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# **Welcome to the Tonalite v2.0.0 Beta 6 Documentation!**

This book will show you how to get started using Tonalite to create professional lighting quickly and easily.

## **Who Is Tonalite For?**

Tonalite is for smaller theater venues that need an easy to use lighting control system that is still powerful enough to control modern lights. It is designed to work with industry-standard hardware, and is meant to be as easy to use as possible.

## **What Is Tonalite Meant to Do?**

Tonalite is meant to control lighting rigs using a web interface accessible from any device on the network such as a phone, tablet, or laptop. This allows the operator to control lighting while moving throughout the theater. You can also use it with a wired connection in case of connection issues.

## Supported Hardware

Tonalite supports any E1.31 (sACN), ArtNet, or uDMX interface. Currently, Tonalite only outputs one universe of DMX (512 channels).

## Supported Software

It is possible to visualize your lighting using external software that supports the E1.31 (sACN) or ArtNet protocols. Below is a list of some visualizers that work with Tonalite.

Software	Manufacturer
<a href="#">Capture</a>	Capture Visualisation AB
<a href="#">Realizzer</a>	Realizzer
<a href="#">Vision</a>	Vectorworks, Inc.

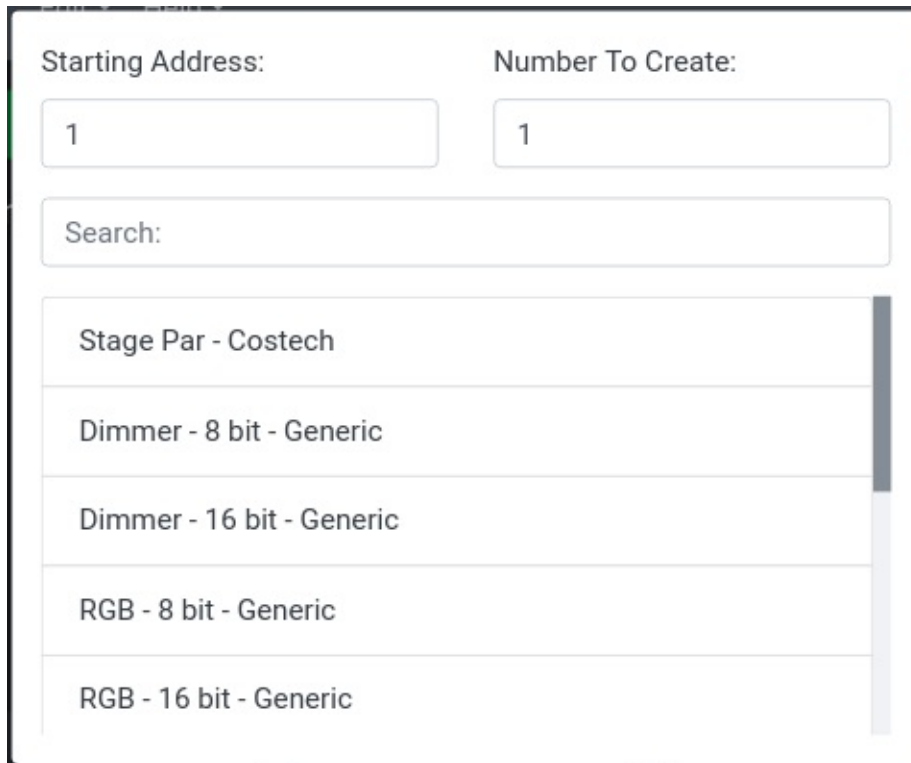
## Using Fixtures

Any production uses a number of different lighting fixtures. Tonalite allows you to control each one individually and set the values of each of its parameters separately. You can access the fixtures in the `Fixtures` tab of the interface.



## Adding Fixtures

Add a fixture using the green **Add Fixture** button on the top of the **Fixtures** tab. This will open a modal that shows the available fixture profiles and allows you to set a starting DMX address for the fixture. Each parameters's DMX address is based on the **Starting DMX Address** field. If the fixture has three parameters and the starting DMX address is 1, the parameters will be mapped to addresses 1, 2, and 3. Use the **Number To Create** field to specify how many of this same type of fixture you would like to create.

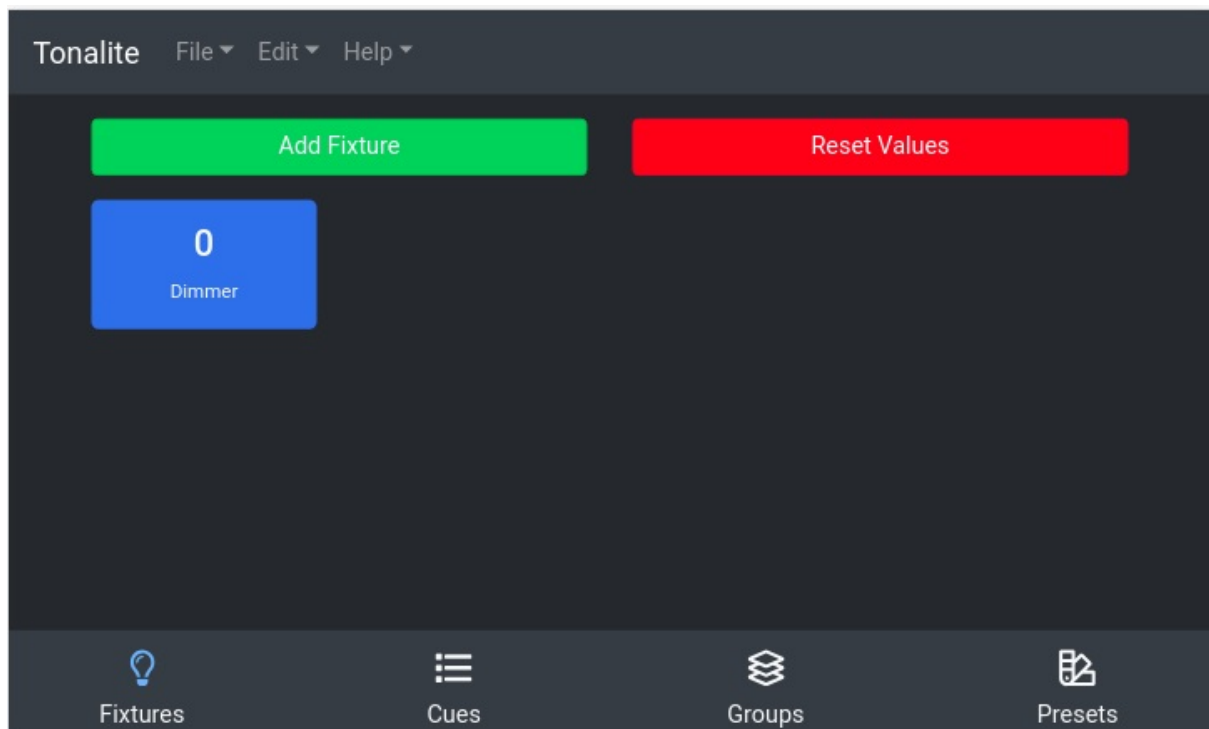
A screenshot of a modal window for adding fixtures. At the top, there are two input fields: 'Starting Address:' with the value '1' and 'Number To Create:' with the value '1'. Below these is a 'Search:' input field. A list of fixture profiles is shown below the search field, including 'Stage Par - Costech', 'Dimmer - 8 bit - Generic', 'Dimmer - 16 bit - Generic', 'RGB - 8 bit - Generic', and 'RGB - 16 bit - Generic'. A vertical scrollbar is visible on the right side of the list.

Starting Address:	Number To Create:
1	1

Search:

- Stage Par - Costech
- Dimmer - 8 bit - Generic
- Dimmer - 16 bit - Generic
- RGB - 8 bit - Generic
- RGB - 16 bit - Generic

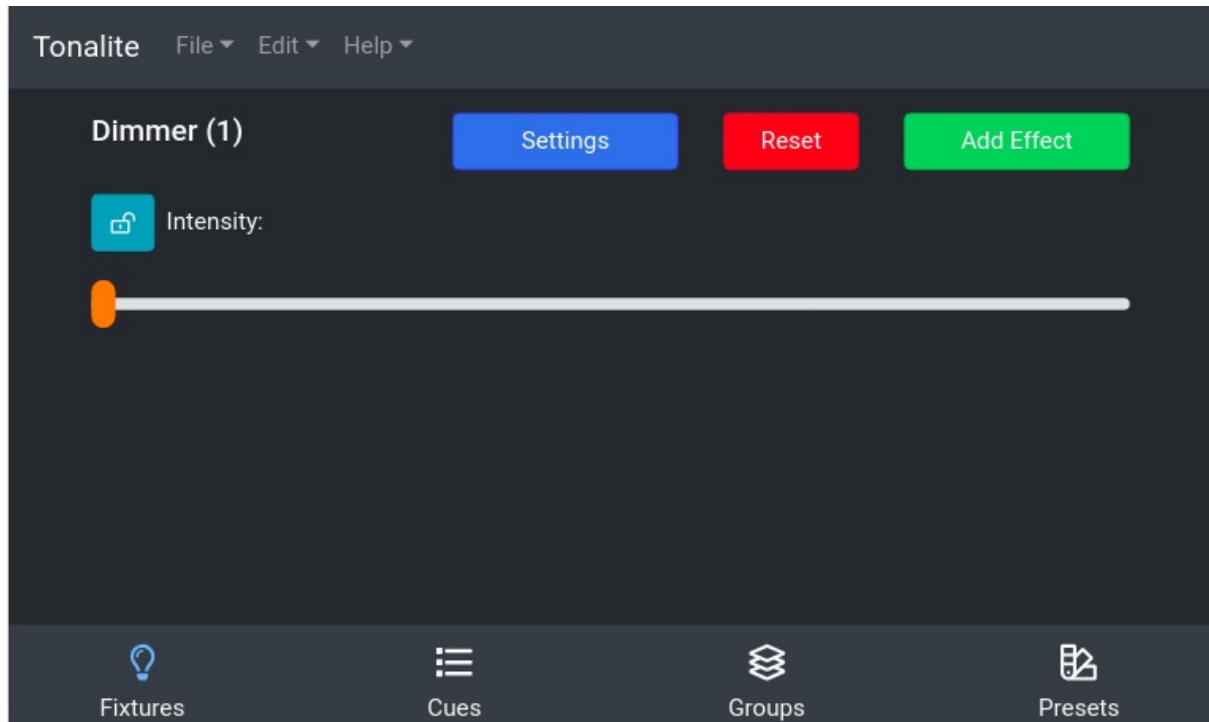
To select a fixture profile, click on it in the list, and a new fixture will be created based on this profile.



If a fixture's first parameter is intensity, the value will be displayed along with the fixture name on the `Fixtures` tab.

## Updating Fixture Parameters

Each of a fixture's parameters can be controlled individually. To access the fixture parameters page, click on the appropriate fixture in the `Fixtures` tab.



### Lock

Beside each parameter there is a lock icon. It switches from unlocked to locked when you click on it. When a parameter is locked, the value you set manually on the slider will override values for the parameter that are saved in cues.

## Buttons

### Settings

Go to this fixture's settings.

### Reset

Reset the parameter values for just this fixture.

### Add Effect

Add an effect to run on the current fixture.





## Resetting Fixture Parameter Values

You can reset the values of every fixture's parameters using one button. To do so, click the red Reset Values button on the top of the `Fixtures` tab. You will be asked to make sure you actually want to reset all values because this will cause a blackout in most cases.

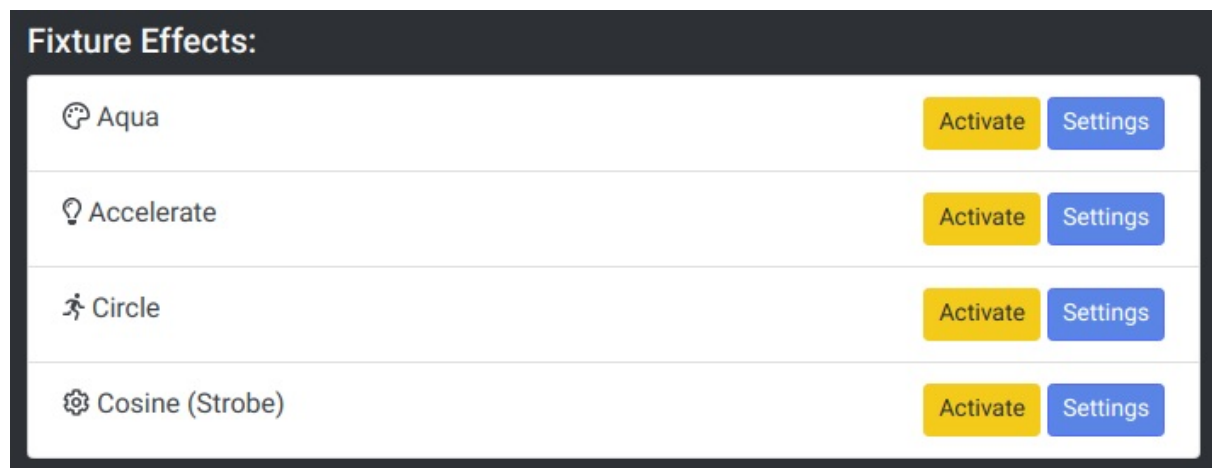
## Fixture Effects

Tonalite supports a number of fixture effects. Each of these fixture effects fall into a specific category based on what parameter(s) of a fixture they control. These categories are:

- Color
- Intensity
- Shape
- Parameter

## Effect Display

When a fixture has effects added to it, they are displayed at the bottom of the fixture's parameters page.



## Buttons

### Activate



Activate the selected effect. When pressed, this button turns into a `Deactivate` button. The activation state of all cues on a fixture are saved to cues.

### Deactivate



Deactivate the selected effect. When pressed, this button turns into an `Activate` button. The activation state of all cues on a fixture are saved to cues.

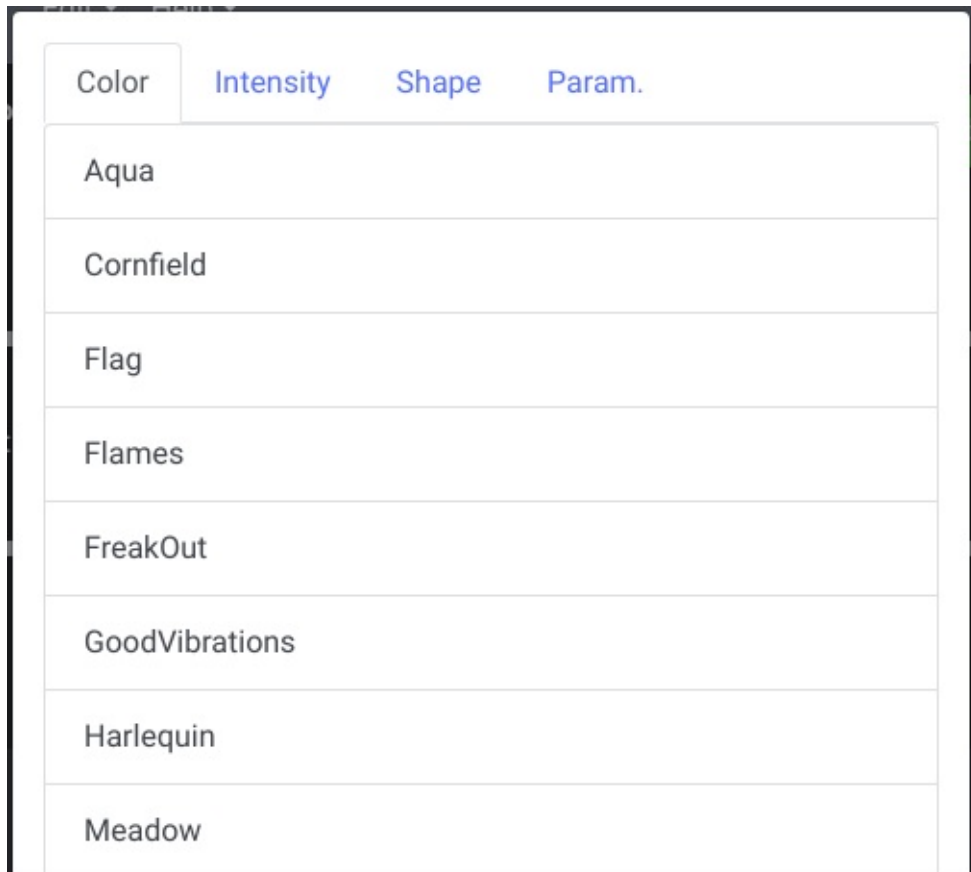
### Settings

[Go to this effect's settings.](#)

## Adding Effects

Add an effect to the current fixture by using the green `Add Effect` button on the top of the fixture's parameters view. This will open a modal that shows the available effect categories. You can select a category and it will display all the effects available for that category.

### Color



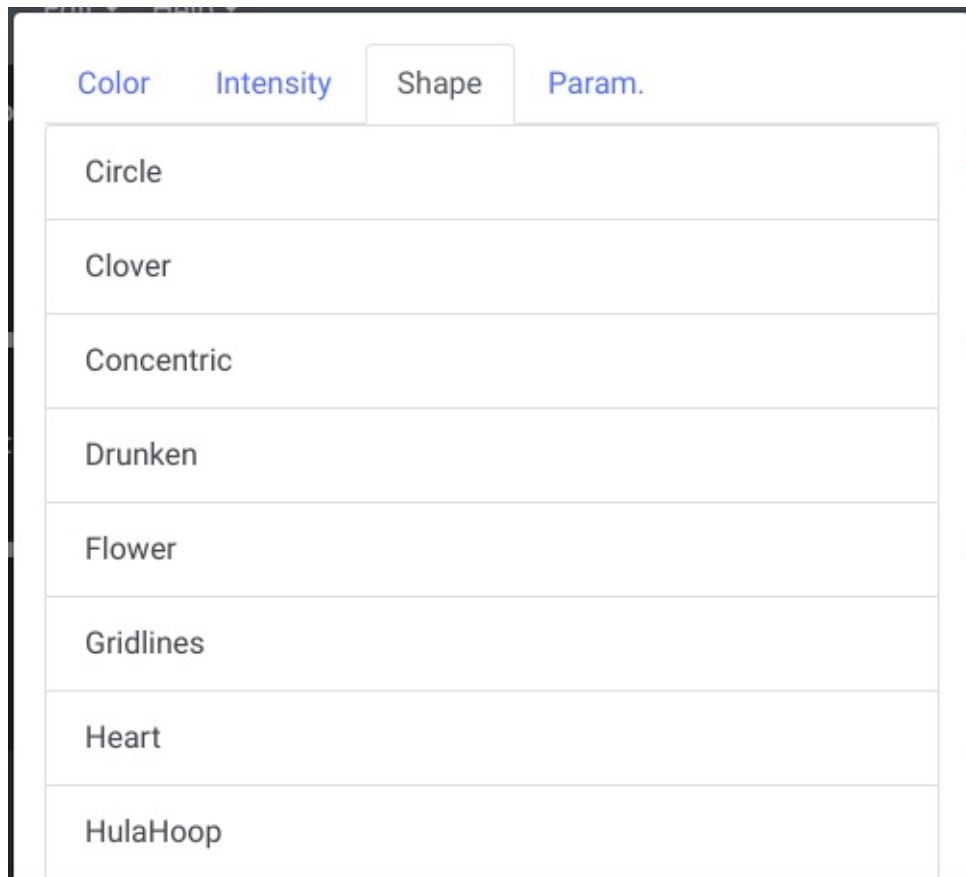
Color effects control the RGB values of a fixture. If more parameter colors than just RGB exist, they will not be affected. If only the R, G, or B parameters exist on the fixture, they will still be affected by themselves.

### Intensity

Color	Intensity	Shape	Param.
Accelerate			
Accordion			
Cosine			
DiscoBoy			
Flicker			
HelterSkelter			
Lightning			
Metronome			

Intensity effects control the intensity values of a fixture. If an intensity parameter does not exist on the fixture, the effect will have no affect.

## Shape



Shape effects control the pan and tilt values of a fixture (X and Y). If only the pan or tilt parameter exists on the fixture, it will still be affected by itself.

## Param.

Color Intensity Shape **Param.**

Apply Effect To:

Red ▼

Accelerate

Accordion

Cosine

DiscoBoy

Flicker

HelterSkelter

Lightning

Parameter effects control any other value of a fixture. They can however also control color, intensity, and shape parameters as well.

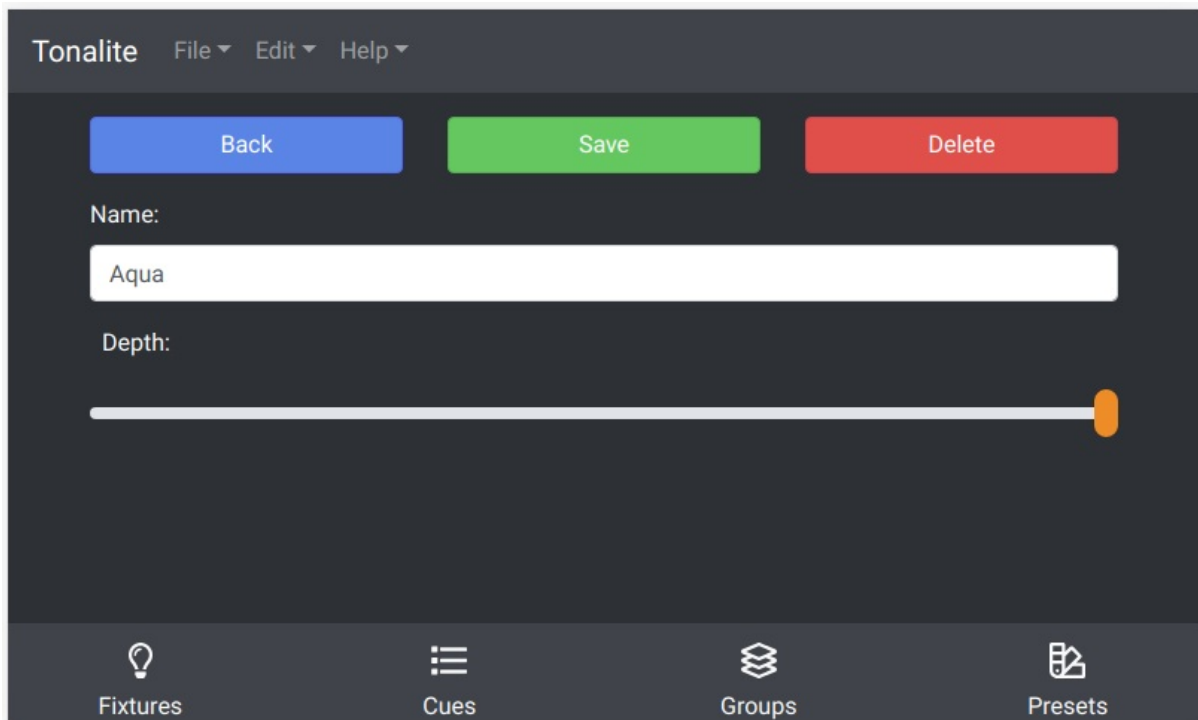
## Apply Effect To

Use the dropdown to select which of this fixture's parameters to apply the parameter effect to.



## Changing Effect Settings

You can change various settings of an effect. You can access an effect's setting page by clicking the `Settings` button on the effects's display row on a fixture's parameters page.



## Buttons

### Back

Go back to the fixture's parameters.

### Save

Save the changes you have made to the effect. Make sure you do this every time you make a change or your edits won't apply!

### Delete

Remove the effect from the show. You will be prompted to make sure you really want to do this.

## Inputs

### Name

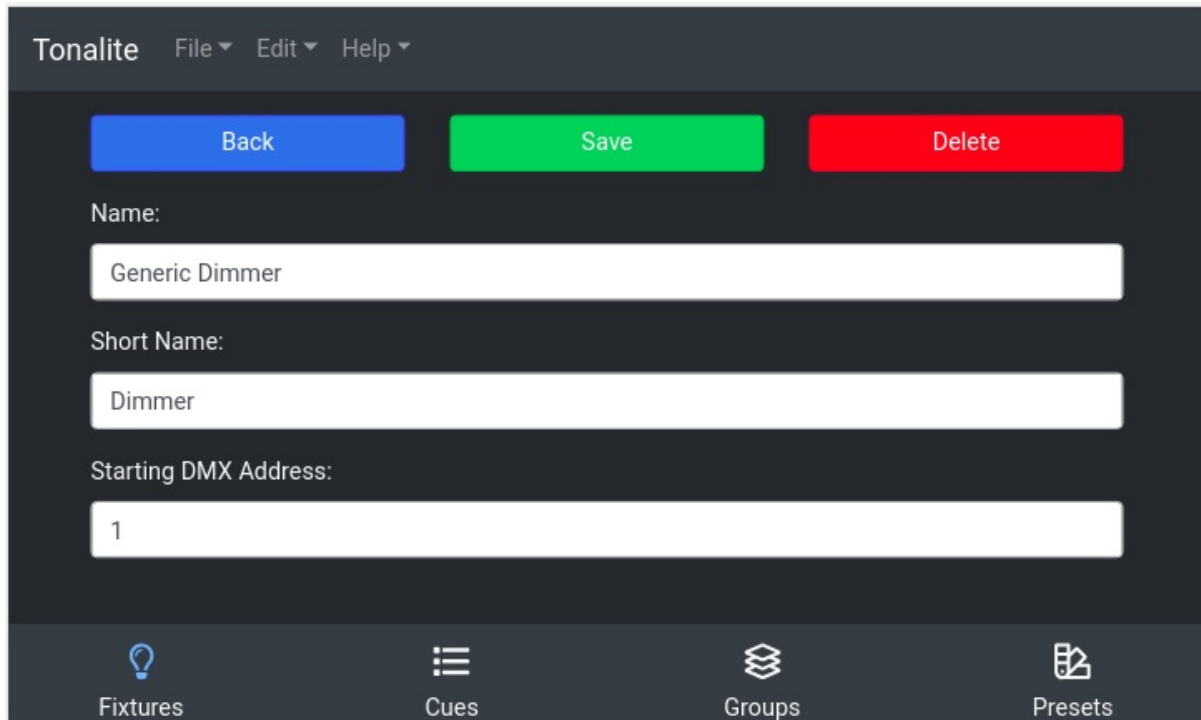
The full name of the effect. This can be any length needed to be descriptive.

### Depth

How much this effect affects the fixture that it is applied to. Depth is in a range of 0.0 to 1.0 where 0.0 is the least affect, and 1.0 means that this effect completely overrides the values from the fixture. If depth is between 0.0 and 1.0 , the values of the effect and the values of the fixture are mixed. This is useful when used on shape effects to scale the shape produced to fit your stage.

## Changing Fixture Settings

You can change various settings of a fixture. You can access a fixture's setting page by clicking the `Settings` button on the fixture's parameters page.

The screenshot shows the 'Tonalite' application window. At the top is a dark grey header bar with the title 'Tonalite' and three menu items: 'File', 'Edit', and 'Help', each followed by a downward arrow. Below the header is a light grey area containing three large, rounded rectangular buttons: a blue 'Back' button, a green 'Save' button, and a red 'Delete' button. Under these buttons are three text input fields. The first is labeled 'Name:' and contains the text 'Generic Dimmer'. The second is labeled 'Short Name:' and contains the text 'Dimmer'. The third is labeled 'Starting DMX Address:' and contains the text '1'. At the bottom of the window is a dark grey footer bar with four icons and their corresponding labels: a lightbulb icon for 'Fixtures', a list icon for 'Cues', a stack of cubes icon for 'Groups', and a document icon for 'Presets'.

## Buttons

### Back

Go back to the fixture's parameters.

### Save

Save the changes you have made to the fixture. Make sure you do this every time you make a change or your edits won't apply!

### Delete

Remove the fixture from the show. You will be prompted to make sure you really want to do this.

## Inputs

### Name

The full name of the fixture. This can be any length needed to be descriptive.

### Short Name

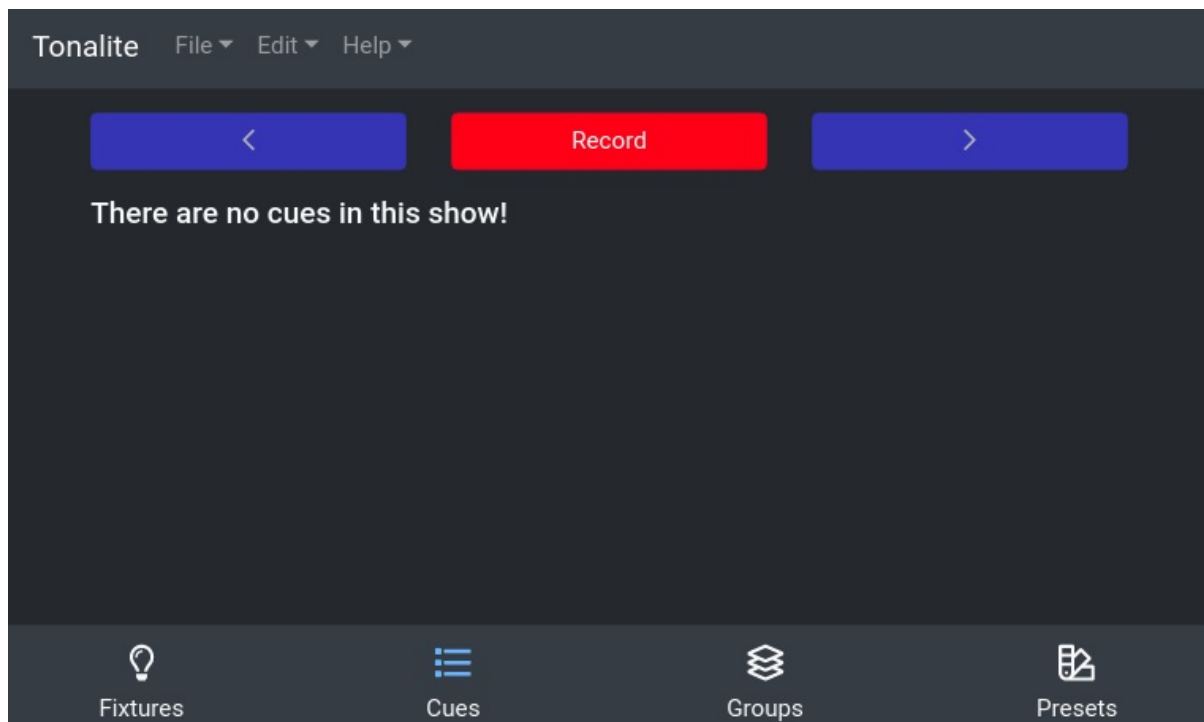
A shorter version of the fixture's name for display in the interface.

## **Starting DMX Address**

The base DMX address that the parameters for the fixture are based on. See description in [Adding a Fixture](#) .

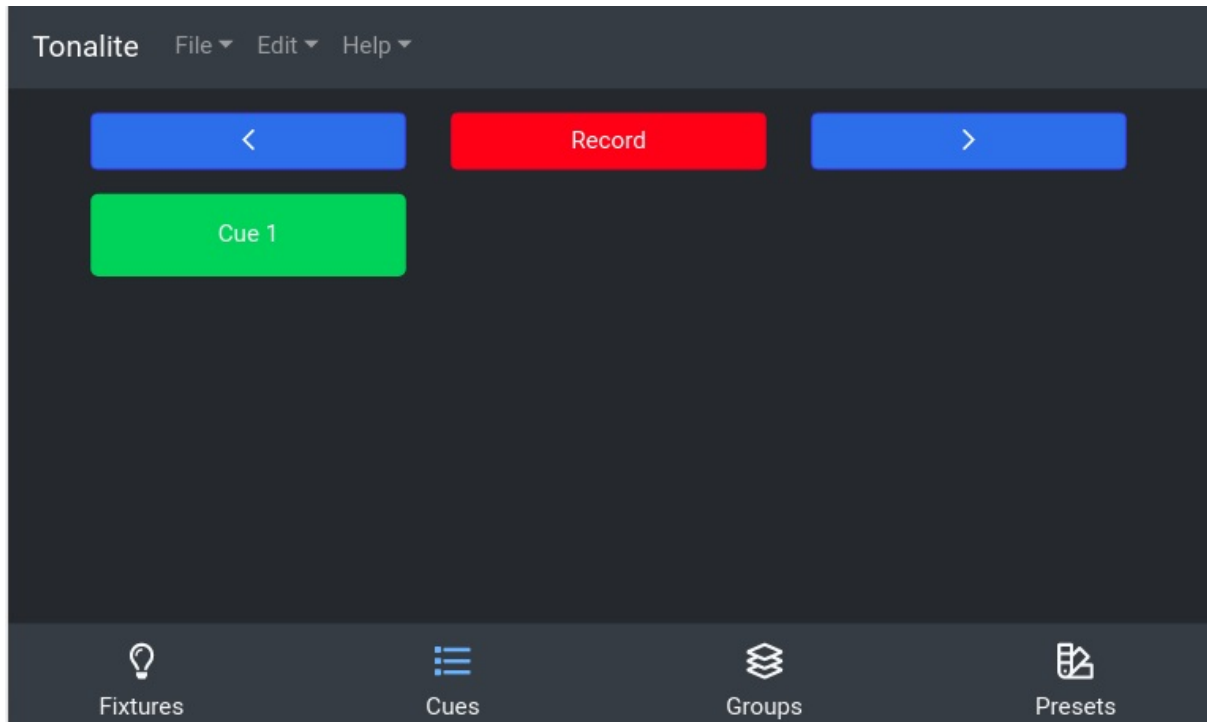
## Using Cues

During a production, you will have a different lighting setup for almost every scene. You can create cues and transition between them to serve this purpose. You can find the options for cues in the `Cues` tab.



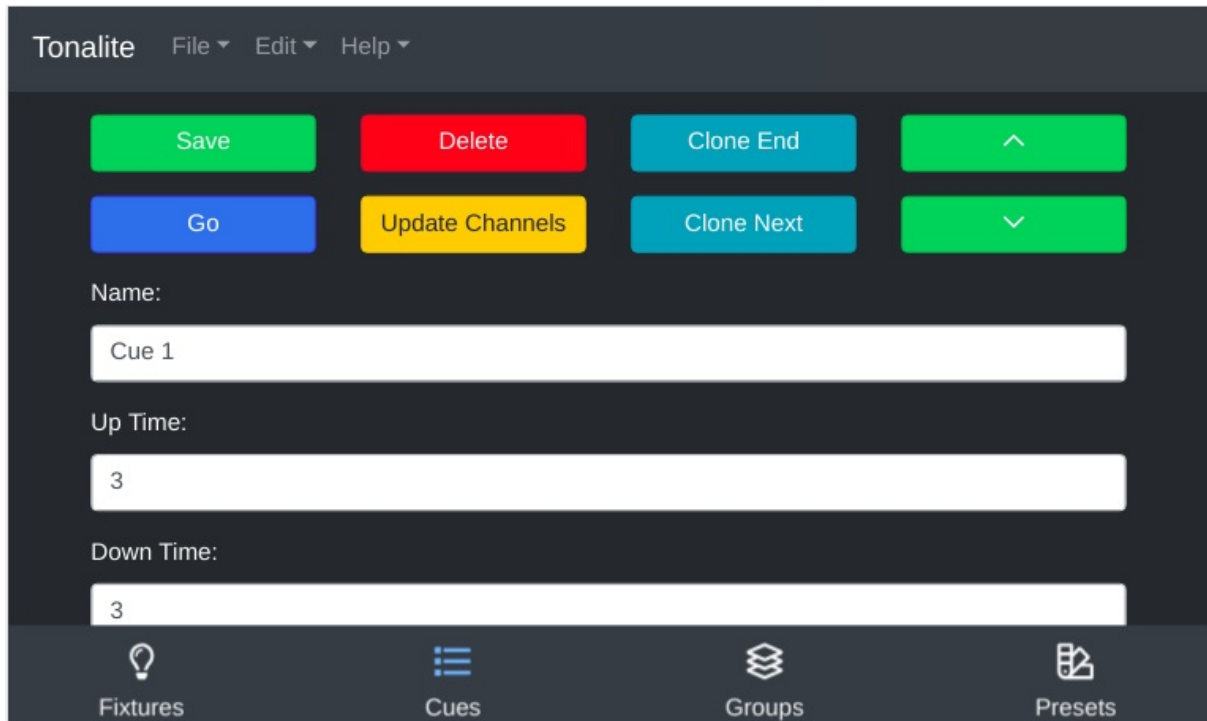
## Recording Cues

You can add a new cue by pressing the `Record` button at the top of the `cues` tab. A new cue item will be added to the list on that page. The new cue stores the values for all fixture parameters in the show at the time of its creation.



## Cue Settings

You can access the settings for a cue by clicking on it in the list on the **Cues** tab.



The screenshot shows the Tonalite software interface. At the top is a dark header bar with the text 'Tonalite' and three dropdown menus: 'File', 'Edit', and 'Help'. Below the header is a control panel with eight buttons arranged in two rows: 'Save' (green), 'Delete' (red), 'Clone End' (cyan), an up arrow (green) in the first row; and 'Go' (blue), 'Update Channels' (yellow), 'Clone Next' (cyan), a down arrow (green) in the second row. Below these buttons are three input fields: 'Name:' with the text 'Cue 1', 'Up Time:' with the value '3', and 'Down Time:' with the value '3'. At the bottom is a dark navigation bar with four icons and labels: a lightbulb for 'Fixtures', a list icon for 'Cues', a stack of boxes for 'Groups', and a document icon for 'Presets'. The 'Cues' icon is highlighted.

## Buttons

### Save

Save the changes you have made to this cue. Make sure you always press this button after making any edits.

### Delete

Remove this cue from the show. You will be prompted to make sure that you really want to do this.

### Clone End

Make a duplicate of this cue and place it at the end of the cue list. The new cloned cue will have the same settings and fixture values as the cue that is being cloned.

### Go

Transition to this cue specific cue in the time stated in the cue's **Length** setting.

### Update Parameters

Update this cue to use the current values of the show's fixture's parameters.

### Clone Next

Make a duplicate of this cue and place it after this cue in the cue list. The new cloned cue will have the same settings and fixture values as the cue that is being cloned.

## Up

Move this cue forward in the cue list.

## Down

Move this cue backward in the cue list.

## Inputs

### Name

The name of the cue. You can use this to describe when the cue should be run.

### Up Time

The time it takes for fixture values to change between cues if they are increasing.

### Down Time

The time it takes for fixture values to change between cues if they are decreasing.

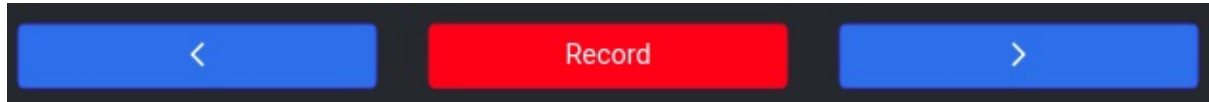
### Follow

If this is set to a value greater than  , once the cue has been run, the cue following it will be run after the time specified here (in seconds).



## Moving Between Cues

You transition between cues using the buttons at the top of the `cues` tab.



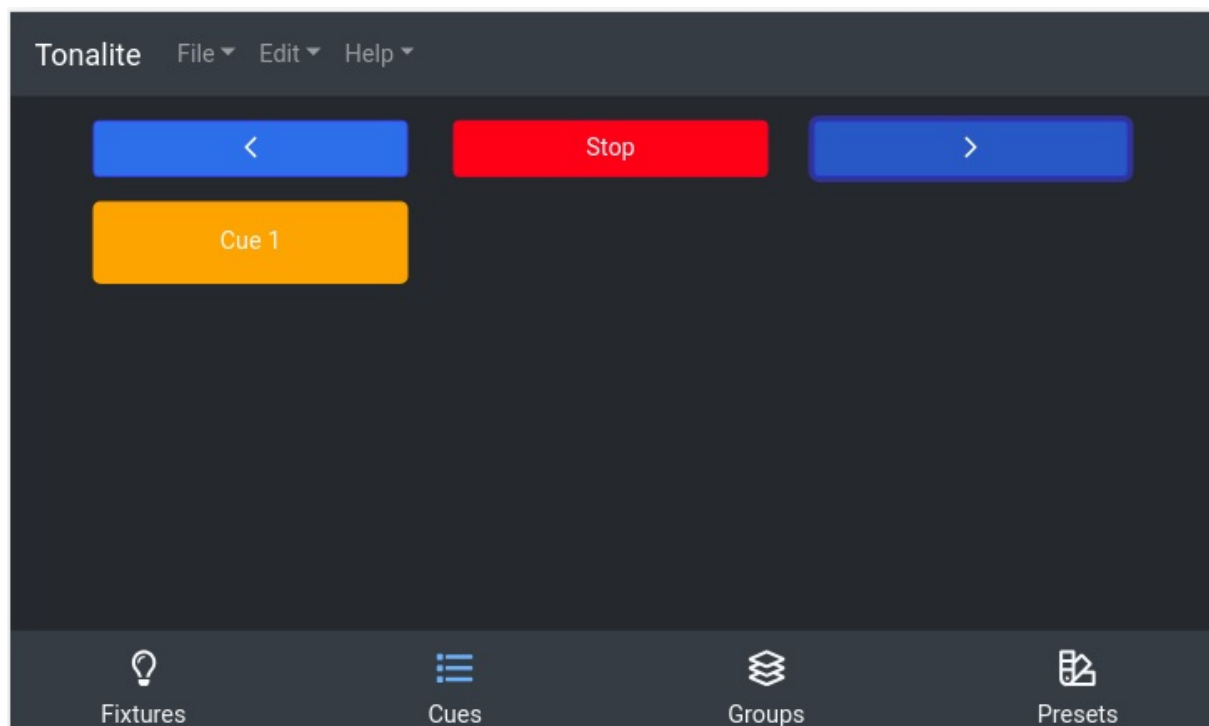
### Left

Transition to the cue directly before the current or last-played cue. If no cue has been played or the last cue played was the first in the list, the last cue in the list will be played.

### Right

Transition to the cue directly after the current or last-played cue. If no cue has been played or the last cue played was the last in the list, the first cue in the list will be played.

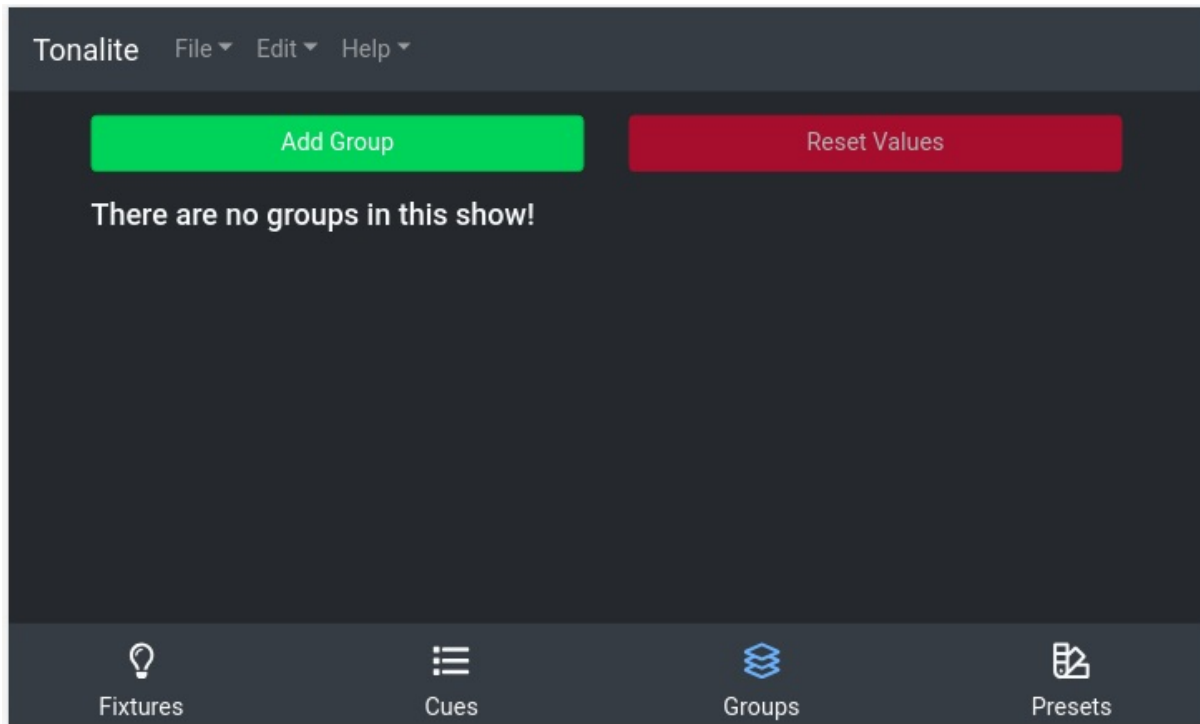
### Stop



When a cue is running, the `Record` button will switch to a `Stop` button. Press this to stop the currently running cue.

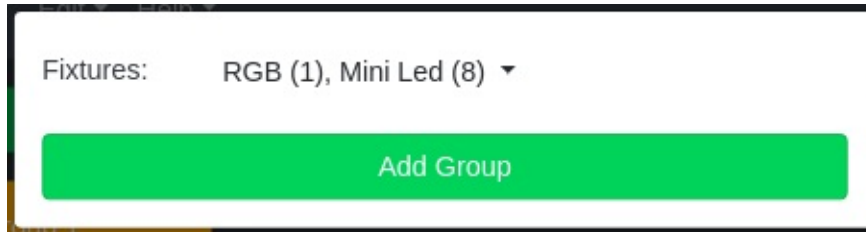
## Using Groups

You can control the parameters of multiple fixtures at the same time by using groups. Groups can be accessed in the **Groups** tab of the interface.

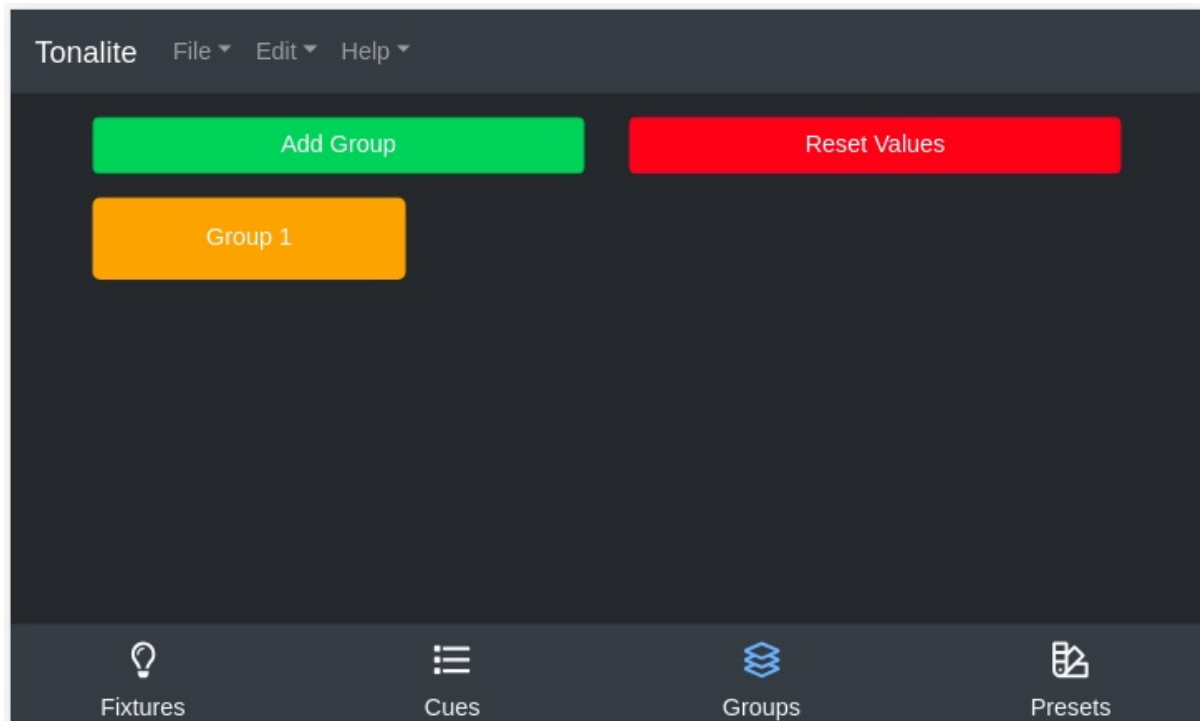


## Adding Groups

Add a group using the green **Add Group** button on the top of the **Groups** tab. This will open a modal that shows the available fixtures in the show and allows you to select which ones you would like to control with this group.

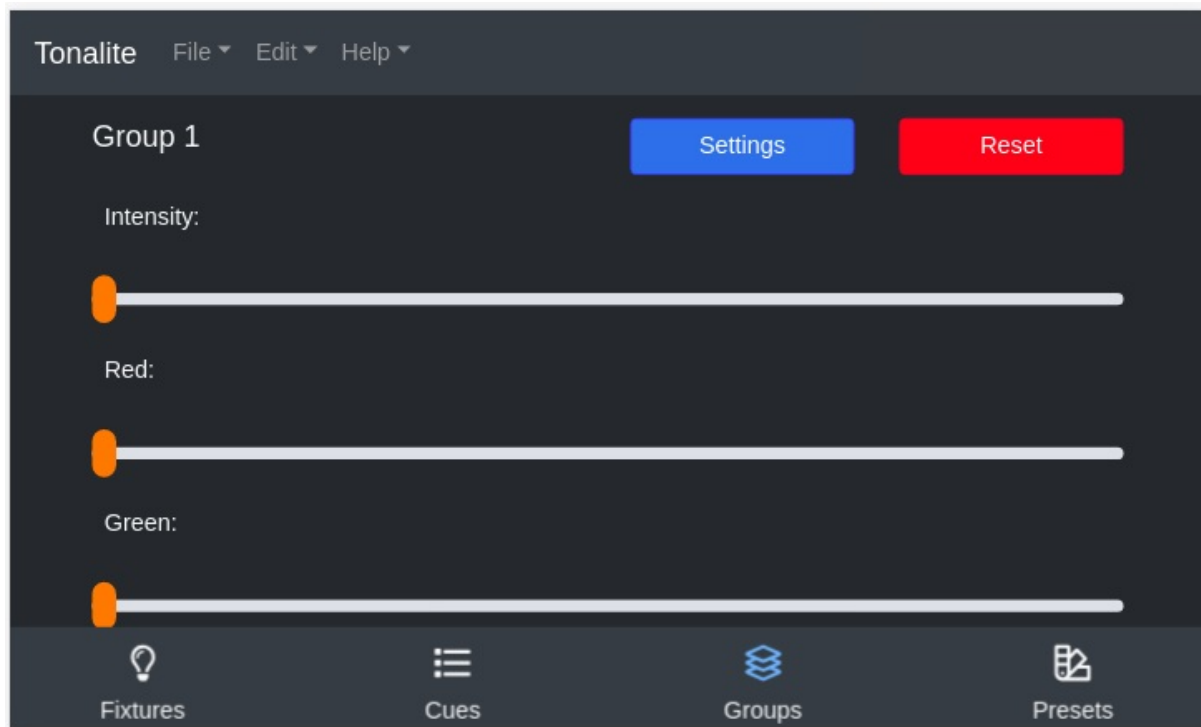


To select a fixture, click on it in the list, and the new group will control this fixture along with any others you select. You can select multiple in this list.



## Updating Group Parameters

Each of a group's parameters can be controlled individually. To access the group parameters page, click on the appropriate group in the `Groups` tab.



## Buttons

### Settings

Go to this group's settings.

### Reset

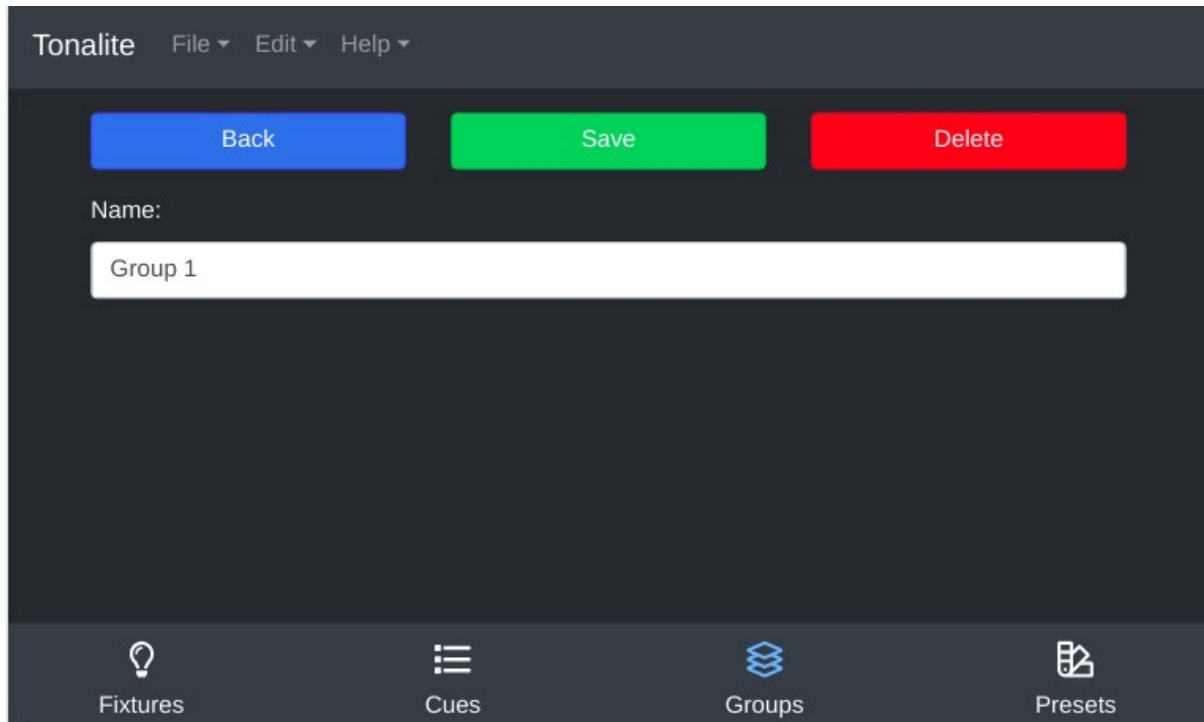
Reset the parameter values for just this group.

## Resetting Group Parameter Values

You can reset the values of every group's parameters using one button. To do so, click the red Reset Values button on the top of the `Groups` tab. You will be asked to make sure you actually want to reset all values because this will cause a blackout in most cases.

## Changing Group Settings

You can change various settings of a group. You can access a group's setting page by clicking the `Settings` button on the group's parameters page.



The screenshot shows the 'Tonalite' application interface. At the top is a dark header bar with the title 'Tonalite' and three menu items: 'File', 'Edit', and 'Help', each followed by a downward arrow. Below the header, there are three prominent buttons: a blue 'Back' button, a green 'Save' button, and a red 'Delete' button. Underneath these buttons is a label 'Name:' followed by a white text input field containing the text 'Group 1'. At the bottom of the interface is a dark footer bar with four icons and their corresponding labels: a lightbulb icon for 'Fixtures', a list icon for 'Cues', a stack of cubes icon for 'Groups', and a document icon for 'Presets'.

## Buttons

### Back

Go back to the group's parameters.

### Save

Save the changes you have made to the group. Make sure you do this every time you make a change or your edits won't apply!

### Delete

Remove the group from the show. You will be prompted to make sure you really want to do this.

## Inputs

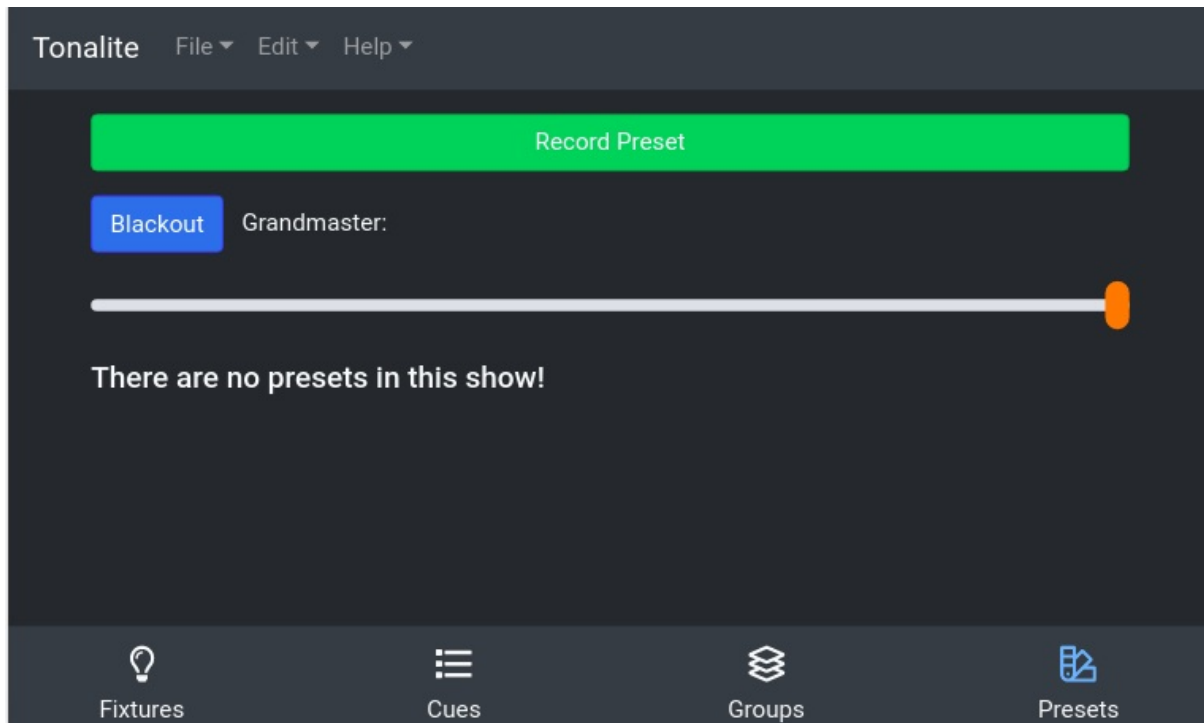
### Name

The full name of the group. This can be any length needed to be descriptive though you should keep it short enough so as to fit into the interface easily.



## Using Presets

When used for a permanent installation, there needs to be a way for users who don't have experience with the program to turn on lights. Tonalite allows you to set up presets which are one-click overrides that allow easy control of chosen lights.

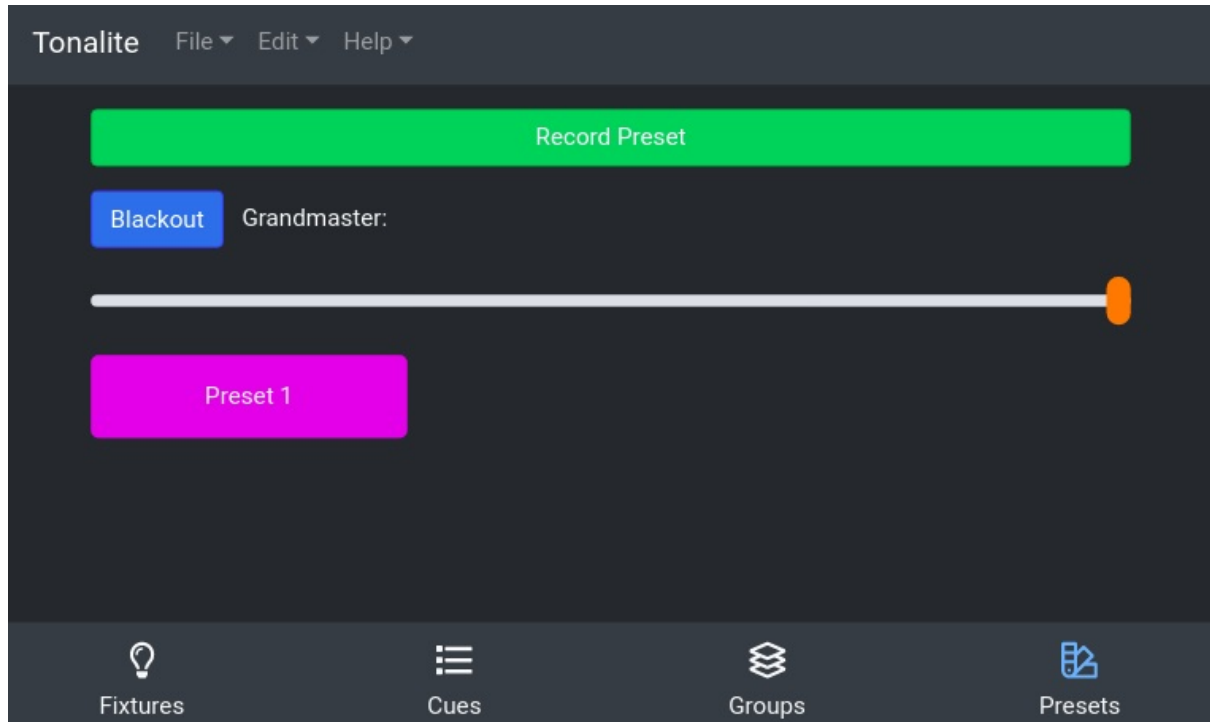


On the presets page, tap a preset to turn it on (it will turn red) and tap again to turn it off (it will go back to purple).



## Record Presets

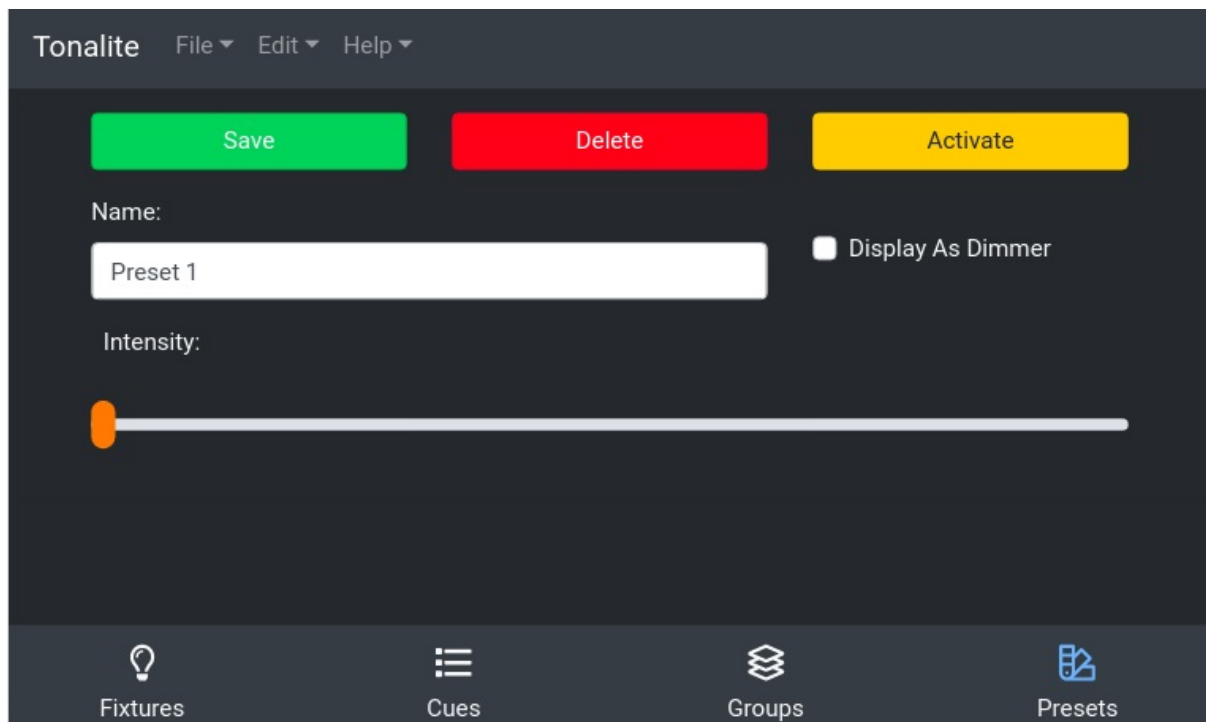
Record a preset using the green **Record Preset** button on the top of the **Presets** tab. Note that a preset stores the current output DMX values, and not output fixtures. This is so that presets will still work even if you don't have some or all fixtures needed for the preset in the current show. A preset will only override DMX output parameters when the channel saved in the preset has a higher value than the current channel.



To edit a preset's settings, tap on it in this list.

## Changing Preset Settings

You can change various settings of a preset. You can access a preset's setting page by clicking on a preset item on the [Presets](#) page.



## Buttons

### Save

Save the changes you have made to the preset. Make sure you do this every time you make a change or your edits won't apply!

### Delete

Remove the preset from the show. You will be prompted to make sure you really want to do this.

### Activate

Active the current preset. When activated, this button will switch to [Deactivate](#) which does the opposite.

## Inputs

### Name

The full name of the preset. This can be any length needed to be descriptive though you should keep it short enough so as to fit into the interface easily.

## **Display As Dimmer**

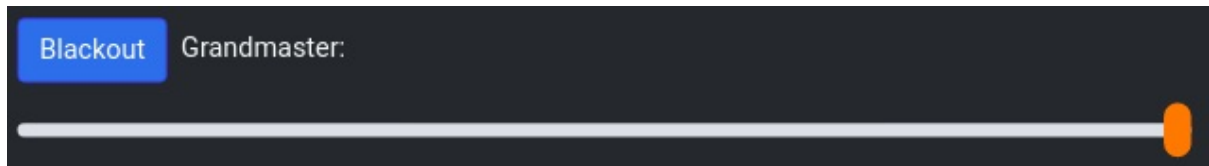
Display the preset as a dimmable value rather than as an on/off button in the interface.

## **Intensity**

Control the overall intensity of this preset.

## Grandmaster and Blackout

The grandmaster and the blackout button are the master overrides for the entire lighting system. The only thing they can not control are the presets.



### Grandmaster

The grandmaster controls the final output percentage of the lights. It is in a range of 0-100, and any light values will be output at this percentage of their actual value.

### Blackout

As long as Blackout is active, all DMX output values will be 0.

## Keyboard Shortcuts

There are a number of keyboard shortcuts built into Tonalite to make it easier to do certain actions while programming and/or running shows.

Key	Action
R	Record Cue
End	Stop Cue
Page Up	Next Cue
Page Down	Last Cue
Home	First Cue
SHIFT+A	Add Fixture
CTRL+N	New Show
CTRL+S	Save Show

# Configuration

You can find the system configuration in the `settings.json` file.

## device

The platform that the user is running on.

Options:

- `linux` - Linux 64bit
- `win` - Windows 64bit
- `macos` - macOS 64bit
- `rpi` - Raspberry Pi

Reboot required after change.

## url

The IP address of the web server that runs the control page. This is also used as the ArtNet and sACN output IPs.

Reboot required after change.

## port

The IP port of the web server that runs the control page.

Reboot required after change.

## defaultUpTime

The default up time used for new cues.

## defaultDownTime

The default down time used for cues.

## desktop

The platform Tonalite is running on.

Options:

- `true` - Tonalite is running in desktop mode
- `false` - Tonalite is running in embeded mode (used for the touchscreen model)

Reboot required after change.

## udmx

Whether or not to output to uDMX.

Options:

- `true` - Enables uDMX-Artnet
- `false` - disables uDMX-Artnet

Reboot required after change.

## udmx

Whether or not to output to uDMX.

Options:

- `true` - Enables uDMX-Artnet
- `false` - disables uDMX-Artnet

Reboot required after change.

## automark

Whether or not to use automark while transitioning cues.

Options:

- `true` - Enables automark
- `false` - disables automark

## artnetIP

The IP on which to output ArtNet data.

Default: `null`

When the value is `null`, ArtNet will choose where to output automatically.

Reboot required after change.

## artnetHost

The host IP mask on which to output ArtNet data.

Default: `255.255.255.255`

Reboot required after change.

## sacnIP

The IP on which to output sACN data.

Default: `null`

When the value is `null`, sACN will choose where to output automatically.

Reboot required after change.