Subject: Re: Simple 3D Visualisation
Posted by Mark Hadfield on Wed, 17 Sep 2003 20:55:28 GMT
View Forum Message <> Reply to Message

Adam Rees wrote:
> David,
> You're quite right. I think I've just got used to IDLE being able to 99%
> of the things I ask of it. I have made some progress if anyone is
> interested. Its not pretty though. I've produced a connectivity array which
> contains all the possible combinations of points to produce a myriad of
> triangles (28000 ish polygons). Then searched through and removed all the
> duplicates taking the total down to 4000 ish. Using mesh_decimate and
> mesh_validate (I'm 100% sure what these do) I've then decreased the number
> to 1000 odd. Obviously there are still many I don't need but nonetheless
> this is low enough for my computer to handle the object easily and thus for
> me to do most things that I need.
> My final problem is that some exterior triangles are facing the wrong
> way. I think it may have something to do with the directions of the normals
> at the vertices but that will have to wait until tomorrow. If anyone has any
> ideas please let me know. I'm spending FAR to much time on this.

That's not surprising. You seem to be reinventing some very big (3D geometrical) wheels.

You still haven't really explained on what basis you want to join these vertices. Do you have any information you're not telling us about which vertices should be connected?

Anyway, I'm no expert on this stuff, but you might want to have a look at the QHULL procedure. And a Google search on terms like "convex hull" and "Delaunay triangulation" might give you some ideas.

--
Mark Hadfield "Ka puwaha te tai nei, Hoea tatou"
m.hadfield@niwa.co.nz
National Institute for Water and Atmospheric Research (NIWA)