Spherical Camera

Scene rendered with spherical camera lens

This is a spherical camera which means that the camera lens has a spherical appearance. A common use of this camera projection is to allow the creation of environment maps (in spherical map format) for later use as reflection maps or for environment lighting. To get the full spherical range, the camera's screen window must be set to [-1,-1] to [1,1]. Note that the same mapping could be achieved in the cylindrical camera with careful setting of the Horizontal FOV, Vertical FOV, and Projective parameters but the spherical camera is provided for convenience.

The cameras page has more details about the controls. The additional controls are shown below.

Depth of Field is not available for this camera type.

Ai Screen Window Min/Max found under Extra Attributes of Spherical camera

Workflow Example

Below is an example of a spherical camera lens. The image below shows a studio lighting rig scene. The spherical camera can be used to convert this scene into a spherical HDRI that can be used with the SkyDome Light.

The chrome sphere is there for demonstration only and is not needed when rendering a spherical camera map.
• Position the camera in the center, in order to convert the scene into a spherical camera image.

The image below is a render of the spherical camera in the center of the scene. The scene must be rendered at a high enough resolution and the pixel aspect ratio should be set to 1, otherwise, distortions may appear in the reflections of the scene.
Spherical camera render mapped to a Skydome light