SphericalImageCam v2.0.0 ReadMe

New Feature in 2.0.0

- All codes are rewited to a new shader.
- Support Dome (stereographic projection) camera.

Removed Function in 2.0.0

- Depth shader camera and Geometry shader sample are no longer supported.

Summary

Thank you for downloading! This Asset includes a camera set to create 360 degree Spherical panorama images. Just using the camera script makes spherical panorama view!

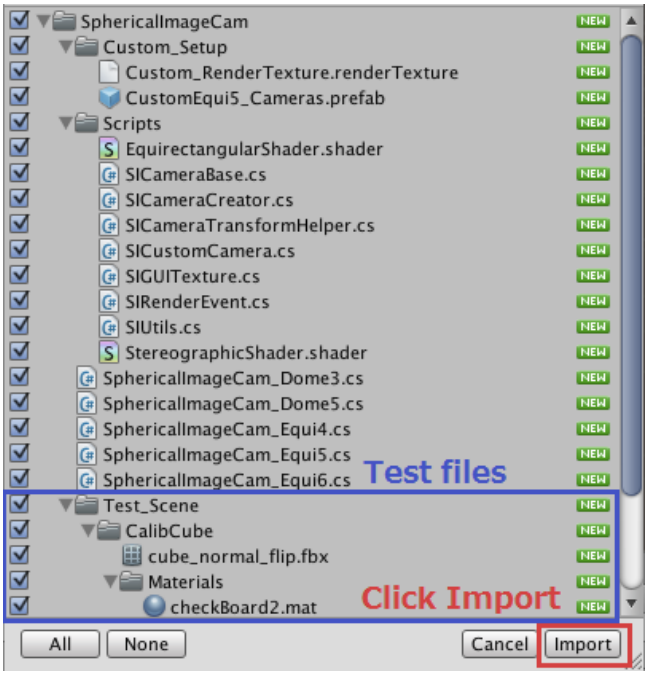
Important Notice

- This Asset works fine Unity 4.6.x or 5.x for Windows, but not test in Mac platform. Considering that
- **If you use Unity 4.6.x, this asset requires Pro license to use RenderTexture function, Free license does not work.**
- **Unity 5.x does not require Pro license to use SphericalImageCam, I recommend to use Unity 5.x.**
- For high-level graphics, we desided to move to D3D11 support, no longer support D3D9 rendering.

How to Use SphericalImageCam

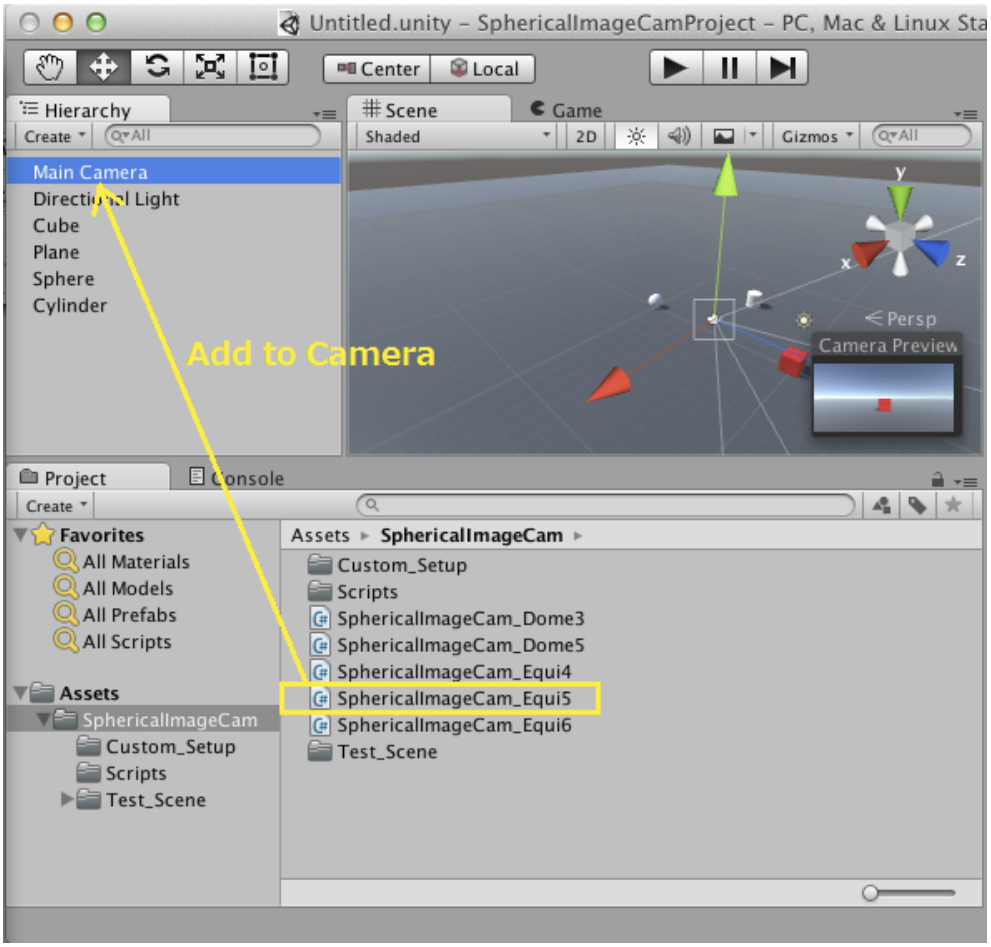
Import Package

After downloading the unity package, import files under "SphericalImageCam" folder. If you don't need a test scene, please turn off the check box of "_TestData" folder (the files under "_TestData" folder are used for a calibration or a test scene).



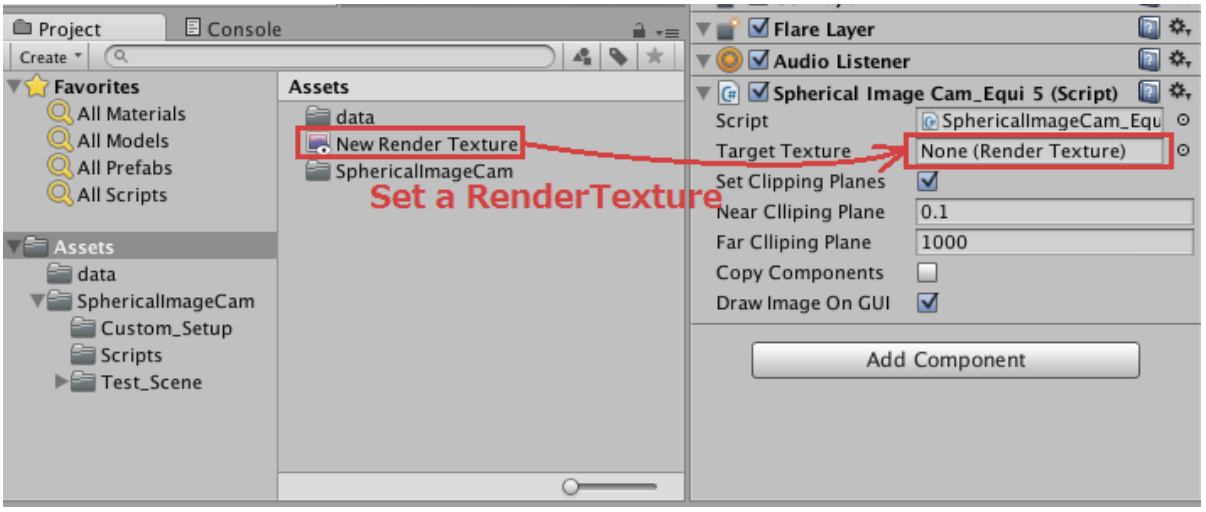
Add the Camera Script

Add the camera script **"SphericalImageCam_Equi*"** or **"SphericalImageCam_Dome*"** from Project folder to Main Camera in Hierarchy. The Number of script name shows how many cameras are used, a named less number script makes a panorama image quickly, but image quality is low.
"Equi" means equirectangler projection, **"Dome"** means dome (stereographic) projection.



Add your Render Texture

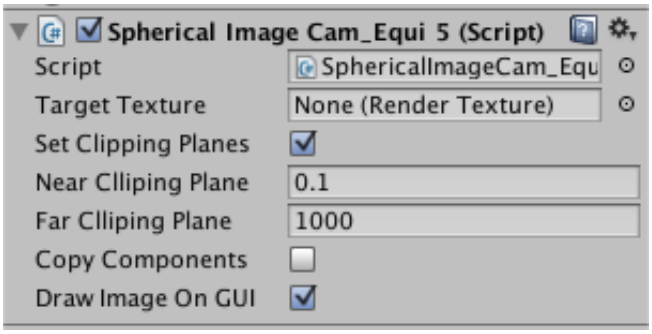
The default setting, Render Texture is created automatically, but the Render Texture is limited 1280x720, if you want to change Render Texture settings, You can create a Render Texture in Project folder and change settings, set to **"Target Texture"** in Inspector.



Change Camera Setting

You can change some parameters of the camera script in Inspector.

- **Target Texture (RenderTexture)**
  Set any Render Texture that be drawn a panorama image, camera script are inherited from the texture setting.
- **Set Clipping Planes (Boolean)**
  The camera script uses own camera setting and create panorama cameras with the camera setting. If you want to change each camera clipping planes, turn on the checkbox.
- **Near Clipping Plane (Float)**
- **Far Clipping Plane (Float)**
  Set a value of near and far clipping planes, if the checkbox **"Set Clipping Planes"** is disabled, these parameters are ignored.
- **Copy Components (Boolean)**
  If this checkbox is turned on, the camera script copies components to panorama cameras automatically, if you want to use ImageEffects in panorama cameras, turn on the checkbox and add ImageEffects as brother components in the same GameObject.
- **Draw Image On GUI**
  If you want to create panorama image on background-process, turn off the checkbox, the camera script does not show panorama image in the game screen.



Set Ignored Components

A camera script creates panorama cameras, these cameras are inherited from a GameObject that the script attached. If **Copy Components checkbox** is turned on, GameObject components are copied to panorama cameras.
If you want any components to ignore copying, open the file **"Assets/SphericalImageCam/Scripts/SIUtils.cs"**. Add code as a below template in **CheckTypes()** function.

```
if(type.Equals(typeof(Component))) return false;
```

Caution
In "SIUtils.cs", the descriptions of **CheckTypes()** function controls copying components, if the GameObject has a sort of self-generation component that creates new GameObject in child node, the camera script creates the component recursively that makes unity freeze up.
DO NOT remove the descriptions of **SphericalImageCam*Equi4 and SphericalImageCam*Equi5, SphericalImageCam_Equi6, SphericalImageCam*Dome3, SphericalImageCam*Dome5, SICameraBase, SICameraCreator, ...** from CheckTypes() function for avoiding Unity freezing.

```
1 //SIUtils.cs
2 //
3 //Copyright (c) 2015 blkcatman
4 //
5 using UnityEngine;
6
7 public class SIUtils {
8     public static bool CheckTypes(System.Type type)  {
9
10         //Do not change below codes.
11         if(type.Equals(typeof(SphericalImageCam_Equi4))) return false;
12         if(type.Equals(typeof(SphericalImageCam_Equi5))) return false;
13         if(type.Equals(typeof(SphericalImageCam_Equi6))) return false;
14         if(type.Equals(typeof(SphericalImageCam_Dome3))) return false;
15         if(type.Equals(typeof(SphericalImageCam_Dome5))) return false;
16         if(type.Equals(typeof(SICameraBase))) return false;
17         if(type.Equals(typeof(SICameraCreator))) return false;
18         if(type.Equals(typeof(SICustomCamera))) return false;
19         if(type.Equals(typeof(SIRenderEvent))) return false;
20         if(type.Equals(typeof(SIGUITexture))) return false;
21
22         if(type.Equals(typeof(GUILayer))) return false;
23         if(type.Equals(typeof(AudioListener))) return false;
24         if(type.Equals(typeof(AudioReverbZone))) return false;
25         if(type.Equals(typeof(AudioClip))) return false;
26         if(type.Equals(typeof(AudioSource))) return false;
27         if(type.Equals(typeof(Camera))) return false;
28         if(type.Equals(typeof(Transform))) return false;
29
30 #if UNITY_5_0 || UNITY_5_1 || UNITY_5_2 || UNITY_5_3 || UNITY_5_4
31         //for unity 5.x
32         //Add codes if you want to ignore some Components.
33         if(type.Equals(typeof(FlareLayer))) return false;
34
35
36
37
38 #endif
39 #if UNITY_4_0 || UNITY_4_1 || UNITY_4_2 || UNITY_4_3 || UNITY_4_3 || UNIT
40         //for unity 4.x
41         //Add codes if you want to ignore some Components.
42         if(type.Equals(typeof(Behaviour))) return false;
43
44
45
46
47 #endif
48
49         return true;
50     }
51 }
```

Contact Us

For more information or any question, bug reports, please send a message to my twitter @blkcatman.