



## LEGENDARY



## Quick Start

- 4K ready with quad link HDMI 2.0 input
- 8K single link with HDMI 2.1 and DP 1.4 input
- HDR 10 & HLG compliant
- 6+2: Up to 6\*4K layers on any output port, with 2 additional layers can be added (select 2\*4K2K signal sources from the existing 6 signal sources)
- Each input module support up to 4\*4K2K@60
- HDMI 2.0 output module support up to 2\*4K2K@60
- Fully customisable in/out resolutions & EDID management
- OSD overlay features
- XPOSE 2.0 control
- GENLOCK/SYNC
- I/O Module Based Design and hot swap capacity
- Support redundant power supply module

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# Overview

X8 as a new member of X series maintains leading technology. Since 2015, X series provide excellent solutions for national conference, stage activities and other high-end applications.

With the higher requirements of resolution and layers, **X8 upgrades and supports 4K/8K processing.**

X8 is an **HDCP compliant, scalable and extendable routing and video wall processor** configurable to support a variety of inputs and outputs. It features RGBlink 3rd generation high performance video scaling technology for excellent image reproduction. The most outstanding feature of it is its **thoroughly modular design**, the card frame style, SmartSlot system allowing installation of up to 24 inputs and 12 outputs.

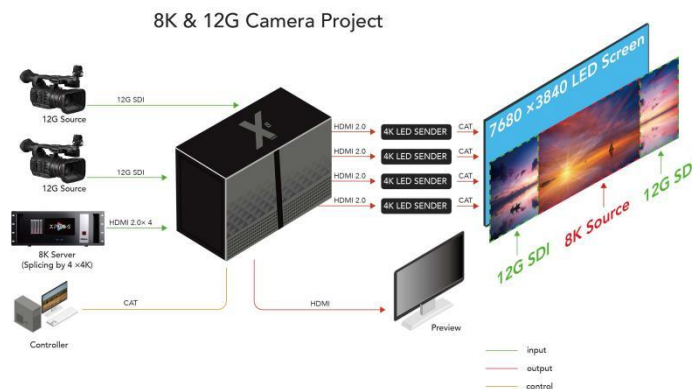
**Any input can be scaled, positioned, routed, transcoded to any output or be assembled as layers across outputs.**

Built for intensive switching and routing applications, the modular design extends to all aspects of the X8 for reliable and durable service.

## System Connection

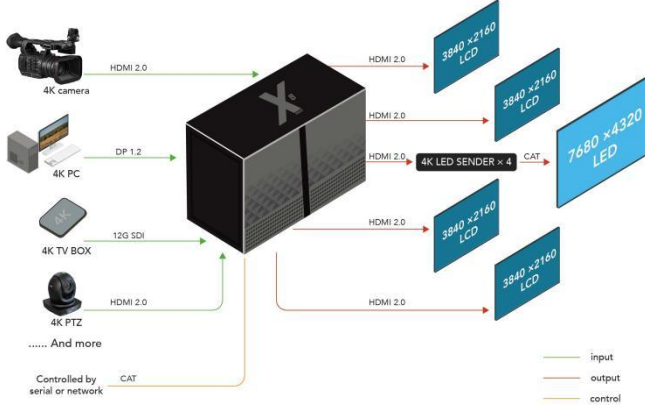
RGBlink offers solutions to demanding technical problem. Any application questions, or required further information, please contact with our customer Support Engineers.

### 8K & 12G Camera Project



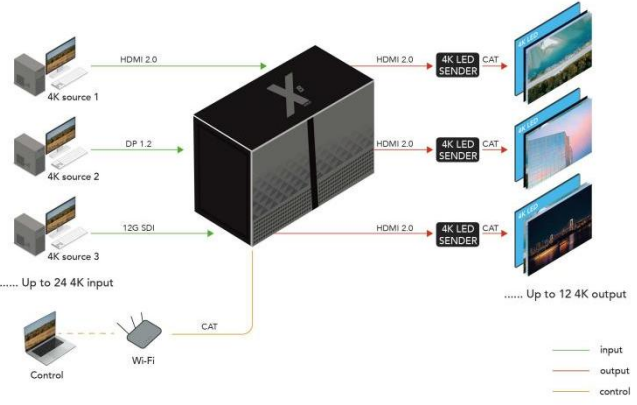
## LED & LCD Compatible

LED & LCD Compatible



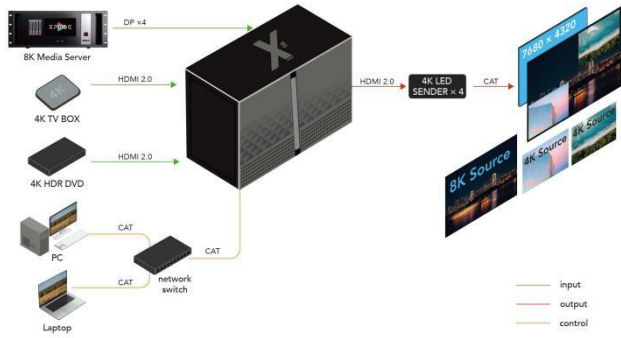
## Multi-4K Source to Different Screens

Multi- 4K Source to different screen



## Multi-Control

Multi- Control



# Packing Configuration

**AC Power Cord**



**Network Cable**



**HDMI Cable**



**RS232-RJ11 Cable**



**RS232-USB Cable**



**Note:**

AC Power Cable supplied as standard according to destination market.

# Hardware Orientation

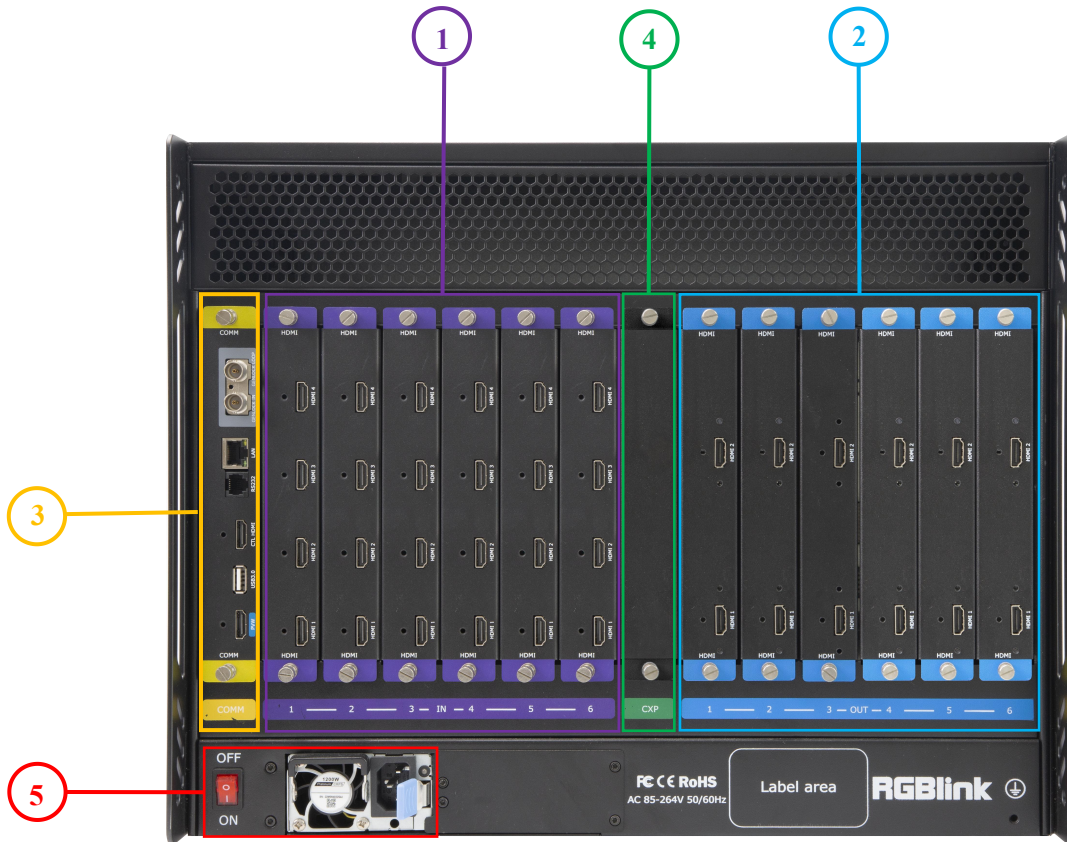
## Front Panel



### Front Panel Structure

1	TFT-LCD panel to show the info of input and output modules, device status, weather and so on.
2	<ul style="list-style-type: none"><li>● 1×USB 2.0 port for upgrade;</li><li>● 1×USB 3.0 port(blue) to be developed.</li></ul>

# Rear Panel



Chassis Module Structure	
1	<ul style="list-style-type: none"> <li>• 6 input module slots up to 24 inputs totally;</li> <li>• Optional input modules: Quad 4K HDMI Input Module, Quad DP 1.2 Input Module (preliminary), Quad 12G SDI Input Module, Single HDMI 2.1 &amp; Single DP 1.4 Input Module (preliminary).</li> </ul>
2	<ul style="list-style-type: none"> <li>• 6 output module slots up to 12 outputs totally;</li> <li>• Optional Output modules: Dual HDMI 2.0 Output Module, Dual DP 1.2 Output Module (preliminary).</li> </ul>
3	Communication ports including GENLOCK, LAN, RS232, CTL, USB 3.0 and HDMI.
4	CXP ports (to be developed).
5	Slot for power supply module and power switch. 1200W redundant power supply module is optional.

# Install Your Product

## Plug in Signals

Connect signals to the product (ensure all the device are all power off first).Tighten connector screws/locks where provided.



Please use cable that can support HDMI 2.0 to ensure 4K@60Hz input and output when 4K signal is used.

Connect RS232 port of device and computer with serial cable or connect LAN port of device and computer with network cable or connect both device and computer to the same router, make sure their IP address is not completely same.

## Plug in Main Power

Connect IEC cable to device and plug into wall socket. Turn on power at wall socket.



If the devices is restarted, make sure the indicator light upon the PSU module is totally out before plugging in the power.

## Turn on Your Product

Turn on the power switch on the rear panel.

The system begins to work,and the TFT-LCD screen shows the input slot and output slot information, device status, COM. Versions. IP address and serial number.



# Use Your Product

## Install XPOSE 2.0

### Environment Requirements

#### Window

Processor: 1 GHz or above 32 bit or 64 bit processor

Memory: 4 GB or more

Graphics: Support DirectX 9 128M or above (open AERO effect)

Hard disk space: Above 16G (primary partitions, NTFS format)

Monitor: Resolution must be 1920x1080 pixel or above (it can not display normally if the resolution is lower than 1920x1080)

Operating system: Windows 7 or above (full version, not Ghost version or compact version)

CPU:i5 and above

#### Mac

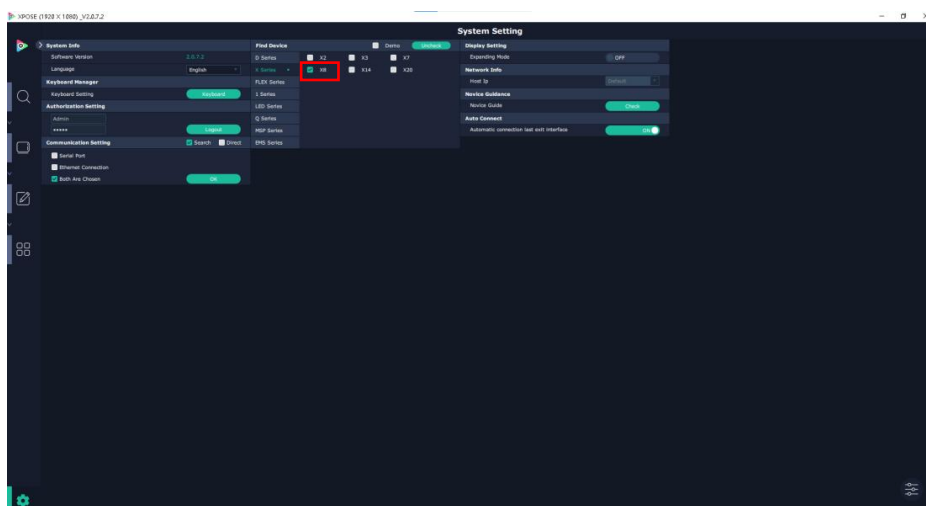
Monitor: Resolution must be 1680x1050 pixel or above (it can not display normally if the resolution is lower than 1680x1050)





CPU:i5 and above

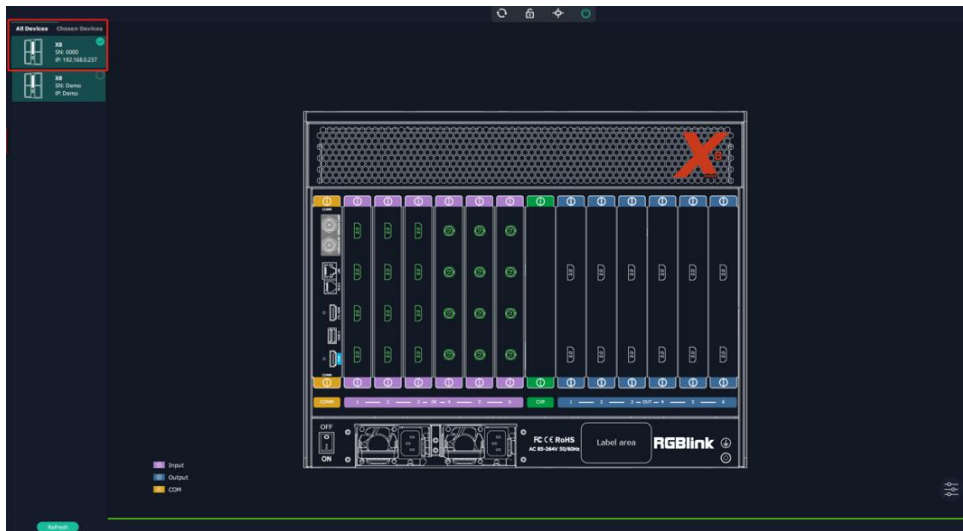
## XPOSE Controls X8





### Connect the Device

Click the icon  to open **【System Setting】** , and select **X8** in **【Find Device】** .




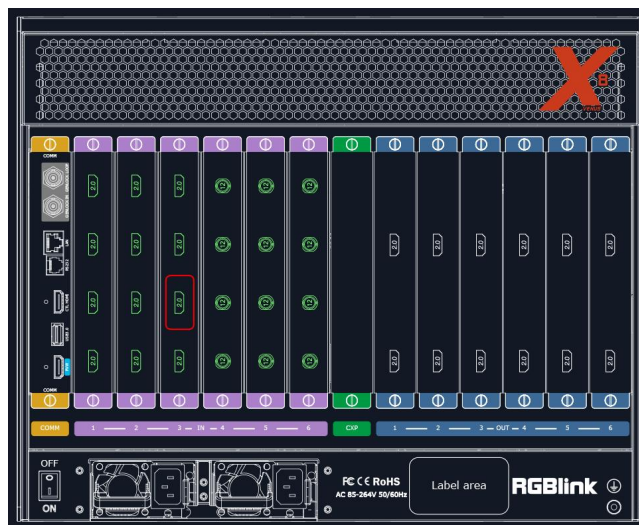
Click the icon  and click refresh  to check all available devices in the network. Click  to choose X8 and click  to obtain the control of this device in **【Chosen Devices】** , as shown in the picture below.



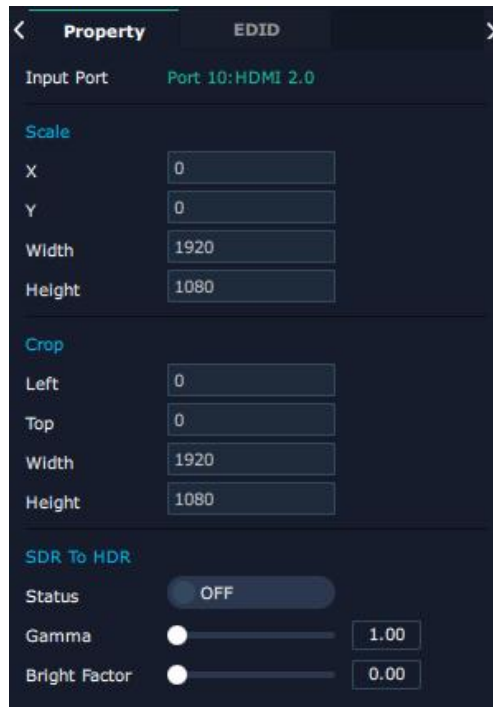
 : 
  purple tip indicates input, 
  blue tip indicates output, 
  yellow tip indicates communication.

## Input Setting

Click any input port in purple area, the board where the port locates is selected. Users can do settings to the board now. A red rectangle  flashes around the chosen port when it is clicked.



## Property Setting



Input Port: Current port

### Scale

X/Y: Vertical and horizontal position

Width/Height: Vertical and horizontal size

### Crop

Left: Crop left

Top: Crop top

Width: Horizontal size after crop

Height: Vertical size after crop

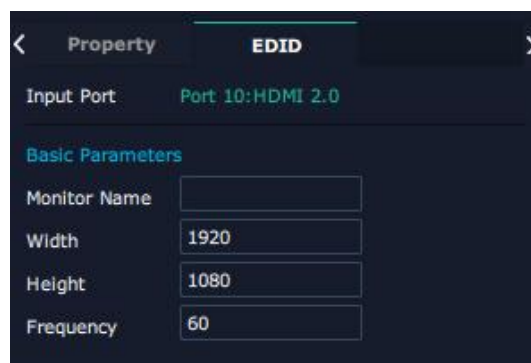
### SDR to HDR

Status: ON/OFF

Gamma: 0~9.99 (Adjust the brightness of picture,the higher the number,the higher the brightness)


Bright Factor: 0~9.99

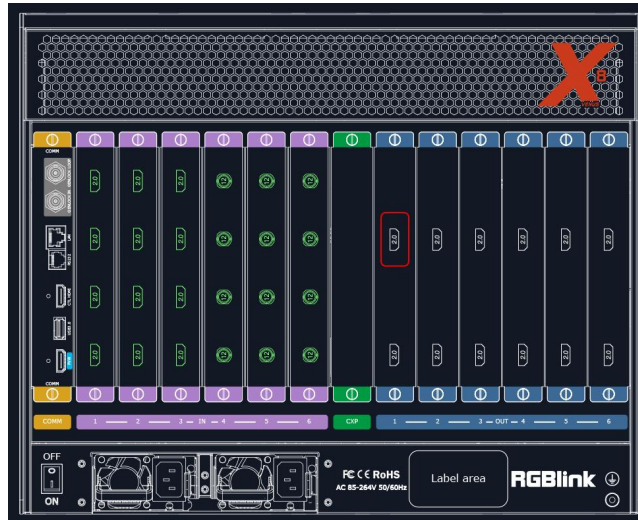
## EDID Setting



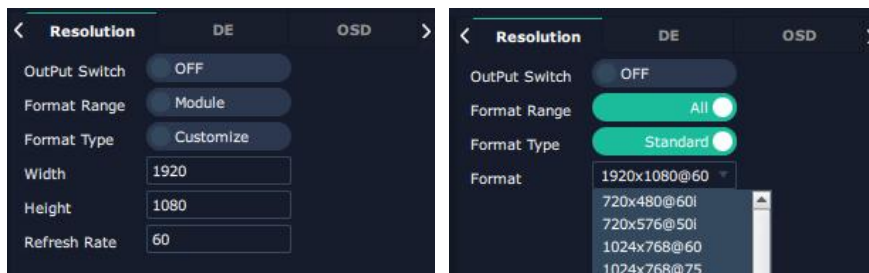
Input Port: Current Port and type  
 Customized EDID: Monitor Name, Width, Height and Frequency

## Output Setting

Click any output port, the module where the port locates is selected. Users can do settings to the modules now. A red rectangle  flashes around the port when it is chosen.



## Resolution Setting



**Output Switch:** Slide to ON or OFF

**Format Range:** Select ALL or Module. All means this setting is applied to all output ports, Module means this setting is only valid on this module.

**Format Type:** Standard/Customize

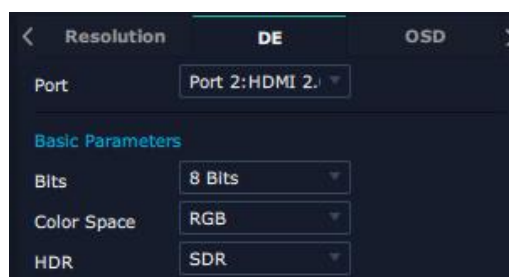
Choose Customize, width, Height, Refresh Rate have to be put in by users manually.

**Format:** When format type is Standard, there are standard format list to choose.

Format for ALL: 720×480@60i to 7680×1080@60

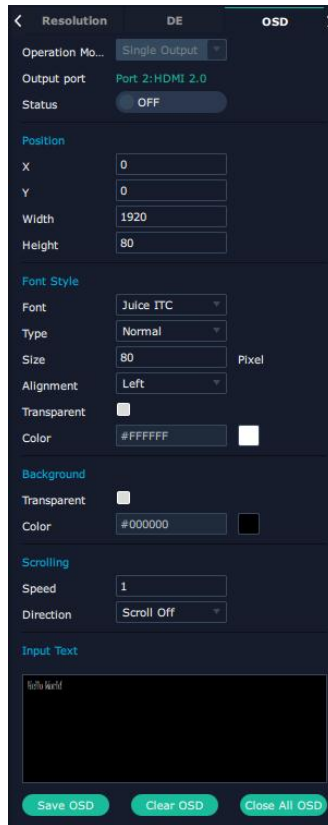
Format for Module: 1024×768@60 to 7680×1080@60

## DE Setting



**Port:** Choose current port or Port All  
**Bits:** 8bits/10bits/12bits  
**Color Space:** RGB/YUV 4:2:2/YUV 4:4:4  
**HDR:** SDR/HDR 10/HLG

## OSD Setting



Output port: The current port  
Status: ON or OFF

### Position

X/Y: The starting horizontal and vertical position  
Width/Height: The horizontal and vertical size of the text

### Font Style

Font: Font of the text, all fonts installed in the computer is available  
Font Type: Normal, Italic, Bold, Bold Italic

Font size: 0-300 pixels

Pixel alignment: Left, Right, Center to Horizontal, Vertical Center Right, Align Bottom Right, Align left bottom, Vertical center left, Vertical center, Horizontal center bottom

Transparent: Font transparent

Color: Select more font color

### Background

Transparent: Background transparent

Color: Select more background color

### Scrolling

Scroll Speed: 0-16

Scroll Direction: Scroll Off, Scroll Left

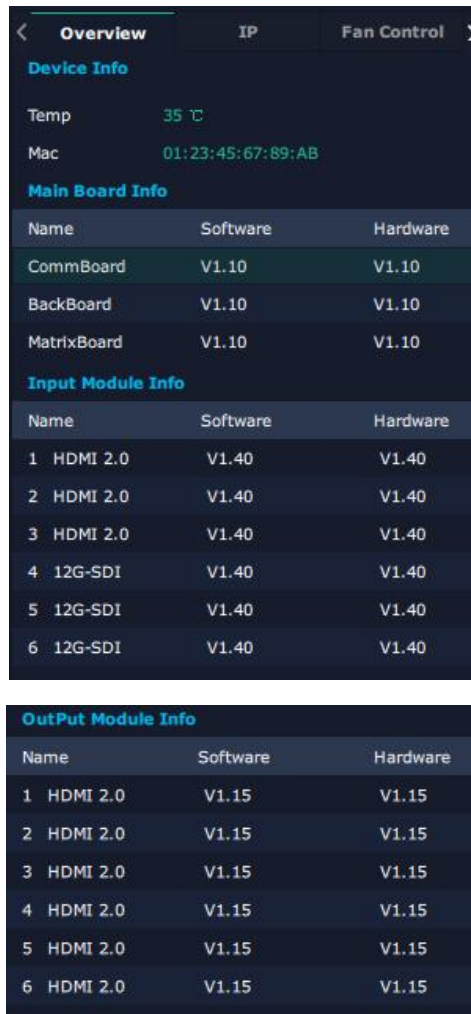
**Input Text:** The exact content of the text

After setting, users choose Save OSD, Clear OSD (if the setting is not desired) or Close All OSD.

## Device Overview

Click Return Return, there are **Overview, IP setting, Fan Control, Backup, Power ON, Factory Setting.**

**Overview:** Show Device Info, module info of software and firmware version.



The screenshot shows the 'Overview' menu with the following sections:

- Device Info**
  - Temp: 35 °C
  - Mac: 01:23:45:67:89:AB
- Main Board Info**

Name	Software	Hardware
CommBoard	V1.10	V1.10
BackBoard	V1.10	V1.10
MatrixBoard	V1.10	V1.10
- Input Module Info**

Name	Software	Hardware
1 HDMI 2.0	V1.40	V1.40
2 HDMI 2.0	V1.40	V1.40
3 HDMI 2.0	V1.40	V1.40
4 12G-SDI	V1.40	V1.40
5 12G-SDI	V1.40	V1.40
6 12G-SDI	V1.40	V1.40
- OutPut Module Info**

Name	Software	Hardware
1 HDMI 2.0	V1.15	V1.15
2 HDMI 2.0	V1.15	V1.15
3 HDMI 2.0	V1.15	V1.15
4 HDMI 2.0	V1.15	V1.15
5 HDMI 2.0	V1.15	V1.15
6 HDMI 2.0	V1.15	V1.15

## IP Setting

Select Auto IP Address or manually type in the IP address, MASK and Gateway.



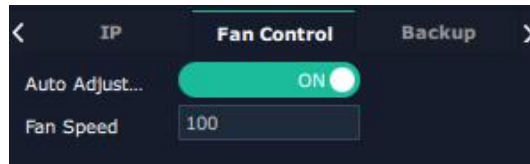
The screenshot shows the 'IP' menu with the following settings:

- Auto IP Address
- IP Address: 192 - 168 - 000 - 237
- Netmask: 255 - 255 - 255 - 000
- Gateway: 192 - 168 - 000 - 253

## Fan Control

Auto Adjustment: ON/OFF

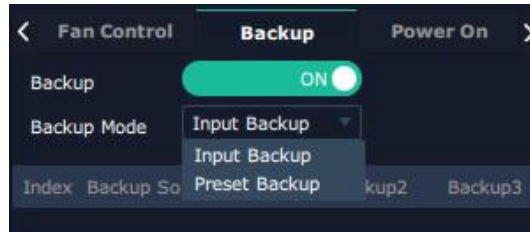
Fan Speed: 0-100



### Backup

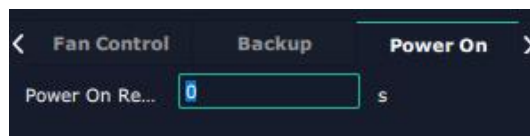
Backup: ON/OFF

Backup Mode: Input Backup/Preset Backup



### Power On Reserve

Power On Reserve: 0~255s



### Factory Setting

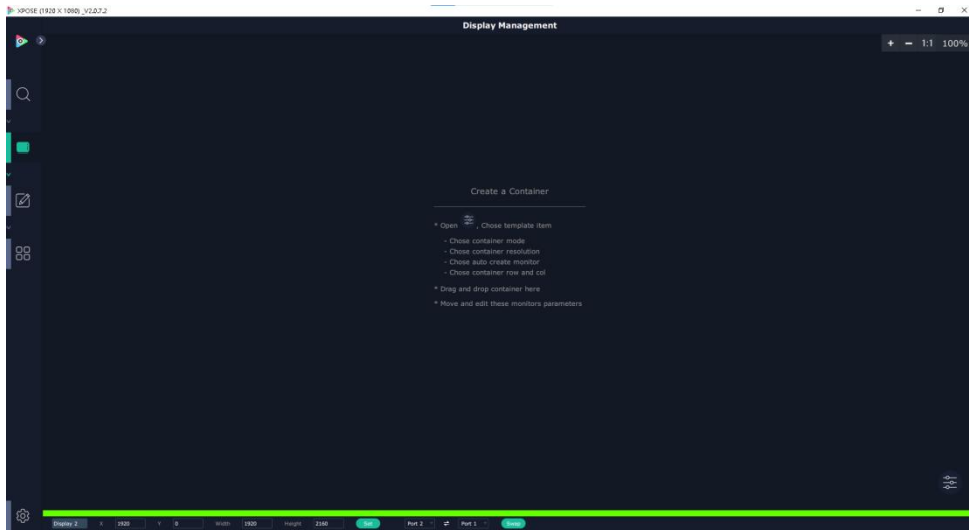
Remove LOGO/EDID: Clear the previous LOGO/EDID parameter

Save IP: No change of IP after reset

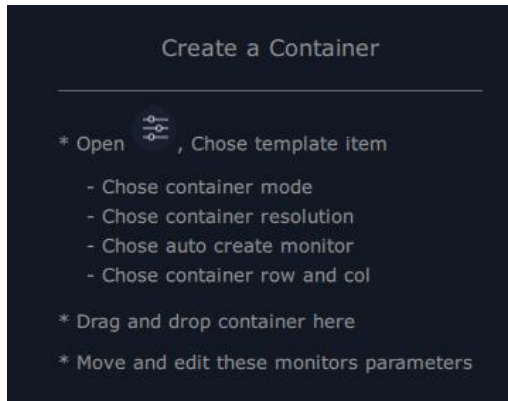


## Display Management

Display System is for users to set layout of outputs. Click this icon  first enter the interface as follow:



## Container



Container here means the Display Area, for example it could be a formed LED screen or an array of LCDs.

## Template

There are **15 types** of basic “Display Area”, which is used to contain output interface, and could be regarded as layout of output.

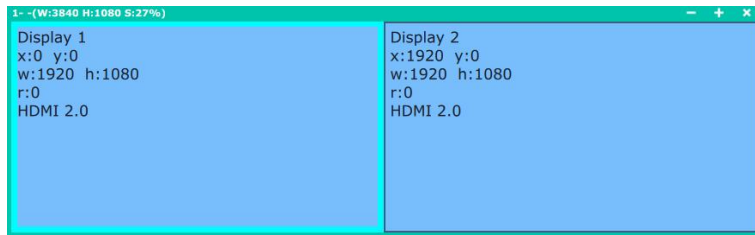
## Mode

At present, X8 supports Presentation Mode, Other products of X series also support PST+PGM Mode, Rotation Mode and Edge Blending. Rotation and Edge blending is valid only when ARO rotation module is installed to the device. Each mode is marked in different color and provided with fitted templates.

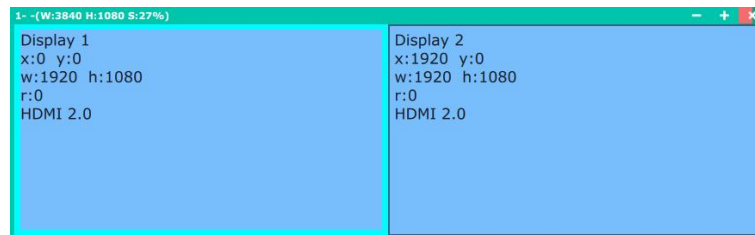




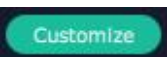
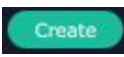

Container (dragged from Template) under Presentation Mode.

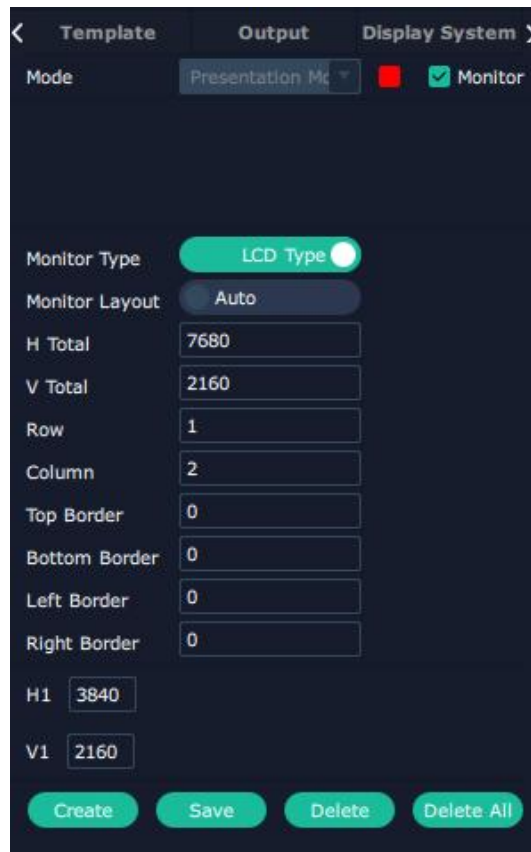


Delete Container: Long press the  to cancel the Container/Display Area.

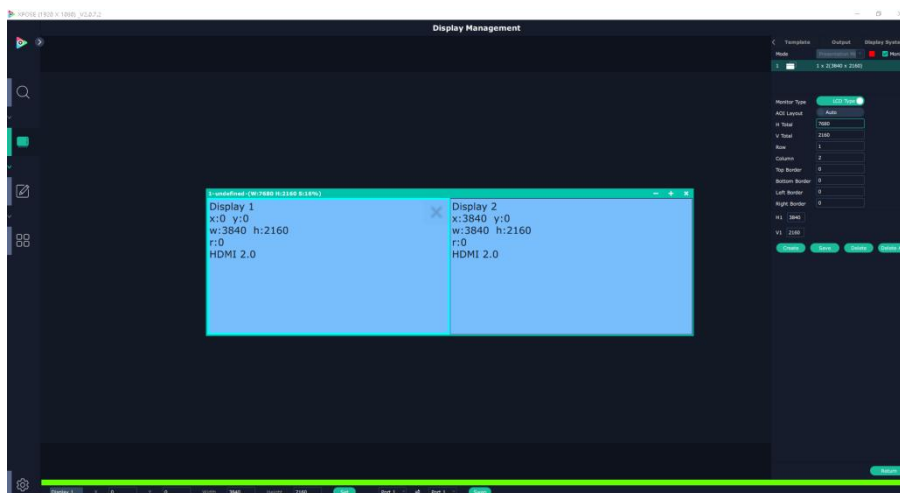


### Customize Container

Click this icon  at the bottom of template list. Fill in the H Total, V Total, Row and Column, then click  a customized containers is created. If this container need to be saved, click .



For example create a , 1x2 ,7680x2160 container as follows.

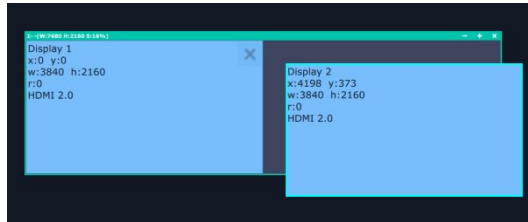


## Adjust Display Area

Place the mouse in the Container, roll the mouse can zoom in or out the Container in the XPOSE window.

Clicking icon  and  can do the same work.

Drag the border of the display area to move its place in the interface.

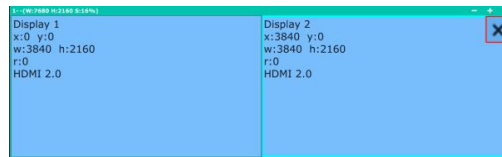


## Output

Show all the output ports on the device. Once the monitor is dragged into container, it means this output is used and the output port gets dark.

<	Template	Output	Display System	>
1		HDMI 2.0	W: 3840 H: 2160	
2		HDMI 2.0	W: 3840 H: 2160	
5		HDMI 2.0	W: 3840 H: 2160	
6		HDMI 2.0	W: 3840 H: 2160	
9		HDMI 2.0	W: 3840 H: 2160	
10		HDMI 2.0	W: 3840 H: 2160	
13		HDMI 2.0	W: 3840 H: 2160	
14		HDMI 2.0	W: 3840 H: 2160	
17		HDMI 2.0	W: 3840 H: 2160	

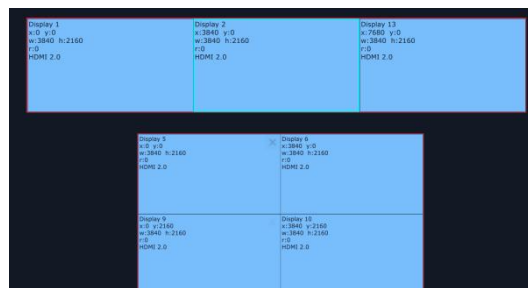
Click this icon on Display to cancel the display in Display Area.




Pressing CTRL+ALT can lead to close of all displays on the XPOSE window.

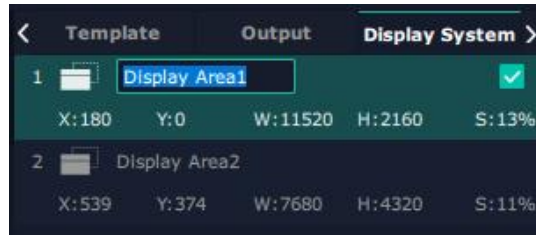
## Display System

<	Template	Output	Display System	>
1		Display Area1	X: 180 Y: 0 W: 11520 H: 2160 S: 13%	
2		Display Area2	X: 539 Y: 374 W: 7680 H: 4320 S: 11%	



Show all Containers/Display Area that have been created.

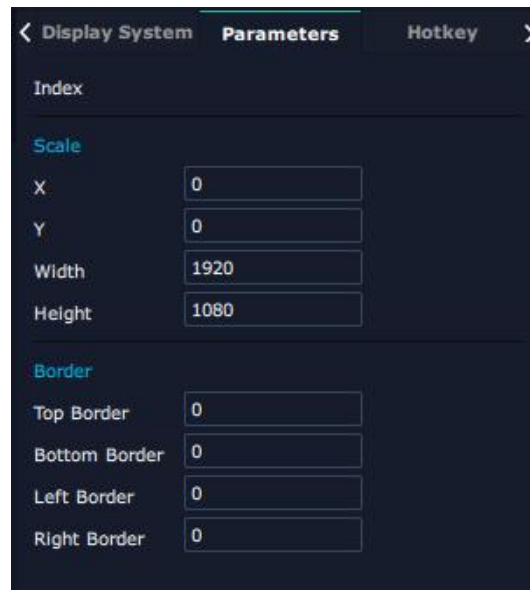
Click tick icon  behind to give alias to the each Display Area if necessary.



## Parameters

Parameter is designed to set size ( Width, Height ) and position (X,Y) of each display. There are two ways to adjust the display, by Parameter or by the bar below the window.

### Parameter



### Bar under XPOSE window




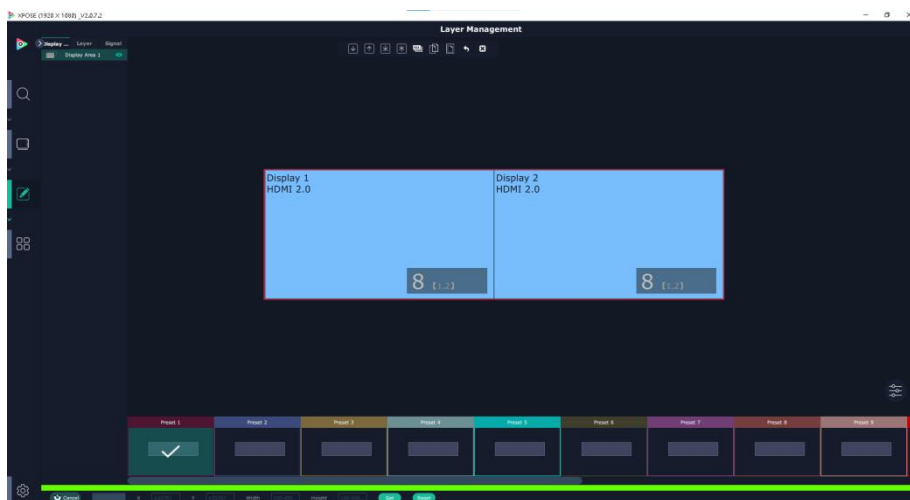
Swap : Swap two output ports if needed.

## Hotkey


Display System	Parameters	Hotkey
Description	Windows	
Default Scale	Space	
Monitor Zoom In	+	
Monitor Zoom Out	-	
Monitor Up	↑	
Monitor Down	↓	
Monitor Left	←	
Monitor Right	→	
Monitor Select Next	Tab	
Monitor Delete	Delete	
Container Zoom In	Ctrl + +	
Container Zoom Out	Ctrl + -	
Container Up	Ctrl + ↑	
Container Down	Ctrl + ↓	
Container Left	Ctrl + ←	
Container Right	Ctrl + →	
Container Select All	Ctrl + A	
Container Select One	Ctrl + Mouse Click	
Container Select Next	Ctrl + Tab	
Container Delete	Ctrl + Delete	

## Layer Management

Layer Management is designed to manage the layer of each monitor. Click this icon  to enter the interface:



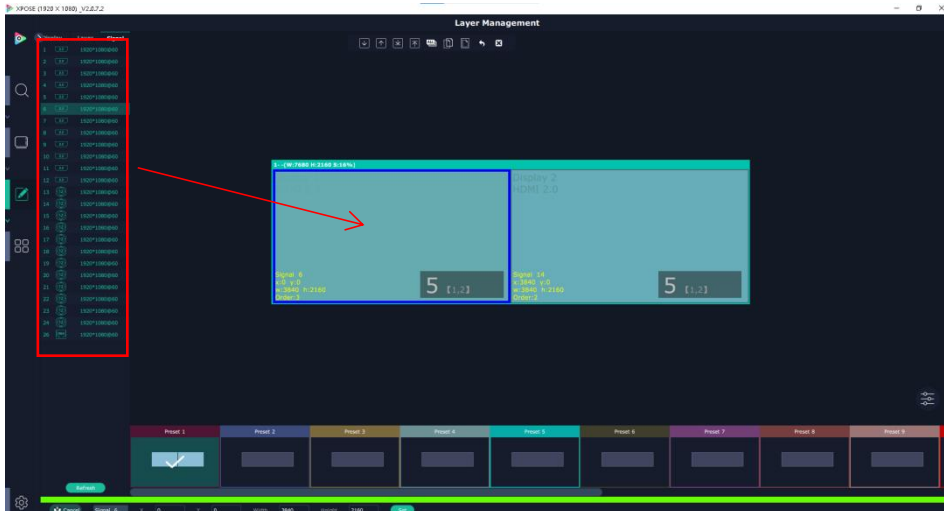
## Display Area


Here is to show all the Display Area set in previous step System Management. Click  to cancel or use the corresponding Display Area.




## Signal

To show the signal list of all inputs. Drag source from signal list to each display or Container.



Click this icon  and alias of signal could be put in if necessary.



Click this icon  to confirm the alias setting.

## Layer

After signal is dragged into display, show Layer index Versus Signal index.



## Numbers on Monitor

Numbers on monitor is to show how many layers at present allowed to put in the monitor.

(each neighboring monitor (5 and 6, 9 and 10) allows to put 8 layers, if there is no neighboring monitor in the display area, the single monitor can contain 6+2 layers.



Cross over display will take up one more layer, as shown in the picture below.



### Layer Adjustment

There are two ways to adjust layer.

1. Use the bar under the interface

Choose one layer and the bar shows its signal source, type in position and size.

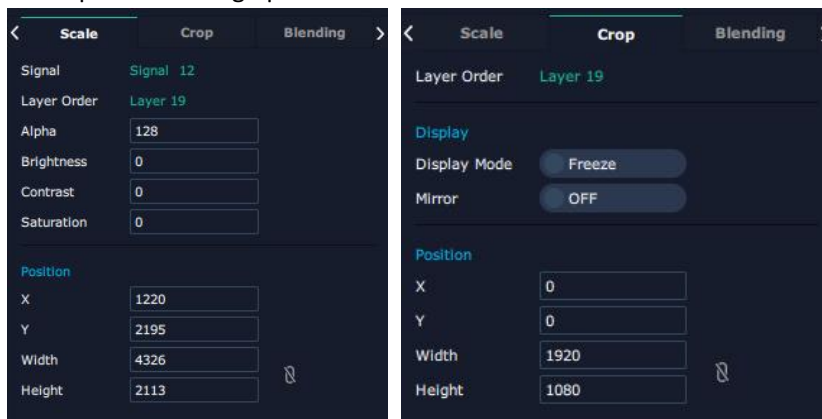


2. Layer Scale and Crop



Alpha: 0~128

Brightness/Contrast/Saturation: 0~100


Freeze: Turn ON freeze to prevent wrong operation.

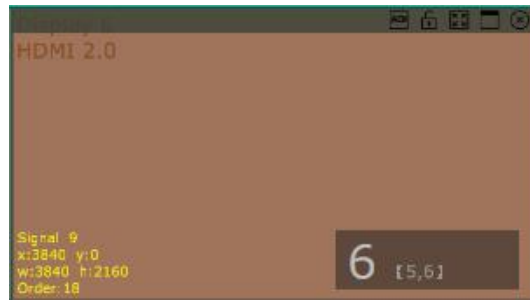


### Layer Movement


Place the cursor on the layer, it turns to a palm icon , press the left of mouse, the icon turns to a fist , moving the mouse can drag the layer.

## Layer Remove

Click the cross  on the top right of the layer to remove the layer if needed.



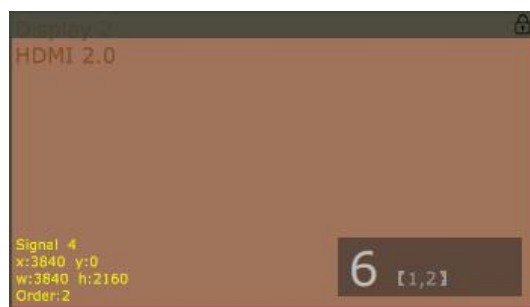
## Layer Max

Click this icon  to cover up all monitors in the same Display Area with the one signal, as the following:



## Layer Lock

Click the lock icon on the right middle of the later boarder. When the layer is locked, any movement or removal to the layer is invalid.





## Other Operation on Layer



Use the tools bar on top of window to do such operations.

	Layer Backward		Layer Forward		Layer to Bottom
	Layer to Top		Select All		Copy Selected
	Paste Selected		Cancel Selected		Delete Selected

## Save to Bank Automatically

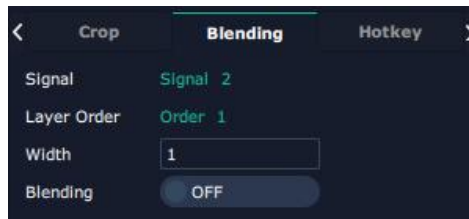
When layer setting of one BANK is done, click next or other BANK, this BANK can be saved automatically.



## Blending

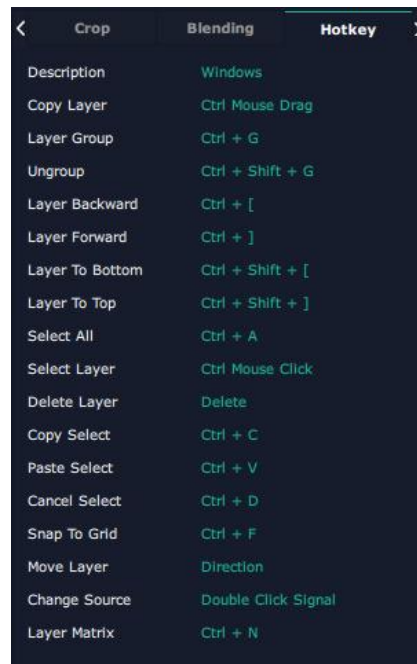
Width: The width of blending

Turn ON blending.



## Hotkey

Hot keys, provided to do quick layer setting such as Copy Layer, Layer move.



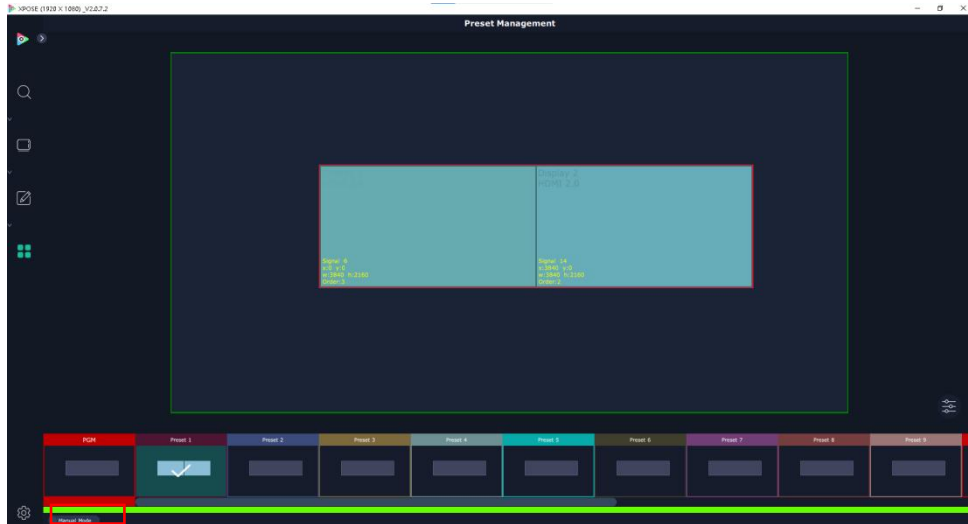
# Preset Management



Preset Management is designed to switch bank (scene setting done in last step).

Preset Management Mode: 1. Manual Mode; 2. Schedule Mode.

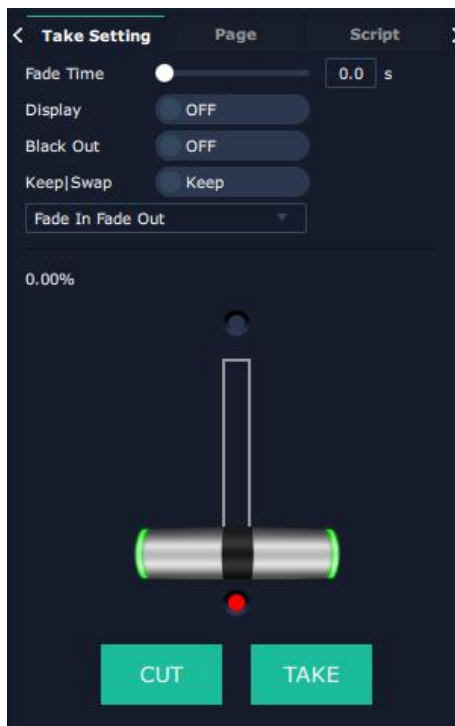
## Manual Mode



Switch **Manual Mode** or **Schedule Module** by the bar in the left bottom corner of the window.

Preset is showing the BANK selected. PGM is in first box in the bottom left.

## Take Setting

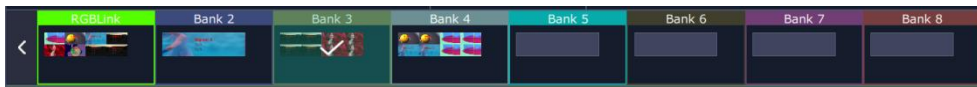


Click this icon  after selecting a BANK.

Fade Time: 0.0 ~10.0S

Black out: Slide to ON or OFF

The tick on the bank indicates that the bank is selected.



### Keep|Swap

Only when separate **Display** switching is OFF can **Keep|Swap** work.

Under the **Keep** status, users need to select a bank and use Cut or Take to switch image from PST to PGM.

Under **Swap** status, users select a bank, then use Take or Cut to swap this bank and the bank before this one.

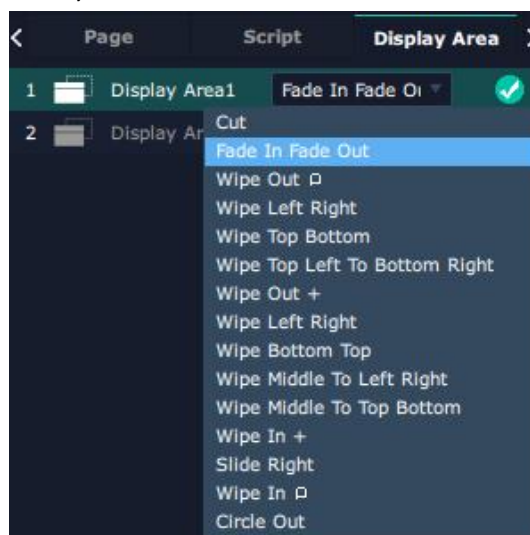
### Cut|Take

Cut, switch from PST to PGM without any effect.

Take, switch from PST to PGM with chosen effect in set Fade Time.

### Display Area

Display Area is to let users to choose which display areas to display on the PGM and allow users to set transition effect for each display area so that they can switch from PST to PGM in desired effect.

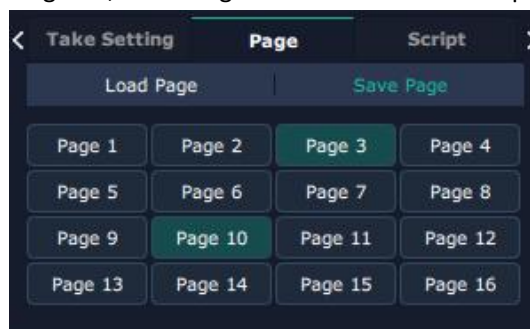


### Bank Save and Load

Save Bank to Page

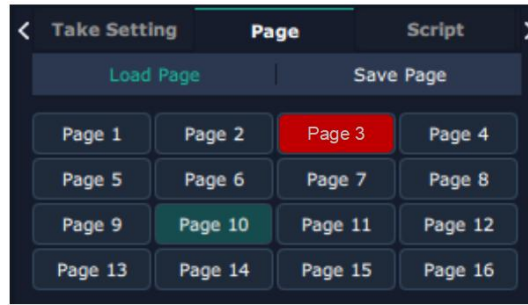
Select a bank, click Page, select Page X, the bank is saved in the page.

The page turns green then become green, indicating the bank is saved in the page.



Load bank from Page

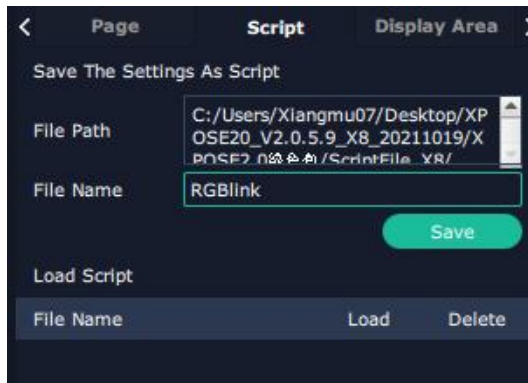
Click Load Page, pages with bank saved are green, select one from them and the selected one becomes red. The bank is loaded from page to PST.



### Script Save and Load

Save Script

Fill in the blank with the name of setting and click Save.

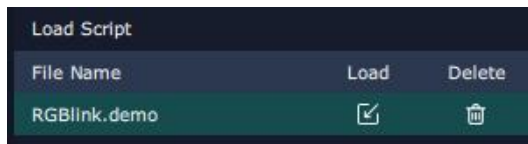


Load and Delete Script

After the script is saved, the bank name will appear in the load list.

Select the file and click Load

Select the file and click Delete, the chose file can be deleted from list.



### Preset Name

Select a bank and click Preset Name, fill in the blank after New Preset Name to rename a Preset (Bank).

Click the color block after Color Selection and choose a new color for the boarder of chosen bank.

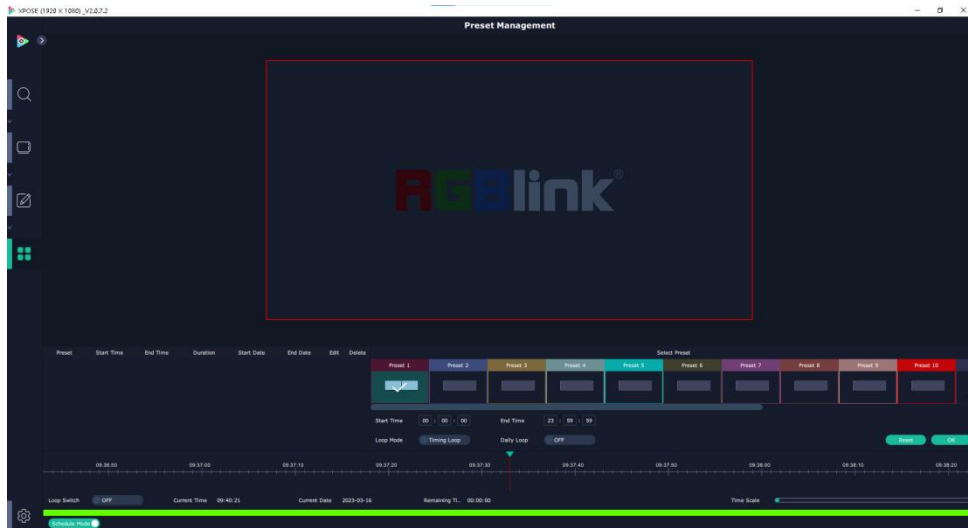


For example change Bank1to RGBlink, with pink boarder.





## Schedule Mode

This mode is designed to set auto bank (scene/preset) switch.



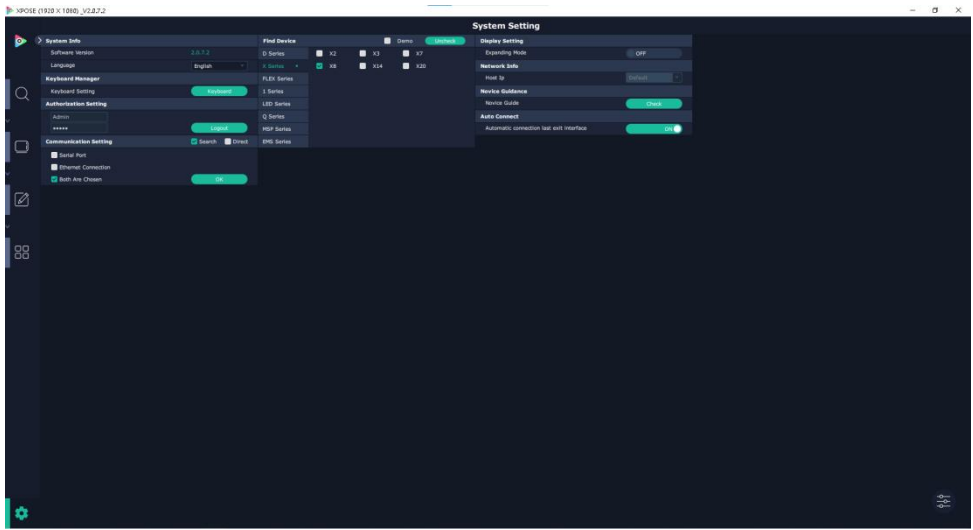
1. Turn on **“Schedule Mode”**;
2. Choose **“Times Loop”** in Loop Mode;
3. Choose the BANK ;
4. Fill in the **“Duration”** ;
5. Click **“OK”**;

Users can click  to edit and  to delete. After settings done, turn on **“Loop Switch”**.

# System Setting



Click this icon and enter System Setting interface.




## System Info

Software Version: Show the current software version

Language: Chinese, English and Russian

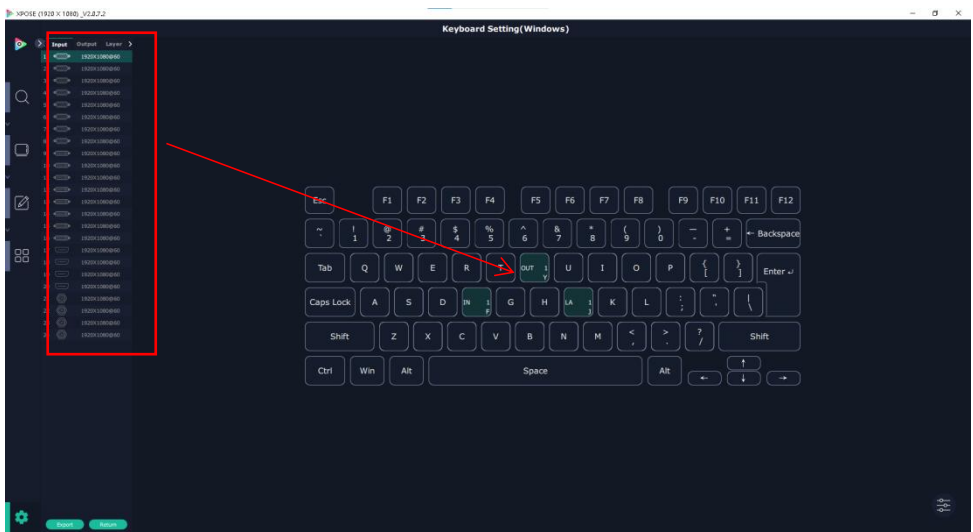
## Keyboard Manager



Click Keyboard , it will redirected to keyboard setting window.


Keyboard setting is designed to fit for different operation systems such as Windows and Mac. Users can set short cut keys for Input, Output, Layer and Preset.

Drag Input, Output, Layer and Preset from the list to the keys you desired as follow:



Please note the keyboard area where allows to set short cut keys as follow:

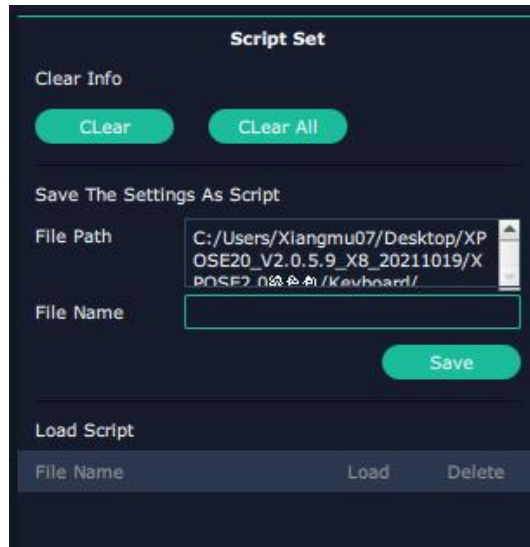


If the setting goes wrong or no need for short cut keys any more, click  to clear some keys or clear all.

**Clear:** To clear some keys, the keys need to selected before hand.

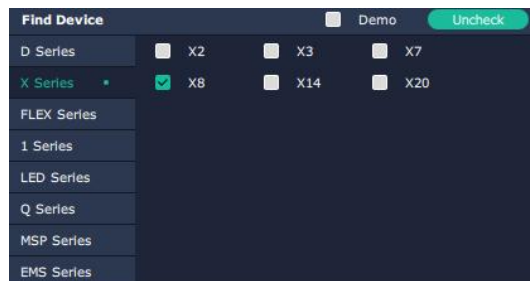
**Clear all:** To remove all already set short cut keys.

After setting the shortcut keys, you can modify the default file name and save the script. The script will be automatically saved to the corresponding path in the XPOSE folder. You can load in script settings when used again.



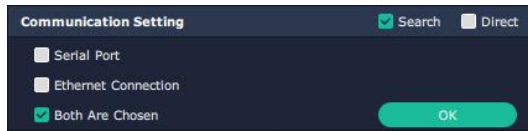
## Find Device

New version of XPOSE 2.0 is blank default in Find Device. Users are supposed to choose the device needed in System Setting.



## Communication Setting


Search by Serial Port, Ethernet Connection or Both. Default communication by both.

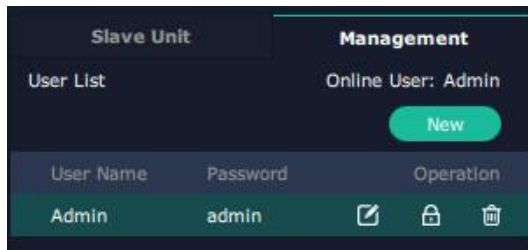


Direct Communication by selecting device and putting its IP Address.





## Authorization Setting


Click  to open up the authorization entry. Click **Management**.

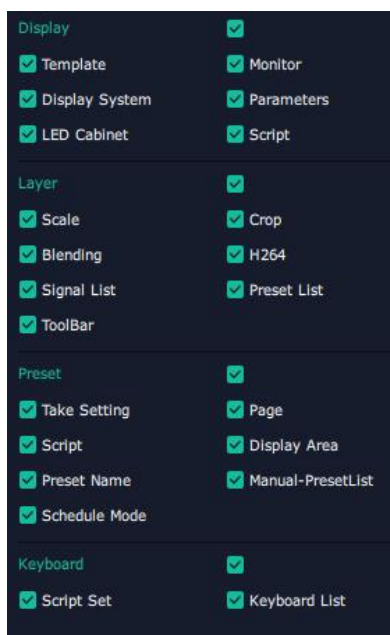
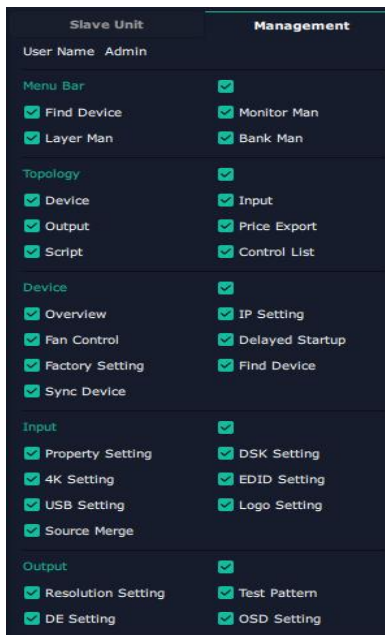


 New: Add new USER NAME and PASSWORD.

 Edit: Edit user name and password already built.

 Delete: Delete user name and password already built.

 Permission: Functions on this XPOSE 2.0 on this computer that the created users are allowed to operate.





## Slave Unit





**Slave Unit is to control multiple devices simultaneously, which are connected to same network.** (“In the same network” means the the the third section in the IP address digits are the same )

**XPOSE do operation on one device, same operation synchronized to other devices.**

For example, there is another devices linked to the same network, one with IP: 192.168.0.112, SN:0027; the other with IP: 192.168.0.129, SN: 3344.

If you want the same operation on 3344 to be backed up to 0027, you can do as follows:

1. Set device numbers;
2. Select the IP of the device in the drop-down menu for Device IP;
3. click **ON**, the tow device are connected when the red pot  turns to be green one .
4. click **OFF to disconnect**, it could not control two device at the same time.



# Contact Information

## Warranty:

All video products are designed and tested to the highest quality standard and backed by full 3 years parts and labor warranty. Warranties are effective upon delivery date to customer and are non-transferable. RGBlink warranties are only valid to the original purchase/owner. Warranty related repairs include parts and labor, but do not include faults resulting from user negligence, special modification, lighting strikes, abuse(drop/crush), and/or other unusual damages.

The customer shall pay shipping charges when unit is returned for repair.

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- **Web:** <http://www.rgblink.com>
- **E-mail:** [support@rgblink.com](mailto:support@rgblink.com)