

## ZerOS Software Release (Public Release)

Released Version:	7.9	Release Date:	8 <sup>th</sup> July 2016
Previous Versions:	7.8.5	Release Date:	20 <sup>th</sup> October 2015
	7.8.2.36	Release Date:	5 <sup>th</sup> October 2015

## ZerOS 7.9 Software Release

### Introduction

Release 7.9 of ZerOS is a major new software release recommended for Zero 88 FLX and ORB Series lighting consoles. These release notes describe the new features, enhancements and bug fixes that have been implemented between versions 7.8.5 (ARM), 7.8.2.36 (x86) and 7.9 (ARM & x86 combined).

### Products Affected

- ✓ FLX
- ✓ ORB Series
- ✓ SCD Server Pro
- ✓ Phantom ZerOS (offline software)

### Compatibility

No compatibility issues known from 7.8.5 (ARM).

ZerOS 7.9 no longer supports Submasters (see ZOS-6969 below). Submasters from previous showfiles will automatically be converted to "Playbacks" (the new name for "Cue Stacks") using the following rules:

- 1) If the equivalent number Playback is available, Submasters will be automatically converted into that Playback (so Submaster 2 will become Playback 2 if there wasn't a Cue Stack 2 previously).
- 2) If the equivalent number Playback is not available, Submasters will be automatically renumbered to an empty Playback (and a notification will be displayed showing the changes made).
- 3) If there are more Submasters & Cue Stacks combined than the number of supported Playbacks, the additional Submasters will not be loaded (and a notification will be displayed showing the changes made).

"Special Submasters" (Time, Speed Override & Group Submasters) on ORB Series consoles will not be converted, and will need to be setup again as "Advanced Playbacks" (see ZOS-6972 below).

Playback 1 – 20 on ORB XF are now accessed along the top row of Multi-Functional Faders opposed to the bottom row.

### Update Instructions

Please carefully follow the update instructions available at the end of this document.

The software installation process completely removes all data on the console, including any current show files. If the current show file is still required, **please ensure that backups are taken before proceeding with the update**. After completing the update you may re-load your show if required.

When performing a software update it is important to ensure that the power supply to your desk is stable and reliable. Power loss during a software update can render your desk unusable.

## New Features

### ZOS-3853 Intensity Groups (“Intensity Palettes”)

Groups now store Intensity alongside the fixture selection. When recording groups, tagged intensities are now automatically recorded too. Channels within auto-groups, selected channels with no tagged intensity, and channels within groups recorded in previous software will have their intensities set to 100%.

Recalling groups in the “normal” way (by touch or by syntax) will continue to only affect the current selection of fixtures, not their intensity. To recall Intensity Groups, any of the following new methods can be used:

#### 1) Touch

Intensity Groups can be recalled by simply double-tapping a group on the touch screen. This also selects the fixtures within that group (in line with the single select / multiple select setting). If all fixtures are already at the Intensity Group levels, double-tapping the group will turn the intensities off (0%).

#### 2) Syntax

“Group Group” syntax has been replaced and now recalls “Intensity Groups”. For example:

... [Group] [Group] [1] [ @ ] [ @ ] ...

This recalls the fixture intensities from Group 1 at the level they were recorded (displayed in the command line as [Intensity Group] [1] [ @ ] [ @ ] ).

... [Group] [Group] [1] [ @ ] [5] [0] [Enter] ...

This recalls the fixture intensities from Group 1 at 50% of the level they were originally recorded at.

#### 3) Treat as a palette

Intensity Groups can also be used like any other referencing palette, affecting only the selected fixtures rather than all the fixtures recorded within the Group.

... [Group] [Group] [5] [Enter] ...

This recalls the fixture intensities from Group 5 to only the currently selected fixtures. The fixture selection does not change by using this syntax.

### ZOS-5956 Global BPM (“Tap Tempo”)

The “speed override” function has been upgraded to “Global BPM”. On FLX, this is available on an encoder when pressing the “Z” button. On ORB XF, this can be accessed by using the syntax SHIFT+TIME RECORD {Playback}. On all ZerOS consoles, this is also available as an “Advanced Playback” (see ZOS-6972 below). The fader or encoder increases/decreases the BPM, and the button can be used to set a live BPM (the time between the last two button presses are used to calculate the BPM). To assign a chase to the BPM, go into the Playback Settings, choose “Chase” and select “Use Global BPM”. A Playback’s button cannot be used as a Tap Tempo whilst this setting is selected.

### ZOS-6914 New options within the Output Window on FLX

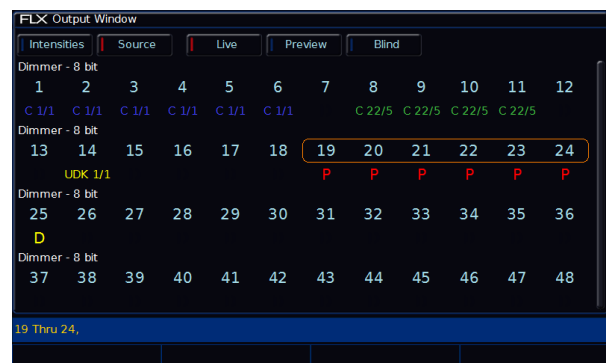
The Output Window now has the following features:

#### 1) “Intensities” / “Source”

The new “Source” button displays what’s in control of each fixture. The following descriptions are used (as shown to the right):

C 1/1 Playback 1, Cue 1  
C 22/5 Playback 22, Cue 5  
UDK 1/1 UDK Page 1, UDK 1  
P Programmer  
D Default value

Pressing “Intensities” reverts back to the usual display.



#### 2) “Live”, “Preview”, “Blind”

“Live” displays the usual current output of the console. “Preview” is a new option which displays the next cue (yellow bar) of the currently viewed playback. Using the up/down arrows to navigate the playback allows quick preview of upcoming cues. “Blind” is both a visual indicator and a quicker way to enter and leave “Blind Mode”.

## ZOS-6932 Effect Palettes can now be adjusted separately on the encoders

When multiple effect palettes are being used together (for example, Circle, Chaser, Rainbow and a user's custom Iris effect), each palette can now be adjusted separately. Pressing "Effect" will display the global Speed, Size, Offset and Rotation of the overall effect. Pressing "Effect" again will then display Speed, Size, Offset and Rotation for just the first effect. Pressing "Effect" again will page to the second effect, and so on. Once the last effect has been reached, pressing "Effect" again will return to the global settings.

## ZOS-6944 Trigger tab updated to "Raise and Lower"

Within the Playback Settings window, the "Trigger Tab" has been updated to become more touch-friendly, and includes new "Raise Time" and "Lower Time" settings.

These settings emulate the time the user takes to physically push up or pull down a Playback's fader, regardless of the current cue's fade time. When "Lower Time" is set to 5 seconds, pulling the playback fader down as quickly as possible will result in a 5 second fade down.



## ZOS-6945 / ZOS-6979 Playback Summary window replaced on FLX

On FLX, the "Playback Summary" window has been replaced with the "Multi-Function Faders" window. This window shows the current status of the 24 built-in faders.

### 1) Channels

When set to channels, this window displays the Channel's number, name and current intensity.

Pressing one of the buttons selects / deselects that channel.

### 2) Playbacks

When set to "Playbacks", this window displays the Playback's number, name, current intensity, current & next cue and the playback raise (u) & lower (d) time (see ZOS-6944).

By default, pressing one of the buttons will open the Playback's Settings window for quick access. However this functionality can be changed in SETUP > "System Settings" to match the physical button of the playback (Flash, Solo, Go, Tap Tempo etc). This allows playbacks to be controlled on a touch screen or tablet when viewing this window.



## ZOS-6946 Latest Takes Precedence (LTP) now works as a "Soft LTP".

Moving an LTP fader will now fade the fixtures from the current intensity to the recorded intensity.

## ZOS-6969 "Playbacks" replace legacy "Submasters" and "Cue Stacks" on ORB and ORB XF

Cue Stacks have been renamed "Playbacks", and now offer all the advanced functionality included within FLX. Submasters have been discontinued, as Playbacks can perform the role of *both* Cue Stacks and Submasters. Submasters from previous showfiles will automatically be converted to Playbacks – see the "Compatibility" section on the first page of these release notes for more information.

## ZOS-6970 / Page Lock

### ZOS-7113

Playbacks and "Advanced Playbacks" can now be "page locked" so they are accessible on any page. This option is within the Playback Setting's window, under the new "Advanced" tab. When locked, other Playbacks which would usually be accessed from that physical fader on other pages are no longer accessible.

## ZOS-6972 / Advanced Playbacks

### ZOS-7112

Like UDKs on FLX, empty Playbacks can now have advanced functions. Hold SETUP and press the button of a playback which is currently empty. Currently, the options available are "Global BPM", "Programmer Time" and

“Speed Override”.

These features replace the ORB’s “special 4ubmasters”. ORB syntax has been updated to use playbacks, so the syntax for “Programmer Time” is **TIME** **RECORD** **Playback Flash** and the syntax for “Global BPM” is **SHIFT+TIME** **RECORD** **Playback Flash**. Either these syntax’ or the new Advanced Playbacks window can be used to access these features. These features will **not** get transferred from previous showfiles.

“Group Submasters” have been superseded by playbacks. The “Inhibit” and “LTP Mix” features of Group Submasters are now available on Playbacks.

## **ZOS-6977 New “Inhibitor” option for Playbacks**

Playbacks can now be set to “Inhibitor” within the “General” tab of the Playback Settings window.

Inhibitive playbacks do not output the programmed intensities of the current cue, but instead act as a “proportional scale” for those channels. When changing cues, these values change, allowing multiple Inhibitor states to be stored onto a single playback.

When set to “Inhibitor”, the playback is always active and cannot be released.

## **ZOS-6978 New “LTP Catch” option added.**

When a Playback is set to “LTP Catch”, channels will only be affected when the intensity from the Playback fader matches the channel’s current intensity. At this point, the LTP Catch playback will take control of the channels.

## **ZOS-7175 Zero 88 Fixture Library GFT 31.00**

The new fixture library adds 436 fixtures. “<Standard Fixtures>” has been renamed to “Generic Fixtures”, and the generic LED fixtures have all been combined within “Generic Fixtures” > “LED Unit”. Within this, there are 16 variants of RGB, RGBW, RGBW etc

## Enhancements and Bug Fixes

ZOS-2984	Fixed issue which caused a crash when selecting and deleting “All” within Edit Fixtures > Patch
ZOS-3229	Improved clarity of wording after installation on x86 consoles
ZOS-3830	Inhibits now work as a relative level rather than a topset
ZOS-4955	Releasing playbacks now use the “Programmer Time”, if active
ZOS-5072	Blind colours updated – tracked values appear in purple, programmer values appear in red.
ZOS-5330	x86 consoles can now be upgraded using the quicker FLX method (this release must be installed first)
ZOS-5598	Groups can now be updated. Updating a group stores the current selection of fixtures.
ZOS-5747	Linux Kernel updated to 3.14.28
ZOS-6042	Setup updated on x86 consoles to match FLX, and Solution MFK keys updated to reflect changes
ZOS-6097	Fixed issue where grey boxes were scattered across output window after patching fixtures
ZOS-6144	Selecting cue names, or fixture names, and pressing ENTER now opens an onscreen keyboard
ZOS-6411	“Latch” option added to the Playback Button Action options
ZOS-6415	ZerOS Wing is now supported across the range
ZOS-6641	Loading a cue into blind now displays tracked values as well as programmed values
ZOS-6745	Issue fixed where loading a showfile whilst viewing the Waveforms tab could crash the console
ZOS-6747	Issue fixed where allowing iPhone to access photos & videos could cause the console to become unstable
ZOS-6750	Increased stability when deleting large numbers of fixtures (thousands)
ZOS-6794	Clear + UDK now releases individual UDKs
ZOS-6855	1 AND GROUP 1 ENTER syntax now works correctly
ZOS-6856	Issue where “next” bar would move on released playbacks when playing back other playbacks fixed
ZOS-6867	“Clear Fixture” correctly fades to correct level when used in conjunction with “programmer time”
ZOS-6878	Improved synchronization when using effects on multi-core ARM consoles
ZOS-6886	“Merge” option removed from the Record Window
ZOS-6887	Tap Tempo now also triggers a chase if the playback is released
ZOS-6888	Attribute fade times now set to 100% by default for chases
ZOS-6889	Unnecessary window re-layout and redraws removed when Clear is repeatedly pressed
ZOS-6891	UPDATE 3 {change up fade to 10s} {change down fade to 12s} ENTER syntax now works correctly
ZOS-6893	Changing the Fade/Delay Up/Down times on encoders is now much faster
ZOS-6915	Frog2 Original hardware co-processor discovery no longer fails
ZOS-6928	The first GO press after using SHIFT+GO wasn't working. This has now been fixed
ZOS-6930	FLX windows are no longer closed on Reset
ZOS-6949	Fixed stability issue where console incorrectly updated cell contents
ZOS-6956	Improved support for range of USB Memory sticks when updating FLX
ZOS-6968	Space allocation for fixture library increased
ZOS-6973	When “Turn into chase” is selected, Tap Tempo now shows as selected without having to leave window
ZOS-6976	Internal and External monitors can no longer mistakenly be used to calibrate each other
ZOS-6990	Playbacks now re-trigger attributes whenever the fader passes the trigger point (upward)
ZOS-6997	Improved performance when deleting a large number of fixtures simultaneously
ZOS-7005	AND and THRU can now be used when copying cues on FLX
ZOS-7011	“Selected Fixtures” option removed from the Record Window when in non-tracking mode
ZOS-7016	Pressing SETUP+UDK and then OK no longer disables the programmer time
ZOS-7028	ZerOS no longer attempts to re-use closed CIP connections, instead of disposing of them and creating new ones
ZOS-7047	“Source” no longer shows incorrect values when jumping or using “Goto Cue”
ZOS-7048	New “Advanced” tab added to the Playback Settings window, with advanced options moved from “General” tab
ZOS-7049	“Move on Dark” tab of Playback Settings window updated to new touch-friendly layout
ZOS-7059	FLX now displays the Effects window on the external display when viewing the “Palettes” desktop
ZOS-7060	“Wheels” page added to ZerOS Remote for all desk types
ZOS-7061	Playbacks are now preloaded to avoid potential “lag” when using flash buttons
ZOS-7062	ZerOS was only replaying cues if the cue number was specified within the command
ZOS-7063	Improved drawing of the Output Window when selecting / deselecting fixtures
ZOS-7073	Improved handling of GO presses on multiple playbacks simultaneously
ZOS-7095	Output Window no longer allows navigation of the channel values using cursor keys
ZOS-7102	Improved graphics performance in the default skin for ORB Series, Solution Series and FLX
ZOS-7129	Encoder Sensitivity is now correctly working on FLX
ZOS-7134	The software version that the current showfile was saved in is now shown within the Start Up text
ZOS-7139	Added Multi-Touch driver for external touch screens
ZOS-7140	Improved display timings for the 1920x1080 resolution
ZOS-7141	Improved handling of unexpected Touch Input events which stopped some monitors from calibrating
ZOS-7155	Increased the available default options for Playbacks within Setup
ZOS-7176	In rare situations, some position parameters were missing on the wheels
ZOS-7178	Unikey support removed from console software (not Phantom)

<b>ZOS-7187</b>	Move on Dark for chases was being calculated differently to Move on Dark for cues
<b>ZOS-7191</b>	Watchdog occasionally kicked in too quickly
<b>ZOS-7199</b>	Possible fault with Playbacks which could crash console now fixed
<b>ZOS-7205</b>	Holding down encoder wheel button no longer adds "shifted wheel mode" to the command line
<b>ZOS-7212</b>	Effects on the brightness parameter now influence the availability of Move-On-Dark.
<b>ZOS-7213</b>	Moving an encoder wheel whilst a dialog window was displayed sometimes caused ZerOS to crash
<b>ZOS-7227</b>	"Source" now shows the source of each parameter, rather than just intensity
<b>ZOS-7228</b>	Pressing "GO" on a released playback didn't always trigger LTP parameters
<b>ZOS-7229</b>	MFF window now shows the next cue for released playbacks, rather than "--"
<b>ZOS-7235</b>	In Blind, holding a playback's button to load a cue now works no matter of the function the button is set to
<b>ZOS-7236</b>	In Patch Wizard, "<Standard Fixtures>" terminology has been updated to "Generic Fixtures"
<b>ZOS-7249</b>	SCD Server Pro's "desk type" can now be set to "FLX"

## Known issues

No known issues.



## Software Update Instructions

### Introduction

Please familiarise yourself with these update instructions before proceeding. Instructions must be followed accurately and in order. Deviations or omissions could render the desk unusable and require it to be returned to the factory for recovery.

If any difficulties are encountered at any point, or you are in doubt on any of the instructions below, then do not proceed any further with the update and contact Zero 88 for assistance.

The software installation process completely removes all data on the console, including any current show files. If the current show file is still required, **please ensure that backups are taken before proceeding with the update**. After completing the update you may re-load your show if required.

When performing a software update it is important to ensure that the power supply to your desk is stable and reliable. Power loss during a software update can render your desk unusable.

### ARM users (FLX Series)

To perform the update:

- Download the software from the Zero 88 website ( [zero88.com/software/zeros](http://zero88.com/software/zeros) )
- Unzip the download and save the .exe file onto a USB stick (don't put it inside any folders)
- Plug the USB stick into your console
- Press SETUP to enter the console's setup screen and choose "Load file" on the monitor
- Select the file from the list displayed on screen and follow the onscreen instructions
- Once the update is complete, remove the USB Memory Stick and reboot the desk

Once all the software is up to date, you can get on with enjoying the new features in the desk software. Zero 88 recommend printing these Release Notes and having them with you when operating the desk, as some functionality may have changed which is explained in these notes.

### x86 users (ORB Series, Solution Series, SCD Server (&Pro), FROG2 and Leapfrog 48 & 96)

To perform the update, you will need a USB Memory Stick, which will be erased and formatted as part of the process. Make sure you first backup any data on the USB Memory Stick that you wish to keep.

Some types of USB Memory Stick may not be bootable by the desk. If you experience any difficulties then try using the Zero 88 USB Memory Stick supplied with the desk.

The update will reinstall all the software on the desk. An .exe file (USB Install Creator application) is run on a Windows PC to create a bootable USB Memory Stick.

Download the USB Install Creator application from the Zero 88 website (<http://www.zero88.com/software/zeros>) and, after unzipping, run it. Insert a USB Memory Stick into your Windows PC when prompted and follow the on screen instructions of the USB Install Creator. After a few minutes, the install creator will instruct you to remove the USB Memory Stick, which now contains the update for the desk.

Remove the USB Memory Stick from your PC and insert it in one of the desks USB ports. Power on the desk and the desk will automatically boot into the software update application. It is recommended that you have a monitor, keyboard and mouse connected to the desk to perform this update. Press the [Install ZerOS] button on the monitor and the software will be installed.

Once the update is complete, you can remove the USB Memory Stick and reboot the desk. At this point your desk contains the latest software.