

## FLX - example system diagrams

### Introduction

FLX can be built into a scalable and powerful system when combined with a range of accessories and networking equipment. This technical sheet shows various examples, with descriptions, of how these could be setup.

### ZerOS Wings

ZerOS Wings can be connected to any console running our ZerOS software, including Phantom ZerOS, to add 24 additional channel or playback faders. Multiple wings can be used at the same time, with no setup required. Wings can be mechanically attached to FLX, and optional legs are available when placing wings behind the console. They connect via a USB cable, which also powers the unit.

### Art-Net & sACN

Art-Net & sACN allow us to send multiple universes over a single cable. Some devices will accept this directly (such as media servers), whereas others will require you to convert back to DMX. FLX supports up to 8 universes, which can be sent over Art-Net, sACN, or both.

FLX includes an “EtherCON” connector – this accepts a “normal” RJ45 connector (the standard connector on an “Ethernet cable”), or the more robust EtherCON connector designed especially for tough touring conditions.

### Remote apps

There are various apps available to view and control FLX on mobile devices, such as smart phones and tablets. The console must be plugged into a wireless router, which your mobile devices can then also connect to. There’s also a Remote Monitor application for Windows computer.

### Visualisation

Visualisation packages allow you to preview your lighting through a 3D emulator when you don’t have access to the venue. Most accept Art-Net or sACN directly, but FLX also includes specific support for Capture, WYSIWYG and Light Converse.

### Media servers

Media Servers are used to serve up media content during a production. These can be triggered and controlled via FLX using the built in fixture profiles, normally using Art-Net or sACN.

### Phantom ZerOS

Phantom ZerOS is free to download, and can emulate any console which runs our ZerOS software, including FLX. Show files can be loaded, saved and transferred to “real” consoles, useful to setup your show, or make slight changes while you’re not at the console. Phantom ZerOS can also be unlocked to output Art-Net or sACN with the addition of the “Phantom ZerOS Unlock Dongle”. This allows it to run as a console itself, or to back up another console.

### Tracking backup

Tracking backup allows a continuous and full back up of FLX to another device, which will automatically take over if anything happens to your main console. Backups can be done to a second FLX, to a “SCD Server Pro”, or to a laptop running Phantom ZerOS with an Unlock Dongle.

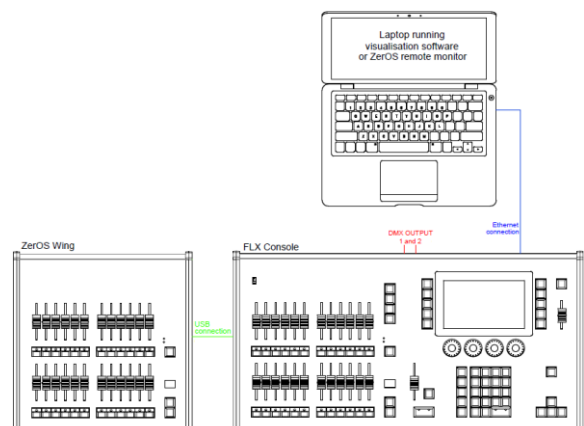
### Universe upgrades

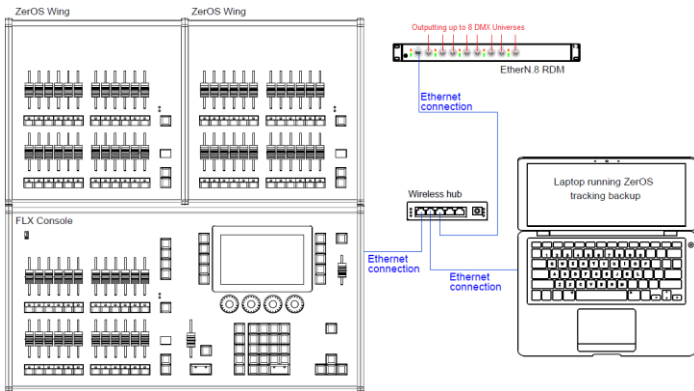
FLX consoles can now be upgraded up to 8 universes (4096 channels) in individual universe increments using a fully-online system: [zero88.com/software/zeros/upgrade/](http://zero88.com/software/zeros/upgrade/)

### Order codes

Below is a list of all the products mentioned within this technical note, and their order codes.

0020-000004-00	<i>FLX with UK mains lead</i>
0020-000005-00	<i>FLX with Schuko/French mains lead</i>
0020-000007-00	<i>ZerOS Wing</i>
00-887-00	<i>Phantom ZerOS Unlock Dongle</i>
03-081-00	<i>1 Universe Ethernet Box</i>
EtherN8RDM	<i>EtherN.8 RDM</i>
EtherN2RDM	<i>EtherN.2 RDM</i>
0020-000002-00	<i>SCD Server Pro</i>

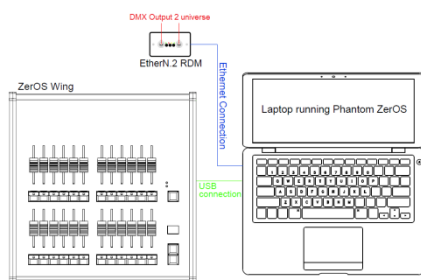




This system shows the FLX console with two ZerOS Wings connected via USB. Legs are available to ensure the Wings are the correct height when used behind the FLX.

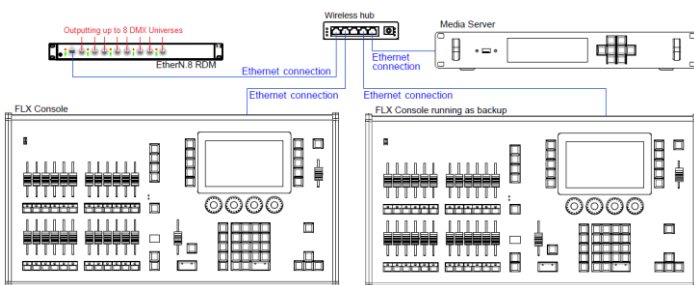
A hub or router connects the console to a laptop running Phantom ZerOS with an Unlock Dongle. This backs up every key press and can automatically take over so you can continue exactly where you were. Using a wireless router would allow mobile devices to be connected too.

An EtherN.8 RDM is connected to this system to convert Art-Net or sACN to DMX. The eight outputs can be individually configured to output any of the DMX universes.



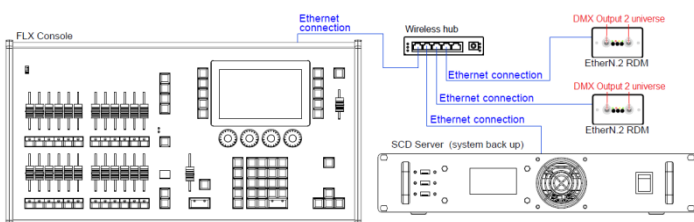
This system shows a laptop running Phantom ZerOS with an Unlock Dongle. The console is connected to an EtherN.2 RDM to output two universes of DMX. This could be directly, using a “crossover” cable, or via a hub / router using “straight” Ethernet cables. EtherN.2 RDM can be powered via “Power-over-Ethernet” (PoE) if required.

A USB Wing is also used in this system, giving physical controls to the software package. The button below each of the 24 faders can be used as individual GO buttons.



This system shows another tracking back up system, this time with two consoles staying in-sync. These could be physically next to each other, or in different areas of a venue. An EtherN.8 RDM is being used to convert to DMX, but any other Art-Net or sACN “nodes” could be used too.

This system also includes a Media Server connected to the network. There are many servers available, some with dedicated hardware, others software based.



This system shows another tracking backup system, this time with an SCD Server Pro for the backup. This can be rack mounted, and could have a ZerOS Wing connected to it if faders were required. The space bar on a USB keyboard acts as the Master Go button.

This system also includes two EtherN.2 RDMs, which could be wall mounted in two different locations within the venue – two universes at each.

## Further information & support

For further information on setting up these systems, or if you have any questions, we have various support channels available – please don’t hesitate to contact us, or your local Zero 88 distributor.

- support@zero88.com
- zero88.com/forum
- facebook.com/zero88
- +44 (0)1633 838088
- zero88.com/training
- twitter.com/zero88