



How to create a custom
Space for Spatial

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Basics

What is a Space?

In Spatial, a "Space" refers to an instance of a scene that can be joined by a multitude of Spatial users on different platforms.

Creating your own custom Space involves making use of their Creator Toolkit.

Spatial's Documentation: <https://docs.spatial.io/>

This toolkit offers an SDK, assets, and scripts that help bridge the gap between Unity and Spatial.



Getting Started F

GETTING STARTED

- Getting Started
- Samples & Examples
- Core Concepts & Glossary

UNITY PACKAGE TYPES

- Spaces & Space Templates
- Custom Avatars
- Custom Avatar Animations
- Avatar Attachments
- Custom Prefab Objects

COMPONENTS

- Scene Setup
- Interactivity
- Spatial Features

Spatial Creator Toolkit

Welcome to the Spatial Creator Toolkit! Build beautiful, immersive, and interactive experiences on Spatial, published effortlessly to web, mobile, and VR.

Use of the Spatial Creator Toolkit requires experience with Unity. We strongly recommend reviewing the [Learn Unity Essentials Pathway](#) before proceeding.

What Would You Like to Create?



Spaces & Space Templates



Custom Avatars & Animations

↓ Some slides will have additional information in the "Notes" section below. Look for the down arrow!

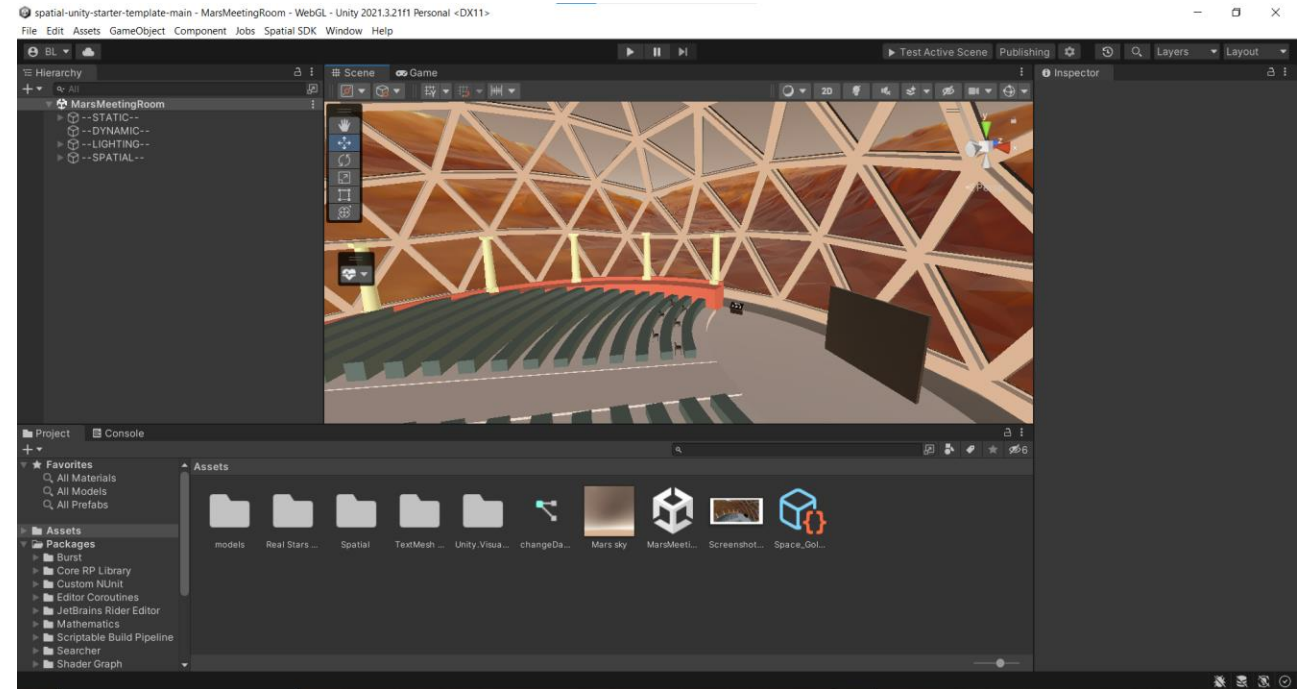
Basics

What is Unity?

Unity (in Tandem with the Creator Toolkit) is used to create new scenes that will become Spaces for Spatial. Spatial recommends that you gain some Unity experience before using the Creator Toolkit.

Unity scenes are fleshed out by placing object files (.fbx, .blend, etc.) and creating scripts.

To be able to test your Space, make sure to use Unity Editor version 2021.3.21.



Additional Notes Below

Creating a New Space

Method 1 – Using the starter template

The Unity project that Spatial provides as a starter template can be found [here](#). They recommend that you start from this template, as it is already set up with the Spatial SDK and several exemplary scenes/assets.

They outline this process in their documentation as well: <https://docs.spatial.io/getting-started>

1. Download the Starter Template

- [Click here to download the starter template.](#)
- Unzip the archive and open the project from Unity Hub.
- Once the project is opened you may see an update dialog. Click yes to update to the latest version of the Spatial Unity SDK.
- Then open the “Environment.unity” scene:



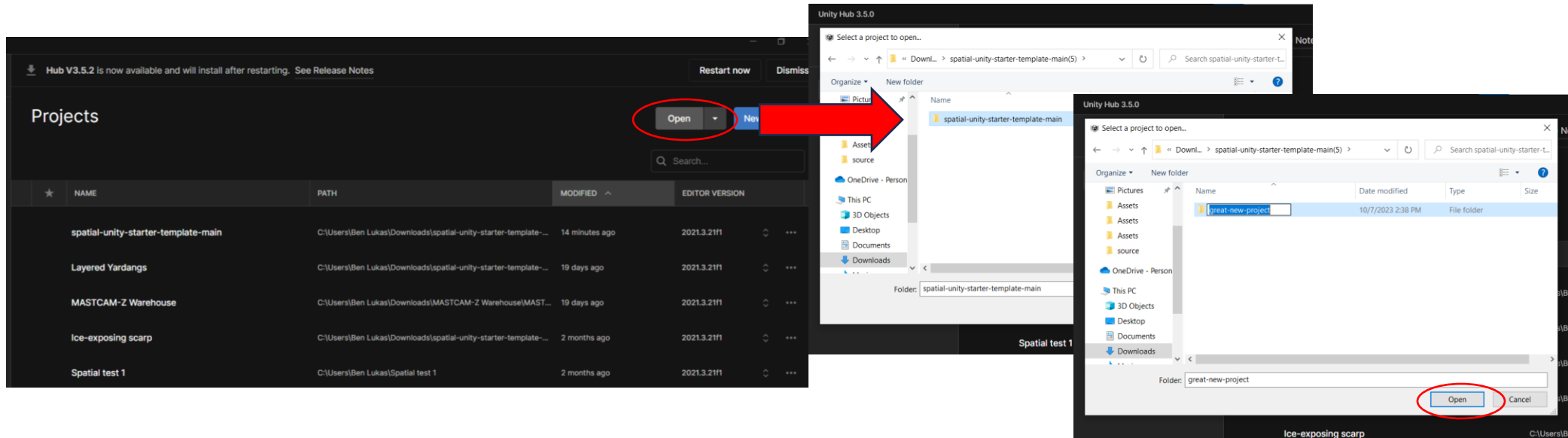
Additional Notes Below

Creating a New Space

Method 1 – Using the starter template

Once you have downloaded the template, simply open it from Unity Hub (this way the Hub will list it for easy access later). Again, make sure that Unity Editor 2021.3.21 is the version you are using to enable testing.

Find spatial-unity-starter-template-main>spatial-unity-starter-template-main, then click Open.

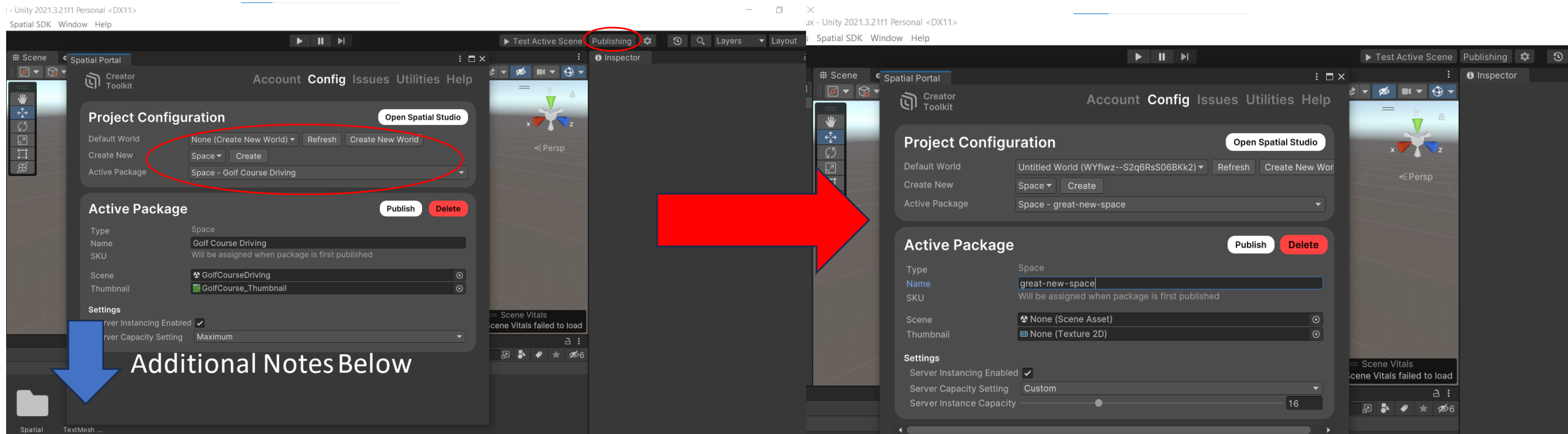


At this point you can rename it to whatever you want.

Creating a New Space

Method 1 – Using the starter template

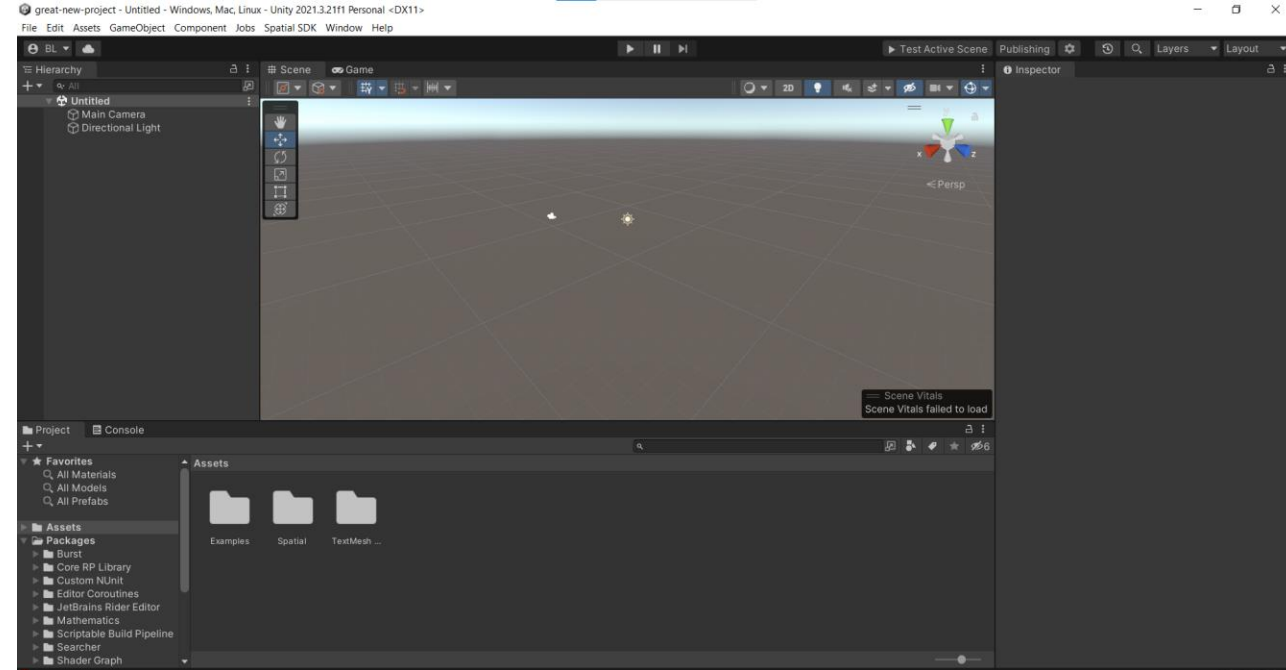
Click on Publishing to see your current Active Package. By default it is set to one of the assets from the starter template. Either create a new World or select an existing one. Then, create a new Space package and rename it to match your project. Select it as the new Active Package.



Creating a New Space

Method 1 – Using the starter template

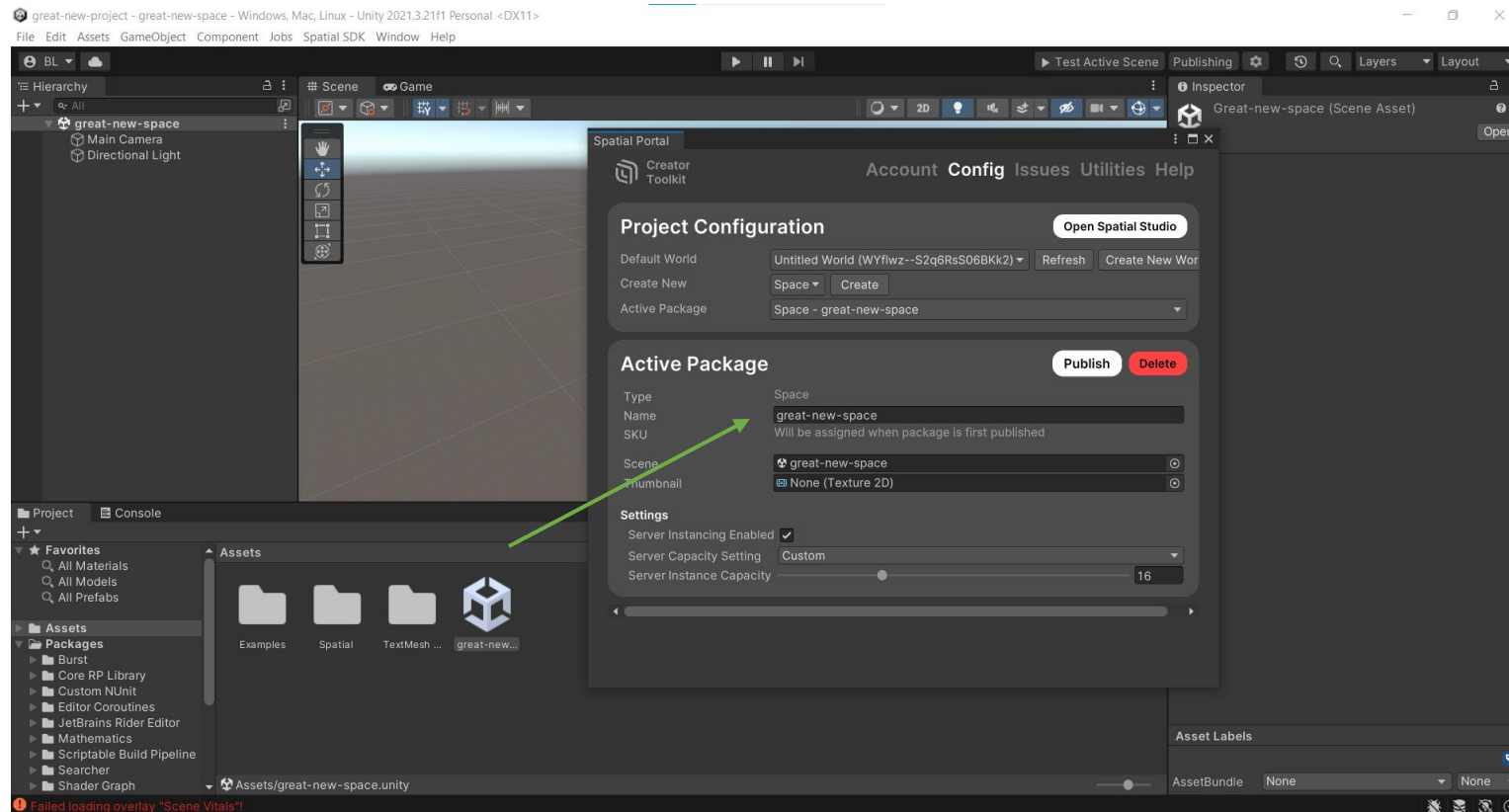
Upon opening the template in the Unity Editor, you will likely be asked to upgrade the Spatial SDK. Do this, and you will be in an empty scene, with several directories in your Assets.



Creating a New Space

Method 1 – Using the starter template

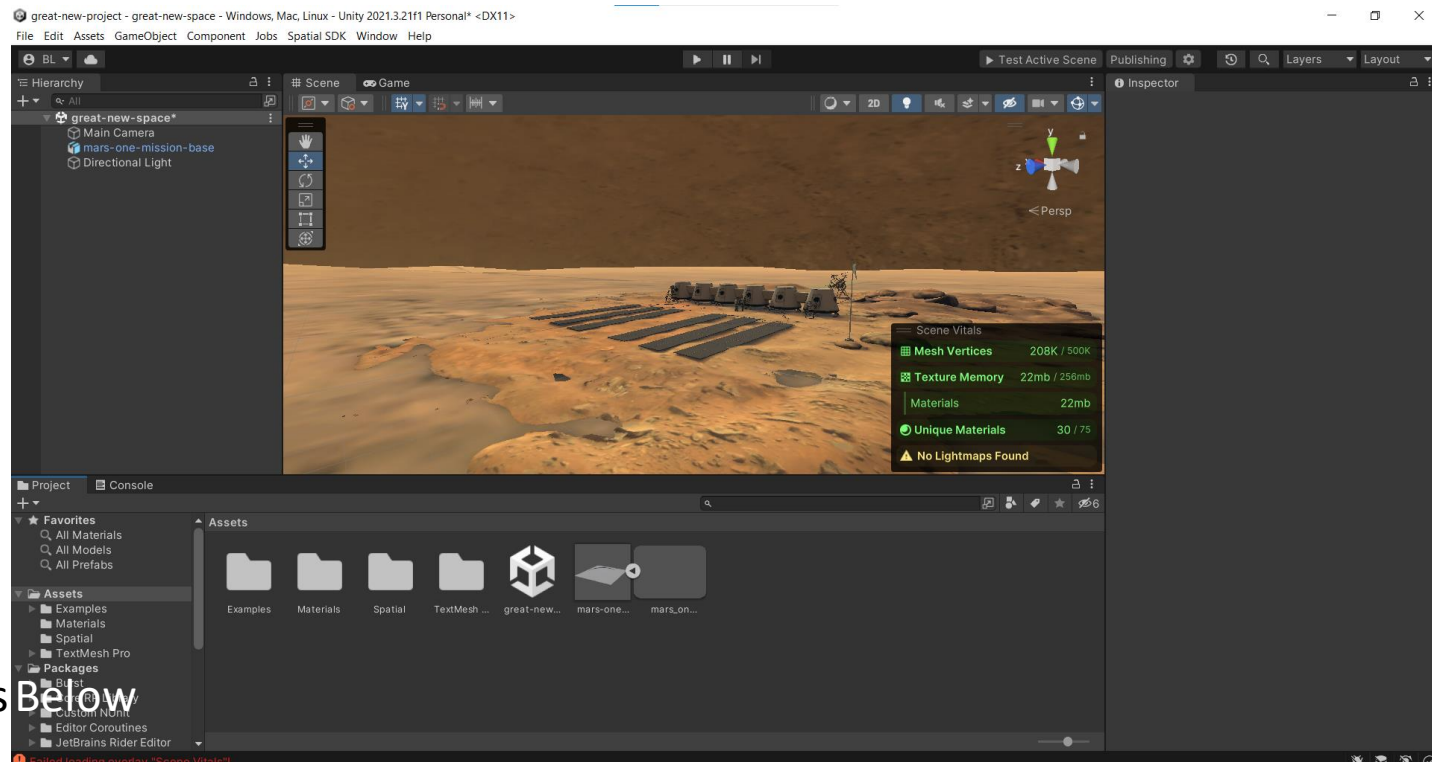
Create a new Scene asset for your Space and open it. Then, assign it to your Active Package.



Creating a New Space

Method 1 – Using the starter template

Now your empty Space is ready to be modified. Add an object to your room simply by dragging a .fbx or .blend file into your Assets directory, then dragging it from your Assets into the scene.

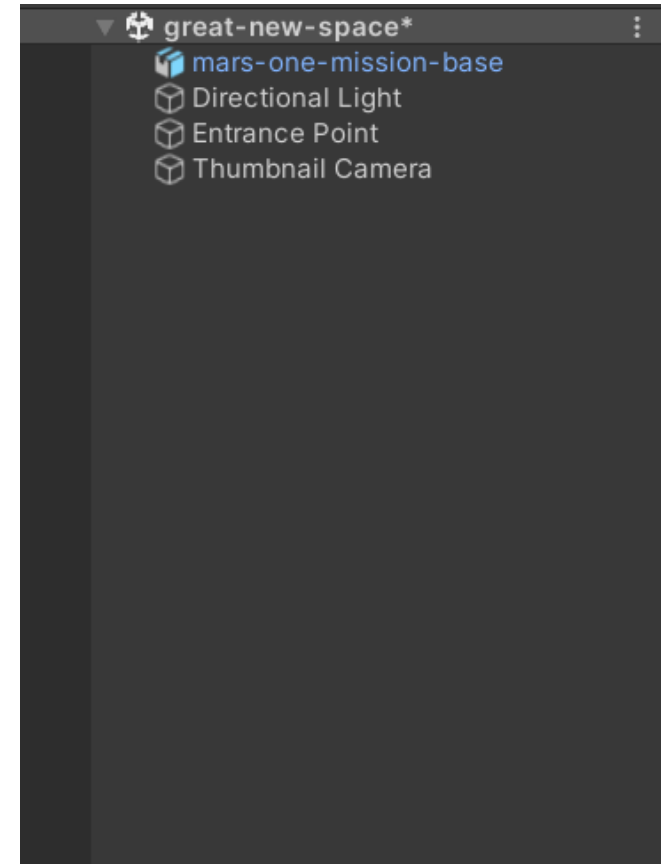


Creating a New Space

Method 1 – Using the starter template

In order to test our Space, we will need to do a few more things.

- 1) Delete the "Main Camera" object in your scene.
- 2) Add an Entrance Point to your scene.
- 3) Add a thumbnail camera to your scene.
- 4) Make sure that your avatar has a collider to stand on. Add a collider to whatever object is supposed to be the floor and place the Entrance Point above this collider.
- 5) In order to trim down the size and upload time of our package, you can remove the "Examples" directory from your assets.



Additional Notes Below

Creating a New Space

Method 1 – Using the starter template

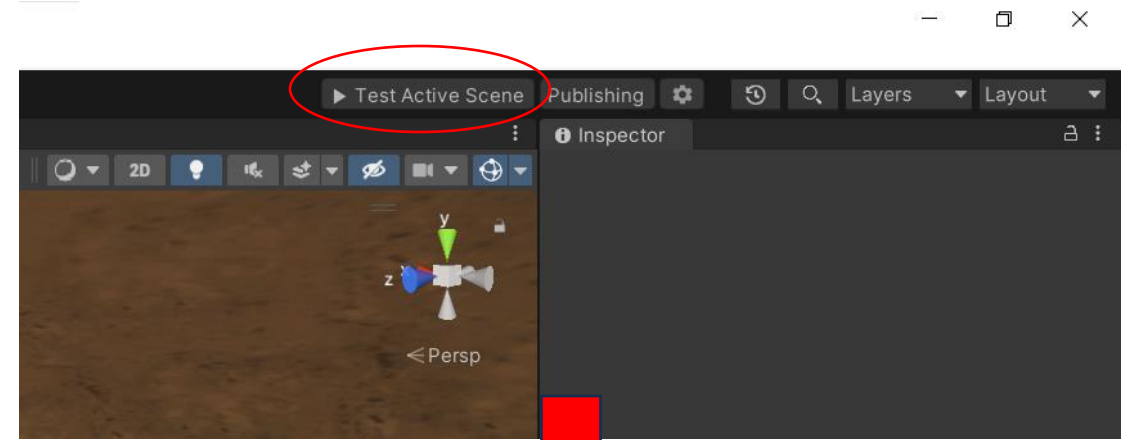
Now we can test our scene and see it in the browser version of Spatial. It's very quick and convenient for testing and bug-fixing your Space.

Click "Test Active Scene"
(make sure you have selected the right Active Package).

If there are any other problems with your scene, it will let you know.



Additional Notes Below



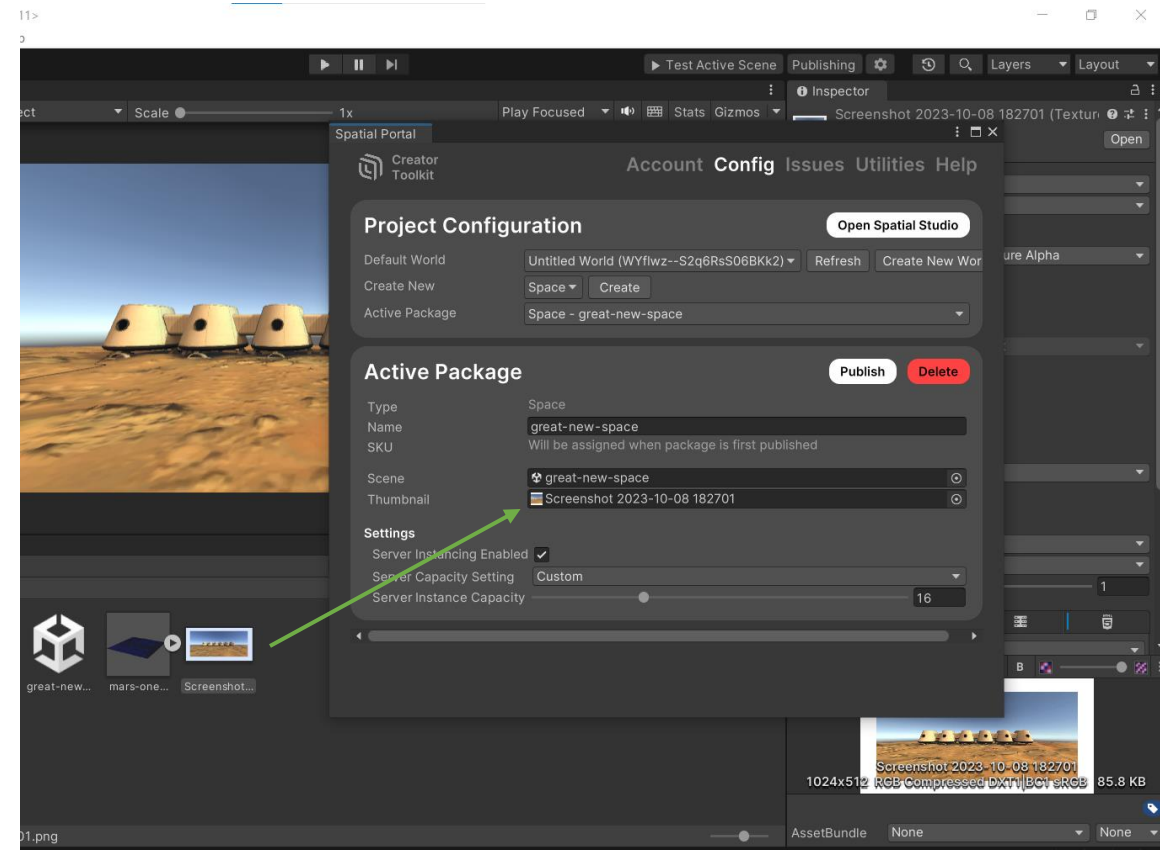
Creating a New Space

Method 1 – Using the starter template

In order to get our package ready for publishing, we just need to add a thumbnail of our scene.

Take a 1024x512 screenshot (exactly) of your scene in Unity, and set it to the Thumbnail in your Active Package (use a photo editing app to crop your thumbnail to the right size).

In the future Spatial will automatically generate this thumbnail for you.



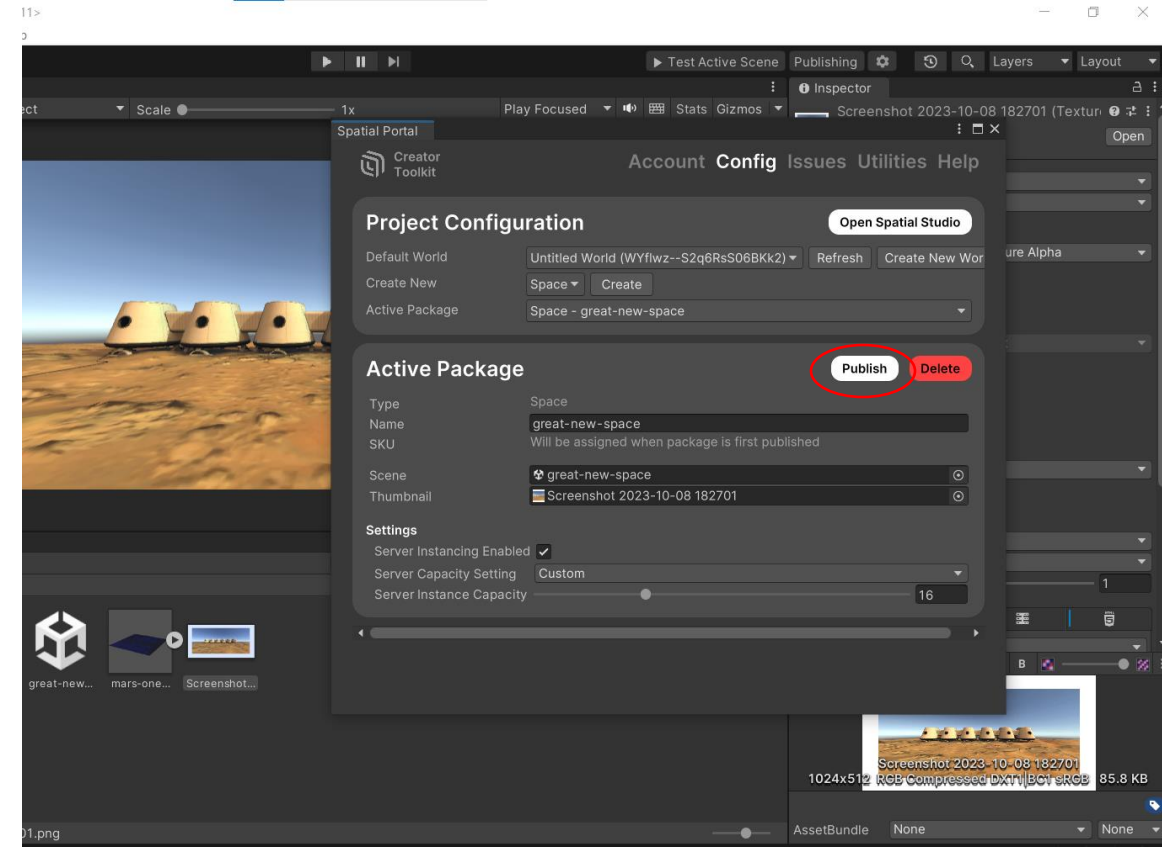
Additional Notes Below

Creating a New Space

Method 1 – Using the starter template

Once you publish your Space, it will be available on both the Spatial website on desktop and the Spatial app in supported Virtual Reality headsets.

In your Active Package, simply click "Publish" and confirm that your Space coincides with Spatial's community guidelines.

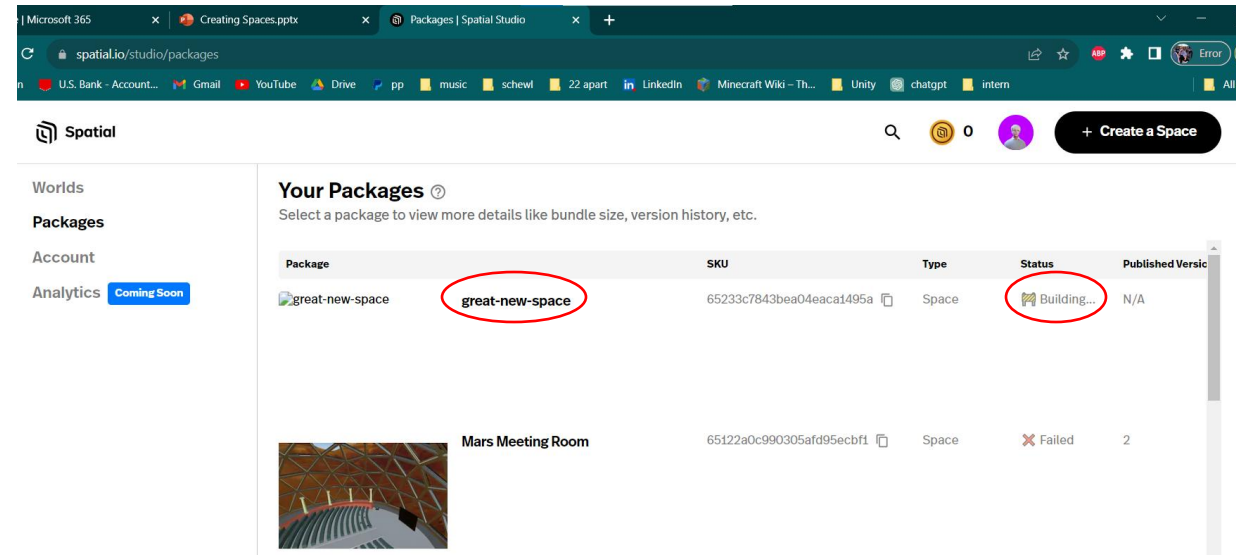


Creating a New Space

Method 1 – Using the starter template

Your Space is now being uploaded to the Spatial servers. You can check on your package in Spatial Studio. Go to spatial.io/studio/packages, or click on "Open Spatial Studio" from your Active Package. Find the package in your packages list, and it should be marked as "Building" until it is eventually marked "Successful".

If your package ends up marked "Failed", try again later as it is often a problem on Spatial's end.



Creating a New Space

Method 1 – Using the starter template

Once your package successfully uploads you can find it in the Spatial App under My Spaces (assuming you are logged into the same account that you published it from). Now your Space can be experienced in VR, and it can be shared and joined by others.

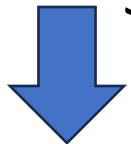


Creating a New Space

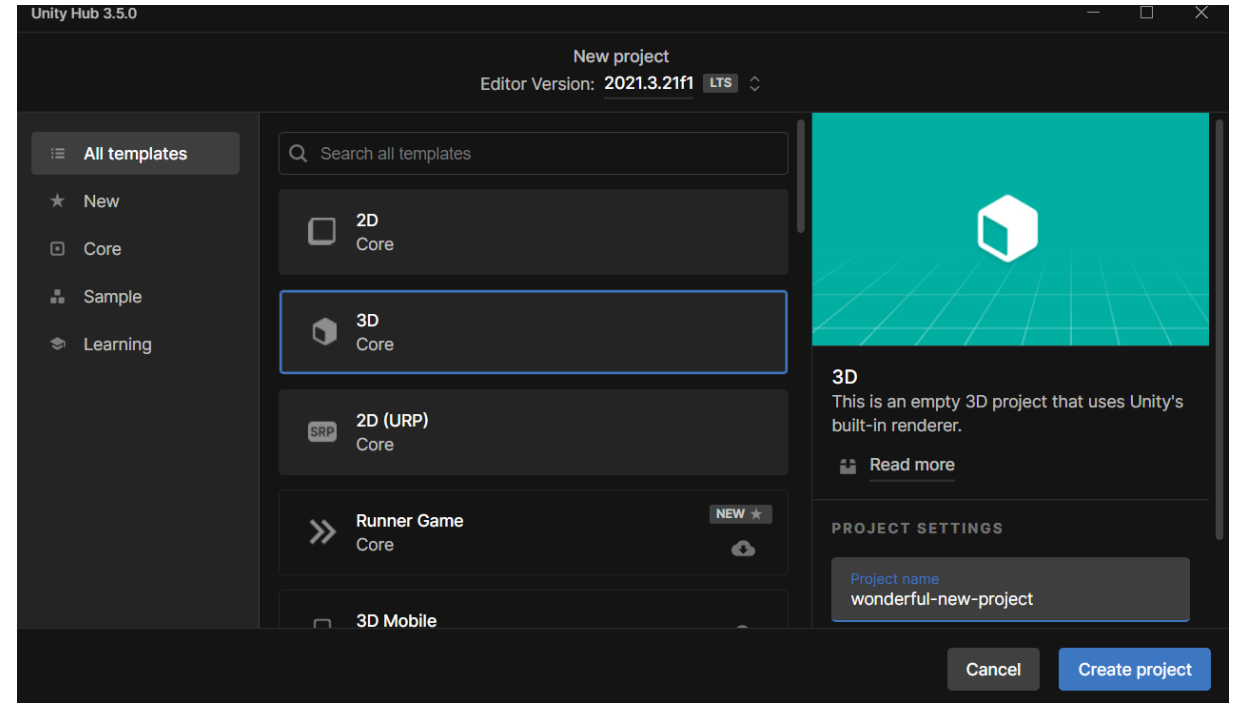
Method 2 – Manual Configuration

There is another way to create a project in Unity and turn it into a Space. Instead of using Spatial's starter template project, we can start from an empty Unity 3D project.

Before we begin, it is worth noting that this method of creating a new Spatial project is *not recommended*. It involves a lot of importing packages and changing settings.



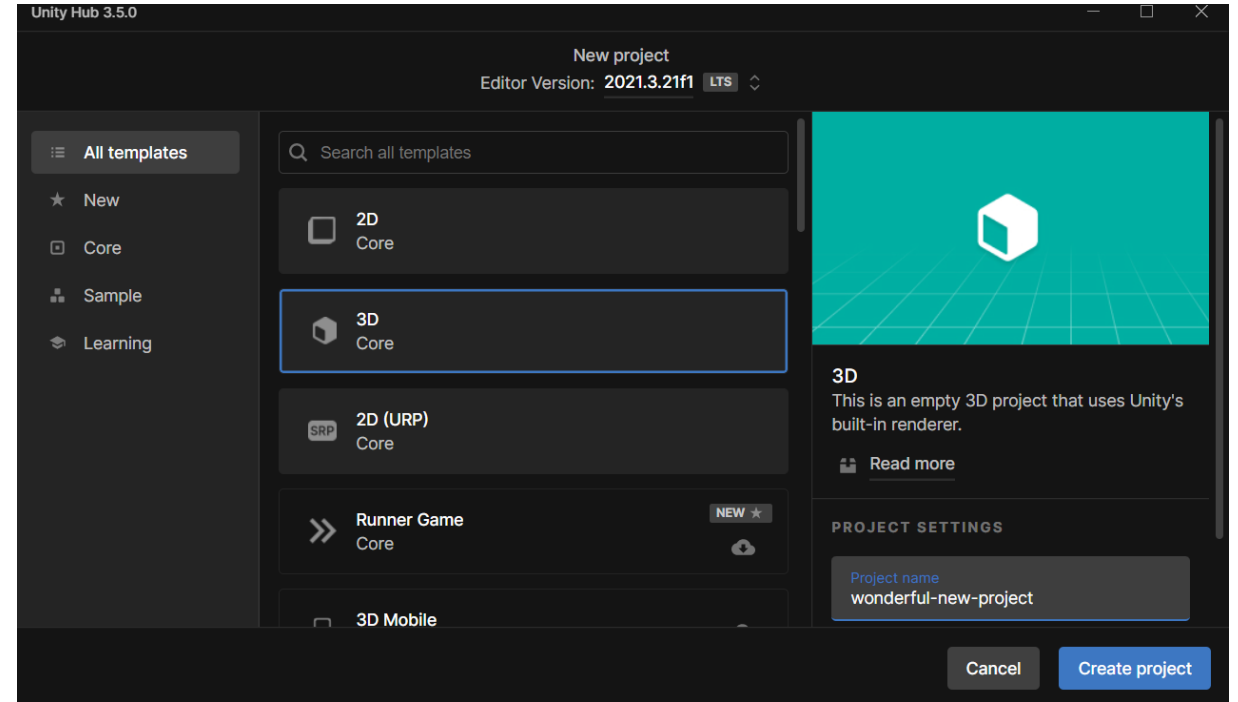
Additional Notes Below



Creating a New Space

Method 2 – Manual Configuration

To begin from scratch, from Unity Hub, create a new 3D project (make sure that Editor version 2021.3.21 is selected) and name it anything that you want.



Creating a New Space

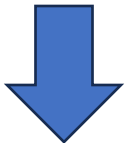
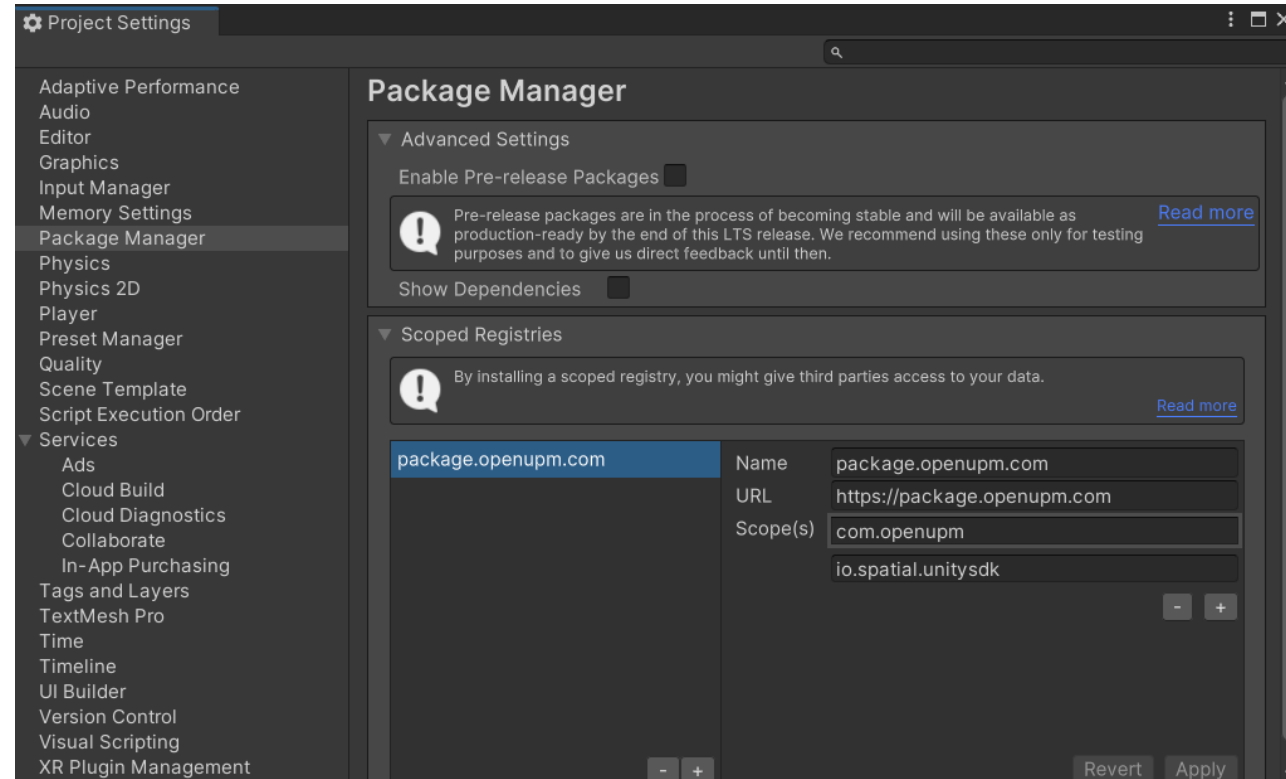
Method 2 – Manual Configuration

Once your project loads into Unity Editor, in the top menu select Edit>Project Settings. Find the Package Manager tab. Under "Scoped Registries", add this and click "Apply":

Name package.openupm.com

URL <https://package.openupm.com>

Scopes com.openupm
 io.spatial.unitysdk



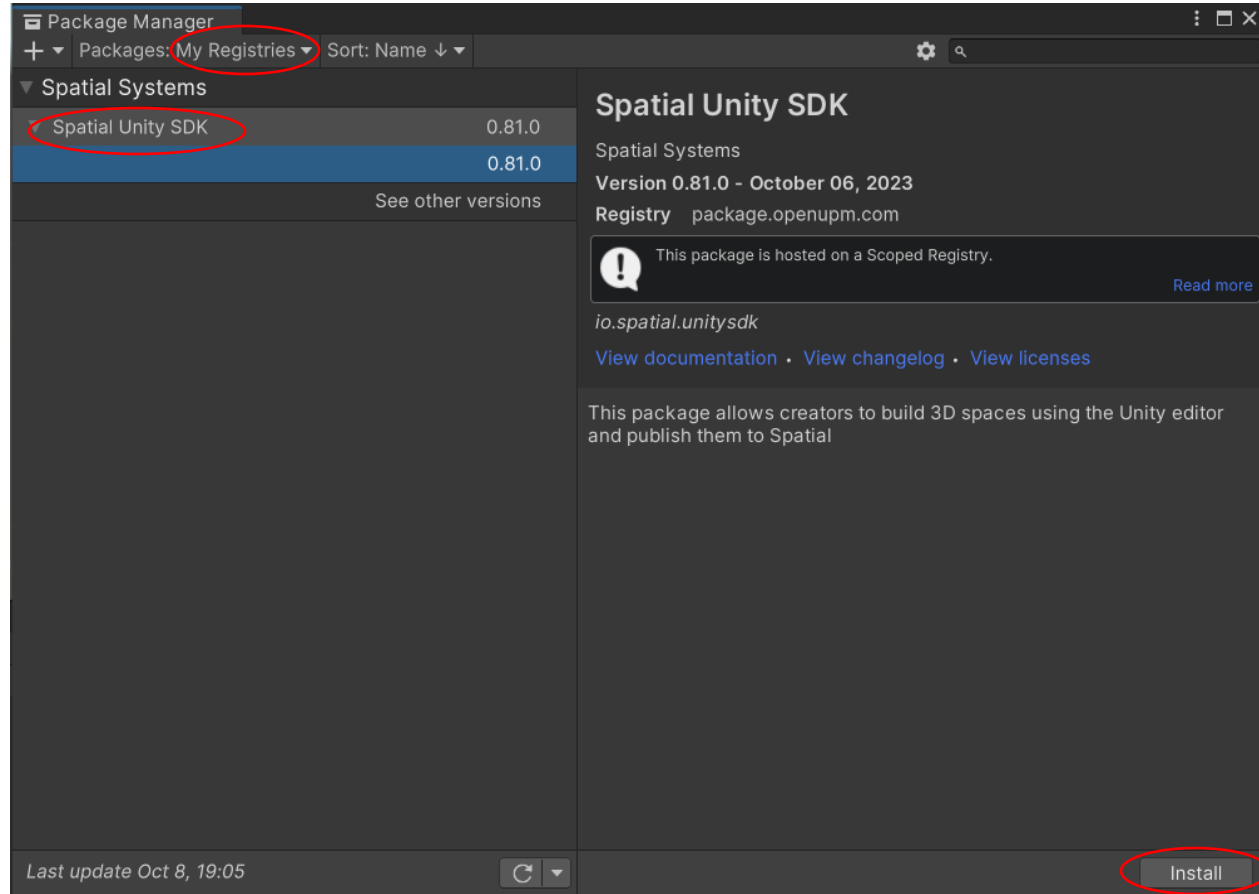
Additional Notes Below

Creating a New Space

Method 2 – Manual Configuration

Now we can install the Spatial Unity SDK as a package.

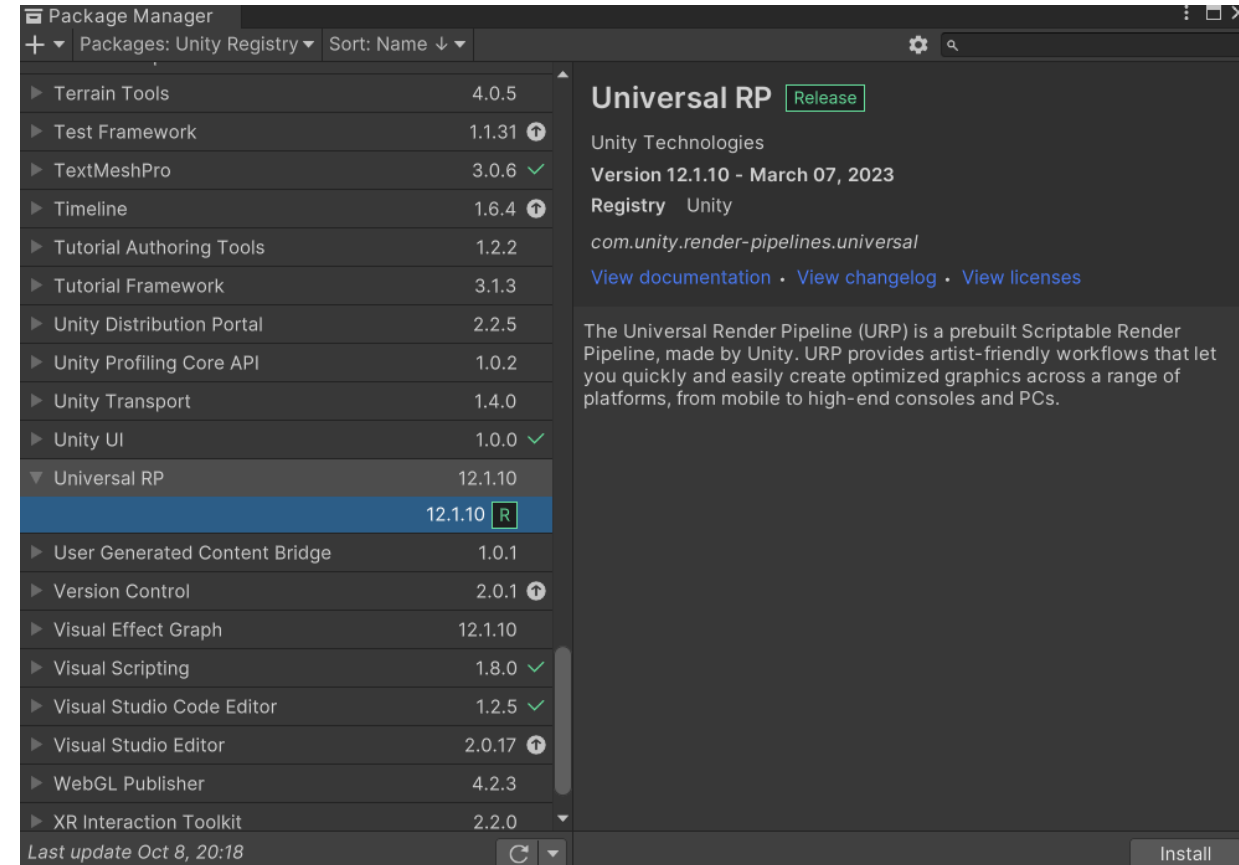
In the top menu, go to Window>Package Manager. In the Packages dropdown, select "My Registries", and you should see "Spatial Unity SDK". Click on it and click "Install".



Creating a New Space

Method 2 – Manual Configuration

We will need one more package to use the Spatial SDK. In the Packages dropdown, select Unity Registry. Look for "Universal RP" and install it.

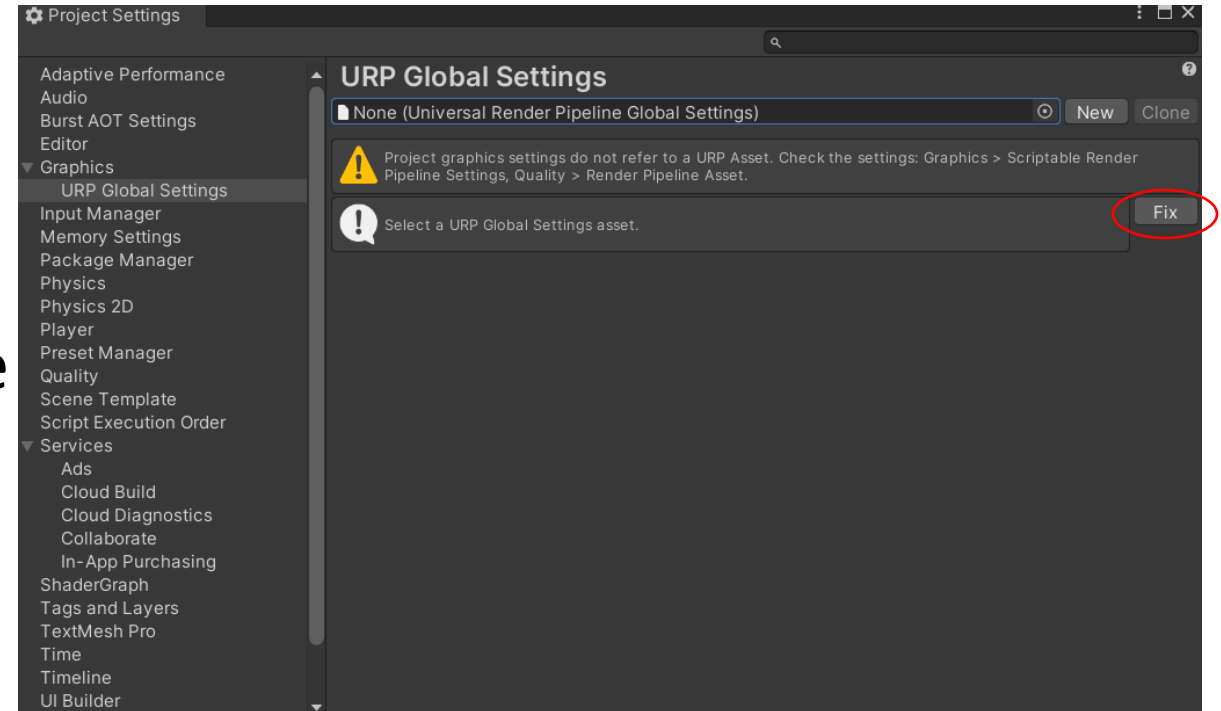


Additional Notes Below

Creating a New Space

Method 2 – Manual Configuration

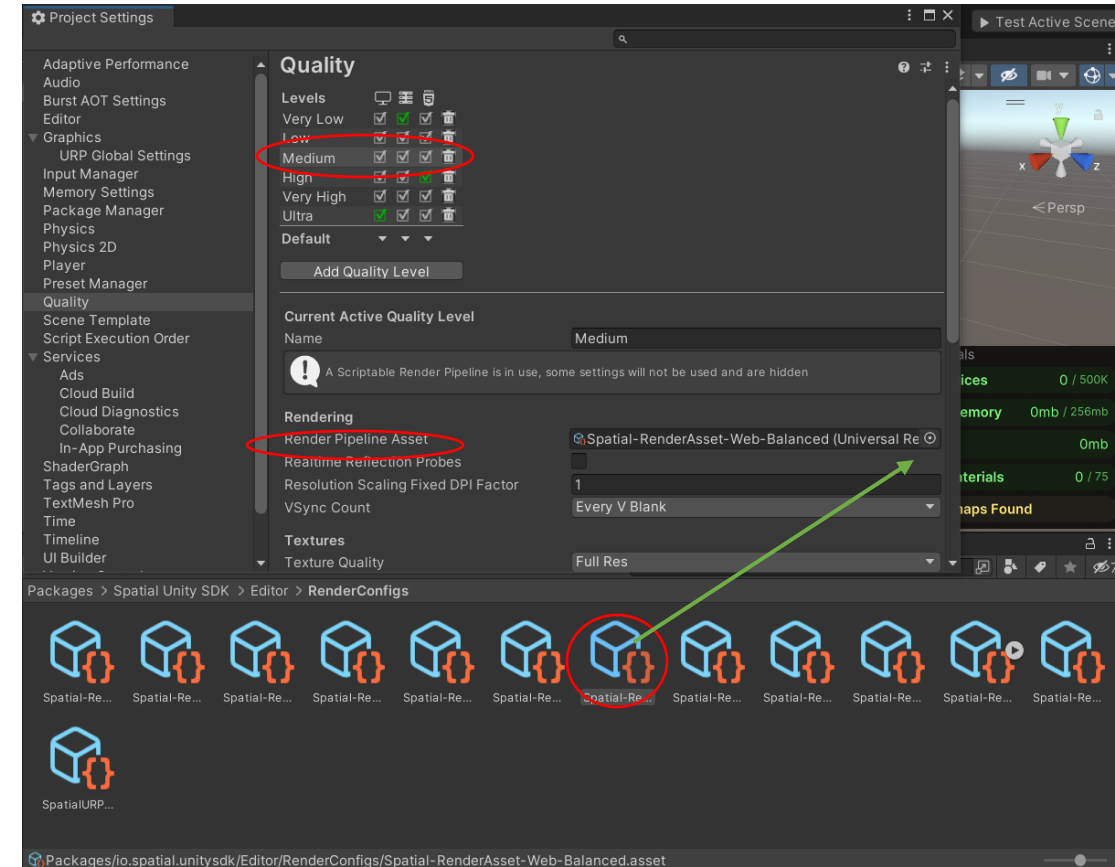
Now we have to configure our project to use the URP. Click on Edit>Project Settings. Find the tab for Graphics, under which should be another tab called URP Global Settings. A warning will be there; Simply hit "Fix" to apply the Spatial URP global settings.



Creating a New Space

Method 2 – Manual Configuration

We still need to update the graphic settings. In the same Project Settings window, find the tab for Quality. At the top, select Medium. Then, under "Rendering", we must change the Render Pipeline Asset. In your project's directory, find Packages>Spatial Unity SDK>Editor>RenderConfigs. Select the one that is "Web-balanced".

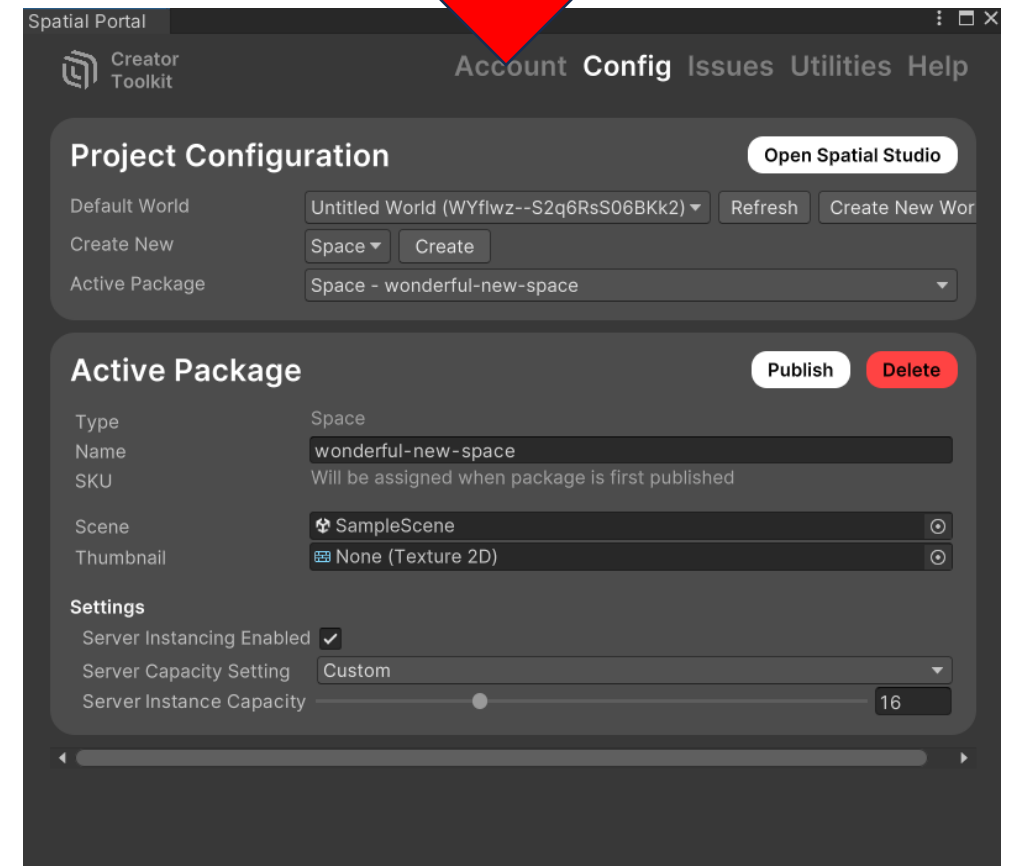
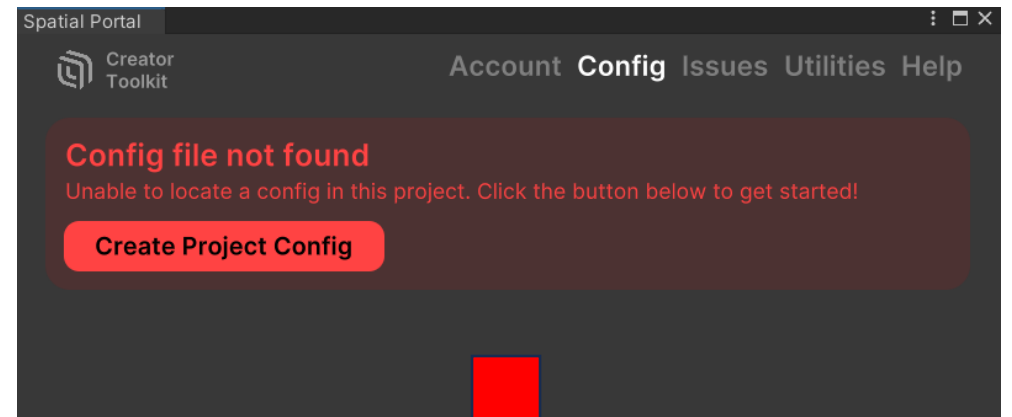


Additional Notes Below

Creating a New Space

Method 2 – Manual Configuration

We must now create a Project Config so that Spatial knows what package we are using. Go to Publishing and click "Create Project Config", then fill it out appropriately.



Creating a New Space

Method 2 – Manual Configuration

Now that your project is configured for publishing to Spatial, you can carry on just as you did with the other method, starting from [Slide 9](#).

This means adding the necessary Spatial assets and adding some objects to your room.

