Power Sphere

Adobe After Effects®

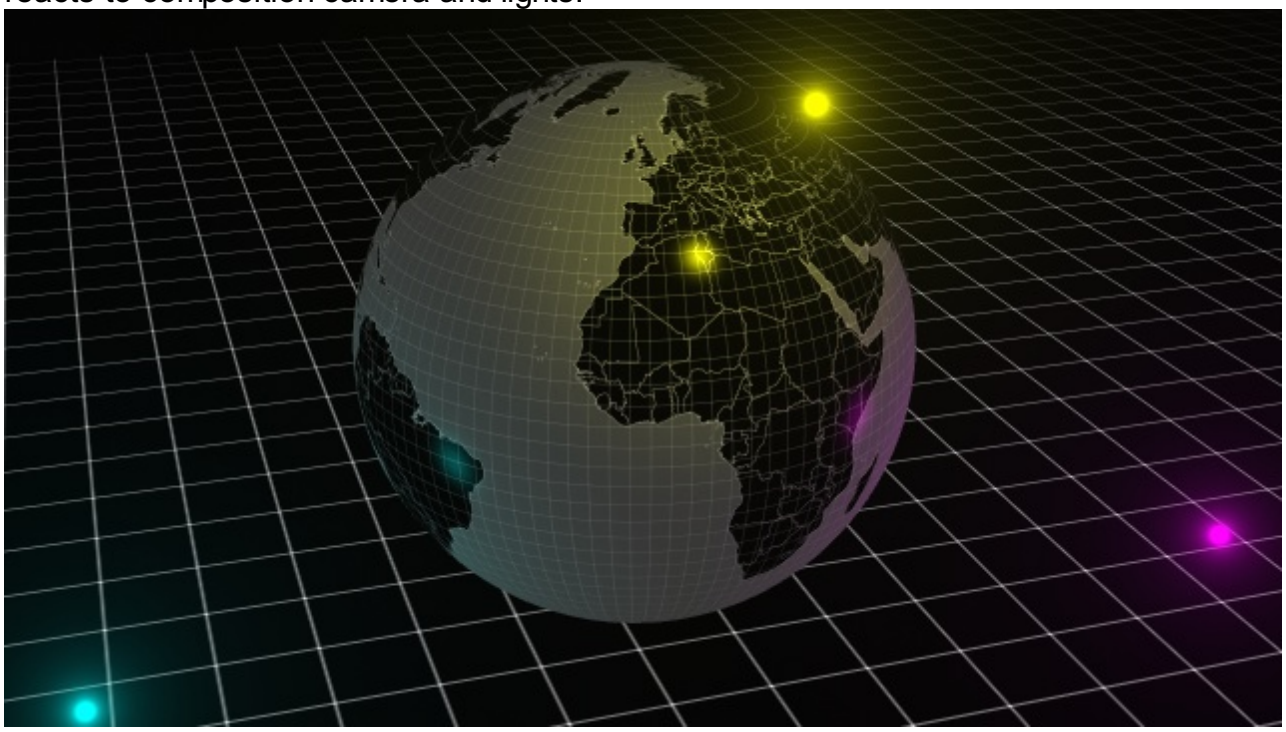
User Manual

version 1.10

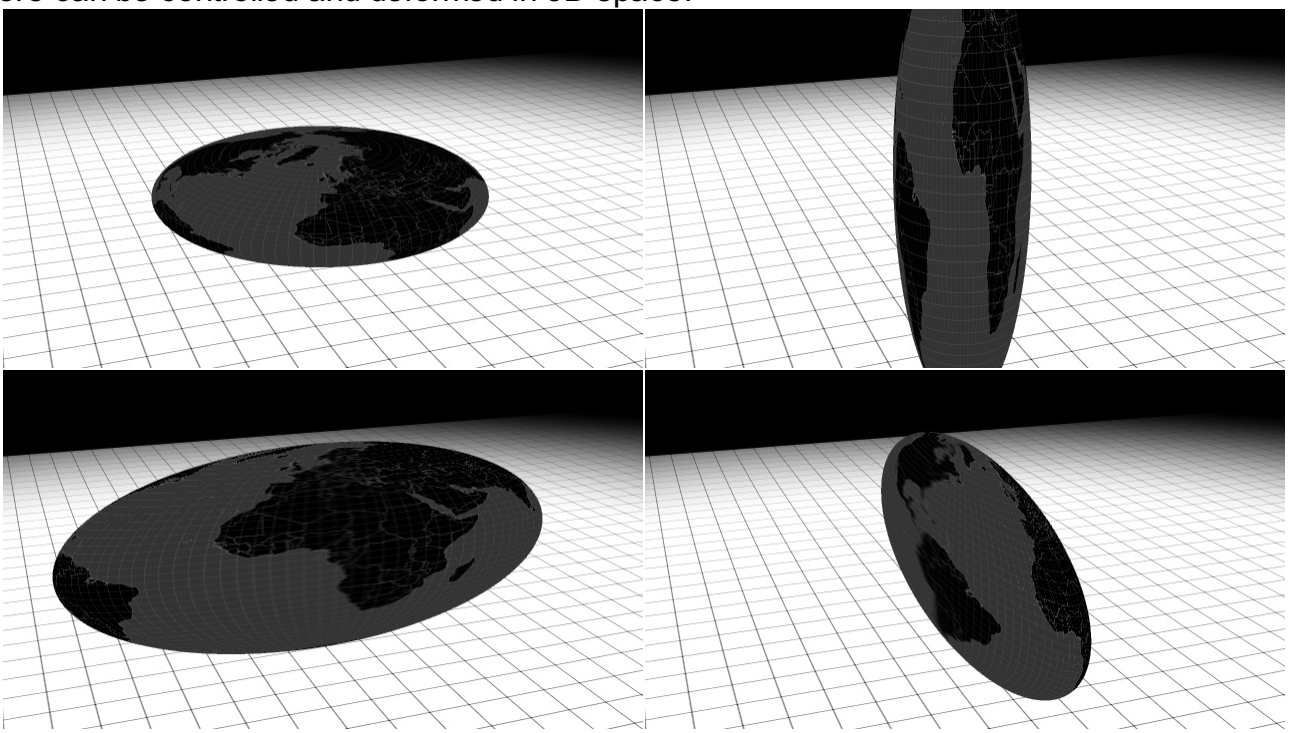
Contents

Overview

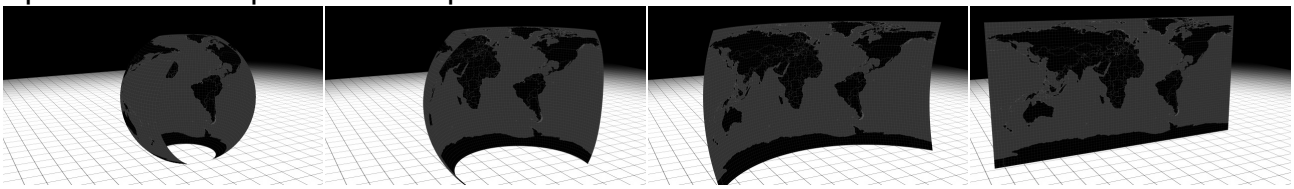
Power Sphere is plugin of Adobe After Effects®. It renders a fully controllable 3D sphere that reacts to composition camera and lights.



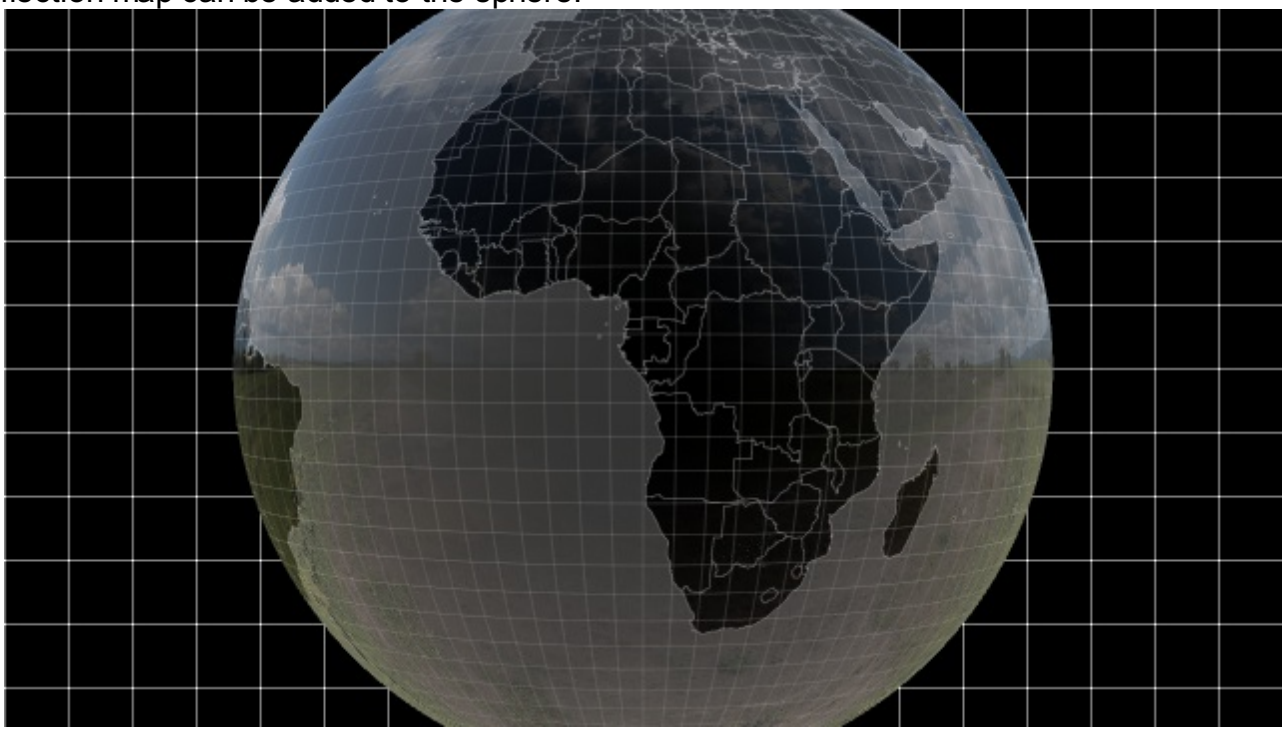
Sphere can be controlled and deformed in 3D space.



The sphere can be "opened" into a plane.



A reflection map can be added to the sphere.



The sphere can self shadow and render a depth of field blur for very realistic results.

Setup

Platform

Adobe After Effects (Windows, Mac OS X) CS4 or later

Install

Place the plugin in the **'Plug-ins'** folder inside the After Effects folder. Default directory is:

(win)
C:\Program Files\Adobe\Adobe After Effects XX\Support Files\Plug-ins

(mac)
/Applications/Adobe After Effects XX/Plug-ins

Uninstall

1. Launch After Effects and apply Power Sphere to a layer. Click "Register" or "About..." button in the top of effect panel.
2. Click "Unregister" button on the popup panel.
3. A popup to confirm will appear, click "Yes".

4. Shut down After Effects, and remove the plugin from the'Plug-ins' folder.

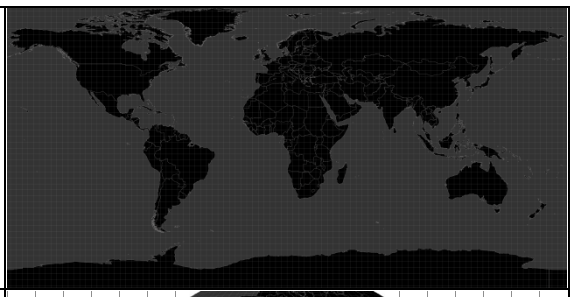
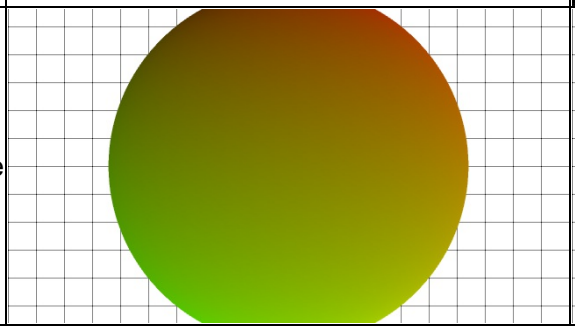
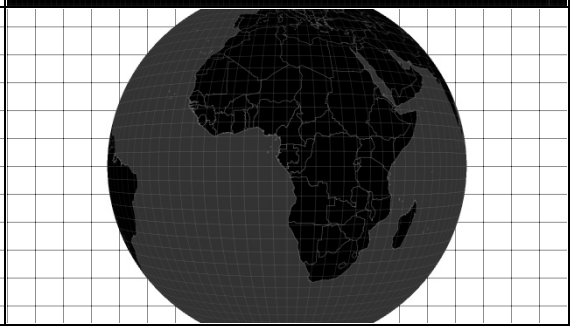
Setup

Prepare a layer the same size and pixel aspect ratio as the Composition.
Apply the effect (Effect > CROSSPHERE > Power Sphere) to the layer.
By default, no texture is set, and the sphere will show UV coordinate of the sphere. User can set a layer as texture of the sphere by "Texture" parameter.
For other detail operations, see the next section.

Parameters

Texture

Assigns the layer as the texture of sphere. If no layer is assigned, the sphere will show UV coordinates.

texture	(no texture)	
sphere		

Left: Without texture layer, UV coordinate is shown. Right: With texture layer.

Transform

These parameters control the transform of the sphere.

Slide Texture

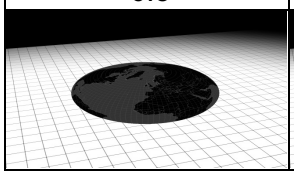
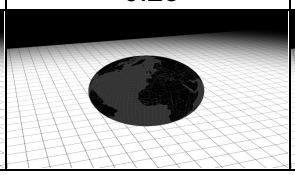
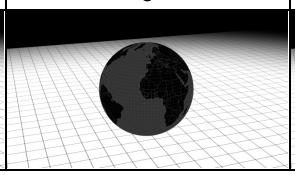
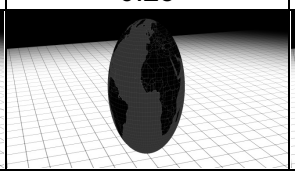
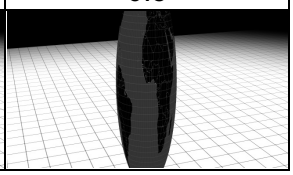
Slide texture around the z-axis of the sphere.

Control Layer

If a layer is assigned to this parameter, the sphere copies the transformation of the assigned layer. Make sure to make the layer 3D.

Ellipse Z/XY

Deforms the sphere along the z-axis of the sphere. Larger values makes the sphere longer along the z-axis.

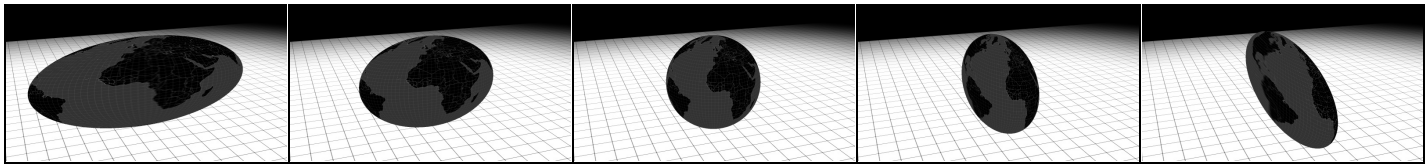
-0.5	-0.25	0	0.25	0.5
				

Ellipse Z/XY Parameters and deformation of the sphere.

Ellipse X/Y

Deforms the sphere along the x-axis or y-axis of the sphere. Positive value makes the sphere longer along the x-axis.

-0.5	-0.25	0	0.25	0.5



Ellipse X/Y Parameters and deformation of the sphere.

Radius

Controls the radius of the sphere.

Position XY

Position Z

Control the center position of the sphere.

Rotation X

Rotation Y

Rotation Z

Control the rotation of the sphere.

Open Sphere

Show Pivot

Shows where the pivot point is.

Fixed Point U

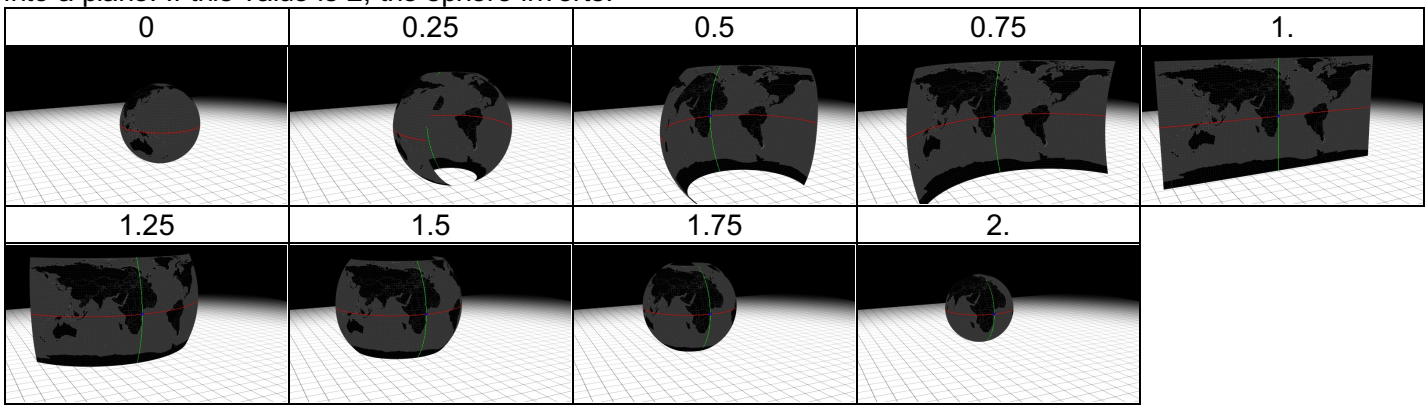
Controls the U coordinate of the pivot.

Fixed Point V

Controls the V coordinate of the pivot.

Open Parameter

Opens the sphere. If this value is 0, the sphere is closed. If this value is 1, the sphere is fully open into a plane. If this value is 2, the sphere inverts.



Open parameters and how much the sphere opens.

Shading

The sphere accepts 3D lights from the composition.

Falloff

Falloff Radius

Falloff Distance

Control the falloff from Parallel , Point and Spot lights.

- None
  Illumination does not falloff as the distance between the sphere and the light increases.
- Smooth
  Indicates a smooth linear falloff starting at the "Falloff Radius" and extending to the length specified by "Falloff Distance".
- Inverse Square Clamped
  Indicates a physically accurate falloff starting at the "Falloff Radius" and decreasing proportionally to the inverse square of the distance.

Self Shadow

Specifies whether the sphere casts and accepts it's own shadow.

Light Transmission

Controls how much light the surface of the sphere allows to pass through.

Emit

Controls how much color the sphere emits without lights.

Ambient

Controls the ambient or nondirectional reflectivity of the sphere.

Diffuse

Controls the diffuse or omnidirectional reflectivity of the sphere.

Specular

Controls the directional or specular reflectivity/highlight of the sphere.

Roughness

Determines the size of the specular highlight.

Metal

Controls the mix of the sphere color with the color of the specular highlight.

Reflection Map

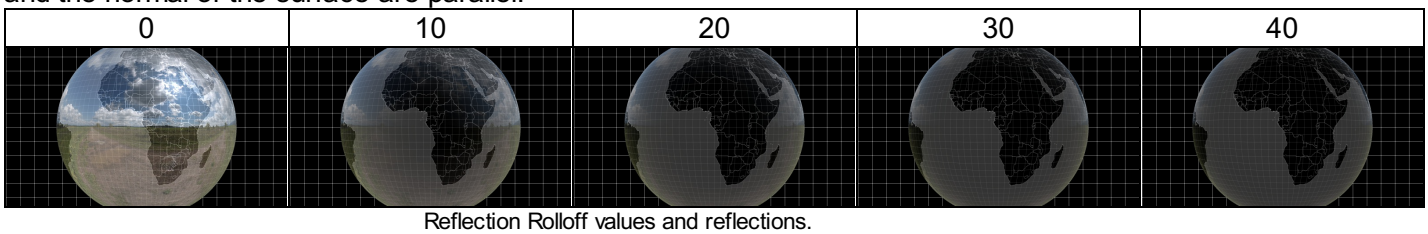
Specifies the layer to be used as a reflection map.

Reflection Intensity

Controls the intensity of the reflection.

Reflection Rolloff

Controls the rolloff of the reflection. Larger values decrease the reflection when the view direction and the normal of the surface are parallel.



Reflection Rolloff values and reflections.

Rendering

Rendering Side

Specifies whether only the inside or outside is rendered.

- Full
  Both inside and outside are rendered.
- Inside
  Inside only.
- Outside
  Outside only.

Use Composition Camera

Specifies whether the composition camera is used.

Depth Of Field

Specifies whether the depth of field (DOF) is used or not. To use DOF there must be an active camera in the composition.

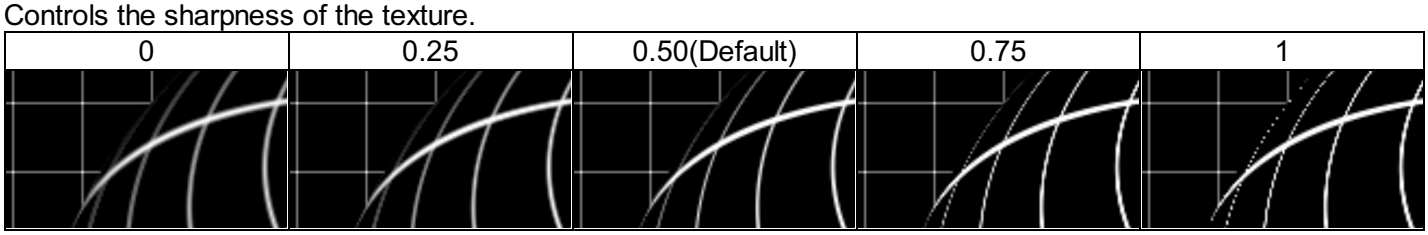
- Off
  No DOF blur effect.
- Camera Settings
  DOF will use the settings of the active composition camera.
- On

Boost DOF Blur

Amplifies the DOF blur effect.

Sharpness

Controls the sharpness of the texture.



Sharpness values and effect on texture

Depth Composite

Composite depends on the depth from the active camera.

Mode

Specifies the mode of the composite.

- Off
  No Composite
- Fog
  Composite the color specified by Fog Color depends on the depth.
- Fade Out
  Change the transparency by the depth.

Start depth

Specifies the depth to start composite.

End depth

Specifies the depth to complete composite.

Fog Color

Specifies the color of fog.

Other settings

Color Depth

8pbc, 16bpc and 32bpc

Camera

The sphere will render using the active comp camera if one exists. The sphere can also be controlled with these settings:

- Zoom
- Depth of Field (When Depth Of Field parameter of the sphere is set to"Camera Settings")
- Focus Distance (When DOF blur effect used)
- Aperture (When DOF blur effect used)
- Blur Level (When DOF blur effect used)

To control the DOF blur effect, see Rendering Parameters

Light

The sphere will render using the lights in the composition and has these controls:

- Intensity
- Color
- Cone Angle
- Cone Feather
- Casts Shadows (When the parameter "Self Shadow" is on)
- Shadow Darkness (When the parameter "Self Shadow" is on)

To control the sphere shading from lights, see Shading Parameters.

Post Script

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