Light Master Documentation

Thanks for buying "Light Master" Please think about leaving a review/comment, to help me improve the project. For questions, help, or bug report, please write an E-Mail: <u>FourteenDynamics</u>

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Police Car (Siren)

Usage of the package in general

Light Master can be used for controlling and managing Unity Light Sources and adding special functions to those.

In the demo scene are plenty examples how to use different tools, to achieve different effects. Those can be:

- Animate different variables
 - Smooth intensity change
 - Smooth color change (gradient)
- Timing lights
- Tagging lights

And much more.

To learn how to import packages, follow along this tutorial.

Tags

Tags can be used for tagging multiple Light Controller Objects, and controlling them all at once. In that way, you can for example easily control all lights in a certain area, just by giving all of them the same tag.

To create tags, you first of all have to create a tag container. These contain the actual tags which you want to use later on in the scene.

In the *Project* tab, select a folder you want the tag container to be stored, right click, and search for *Tools*, hover over it, and select *Light Tags*. Fill in a name you want to use.

Now, in the *Inspector* tab, you can add tags, by clicking on the plus, and fill in the name of your new tag. If you're done, click *Save* to save the new tags.

Now, to actually use our tags in with our Light Controllers, we need a Light Manager. If you don't have one, select a gameobject or create a new one. This object should not get destroyed! Now add the Light Manager script to it.

In the Light Manger component, add your new created tag container to the *Tag Containers* list.

To tag a Light Controller, select the Light Controller, and select the tag you want with the *Tag* variable.

Also, you can check for all tagged Light Controllers in the scene. For that, go onto the Tag Container asset you've created, and click *Get All Tagged Lights*. Now all of your Light Controllers will be shown with all their tags, as well as gameobject references.

Components and their usages

The main components the user will use, are <u>the Light Controller</u>, <u>the Light Manager</u>, and <u>the Light Action</u>.

Light Controller

This is the heart of the package.

To add a Light Controller (LC) component, drag the script onto a gameobject, or click "Add Component", and search for *"Light Controller"*. You can find the LC-Script under *Assets/LightExpert/Main*

You will notice, that you are forced to have a light component attached to the gameobject as well, that's because that light will be controlled later on.

Now you have many options to choose:

- Tag
 - The <u>tag</u> of the LC
- Light Type
 - o Select, if the light is timed or not
- Color Gradient
 - \circ $\,$ Create a color gradient which allows you to smoothly animate through colors
 - Variables:
 - "Color Gradient": the color gradient, insert colors that you want to be shown later
 - "Color Gradient Speed": the time in seconds, which the light needs, to go from the first, to the last position
 - "Reverse": if the color gradient should go backwards as soon as it reaches the end, or if it should restart from the front
- Color Switch
 - Switches quickly (without animation) through the colors
 - Variables:
 - "Colors": all Colors that should be switched through
 - "Color Switch Timer": the time in seconds, how long each color should be shown, before it changes
- Smooth Intensity
 - Smoothly turns the light on and off
 - Variables:
 - "Min/Max Intensity": intensity value, that should be the min or max value
 - "Change Speed": the time in seconds which are needed for increasing form min to max / decreasing the intensity form max to min value.
 - "Start Increasing": if the Light should begin increasing, or if it should start decreasing its intensity
- Smooth Switching
 - Allows turning the light on and off smoothly
 - Variables:
 - "Min/Max Intensity": intensity value, that should be the min or max value
 - "Go On/Off Timer": the time in seconds, how long the light should take for turning on/off
- Enable Events
 - Allows using Events that should be triggered as soon as the light goes on or off

- Variables:
 - "On Lights Turned On/Off": the events that should get called as soon as the lights get turned on or off

Light Manager

This manages all of the Light Controllers.

To add a Light Manager (LM) component, drag the script onto a gameobject, or click "Add

Component", and search for "Light Manager". You can find the LM-Script under

Assets/LightExpert/Main

You only need one Light Manager per scene.

You can set following variables:

- Tag Containers
 - Set all the possible tag container objects on here, those will be used as the selectable tags in this scene. *More info*
- Console Variables
 - Set different variables for the console.
 - "Text Color": color of the main text
 - "Show Prefix": if the prefix should be shown
 - "Prefix Color": color of the prefix text
 - "Prefix Text": actual prefix text
 - "Show Log/Error/Warning": show that kind of log
 - "Example output": example of how the message would look like (in the Console)

Light Action

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This component makes it really easy to perform actions in relation to lights.

To add a Light Action (LA) component, drag the script onto a gameobject, or click "Add Component", and search for *"Light Action"*. You can find the LC-Script under *Assets/LightExpert/Main* You can set up an action with the following variables:

- "Action": select which action should get performed
 - "Toggle Light": toggles the light(s)
 - "Set Light": sets the light(s)
 - "Set Value": set true or false
 - "Block Light": blocks the lights
 - "Block":
 - "Set": set the block value
 - o "Set Value": set true or false
 - "Toggle": toggle the block value
 - "Destroy Light": destroys the gameobjects of the selected light(s)
 - "Action on": select which LCs should be affected
 - "Tag": choose a tag which lights should get affected
 - "Tag": choose tag
 - "Reference": choose a LC reference
 - "Light Reference": set reference
 - "Random": chooses random LCs from all over the scene
 - "Random Amount": the amount of LCs to get affected

To actually perform the action, you have to call a specific method.

Reference your Light Action component, for example via script, and to perform the action, write

variableName.PerformAction();

