

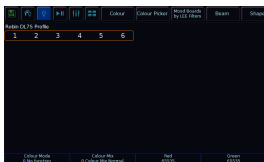
Each attribute (Colour, Beam, Shape, Position and Effect) has 240 palettes on FLX, 96 palettes on FLX S48 and 48 palettes on FLX S24.

A palette stores all the values of a fixture (or group of fixtures) required to create a particular effect on stage. For example, a palette can be stored for the colour Red which details the values required for each fixture to create a red colour. Likewise a palette can be stored for a position on the stage, with the relevant Pan & Tilt information for each fixture in the rig. Palettes can quickly recall parameter settings that are used regularly, such as a range of colours for LED fixtures, or a range of positions for moving lights. ZerOS can automatically create palettes if required.

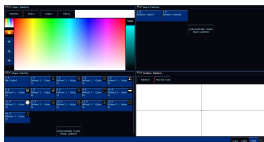
## Palette Windows

Each attribute has its own palette window. This is opened automatically when you press the appropriate attribute button - **Colour** , **Beam** , **Shape** , **Position** or **Effect** . These are physical buttons on FLX to the left of the internal touchscreen, and "tabs" on FLX S which open along the top of the touchscreen.

The palette window contains palette "tiles" with 5 in a row, for each of the palettes, containing a palette number and a name.



On FLX S, the attribute "tabs" will only be visible along the top of the touchscreen if the currently selected fixtures support that specific attribute. Depending on the number of attributes your fixture has, these tabs will scroll to give you access to all fixture controls.

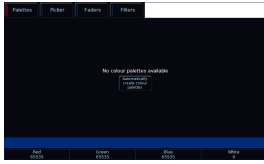


On FLX and FLX S48, palettes can also be displayed on the external monitor by pressing "CBSP" in the bottom right corner of the external monitor.

## Learn more about Palettes...

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# Automatic Palettes



ZerOS can automatically create palettes for all attributes, which can be a quicker method of controlling parameters than via the encoders. If palettes are available for your fixtures, an Automatically create palettes button will be displayed.

Automatic palettes are created based on the fixtures you have patched, so it's recommended to fully patch your console before choosing Automatically create palettes.

# Recording Palettes

To record a palette (for example, a colour palette), firstly adjust the parameters of the fixtures as required (for example, set all your lights to red). Then tap **Record** , and if you are not viewing the required palette window (for example, Colour) for the attribute you wish to record, use the attribute button to bring it into view. Then touch an empty palette, indicated by an asterisk.

This process is the same for all palettes.

On FLX, palettes can also be recorded using syntax, along with opening the Palettes window during the command, rather than before. Set up the fixtures as required and then type one of the following commands:

**Record** **Colour** **2** **0** **Enter**

**Record Colour 20**

This records Colour palette 20.

**Record** **Colour** touch the required palette

This records whichever colour palette you touch on the touch screen. You do not need to press the "colour" button if the colour window is already displayed.

To record the data as a different kind of palette, simply replace Colour with Beam, Shape, Position or Effect .

## Snapshot Palette

When programming palettes, you usually will want to just store the relevant parameters into their parent attribute. So for example, Red, Green and Blue levels into a colour palette.

However, you can snapshot the current lighting state on stage, and record all parameters of all fixtures into a single palette. To do this, hold Shift and tap Record, and then tap any empty palette from any attribute.

You will notice this palette is annotated "ICBSPE", meaning Intensity, Colour, Beam, Shape and Position is stored.

On FLX, you could therefore use the following syntax:

**Shift** + **Record** **Colour** **1** **5** **Enter**

**Record All Colour 15**

Snapshots the current lighting state and records it into colour palette 15.

# Advanced Palettes

## Recording multiple attributes into a palette

When programming palettes, you usually will want to just store the relevant parameters into their parent attribute. So for example, Red, Green and Blue levels into a colour palette.

However, you can also add additional attributes into a palette if required. To do this, adjust your fixture's parameters. For example, set your fixtures to red, and move their position to your required location.

Then tap **Record** , and tap the attribute button of where you wish this palette to be stored. For example: **Record** **Colour** . In the Record Options window that opens on the external monitor, you can manually add other attributes into the palette. To open the Record Options window on the internal touchscreen, press and hold Record, and then tap the attribute key. To add the other required attributes, disable SmartTag, so it has a blue stripe, rather than red, and then use the attribute filters along the bottom of the Record Options. To add position in for example, double tap **Position** , so that it has a green stripe. Then type the palette number followed by enter, to record. You will notice this palette is now annotated with the attribute letters of the stored attributes.

In our colour and position example, it will be annotated "CP":

**Record** **Colour** **Position** **Position** **1** **5** **Enter**

Records colour and position into colour palette 15.

## Using palettes to copy parameters to another fixture of the same type

Palettes can be used, as a way to apply parameter values of a fixture, to another fixture of the same type.

To do this, select the fixture that has the values you wish to apply to a different fixture. Then tap **Record** , and then tap the attribute key of the attribute you wish the palette to be stored in. You can choose to store this palette to any attribute. Then in the Record Options window, ensure SmartTag is disabled, and tap **Selected Fixtures** **All Parameters** , You can then tap an empty palette tile in the attribute you tapped, or use syntax. Then, you can select the fixture of the same type that you wish to apply these parameters to, and apply your palette.

For example, this will apply all parameters of fixture 1, to fixture 2, if both fixture 1 and 2 are the same type:

**1** **Record** **Beam** **3** **0** **Selected Fixtures** **All Parameters** **Enter** **2** **Beam** **3** **0** **Enter**

# Using Palettes

When using palettes, only the selected fixtures will move to the values stored within that palette. This means you can have a single palette of everything red, but then only select a small number of fixtures to actually go red.

To use a palette, first select a fixture or group of fixtures. Then, simply choose a palette on the internal touchscreen. The fixture(s) will change to the colour they were in when the palette was stored.

If any of the selected fixtures are not actually programmed in the applied palette, but there are one or more fixtures of the same type that are programmed, the fixture will use the values programmed for the first fixture of the same type.

FLX users can type the following command:

Colour 20 Enter

Colour 20,

This applies Colour Palette 20 to the currently selected fixtures.

18 Thru 23 Colour 29 Enter

18 Thru 23, Colour 29,

This applies Colour Palette 29 to fixtures 18, 19, 20, 21, 22 and 23.

# Naming Palettes

Palettes can be named by holding **Setup** and pressing the Palette on the touchscreen. An onscreen keyboard will then be displayed to type the palette's name. An external USB keyboard can then also be used. Press OK to confirm.

On FLX, palettes can also be named using syntax. These examples use Colour, however you could also instead tap Beam, Shape or Position for the following commands:

**Colour** **2** **0** **Name**

**Colour 20 Name,**

This displays an onscreen keyboard to name Colour Palette 20

**Name** **Colour** **3** **Enter**

**Name Colour 3,**

This displays an onscreen keyboard to name Colour Palette 3

**Name** **Colour** touch palette

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

Palettes can also be named at the point of recording. For example:

**Record** **Colour** **2** **0** **Name**

**Record Colour 20 Name,**

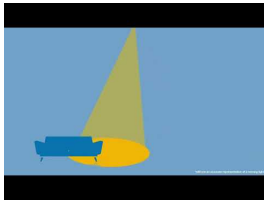
Records colour palette 20, and the on-screen keyboard will pop-up for you to use, or use a USB keyboard to give a name. Press enter to save.

# Referencing Palettes



If you apply a palette to a fixture, you will notice that the encoders display a code, with the DMX value then displayed in brackets. This code is known as the palette reference. The code will be the first letter of the attribute, followed by the palette number. For example in the image on the left, the Red, Green and Blue values have just been adjusted by colour palette 10 (C10).

If you apply a palette and then record a cue or UDK, the console will record the reference to the palette rather than the actual parameter values in brackets. This means if you update the palette, all the cues which used that palette will automatically be updated. This is especially useful for touring shows when using positions, to remove the need of updating each cue individually when you move venue.



Take a look at this quick video for an explanation on Referencing Palettes.

<https://youtu.be/5k1GT0jxeUw>

# Updating Palettes

To update a palette it is often easiest to activate the palette first by selecting your fixtures and touching the palette. Now, make the changes you need, and then press **Update** followed by touching the relevant palette. This updates whichever palette you touched on the touch screen.

Updating a palette will update the contents of that palette, but will not alter the name of the palette. Any cues that were recorded using that palette, will now also be updated.

On FLX, palettes can also be updated using syntax. Make the changes you want and then type one of the following commands:

**Update** **Beam** **1** **4** **Enter**

**Update Beam 14,**

This updates Beam 14.

**Update** **Position** touch position palette

This updates whichever position palette you touch on the touch screen. You do not need to press the “position” button if the position window is already displayed.



# Copying & Moving Palettes

Palettes can be copied or moved using syntax. Copying is particularly useful if you have a palette that you would like to duplicate, so that you can use it as a starting point to create a new palette, rather than starting from scratch. Moving is useful if you would like to reposition your palette tiles in the palettes window.

## Copying

The syntax can follow "Attribute x `Copy` y `Enter` ", where x is the source palette, and y is the destination. There is no need to tap the attribute button again before y, however this is allowed.

Examples of copy syntax below:

`Shape` `1` `Copy` `6` `Enter`

Shape 1 Copy To 6,

Copies shape palette 1 and pastes it to shape palette 6.

`Position` `10` `Copy` `Position` `2` `Enter`

Position 10 Copy To Position 2,

Copies position palette 10 and pastes it to position palette 2.

## Moving

The Move command can be accessed, by repeating the process above, however holding the `Shift` key when tapping `Copy` . The syntax is therefore "Attribute x ( `Shift` - `Copy` ) y `Enter` ", where x is the source palette, and y is the destination. There is no need to tap the attribute button again before y, however this is allowed.

Examples of move syntax below:

`Colour` `1` ( `Shift` - `Copy` ) `6` `Enter`

Colour 1 Move To 6,

Moves colour palette 1 to colour palette 6.

`Beam` `10` ( `Shift` - `Copy` ) `Beam` `2` `Enter`

Beam 10 Move To Beam 2,

Moves beam palette 10 to beam palette 2.

# Deleting Palettes

To delete a palette, press **Delete** followed by touching the relevant palette. The console will ask you to confirm this action before the command is executed. Once deleted, a palette cannot be recovered but can be recreated manually if required.

When deleting a palette, ZerOS will go through all the programmed cues and UDKs and replace any references to the palette with the hard values from the palette before deleting it. This ensures cues and UDKs are not changed.

On FLX, palettes can also be deleted using syntax by typing one of the following commands:

**Colour** **4** **2** **Delete**

**Colour 42 Delete,**

This deletes colour palette 42.

**Delete** **Beam** **7** **Enter**

**Delete Beam 7,**

This deletes beam palette 7.

**Delete** **Position** touch palette

This deletes whichever palette you touch on the touch screen. You do not need to press the attribute button if the required attribute window is already displayed.

With syntax, you can also use the And, Thru and Except keys to delete multiple palettes within an attribute. For example:

**Delete** **Shape** **1** **Thru** **6** **Except** **4** **Enter**

**Delete Shape 1 Thru 6 Except 4,**

Deletes shape palettes 1, 2, 3, 5 and 6.

**Delete** **Colour** **1** **And** **5** **Enter**

**Delete Colour 1 And 5,**

Deletes colour palettes 1 and 5.