scripts for DAZ Studio

by MIKED

# Interaction with:



STREAM DECK

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# Introduction

Welcome to the Lights Console Suite by MikeD!

The suite includes 39 scripts that add functionality to any Elgato Stream Deck device or any other console you own with programmable keys. You can also use the suite as standalone applications even without any of the above devices, in order to organize the lights' main functions into a toolbar for easy access. The package also includes 2 profile files for interaction with Elgato Stream Deck classic (15 keys) and/or Elgato Stream Deck Plus devices!

The first script of the package adds/removes the other scripts of the product into/from the menu and into/ from a toolbar for easy access.

There are five groups of scripts controlling the Intensity, Height, Width, Spread Angle and Temperature of the selected light. Each group contains four scripts to increase, decrease, show the current value and set the default value for each one of the previous properties.

Three scripts are programmed to show the current geometry of the selected light and set the next or the previous geometry.

Another script can lock or unlock the selected light's movement in the scene. Extremely helpful when you don't want to accidentally relocate the light.

The next script circularly selects all the visible scene lights in the active viewport current "camera" selection.

A pair of scripts can show the "render emitter" property's current value and toggle this value on or off.

The luminous flux property is controlled by six scripts. One of these scripts shows the current value, another one sets the default value and the remaining four increase or decrease the value of luminous flux. Two of them change the current value by 1.25 (default step) times up or down for small adjustments and the other two change the current value by 10 (default step) times up or down.

The next four scripts mimic the "Orbital Lights" plugin movement function and rotate the selected light horizontally or vertically around a selected node in the scene or spin the light horizontally or vertically, around its own axis, if no node has been selected. Two of these scripts control the horizontal rotation (CW and CCW) and the other two control the vertical (up or down).

The last script is used to adjust the settings for some of the above scripts, in order to meet your own needs.

The suite also includes a detailed manual describing the function of each script, to help you achieve the optimal use of your lights and create outstanding renders!

# **Before Starting**

Beware that some functions require the scripts to interact with each other, so don't rename any of them and don't change their original location. The folder "Dynamic Script Libraries" is a library including some scripts that are used by the main ones. Don't change the name of any script or move them into another folder. This will break the functionality of the main scripts. If you need to relocate the scripts, move their parent folder ("Lights Console") with the included folders to the new location without renaming any of them.

Most of the scripts affect the current light. "Current light" is the chosen light in the active viewport, if you have any light selected instead of a camera. If you have a multi-viewport layout or the "Aux Viewport" visible, the "current light" is the one of the active viewport. The active viewport is designated as the one with the yellow border around its frame. You can change the active viewport by clicking on it. If no light is selected in the viewport as camera view, then the selected light in your scene is the current light.

It is mandatory that you execute the "Add to menu and to toolbar" script first, in order to add the other scripts into the "Scripts" menu and into a toolbar for easy access.

The scripts use some shortcuts that are not used, by default, from any other function of Daz Studio. These shortcuts are used by the Elgato Stream Deck devices, or any other device with programmable buttons that you can use as a shortcut console! If you own any of these devices and you want the scripts to interact with them, don't change their shortcuts. If you do, assign manually the same new shortcuts at the corresponding functions of the Stream Deck device as well. (See Index A: "Interacting with Elgato Stream Deck").

Most scripts give you the option of an undo action after their use. In this way you can revert their outcome if you are not happy with the results.

Always keep an eye on the Daz Studio's status bar. All non-critical messages will be shown there. When a script changes the value of a parameter, the new value will be displayed on the status bar, staying visible for 5 sec.

# Add to menu and to toolbar

Use this script to add/remove the scripts of this suite into/from the menu and into/from a toolbar for easy access. You can see the shortcuts for each script in a parenthesis next to its name.

Use the checkboxes of the first column ("Menu") to add a script into the menu. Check the respective box in the second column ("Toolbar") to add a script into the toolbar. In order to have a script in the toolbar, it needs to exist in the menu first, so if you check a box in the "Toolbar" column and it is not checked in the "Menu" column, the script will automatically check it in the first column as well. The third column ("Remove") will be enabled only for the scripts that already exist in the menu. You can select any of these if you want to remove the respective scripts from the toolbar and the menu.

Most of the scripts are checked by default, but you have the option to uncheck any of them if you feel you don't want to use them. Of course, removing any of them from the installation means that you won't have access to its function from your Stream Deck device (the key will be there, but it won't do anything).

At the lower part of this script's dialog, you can find the button "Select all". It adds all the scripts that don't already exist in the menu. This option gives access to all the functions of the suite as it adds all the scripts into the menu and into the toolbar. If a script already exists in the menu but not in the toolbar, it will not be added into the toolbar by checking this checkbox.

Clicking the "Add to Menu" button, the selected scripts are going to be added into the "Scripts/MikeD Lights for Stream Deck" menu and a new toolbar "MikeD\_Lights\_for\_Stream\_Deck" will be created. If the program finds out that a shortcut for a script is used by another function it will notify you through a message, waiting for your choice to replace the shortcut or not. It is recommended to use the default shortcuts for the scripts of this suite if you want Daz Studio to interact with the Elgato Stream Deck devices, without having to readjust the shortcuts in the device's settings.

Clicking the "Remove from Menu" button, the selected scripts are going to be removed from the "Scripts/ MikeD Lights for Stream Deck" menu and from the "MikeD\_Lights\_for\_Stream\_Deck" toolbar.

Clicking the "Add to Menu" or the "Remove from Menu" button will close the dialog box. It is not possible to add and remove scripts simultaneously. You need to restart Daz Studio before continuing.

# Intensity - Geometry - Height - Width - Spread Angle – Temperature

Conditions of Use: A light must be selected in the current viewport (this is the first condition the script will check) OR the selected item in the scene must be a light (the script will check this condition if the viewport "camera" is not a light).

The package contains six groups of scripts, with each group controlling the "current light"'s value of one of the properties mentioned above. Each group consists of four scripts (except for the Geometry's that has only three). One that displays the property current value on the status bar for 5 seconds. A second one that resets the property value to default (except for the Geometry). The last two scripts increase or decrease the value by one step. You can change the step value using the "Lights Stream Deck Settings" script which is, by default, loaded on the toolbar from the initial installation, for easy access.

Using the Stream Deck classic (15 keys) included profile, if you press the "Show" icon (the icon with the question mark) for extended time, the default value is applied instead.



In the Stream Deck Plus, each "Show current value" button (with a green question mark icon) and each "Set Default" button, if it exists, (with an orange icon having a forbidden sign), controls the property that is shown in the screen, on the same column. Each "Set default" script has an undo action. If you accidentally press this button, you can always return to the previous value of the property. On the bottom of each column, there is a knob. If you turn it clockwise (CW), it increases the value of the controlled property by one step at a time. If you turn it counterclockwise (CCW), it decreases it. If you push the knob, it will display the property current value. Any of the above actions will display the property current value on the status bar.



The following shortcuts are the default ones, if you have not changed them after installation.





# Script: Height







HEIGHT

MINED

# Stream Deck icons:



Show Value shortcut: Ctrl+Shift+\* Default Value shortcut: Ctrl+Shift+9 Increase Value Shortcut: Ctrl+Shift+PgUp Decrease Value Shortcut: Ctrl+Shift+PgDown Increasing / Decreasing default step: 1 cm

#### Script: Width







# Stream Deck icons:



Show Value shortcut: Ctrl+Shift+End Default Value shortcut: Ctrl+Alt+Shift+O Increase Value Shortcut: Ctrl+Shift+PgUp Decrease Value Shortcut: Ctrl+Shift+PgDown Increasing / Decreasing default step: 1 cm





# Luminous Flux

Conditions of Use: A light must be selected in the current viewport (this is the first condition the script will check) OR the selected item in the scene must be a light (the script will check this condition if the viewport "camera" is not a light).

The light's Luminous Flux property is controlled by five scripts. One of them displays the property current value on the status bar for 5 seconds. A second one resets the property value to default. The next two scripts (exp) increase or decrease the value exponentially by one step. These scripts are used to change the property value by a great amount (by default the new value is 10 times greater or smaller than its previous value). The last two scripts (mult) increase or decrease the value by one step. These scripts are used to change the property value by a smaller amount (by default the higher value is by 25 per cent greater than the lower value). You can change these steps values using the "Lights Stream Deck Settings" script which is, by default, loaded on the toolbar from the initial installation, for easy access. In case of the "Mult" step, it shows the proportion that will be added to the initial value when you increase it by one step (by default 0.25 of the initial value). Decreasing the new value will get you back to the initial value.



Using the Stream Deck classic (15 keys) included profile, if you press the "Show" icon (the icon with the question mark) for extended time, the default value is applied instead.



In the Stream Deck Plus, the "Show current value" button (with a green question mark icon) and the "Set Default" button (with an orange icon having a forbidden sign), controls the property that is shown in the screen, on the same column. In the "Luminous Flux Mult" column there are no "Show current value" button or "Set Default" button as these actions for the selected light's "Luminous Flux" property exist already on the "Luminous Flux Exp" column. The "Set default" script has an undo action. If you accidentally press this button, you can always return to the previous value of the property. On the bottom of each column, there is a knob. If you turn it clockwise (CW), it increases the value of the "Luminous Flux" property by one step at a time. If you turn it counterclockwise (CCW), it decreases it. If you push the knob, it will display the property current value. Any of the above actions will display the property current value on the status bar.



The following shortcuts are the default ones, if you have not changed them after installation.

Show Value shortcut: Ctrl+Alt+Shift+Home Default Value shortcut: Ctrl+Alt+Shift+End Increase Value Exp Shortcut: Ctrl+Alt+Shift+} Decrease Value Exp Shortcut: Ctrl+Alt+Shift+{ Increase Value Mult Shortcut: Alt+Shift+} Decrease Value Mult Shortcut: Alt+Shift+{ Increasing / Decreasing Exp default step: 10 Increasing / Decreasing Mult default step: 0.25 (25%)

# Rotate



Conditions of Use: A light must be selected in the current viewport (this is the first condition the script will check) OR the selected item in the scene must be a light (the script will check this condition if the viewport "camera" is not a light). An item must be selected in the scene in case you want the light to rotate around that item. If no item is selected in the scene, the light will spin around its own axis, without changing its position. To select another item in the scene, you need to select the light first and then, holding the control (CTRL) key on your keyboard, select the other item.

The light's rotation/spinning is controlled by four scripts. The first two scripts rotate/spin the light horizontally by one step, clockwise (CW) or counterclockwise (CCW). The other two scripts rotate/spin the light vertically by one step, up or down. You can change the step value using the "Lights Stream Deck Settings" script which is, by default, loaded on the toolbar from the initial installation, for easy access.

These scripts mimic the rotation of the "Orbital Light" plugin on the horizontal and the vertical axis.

In the Stream Deck Plus, on the bottom of each column, there is a knob. If you turn it clockwise (CW), it rotates/spins the light CW by one step at a time. If you turn it counterclockwise (CCW), it rotates/spins the light CCW by one step at a time.



The following shortcuts are the default ones, if you have not changed them after installation.

Rotate Light Clockwise shortcut: Alt+Shift++

Rotate Light Counterclockwise shortcut: Alt+Shift+-

Rotate Light Vertical Increase shortcut: Ctrl+Alt+Shift++

Rotate Light Vertical Decrease shortcut: Ctrl+Alt+Shift+-

Rotation angle default step: 0.5 degrees

# Lock - Unlock selected Light



Conditions of Use: A light must be selected in the current viewport (this is the first condition the script will check) OR the selected item in the scene must be a light (the script will check this condition if the viewport "camera" is not a light).

This script locks/unlocks the current light's position, so you won't be able to move it accidentally. This is extremely helpful when you have set up a light and you don't want to reposition it by mistake.

This shortcut is the default one, if you have not changed it after installation.

Stream Deck icons:



Shortcut: Ctrl+End

# Next Light in Viewport



Conditions of Use: At least one visible light must exist into the scene.

The script simply circularly sets the next visible scene light as the current "camera" in the active viewport.

This shortcut is the default one, if you have not changed it after installation.

Stream Deck icons:



Shortcut: Alt+Shift+~

# **Render Emitter**



Conditions of Use: A light must be selected in the current viewport (this is the first condition the script will check) OR the selected item in the scene must be a light (the script will check this condition if the viewport current "camera" is not a light).

The Light's "Render Emitter" is controlled by two scripts. One that displays the property current value on the status bar for 5 seconds and a second one that toggles the property value on/off.

The following shortcuts are the default ones, if you have not changed them after installation.

Stream Deck icons:



Show Value shortcut: Alt+Shift+Home

Toggle Value shortcut: Ctrl+Shift+~

# Index A: Interacting with Elgato's Stream Deck devices or any other device having programmable keys.

#### Importing the profile files for Daz Studio connectivity

This suite can interact with the Elgato Stream Deck classic (15 keys) and/or the Elgato Stream Deck Plus device, in order to accelerate your workflow. If you own any of these devices and you want to add interaction with Daz Studio, you can do it using the profile files for the Elgato Stream Deck and the Elgato Stream Deck Plus device included in your "Library Folder/General/MikeD/Lights Console" folder. The profile file name for the Stream Deck classic (15 keys) is "MikeD Lights Console for Daz Studio 15 Keys.streamDeckProfile". The profile file name for the Stream Deck Plus is "MikeD Light Console for Daz Studio Plus.streamDeckProfile".

At this point it is an obvious requirement to have already set up the Elgato Stream Deck device (or devices) to your PC and installed the appropriate drivers.

The communication between Daz Studio and any Stream Deck device relies on the shortcuts of the scripts. The device calls the suitable shortcut and Daz Studio executes the corresponding script. As you can understand, the first move is to add the scripts to the menu so the suitable shortcuts can be created.

First of all, make sure that you have already executed the "Add to menu and to toolbar" script of the suite, and you have clicked the "Add to Menu" button, so the necessary scripts already exist in the "Scripts" menu of Daz Studio, with their default shortcuts. In case you have changed the default shortcuts during the scripts' installation, you have to manually assign the changed shortcuts using the Elgato Stream Deck classic and/or the Elgato Stream Deck Plus settings application.

Open your Windows Explorer and navigate to the folder "Daz Library Folder/General/MikeD/ Lights Console". Double click on the file "MikeD Lights Console for Daz Studio 15 Keys.streamDeckProfile" to load the profile for the Stream Deck Classic (15 keys) and/or double click on the "MikeD Light Console for Daz Studio Plus. streamDeckProfile" to load the profile for the Stream Deck Plus device. In case you have both devices connected into your computer you have to open Elgato Stream Deck settings application in your computer and then select the Stream Deck device in the drop-down menu at the top, before double clicking on the profile for the Stream Deck classic. After installing the profile for the Stream Deck classic, you have to select the option "Stream Deck +" in the drop-down menu at the top of the application, before double clicking on the profile for the Stream Deck plus.

Beware that the profile for the Stream Deck classic device uses a custom free plugin called "SuperMacro" by BarRaider. You need to have installed this plugin into your Stream Deck before installing the "MikeD Lights Console for Daz Studio 15 Keys" profile. You can install this plugin by clicking on the icon with the keyboard at the top of your Stream Deck settings dialog, choose the "PLUGINS" tab at the left of the dialog and navigate to find the "SuperMacro" plugin by BarRaider. Click the install button to download it.

Both the Elgato Stream Deck classic (15 keys) and the Elgato Stream Deck Plus devices use three pages of shortcuts. You can access each page by clicking the next page arrow (in Elgato Stream Deck classic device) or by sliding its touch screen left or right (in Elgato Stream Deck Plus device).

Additionally, in the included profiles there are shortcut keys for the Daz's Store and for my store in Daz. Also, there are shortcuts keys for the Lights Console profile (if you own this product), for the Mapping Options Console profile (if you own this product), and for any Daz main profile you have. You have to set those last keys to point to the right profile, after installation.

# **Index B: Scripts Shortcuts**

If you own any other device with programmable keys, use the (default) shortcuts of the following table as reference.

Scripts	Shortcuts
!Lights Stream Deck Settings	None
Intensity Value Decrease	Ctrl+Shift+{
Intensity Value Increase	Ctrl+Shift+}
Intensity Value Set Default	Alt+Shift+O
Intensity Value Show	Alt+Shift+U
Light Geometry Next	Alt+Shift+5
Light Geometry Previous	Alt+Shift+4
Light Geometry Show	Ctrl+Alt+Shift+I
Light Height Value Decrease	Alt+Shift+6
Light Height Value Increase	Alt+Shift+7
Light Height Value Set Default	Ctrl+Shift+9
Light Height Value Show	Ctrl+Shift+*
Light Width Value Decrease	Ctrl+Shift+PgDown
Light Width Value Increase	Ctrl+Shift+PgUp
Light Width Value Set Default	Ctrl+Alt+Shift+0
Light Width Value Show	Ctrl+Shift+End
Lock - Unlock selected Light	Ctrl+End
Luminous Flux Value Exp Decrease	Ctrl+Alt+Shift+{
Luminous Flux Value Exp Increase	Ctrl+Alt+Shift+}
Luminous Flux Value Mult Decrease	Alt+Shift+{

Luminous Flux Value Mult Increase	Alt+Shift+}
Luminous Flux Value Set Default	Ctrl+Alt+Shift+End
Luminous Flux Value Show	Ctrl+Alt+Shift+Home
Next Light in Viewport	Alt+Shift+~
Render Emitter Show	Alt+Shift+Home
Render Emitter Toggle	Ctrl+Shift+~
Rotate Light Clockwise by 1	Alt+Shift++
Rotate Light Counterclockwise by 1	Alt+Shift+-
Rotate Light Vert Decrease by 1	Ctrl+Alt+Shift+-
Rotate Light Vert Increase by 1	Ctrl+Alt+Shift++
Spread Angle Value Decrease	Ctrl+Alt+Shift+PgDown
Spread Angle Value Increase	Ctrl+Alt+Shift+PgUp
Spread Angle Value Set Default	Ctrl+Alt+Shift+Ins
Spread Angle Value Show	Alt+Shift+Ins
Temperature Value Decrease	Ctrl+Shift+Del
Temperature Value Increase	Ctrl+Alt+Shift+Del
Temperature Value Set Default	Ctrl+Shift+Ins

# Index C: Changing or adding Scripts Shortcuts in Daz Studio

If you do not use the default shortcuts for the scripts or you need to change a shortcut of the package, do the followings.

Open the Daz Studio menu path: Window/Workspace/Customize... or press F3 on your keyboard (default shortcut).



In the popup dialog click the "plus" (+) sign, on the "Custom" group, in the left column "Actions". The group will expand, and you can see all the custom actions names in the first column and their assigned shortcut in the second column (if there is a shortcut for this action). Scroll down to find the script you want and click on it to select it.



Right click on the right side of its name, in the shortcut column and choose "Change Keyboard Shortcut". If this shortcut is already in use by another action a popup message will inform you about it.

Edit Custom Action
Delete Custom Action
Change Keyboard Shortcut
Clear Keyboard Shortcut
Change Icon
Clear Icon
Show Text and Icon

Repeat for any actions you want. If you successfully change the shortcut of any action, don't forget to press "Accept" on the dialog to confirm it. The Daz Studio's UI will be repainted in this case.

If you change any of the package's scripts shortcuts, go into your controller device menu (3D Connexion Mouse, Stream Deck device, or any console with programmable keys) and assign the new shortcuts to the respective actions so you don't break the device's interaction with the Daz Studio.

# Credits

The following DAZ Scripts have been modified and used for the creation of this product:

- Simple Input Dialog

http://docs.daz3d.com/doku.php/public/software/dazstudio/4/referenceguide/scripting/api\_reference/samples/general\_ui/simple\_dialog/start

-Create Custom Action

http://docs.daz3d.com/doku.php/public/software/dazstudio/4/referenceguide/scripting/api\_reference/samples/actions/action\_custom\_create/start

-File Find

http://docs.daz3d.com/doku.php/public/software/dazstudio/4/referenceguide/scripting/api\_reference/samples/file\_io/file\_find/start

- Simple Composite Image Dialog

http://docs.daz3d.com/doku.php/public/software/dazstudio/4/referenceguide/scripting/api\_reference/samples/general\_ui/simple\_composite\_image\_dialog/start

# **History Logs**

Version 1.0 February 2023

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- !Lights Stream Deck Settings
- Intensity Value Decrease
- Intensity Value Increase
- Intensity Value Set Default
- Intensity Value Show
- Light Geometry Next
- Light Geometry Previous
- Light Geometry Show
- Light Height Value Decrease
- Light Height Value Increase
- Light Height Value Set Default
- Light Height Value Show
- Light Width Value Decrease
- Light Width Value Increase
- Light Width Value Set Default
- Light Width Value Show
- Lock Unlock selected Light

- Luminous Flux Value Exp Decrease
- Luminous Flux Value Exp Increase
- Luminous Flux Value Mult Decrease
- Luminous Flux Value Mult Increase
- Luminous Flux Value Set Default
- Luminous Flux Value Show
- Next Light in Viewport
- Render Emitter Show
- Render Emitter Toggle
- Rotate Light Clockwise by 1
- Rotate Light Counterclockwise by 1
- Rotate Light Vert Decrease by 1
- Rotate Light Vert Increase by 1
- Spread Angle Value Decrease
- Spread Angle Value Increase
- Spread Angle Value Set Default
- Spread Angle Value Show
- Temperature Value Decrease
- Temperature Value Increase
- Temperature Value Set Default

- Temperature Value ShowRotate Current Camera Clockwise
- Rotate Current Camera Counterclockwise
- Set F-Stop of current camera
- Set Focal Length of current camera
- Toggle Dock Areas Left and Right

# MIKED 2023