



Luminair 3

User Manual



Welcome

Thank you for purchasing Luminair 3!

Synthe FX takes great pride in creating cutting-edge tools that are extremely powerful as well as easy to use, and we're sure you will appreciate our attention to detail from the very first time you open the app.



Overview

What is Luminair?

Luminair is a professional-level lighting control app that gives lighting designers and enthusiasts advanced wireless control over DMX-enabled lights, as well as the next generation of Smart lights.

Luminair's unparalleled, multi-touch friendly controls were first developed back in 2008 in the first days of the iOS App Store.

The app has gone on to be used in every corner of the globe, on everything from Oscar winning films, in museum exhibitions, by artists and musicians, all the way to things like children's theaters and houses of worship. Luminair for iPad received a Lighting Control "Product of the Year" award in 2012 from Live Design magazine, one of the leading industry publications.

Luminair 3 is the next generation of mobile lighting control, and this release truly represents the original vision of its designers. Mobile hardware is now mature and powerful enough that we can achieve amazing things that weren't possible just a few years ago.

With the newly modernized user interface, and features such as the new Dynamic FX engine, Scheduling, Remote for Apple Watch, Lockdown, and Tap to Bump, the creative possibilities are now limitless.

Luminair 3 was designed to feel like you are painting with light, and we hope you agree!



Supported Lighting Protocols

Art-Net

Art-Net is a protocol developed by Artistic Licence, which allows for transmission of DMX control data over a local IP network. Art-Net has been widely adopted by manufacturers in products like DMX interfaces, media servers, as well as integrated directly in some lights.

sACN E1.31

sACN E1.31 is a more recently protocol developed by the PLASA Control Protocols Working Group. Similar to Art-Net, it allows for transmission of DMX data over a network to compatible interfaces.

Smart Lights (Philips Hue)

Luminair now supports simultaneous control of “Smart” lighting systems alongside DMX-enabled lights. Luminair currently supports Philips Hue systems, with plans to support more manufacturers in future updates.

Basic Workflow

Luminair is by far one of the easiest-to-use professional-level lighting controllers in existence, thanks to its beautiful, multi-touch-friendly design.

That said, custom programming any lighting controller can be a daunting task for new users, especially those brand new to the involved technologies.

Here's some helpful tips that outline the basic overview of the steps necessary to begin controlling your lights with ease. Please proceed to the next chapter for more basic getting started steps.

- Connect to your DMX and/or smart lighting hardware over the local network in Luminair's Status view
- Add lights and/or individual DMX faders to your project by tapping **+** in the main toolbar
- Add some scenes by tapping the **+** in the main toolbar
- Select a scene and start designing by manipulating fader levels and setting colors and position value where applicable
- Apply Dynamic FX to individual DMX parameters and/or create new sequences of the scenes you've designed



Main Window

Please familiarize yourself with the main user interface below. You may want to bookmark this page in order to reference while reading through the rest of this guide.



UI Customization

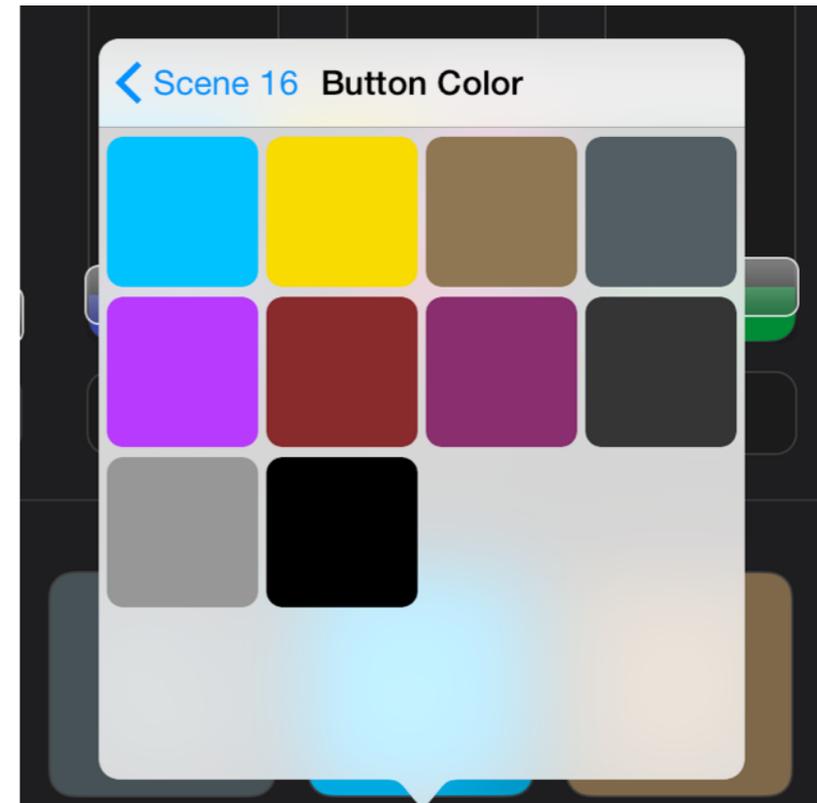
By default, controls in Luminair contain a very minimal amount of distinguishing visual elements.

The app was designed this way knowing full well that you will want to customize things like fader control colors, buttons icons and colors, photos on buttons and more.

- Fader colors can be chosen in the parameter options panel, in “Fader Style” section.
- Scene customization options can be changed in the scene detail view. To open the scene detail view, tap on the scene’s name label underneath the scene’s button. To change the scene’s button to another color, tap on the color swatch in the upper right corner of the app. Tap the Assign Image button to assign an icon, or photo from the device’s Photo library or camera.
- Sequence customization options can be changed in a similar way. When displaying the main sequence mode in full-screen, tap on the name in the sequence toolbar to make changes.

Note

While icons and button color selections are saved within the current project, when photos are assigned, they’re only referenced on the local device and not saved within the project themselves to save space. If the project is moved to another device not linked to the same iCloud account, those images will not appear.



Getting Started

Connecting to Devices

The steps for connecting to your lighting interface or system depends on which protocol or system(s) you plan on using with the app. In all scenarios you should first open a Luminair project in order to access to Status window, which controls settings related to the supported protocols.

Art-Net

By default, Luminair broadcasts Art-Net over the local network to Subnet 0, Universe 0. In this scenario, data will be delivered to all Art-Net interfaces on the local network listening to that Subnet and Universe. No special configuration should be necessary if your Art-Net interface is already listening to Subnet 0, Universe 0.

For all other Art-Net configurations, the following is recommended:

- First, your Art-Net interface should be configured with an IP address within the same range as your iOS device, preferably with an address where the first three octets match (such as 10.0.1.X, 192.168.0.X, or similar). You will need to use your interface's management utility to change this if necessary.
- Next you'll need to open up Luminair's Status view. Scroll down to Art-Net. Options for changing the Universe and Subnet, as well as selecting a Node for unicasting are listed here. Make sure that the Output Universe and Subnet match-

these settings in your Art-Net interface. You can change them within Luminair if necessary

- If you want to use Art-Net unicasting to a specific interface, open up the Status view and select Art-Net > Node. If your interface supports network polling and has an IP address in the same range as your IOS device, it should be listed here. Select it in the list to turn on unicasting.
- Luminair will recommend settings to use for your interface in this view should it not already appear. You can also manually turn Unicasting to On and enter an IP address for your interface.

sACN E1.31

Luminair broadcasts sACN over the local network. No special configuration should be necessary other than turning on sACN in Luminair's Status view, and selecting a Universe and Priority in this same view.

You can can change the Priority setting to a higher or lower value in scenarios where multiple controllers are running on the same network. The highest priority device will act as the master.

Philips Hue

To manually connect to your Philips Hue system, either begin by adding a new Smart Light (tap + in main toolbar and select Smart Light), or open up Luminair's Status view and tap on the Philips Hue section.

KiNET

Luminair is now capable of transmitting DMX data to Philips Color Kinetics power supplies, using the KiNET protocol.

To use KiNET in Luminair, open the Status view > KiNET and turn Enabled to ON.

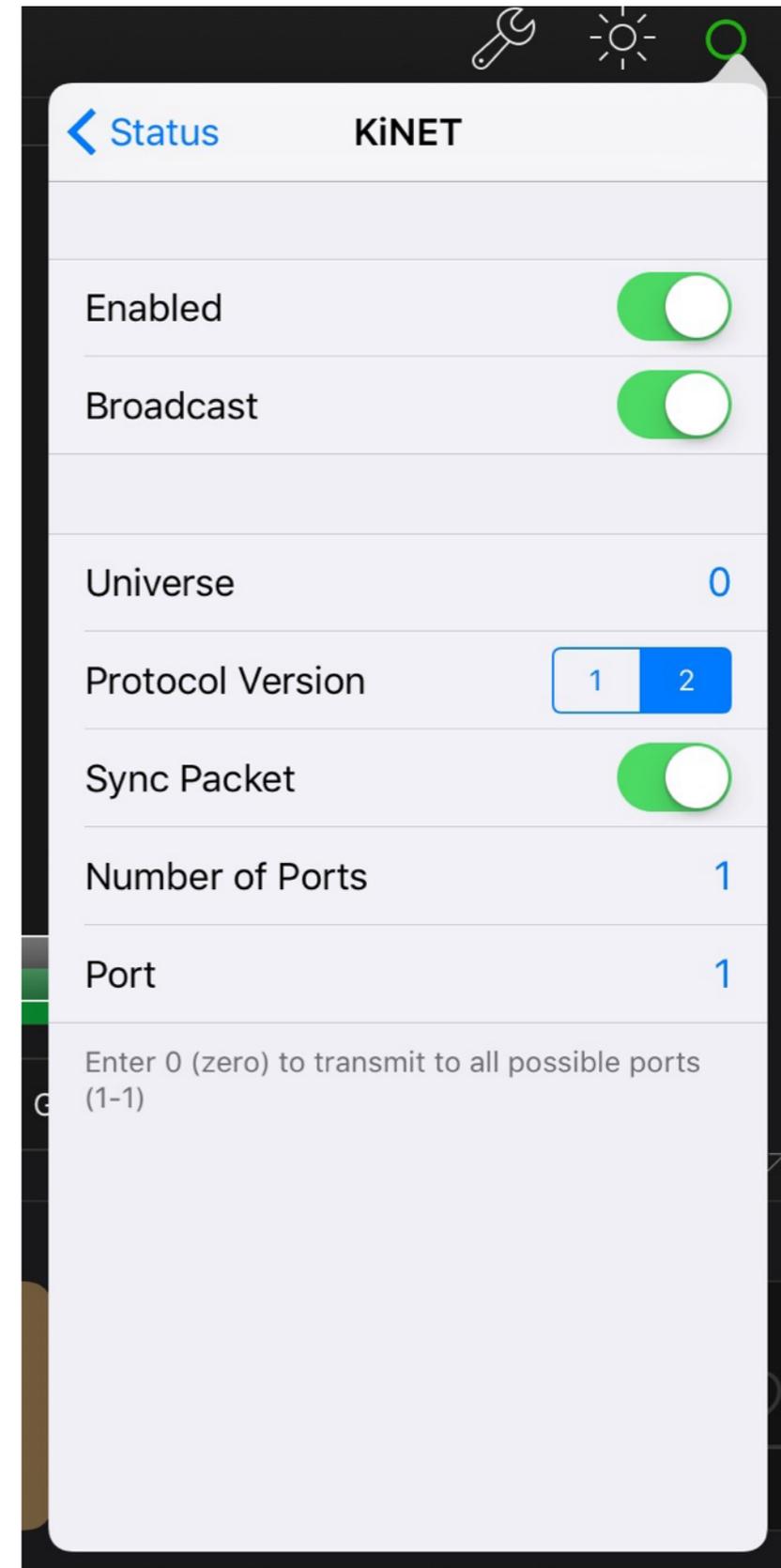
You have choice of transmitting packets via broadcast or unicast, and also the option of transmitting KiNET v1 or v2 packets. To unicast directly to a specific IP address, turn Broadcast to OFF and enter the IP address of the power supply you want to control.

Select the universe that you want Luminair to transmit. Default is Universe 0.

For CK power supplies that have multiple output ports, change the number of ports option, and also specify the port you wish to control. Enter 0 (zero) to transmit to all ports.

It's recommended that Sync Packet is turned on in most scenarios. This tells the power supplies to wait until the sync packet is delivered before updating individual node state.

Note: When using both Art-Net and KiNET protocols, it's recommended that Art-Net broadcasting is disabled for optimal performance



Ethernet Connections

Luminair 3 is now capable of transmitting communications through direct ethernet connections instead of Wi-Fi. There are currently two methods of connecting ethernet devices directly to your iOS device, both of which have specific scenarios they work best under.

Apple's Lightning to USB 3 Camera Adapter

For simple DHCP-based connections to a local network router, it's possible to use Apple's Lightning to USB 3 Camera Adapter (Apple part # **MK0W2AM/A**) along with a compatible USB-ethernet adapter (we recommend Apple part # **MC704LL/A**).

- To enable network communications through this configuration, you will need to disable Wi-Fi communications within the iOS settings app. When Wi-Fi is *enabled*, the device will use the Wi-Fi interface, so it's important that all Wi-Fi communications are disabled in the iOS Settings app.
- Ethernet adapters currently do not offer any configuration options within the iOS Settings app or via developer API's, so this method is only suitable in networks where a router assigns an IP address dynamically via DHCP.

- This configuration also requires that the Lightning to USB 3 Camera Adapter is connected to a power source in order to supply enough power to the USB ethernet adapter.
- After Wi-Fi has been disabled, Luminair will display "Apple USB" under Network > Built-in within the Status view.
- For direct ethernet connections to an Art-Net or sACN interface or node, you will need to use a 3rd party ethernet accessory instead. (as described below)

3rd Party Accessories (Redpark)

For direct ethernet connections to an Art-Net or sACN interface or node, Luminair also supports [Redpark's L4-NETP](#) and [L2-NET](#) Lightning to Ethernet accessories for iOS devices. With these accessories, you connect the lightning connector to your iOS device, and the ethernet connector to a router, or directly to an Art-Net or sACN interface/light.

After connecting the lightning to ethernet cable, it will take a moment for DMX transmissions to begin, as the device is powered up and obtains a connection. The cable's options can be configured in Luminair's Status view > Ethernet.

- We recommend connecting the ethernet side of the cable before connecting to the iOS device running Luminair. It's also necessary to remove the lightning connector

whenever you want Luminair to resume transmitting DMX data over Wi-Fi.

- By default the L2-NET/L4-NETP will be configured for DHCP connections when detected. If you are connected through a network router, the IP address will be provided and further configuration may not be necessary. When connecting directly to an Art-Net or sACN interface/light, or you want to change the you will need to disable DHCP in Luminair's Ethernet settings, and assign an appropriate IP address, Subnet, Router and DNS. The IP address should be within the same range as your Art-Net or sACN interface's IP address. We recommend making the first three octets match on both devices.
- Ethernet connections through accessories are dedicated to transmitting DMX over Art-Net or sACN. Other network communications (Smart Lights, MIDI, OSC) still require a normal Wi-Fi connection on your device.
- NOTE: Your DMX interface will see DMX transmitted from the iOS built-in network interface as a different source (and IP address) from data sent via the ethernet connection. If your interface is configured for HTP merging, you may need to reset your interface's buffer or cycle power when switching between connection methods. If you prefer to only transmit DMX when ethernet is connected, turn the "Prevent Wi-Fi when disconnected" to ON.

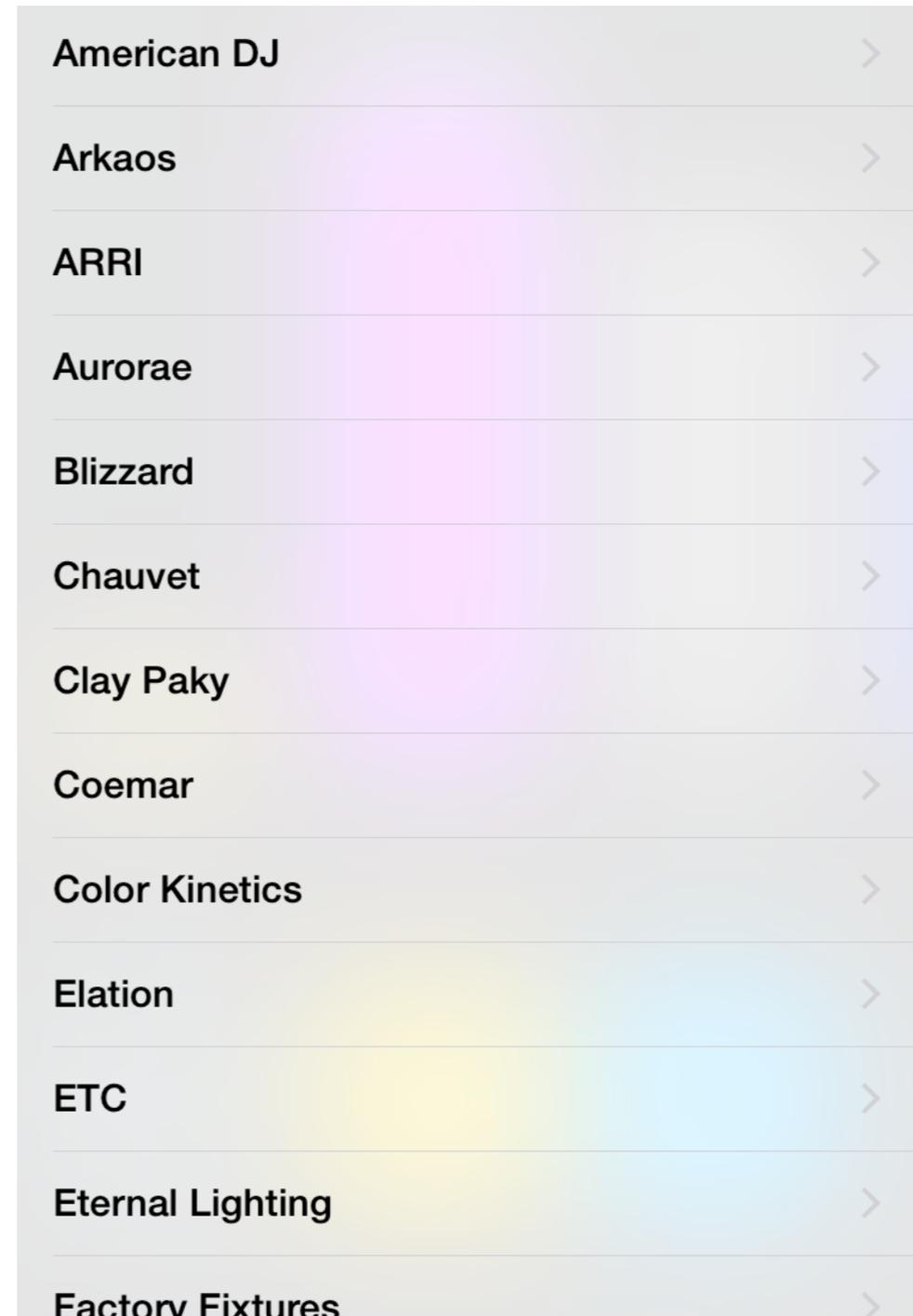


Adding DMX Lights

The easiest way to add a new DMX light to your Luminair project is by using an existing fixture profile.

Luminair includes a library of DMX fixture profiles for many popular lights shipped over the past decade or so from a variety of lighting manufacturers.

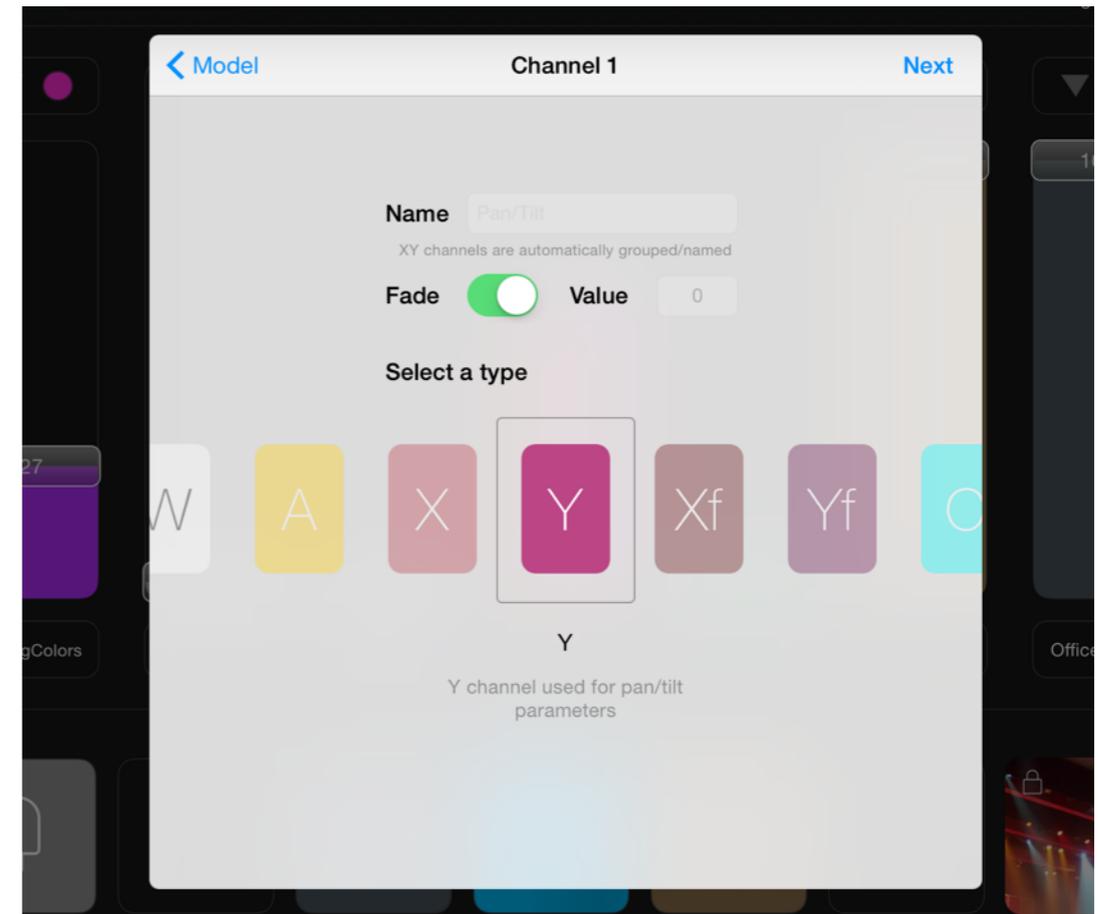
- To add a new fixture to your project, tap **+** in the main app toolbar and select “DMX Fixture”. In the view that appears, tap “Select a profile” to browse through files currently installed in the library.
- Once you’ve selected a profile, Luminair will ask which DMX channel you want the fixture to start on, which should correspond with actual DMX address physically assigned on the light itself.
- If you don’t see a fixture profile for a specific light you’re using, don’t worry. You can also create your own profiles, further described in the next section
- If you want to control multiple identical fixtures together, add each one individually, and then follow the instructions in the Fixture Linking section later in this user manual (p.19)



Creating Fixture Profiles

If a fixture profile doesn't already exist in Luminair's built-in library for any of the lights you'll be using, we recommend creating a new fixture profile. Once you've created a new profile, it will be included alongside the built-in library for future use.

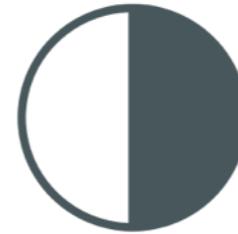
- To create a new fixture profile, tap + in the main app toolbar, and, select "DMX Fixture". In the view that appears, select "Create a profile".
- Luminair will proceed to ask you specific details about the light you are creating the profile for. You'll need to reference the light's user manual when providing these details.
- When you make it to the Channel selection screen, you'll need to choose an appropriate Luminair channel type for each of the light's DMX parameters. Use the guide in the next chapter for a reference of Luminair's channel types.
- Note that some channel types allow you to enter a custom name and default value.
- All channel types also allow you to turn fading off for a particular channel, which is useful for parameters like gobo selection or similar "wheel" based types.



Individual Faders

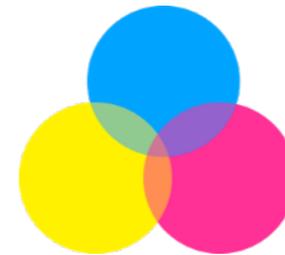
If you only want or need to work with specific DMX channels or parameters, and not necessarily an entire fixture, it's possible to add individual fader controls to your project.

- To add an individual fader control, tap + in the main toolbar and select "DMX Fader". In the view that appears, you can select the appropriate fader type, depending on the type of parameter you are trying to control. See the section on the right side of this page for a description of each type.
- By default, individual fader control will be patch to start on the first available DMX channel in your current project. If you need to change this channel, or make further edits to the channels assigned within this parameter, tap and hold it's name label and select "Edit". In the view that appears, select "Channels" to display the channel assignment box. In this view, tap and hold a specific channel and assign it's type.
- Luminair channel types of further described on the next page.



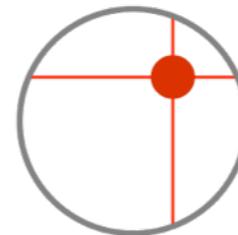
Standard Fader

Patches the specified channel to the current fader value. Can be used for all parameter types.



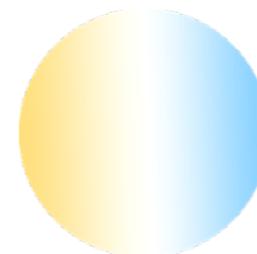
Color Fader

Used for RGB, RGBA, RGBW, RGBAW, HSI and CMY parameters.



XY Fader

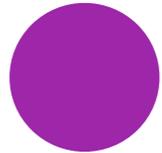
Used for Pan/Tilt Parameters or any other type of XY grid values.



Temperature Fader

Used for 1 or 2-channel Color Temperature Parameters.

DMX Channel Types



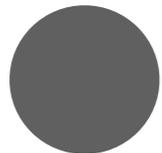
Power

Patches the specified channel to the current fader value. Can be used for all parameter types.



Reverse Power

Patches the specified channel with the inverse value of the current fader value.



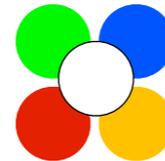
Constant

Patches the specified channel with the entered value, unaffected by fader position. Not used in the profile creator.



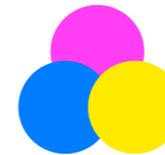
X, Y, X fine, Y fine

Used for pan and tilt parameters, or any other positional parameter types. Must be patched together within a single XY fader control.



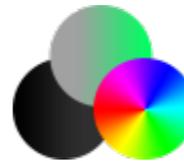
Red, Green, Blue, Amber, White

Used for RGB, RGBA, RGBW, RGBAW, or RGBWA parameters. Must be patched together within a single Color fader control.



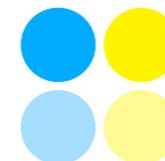
Cyan, Magenta, Yellow

Used for CMY color parameters. Must be patched together within a single Color fader control.



Hue, Saturation, Intensity

Used for HSI color parameters. Must be patched together within a single Color fader control.



CT Cool, CT Warm, CT Cool-Warm, CT Warm Cool

Used for either 1 or 2 channel Color Temperature parameters. Must be patched together within a single Temperature control.

Adding Smart Lights

Luminair now offers the ability to control smart lights like Philips Hue, right alongside your DMX controlled lighting, with some minor limitations (see note at top of next page).

- When a Philips Hue bridge is detected on your local network, Luminair will by default display a pop-up asking if you want to add the bridge's lights to your Luminair project. This option can be turned off in Luminair's settings.
- Luminair may ask you to link your bridge to your device the first time you connect. If it does, simply, follow the on-screen instructions. You'll need to have physical access to the bridge. When prompted tap the link-button on your bridge, and Luminair will connect.
- If you decide at a later time that you'd like to add additional Smart Lights to your project, use the Add Menu (+ in the main toolbar), and then select "Smart Light". Luminair will now display the list of lights to select.
- See the next chapter *Designing* for more information on how to control smart lights after they've been added

Note Hue Bridges are added on per-project basis in Luminair, allowing you to switch between bridges by simply opening a different Luminair project.

Supported Smart Light Systems

The Philips Hue logo is displayed in a light gray, lowercase, sans-serif font. The letters are spaced out, with the 'h' and 'u' being significantly larger than the 'e'.

more to come...

Groups

Luminair offers basic grouping capabilities, for controlling multiple DMX channels or Smart lights together with the same values.

- A “DMX Group” in Luminair is a generic container that holds individual fader parameters.
- To add a new DMX Group, tap + in the main toolbar, and select “DMX Group”. After the group has been added, you the user interface will update into a “filtered” view, displaying only this group. You can now add additional individual fader controls to this group, using the process described on Page 13 of this guide.
- DMX Groups offer a “master” output control, a DMX start address offset control, as well a multiplier control for easily controlling multiple DMX channels addressed in succession with a single set of faders.
- “Smart” lights can also be grouped, however this option is located in the fader options submenu, accessed by tapping on the button on the left above a smart light fader.
- Smart light groups are assigned on a “per-scene” basis, so you can configure scenes that use this option or not, and easily switch between styles by changing scenes.

These options are accessible in the group/fixture toolbar, which can be opened by double-tapping *between* the name labels underneath the fader controls for the group of fixture.

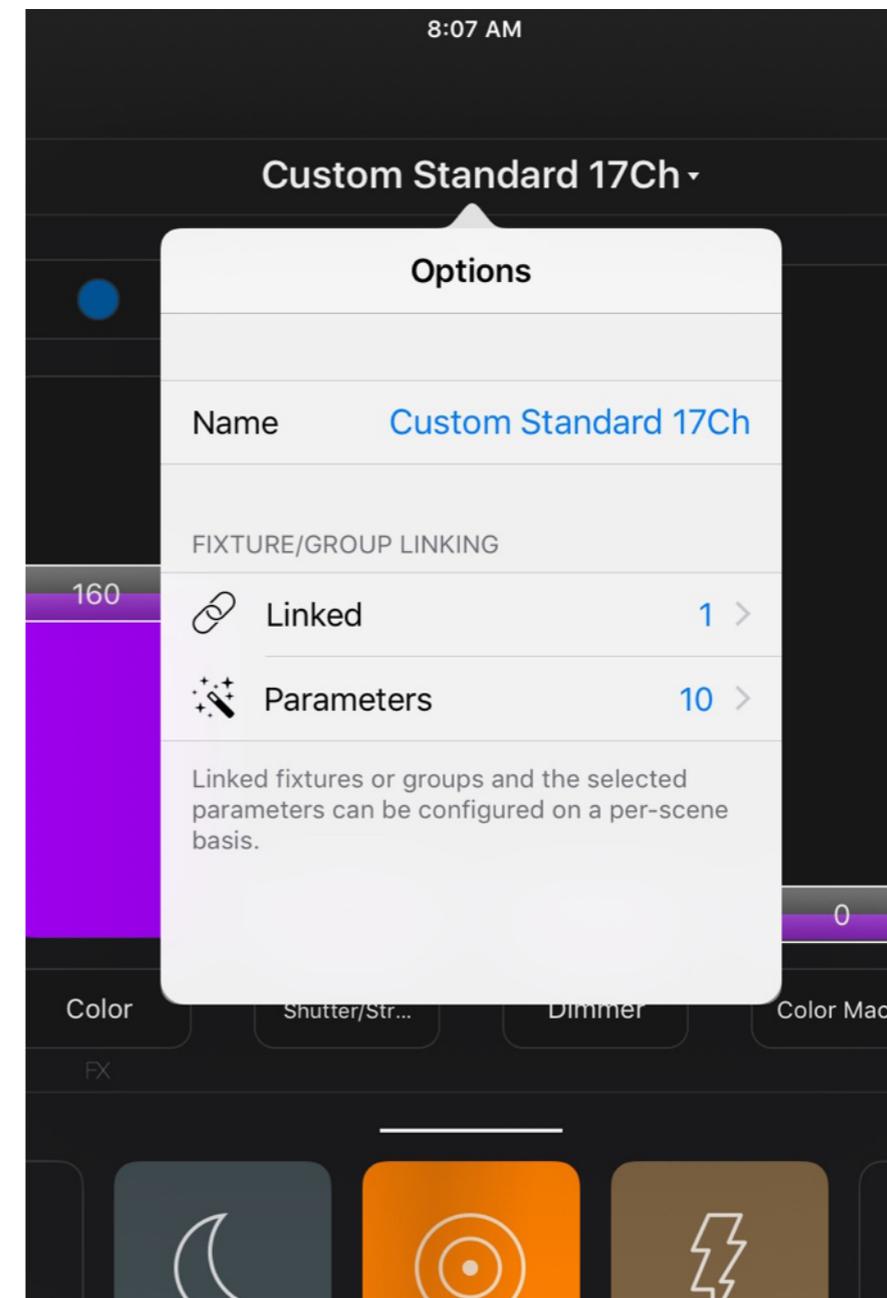
On an iPad, you can also tap on the small group name above the faders and select “Edit” in the popup view that appears.

- **Note:** If you want to control multiple identical DMX fixtures together, use Fixture Linking as described in the next chapter.

Fixture Linking

Link and control multiple identical DMX fixtures together and select which parameters to link on a scene by scene basis

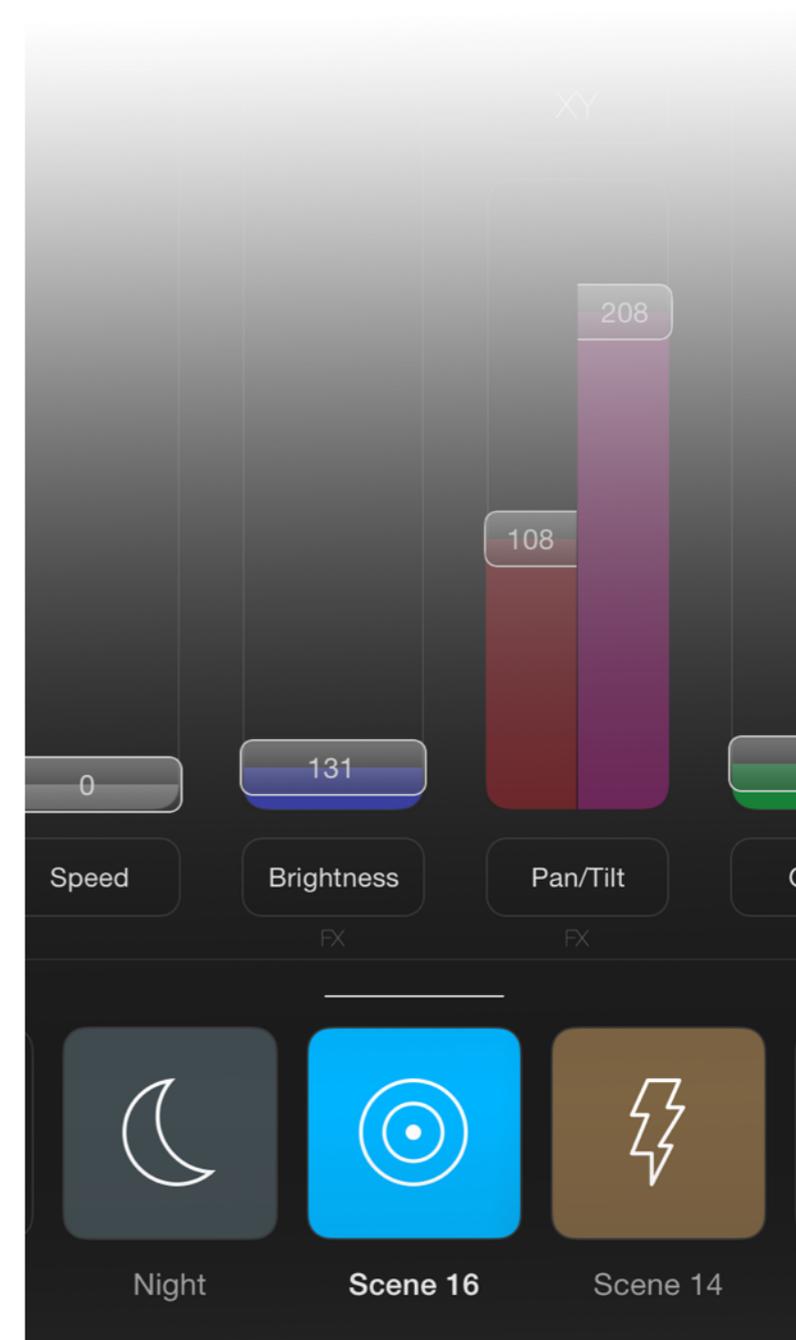
- Fixture linking allows you to link and control multiple identical DMX fixtures within your project together.
- To enable fixture linking, you need to first filter into the group/fixture mode. If this view isn't already visible, this mode can be opened on iPad devices by tapping on the small white fixture name above the faders and select "Edit" in the popup view that appears. On iPhone devices it can be opened by double-tapping *between* the name labels underneath the fader controls for the group of fixture.
- In the view that appears tap the large white fixture name in the center of the toolbar (see photo). In the next view, tap on "Linked" in the list. Any identical fixtures already included in your project will be listed. Tap on each fixture to link them.
- All linked fixtures can now be controlled together using the parameters/faders in any of the selected fixtures. Linked fixtures are saved on a per-scene basis so you can have independent control in some scenes while linked in others.
- You can select which parameters in the fixture are linked and which remain independent by selecting the "Parameters" option in the fixture options popup.



Adding Basic Scenes

Basic Scenes allow you to save the current state of fader levels, selected output colors, XY positions and movements, as well as any FX settings that have been applied to parameters.

- To add a new scene, either tap the + button in the Scenes view, or tap the + button in the main app toolbar and select “Basic” under the Scenes section in the view that appears. Other scene types are covered in the next chapter.
- A new scene button will be created.
- Any parameter changes made when a scene is selected/active will automatically be recorded into that scene.
- Switching between scenes will automatically recall the levels last auto-saved into the newly selected scene. Luminair will fade between states based upon the fade time assigned to the scene.
- The fade time for a scene can be adjusted in the scene detail view, covered in the next chapter.



Designing

Start Designing

Luminair offers a number of powerful tools for designing with light, depending on the type of parameter you are controlling. It's important to first understand the different types of fader controls available, and the associated options for each type.



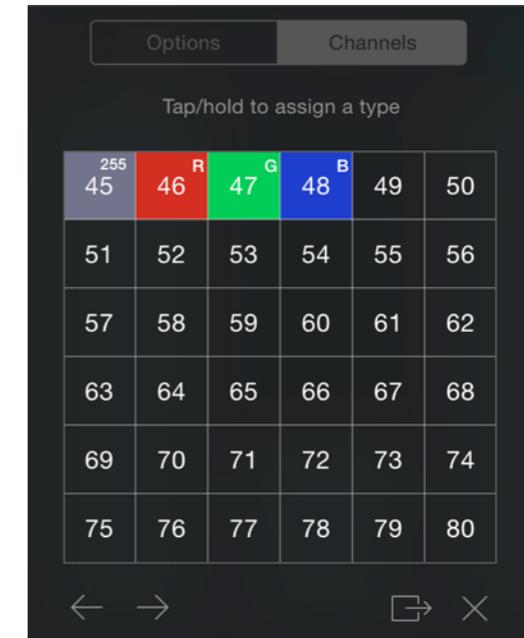
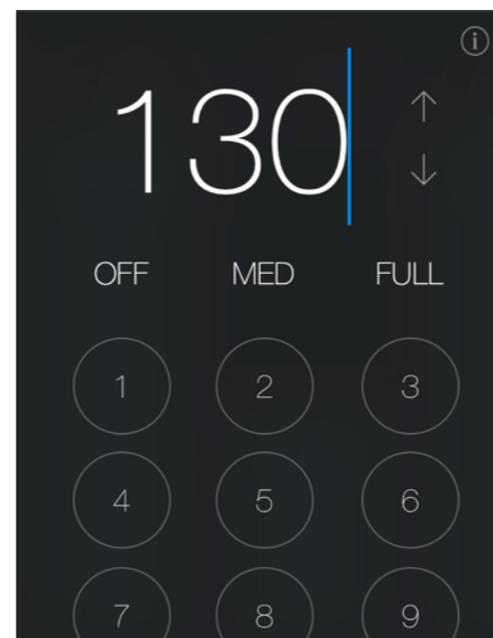
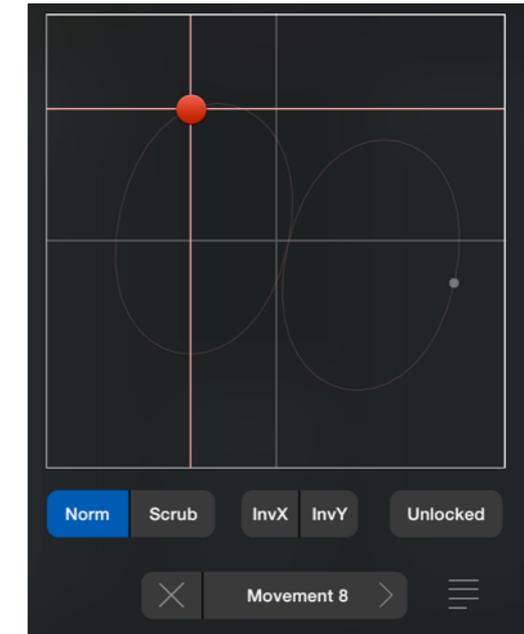
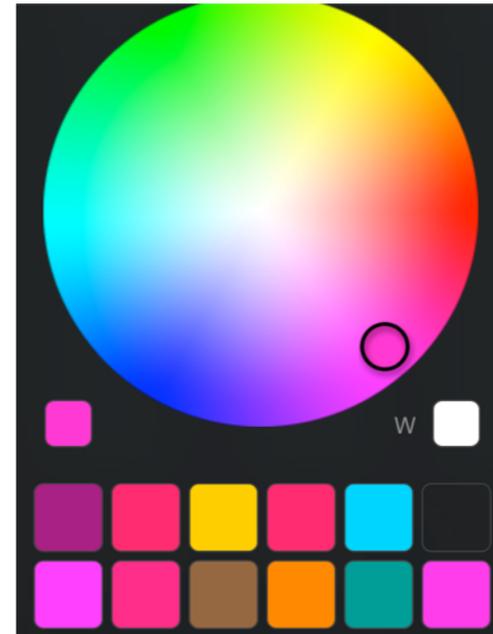
Let's Control

Now that you've added your lights to your project, you're ready for the fun part... designing and working with Luminair's different control types.

All fader control types share some common characteristics, like the actual fader and knob, a name label, as well as other options like a number-keypad for value entry, and for DMX parameters, a DMX channel editor for that specific fader.

Note that some options aren't available in the main fader view. To edit further options for a specific fader control, double-tap its name label. The parameter options panel will appear. Alternatively, tap-and-hold its name label and select "Edit".

- Double-tap on a fader's knob to quickly reveal its number keypad, or optionally select its value within the parameter options panel
- Unique controls like a start/end color picker, XY position picker, and Smart Light options are available on the appropriate parameter types. See previous page.
- Tapping on those buttons will reveal the appropriate control in the parameter options panel.
- The Parameter options panel can be hidden by swiping from left to right within the frame of the panel on iPad. On iPhone and iPod touch, simply tap on the left-hand side of the display.



From top left, clockwise: Color Picker, XY Picker, DMX Channel Editor, Number Keypad

Dynamic FX

Luminair now includes a Dynamic FX engine for DMX lights. This FX engine capable of adding automated movements and color fades to your lights, all within a single scene. The following FX are available:

Oscillator

The Oscillator allows you to automatically move a fader's level up and down based upon a shape and frequency. Enabled in the Parameter options view under FX. Use the Offset option to offset oscillation start points from other faders.

Color Loop

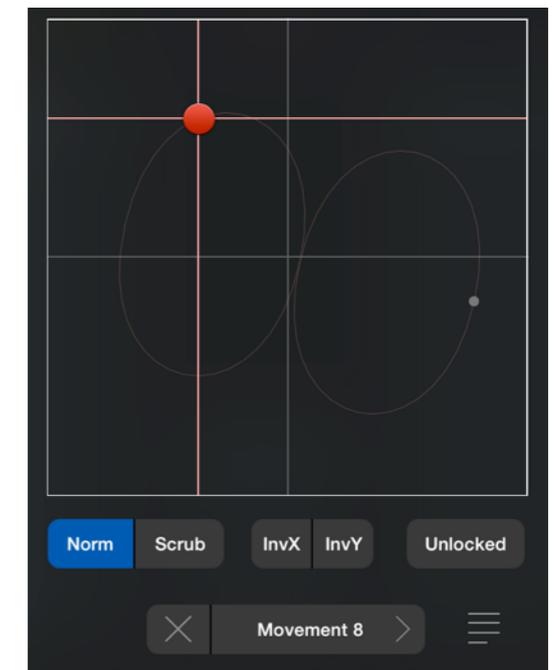
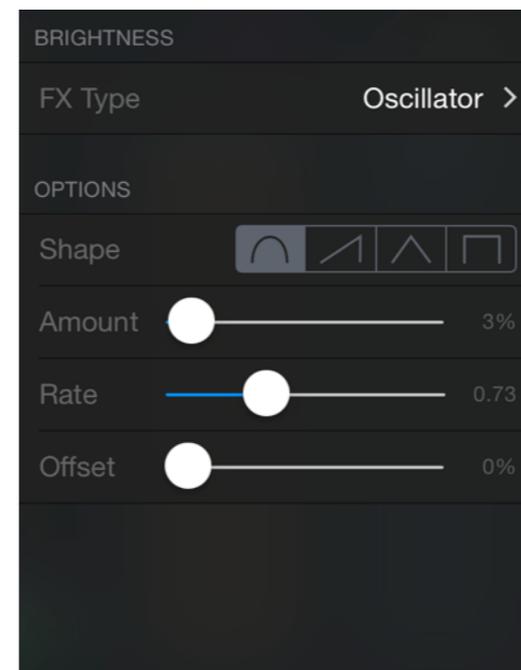
The Color Loop allows you to automatically cycle (circular) through colors based upon the colors chosen for this parameter. Enabled in the Parameter options view under FX. Use the Rate option to control the speed.

XY Movement Generator

The XY Movement Generator is located within an XY parameter's options view, underneath the XY position grid.

- To add a new movement, tap on “Add Movement” and select an appropriate type.
- Movements are global to the entire project, allowing you to assign the same movement to multiple lights.
- After a movement is assigned, tap on the arrow next to it's name to edit more values

- Use pinch and rotate in the grid view to fine tune XY movements
- Tap on  next to the movements button to access previously created movements in this project



Note: While there isn't a hard limit on the number of parameters that can have FX applied, these are CPU-intensive tasks and the total number will depend on device capabilities. If you see any slowdowns in output rendering, you'll need to reduce the total number of FX in the current project.

Scenes

Scenes Overview

Scenes are used as a way to trigger different lighting states that you've designed.

- You can easily switch lighting states with a quick tap of a scene's button. Tap and hold a button to temporarily "bump" it's values.
- Scenes can also be arranged in a sequence, covered further in the next chapter.
- Luminair will fade between scene states, based upon the fade time set within the scene detail view. Tap on the scene's name label to access the scene detail view.
- To add a new scene in Controls mode, tap + in the main toolbar and browse through the different Scene type listed in the menu.
- "Basic" scenes, ones you've created using the + button in the scenes view, allow you to save the current state of fader levels, selected output colors, XY positions and movements, as well as any FX settings that have been applied to parameters.
- Luminair offers some additional scene types that you can inter-mix with basic scenes, covered on the right-hand side of this page.



Basic

Automatically saves and recalls the current parameter values when selected. Select which parameters are included when activated in the Scene detail view



Merge (DMX Only)

A merge scene allows you to combine the levels from multiple scenes together into a singular array of values. Each scene added is a layer. The upper-most layer takes priority over lower layers (unless HTP is selected in the scene's detail view options, in which the highest value will be used). To pass through values from a lower layer, disable individual parameters within the upper scene's options view (tap scene's name label underneath scene button and tap Parameters). Note that FX options currently aren't enabled in merge scenes for device performance reasons.



Sequence

Sequences can be added as a button which can be triggered alongside other scene types. The sequence will also be added to the main sequence list. See the Sequences chapter for more details on options specific to playback.



Input Snapshot (DMX Only)

Record a DMX snapshot from Luminair's Art-Net input port



WYSIWYG (DMX Only)

Used for importing looks from Cast Software's WYSIWYG R26 or greater. Please see the WYSIWYG user guide for instructions

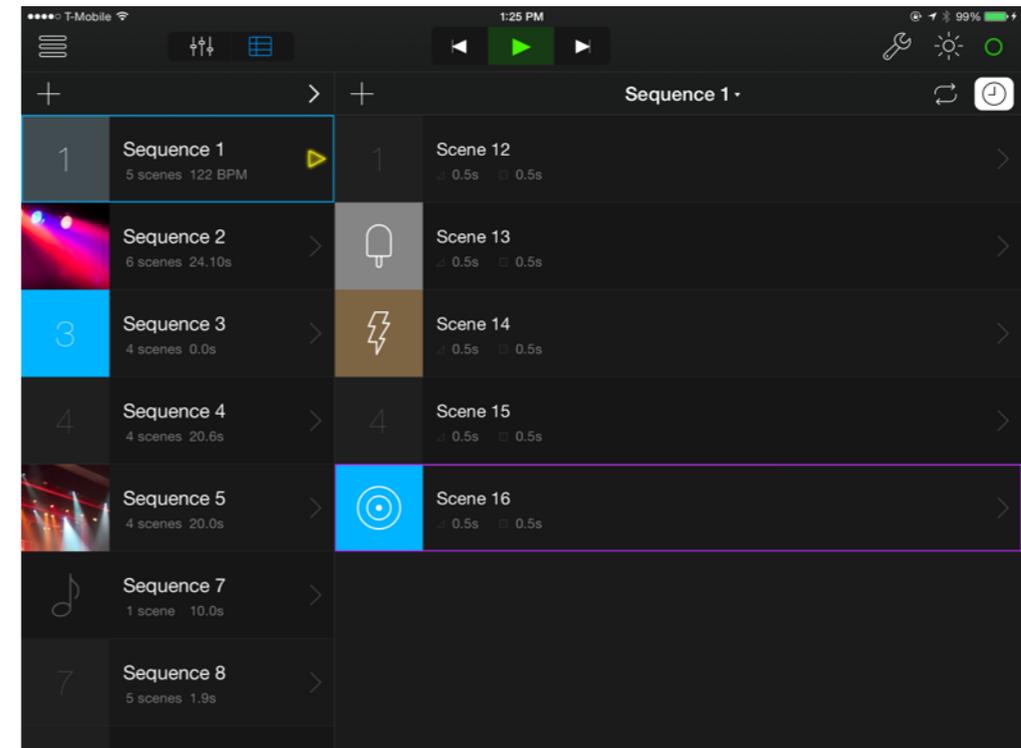
Sequences

Sequences Overview

Luminair is capable of advanced scene-list playback using Sequences.

Sequences can be added either as a button in Controls mode, or in a list-format in the full-screen, dedicated Sequences mode. This chapter applies to both but covers working with the latter, the full-screen Sequences mode.

- To add a new Sequence, tap + in the toolbar in the upper left-hand side of this view.
- Once the sequence has been added, tap + in the sequence toolbar on the right to add scene to this sequence. The list of scenes you've previously created in this project will be displayed.
- Customize each scene's timing information and other details by tapping on the arrow on the right-hand side of the list item.
- To apply global timing to the entire sequence, rather than each individual scene, see the next section in this chapter, *Timing FX*.
- Control playback using the buttons in the center of the screen. Top on iPad devices, bottom of screen on iPhone and iPod touch.



Select the following playback styles in the sequence toolbar:

- | | | | |
|---|--------------------|---|----------------------------|
|  | Loop sequence |  | Play thru to next sequence |
|  | Play to next scene |  | Play sequence once |

Timing FX

Luminair includes the ability to easily apply timing FX to sequences. Sequences can each be assigned different Timing FX settings, allowing you to easily switch playback style on the fly.

To apply Timing FX to the selected Sequence, tap on the icon in the upper right-hand side of the Sequence toolbar. The following options are available under the Type section:



Global Timing

Global timing is a master override for the fade and hold times in the assigned sequence, using the times specified in the Timing FX panel.



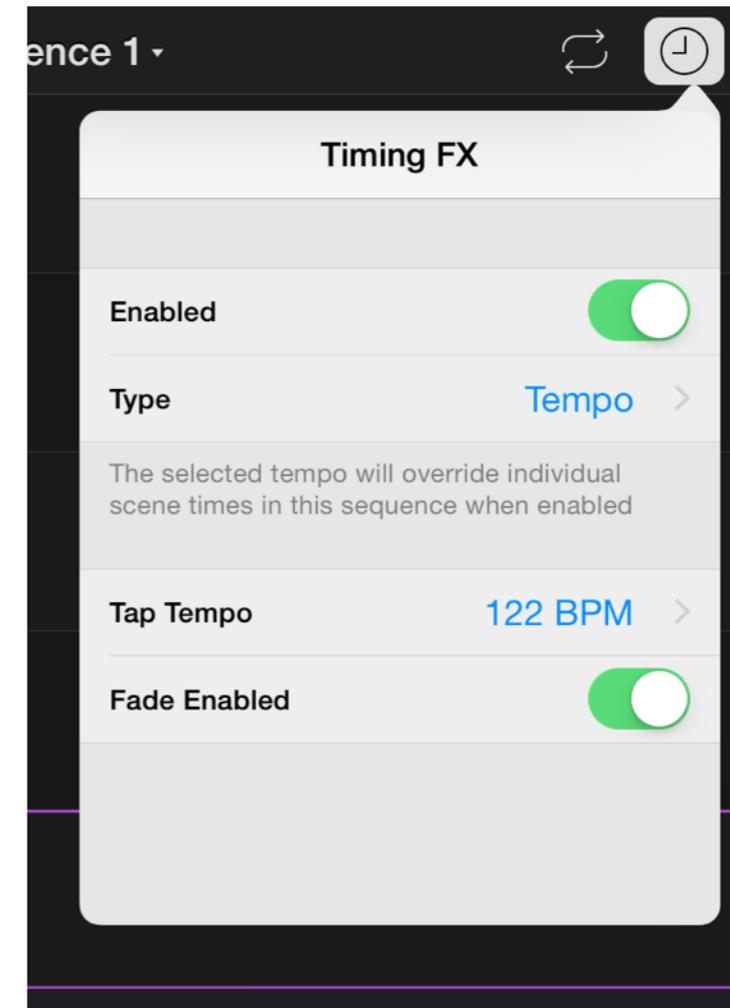
Tempo (BPM)

Tap tempo lets you set a BPM for triggering scene changes. Just tap in rhythm 4 times or more, and Luminair will calculate the current tempo. The current BPM can be adjusted using the + and - buttons in the toolbar.



Sound Active

When Sound Active mode is turned on, by default, Luminair will use the device's built-in microphone or other connected audio-input device to detect sounds and trigger scene changes. Please note that you need to make sure that this sequence is currently playing in order for it to react to sound.



Inter-App Audio (IAA)

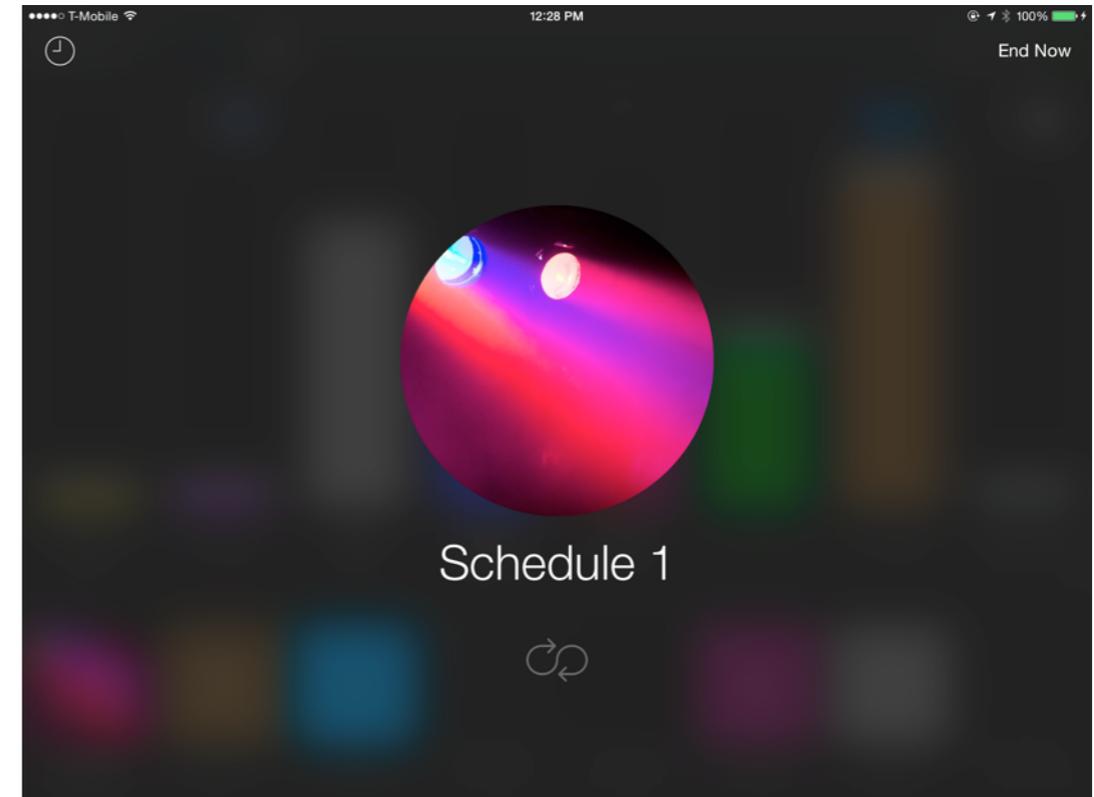
When Sound Active is selected, tap + next to Inter-App Audio to connect to other IAA-capable apps on your device. Luminair will connect directly to the audio stream provided by the app instead of using the built-in Mic source.

Scheduling

Creating Schedules

Make Luminair 3 the centerpiece of your lighting system. New scheduling features allow you to schedule any scene or sequence to be triggered at a specific date and time.

- To add a new schedule, first make sure you have one or more scenes created in the current project. Then open the Main Menu and tap on “Schedule”.
- In the view that appears, tap on the + button and select the scene that you want to schedule. Note that sequences need to be added as a scene button to your project before they will appear
- Configure your scheduled items in the next view that appears. Name, start/end times, and repeat options are available to customize.
- Schedules are project based, meaning you can assign different schedules to different projects. This means you need to have a specific project open in order to trigger it's scheduled items.
- If you've enabled notifications and Luminair is running in the background, Luminair will notify you prior to schedule start, as well as on start and end.
- Additional options like an Astronomical Clock and custom end triggers are available in the “Schedule Pro” In-App purchase.



Luminair will display a full-screen modal view when running schedules

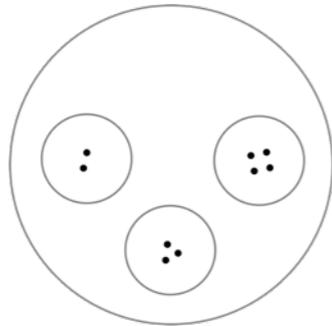


Note: Luminair needs to be running in the foreground on your device in order to run scheduled items.

External Control

External Control Overview

Luminair offers a wealth of different external control options, for triggering the app from both wireless and wired accessories. Currently supported are the following devices:



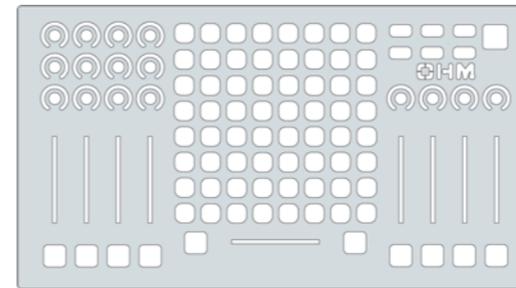
Philips Hue tap

*Requires Hue System



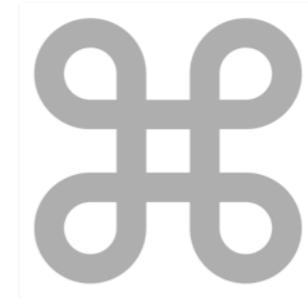
Luminair Remote for
Apple Watch

*Requires iPhone



Core MIDI

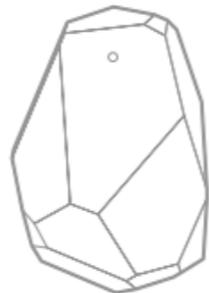
Supports both wired and BLE
wireless controllers



External Keyboard



Geofence



iBeacons

*Requires In-App purchase



Open Sound Control

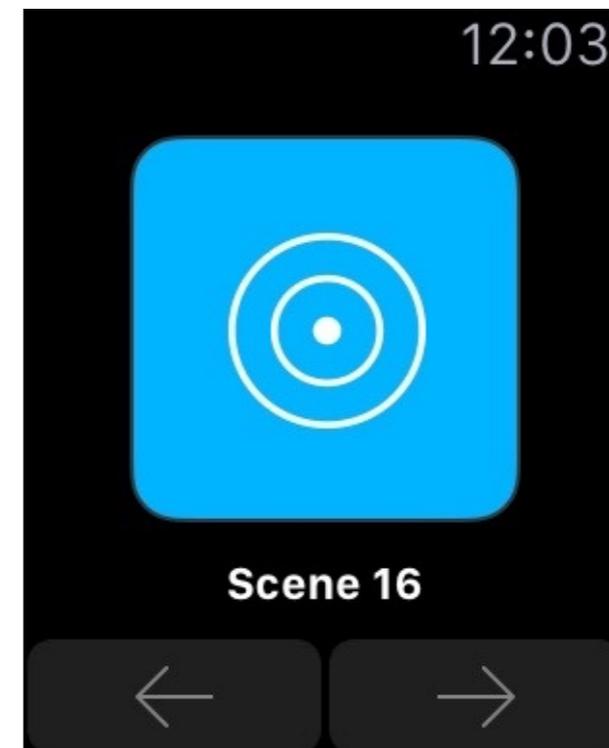


URL Scheme

Watch Remote

Luminair Remote for Apple Watch is the ultimate wireless remote to use on-set, on stage, or wherever your lighting designs may take you.

- Luminair Remote was designed to offer a simple way to switch between scenes and control Sequence playback. It also receives notifications of Luminair Schedules when applicable.
- First launch the Luminair Remote app from the Watch home screen. The app will prompt that you need to have Luminair opened on your iPhone when in use. You also need to have a project open on your iPhone to control.
- Luminair Remote will display the current active Scene or Sequence when running. You can also select from the full list of scenes or sequences (depending on the current mode), by tapping on the active scene button in the center of the screen.
- Force-tapping on the display will reveal a “Lights Off” option, as well as an option to set the Master Output Level.
- When lights are currently Off (Master is Blacked Out in Luminair), Luminair Remote will display a Lights On button.

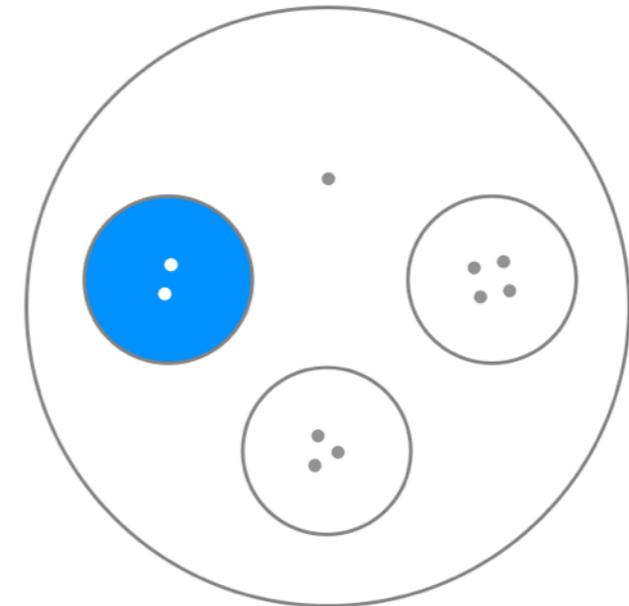


Hue tap Switch

(requires Hue system)

It's now possible to integrate external light switches with your Luminair scenes, using Philips Hue Tap light switches, an add-on product available for Philips Hue systems.

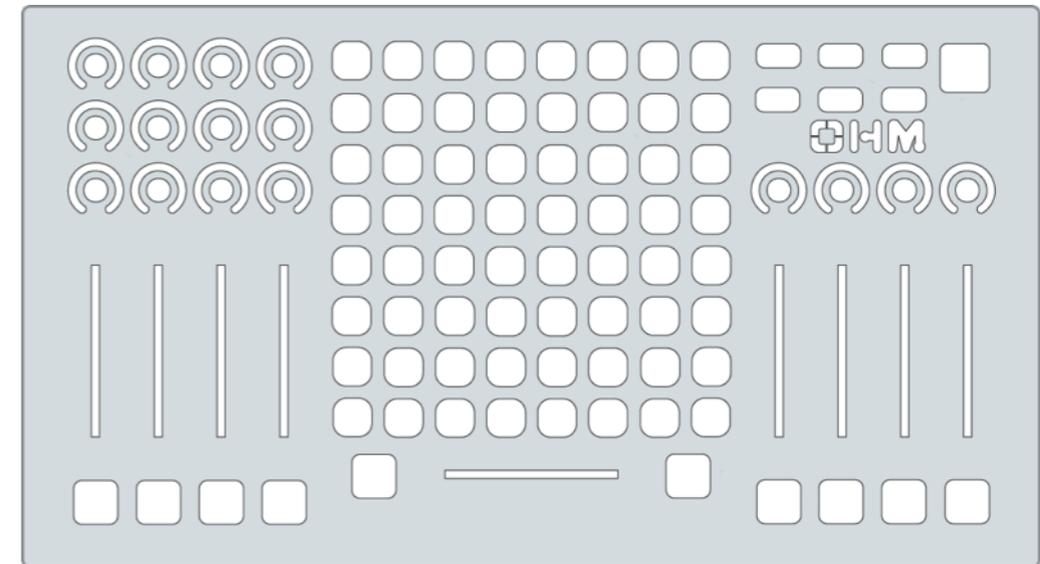
- If connecting a brand new Hue tap, you'll need to first set up the Switch using the Hue app. Using the Hue app, you should also unlink any Hue Scenes that are already linked to the switch.
- In Luminair, to assign Hue tap buttons specific scene, tap on a Scene's name label and select "Triggers" in the view that appears.
- In the upper-right corner of the Triggers view, tap on  to display the Switches window.
- In this window, a list of any connected switches will be displayed. Select the switch you want to configure.
- In the view that appears, tap a button to select and then tap on the Scene/Action button and the section below that, to set either a specific scene or action to be activated when pressing the button.



MIDI Voice Input

Luminair supports MIDI Voice input messages, for remote control of faders, scene buttons, and many other actions such as Sequence playback.

- By default, MIDI Input is disabled, and needs to be turned on in Luminair's Settings -> Remote Control -> MIDI Input.
- Luminair supports Apple's iPad USB Camera Connection Kit with most USB MIDI controllers and interfaces, RTP MIDI via Wi-Fi, and any class-compliant CoreMIDI interface, for MIDI input via the iPad's lightning port or 30-pin dock connector.
- To select your MIDI interface for connection, open Luminair's Status view, and scroll down and select the MIDI section. In the view that appears, select your MIDI controller in the list. Alternatively, turn on Wi-Fi or Bluetooth LE in this same view and select your controller.
- Luminair uses a MIDI-learn system for assigning MIDI voice messages to Luminair controls. To turn on MIDI-Learn, tap on the Action button in the main app toolbar and then select MIDI Learn. Then tap on the Luminair control you want to map, and manually adjust the external MIDI control to learn.



MIDI Pro

*Requires In-App purchase

The MIDI Pro In-App purchase adds support for triggering scenes in controls mode via MIDI Timecode, and scenes within Sequences via MIDI Show Control.

MIDI Timecode

To add MIDI Timecode to a scene, tap on the scene's name label underneath a scene button and select Triggers > MIDI Timecode. In the view that appears, turn the switch on, and use the control below to set the trigger time.

Please note that in order to account for the possibility of lost packets over a Wi-Fi network, Luminair uses timecode accuracy up to the second.

MIDI Show Control

MIDI Show Control doesn't require a special configuration within Luminair. You only need to make sure that you are currently in full-screen Sequences mode.

Luminair will listen for standardized MIDI Show Control messages and control sequence playback depending on the command. See the section on the right for the supported MSC commands

Command	Description
GO	Goes to the next scene, fading according to the time assigned in Luminair. Optionally, a specific sequence and scene can be specified along with the GO command in Sequences mode. When in controls mode, Luminair will only listen to the "scene" parameter, and disregard the sequence parameter.
STOP	Stops any current playing Sequence.
RESUME	Resumes playback of the current Sequence.
TIMED_GO	Similar to the GO command, TIMED_GO allows you to specify a fade time value, overriding the fade time assigned to the specified scene.
LOAD	Loads the specified scene, without fading or outputting its DMX values.
FIRE	<i>See the supported FIRE macros and corresponding value on the next page in this user manual.</i>
ALL_OFF	Enables Luminair's Master Blackout command.
RESTORE	Turns off Master Blackout, re-enabling any current DMX output levels.
RESET	Goes to the first scene in the current Sequence.
GO_OFF	Goes to the first scene in the first Sequence.

MSC FIRE Macros

Value	Command	Description
0	Controls Mode	Puts Luminair into Controls mode.
1	Sequences Mode	Puts Luminair into Sequences Playback mode.
3	Play Mode Toggle	This option toggles between the 5 different playback modes in Sequences. Applicable to Sequences mode only.
9	Shuffle Sequence	Shuffles the order of the scenes in the current Sequence. Applicable to Sequences mode only.
10	Master Blackout	Sends black levels (0 value) for all channels in the universe. Applicable to both Controls and Sequences modes.
11	Enable All Faders	Enables all faders in the current editable scene. Applicable to Controls mode only.
12	Disable All Faders	Disables all faders in the current editable scene. Applicable to Controls mode only.
30	Toggle MIDI Learn	Toggles MIDI learn mode on and off.
40	Playback Toggle	Toggles Sequence playback on and off. If Luminair is currently in Controls mode, it will automatically switch to Sequence mode when triggering this command.
41	Play	Starts Sequence playback. If Luminair is currently in Controls mode, it will automatically switch to Sequences mode when triggering this command.
42	Stop	Stops Sequence playback. Applicable to Sequences mode only.
43	Next	Loads the next scene. Applicable to both Controls and Sequences modes.
44	Previous	Loads the next scene. Applicable to both Controls and Sequences modes.
45	Go To Start	In controls mode, this loads the first scene. In Sequence mode, this loads the first scene in the current sequence. A quick double tap of this command will load the first scene in the first sequence.
47	Next Sequence	Loads the next Sequence. Applicable to Sequences mode only.
48	Previous Sequence	Loads the previous Sequence. Applicable to Sequences mode only.

Keyboard Input

Luminair can now be controlled from external bluetooth keyboards. The following list displays the key commands that Luminair will respond to when an external keyboard is connected. On iOS 9 and greater, these commands can be contextually listed by holding down the command key (⌘) on your keyboard until the menu appears.

Command	Description
⌘ + O	Open Luminair's project selection view.
⌘ + W	Closes any open windows or contextual popover views.
⌘ + S	Saves the current open project immediately.
⌘ + R	Rename the selected project while in the project selection view
⌘ + A	Opens the Add Controls menu
⌘ + E	While in the sequences view this will put Luminair into Edit mode
⌘ + Z	Undo the last command
⌘ + Comma (,)	Opens Luminair's Settings window
◀	Go to the previous scene.
▶	Go to the next scene.
▲	Sequences Mode: Previous Sequence
▼	Sequences Mode: Next Sequence
Space	Starts and stops playback when in Sequences mode
Enter	Enters any open text or value fields
⌘ + SHIFT + M	Switches between Controls mode and Sequences mode
⌘ + SHIFT + B	Enables Luminair's Master Blackout command.
⌘ + SHIFT + S	Open Luminair's Status View

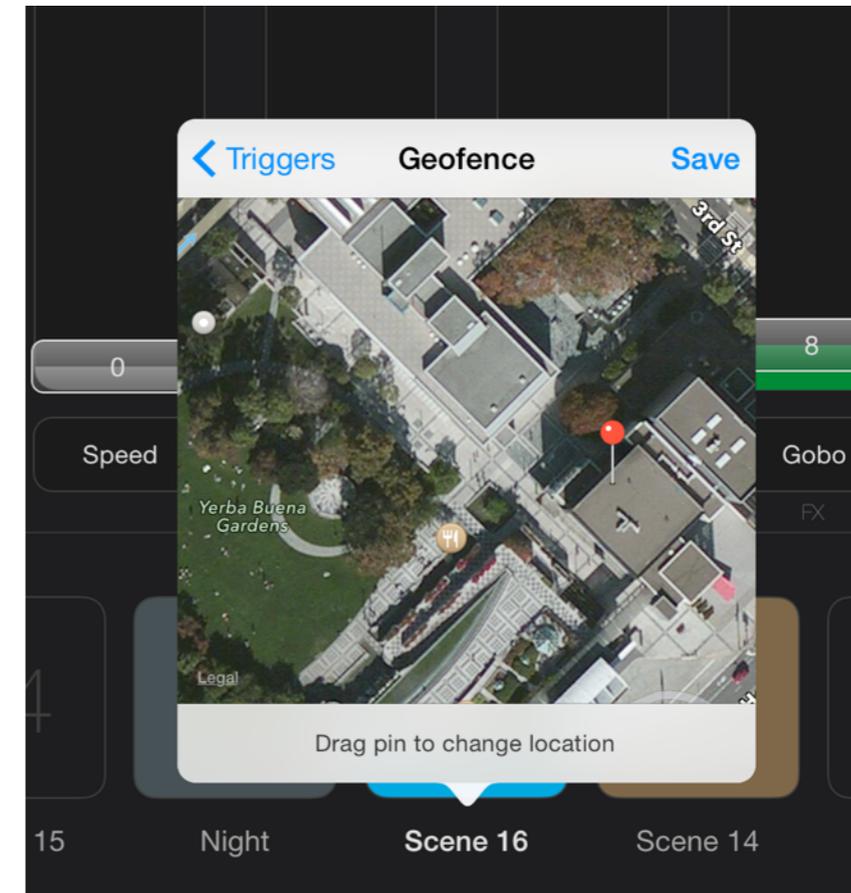
Geofence

Geofences allow you to trigger specific Luminair scenes when entering or leaving an imaginary boundary. Luminair utilizes the built-in GPS hardware on devices that have it, and uses assisted GPS on devices without. Devices with hardware GPS are highly recommended for accurate results.

Geofences are only recommended in areas where the Wi-Fi range for the network you are connected to extends beyond the Geofence boundary, or in moving networks (think boats or other forms of transit where the local Wi-Fi network is on-board). Otherwise you run the risk of leaving the network before the geofence is triggered.

It works well for things like nautical applications, such as triggering scenes at specific waypoints on a cruise, or large facilities where Wi-Fi coverage is widespread for example.

- To enable a Geofence for a specific scene, tap on a Scene's name label and select "Triggers" in the view that appears.
- Support for up to 3 Geofences included. Up to 20 Geofences and/or iBeacons supported with the Location Pro In-App Purchase, available in Luminair Extras.



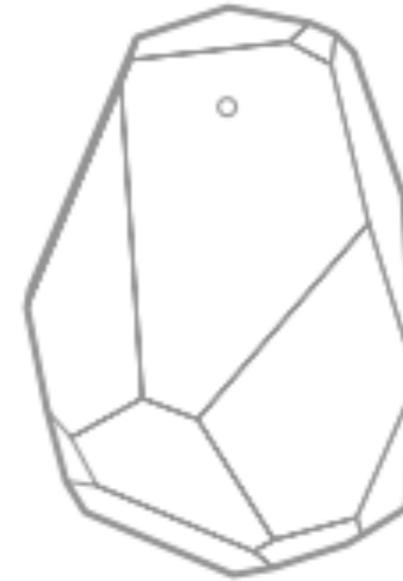
iOS itself has a limit of 20 Geofences and/or iBeacons that it can monitor at a time.

iBeacons

*Requires Location Pro In-App Purchase

Bluetooth LE-based iBeacons allow for a more precise way of triggering Luminair scenes based upon the device's current location. Included in the "Location Pro" In-App purchase.

- To add an iBeacon trigger to a scene, tap on it's name label and then select Triggers > iBeacons in the view that appears. Note that you will need the Location Pro In-App purchase installed.
- You will first need to add the UUID for the iBeacon(s) you want the app to search for. Tap + in the upper right corner of this view's toolbar to add the UUID.
- After the UUID has been entered, Luminair will display all iBeacons associated with this UUID within range.
- Tap on the iBeacon you want to associate with this scene.
- You can then choose to trigger this scene on Entering and/or Exiting the region.
- Note that proximity selections represent preset values within iOS based on how close your device is located to the selected beacon. It's recommended you experiment to get a better idea of how these ranges translate into the space you'll be using the iBeacons in.



Estimote beacon pictured. Luminair works with all iBeacon certified beacons.

iOS itself has a limit of 20 Geofences and/or iBeacons that it can monitor at a time.



URL Scheme

Luminair can also be controlled from other iOS apps located on the same local device using a built-in URL Scheme. This “URL Scheme” allows others apps to send parameters into Luminair either during runtime or at app launch.

The URL Scheme is based upon Luminair’s OSC methods and namespace, described in the next section. Most OSC messages that use a single argument can also be passed in as option URL Scheme parameters.

The following format can be used as guide. This will set the first fader parameter control to Full:

```
luminair:///parameters/1/fader?1.0
```

- **luminair://** should be placed at the beginning of every URL command
- **/faders/1/fader** is the same as the OSC method. You can replace 1 with the index of the fader parameter you want to control
- The value argument is entered AFTER the question mark

OSC Input

To use OSC (Open Sound Control) with Luminair, you must enable it in Settings > OSC Input. Select the port you want Luminair to receive messages on the network.

Luminair publishes its OSC services via Bonjour, but also displays the IP and port at the bottom of this view.

Methods and namespace

[i] = index of specified item

Property Value and/or range

Parameters

/parameters/[i]/fader float 0.0 to 1.0
Sets the fader position for the parameter at the specified index.

/parameters/[i]/scolor/r float 0.0 to 1.0
Sets the red color start value for the parameter at the specified index. Only applies to Color Changer parameters.

/parameters/[i]/scolor/g float 0.0 to 1.0
Sets the green color start value for the parameter at the specified index. Only applies to Color Changer parameters.

/parameters/[i]/scolor/b float 0.0 to 1.0
Sets the blue color start value for the parameter at the specified index. Only applies to Color Changer parameters.

/parameters/[i]/scolor/rgba 32-Bit Float Color Data
Sets the start color for the parameter at the specified index. Only applies to Color Changer parameters.

/parameters/[i]/ecolor/r float 0.0 to 1.0
Sets the red color end value for the parameter at the specified index. Only applies to Color Changer parameters.

/parameters/[i]/ecolor/g float 0.0 to 1.0
Sets the green color end value for the parameter at the specified index. Only applies to Color Changer parameters.

Continued on next page...

OSC Methods and namespace (continued)

<code>/parameters/[i]/ecolor/b</code>	<code>float</code> 0.0 to 1.0
Sets the blue color end value for the parameter at the specified index. Only applies to Color Changer parameters.	
<code>/parameters/[i]/ecolor/rgba</code>	32-Bit Float Color Data
Sets the end color for the parameter at the specified index. Only applies to Color Changer parameters.	
<code>/parameters/[i]/xy</code>	<code>float</code> 2 Value arguments x = 0.0 to 1.0, y = 0.0 to 1.0
Sets the XY position for the parameter at the specified index. Only applies to XY Control parameters.	
<code>/parameters/[i]/xy/posx</code>	<code>float</code> 0.0 to 1.0
<code>/parameters/[i]/xy/posy</code>	<code>float</code> 0.0 to 1.0
Sets the Y position for the parameter at the specified index. Only applies to XY Control parameters.	
<code>/parameters/[i]/so</code>	<code>int</code> 1
Toggles the solo status for the parameter at the specified index.	

Scenes

<code>/scenes/[i]</code>	<code>int</code> 1	FadeTime(optional) 0.0 to 60.0
Toggles the enabled status for the scene at the specified index. Also can take an additional float argument to specify a custom fade time.		

Sequences (In Full screen Sequences mode only)

<code>/sequences/[sequence number]/scenes/[i]/go</code>	<code>int</code> 1
Goes to the specified scene in the specified sequence, using the default fade time.	
<code>/sequences/[sequence number]/scenes/[i]/go/fadetime</code>	<code>float</code> 0.0 to 60.0
Goes to the specified scene in the specified sequence, using a specified fade time from 0 - 60 seconds.	
<code>/sequences/[sequence number]/activate</code>	<code>int</code> 1
Activates the specified sequence.	
<code>/sequence/[sequence number]/playfader</code>	<code>float</code> 0.0 to 1.0
Maps a fader control to the corresponding playback position of the the current Sequence	

Commands

Properties	Value and/or range
<code>/command/mode</code>	<code>int</code> 0 or 1 (0 = Controls, 1=Sequences)
Sets Luminair's current mode.	
<code>/command/blackout</code>	<code>int</code> 1
Toggles the Master Blackout control	
<code>/command/masterlevel</code>	<code>float</code> 0.0 to 1.0
Sets the Master Output Level	
<code>/command/enableall</code>	<code>int</code> 1
Enables all faders	
<code>/command/disableall</code>	<code>int</code> 1
Disables all faders	
<code>/command/play</code>	<code>int</code> 0 or 1
Starts full screen Sequences mode playback	
<code>/command/stop</code>	<code>int</code> 1
Stops full screen Sequences mode playback	
<code>/command/next</code>	<code>int</code> 1
Goes to next scene	
<code>/command/previous</code>	<code>int</code> 1
Goes to previous scene	
<code>/command/lasteditable</code>	<code>int</code> 1
Jumps to the last editable scene	
<code>/command/gotostart</code>	<code>int</code> 1
Goes to first scene	
<code>/command/playmodetoggle</code>	<code>int</code> 1
Toggles Sequence playback mode	
<code>/command/setplaymode</code>	<code>int</code> 0 to 4
Sets Sequence's playback mode.	
	(0 = Loop Sequence, 1= Play-Thru, 2= Play to Next, 3=Infinity, 4 = Play-Thru All)
<code>/command/shuffle</code>	<code>int</code> 1
Shuffles the current sequence	

Continued on next page...

OSC Methods and namespace (continued)

`/command/scenescrib` `float` 0.0 to 1.0
Scrubs through the selected scene in Controls mode, and the playback position in the currently selected sequence in Sequences mode..

`/command/nextstack` `int` 1
Activates the next sequence in full screen Sequences mode.

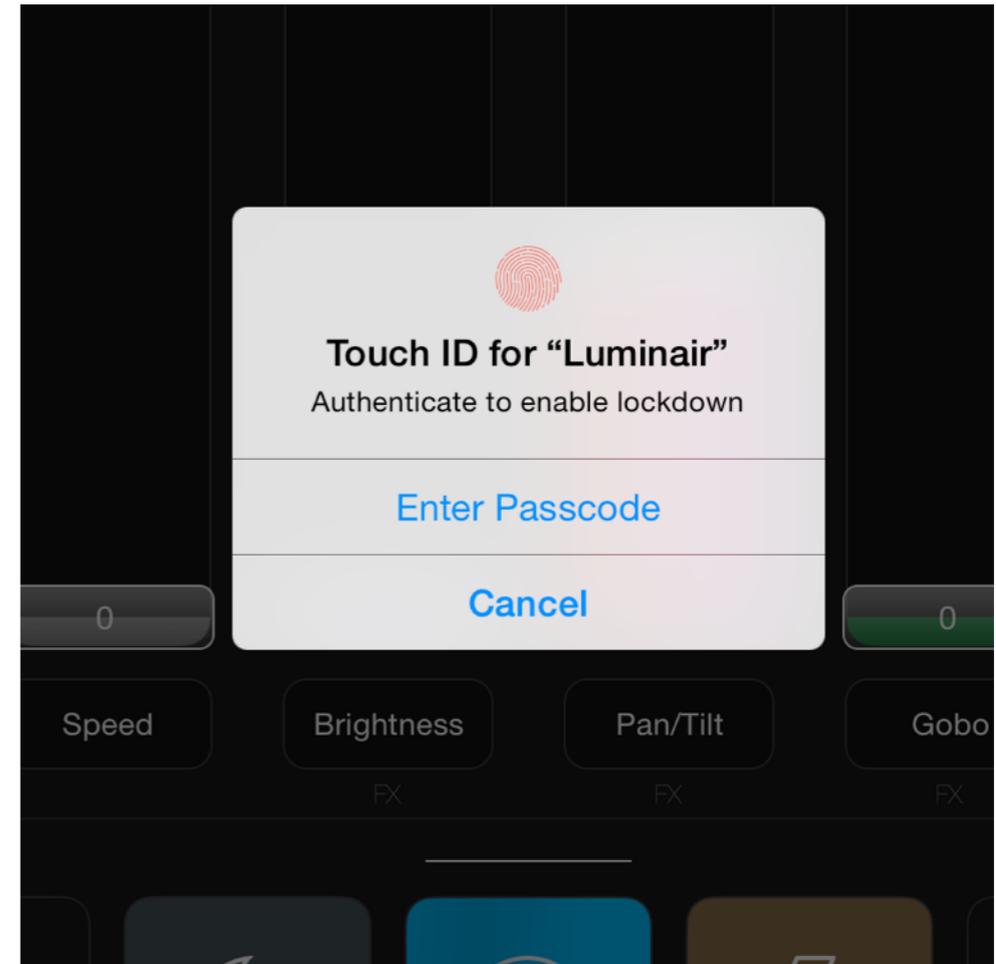
`/command/previousstack` `int` 1
Activates the previous sequence in full screen Sequences mode.

Other Options

Lockdown

Lockdown mode allows you to use Touch ID as a way of locking down Luminair from further editing. The fine grain options in Luminair's Settings allow you to pick and choose which sections of the app get locked during lockdown, allowing to give a volunteer control over things like scene changes, while preventing them from making changes to individual fader parameters. Or whatever other scenario might make sense in your facility.

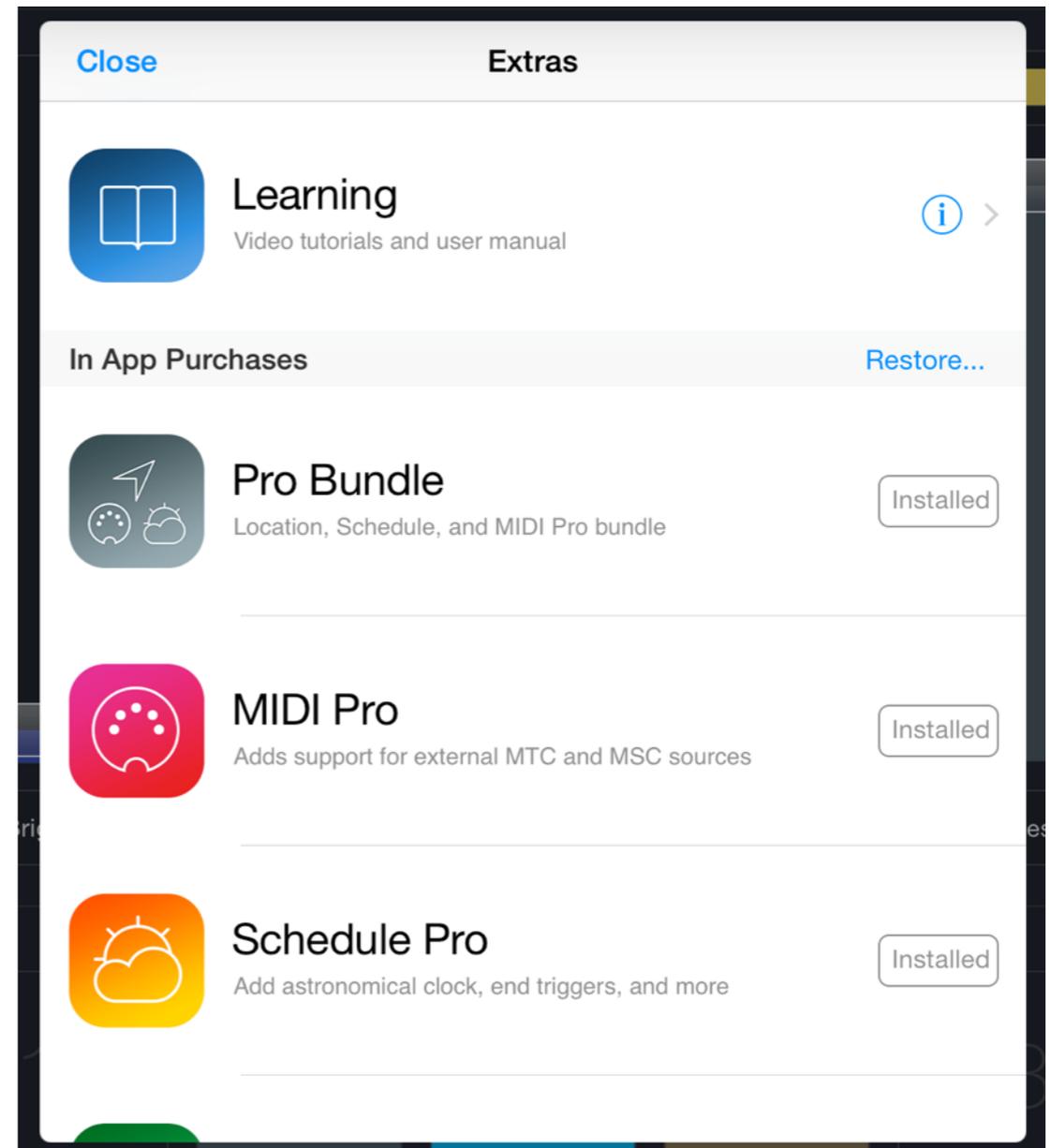
- First choose which sections of Luminair you want locked down in Luminair's Settings, accessible in the app's Main Menu.
- To enable Lockdown mode, open the app's Main Menu and select Lockdown. You will be asked to authenticate with Touch ID or your device passcode.
- To disable Lockdown temporarily, simply authenticate with Touch ID or your device passcode after attempting to use a "locked" control. Luminair will resume lockdown after the time period chosen in Luminair's Settings.
- To disable Lockdown completely, select the "Unlock" option in Luminair's Main Menu and then authenticate with Touch ID or your device passcode.



Luminair Extras

Luminair's Extras are where learning materials are located and various add-ons can be purchased. You can find Extras within Luminair's Main Menu.

- Video tutorials and In-App purchases are located on the Internet, so your device must be connected to the internet in order to access those resources.
- This user manual, along with numerous tutorial videos are available here in the Learning section.
- The In-App Purchase section contains various add-ons available that add specific functionality to Luminair. At this time the add-ons currently available are MIDI Pro, Schedule Pro, Location Pro, as well as a Pro Bundle which contains all three.



Settings

Luminair's Settings are available from within the app's Main Menu. A description of each item follows:

Node Name

This is where the Art-Net node name is set. The default name is Luminair, however you may choose to set this to another name to further distinguish your device on your network.

Prevent Device Sleep

Turning this option on will turn off the application's sleep timer, preventing the screen from going to sleep.

Always Run In Background

Turning this option on will allow Luminair to run in the background when using other apps. Please note that the iOS operating system has full control over app lifetime and can still close Luminair in the background when system resources are low or have been reassigned to other apps.

Display DMX Values

Turning this option on will make output faders display the actual DMX values. Otherwise, Luminair will display values as percentages. This option is turned ON by default.

Fader Knob Value Popup

Displays a popup value when touching a fader control for better visibility. This option is turned OFF by default.

Active Button Animates

Scene buttons use a highlight animation when activated by default.

Active Button Orange

When a scene is active, Luminair will color or tint the button in an orange highlight. This option is turned OFF by default.

Active Label Background

When a scene is active, Luminair will highlighted background behind the name label for better visibility. This option is turned OFF by default.

Scene Buttons Toggle Off

Turning this option on will allow scene buttons to toggle the lights on and off. This option is turned OFF by default.

Scene Bump on Tap/Hold

Turning this option on will temporarily "bump" values whenever tapping and holding on another scene button. This option is turned ON by default.

Auto-Patch New Faders

If this option is turned on, Luminair automatically patches channels to the first available channel when creating new faders. When disabled, Luminair will create empty faders.

Auto-Select New Scenes

If this option is turned on, Luminair will automatically select and

activate newly created scenes. With this option turned off, Luminair will keep the current scene activated when creating new scenes.

Auto-Save Projects

If this option is turned on, Luminair will periodically save the current project in the background automatically, without user intervention. Disabling auto-save can improve performance in large projects. Saves are always automatic when closing projects, and when putting Luminair into the background.

Default Fade

Sets the default fade time chosen when adding new scenes to a sequence.

Default Hold

Sets the default hold time chosen when adding new scenes to a sequence.

Gestures Enabled

Turning this option on will allow a two-finger swiper left and right gesture to switch scenes.

Lockdown Enabled

Turning this option will lock specific portions of the app from user interaction after a chosen length of time.

Require Passcode

Choose a length of time before Lockdown is auto-enabled.

Restrict Access

Choose which parts of the app you want to prevent from being accessed during lockdown.

MIDI Input

Set options related to MIDI remote control. See section on MIDI Input further in this user manual for further details.

OSC Input

Set options related to OSC remote control. See section on OSC Input further in this user manual for further details.

Auto-Save Projects

When this option is turned on, Luminair will automatically save the open project in the background. Auto-saving is handled by iOS in the background, typically after a short period of inactivity.

Luminair will also automatically save when closing project or putting the app into the background. When this option is turned off, and additional Save button will appear in Luminair's main menu allowing you to manually save your projects.

Confirm On Save

This option allows you to prevent Luminair from automatically saving a project when closing it. This option will only appear when Auto-Save is turned off.

Auto-Update Universe

When this option is turned on, Luminair will automatically change the current universe to the last saved universe when opening a project

iCloud Enabled

When this option is turned on, Luminair will save project files as well as other files like image references and fixture profiles, in iCloud. Multiple devices linked to the same iCloud account will share Luminair's iCloud directory and files.

Auto-Update Project Data (iCloud)

When this option is turned on, Luminair will automatically resolve conflicts and update project data when it's changed on another device through iCloud, rather than present a conflict resolution popup.

Auto-Prompt Add Lights To Project

When this option is turned on, Luminair will automatically notify you when a smart light bridge is connected to your network, but hasn't already been added to your project. Turn this option off to disable the prompt. You can always manually connect to any smart light bridges in Luminair's Status view, or by choosing lights in the add fader menu.

Screensaver Enabled

When this option is turned on, Luminair will display a "screensaver" after a designated period of time of no touch activity on the display. By default this option is turned on.

Screensaver After

Select the period of time you wish to elapse before the screensaver is enabled. The default is 60 minutes.



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