COLOR KINETICS

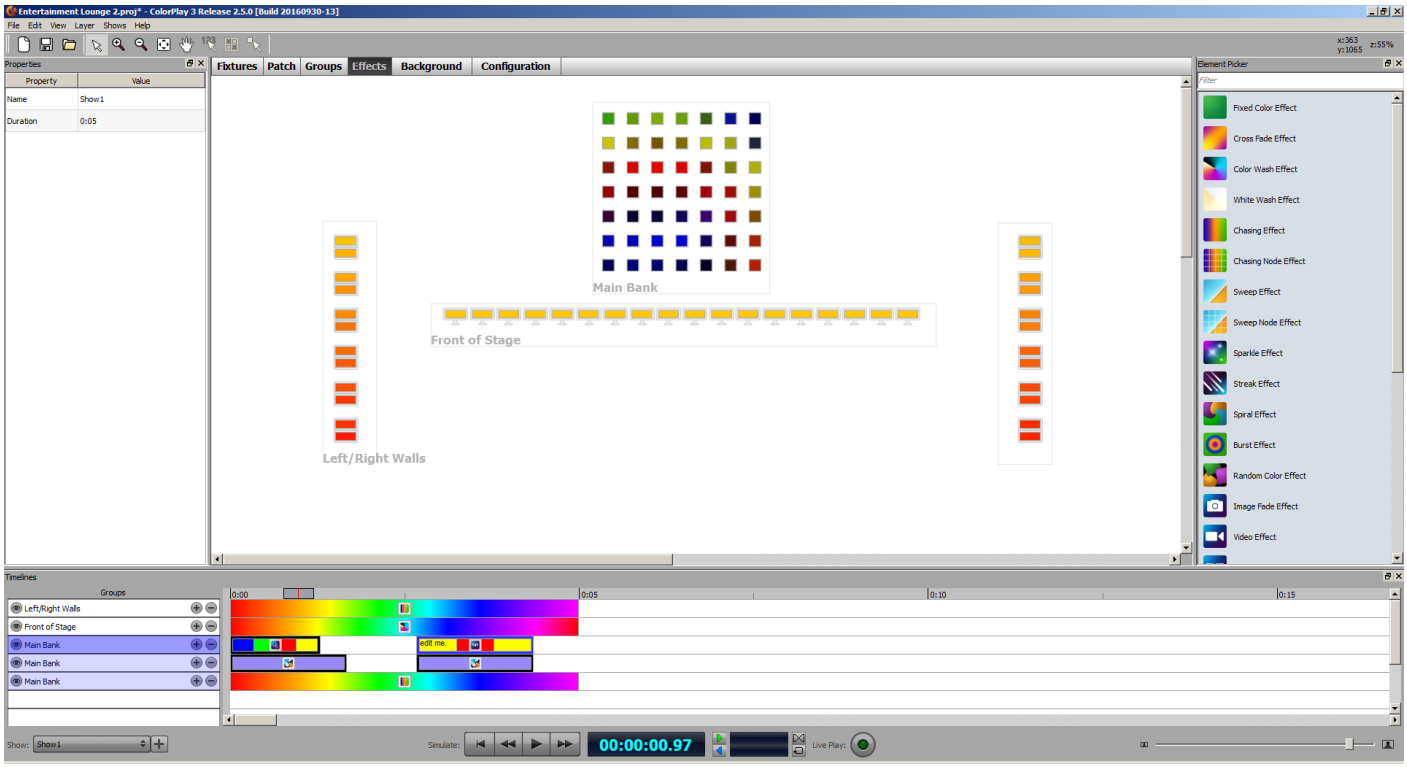
ColorPlay 3

Version 2.5.1

User Guide

Contents

Introduction



Welcome to ColorPlay 3

ColorPlay 3 is the light show authoring software component of the iPlayer 3 and iColor Player controllers from Color Kinetics. ColorPlay 3 gives you the tools you need to create and manage dynamic, color-changing light shows, including fully customizable effects, multi-track editing, effect stacking, and custom transition styles. ColorPlay 3 works seamlessly with iColor Player and iPlayer 3 to transform spaces, help you achieve your design goals, and add new levels of sophistication to LED lighting installations.

With ColorPlay 3, you can:

- Create dynamic light shows and original lighting effects without a lighting board, programming language expertise, or specialized knowledge of the DMX protocol
- Perform visual effect editing either on screen or live on a network of fixtures
- Simulate, preview, and scrub light show output
- Download light shows, triggers, and alarms to a controller and manage your show files
- Include multiple shows within each ColorPlay 3 project

About This Guide

This user guide contains step-by-step installation instructions on all ColorPlay 3 features and commands. Because ColorPlay 3 is a cross-platform software application, all functions are identical on compatible Mac OS X and Windows computer systems.

Technical Support Contacts

Contact Color Kinetics technical support for assistance with ColorPlay 3 software:

Phone

888.385.5742, press option number 3 (toll-free US, Canada and Mexico)

617.423.9999, press option number 3 (toll worldwide)

Email

technicalsupport@colorkinetics.com

Web

www.colorkinetics.com/support/

1 Installing ColorPlay 3

You can install ColorPlay 3 software on compatible Windows and Mac OS X computers. Before installing, close all running applications, disable virus protection, and ensure your computer meets the following system requirements:

System Requirements

Windows	MacOS X
Windows 7 or newer	MacOS X 10.9 or newer
512 MB RAM	512 MB RAM
30 MB free disk space	30 MB free disk space

You can download ColorPlay 3 from the Color Kinetics website at www.colorkinetics.com/support/colorplay3/.

Install ColorPlay 3

ColorPlay 3 is easy to download and install. Download the installation package for your operating system from www.colorkinetics.com/support/colorplay3/, and then extract the installation files to a location on your local computer.

- If using Windows, double-click ColorPlay3Installer.exe to begin installation, and then follow the on-screen instructions.
- If using Mac OS X, launch the ColorPlay3Installer app. If you are unable to launch the app, update your Security & Privacy Settings in System Preferences.

2 Getting Started

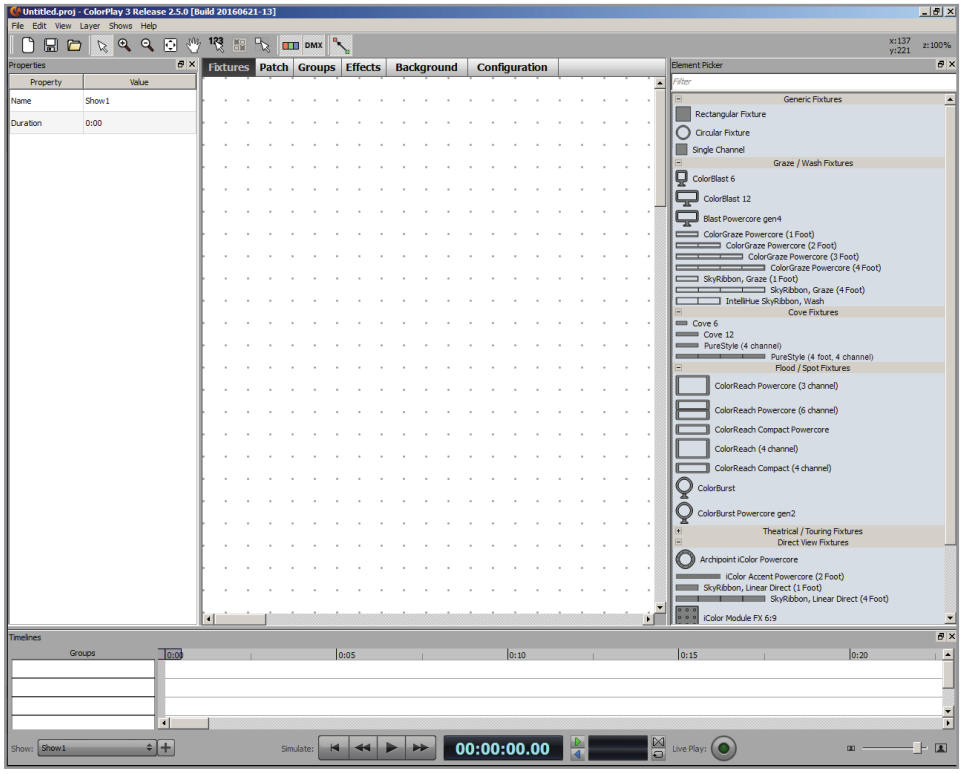
This chapter describes:

- How to connect to the DMX lighting network
- How to start ColorPlay 3
- The components of a ColorPlay 3 light show
- The basic light show authoring workflow from concept to implementation
- The major features of the ColorPlay 3 environment

Starting ColorPlay 3

- To start ColorPlay 3 in Windows, click the Start button, navigate to All Programs>Color Kinetics>ColorPlay 3, and click ColorPlay 3.
- To Start ColorPlay 3 in Mac OS X, go to the Applications>ColorPlay 3 folder, and double-click ColorPlay 3.

The ColorPlay 3 window is displayed.



What's in a ColorPlay 3 Light Show

A light show is a set of digital instructions defining how and when a system of LED lighting fixtures produces illumination. Whether your light show is a simple color fade on a single fixture, or a complex presentation encompassing dozens of fixtures each displaying unique effects or layers of effects, the goals are the same: to create mood, interest, and impact.

A ColorPlay 3 light show contains four main elements:

- *Fixtures* correspond to the layout of your lighting installation—both the number and type of LED light sources (nodes) within each lighting fixture, and the positioning of the lighting fixtures in one or more rooms or spaces
- *Groups* synchronize fixtures for sequencing and effects
- *Effects* are dynamic patterns of light applied to groups. ColorPlay 3 offers over 20 effects, from Fixed Color to Video. Each effect has a full set of customizable properties.
- *Configurations* contain playback instructions, including triggers and optional alarms

Light Show Authoring Workflow

Authoring a ColorPlay 3 light show generally involves five steps. Light show authoring is an iterative process. You may find yourself revisiting any or all of these steps as you create, test, and refine your light show.

These steps, and the ColorPlay 3 features that support them, are discussed in detail in the chapters that follow this one.

Step 1: Map Fixtures

Each ColorPlay 3 show begins as a virtual *map* of light fixtures. A map is a virtual representation of your lighting installation, including light node addressing and relative light fixture positioning. The new Patch layer makes it easy to match your light map's addressing scheme with the addresses assigned to the light nodes in your lighting installation.

> See *Chapter 3: Light Maps*

Step 2: Group Fixtures

Once you've mapped your fixtures, you arrange them into *groups*. Groups coordinate the show, enabling you to assign effects across multiple fixtures simultaneously and rapidly change sequencing to match your installation. To display an effect, a fixture must belong to at least one group.

> See *Chapter 4: Groups*

Step 2: Create Effects

After creating groups, you can begin assigning *effects* to them. Each effect has editable properties—color palettes, start time, duration, and so on. Effects are applied to groups, not fixtures; to assign an effect to a fixture, that fixture must be part of a group. You can assign multiple effects to a single group, either stacked to play simultaneously, or consecutively along the timeline.

> See *Chapter 5: Effects*

Step 4: Simulate and Refine Your Light Show

You simulate and refine a light show with the *Timeline Editor*. The Timeline Editor contains multiple tracks, or *rows*, which let you quickly adjust effect properties, modify effect transitions, and manage multiple effects. The Timeline Editor contains playback controls for previewing your show on-screen or running your show live on installation fixtures.

> See *Chapter 6: Timeline Editor*

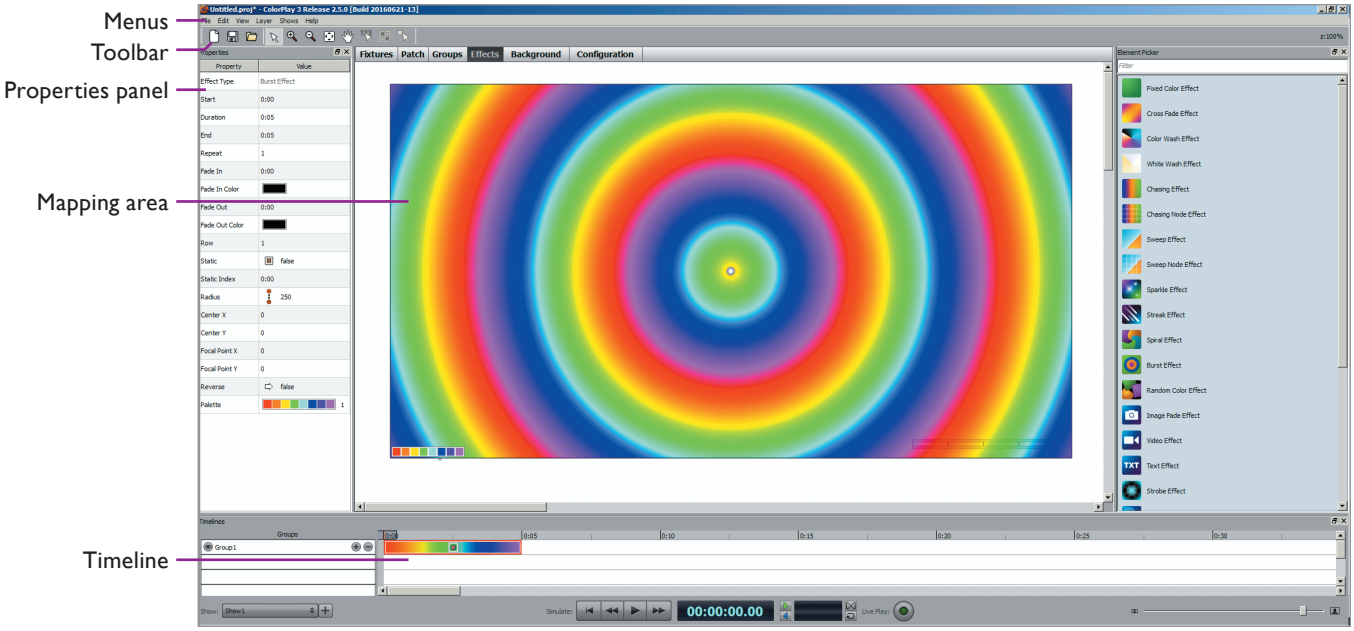
Step 5: Download and Configure Your Light Show

The final step in creating a ColorPlay 3 light show has two stages. First, you download your show files to an iPlayer 3 controller or the SD card on a ColorBlaze TRX fixture. Then you configure show playback by creating triggers and optional alarms.

> See *Chapter 7: Configuring Shows*

Exploring ColorPlay 3

The main areas of ColorPlay 3 are the mapping area, which includes the Fixtures, Patch, Groups, Effects, Background, and Configuration Layers, and the Timeline Editor, which includes simulation and playback controls for testing and fine-tuning light shows.



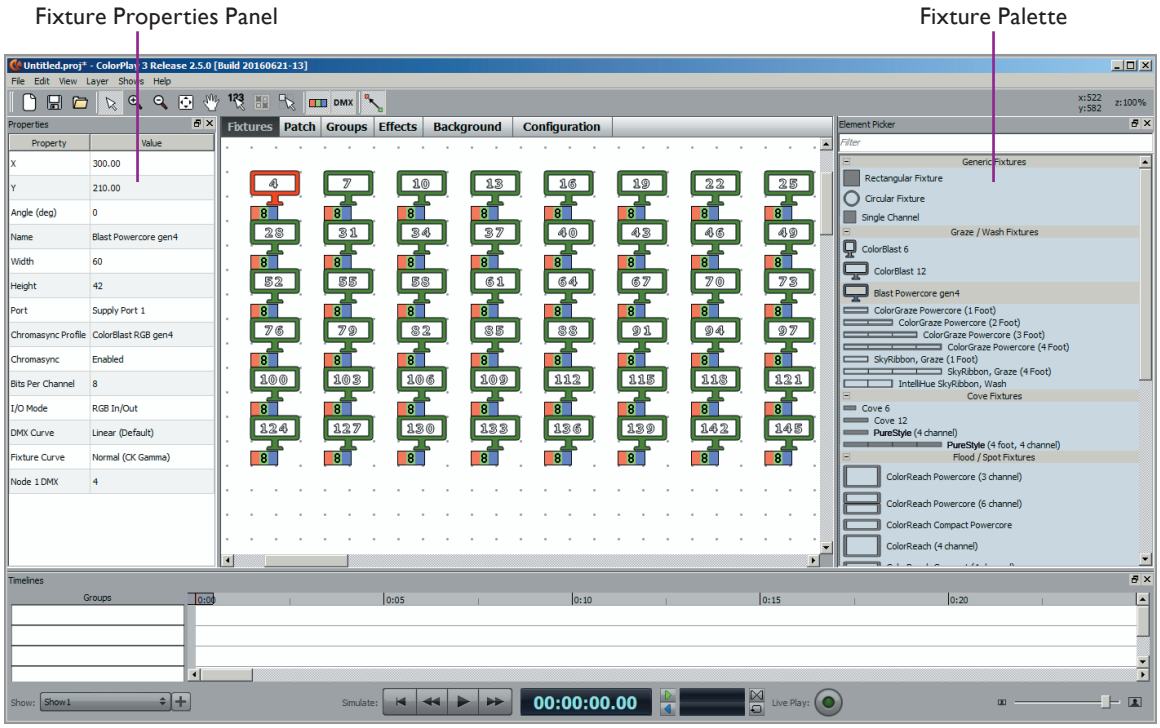
Mapping Area

In the mapping area, you create virtual fixtures that correspond to the layout of your lighting fixtures in the real world. The mapping area also lets you group fixtures, assign effects, and view on-screen simulations of your shows.

The mapping area consists of six layers—Fixtures, Patch, Groups, Effects, Background, and Configuration—accessible via tabs along the top.

Fixtures Layer

The Fixtures Layer appears by default when you launch ColorPlay 3. In the Fixtures Layer, you can map your installation by plotting fixtures on the mapping area. Use the scrollbars to view the entire workspace.

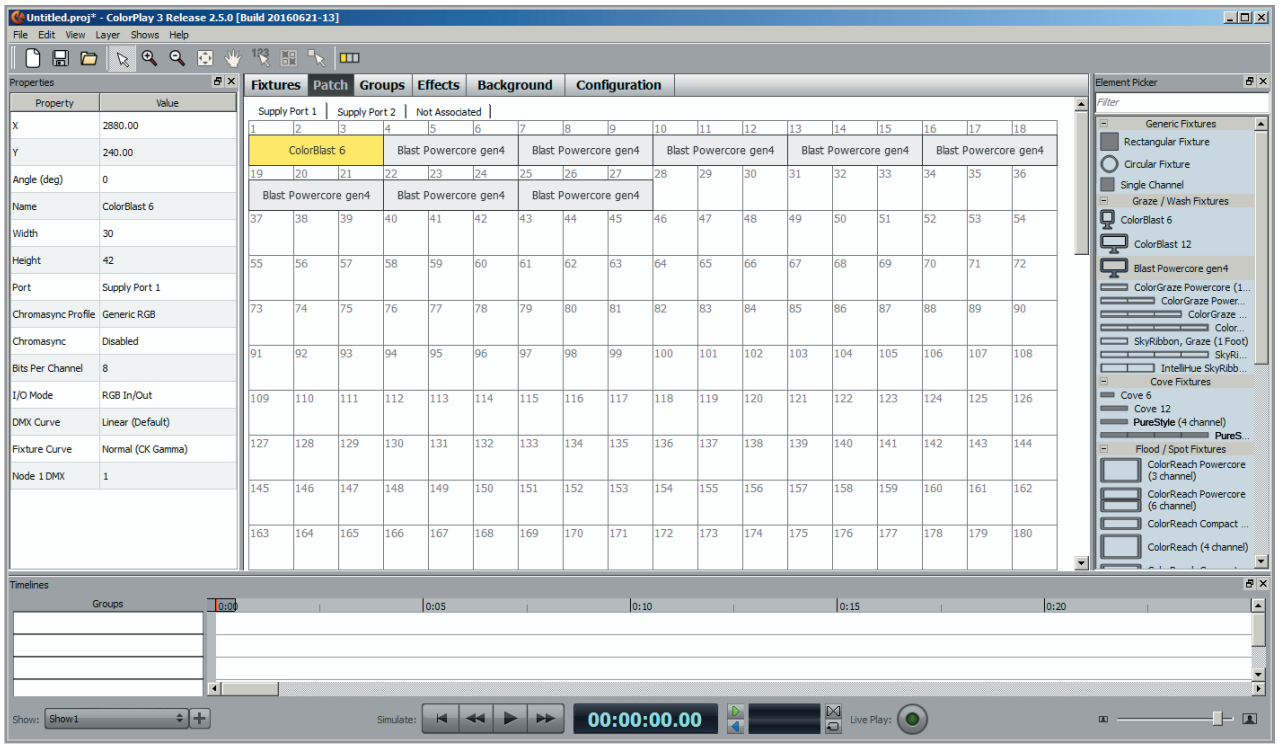


The icons on the Fixture Palette represent many of the most commonly used LED lighting fixtures from Color Kinetics. You drag these icons onto the mapping area to build a virtual map of your lighting installation. You can use the Fixture Properties Panel to rename, reposition, and readdress fixtures on the map.

> See *Chapter 3: Light Maps*

Patch Layer

The Patch Layer displays a grid of addresses for the two DMX universes that iPlayer 3 can control, and a third DMX universe for unassociated fixtures. The Fixtures Layer and Patch Layer work together: When you add and address a fixture in the Fixtures Layer, it appears in the correct location in the Patch Layer. Similarly, when you add and address a fixture in the Patch Layer, the Fixtures Layer automatically updates to reflect your changes.

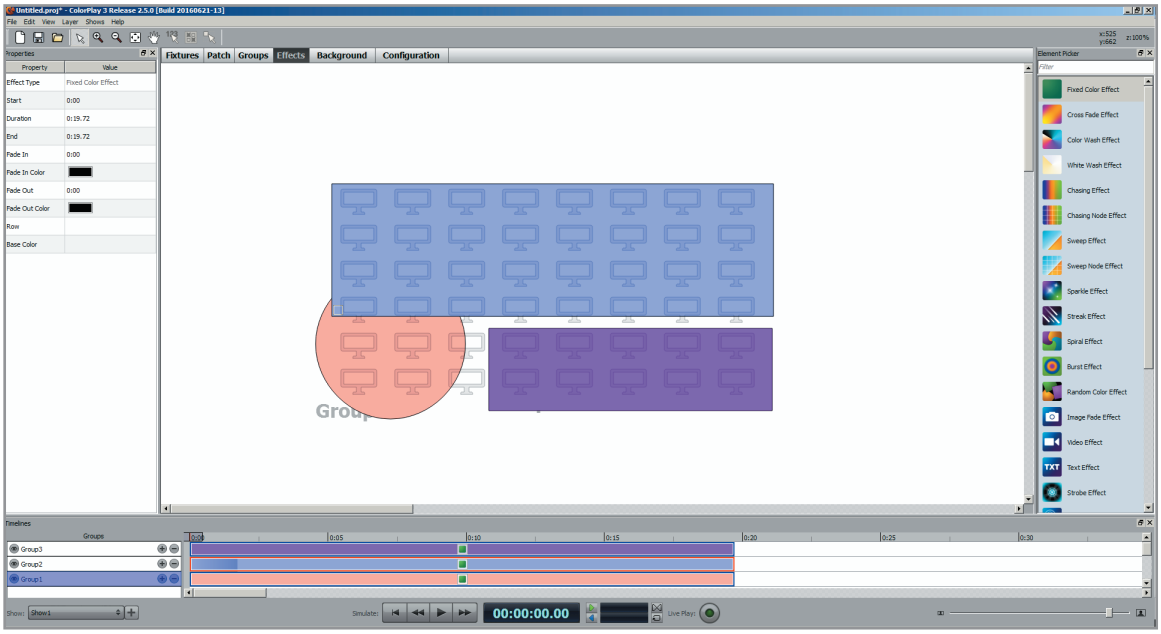


You can drag fixtures onto the Patch Layer. If a fixture has multiple nodes, you can manipulate individual nodes or the fixture as a whole.

> See *Chapter 3: Light Maps*

Groups Layer

Click the Groups tab to display the Groups Layer. You coordinate the show by assigning one or more fixtures, or nodes in one or more fixtures, to each group. Effects are applied to groups, rather than to fixtures. If you want to assign an effect to a single fixture, that fixture must be assigned to its own group. If you assign multiple fixtures to a group, you can select from a variety of preset node patterns to set the starting node, direction, or sequence for certain effects.

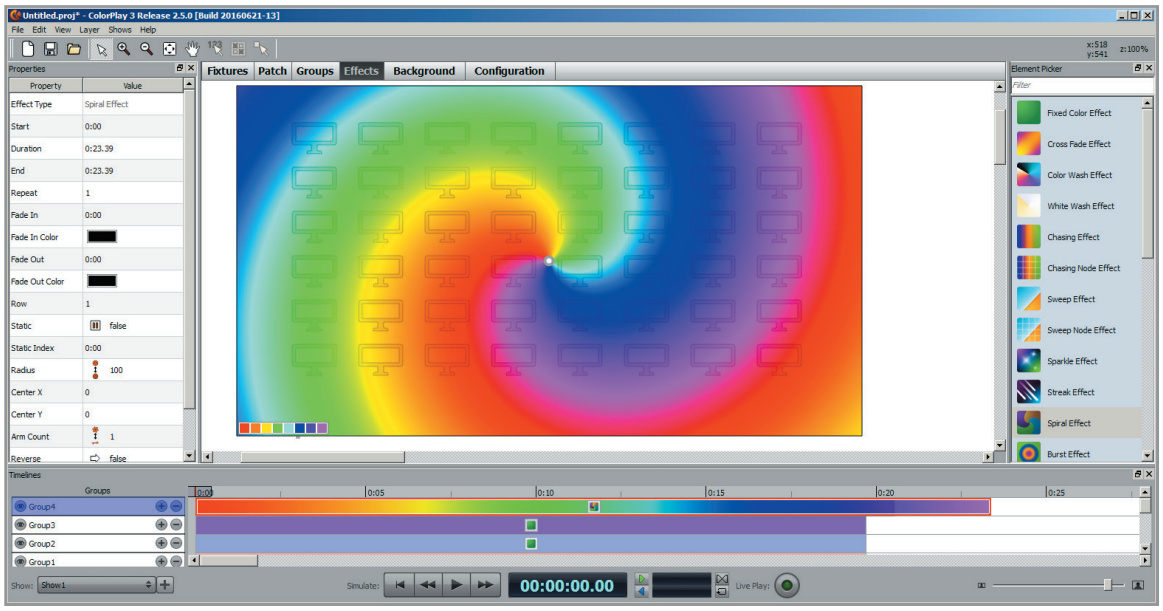


You can reposition the groups on the Groups Layer by selecting and dragging, resize them using the resize handles, and modify group properties using the Group Properties panel.

> See *Chapter 4: Groups*

Effects Layer

Click the Effects tab to display the Effects Layer. With the Effects Layer, you can assign one or more effects to each group by dragging an effect from the Effects Palette to a group.



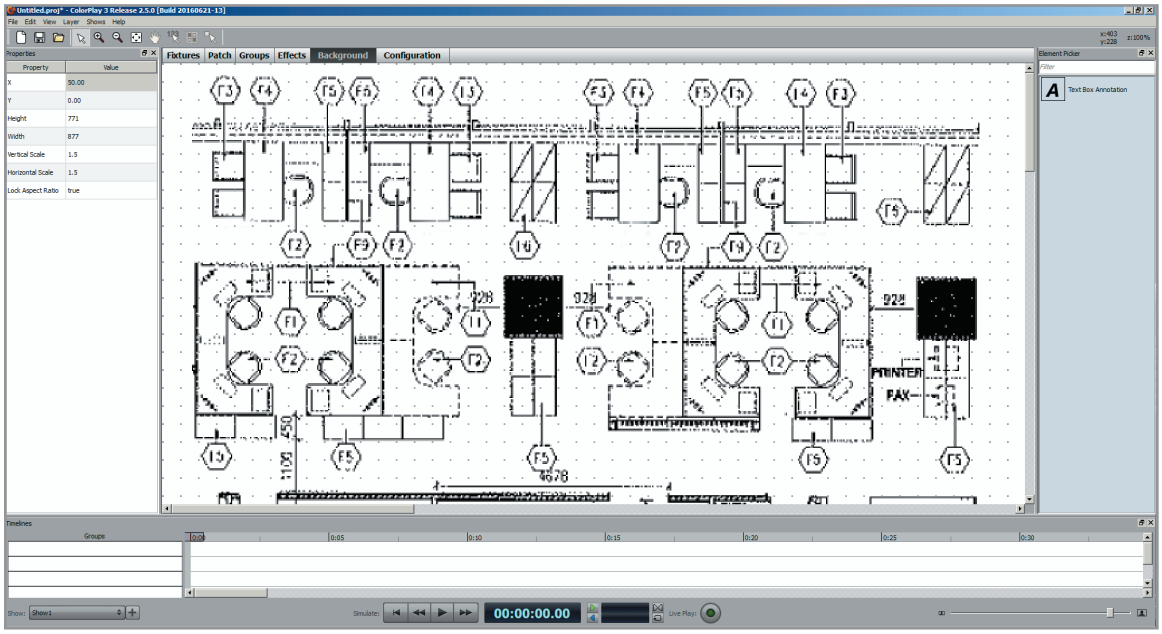
In-context tools such as the Color Palette, Effect Properties Panel, Properties Disc, and Timeline Editor give you fine control over effect properties and playback. You can choose from 24 effects, including Chasing Node, Sweep Node, and Video effects, and five modifier effects.

- Fixed Color
- Cross Fade
- Color Wash
- Chasing
- Chasing Node
- Sweep
- Sweep Node
- Sparkle
- Streak
- Spiral
- Burst
- Random Color
- Image Fade
- Video
- Text
- Strobe
- Ripple
- Particle
- Colored Bars
- Constant Modifier
- Wave Modifier
- Fade In/Fade Out Modifier
- RGB Range Modifier
- Perlin Noise Modifier

> See *Chapter 5: Effects*

Background Layer

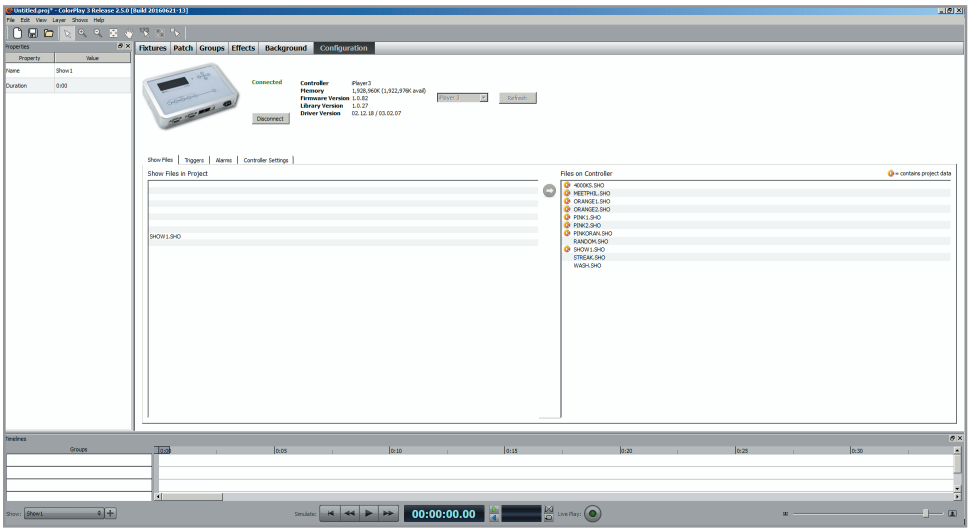
Click the Background tab to display the Background Layer. The Background Layer lets you import and annotate a static image to serve as a template for placing fixtures on the mapping grid. For example, you can use a blueprint, floor plan, or other image to represent the relative positions of lighting fixtures in an installation, then label the image to identify locations, fixtures, and key architectural features.



> See *Chapter 3: Light Maps*

Configuration Layer

Click the Configuration tab to display the Configuration panel. The Configuration panel lets you configure shows for playback with triggers and alarms, copy shows to a controller or ColorBlaze TRX fixture, and manage show files.



> See *Chapter 7: Configuring Shows*

Toolbar

The Toolbar provides tools relevant to the currently selected mapping area layer.

Pointer The Pointer is the default tool in ColorPlay 3. When the Pointer is active, ColorPlay 3 is in selection mode. Use the Pointer to make menu selections, select and move objects, click icon buttons, and so on.

Zoom In With the Zoom In tool selected, click the mapping grid to zoom in.

Zoom Out With the Zoom Out tool selected, click the mapping area to zoom out.

Zoom To Fit Click the Zoom To Fit tool to automatically resize the mapping area, displaying all fixtures and groups.

Drag Layer Using the Drag Layer tool, you can click and drag the mapping area to reposition it within the open ColorPlay 3 window.

Change Node Order The Change Node Order tool is available on the Groups Layer and Fixtures Layer. On the Groups Layer, use the Change Node Order tool to manually designate a node order. On the Fixtures Layer, use the Change Node Order tool to change the starting DMX addresses of nodes.

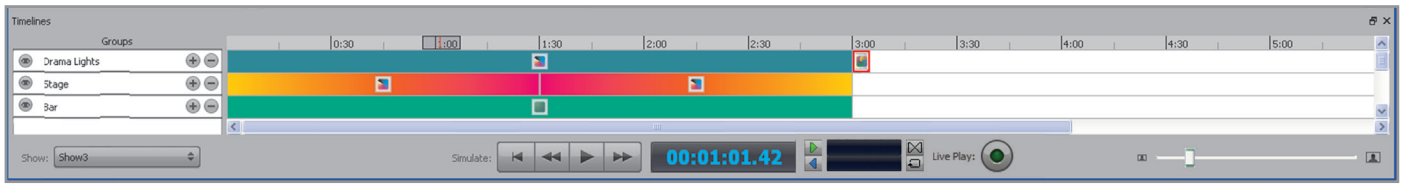
Exclude Nodes From Group The Exclude Nodes From Group tool is available in the Groups Layer. With the Exclude Nodes From Group tool active, click one or more nodes in the selected group to exclude them from the group.

Clone Fixtures The Clone Fixtures tool is available in the Fixtures Layer. With the Clone Fixtures tool active, click a fixture and then drag to create multiple instances of that fixture.

Show Fixture Profiles The Show Fixture Profiles tool is available on the Fixtures Layer, where it turns visual display of fixture profiles (fixture resolution, color control mode) on and off.

Timeline Editor

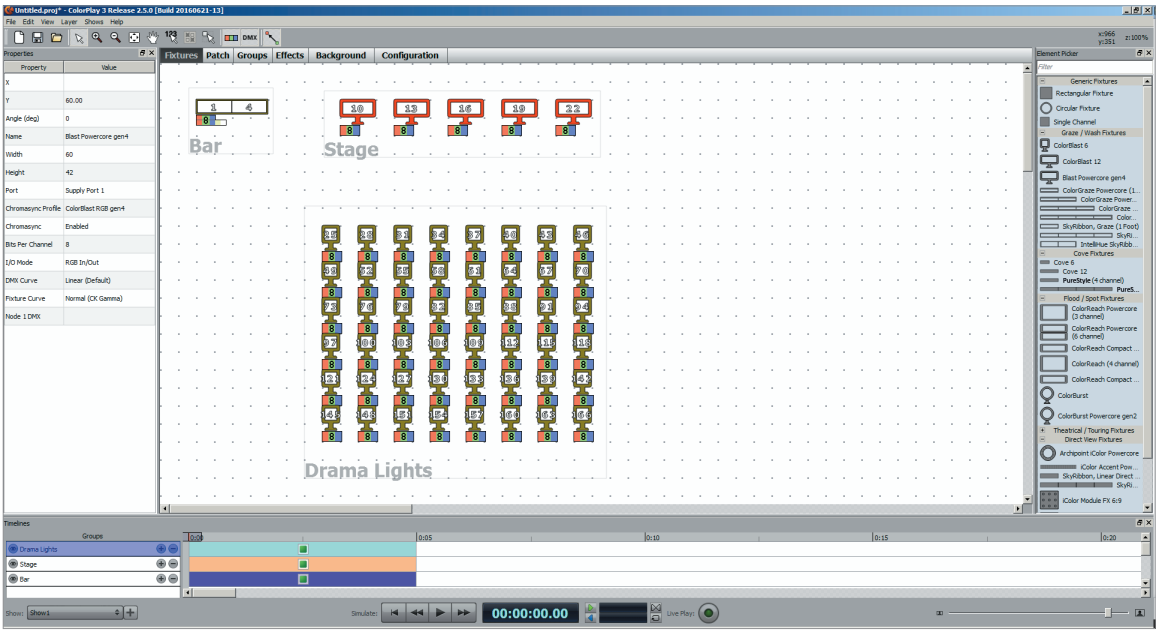
The timeline editor lets you sequence, set the duration of, and fine-tune effects. Simulation playback controls let you preview shows, either on your computer or on your installed lights.



> See *Chapter 6: Timeline Editor*

3 Light Maps

Before creating groups and assigning effects to them, you must create a *light map* in ColorPlay 3. A light map is a virtual representation of your lighting installation. To correctly direct the output of your light shows, you assign fixture addresses to your light map that match the addressing scheme of the fixtures in your installation. You create a light map using the Fixtures Layer, the Patch Layer, or a combination.



You can address and install your fixtures first, then use the addresses you assigned to create your light map in ColorPlay 3. Alternatively, you can create a light map in ColorPlay 3 first, then use the light map's addressing scheme as the lighting design plan for addressing your fixtures. It doesn't matter which approach you use, so long as the addresses in your light map match the fixture addresses in your lighting installation.

Keep in mind that your fixtures must be installed and properly addressed in order to use the Live Play show preview and simulation features in ColorPlay 3. See Chapter 6 for complete details on using Live Play.

Addressing

In order to properly address your fixtures and configure your light map, it's important to understand a few addressing-related concepts and terms.

DMX Addressing

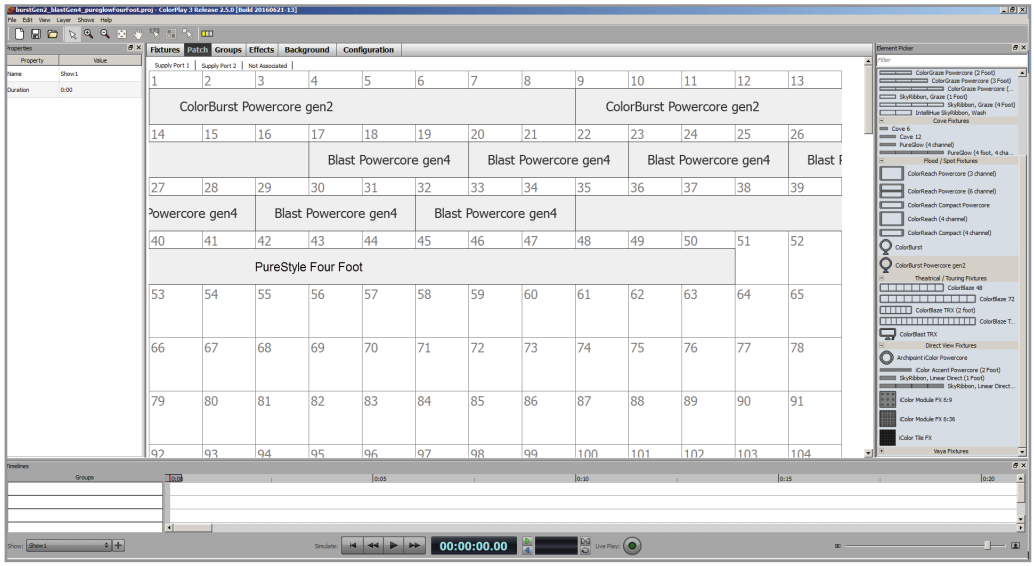
iPlayer 3 supports two *DMX universes*. Since a DMX universe consists of 512 DMX addresses, iPlayer 3 can control up to 1,024 DMX addresses simultaneously.

The number of addresses an LED lighting fixture requires depends on a number of factors, including number of LED *channels*, fixture *node count,* and fixture *resolution*:

- To display color-changing light output, a lighting fixture must have at least three separate LED channels—one channel of red LEDs, one channel of blue, and one channel of green. LED lighting fixtures with expanded color range can have more than three LED channels. ColorBlast TRX, for example, normally has five LED channels—one channel each of red, green, blue, amber, and white LEDs (RGBAW).
- Some Color Kinetics lighting fixtures have multiple *nodes*—multiple individually controllable full-color segments. ColorBlaze 72, for instance, has up to 12 individually controllable nodes, while iColor Tile MX has 144 individually controllable nodes. Many lighting fixtures have only one node. Single-node fixtures include ColorBlast Powercore, ColorBurst Powercore, C-Splash 2, and iColor MR g2.
- At 8-bit resolution, a fixture requires one DMX address per LED channel per node. At 16-bit resolution, a fixture requires two DMX addresses per LED channel per node. For example, ColorBurst Powercore gen2 RGB (8-bit resolution, one node) uses 3 DMX addresses. iColor Flex LMX gen2 (RGB, 8-bit resolution, 50 nodes) uses 150 DMX addresses. ColorBlast TRX uses 3, 5, 6, or 10 DMX addresses depending on configuration (RGB or RGBAW, 8-bit or 16-bit, one node).

When you address a fixture, you set its *starting DMX address*. Sequential DMX addresses are automatically assigned to the fixture beginning with the starting DMX address. You can quickly view the starting DMX address and total number of addresses assigned to a fixture on the Patch Layer. The light map shown below, for instance, shows the following:

- Two ColorBurst Powercore gen2 fixtures, each using eight DMX addresses (RGBA, 16-bit, single node), with starting addresses of 1 and 9, respectively
- Six ColorBlast Powercore gen4 fixtures, each using three DMX addresses each (RGB, 8-bit, single node)
- One PureStyle Intelligent Color Powercore, RGBA fixture, using 16 consecutive addresses (RGB, 8-bit, four nodes).



In 16-bit mode, DMX addresses are assigned to LED channels in pairs. Let's use the ColorBurst Powercore gen2 fixture as an example, shown in the previous image. The fixture has a starting DMX address of 1 and contains four LED channels (red, green, blue, and amber. In 16-bit mode, the fixture is addressed as follows:

1	2	3	4	5	6	7	8
Red Coarse	Red Fine	Green Coarse	Green Fine	Blue Coarse	Blue Fine	Amber Coarse	Amber Fine

Fixture Addressing

As described in the *Addressing and Configuration Guide*, you address and configure your lighting fixtures using either QuickPlay Pro addressing and configuration software or a fixture's or power/data supply's on-board controls. Although addressing and configuration methods can differ depending on fixture type, the end result is always the same: assigning consecutive DMX addresses to each fixture node. For your light shows to function properly, the DMX addressing in your ColorPlay 3 light map must match the DMX addressing in your real-world installation.

Nodes which are intended to display the same light output simultaneously can all use the same DMX addresses. Certain effects, such as Fixed Color, Cross Fade, Color Wash, and Random Color, always show the same light output on all nodes simultaneously. For all other effects, which show different light output on different nodes simultaneously, you must assign unique DMX addresses to each node. For complex installations with many nodes, careful planning may be necessary to avoid exceeding the iPlayer 3 limit of 1,024 unique DMX addresses.

A Note About Light Numbers

In QuickPlay Pro, you can address fixture nodes using either DMX starting addresses or *light numbers*. Light numbers are a shorthand for identifying the DMX channels assigned to a node. They work best in installations that include three-channel nodes only. For installations including fixtures with nodes of more than three channels, such as ColorReach Powercore gen2 and ColorBlast TRX, we recommend using DMX addressing in QuickPlay Pro to avoid confusion.

Fixtures Layer vs. Patch Layer: Which to Use?

You can create a light map using either the Fixtures Layer or the Patch Layer. Because each layer offers different capabilities and a different view of the map, you'll probably use both layers. The Fixtures Layers gives you a *spatial* view of your light map: that is, you can arrange your fixtures spatially to mimic or approximate your lighting installation. The Patch Layer, on the other hand, gives you an *addressing* view of your light map: fixtures appear in order by starting DMX address, regardless of their positioning relative to one another in space.

If you make changes to fixture addressing, DMX universe assignment, node type, dimming curve, or name on the Fixtures Layer, those changes are automatically reflected on the Patch Layer, and vice versa. Some features of the Fixtures Layer—fixture icons, their x and y coordinates, and their height and width—are not relevant to the Patch Layer and are therefore not shown. Similarly, the Zoom To Fit, Change Node Order, and Clone Fixtures tools are unavailable on the Patch Layer.

Creating a Light Map with the Fixtures Layer

With the Fixtures Layer, you can arrange fixture icons on the mapping area to approximate the placement of fixtures in your lighting installation. For help in creating your virtual layout, you can import a static image, such as a blueprint or graphic via the Background Layer, and annotate it. This annotated image appears as a guide underneath the mapping grid on the Fixtures Layer.

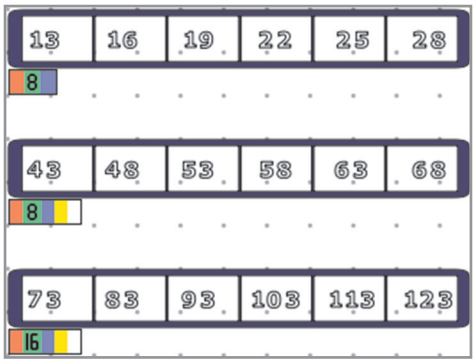
Adding Fixtures to the Fixtures Layer

To save you time and help distinguish between different types of fixtures in an installation, the Fixture Palette offers pre-configured icons for many of the most commonly used Color Kinetics LED lighting fixtures.

To add fixtures to the Fixtures layer:

1. Click the Fixtures tab to open the Fixtures Layer, or choose Layer>Fixtures.
2. Drag a fixture icon from the Fixture Palette to the mapping area. ColorPlay 3 automatically assigns the appropriate number of DMX addresses in sequence, beginning with the starting DMX address
   - Single-node fixtures use a single set of consecutive DMX addresses. Use the generic Rectangular Fixture icon to represent fixtures that have no Fixture Palette icons, or to represent individual nodes in any multiple-node fixture.
   - Multiple-node fixtures have two or more nodes. ColorPlay 3 automatically assigns a sequence of starting DMX addresses to each fixture node. When you change the fixture's starting DMX address, ColorPlay 3 automatically updates the addresses for all subsequent nodes in the fixture.

     ColorPlay 3 automatically increments the starting DMX for each node according to the fixture's node type. For example. each of the three ColorBlaze TRX fixtures shown below has a different node type. The first fixture has six 8-bit RGB nodes, each of which takes three DMX addresses. With a starting DMX address of 13, ColorPlay 3 automatically assigns starting DMX addresses to each subsequent node, in increments of three. The second fixture has six 8-bit RGBAW nodes, each of which takes five DMX addresses, so the starting DMX address of each subsequent node is incremented by five. The third fixture has six 16-bit RGBAW nodes, each of which takes 10 DMX addresses, so the starting DMX address of each subsequent node is incremented by 10.



For some fixtures, such as iColor Module and iColor Tile, ColorPlay 3 displays the starting DMX address of the first node only. (iColor Tile has two node sequences, so it displays the starting and ending DMX addresses for each sequence as a convenience.)

Single-Node Fixtures


ColorBlast 6


ColorBlast 12/Blast Powercore gen4


ColorBlast TRX


iColor Cove 6 in/12 in


Circular Fixture


ColorBurst


ColorReach Powercore 3-channel


Rectangular Fixture

Multiple-Node Fixtures


ColorBlaze 48


ColorBlaze 72


ColorBlaze TRX 2 ft

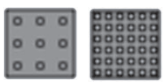

ColorBlaze TRX 6 ft


ColorReach Powercore 6-channel


ColorGraze Powercore 2 ft


ColorGraze Powercore 4 ft


iColor Accent Powercore 2ft


Module 6:9/Module 6:36


Tile

ColorGraze Powercore is a special case. Each ColorGraze Powercore node has its own serial number and starting DMX node property. This means that you must set each starting DMX address individually; ColorPlay 3 does not automatically increment the starting DMX addresses of subsequent nodes.

Other fixtures, such as iColor Accent Powercore and the four ColorBlaze fixtures, have variable node counts. Icons for these fixtures use the maximum node counts. If you're using these fixtures at lower node counts, use the correct number of Rectangular Fixture icons or other single-node fixture icons instead.

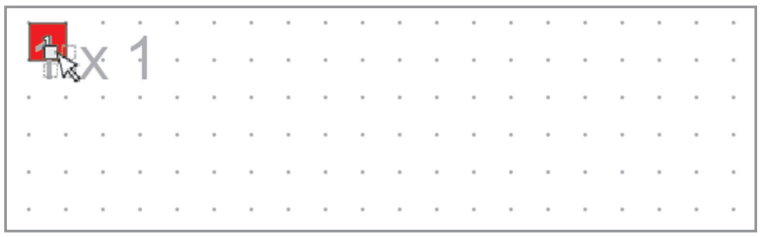
Single Channel icon for ColorBlaze TRX intensity channel

ColorBlaze TRX has an optional intensity channel, which you can enable to change the brightness of all LED channels simultaneously. When the intensity channel is enabled, each ColorBlaze TRX node consumes six DMX addresses in 8-bit mode, and 12 DMX addresses in 16-bit mode. To represent the intensity channel in a ColorPlay 3 light show, use the single-channel fixture

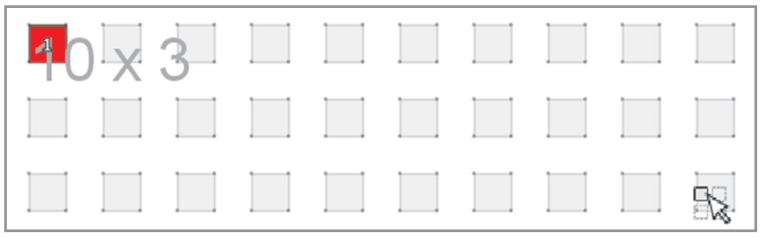
3. Continue adding fixture icons until you have completed your light map:
   - You can continue dragging icons from the Fixture Palette to the mapping area as described in step 2.
   - You can duplicate fixtures by copying and pasting them. Right-click one or more selected fixtures and choose Copy from the pop-up menu, then right-click on the mapping area and choose Paste. Fixtures are assigned to the next available starting DMX addresses in order.
   - You can use the Clone Fixtures tool to rapidly add multiple fixtures of the same type. Click the Clone Fixture tool, select the fixture you want to clone . . .

Clone Fixtures tool

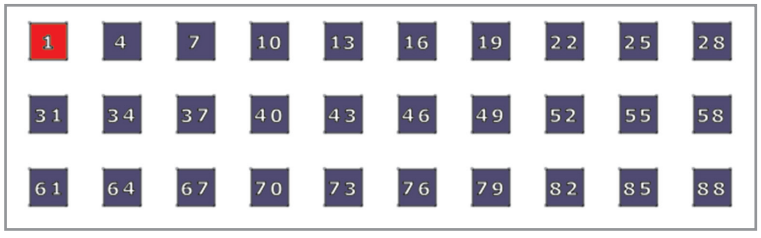
You can also activate the Clone Fixtures tool by pressing C and dragging the mouse.



. . . drag the mouse until the preview shows the fixtures you want to create . . .



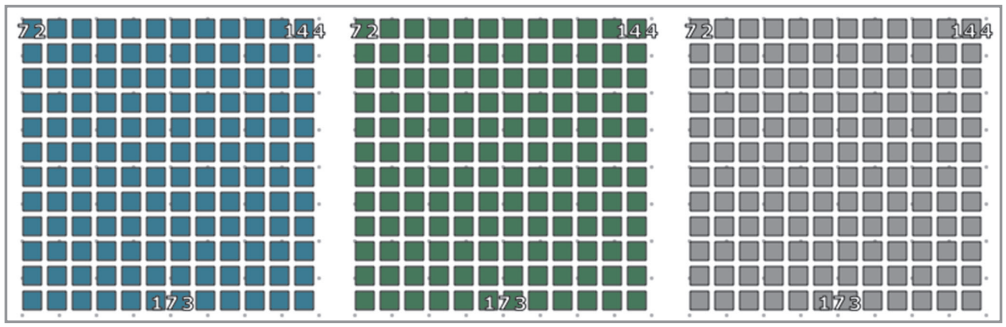
. . . . then release the mouse. ColorPlay 3 creates the icons, and assigns starting DMX addresses to them in sequence.



Associating Fixtures with a DMX Universe

iPlayer 3 has two output ports, each of which controls a DMX universe of 512 channels. By default, ColorPlay 3 associates nodes with one DMX universe until all 512 channels are assigned, then associates nodes with the other DMX universe. Nodes added after all channels have been assigned are unassociated.

For easy recognition, nodes associated with DMX universe 1 are blue, nodes associated with DMX universe 2 are green, and unassociated nodes are gray.



Associated with DMX universe 1 Associated with DMX universe 2 Unassociated

To change the association of nodes:

1. Select one or more fixture icons, then choose Associate from the pop-up menu.
2. Select Supply Port 1 or Supply Port 2.
3. Click OK.

To unassociate nodes:

Select one or more fixture icons, and choose Unassociate from the pop-up menu.

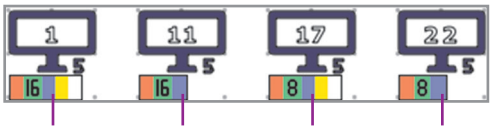
Changing Fixture Node Type and Displaying Fixture Profiles

Some fixtures, such as ColorBurst Powercore, ColorReach Powercore, and ColorBlast TR, can operate in both 8-bit and 16-bit mode. Fixtures such as ColorBlast TRX and ColorBlaze TRX can also accept both three-channel RGB input and five-channel RGBAW input. The node types assigned to fixtures in your light map must match the configuration of the fixtures in your lighting installation. You can display fixture profiles in the mapping area so that you can view the current node type assignments at a glance.

- To display fixture profiles in the mapping area, click the Show Fixture Profiles tool. Node type icons appear beneath each fixture on the light map.

  For example, the four ColorBlast TRX fixture icons below show the four node types the fixture supports.

Show Fixture Profiles tool



To change a fixture's node type:

1. Select a fixture.
2. In the Properties panel, select a node type from the Node Type list. Make sure that the node type you select is supported by the fixture.

Property	Value
X	120.00
Y	90.00
Name	ColorBlast TRX
Width	60
Height	43
Port	iPlayer3 DMX 1
Node Type	8-bit RGBAW
Curve	Linear
Node 1 DMX	1

The Node 1 DMX property for a ColorBlast TRX fixture.

Change Node Order tool

Changing DMX Starting Addresses

As you add fixtures to the mapping area, ColorPlay 3 automatically assigns the next available set of consecutive DMX addresses in sequence. If necessary, you can change the starting DMX addresses in your light map to match the DMX addresses of the fixtures in your lighting installation. You can change the starting DMX address(es) of a fixture's node(s) with the Fixtures Property Panel or the Change Node Order tool.

Remember that the DMX addresses in your light map must match the addressing of your lighting installation. However, node addresses are not used to determine the node order for effects. Instead, node order for effects is determined by a group's node pattern, the effect itself, or a combination of the two.

To change the starting DMX address for a fixture or node:

1. Do one of the following:
   - Select a fixture on the light map, then enter the Node DMX property in the Fixtures Property Panel.
   - Click the Change Node Order tool, then click the fixture the starting DMX address of which you want to change on the light map.

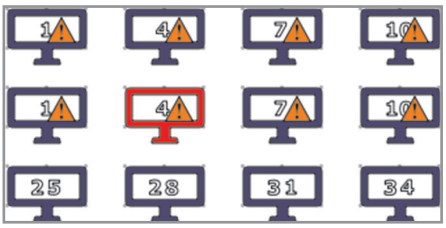
   Single-node fixtures have one Node DMX property (Node 1 DMX).

   Except for ColorGraze Powercore fixtures, multiple-node fixtures also have one Node DMX property (Node 1 DMX), which represents the starting address for the first node in the fixture. Starting DMX addresses are automatically assigned in sequence beginning with the address entered in Node 1 DMX.

   ColorGraze Powercore (2 Foot) fixtures have two Node DMX properties (Node 1 DMX and Node 2 DMX), and ColorGraze Powercore (4 Foot) fixtures have four (Node 1 DMX through Node 4 DMX). Each of these properties is set individually.
2. Enter a new starting DMX address.

   Although the range of DMX addresses in a universe is 1 – 512, the highest starting DMX address you can assign depends on how many addresses a fixture requires. For instance, the highest starting DMX address you can assign to a single-node 8-bit RGB fixture is 510, because the fixture requires three consecutive DMX addresses (510, 511, 512). The highest starting DMX address you can assign to an 18-node 16-bit RGBAW fixture is 333, because the fixture requires 180 consecutive DMX addresses (333 through 512).
3. If using the Change Node Order tool, press Tab and Shift-Tab to move forward and backward through the nodes the starting DMX addresses of which you can change. Enter new starting DMX addresses for each node that you want to change.

An orange warning icon appears on each node with conflicting DMX addresses. This is informational only, as some lighting schemes call for certain (or all) nodes to have the same addresses. Your light shows display properly as long as the addressing in your light map and your lighting installation match.



Changing a Fixture's Dimming Curve

Many 8-bit LED lighting fixtures from Color Kinetics have a built-in dimming curve (Normal, or CK Gamma) that ensures smooth fading down to and up from black. For many fixtures with 16-bit operation, the dimming curve is always linear in 16-bit mode. Some fixtures, such as ColorBlast TRX and ColorBlaze TRX, offer the ability to set different dimming curves using on-board controls.

To support installations that contain a mixture of fixture types, ColorPlay 3 lets you explicitly assign dimming curves to individual fixtures:

- *Linear* No dimming curve is applied to the ColorPlay 3 data (applied by default)
- *Normal (CK Gamma)* The non-linear (gamma) dimming curve used in most Color Kinetics LED lighting fixtures.
- *Tungsten/Incandescent* A non-linear dimming curve that emulates the dimming curve of incandescent lamps on a DMX dimmer. This curve offers the most control at low intensities.

If a fixture has no dimming curve of its own, assigning a dimming curve in ColorPlay 3 applies dimming behavior to that fixture. If a fixture has its own dimming curve, the behavior of the ColorPlay 3 dimming curve is *added* to the behavior of the dimming curve on the fixture itself. To avoid unexpected results, make sure you understand how dimming curves interact in such situations.

For example, an installation contains both ColorGraze Powercore and iColor Flex LMX gen2 fixtures. ColorGraze is 16-bit-capable, and its dimming curve is always linear in 16-bit mode. iColor Flex LMX gen2 is 8-bit only, and its dimming curve is always Normal. To ensure that the dimming curves of these two fixtures produce consistent behavior in your light show, set the dimming curve of each fixture in ColorPlay 3 to compensate for the differences between them. Assign the Linear dimming curve to the iColor Flex LMX gen2 fixtures, and the Normal curve to the ColorGraze fixtures. When you render your show, all fixtures should produce the same dimming behavior (normal and linear).

To set a fixture's dimming curve:

1. Select a fixture.
2. In the Properties panel, select a dimming curve from the Fixture Curve list.

Renaming Fixtures

By default, fixture names are the fixture types (every ColorBlast 6 fixture is named ColorBlast 6, for example). You can rename fixtures in the Fixtures Property Panel to further distinguish them.

To rename a fixture:

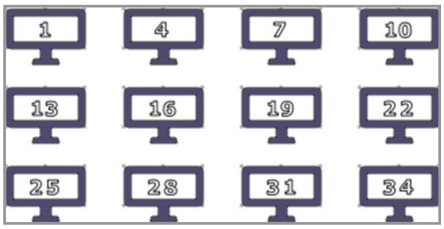
Select a fixture in the mapping area, and then enter a new name in the Name property.

Arranging Fixtures on a Light Map

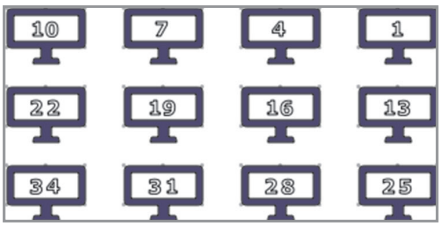
Once you've added fixtures to your light map, you can move them, align them, distribute them evenly over an area, or change their width, height, or orientation.

To arrange fixtures on the light map:

- To move fixtures, select one or more fixture icons in the mapping area and drag them.



Before flipping horizontally



After flipping horizontally

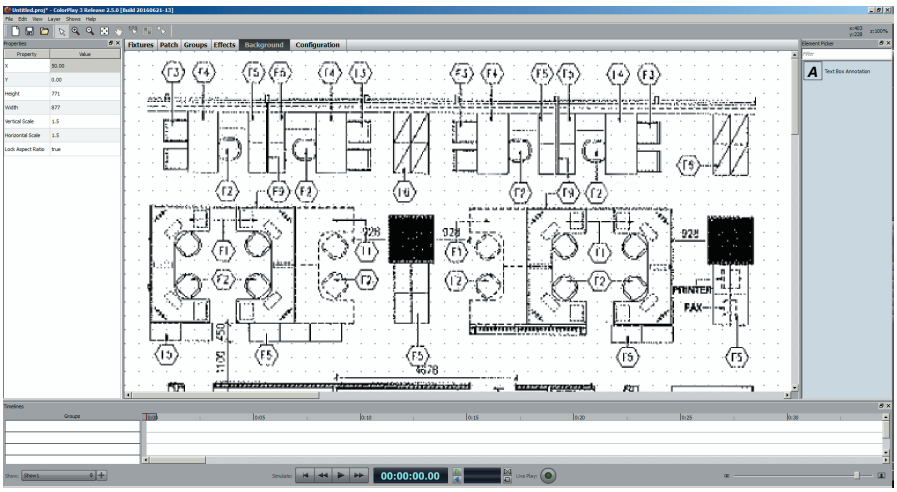
- To change the orientation of a group of fixtures, select two or more fixture icons in the mapping area, right-click, and select Flip Horizontally or Flip Vertically.
- To change the width and height of fixtures, select one or more fixture icons in the mapping area. Enter the desired Width and Height in the Fixtures Property Palette.
- To align a group of fixtures, select two or more fixture icons in the mapping area and right-click. Click Align, and then select an alignment option (Top, Bottom, Left, Right, Horizontal Center, or Vertical Center).
- To distribute a group of fixtures evenly across an area, select two or more fixture icons in the mapping area and right-click. Select Distribute>Horizontal Centers to spread fixtures evenly from top to bottom, or Distribute>Vertical Centers to spread fixtures evenly from left to right.

To delete fixtures:

Select one or more fixture icons in the mapping area, right-click, and select Delete.

Adding a Background Image to a Light Map

The Background Layer lets you import a static image for the background of a light map. You can use a blueprint or graphic as a reference for placing fixtures on the mapping grid, then annotate the image. For example, you can identify lighting fixtures, areas, and architectural elements.



To choose a background image:

1. Click the Background tab to display the Background Layer.
2. Right-click anywhere on the mapping area, and select Choose Image from the pop-up menu.
3. Navigate to an image file, and click Open.

To change the size of the background image:

In the Properties panel, adjust the size of the background image using the Height, Width, Vertical Scale, or Horizontal Scale controls.

To lock the aspect ratio of the image, set the Lock Aspect Ratio control to true. Otherwise, set it to false.

To annotate the background image:

1. Double-click the Text Box Annotation tool. A text box with placeholder text appears on the Background layer.
2. To edit the annotation text, double-click the text Value property in the Properties panel, and enter your text. You can change the typeface and type size with the Font and Text Size properties.
3. To resize the annotation, use the mouse to drag the edges or corners of the text box, or use the Width and Height properties.
4. To reposition the annotation, position the mouse pointer inside the text box and drag it to a new location, or use the X and Y properties.

Text Box Annotation tool

To delete the background image:

Right-click anywhere on the Background Layer, and then select Clear Image.

Creating a Light Map with the Patch Layer

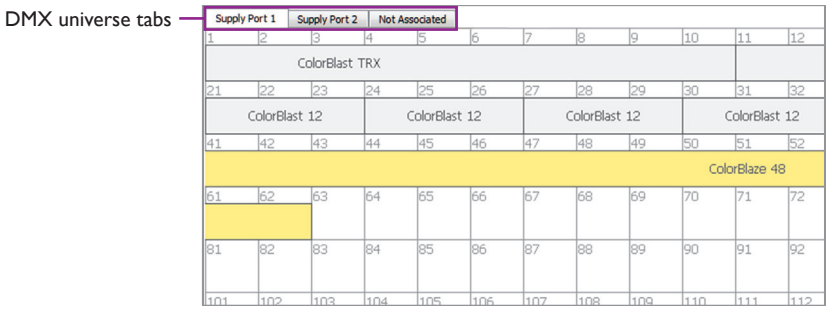
You use the Fixtures Layer, the Patch Layer, or a combination of the two to create a light map, which is a virtual representation of your lighting installation in ColorPlay 3. To save time and help distinguish between different types of fixtures in an installation, the Fixture Palette offers pre-configured icons for many of the most commonly used Color Kinetics LED lighting fixtures.

Adding Fixtures to the Patch Layer

The Patch Layer contains two grids of 512 DMX addresses. One grid associates fixtures with DMX Universe 1 (Supply Port 1), the other with DMX Universe 2 (Supply Port 2). A third grid lets you add fixtures without assigning them to a DMX universe (not associated).

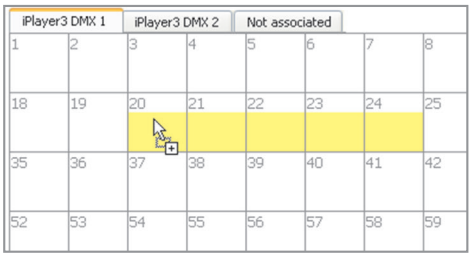
To add fixtures to the Patch Layer:

1. Click the Patch tab to open the Patch Layer, or choose Layer>Patch.
2. Click the Supply Port 1 or Supply Port 2 tab along the top of the mapping area to choose the DMX universe to which you want to associate fixtures. To add fixtures without associating them to a DMX universe, click the Not Associated tab.



Do one of the following:

- Drag a fixture icon from the Fixture Palette to the DMX address that you want to set as the fixture's starting address. ColorPlay 3 automatically assigns the appropriate number of DMX addresses in sequence, starting with the starting DMX address.

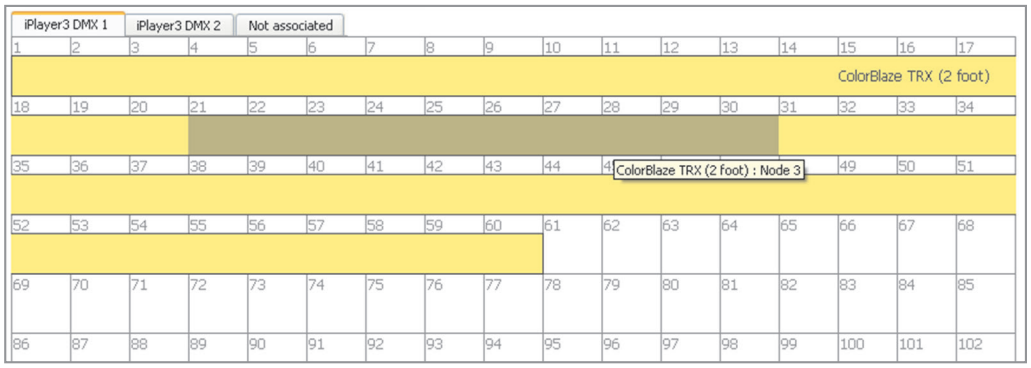


- Double-click a fixture icon in the Fixture Palette to automatically assign the next available DMX starting address to the fixture.

Single-node fixtures use a single set of consecutive DMX addresses. Use the generic Rectangular Fixture icon to represent fixtures that have no Fixture Palette icons, or to represent individual nodes in any multiple-node fixture.

Multiple-node fixtures have two or more nodes. ColorPlay 3 automatically assigns a sequence of starting DMX addresses to each fixture node. When you change the fixture's starting DMX address, ColorPlay 3 automatically updates the addresses for all subsequent nodes in the fixture.

When you move the pointer over a multiple-node fixture on the Patch Layer, the individual nodes are highlighted. For example, the 2-foot ColorBlaze TRX in the illustration below has six nodes, and is set to 16-bit RGBAW. Each node uses 10 consecutive DMX addresses for a total of 60. The fixture's starting DMX address is 1; node 3, which uses DMX addresses 21 through 30, is highlighted.



Accent Powercore, Accent Compact, and ColorBlaze fixtures have variable node counts. Icons for these fixtures use the maximum node counts. If you're using these fixtures at lower node counts, use the correct number of Rectangular Fixture icons or other single-node fixture icons instead.

3. Continue adding fixtures to your light map, as needed:

   - You can continue double-clicking icons in the Fixture Palette, or dragging them to the mapping area, as described in step 2.
   - You can duplicate fixtures by copying and pasting them. Click a fixture to select it, or hold the Ctrl key while clicking to select multiple fixtures. Select Edit>Copy, then Edit>Paste. Fixtures are assigned to the next available starting DMX addresses in order.

Changing a Fixture Node Type

Some fixtures, such as ColorBurst Powercore, ColorReach Powercore, and ColorBlast TR, can operate in both 8-bit and 16-bit mode. Fixtures such as ColorBlast TRX and ColorBlaze TRX can also accept both three-channel RGB input and five-channel RGBAW input. The node types assigned to fixtures in your light map must match the configuration of the fixtures in your lighting installation.

To change a fixture node type:

1. Select a fixture.
2. In the Properties panel, select a node type from the Node Type list. Make sure that the node type you select is supported by the fixture.

Changing DMX Starting Addresses and Universe Assignments

After adding fixtures to your light map, you can change their starting DMX addresses and universe assignments.

Remember that the DMX addresses in your light map must match the addressing of your lighting installation. However, node addresses are not used to determine the node order for effects. Instead, node order for effects is determined by a group's node pattern, the effect itself, or a combination of the two.

To change starting DMX addresses and universe assignments:

1. Select a fixture on the light map, then enter a new Node DMX starting address in the Fixtures Property Panel.

   Although the range of DMX addresses in a universe is 1 – 512, the highest starting DMX address you can assign depends on how many addresses a fixture requires. For instance, the highest starting DMX address you can assign to a single-node 8-bit RGB fixture is 510, because the fixture requires three consecutive DMX addresses (510, 511, 512). The highest starting DMX address you can assign to an 18-node 16-bit RGBAW fixture is 333, because the fixture requires 180 consecutive DMX addresses (333 through 512).
2. If necessary, change the universe assignment of a fixture by doing one of the following:
   - Select a fixture on the light map, then select a universe assignment from the Port list in the Properties Panel.
   - Select a fixture in the Patch layer, and then select Edit>Cut. Click the tab for the universe to which you want to assign the fixture, then select Edit>Paste.

Resolving DMX Addressing Conflicts

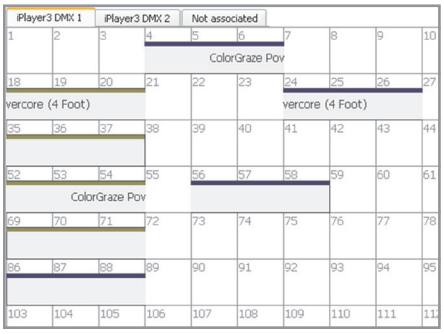
A red warning triangle appears on each DMX address to which more than one fixture has been assigned. This warning is informational only, as some lighting schemes call for certain (or all) nodes to have the same addresses. Your light shows display properly as long as the addressing in your light map and your lighting installation match.

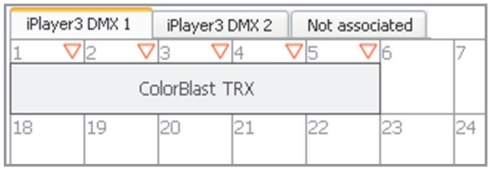
In the illustration below, for example, two ColorBlast TRX fixtures are assigned to the same set of DMX addresses. If this is not the way you want your fixtures to be addressed, drag one ColorBlast TRX fixture to a set of DMX addresses that are currently not in use.

fixture has four. You can address a ColorGraze Powercore fixture using a starting DMX address for its first node, like any other fixture. You can also give each fixture node its own starting DMX address.

To address ColorGraze Powercore nodes individually, click the Select Node Group icon. Double-click the node you want to readdress, then drag it to a new starting DMX address. For identification purposes, a color-coded band appears at the top of each fixture node when nodes are addressed non-consecutively.

The illustration below shows a portion of a light map with two 4-foot ColorGraze Powercore fixtures, each node of which is addressed individually. One fixture is color-coded purple, and the other green.





Changing a Fixture's Dimming Curve

Many 8-bit LED lighting fixtures from Color Kinetics have a built-in dimming curve (Normal, or CK Gamma) that ensures smooth fading down to and up from black. For many fixtures with 16-bit operation, the dimming curve is always linear in 16-bit mode. Some fixtures, such as ColorBlast TRX and ColorBlaze TRX, offer the ability to set different dimming curves using on-board controls.

To support installations that contain a mixture of fixture types, ColorPlay 3 lets you explicitly assign dimming curves to individual fixtures:

- Linear No dimming curve is applied to the ColorPlay 3 data (applied by default)
- Normal (CK Gamma) The non-linear (gamma) dimming curve used in most Color Kinetics LED lighting fixtures.
- Tungsten/Incandescent A non-linear dimming curve that emulates the dimming curve of incandescent lamps on a DMX dimmer. This curve offers the most control at low intensities.

If a fixture has no dimming curve of its own, assigning a dimming curve in ColorPlay 3 applies dimming behavior to that fixture. If a fixture has its own dimming curve, the behavior of the ColorPlay 3 dimming curve is *added* to the behavior of the dimming curve on the fixture itself. To avoid unexpected results, make sure you understand how dimming curves interact in such situations.

For example, an installation contains both ColorGraze Powercore and iColor Flex LMX fixtures. ColorGraze is 16-bit-capable, and its dimming curve is always linear in 16-bit mode. iColor Flex LMX is 8-bit only, and its dimming curve is always CK gamma. To ensure that the dimming curves of these two fixtures produce consistent behavior in your light show, set the dimming curve of each fixture in ColorPlay 3 to compensate for the differences between them. Assign the Linear dimming curve to the iColor Flex LMX fixtures, and the Normal curve to the ColorGraze fixtures. When you render your show, all fixtures should produce the same dimming behavior (normal + linear).

To set a fixture's dimming curve:

1. Select a fixture.
2. In the Properties panel, select a dimming curve from the Fixture Curve list.

Renaming or Deleting Fixtures

By default, fixture names are the fixture types. For example, every ColorBlast 6 fixture you add to your light map is named ColorBlast 6. You can rename fixtures in the Fixtures Property Panel to further distinguish them, to match naming conventions in your lighting system design, and so on.

To rename fixtures:

Select a fixture in the mapping area, click the Name property, and enter a new name.

To delete fixtures:

Select one or more fixtures in the mapping area, and click Edit>Delete, or press the Delete key.

Importing and Exporting Fixture Information

You can export fixture information from a light map to a .CSV (comma-separated value) file, or import fixture information from a .CSV file to a light map. As applicable for each fixture on a light map, exported information includes:

- Serial number
- Starting DMX address
- Fixture type
- Controller
- IP address
- Fixture name
- Manufacturer
- X and Y coordinates of fixture icon on Fixtures Layer
- Port (universe)
- Starting DMX address of each node
- Node type

To export fixture information from a light map:

1. Select File>Export Fixture Information.
2. Specify a file a name and location, and then click Save.

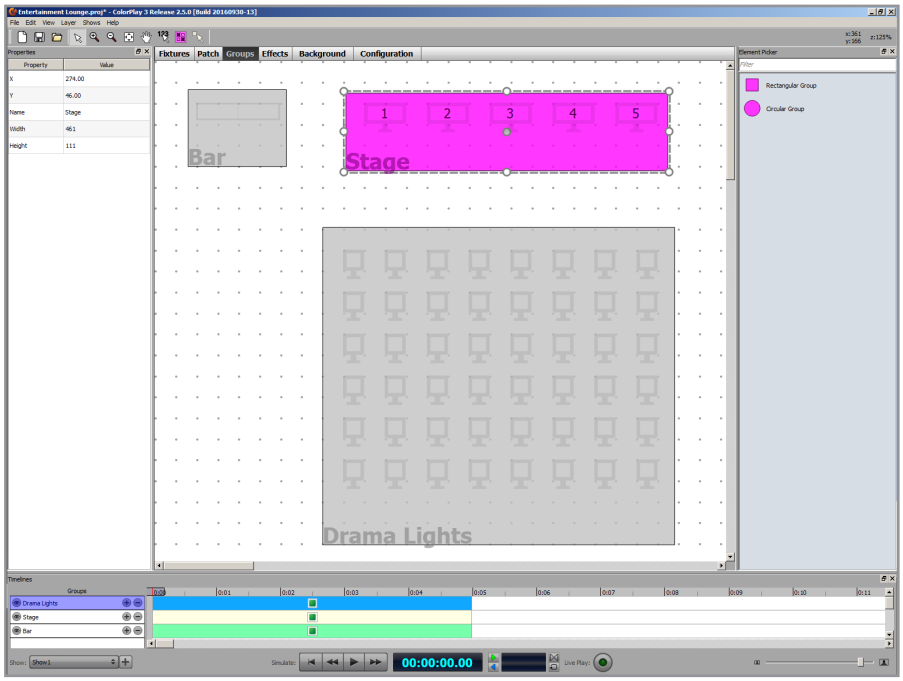
To import fixture information to a light map:

1. Select File>Import Fixture Information.
2. Select a .CSV file containing exported fixture information, and then click Open.

4 Groups

Once you've created your light map, you can start creating *groups*. Groups are virtual sets of light nodes to which you can assign effects. A group can include a single node or fixture, all the nodes or fixtures in your installation, or a partial set of nodes or fixtures.

Groups assign a *node order* to the nodes that they contain. The node order of a group modifies the behavior of effects for which the sequencing of nodes matters—Chasing Node, Sweep Node, and Streak. ColorPlay 3 offers six built-in node order schemes, or you can create your own custom node order.



For effects where node order matters, the node order of a group overrides the DMX addressing scheme of the light map. All other effects treat the set of nodes in a group as a virtual grid. For these effects, direction of movement is determined by effect properties.

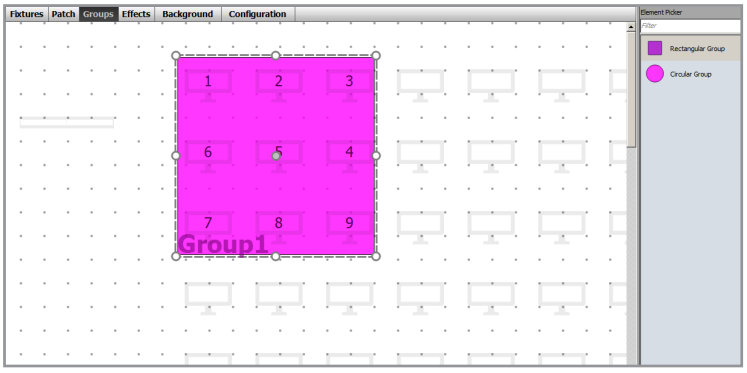
Many light shows require only a few groups at the most. Intricate shows requiring many groups can become complex very quickly, so it's a good idea to have a basic understanding of group and effect behavior before attempting to create complex light shows.

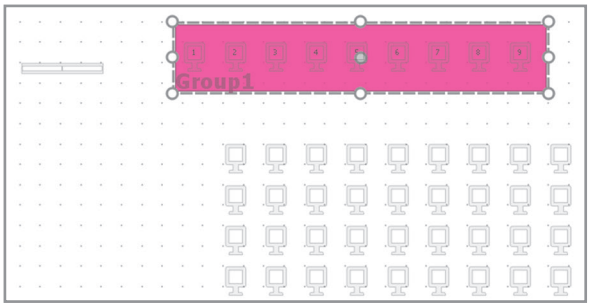
Adding Groups to a Light Map

Groups create virtual sets of light nodes. Groups can include one or more nodes or fixtures. Groups can overlap, and they can include some nodes of a multiple-node fixture while exlcuding other nodes from the same fixture.

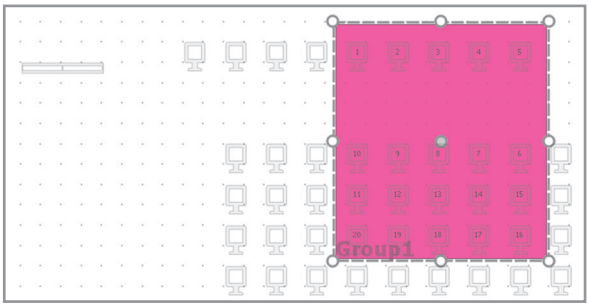
To add groups to a light map:

1. Click the Groups tab to open the Groups Layer, or choose Layer>Groups.
2. Double-click a group icon in the Element Picker, or drag a group icon to the mapping area.
3. Drag the group over one or more nodes. If necessary, use the resize handles to change the shape and size of the group.

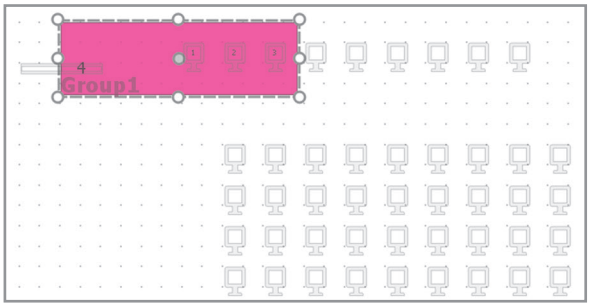




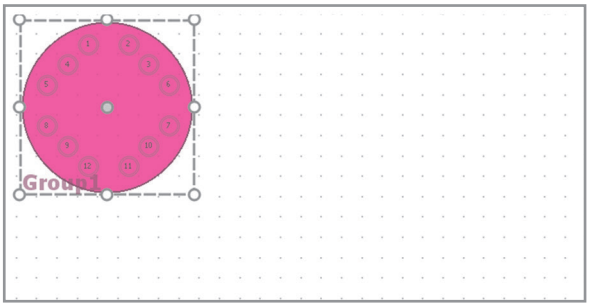
A group can include a set of adjacent lights . . .



A group can include lights in different locations. . .



A group can include some of a fixture's nodes while excluding others. . .



Circular groups are convenient for unusual fixture layouts . . .

Setting the Node Order of a Group

Each group assigns a *node order* to the nodes that they contain. The node order of a group modifies the behavior of effects for which node sequencing matters—Chasing Node, Sweep Node, and Streak. ColorPlay 3 offers six built-in node order schemes. You can change the starting point of each node order. You can also create your own custom node order.

E *For effects where node order matters, the node order of a group overrides the DMX addressing scheme.*


Horizontal Snake


Vertical Snake


Horizontal Skip


Vertical Skip


Whole Row


Whole Column

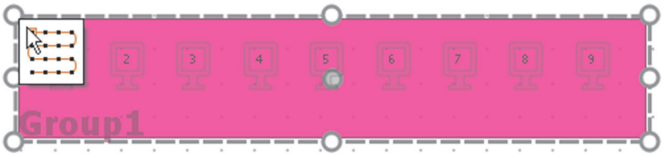
Change Node Order tool


Custom Node Order


Exclude Nodes From Group tool

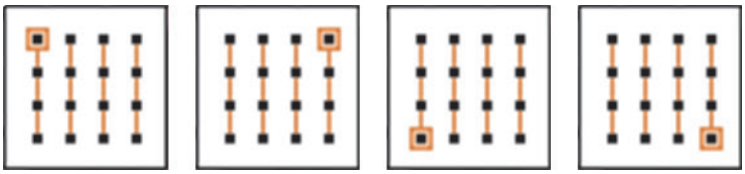
To set the node order of a group:

1. Move the pointer to the upper left corner of a group. The Node Order Palette is displayed.



2. By default, the group node order is set to Horizontal Snake. To change node order:

   Click the Node Order Palette to step through the six built-in node order schemes. By clicking different corners of the palette, you can change the starting position and direction of the node orders. For instance, you can set Vertical Skip to move down each column from left to right, down each column from right to left, up each column from left to right, or up each column from right to left. These variations are shown in the figure below.



Move down each column, from left to right.

Move down each column, from right to left.

Move up each column, from left to right.

Move up each column, from right to left.

   Node order is immediately applied to the group.

3. To create your own custom node order, click the Change Node Order tool. The group whose node order you're modifying turns blue.

   Click the nodes in the order you want them. Note that the numbers represent the order of nodes in sequence within the group, not DMX addresses.

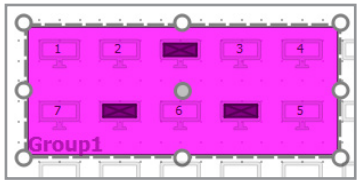
   Groups with custom node orders are shown with the Custom Node Order icon.

Excluding Nodes from a Group

You can exclude selected nodes from a group. If you have overlapping groups, you can use this technique to display different effects on adjacent nodes.

- To exclude individual nodes from a group, click the Exclude Nodes From Group tool. Then click the nodes you want to exclude.

  Excluded nodes turn black, and remaining nodes are renumbered according to the selected node order.



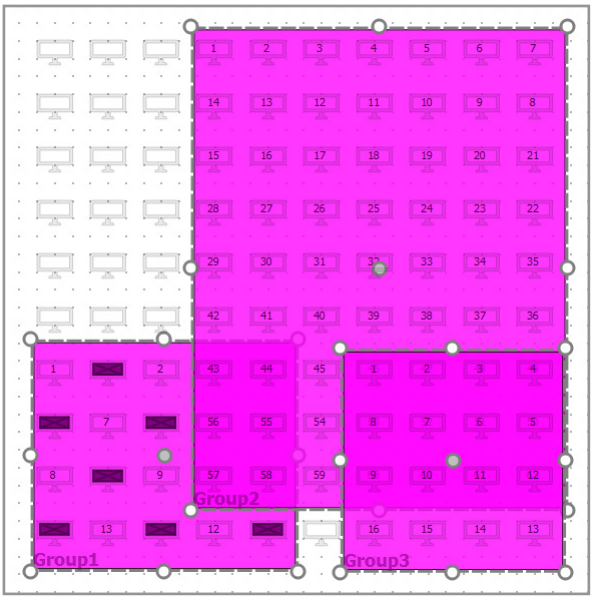
- To restore excluded nodes to a group, right-click a group, and select Include All Covered Lights from the pop-up menu.

Combining and Uncombining Groups

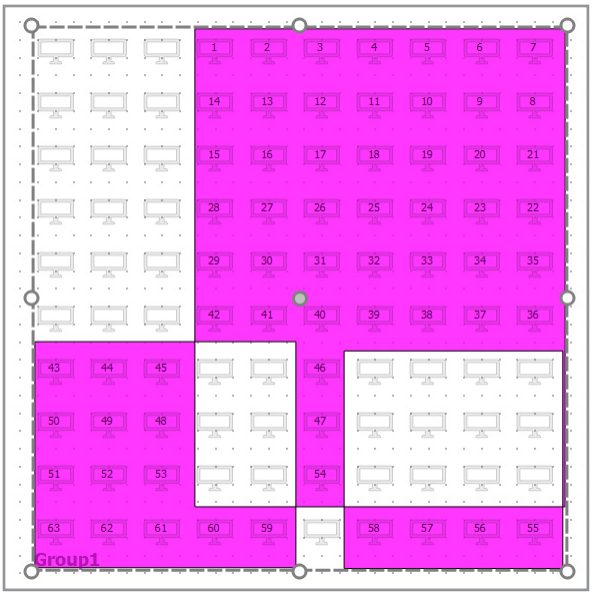
You can combine two or more groups to control nodes in unusual and non-contiguous arrays.

To combine groups:

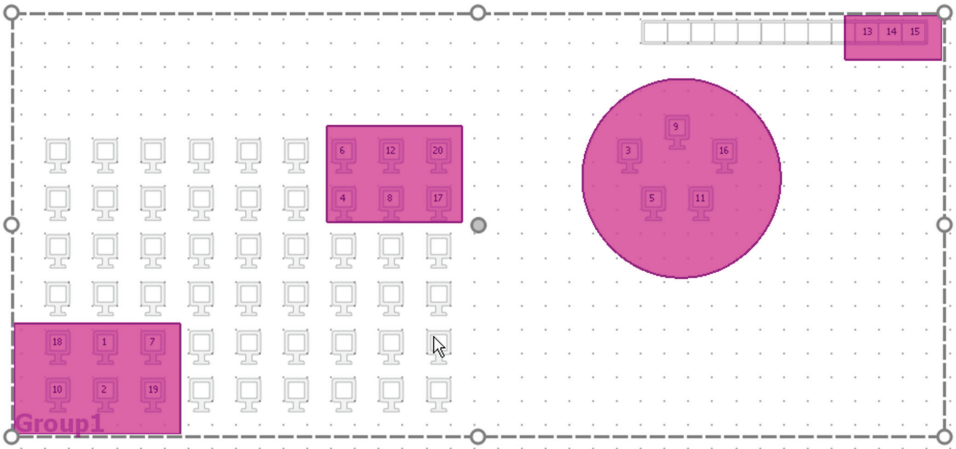
1. Select two or more groups.
2. Right-click, and select Combine from the pop-up menu. The resulting group has default properties, such as name (Group 2, for example) and node order (Horizontal Snake). Intersections (areas of overlap) are excluded from the combined group.



When you combine overlapping groups...



...the combined group excludes intersections.



You can also combine non-contiguous groups.

To separate a combined group:

1. Select a combined group.
2. Right-click, and select Uncombine from the pop-up menu. Individual groups are restored, with the properties that were assigned to them before they were combined into a single group.

5 Effects

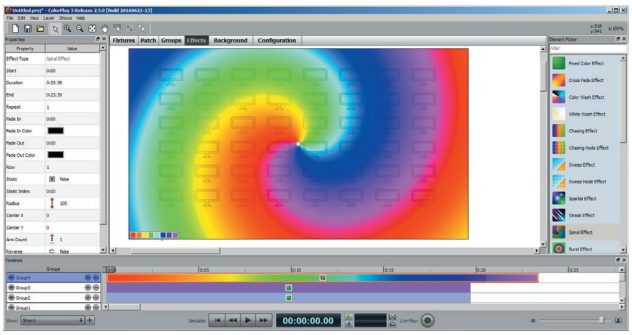
In combination with the Timeline, effects are the essence of a light show. They define the light output for each node or fixture in your lighting installation, and how that light output changes.

About Effects

ColorPlay 3 offers many effects, ranging from simple Fixed Color, Cross Fade, and Random Color Effects to complex Ripple, Particle, and Video effects. A light show can be simple, consisting of one or two effects, or it can be intricate, containing multiple stacked and overlapped effects.

Previewing and Simulating Effects

You can preview and simulate effects on the Effects layer. Preview and simulation can give you a general and often a very good sense of how an effect will appear on an installation of lights. The end result—the actual appearance of your light show—is subject to a number of factors, including the positioning and aiming of your lighting fixtures, additional ambient lighting if any, the size and dimensions of the installation space, the distance and angles of lighting fixtures to viewers, and so on. Additionally, complex effects with an intricate interplay of properties cannot be fully simulated on the Effects layer. In fact, the only way to accurately evaluate the appearance of effects in a light show is to preview the show on a mockup or actual lighting installation.



The Live Play feature lets you play a show on a set of lights before saving the show and downloading it to iPlayer 3. If you have access to lights, you can use Live Play to preview show effects as you create and modify them. See Chapter 6 for instructions on how to use Live Play.

Effects and Node Order

Some effects use the node order of a group to set the pattern or direction of an effect. These include the Chasing Node, Sweep Node, and Streak effects. When using these effects, make sure you set the group's node order appropriately, as described in Chapter 4.

For effects that display the same output on all nodes simultaneously, the node order of a group is irrelevant. These include the Fixed Color, Cross Fade, Color Wash, and Random Color effects. Node order is also irrelevant for effects that overlay the entire grid of nodes in a group. These include the Chasing, Sweep, Sparkle, Spiral, Burst, Image Fade, Video, Text, Strobe, Particle, and Colored Bars effects.

Effect Stacking and Transparency

You can stack multiple effects in a group using the timeline rows. An effect has priority over effects below it. If there are gaps in an effect, or if the effect has transparency, effects stacked below it "show through." When defining colors for an effect, you can create transparency by setting opacity to less than 100%. Many effects let you make the foreground colors transparent so that any effects beneath them in the stack show through the ripple or particle patterns.

Chapter 6 covers effect stacking with the timeline. You need to understand effect stacking to use modifier effects, which alter the appearance of other effects.

Modifier Effects

ColorPlay 3 contains five modifier effects, the Constant Modifier, Wave Modifier, Fade In Out Modifier, RGB Range Modifier, and Perlin Noise Modifier effects. Modifier effects differ from other effects, as they are not used alone but in conjunction with other effects in a group. When you add a modifier effect to a group's effect stack, it modifies all effects underneath it in the stack, so long as the effects have some transparency. If you want a modifier effect to modify all effects in a group, position the modifier effect at the top of the group's effect stack.

ColorPlay 3 Effects and Properties

You can choose from 24 effects, including Chasing Node, Sweep Node, and Video effects, and five modifier effects.

Each effect has a set of properties, some of which are editable and some of which are view-only. You can modify the editable properties using the Properties Panel or Properties Disc, depending on the effect.


Fixed Color


Cross Fade


Color Wash


Chasing


Chasing Node


Sweep


Sweep Node


Sparkle


Streak


Spiral


Burst


Random Color


Image Fade


Video

Text


Strobe


Ripple


Particle


Colored Bars


Constant Modifier


Wave Modifier


Fade In Fade Out Modifie


RGB Range Modifier


Perlin Noise Modifier

Fixed Color

Fixed Color displays a single solid color simultaneously on all fixtures in a group.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Base Color The fixed color to display. You change the color using the Palette Editor.

Each second of an effect contains 40 frames (1 frame = .025 seconds).

Entering Times in ColorPlay 3

A number of properties in ColorPlay 3, including Start, Duration, End, and Static Index, take time values. For convenience, you can enter time values in a number of different ways. The following are all valid time entries.

12:12:12/2:03/:56.02

1s/1 sec/1 second/2secs

2.25m/2.25 min/2 minutes/2mins

2.25h/2.25 hr/2 hours/2hour

1d/1.5 days/1.112day

41f/41 frames

No matter how you enter time values, ColorPlay 3 displays them in day/hr/min/sec format.

Cross Fade

The Cross Fade effect creates a smooth transition from one solid color to a second solid color on all fixtures simultaneously.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times to repeat the cross fade within the effect duration. For example, if Repeat is set to 1 and Duration is set to 1:00, the effect fades from the first color to the second color once in one minute. If Repeat is set to 3, the effect fades between the first and second color three times in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Loop If false, the effect abruptly jumps from the second color back to the first color at the end of each repeat and at the end of the effect. If true, smoothly fades from the second color back to the first color at the end of each repeat or the effect.

Palette The effect colors. You change and reorder the colors using the Palette Editor.

Cross Fade Example 1
Duration: 1:00 | Repeat: 1 | Loop: false

Effect fades from blue to green once over the entire effect duration, then jumps back to blue when effect repeats

Cross Fade Example 2
Duration: 1:00 | Repeat: 1 | Loop: true

Effect fades from blue to green once, then fades back to blue when the effect repeats

Cross Fade Example 3
Duration: 1:00 | Repeat: 3 | Loop: false

Fade from blue to green repeats three times within the total effect duration, jumping back to blue each time

Cross Fade Example 4
Duration: 1:00 | Repeat: 3 | Loop: true

Fade from blue to green repeats three times within the total effect duration, fading back to blue each time

Color Wash

The Color Wash effect creates a smooth transition through a series of solid colors on all fixtures simultaneously.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times to repeat the color wash within the effect duration. For example, if Repeat is set to 1 and Duration is set to 1:00, the effect transitions through the color sequence once in one minute. If Repeat is set to 3, the effect transitions through the color sequence three times in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Loop If false, the effect abruptly jumps from the last color in the sequence to the first color in the sequence at the end of each repeat and at the end of the effect. If true, smoothly fades from the last color in the sequence to the first color at the end of each repeat and at the end of the effect.

Palette The effect's sequence of display colors. You add, change, reorder, and delete colors using the Palette Editor.

Color Wash Example 1
Duration: 1:00 | Repeat: 1 | Loop: false

Effect transitions through a sequence of colors once, then jumps back to the first color when effect repeats

Color Wash Example 2
Duration: 1:00 | Repeat: 1 | Loop: true

Effect transitions through a sequence of colors once, then fades back to the first color when effect repeats

Color Wash Example 3
Duration: 1:00 | Repeat: 3 | Loop: false

The sequence of colors repeats three times within the total effect duration, jumping back to the first color each time

Color Wash Example 4
Duration: 1:00 | Repeat: 3 | Loop: true

The sequence of colors repeats three times within the total effect duration, fading back to the first color each time

Chasing

The Chasing effect creates bars of repeated color moving or “chasing” each other in one direction. You can change the angle, direction, and number of bars, as well as the apparent width of the bars.

The Chasing effect lays the effect colors over the entire grid of lights in a group, ignoring the fixture addresses and the group’s node pattern. To use the Chasing effect successfully, therefore, make sure that the layout of your lights matches or approximates the layout on your light map.

The illustration below shows three example installations, each with 16 lights, and each displaying the same Chasing effect (angle = 0, color width = 250). In the first example, the nodes are spaced evenly and addressed left to right and top to bottom. In the second example, the nodes are spaced evenly but addressed right to left and bottom to top. In the third example, the nodes are spaced and addressed randomly. In all three cases, the Chasing effect appears to sweep

across the grid of lights from left to right.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times the sequence of color bars chases across the grid of lights in a group for the specified duration. Use Repeat to increase the apparent chasing speed. For example, if Repeat is set to 1 and Duration is set to 1:00, the color bars chase across the grid once in one minute. If Repeat is set to 3, the color bars chase across the grid three times in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

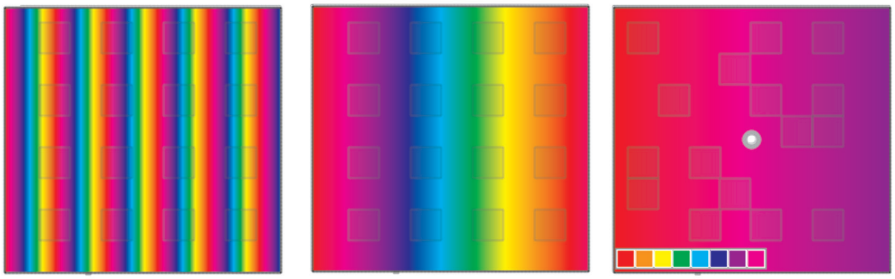
Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Static If false, the color bars chase across the grid of fixtures. If true, the color bars appear to be paused at the frame specified in Static Index.

Static Index The frame in the effect to display when Static is True. You can enter a value in seconds, minutes, hours, days, or frames. The value is displayed in hours/mins/secs format. Since there are 40 frames per second, each frame is .025 seconds. This duration is rounded to two places in the display (for instance, frame 41 is displayed as 0:01.02 seconds).

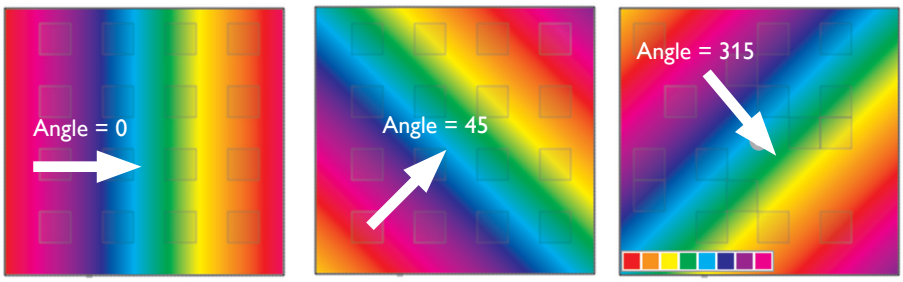
Color Width The apparent width of the effect palette, in pixels. While Color



Color Width = 50 Color Width = 250 Color Width = 1000

Width does not refer to a measurable dimension in your installation, the apparent width of the color bars gives you a sense of how many fixtures each color bar covers.

The examples below show the effect of changing the color width in three grids of



the same size. As the color width increases, each color bar covers a wider apparent portion of the grid.

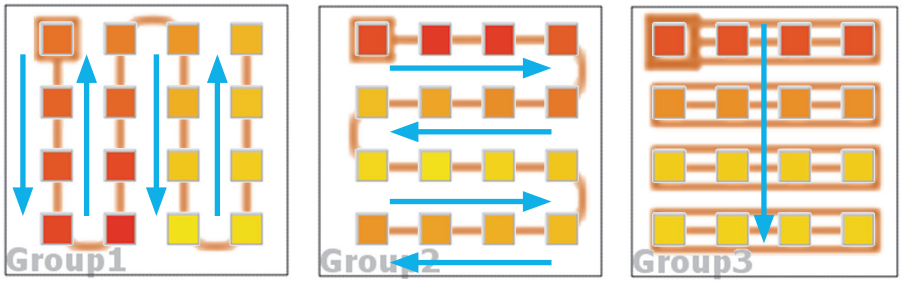
Angle (deg) The apparent angle and direction in which the color bars chase each other. The angle determines the origin point of the color bars, beginning at 0 with vertical bars moving from left to right, and swinging counterclockwise through 360 degrees.

Palette The sequence of color bars. You add, change, reorder, and delete color bars using the Palette Editor.

Chasing Node

Like the Chasing effect, the Chasing Node effect displays bands of color that appear to move or “chase” each other in sequence. But instead of sweeping through a virtual area defined by a group, colors appear to chase each other from fixture to fixture or node to node, following the group’s currently selected node pattern. As described in Chapter 4, a group’s node pattern overrides the fixtures’ node addresses. This means that you can change the sequencing of the Chasing Node effect without re-addressing your fixtures.

The illustration below shows three example Chasing Node effects, each using three colors (red, orange, and yellow) and a different node pattern. Group 1 uses



the Vertical Snake node pattern, Group 2 uses Horizontal Snake, and Group 3 uses Whole Row.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times the sequence of colors appears to chase across the entire sequence of lights for the specified duration. Use Repeat to increase the apparent chasing speed. For example, if Repeat is set to 1 and Duration is set to 1:00, the colors complete one circuit of the fixtures in one minute. If Repeat is set to 3, the colors complete three circuits in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect’s priority in a stack, assigns the effect to a different group, or unassigns the effect.

Static If false, the colors chase across the sequence of nodes. If true, the colors appear to be paused at the frame indicated in the Static Index property.

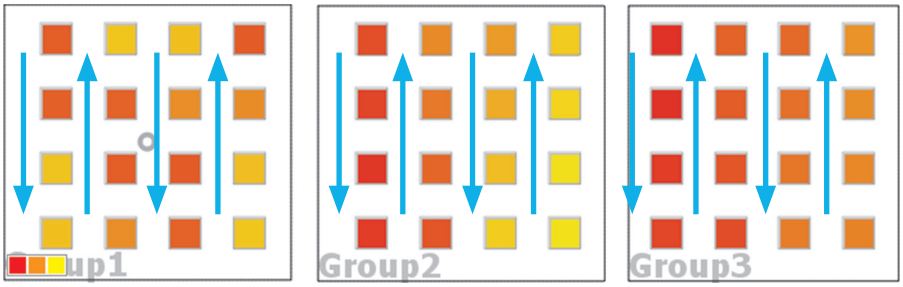
Static Index The frame in the effect to display when Static is True. You can enter a value in seconds, minutes, hours, days, or frames. The value is displayed in hours/mins/secs format. Since there are 40 frames per second, each frame is .025 seconds. This duration is rounded to two places in the display (for instance, frame 41 is displayed as 0:01.02 seconds).

Reverse Direction If false, colors chase in the direction indicated by the group's currently selected node pattern. If true, colors chase in the opposite direction.

Reverse Colors If false, colors chase through the node pattern in the order indicated in the Palette property. If true, colors chase through the node pattern in the opposite order.

Color Width The apparent width of the effect palette, in nodes. While Color Width does not refer to a measurable dimension in your installation, the apparent width of the color segment gives you a sense of how many nodes each color segment covers as it moves through the sequence.

In the examples below, the Color Width in Group 1 is set to 6. Notice how the



three-color pattern recurs about halfway through the sequence of nodes. When Color Width is set to 35, as in Group 2, the three-color pattern covers the entire sequence of nodes. Group 3 is set to 100, extending the color pattern beyond the node length such that only two of the three effect colors are visible at a time.

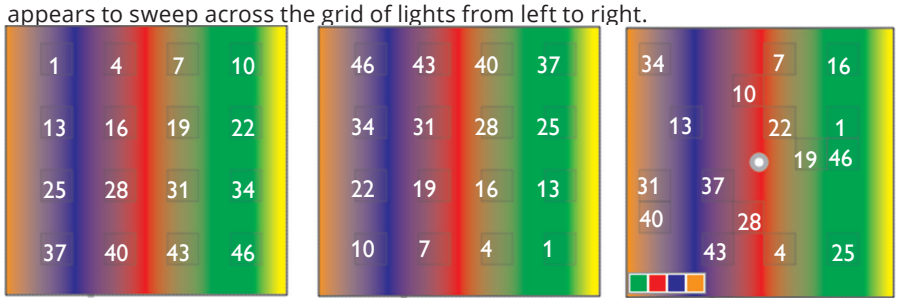
Palette The sequence in which colors chase through the group's currently selected node pattern. You add, change, reorder, and delete colors using the Palette Editor.

Sweep

The Sweep effect is a progressive transition of one or more foreground colors across a solid background color in a sweeping motion.

The Sweep effect lays the effect colors over the entire grid of lights in a group, ignoring the fixture addresses and the group's node pattern. To use the Sweep effect successfully, therefore, make sure that the layout of your lights matches or approximates the layout on your light map.

The illustration below shows three example installations, each with 16 lights, and each displaying the same Sweep effect (angle = 0, background color = yellow, and four foreground colors). In the first example, the nodes are spaced evenly and addressed left to right and top to bottom. In the second example, the nodes are spaced evenly but addressed right to left and bottom to top. In the third example, the nodes are spaced and addressed randomly. In all three cases, the Sweep effect appears to sweep across the grid of lights from left to right.



Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times the sequence of foreground colors sweeps across the grid of lights for the specified duration. Use Repeat to increase the sweep speed. For example, if Repeat is set to 1 and Duration is set to 1:00, the foreground colors sweep across the grid once in one minute. If Repeat is set to 3, the foreground colors sweep across the grid three times in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

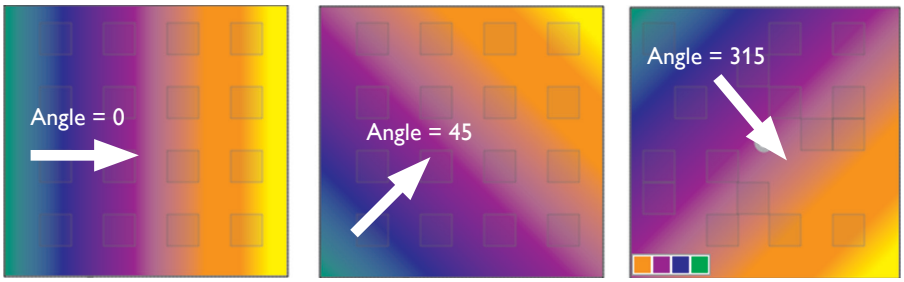
Background Fade Percentage The degree of fade between the background color and the first foreground color. If set to 0, there is no fade, and the first foreground color appears abruptly.

Sweep Fade Percentage The degree of fade between each foreground color. If set to 0, there is no fade between foreground colors. If set to 100, the fade affects about half of each color's apparent width.

In the example on the left, both Background Fade Percentage and Sweep Fade Percentage are set to 0. There is no blending between the colors, and they appear

abruptly as the effect sweeps across the grid of nodes. In the example on the right, both properties are set to 100, so the colors gradually fade into each other as the effect sweeps across the nodes.

Angle (deg) The apparent angle and direction in which the foreground colors



sweep across the background color. The angle determines the origin point of the foreground color segments, beginning at 0 with vertical segments moving from left to right and swinging counterclockwise through 360 degrees.

FG Mixing Ignores BG When true and a foreground color has transparency (opacity is less than 100%), the foreground color ignores the background color and mixes with the colors of any effect below it in the stack. When there is no effect below it, the foreground color mixes with black. When false and a foreground color has transparency, the foreground color mixes with the background color.

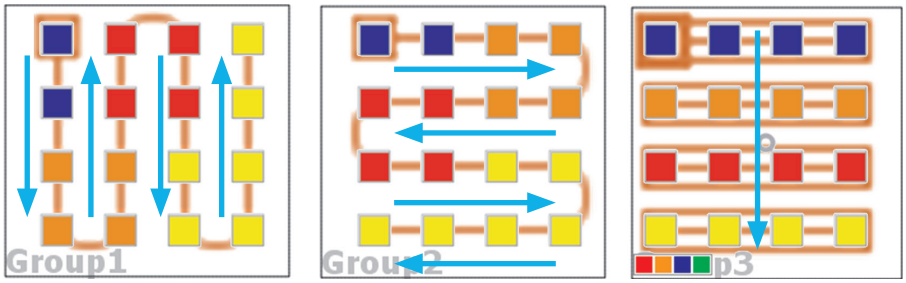
Background Color The background color across which the foreground colors appear to sweep. You change the background color using the Palette Editor.

Palette The sequence of one or more foreground colors, which appear to sweep across the background color. You add, change, reorder, and delete foreground colors using the Palette Editor.

Sweep Node

Like the Sweep effect, the Sweep Node effect displays a progressive transition of one or more foreground colors across a solid background color. But instead of sweeping over the entire grid of lights in a group, the foreground colors transition from fixture to fixture, following the group's currently selected node pattern. As described in Chapter 4, you can select different node patterns to change the effect sequencing without modifying the effect or re-addressing your fixtures.

The illustration below shows three example Sweep Node effects, each using yellow as the background color, the same four foreground colors (red, orange, and blue), and a different node pattern: Vertical Snake for Group 1, Horizontal Snake for Group 2, and Whole Row for Group 3.



Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times the sequence of foreground colors sweeps across the sequence of lights for the specified duration. Use Repeat to increase the sweep speed. For example, if Repeat is set to 1 and Duration is set to 1:00, the foreground colors complete one circuit of the fixtures in one minute. If Repeat is set to 3, the foreground colors complete three circuits in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Background Fade Percentage The degree of fade between the background color and the first foreground color. If set to 0, there is no fade, and the first foreground color appears abruptly.

Sweep Fade Percentage The degree of fade between each foreground color. If set to 0, there is no fade.

In the example on the left, both Background Fade Percentage and Sweep Fade Percentage are set to 0. There is no blending between the colors, and they appear abruptly as the effect sweeps across the grid of nodes. In the example on the right, both properties are set to 100, so the colors gradually fade into each other as the

effect sweeps across the nodes.

Reverse Direction If false, the foreground colors colors sweep in the direction indicated by the group's currently selected node pattern. If true, the foreground colors sweep in the opposite direction.

Reverse Colors If false, the foreground colors sweep through the node pattern in the order indicated in the Palette property. If true, the foreground colors sweep through the node pattern in the opposite order.

FG Mixing Ignores BG When true and a foreground color has transparency (opacity is less than 100%), the foreground color ignores the background color and mixes with the colors of any effect below it in the stack. When there is no effect below it, the foreground color mixes with black. When false and a foreground color has transparency, the foreground color mixes with the background color.

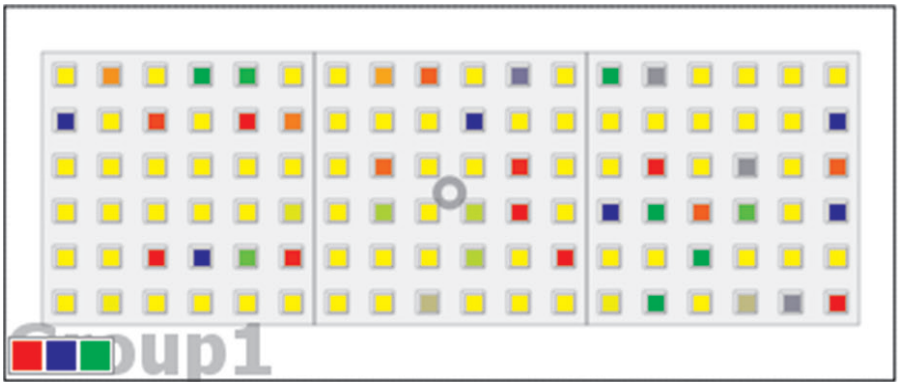
Background Color The background color across which the foreground colors appear to sweep. You change the background color using the Palette Editor.

Palette The sequence of one or more foreground colors which appear to sweep across the background color. You add, change, reorder, and delete foreground colors using the Palette Editor.

Sparkle

The Sparkle effect flashes one or more foreground colors at random intervals over a solid-color background, producing a sparkling visual effect. Foreground colors flash on and then fade. The Sparkle effect ignores fixture addresses and group node order.

The following example uses three iColor Module FX fixtures to create a grid of 108 evenly spaced nodes. The background color is yellow, and the sparkle colors are red, blue, and green. Intermediate colors appear as each sparkle fades.



Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Density The number of sparkles per time period, from 0.00 (no sparkles) to 1.00 (the maximum number of sparkles).

Lifetime The duration of each sparkle, from initial flash through fade-out, in frames. If Lifetime is greater than the total number of frames in the effect, the sparkles will not fade out completely before the effect repeats.

FG Mixing Ignores BG When true and a foreground color has transparency (opacity is less than 100%), the foreground color ignores the background color and mixes with the colors of any effect below it in the stack. When there is no effect below it, the foreground color mixes with black. When false and a foreground color has transparency, the foreground color mixes with the background color.

Background Color The background color over which the foreground colors flash. You change the background color using the Palette Editor.

Palette The palette of one or more sparkle colors which flash over the background color. You add, change, and delete sparkle colors using the Palette Editor.

Streak

In the Streak effect, one or more narrow bands of color move across a solid background, following the group's currently selected node pattern. As described in Chapter 4, you can select different node patterns to change the effect sequencing without modifying the effect or re-addressing fixtures.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times each streak completes a circuit of the fixtures for the specified duration. Use Repeat to increase the streak speed. For example, if Repeat is set to 1 and Duration is set to 1:00, streaks complete one circuit of the fixtures in one minute. If Repeat is set to 3, streaks complete three circuits in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

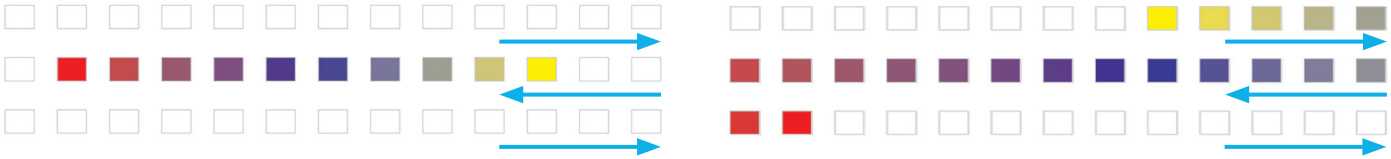
Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Streak Width The number of nodes each streak covers. A wider streak displays more intermediate shades where the colors blend. For example, both streaks below use three colors (red, blue, and yellow) and a white background. The streak on the left, which is set to a width of 10, shows three or four intermediate shades

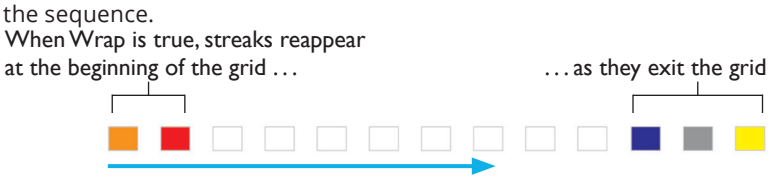


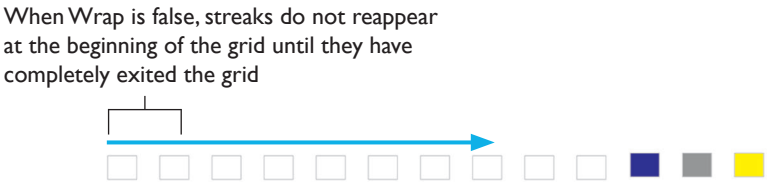
between the three streak colors. The streak width on the right, which is set to 20, shows eight or nine intermediate shades between the streak colors.

If the streak width is less than the total number of palette colors, the additional colors are not shown. For example, if Streak Width were set to 2 in the above examples, only the first two streak colors (red and blue) would display, and the third streak color (yellow) would not display.

Streak Count If Loop is true, Streak Count is the number of streaks displayed on the fixtures simultaneously. If Loop is false, Streak Count is the number of streaks that travel across the grid of nodes in a single repeat.

Wrap Use Wrap when Repeat is set to 2 or greater. If Wrap is false, each set of streaks leaves the grid entirely before the set repeats. If Wrap is true, each streak begins to reappear at the beginning of the sequence of nodes as it exits the end of the sequence.





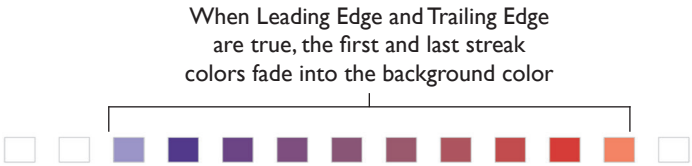
Note that Wrap applies only to repeats within the effect; you use the Loop property to modify the way the effect itself repeats.

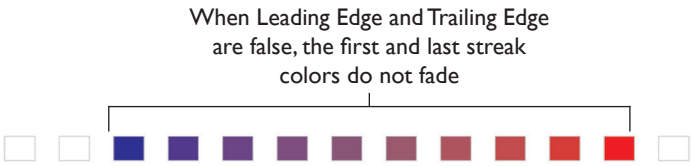
Reverse If false, streaks move in the direction indicated by the group's currently selected node pattern. If true, the streaks move in the opposite direction.

Leading Edge If true, the first streak fades in over the background color as it moves through the node pattern. If false, the first streak color does not fade into the background color.

Trailing Edge If true, the the last streak color fades into the background color as it moves through the node pattern. If false, the last streak color does not fade into the background color.

Loop Applies the Wrap behavior to the entire effect. To use Loop, Repeat must





be 2 or greater, and Wrap must be true.

FG Mixing Ignores BG When true and a foreground color has transparency (opacity is less than 100%), the foreground color ignores the background color and mixes with the colors of any effect below it in the stack. When there is no effect below it, the foreground color mixes with black. When false and a foreground color has transparency, the foreground color mixes with the background color.

Background Color The background color across which the streaks appear to move. You change the background color using the Palette Editor.

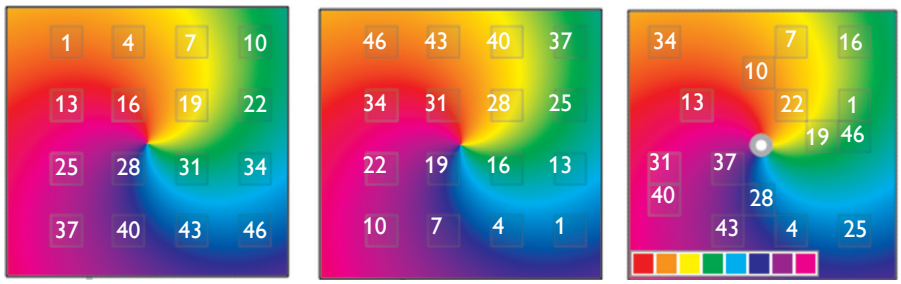
Palette The sequence of one or more streak colors which appear to move across the background color. You add, change, reorder, and delete streak colors using the Palette Editor.

Spiral

The Spiral effect produces arcs of color originating from a central point and moving across a grid of nodes in a clockwise or counterclockwise direction.

The Spiral effect lays the spiral colors over the entire grid of lights in a group, ignoring the fixture addresses and the group's node pattern. To use the Spiral effect successfully, therefore, make sure that the layout of your lights matches or approximates the layout on your light map.

The illustration below shows three example installations, each with 16 lights, and each displaying the default Spiral effect. In the first example, the nodes are spaced evenly and addressed left to right and top to bottom. In the second example, the nodes are spaced evenly but addressed right to left and bottom to top. In the third example, the nodes are spaced and addressed randomly. In all three cases, the



spiral appears to emerge out of a central point and sweep clockwise over the grid of lights.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times the spiral makes one complete revolution in the specified duration. Use Repeat to increase the spiral speed. For example, if Repeat is set to 1 and Duration is set to 1:00, the spiral makes one complete revolution in one minute. If Repeat is set to 3, the spiral completes three revolutions in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

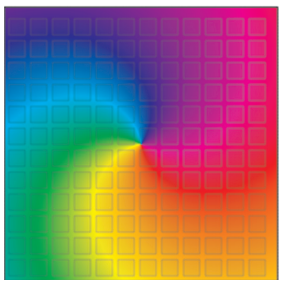
Static If false, the spiral revolves across the sequence of nodes. If true, the spiral appears to be paused at the frame specified in Static Index.

Static Index The frame in the effect to display when Static is True. You can enter a value in seconds, minutes, hours, days, or frames. The value is displayed in hours/mins/secs format. Since there are 40 frames per second, each frame is .025 seconds. This duration is rounded to two places in the display (for instance, frame 41 is displayed as 0:01.02 seconds).

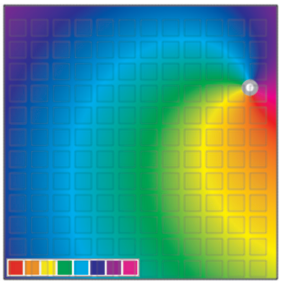
Radius The apparent width of the spiral arms. The default radius is 100. Enter a smaller number to make the spiral tighter, or a larger number to make the spiral broader.

Center X and **Center Y** The center is the point out of which the spiral appears to emerge. By default, the center is at 0,0.

Move the center to the right by giving Center X a positive number of pixels, or to the left by giving Center X a negative number.

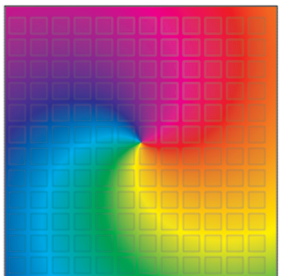


Center X = 0
Center Y = 0

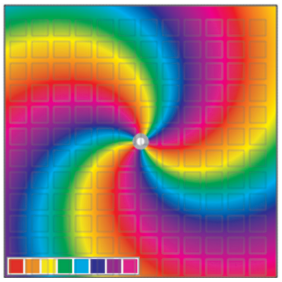


Center X = 100
Center Y = -50

Move the center up by giving Center Y a negative number of pixels, or down by giving Center Y a positive number.



Arm Count = 1



Arm Count = 3

Arm Count The number of arms in the spiral, per color. By default, Arm Count is 1.

Reverse If false, the spiral turns clockwise. If true, the spiral turns counterclockwise.

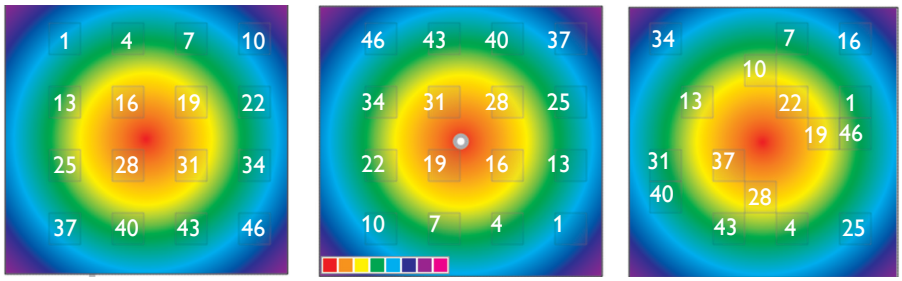
Palette The sequence of spiral arm colors. You add, change, reorder, and delete spiral arm colors using the Palette Editor.

Burst

The Burst effect produces concentric rings of color moving either towards the edge of a group or towards a defined focal point.

The Burst effect lays the burst colors over the entire grid of lights in a group, ignoring the fixture addresses and the group's node pattern. To use the Burst effect successfully, therefore, make sure that the layout of your lights matches or approximates the layout on your light map.

The illustration below shows three example installations, each with 16 lights, and each displaying the default Burst effect. In the first example, the nodes are spaced evenly and addressed left to right and top to bottom. In the second example, the nodes are spaced evenly but addressed right to left and bottom to top. In the third example, the nodes are spaced and addressed randomly. In all three cases, the burst pattern appears to emerge out of a central point and move towards the outer edge of the group.



Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times the burst pattern completes one cycle in the specified duration. Use Repeat to increase the burst speed. For example, if Repeat is set to 1 and Duration is set to 1:00, the burst pattern completes one cycle in one minute. If Repeat is set to 3, the burst pattern completes three cycles in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

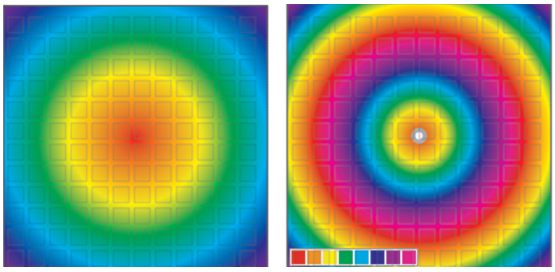
Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Static If false, the burst pattern moves across the group. If true, the burst pattern appears to be paused at the frame specified in Static Index.

Static Index The frame in the effect to display when Static is True. You can enter a value in seconds, minutes, hours, days, or frames. The value is displayed in hours/mins/secs format. Since there are 40 frames per second, each frame is .025 seconds. This duration is rounded to two places in the display (for instance, frame 41 is displayed as 0:01.02 seconds).

Radius The apparent width of the burst rings. The default width is 250. Enter a smaller number to make the rings tighter, or a larger number to make the rings wider.

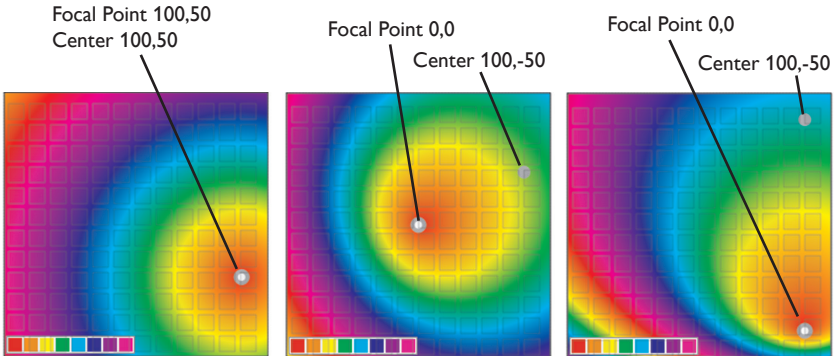


Radius = 250 Radius = 100

Center X, Center Y, Focal Point X, Focal Point Y The focal point is the emergence or convergence point of the burst rings. The center is a secondary focal point that you can use to extend the burst rings in an ellipse in any direction.

By default, Center X, Center Y, Focal Point X, and Focal Point Y are all 0. To move the emergence/convergence point while keeping the rings circular, change Center X and Focal Point X to the same value, and Center Y and Focal Point Y to the same value. To make the rings elliptical, enter different values for the Focal Point and Center properties.

Move the center or focal point to the right of the origin by entering a positive number of pixels, or to the left by entering a negative number. Move the center or focal point above the origin by entering a negative number of pixels, or below the origin by entering a positive number.



Focal point and center offset, rings circular

Center only offset, rings elliptical

Focal point and center offset, rings elliptical

Reverse If false, the burst pattern appears to emerge from the focal point. If true, the burst pattern appears to converge toward the focal point.

Palette The sequence of burst ring colors. You add, change, reorder, and delete burst ring colors using the Palette Editor.

Random Color

The Random Color effect produces a sequence of two or more randomly generated solid colors simultaneously on all fixtures in a group.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of colors in the sequence of random colors.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Fade Time The relative length of time for the colors in the random sequence to fade into one another. Set Fade Time to 0 for no fade between colors.

Seed An automatically generated number used to generate the random color sequence, beginning with the base color. Using the same Seed value for multiple effects produces the same sequence of colors.

Base Color The first color in the sequence of random colors. You change the base color using the Palette Editor.

Image Fade

The Image Fade effect produces a visual sequence in which one image fades gradually into a second image. You can change the starting and ending positions to make the fade sequence appear to travel along a vector. You can also change the starting and ending dimensions to make the fade sequence appear to gradually change size. The Image Fade effect accepts BMP, GIF, ICO, PNG, JPEG, JPG, MNG, PBM, PGM, PNG, PPM, SVG, TIF, TIFF, XBM, or XPM files.

The Image Fade effect lays the image sequence over the entire grid of lights in a group, ignoring the fixture addresses and the group's node pattern. To use the Image Fade effect successfully, therefore, make sure that the layout of your lights matches or approximates the layout on your light map. To clearly display photographic or other detailed images, use a grid with a sufficient number of evenly spaced nodes. Direct-view lighting fixtures with multiple nodes, such as iColor Flex MX, iColor Flex LMX, iColor Flex SLX, iColor Tile FX, and iColor Accent Powercore, are especially suitable.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times the fade sequence completes one cycle in the specified duration. Use Repeat to increase the sequence speed. For example, if Repeat is set to 1 and Duration is set to 1:00, the fade sequence completes one cycle in one minute. If Repeat is set to 3, the fade sequence completes three cycles in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

You can clear the starting and ending images by right-clicking on the effect and selecting Clear Start Image or Clear End Image from the pop-up menu.

Fade Out Duration of fade out to the Fade Out Color property color (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Start Image The starting image for the effect. Enter a path to an image file (for example, C:\Documents and Settings\My Documents\clouds.jpg), or double-click the property value to browse and select an image.

You can Alt-click the Image Fade effect to toggle between the effect's start and end frames.

Start X and **Start Y** Start X and Start Y set the initial position of the fade sequence. By default, Start X and Start Y are both set to 0, which aligns the left and top edges of the starting image with the left and top edges of the group to which the effect is assigned.

Entering a number of pixels for the Start X property shifts the initial position of the fade sequence to the right (positive number) or left (negative number). Entering a number of pixels for the Start Y property shifts the initial position of the fade sequence down (positive number) or up (negative number).

If End X and End Y are different from Start X and Start Y, the fade sequence appears to travel along a vector defined by the initial position of the starting image and the final position of the ending image.

Start Width and **Start Height** Start Width and Start Height determine the starting size of the fade sequence. By default, Start Width and Start Height are set by the pixel dimensions of the group to which the effect is assigned.

Entering a number of pixels for the Start Width property changes the starting width of the fade sequence. Entering a number of pixels for the Start Height property changes the starting height of the fade sequence.

If End Width and End Height are different from Start Width and Start Height, the fade sequence appears to morph smoothly from the starting size to the ending size.

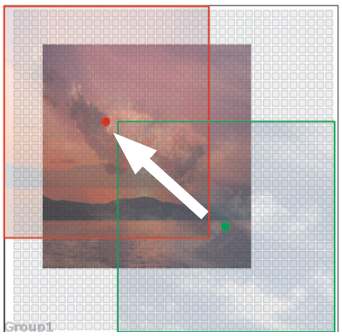
End Image The ending image for the effect. Enter a path to an image file (for example, C:\Documents and Settings\My Documents\clearsky.jpg), or double-click the property value to browse and select an image. If no image is assigned, the starting image is also used as the ending image.

End X and **End Y** End X and End Y determine the final position of the fade sequence. By default, End X and End Y are both set to 0, which aligns the left and top edges of the ending image with the left and top edges of the group to which the effect is assigned.

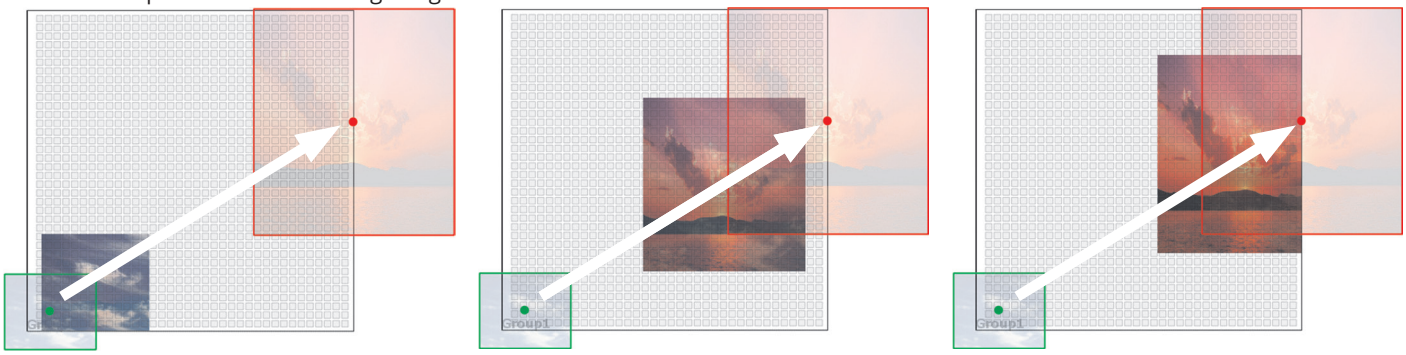
Entering a number of pixels for the End X property shifts the final position of the fade sequence to the right (positive number) or left (negative number). Entering a number of pixels for the End Y property shifts the final position of the fade sequence down (positive number) or up (negative number).

If End X and End Y are different from Start X and Start Y, the fade sequence appears to travel along a vector defined by the initial position of the starting image and the final position of the ending image.

When the starting and ending positions and dimensions are the same, the starting image fades into the ending image while remaining stationary.



When the starting and ending positions are different, the fade sequence appears to travel along a vector defined by the starting image's Start X and Start Y values and the ending image's End X and End Y values.

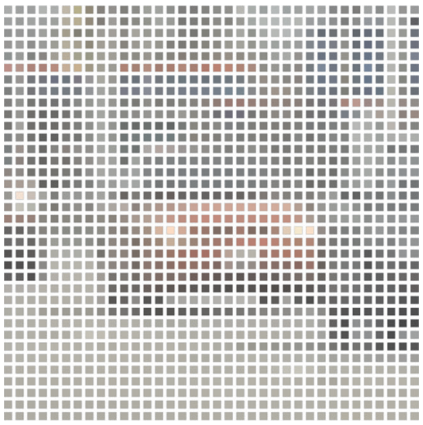


When both the starting and ending positions and dimensions are different, the fade sequence appears to travel along a vector defined by the starting image's start position and the ending image's end position, while smoothly morphing from the start image's dimensions to the end image's dimensions as the images fade into one another. Note that you can position images outside of the group boundaries, to make the fade sequence appear to emerge or disappear as it traverses the group.

End Width and **End Height** End Width and End Height determine the ending size of the fade sequence. By default, End Width and End Height are set by the pixel dimensions of the group to which the effect is assigned.

Entering a number of pixels for the End Width property changes the ending width of the fade sequence. Entering a number of pixels for the End Height property changes the ending height of the fade sequence.

If End Width and End Height are different from Start Width and Start Height, the fade sequence appears to morph smoothly from the starting size to the ending size.



To clearly display video images, you achieve the best results using a grid with a sufficient number of evenly spaced nodes.

Softness The amount of blur applied to the fade sequence, from 0.00 (no blur) to 1.00.

Fade to Transparent When set to True, fades the Start Image to transparent if no End Image is specified.

Video

The Video effect displays moving images from a digital video sequence. The Video effect can play any file type supported by QuickTime on your computer (for example, MOV, MPG, and MP4 files).

The Video effect lays the video sequence over the entire grid of lights in a group, ignoring the fixture addresses and the group's node pattern. To use the Video effect successfully, therefore, make sure that the layout of your lights matches or approximates the layout on your light map. To clearly display video images, use a grid with a sufficient number of evenly spaced nodes. Direct-view lighting fixtures with multiple nodes, such as iColor Flex MX, iColor Flex LMX, iColor Flex SLX, iColor Tile FX, and iColor Accent Powercore, are especially suitable.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

If Duration is set to a length of time shorter than the duration of the selected video clip, the video clip plays from the beginning but is truncated. If Duration is set to a length of time longer than the duration of the selected video clip, the video clip plays all the way through, then the effect displays nothing until the effect repeats.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times the video sequence completes one cycle in the specified duration. Use Repeat to increase the playback speed. For example, if Repeat is set to 1 and Duration is set to 1:00, the video sequence completes one cycle in one minute. If Repeat is set to 3, the video sequence completes three cycles in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Video File The video clip for the effect. Enter a path to a video file (for example, C:\Documents and Settings\My Documents\demo.mov), or double-click the property value to browse and select a valid file.

Video Length The native duration of the selected video clip, for reference (not editable).

Video Width The native width of the selected video clip, for reference (not editable).

Video Height The native height of the selected video clip, for reference (not editable).

X and **Y** X and Y determine the position of the video. By default, X and Y are both set to 0, which aligns the left and top edges of the video image with the left and top edges of the group to which the effect is assigned.

Entering a number of pixels for the X property shifts the video to the right (positive number) or left (negative number). Entering a number of pixels for the Y property shifts the video down (positive number) or up (negative number).

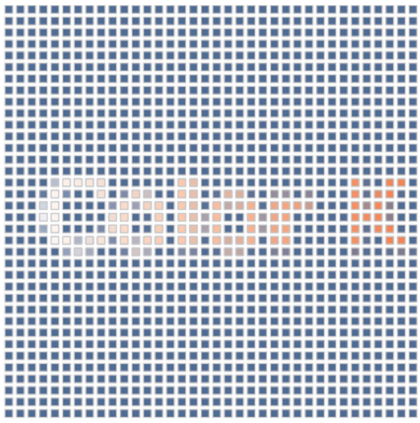
Width and **Height** Width and Height determine the dimensions of the video. By default, Width is set to Video Width and Height is set to Video Height. Width and Height change the video dimensions independently; you can't automatically maintain the video's aspect ratio when resizing.

Video In Time Sets the point within the video clip at which to start playback (HH:MM:SS). (Keep in mind that the video starts playing at 00:00:00 of the effect.) If the video ends before the effect ends, the effect displays nothing for the remainder of the effect duration.

Video Out Time Sets the point within the video clip at which to end playback (HH:MM:SS). If Video Out Time occurs before the end of the video clip, the video clip is truncated, and the effect displays nothing for the balance of the effect duration.

Playback Rate The speed at which to play back the video clip. 1:00 (the default) is normal speed, 2:00 is twice normal speed, 0.50 is half normal speed, and so on.

Text



To ensure readability, use a grid with a sufficient number of evenly spaced nodes.

The Text effect scrolls a text message across a solid background color, from right to left. The size of the background is determined by the size of the group (rather than the size of the grid of nodes).

The Text effect overlays the entire grid of lights in a group, ignoring the fixture addresses and the group's node pattern. To use the Text effect successfully, therefore, make sure that the layout of your lights matches or approximates the layout on your light map. Use a grid with a sufficient number of evenly spaced nodes to ensure readability.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of times the text message scrolls across the background in the specified duration. Use Repeat to increase the scrolling speed. For example, if Repeat is set to 1 and Duration is set to 1:00, the text message scrolls across the background in one minute. If Repeat is set to 3, the text message scrolls across the background three times in one minute.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Text The text message to scroll across the background.

Font The typeface for the text message. Select from any font installed on the computer running ColorPlay 3.

Text Height The relative size of the type. Text Height is 0.9 by default. Larger numbers increase the size of the type (up to about 28.0), smaller numbers decrease it.

Center X and **Center Y** Center X starts the text motion further to the right (positive values) or left (negative values). Center Y offsets the text downward (positive values) or upward (negative values).

Level of Detail The relative resolution of the characters, from 0.00 (lowest resolution) to 1.00 (highest resolution). Level of Detail is 0.75 by default.

Softness The amount of blur applied to the type, from 0.00 (no blur) to 1.00.

Antialiasing Antialiasing minimizes jagged artifacts at the edges of type. True applies antialiasing to the type. False turns antialiasing off.

FG Mixing Ignores BG When true and a foreground color has transparency (opacity is less than 100%), the foreground color ignores the background color and mixes with the colors of any effect below it in the stack. When there is no effect below it, the foreground color mixes with black. When false and a foreground color has transparency, the foreground color mixes with the background color.

Static If false, the text appears to chase across the sequence of nodes. If true, the text appears to be paused at the frame indicated in the Static Index property.

Static Index The frame in the effect to display when Static is True. You can enter a value in seconds, minutes, hours, days, or frames. The value is displayed in hours/mins/secs format. Since there are 40 frames per second, each frame is .025 seconds. This duration is rounded to two places in the display (for instance, frame 41 is displayed as 0:01.02 seconds).

Background Color The background color across which the text message scroll. You change the background color using the Palette Editor.

Palette The sequence of one or more colors to apply to the text. If you specify more than one color, the colors blend proportionally across the text from left to right. You add, change, reorder, and delete text colors using the Palette Editor.

Strobe

The Strobe effect produces solid pulses of a foreground color over a background color. When the pulses are short in duration, the Strobe effect
produces an intermittent flashing effect that emulates a strobe light.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Repeat The number of pulses, starting at the offset and equally spaced within the overall effect duration.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

On Time The duration of each pulse, in seconds (0.25 seconds by default).

Offset How long to wait, in seconds, before starting the sequence of evenly spaced pulses.

Background Color The background color over which the strobe color appears. You change the background color using the Palette Editor.

Strobe Color The foreground color that pulses over the background color. You change the background color using the Palette Editor.

Ripple

The Ripple effect displays rings of color moving over a solid background color. The Ripple effect lays the rings over the entire grid of lights in a group, ignoring the fixture addresses and the group's node pattern. To use the Ripple effect successfully, therefore, make sure that the layout of your lights matches or approximates the layout on your light map.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

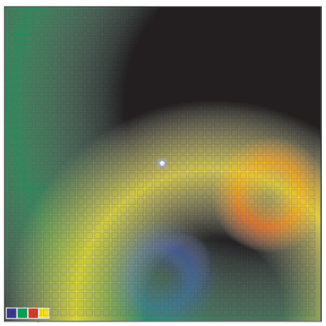
Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

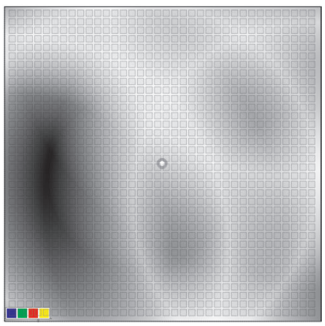
Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

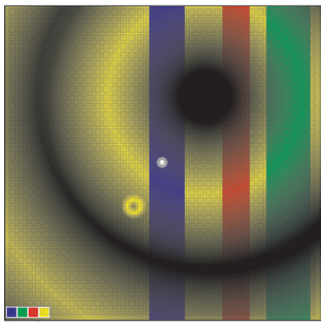
FG Mixing Ignores BG When true and a foreground color has transparency



Transparent FG is false (ring colors display)



Transparent FG is true (rings are transparent)



Transparent foreground, with Colored Bars effect beneath

(opacity is less than 100%), the foreground color ignores the background color and mixes with the colors of any effect below it in the stack. When there is no effect below it, the foreground color mixes with black. When false and a foreground color has transparency, the foreground color mixes with the background color.

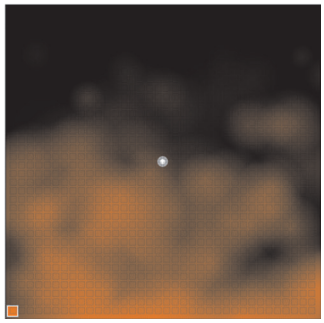
Velocity The relative speed of the ring movement. The default value is 1.

Background Color The background color over which the rings appear to move. You change the background color using the Palette Editor.

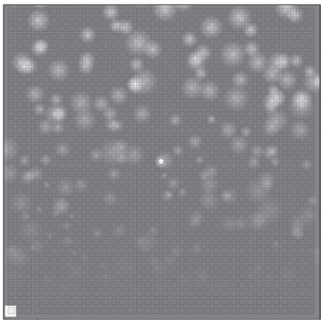
Palette The set of one or more colors for the rings. You add, change, reorder, and delete text colors using the Palette Editor.

Particle

The Particle effect produces animated circular shapes of varying sizes over a solid background color. This effect simulates a particle system such as clouds, fire, or rain.



Fire



Snow

The Particle effect runs the particle pattern over the entire grid of lights in a group, ignoring the fixture addresses and the group's node pattern. To use the Particle effect successfully, therefore, make sure that the layout of your lights matches or approximates the layout on your light map.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

FG Is Color Under Effect Creates a transparent foreground for the Particle effect. By default, FG Is Color Under Effect is false, so the particles use the colors specified in the Palette property. If FG Is Color Under Effect is set to true, the particles become transparent. Stacked effects in the Timeline Editor below the Particle effect show through the transparent particles.

Density Controls the quantity of particles produced by the effect. The default value is .5 within a range of 0 – 1.

Angle (deg) The apparent angle and direction in which the particles move across the background color. The angle (0 – 360) determines the origin point of the particles. At 0, particles move from left to right. Negative numbers shift the angle clockwise from 0, while positive numbers shift the angle counterclockwise from 0. The default angle is 90 degrees, with particles moving from the bottom to the top.

Velocity The relative speed of the particle movement. The default value is 1.

Particle Size The relative size of individual particles. The default value is .25 within a range of 0 – 1.

Jitter Jitter creates random oscillations as particles move along their path. The default value is 5.

Decay The relative change in particle size over the duration of the effect. At the default value of .75 (within a range of 0 – 1), particles reduce by 100% in size over the duration of the effect.

Fade The degree to which the particles fade as they traverse the background. At the default value of 1 (within a range of 0 – 1), particles fade completely by the end of each effect cycle. At 0, particles do not fade, but abruptly disappear.

Effect Height The relative height of the effect—that is, how much of the group is covered by the effect. The default value is 1.

Background Color The background color over which the particles appear to move. You change the background color using the Palette Editor.

Palette The set of one or more colors for the particles. You add, change, and delete text colors using the Palette Editor.

Colored Bars

The Colored Bars effect randomly displays bars of varying widths and colors over a solid background.

The Colored Bars effect overlays the entire grid of lights in a group, ignoring the fixture addresses and the group's node pattern. To use the Colored Bars effect successfully, therefore, make sure that the layout of your lights matches or approximates the layout on your light map.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Fade In Duration of fade in from the color selected in the Fade In Color property (HH:MM:SS).

Fade In Color Color to fade in from, using the duration set in the Fade In property. You change the color using the Palette Editor.

Fade Out Duration of fade out to the color selected in the Fade Out Color property (HH:MM:SS).

Fade Out Color Color to fade out to, using the duration set in the Fade Out property. You change the color using the Palette Editor.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

FG Mixing Ignores BG When true and a foreground color has transparency (opacity is less than 100%), the foreground color ignores the background color and mixes with the colors of any effect below it in the stack. When there is no effect below it, the foreground color mixes with black. When false and a foreground color has transparency, the foreground color mixes with the background color.

Background Color The background color over which the colored bars appear. You change the background color using the Palette Editor.

Palette The set of one or more bar colors. You add, change, reorder, and delete text colors using the Palette Editor.

Constant Modifier

The Constant Modifier effect applies a constant change to the hue, saturation, and/or brightness of all visible effects underneath it in a group. To apply the Constant Modifier effect to a group's entire effect stack,
make sure that the Constant Modifier effect is at the top of the stack.

You can use the Constant Modifier effect, for example, to change the saturation or brightness of the entire set of effects assigned to a group, or to color-shift the appearance of a Video effect.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Hue Action and **Hue Value** None (no action) by default. To modify the hue of all visible effects underneath the Constant Modifier effect in a group's effect stack, select Scale, Replace, or Offset, then give the Hue Value property a value.

The Constant Modifier effect uses a 360-degree color wheel to calculate hue modifications, with pure red (255,0,0) at 0°.

Scale Multiplies the angle of each hue by the specified Hue Value.

Replace Replaces each hue with the hue that lies at the angle on the color wheel specified in Hue Value (0 – 360).

Offset Adds the number of degrees specified in Hue Value (0 – 360) to each hue. Positive numbers offset hues clockwise around the color wheel, while negative numbers offset hues counterclockwise around the color wheel.

Saturation Action and **Saturation Value** None (no action) by default. To modify the saturation of the effects beneath the Constant Modifier effect in a group's effect stack, select Scale, Replace, or Offset, then give the Saturation Value property a value.

Scale Multiplies the saturation percentage of each color by the specified Saturation Value. Entering a Saturation Value greater than 1 makes the colors controlled by the Constant Modifier effect appear more intense, while entering a value less than 1 makes the colors appear more pastel.

Replace Replaces the saturation of each color with the saturation percentage specified in Saturation Value (0 – 1).

Offset Changes the saturation of each color by the percentage specified in Saturation Value (0 – 1 or 0 – -1). Positive numbers increase saturation by the specified percentage, while negative numbers decrease saturation.

Brightness Action and **Brightness Value** Scale by default. To modify the brightness of the effects beneath the Constant Modifier effect in a group's effect stack, select Scale, Replace, or Offset, then give the Brightness Value property a value.

Scale Multiplies the brightness percentage of each color by the specified Brightness Value. Entering a Brightness Value greater than 1 makes the colors controlled by the Constant Modifier effect appear brighter, while entering a value less than 1 makes the colors appear dimmer.

Replace Replaces the brightness of each color with the brightness percentage specified in Brightness Value (0 – 1).

Offset Changes the brightness of each color by the percentage specified in Brightness Value (0 – 1 or 0 – -1). Positive numbers increase brightness by the specified percentage, while negative numbers decrease brightness.

Wave Modifier

The Wave Modifier effect uses different wave patterns to vary the appearance of effects over time. With the Wave Modifier effect, you can vary the hue, saturation, or brightness of all effects underneath it in a group. To apply the Wave Modifier effect to a group's entire effect stack, make sure that the Wave Modifier effect is at the top of the stack.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Wave Mode You can select sine, square, or sawtooth wave shapes to achieve different variation profiles.

Sine Smoothly ramps up to the maximum value, then smoothly ramps down to the minimum value

Square Jumps sharply to the maximum value and remains there for half a cycle, then drops sharply to the minimum value and remains there for half a cycle

Sawtooth Smoothly ramps up from the middle value to the maximum value halfway through the cycle, then drops sharply to the minimum value

HSV Mode Sets the effect to vary Hue, Saturation, or Brightness.

Repeat Wave The number of times the wave repeats within the specified duration.

Minimum Value Clips the minimum of the resulting modified signal to that value. For any duration in which the resulting modified signal falls below the specified Minimum Value, the signal will be changed to the specified value.

Maximum Value Clips the maximum of the resulting modified signal to that value. For any duration in which the resulting modified signal exceeds the specified Maximum Value, the signal will be changed to the specified value.

Y Axis Offset The underlying signal multiplied by the Y Axis Offset represents the starting value for the transformation.

Wave Amplitude Indicates the magnitude of change for scaling the original signal according to the selected Wave Mode.

Fade In Out Modifier

The Fade In Out Modifier effect gradually fades in or fades out the saturation or brightness of all effects underneath it in a group. The effect can also gradually transition all colors through a range of hues.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

In/Out Mode For brightness and saturation, Fade In gradually fades from the Min Value to the Max Value, and Fade Out gradually fades from the Max Value to the Min Value.

For hue, Fade In gradually transitions clockwise around the color wheel through a range of hues, while Fade Out gradually transitions counterclockwise. The range of hues is defined by the effect colors in conjunction with the Min Value and the Max Value.

HSV Mode Sets the Fade In Out Modifier effect to modify Hue, Saturation, or Brightness.

Min Value and **Max Value** For brightness and saturation, Min Value is the minimum percentage of the effect color's brightness or saturation, and Max Value is the maximum percentage of the effect color's brightness or saturation.

For example, an effect displays a color at 50% brightness, Min Value is set to .1 (10%), Max Value is set to .8 (80%), and In/Out Mode is set to Fade In. The Fade In Out Modifier begins at 10% of the effect color's initial brightness (5% brightness) and gradually increases the brightness to 80% of the initial brightness (40% brightness).

For hue, Min Value and Max Value represent percentages of the distance, around the circumference of the color wheel, between the effect color's angle and 0° (pure red). Fade In transitions counterclockwise through the range of colors defined by Min Value and Max Value, while Fade Out transitions clockwise.

For example, an effect displays a pure green color (0,255,0), which is at 180° on the color wheel. In/Out Mode is set to Fade In, Min Value is set to .25, and Max Value is set to .75. The effect begins at the color which is at 25% of the distance between 0° and 180° on the color wheel, moving counterclockwise from 0°. The effect ends at the color which is at 75% of that distance. Therefore, the effect transitions through the range of colors between 315° (a bright pink, 255,0,255) and 225° (a bright blue, 17,151,255).

RGB Range Modifier

The RGB Range Modifier effect sets limits on the red, green, and/or blue channels of all effects underneath it in a group. In Clip mode, channel values cannot be greater than the maximum value or less than the minimum value. In Expand mode, channel values above the maximum value are pushed to 255, while channel values below the minimum value are pushed to 0.

In Clip mode, for example, you can limit the brightness of your overall show by setting the same minimum and maximum value across all channels. (Setting different values for different channels will alter the hue of all effect colors in Clip mode.) In Expand mode, you can modify video with a compressed dynamic range to push the brightest colors to the maximum and the darkest colors to the minimum, resulting in brilliant light colors and deep dark colors.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Range Mode Sets the effect to clip or expand RGB values.

Clip Channel values cannot be greater than the maximum value or less than the minimum value. Channel values above the maximum value are reduced to the maximum value, and channel values below the minimum value are raised to the minimum value. For example, if Min Red is set to 100 and Max Red is set to 200, all red channel values over 200 are reduced to 200, and all red channel values below 100 are raised to 100.

Expand Channel values greater than the maximum value are pushed to 255, and channel values below the minimum value are pushed to 0. For example, if Min Red is set to 100 and Max Red is set to 200, all colors with red channel values above 200 are pushed to 255, and all colors with red channel values below 100 are pushed to 0.

Min Red The minimum value for the red channel (0 – 255).

Min Green The minimum value for the green channel (0 – 255).

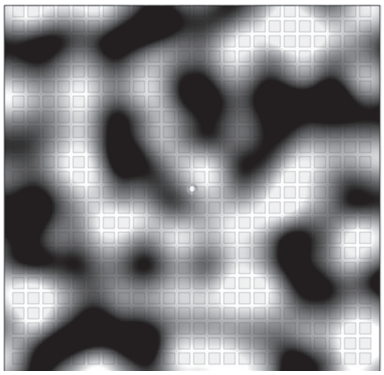
Min Blue The minimum value for the green channel (0 – 255).

Max Red The maximum value for the red channel (0 – 255).

Max Green The maximum value for the green channel (0 – 255).

Max Blue The maximum value for the green channel (0 – 255).

Perlin Noise Modifier



A Perlin noise pattern

The Perlin Noise Modifier effect overlays a random, smooth-flowing pattern of noise over all effects underneath it in a group.

Effect Type Name of effect type (not editable).

Start Start time of effect on the timeline (HH:MM:SS). Editing the Start property shifts the effect on the timeline and automatically updates the End property.

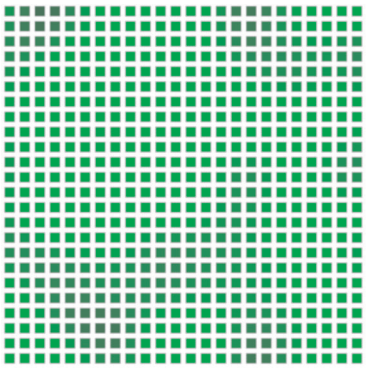
Duration Duration of effect on the timeline (HH:MM:SS). Editing the Duration property resizes the effect on the timeline and automatically updates the End property.

End End time of effect on the timeline (HH:MM:SS). Editing the End property resizes the effect on the timeline and automatically updates the Duration property.

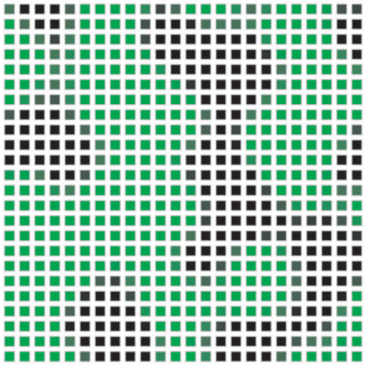
Row Timeline row to which the effect is assigned (row 1 is the topmost row in the timeline). Changing the row changes the effect's priority in a stack, assigns the effect to a different group, or unassigns the effect.

Random Seed An automatically generated series of numbers that generates the random noise pattern.

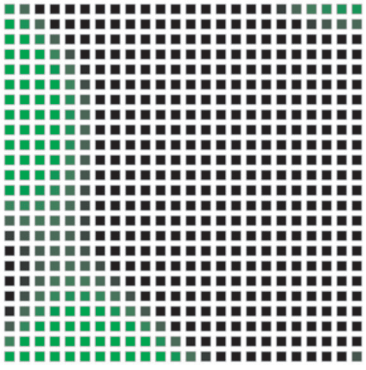
Value Multiplier The height of the peaks in the Perlin noise pattern (default value is 1). Higher values make the minimum and maximum saturation and brightness values more extreme.



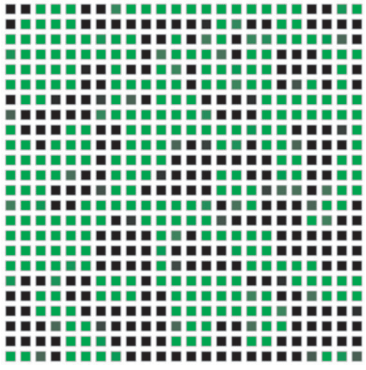
Value Multiplier = 1



Value Multiplier = 5



Frequency = 1



Frequency = 10

Frequency The apparent "roughness" of the Perlin noise pattern. The default frequency of 1 produces a fairly smooth pattern. Increasing the frequency creates a rougher or tighter pattern.

Speed The speed at which the Perlin noise pattern changes. The default is 1. Enter a larger number to increase the speed, or a fraction to decrease the speed. Entering 0 makes the pattern static (stops the pattern from changing).

Mode Sets the Perlin Noise Modifier effect to modify Hue, Saturation, or Brightness.

Action To modify the hue, saturation, or brightness of the effects underneath the Perlin Noise Modifier effect in a group's effect stack, select Scale, Replace, or Offset. Selecting None turns noise generation off.

Scale For hue, the Perlin Noise Modifier effect uses a 360-degree color wheel to calculate hue modifications, with pure red (255,0,0) at 0°. Scale multiplies the angle of each hue by a random value.

For brightness and saturation, multiplies the brightness or saturation percentage of each color by a random value.

Replace For hue, replaces each hue with a hue calculated by the Value Multiplier.

For brightness and saturation, replaces the brightness or saturation of each color with a random percentage.

Offset For hue, adds a random number of degrees on the 360-degree color wheel to each hue. Positive numbers offset hues clockwise around the color wheel, while negative numbers offset hues counterclockwise around the color wheel.

For brightness and saturation, changes the brightness or saturation of each color by adding or subtracting a random percentage.

Applying Effects to Groups

After creating the groups you need, you can apply effects to groups.

When you assign an effect to a Single Channel fixture, only the Red channel is used.

To apply an effect to a group:

1. Click the Effects tab, or choose Layer>Effects.
2. Do one of the following to assign effects to groups:
   - Drag one of the 24 effect icons from the Effect palette to a group in the mapping area.
   - Drag an effect icon to a timeline row in the timeline editor.

Once you've applied an effect, you can modify it and its placement on the timeline.

To cut-and-paste or copy-and-paste an effect:

1. To cut an effect, select the effect block in the timeline and select Edit>Cut. To copy an effect, select the effect block in the timeline and choose Edit>Copy.
2. Choose Edit>Paste. The effect is pasted at the end of the row from which it was cut or copied.

To delete an effect:

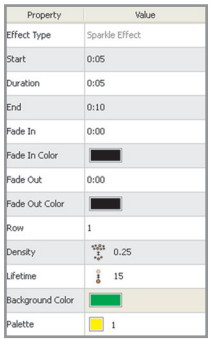
Select the effect block in the timeline and choose Edit>Delete or press Delete.

Modifying Properties

There are multiple techniques for editing the appearance and behavior of an effect: You can use the Properties Panel, the Palette Editor, the Properties Disc, or the effect block in the timeline editor.

Using the Properties Panel

Select an effect to display the effect's property values in the Properties Panel. You can modify editable properties by double-clicking the property value, then entering a value, selecting a value from a list, or using the Palette Editor, depending on the property.

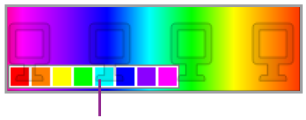


The Properties Panel, showing the properties for the Sparkle effect.

The Palette Editor

When a property calls for a color, you select the color using the Palette Editor. To display the palette editor, do one of the following:

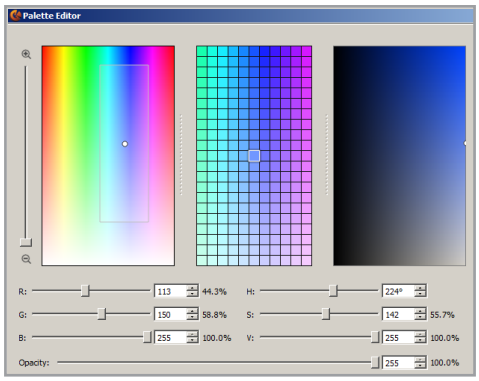
- Double-click the relevant property in the Properties panel.
- Click the Color Palette Bar, located in the bottom left corner of an effect.



Color Palette Bar

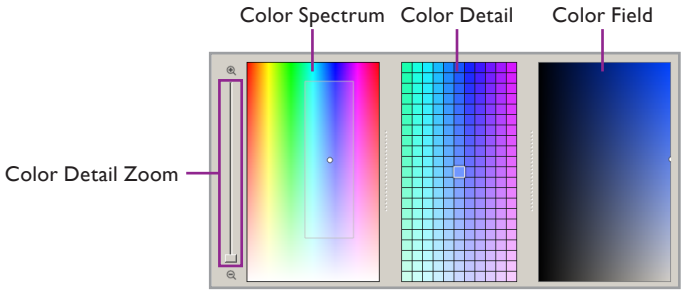
The Palette Editor offers an RGB Range for picking colors, and a White Range for targeting of temperatures or tints of white light.

The RGB Range

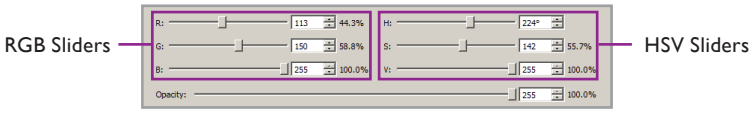


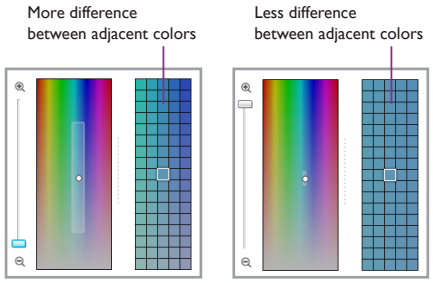
The RGB Range lets you select a specific color using the Color Spectrum, Color Detail, and Color Field controls, or using the sliders for the RGB (red/green/blue) color model, the HSV (hue/saturation/brightness) color model, and opacity.

The currently selected color is shown in the Active Swatch box. This color is also indicated on the Color Spectrum and the Color Field by a color point (a white dot), and on the Color Detail control by a highlighted box.



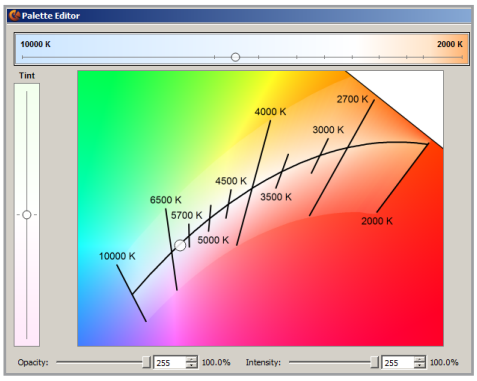
To make it easier to select and fine-tune specific colors, the Color Detail control displays colors adjacent to the currently selected color. Using the Color Detail Zoom slider, you can adjust the range of colors displayed in the Color Detail control. When you zoom in and out, the white bounding box on the Color Spectrum shrinks or expands to indicate the region displayed in the Color Detail control. The more you zoom in, the smaller the difference between adjacent colors in the Color Detail control.





You can change the currently selected color by dragging the white dot to a new location on any of the color controls, or by using the RGB and HSV sliders, in any combination. If the Live Play check box is selected, any lights connected to your computer will display the Active Swatch color.

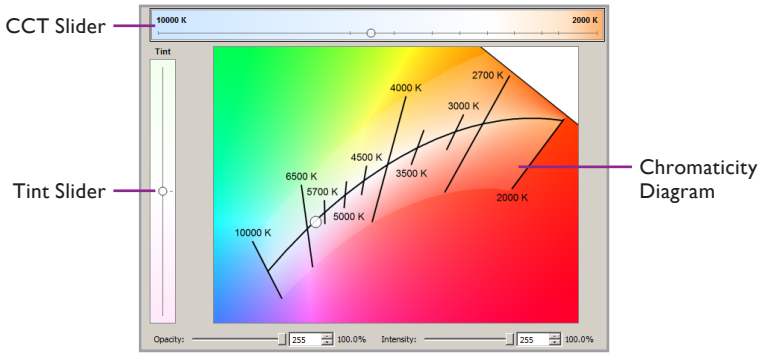
The White Range



The White Range helps you target temperatures and tints of white light using color-changing fixtures of three or more channels. You can also use the RGB Range with IntelliWhite fixtures in 3-channel mode.

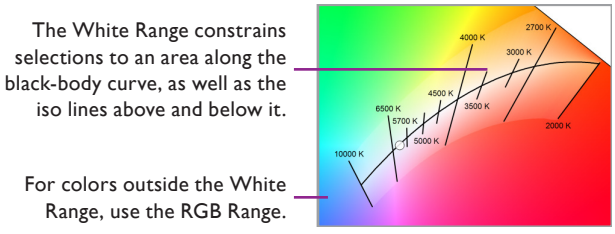
The White Range targets an area within the CIE 1931 x-y chromaticity space, on which CCTs (correlated color temperatures) for white light are defined. To make it easier to select temperatures of white light and tinted white light, the White Range constrains color selections to an area along the black-body curve and the iso lines that extend above and below it. To select colors outside of this area, use the RGB Range.

The White Range lets you select a specific temperature or tint of white using the Chromaticity Diagram, as well as the Tint slider and the CCT slider. The currently selected white appears in the Active Swatch. The currently selected white is also indicated on the Chromaticity Diagram by a color point (a white dot), and by positions on the Tint and CCT sliders.



The color point and the slider positions make a general indication of CCT and tint, and do not imply or guarantee color accuracy or color consistency across different fixture types. Think of the color point and slider positions as good starting points. If targeting an exact color temperature or x-y coordinate is critical, be sure to use a light meter or other measurement device to test the output of your lighting fixtures.

You can change the currently selected white by dragging the white dot to a new location on the Chromaticity Diagram, or by using the Tint slider and CCT slider, in any combination. The CCT slider moves the color point along the black-body curve, while the Tint slider moves the color point perpendicular to the black-body curve, parallel with the iso lines. If the Live Play check box is selected, any lights connected to your computer will display the Active Swatch color.



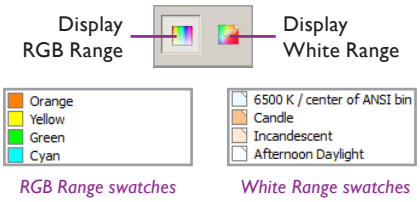
Color definitions created with the White Range differ depending on fixture type. To reuse temperatures of white and tinted whites with different fixture types, make sure you save them to your Project Swatches. You can then reload the colors and resave the effects when you change fixture types.

Switch Between the RGB Range and the White Range

ColorPlay 3 offers two convenient methods for displaying the intended color range.

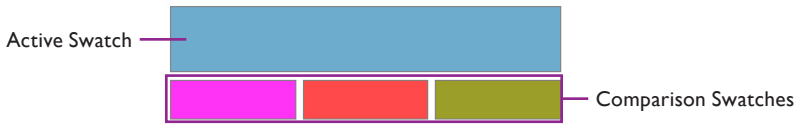
To switch between color ranges:

- Using the buttons: Click the Display RGB Range or the Display White Range button to toggle between the RGB Range and the White Range.
- Using Project Swatches: Select a swatch. The applicable color range is displayed. Swatches from the White Range are shown with a small triangle in the upper-right corner of the icon.



Use the Active Swatch and Comparison Swatches

The Active Swatch and Comparison Swatches make it easier to compare and select colors.



The currently selected color appears in the Active Swatch. When you save settings for the Fixed Color or Variable Color effect, or when you add a color to the Custom Wash effect, ColorPlay 3 uses the currently loaded color in the Active Swatch.

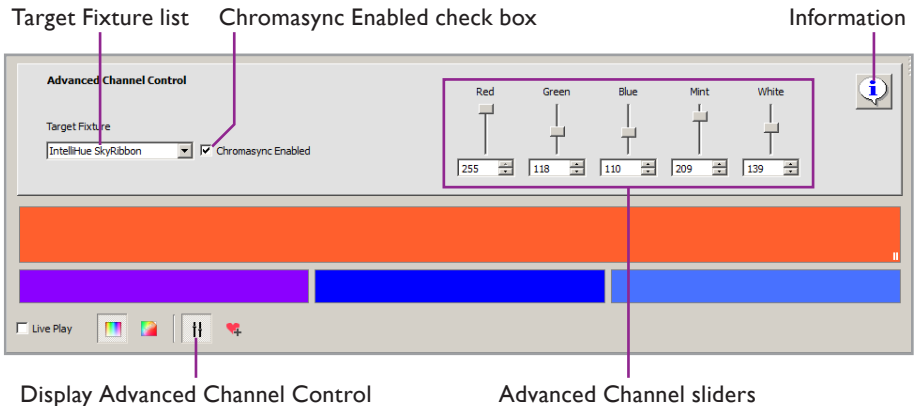
To load a color into the Active Swatch:

To load a color into the Active Swatch, select the intended color from the Project Swatches.

To load a color into the Comparison Swatches:

To load a color into a Comparison Swatch, drag the desired color from the Active Swatch, from the Color Detail control, or from your Project Swatches.

Use Advanced Channel Control



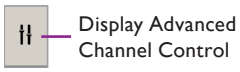
For most users, the standard RGB Range and White Range color selection options are enough to meet the expectations of a lighting designer. For users who want a little more control, ColorPlay 3 offers the Advanced Channel Control.

The values shown in Advanced Channel Control are a representation of the values calculated on the target fixture, and they may not match the actual DMX values that are stored in the light show.

Which Fixture Profile Should I Use with Advanced Channel Control?

Advanced Channel Control displays the LED channel values that are transmitted to the Target Fixture. For the best and most reliable results, select a Target Fixture that matches a fixture in your lighting installation. If you are able to see your fixtures, choose a reference fixture, and select that fixture from the Target Fixture list. The values shown in Advanced Channel Control will reflect the Target Fixture, while other fixtures will match color according to their own configurations.

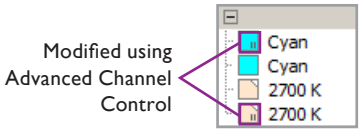
If you are using third-party fixture, select a generic fixture from the Target Fixture list. Available generic options are Generic RGB, Generic RGBA, Generic RGBW, and Generic RGBAW.



To use Advanced Channel Control:

1. Click the Display Advanced Channel Control button.
2. In your lighting installation, choose a fixture to use as a reference. Select that fixture from the Target Fixture list. If Chromasync is enabled on that fixture, select the Chromasync Enabled check box. The Advanced Channel sliders specific to the selected fixture are shown to the right.
3. Adjust the Advanced Channel sliders as needed.

Colors that have been modified from Advanced Channel Control are shown with a small indicator (⏸) at different places in the Palette Editor. Some examples of these are shown in the margin.



Project Swatches

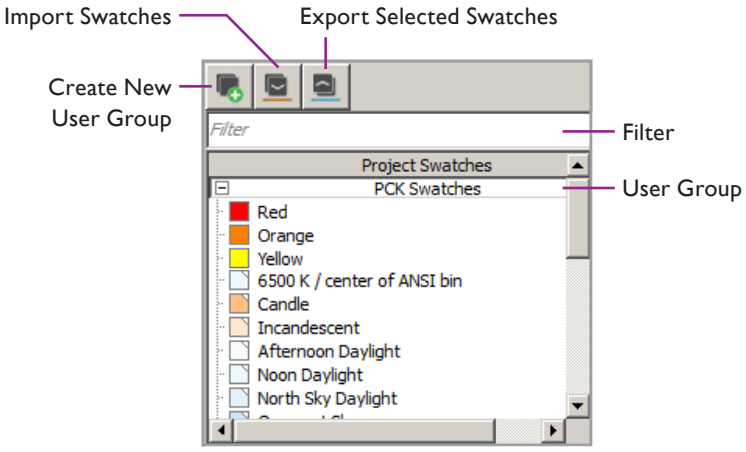
Active Swatch

Project Swatches and Project Palettes

ColorPlay 3 offers robust functionality for managing colors for your light shows. The Project Swatches list allows you to save and load single colors, while the Palettes list maintains a list of all multi-color palettes used in the current project.

If the currently selected effect can only use a single color, such as Fixed Color Effect, the Palettes list is unavailable.

Work with Project Swatches



The Project Swatches list contains colors that are saved for later use in ColorPlay 3. Project Swatches are organized into User Groups.

By default, ColorPlay 3 offers two User Groups that cannot be modified:

- PCK Swatches includes 12 RGB colors and 20 temperatures or tints of white.
- Apollo Gel Swatches includes colors matched to Apollo color catalog offerings.

To create, rename, or delete a swatch:

- To create a new swatch, select a color and click the Add to Project Swatches button. The new swatch appears with a default name (Color, Color 2, Color 3, and so on) in the Project Swatches User Group.
- To rename a swatch, double-click the swatch, and then enter a new name.
- To delete a swatch, right-click the swatch, and then click Delete.

To apply a swatch to the current effect:

To apply a swatch, do one of these actions:

- Click an RGB swatch to display the RGB Range and load the selected color into the Active Swatch.
- Click a White swatch to display the White Range and load the selected color into the Active Swatch. White Range colors are indicated by a white triangle in the upper-right corner of the swatch icon.
- Type in the Filter text box to limit the Project Swatches list to only those colors whose names contain the search string. Click ⊗ to clear the search string and display all available colors.

To create, rename, or delete a user group:

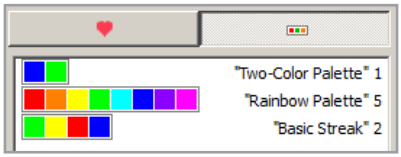
- To create a new user group, click the Create a New User Group button. The new user group is shown at the bottom of the Favorites list.
- To rename a user group, double-click the user group title, and enter a new name.
- To delete a user group, right-click the user group title, and then click Delete.
- Click the title of a user group to expand or collapse that group.

To import and export swatches:

- To export, select one or more swatch, and then click the Export Selected Swatches to a File button. Enter a file name and location, and then click Save. The CK Color File export is saved to your computer with the .ckcolors extension.
- To import, click the Import Swatches From a File to a New User Group button. Select a CK Color File (.ckcolors extension) from your computer, and then click Open. A new user group containing the imported swatches is created.

To select multiple Project Swatches for export, hold down the Ctrl key (Windows) or the Command key (Mac OS X), and then click the Project Swatches you intend to export.

Work with Project Palettes



The Project Palettes list contains palettes that are used in the current ColorPlay 3 project. Each palette is shown with the following information:

- A user-asigned name, shown in quotes. If a palette has not been named, no name is shown.
- The number of effects that use this palette in the current project. No number is shown next to unused palettes.

To create a palette:

To create a palette, simply add or remove colors to the Color Bar. A new entry is created in the Project Palettes list. By default, new palettes are not named.

To duplicate, rename, or delete a palette:

- To duplicate a palette, right-click the palette, and then select Duplicate.
- To rename a palette, right-click the palette, and then select Rename. Enter a name in the dialog box, and then click OK.
- To delete a single unused palette, right-click the palette, and then select Delete.
- To delete all unused palettes, right-click any palette, and then select Delete All Unused Palettes.

To apply a palette:

Click a palette to apply it to the current effect.

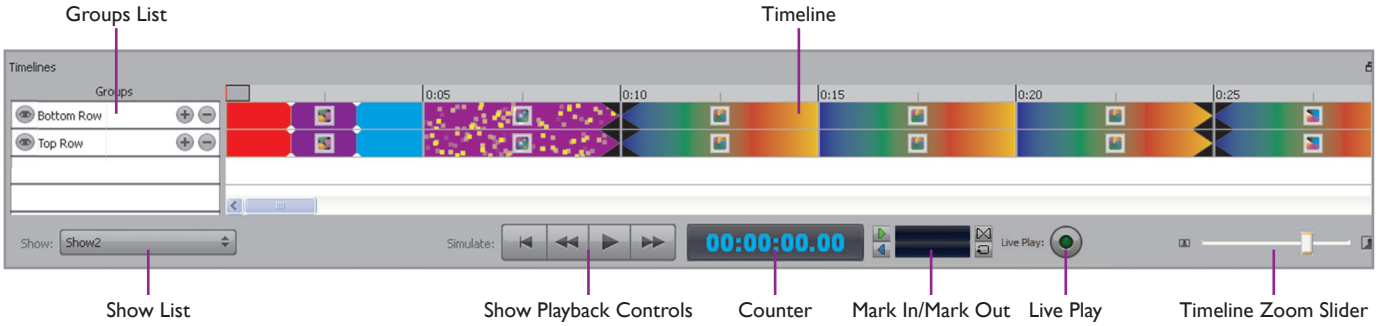
Palette Editor Keyboard Shortcuts

Color Range	To do this	Press
RGB Range only	Zoom in on the Color Spectrum	Ctrl+Plus Sign
	Zoom out on the Color Spectrum	Ctrl+Minus Sign
White Range only	Increase red	Ctrl+R
	Decrease red	Ctrl+Shift+R
	Increase green	Ctrl+G
	Decrease green	Ctrl+Shift+G
	Increase blue	Ctrl+B
	Decrease blue	Ctrl+Shift+B
RGB Range and White Range	Select a color diagram without moving the color point	Hold down Ctrl, and then click in an inactive color diagram
	Move the color point on a color diagram	Select a color diagram, and then press an arrow key
	Move a slider to the left or right	Select a slider, and then press Left Arrow or Right Arrow
	Move a slider up or down	Select a slider, and then press Up Arrow or Down Arrow
	Copy Comparison Swatch 1 to the Active Swatch	Ctrl+1
	Copy Comparison Swatch 2 to the Active Swatch	Ctrl+2
	Copy Comparison Swatch to the Active Swatch	Ctrl+3

6 Timeline Editor

The Timeline Editor lets you sequence, transition, set the start time, end time, and duration of, and fine-tune effects. You can stack multiple effects on the same group of nodes, creating complex, multi-layered light shows.

Simulation playback controls let you preview shows on your computer or on your installed lights.



The timeline is a visual representation of the sequence of effects in a show. Tick marks divide the timeline into regular intervals. You can use the Timeline Zoom Slider to bring a larger or smaller portion of a show into view.

The timeline lets you change many effect and show properties using simple drag-and-drop actions. In the timeline, you can:

- Add, duplicate, and delete effects
- Set effect start time, end time, and duration
- Create and modify effect transitions
- Assign multiple timeline rows to a group for effect stacking
- Change the priority of stacked effects
- Create multiple shows for the same set of nodes and groups, and save them in a single file
- Switch between saved shows
- Debug, simulate, and play back shows

Changing the Timeline Scale

The Timeline Scale Slider expands and contracts the visible portion of the timeline for easy access to show segments or entire shows. At maximum zoom, the timeline displays effects in increments of one second, with secondary tick marks at each half second.

Each second of an effect contains 40 frames (1 frame = .25 seconds).

Adding and Deleting Timeline Rows

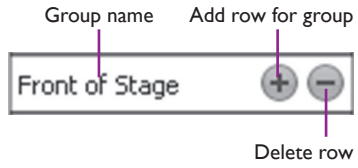
A show consists of one or more timeline rows, each of which can contain multiple effects. Because you assign effects to groups, each group in a show is automatically assigned a timeline row when the group is created. When you assign effects to a group, the effects appear in the timeline row associated with the group. You can change the order of rows in the stack, add timeline rows to a group for effect stacking, and delete timeline rows.

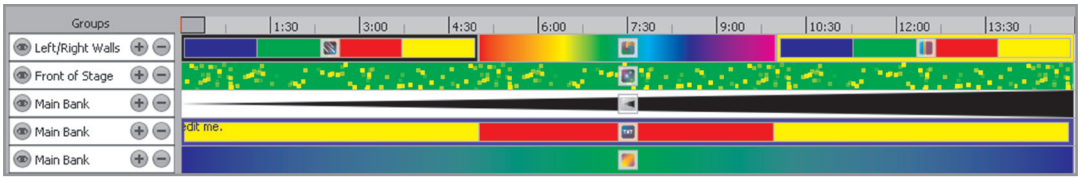
The set of timeline rows is called the stack.

To add rows to the timeline:

- Create a group. A timeline row for the group is automatically added to the timeline. The timeline row is identified by the group's name. New timeline rows appear at the bottom of the stack.
- To assign another timeline row to a group, click the plus [+] icon in a group's timeline row. New timeline rows are added immediately below the row you clicked.

  Each timeline row is identified with the group's name. (Changing the group name automatically changes the names of all timeline rows assigned to the group).





To delete rows from the timeline:

- To delete a row from the timeline, click the minus [–] icon in the row you want to delete.

  Any effects assigned to the deleted row are also deleted. You can delete the last row for a group without deleting the group. When you assign an effect to the group, a timeline row is automatically created for that group.
- To delete all unused timeline rows (timeline rows that contain no effects), click the Show Chooser and select Hide All Unused Timeline Rows.

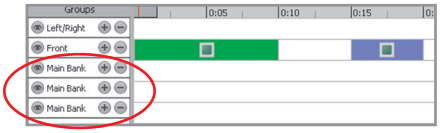
Working with Effects in the Timeline

You can perform many actions on effects in the timeline using the mouse. You can add effects to and remove effects from the timeline; change the start time, end time, and duration of effects; and copy, cut, paste, and move effects within and between timeline rows.

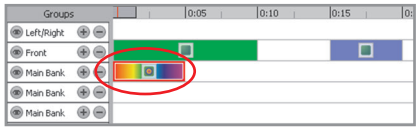
To add effects to the timeline:

- When you assign an effect to a group, the effect automatically appears in the timeline row associated with that group, at the default duration of 5 seconds.

  If the group has multiple timeline rows, the effect appears in the topmost row for that group.

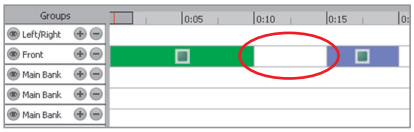


If a group has multiple timeline rows...

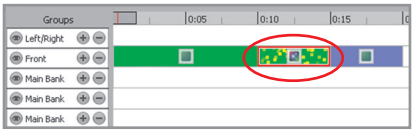


...effects are added to the topmost row for that group

  If the timeline row already contains effects, the new effect is inserted at the first gap in the timeline.



If the timeline row already contains effects...



...new effects are inserted after the first gap in the timeline

  You can drageffects directly onto the timeline. Effects are added with the default duration of 5 seconds. You can only drop effects where there is at least a 5-second gap in the timeline.

To select effects in the timeline:

- Click an effect to select it.
- Hold Shift or Ctrl while clicking to select multiple effects.
- Drag the mouse across the timeline to select all effects under the bounding box.
- With the Effects layer selected, press Ctrl+A to select all effects in the timeline.

To copy, cut, and paste effects in the timeline:

1. Select one or more effects.
2. Copy the selected effects by choosing Edit>Copy or pressing Ctrl+C, or cut them by choosing Edit>Cut or pressing Ctrl+X.
3. Paste the cut or copied effects by choosing Edit>Paste or pressing Ctrl+V.

If you copy and paste a single effect, the effect is added to the timeline row from which you copied it, immediately following the last effect in the row.

If you copy and paste multiple effects, each pasted effect is added to the same row from which you copied it, at the earliest point in the timeline that can accommodate all copied effects. Gaps between effects are preserved.

To remove effects from the timeline:

1. Select one or more effects.
2. Do one of the following:
   - Cut the effects by choosing Edit>Cut or pressing Ctrl+X.
   - Delete the effects by choosing Edit>Delete or pressing Delete.

Changing Effect Start Time, End Time, and Duration

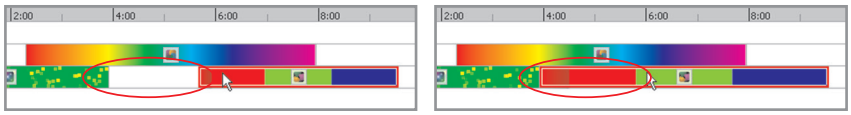
Each effect has a start time, end time, and duration in the timeline. The left edge of an effect block represents the start time, while the right edge represents the end time. Together, the start time and end time establish the effect duration.

To change the start time, end time, and duration of an effect in the timeline:

- Dragging an effect to a new location in the timeline changes the start time and end time but does not change the duration.

  You cannot drag an effect into an area already occupied by another effect (effects cannot overlap in the same timeline row). You can overlap effects by *stacking* them in separate timeline rows (see "Creating Multi-Layered Effects" below).

- Dragging the left edge of an effect changes the start time and duration of the effect, but does not change the end time.
- Dragging the right edge of an effect changes the end time and duration of the effect, but does not change the start time.
- Double-click an effect to autofill empty timeline space before the effect's start time.



Double-click an effect to fill in a timeline gap to its left

Creating Multi-Layered Effects

You can create multi-layered effects by assigning multiple groups to the same set of lights, or multiple timeline rows to same group, then adding effects to more than one row with the same or overlapping durations. Effects on top have priority over the effects below them. If there are gaps in an effect, or if the effect has transparency, effects stacked below it "show through." When defining colors for an effect, you can create transparency by setting opacity to less than 100%. Many effects let you make the foreground colors transparent so that any effects beneath them in a stack show through the ripple of particle patterns.

A lower-priority effect becomes visible when:

- There are gaps between effects in a higher-priority timeline rows
- A higher-priority effect ends but the lower-priority effect continues
- A higher-priority effect has transparency, in which case the lower-priority effect "shows through" the transparent areas of the higher-priority effect
- A higher priority effect simulation is made invisible by clicking the eye icon

To stack effects:

1. Assign two or more timeline rows to a group.
2. Add effects to two or more timeline rows for the same group.
3. Adjust effect start time, end time, or duration as necessary to overlap effects in multiple rows.

4. Adjust effect blocks in higher-priority row to create gaps through which lower-priority effects can become visible, or use transparency in an effect with a higher priority so that lower-priority effects can show through.

Changing the Priority of Timeline Rows and Effects

When multiple timeline rows are assigned to the same group, the rows on top have priority over the rows below them. Likewise, effects in rows on top have priority over effects in rows below them.

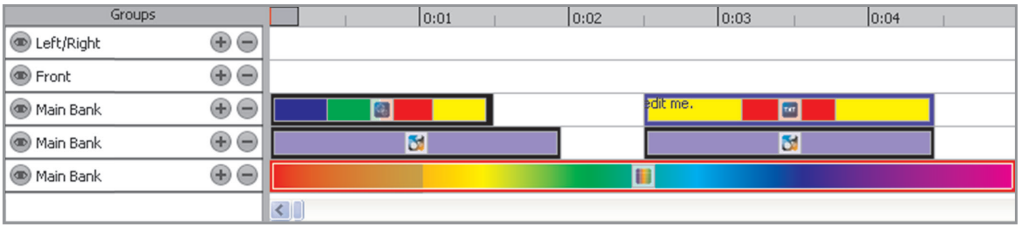
- To change the priority of an individual effect, select the effect, and drag it to a higher row (giving it higher priority) or a lower row (giving it lower priority).
- To change the priority of a timeline row, select the row in the Groups List and drag it to a new position within the set of rows assigned to a group.

Working with Shows

A ColorPlay 3 project can contain multiple shows. The Show Chooser lets you add, select, rename, and delete shows.

To create a show:

1. Click the Show Chooser and select Add.
2. Enter a name for the show, and click OK. Each time you add a show, a new entry appears in the Show Chooser menu.



Effects in lower rows "show through" gaps or transparency in effects in the rows above them

To select a show:

Click the Show Chooser and select the show's name. The mapping area and timeline display the selected show.

To rename a show:

1. Select the show from the Show Chooser.
2. Click the Show Chooser again, and select Rename.
3. Enter a new name for the show, and click OK.

To delete a show:

1. Select the show from the Show Chooser.
2. Click the Show Chooser again and select Delete.

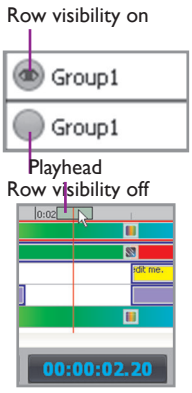
If your project contains only one show, you cannot delete the show.

Simulating Shows

The timeline's Simulation, Mark In/Mark Out, and Live Play controls let you simulate and test your shows in real-time. As you assign new effects and edit effect properties, you can preview the changes immediately by playing your show either on-screen or live on your fixture layout.

To preview a show on-screen using the Simulate controls:

1. Click the Play button to begin the simulation.
2. Click the Fast Forward, Fast Rewind, Jump to Start, and Pause buttons to control on-screen show playback.
3. Turn the visibility of a timeline row on or off by clicking the eye icon associated with the row.



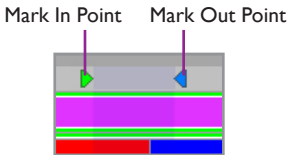
Scrubbing Video with the Timeline

You can scrub video in fine detail by dragging the virtual playhead back and forth across the timeline. When you release the playhead, it remains in that position. Zoom all way in on the timeline for frame-by-frame access.

You can navigate directly to any frame within the timeline by entering a value in the counter and pressing Enter. You can enter seconds, minutes, hours, days, or frames. For example, if you enter 100f and press Enter, the playhead moves to frame 100 in the timeline. The counter displays the location of the frame in the timeline in DD:HH:MM:SS format.

Using the Mark In/Mark Out Controls

You can set mark in and mark out points on the timeline to restrict video playback to a segment of the timeline. Setting a mark in point and no mark out point plays the timeline from that point to the end of the timeline. Setting a mark out point and no mark in point plays the timeline from the beginning to the mark out point. Setting both mark in and mark out points plays the segment of the timeline between the points only.



Play between marks once

Loop between marks

To set mark in and mark out points:

1. If you're setting a mark in point, drag the playhead to the frame on which you want to set the mark in point and click the Set Mark In Point button, or enter a time value in the mark in counter and press Enter.
2. If you're setting a mark out point, drag the playhead to the frame on which you want to set the mark out point and click the Set Mark Out Point button, or enter a time value in the mark out counter and press Enter.
3. Click the Loop While Simulating button to determine how to play back the segment of the timeline between the marks while simulating. You can set playback to play once only, or to loop.

To clear mark in and mark out points:

Click the Clear Marks button to clear both the mark in and mark out points from the timeline.

Simulating a Show with Live Play

To simulate a show with Live Play, ensure that an iPlayer 3 controller is connected to your lighting network and operating properly. You must also have properly connected and configured lighting fixtures.

To simulate a show on connected lights:

1. Click the Live Play button to initiate live playback mode.
2. Click the Fast Forward, Fast Rewind, Jump to Start, and Pause buttons to control show simulation.
3. Turn the visibility of a timeline row on or off by clicking the eye icon associated with the row.
4. Click the Live Play button again to exit live playback mode.

Live Play

Working with Lighting Visualization Software

Lighting visualization software lets you create a 3D model of an installation, with accurate lighting output data, for design refinement and simulation purposes. By default, during Live Play simulation, ColorPlay 3 broadcasts DMX data over the Ethernet lighting network to any listening visualizer clients.

ColorPlay 3 supports the following third-party visualization software:

- WYSIWYG
- Capture Polar
- ESPVision

Refer to your visualizer software guide for installation and configuration instructions.

To simulate a show with an external visualizer client:

1. Create a show.
2. Launch a visualizer client on the local lighting network.
3. In the visualizer client, connect to the ColorPlay 3 running instance (refer to your visualizer software guide for details).
4. Press the Live Play button in ColorPlay 3 to initiate live playback mode. The show data displayed in ColorPlay 3 matches the data displayed in the visualizer.
5. Click the Fast Forward, Fast Rewind, Jump to Start, and Pause buttons to control playback. as you would with an on-screen simulation.

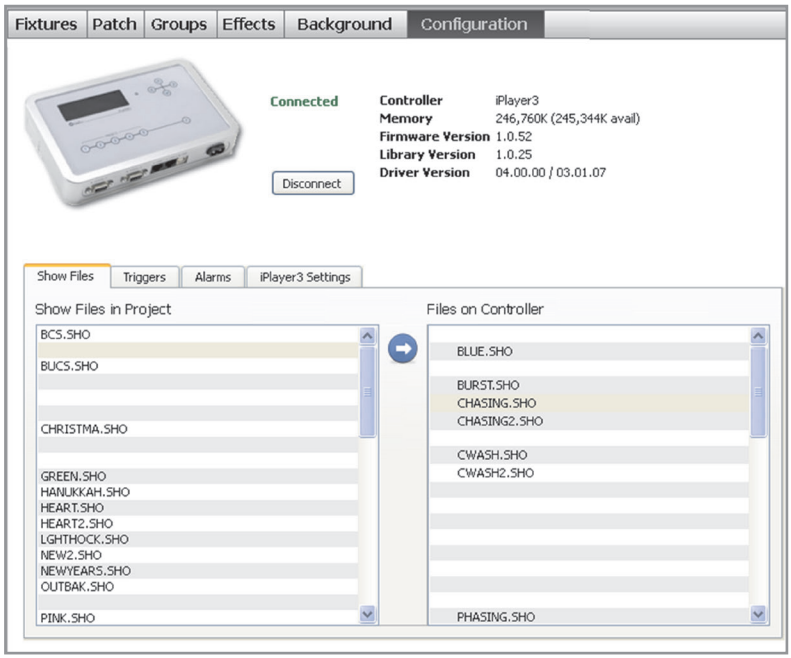
To turn off visualization data broadcast:

1. Select Edit>Preferences.
2. Click the General tab.
3. Clear the Send DMX data to visualizer application check box.

7 Configuring Shows

Once you've authored and saved one or more shows, you can download them to an iPlayer 3 controller or to the SD card installed in a ColorBlaze TRX lighting fixture. You complete show configuration by configuring and downloading triggers. You can also configure and download optional alarms for iPlayer 3

You can interface directly with iPlayer 3, iColor Player, or ColorBlaze TRX from the Configuration layer within ColorPlay 3. To display the Configuration layer, click the Configuration tab or select Layer>Configuration.



Connecting a Device

Once you've connected a computer running ColorPlay 3 to an iPlayer 3 controller or ColorBlaze TRX lighting fixture, you can view controller information and work with shows and triggers. You can also set alarms for iPlayer 3.

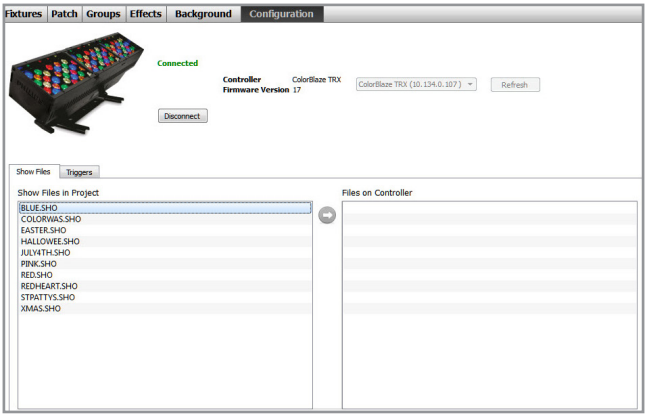
To connect to a device:

1. Do one of the following:
   - Using a USB cable, connect a computer running ColorPlay 3 to an iPlayer 3 or iColor Player controller.

- Using a standard CAT-5e or better cable, connect a computer running ColorPlay 3 to an Ethernet switch to which one or more ColorBlaze TRX fixtures are attached, or connect the cable directly to the Ethernet In port on a ColorBlaze TRX fixture.

2. From the list at the top of the Configuration layer, select the controller or ColorBlaze TRX fixture to which you want to connect. ColorBlaze TRX fixtures are identified by IP address.

3. Click Connect. If the connection is successful, the Configuration layer shows a message that reads “Connected.”



4. To disconnect from the connected device, click Disconnect.

Working with Show Files

When you display the Configuration layer, the Show Files tab appears by default. You use the Show Files tab to copy show files to and from the connected device, render shows, save shows, and delete files from the connected device.

Copying Show Files to a Connected Device

To play shows from a device such as iPlayer 3 or ColorBlaze TRX, you must copy them from your computer to the device itself. Once copied, show files appear in the Files on Controller list with a .SHO file extension.

By default, ColorPlay 3 includes project data when copying .SHO files to iPlayer 3. Including project data adds to file size, but it allows a .SHO file to act as an archive from which you can extract the project that includes the show file to any connected computer.

To copy show files to a connected device:

1. If desired, turn project data on or off by selecting Edit>Preferences. On the General tab, select or clear the Include project data when copying shows to controller check box, and then click OK.

2. Select one or more show files in the Show Files in Project list.

3. Click the Copy Selected Controls to Controller arrow button.

Shows that contain project data are identified in the Files on Controller list with an orange icon.

Rendering Shows Manually

When you copy show files to a connected device, ColorPlay 3 automatically renders those files (converts them to a format usable by the device). You can also manually render show files before copying them. You might want to render shows manually if you're finishing a project and aren't currently connected to a device, or to save time copying files (shows with complex video effects can be large, and can therefore take some time to render).

To render shows manually:

1. Select one or more show files in the Show Files in Project list.
2. Right-click, and select Render Selected Shows from the pop-up menu.

Saving and Adding Show Files

You can save one or more show files to a file on your computer (.SHO extension). You can copy (add) saved .SHO files to a connected device.

When saving show files from the open project to your computer, you can choose to also write DMX data. ColorPlay 3 creates two additional files: <filename>_port1.dmx and <filename>_port2.dmx. These files are compatible with certain controllers, including iPlayer 2 from Color Kinetics.

To save show files to a file:

1. Select one or more show files in the Show Files in Project or Files on Controller list.
2. Right-click, then select Save from the pop-up menu.
3. Do one of the following:
   - If saving show files in the project, browse to a destination folder. To also write DMX data, select the Also write DMX DATA check box. Click Save.
   - If saving show files on the controller, browse to a destination folder and click OK.

To copy show files to a connected device:

1. Right-click the Files on Controller list, then select Add File from the pop-up menu.
2. Navigate to and select the .SHO file you want to load, and then click Open.

To delete a show file from a connected device:

1. Select one or more show files in the Files on Controller list.
2. Right-click, and select Delete from the pop-up menu.
3. Click Yes.

To extract a show file with project data

1. Select one or more show files with project data in the Files on Controller list.
2. Right-click, and select Extract Project from the pop-up menu.
3. Select a destination folder on your computer, then click OK.

To play a show file with iPlayer 3, you must configure a trigger, assign it to a preset show or show file, and copy it to iPlayer 3. You can play triggers or shows from the ColorBlaze TRX on-board menus, but you must use triggers to play shows with DMX triggers or Ethernet Controller Keypaad

ColorPlay 3 offers 256 trigger numbers. You can access all 256 triggers via the iPlayer 3 menu system or the ColorBlaze TRX on-board menus. Additionally, trigger numbers 1 – 5 correspond to the show preset buttons on the faceplate of the iPlayer 3, and triggers 1 – 10 correspond to regions 1 – 10 of the DMX trigger. When using Controller Keypad with iPlayer 3, you can play shows assigned to any eight consecutively numbered triggers. When using Ethernet Controller Keypad with ColorBlaze TRX, you can play triggers 1 – 8.

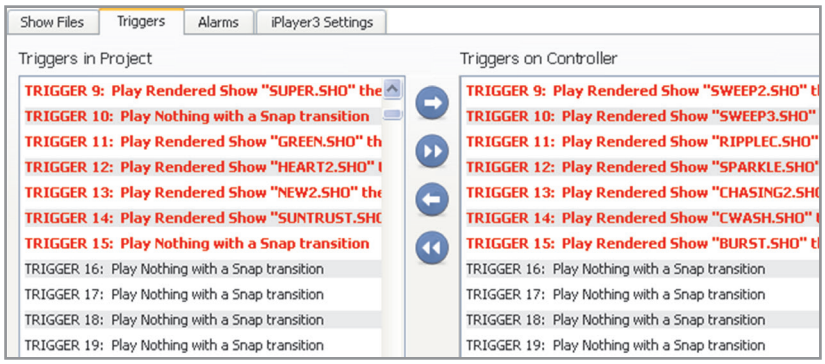
Configuring Triggers

When you configure a trigger, you assign a transition and a preset or rendered show to play. Additional options are available, depending on show type.

To configure triggers:

1. On the Configuration layer, click the Triggers tab. If you're connected to a device, triggers in ColorPlay 3 which don't match those on the connected device appear in bold red.

E *You can reorder triggers in the Triggers in Project list by dragging them.*



2. To configure a trigger, double-click a trigger in the Triggers in Project list.
3. Select a trigger number (1 – 256) from the Trigger list.
4. Select a transition from the Transition list. Transitions determine how the show associated with the trigger begins:
   - Snap jumps abruptly from previous light output to the assigned show
   - Fade Out & In fades out previous light output, then fades in the assigned show
   - Cross Fade fades out previous light output and fades in the assigned show simultaneously

   For Fade Out & In and Cross Fade, enter a transition time in the Time control.
5. To assign the trigger to a preset show (iPlayer 3 only):
   - Select a preset show from the Play list.
   - Enter show properties. Properties differ depending on the effect assigned to the preset show type. See Chapter 5 for complete details on effects and their properties.
   - Click OK.

6. To assign the trigger to a show you created:
   - Select Rendered Show from the Play list.
   - Select a show file in your ColorPlay 3 project from the list that appears below the Play list.
   - Select a behavior from the then list to determine how the show ends:

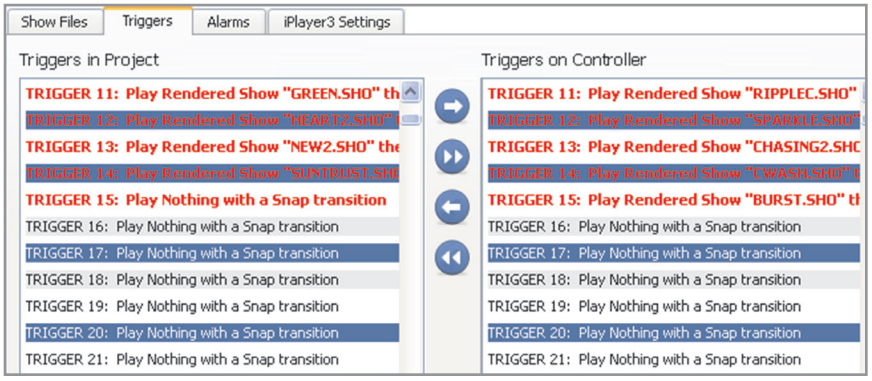
     Repeat repeats the selected show

     Fade to Black plays the show once, then fades light output to black

     Jump to Trigger transitions to a show assigned to another trigger. Select a trigger number from the list. The transition between shows is determined by the Transition selection in the trigger assigned to the show you're jumping to.
   - Click OK.
7. To set an empty trigger:
   - Select Nothing from the Play list.
   - Click OK.

Copying Triggers to and from a Connected Device

Once you've configured the triggers you need, you must copy them to the connected device to play the shows assigned to them. You can copy all triggers, or selected triggers. You can also copy triggers from the connected device to the open project.



To copy selected triggers to a device:

1. Select one or more triggers in the Triggers in Project list.
2. Click the Copy Selected Triggers to Controller arrow button.

To copy all triggers to a device

Click the Copy All Triggers to Controller arrow button.

To copy selected triggers to the open project:

1. Select one or more triggers in the Triggers on Controller list.
2. Click the Copy Selected Triggers to Project arrow button.

To copy all triggers to the open project:

Click the Copy All Triggers to Project arrow button.

Saving Triggers to and Loading Triggers from Files

For convenience, you can save selected triggers to a file (.IP3 extension), and load the file into ColorPlay 3 on any computer.

To save triggers to a file:

1. Select one or more triggers in Triggers in Project list.
2. Right-click, then select Save Triggers to File from the pop-up menu.
3. Give the .IP3 file a name, select a location to save the file, and click Save.

To load triggers from a file:

1. Right-click the Triggers in Project list, then select Load Triggers from File from the pop-up menu.
2. Navigate to and select the .IP3 file you want to load, and then click Open.

Deleting Triggers

You can delete triggers in the open project. If you're connected to a device, you can also delete triggers on the device. When you delete a trigger, the trigger is reset to the default (play Nothing with a Snap transition), but the trigger number is not removed from ColorPlay 3 or the connected device.

To delete a trigger:

Right-click a trigger in the Triggers in Project or Triggers on Controller list, and then select Delete Trigger from the pop-up menu.

Working with Alarms for iPlayer 3

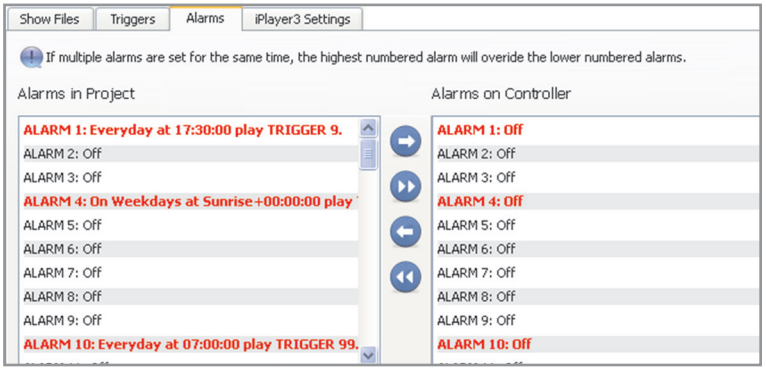
You can use alarms to automatically activate triggers on iPlayer 3. For example, you can set an alarm to activate a trigger every Monday at 5:00:00 p.m., or when an astronomical event occurs (sunrise or sunset on weekdays, for instance).

Configuring Alarms

When you configure an alarm, you specify when the alarm will go off, and you associate a trigger to activate. Activating a trigger with an alarm plays the show assigned to the trigger.

To configure alarms:

1. On the Configuration layer, click the Alarms tab. If you're connected to iPlayer 3, alarms in ColorPlay 3 which don't match those on iPlayer 3 appear in bold red.



E *You can reorder alarms in the Alarms in Project list by dragging them.*

2. To configure an alarm, double-click an alarm in the Alarms in Project list.
3. Select an alarm number (1 – 64) from the Alarm list.
4. Select an alarm type from the Type list. Alarms can be set to go off on a specific month and day, every day, every weekend day, every weekday, or every Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, or Sunday.
5. Select a time for the alarm:
   - To set the alarm to go off at a specific time of day, click Time of Day and enter a time (HH:MM:SS).
   - To set the alarm to go off relative to sunrise or sunset, click Astronomical. Select Before Sunrise, After Sunrise, Before Sunset, or After Sunset, then select how long before or after the selected astronomical event (H:MM).
6. Select a trigger to activate in the Play Trigger control, and then click OK.

Copying Alarms to and from iPlayer 3

Once you've configured the alarms you need, you must copy them to iPlayer 3 to activate the triggers assigned to them. You can copy all alarms, or selected alarms. You can also copy alarms from the controller to the open project.

To copy selected alarms to iPlayer 3:

1. Select one or more alarms in the Alarms in Project list.
2. Click the Copy Selected Alarms to Controller arrow button.

To copy all alarms to iPlayer 3:

Click the Copy All Alarms to Controller arrow button.

To copy selected alarms to the open project:

1. Select one or more alarms in the Alarms on Controller list.
2. Click the Copy Selected Alarms to Project arrow button.

To copying all alarms to the open project

Click the Copy All Alarms to Project arrow button.

Deleting Alarms

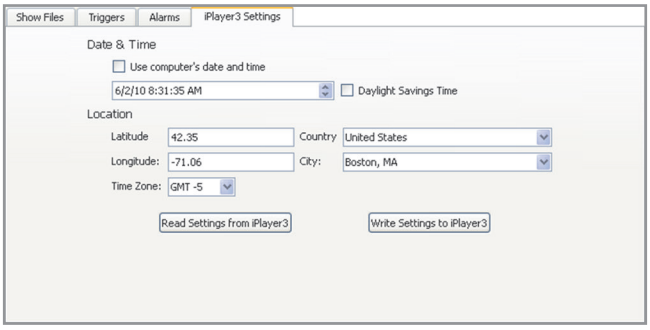
You can delete alarms in the open project. If you're connected to an iPlayer 3, you can also delete alarms on the controller. When you delete an alarm, the alarm is reset to the default (Off), but the alarm number is not removed from ColorPlay 3 or iPlayer 3.

To delete alarms:

1. Right-click an alarm in the Alarms in Project or Alarms on Controller list.
2. Select Delete Alarm from the pop-up menu.

Managing iPlayer 3 Settings

When connected to an iPlayer 3 controller, you can read and set iPlayer 3 date, time, and location, which are used by astronomical alarms.



To reading iPlayer 3 settings

Connect to an iPlayer 3 controller, and click Read Settings from iPlayer 3. The Date & Time and Location fields update to display the current iPlayer 3 settings.

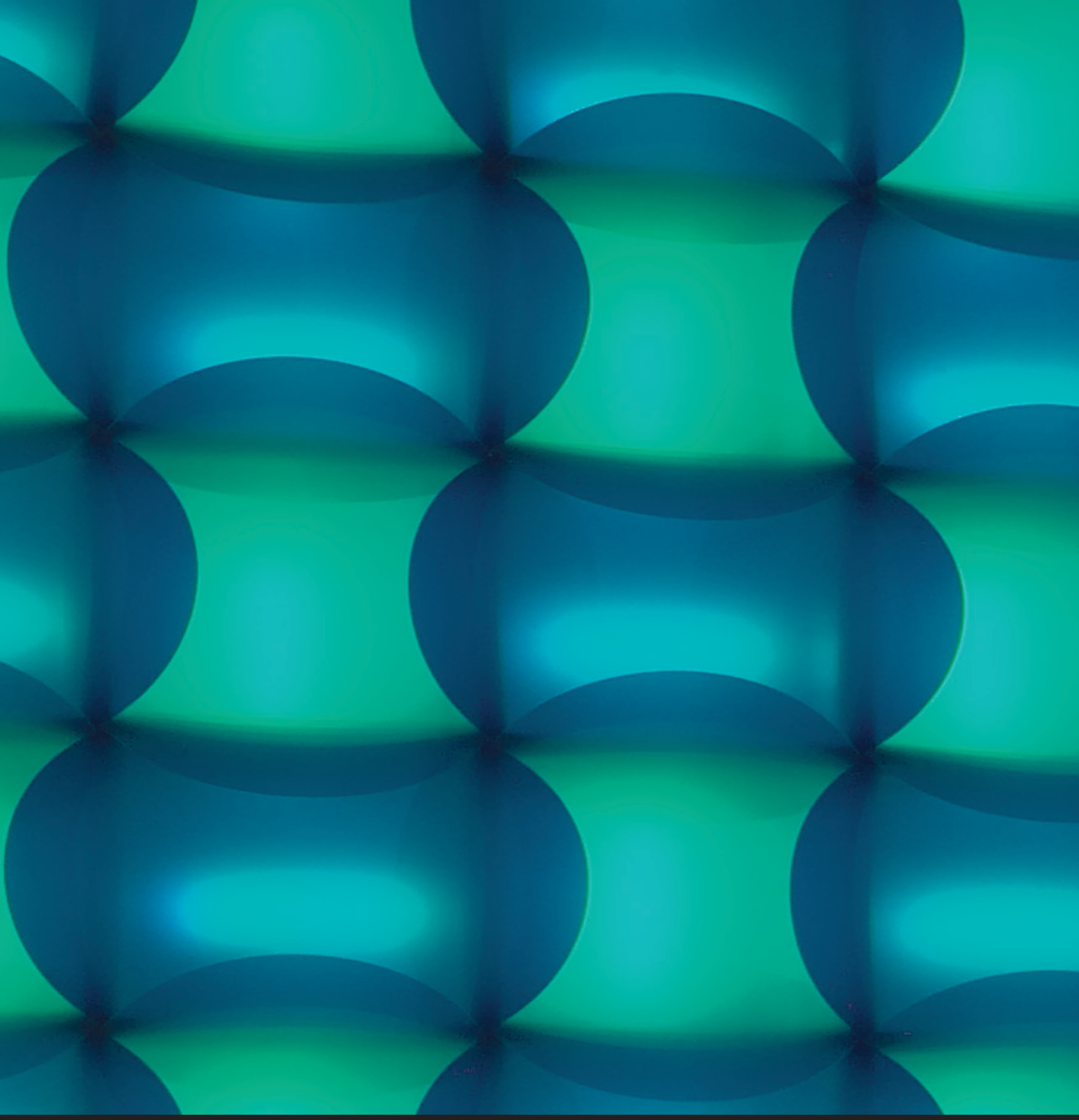
To set iPlayer 3 date, time, and location

1. Connect to an iPlayer 3 controller.
2. Use the date/time control to set the current date and time, or select the Use computer's date and time check box to read date and time settings from your computer. If daylight savings time is currently in effect, select the Daylight Savings Time check box.
3. Use the Latitude, Longitude, and Time Zone controls to specify a location, or use the Country and City lists to select a location. Selecting a country and city automatically updates latitude, longitude, and time zone.
4. Click Write Settings to iPlayer 3.

A ColorPlay 3 Preferences

You can set ColorPlay 3 preferences for mapping, timeline, debugging, and updates. To change ColorPlay 3 preferences, click Edit>Preferences.

General	
Include project data when shows to controller	Packages all of the shows in a ColorPlay 3 project into a .PR0J file. .PROJ files can be copied to an iPlayer 3, then extracted later
Send DMX data to visualizer application	Broadcasts DMX data on the lighting network so that supported third-party lighting visualization applications can capture the data
Mapping	
Always show Fixture addresses	Check to display fixture addresses on the Fixtures Layer.Uncheck to hide fixture addresses on the Fixtures Layer
Always show Fixture profiles	Check to display fixture profiles on the Fixtures Layer by default Uncheck to hide fixture profiles on the Fixtures Layer by default
Snap to Grid	Turns snap to grid off and on for Fixtures and Groups layers
Grid Size	Default grid spacing for Fixtures, Groups, and Background layers
Default Map Size	Default size of mapping area, in pixels
Timeline	
Loop while simulating	Turns show looping off and on in Timeline when simulating
Background Color	Sets the background color of the Timeline
Debugging	
Show Debug Properties	Turns debug messaging on and off
Updates	
Automatically check for updates	Turns automatic update notification on and off. Enter an interval to check for updates, in days. Click Check Now to check the Internet for updates now. If you connect to the Internet with a proxy, check “Use a proxy to access the internet” and enter the proxy information.



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