RGBlink® Video {processing} for any scale

FLEXpro 8

Quick Start



- Modular design , with flexible input and output combinations
- Standard with 8 inputs and 8 outputs
- Support for RGBlink Subito™Quatro sender modules
- Output splicing up to 16mega pixels
- Single port support up to 8 layers
- Support for 4K2K@60 inputs
- Support for HDR signals
- Multiple pictures seamless switching
- Streaming preview and communication via same LAN port
- Genlock on board
- Built-in switch support for control via Tgo and T1
- AUX
- Support for XPOSE 2.0 control
- Support for RGBlink OPenAPI

CONTENT

Product Introduction 2
Packing Configuration 3
Hardware Orientation 4
- Front Panel 4
- Back Panel 5

XPOSE Operation 6
- Install XPOSE 6
- Login in XPOSE 10
- Topology Diagram 12
- System Setting 16
  - Find Device 16
  - Keyboard Manager 16
  - Authorization Setting 18
- Output| Input|Overview 20
  - Output Setting 20
  - Input Setting 23
  - Device Overview 27
- Display System 29
- Layer Management 34
- Preset Management 40

Contact Information 45

© Xiamen RGBlink Science & Technology Co., Ltd.

Product Introduction

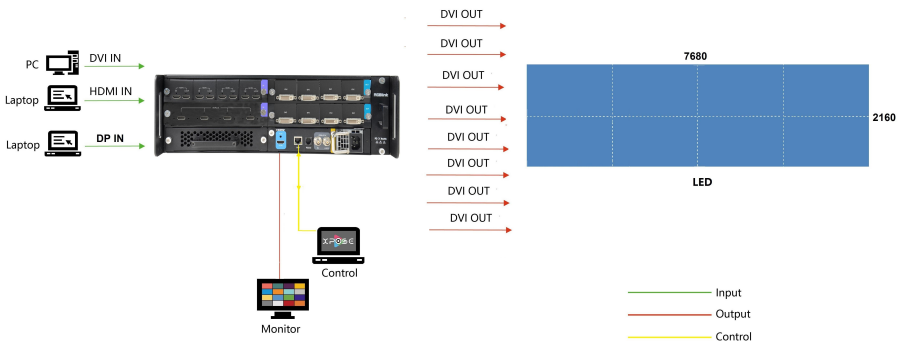
FLEXpro 8 is an all new video processing solution for modern large scale display applications. With support for over 18 mega pixels across eight outputs, FLEXpro 8 is designed for professional applications. Fit up to 16 independent inputs integrating a range of video sources and signals utilized in commercial display systems.

The innovative RGBlink modular signal system provides native on support for HDBaseT, Fiber and LED Control signals as well as conventional signals, embracing flexibility while being an efficient self-contained system.

Whether for integration or proAV FLEXpro8 has the multi-signal, multi-layer technology for virtually any display application.

System Connection

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



Flexpro 8 System Connection Diagram

Packing Configuration

Power Cord



DVI Cable



HDMI to DVI Cable



SDI Cable



USB Cable



CAT 5 Cable



DB9 to RJ11 Serial Cable



USB Disk



Note:

AC Power Cable supplied as standard according to destination market.

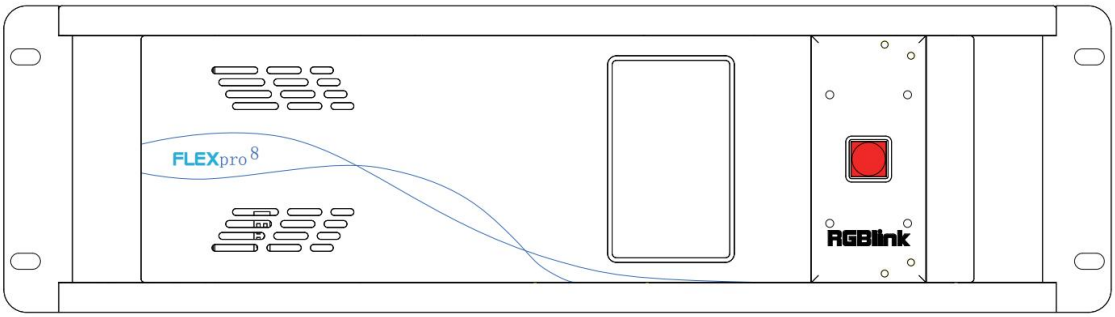
Upgrade tool package and user manual are stored in the USB disk, please keep it.

© Xiamen RGBlink Science & Technology Co., Ltd.

Ph: +86 592 5771197 | support@rgblink.com | www.rgblink.com

Hardware Orientation

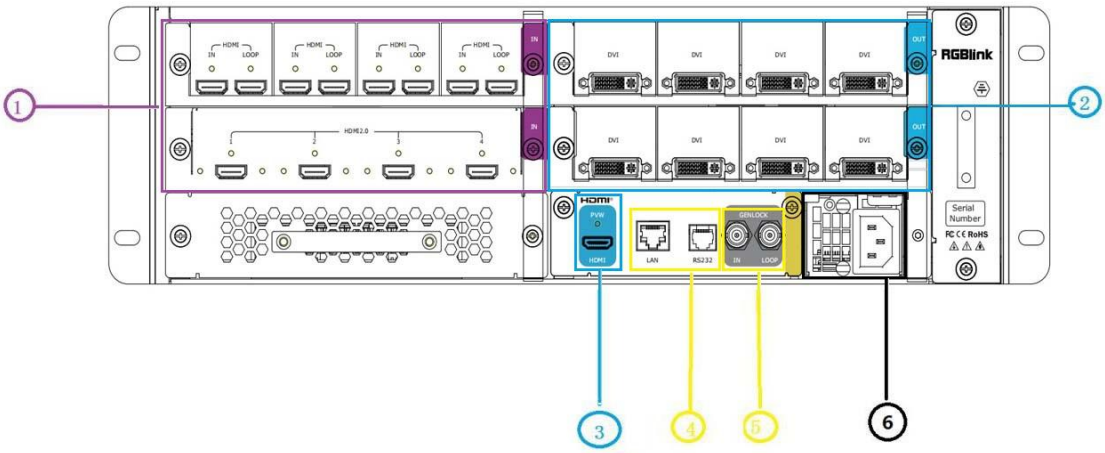
Front Panel



	OLED Panel Show the input slot and output slot information, device status, COM. Version, IP address and serial address.
	POWER Power button, long push the button, the device can be boot up. Under normal running state, push the button once, the info shown on OLED can be refreshed once ; long push the button, the OLED will pop up a confirm box, release the power button, push the power again before the confirm box disappears, and the power can be turned off.

© Xiamen RGBlink Science & Technology Co., Ltd.

Back Panel



Chassis Module Structure			
1	2 slots for input modules, support DVI, HDMI and SDI optional module	4	Communication
2	2 slots for output modules, support DVI, HDMI, SDI, HDBaseT and Subito Sender optional modules	5	Genlock
3	Independent PVW output port	6	2 slots for power modules

© Xiamen RGBlink Science & Technology Co., Ltd.

XPOSE Operation

Install XPOSE

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



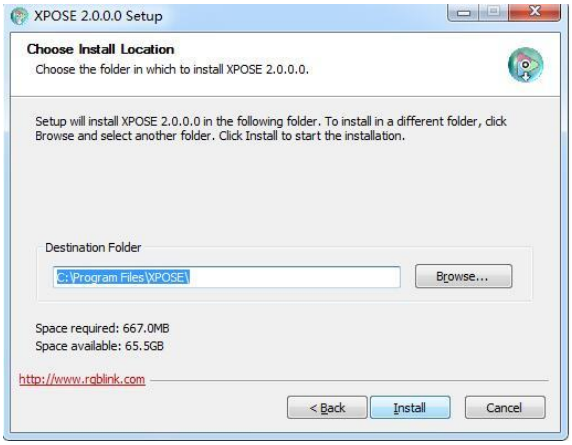
Double click ,it will pop-up the installer language box, select the language, for example, select “English”, and click “OK” to confirm.



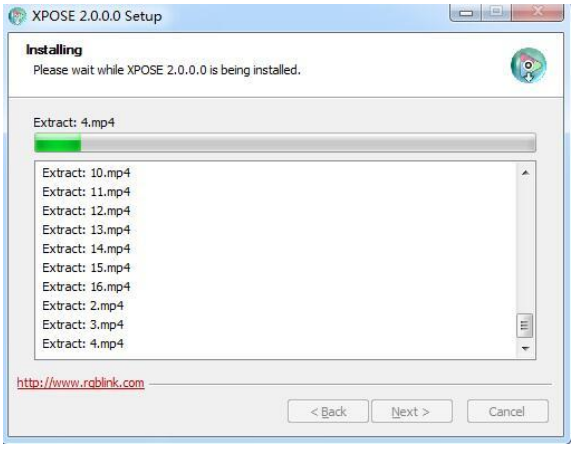
Click “Next” to install:



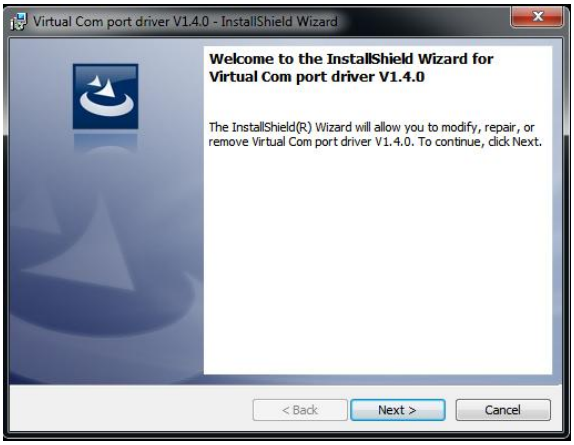
Click “Browse...” to select the XPOSE software install location:



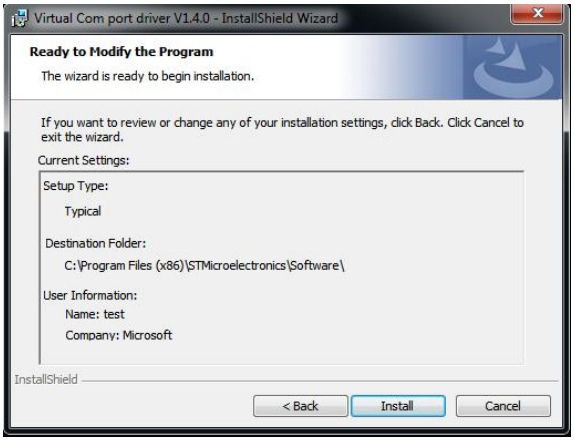
Click “Install”:



During installation, it will pop up the window of Install Shield Wizard for Virtual Com port:



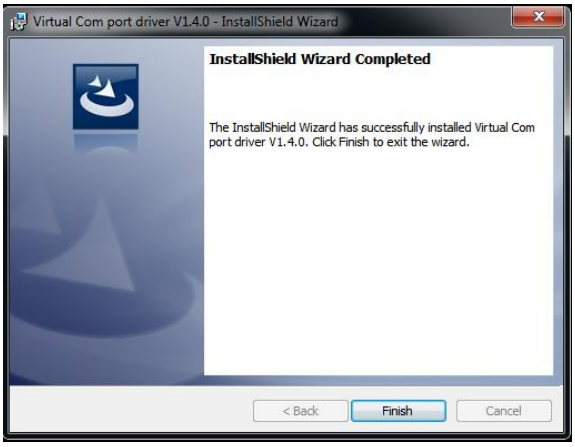
If user install the XPOSE software for the first time, click “Next



Then click “Install", as shown in the figure below:



Click “Finish” and complete the installation, as shown in the figure below:



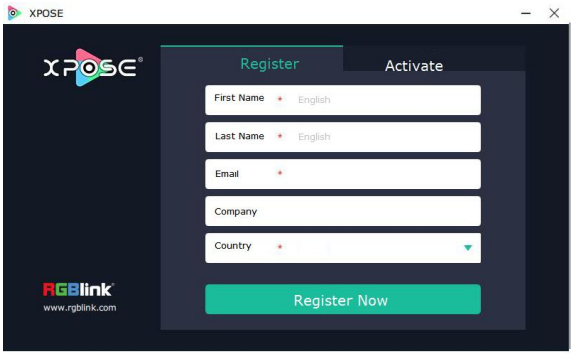
Click “Finish” and is ready to run the XPOSE :



Login in XPOSE

Double click this icon 

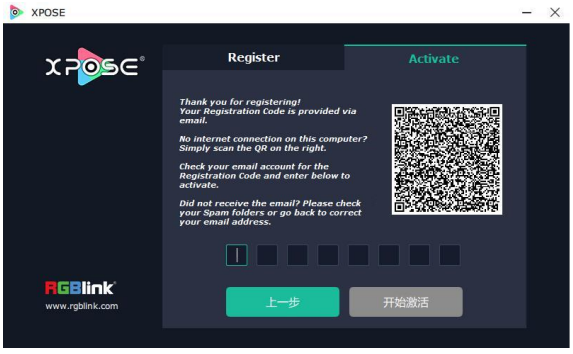
,and enter the log on interface as follow



The initial language of XPOSE 2.0 is self adjusted based on the operation system language of the computer. **Click Register** and fill in the blank with first name, last name, email, company and country and then click **Register Now.**

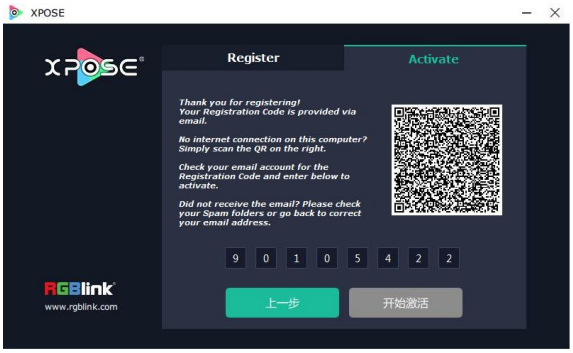
Please note that the email shall be invalid and complete otherwise Registration&Activation code cannot be received.

Click **Activate** and scan the QR code

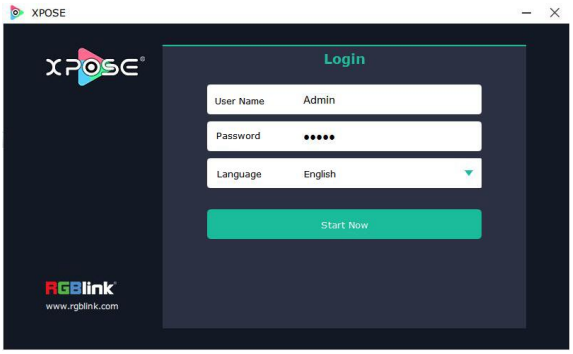


an email from **RGBlink Registrations** will be sent to the **Register** email address.

Type in the activate code and confirm



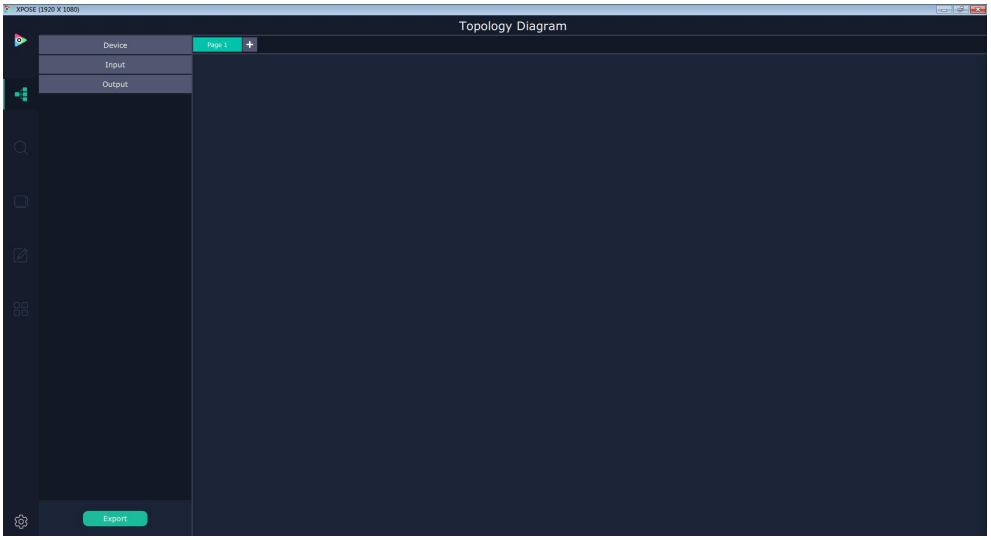
then enter the login interface.



Keep the user name as “Admin” and password blank and then click **Start Now.**

Note: If exact Name and Password are needed, users can set up them in Authorization Setting under System Setting.

After login, users can find the management including:Topology Diagram,Search,Display System, Layer Management, Preset Management, Keyboard Settings. The details of each hierarchy will be described hereafter.



In the following text, we are going to show how to use XPOSE 2.0 to control Flexpro 8.

Topology Diagram

XPOSE 2.0 offers the feature of making topology diagram which can assist users to import the actual input and output connection into XPOSE control.

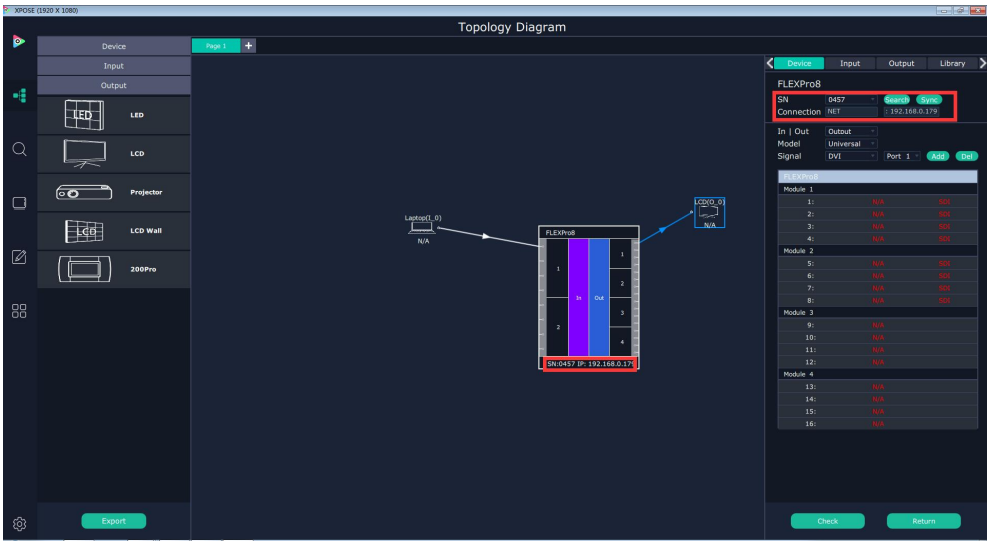
1. Drag device, input source device and output device from the list on the left based on the field application. For example, drag Flexpro 8 from Device, Laptop from Input and LDC from Output list as follows:



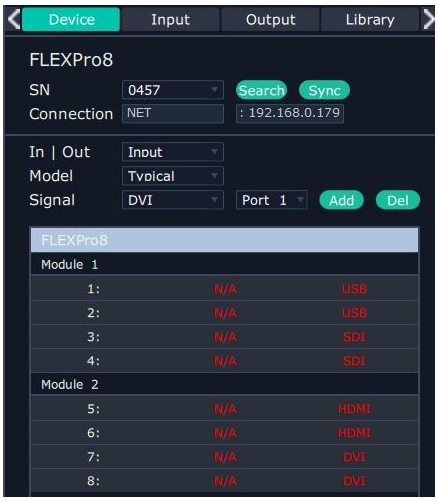
2. Click the icon  at the right bottom corner and open the setting interface as following:

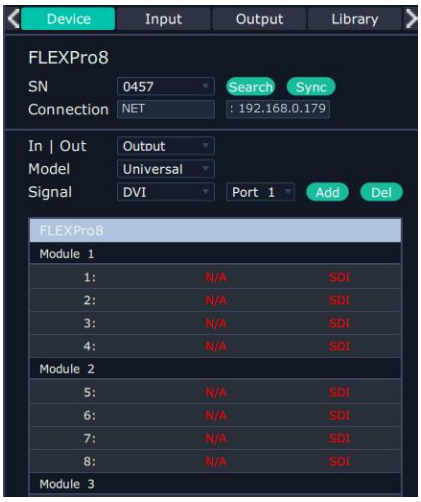


3. After Flexpro 8 is dragged into the topology diagram interface, users can find how many Flexpro 8 devices currently linked in the same network from the drop-down arrow after SN.

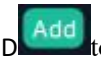


After one of the device is chosen, the device on the topology diagram shows the SN and IP address of the chosen one.





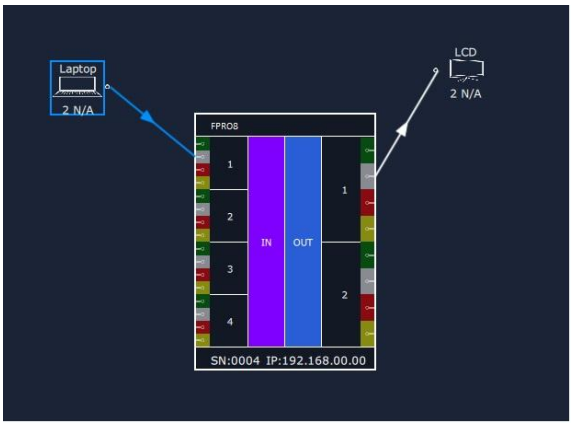
4. Choose board type of In and Out according to the actual input and output modules configuration user want. For example, set the first input board as DVI module as the following

Select IN|OUT: In, Model:Universal, Signal:DVI, Port:any figure from 1 to 4, click ADD 

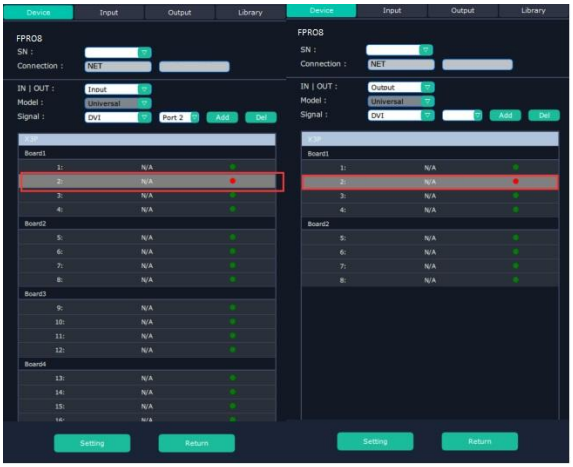
to finish

If the input module is formed by different signal input ports, choose the Model as Typical, it will allow users to set port type one by one.

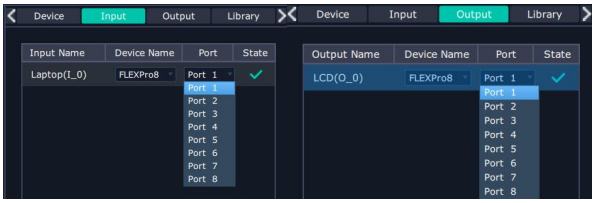
.



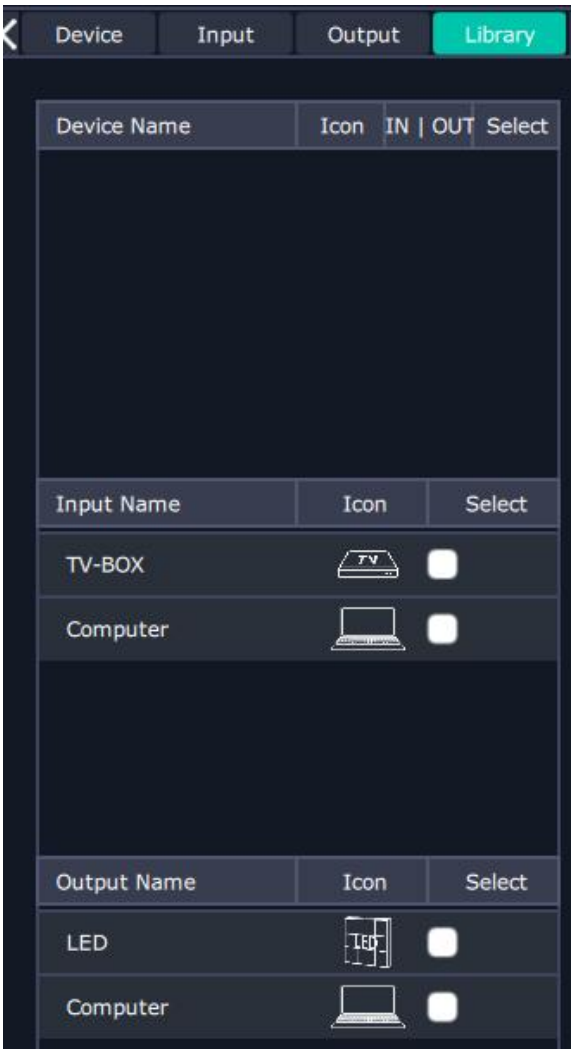
The chosen port of board of In and Out indicated by red dot as below:



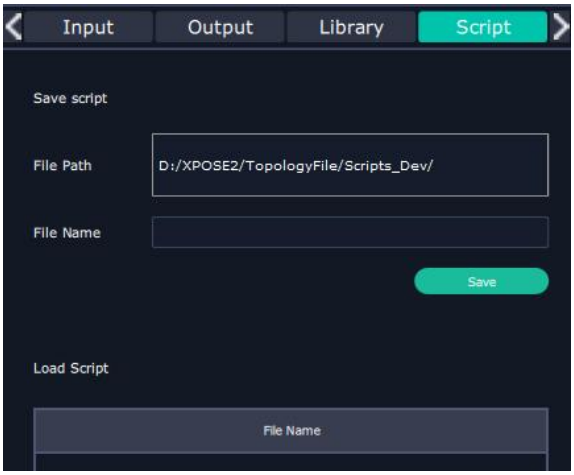
5. After choosing board type, users can check the state in **Input** and **Output** and change the connection port if needed.



6. If there are not enough devices in the device list on the left column, users can select and load more devices to the list from the **Library**.



7. After topology diagram is finished, users can store the script to local hard drive so that there is no need to do topology diagram next time again. Users can upload the previously stored script if the input and output deployment is the same.

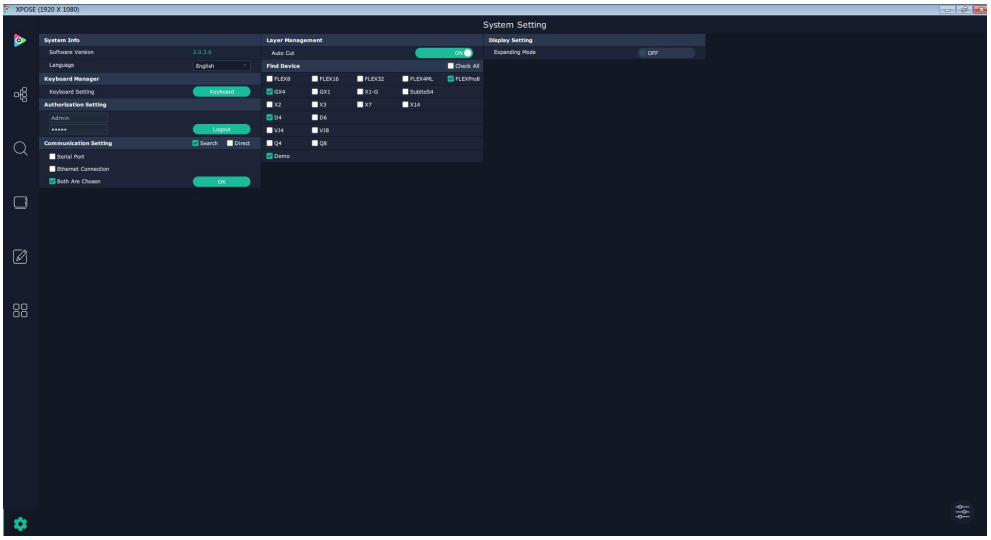


System Setting

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.

Then click icon  Click this icon and enter the interface, choose the device X14.



System Info: show the current software version
Language:Chinese, English and Russian
Communication Setting: Search or Direct, Search default.
Serial port, Ethernet Communication, Both are Choose. Both are Chosen default.
Layer Management:Auto Cut On or Off

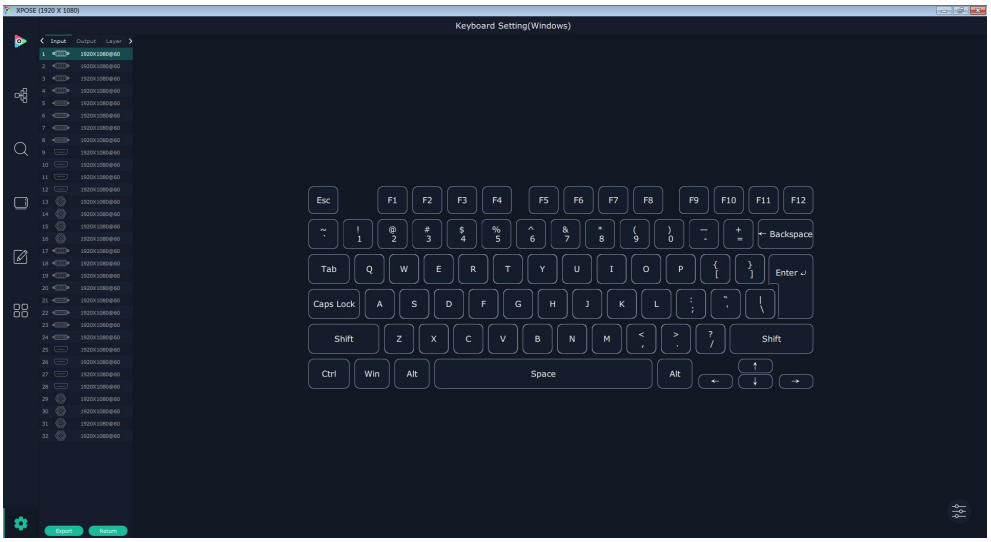
Keyboard Manager

click keyboard 

it will redirected to keyboard setting window.

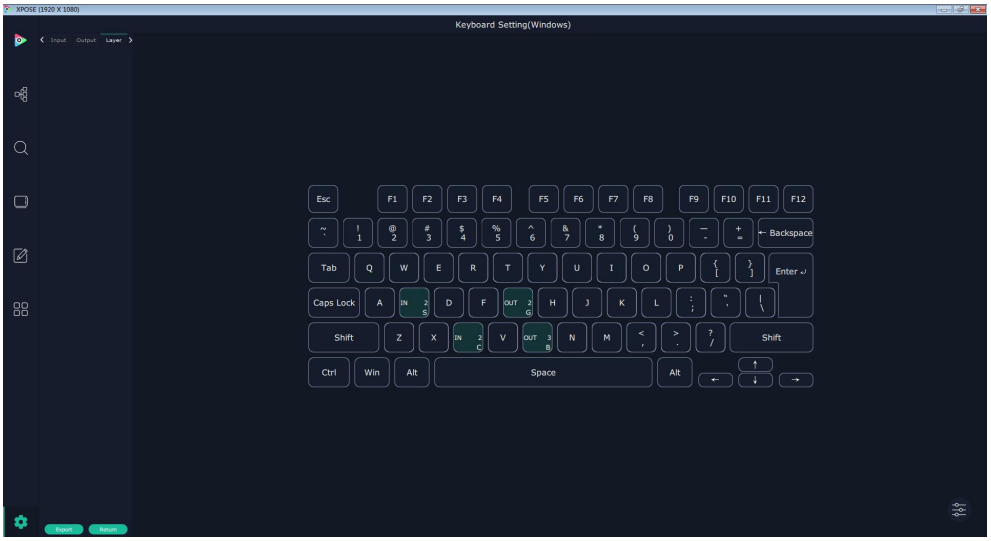
© Xiamen RGBlink Science & Technology Co., Ltd.

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:

Input, Output, Layer.



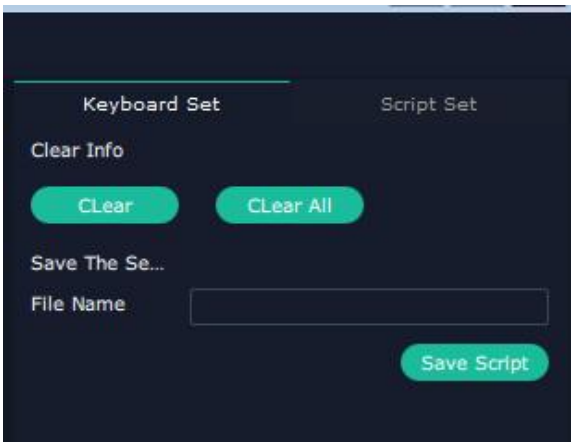
Please note the keyboard area where allows to set short cut keys as follow:



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

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

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

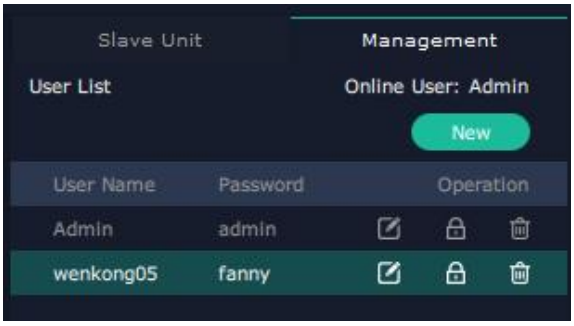


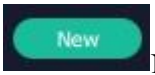
Authorization Setting

Click  to open up the authorization entry.



Click **Management**



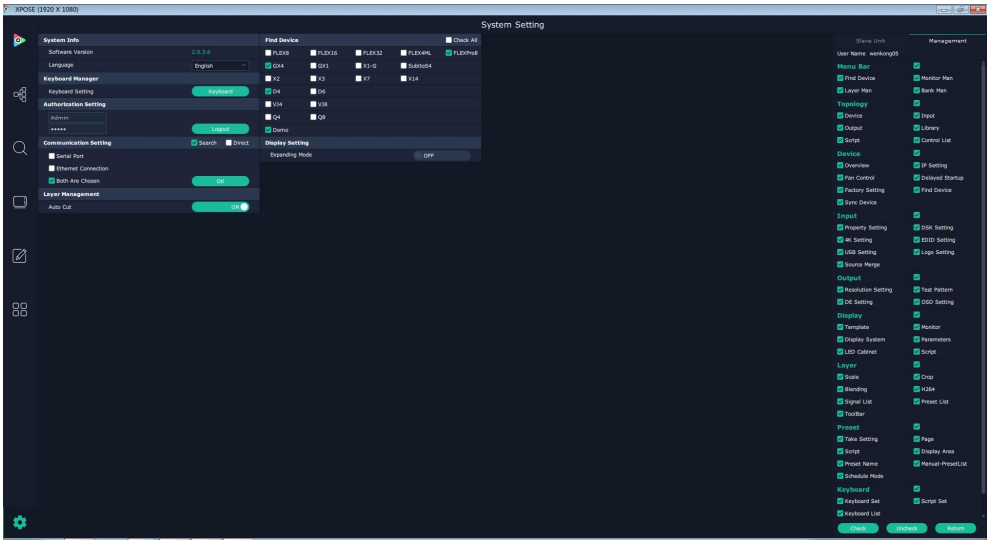


New:Add new USER NAME and PASSWORD


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 users are allowed to operate.



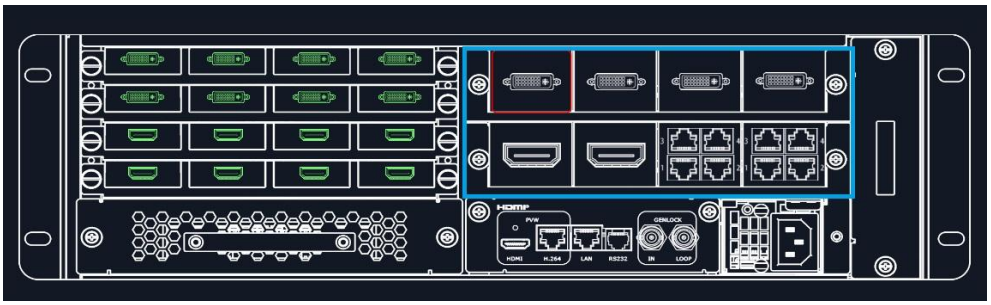
Click the green block to remove the function not to be permitted.

© Xiamen RGBlink Science & Technology Co., Ltd.

Output| Input|Overview

Output Setting

1. 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.

After DVI port is selected, users can do the following settings in the edit section after clicking icon ,
Resolution setting, Test Pattern, DE Setting, Property Setting.





After DP, HDMI or SDI is selected, reslution setting and DE setting can be done.



After HBbaseT is selected, resolution setting, Test pattern and OSD setting can be done.



2.1.1 **Resolution Setting**

Output Switch: Slide On or OFF

Format Rage: Slide to select ALL or Module. (For output modules on Flexpro, there is no difference between selecting All or Module as there is only one port on each each module)

Format Type:Standard or Customize.

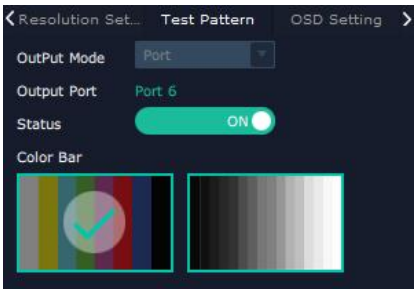
There are 32 standard (normal) resolution types available, the highest is 2560x816@60.

If Customize is chosen, users can put in desired resolution (Width, Height, Refresh Rate) based on field application.



2.1.2 **Test Pattern**

slide ON/OFF the Status. After slide ON the test pattern.



2.1.3 **DE Setting**

Output Port：choose current port

HDMI Output Type: DVI or HDMI

Color Range: Image or Video

Bits：8 bits for DV, 8bits/10bits/12bits for HDMI

Brightness：0-128



2.1.4 **OSD Setting：**

Output port: the current port

Status: ON or OFF

X/Y:the starting horizontal and vertical position

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

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

Font Transparent,

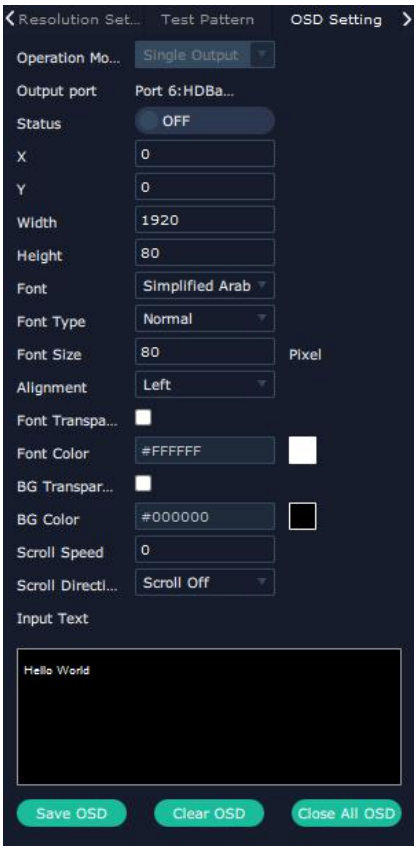
Background Transparent

Scroll Speed：0-16

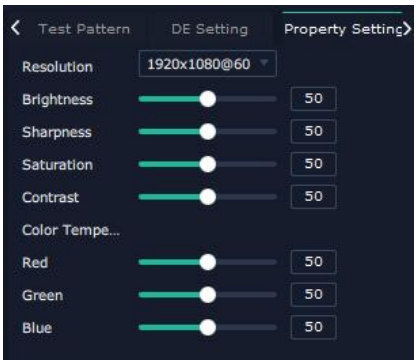
Scroll Direction： Scroll Off, Scroll Left, Scroll Right

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.



Property Setting of DVI output module



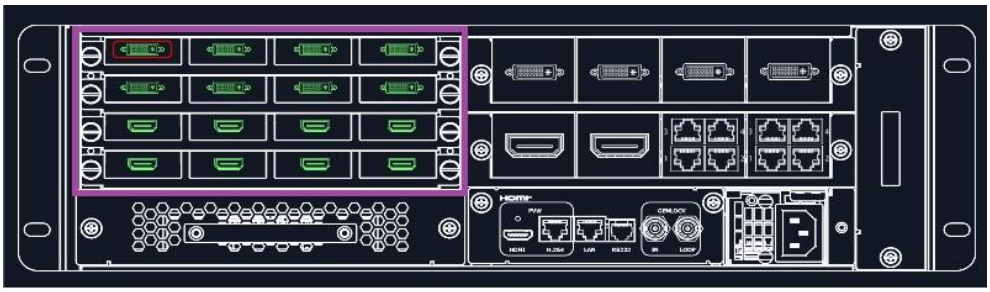
Output setting Checklist

	DVI	HDMI 1.3	HDBaseT	SDI
Resolution Setting	√	√	√	√
Test	√	√	√	√

Pattern				
DE Setting	√	√		
OSD			√	
Property	√			

Input Setting

1. 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.



2.1 When DVI or HDMI is chosen, Property, EDID and Test Pattern could be done.

2.1.1 **Property**

DVI port Property setting

Input Port：Current port

Source:CVBS,YPbPr, VGA, DVI (DVI module for Flexpro 8 support for CVBS,YPbPr, VGA signal via adapter)

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

Display mode：Live or Freeze

Picture Adjustment

Mirror：ON or OFF

Alpha：transparency adjustment, range from 0~128.

Mini Delay mode:On or Off. Select this mode on the output and input is simultaneously, without refresh rate delay.

Under this mode, the image is under the best state.

Saturation：slide to adjust

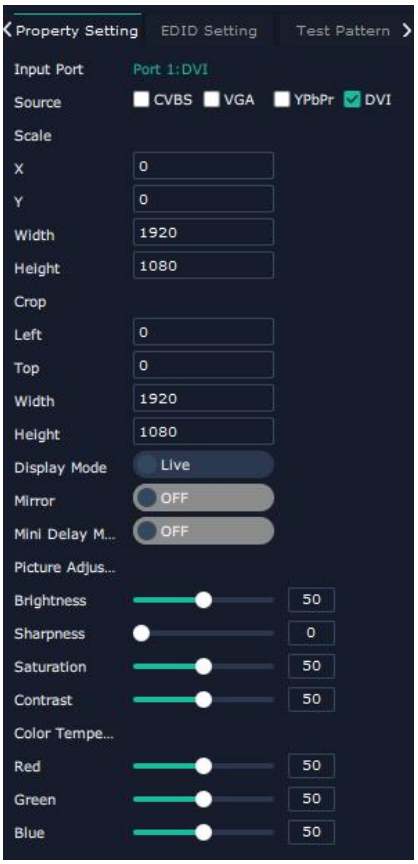
Hue：slide to adjust

Color Temperature

Red：Slide to adjust

Green：Slide to adjust

Blue：Slide to adjust



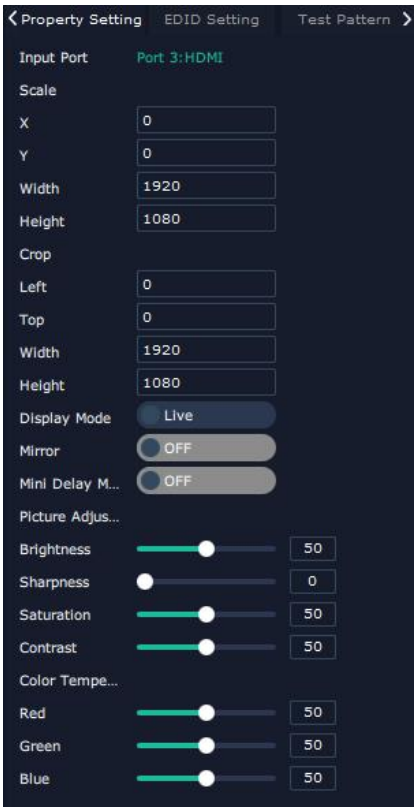
Contrast

Red：Slide to adjust

Green：Slide to adjust

Blue：Slide to adjust

HDMI Port Property Setting



2.1.3 **EDID Setting**

Input Port: Current Port and type

Customized EDID

EDID Template : RGB-DVI and RGB-HDMI to choose

White Height Frequency: automatically show current port.

DVI Port EDID setting



HDMI Port EDID Setting



Test Pattern：

Input Port:Current Port

Preset：Customize,White on Black 1,White on Black 2,Black on White 1,Black on White 2,Green on Black 1,Green on Black 2,Green on White 1,Green on White 2,Red on Black 1,Red on Black 2,Red on White 1,Red on White 2

DSK Setting switch： On or Off

Operation Mode：0 or 1,automatically show according to user's Preset choice

Transparent：0-255,automatically show according to user's Preset choice

Red,Green,Blue Max：0-255,automatically show according to user's Preset choice

Red, Green Min：0-255,automatically show according to user's Preset choice

DVI Port Test Pattern



HDMI Port Test Pattern

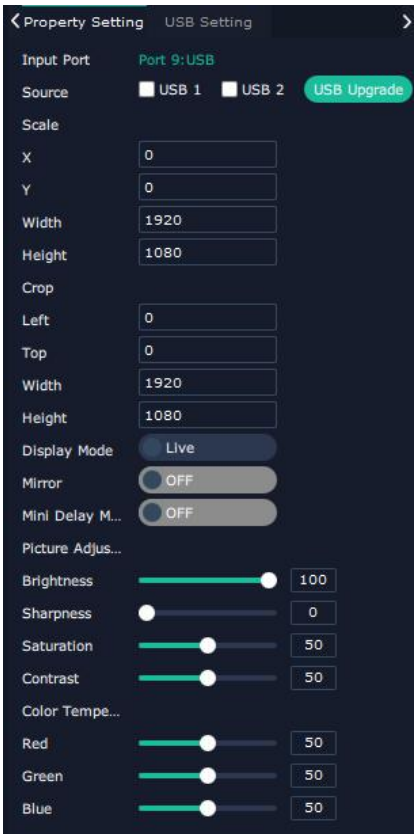


SDI Port Test Pattern

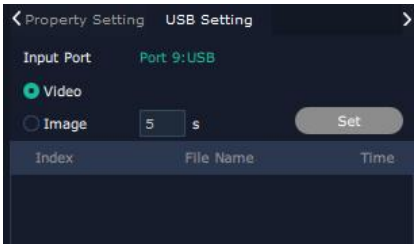


When USB port is selected, Property setting could be done.

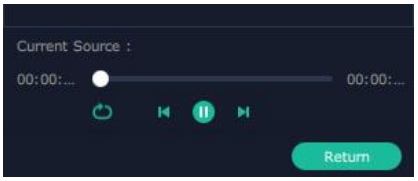
USB Property



USB Setting



© Xiamen RGBlink Science & Technology Co., Ltd.



Input Port Current USB port

Select **Video** or **Image**

Choose Video, will list down the media files in video format by index.

Set play loop by ,switch to previous , next and stop playing

Choose Image, will list down the media files in graphic format by index.

Set playing time from 0 to 255S.

Note: the time setting is only enable when User select Image

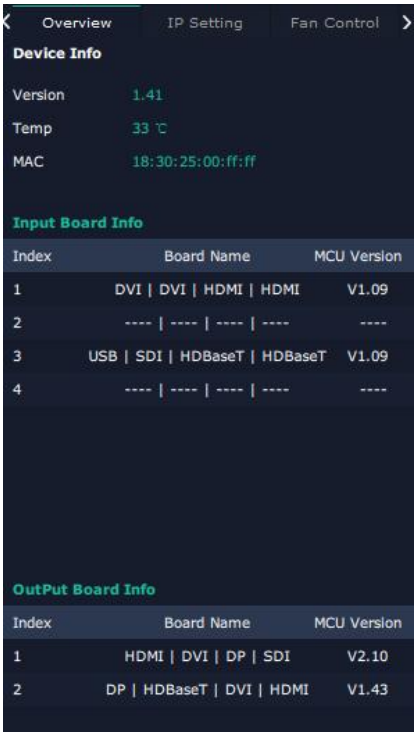
Checklist of input setting

	DVI	HDMI	3G SDI	USB	HDBaseT
Property	√	√	√	√	√
Test Pattern	√	√	√		
EDID	√	√			
USB Setting	√			√	

Device Overview

Click Return Return, there are overview, IP setting,Factory Setting,Power ON,Fan Control

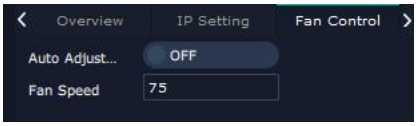
Overview show Device Info, board info in each slot.



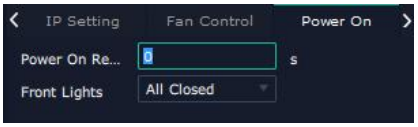
IP：select Auto IP addres or manually type in the IP address, MASK and Gateway



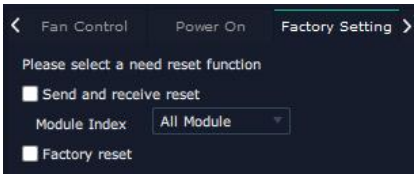
Fan Control：Auto adjustment,Fan speed 0-99



Power on：0-255S



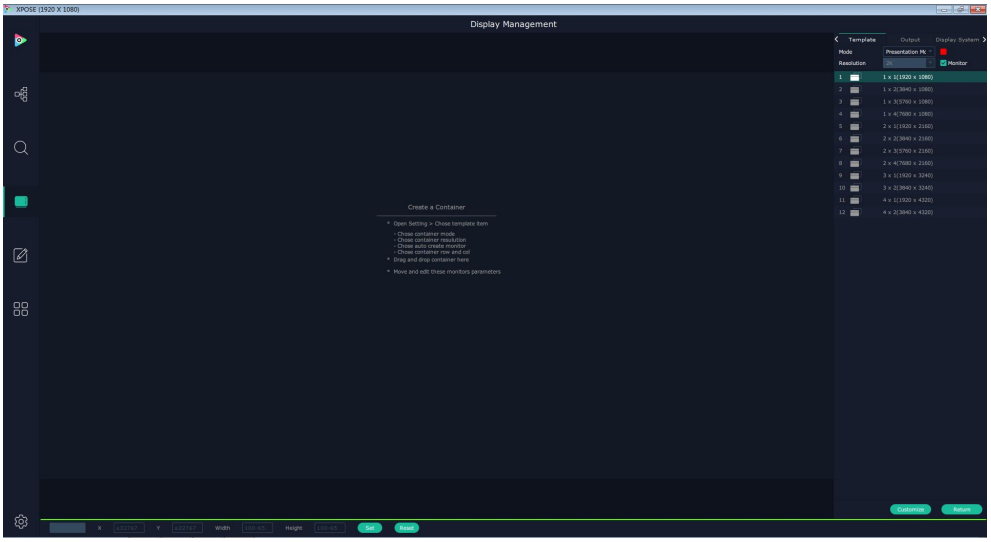
Factory setting：Remove Logo and/or Remove EDID



Display System

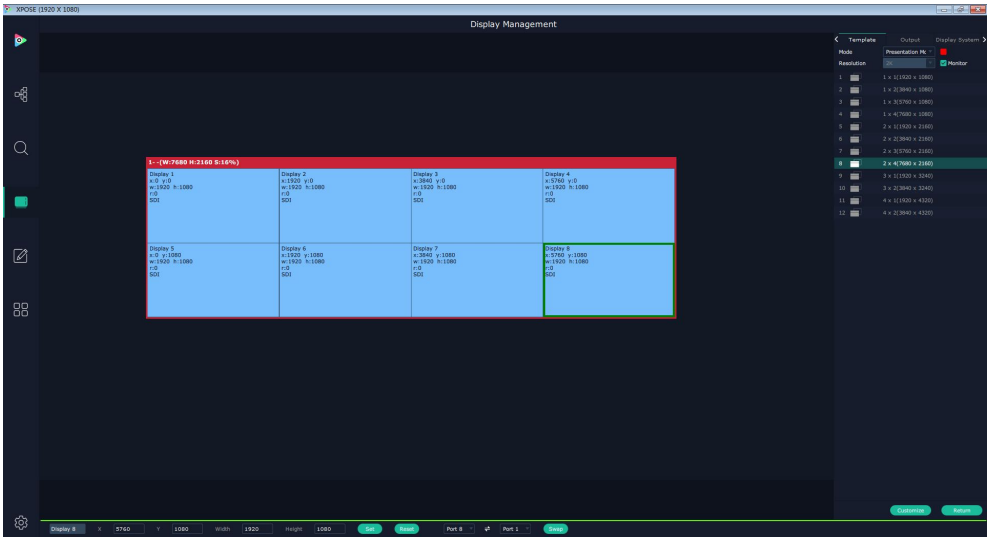
Display System is for users to set layout of outputs.

Click this icon first and then click enter the interface as follow:



Template：

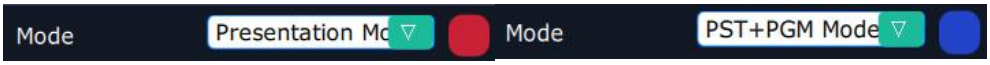
There are 16 types of basic “Display Area” which is used to contain output interface,and could be regarded as layout of output. Drag a layout for example 2x4 (7680x2160) from the template list to the middle interface.



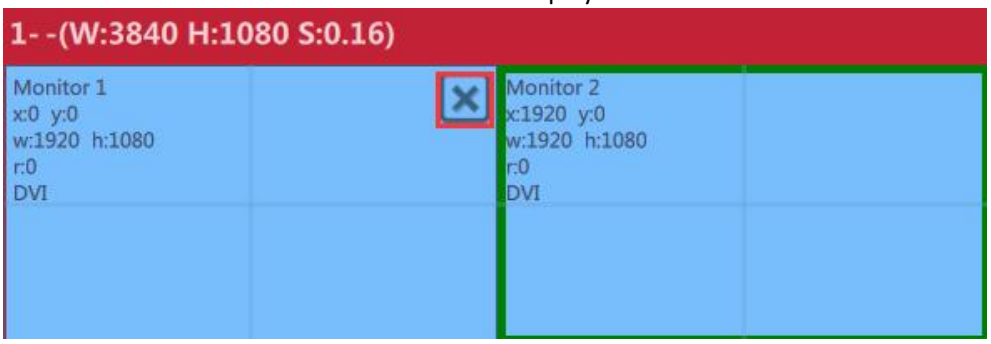
Mode：

At present, there are Presentation Mode, PST+PGM Mode,Matrix|Aux.

XPOSE 2.0 allows multiple modes running on one same interface, to differentiate each mode, different color is given to each mode.



Click this icon  to cancel the monitor in Display Area



Long pressing this icon  to cancel the Display Area



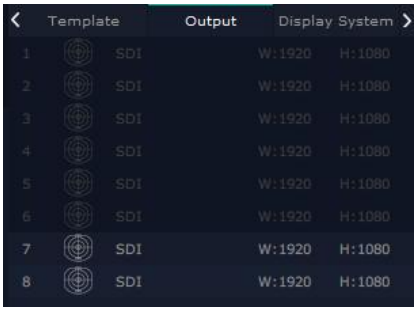
Created: Click Customize 

below template, user can type in the total width and height , row and column , according to actual display in field, it will automatically calculate the height and wdth of each monitor based on the parameter above, as the following example, creat a 5400x1080 display area. To save this display area, just click 



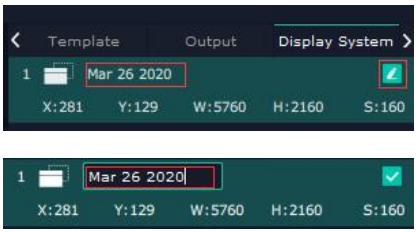
Output

Show all the output ports (monitors) of this device. If the monitor is in dark (black), it indicates that this output is used, otherwise it is in grey.



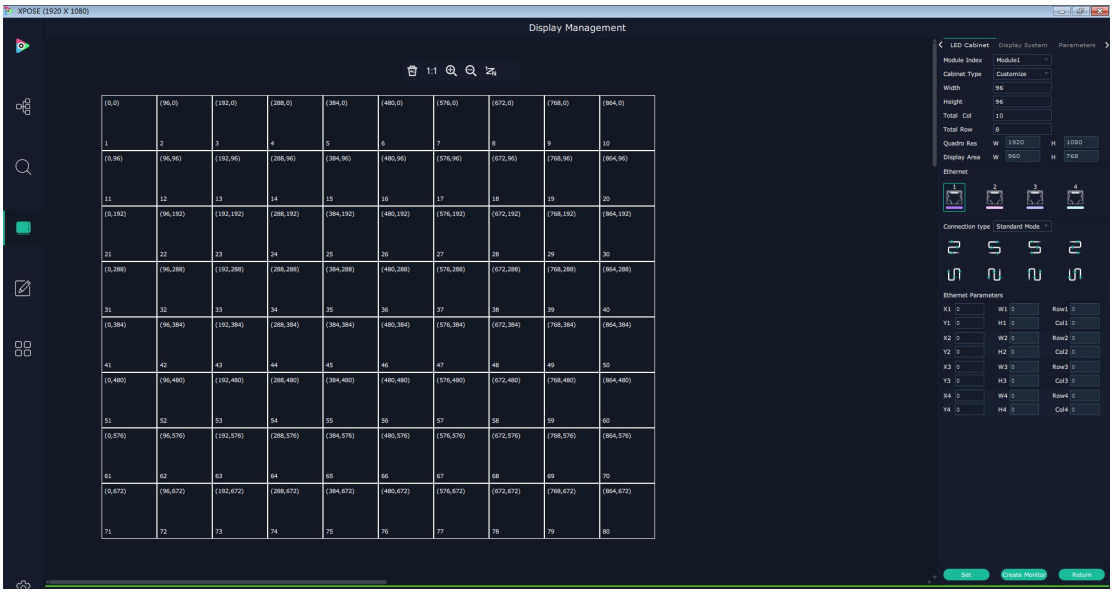
Display System

Display System allows users to edit the name of the display area that has been created just click the .



LED cabinet

Flexpro8 support to install RGBLink Subito Quatro sender designed to take direct control LED display.
Led cabinet is offered to do cabinet settings.

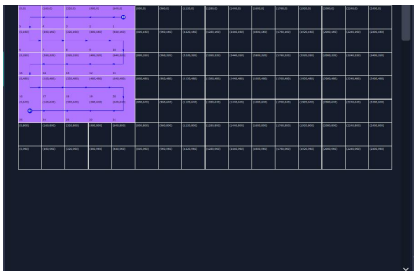


Module Index: choose the number of the Quatro modules.
Cabinet Type: Customize or Manufacture
Cabinet Type: Manufacturer or Customize
Width, Height: manually filled in if choose cabinet type as Customize
Total Col, Total Row: set numbers of total column and numbers of total row according to Quadro Res (maximum capacity of a Subito Quadro Sender card) 1920x1080 and Disply Area shows the total width × total height. The number cannot show if Display Area exceed the restriction.
Tools:

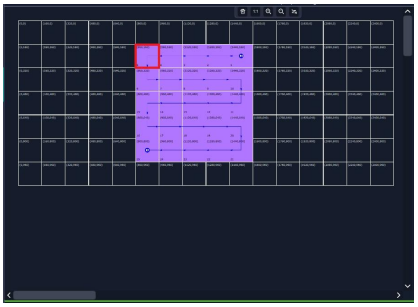


Delet all, 1:1, Zoom in, Zoom Out, Sort Change

Set each Display Area of each ethernet port
Cabinet Rang: Ethernet
Ethernet:choose port 1 (or, 2,3,4)
Connection type:Standard or customize, choose Standard here
Choose customize if the standard connection cannot apply to field application.
Fill in total row and total column number according to the restriction of single RJ45 Port 655360 pixels.
For example Port 1 control 800x800 on the LED screen as follows:
Go back to cabinet type as Module, the display area just set will show



Use ethernet parameters to adjust position of control area.
Click Ethernet then click Module to refresh
Fill in the X number and Y number and set.

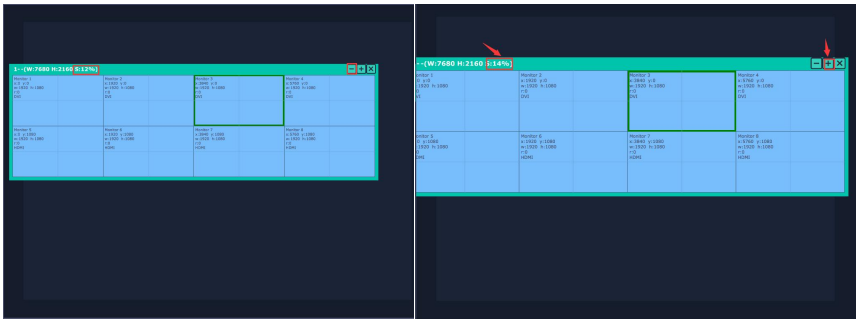


Customize connection :Ctrl+Left Mouse

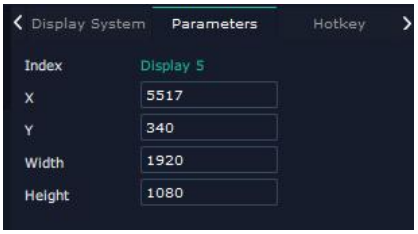
Adjust Display Area

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

Click icon  to shrink,Click  to enlarge the proportion of display area on interface.

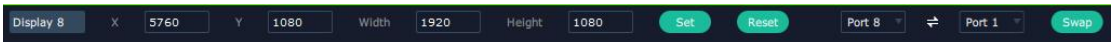


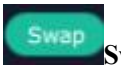
Parameters



© Xiamen RGBlink Science & Technology Co., Ltd.

Set the postion and size of each output display in Parameters or use the bar under the interface and type in the parameter to set resolution and position of monitor



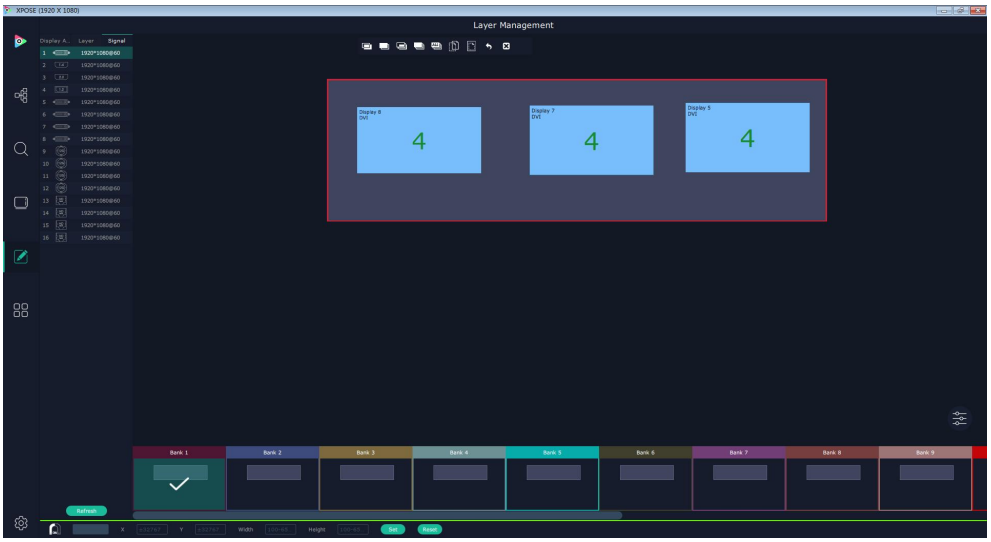


Swap Port: users can swap two monitors display

Choose port from the drop down arrow list.

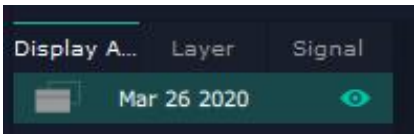
Layer Management

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 16 inputs. Drag source from signal list to monitor.



Numbers on Monitor

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

Each monitor (output port) can contain layers no more than 4. Any 1 input signal cross 1 border of a monitor is regarded as 2 layers.



Layer Adjustment

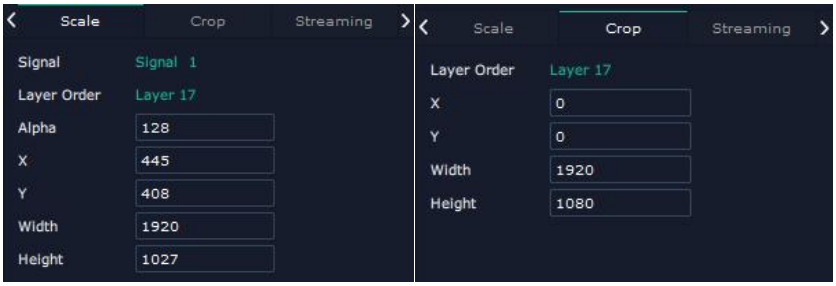
There are two ways to adjust layer.

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 or Crop



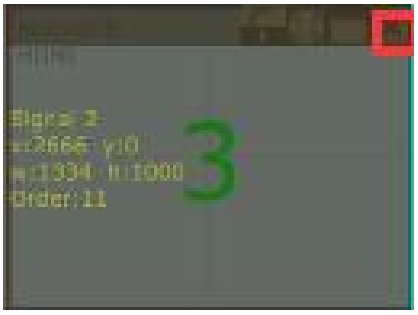
Layer Movement

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.

© Xiamen RGBlink Science & Technology Co., Ltd.

Layer Remove

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



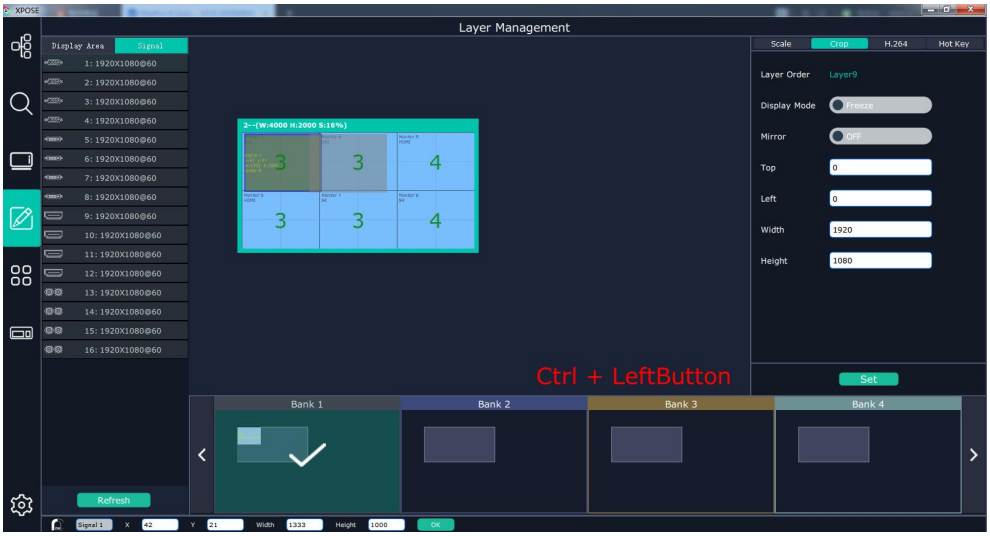
Layer Max

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



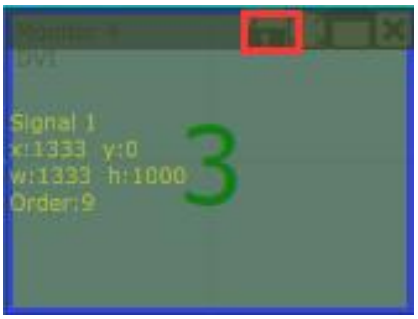
Layer Copy

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.



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

Streaming

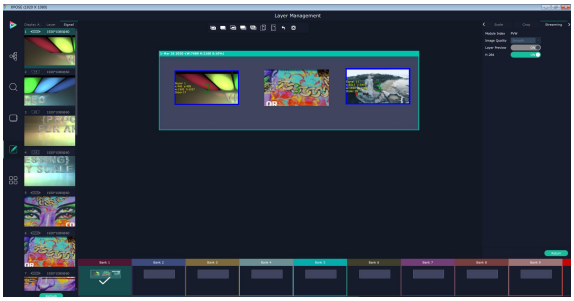


Module Index:PVW, PVW port is fixed on the communication module with a dedicated HDMI port.

Image Quality: to choose from Hi-Q, Normal, Smooth

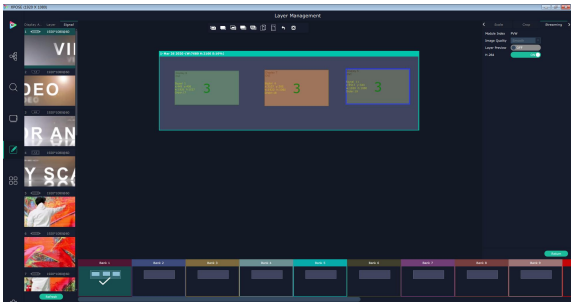
the better the preview input image but if band width of network is not good enough, high ratio image quality may cause problem. We usually suggest user to choose smooth.

Layer Preview and H.264. Turn on Layer Preview first and then turn on H.264, all input source and layers in the display areas can be previewed as follow pictures.



If turn on H.264 only, only input signal can be previewed.

© Xiamen RGBlink Science & Technology Co., Ltd.

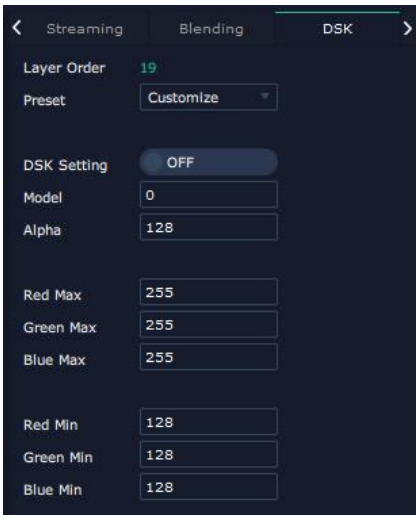


Blending



Signal: current chosen signal
Layer Order:Current chosen layer
Width: set blending width here
Blending: turn ON and OFF Blending feature.

DSK



Input Port:Current Port
Preset：Customize,White on Black 1,White on Black 2,Black on White 1,Black on White 2,Green on Black 1,Green on Black 2,Green on White 1,Green on White 2,Red on Black 1,Red on Black 2,Red on White 1,Red on White 2
DSK Setting switch： On or Off
Operation Mode：0 or 1,automatically show according to user's Preset choice
Transparent：0-255,automatically show according to user's Preset choice
Red,Green,Blue Max：0-255,automatically show according to user's Preset choice
Red, Green，Blue Min：0-255,automatically show according to user's Preset choice

Hot Keys

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

Description	Windows	Mac OS
Copy Layer	Ctrl + Mouse drag	Cmd + Mouse drag
Layer Group	Ctrl + G	Cmd + G
Ungroup	Ctrl + Shift + G	Cmd + Shift + G
Layer Backward	Ctrl + [	Cmd + [
Layer Forward	Ctrl +]	Cmd +]
Layer to Bottom	Ctrl + Shift + [	Cmd + Shift + [
Layer to Front	Ctrl + Shift +]	Cmd + Shift +]
Select All	Ctrl + A	Cmd + A
Select Layer	Ctrl + Mouse click	Cmd + Mouse click
Delete Layer	Delete	Delete
Copy Select	Ctrl + C	Cmd + C
Paste Select	Ctrl + V	Cmd + V
Cancel Select	Ctrl + D	Cmd + D
Snap to Grid	Ctrl + T	Cmd + T
Move Layer	Direction	Direction
Change Source	Double Click Signal	Double Click Signal

Save to Bank Automatically

When one Bank (where the set is contained) is finished, click next Bank, previous set is saved to bank.

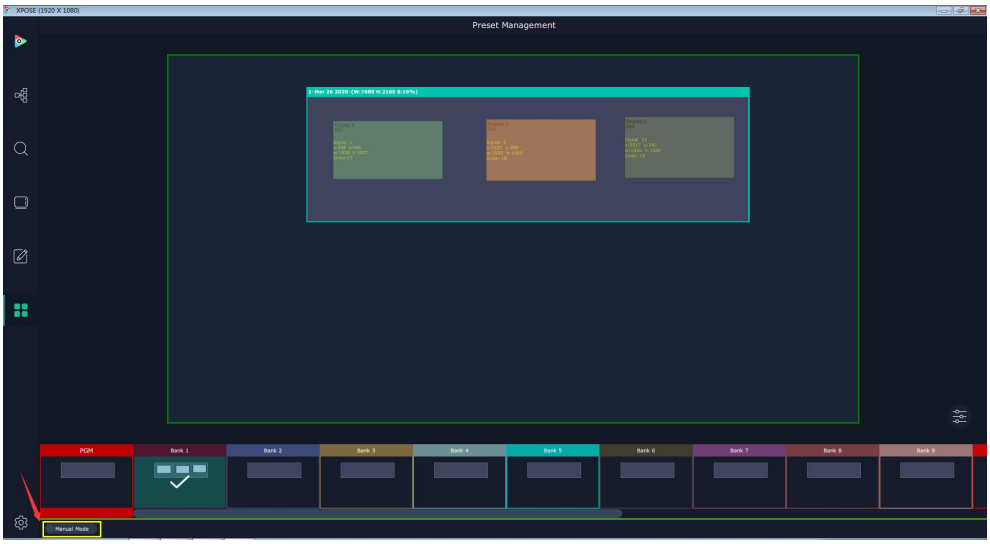


© Xiamen RGBlink Science & Technology Co., Ltd.

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.

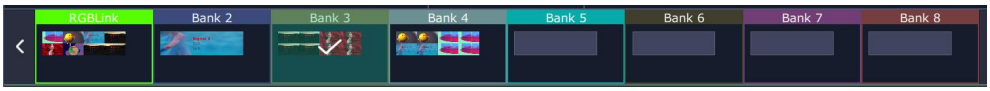


Take Setting

Fade Time 0.0-10.0S

Black out, slide to ON or OFF

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

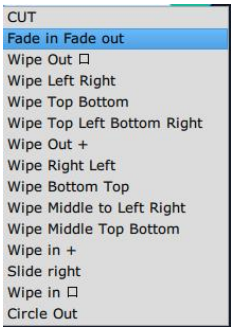


Cut|Take

Cut, switch from PST to PGM without any effect.

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

Transition Effect



Display

separate display area switching

Slide Disply to ON 

, click  to see more settings and select the Display Area



when users need to switch scene from eg. Bank 1 to Bank 4 but want to keep Display Area 2 the same as Bank 1.

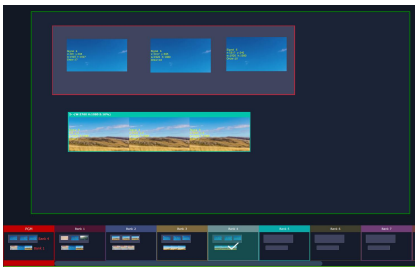
Follow the steps below to do the setting.

Step1: click Bank 2 and open Display Area

Step 2: click the  icon behind to cancel the display area of 2 and click 

to confirm,

Step 3:TAKE or Cut



Display Are 1 of Bank 4 is switched to PGM but Display Area 2 keep the same as Bank 1.

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.



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.

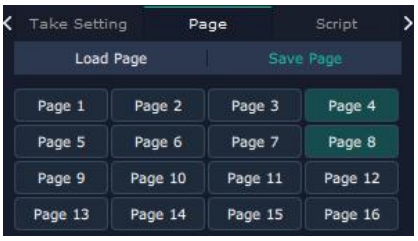
Bank Save and Load

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 grey, 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.

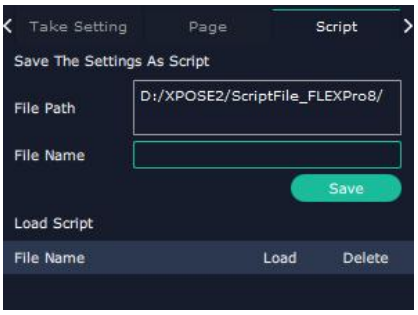


Script Save and Load

Save Script

Click 

,fill in the blank with the name of setting and Save



© Xiamen RGBlink Science & Technology Co., Ltd.

Load and Delete Script

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

Select the file and click Load

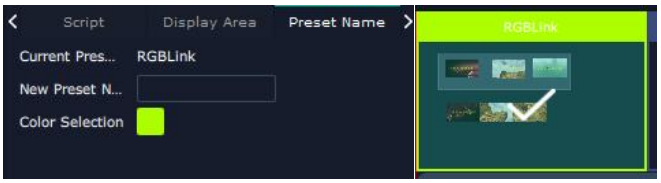
Select the file and click Delet, the chose file can be deleted from list.

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.

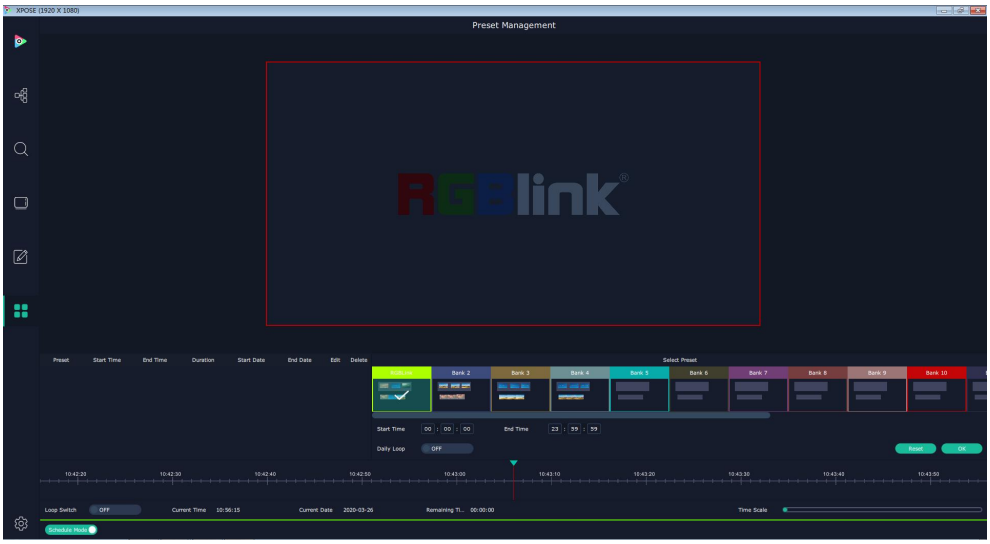


For exmaple change Bank1to RBGLINK, with pointed boader

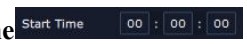


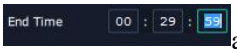
Schedule Mode

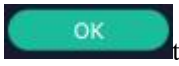
This mode is designed to set auto bank (scene/preset) switch.



Select the bank that need to be looped.

Set **Start Time** 

and **End Time** 

and press **OK** 

to confirm.

The Preset can be added into the loop list after confirm.

Preset	Start Time	End Time	Duration	Start Date	End Date	Edit	Delete
RGBLink	10:00:00	10:29:59	00:29:59	2020-03-26	2020-03-26		

click this icon to edit Start Time and End Time if needed.

Click this icon to delete this preset if it is not needed.

Turn on Daily Loop and Loop Switch.



Contact Information

Warranty:

All video products are designed and tested to the highest quality standard and backed by a 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
  - ~ http://www.rgblink.cn
- **E-mail:** support@rgblink.com

© Xiamen RGBlink Science & Technology Co., Ltd.