

How to setup AR Portal

Requirements:

Before adding this Asset to your project you should take the following into consideration:

URP - You need your project to be setup for URP, for this you can create a new project from Unity Hub by selecting Universal Render Pipeline in the templates.

ARFoundation - For augmented reality you will need to add ARFoundation from the Unity Package Manager. This asset is compatible with ARFoundation 3.x and 4.x versions.

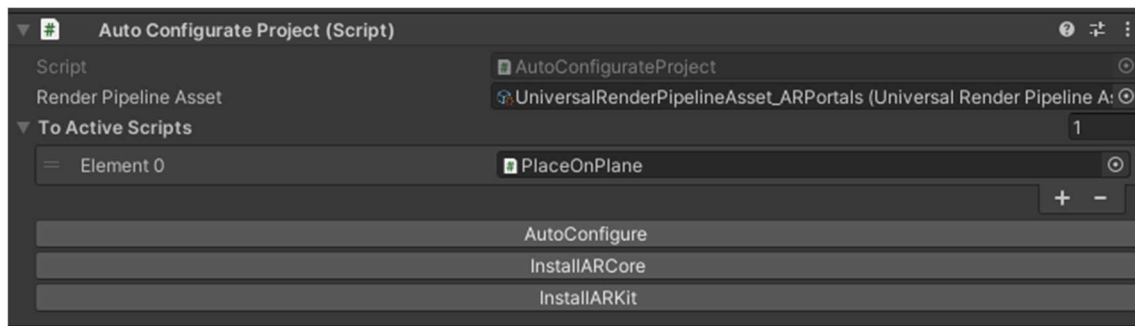
Mobile - For the compatibility of ARFoundation with mobiles you have to add the following packages:

- ARCore 3.x or 4.x - Android
- ARKit 3.x or 4.x – iOS

AUTO CONFIGURE PROJECT

Into the folder “Scenes” open “AutoConfigureProject”.

Select “AutoConfigureProject” GameObject and press “AutoConfigure” button on Inspector, and then press InstallARCore for Android or ARKit for iOS.



All dependencies will be download and installed, and project will be configured correctly.

ADD OBJECTS VIDEO TUTORIAL: <https://youtu.be/52yztWpyRNs>

IMPORTANT

This action replace:

- Rendering Pipeline in “Quality” in Project Settings
- Install ARFoundation(4.1.7) ARCore(4.1.7) and ARKit(4.1.7).
- If you had already installed all libraries, then clean comments from “PlaceOnPlane.cs” script.

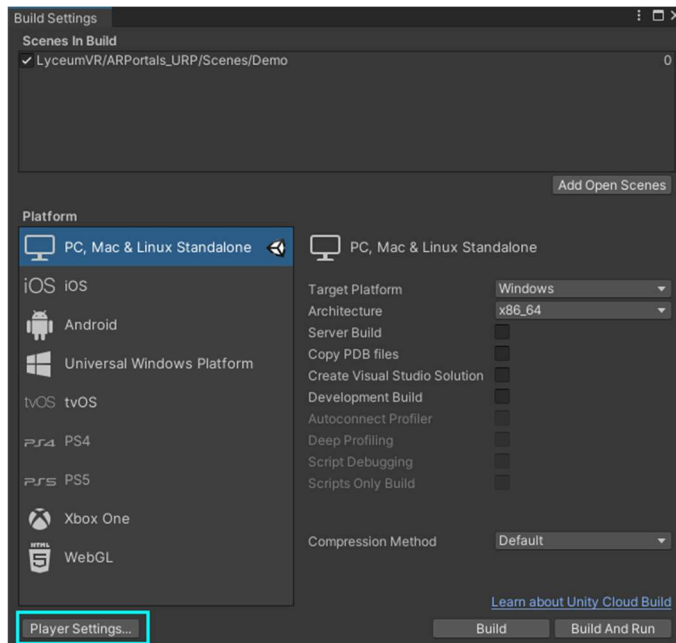
How it Works

Configure Project (Replace Universal Render Pipeline Asset)

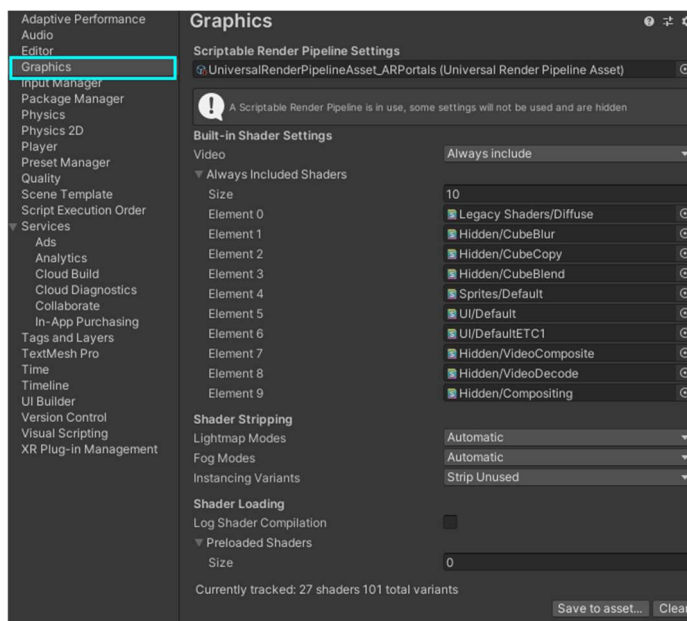
Before explaining how to configure your scene you have to configure your project so the portals work correctly:

*Make sure your project is configured in URP.

Go to Project Settings (File -> Build Settings... -> Player Settings...)

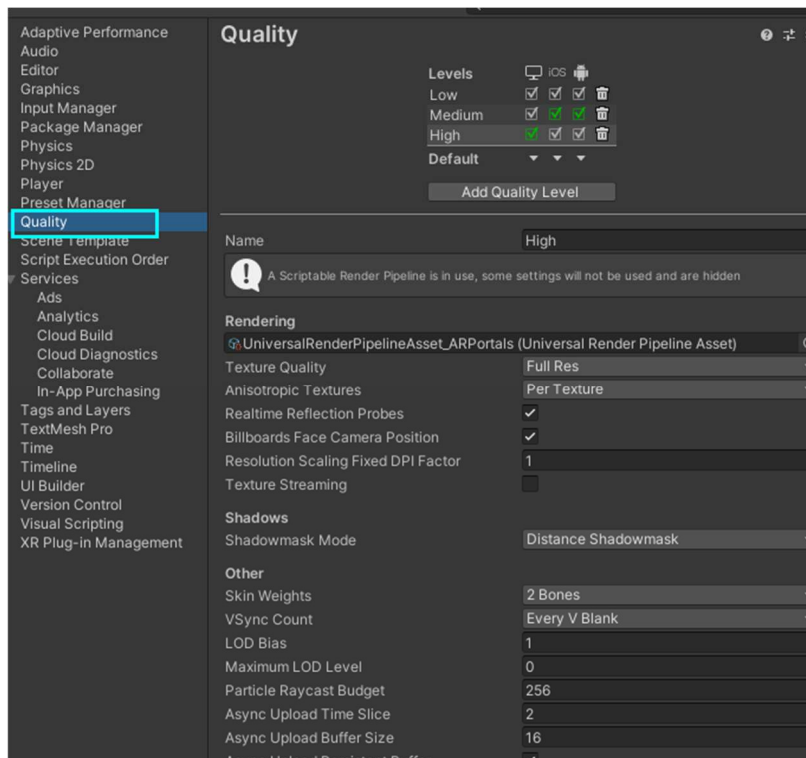


Select Graphics



Replace the Scriptable Render Pipeline Settings variable with the file "UniversalRenderPipelineAsset_ARPortals" located in "LyceumVR/ARPortals_URP/Settings".

Now select **Quality**



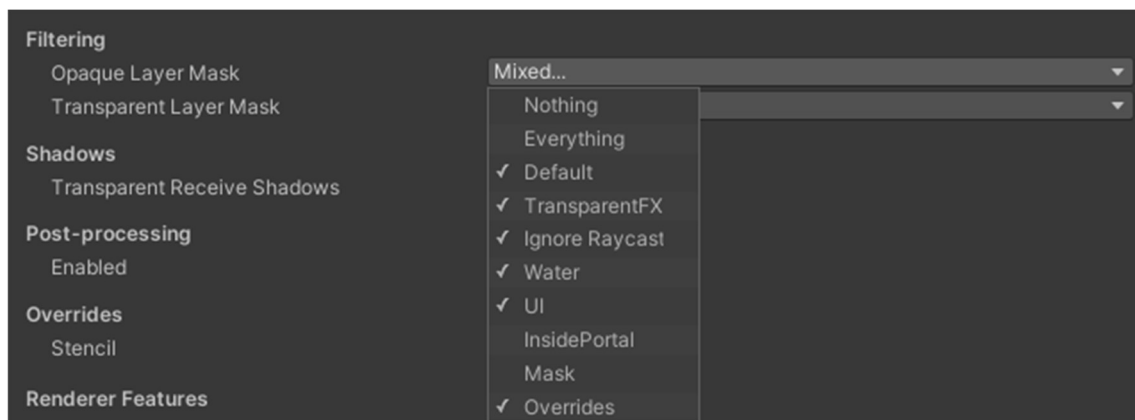
Replace the Rendering variable with the "UniversalRenderPipelineAsset_ARPortals" file located in "LyceumVR/ARPortals_URP/Settings".

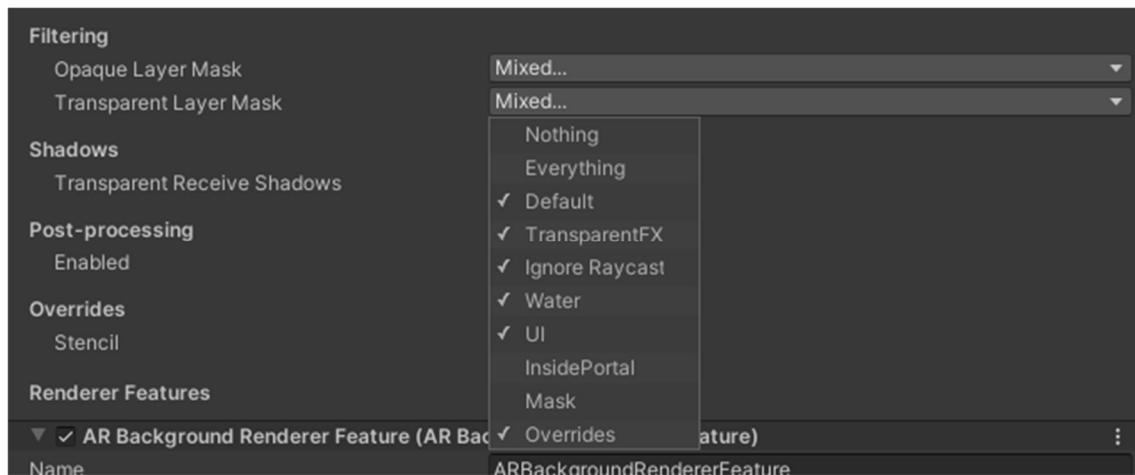
*Take care with have selected the correct quality level. Better add UniversalRenderPipelineAsset_ARPortals to all quality levels

Configure Project (Modify Universal Render Pipeline Asset)

If you don't want to replace your settings, open your Forward Renderer Data asset (you can find it in the Render List of your Universal Render Pipeline Asset) and configure it as follows:

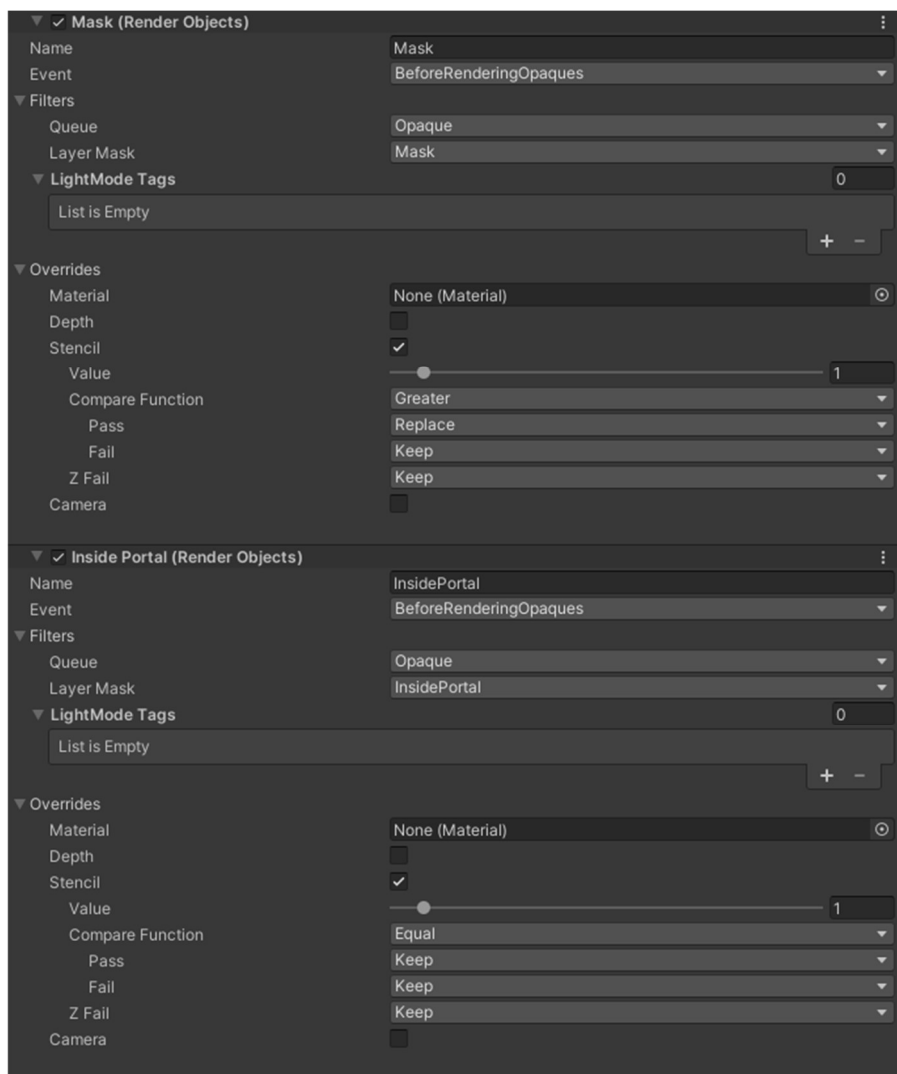
In the Filtering category, deselect from Opaque Layer Mask and Transparent Layer Mask the Mask and InsidePortal layers.





Add Renderer Feature -> AR Background Rederer Feature clicking button below if you didn't add before.

Add two Renderer Feature -> Renderer Objects and configure like this:



Now your project is ready to work

Setup Scene

In the folder "LyceumVR/ARPortals_URP/Prefabs" is the prefab ARPortal_Example, which you can drag into the scene. This prefab is already setup to work.

AR Session Origin contains the AR Plane Manager and Place On Plane scripts, which allow you to detect horizontal planes on the ground and place a portal on it.

The objects inside the portal must have the materials included in the materials folder.

PortalController.cs

This is the script that controls the effect of the portals, its parameters are described below:

- Camera Forward Activation Point Offset: This is the point in front of the camera (from the center of the camera) from which it is detected that the camera has started to cross the portal. The default value is 0.01
- Seconds To Reactive Portal: to avoid flickering when passing through the portal, just when the user passes through, the portal is deactivated during these seconds. Default value is 0.25
- Get Inside Portal Objects Childs: If active, for each object in the list, it adds its children to the list InsidePortalObjects
- Inside Portal Objects: Add here all the objects you want to have inside the portal.
- Layer When Inside: The layer to which the objects will be set when the user is inside the portal.
- Layer When Outside: The layer to which the objects will be set when the user is outside the portal.

Support

If any issue, please contact us. We will reply as soon as possible. Email: support@lyceumvr.es