

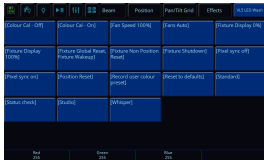
There are two types of Macros in ZerOS - Fixture Macros and User Macros. User Macros are not available on FLX S consoles.

If a fixture macro or user macro is activated, the console will replay a sequence of actions for you.

Fixture Macros

Some fixture functions, such as resetting a fixture or switching a fixture's lamp on, are accessed via Macros rather than using a particular parameter within one of the attributes. This is to make controlling the fixture's function easier. Often, fixture functions require parameters to be at certain levels, for a certain amount of time, for the function to be activated. Fixture macros have all of this information stored in them. It also means you don't need to trawl through attributes and parameters to find the function you are after.

To access the macros of a fixture, first select the fixture(s) you need.



On FLX S, scroll the tabs along the top of the touchscreen, until you see a tab with your fixture's model name. Tap on the tab, to see all of your fixture's macros. Fixture Macros will be displayed in alphabetical order, to help you find the function you are after.



On FLX, tap the Macro key to access the Macro window on the internal touchscreen. Scrollable tabs will be shown along the top of the Macros window, one for each fixture that is currently selected. Tap on a tab, to see all the macros of that fixture. Fixture Macros will be displayed in alphabetical order, to help you find the function you are after.



You may find that some parameter details of your fixtures, are simply labelled "Macros". For example there are multiple details of the "Control" parameter in this image simply named "Macros".

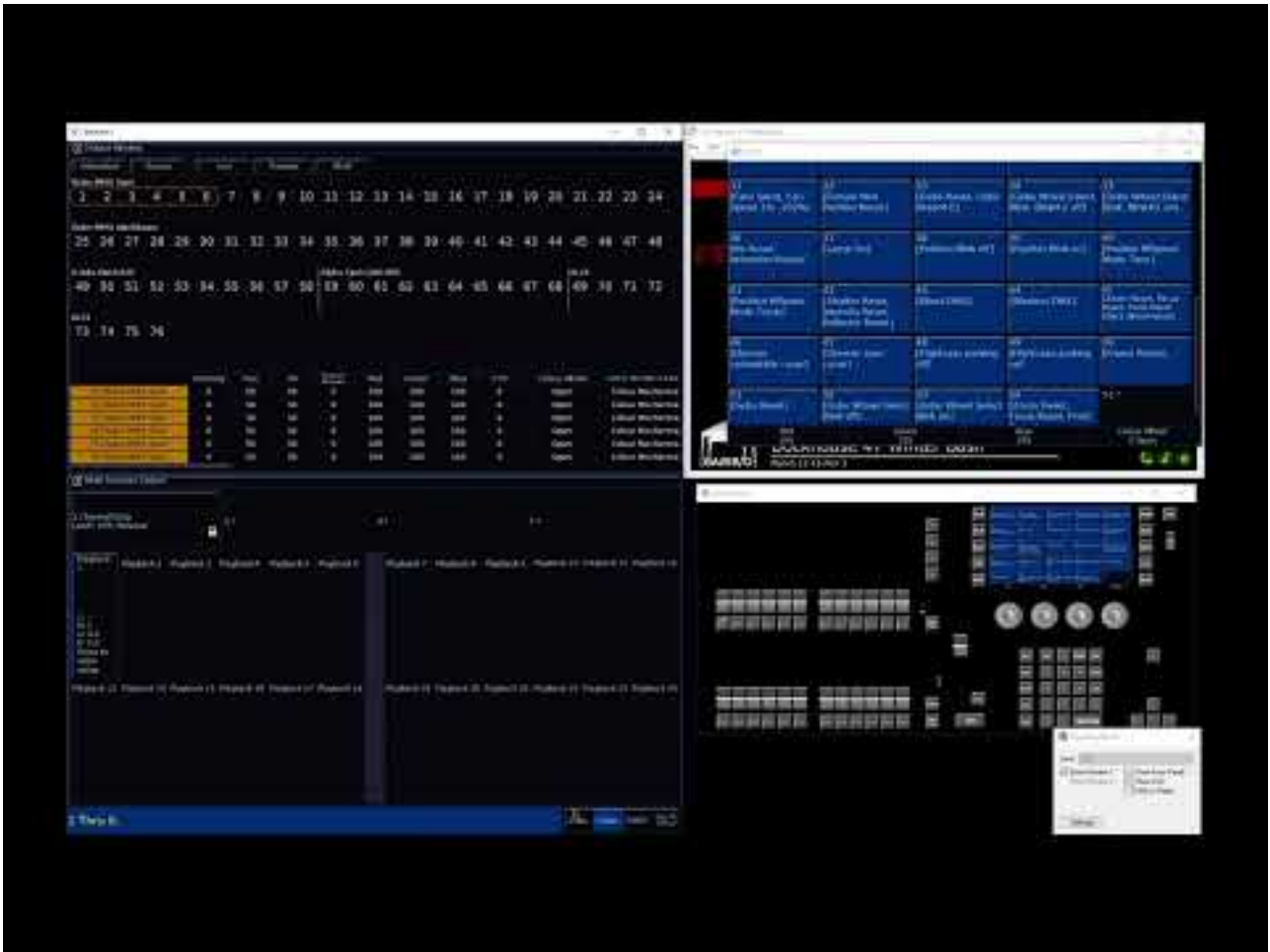
This means that macros can be used to control that parameter, rather than using the parameter manually.

If your fixture has a "Lamp On" macro, and you use this to lamp on multiple fixtures, ZerOS will automatically strike your lamps one by one in the order of selection. This avoids striking all lamps at the same time, which could lead to overcurrent.

Find out more...

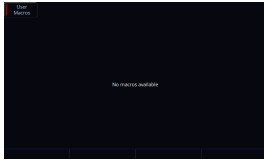
- [User Macros](#)
- [Triggering Macros](#)

Take a look at the online Macros training session below...



<https://youtu.be/7VXM8qUgZOM>

User Macros



Custom user Macros can be programmed, to record either sequences of button presses or syntax commands. Macros can then be recalled and played back via various methods.

FLX can store up to 240 user macros.

Recording Macros

To start recording your own sequence of button presses or commands as a macro, you can first choose the macro number you wish this macro to be recorded to. You can use either of the following methods:

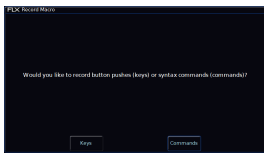
Record **Macro** **1** **5** **Enter**

Record Macro 15

Record **Macro** tap an empty macro tile marked with an asterisk in the macros window.

Record Macro

If the Macro window is already displayed, you can simply tap **Record** , and then the empty macro tile you wish to record to.



After doing this, you will receive the following message, allowing you to record either "Keys" or "Commands":

- **Keys** will record any physical button presses you make on the console, Wings, or USB keyboards. It will capture key presses, repeats, and releases, meaning press-and-hold commands can be captured.
- For example holding **CLEAR** and tapping **Fader Funct.** can be recorded into a macro to create a "Release All" button.
- **Commands** will record just the text being typed into the command-line.

Therefore if you are simply recording a string of syntax, both **Keys** and **Commands** would record the same information, just in a different way.

Commands is the pre-selected option, meaning if you press **Enter** , this will be chosen.

After choosing either **Keys** or **Commands** the console will now start recording your macro. The LED in the **Macro** and **Record** button will be flashing to indicate this.

You can then type in the series of key commands from the front panel.

Once you have finished typing your button sequence, press the **Macro** key to complete recording the macro.

You may wish to record a macro that triggers another macro. Therefore when recording a macro, holding **Shift** and tapping **Macro** can be used to add "Macro" onto the command-line. This allows you to include fixture macros in user macros, by holding **Shift** and tapping **Macro**, followed by entering a fixture macro's ID.

Macros can be used for many scenarios. The "Commands" example below, can be used to record the syntax string required to create a blocked blackout in the next available cue:

Record **Macro** **2** **0** **Enter** **Commands** **1** **Thru** **@** **.** **Record** **Enter** **Macro**

The "Keys" example below, will record a macro of the faders "Page Up" key being pressed. This macro can then be triggered from a cue. When you go into that cue your MFFs will then automatically change page for you.

Record **Macro** **2** **Enter** **Keys** **Page Up** **Macro**

Naming Macros

Both user macros and fixture macros can be named using syntax by typing one of the following commands:

Macro **4** **8** **Name**

Macro 48

This displays an onscreen keyboard to name Macro 48.

Name **Macro** **7** **Enter**

Name Macro 7

This displays an onscreen keyboard to name Macro 7.

Name **Macro** tap the macro you wish to name.

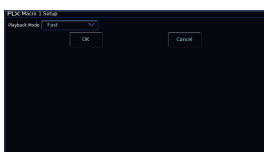
Name Macro

This displays an onscreen keyboard to name whichever macro you touch on the touch screen. You do not need to press the "macro" button if the Macro window is already displayed.

Macro Settings

The playback speed of the macro commands/button presses can be configured in the macro settings. Macro settings can be accessed by holding **Setup** and tapping the onscreen macro tile, or using syntax:

Macro **2** **3** **Setup**



The Macro Settings allows you to use the Playback Mode drop down to toggle between Fast or Slow. Fast is the default, and will be suitable for almost all macros. Some macros that take you in and out of Setup for example, may require to be played back at a slower rate.

Copying Macros

Macros can be copied. This can be done using the following syntax:

Macro 20 Copy 30 Enter

Macro 20 Copy To 30

Moving Macros

Macros can be moved, which is useful if you wish to rearrange your macro tiles in the macros window. This can be done using the following syntax:

Macro 20 Shift + Copy 30 Enter

Macro 20 Move To 30

Deleting Macros

To delete any macro, press **Delete** followed by touching the relevant macro tile on the touchscreen. Macros can also be deleted using syntax by typing one of the following commands:

Macro 42 Delete

This deletes macro 42.

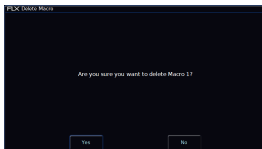
Delete Macro 7 Enter

Delete Macro 7

This deletes macro 7.

Delete Macro tap the macro you wish to delete.

You do not need to press the "Macro" button if the macro window is already displayed.



After choosing a macro to delete, the console will ask you to confirm this action before the command is executed. Once deleted, a macro cannot be recovered but can be recreated manually if required.

Triggering Macros

Once macros have been created, they can be triggered using any of these methods:

- [Macros Window](#)
- [Syntax](#)
- [UDK](#)
- [Cues](#)
- [OSC](#)
- [Vision.Net](#)
- [Remote Switches](#)
- [Keyboard Shortcuts](#)

Macros Window & Syntax

Macros can be triggered directly from the Macros window, by tapping the one you need.

Alternatively, Macros can also be triggered using syntax:

This triggers macro 1.