Subject: IDL Graphics Objects & Heap Variables
Posted by Mike[3] on Wed, 15 Feb 2006 19:34:27 GMT
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I cluged together the following code in an attempt to render 3D obj files (similar to CAD models) in an interactive IDL window. By "cluged", I mean that I modified the existing XPLOT3D code to create PolyPlot3D. PolyPlot3D renders individual facets into an interactive window. Using the OVERPLOT keyword, I can place many facets on the same window, ultimately building a 3D rendering of an object.

While the code appears to work, it slows down tremendously for obj files with more than 2,000 facets. I believe it slows down b/c the code generates a heap variable to keep track of every rendered facet. My opinion here: the heap variable is necessary to maintain z-buffer heirarchy information.

A few questions: (1) Can anyone confirm that the heap variables are causing my code to slow down? (2) Does anyone have any suggestions for how I might be able to speed up my renderings?

If anyone is inclined to check out my code, they are attached on my wiki page at the following URL:

http://wiki.cis.rit.edu/bin/view/People/MikeFosterGUIFinalProject?CGISESSID=01bde2a2d02fcd405336d0b5fe490658

To actually run the code, please download the following files from the wiki site:

(1) vertex.dat
(2) faces2.dat
(3) polyplot3d.pro
(4) Renderedpickup.obj.pro

Compile the polyplot3d.pro function before running Renderedpickup.obj.pro. Vertex.dat and faces2.dat are ASCII files with all of the vertex / connectivity information associated with the pickup model.

Thanks for reading this far,
Mike