

## Rendering Swiss PDB Viewer Images with POV-Ray in 8 Easy Steps

Patricia L. Clark

November 9, 2001

1. Download and install POV-Ray program: <http://www.povray.org/>
2. Allocate a LOT more memory (than default setting) to the POV-Ray program: something like 200 Mb. Otherwise, the program will crash while rendering.
3. After using PDB Viewer to create an appropriate image, save the image:
  - as a Layer (give it a new name; this will be a .pdb file saving the current display options)
  - as a POV-Ray 3 Scene (.pov file; make sure no background tasks [like printing] are occurring, as this has been known to corrupt the file)
4. Start POV-Ray, and open the .pov file (a text box will then appear, with some diagnostic data)
5. Under “Edit”, choose “Render Settings”
  - at the Quality tab:
    - check box for anti-aliasing (smoothes pixels; not default)
    - set render quality to 9 (default)
    - check box for radiosity (optional; make things shiny, but renders VERY slowly)
  - at the Output tab:
    - pick a larger size (100 x 100 is very small; I usually make the “behemoth” size)
    - \*\*keep aspect ratio (proportion) the same!!
6. Under “Render”, click “Start Rendering”
  - ignore this error: warning: degenerate triangle: please remove
  - after processing .pov file, will draw big window and make very low-resolution rendering, followed by the high-resolution final product
7. Be VERY patient; rendering can take a LONG (perhaps >20 min) time to complete
  - the program will make a distinctive tone when rendering is complete
  - while rendering, you can move the sliders to see the (larger than screen-size) image being rendered
8. File is automatically saved as .pict (PICT) file with same root name (& in same directory) as .pov file. You can save it again, manually, with a different name, if desired
9. Try opening the .pict file in Canvas or Photoshop, to see if it looks like what you want (maybe try printing a hard copy, too)
  - if it does not look right, go back to layer file (.pdb) and tweak