



360 Video Player v0.31 - 5/2/2017

[Introduction](#)

[Video Tutorials](#)

[What is 360 Video Player?](#)

[Supported Video Formats](#)

[How To Use](#)

[Initial Setup](#)

[Media Player Controller Script](#)

[VideoInfo Class](#)

[Video Wall](#)

[Video Wall Script](#)

[How It Works](#)

[Bugs](#)

[WindowsVideoMedia Errors](#)

[Unity 5.6 Video Player Poor Performance](#)

[Easy Movie Texture v3.59 Bug](#)

[Help And Support](#)

Introduction

Thanks for the purchase and support! We are a community of VR & game devs, working together to create games, experiences, development tools, and tutorials to empower emerging indie developers worldwide. Join us here: <https://www.youtube.com/nurfacegames/>

Video Tutorials

Intro v0.3: <https://www.youtube.com/watch?v=zJNAzHOusks>

Tutorial v0.3: <https://www.youtube.com/watch?v=JzrhU3SDo3Y>

What is 360 Video Player?

This pack adds the standard media player controls to 360 video. The pack works with both [Easy Movie Texture](#) and Unity 5.6's [Video Player](#) component. The video player can play stereoscopic 360 video or monoscopic 360 video.

Supported Video Formats

- Monoscopic 360 video
- Stereoscopic 360 video (Over-under layout, left eye on top and the right eye on the bottom)
- If you encounter other 360 formats, you may request support by emailing us.

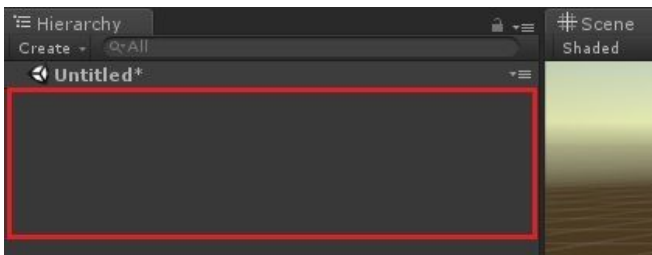
How To Use

Initial Setup

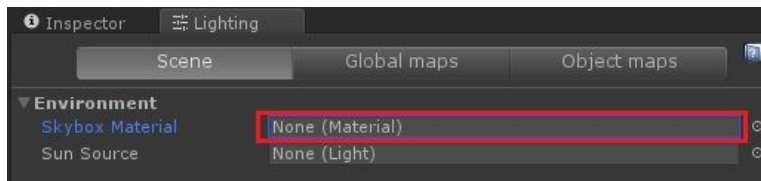
1. After importing the pack, first move the StreamingAssets folder to the root of /Assets. All video files to be played should be added to /Assets/StreamingAssets/



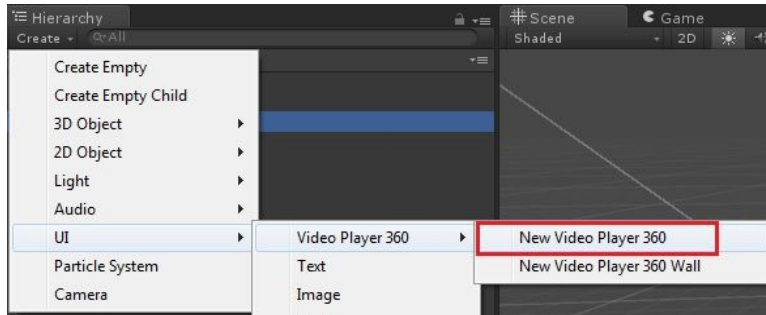
2. Open a new scene in Unity. Delete the default Main Camera and Directional Light.



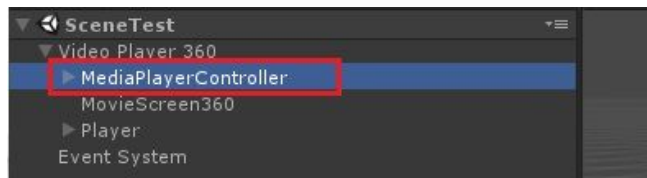
3. Open Unity's Lighting window and delete the Default-Skybox.



4. In Unity's Hierarchy's window, click 'Create > UI > Video Player 360'

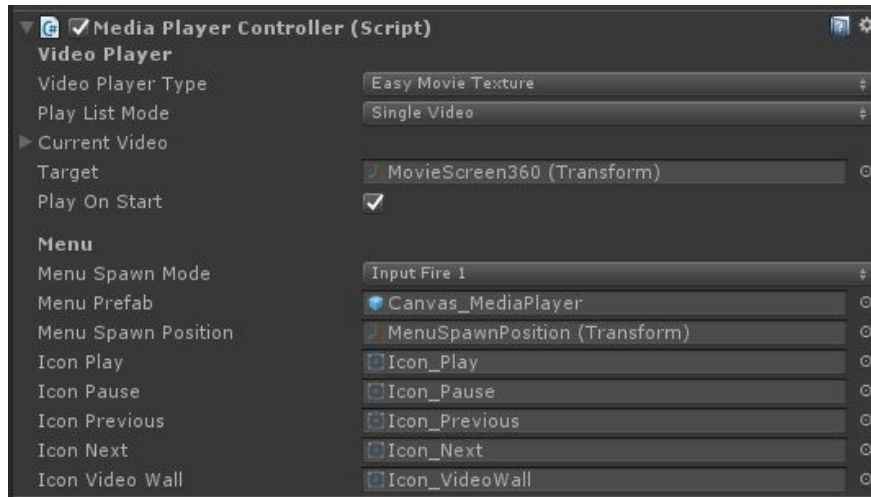


5. Expand the 'Video Player 360' GameObject and select 'MediaPlayerController'.



6. Proceed to the next section, covering the Media Player Controller script.

Media Player Controller Script



Video Player Type: Select to use [Easy Movie Texture](#) or Unity 5.6's Video Player component. For any Unity version before 5.6, you must use Easy Movie Texture.

Play List Mode: Will you be playing a single video or multiple videos?

Current Video (or Video Playlist): The [VideoInfo](#) for each video that will play.

Target: The 360 Video Player object. You may have multiple 360 movie screens in a scene.

Play On Start: The video will automatically start playing.

Menu Spawn Mode: Should the menu be spawned by Input Fire1 or by looking down?

Menu Prefab: The prefab for the menu. This is a workspace UI with the Play/Pause buttons and time scrubber.

Menu Spawn Position: The workspace UI is spawned at this position. This should be a child of the Main Camera and named *MenuSpawnPosition*.

Icon Play / Pause / Previous / Next / Video Wall: These are the sprites that are used on the workspace UI. You may change the sprites used here.

Once these variables (including the [VideoInfo](#)) are configured for your project, you're ready to press play and view the video. Hold down ALT to rotate the view and hold CTRL to tilt the view.

VideoInfo Class

The VideoInfo.cs class saves all the data associated with each video that will play.

File Name	VideoFile.mp4
Thumbnail Sprite	None (Sprite)
Title	
Date	
Description	
Material	Stereoscopic

File Name: (Required) Filename of the video. File must be in */Assets/StreamingAssets* folder.

Thumbnail: A 16x9 thumbnail sprite for the video to be displayed on video wall unit.

Title: A title for the video, shown on video wall unit.

Date: A date for the video, shown on video wall unit.

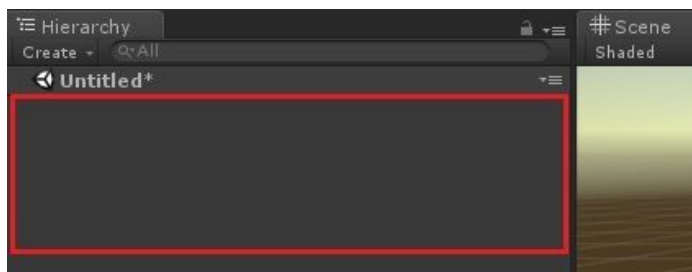
Description: A description for the video, will only be shown when gazing at the video wall unit.

Material: (Required) The material that will be used when playing the video. Use the *Monoscopic* material for mono video, and *Stereoscopic* material for stereo video.

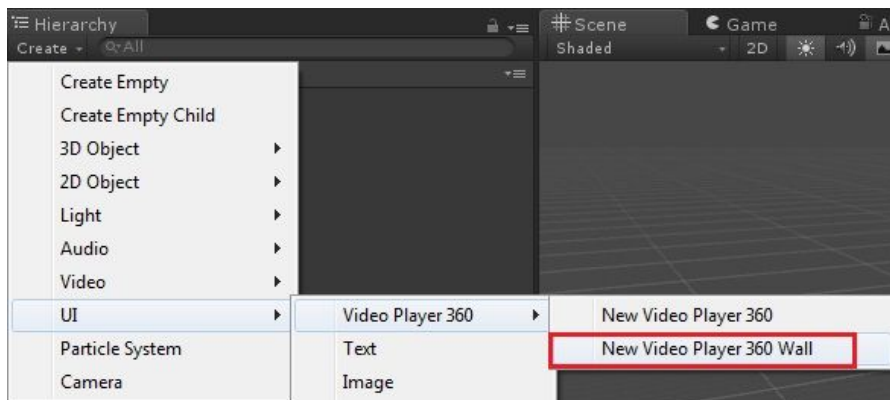
Video Wall

Creating a video wall is the same as creating a 360 player.

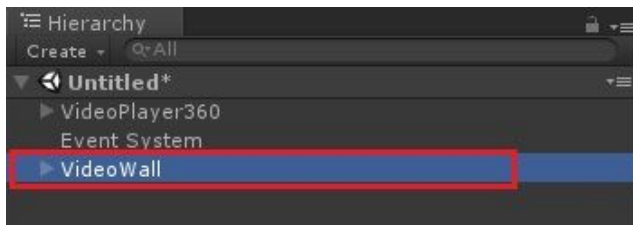
1. Open a new scene in Unity. Delete the default Main Camera and Directional Light.



2. In Unity's Hierarchy's window, click 'Create > UI > Video Player 360 Wall'

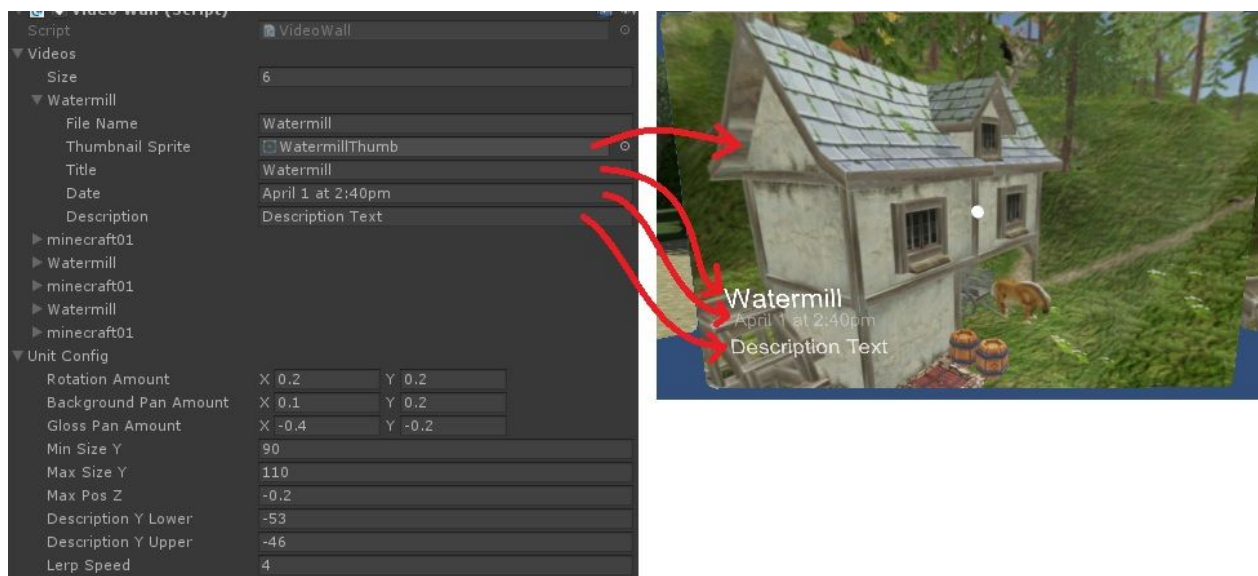


3. Select the 'Video Wall' Gameobject and inspect the VideoWall script.



4. Proceed to the next section, covering the Video Wall script.

Video Wall Script



Videos: Configure each video wall unit here.

Size: The number of video units which the wall will display. Currently supports up to 6. For each video on the video wall, a [VideoInfo](#) class will be created. VideoInfo from the Video Wall will be automatically assigned to the Media Player Controller's list of videos. So when using the Video Wall, do not configure the 'Video Playlist' on Media Player Controller script.

Unit Config: Configure how the video wall units rotate, pan, move, when looking at the unit.

Rotation Amount: The amount the menu will rotate when gazed at.

Background Pan Amount: The amount the thumbnail image will pan when gazed at.

Gloss Pan Amount: The amount the gloss image will pan when gazed at.

Min Size Y: The minimum Y size of the window when NOT gazed at.

Max Size Y: The maximum Y size of the window when gazed at.

Max Pos Z: The Z position of the window when gazed at.

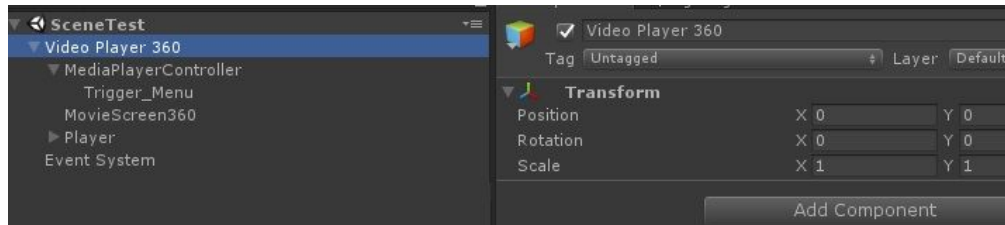
Description Y Lower: The Y position of the description text when NOT gazed at.

Description Y Upper: The Y position of the description text when gazed at.

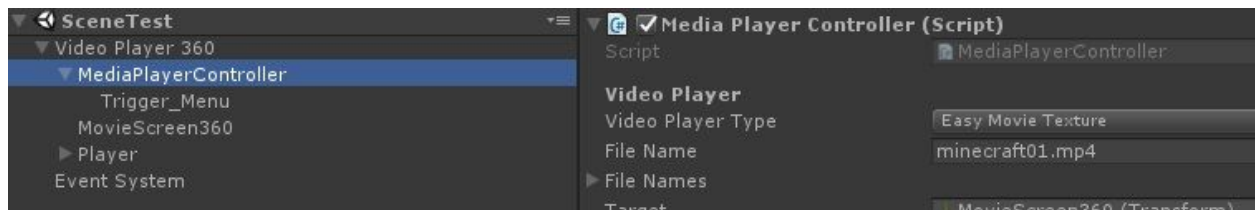
Lerp Speed: How fast the menu open/close animations will play.

How It Works

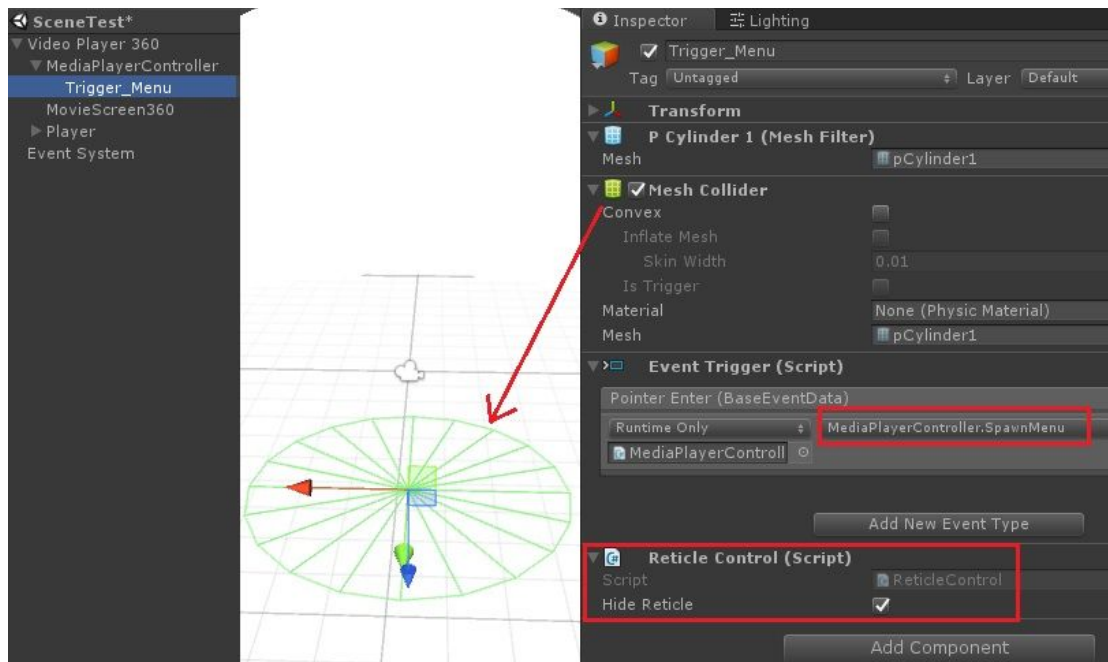
The **VideoPlayer360** gameobject is the root parent, to hold all other required gameobjects. It only has a Transform:



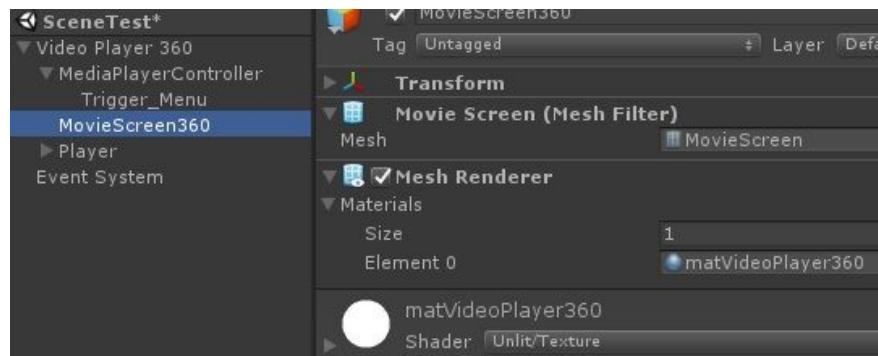
The **MediaPlayerController** gameobject and script allow for all of the configuration of the Video Player. For more details, see the section about the [MediaPlayerController](#) Script.



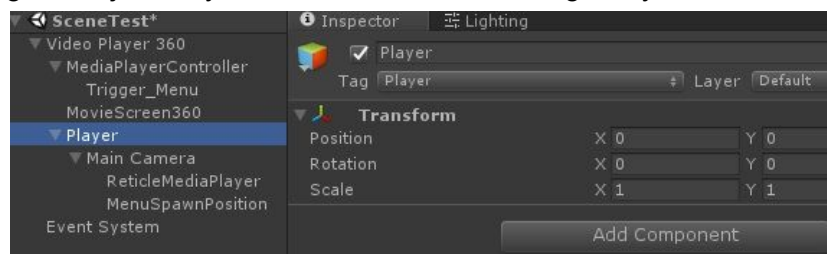
When using the Menu Spawn Mode “Gaze Trigger”, the **Trigger_Menu** gameobject has a collider which triggers showing the menu when you look at it. Gazing at the collider causes the Event Trigger to call the *SpawnMenu()* function on the *MediaPlayerController.cs* script. The Reticle is NOT shown when looking at this collider because the *ReticleControl.cs* script has been added with “*Hide Reticle*” set to true.



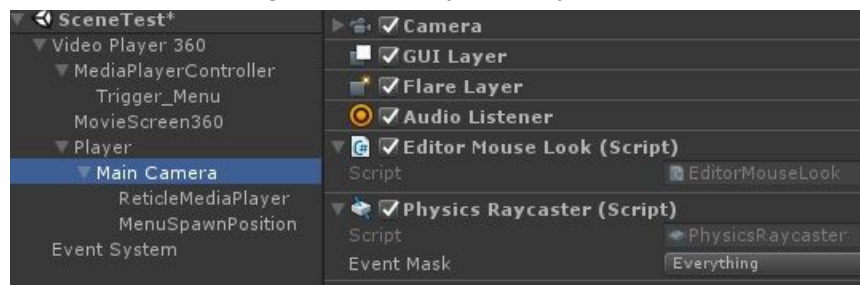
The **MovieScreen360** gameobject has a sphere mesh and the mesh is being rendered with special unlit shaders that show black when no texture is assigned.



The **Player** gameobject represents the “player” themselves or the VR Camera Rig. This gameobject only has a Transform and a Tag “Player”.



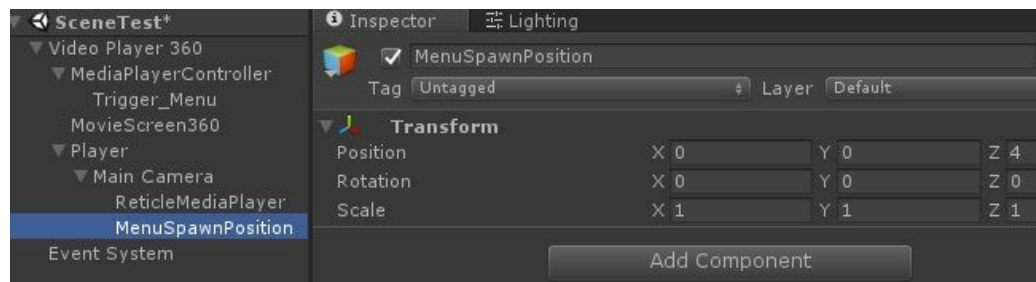
The **Main Camera** gameobject is the VR camera. The *EditorMouseLook.cs* script only functions in Unity Editor and it allows rotating the camera with the mouse while holding ALT and tilt the camera while holding CTRL. A Physics Raycaster is required for the gaze input to work.



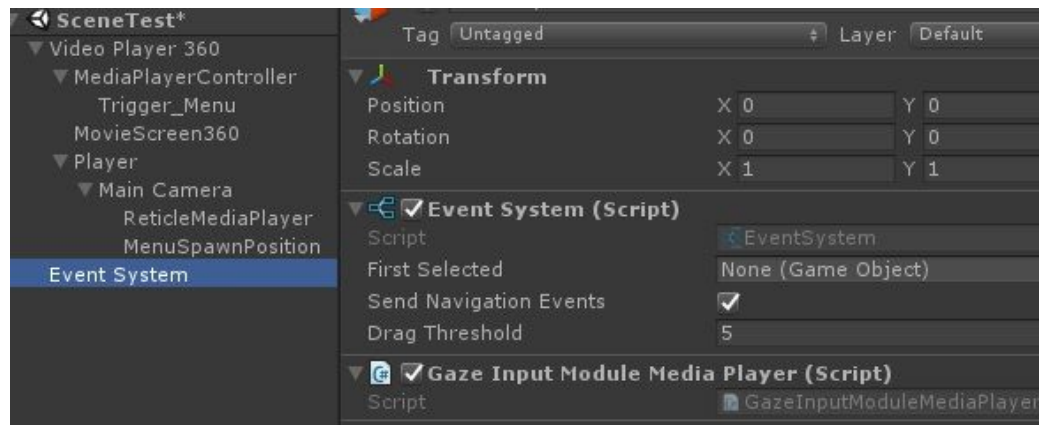
The **ReticleMediaPlayer** gameobject and script is the custom reticle which is not visible unless viewing at an interactive object like the UI. The reticle can be hidden with the *ReticleControl.cs* script for interactive objects like the Menu Trigger (the circle trigger below the camera).



The **MenuSpawnPosition** gameobject only has a transform and this is the position where the UI Menu will spawn. This gameobject should always be a child of Main Camera and the default position is 0,0,4.



The **EventSystem** gameobject is the default UI > Event System except the Standalone Input module has been removed and replaced with *GazeInputModuleMediaPlayer.cs*, a custom gaze input module for this asset.



Bugs

WindowsVideoMedia Errors

I have experienced many different WindowsVideoMedia errors when trying to import and play various different formats of 360 video. It seems to be a bug related to Unity or Windows, but we have not found the root cause. If you experience this error, please visit [this forum post](#) and post the following information:

- Your exact WindowsVideoMedia error
- Unity Version
- Operation System, and version
- If you have Quicktime installed


Unity 5.6 Video Player Poor Performance

Unity 5.6 Video Player component (UVP) has various performance issues. Required callbacks from UVP are sometimes not called when UVP is playing large video files. The same callbacks always work flawlessly when using Easy Movie Texture, and the only culprit here seems to be UVP's performance when dealing with large video files. I'm not sure how to resolve it, short of using lower resolution videos that UVP can handle better. This has also been reported to Unity.

When using large video files with UVP, you may experience bugs such as the next video not loading after one has finished playing, a stutter when scrubbing through the timeline, etc. Please report any errors you have with UVP, and it will help Unity get their video player working better.

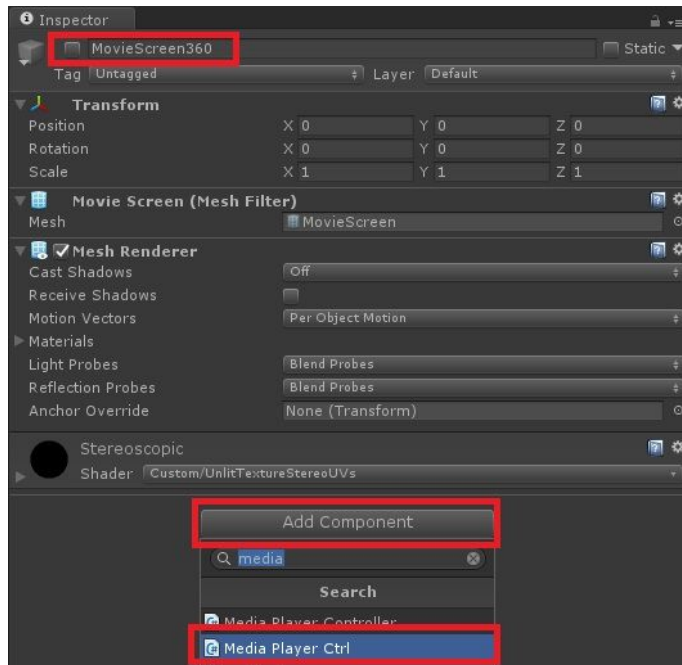
Easy Movie Texture v3.59 Bug

Easy Movie Texture v3.58 and v3.59 introduced a bug.

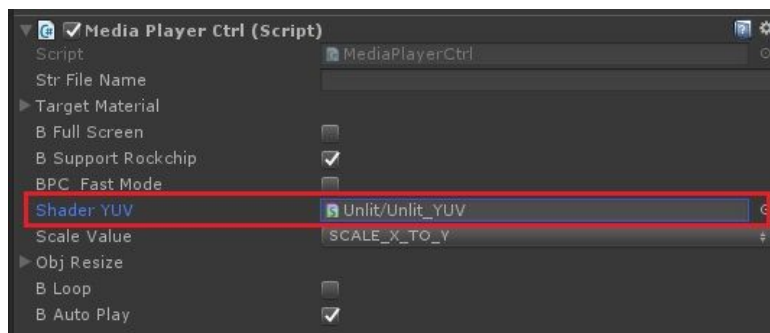


```
NullReferenceException
UnityEngine.Material..ctor (UnityEngine.Shader shader) (at C:/buildslave/unity/build/artifacts/generated/common/runtime/ShaderBindings.gen.cs:313)
NullReferenceException
UnityEngine.Material..ctor (UnityEngine.Shader shader) (at C:/buildslave/unity/build/artifacts/generated/common/runtime/ShaderBindings.gen.cs:313)
MediaPlayerCtrl.Call_UpdateVideoTexture () (at Assets/EasyMovieTexture/Scripts/MediaPlayerCtrl.cs:3478)
MediaPlayerCtrl.Update () (at Assets/EasyMovieTexture/Scripts/MediaPlayerCtrl.cs:580)
```

The developer of Easy Movie Texture said this will be fixed in the next version. For now, please add the script *MediaPlayerCtrl.cs* to the gameobject named *MovieScreen360*.



After that, select the Shader YUV field and populate it with the shader named Unlit/Unlit_YUV



Help And Support

For a video tutorial related to this asset, please click here:

Intro v0.3: <https://www.youtube.com/watch?v=zJNAzHOusks>

Tutorial v0.3: <https://www.youtube.com/watch?v=JzrhU3SDo3Y>

Join our VR community here for VR tutorials and videos:

<https://www.youtube.com/nurfacegames/>

For any questions or support, please email:

nurfacegames@gmail.com