Lightmap Manager Series

About Lightmap manager

Lightmap manager helps you use Unity's lightmaps to the max by giving you the ability that isn't possible without it, this includes the ability to save and load lightmap sets, the ability to add effects such as blending, brightness controlling, switching and resizing of lightmaps and with Lightmap Manager 2 you can do other things like animating lightmaps, saving prefabs with stored lightmap settings and baking selected objects without losing the lightmap data of other objects in the scene.

What's new

Support for Unity 3.5

Support for light probes and directional lightmaps

Blend and brightness are both working on GPU for much faster processing

Blend and brightness values are controlled by curves

Lightmap Loading mode and type for loading of saved sets

Better GUI

Enhanced saving of lightmapped prefabs

Fixed issues with selection baking and support for scaling which make the lightmap more detailed at a lower cost

Support of iOS and Andriod

Editing lightprobes coefficients through the inspector

Opening Lightmap Manager

To open Lightmap Manager just go to the Main Menu, select Lightmap Manager-> Manage and the window of Lightmap Manager should appear.

Saving Lightmap Sets

Once you have baked lightmaps you can then save them to your hard disk and load them later through the following steps:

1. Select the first tab of Lightmap Manager titled "Save\Load"
2. Set a name in the Name field for your set
3. Add Description in the Description field
4. To set a specific path click on the "Save\Open" button to select a path to be used when saving or loading lightmaps.
5. Once you are ready to save click on "Save Lightmaps"

Loading a Lightmap Set

From the list of the saved lightmap sets, select the loading type whether to be "**All, Lightmaps or Light probes**" and select the loading Mode "**Dual, single or directional**" then click on the load button next to the lightmap set.

Deleting a lightmap set

To delete a lightmap set just click on the "**Delete**" button next to it.
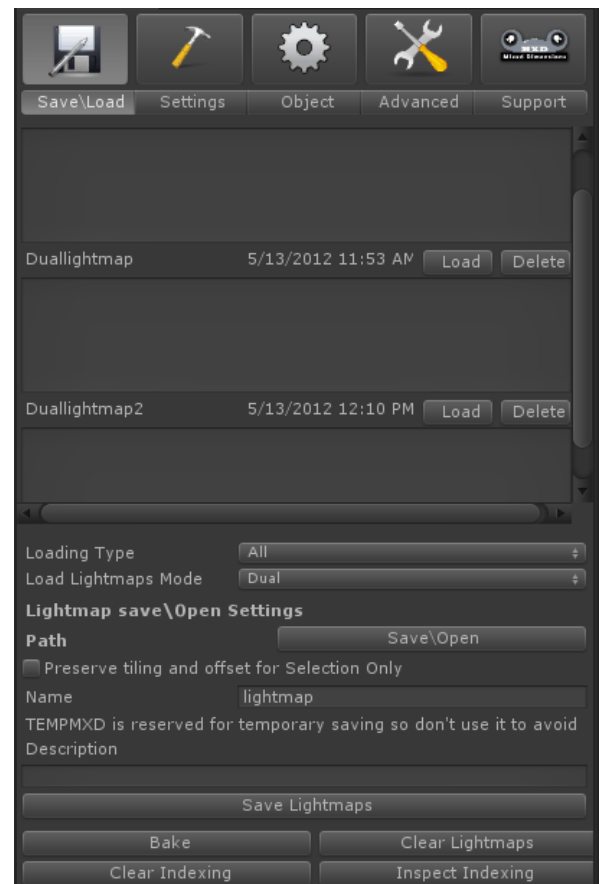
The settings tab

In the settings tab you will find all settings of the lightmapping in Unity plus the max atlas width\height which allows you from controlling how much each map is sized, the lower the more maps you have for more objects, and bigger the less maps is needed as objects lightmaps are contained within the bigger map.

The Object tab

In the object tab you can add effects to objects with lightmaps such as blending or controlling of brightness giving you the ability to simulate dawn or sunset as well as other effects.

Resize

With resize you can simply lower the size of your lightmaps or increase it, this is good when you want to lower you deployment size and higher details are not required, you can resize for the selected object or for all lightmaps..

Note that if the selected object share its lightmap with other objects then all of them will be affected.

To resize simply select the targeted size from the drop down list and click on "**Resize Selected**" or "**Resize all lightmaps**"

Brightness

One of the really useful features as you can control the brightness of your lightmaps with a curve and on the GPU giving maximum performance and smooth transition.

1. If you are planning to use the non curve implementation then set the brightness level to the amount you want the brightness to change at every time the function is called, then set the max brightness and min brightness to block it from going higher or lower than the two values.
2. Select where you want it to execute "CPU\GPU" from the Operate on field (GPU is much faster)
3. Select the lightmap options whether to operated on both lightmaps, the near or the far lightmap
4. Select an execution caller from the Execute ON field this can be "Start,Awake,Update,FixedUpdate" or trigger for you custom script calling.
5. Use shared materials will affect all objects with the same material
6. The time scale can be used to speed execution when a curve is used or to slow the execution.
7. UseCurve toggle will indicate whether you want to use a curve or not, if not toggled the max brightness and minimum brightness values will appear
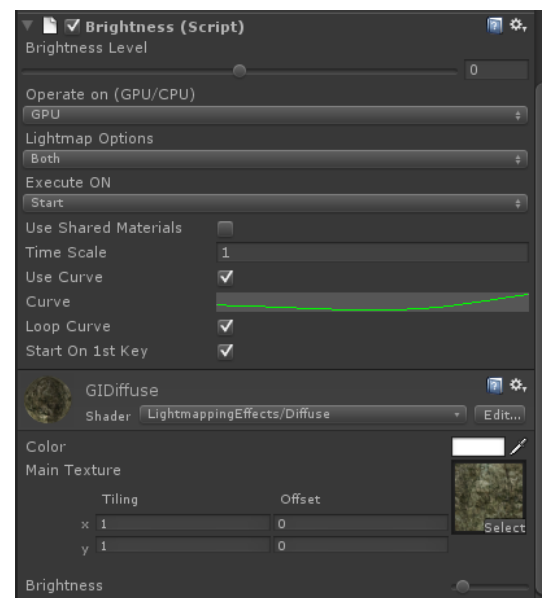
8. The curve field allows you from setting a curve to be used to control the brightness of the lightmap
9. LoopCurve will indicate whether you want to loop the curve animation or not.
10. Start on 1st Key will make the curve ignores any empty space in time before the first key in it.
11. Brightness uses a special diffuse shader so you can simply control the brightness through the brightness slider in the shader if you don't want to use this component.

Blend

Another really useful feature as you can you can blend between two lightmaps with a curve and on the GPU giving maximum performance and smooth transition.

1. If you are planning to use the non curve implementation then set the blend level to the amount you want the blend to increase\decrease at every time the function is called, then set the max change and min change to block it from going higher or lower than the two values.
2. Select where you want it to execute "CPU\GPU" from the Operate on field (GPU is much faster)
3. Select the texture of the lightmap to blend with in the "**Blend with**" field
4. Select the lightmap options whether to operated on both lightmaps, the near or the far lightmap
5. Select an execution caller from the Execute ON field this can be "Start,Awake,Update,FixedUpdate" or trigger for you custom script calling.
6. Use shared materials will affect all objects with the same material
7. The time scale can be used to speed execution when a curve is used or to slow the execution.
8. UseCurve toggle will indicate whether you want to use a curve or not, if not toggled the max change and minimum change values will appear
9. The curve field allows you from setting a curve to be used to control the blending range of the two lightmaps
10. LoopCurve will indicate whether you want to loop the curve animation or not.
11. Start on 1st Key will make the curve ignores any empty space in time before the first key in it.
12. Blend uses a special BlendDiffuse shader so you can simply control the blend through the blend range slider in the shader and by setting the blended texture if you don't want to use this component.
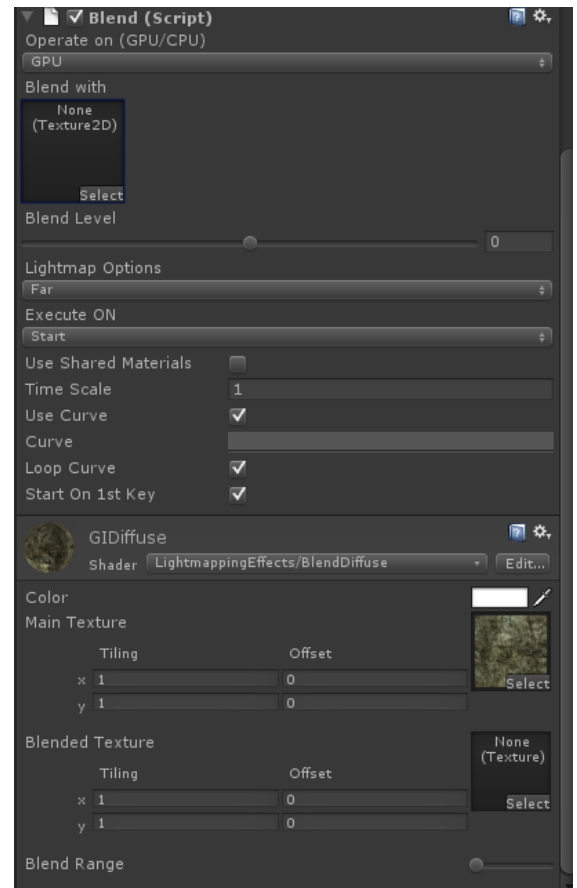
Switch

Allows you from switching lightmaps through providing two arrays of lightmap textures one for the far lightmaps and the other for the near lightmaps, switching is simple just change the index to the desired value and it will switch the lightmaps.

The Advanced tab (Lightmap Manager 2)

In the advanced tab you will be able to animate lightmaps, save prefabs with the lightmap data stored for them and bake selection without affecting the rest of the scene.

Lightmapped Objects

To save lightmapped object you simply select objects from the scene then set a name and a description for the prefab to be created with as being done with the lightmap sets and described above then click on save as prefab then you will get the prefabs shown in the list and you can then click on an object and pick it up from the project then drag it to the scene and it will automatically picks its lightmap and add it to the lightmapping maps. You can also save all selected object as a one prefab through toggling "save selection as one prefab" if you want to group objects together.

Selection Baking

To bake selection and keep all other lightmaps in the scene just simply click on "**Bake Selection**" and it should do the trick.

Animated Lightmaps

If you want to create animated lightmaps you simply need to select a light with an animation then you you simply set a capture frame rate to use it for capturing lightmap data for the specified animation then click on "Record animated lightmaps" the operation is asynchronous so you don't need to worry about the time as it does not prevent you from continuing your work.

Once the operation is finished you whenever you play the animation the lightmap animation will play with it, for preview purposes you can use the switch slider to see the frames, for more advanced effects you can combine it with brightness or blend to do cool stuff but this will require some programming skills.