CamSphere v2
After Effects 3D Template for immersive production

USER’S GUIDE – may 2015

Contact: dom@sat.qc.ca
CAMSPHERE V2
(3D template for After Effects)

Angle: 180° to 360° x 360°
Maximum resolution: 4096 x 4096 px
Bitrate: 30 FPS
Flattening: Adobe After Effects, CamSphere and ft-UVPass plugin
Format: All files compatible with Adobe After Effects.

Required software
1x Adobe After Effects
1x CamSphere V2 (3D creation template) http://sat.qc.ca/fr/logiciels/tous
1x ft-UVPass Plugin http://aescripts.com/ft-uvpass/

Basic principles
CamSphere is a creation tool for immersive contents. This template allow you to create inside the 3D environment of After Effects and generate equidistant circular and panoramic format dedicated to immersive environments such as domes or virtual reality headset. This is possible with a set cameras that shoot this 3D space in a Cubemap format which the faces are then assembled in a final file.

Using the Template
To use CamSphere, the ft-UVPass plugin is required to generate the final result (Domemaster or Panoramic equidistant).

Just create the 3D environment in the "SCENE" composition by applying elements in 3D and operating the Camera Position (set of cameras) movements. With the Orbit Camera Tool and the different views, you can navigate around the scene in order to properly position its different elements.

Finally, you just need to render the composition (OUTPUT CONFIG) of your choice, depending of the immersive environment you want. Each of those configurations are available with or without the alpha channel. But, you need to know that the use of the alpha channel raise the render and preview time.
Instructions

1- Firstly, open a second preview window to see the final result (OUTPUT CONFIG). Click on the View > New Viewer tab. In the new window, select the output composition of your choice. Of course, this composition must be open first.

2- Apply the elements by making sure their 3D mode are enabled.

3- By using the different navigation views, you can position the elements precisely, thanks to the plan and cross-sectional views. Using the Orbit Camera Tool in Custom View mode lets you visualize the 3D space from the desired angle.

The cameras identified with capital letters are the six CamSphere cameras. They simulate the spectator's view in one of the six camera axes.

The cameras identified with small letters are the After Effects default cameras. These cameras give a viewpoint with more distance around the scene. These viewpoints help with positioning of elements in relation to the CamSphere and are essential to precisely move the CamSphere.

3- You can change the camera focus settings by activating the Camera DOF "Depth of field" element and to alter the "Focus Distance", "Aperture" and "Blur Level" parameters.

4- To perform CamSphere movements, simply use any of the settings for the "Camera Position" element.

5- To produce the final rendering, simply render the composition of your choice "OUTPUT CONFIG".
**IMPORTANTS INFORMATIONS**

1-It is possible to work on more than one composition in the same project to create a batch render. In fact, there is 5 possible compositions inside CamSphere. The "SCENE" composition is then linked to the "OUTPUT CONFIG" of CamSphere 1, "SCENE 2" is linked to the "OUTPUT CONFIG" of CamSphere 2 and so on.

2-Effects such as Element3d, Plexus, Trapcode, and even lights are unfortunately not taken into account if they are applied in a pre-composition. Since the "SCENE" composition is a pre-composition of all the six cameras compositions (Front, Right, Back, Left, Top and Bottom) that create the "OUTPUT CONFIG", the effects have to be manually copy and paste to each of those 6 compositions (Front, Right, Back, Left, Top and Bottom) and the "SCENE" layer must be removed in each of them. But, there is a script (duplicate with connections) that allow you to copy-paste just one time and continue working in the "SCENE" composition without copy-pasting at every changes. [http://aescripts.com/duplicate-with-connections/](http://aescripts.com/duplicate-with-connections/)

3-It is also possible to convert files such as panoramic equidistant in a Domemaster format. You just need to replace the layer "MY PANO to replace" in the composition of your choice inside the "PANO2DOME" folder.