Low Poly Trees Pack v1.2

by **LMHPoly**

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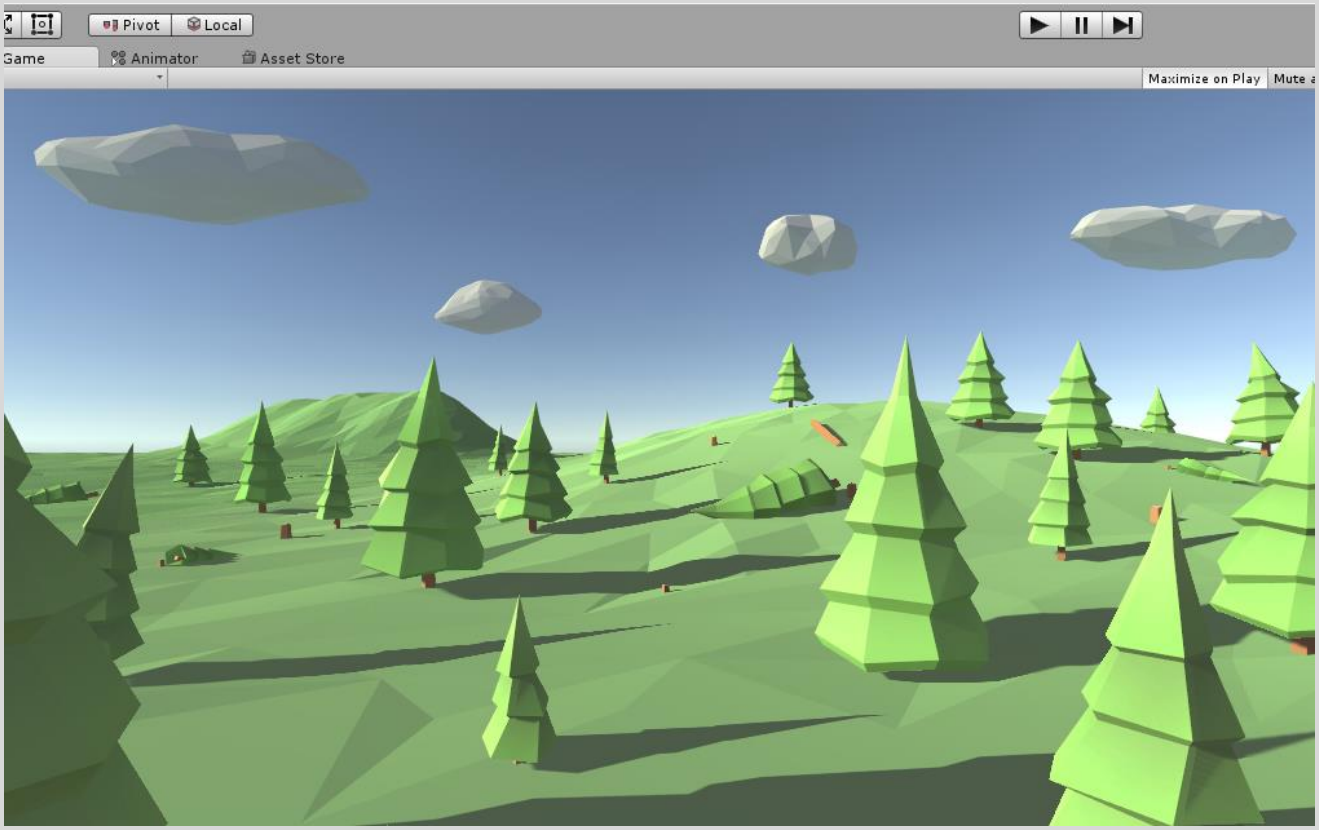
https://twitter.com/lmhpoly

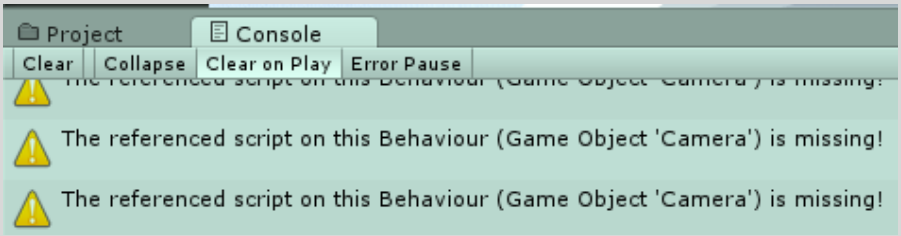
CONTENT

DEMO SCENES

Now as you have imported the whole "**Low Poly Trees Pack**" to your Unity project, go to **Low Poly Trees Pack** > **Demo** > **Demo_Scenes** and Open any Demo Scene (*here is a Demo_06 example*). The scene should look like this inside **Game** view without any image effects:



If you press **Play**, you will get a message, something like this:

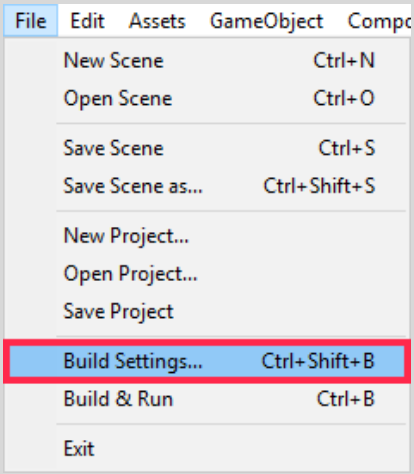


This is because all **Demo** Scenes use **Post-Processing** Image effects applied to all **Cameras** and those effects are not included in the pack! You just need to download them and import into your project. Follow steps below to setup Demo Scenes!

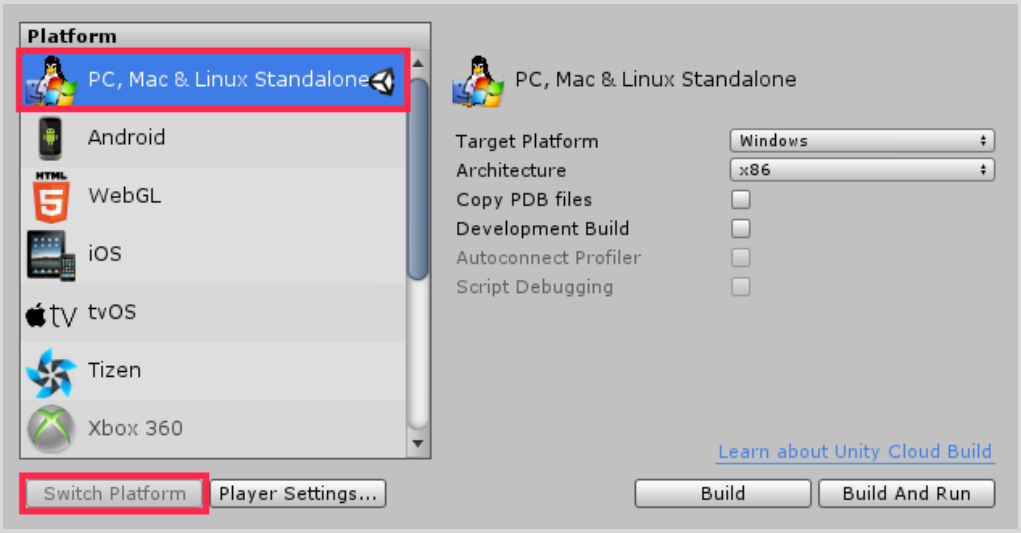
HOW TO SETUP DEMO SCENES IN UNITY 5.0.0 – 5.5.3 VERSIONS (For PC)

1. Make sure you are using **PC, Mac & Linux Standalone!**

Go to **File > Build Settings**



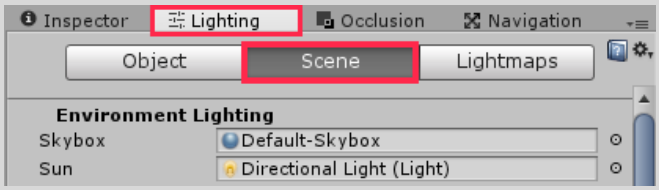
Select **PC, Mac & Linux Standalone** and hit **Switch Platform** button.



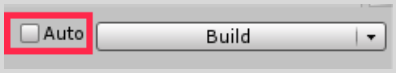
2. **Clean GI Cache** (*Optional – needed if you have some light baking errors*)

Before you go to the next step you need to Disable **Auto** build/bake feature.

You can find it in **Lighting** and select **Scene** tab. (*If you don't have Lighting tab go to Window > Lighting*)

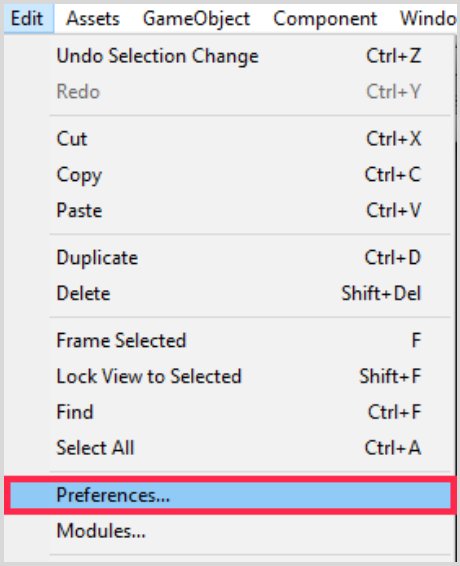


At the bottom you will see this:

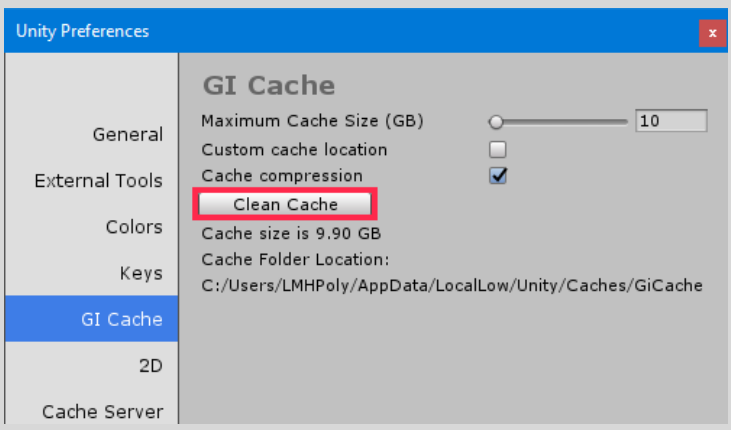


Uncheck **Auto**.

Go to **Edit > Preferences**

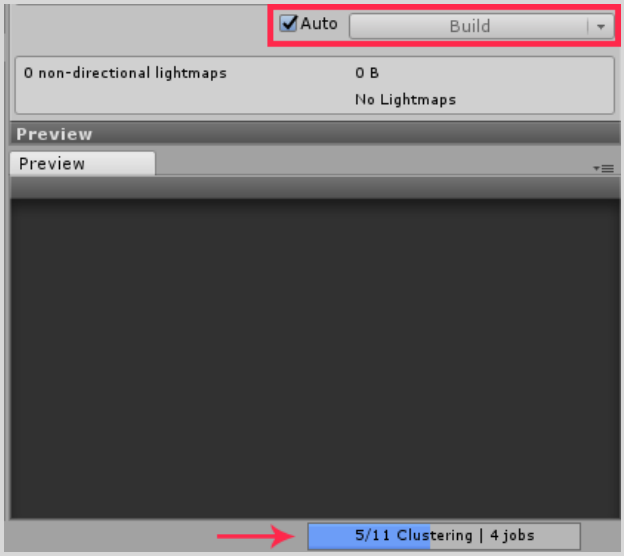


Select **Gi Cache** tab



Press **Clean Cache** button!

Enable **Auto** build/bake feature



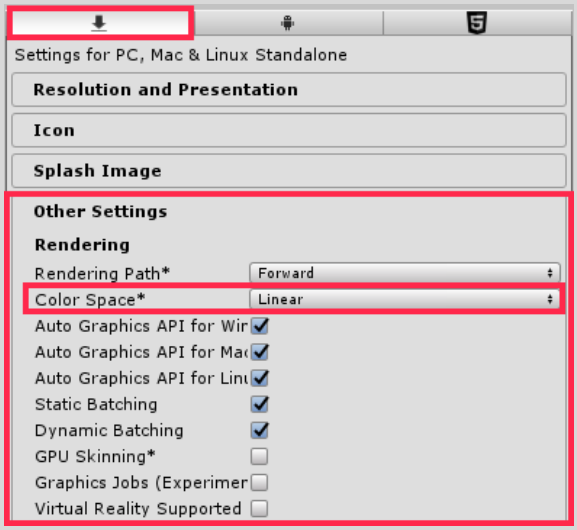
and wait until build is done (blue loading bar at right bottom corner).

-If you get some errors, try to change **Realtime resolution** to other value. For all my scenes I've used 1. You can try lower or even bigger values like 0.5 or 1.5

3. Make sure that **Color Space** is set to **Linear.**

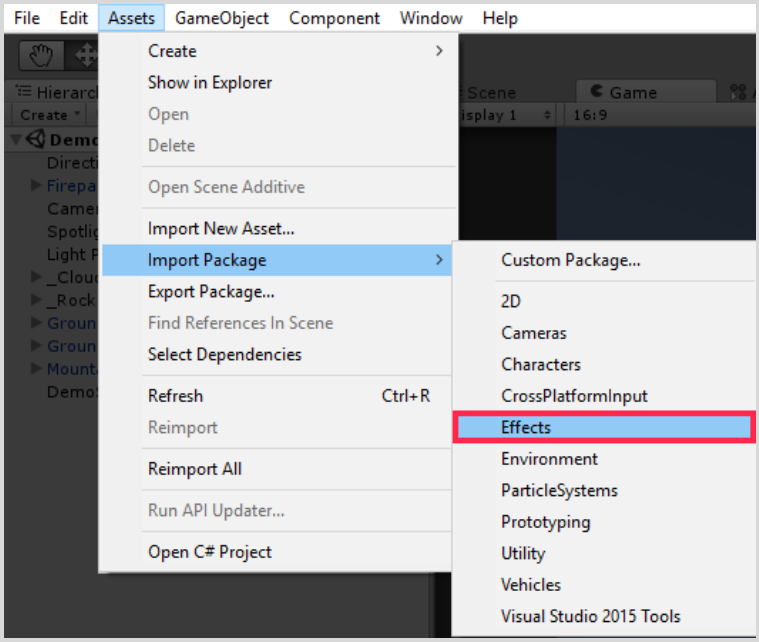
To do that go to **Edit > Project Settings > Player**

In the **Other Setting** tab, you will find **Color Space** set it to **Linear**.



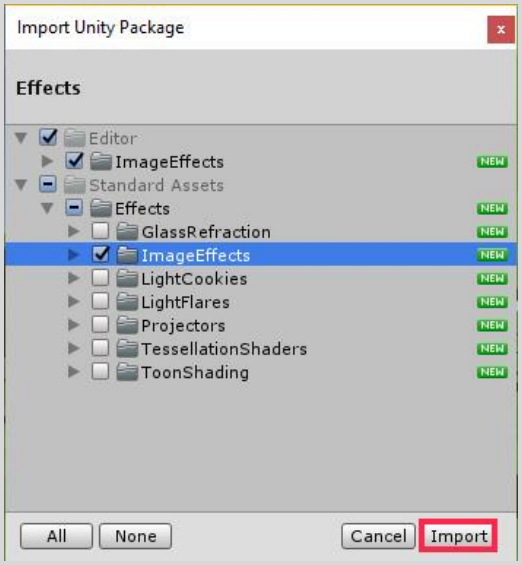
4. **Import Image Effects from "Standard Assets" package.** This needs to be done because of every Demo Scene Camera use image effects like (*DOF, Color Correction and so on*).

Go to ***Assets > Import Package > Effects***



-If there are no **Effects** package to import, you need to download [Standard Assets] for your Unity build and install it!

Select only these folders:



- ***Editor*** (and everything that's inside that folder)

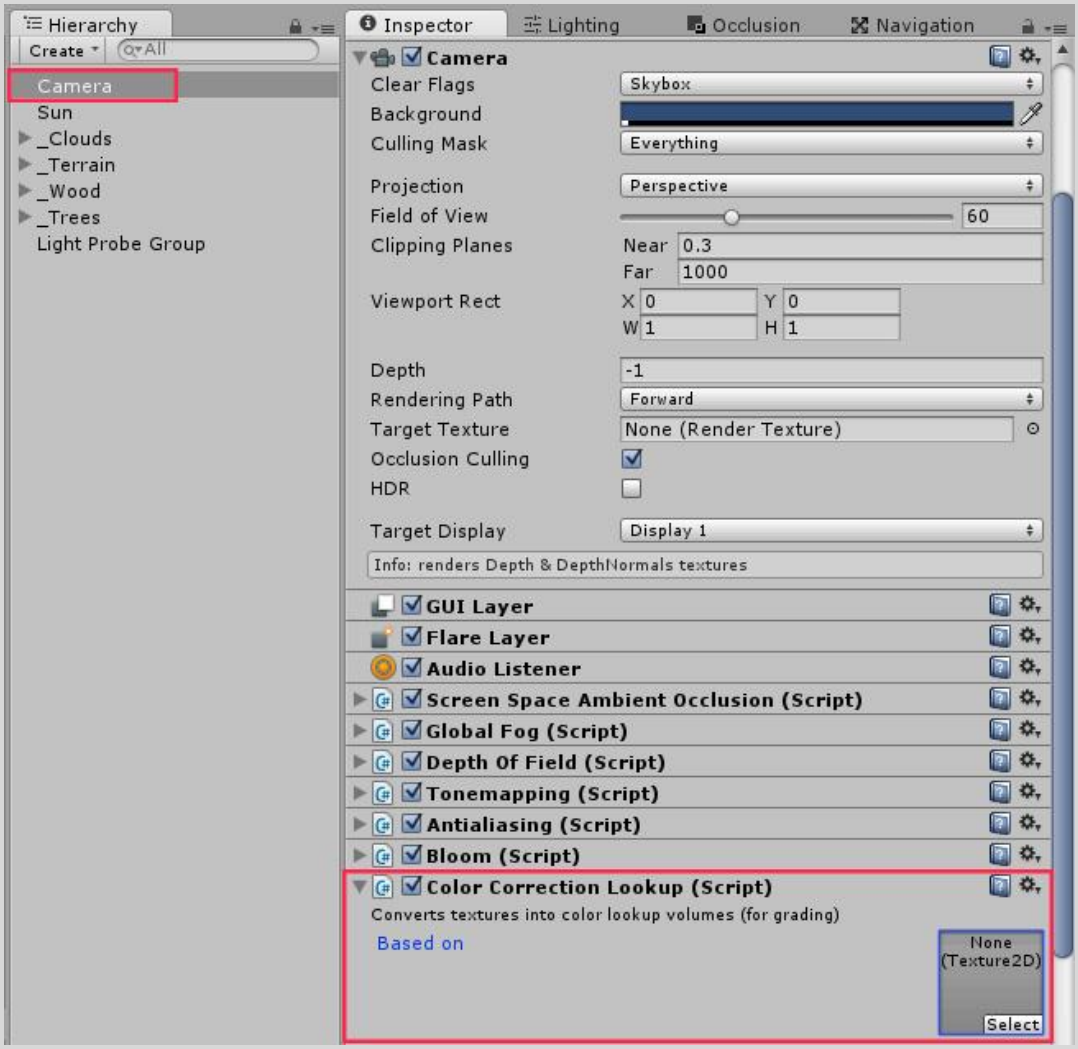
Inside ***Standard Assets > Effects*** select:

- ***Image Effects***

And ***Import.***

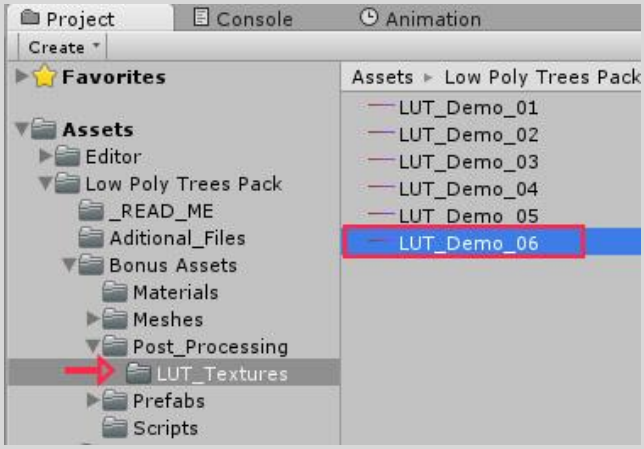
After that, you will see all camera effects working like it should.

-Select **Camera** and make sure that **Color Correction Lookup (Script)** is working. Try to **disable/enable** it and see if colors change in the **Game** view!



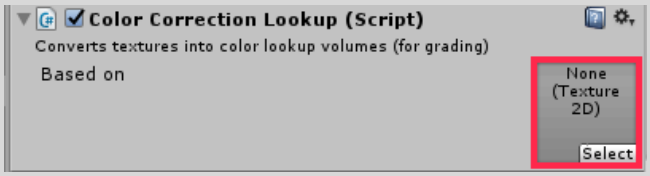
If it's not changing go to **Part 5**, if it's changing skip **Part 5**!

5. At the **Project** tab go to **Assets > Low Poly Trees Pack > Bonus Assets > Post-Processing > LUT_Textures**

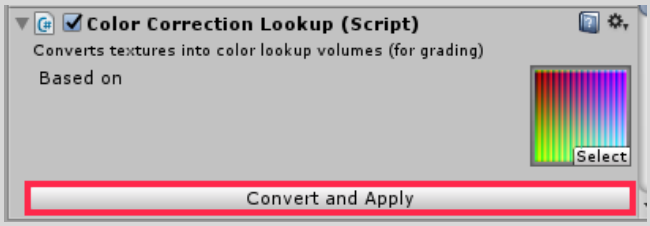


Grab and drag **LUT_Demo_06** texture file (this means that it's for Demo_06 Scene)

To the Camera **Color Correction Lookup (Script)** blank square where it says **None (Texture 2D).**



And press **Convert and Apply** button.

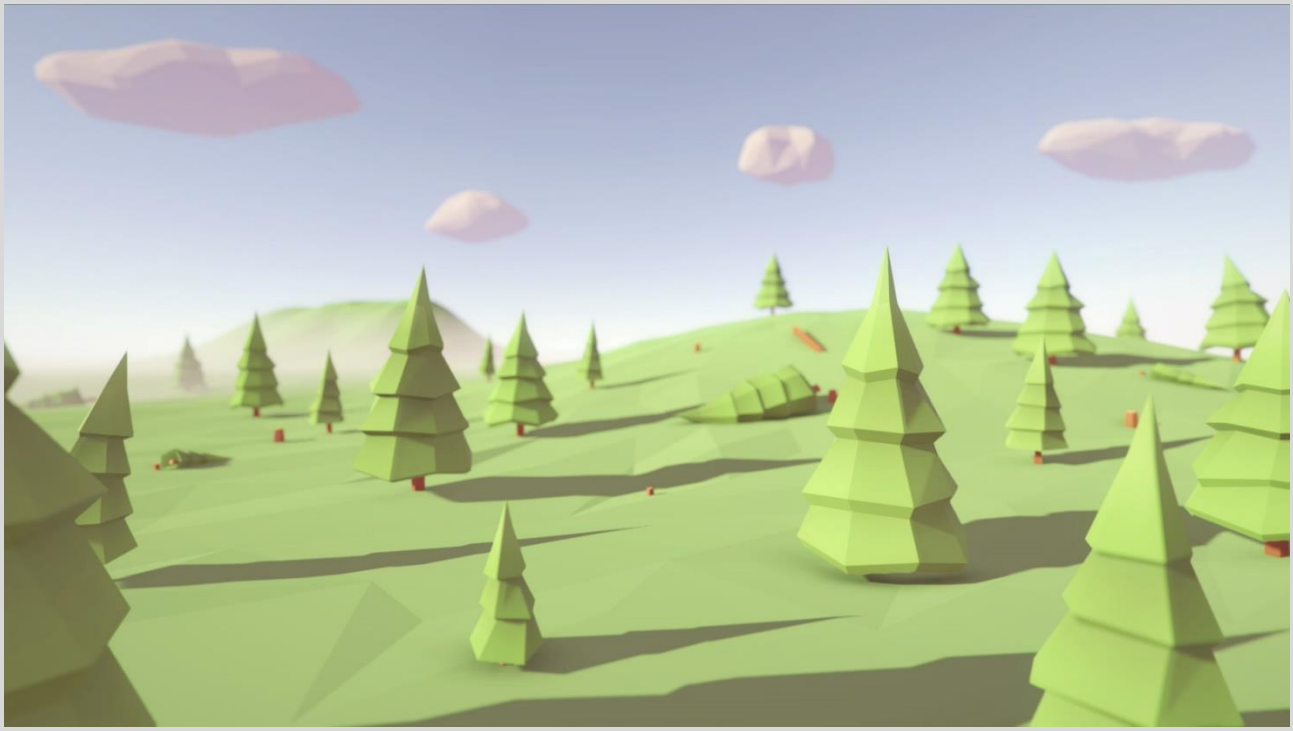


That's it. Now you have all camera effects working!

Do it for every Demo Scene if needed!

-For Low-End PC's if you hit play and it lags, try disabling image effects one by one on the camera!

Now your scene should look like this *(Demo_06)*:



Press Play and Enjoy!

If you have any questions, please send me an e-mail.

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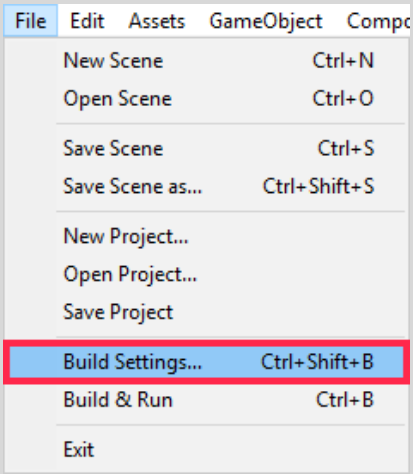
Website: http://lmhpoly.com/contact/

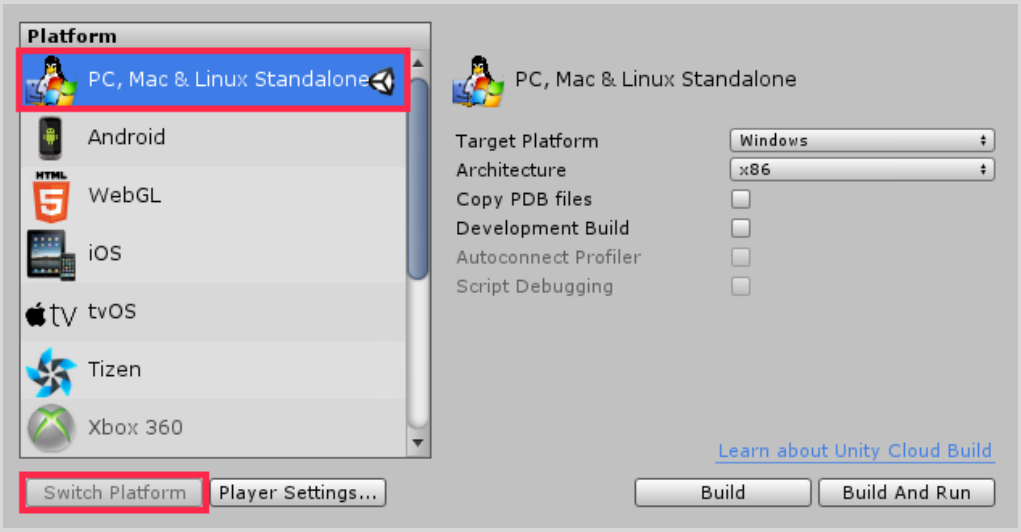
HOW TO SETUP DEMO SCENES IN UNITY 5.6.0 AND UP VERSIONS (For PC)

1. Make sure you are using **PC, Mac & Linux Standalone!**

Go to **File > Build Settings**



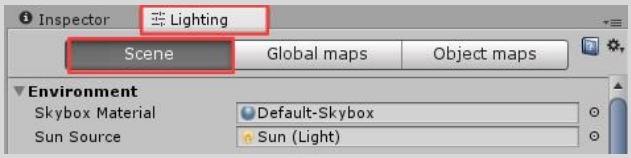
Select **PC, Mac & Linux Standalone** and hit **Switch Platform** button.



1. **Clean GI Cache** (*Optional – needed if you have some light baking errors*)

Before you go to the next step you need to Disable **Auto Generate** feature.

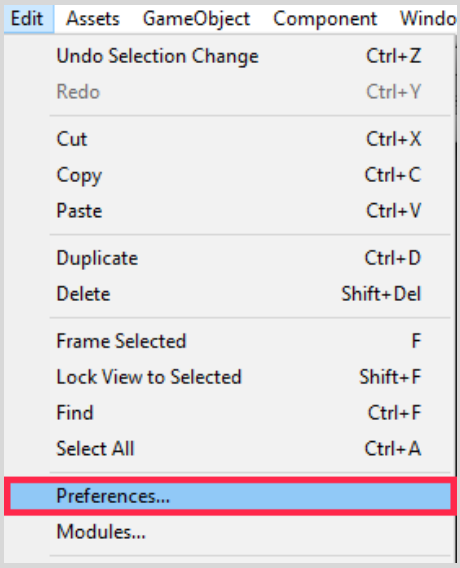
You can find it in **Lighting** and select **Scene** tab. (*If you don't have Lighting tab go to Window > Lighting > Settings*)



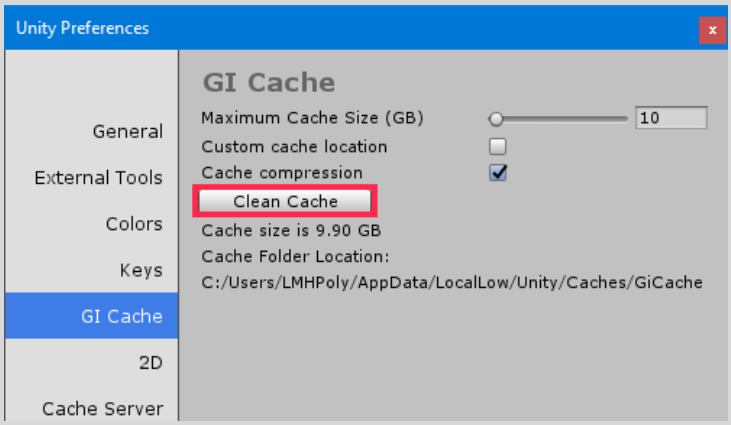
At the bottom you will see this:

Uncheck **Auto Generate**.

Go to **Edit > Preferences**

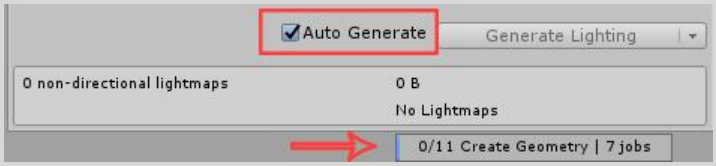


Select **Gi Cache** tab



Press **Clean Cache** button!

Enable **Auto Generate** feature



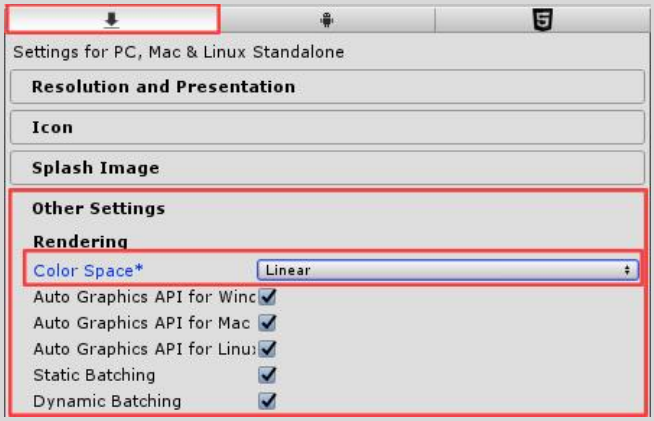
and wait until build is done (blue loading bar at the right bottom corner).

-If you get some errors, try to change **Realtime resolution** to the other value. For all my scenes I've used 1. You can try lower or even bigger values like 0.5 or 1.5

2. Make sure that **Color Space** is set to **Linear.**

To do that go to **Edit > Project Settings > Player**

In the **Other Setting** tab, you will find a **Color Space** set it to **Linear**.

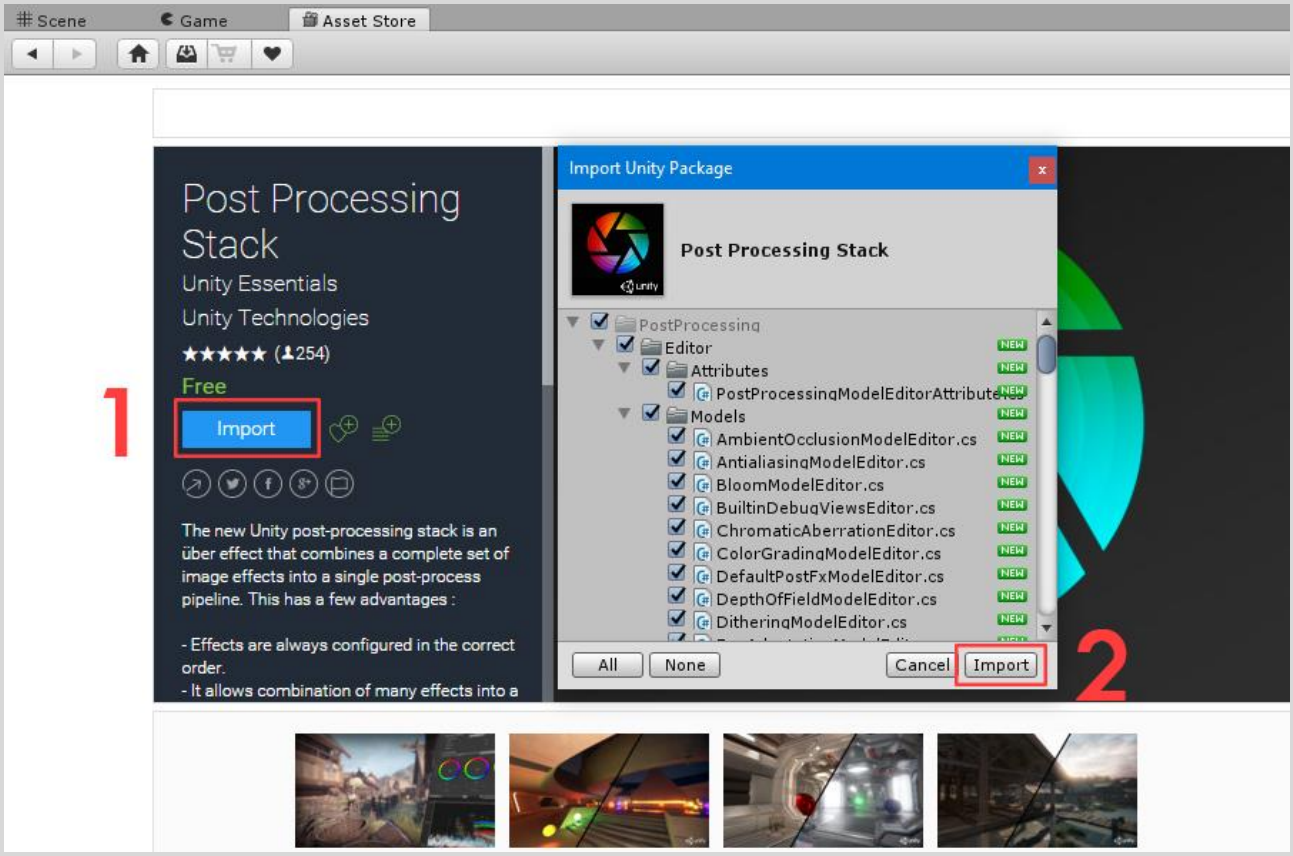


3. **Import Post Processing Stack.** This needs to be done because of every Demo Scene Camera use image effects like (*DOF, Color Correction and so on*).

Go to ***Window > Asset Store***

Search for **Post Processing Stack**:

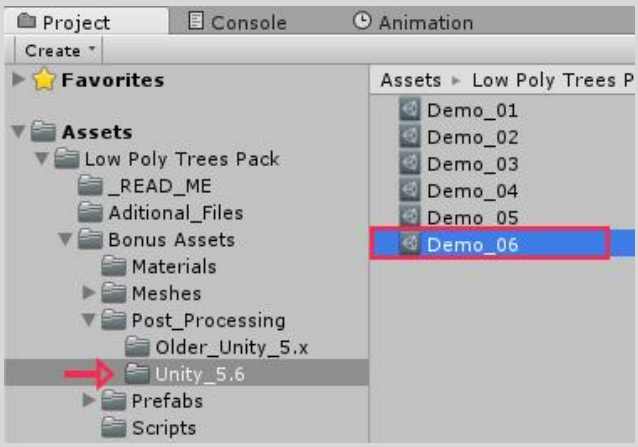
Download and **Import** it to your project



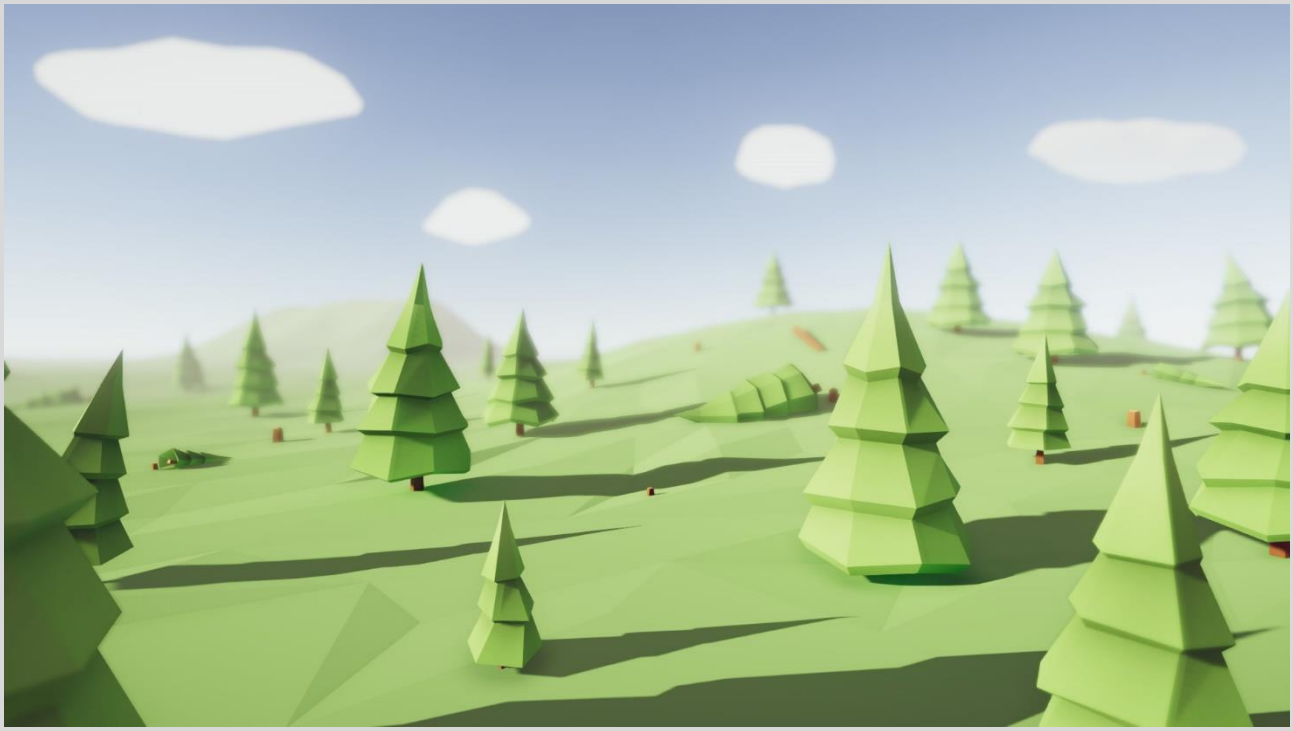
After that, you will see all camera effects working like it should.

-For Low-End PC's if you hit play and it lags, try disabling Post-Processing effects one by one on the Post-Processing Profile settings!

To edit **Post-Processing** Settings – go to **Low Poly Trees Pack** > **Bonus Assets** > **Post_Processing** > **Unity_5.6** and select **Demo** scene you want to edit Post-Processing effects for.



Now your scene should look like this (Demo_06):



Press Play and Enjoy!

If you have any questions, please send me an e-mail.

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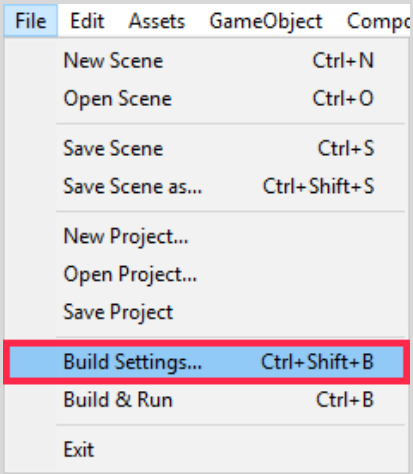
Website: http://lmhpoly.com/contact/

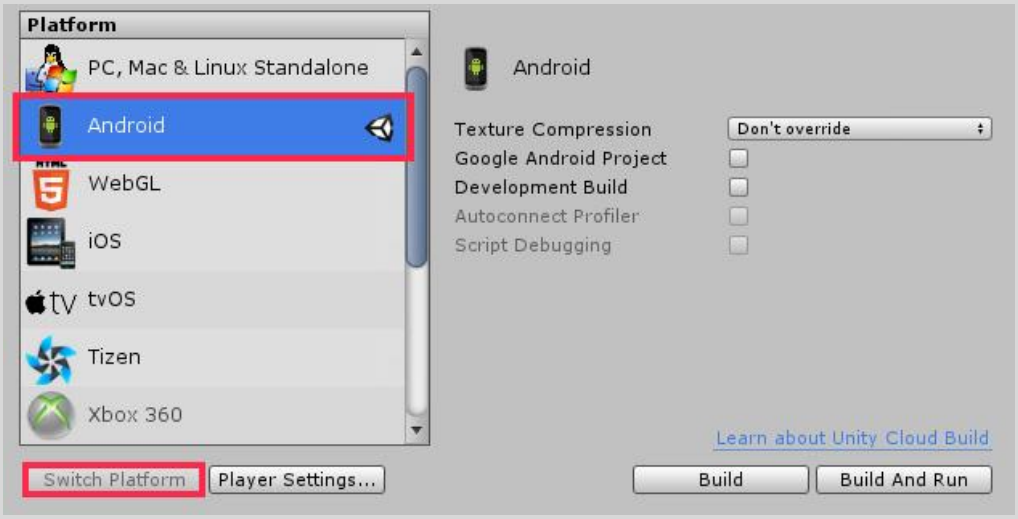
HOW TO SETUP DEMO SCENES IN UNITY 5.0.0 – 5.5.3 VERSIONS (For ANDROID)

1. Make sure you are using **Android** build!

Go to **File > Build Settings**



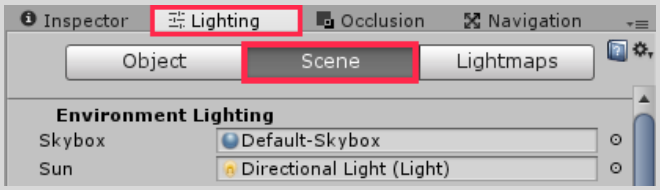
Select **Android** and hit **Switch Platform** button.



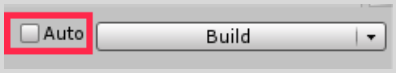
2. **Clean GI Cache** (*Optional – needed if you have some light baking errors*)

Before you go to the next step you need to Disable **Auto** build/bake feature.

You can find it in **Lighting** and select **Scene** tab. (*If you don't have Lighting tab go to Window > Lighting*)

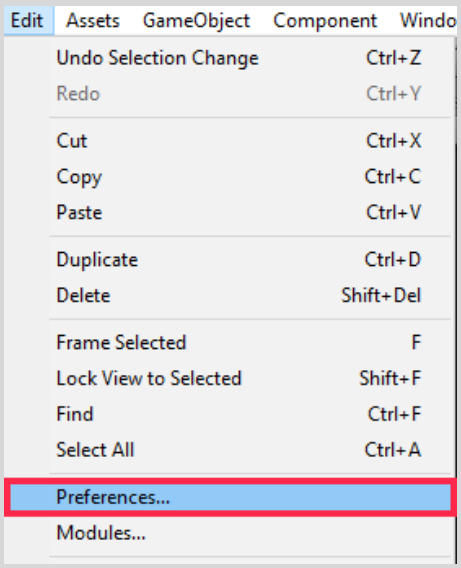


At the bottom you will see this:

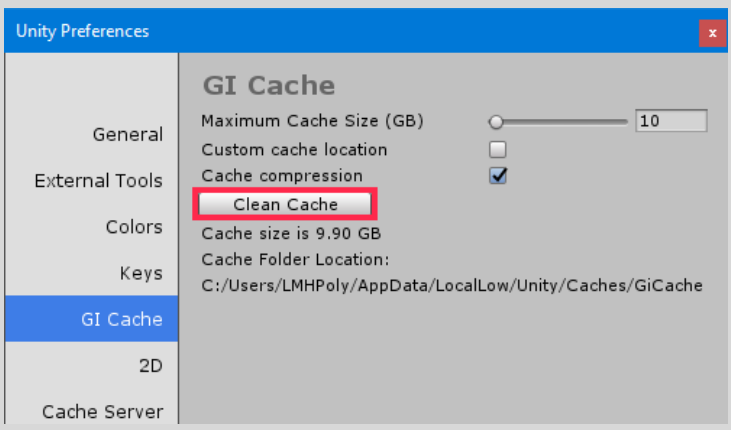


Uncheck **Auto**.

Go to **Edit > Preferences**

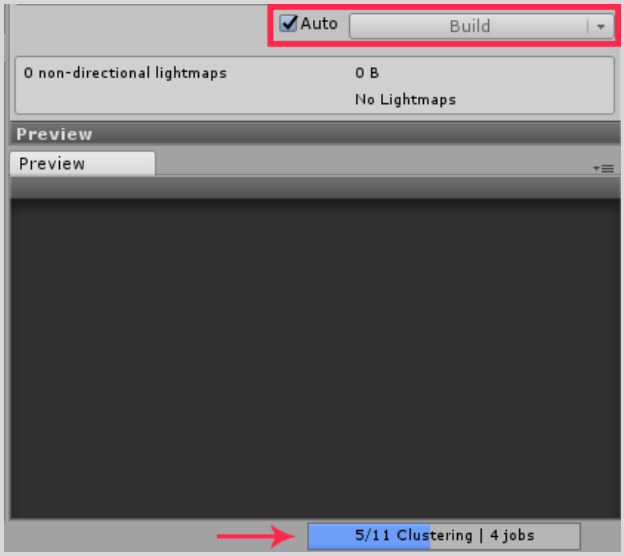


Select **Gi Cache** tab



Press **Clean Cache** button!

Enable **Auto** build/bake feature

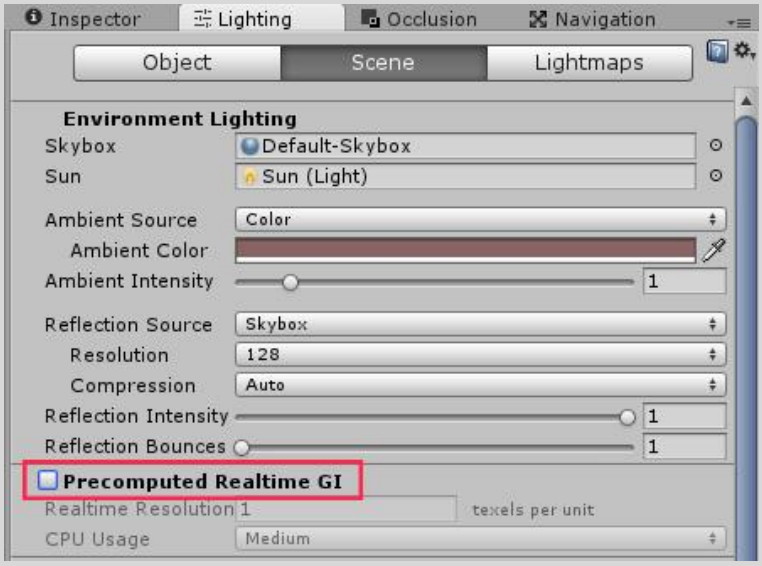


and wait until build is done (blue loading bar at right bottom corner).

-If you get some errors, try to change **Precomputed Realtime GI** - **Realtime resolution** to other value. For all my scenes I've used 1. You can try lower or even bigger values like 0.5 or 1.5

3. Disable **Precomputed Realtime GI** (Optional – for a better performance)

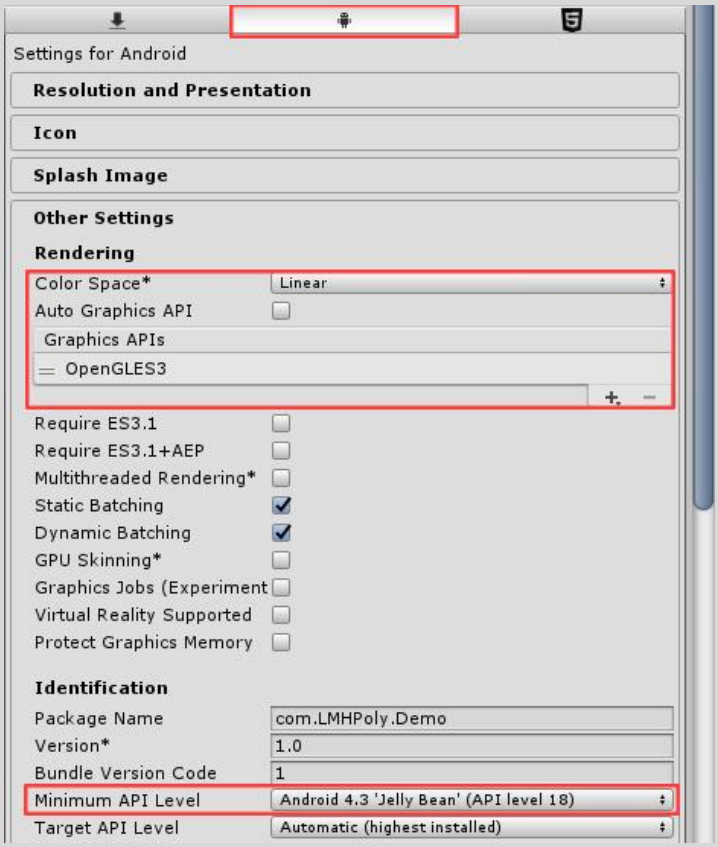
You can find it in **Lighting** and select **Scene** tab.



4. Make sure that Color Space is set to **Linear** (*Works only on Unity 5.5 and up!*).

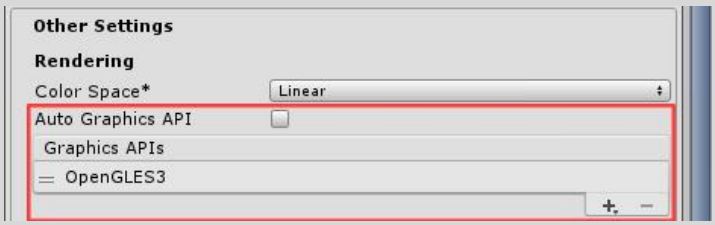
To do that go to **Edit > Project Settings > Player**

In the **Other Setting** tab, you will find **Color Space*** set it to **Linear**.



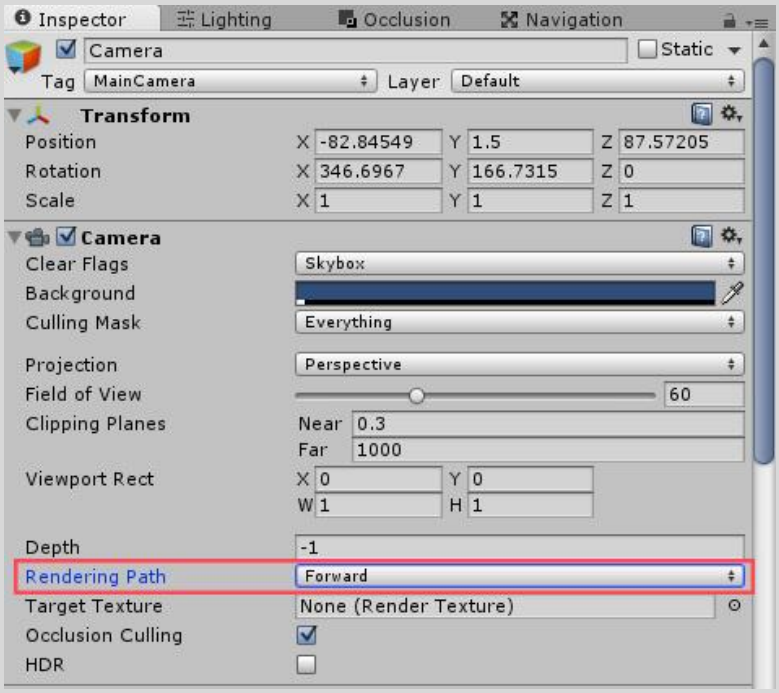
To use **Linear** Color Space, you need set **Minimum API level** to at least **Android 4.3** or higher!

Also, uncheck **Auto Graphics API** and remove all Graphic APIs from the list, leave only **OpenGLES3**.



5. Make sure that you are using **Forward Rendering**.

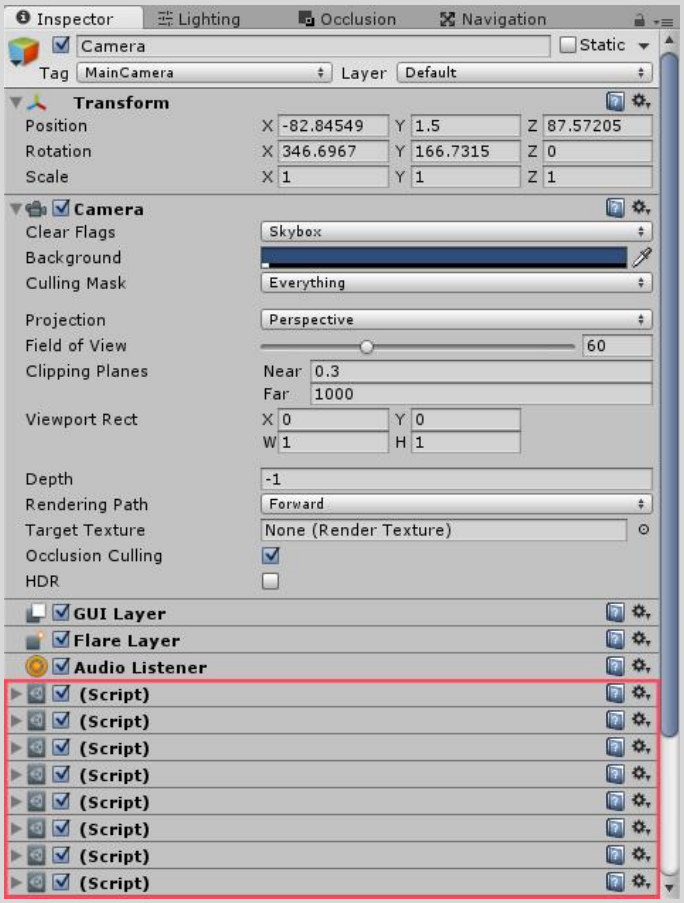
Select the **Camera** in the Hierarchy and make sure that **Rendering Path** is set to **Forward**.



-The game will lag a lot on mobile if Rendering Path is set to Deferred!

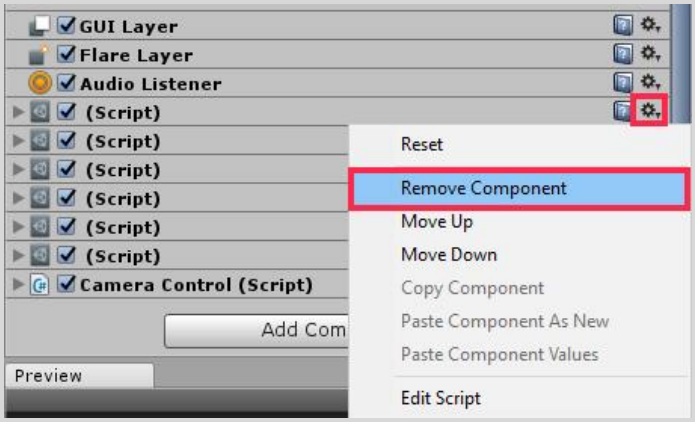
6. Remove all Camera **Image Effects**!

Select **Camera** in Hierarchy and Remove all those **(Script)** components or just Disable them.



-It show's all image effects as **(Script)** only if you don't have imported **Image Effects** from **Standard Assets** (I showed how to do it for PC build earlier).

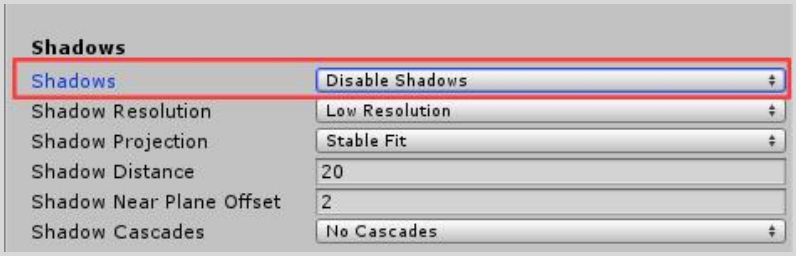
Do it by clicking on the gear icon and press **Remove Component.**



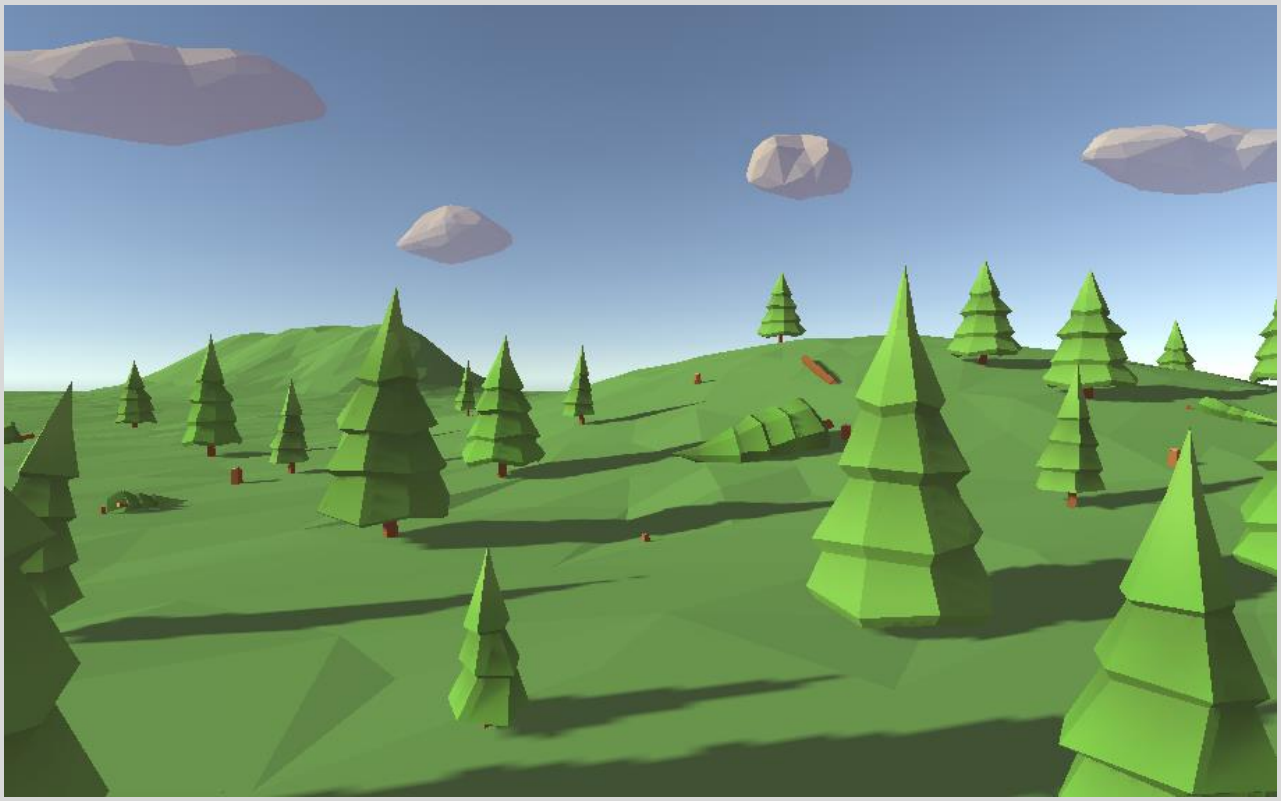
-Android don't support image effects which are added to the camera, and which ones work, they impact performance very much, so you need to disable them all.

7. Disable **Real-time Shadows** (*Optional – for a better performance*).

Go to **Edit** > **Project Settings** > **Quality**



Now your *Demo_06* Scene should look like this.



So by Using **Unity 5.5** and up + new **Linear** lighting feature for **Android** and **iOS**, you can achieve much better results than using **Gamma** lighting!

This Demo_06 Scene and all other Demo Scenes was tested on Xperia Z Ultra (Runs at solid 60FPS) with all Images Effects removed, using Realtime GI, Linear Color Space, Forward Rendering Path and Real-time Low Resolution Hard Shadows.

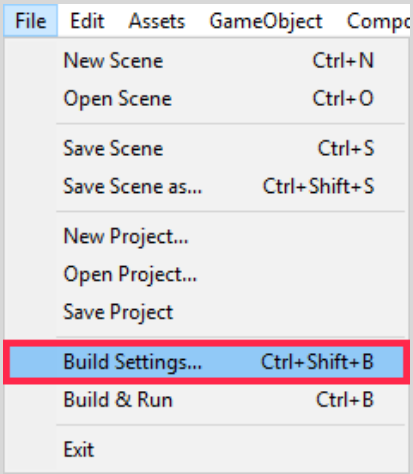
Now you can make **Android** build and test it on your own device!

-I don't have an **iOS** device, so I can't test it on that!

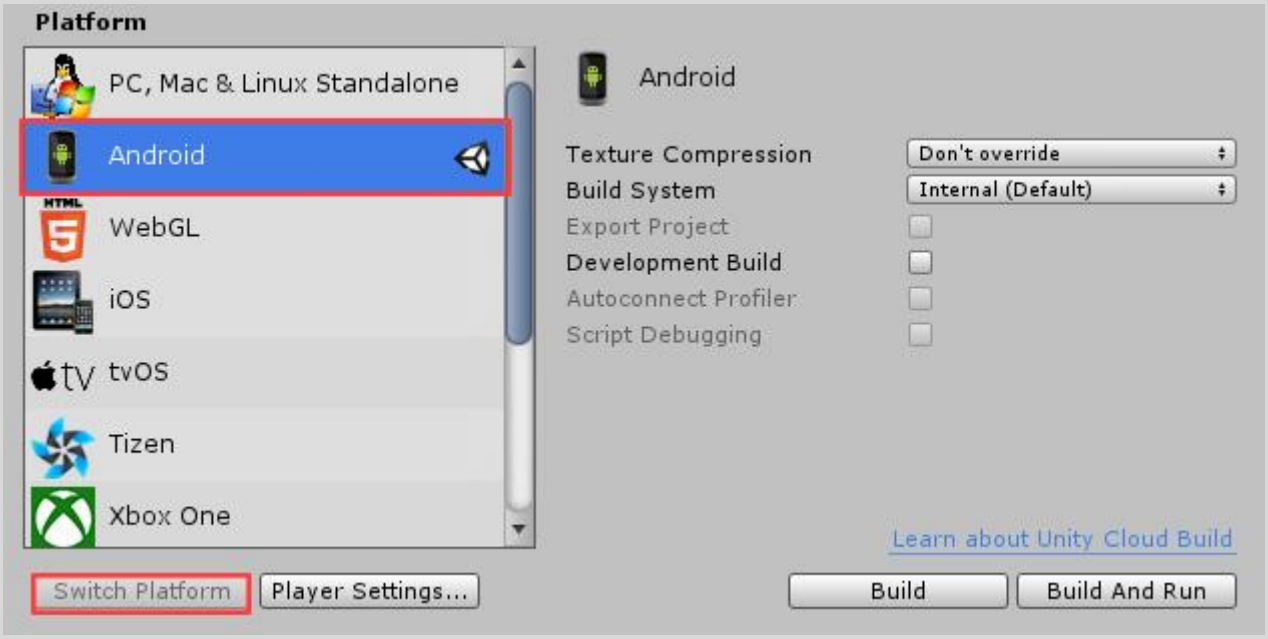
HOW TO SETUP DEMO SCENES IN UNITY 5.6.0 AND UP VERSIONS (For ANDROID)

1. Make sure you are using **Android** build!

Go to **File > Build Settings**



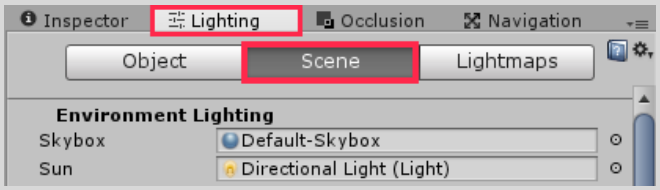
Select **Android** and hit **Switch Platform** button.



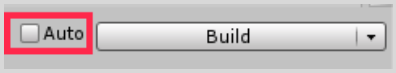
2. **Clean GI Cache** (*Optional – needed if you have some light baking errors*)

Before you go to the next step you need to Disable **Auto** build/bake feature.

You can find it in **Lighting** and select **Scene** tab. (*If you don't have Lighting tab go to Window > Lighting*)

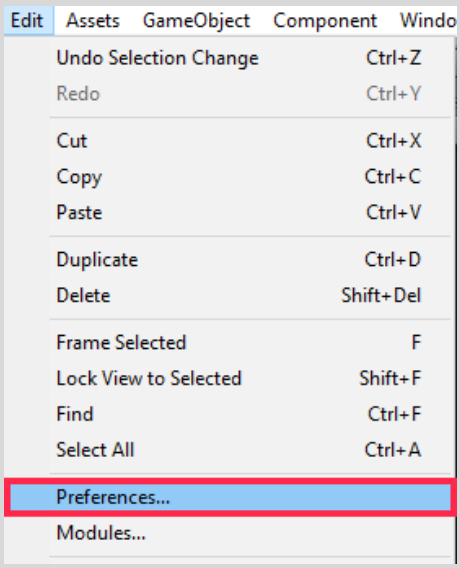


At the bottom you will see this:

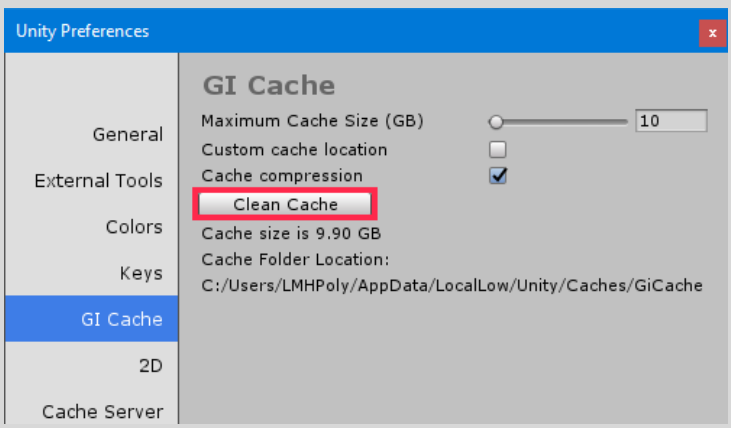


Uncheck **Auto**.

Go to **Edit > Preferences**

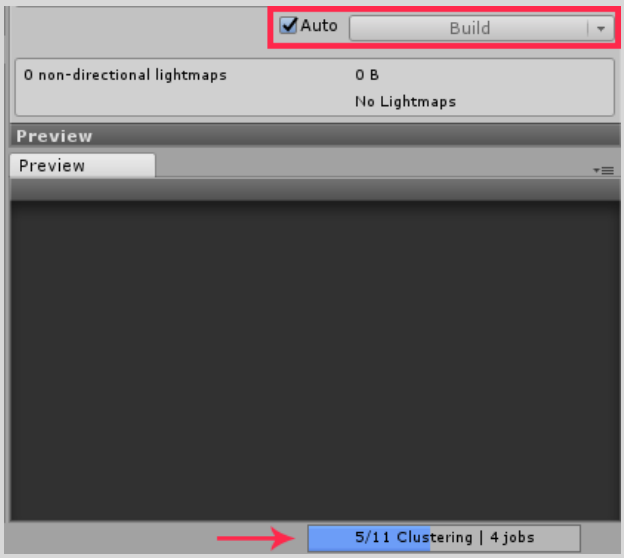


Select **Gi Cache** tab



Press **Clean Cache** button!

Enable **Auto** build/bake feature

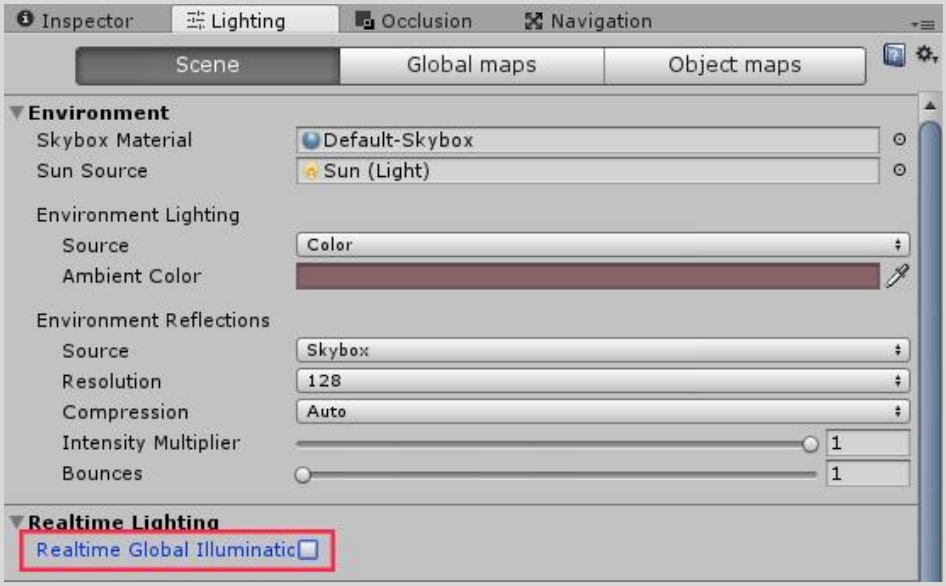


and wait until build is done (blue loading bar at right bottom corner).

-If you get some errors, try to change **Precomputed Realtime GI** - **Realtime resolution** to other value. For all my scenes I've used 1. You can try lower or even bigger values like 0.5 or 1.5

3. Disable **Realtime Global Illuminatic** (*Optional – for a better performance*)

You can find it in **Lighting** and select **Scene** tab.

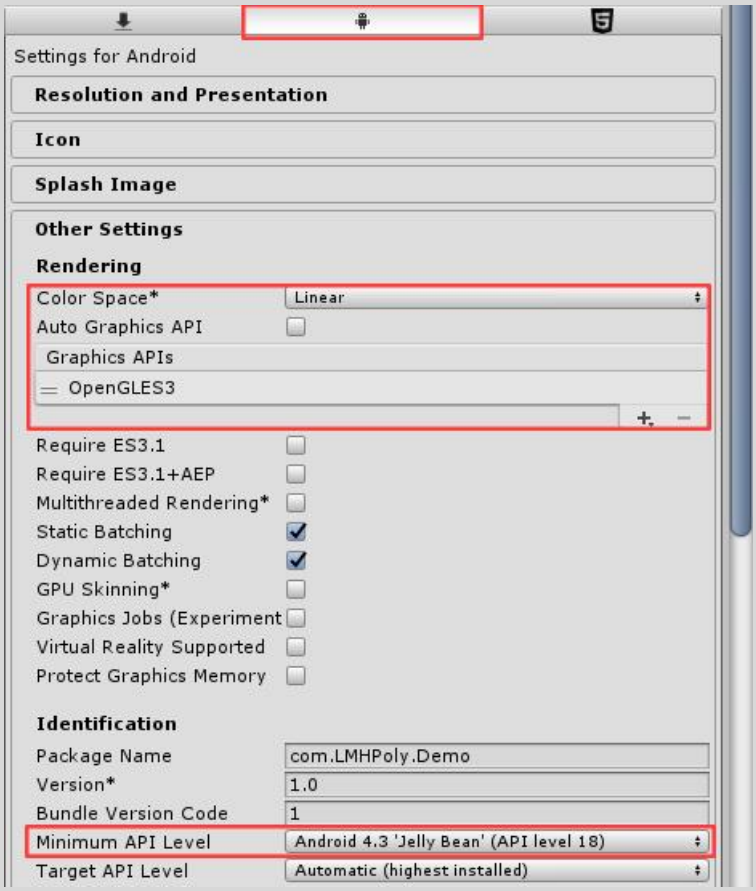


4. Make sure that **Color Space** is set to **Linear**.

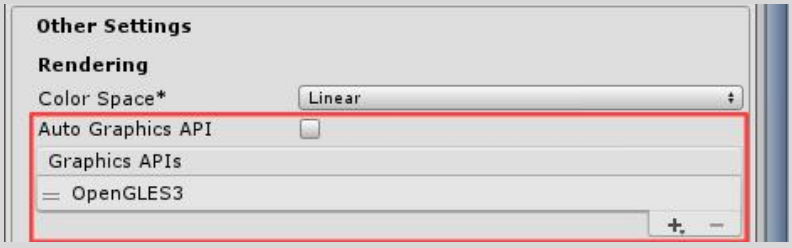
To do that go to **Edit > Project Settings > Player**

In the **Other Setting** tab, you will find **Color Space*** set it to **Linear**.

To use **Linear** Color Space, you need set **Minimum API level** to at least **Android 4.3** or higher!

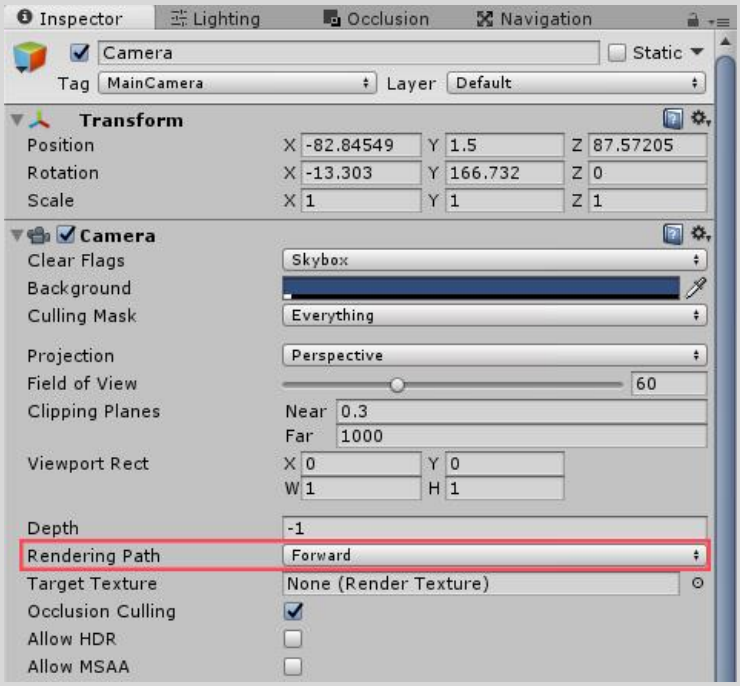


Also, uncheck **Auto Graphics API** and remove all Graphic APIs from the list, leave only **OpenGLES3**.



5. Make sure that you are using **Forward Rendering**.

select the **Camera** in the **Hierarchy** and make sure that **Rendering Path** is set to **Forward.**

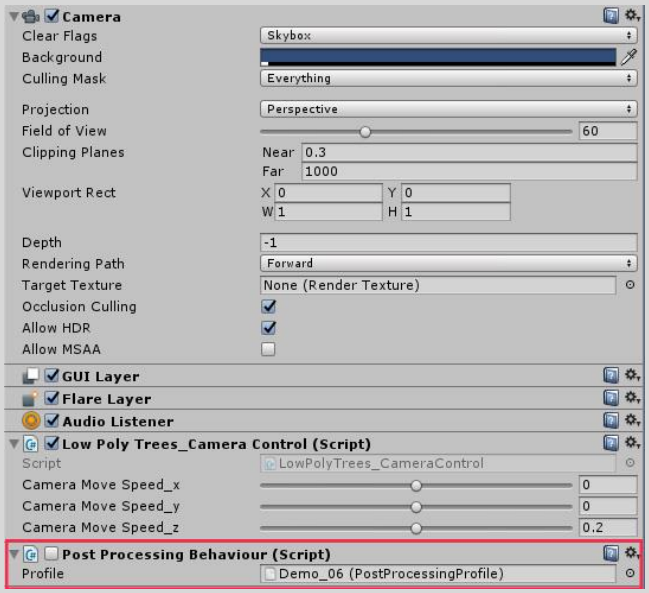


-The game will lag a lot on mobile if Rendering Path is set to Deferred!

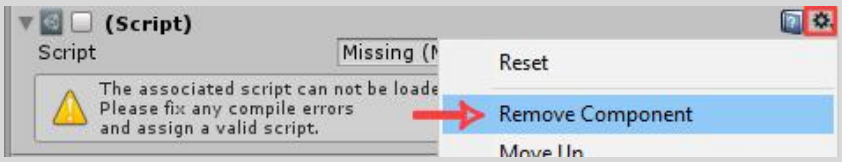
6. Remove or Disable **Post-Processing** Effects from the Camera (*If you want to use Post-Processing effects, skip this step and go to the next* ***step 7***)!

Select a **Camera** in the **Hierarchy** and Remove **Post Processing Behaviour (Script)**.

-You will get a message "*Missing (Mono Script)*" where it says **Profile** if you don't have imported **Post Processing Stack** from Unity Asset Store!



Do it by clicking on the Gear Icon and press **Remove Component.**



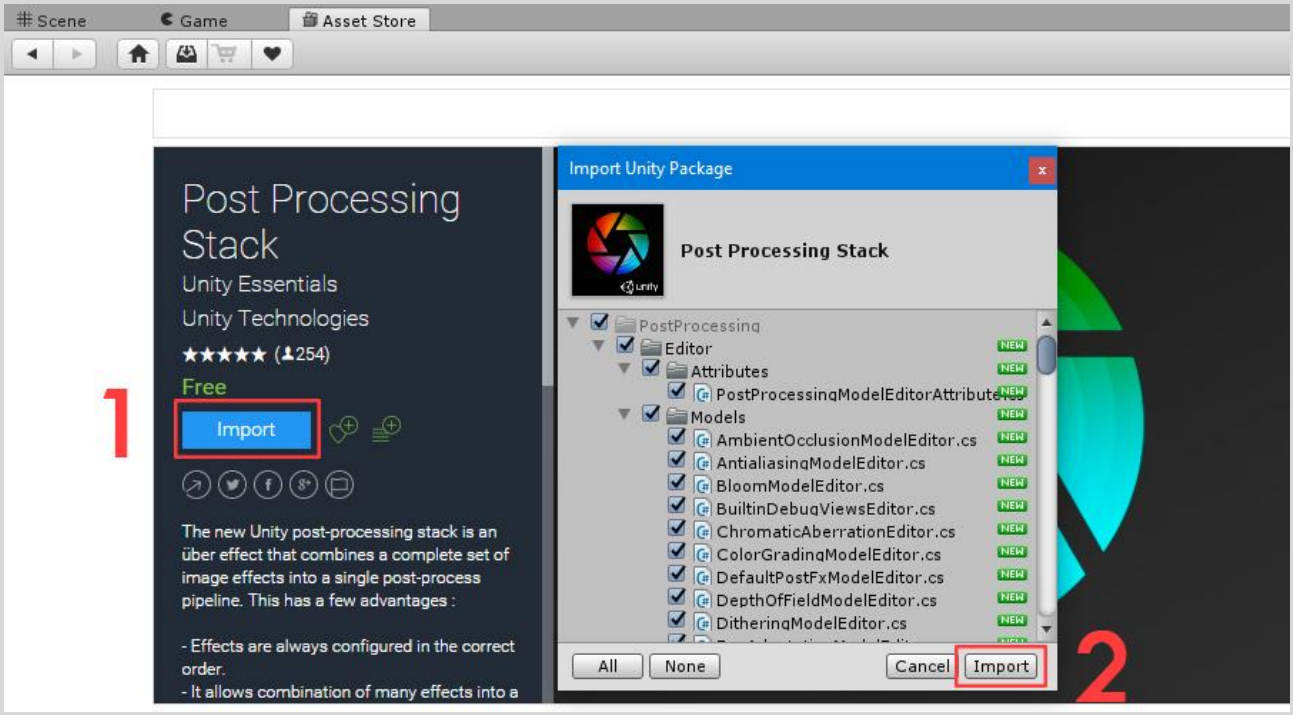
-All Post-Processing image effects consume a lot of mobile performance, so it's the best to remove them all.

7. **Import Post Processing Stack** (*Optional – **Big performance hit for mobile devices!***). If you leave **Post Processing Behaviour (Script)** on the Camera and want to use those effects, you need to do this.

Go to ***Window > Asset Store***

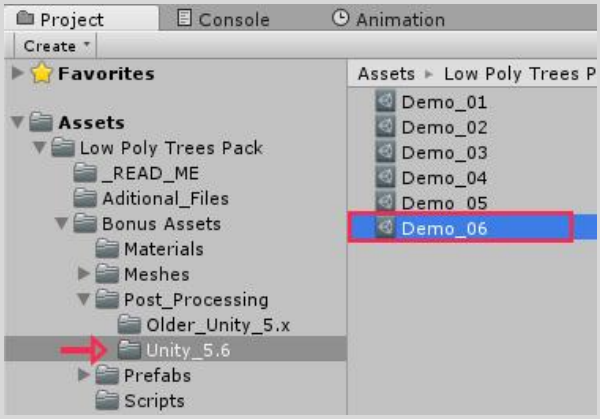
Search for **Post Processing Stack**:

Download and **Import** it to your project



After that, you will see that all Camera Effects working like it should.

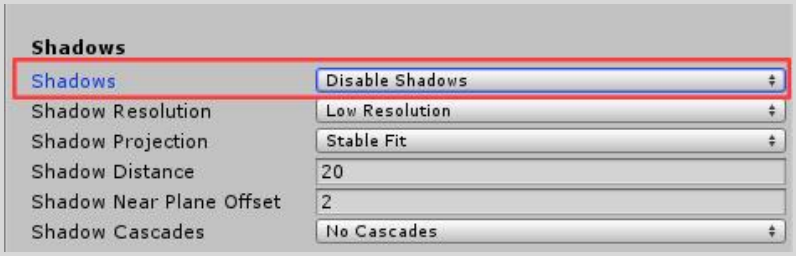
To edit **Post-Processing** Settings – go to **Low Poly Trees Pack** > **Bonus Assets** > **Post_Processing** > **Unity_5.6** and select **Demo** scene you want to edit Post-Processing effects for.



Uncheck all effects, and try them one by one to see which one impact mobile performance the most.

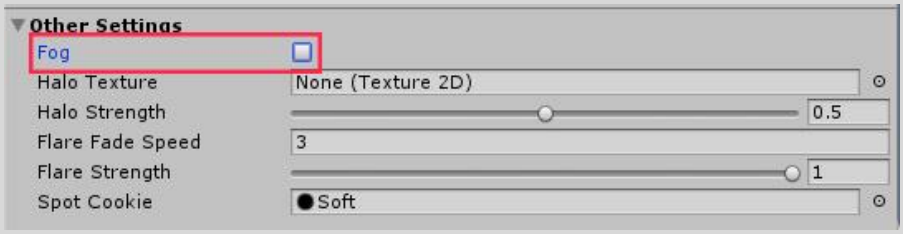
8. Disable **Real-time Shadows** (*Optional – for a better performance*).

Go to **Edit** > **Project Settings** > **Quality**

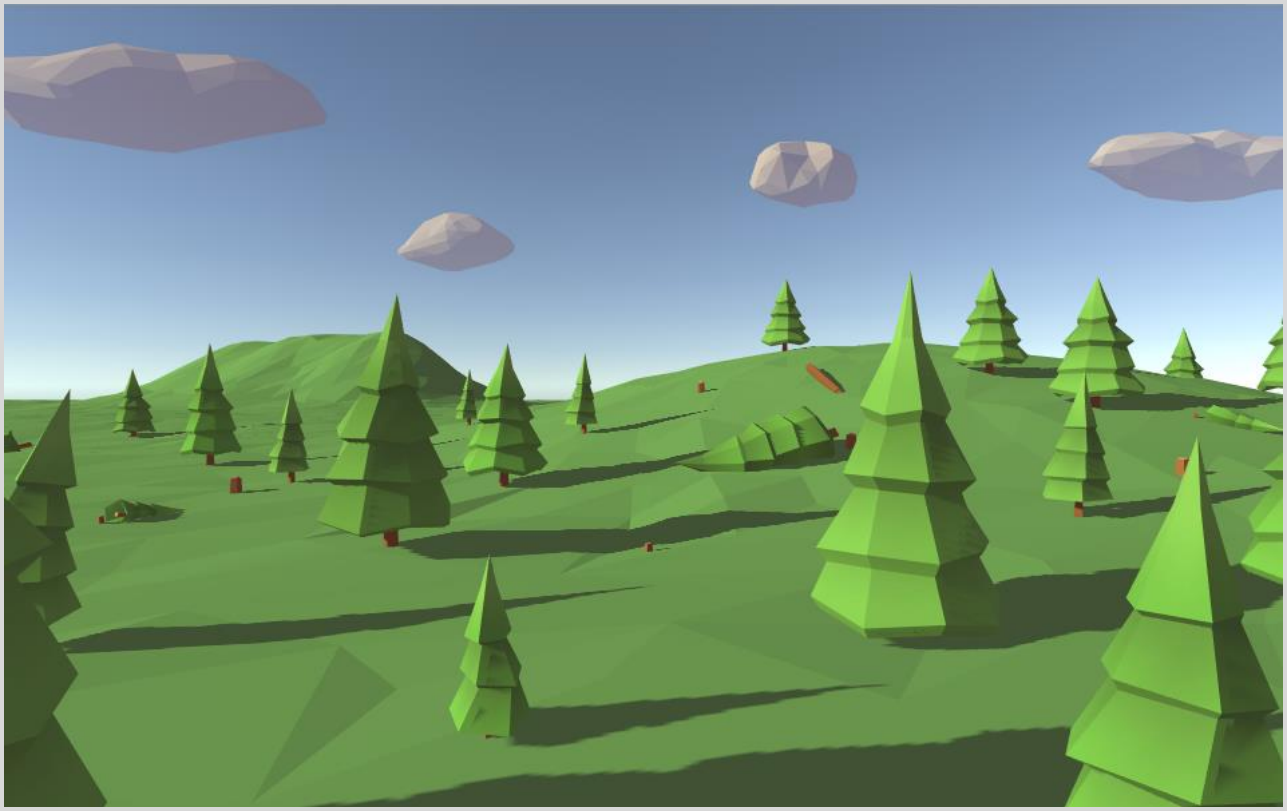


9. Disable the **Fog** *(to increase performance)*.

Open **Lighting** > **Scene** tab, and search for **Other Settings** tab – Disable **Fog**. If you can't find Lighting tab, go to **Window** > **Lighting** > **Settings.**



Now your *Demo_06* Scene should look like this:



By using **Unity 5.5** and up + new **Linear** lighting feature for **Android** and **iOS**, you can achieve much better results than using **Gamma** lighting!

This Demo_06 Scene and all other Demo Scenes was tested on Xperia Z Ultra (*Runs at solid 60FPS*) with Post-Processing Behaviour (Script) removed from the camera, using Realtime GI, Linear Color Space, Forward Rendering Path and Real-time Low Resolution Hard Shadows.

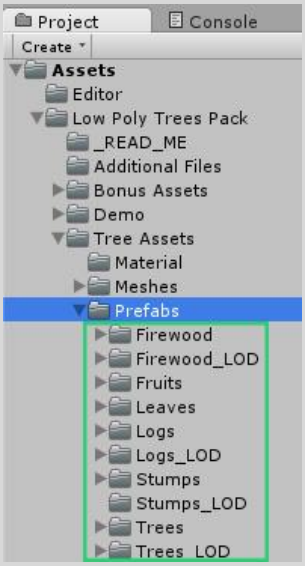
Now you can make **Android** build and test it on your own device!

-I don't have an **iOS** device, so I can't test it on that!

HOW TO USE “Low Poly Trees Pack”

Go to **Assets > Low Poly Trees Pack > Tree Assets > Prefabs**

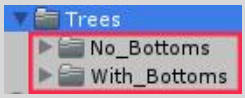
Select which **Prefab** type you want to import to your scene:



After a **Low Poly Trees Pack 1.2 Update** – all trees, firewood, logs, and stumps have LOD prefabs *(3 levels of LOD)*. Can be used the same as non-LOD prefabs to achieve better performance.

I highly recommend to use LOD prefabs for Unity Terrain, or just for big worlds!

For example, open folder **Trees**. You will see that you can choose between **2** types of Trees:



- **No_Bottoms** – Tree meshes don't have faces at the bottom.

- **With_Bottoms** - Tree meshes have faces at the bottom.

Let's open **No_Bottoms**. Here you will see 2 types of **Colliders**:

Select Collider type:

- **Capsule_Colliders** – Prefabs use Capsule Colliders for Unity Terrain support (*you can paint Prefabs on the Terrain*).
- **Mesh_Colliders** – Prefabs use accurate Mesh Colliders (*you can use Prefabs by placing with your mouse manually*).

By using **Capsule Colliders** you can achieve better performance than using **Mesh Colliders**!

So, let's say that you want to palace Prefabs by hand - open folder **Mesh_Colliders**. Select which Tree type you want to import to your scene. For example, open folder **Acacia_Trees** select and drag **Prefab** to your scene. That's it.

Same for **Bonus Assets.**

Go to **Assets > Low Poly Trees Pack > Bonus Assets > Prefabs**

Select what you want and drag it to the scene.

Every model pivot is at the center bottom of the model, so you can easily drop it on the ground, scale and rotate.

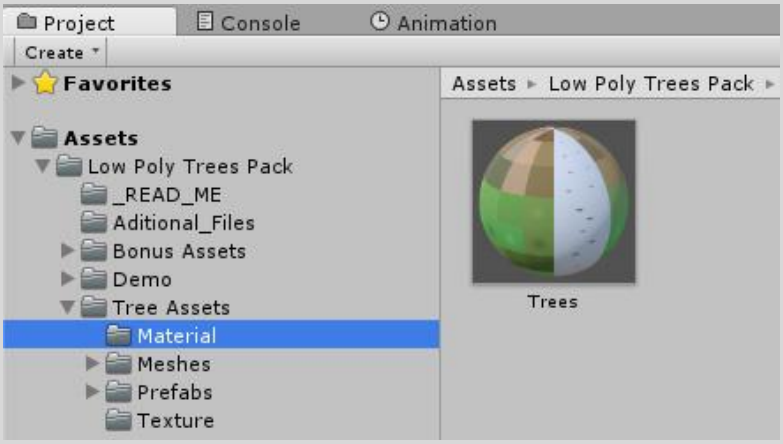
After **Low Poly Trees Pack v1.1/1.2 Updates** – all tree/stumps bottoms were extended down below the ground level, so you can easily place trees on the uneven ground / mountains!

-Use **Pivot** and **Global** settings for the best experience!

You can change it by tapping on the **buttons**, which are near Move, Scale tools.

How to Change Tree Prefabs Color / Texture

Go to **Low Poly Trees Pack** > **Tree Assets** > **Material** here you will find 1 material.

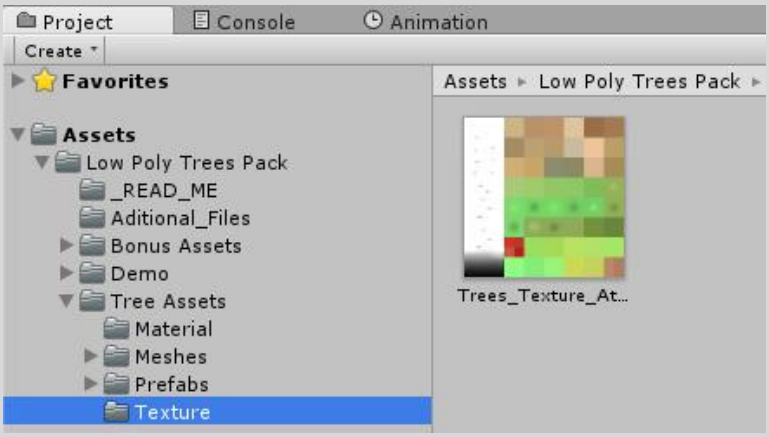


- Material **Trees** is used for all **Tree Assets: *(Trees, Firewood, Fruits, Leaves, Logs, Stumps)*.**

Change Tree Prefab Color

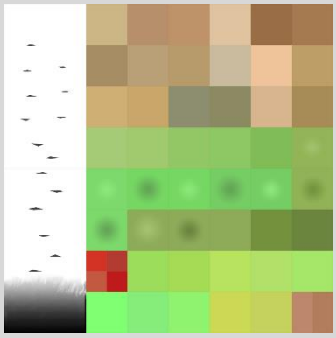
Trees Material use **1 Texture Atlas**. So, we need to change colors for that texture to change Tree Prefab colors.

Go to **Low Poly Trees Pack** > **Tree Assets** > **Texture**

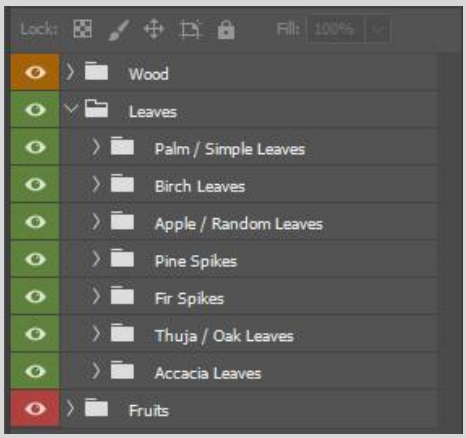


And open **Trees_Texture_Atlas.png** inside Photoshop, Gimp or any other Image Editing Software. Every color square is used for one random Tree asset.

For example, all Brown squares are used for Wood, and Green used for Leaves.

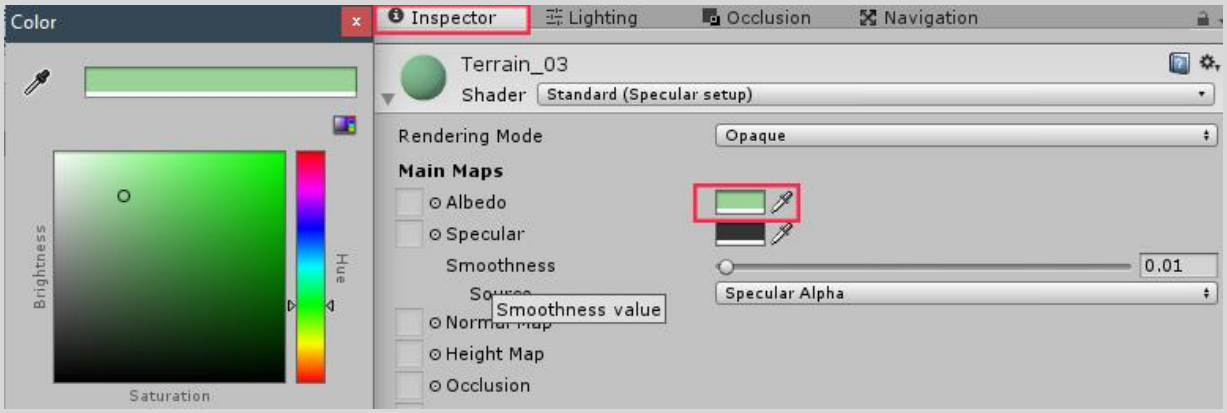


I also included **.psd** file of this texture inside **Low Poly Trees Pack** > **Additional_Files** folder. Extract **Trees_Texture_Atlas_PSD.rar** file and open **.psd** inside **Photoshop** or **Gimp**. This way you can see which colors are for which Tree assets by looking, into **Layer Names**, and you can edit those colors more easily.



BONUS Assets Color

To change colors for Bonus Assets (*Clouds, Hills, Mountains, Terrain, and Water*), simply select the Prefab and in the **Inspector** inside Material settings, change **Albedo Color**.

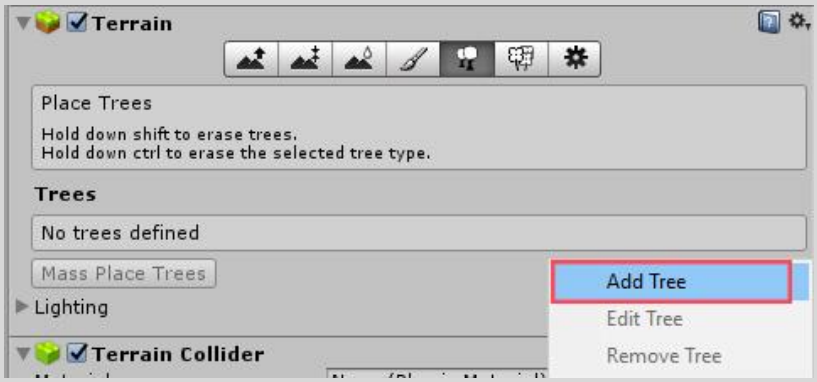


You can find all Bonus Assets Materials inside **Low Poly Trees Pack** > **Bonus Assets** > **Materials**.

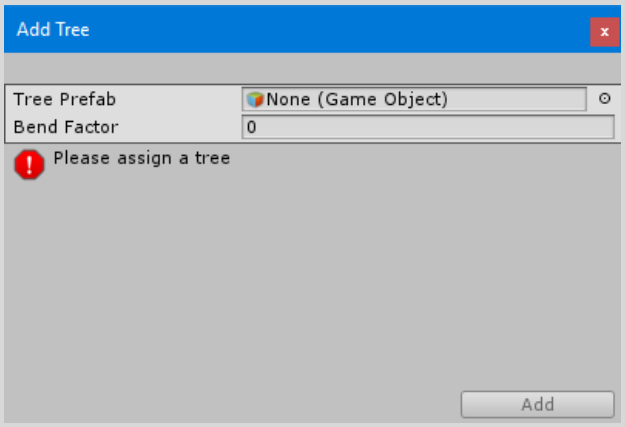
HOW TO PAINT TREE PREFABS ON UNITY TERRAIN

Select your Unity Terrain and go to **Place Trees** tab. Click on **Edit Trees…**

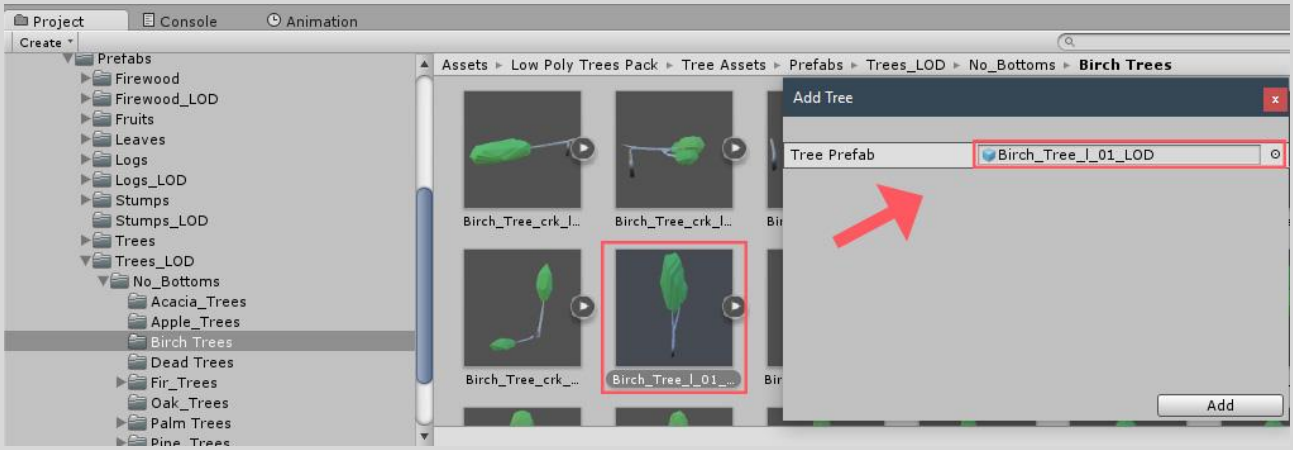
…and press on **Add Tree**



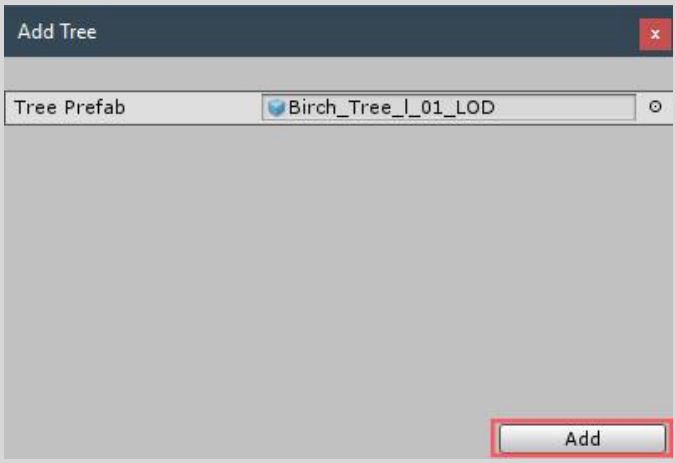
You should see a popup window **Add Tree**



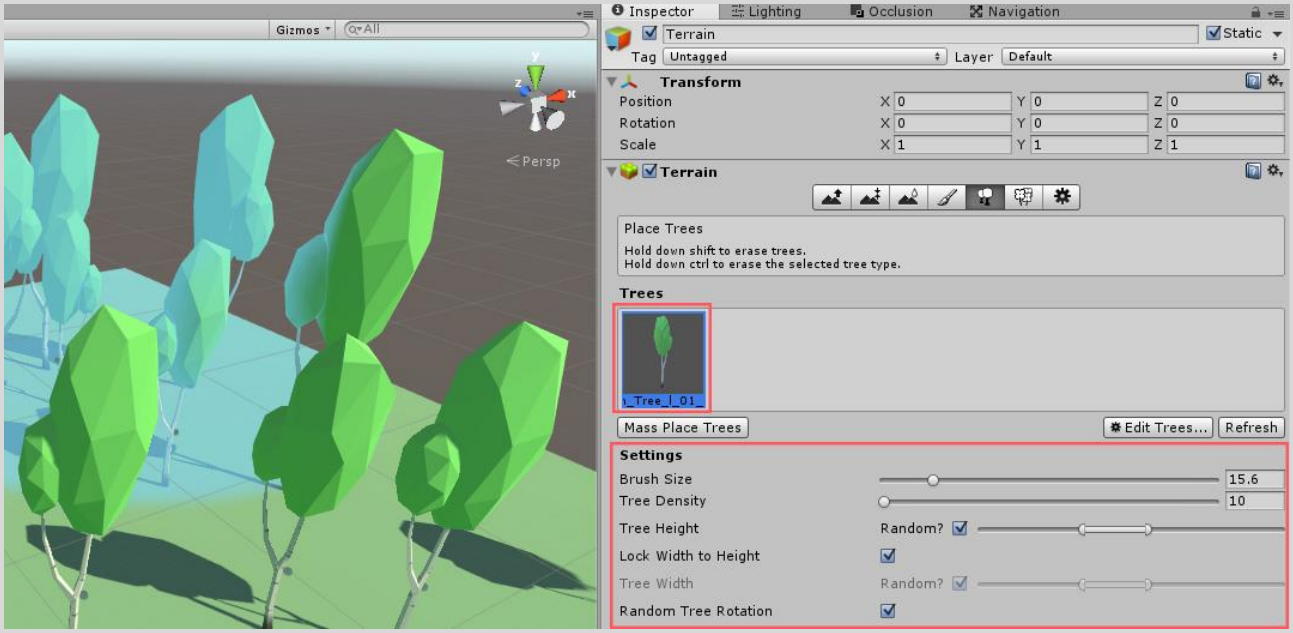
Go to **Low Poly Trees Pack** > **Tree Assets** > **Prefabs** > **Trees_LOD > No_Bottoms >** and select any Tree Type you want to use (I've used **Birch_Trees**), drag and drop Prefab to **Tree Prefab** tab:



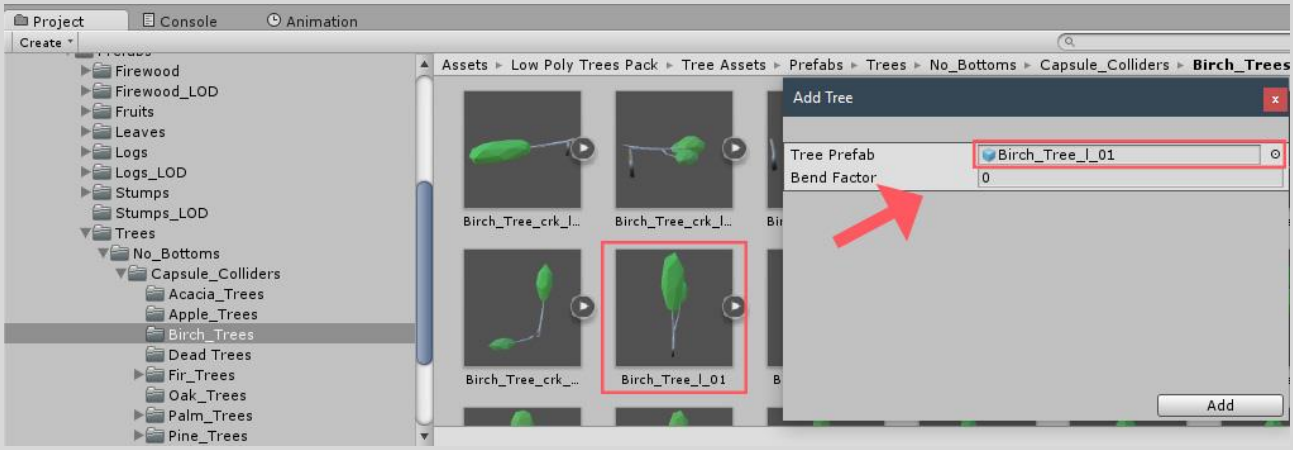
Press **Add**



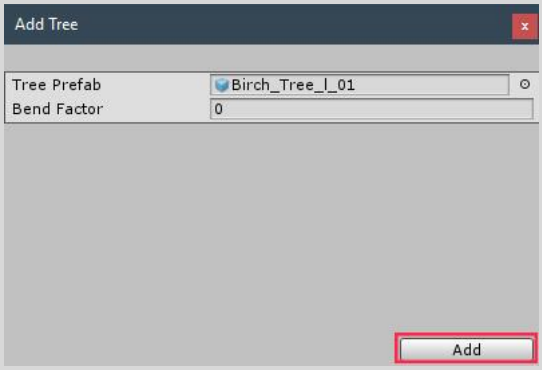
That's it! Select **Tree Prefab**, change **Settings** and paint.



You can also paint non-LOD prefabs. To do that - go to **Low Poly Trees Pack** > **Tree Assets** > **Prefabs** > **Trees > No_Bottoms > Capsule_Colliders***(you must use prefabs with Capsule Colliders to paint on the Terrain)* > and select any Tree Type you want to use (I've used **Birch_Trees**), drag and drop Prefab to **Tree Prefab** tab:

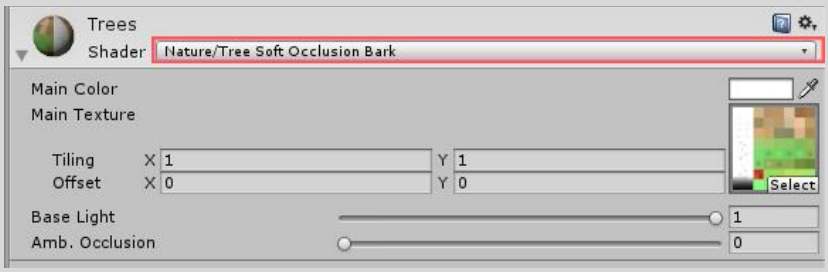


Press **Add**



That's it! Select **Tree Prefab**, change **Settings** and paint.

If you want to use **Billboards** for non-LOD prefabs, set prefab material Shader to ***Nature/Tree Soft Occlusion Bark***:



-I highly recommend to use LOD prefabs for Unity Terrain, or just for big worlds!

-LOD prefabs support Random Rotation in Unity Terrain Editor!

ADDITIONAL INFO

NAMING CONVENTIONS

Prefab name example: **Pine_Tree_crk_l_01_LOD**

- **Pine_Tree** – Tree Type
- **crk** – means the Tree is cracked
- **l** – large size
- **01** – prefab number
- **LOD** – prefab has LOD group with 3 levels of LODs.

You can find these letters:

s – small size

m – medium size

l – large size

crk – means tree is cracked.

NoLeaves – tree has no leaves

OneSided – tree leaves are visible only from one side (from top)

LOD – prefab has LOD group with 3 levels of LODs.

Keep in mind that every tree mesh is different, no matter is it small or large.

SCRIPTS

Every scene **Camera**, **Directional Light,** and **_Clouds**(*an empty game object which contains all clouds on the scene*) have movement controls.

For, example select **Camera** and on **Inspector** scroll down to the bottom, you will see **LowPolyTrees_Camera Control (Script)** attached to it. Here you can control **Camera Movement Speed** using sliders.

Same with **Direction Lights** and **_Clouds**.

CONTACTS

If you have any questions, suggestions what to improve or create, maybe found any bugs, please send me an e-mail!

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Follow me on **Twitter** to see what I'm working on right now:

https://twitter.com/lmhpoly