

My approach to achieve a 5-wall projection mapped interactive installation I used a windows machine with 2 Nvidia 1080 graphics cards (though you could probably just use one) with Unreal Engine with at least 4.13 or better, Max MSP, the Spout plugin, and TCP Spout installed.

For my specific scenario, I needed to get from Windows to OSX to use VDMX for the projector output in the A360 Studio so TCP Syphon and Syphon needed to be installed on the Mac.

I also have some OSC triggers in the Max patch that are specific to my install that allowed me to send data to both the Unreal level to start and stop my installation and jump forward to the different textures set up to play at different times throughout the narrative. This OSC section of the patch was also responsible for handling the audio which played from another Max patch on the Macbook Pro.

A lot of this ended up being overkill in the A360 studio since I ended up being able to send my spout output over TCP Spout to Mojo's setup which as I said is in OSX, bypassing the Macbook for video altogether.

I tried to breakdown what is absolutely necessary to make this work in the most barebones sense so that others might be able to accomplish this process and use it for A360 Studio in Brooklyn or in your own set up. If you are interested in the project itself and what it was about and/or what it looked like you can find that [here](#).

On the windows machine:

Download the Spout plugin and extract. Installation instructions are in the repo <https://github.com/AleDel/Spout-UE4>

Download TCP Spout installation instructions are on the page. <http://techlife.sg/TCPSpout/>

In my case I used OSC so I needed the OSC plugin for Unreal engine. (note : *This plugin is updated with every version of Unreal Engine see the git repository notes about compiling the plugin to the new version of the engine.*)

<https://github.com/monsieurgustav/UE4-OSC>

Now that all that is downloaded and ready to go.

Start with a New project in Unreal engine 4.13 or newer.

Make a sphere and place it at position 0,0,0 and enlarge sphere scale to greater than 100 in all directions.

Make a texture name it whatever you like. Add 360 video to the texture and add the texture to the sphere.

Add 5 cameras to the level in the center of the sphere location at 0,0,0

Aim each camera in 5 directions north, east, south, west, and nadir(bottom) respectively. This is for the four walls and the floor of the installation.

Add 5 spout handlers into the level.

Makes sure the output of each camera is directed to an individual spout handler.

Run the level by pressing the play button.

Open the Max MSP patch. It should be combining the spout handlers into one large texture.

Open TCP Spout. You should be receiving the output of the Max Patch.

On the Macbook Pro you will need to be connected to the same network that the windows machine is connected to. Or in my case the same network that Mojo's machine was connected to.

Open TCP Syphon.

You should be receiving the output texture of the Max Patch from the windows machine across the network.

In VDMX you will need to select syphon in a media player and direct that output to the individual projectors in the output of VDMX which are aimed and mapped to the four walls of the room.