



Studio Lighting

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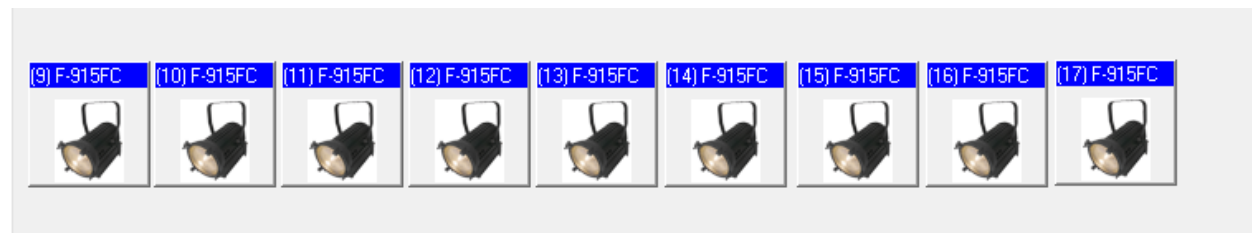
Welcome to the Studio Lighting class! In this class you will learn lighting concepts, how to use our studio lights, and how to properly light a set in the studio. In order to pass this class you must complete the instructor-led hands-on training and pass a practical proficiency test which consists of creating a new lighting sequence.

Our lighting instruments

-LED Bar lights: There are 8 **bar lights** in our lighting system. They are located on top of the green screen, and they are used to properly light the green screen avoiding shadows and different tones that would cause problems in the editing. If you are going to use the green screen, you will need these lights on.



-Fresnels: There are 9 Fresnel lights in our lighting system. The **Fresnel light** is one of the most common lights used in studio production. It produces a very even light that is soft at the edges. Because the edge of the light is soft, it will blend easily with the edges of other lights to give smooth coverage. You can control light spill by adjusting the barn doors which are mounted onto the front of the Fresnel. The barn doors have four rotatable flaps that can be used to mask the beam. These lights are RGB, so you can change their colors easily without the need of color gels.



-Soft Lights: There are 12 soft lights in our lighting system. The **soft light** is a compact, lightweight indirect fill light that provides a very soft even light. These lights have a lower intensity and are slightly more directional. You can change the color temperature on these lights, but you can not change their color.



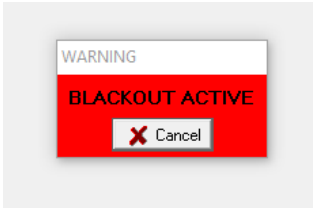
-The Spotlights/Movers: There are 4 Spotlights in our lighting system, with 4 **power boxes**. The **spotlight** produces intense and harsh illumination in a well-defined area. It has the capability of moving and pointing in different directions, and you can control it all from the lighting monitor. It is a RGB light, which allows you to change the color of the light, and it also has different patterns that create a fun and creative lighting effect. Something to note is that the cooling fans on these lights make noise when they are plugged in, even if they are “off”. Therefore, each of them is attached to a **power box** to be able to disconnect them without having to unplug them. The power box ON/OFF icon is located beneath its correlating spotlight icon. ***The spotlights are more advanced lighting, please ask your instructor if you are interested in using them*.**



The Lighting Program

To adjust lighting in the studio you will have to use the lighting monitor in the studio. The software we use is called **LightJockey**, and it will be opened up when you get to the monitor.

The first thing you will see is a red text box that says “**BLACKOUT ACTIVE**”. This means that the lights are all turned off. To turn them back on, you can click the **spacebar** on the keyboard (the space bar will allow you to turn the blackout mode on and off by just clicking it).

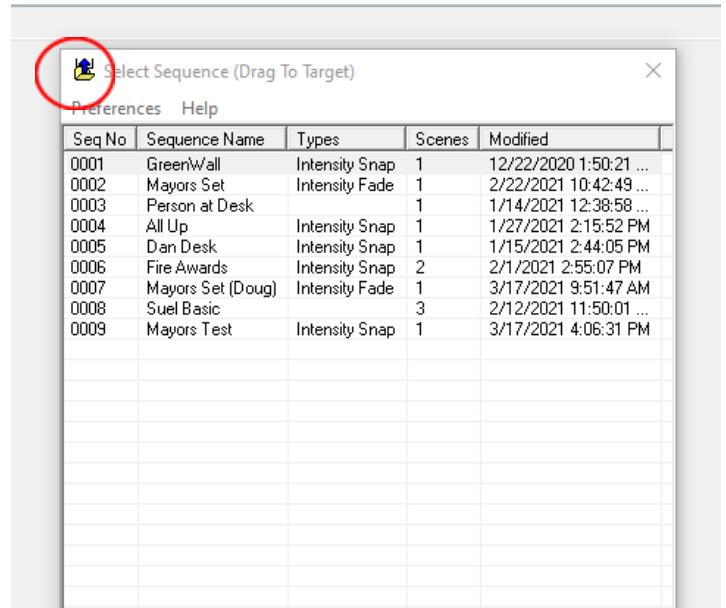


The presets/sequences

There are already **pre set sequences** in the software. They are in a menu on the right of the screen. (If you can not see the menu, you need to click on the **sequence button** on the top bar). If you click on one, you should see lights turning on according to the sequence you chose. You can make changes to a sequence by just clicking on the different lights and changing their intensity, colors and color temperature.

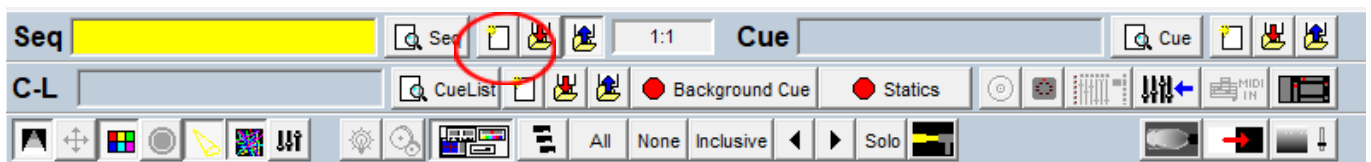
The lights you click on will turn red, the lights that are not selected will be blue. Keep in mind that all the lights that you click on will be selected, and **you will have to unclick a light if you do not want to modify that one anymore**. We recommend that you do not try to modify different kinds of lights at the same time since they have different options and it might confuse the program.

***Please do not save the changes you make to pre-existent sequences*.**



Starting a new sequence

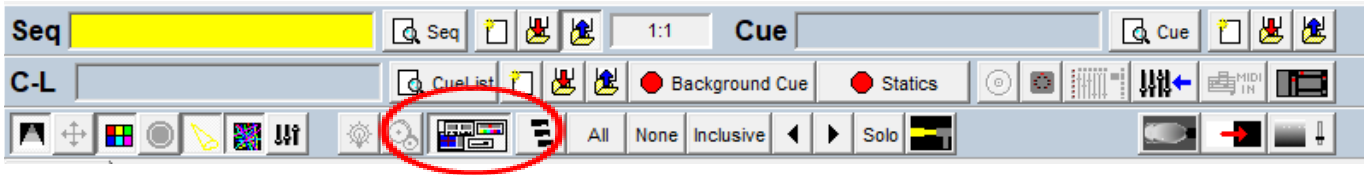
The first step to create a new sequence is to click on the **“New”** icon on the top bar. This will allow you to start from scratch without using any pre-existent sequences.



-Choosing the lights you need: Once you have started a New Sequence and all the lights are off, you should go to the center of the studio and look up at the lights to figure out what lights

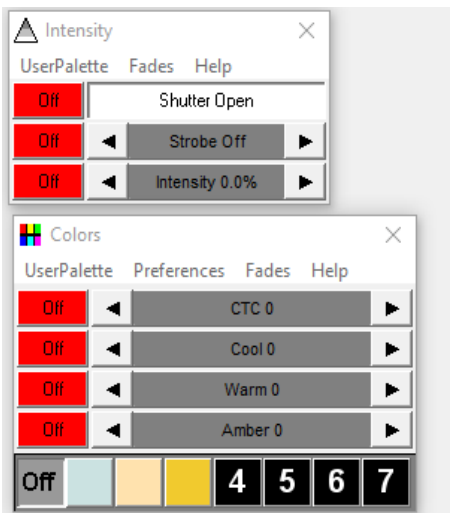
you want on. Every light has a number on it, so we recommend writing down the light number of the lights you want to turn on (you can use the **NOTES** section at the end of this document to do so).

-Turning them on/off: After choosing what lights you want to turn on, you need to click on those specific light numbers on the program. When you click on the light, you should see some menus pop up. If the menus do not pop up, click the **“Show Light Fixture”** icon on the top bar.

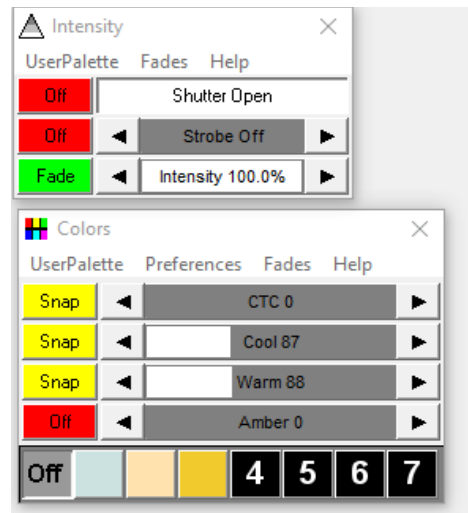


To turn on the lights you will have to use the **Intensity** bar, which will also allow you to choose how dim you want your lights to be. ***If the light is not turning on when you rise the intensity, you need to choose a color or color temperature for that light***

LIGHT OFF

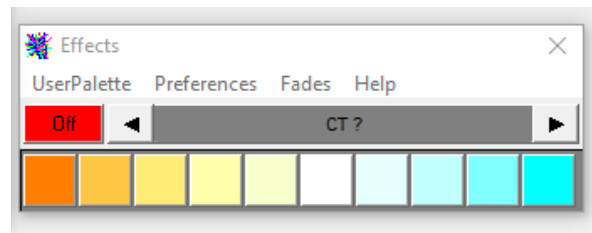


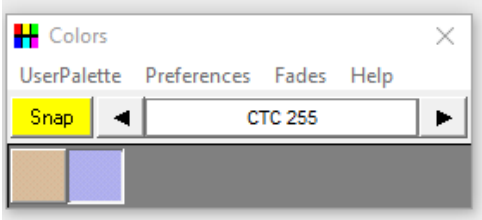
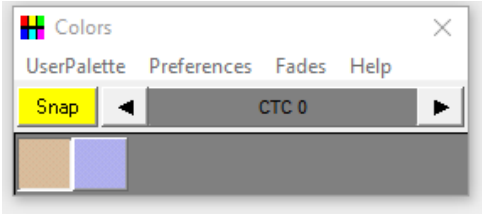
LIGHT ON



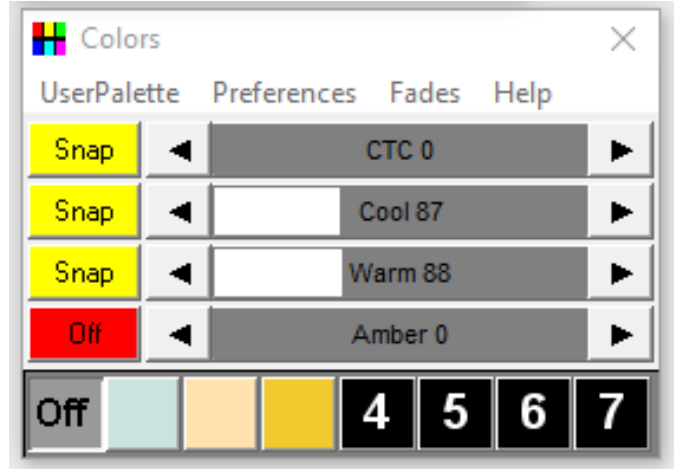
-Changing color temperature: You can change the color temperature of all of our lights. To do so, you just have to click on one of the **color temperature boxes** to choose between warmer and cooler temperatures. You can also adjust the color temperature in a more customized way by using the **color temperature bars**.

Fresnel Color Temperature



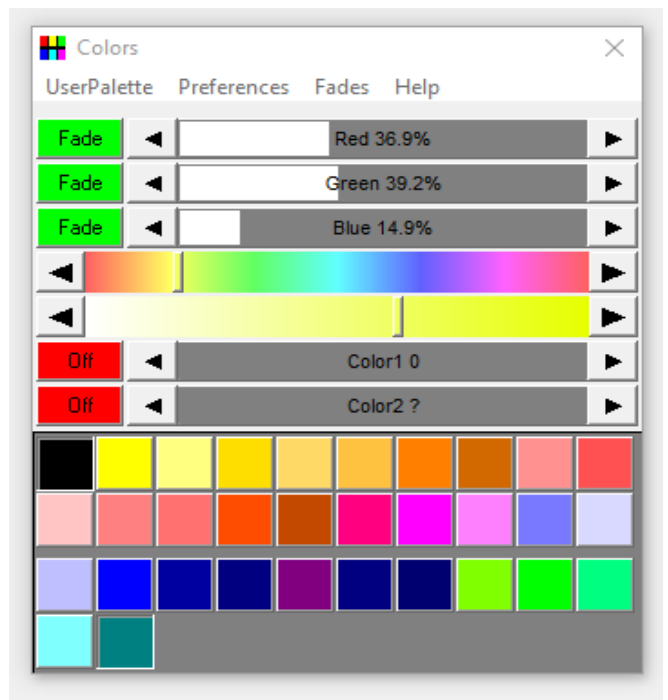


**Soft Light
Color Temperature**



**Bar Light
Color Temperature**

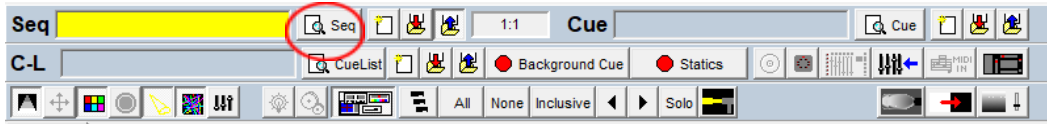
-Changing colors: The **fresnel lights** also have the option of changing the color of the light. There are a lot of **color boxes** that you can choose from. You can also adjust the **RGB** (red, green and blue) colors with their respective **color bars** for a customized color result.



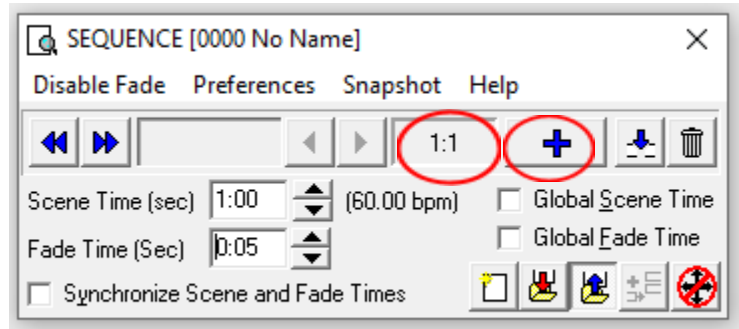
-Fading vs snapping: There are three different modes for each intensity and color bar. The first one is **OFF**, when the light is off. The second one is **FADE**, which is when the light is on. The fade mode makes a gradual smooth transition whenever you are changing the intensity or colors of the light. The third mode is **SNAP**, which is also when the light is on. The mode snap makes a faster transition when you are changing the intensity or color of the light. To change between modes, you just have to click on the button situated at the left of each bar. When you click it, it will switch modes in that order (off, fade, snap).



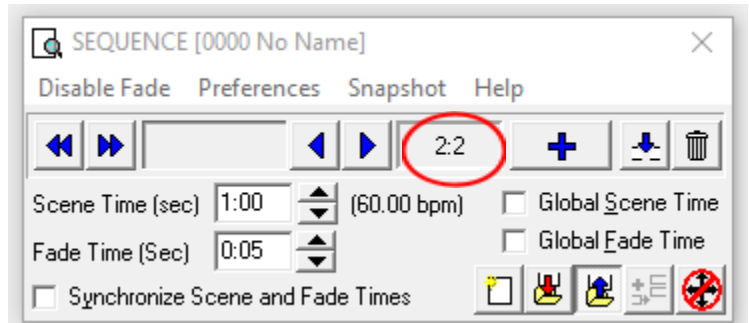
-Programming a lighting change or effect: You can create different **scenes** in a sequence. This will allow you to program lighting changes and effects. For example, changing the intensity, turning on and off different lights, or changing colors or color temperatures during a sequence. To do this, you have to click on the **toggle sequence** icon on the top bar. This will open up a menu where you can create your scenes.



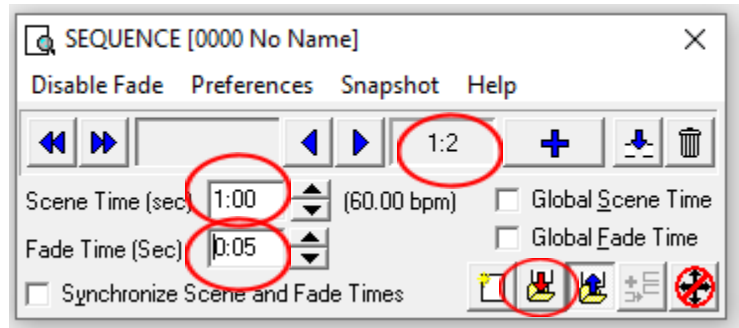
When you only have one screen, you will see the numbers **1:1**. This is your scene 1. You can click on the **+** icon to the right of the scene number to create a new scene.



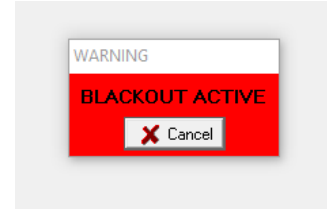
This will create scene 2 (**2:2**). You can program the lighting setup you want for scene 2. For example, change of intensity, change of color, or change of lights that are on/off.



You can go from scene **1 to 2 (1:2)** with the arrow icons in the middle, and you will see how your lights change from one scene to the other by just clicking that button. You can change the duration of the scene or **scene time** (only matters if you are playing the scene in a cycle by clicking the forward or reward icons on the left), and you can also change the **fade time**. To save your scenes you just need to click on the **save icon** on the bottom (the folder with the red arrow).



-Blackout: Whenever you are done filming in the studio and want to turn all the lights off, you can click on the keyboard **space bar** to quickly turn all the lights off and activate the **BLACKOUT** mode. You can click on the space bar again if you want to exit the BLACKOUT mode and turn all the lights on again.



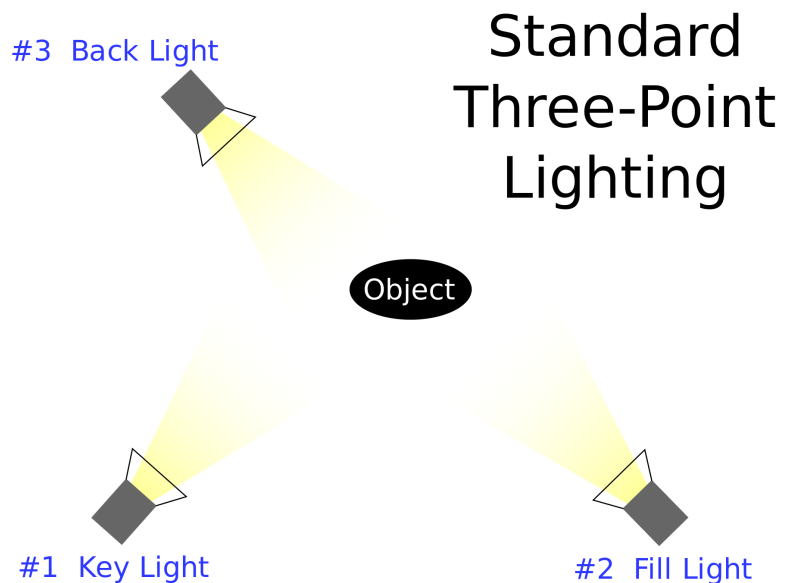
Three-point lighting

Three-point lighting is one of the most common lighting setups. The main elements in this set up are:

1 - Key Light: It defines all the highlights and brightest areas of your subject. Generally you will use a **fresnel light** to achieve well defined highlights and shadows.

2 - Fill Light: It fills in the shadow areas to make them bright enough. Depending on the lighting effect you desire to achieve, you will use more or less fill. Generally you will use a **soft light** because they blend in better with the key light.

3 - Back Light: It creates separation from the background and it can be brighter or darker depending on how much separation you want between your subject and the background. Generally you will use a **fresnel** if you want a harsher light line around your subject. If you want a softer result, you will use a **soft light**.



High Key vs Low Key

-High Key: Minimal shadows and soft lighting. Mostly seen in comedies and talk shows.

-Low Key: Shadows very present and harsh lighting. Mostly seen in drama and action.



PRO-TIPS:

- Be sure to take proper precautions when adjusting light barn doors in the studio. Ask a staff member for help if you need to adjust them.
- Before you begin setting lights up be sure to turn off the studio overhead fluorescent lights.
- Don't use color lights as the key light for a subject unless it is for artistic reasons.
- Make sure all your lights have the same color temperature, either cool or warm (unless for artistic purposes).
- Remember that very dark lighting might create noise in your footage.
- Be creative and do not be scared of experimenting with lighting.

The Practical Test: Create a Sequence

Create a sequence using the **three-point lighting** set up and show your instructor. You need to include a **lighting change or effect**, and you will need to explain your **thinking process** and why you chose the lights that you have on in order to pass the class.

NOTES
