

Ray Tracer User Manual

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1 General Instruction:

1. 'make remake' to rebuild
2. './SimpleCurveEditor' without '-f' will load 5 polygons.
3. './SimpleCurveEditor -FLAG PARAMATER1 PARAMATER2 ... ' to run program.
4. Tips will be displayed on the left corner of the screen.

2 Flag & General Instruction:

1. -f 'FILENAME'
to load a .gmt file, which contain all the vertexes and edges.
2. -d WIDTH HEIGHT (default 500 500)
WIDTH and HEIGHT are integer values which specify the dimensionality of the each window.
3. Press 'q' to exit, which by default will save the current scene in './data/temp.gmt'

3 To test CVM

1. **Activation:** Please do this in outline mode, or it will be extremely laggy when the program is ray tracing. If the program is filling color, Press 'f' to go back to outline mode. (It will stop ray tracing after finishing the current rendering.
2. **Usage: please hold [space bar]**
 - (a) Drag with left mouse button to move the camera up, down, left, or right.
 - (b) Scroll to move the camera forward or backward.
 - (c) Drag with middle mouse button to rotate the Camera.
 - (d) Note that ellipsoids will only be displayed as a single vertex in outline mode.

4 To Test Ray Tracing

1. **Activation:** Press 'f' will activate *FILL* mode.
2. **Usage:**
 - (a) One has to wait quite a bit for the image to finish rendering, use the $-d$ flag to change the dimensionality of the windowx to reduce rendering time (default 500 by 500).
 - (b) One can also press 'f' again to return to *OUTLINE* mode where is more convenient to change the parameters for the camera.