



Documentation & Quick Start



Thank you!

Thank you for choosing this pack! We hope you create something really special with it.

*Please consider rating the package through your download list or leave a review at the store page once you're familiar with it.
Feel free to give us feedback via E-Mail info@tidalflask.com
or our social media!*

*Your feedback helps us focus on the right updates for the future
which will be free for existing users!*

*Enjoy, your **Tidal Flask** team!*





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Quick Start

Importing to Built-in RP project

After importing the Standard version into your Unity project 2021.3.20 & above, which doesn't use any of the Scriptable render pipeline packages (URP/HDRP), it should just work™.

If you see any warnings in the Console window, try the Clear button and/or relaunch Unity. If the warnings don't disappear consult the FAQ or drop us an e-mail.

If you see any pink assets inside the Project window or in the scenes, simply select said asset -> right click -> Reimport and it should fix it. If you still encounter pink shaders, please make sure you have the correct pack version installed and that you are using a Unity version that is compatible with the pack.

Make sure you have Post Processing installed from Unity's Package Manager. If you install it after you imported the pack, reload the demoscene to get rid of possible errors.

Importing to URP project

Additionally to the built-in RP version, this pack also includes a version which works with the Universal Render Pipeline. If you want to find out exactly what it can and can't do please visit this page:

<https://docs.unity3d.com/Manual/render-pipelines.html>

Make sure you are importing the URP version of our package if you are using URP and Unity version 2021.3.20 or above.

On the following pages you will find detailed steps on how to import the package.

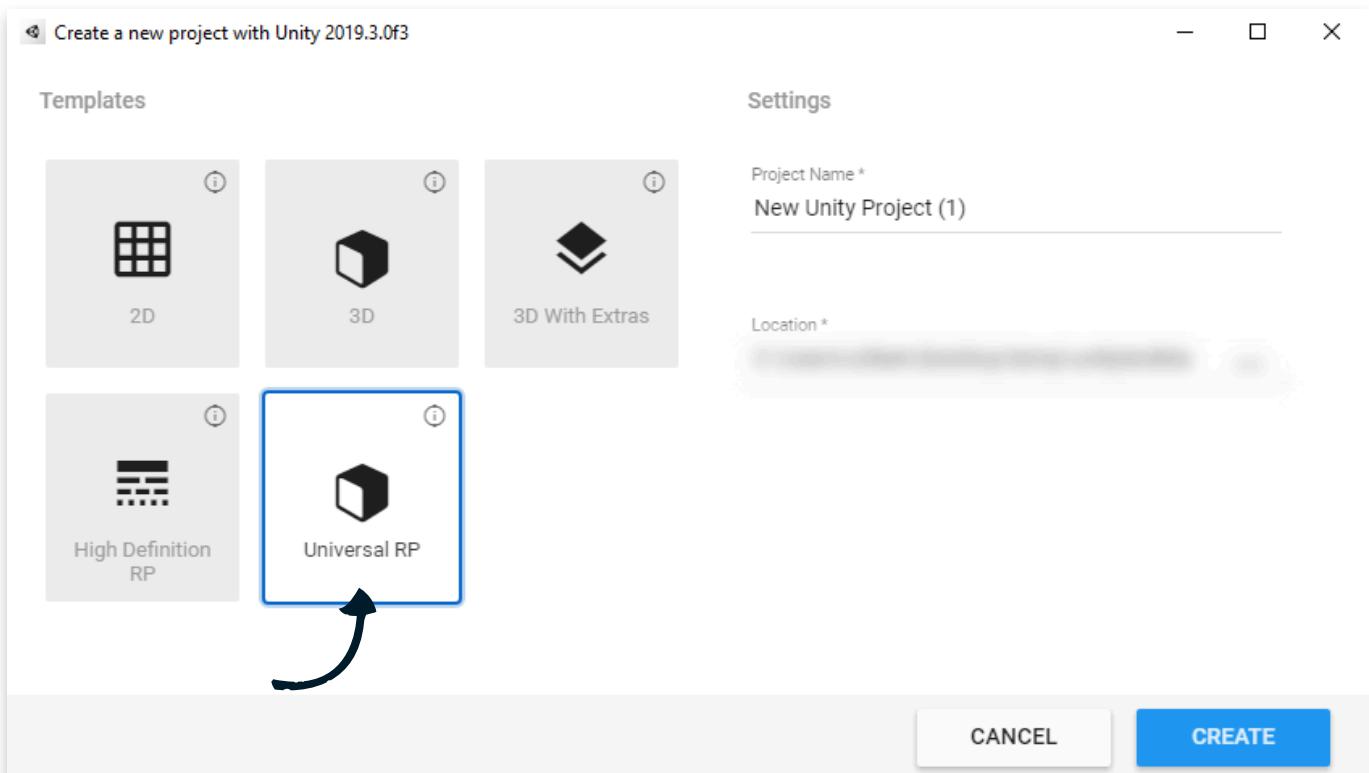


How to set up your project for URP (option 1)

We recommend to create a clean project and install the URP via the Package Manager or via Templates and import our package to this project.
To do so follow the steps below:



Step 1: Click “NEW” to create a new project (for URP pick Unity 2021.3.20 or above).



Step 2: In the “Templates” select “Universal RP”, this way everything you need for this package will be preinstalled.



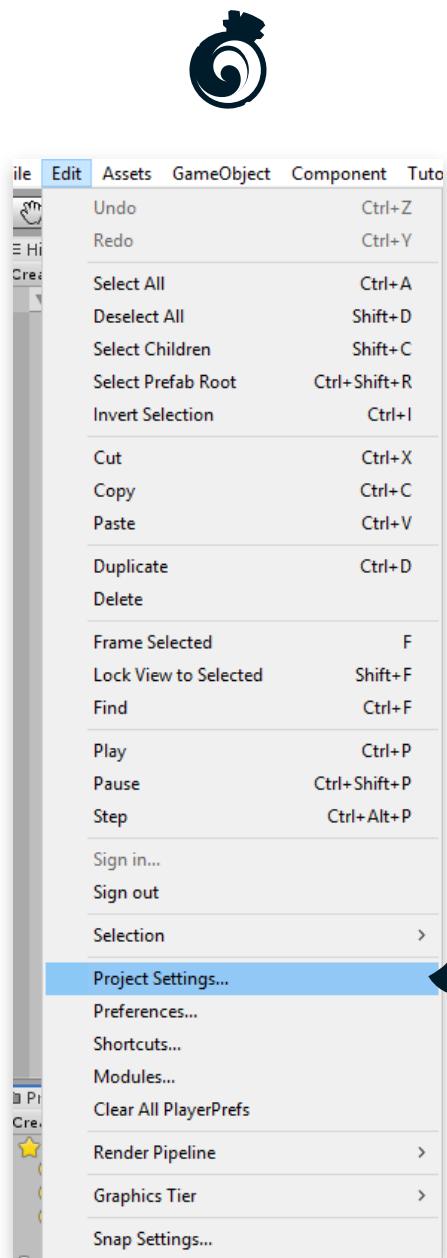
Step 3: Download the pack from the Asset Store and install the URP version.
At this point you already can go to the scenes folder and select any of the scenes.

If you see any errors in the “Console”, try the “Clear” button. If the errors don’t disappear consult the FAQ or drop us an e-mail.

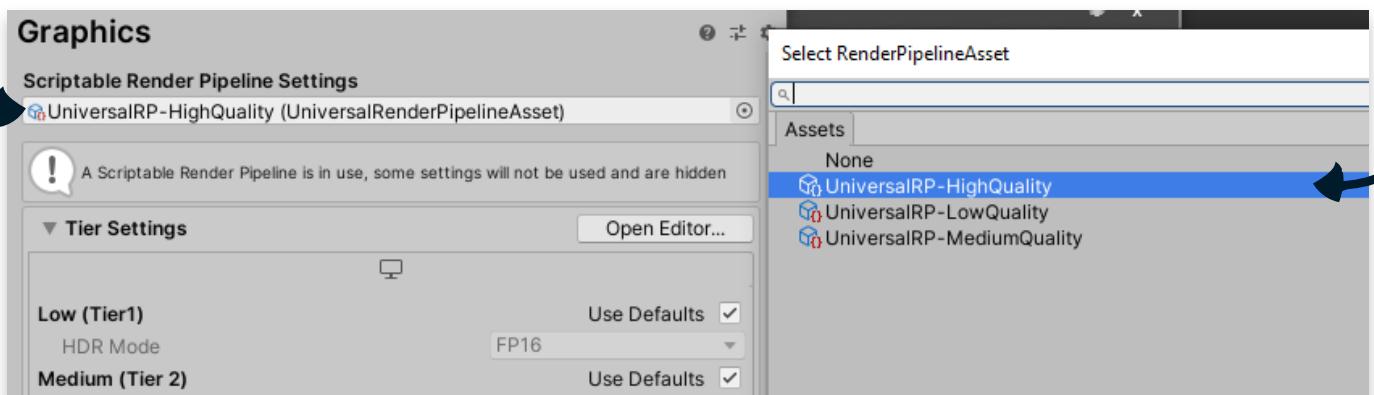
Note: If the error message “*a tree couldn’t be loaded because a prefab is missing*” pops up in the console tab, simply press “Clear” in the “Console” tab and it won’t appear again. This is a known Unity bug (importing a package that has terrain and trees in it) and has nothing to do with the package.

If you see any pink assets inside the Project window or inside the “Terrain”-object in any of the scenes, simply select the said Prefabs (inside the prefabs folder) or the Meshes (inside the 3d folder) > right click > Reimport and it should fix it.

If you still encounter pink shaders, please make sure you have the correct pack version installed, depending on the render pipeline you are using.



Step 4: After the project is loaded, go to Edit > Project Settings...

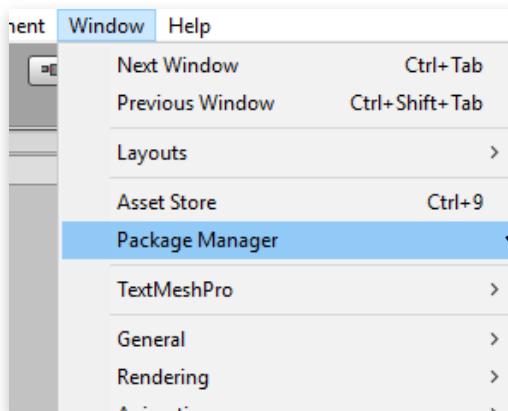


Step 5: For the Scriptable Render Pipeline Settings select “UniversalRP_HighQuality”. These are the presets Unity preinstalled with the Template.

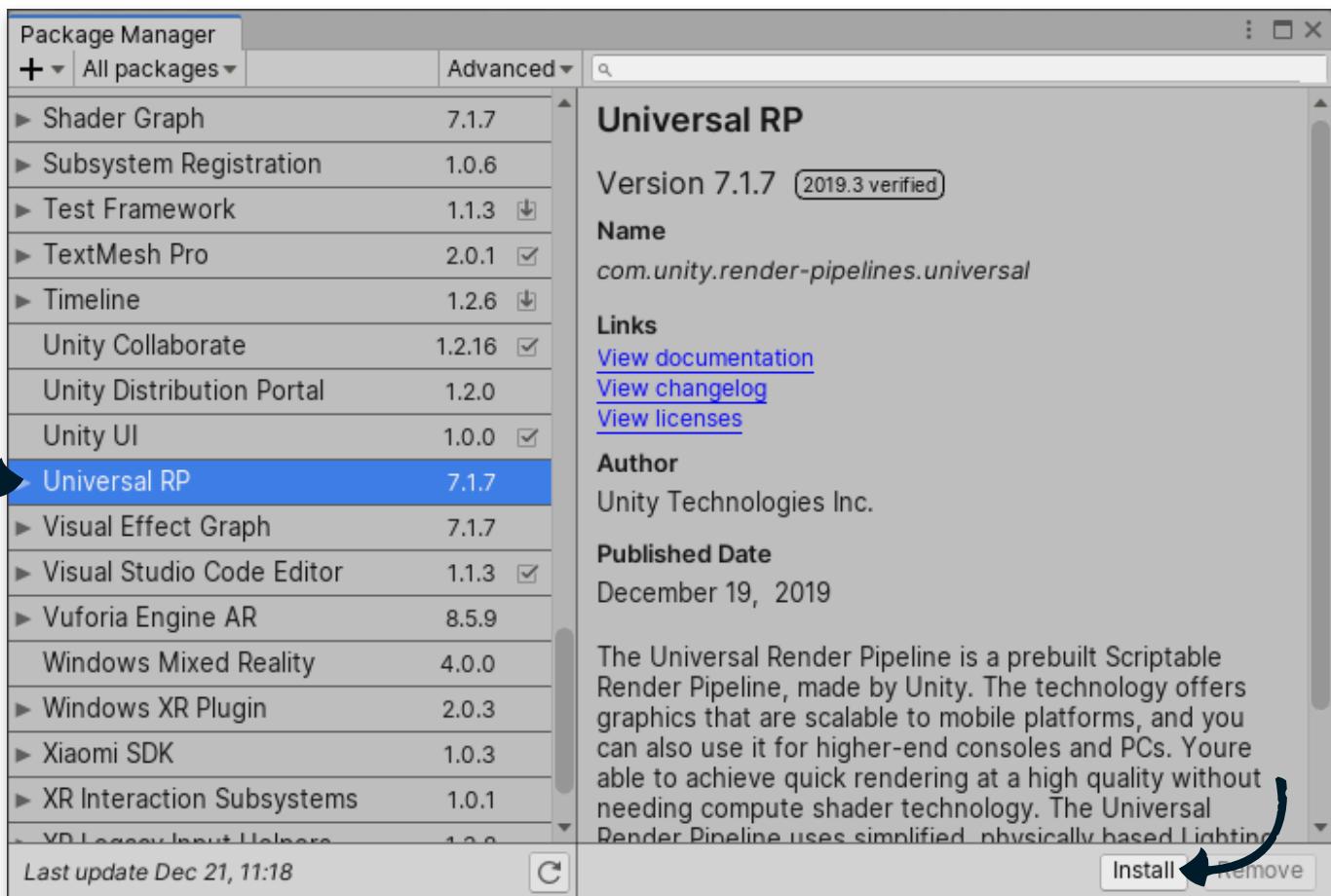


How to set up your project for URP (option 2)

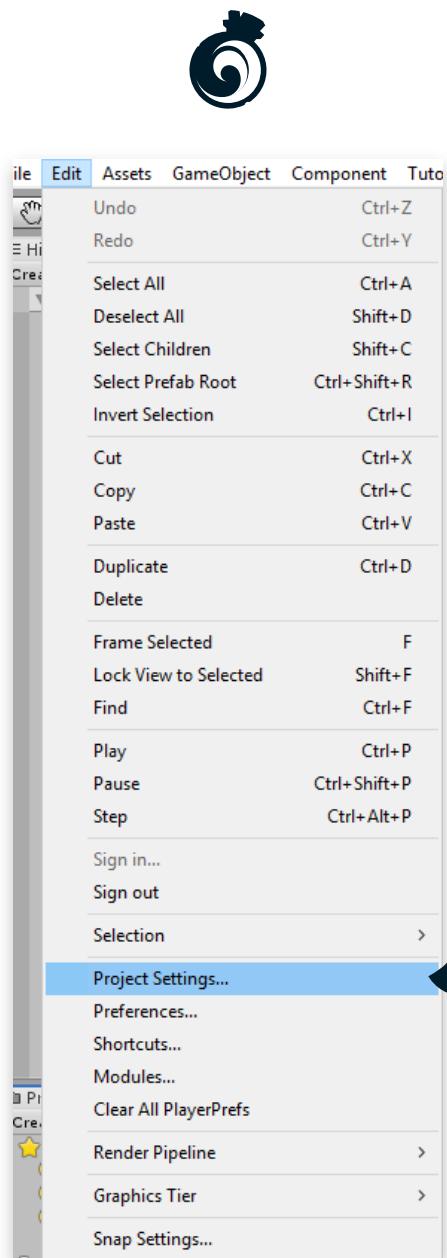
If you imported the pack before you installed the URP please follow the steps below:



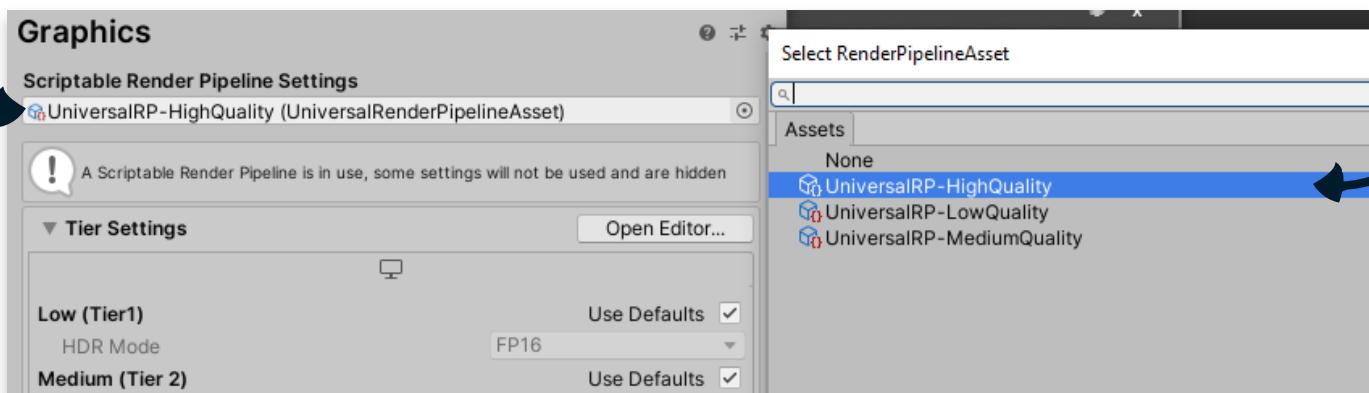
Step 1: go the Window > Package Manager.



Step 2: Select “Universal RP” asset and click “Install”.



Step 3: After the project is loaded, go to Edit > Project Settings...



Step 4: For the Scriptable Render Pipeline Settings select “UniversalRP_HighQuality”. These are the presets Unity preinstalled with the Template.





Demoscene

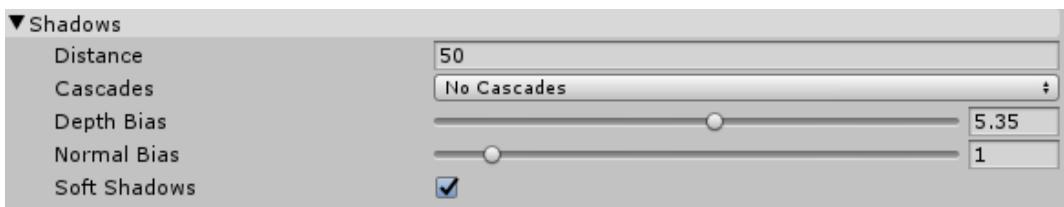
Demoscene_city_level: Scene from the trailer and screenshots

Demoscene_city_props: In this scene you will find all the assets within the package

Demoscene_city_modular: In this scene you will find all the modular building assets within the package

Quality settings for URP

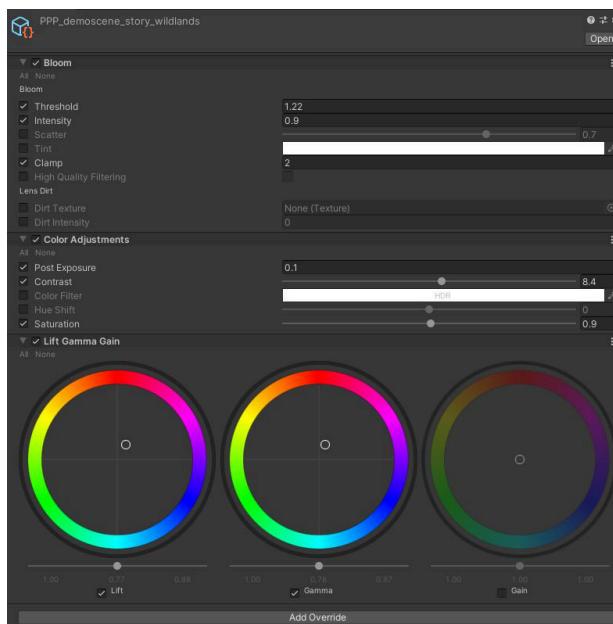
To quickly adjust any quality settings for URP please find the UniversalRP-HighQuality asset inside the /Assets/Settings folder.



Example settings for shadows in the render pipeline asset.

Post Processing

Inside the /Fantastic City Pack/Settings folder you will find a Post Processing file for the demo scene. There you can adjust the postprocessing to your liking.



The post processing settings.



Demoscene_city_level





Demoscene_city_props

In this scene you will find all the assets within this package.





Assets

Meshes

All assets have a custom Lightmap UV in the second channel and custom colliders where needed. Trees and bushes have 3 LODs for optimal performance.

Textures & Materials

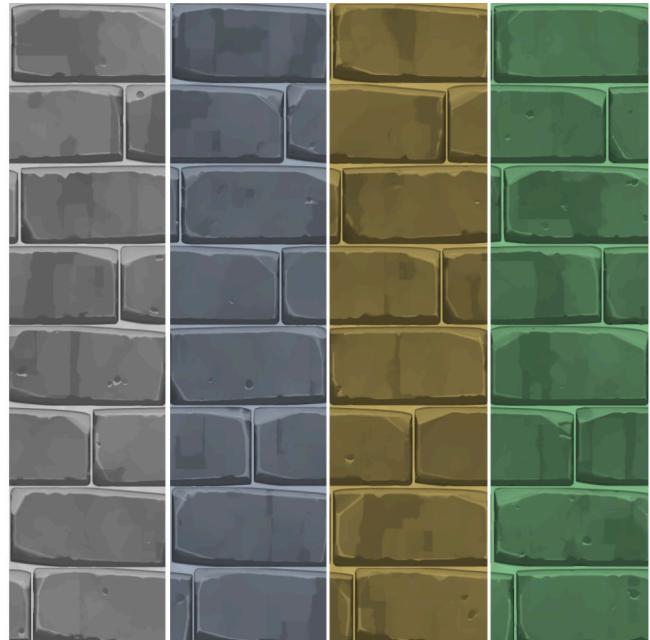
You can find all the textures in the /2d/textures folder. The materials are in the /materials folder.

We added some variations to tileable textures. The brick wall, for instance, has not only greyscale version and 2 additional colored variants but also variations with and without cracks.

Some textures are greyscale to easily colortint them in the material (roof, bricks, plaster, wallpaper).



Left: clean version; Right: version with cracks



Left: original greyscale texture; Rest: color tint examples



Physically Based Rendering (PBR) - setup and how to use

All the tileable textures have a PBR map.

The PBR textures are set up the following way:

Metallic levels for the material are controlled by the values in the Red channel of the texture, and the Smoothness levels for the material are controlled by the Alpha channel of the texture.

These textures have the tag “_MTSM” at the end of the texture name.

This setup works for both URP and Built-in render pipeline.

To read more about this please visit the Unity Documentation here:

<https://docs.unity3d.com/Manual/StandardShaderMetallicVsSpecular.html>



Shaders

The custom shaders were created using Amplify Shader Editor with Unity version 2021.3.20 and hence can **not** be opened or adjusted using Unity's Shader Graph. Of course if you have Amplify Shader Editor installed, you can adjust the shaders there. The rest of the shaders are all standard URP or Built-in, depending on which render pipeline you are using.

IMPORTANT: In case you are using the new shaders with a Unity version older than 2021.3.20 please be aware that this might result in shadow cascade errors in the scene. To solve the problem you can set the Cascades option in your render pipeline asset to "No Cascades".

Foliage/flag shaders

For the foliage and flags wind movement we have included 2 shader in this pack:

- S_foliage_wind_standard/URP_advanced_LODfade: doublesided shader with the ability to fade between LODs, which is primarily used for the foliage assets. It has a variety of options to customize the shader.
- S_flag_wind_standard/URP: doublesided shader, which is primarily used for the flags.

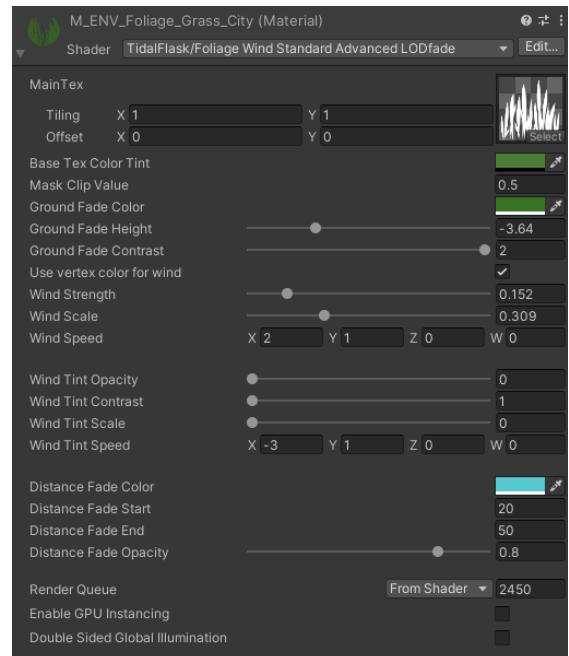
The advanced wind shader is defined by the following main parts:

- Base Color/Texture: Defines texture and tint of the surface.
- Wind Movement: Defines strength, scale and direction of the wind movement.
- Ground Fade: Defines a color fade starting at the bottom of the mesh, primarily used for the grass.
- Wind Tint: Creates moving highlights on the grass.
- Distance Fade: Defines a distant color fade relative to the camera position.



To customize the wind shader you have the following options:

- Base Texture: Slot for the foliage texture
- Base Tex Color Tint: Defines texture tint color
- Alpha Clip Threshold: Defines threshold of the pixels being opaque or transparent
- Shadow Received Strength (URP only): Defines the intensity of the received shadow on the mesh
- Ground Fade Color: Defines the color used for the fade from the bottom of the asset
- Ground Fade Height: Defines the range of the ground fade
- Ground Fade Contrast: Defines ground fade contrast
- Wind Strength: Strength of the foliage deformation
- Wind Scale: Defines the density of the noise applied to the mesh
- Wind Speed: Movement direction of the noise (only edit the x and y values, z and w are not used)
- Wind Tint Opacity: Defines transparency of the wind tint color
- Wind Tint Contrast: Defines contrast of the tint color
- Wind Tint Scale: Size of the noise for the tint
- Wind Tint Speed: Direction & speed of the noise
- Distance Fade Color: Color of the distance fade
- Distance Fade Start: Defines start of the fade relative to the camera view
- Distance Fade End: Defines the end of the fade
- Distance Fade Opacity: Defines transparency of the distance fade



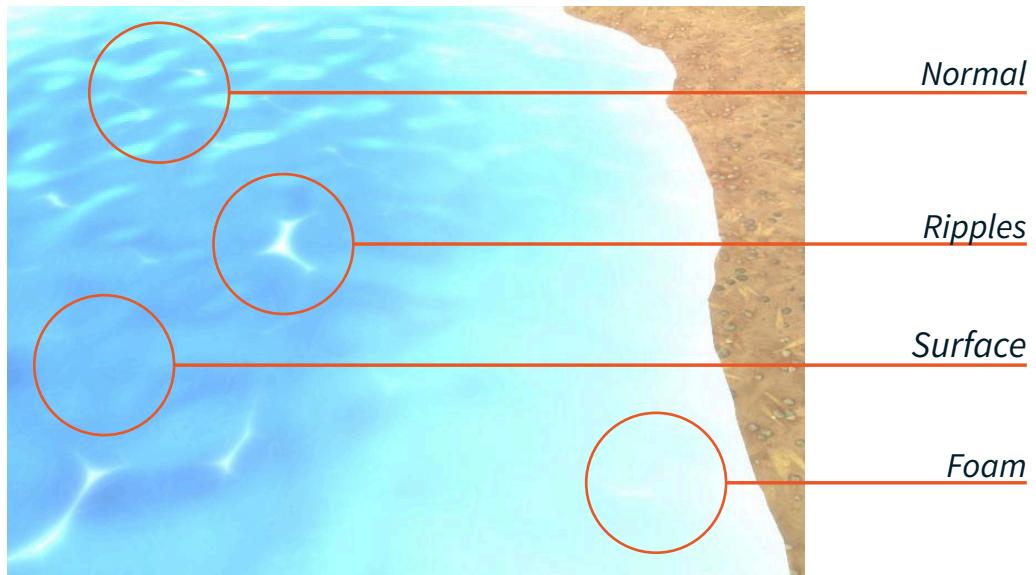
The customization options inside the wind material.



Water shader

The water material is defined by four main parts:

- **General Surface:** Defines color and opacity of the surface
- **Normal:** Defines the Normal of the water surface
- **Foam:** Creates a foam effect where meshes intersect with the water
- **Ripples:** Defines the ripple like highlights on the water surface



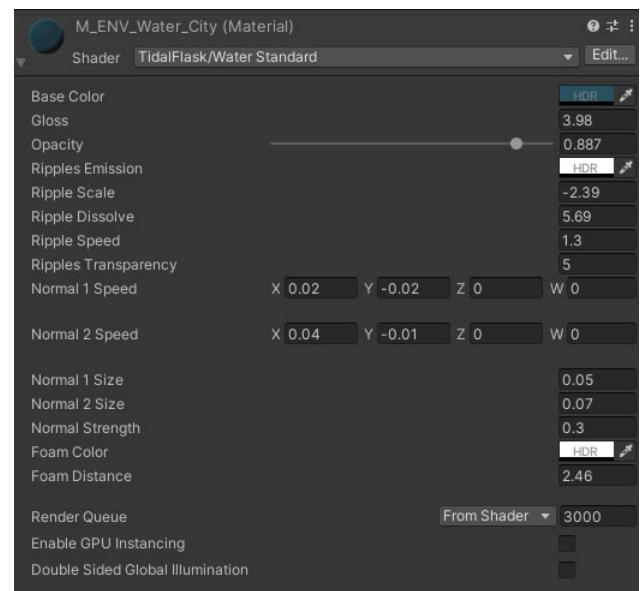
The four main parts of the water shader: Normal, Foam, Ripples and Surface.

- Also enable “Depth Texture” in your Render Pipeline Asset and play around with the shadow cascades in case you are experiencing shadow issues with the water.
- If you are applying the water material to a new plane, make sure to turn off “Cast Shadows” in the inspector window of the plane.



To customize the water shader you have the following options:

- Base Color: base color of the water
- Gloss: defines surface gloss amount
- Opacity: defines surface opacity
- Ripples Emission: Emission intensity of the ripples
- Ripple Scale: defines the scale of the ripples
- Ripple Dissolve: contrast of the noise which is used for the ripples
- Ripple Speed: defines the movement speed of the ripples
- Ripples Normal Strength: Defines height of the ripples
- Ripples Transparency: Defines how transparent the ripples are
- Normal 1 Speed: speed of the waves
- Normal 2 Speed: speed of the waves
- Normal Strength: defines height of the waves
- Foam Color: color of the foam where the meshes intersect with the water
- Foam Distance: size of the foam



The customization options inside the water material.



FX

Inside the /prefabs/FX folder you'll find the following FX prefabs:



Fire and Steam



Smoke



Particles



Godrays



Modular Assets

Meshes

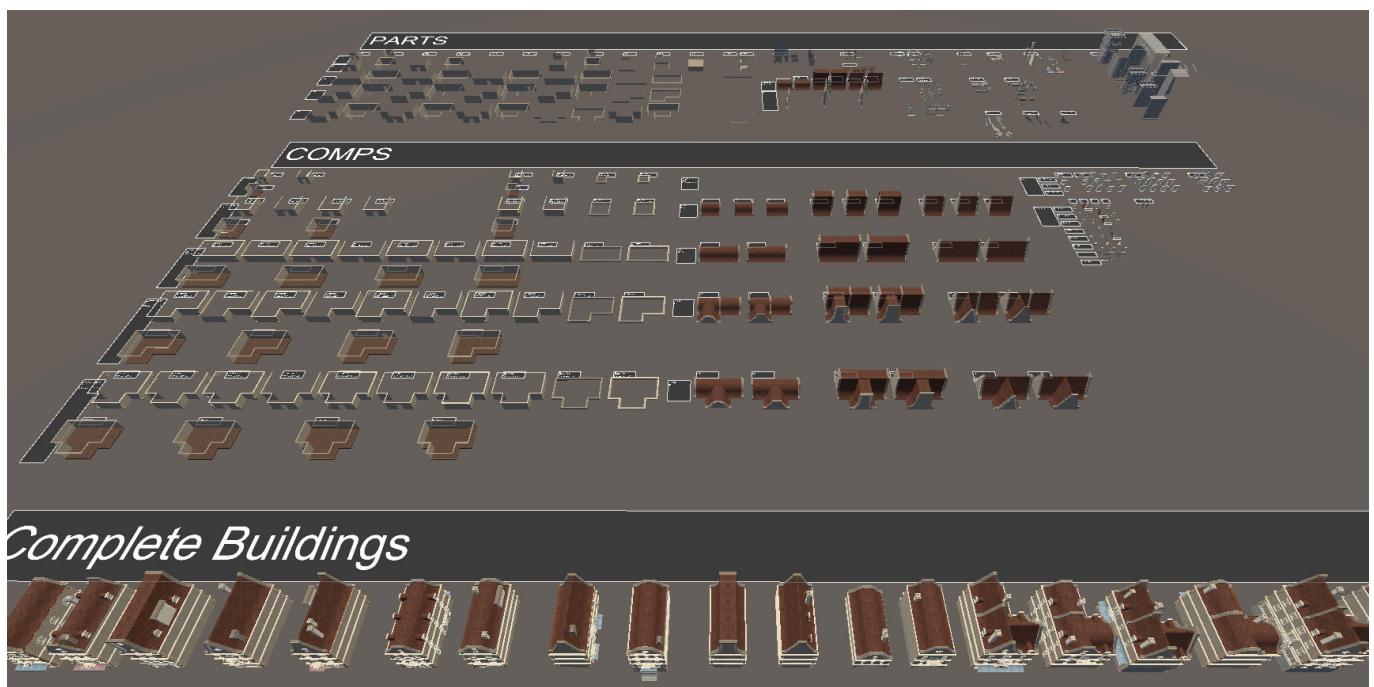
All assets have a custom Lightmap UV in the second channel and colliders (Unity) where needed. Trees, bushes and stones have 3 LODs for optimal performance.

Naming convention

Prefixes and suffixes

All the modular pieces follow a strict naming convention to make your life easier. You can use the prefixes/affixes to either search for a group of assets, or simply know in the scene view which asset is what.

To familiarize yourself better with the naming convention we strongly suggest looking into the demoscene_city_modular scene. There you will find every single piece of the pack, with explanations where necessary. Additionally there are also examples for various usecases:





Prefabs and Nested Prefabs

Nested Prefab hierarchy

We have 3 levels of hierarchy:

level 1: **Parts** - individual modular elements, baseline prefabs + collision

level 2: **Comps** - compositions of individual parts

level 3: **Complete Buildings** - combinations of Comps and Parts to a full building

Adjusting anything on a lower level of the hierarchy will automatically propagate up (except there are already changes on a higher level). Adjusting anything in a higher level will **not** automatically propagate down and you will have to manually apply your changes.

Read more into the Nested Prefab workflow here:

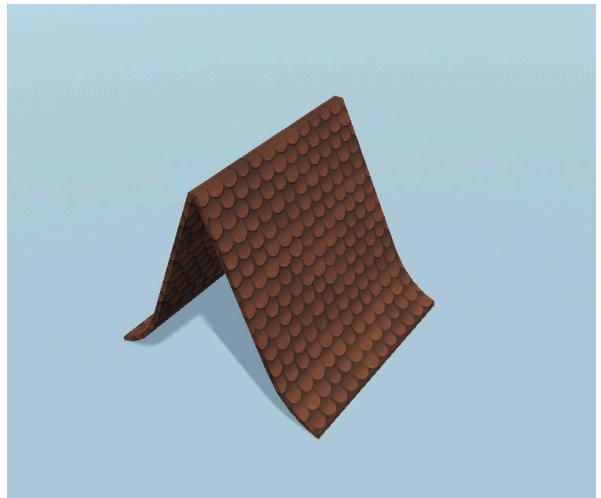
<https://docs.unity3d.com/2019.1/Documentation/Manual/NestedPrefabs.html>



Parts

prefabs/MODULAR/01_PARTS

Here you will find all the pieces of the parts.
On this level we already added colliders
where necessary.

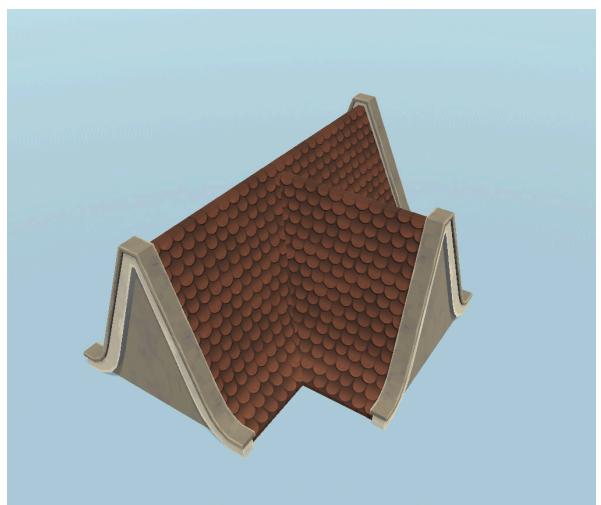


P_MOD_Roof_03_03

Comps

prefabs/MODULAR/02_COMP

Here you will find some basic compositions of the Part prefabs. These show you how the elements are meant to be combined but, of course, feel free to experiment and create new ones!



COMP_Roof_03_03_01_T

Complete Buildings

prefabs/MODULAR/03_BLD_COMPLETE

Here you will find multiple preassembled buildings split into 3 folders:

Exterior: Buildings that have no interior to save on polycount

Interior: Buildings that have interior in them but have no additional props for decoration

Themed: Themed buildings with props added per theme.



BLD_03_T_Ext_01

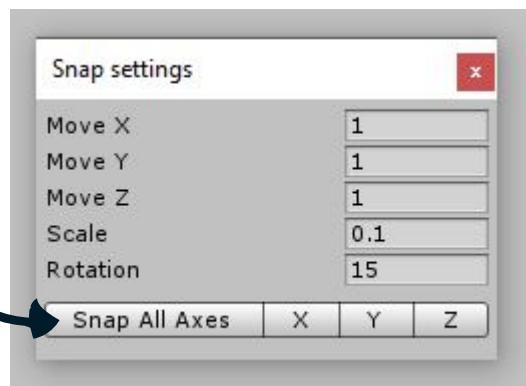


Working with the modular pieces

Snapping

You can activate snapping by holding Control (Command) key while moving and rotating objects.

Additionaly when you go to Edit > Snap Settings you will get a very useful window. If you don't use any third-party plugins for snapping, press "Snap All Axes" button when placing any of the modular elements into the scene.



Generally speaking every asset need to snap on nondecimal numbers. You will notice, that for this rule there are some exceptions when combining certain elements that do not naturally match on a nondecimal number.

Please check out the **demoscene_city_modular** scene to see how certain elements are meant to be combined.



Creating a new building

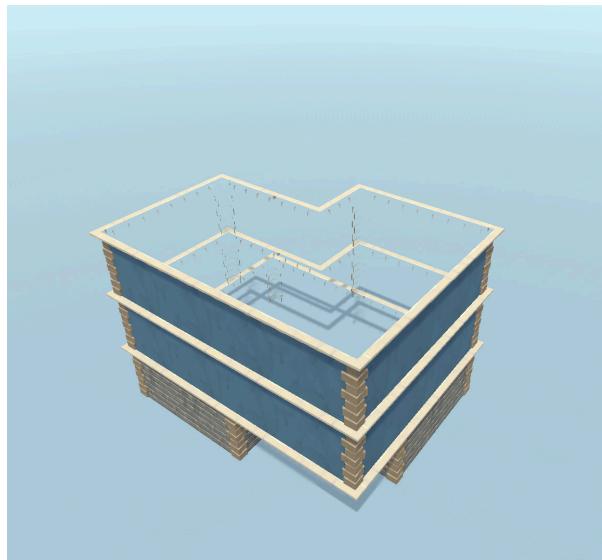
Step 1:

Start with in the 02_COMPS folder.

Inside /Base folder select your desired building size.

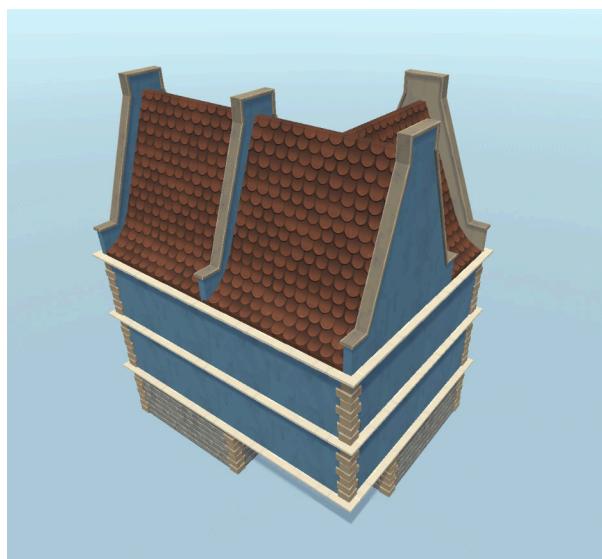
Here you will also find _BaseInt_ prefabs that are the comps for the interior. Add them if you need interior for the building.

When adding multiple floors, if the base variations differ, you would need to adjust the positions of the “_WallTrim_” parts.



Step 2:

Inside /Roofs select the roof that fits your Base selection from above.



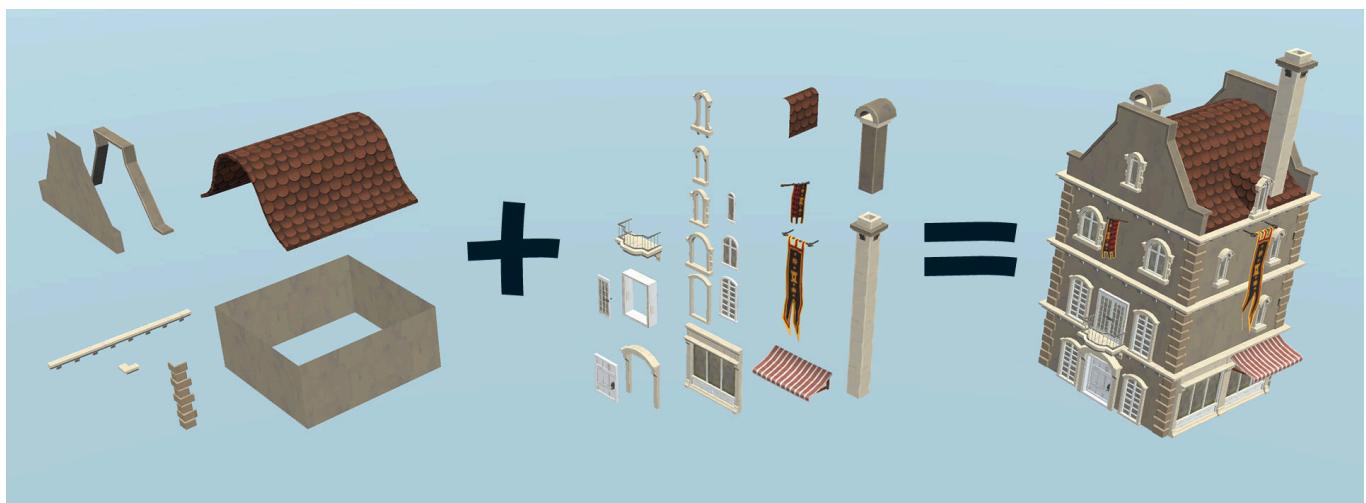
Step 3:

Add decorations from /columns, /doors, /windows as needed.

You can also add elements from within the 01_PARTS like stairs and from prefabs/props folder for other decorative elements.

Save your composition as a new building prefab and you are done!





Feel free to experiment and create your own COMP prefabs for your buildings!

Customizing Buildings

Besides the different shapes, floors and decoration assets, you can also add additional variations by exchanging textures and/or changing the colortint of materials.





Support

FAQ

Will there be updates to the package?

Yes. We plan to update all our packages as soon as there is a relevant update or if the community asks for adjustments.

Can you give support to users if something doesn't work?

Yes, but first please read through this document and if you still need help with something related to this package, feel free to contact us.

A list of errors shows up in a shader.

Try reimporting the shader (in project tab > right-click on the shader > Reimport). We are aware of some shader warnings showing up, which don't seem to actually break the shader. So simply clearing the warning in the console tab should fix the problem.

I opened the project for the first time and everything is pink. When I select a material, the shader says "Hidden/InternalErrorShader"

This is the case when your project doesn't use the same render pipeline as the pack version you installed. Starting on page 4 you will find all the steps needed to properly set up your project.

I'm using Unity version older than 2021.3.20 and the scene assets have shadow errors and/or pink materials and/or the terrain isn't showing.

Regarding pink assets and terrain issues please see the chapters 1, 2 and 3. The new shaders are created in Unity 2021.3.20 and are not backwards compatible. The errors are created by the shadow cascades settings in the render pipeline asset. You can set the Cascades option in your render pipeline asset to "No Cascades".



I opened the project for the first time and in the Console I get the error “A tree couldn't be loaded because the prefab is missing”

This is a known Unity bug (importing a package that has terrain and trees in it) and has nothing to do with the package. Simply press “Clear” in the “Console” tab and it won’t appear again.

I imported the package but some assets still appear pink in the scene...

Make sure you installed the correct render pipeline version of our pack. After opening a scene it’s still possible, that some assets are pink. If that is the case, do the following:

- In the Hierarchy window select “Terrain”
- In the “Paint Details” tab double click on any asset
- Click on the circle next to the asset which was added in the “Detail” panel
- Re-add the same asset and the scene should look normal again

I imported the package but some assets still appear pink in the Project window...

If you see any pink assets inside the Project window or inside the “Terrain”-object in any of the scenes simply select the said Prefabs (inside the prefabs folder) or the Meshes (inside the 3d folder) > right click > Reimport and it should fix it.



Contact & Support

Visit our page for updates and more packages in the future:
<https://tidalflask.com/>

Contact us if you didn't find an answer to your questions:
info@tidalflask.com

Social Media



<https://www.facebook.com/tidalflask>



<https://twitter.com/TidalFlask>



<https://www.instagram.com/tidalflask/>

