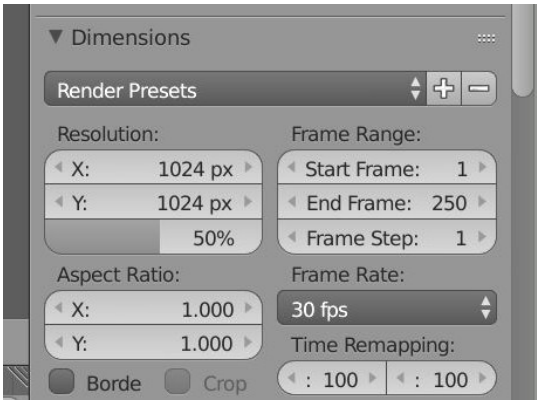
Start with a fresh new Blend file if you haven't already.

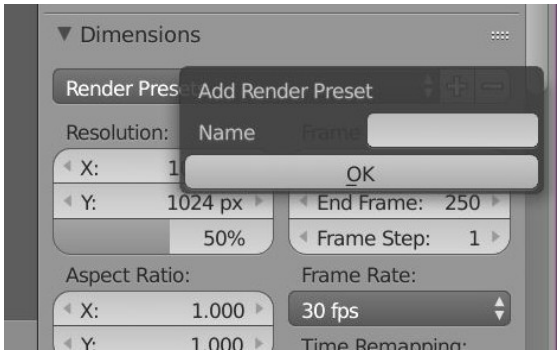
Before we set up the Camera and Output properties for fulldome rendering, we need to be certain that the Cycles Render engine is enabled. Only the Cycles Render engine has the capability to natively render fisheye formats.

Output Settings

Output settings are best changed through the properties editor. The icon looks like a small SLR camera. At a minimum, we want the resolution to be square for a dome master.



- In the Dimensions panel, set Resolution X and Y both to 1024.
- set Frame Rate if desired

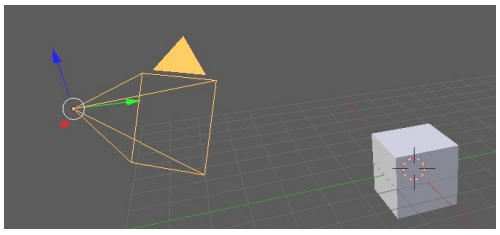


- To save these dimensions as a preset, click the "+" , type the preset name into the name box, then click OK.

Camera Settings

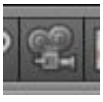
Camera settings are also set through the properties editor, but the camera must be selected in order for the options to appear.

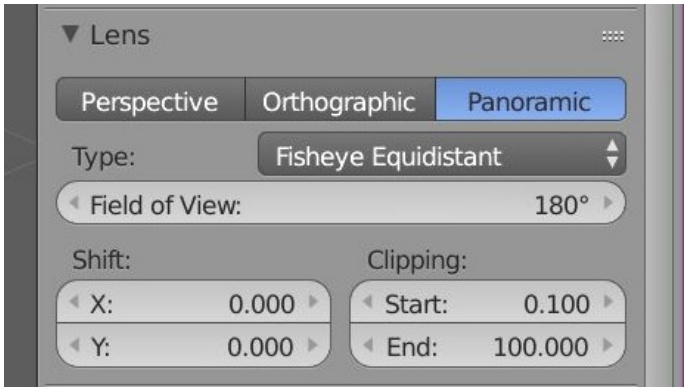
Select the camera, either through the 3D View *or* through the Outliner:



With the camera selected, the Properties Editor now reveals camera-specific tabs.

- In the Properties Editor, click the icon that looks like an old-fashioned movie camera.



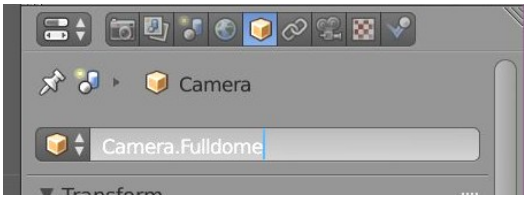


- In the Lens panel, click the “Panoramic” button.

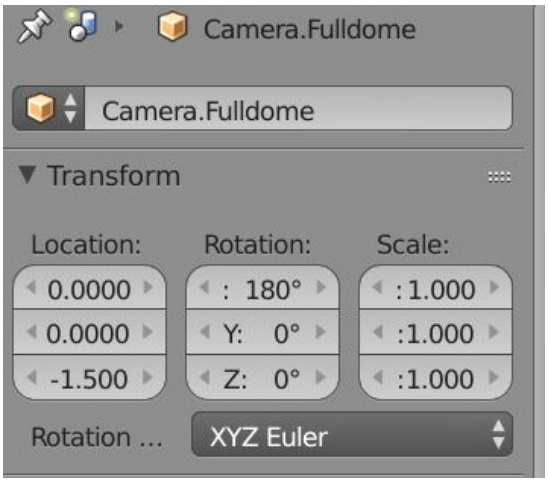
- Then for Type, select “Fisheye Equidistant” - this setting makes a fulldome master with the least amount of fuss. All we need to do is set the Field of View. For now we can leave it set to 180.

- With the camera still selected, click the properties icon shaped like a cube to give our camera object a formal name.

  Click inside the text field and change Camera to “Camera.Fulldome” -this will make it easier to reuse the camera later in other files.



- Finally, let’s position the camera near the middle of our scene. With the camera still selected as the active object and the object settings open, change the camera Location and Rotation to match these settings.
  - Location X, Y, Z: 0, 0, -1.5
  - Rotation X, Y, Z: 180, 0, 0



TransformTip:
Location, Rotation and Scale can be set with precision through Properties Editor or using keyboard shortcuts. The keys G, R, S are used for Grab (locate), Rotate and Scale. Use with the mouse for positioning objects by feel. Use with numbers for precision. For example, the sequence “G X 0” sets the active object’s X position to 0.
This works for all objects in 3D View: cameras, lamps, meshes, curves, etc.

Save the Blend file.

- Shortcut for Save is Ctrl-S, Save As is Shift-Ctrl-S
- Navigate to a suitable folder and give the file a name: ObjectsInSpace, then click “Save As Blender File”