

FLEXpro16

Broadcast-quality Hybrid Multiviewer Switcher



Quick Start

- Connected to a programmable panel via Ethernet or serial port for remote control
- 4" HD touch screen for showing input& output status and menu operation
- Dual Network Communication: one for local communication (LAN) and the other for remote control and monitoring (H.265)
- 12 bit processing for HDMI 1.3 input and output, support RGB 4:4:4 color space
- De-interlacing processing, i signal output supported
- Synchronous switch from single input signal to multiple output channels
- Static and Dynamic OSD titles
- Seamless switch between inputs and outputs
- Dual HD multi-view output ports. Simultaneous monitoring up to 16 input/output sources
- Support monitoring of up to 16 Dante audio input channels
- Dual power module backup

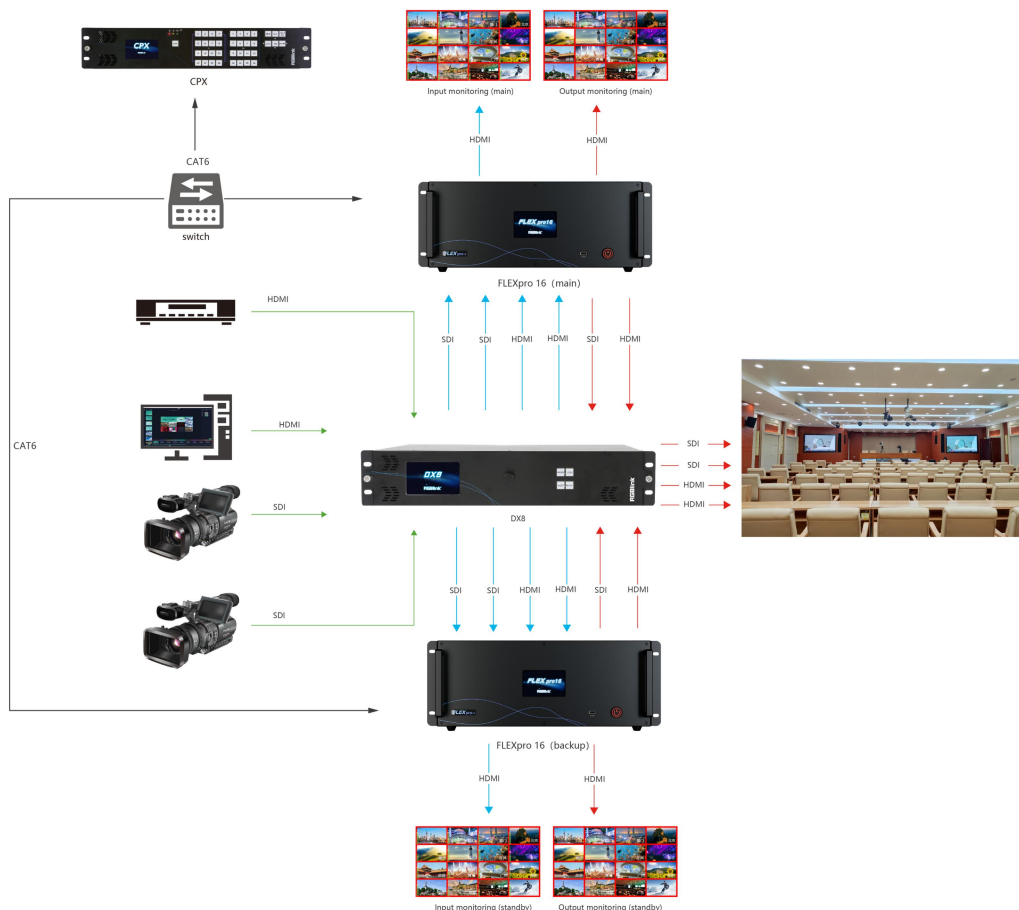
Content

Product Overview	1
Hardware Orientation	2
FLEXpro16 Front Panel	2
FLEXpro16 Rear Panel	3
Install Your Product	4
Plug in Power	4
Turn on Your FLEXpro16	4
Use Your Product	5
CPX Controls FLEXpro16	5
CPX Front Panel	5
CPX Rear Panel	7
Connect CPX and FLEXpro16	7
XPOSE Controls FLEXpro16	8
Search Device	8
Input Setting	9
Output Setting	10
Display Management	13
Layer Management	15
Preset Management	18
System Setting	20
Contact Information	23

Product Overview

FLEXpro16 is a high-performance video image processing system with pure hardware FPGA processing architecture. The whole machine adopts modular configuration, plug-in card structure, can be flexibly configured according to user needs, input and output cards to meet the needs of a variety of video applications on site. Support input and output card hot-swapping, dual power supply hot backup, stable performance, is a set of multiple mixed-signal access, arbitrary distribution, seamless switching, multi-screen processing and other functions in one broadcast-grade multifunctional video conferencing and control all-in-one machine, can be widely used in government agencies, enterprises, public institutions, the military and other organizations of the major meetings, command and control, exhibitions and other fields.

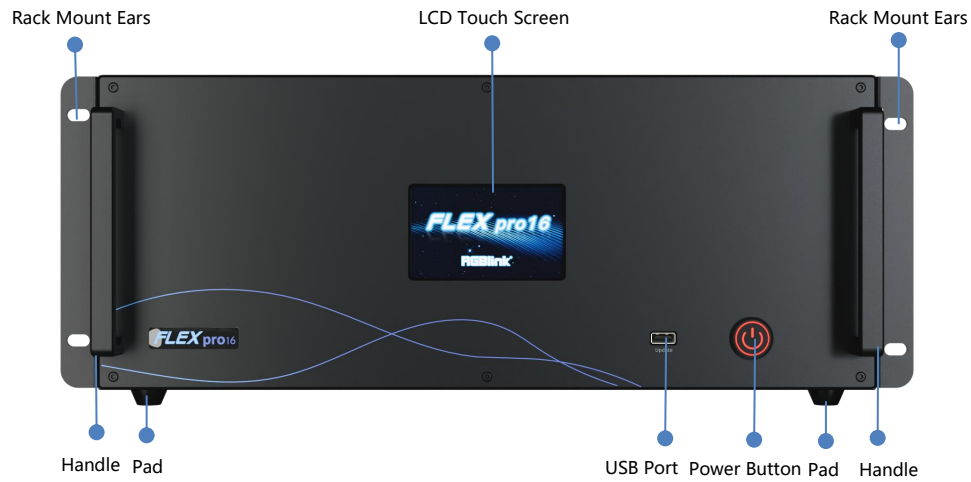
System Connection



FLEXpro16 System Connection Diagram

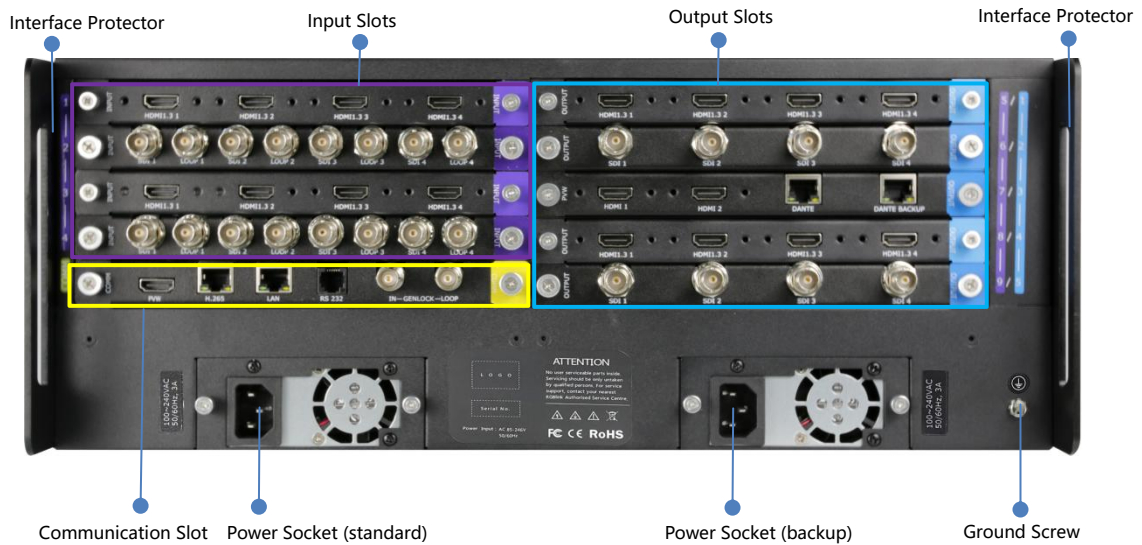
Hardware Orientation




FLEXpro16 Front Panel



Name	Description
LCD Touch Screen	<ul style="list-style-type: none">• Display current status of the device.• For menu operation.
Power Button	<ul style="list-style-type: none">• Press the button to power on or power off the device.• Button light turns red when powered on.
USB Port	Used for device upgrade.
Handles	For carrying device.
Rack Mount Ears	Use with the load-bearing screws to fix device on the rack.
Pad	Support device and enhance shock absorption capability.

FLEXpro16 Rear Panel



Name	Description
Input Slots	<ul style="list-style-type: none"> Support quad HDMI 1.3, dual DP 1.2 & dual HDMI 2.0, quad 3G-SDI, single IP input module  purple tip indicates input
Output Slots	<ul style="list-style-type: none"> Support quad HDMI 1.3, dual HDMI 2.0, PVW module with Dante, quad 3G-SDI output module Support input modules  blue tip indicates output
Communication Slot	<ul style="list-style-type: none"> Standard with: communication module -1 × LAN for software control and device upgrade -1 × RS232 serial port for software control Optional: communication module with PVW -1 × PVW (HDMI port) for multi-window monitoring -1 × IP (H.265 port) for remote control and IP echo -1 × LAN for software control and device upgrade -1 × RS232 serial port for software control -1 × IN-GENLOCK-LOOP for connecting to a synchronization signal  yellow tip indicates communication
Power Socket	<ul style="list-style-type: none"> Standard with one power module Support dual power module backup
Interface Protector	Used to pull out device, fix cables and protect interfaces from collision
Ground Screw	Increase the safety and reliability, and avoid accidents such as fire and explosion caused by static electricity.

Install Your Product

Plug in Power



Connect power and FLEXpro16 with standard AC Power Cord.

Turn on Your FLEXpro16



After connection, slightly press the power button in the front panel to turn on FLEXpro16.

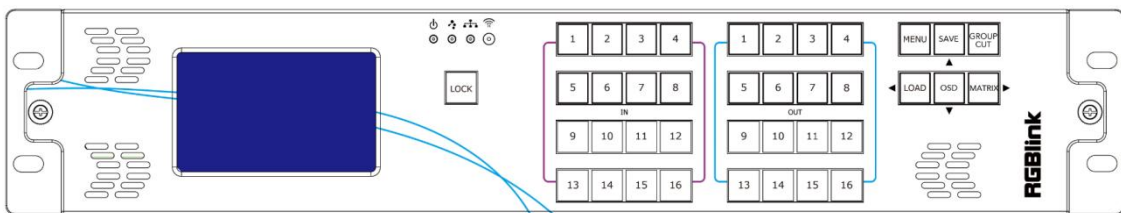
Use Your Product






CPX Controls FLEXpro16





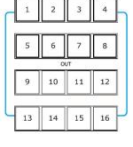
You can connect two devices to one switch, so that CPX can control two devices at the same time.

This chapter offers a brief introduction of CPX panel and system connection. For more details, please refer to the user manual.

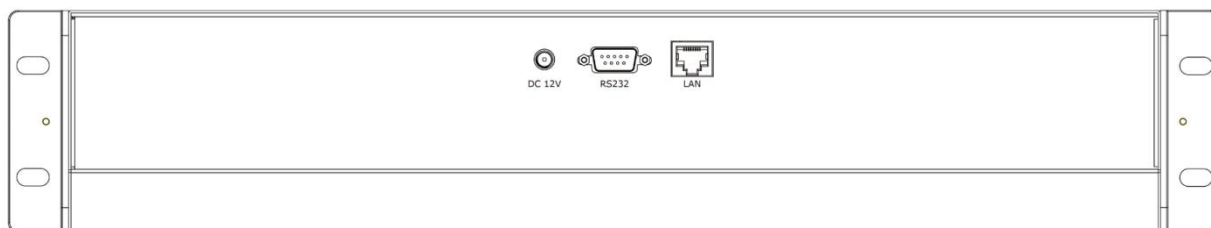
CPX Front Panel


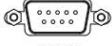



Description	
	LCD panel for menu operation
	<ol style="list-style-type: none"> 1.Light ON indicates other buttons are available; Light OFF indicates other buttons are locked. 2.LOCK is OFF by default, push and hold the LOCK button to enable or disable other buttons.
	<ol style="list-style-type: none"> 1.Push MENU button to enter main menu interface for more functions. 2.Used as BACK button to return to the previous interface in sub-menu.
	<ol style="list-style-type: none"> 1.Push SAVE button to save presets in Scene Switch Mode. 2.Used as direction key "Up" in menu interface.
	<ol style="list-style-type: none"> 1.Push GROUP CUT button to trigger Group Cut Mode in standby mode; In Group Cut Mode, press OUT 1-16 to select a group of synchronized output ports and then press IN 1-16 to synchronize the input to the selected output ports. GROUP CUT Light on if Group Cut Mode is triggered. Push button once again to return to Matrix Mode. (more details please refer to 3.1.4.3 Group Cut Mode) 2.Used as confirm button under menu operation.

	<p>1.Push LOAD button to trigger Scene Switch Mode in standby mode. Press OUT 1-16 to load saved presets. (Notice: only ONE scene can be selected at the same time)</p> <p>LOAD Light on if Scene Switch Mode is triggered. Push LOAD button again to return to Matrix Mode. (more details please refer to 3.1.4.4 Scene Switch Mode)</p> <p>2.Used as direction key “Left” under menu operation.</p>
	<p>1.Push OSD button to trigger OSD Mode in standby mode. Press IN 1-16 to load OSD 1 or OUT 1-16 to load OSD 2 to selected output port.</p> <p>Light on if OSD Mode is triggered. Push OSD button again to return to Matrix Mode. (more details please refer to 3.1.4.2 OSD Mode)</p> <p>2.Used as direction key “Down” under menu operation.</p>
	<p>1.Default to enter the Matrix Mode after power on.</p> <p>2.Initial state: All input and output button lights are OFF. Users need to choose one input button first and then the corresponding output button light will be ON. Users can press other output buttons for matrix switch.</p> <p>3.Non-initial state (matrix has been switched): One input has been selected, and the corresponding output button light is ON. Users can press other output buttons for matrix switch.</p> <p>4Used as direction key “Right” under menu operation.</p>
	<p>1. Indicate Input Ports 1-16 under Matrix Mode and Switch Mode.</p> <p>2. Indicate Page 1-16 under Scene Mode.</p> <p>3. Press IN 1-16 to load OSD 1 to selected output port under OSD Mode.</p>
	<p>1. Indicate Output Ports 1-16 under Matrix Mode and Switch Mode.</p> <p>2. Indicate Scene 1-16 under Scene Mode.</p> <p>3. Press OUT 1-16 to load OSD 2 to selected output port under OSD Mode.</p> <p>4. Used as Numeric Keys under menu control; 1-9 indicate number 1-9, 10 indicates number 0.</p>

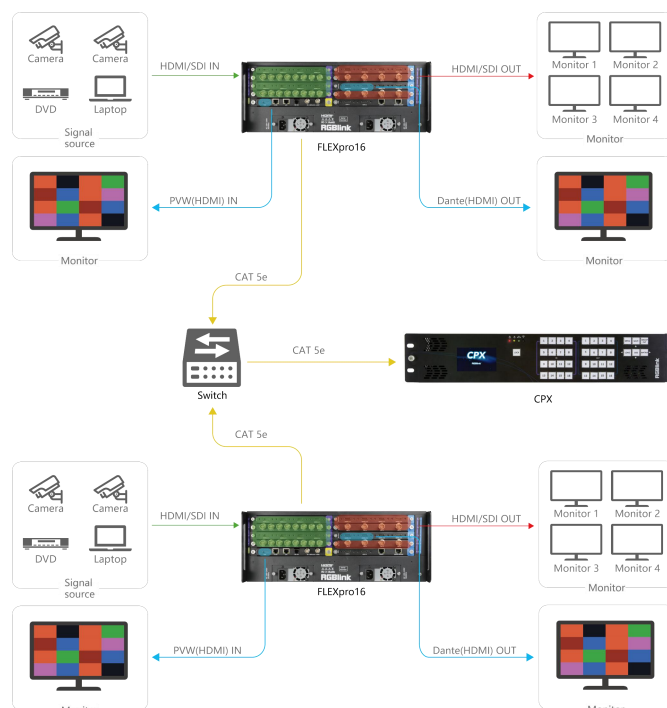
CPX Rear Panel



Description	
 DC 12V	DV 12V power socket.
 RS232	RS 232 port.
 LAN	Connect two FLEXpro16 devices to the same switch, and CPX can control two devices simultaneously.

Notice: For control of multiple devices, please refer to the user manual.

Connect CPX and FLEXpro16




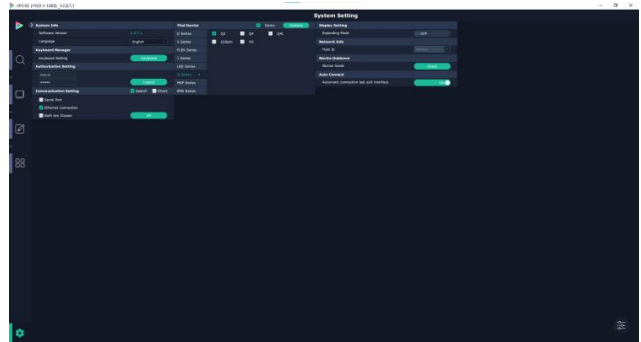
After successful connection, power on FLEXpro16 and CPX. (Use the standard 12V power adapter to connect CPX and power socket in order to boot up CPX.) User should firstly choose FLEXpro16 as the controlled device.

Please refer to following steps for **device selection**: **【Menu】-->【Search】-->【Select Device】-->【FLEXpro16】**

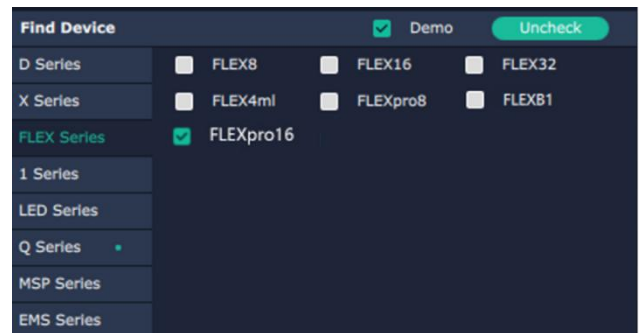
XPOSE Controls FLEXpro16


Search Device

1. Click  to enter <System Setting> interface.




2. **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.

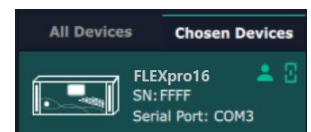


3. Click  to enter interface as shown in the right figure:



4. Select the device you need in the <All Devices> list.

5. Click  in the <Chosen Device>.



Input Setting

Click any input port, the board where the port locates is selected. Users can do settings to the port now.

A red rectangle flashes around the chosen port when it is clicked.

User can set <Property> and <EDID>.



Property Setting

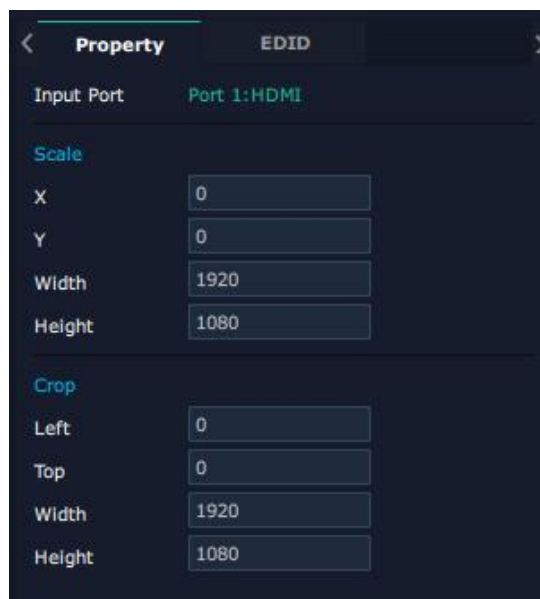
Input Port: chosen port.

Scale

X/Y: the starting horizontal and vertical position.

Width/Height : the horizontal and vertical size of scale.

Crop: support cropping for position, height and width.



EDID

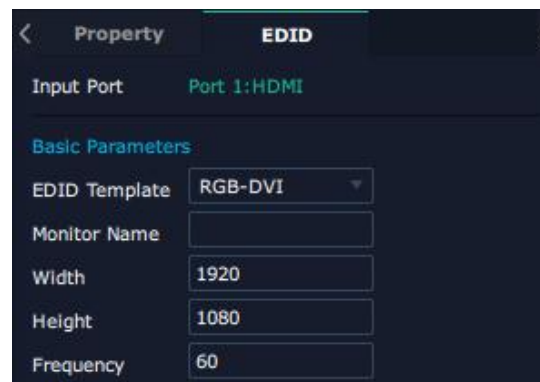
Input Port: chosen port

Basic Parameters

EDID Template: RGB-DVI or RGB-HDMI.

Monitor Name: type the monitor name.

Width/Height/Frequency: type in custom parameters.



Communication Board with PVW

When there is communication Board with PVW input module installed on FLEXpro16, you can click HDMI port for following operations.



Frame

Status: Turn on status to set frame color.

Color: Set frame color.



PVW

Display Mode: Preview Input **ONLY**.

Equal: 2+2 / 2+4 / 2+8 layout available

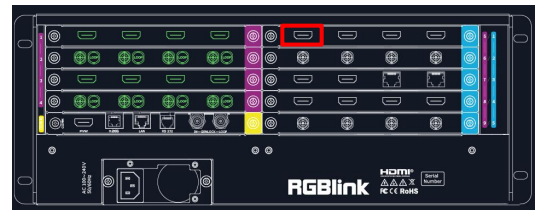
Input Monitor: Select input signal for each window.



Output Setting

Click any output port, the board where the port locates is selected. Users can do settings to the port now.

A red rectangle flashes around the chosen port when it is clicked.

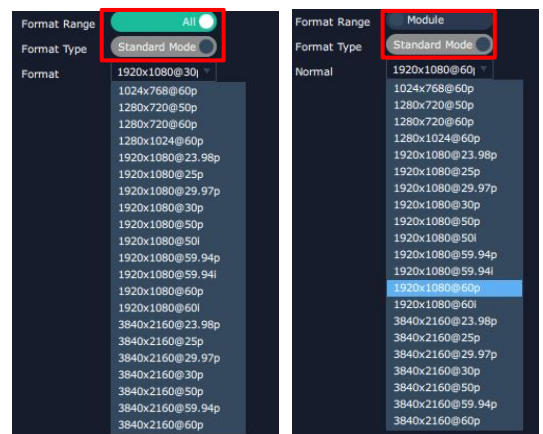


Resolution

SDI and HDMI output modules support resolution settings.

Output resolution supports **ALL** and **MODULE** **Format Range** optional.

Users can choose **Standard Resolution** or **Customize Resolution** by typing in Width, Height and Refresh Rate.



OSD: Please **Turn ON Status** before setting.

Output Port: current output port.

Status: ON/OFF OSD.

Position

X/Y: the starting horizontal and vertical position.

Width/Height: the horizontal and vertical size of the text.

Font Style: set font,type, size, alignment, background color.

Scrolling

Speed: 0-16.

Scroll Direction: Scroll Off, Scroll Left.

Input Text: The exact content of the text.

The user can customize OSD content or choose **Clear OSD** (If the setting is not desired) or **Close All OSD**. After all settings done, click **<Set>** and the OSD will be displayed on the screen.



LOGO: Users need to **pre-store the Logo** on the SD card for Logo capture.

Output Port: current port.

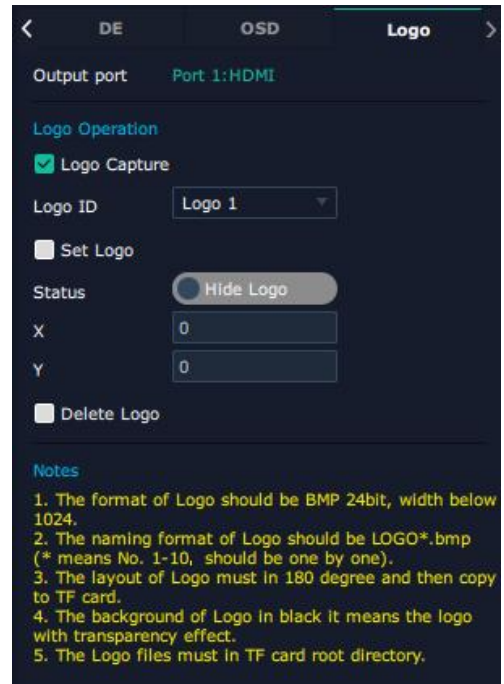
Logo Operation

Logo ID: Load Logo ID been saved.

Status: Hide/Show Logo.

X/Y: Horizontal and vertical position of Logo.

Delete Logo: Clear logo set already.



Overview

Click **Return**, there are Overview, IP, Fan Control, Backup and Factory Setting.

Device Info: Users can check current temperature and MAC information



Input Module Info: Users can check current input module information.

Input Board Info		
Name	Software	Hardware
1 DVI	V1.40	V1.40
2 DVI	V1.40	V1.40
3 HDMI	V1.40	V1.40
4 HDMI	V1.40	V1.40

Output Module Info: Users can check current output module information.

OutPut Module Info		
Name	Software	Hardware
1 DVI	V1.15	V1.15
2 DVI	V1.15	V1.15
3 DVI	V1.15	V1.15
4 HDMI	V1.15	V1.15
5 HDMI	V1.15	V1.15

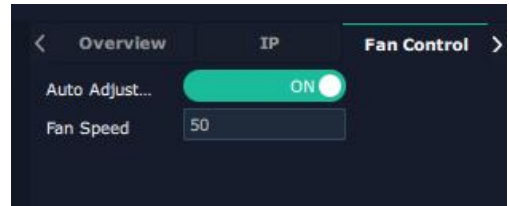
IP: Support **auto/manual** setting. Show IP Address, Netmask, Gateway



Fan Control: Support auto/manual setting.

Fan Speed: 0-100

Notice: To avoid insufficient heat dissipation, the recommended manual fan speed is **not less than 30**.



Backup

Backup: Select ON or OFF.

Backup Mode: Set backup mode to Input Backup or Preset Backup. Click "Add" below to add backup source.



Factory Setting

Remove EDID: Clear the previous EDID parameter

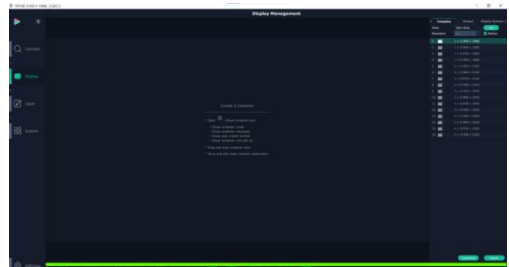
Save IP: No change of IP after reset



Display Management

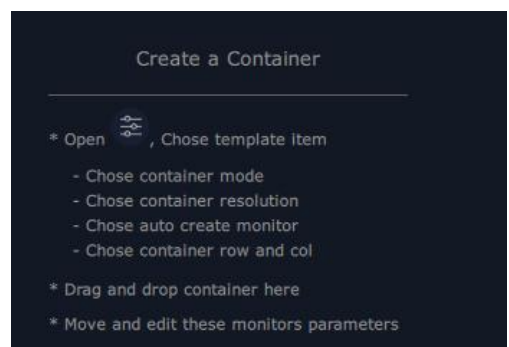
Display System is for users to set layout of outputs.

Click  first and then  to enter the interface.



Container

Container here means the Display Area.



Template

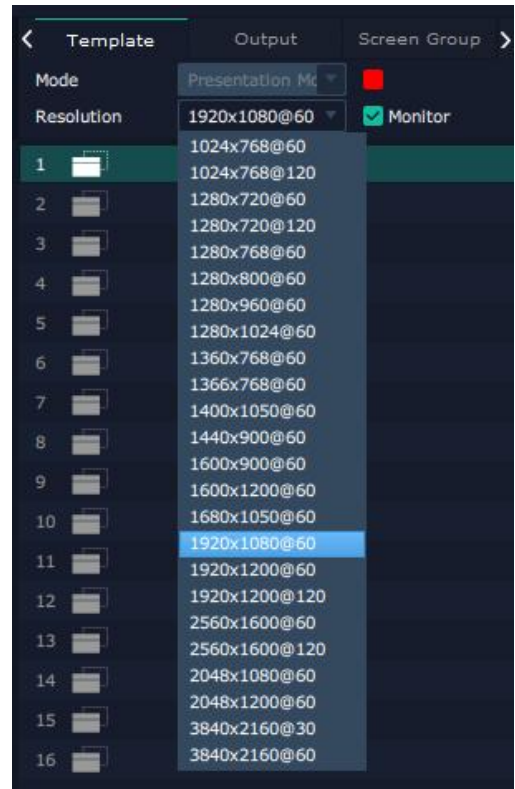
There are **16** templates provided to be regarded as layout of output.

Resolution

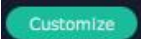
Users can choose output resolution as shown in the figure.

Mode

FLEXpro16 supports Split Mode and Matric Mode (by default) optional.



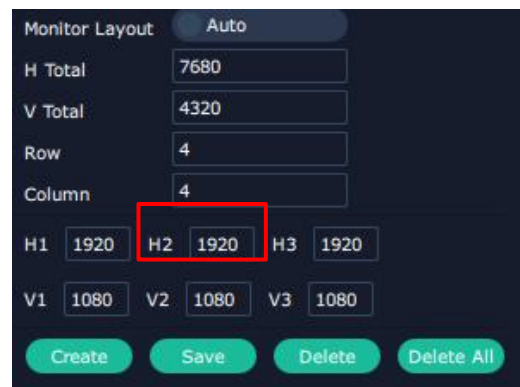
Customize Container

Click  at the bottom of template list.




Monitor Layout: Auto or Manual.

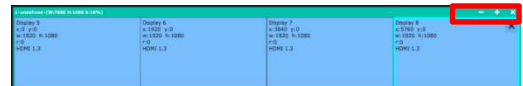
Steps of creating a container:

1. Fill in H Total/V Total and Row/Column, it will calculate H item and V item automatically.
2. Click **<Create>**, the container will display in the interface.
3. Click **<Save>** to save the container.



Container Adjustment

1. **Move:** Drag the boarder of the display area to move its place in the interface.
2. **Scale:** Click  to shrink, click  to enlarge the proportion of display area on interface.
3. **Cancel:** Long press  to cancel the screen group.



Display

Output List:

White one: available

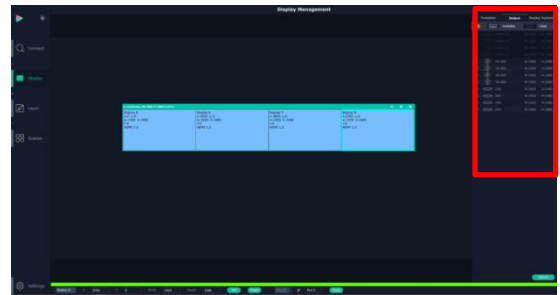
Gray one: unavailable

Operation Steps:


Left-mouse click the output and drag it to the display of the set container.

Replacement:

Drag and drop the output into the corresponding display. The output being replaced will turn from gray to white in the list.




Layer Management


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

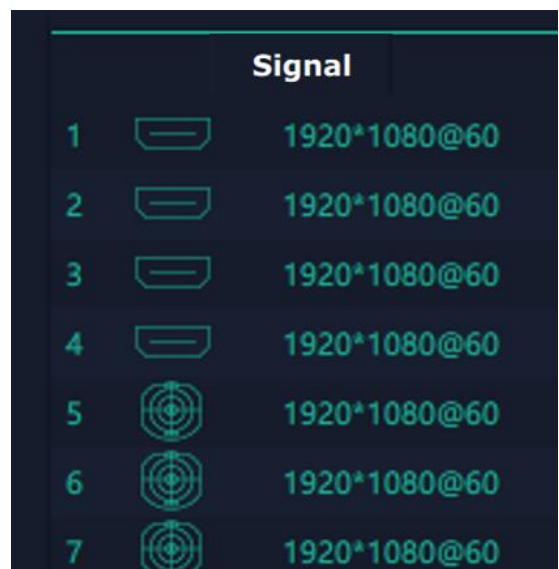


Signal

Signal list, showing all input signals and resolutions currently. Drag the signal to the display.

Click  to rename the input signal and then click

 to confirm.



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. Click **Set** to confirm.



2. Layer Scale and Crop

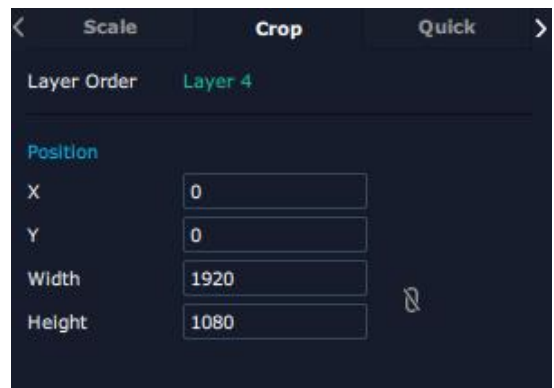
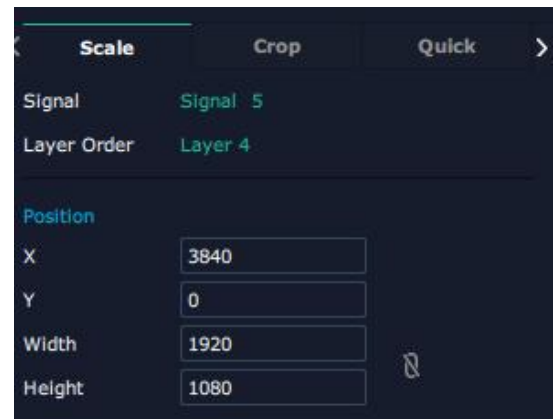
Choose one layer needed to be adjusted, and type in its position and size.



: data related, when width is changed, height will be changed as same proportion.



: data not related, width and height need to be filled respectively.

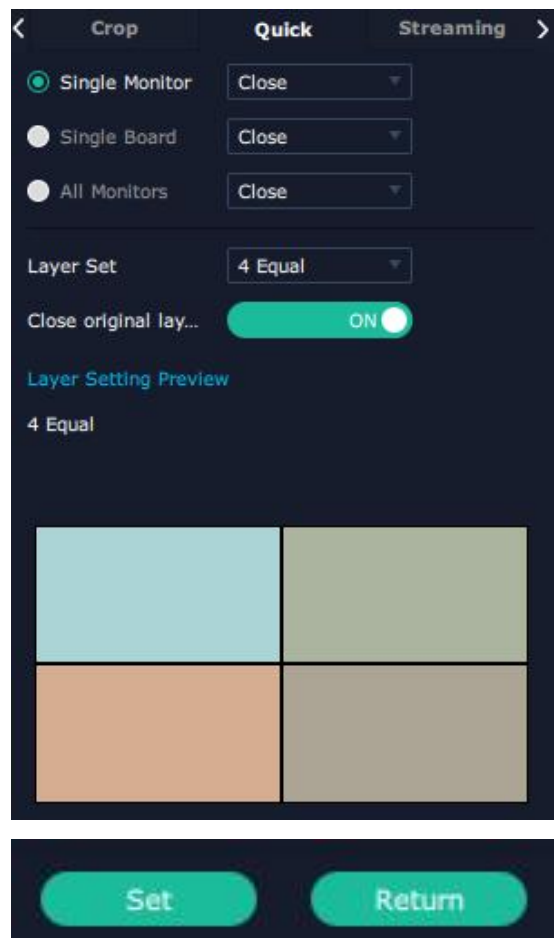


Quick

Quick is to set layer layout quickly.

1. **Single Monitor:** choose the **output port** to set.
2. **Single Board:** choose the **output board** to set.
3. **All Monitors:** set close or on.
4. **Layer Set:** set layer layout.

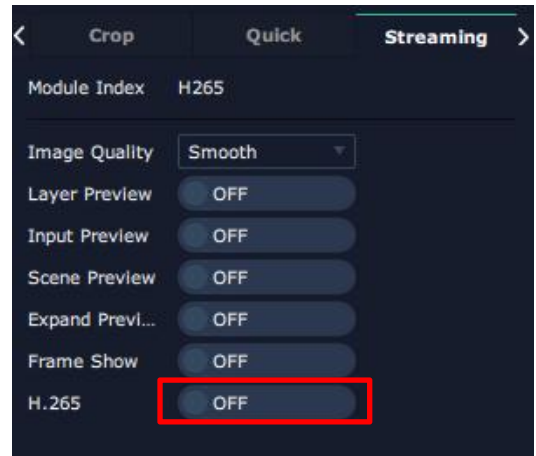
Users can drag and drop the source from the Signal List. After setting, click **<Set>** to confirm and the layout will be shown on the interface.



Stream

H.265 Module supports to preview image.

Users can turn on Layer Preview, Input Preview, Scene Preview or Expand Preview according to the actual need and then turn on H.265 switch.



Note: H.265 is the master switch. If the user turns on H.264 first, it cannot be set successfully.

Layer Movement

Moving the mouse to drag the layer.

Layer Remove

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



Layer Set



:to crop the layer.



:to lock the layer.

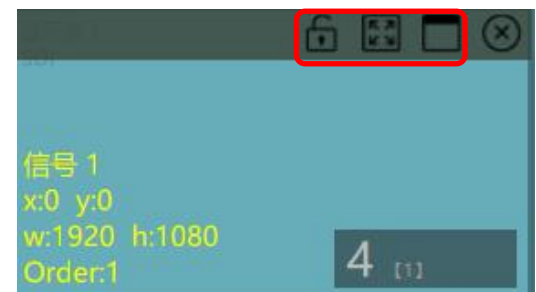


:max to cover up the monitor.



: cover up all monitors in the same screen group

with the one signal.



Layer Copy

Press Ctrl and mouse left at the same time, move the mouse the layer selected can be copied and place in any monitor in the same Display Area but it doesn't work when cross over display area.

Other Operation on Layer



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

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

Preset Management

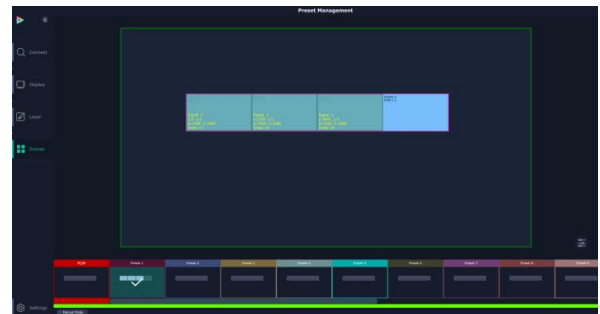
Preset Management is designed to switch bank.

Preset Management Mode:

1. Manual Mode
2. Schedule Mode

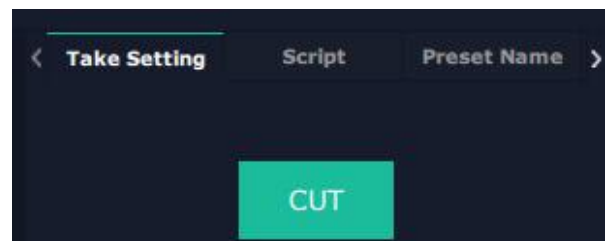
1. Manual Mode

The chosen scene will be displayed in the main interface, and the PGM screen is in the first in the Bank Column.



Cut

Cut, switch from PVW to PGM immediately .

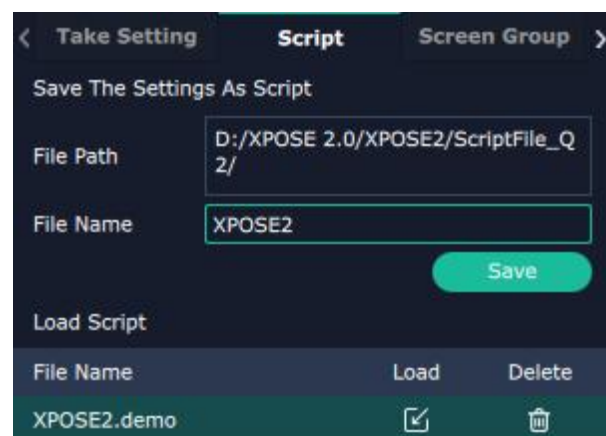


Script

Click<Script>, fill in the file name and click “Save”,the file can be seen in the <Load Script>.

Click **Load** to load the file into XPOSE.

Click **Delete** to delete saved script.



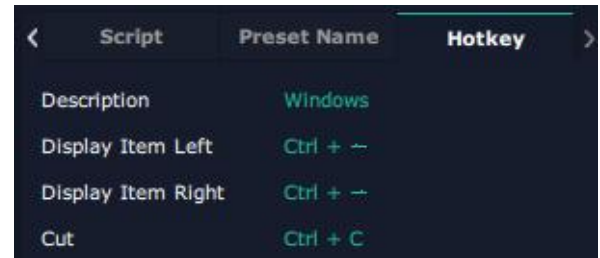
Preset Name

Select a bank and click Preset Name, fill in the blank after New Preset Name to rename a Preset (Bank)
Click the color block to choose a new color for the boarder of chosen bank.



Hotkey

Use hotkey to let the operation in Preset Management more convenient.





2. Schedule Mode

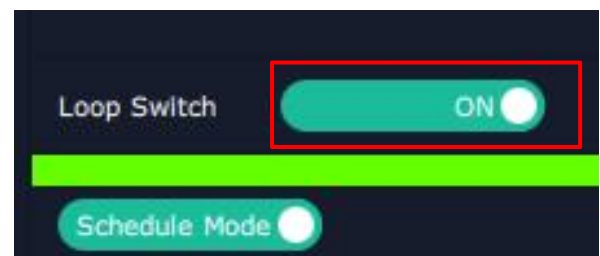
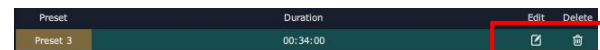
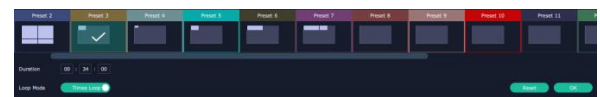
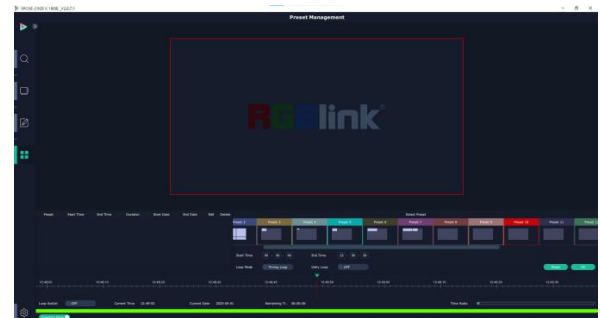
This mode is designed to set auto bank (scene/preset) switch.

Steps are as follows:

- 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.

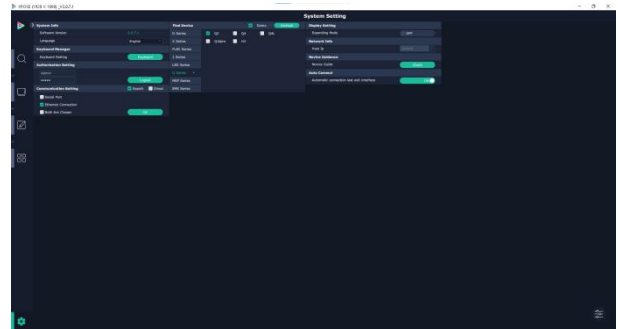
After settings done, turn on "Loop Switch" .



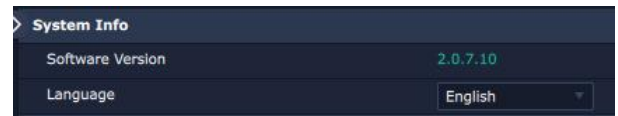
System Setting



Click  to enter <System Setting> interface.



System Info: Check current software version and choose system language.



Keyboard Management: Click <Keyboard> to enter the interface shown in the right.



Drag Input, Output, Layer and Preset from the list to the keys:



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



If the setting goes wrong or no need for short cut keys any

more, click  to **clear** some keys or clear all.

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

Clear all: is to remove all already set short cut keys.

Users can also **Save The Keyboard Setting As Script.**

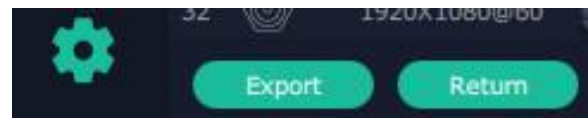
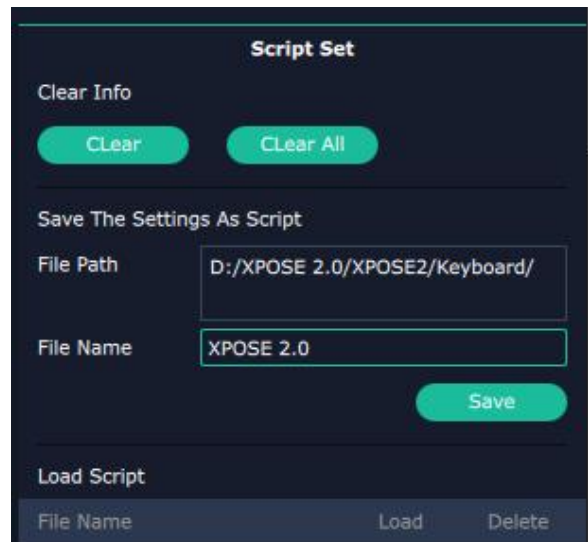
Script Set

File Path: Save the current Keyboard Settings in the script to the local path.

File Name: Script file name.

Load Script: Load/Delete.

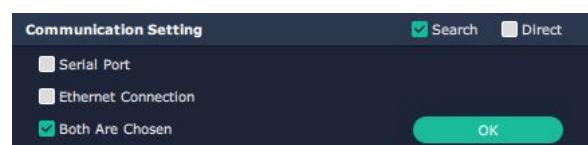
Click Return to back to <System Setting>.



Communication Setting: The default is <search>, if it is <direct>, users need to type the IP address.

Serial Port/Ethernet Connection: Search connection via serial port or Ethernet.

Both Are Chosen: Click both, both connections change synchronously.




Display Setting: turn on **Expanding Mode** if there is an extension screen.



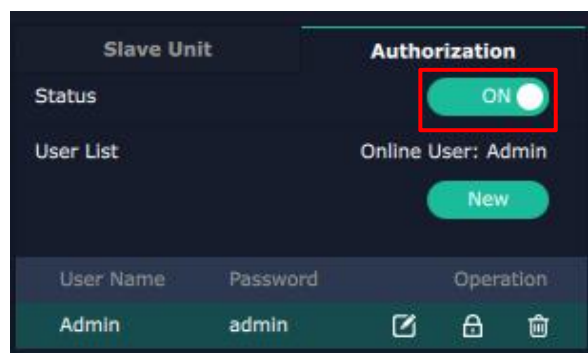
Novice Guide: Check user guide for software operation.



Authorization Setting


Click  for the authorization entry to add and edit the user name and password for authorized users, as well as the permissions.


Authorization Status **defaults to OFF**, please **Turn On** Status for operation.

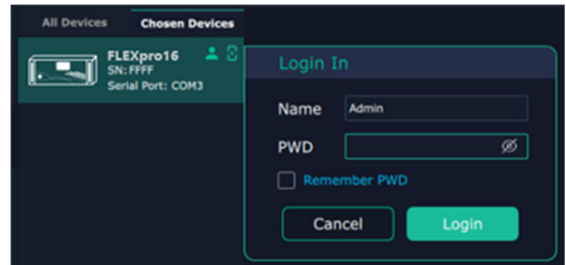



XPOSE defaults to log in as Administrator with **name defaults to Admin**, and **PWD defaults to admin**.




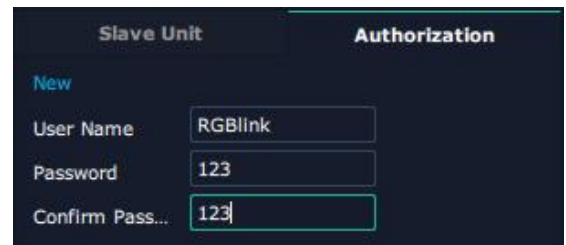
If users have logged in XPOSE before,  is displayed in Chosen Devices. Enter Name and PWD, then click Login.


 indicates successful operation.




If users have logged in XPOSE before,  is displayed in Chosen Devices. Enter Name and PWD, then click Login.

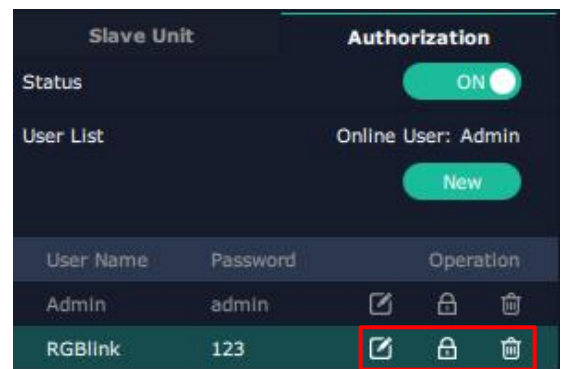
 icon indicates successful operation.



 Edit: Edit user name and password built.



 Delete: Delete user name and password built.

 Authorization Set: Functions allowed to operate.



Slave Unit

Slave Unit is to control multiple devices at the same time, which are connected to same network.

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.

Headquarter: Room 601A, No. 37-3 Banshang community, Building 3, Xinke Plaza, Torch Hi-Tech Industrial Development Zone, Xiamen, China

- **Tel:** +86-592-5771197
- **Fax:** +86-592-5788216
- **Customer Hotline:** 4008-592-315
- **Web:** <http://www.rgblink.com>
- **E-mail:** support@rgblink.com