

LEAFLESS

BY RADCODERS



Modern Archviz: Leafless

BY RAD-CODERS

This document will guide you thru the usage of this asset. It contains best practices and possible problems you may encounter.

If you have any further questions please feel free to contact us at:

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OR

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Quick Setup Guide



COLOR SPACE

Please change your color space in the “Player Settings” from **Gamma** to **Linear**. For future cases set your color space to **Linear** before asset importing (to avoid reimporting).



POST PROCESSING STACK (BY UNITY TECH.)

Please follow this link and import the Post Processing Stack provided by Unity Tech. in the Unity Asset Store: <https://www.assetstore.unity3d.com/en/#!/content/83912> . After import add the Post Processing component to your main camera and drag the provided (“ArchvizLeaflessNewProfile.asset”) profile into the open slot.



DEFERRED RENDERING PATH

For all active cameras in the scene it is recommended to set your rendering path to **deferred**. This will allow you to use a few extra features in the post processing stack.

General Usage: Navigation

TEXTURES

All **textures** including HRD's are located here (Root-> Assets-> Textures). The texture name is followed by the map type and then resolution. Example:
CleanSteel(**texture name**)_normal(**map type**)_2k(**resolution**)

MODELS

All **.fbx** files can be found here (Root-> Assets-> Models). All models make use of the standard material called "NoName". We recommend using prefabs instead.

MATERIALS

All **materials** can be found here (Root-> Assets-> Materials). The materials follow the same filing convention as their textures. Materials are named by their texture name followed by the instance/variation of the material. Example: CleanSteel(**material name**)_01(**Instance/variation number**)

PREFABS

All **prefabs** can be found here (Root-> Assets-> Models). Each prefab follow the same filing and naming convention as its .fbx base file. All .fbx files in the "Models" folder has a prefab instance in the "Prefab" folder.

General Usage: Navigation (Continued)

POST PROCESSING STACK

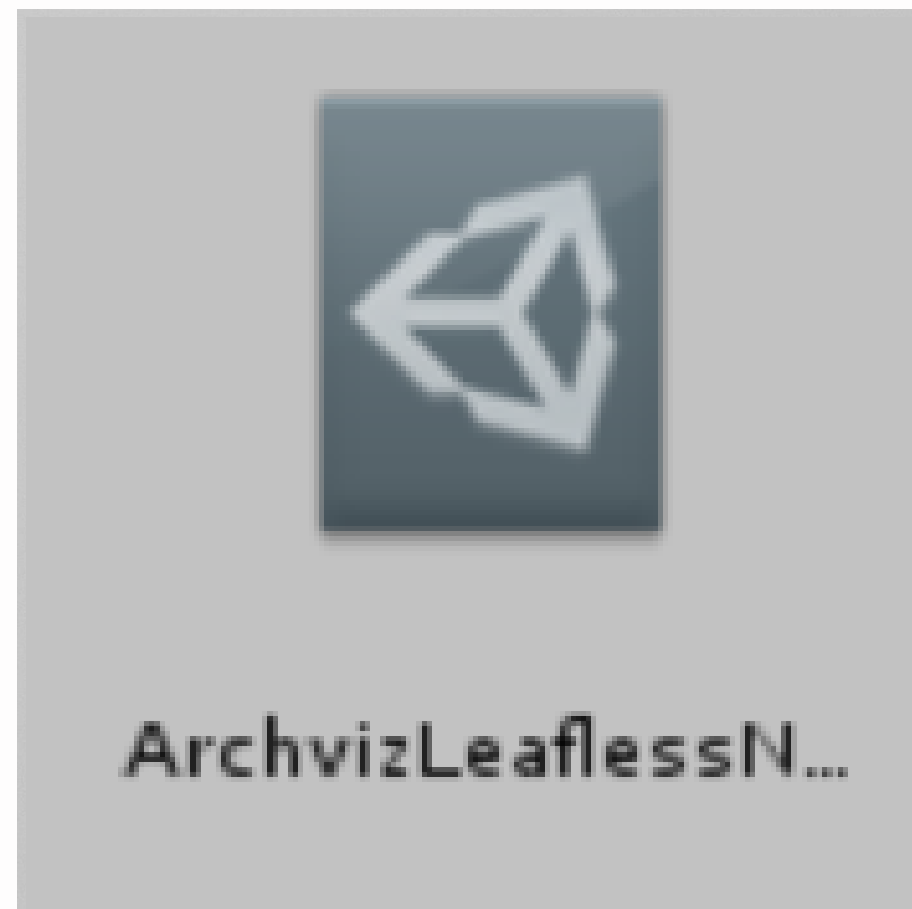
All **profiles** including **LUT's** are located here (Root-> Assets-> PostProcessingStack). The profile located here uses the highest available settings to improve the visual quality of the asset. Please see the optimisations page for optimisation related questions.

SCENES

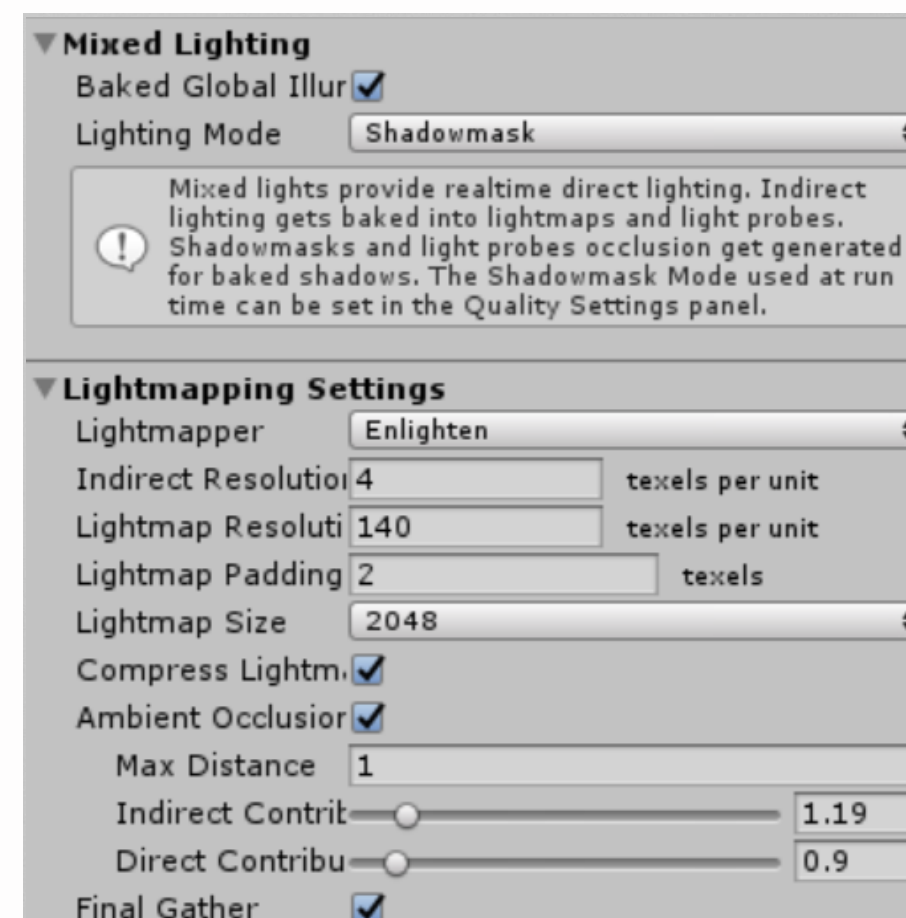
All **scenes** can be found here (Root-> Scenes).

Optimisation Methods

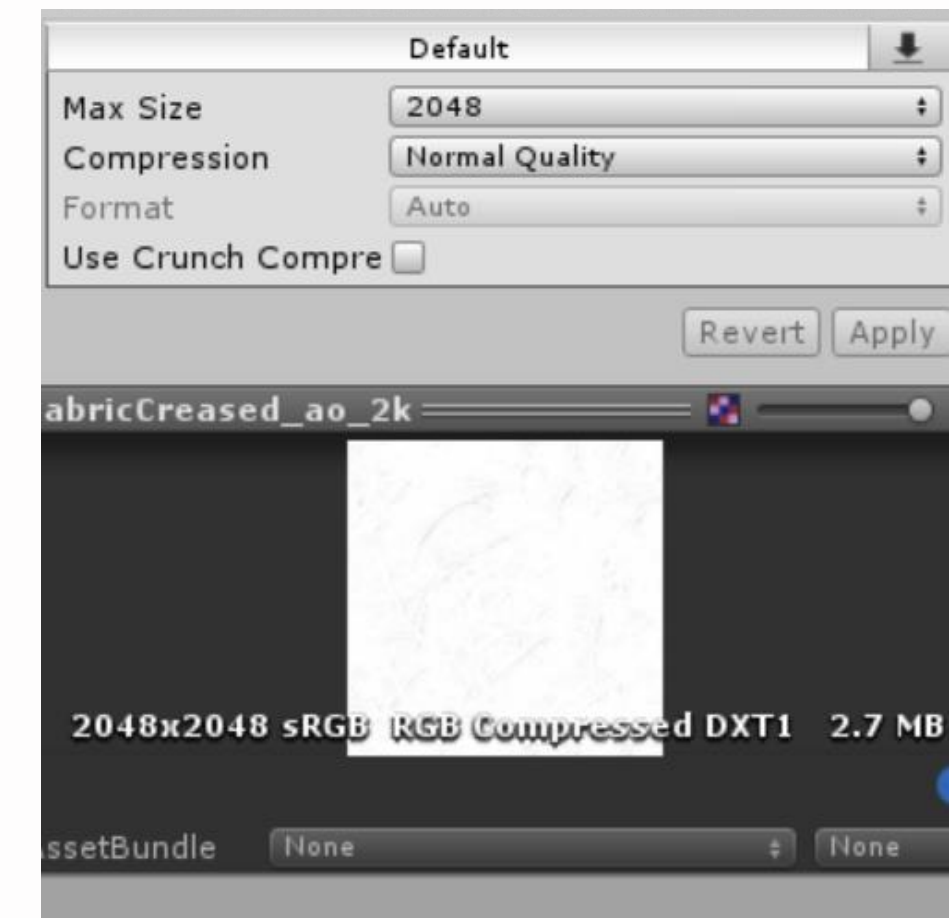
WITHOUT COMPROMISING QUALITY



Post Effects



Lighting Setup



Textures



POST EFFECTS

OPTIMISATION METHOD

AMBIENT OCCLUSION

This project is set up (baked) to not rely on post processed ambient occlusion. With that said it is still recommended to use AO in order to enhance the visual quality of the asset.

For best performance set AO **“Sample Count”** to **“Lowest”** and enable **“Downsampling”**.

SCREEN SPACE REFLECTIONS

Screen space reflections are compute heavy, but enhances the visual quality greatly. Disabling this should be one of the last resorts.

For best performance set “Reflection Quality” to “Low”.

ANTI ALIASING (QUALITY SETTINGS)

Please be sure to disable anti aliasing from the “Quality Settings” as it no longer serves any purpose.

LIGHT SETUP

OPTIMISATION METHOD

LIGHTMAPPING SETTINGS

Here are a few parameters to decrease baked map sizes and essentially increase overall performance. A by product of this is faster baking times. These are some basic settings that has been tested to work with **this** asset.

For best performance set:

- **Indirect Resolution to 2**
- **Lightmap Resolution to 80**
- **Final Gathering-> Ray Count to 120**
- **Lightmap Parameter to Default-Medium**

REFLECTION PROBES

Currently the scene uses 1k maps for reflections (both reflection probes and environment reflections). In this scene there aren't any large fully reflective objects (windows excluded) and you can get away with lower reflection quality.

For best performance set all reflection probe "Resolutions" to **512**. Set the "Environment Reflection" "Resolution" under the "Lighting" window to **512**.

TEXTURE SETUP

OPTIMISATION METHOD

TEXTURE IMPORT SETTINGS

Most textures in this project uses a 2k (2048x2048) resolution. Although it looks beautiful it can also have some extra GPU overhead. We have tested the lowest resolution for all the textures and came across a pattern. The best rule of thumb would be to cut the current resolution in half. This will leave most textures with a 1k (1024x1024) resolution.

A large portion of the asset uses textures where it is used on a large object. Thus going lower than half might cause some unwanted imperfections. If the texture is only used on small objects the resolution can go down further than half.

For best performance change the “**Max Size**” of each texture under the import settings to half of its current resolution. So **2048** will become **1024**.

You might notice that on some smaller objects there are artefacts that could best be described as white tears. This happens with smaller objects that uses the “MainPacked_01.mat” material located at: Root-> Assets-> Materials-> Other-> MainPacked_2k.

To fix this issue, simply duplicate (ctrl+d OR cmd+d) this material and remove the heightmap. Now apply this material to all objects (that were already mapped with this material) that shows signs of tearing.

The reason for not doing this beforehand is due to performance and that every material in the scene counts. It is only noticeable from up close.



Fixing Tearing

ON CERTAIN OBJECTS

THANK YOU

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