



## **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](mailto: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 project 2019.4.30 & above, which doesn't use any of the Scriptable render pipeline packages (URP/HDRP), it should just work<sup>tm</sup>.

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.

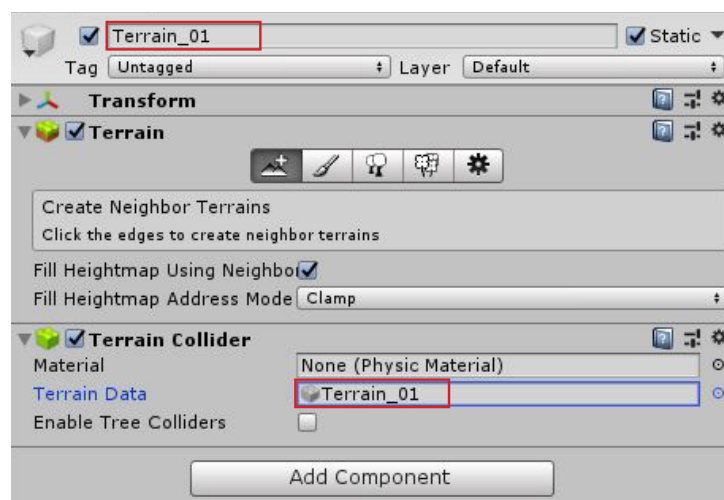
Make sure you have Post Processing installed from Unity's Package Manager. If you install it after you imported the pack, reload the demoscene to get rid of possible errors.

## Using an older Unity version than 2019.4.30

If you purchased this pack with version 1.5 or lower you can also import the pack into Unity version 2019.1.0 and up to the latest 2019.3.x version.

Everything should work, except for the terrain of the demoscene. If you want to use the demoscene including the terrain, make sure you are using the old terrain assets for the terrain tiles (for example "Terrain\_01" and not "Terrain\_01.1").

You can find all the terrain assets in the /terrain\_data folder and you can delete the unused terrain assets in the folder.



*In the terrain settings you can assign each terrain asset to its corresponding terrain tile.*



# Lightweight Render Pipeline (LWRP) and Universal Render Pipeline (URP)

Our latest pack update no longer supports LWRP due to Unity discontinuing LWRP development. In case you purchased this pack with version 1.5 or lower and are using LWRP you still can update your project with the latest pack version, but keep in mind to use the legacy LWRP shaders.

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>

Since Unity 2019.3 the LWRP is renamed to Universal Render Pipeline (URP). Make sure you are importing the URP version of our package if you are using URP and Unity version 2019.4.30 or above.

## Importing to URP project

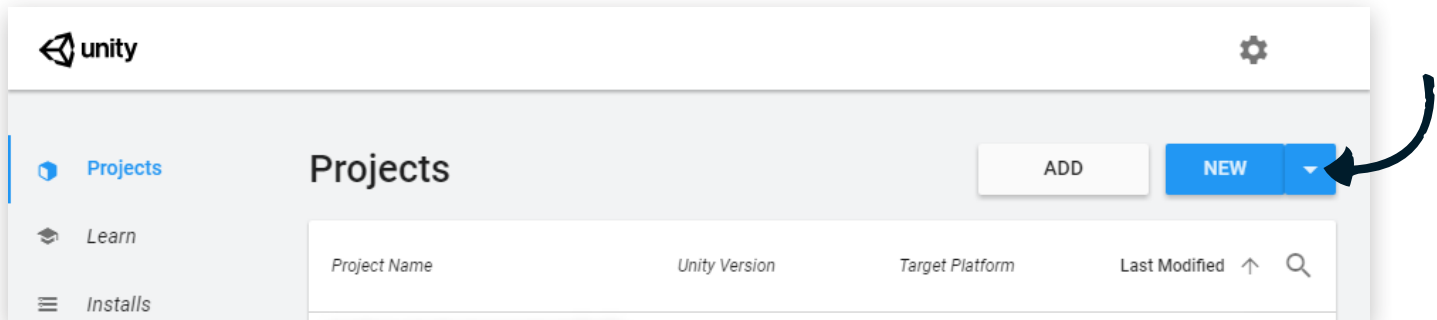
Here you will find detailed steps on how to import the package. Please note that this package only works out of the box with Unity 2019.4.30 and above.

**IMPORTANT:** In case you are using the new URP shaders with a Unity version older than 2019.4.30 please be aware that this might result in shadow cascade errors in the scene. To solve the problem you can either use the shaders from the /shaders/legacy folder or set the Cascades option in your render pipeline asset to "No Cascades".

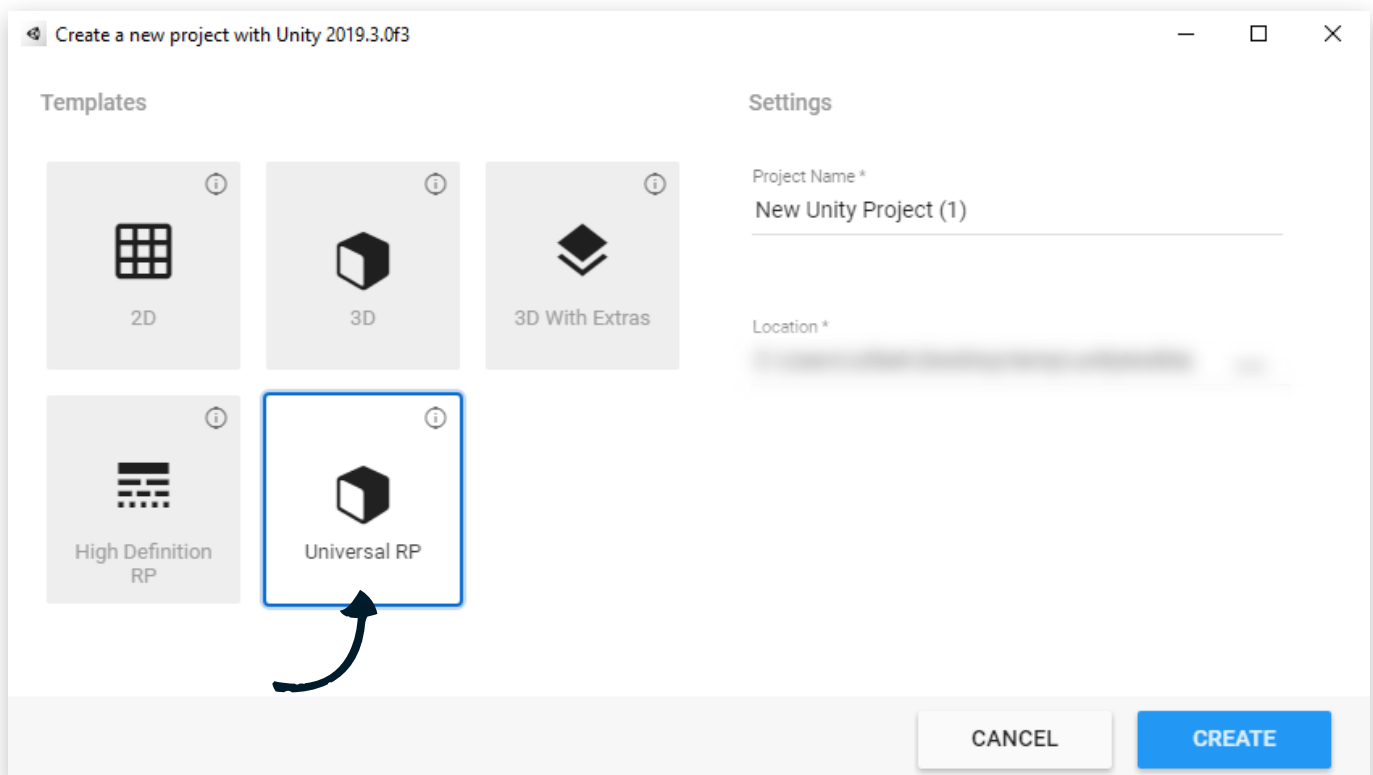


## How to set up your project for URP (option 1)

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 2019.3 or above).



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





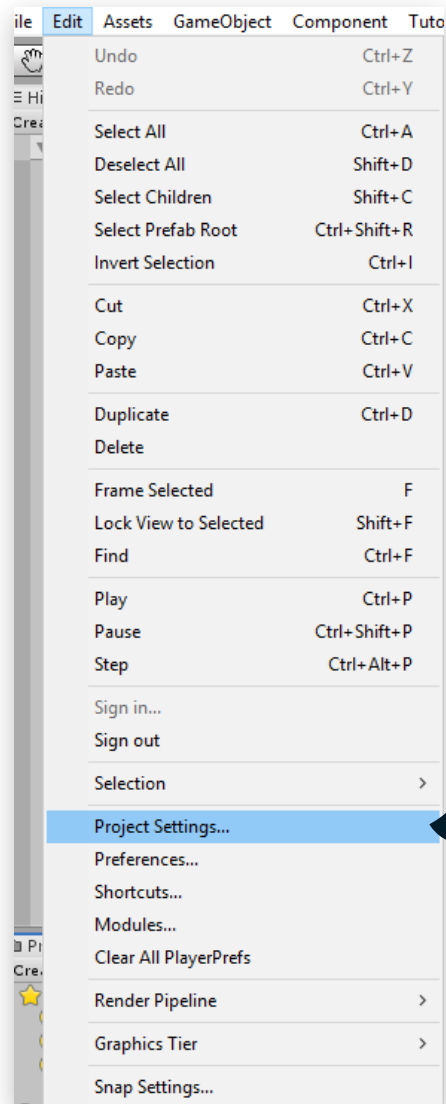
Step 3: Download the pack from the Asset Store and install the URP version.  
At this point you already can go to the scenes folder and select any of the scenes.

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.

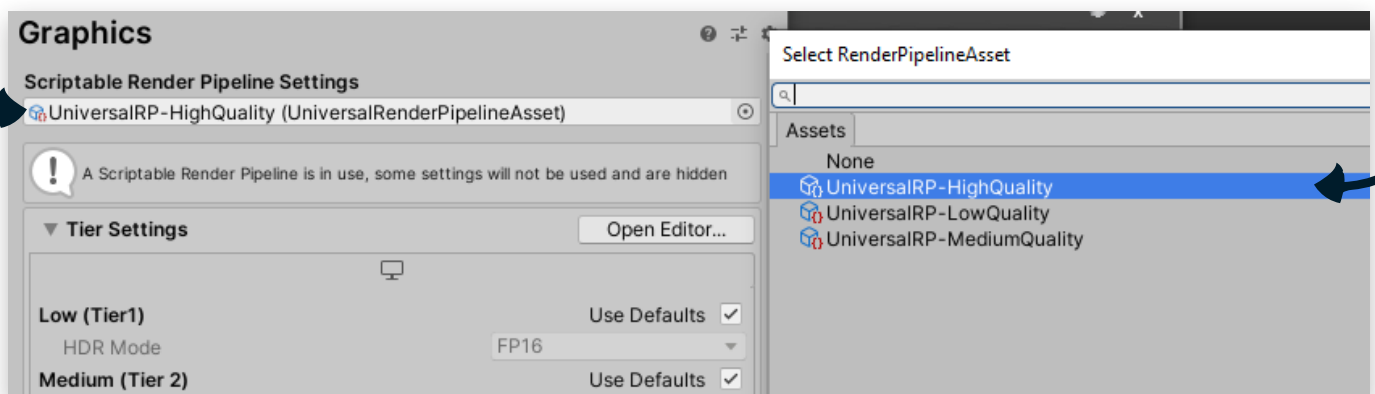
**Note:** If the error message *“a tree couldn’t be loaded because a prefab is missing”* pops up in the console tab, simply press “Clear” in the “Console” tab and it won’t appear again. This is a known Unity bug (importing a package that has terrain and trees in it) and has nothing to do with the package.

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...



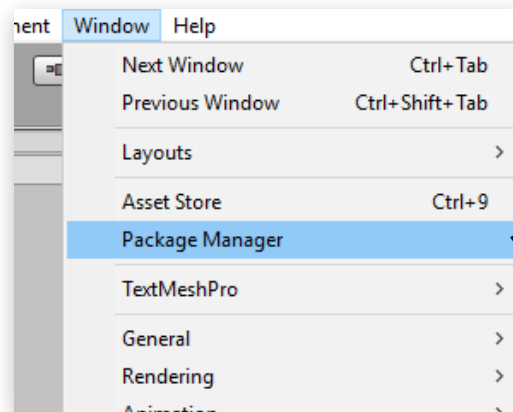
Step 5: For the Scriptable Render Pipeline Settings select “UniversalRP\_HighQuality”. These are the presets Unity preinstalled with the Template.



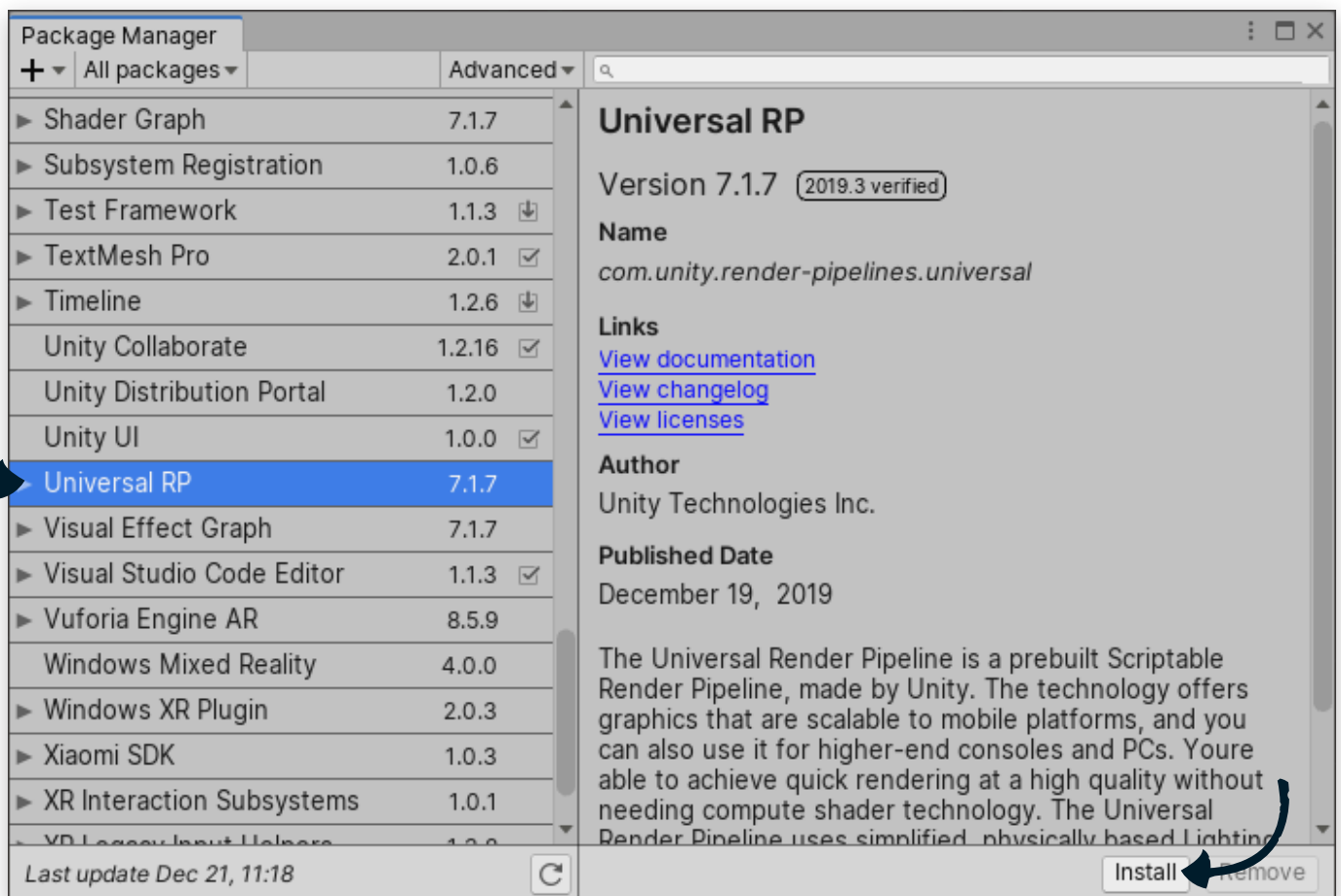


## How to set up your project for URP (option 2)

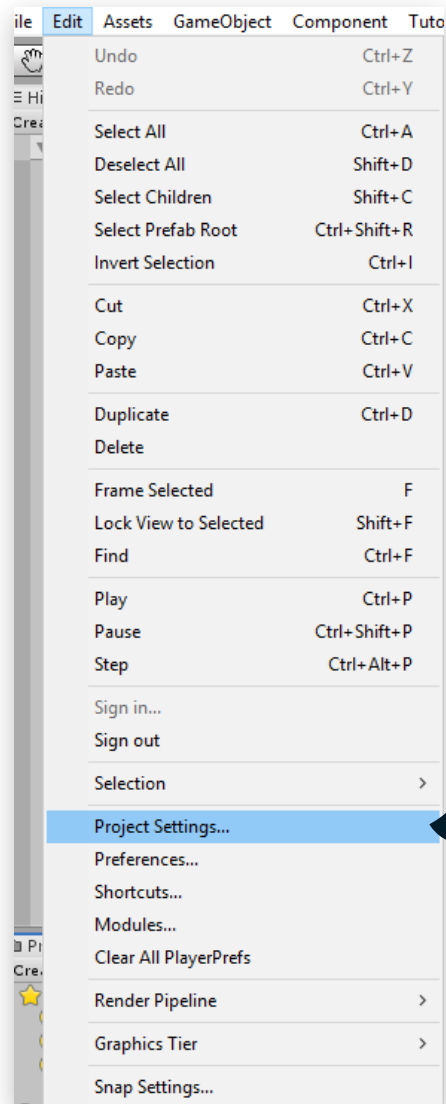
If you imported the the pack before you installed the URP please follow the steps below:



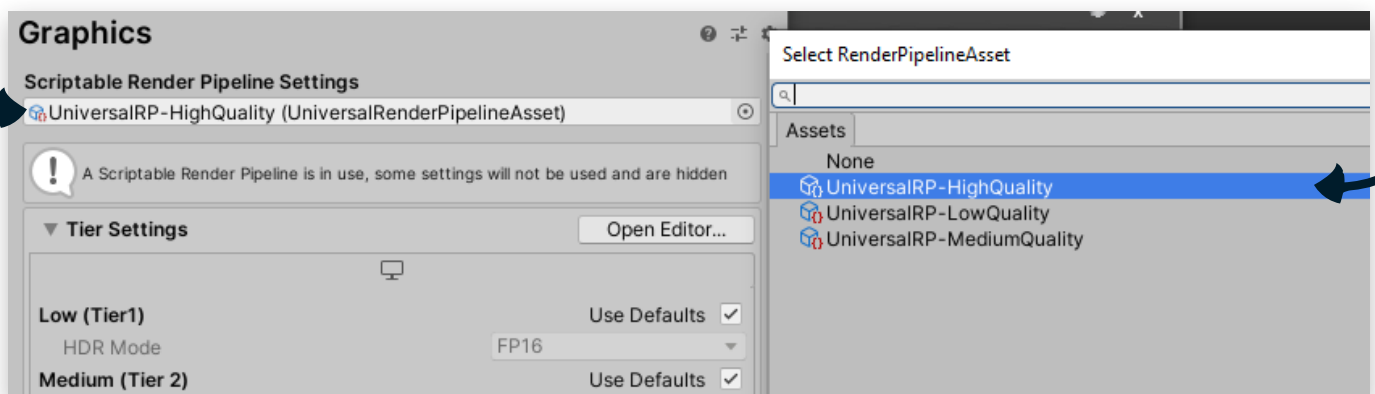
Step 1: go the Window > Package Manager.



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.



## How to set up Post Processing for URP

Note: These steps are only needed in case you have imported the LWRP versions into an URP project.

The Post Processing has changed since Unity 2019.3.0 and is now included in URP. To make Post Processing work with URP you will have to do the following steps:

Step 1: Inside “Window” > “Package Manager”, make sure that the “Post Processing Package” is NOT installed.

Step 2: Open the Demoscene from the package.

Step 3: In the Hierarchy Tab of the scene delete the “Post Processing Volume” object.

Step 4: Select the camera. In the Inspector Tab remove the “Missing Script” component. (this is the post processing layer from LWRP)

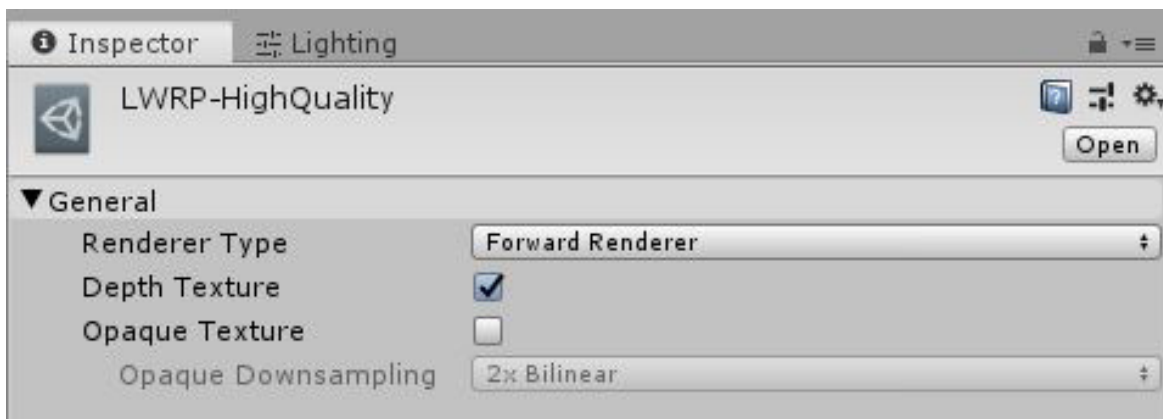
Step 5: In the Hierarchy Tab of the scene create a new “Global Volume”. (right click > Volume > Global Volume)

Step 6: Select the “Global Volume”. In the Inspector Tab of the “Volume” component click “New” at the Profile. Then click on the newly created profile to reveal it inside your project.

Step 7: After selecting the new profile, click on “Add Override” in the Inspector Tab, select “Post-processing” and select your desired effect.

Step 8: Additionally you will have to activate Post-processing here: in your Camera Inspector Tab go to “Rendering” and enable Post-processing there.

Note: Make sure to enable “Depth Texture” in the render pipeline settings to avoid errors in the water shader.



*The render pipeline asset settings.*



## Demo scenes

**Demoscene\_fantastic\_nature\_day:** daylight scene with different sceneries

**Demoscene\_fantastic\_nature\_night:** night scene with the same sceneries like the daylight scene

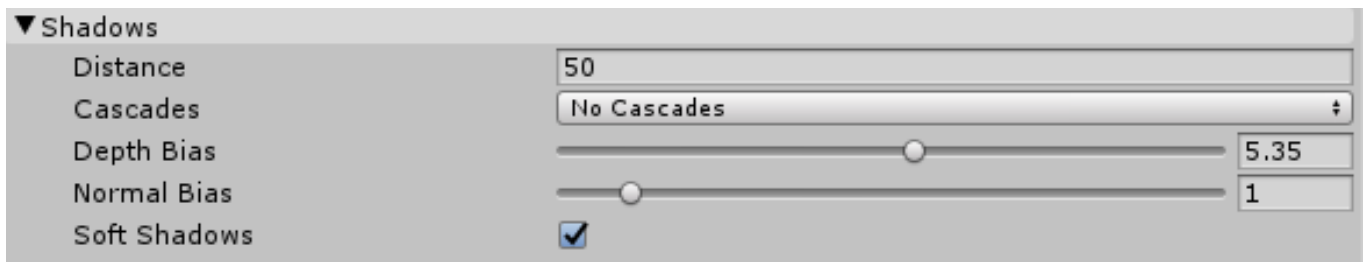
**Demoscene\_fantastic\_nature\_assets:** in this scene you will find all the assets within the package

All the sceneries you see in the trailer were recorded directly out of these 2 scenes.

Simply select the different displays from the dropdown to see where the cameras were placed:

## Quality settings for URP

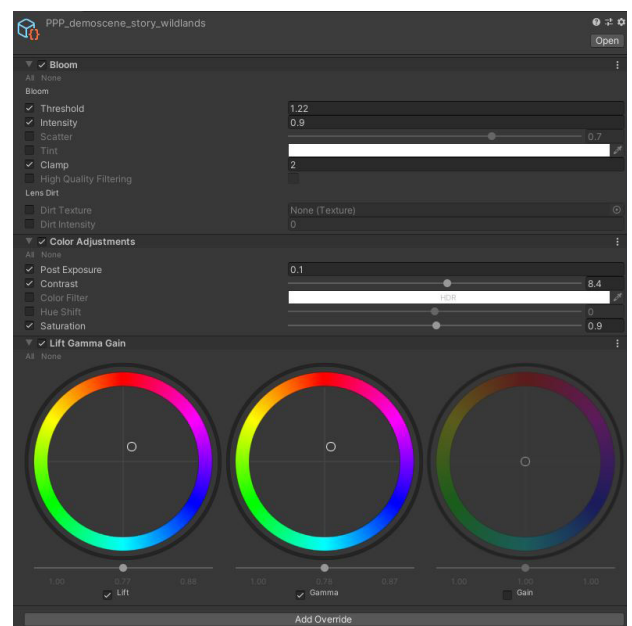
To quickly adjust any quality settings for URP please find the UniversalRP-HighQuality asset inside the \Assets\Settings folder.



*Example settings for shadows*

## Post Processing

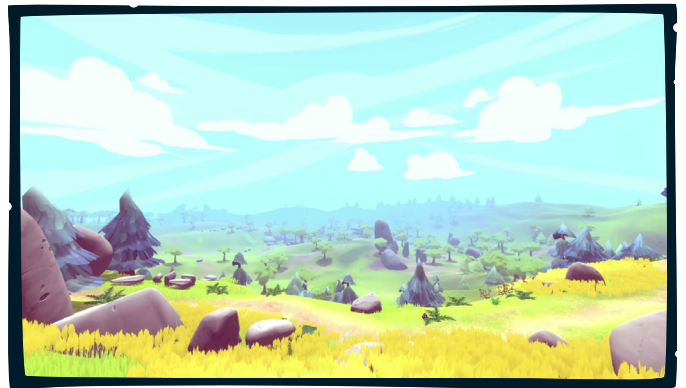
Inside the \Fantastic Nature Pack\Settings folder you will find PPP\_ files for the demo scenes. There you can adjust the post-processing to your liking.



*The post processing settings.*



## Demoscene day & night

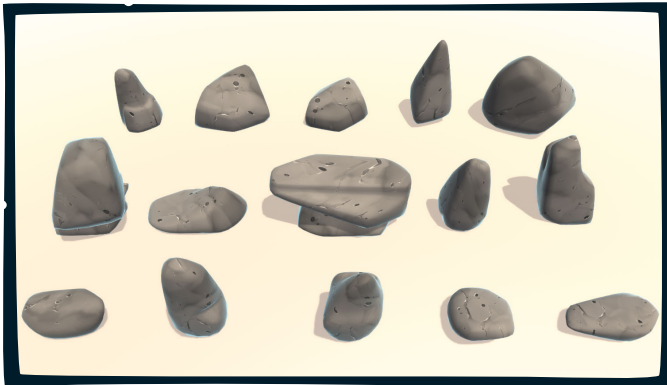
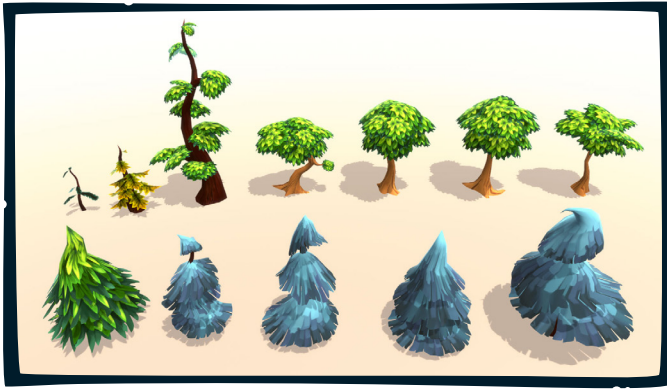






## Demoscene assets

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





# Assets

## Meshes

### Vertex maps

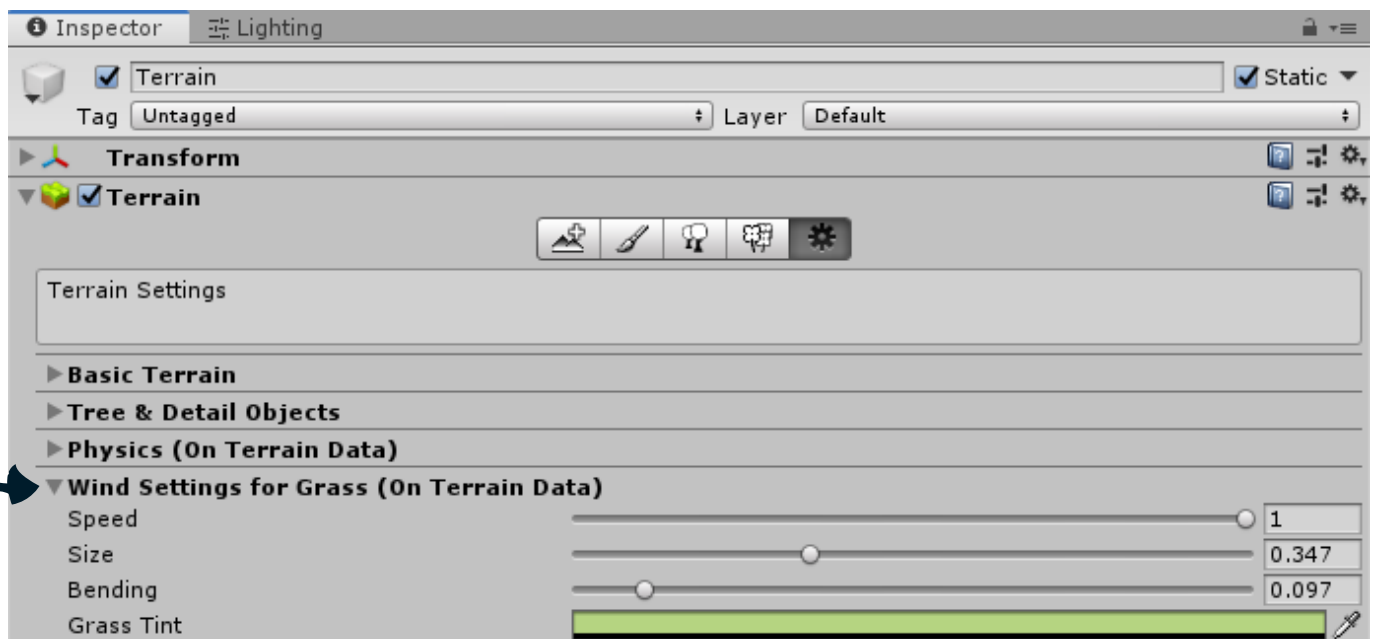
A specific set of meshes have vertex maps to be able to work with “Wind settings for Grass”. If you are asking yourself why we added these assets to “Detail Objects” please read through Environment setup - Terrain Tool chapter.

The following set of assets have vertex maps:

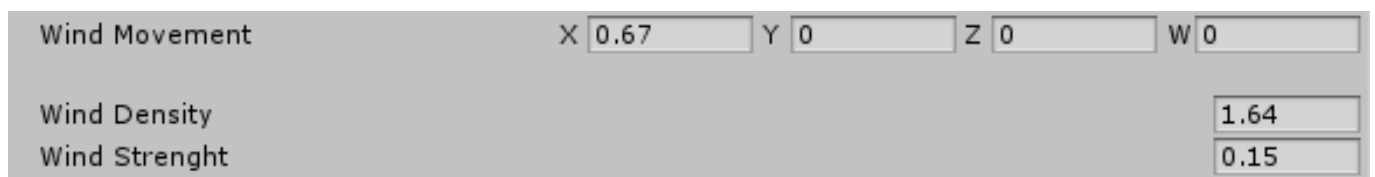
SM\_ENV\_PLANT\_bush\_...

SM\_ENV\_PLANT\_flower\_...

SM\_ENV\_PLANT\_leaf\_...



*Set the desired wind movement of the assets with vertex maps under “Wind settings for Grass”*



*For trees and grass the wind simulation is solved with the shader. For more information please see chapter “Shaders”*





## LODs

All the trees and stones have 3 LODs levels. These are already set up for you inside the corresponding prefabs. You will find all the prefabs in \prefabs folder.

Highest polycount for trees LOD0: 964

Lowest polycount for trees LOD2: 19

Highest polycount for stones LOD0: 872

Lowest polycount for stones LOD2: 18

## Collision

The trees have a custom collision mesh called *\*treename\*\_COLLISION*.

The stones have their \_LOD1 or \_LOD2 set as their collision.

Since trunks, stumps and roots are rather low poly, they have a mesh collider referencing themselves.

## Lightmaps

All assets have a custom lightmap UV in the second channel.



# Textures & Materials

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

## Tileable materials

To adjust the look of the terrain materials, please adjust the terrain layers directly in this folder:

\2d\textures\terrain\_layers

There are different classes of materials and textures in this pack depending on its use:

- Tileable materials (wood, metal, etc.)
- Terrain textures (gravel, grass, sand, etc.)
- Atlases (props, foliage)
- FX (fire, steam, water)

There are multiple reasons why we wanted the plants texture to be an atlas. Firstly for performance reasons and secondly, this way you can easily add seasonal changes by simply changing one single texture, or add other kind of flora and fauna to the same meshes without adjusting the mesh or the UVs.



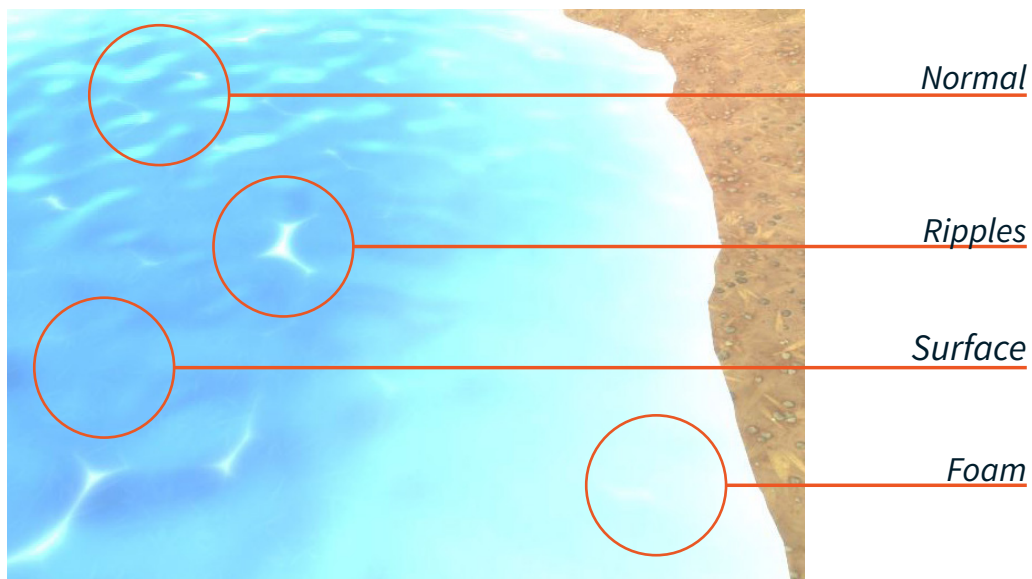
# Shaders

With package version 1.5 the wind and water shader have been improved. They were created using Amplify and hence can **not** be opened or adjusted using Unity's Shader Graph. Of course if you have Amplify installed, you can adjust the shader there. The older version of the wind and water shader for LWRP/URP can still be found in the /shaders/legacy folder. Rest of the shaders are all standard URP or Built-in, depending on which render pipeline you are using.

## 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



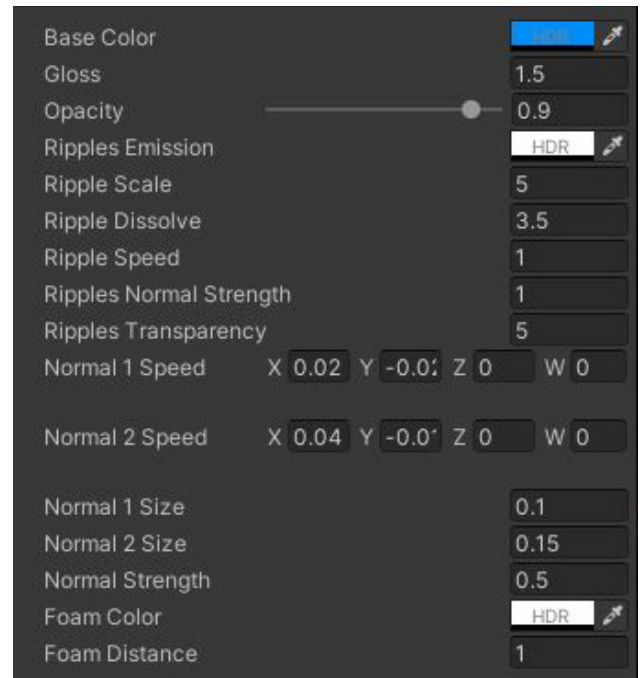
*The four main parts of the water shader: Normal, Foam, Ripples and Surface.*

- Important note: If the water isn't displayed correctly, make sure you have 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.*

## Foliage shader

For the foliage wind movement we have included 4 shader variations in this pack:

- S\_foliage\_wind\_standard\_advanced: doublesided shader, which is primarily used for the grass. It has a variety of options to customize the shader.
- S\_foliage\_wind\_standard\_advanced\_lit: doublesided shader with the same customization option as the one above, but with front/back faces shaded influenced by light direction. It is primarily used for the tree leaves and bushes.
- S\_foliage\_wind\_standard\_simple: A simple version of the advanced shader with reduced customization options. Primarily used to improve performance.
- S\_foliage\_wind\_standard\_simple\_lit: A simple version of the advanced\_lit shader with reduced customization options. Primarily used to improve performance.

M\_PLANT\_atlas\_anim\_FNP and M\_PLANT\_grass\_anim\_FNP are both ment to be used for wind movement of the plants.



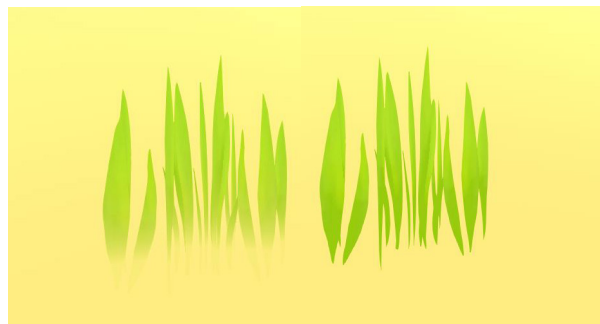
The advanced wind shader is defined by four main parts:

- **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 highlights on the grass
- **Distance Fade:** Defines a distant color fade relative to the camera position.



Wind Tint

*The Wind Tint creates a pattern of highlights on the grass.*

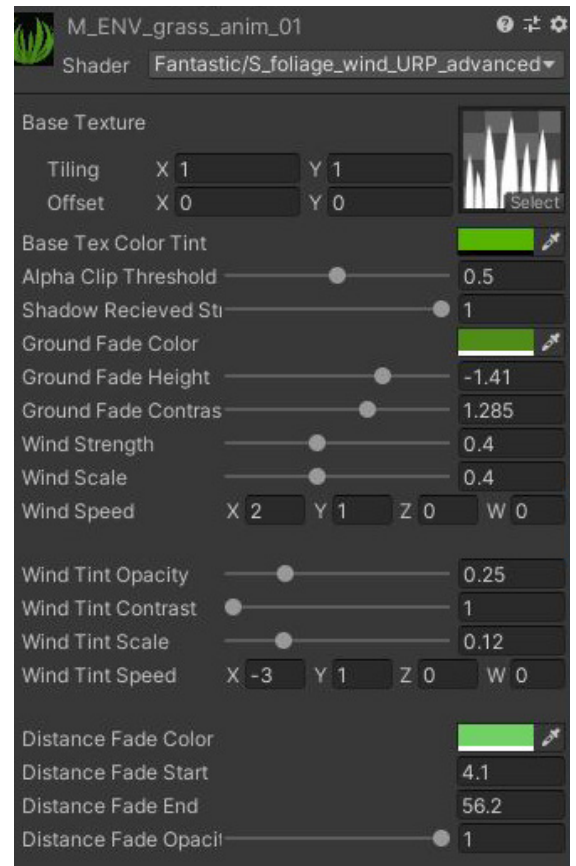


*The grass mesh with and without a ground fade.*



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 Value: Defines threshold when the pixel will be opaque or transparent
- Shadow Received Strength: Defines the intensity of the received shadow on the mesh (URP only)
- Ground Fade Color: Defines the color used for the ground fade
- Ground Fade Height: Defines the range of the ground fade
- Ground Fade Contrast: Defines ground fade contrast
- Wind Strength: Strength of the 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 components are not used)
- Wind Tint Opacity: Defines transparency of the tint color
- Wind Tint Contrast: Defines contrast of the tint color
- Wind Tint Scale: Size of the noise for the tint
- Wind Tint Speed: Movement direction & speed of the noise
- Distance Fade Color: Defines the color of the fade in the distance
- 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

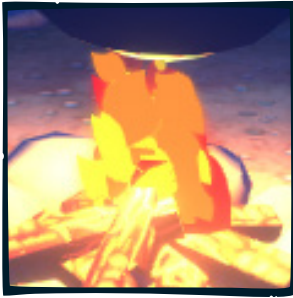


*The customization options inside the wind material.*

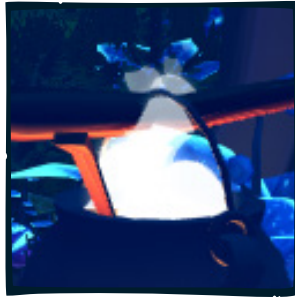


## FX

Inside the \prefabs\FX folder you will find some particle effects to decorate your scenes. We added the following effects:



*Fire*



*Steam*



*Particles Glow*



*Leaves*

## Customizing Assets

We have added multiple prefab versions for trees to have 4 different variation in their materials. You can easily do that for other assets like roots, tree trunks and stumps.

As explained in the “Textures & Materials” chapter, you can work on one single texture to make adjustments or even seasonal changes.







# Scene setup

## Environment setup - Terrain Tool

It's important to note that trees and stones will not work on the terrain as "Detail Objects". This is because they have LODs, which is incompatible. Instead, add these assets as "Tree Objects" in the Terrain Tool.

Additionally any assets with emission and grass should be added as "Tree Objects", because the built-in grass shader would otherwise override the custom shaders.

This is not a limitation of the package, but rather a limitation of Unity. Here is a sheet to help you decide where to add the assets:

### Detail Objects

*Assets without emission*

*Assets without LODs*

*No prefabs*

#### **"Grass texture"**

*single texture (no atlas) which will be displayed as such (can be a billboard)*

#### **"Detail Mesh" - vertex lit**

*does not move with wind & has no transparency*

- Mushrooms without emission

#### **"Detail Mesh" - grass**

*assets with vertex map that should move with wind*

- Bushes
- Leaves
- Flowers
- Fern

### Tree Objects

*Assets with emission*

*Assets with LODs*

*Prefabs*

*Assets with custom shaders*

- Trees
- Stones
- Grass





# 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.

### **What's the deal with Universal Render Pipeline (URP)?**

With Unity 2019.3 the Lightweight Render Pipeline is renamed to Universal Render Pipeline. If you set up your project using LWRP from an older version of our pack, you can change to URP and everything should work from the getgo - shaders, materials and lighting are compatible with URP.

### **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 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.

## **I'm using Unity version older than 2019.4.30 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 URP shaders are created in Unity 2019.4.30 and are not backwards compatible. The errors is created by the shadow cascades settings in the render pipeline asset. You can either use the shaders from the /shaders/legacy folder or set the Cascades option in your render pipeline asset to "No Cascades".

## **I imported the package but the assets using your custom Shader Graph shaders have errors and show up pink in the scene...**

We are aware of an error which sais the following: *Shader error in 'Shader Graphs/' "shader name": syntax error: unexpected integer constant at line...*

Saidly we could not reproduce it but we very closly follow possible solutions for it. This error only occurs with Unity version 2019.2 and using another unity version possibly fixes the error.



## 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](mailto:info@tidalflask.com)**

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