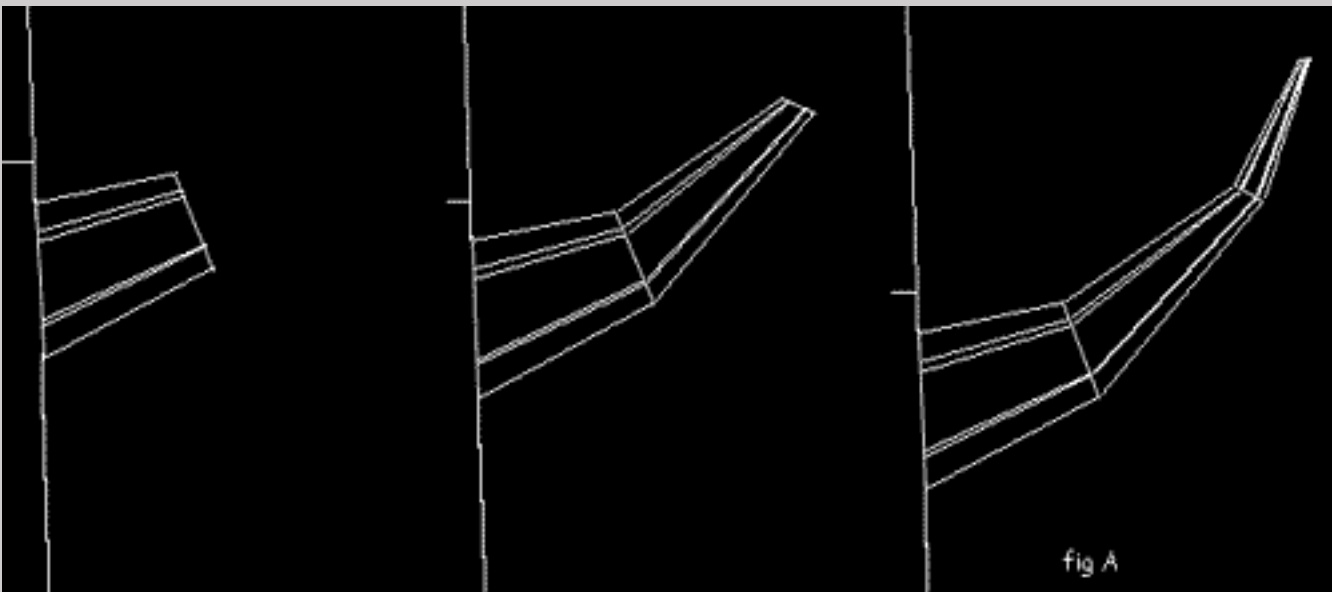
With the top face selected, sweep it, move it up and scale it down a little more. Then sweep the face again, scale it and move it up. This will be the very top of your tree.



Now for a few branches. To start them, we need to use

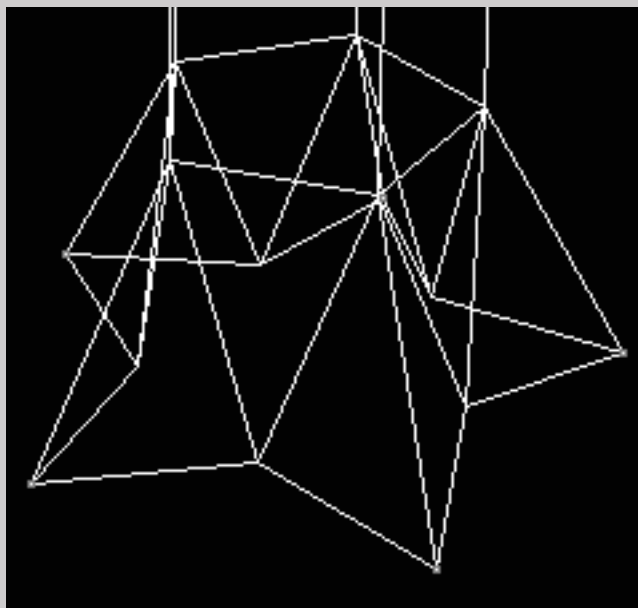
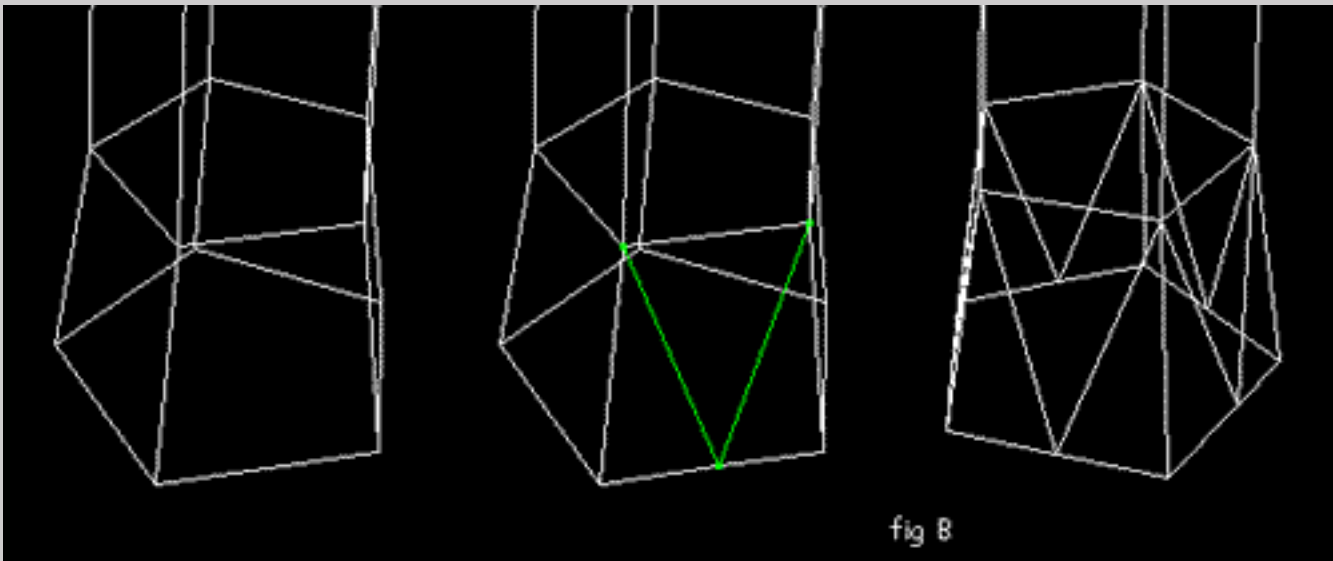


the Polygon Draw Tool and draw a six side face just below the top section of the trunk. Select the newly created face and sweep once (fig A), scale it down a bit, rotate it and move it out and up. Sweep again, scale rotate and move, and then sweep one more time. This time scale it almost all the way down.

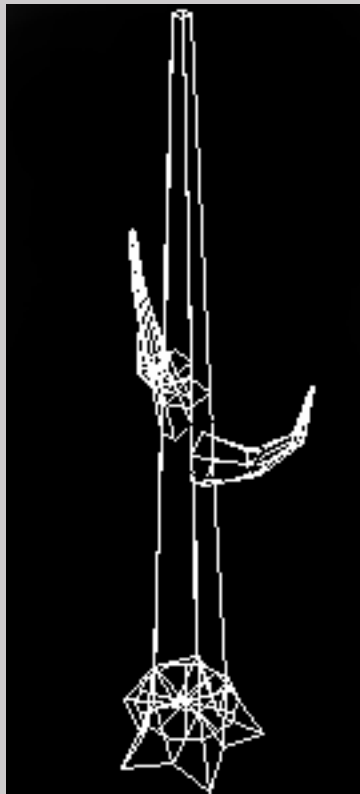


Repeat the branch step a couple more times randomly around the trunk, be sure not to make them too big or make too many of them.

To create the roots, go back down to the base of the tree. Use the Polygon Draw Tool to make two edges(fig B). Do this all the way around the trunk.

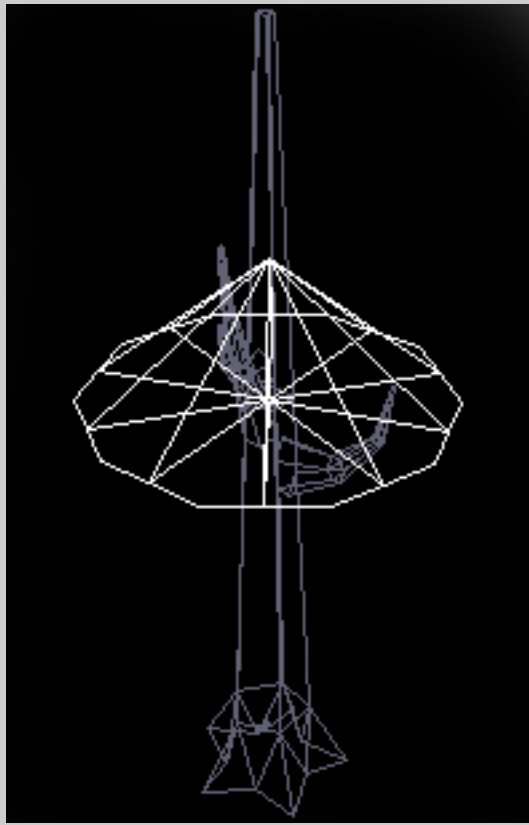


With that done, select every other point at the base and scale them out to make the roots.



TAADAAA, now we have a low poly tree trunk. Go ahead and texture it with your favorite bark texture, be sure to set the smooth on the material to help make the trunk look rounded.

With our trunk finished, we can move onto the leaves. This is actually the easiest part of the process.



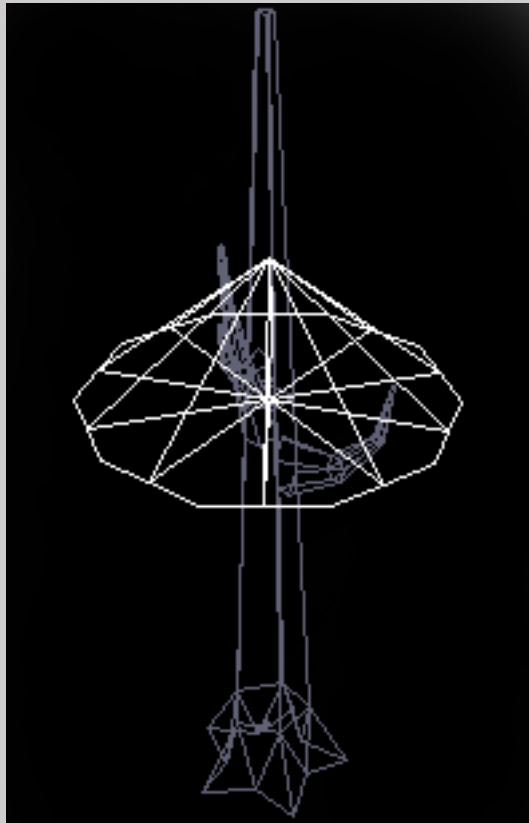
Pop up a cone LATITUDE 1, LONGITUDE 10, and place it in the center of the scene. Scale the cone out so that it looks like the image. Move it up just above the lowest branch. Be sure to scale it so that the diameter of the cone is larger than the branch span.

Use the Rectangle Selection tool  and



select the top point of the cone and then click on the Weld vertices button. The reason is that Truespace's cones are not true cones, they have more than one vertices at the top and an extra face as well. To help keep the poly count down we need to

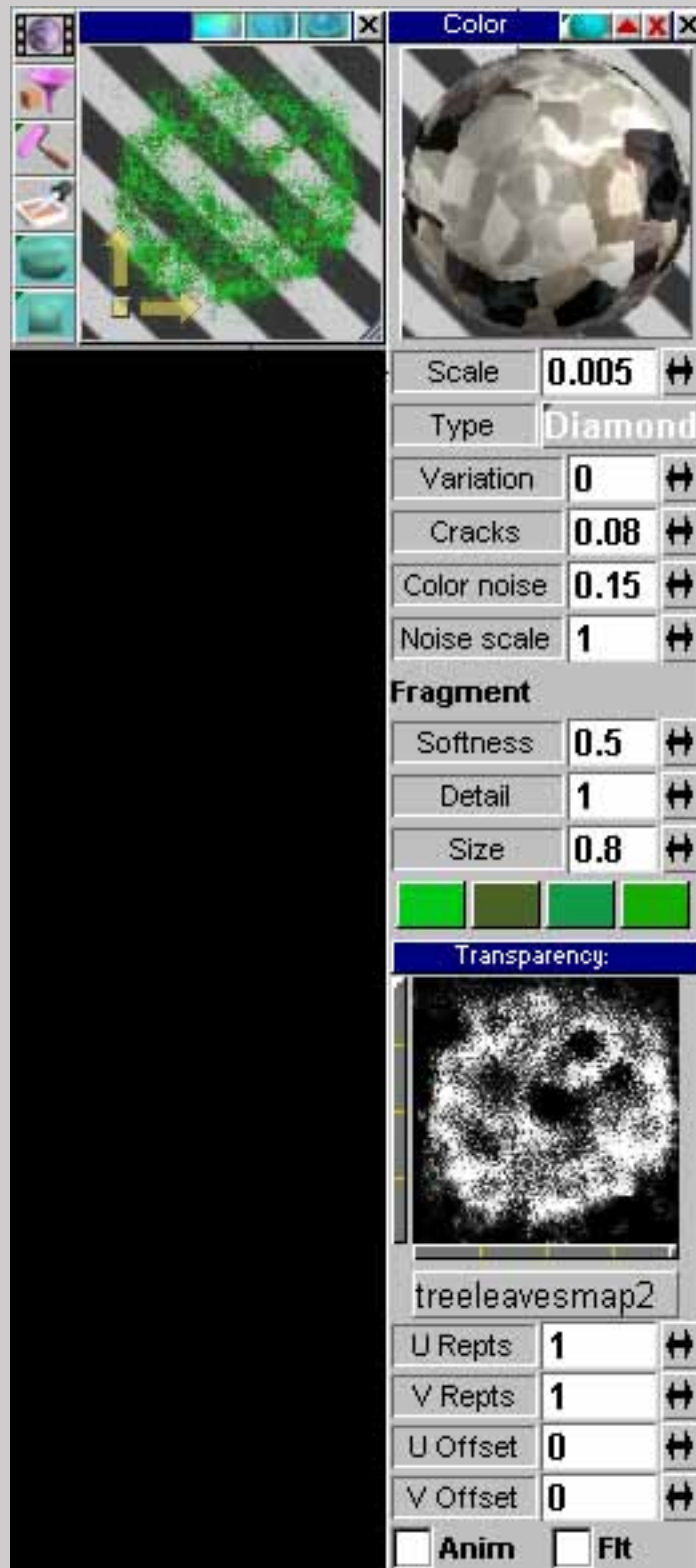
weld them together.



We also need to delete the faces on the bottom of the cone to reduce even more polys. To do this rotate your



view so you can see the faces on the bottom and use the Delete Face button and select the faces one at a time.

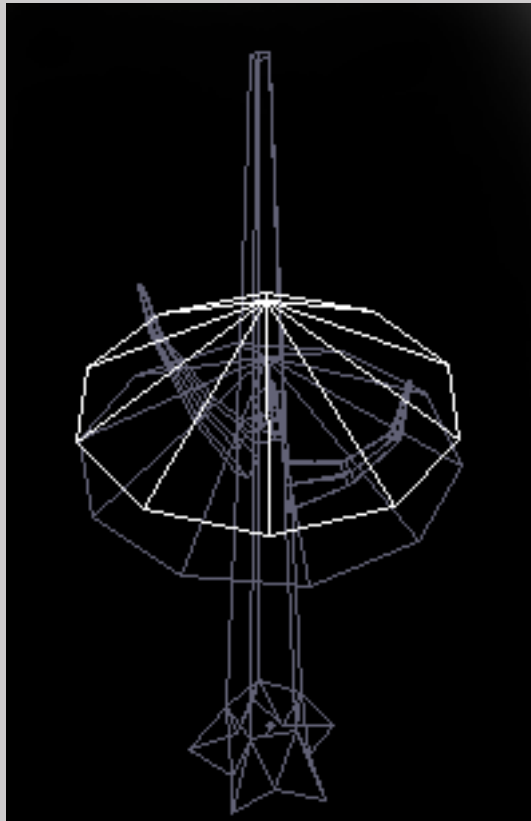


We need to apply a Planar UV Projection  onto the cone before we texture it.

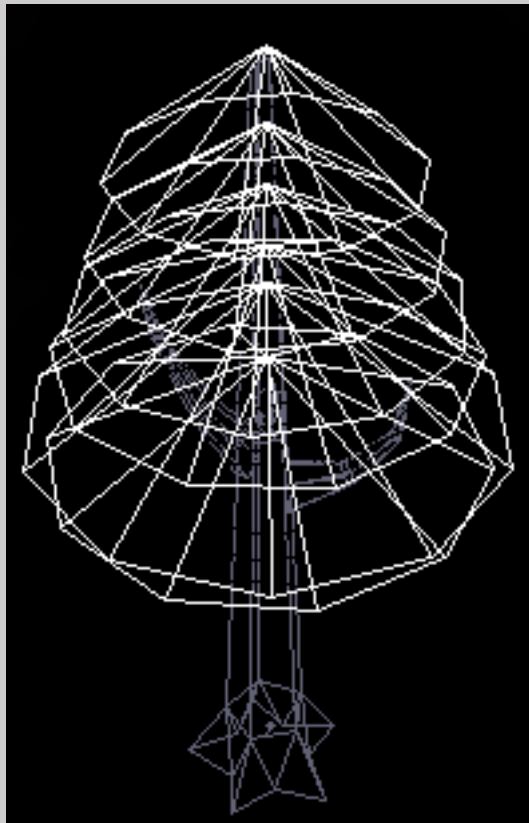
You will also need a transparency map, which I have supplied one here [Treeleavesmap2 file](#) for you. This is


just a simple one that I made, so you can make one that is more elaborate and detailed if you like.

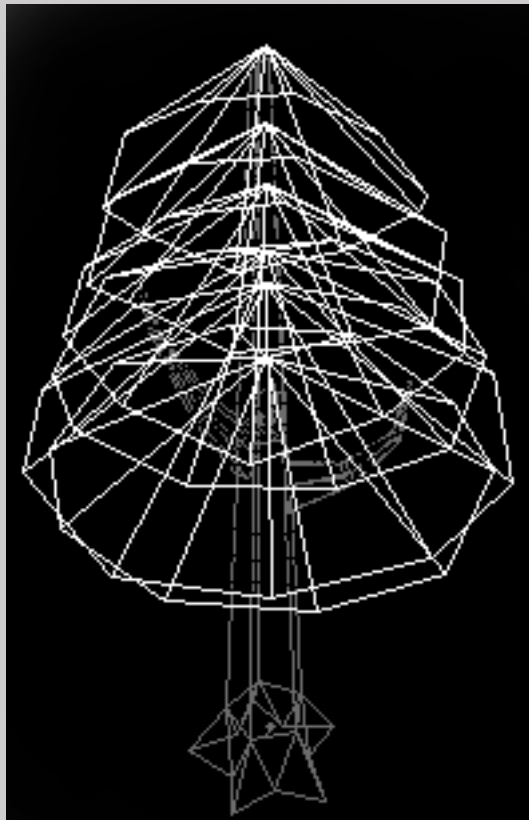
For the color I used the granite procedural texture with the settings to the left. Turn on smooth too. I didn't apply a bump map and left the reflectance as default, but you can change them if you want. You can also use a texture map instead of the granite procedural.



After you apply your material to your leaves, copy the cone and move it up a bit, then rotate it a little as well. This will help make the leaves look a little random. Do this 4 to 5 times and don't worry about evenly spacing them. Make sure to scale them down a bit as they go up the tree. Fiddle with the scale till you're happy with the trees over all shape.

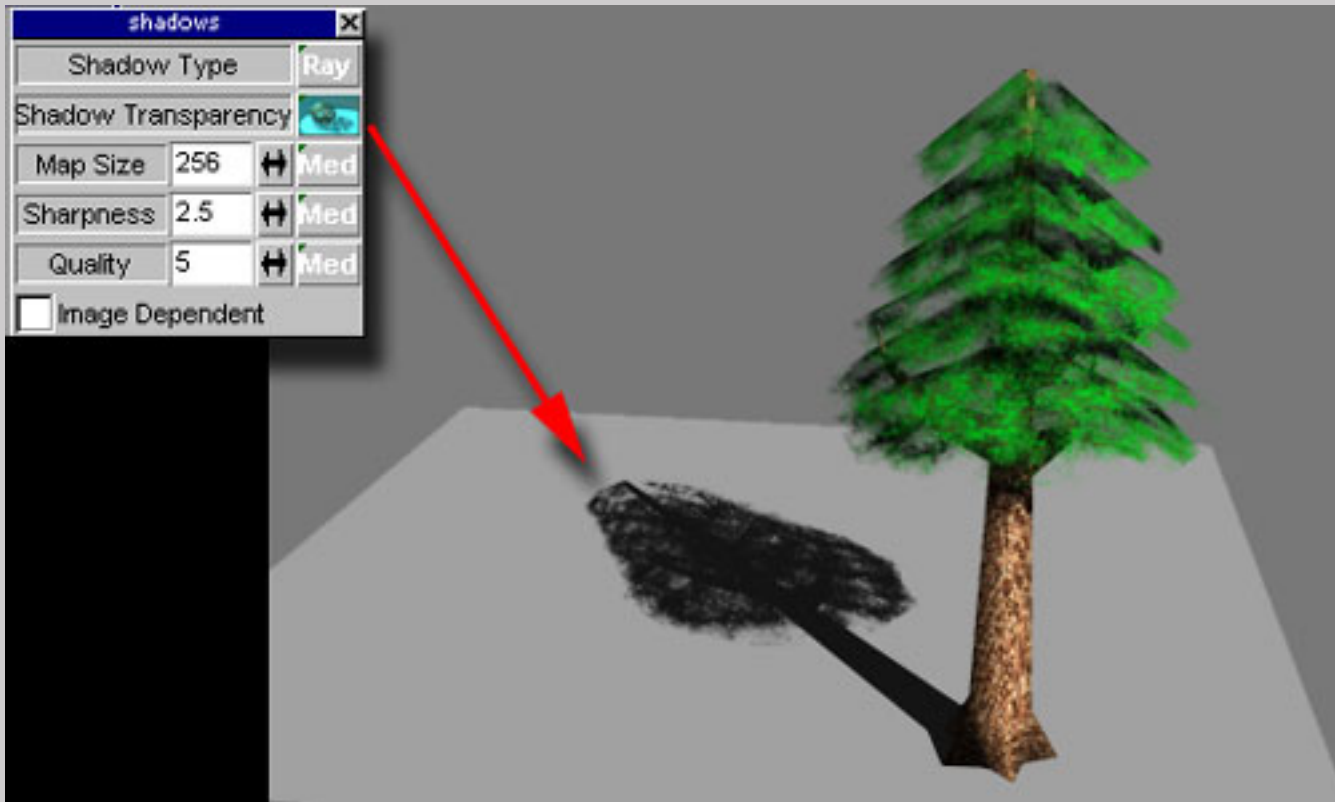


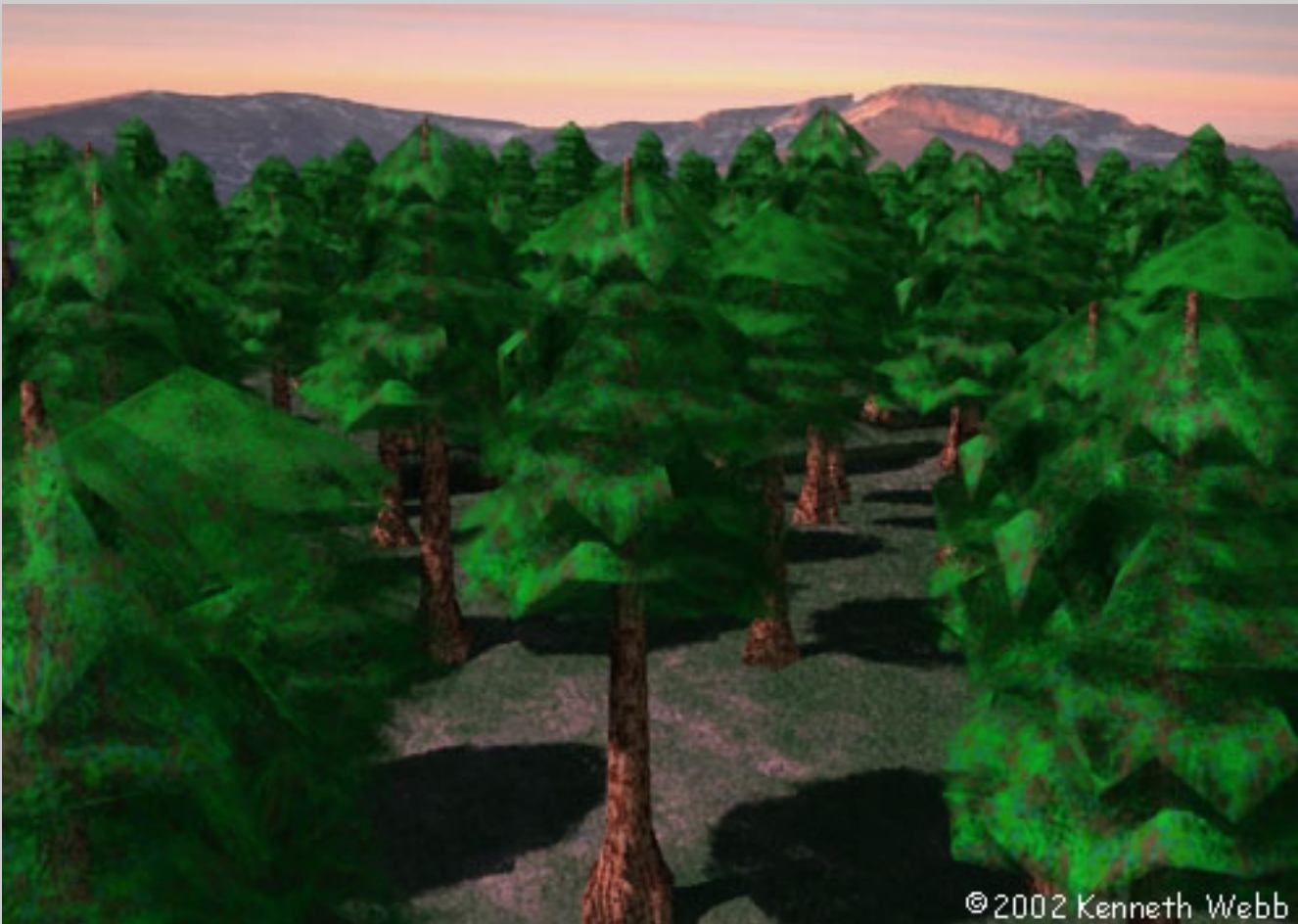
When you're done and are happy, select all the cones and glue them together as Siblings 



Now to make them even more random, point edit the points around the diameters of the leaves up and down. Do this till you are happy with that and then glue the trunk to the leaves when you are done. AND RENDER IT :-)

Now you have a tree with only 150 polygons in it. Be sure to turn the shadow transparency on so that you get a nice leafy shadow on the ground.





Now you can create easy forest for those nature scenes. And they are animation friendly as well since they don't take a long time to render, this is a forest with 130 trees, about 44,000 polys, and it rendered in under 4 minutes :-)

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