DRIGER®

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USER MANUAL

IPM-925

4K30 HDMI over IP in One



Version: V23.08.24

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1. Product Introduction

This a4K HDMI over IP Matrix, Video Wall and Multiview system, the transmitter and Receiver is same unit, it can be switched/defined by the PC software to work either as encoder or as decoder which can provide more application flexibilities and save the costs.
On the front panel with a LCD screen to show name, IP address and version info, it will be super helpful when do the system settings. With both DC and POE power supply to provide the installation easier, when set the unit working as Encoder, it will can support 1 HDMI loop out with 3.5mm audio embedded and de-embedded, support 1*RS232, 1*RS485, 1*Relay, 1*I/O central control ports, also the Keyboard and mouse transmission.

This system supports Windows software, Android/iOS tablet APP and UDP commands control, also support the control UI customization. Support to work as matrix switcher switching, Video Wall Control, Distribution and multiview(up to 16-win per screen), support preview functions, support the RTSP IP camera decoding etc functions.

Using 1G network switch, multicast working mode, the input and output resolutions are up to 4K30, low latency and seamless switching between the sources. This system can be widely used inthe commercial, residential or governmental applications.

2. Product Features

- Transmitterand Receiver in one box, switchable by software
- Input and output resolutions are up to 4K30, distance up to 150m
- Support Matrix Switching, Video Wall, multiview and distributions
- Support preview, OSD, EDID management etc functions
- Support to open up to 16-window per screen, but no PIP and POP
- Support POE and DC both power supply
- Support the control UI customizing
- Support Windows software, APP control, no IP control box needed
- Support TCP/UDP control commands
- Support the central control interfaces(1*RS232, 1*RS485, 1*Relay, 1*I/O)
- Support the Keyboard and mouse transmission, audio in&out
- Support ONVIF and RTSP protocols
-

3. Technical Datasheet

Specification	
Video	HDMI1.4, HDCP1.4, resolution up to 4K30 in and out
Audio	3.5mm Line in/out, or HDMI audio
IP	Bandwidth up to 20Mbps
	Manually static IP address
	Protocol H.264/265

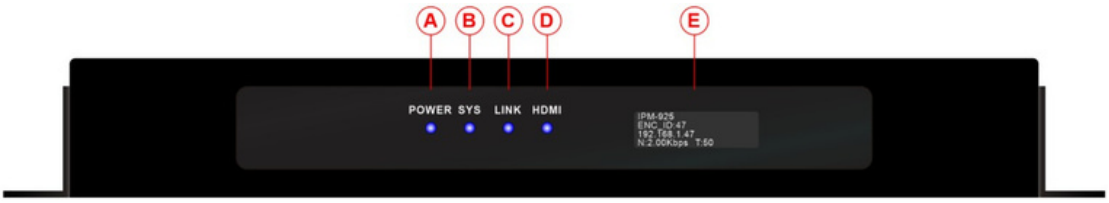
	Latency 80~120ms
Control	3rd Party Control by TCP/ UDP
	Windows PC software, Android/iOS APP
Product dimension	175*110.5*25 (L*W*H)(mm)
Temperature	-20℃~+60℃
Humidity	10-90%
Power	DC 12V 1A

4. Packing Details

Transmitter/Receiver.....1 unit
Power adapter .....1 pcs

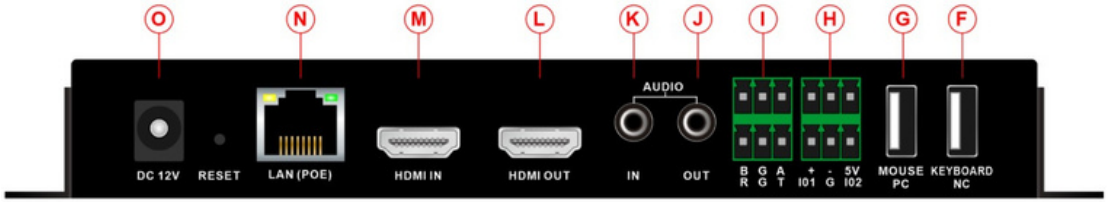
5. Panels

Front Panel



A/BC/D(Indicators)	**PWR**: power indicator **SYS:** System indicator **LINK:** LAN cable connection indicator **HDMI:** HDMI signal status
E	OLED Screen Showing the Model, ID, IP, status

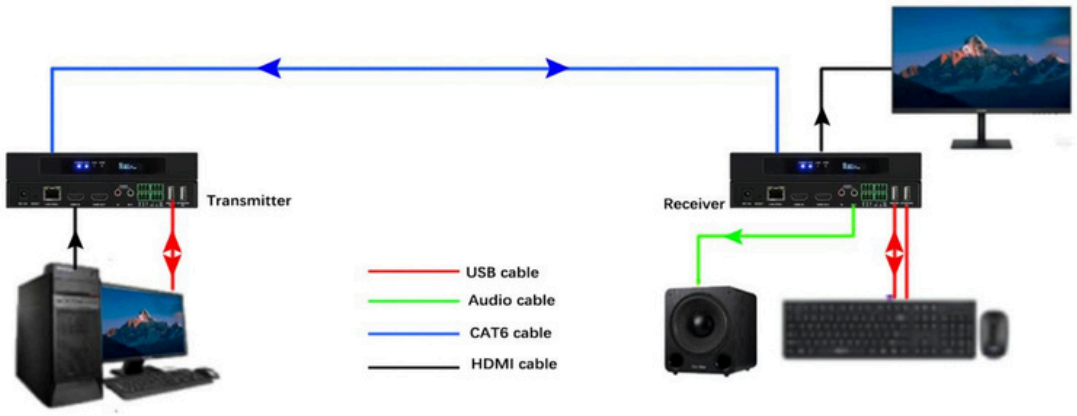
Rear Panel:



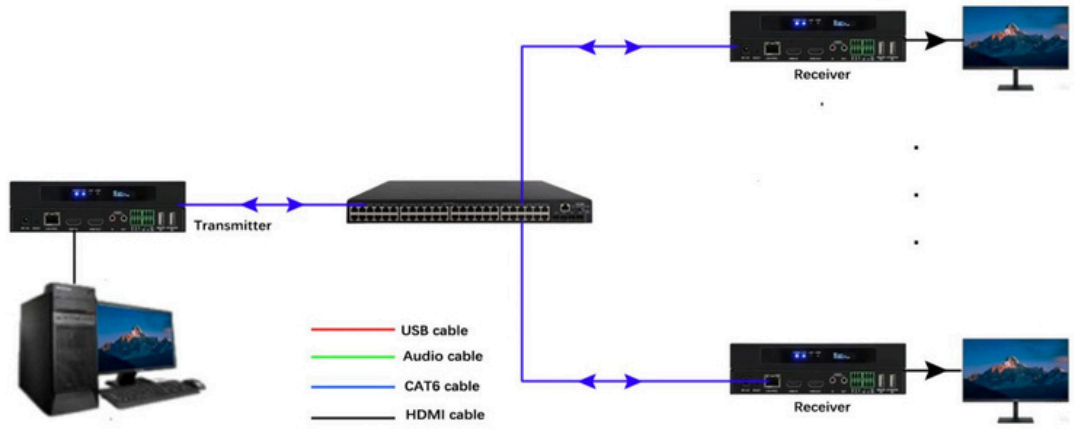
O	DC12V1.5A power supply
RESET	Press and hold for 5 seconds to factory reset
N(LAN POE)	RJ45 LAN port with standard POE
M(HDMI IN)	When it works as Transmitter, for HDMI input *When it works as Receiver, HDMI IN is not function
N(HDMI OUT)	When it works as Transmitter, for HDMI Loop out
K(AUDIO IN)	For the 3.5mm audio embedded in
J(AUDIO OUT)	For the 3.5mm audio de-embedded out
I/H(Control ports)	1*RS485(BGA)phoenix connector 1*RS232(RGT) phoenix connector 1*Replay(+ - 5v) phoenix connector 1* I/O(IO1, IO2)phoenix connector
G(MOUSE/PC)	When it's work as Transmitter, this port will connect to host When it's working as Receiver, it's for Mouse connection *When it's work as Transmitter, this port is not functional
F(Keyboard/NC)	When it's working as receiver, it will be for keyboard connection

6. Equipment Connection Diagram

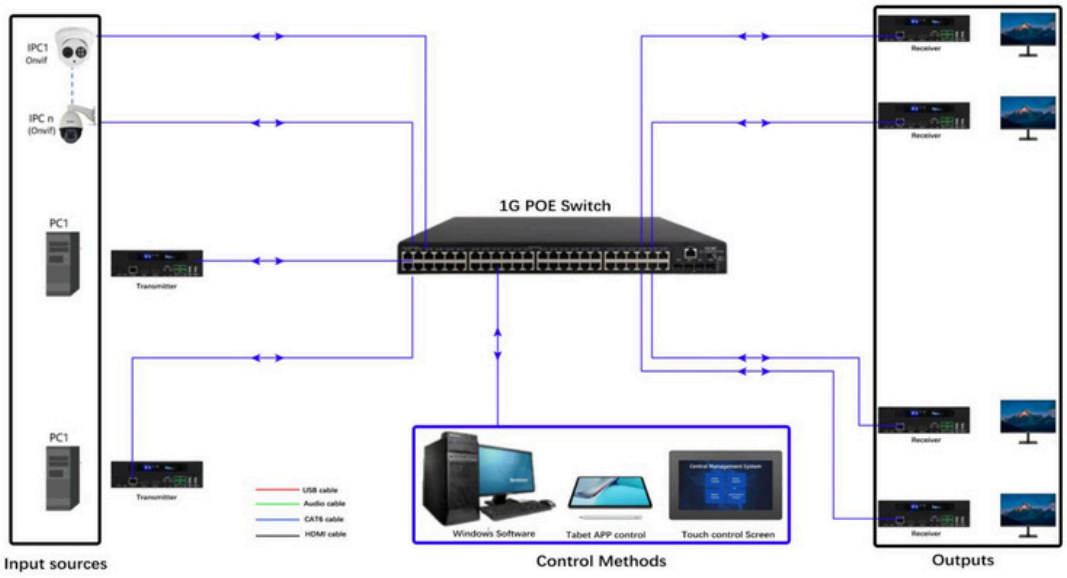
Working as Extender, one to one



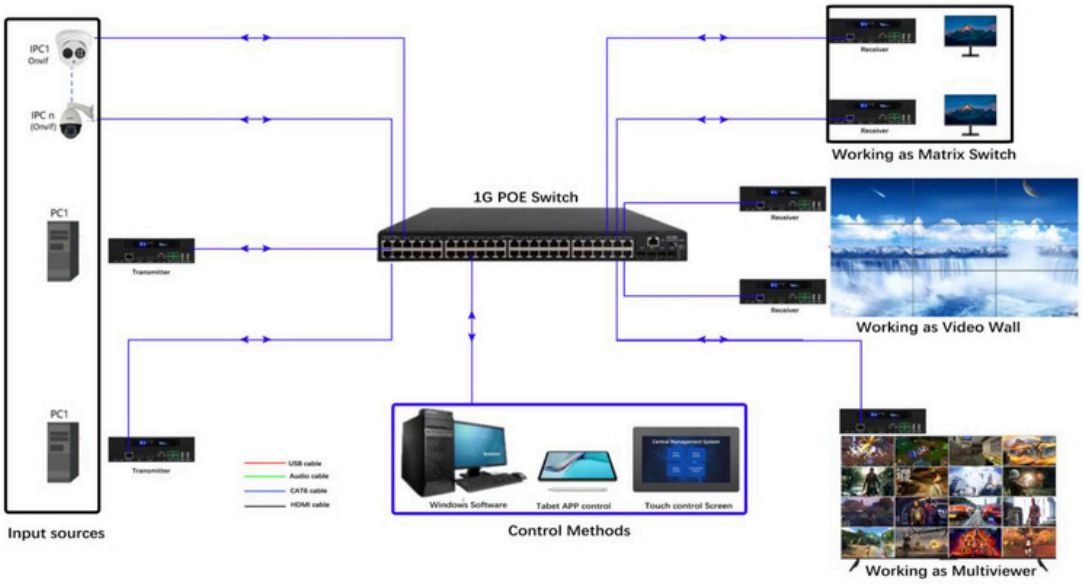
Working as Distribution, one to many



Working as Matrix Switcher, Many to Many



Working as Video Wall Processor and Multiviewer:

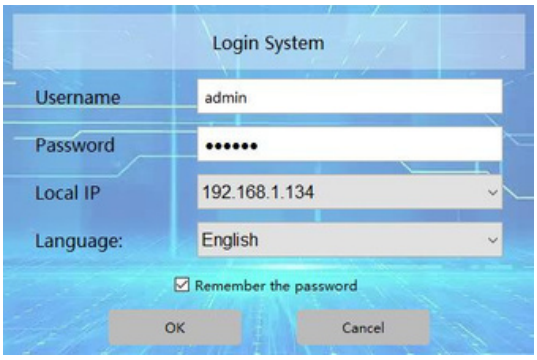


7. DVSTool PC control software

With the DVSTool control software, users can configure the devices ID, IP, Upgrade, video wall, matrix, OSD etc function.

8.1 DVSTool software login

The default user name is admin, password is 123456, local IP is the control PC IP address, then click to login:



After login the software, need to click the Setting icon on the righttop corner for the system setting first:



Then it will be showing the setting page with different setting tabs:



Device: for finding all the devices, adding, upgrade, reboot, etc

Source: after setting the device IP/ID/working type as encoders, then add them as sources

Output: after setting the device IP/ID/working type as decoders, then add them as outputs

Site: for creating the video wall, matrix etc

User: for adding different users with different level rights

I**PC:** for adding the IP cameras

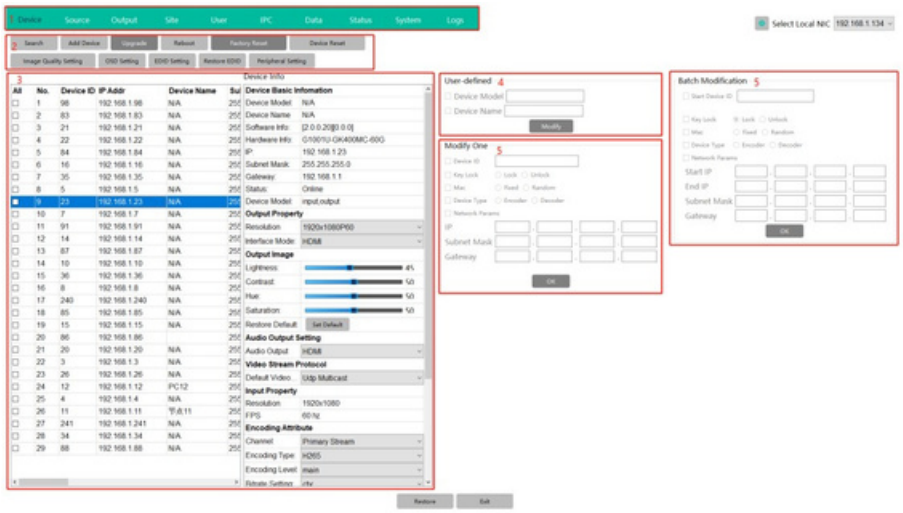
Data: for uploading the data/configuration to different control devices

Status: for the devices' working status checking/dispaly

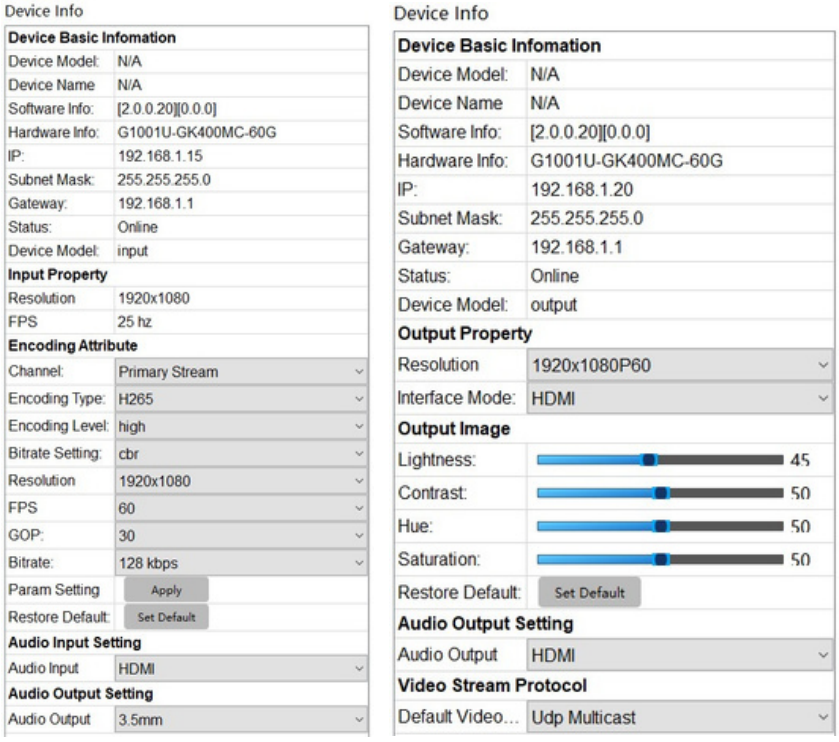
System: for the preview mode settings, etc

Logs: for the system operation logs records

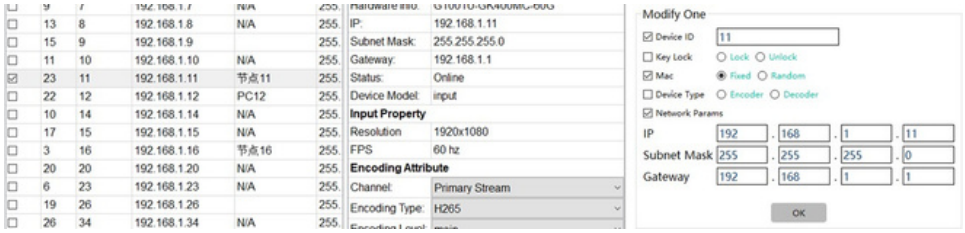
Device: for finding all the devices, adding, upgrade, reboot, etc



After selected a device, then users can do the setting for the devices accordingly,changethe name/ID/IP/work type(as encoder or decoder)/resolution/audio

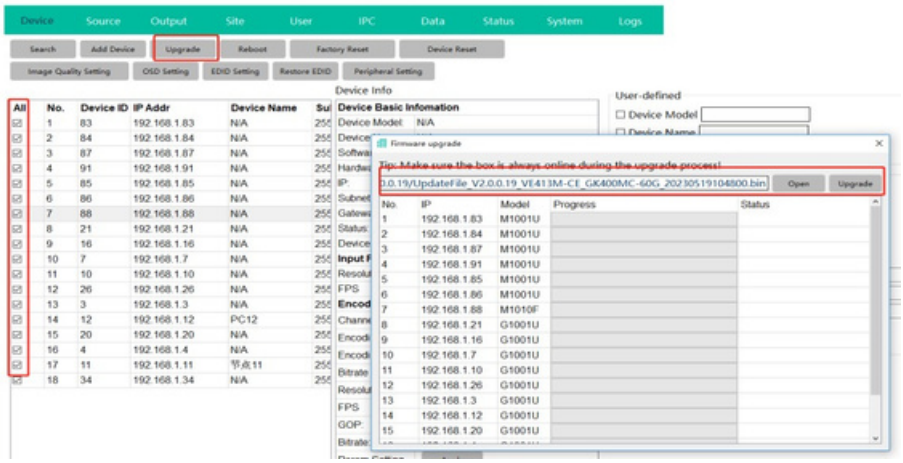


* When set the device Type and NetworkIPaddress can’t not at the same time, aswhen change device type and IP address both will autorestart the device.



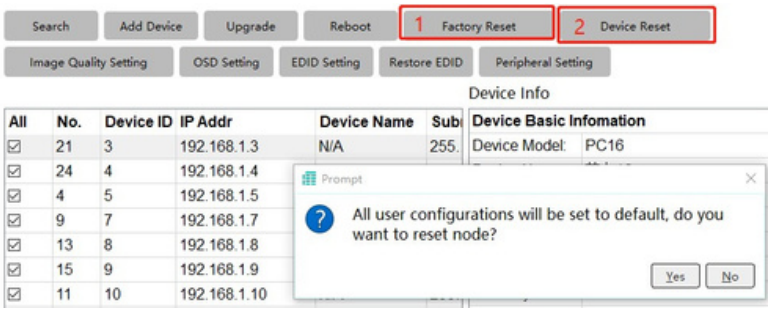
Upgrade the devices, can select all devices to upgrade at once:

*Note the M1001U and G1001U models can’t use the same firmware and upgrade, need to upgrade separately:

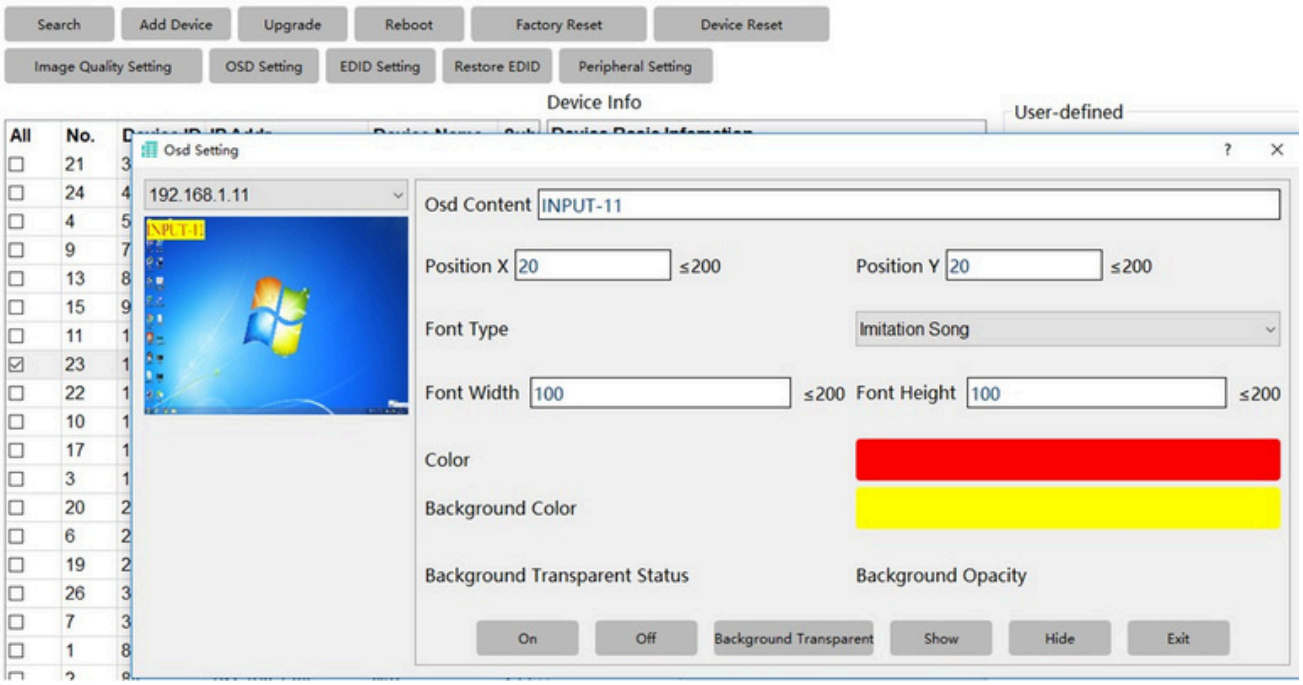


Factory reset:All the devices will be back to factory default sa ID and IP at192.168.5.50

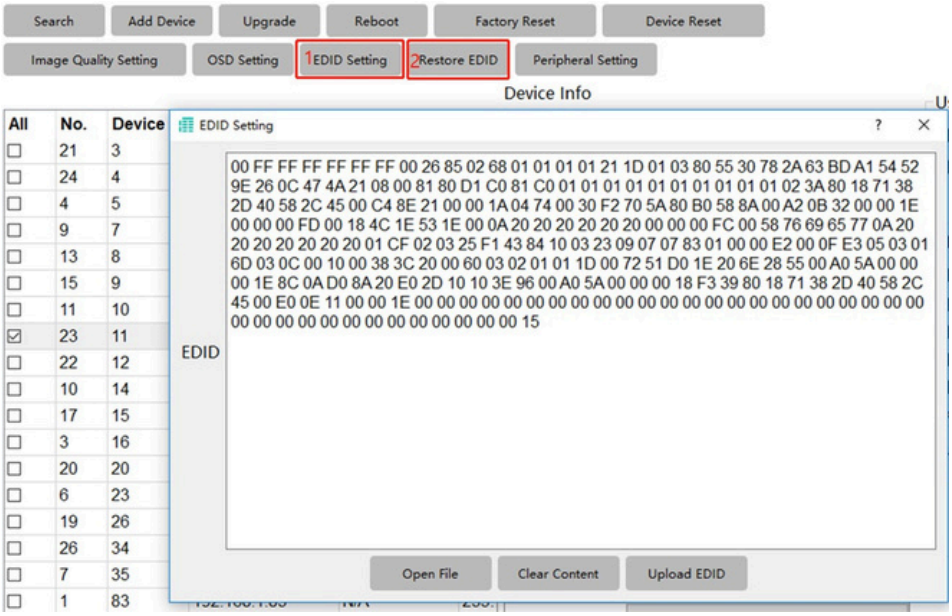
Device Reset: Clear the ID, MAC, device type and IP address



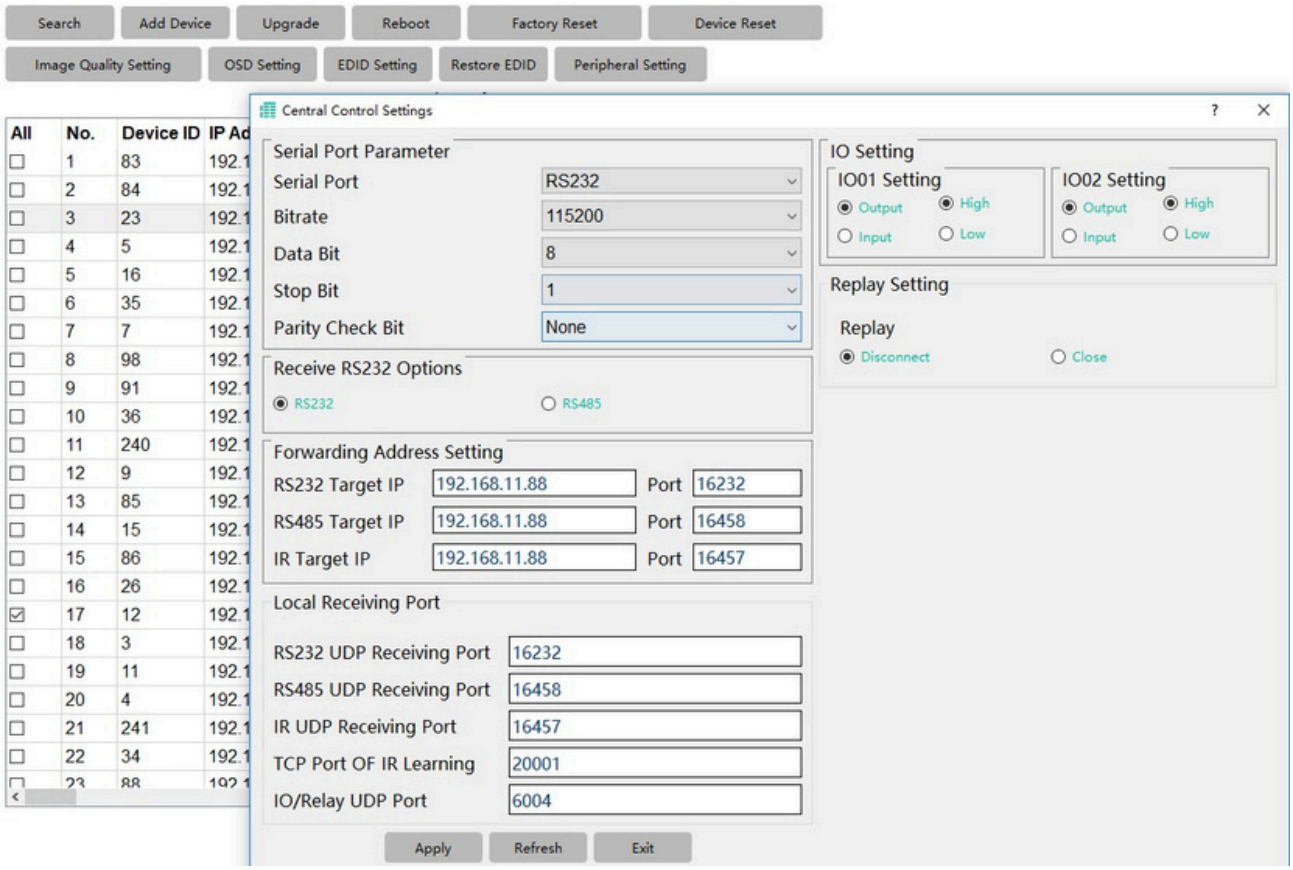
Once the device type set as Encoder, then it can support the OSD function:



EDID setting and restoreAdd by EDID file with bin format at HEX code or restore the EDID.



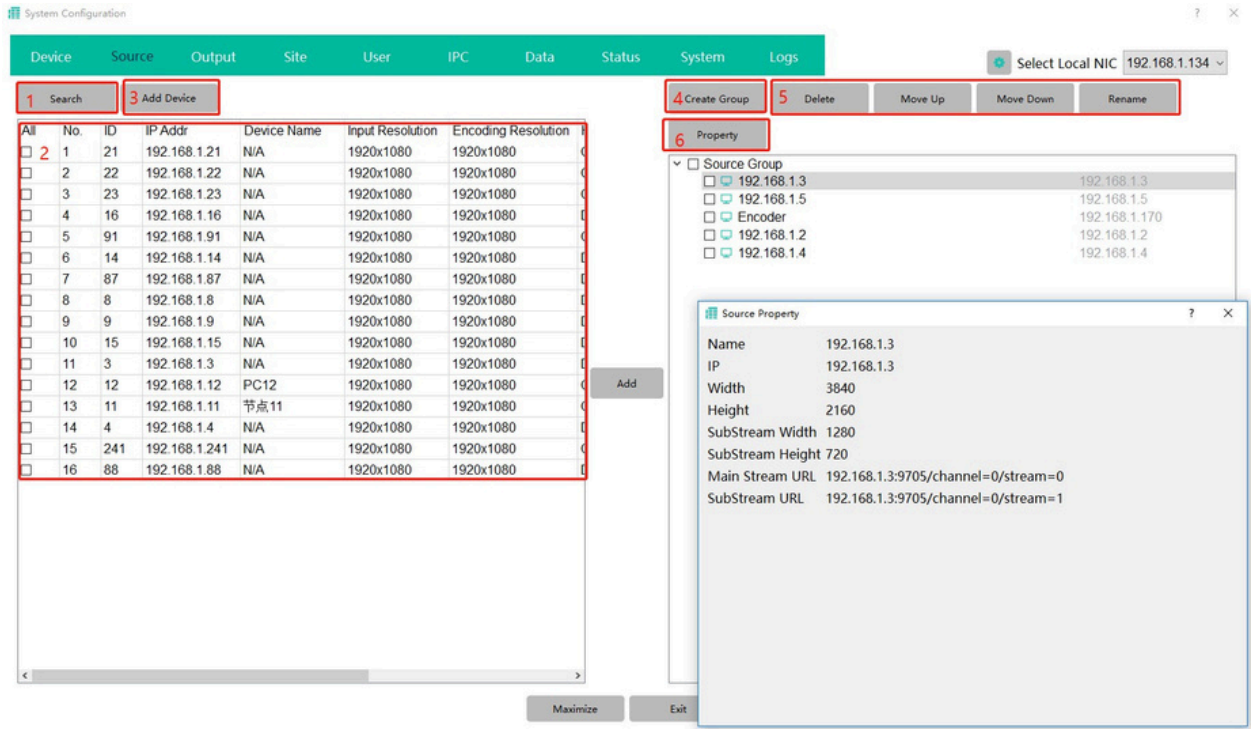
Peripheral setting is for the RS232/RS485/Relay/I/O those control ports



Source: after setting the device IP/ID/working type as encoders, then add them as sources:

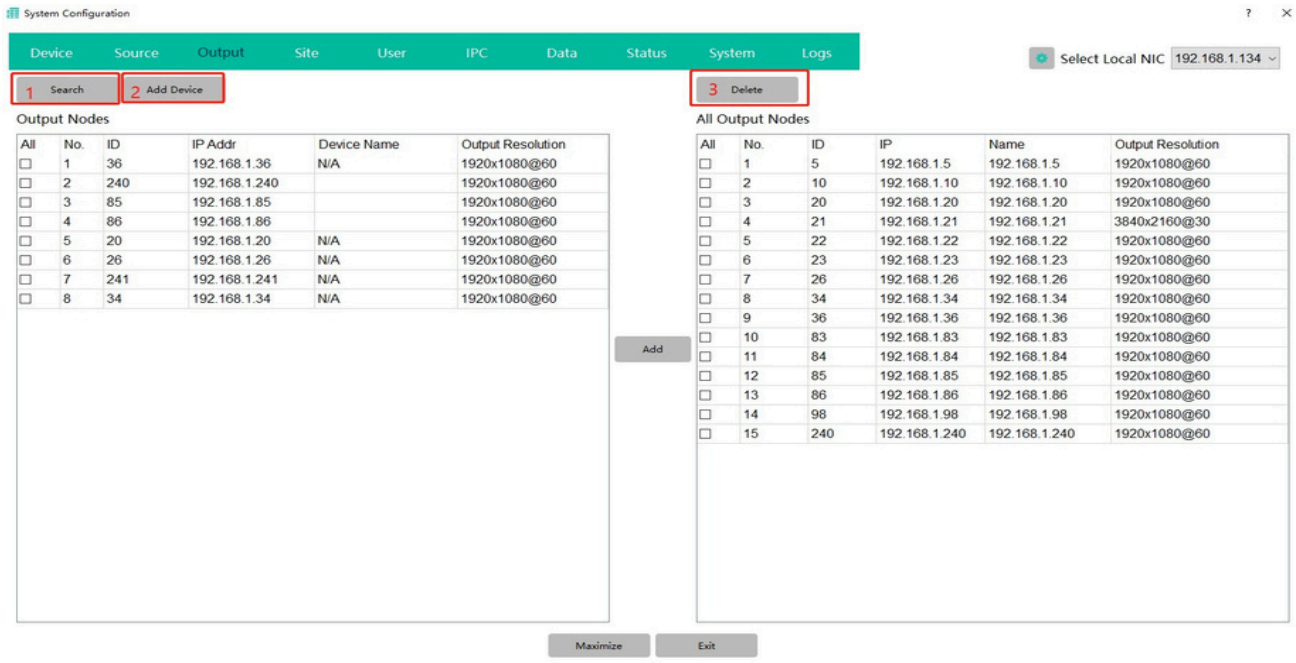
Select from the list, then choose the source group, and click add button to add.

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①Search to find all the same LAN devices
②Device list with details
③Add device manually when not finding the devices
④Create group is for having different source groups
⑤Sources management: select the sources to delete, adjust order etc
⑥Property is for check out the sources mainstream/substream, url address

Output: after setting the device IP/ID/working type as decoders, then add them as outputs
Search to find all decoder, then click add to the right side

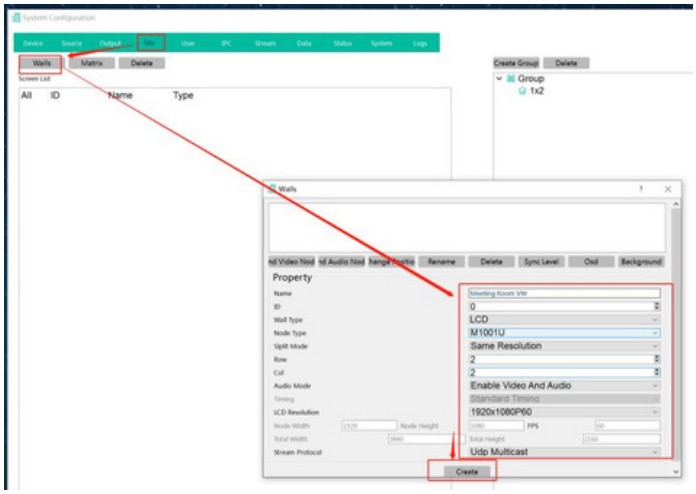


①Search to find all the decoders

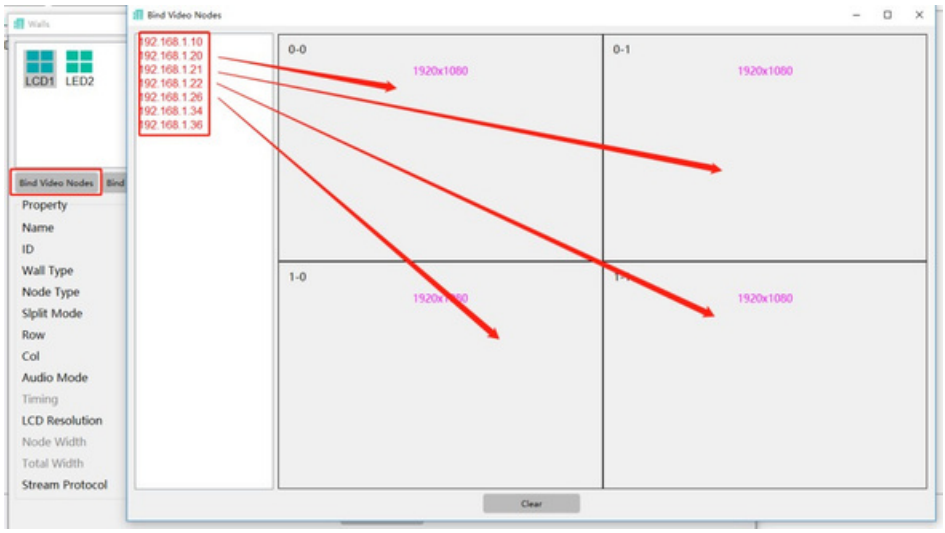
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②Add the decoder manually
③Delete the added decoders

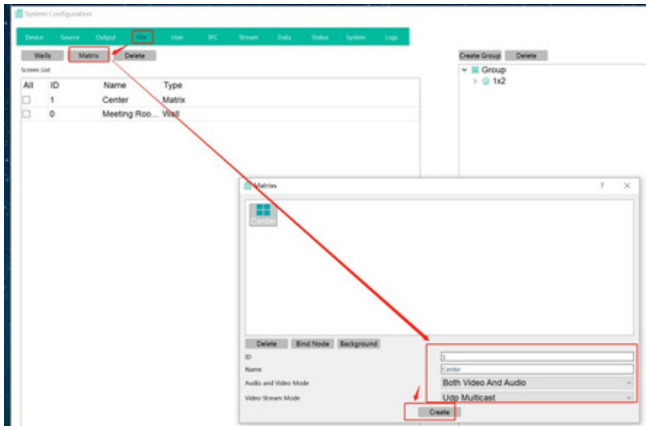
Site: for creating the video wall, matrix etc
To create a LCD video wall: site---walls--name---ID---Wall type(LCD/LED)---VW row/col----Create



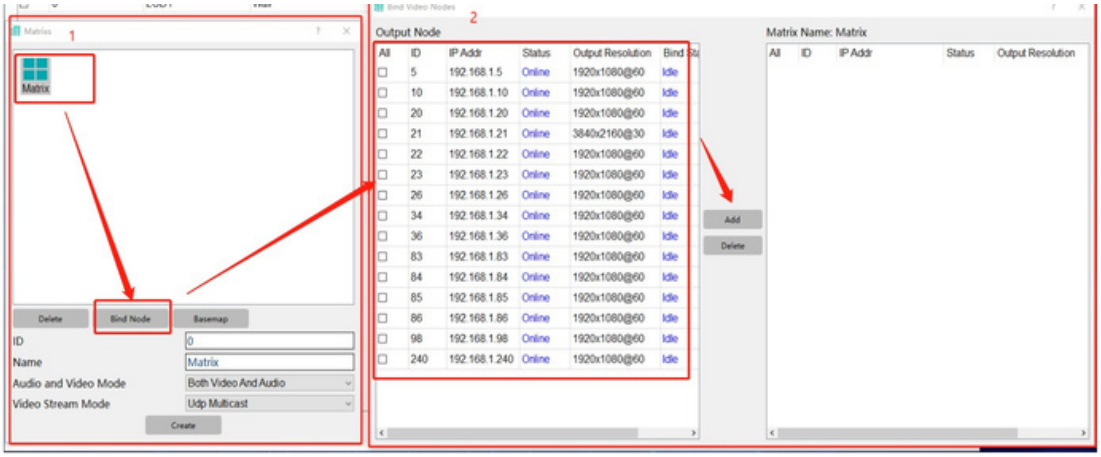
Next step will need to bind the Decoders with this new created VW: Drag the decoder IP address one by one to the video wall box on the right side:



To create Matrix: site---matrix--name---ID----Create



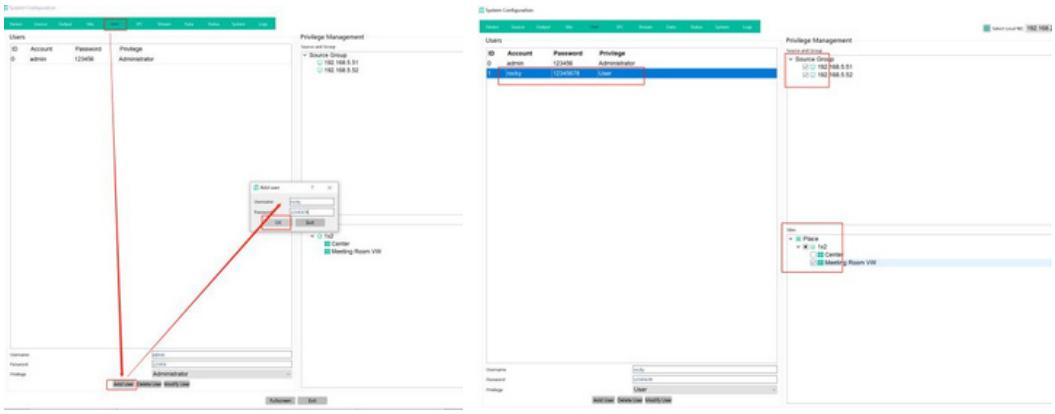
Then select the Matrix to bind the decoders



User: for adding different users with different level rights

Add user: User----Add user----name/password---OK

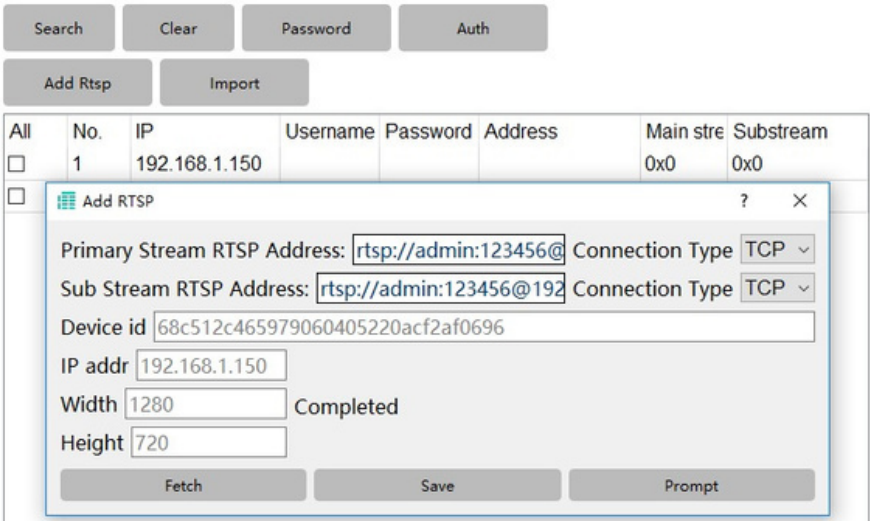
Give the user level right: double click the new added user, choose the source and site for this user.



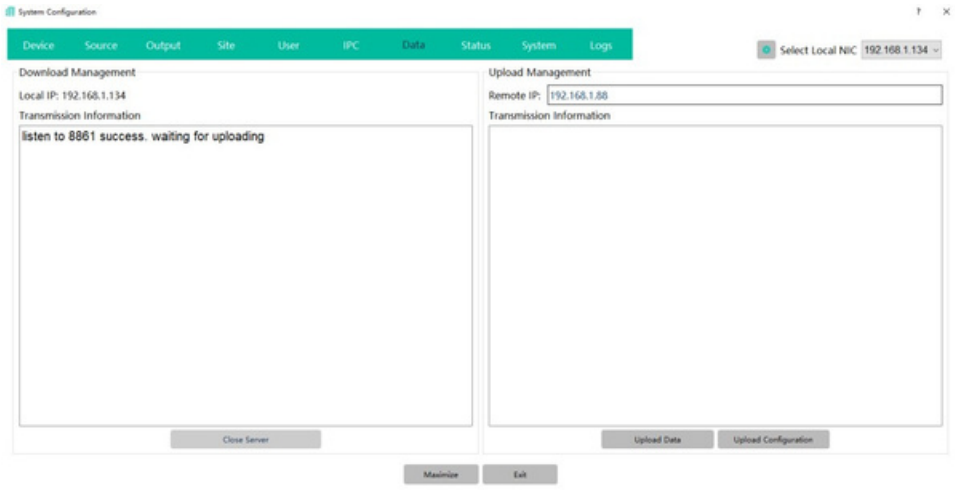
I**PC:** for adding the IP cameras

Click search to find all the same LAN IP cameras.

Use add RTSP mainstream to add



Data: for uploading the data/configuration to different control devices



①Open/closer Server is for the other control devices to send data to this control device, need to keep it as Open status for data downloading.

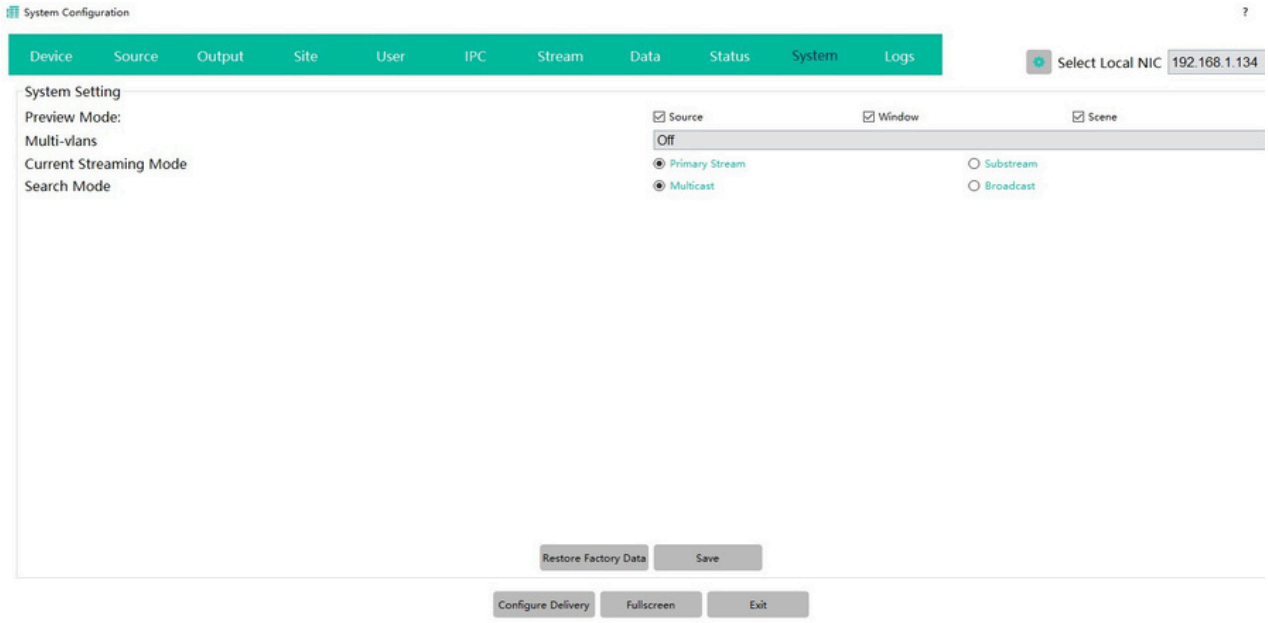
②Upload Data/configuration is for upload the current control PC to the other control devices, also need the other device is with Open server status.

Status: for the devices' working status checking/dispaly

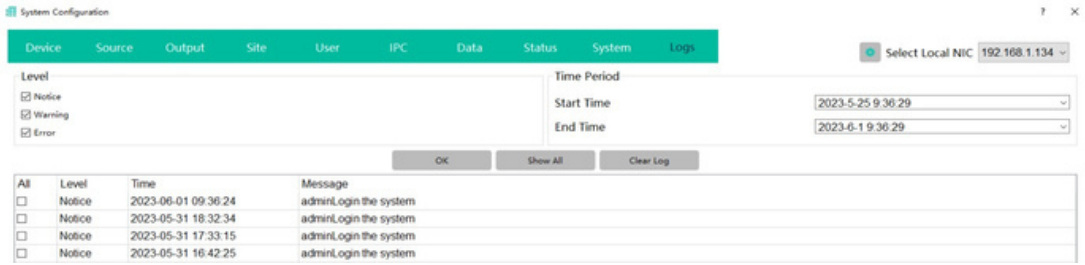


ID	IP	Device Name	Type	Status	Transmit	Receive	CPU	Memory
21	192.168.1.21	192.168.1.21	Input	Online	53.00 Kbps	2.54 Mbps	11.11%	total:243.99 MB, used:65.32 MB
22	192.168.1.22	192.168.1.22	Input	Online	53.00 Kbps	2.53 Mbps	7.40%	total:243.99 MB, used:65.87 MB
23	192.168.1.23	192.168.1.23	Input	Online	53.00 Kbps	2.46 Mbps	10.71%	total:243.99 MB, used:65.04 MB
16	192.168.1.16	192.168.1.16	Input	Online	0.00 Kbps	16.00 Kbps	8.23%	total:243.99 MB, used:61.54 MB
15	192.168.1.15	192.168.1.15	Input	Online	0.00 Kbps	15.00 Kbps	3.90%	total:243.99 MB, used:62.01 MB
3	192.168.1.3	192.168.1.3	Input	Online	0.00 Kbps	15.00 Kbps	3.94%	total:243.99 MB, used:62.13 MB
11	192.168.1.11	节点11	Input	Online	0.00 Kbps	15.00 Kbps	6.56%	total:243.99 MB, used:51.09 MB
12	192.168.1.12	PC12	Input	Online	252.00 Kbps	23.00 Kbps	8.12%	total:243.99 MB, used:62.25 MB
10	192.168.1.10	192.168.1.10	Output	Online	0.00 Kbps	15.00 Kbps	1.49%	total:243.99 MB, used:47.12 MB
20	192.168.1.20	192.168.1.20	Output	Online	100.00 Kbps	2.48 Mbps	7.40%	total:243.99 MB, used:50.70 MB
21	192.168.1.21	192.168.1.21	Output	Offline	0	0	0	0
22	192.168.1.22	192.168.1.22	Output	Offline	0	0	0	0
26	192.168.1.26	192.168.1.26	Output	Online	46.00 Kbps	16.00 Kbps	1.68%	total:243.99 MB, used:47.70 MB
34	192.168.1.34	192.168.1.34	Output	Online	0.00 Kbps	15.00 Kbps	1.45%	total:243.99 MB, used:47.39 MB
36	192.168.1.36	192.168.1.36	Output	Online	0.00 Kbps	15.00 Kbps	1.27%	total:243.99 MB, used:47.18 MB
83	192.168.1.83	192.168.1.83	Output	Online	0.00 Kbps	50.00 Kbps	8.00%	total:256.44 MB, used:39.11 MB
84	192.168.1.84	192.168.1.84	Output	Online	0.00 Kbps	50.00 Kbps	6.34%	total:256.44 MB, used:38.84 MB
86	192.168.1.86	192.168.1.86	Output	Online	46.00 Kbps	5.00 Kbps	1.03%	total:256.44 MB, used:39.03 MB
91	192.168.1.91	192.168.1.91	Output	Online	126.00 Kbps	7.00 Kbps	22.44%	total:256.44 MB, used:55.31 MB
98	192.168.1.98	192.168.1.98	Output	Online	41.00 Kbps	1.73 Mbps	7.37%	total:70.86 MB, used:24.56 MB

System: for the preview mode settings, etc

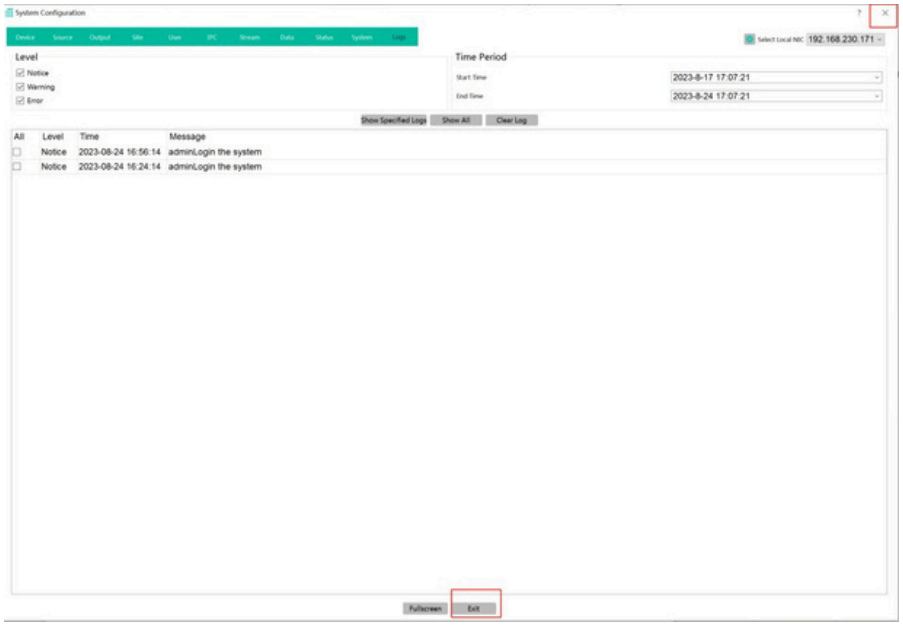


Logs: for the system operation logs records

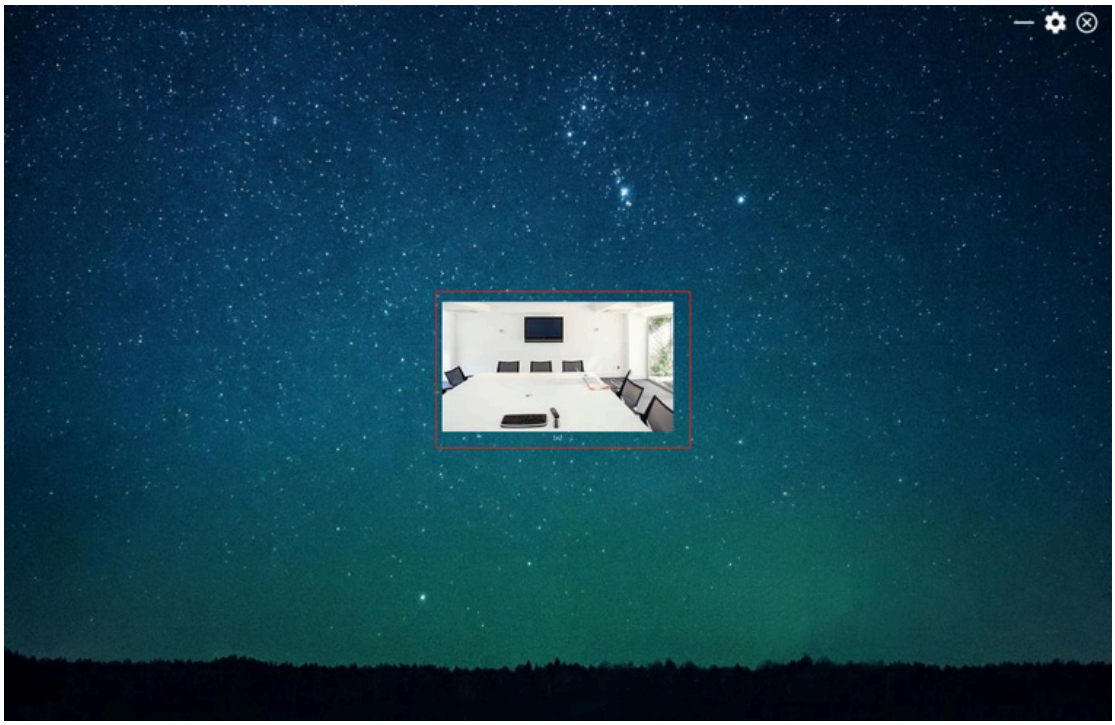


After the system configuration settings, then can exit/close this setting page:

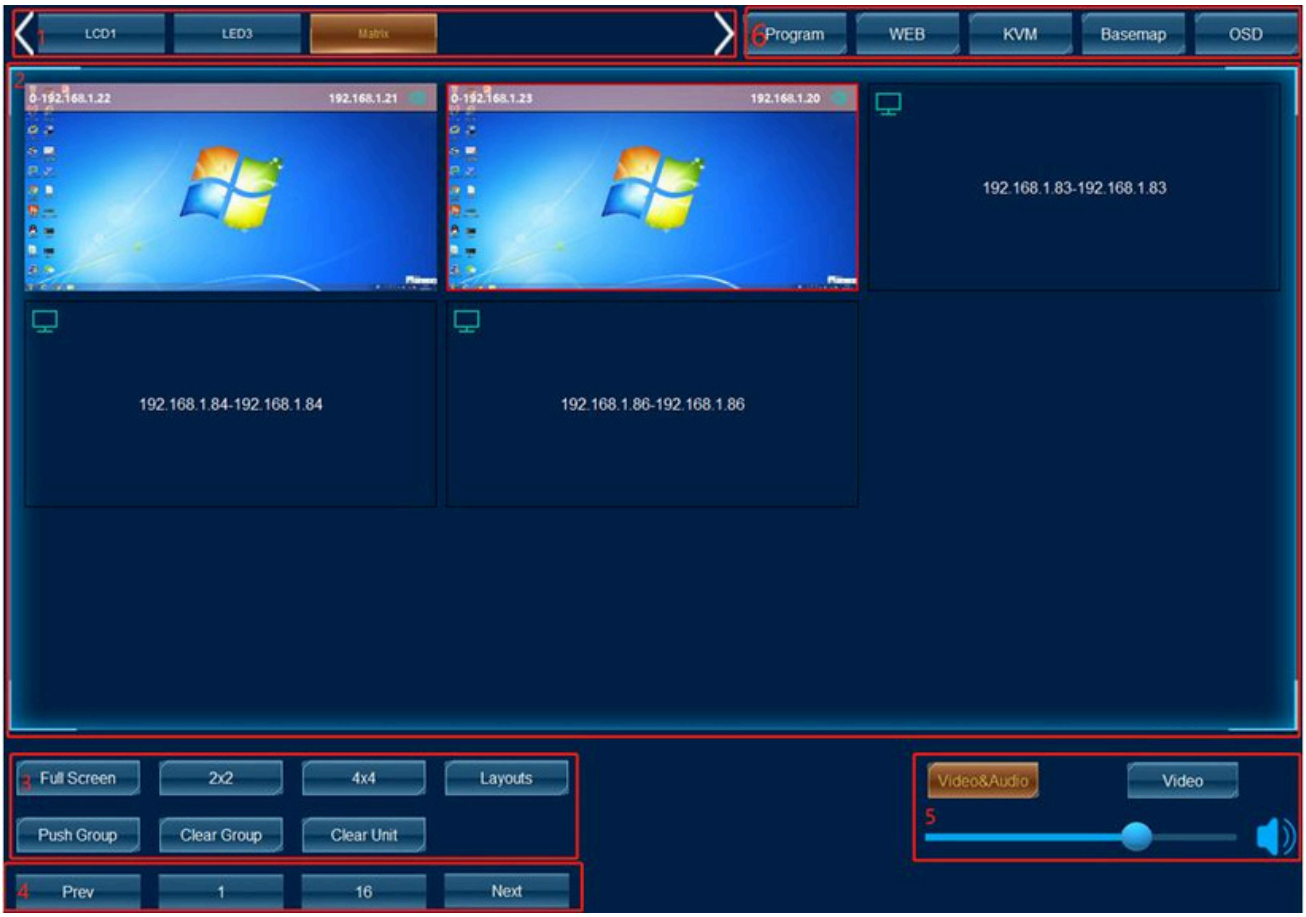
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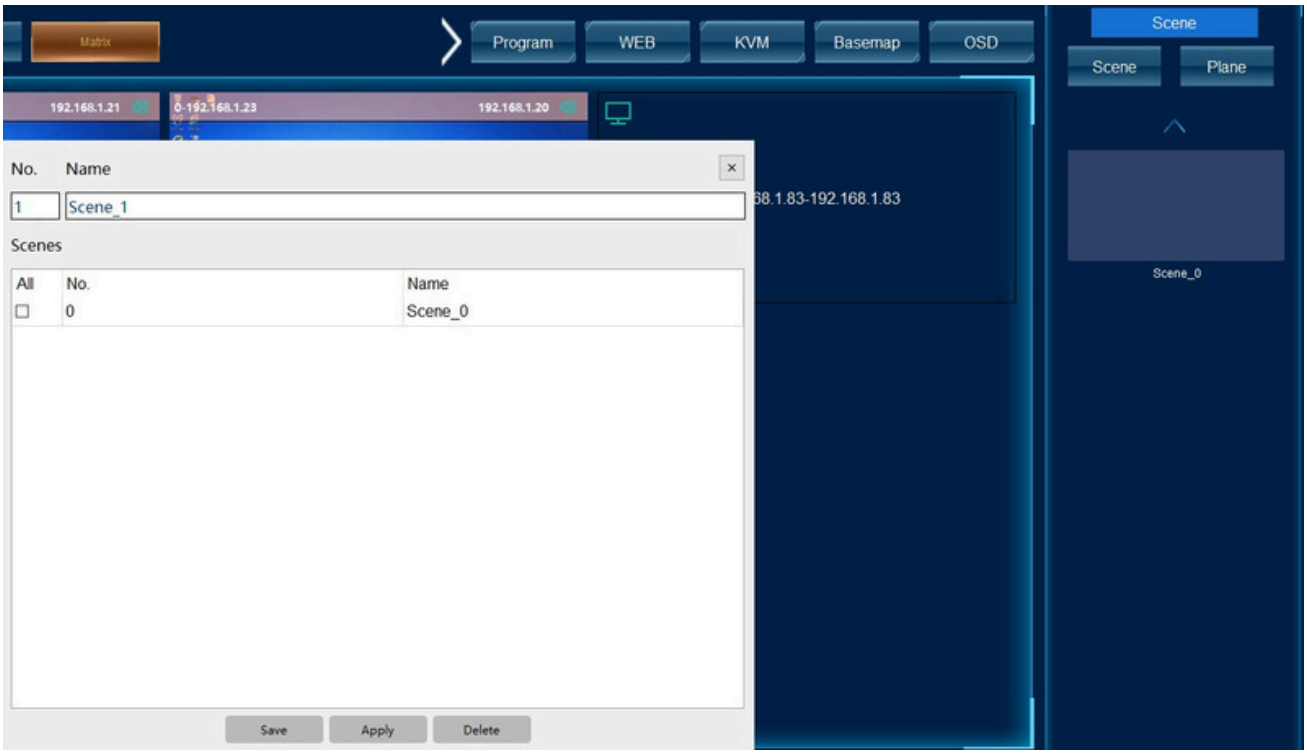


Then can click the site to start control the Video wall or matrix:

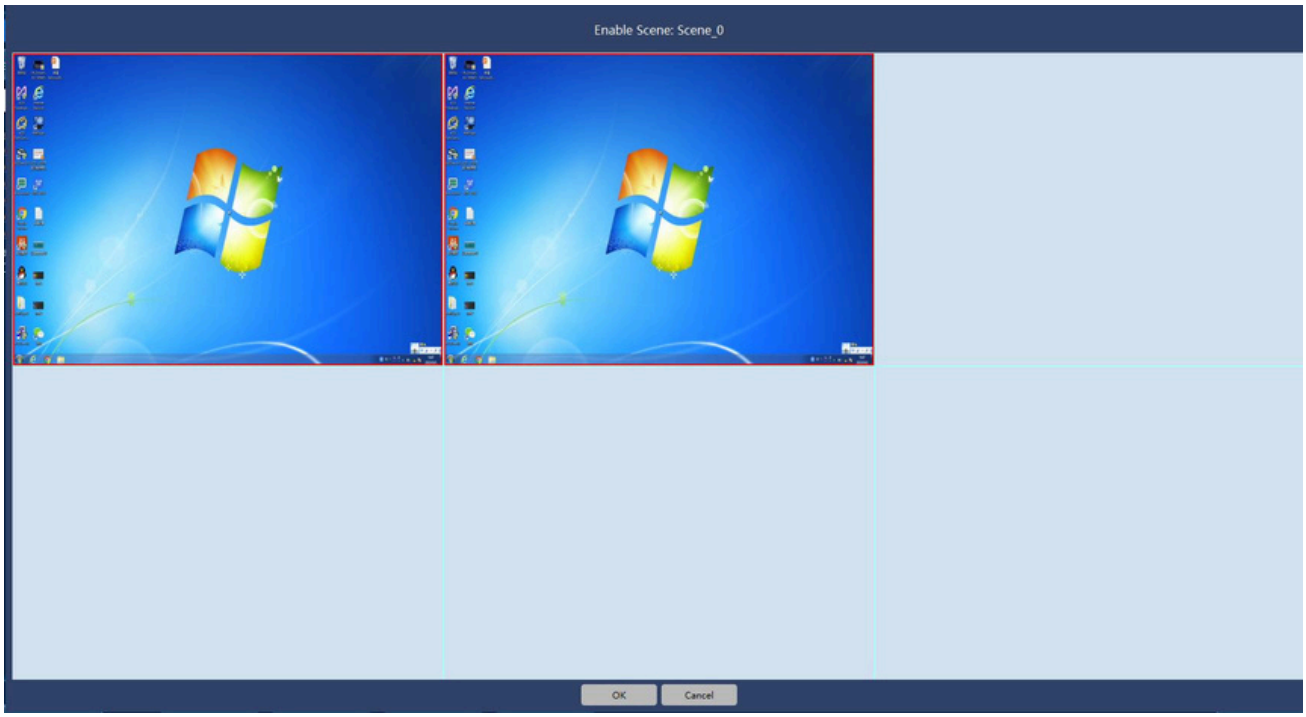


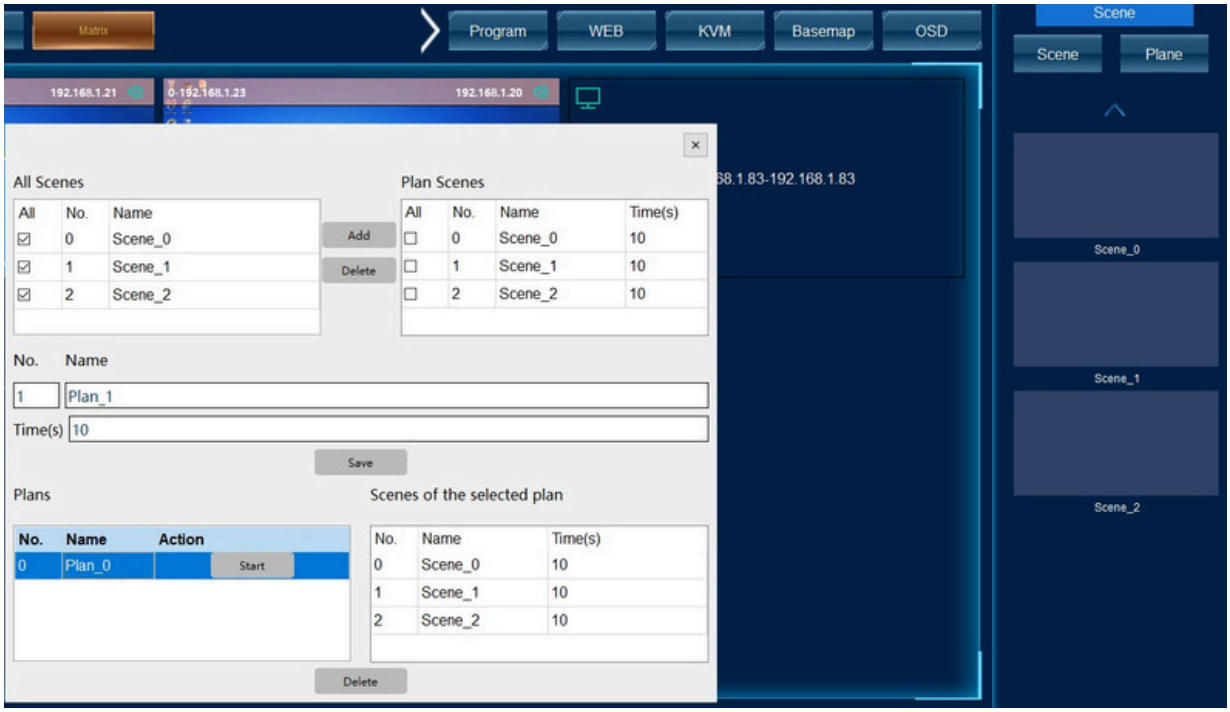
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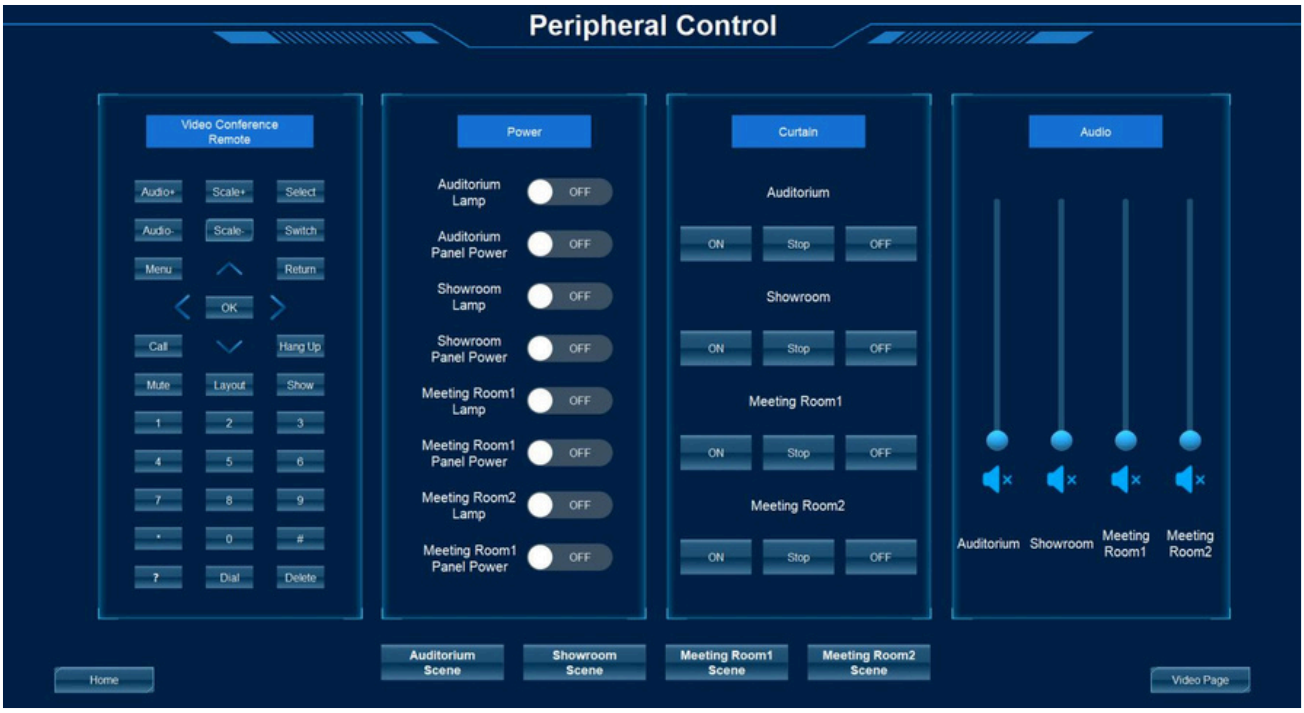




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8. After Sales

8.1Warranty Information

The Company warrants that the process and materials of the product are not defective under normal use and service for 2 (2) year following the date of purchase from the Company or its authorized distributors.

If the product does not work within the guaranteed warranty period, the company will choose and pay for the repair of the defective product or component, the delivery of the equivalent product or component to the user for replacement of the defective item, or refund the payment which users have made.

The replaced product will become the property of the Company.

The replacement product could be new or repaired.

Whichever is longer, any replacement or repaired of the product or component is for a period of ninety (90) days or the remaining period of the initial warranty. The Company shall not be responsible for any software, firmware, information, or memory data contained in, stored in, or integrated with the product repaired by the customer's return, whether or not during the warranty period.

8.2 Warranty limitations and exceptions

Except above limited warranty, if the product is damaged by over usage, incorrectly use, ignore, accident, unusual physical pressure or voltage, unauthorized modification, alteration or services rendered by someone other than the Company or its authorized agent, the company will not have to bear additional obligations. Except using the product properly in the proper application or normal usage