

Video Matrix Platform

Quick Start Guide

V1.0.0

Overview

This document mainly introduces hardware and quick configuration operation of Video Matrix Platform.

Applicable Model

Video Matrix Platform-4U

Symbol Definition

The following symbols may appear in the document. Please refer to the table below for the respective definition.

Symbol	Note
 Danger	It means highly potential danger. It will cause severe injury or casualties if it fails to avoid.
 Warning	It means moderate or low potential danger. It may cause slight or moderate injury if it fails to avoid.
 Caution	It means potential risk. It may cause device damage, data loss, weaker performance or other unpredictable consequences if it fails to avoid.
 Anti-static	It means electrostatic-sensitive device.
 Protection against electric shock	It means high-voltage danger.
 Laser radiation	It means intensive laser radiation.
 Tip	It means that it can help you to solve some problems or save your time.
 Note	It means the additional information, which is the emphasis and supplement of the main body.

Important Safeguards and Warnings

The following description is the correct application method of the device. Please read the manual carefully before use, in order to prevent danger and property loss. Strictly conform to the manual during application and keep it properly after reading.

Operating Requirement

- Please don't place and install the device in an area exposed to direct sunlight or near heat generating device.
- Please don't install the device in a humid, dusty or fuliginous area.
- Please keep its horizontal installation, or install it at stable places, and prevent it from falling.
- Please don't drip or splash liquids onto the device; don't put on the device anything filled with liquids, in order to prevent liquids from flowing into the device.
- Please install the device at well-ventilated places; don't block its ventilation opening.
- Use the device only within rated input and output range.
- Please don't dismantle the device arbitrarily.
- Please transport, use and store the device within allowed humidity and temperature range.

Power Requirement

- Please make sure to use batteries according to requirements; otherwise, it may result in fire, explosion or burning risks of batteries!
- To replace batteries, only the same type of batteries can be used!
- The product shall use electric wires (power wires) recommended by this area, which shall be used within its rated specification!
- Please make sure to use standard power adapter matched with this device. Otherwise, the user shall undertake resulting personnel injuries or device damages.
- Please use power supply that meets SELV (safety extra low voltage) requirements, and supply power with rated voltage that conforms to Limited Power Source in IEC60950-1. For specific power supply requirements, please refer to device labels.
- Products with category I structure shall be connected to grid power output socket, which is equipped with protective grounding.
- Appliance coupler is a disconnecting device. During normal use, please keep an angle that facilitates operation.

About this Document

- This document is for reference only. Please refer to the actual product for more details.
- This document serves as a reference for multiple types of products, whose specific operations won't be enumerated. Please operate according to actual products.
- The user shall undertake any losses resulting from violation of guidance in the document.
- In case that PDF document cannot be opened, please upgrade the reading tool to the latest

version or use other mainstream reading tools.

- Other trademarks or company names mentioned in this document belong to respective owners.
- This company reserves rights to revise any information in the document anytime; and the revised contents will be added to the new version without prior announcement. Some functions of the products may be slightly different before and after revision.
- The document may include technically inaccurate contents, inconsistencies with product functions and operations, or misprint. Final explanations of the company shall prevail.

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1 Device Installation



Caution

For detailed requirements during installation of Video Matrix Platform, please refer to relevant state standards about engineering construction.

1.1 Inspection Steps

When receiving Video Matrix Platform, please inspect it according to the following steps.

Step 1 Inspect whether there are obvious damages on the appearance.

Protective packing materials shall be able to endure most accidental impacts during transportation.

Step 2 Please open outer packing box to inspect whether accessories are complete by reference to the accessory package. After ensuring that they are correct, remove protective film from the device.

Step 3 Please open the case to inspect whether data cable, power cable, mainboard and interface board of front panel have loosened; inspect whether main control panel, control panel and function card in the case are inserted tightly.

One label at the side of the case owns serial number and other information of the device, which shall be provided when dialing after-sales calls. This label shall be protected well, and shall not be torn or discarded; otherwise, we may not be able to provide effective service.

1.2 Introduction to Complete Device

1.2.1 Introduction to Front Side

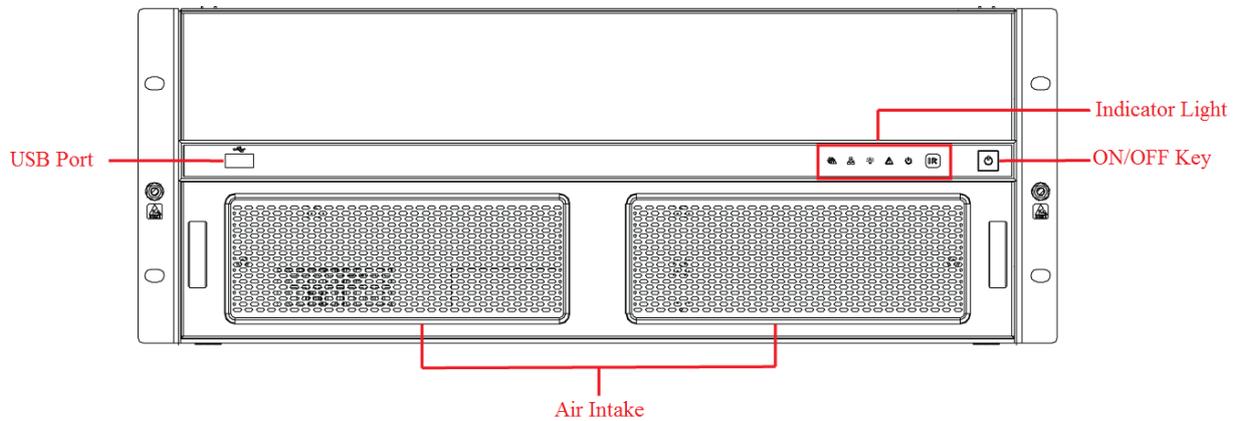


Figure 1-1

1.2.2 Introduction to Reverse Side

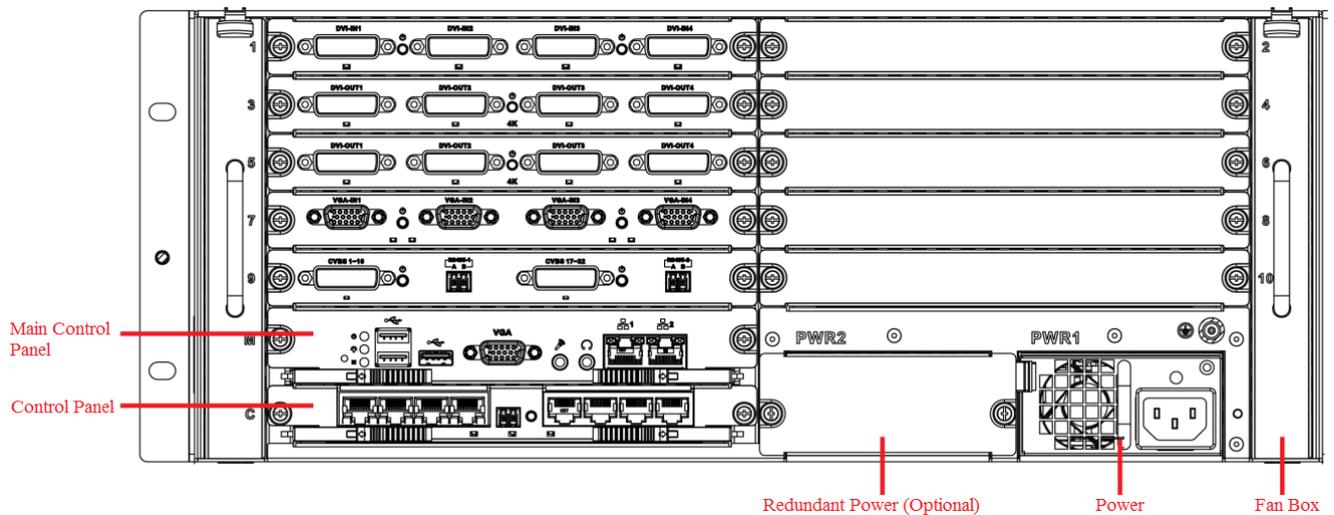


Figure 1-2

1.2.2.1 Main Control Panel

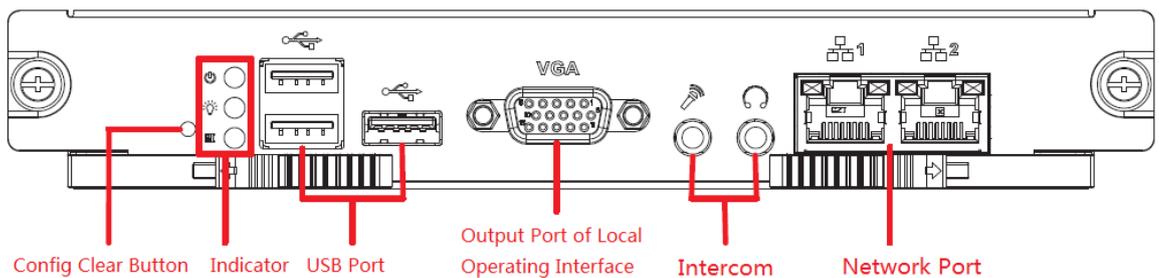


Figure 1-3

1.2.2.2 Control Panel

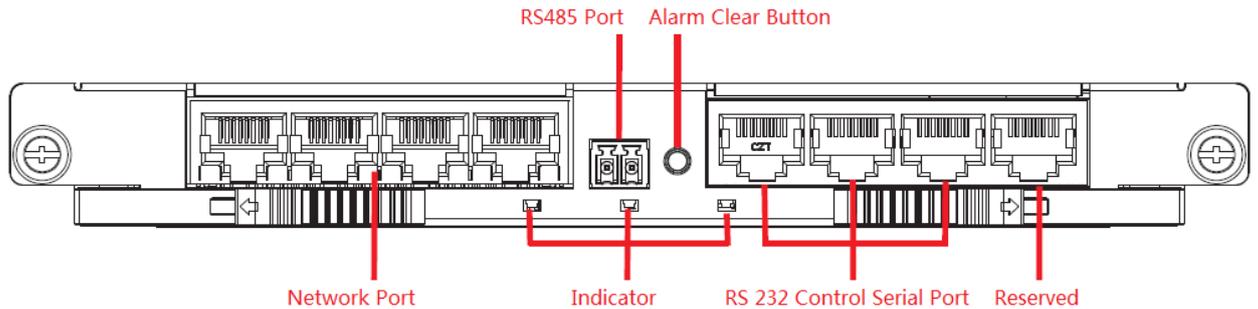


Figure 1-4

1.3 Preparation of Installation Environment

As a system-level surveillance device, Video Matrix Platform is usually used in central machine room of surveillance system. Its installation site shall meet national and local machine room construction standards.

Video Matrix Platform is a standard rack-mounted device fixed in a cabinet. Please pay attention to the following points during installation and use:

- Ensure that the cabinet is sufficiently firm to support Video Matrix Platform and accessories. During installation, avoid dangers resulting from uneven mechanical load.
- Ensure that A/V cable owns sufficient installation space. Bending radius of cables shall not be less than 5 times as many as their outer diameter.
- Ensure well ventilation. It is suggested that its installation position shall be more than 50cm above the ground.

Power Supply Requirement

Rated voltage range: AC 100V-AC 120V, AC 200V-AC 240V, 50Hz/60Hz.

Anti-interference Requirement

- On-site power supply system shall take effective anti-interference measures.
- Working ground shall not be shared with electrical ground wire or lightning protection device, and shall keep away from them as far as possible.
- Keep away from high-power radio transmitting stations, radars and high-frequency heavy-current devices.
- When necessary, adopt electromagnetic shielding methods to resist interference.

Environmental Requirement

- Ensure that temperature in the cabinet is 0°C~50°C.
- Ensure that humidity in the machine room is 10%RH~90%RH.
- Ensure air ventilation required by safe operation of the device.

1.4 Installation Steps

Step 1 Remove interface sheath on rear panel of the case, as shown in Figure 1-5.

 Note

Please remove the black interface sheath before inserting Function Card.

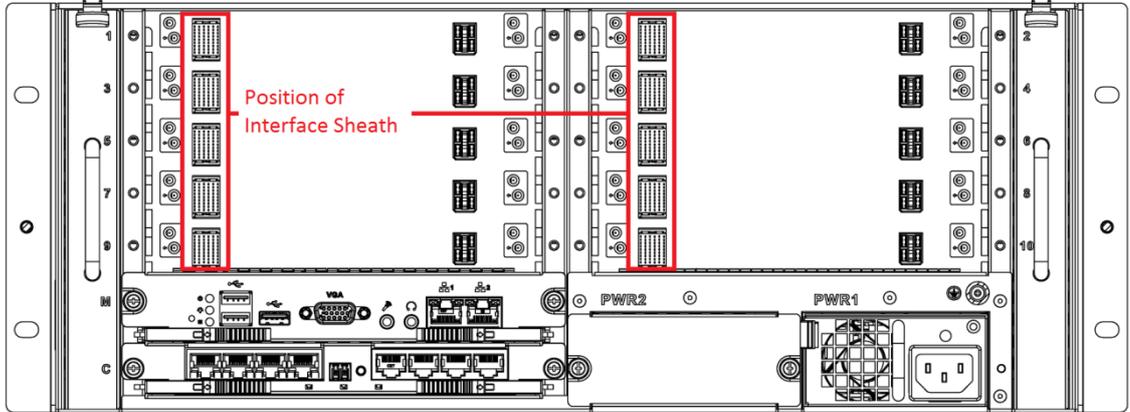


Figure 1-5

Step 2 Insert main control panel and control panel into slots of the case according to Figure 1-6, and tighten screws.

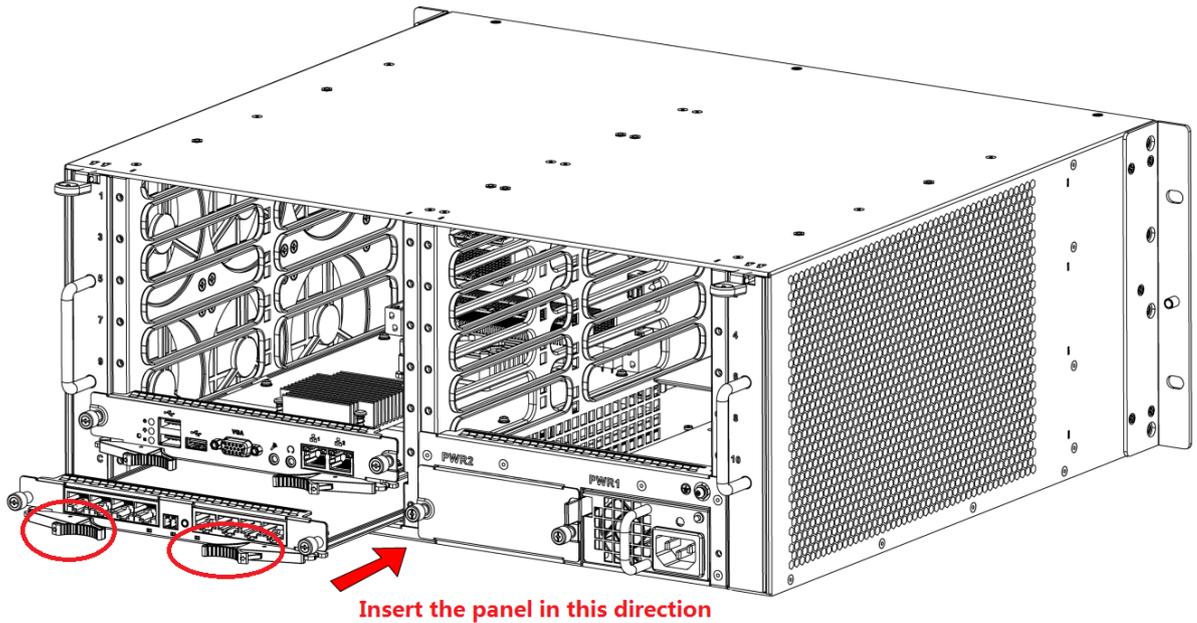


Figure 1-6

 Note

When inserting main control panel and control panel, pull the extraction tool (circle position), and then insert the panel in place by pushing the extraction tool inward.

Step 3 Insert Functional Card according to actual needs. Its installation mode is the same as that of main control panel and control panel.

Step 4 Insert left and right fan boxes into corresponding positions, until the top snap joint is fixed, as shown in Figure 1-7.

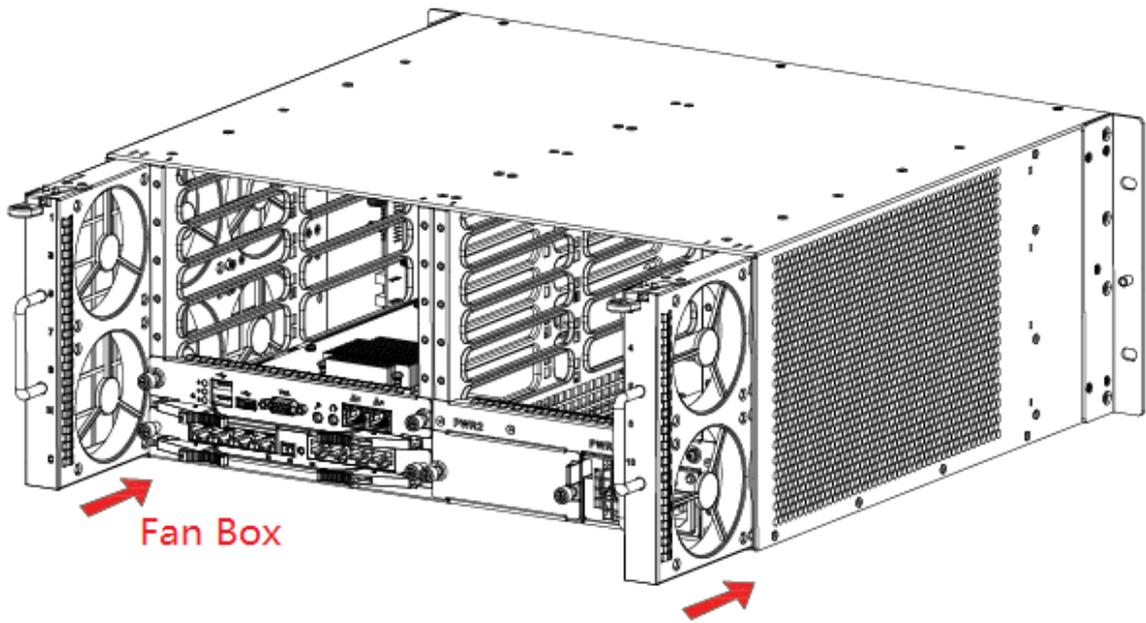


Figure 1-7

Step 5 Insert power supply and fix it, as shown in Figure 1-8.

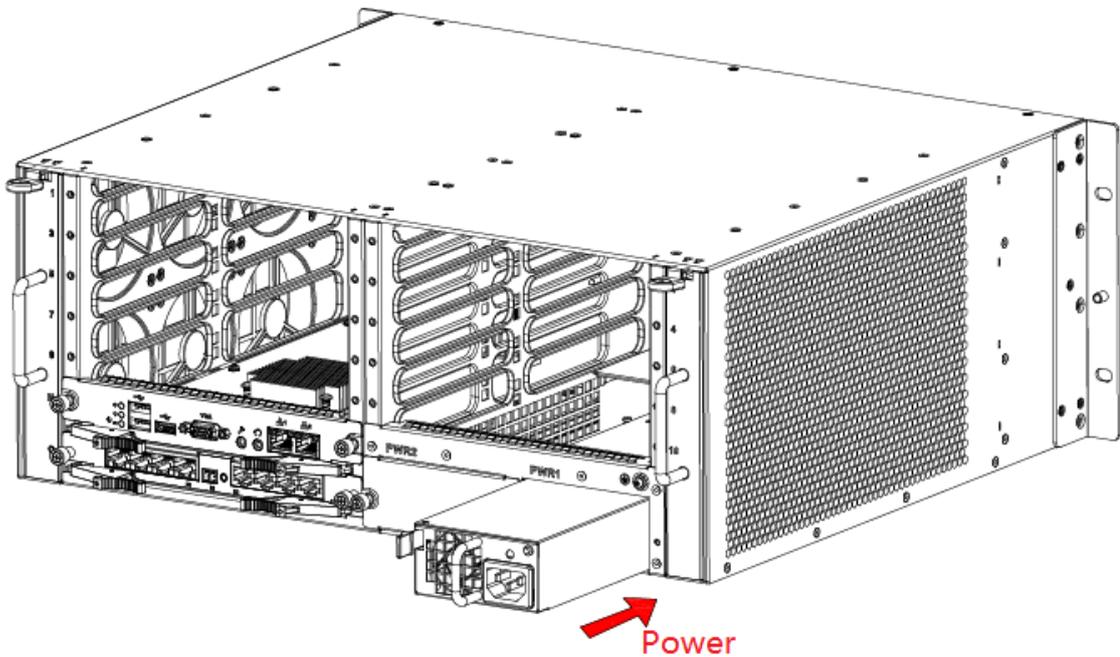


Figure 1-8

Step 6 Connect network interface 2 of main control panel and network interface of control panel with a gigabit network cable; connect network interface 1 of main control panel and client network, as shown in Figure 1-9.

 Note

To guarantee normal use, ensure that network interface 2 of main control panel and any network interface of control panel are connected with a gigabit network cable.

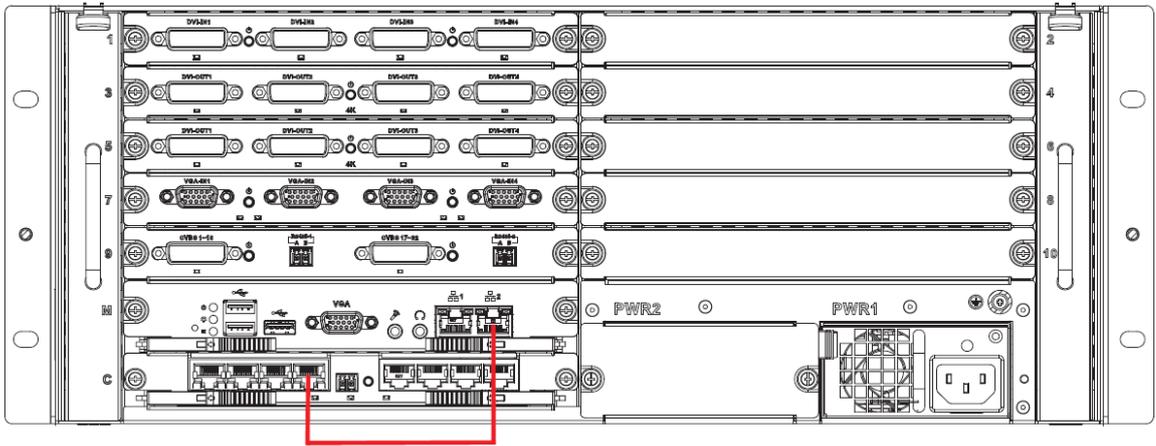


Figure 1-9

Step 7 Ground terminal of Video Matrix Platform shall realize reliable grounding, as shown in Figure 1-10.



Caution

To guarantee personal safety and device safety, Video Matrix Platform and those devices (such as video wall and PC) connected with the platform with cables shall be grounded.

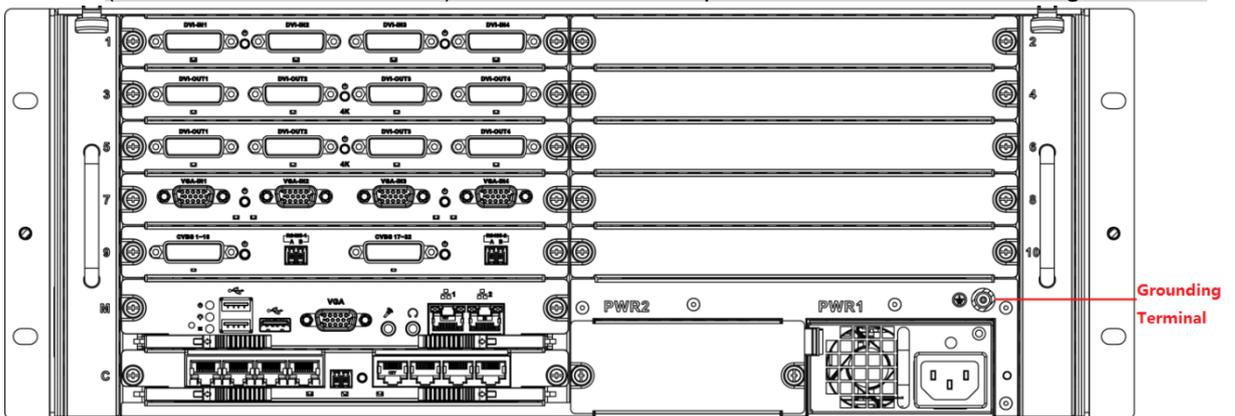


Figure 1-10



Note

At present, power supply of most devices can be grounded directly. In this case, their grounding terminals don't require grounding treatment.

Step 8 Connect network cable, VGA cable and other cables according to actual needs.

Step 9 Plug in and press ON/OFF key to boot the device.

1.5 Booting/shutdown

1.5.1 Booting

Plug in power cable, and press power switch on front panel. Power indicator turns on and device boots up, followed by 90s booting interface.

Please pay attention to the following points during booting:

- Make sure whether the supplied voltage is within 100V-240V 47Hz-63Hz. Turn on the device

after you check power cable connection.

- We recommend you to use power supply with stable voltage and little interference (refer to international standard), which help the device to work stably and prolong service life. This will also benefit external devices such as camera. UPS is the best choice if possible.

1.5.2 Shutdown

There are two shutdown methods:

- Method 1: Enter “Main Menu> Shut down System”, and choose “Shut down Device”.
- Method 2: Press ON button on the panel for 5s.



- Method 1 is recommended, in order to protect the device from damages due to unexpected outage.
- Stop all operations of the device, before you unplug the device from power supply.

1.5.2.1 Outage Recovery

In case of outage or forced shutdown during working, after connecting power supply again, the device will automatically save and resume previous working status.

1.5.2.2 Replace Button Battery



Before replacement, please export and save configurations, or all configurations will be lost!

We recommend that the same type of battery should be used. Inspect system time regularly. Generally speaking, battery shall be replaced once a year, to guarantee system time accuracy.

2 Local Interface Config



Before you operate in local interface, you must connect monitor and other control devices (i.e. mouse, keyboard) to the device.

Local interface is mainly used to set device IP, so as to access the network.

Step 1 After you properly turn on the device, the system pops up “Device Initialization” interface, as shown in Figure 2-1.

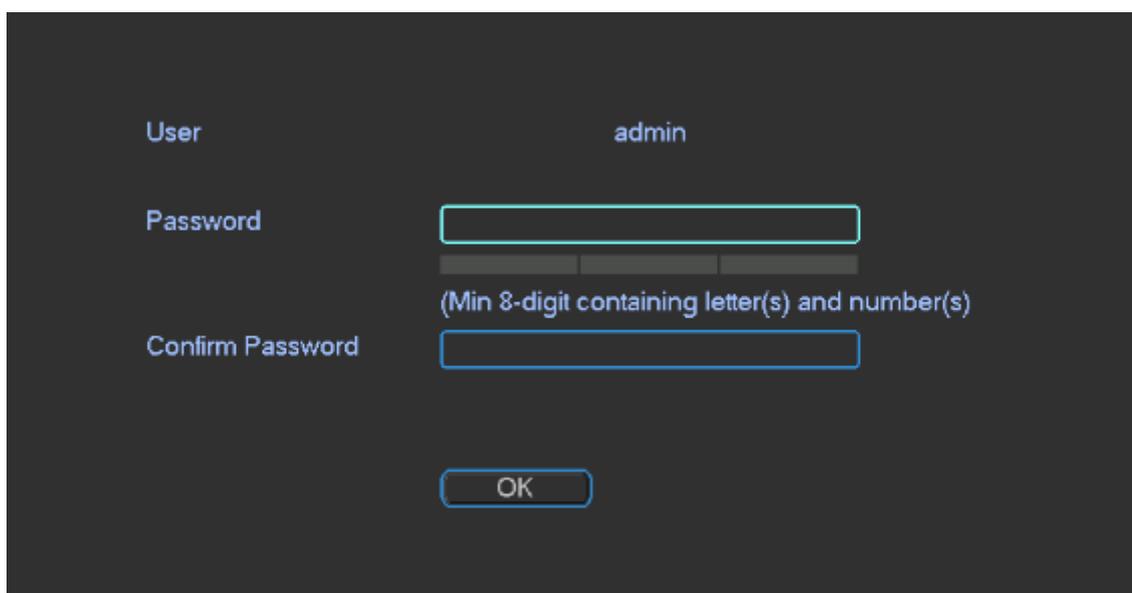


Figure 2-1

Step 2 Set the password of admin user.



Password can be non-blank characters with 8~32 digits and shall include at least 2 types of characters, including capital letter, small letter, number and special character (except “”, “”, “,”, “.” and “&”). New password and confirmed password shall be the same. Please set a highly safe password according to password strength.

Step 3 Click “OK” to complete configuration.

Step 4 Click the right mouse button.

The system displays “System Login” interface, as shown in Figure 2-2.



Figure 2-2

Step 5 Input password, click “OK” to log into the system.

 Note

Password security measure: in case that password is wrong for 5 times within every 30 minutes, the account will be locked.

Step 6 Choose “Main Menu> System Setting > Network Setting”.

The system displays “Network Setting” interface, as shown in Figure 2-3.

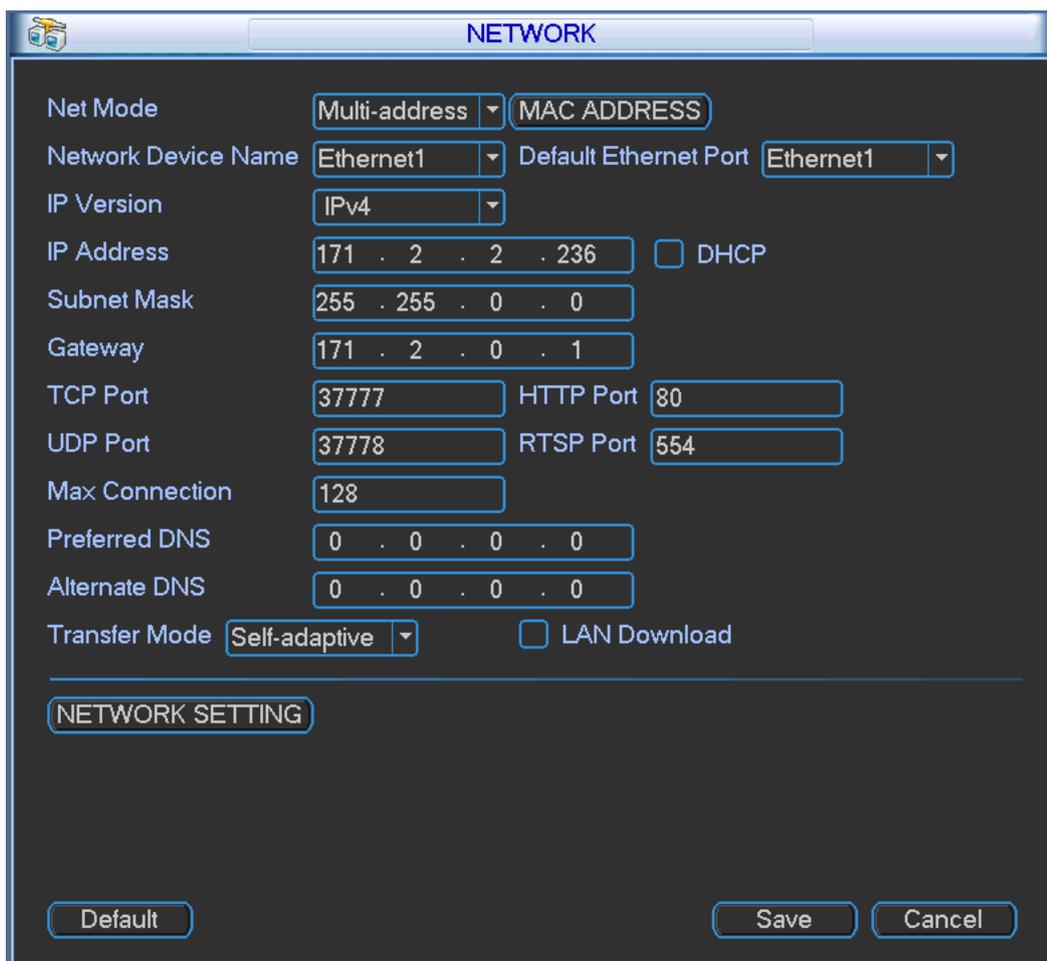


Figure 2-3

Step 7 Set “IP Address”, “Subnet Mask” and “Default Gateway” parameters.

Step 8 Click “Save” to complete device IP configuration.

3

Basic Operation of WEB Interface

3.1 Network Connection

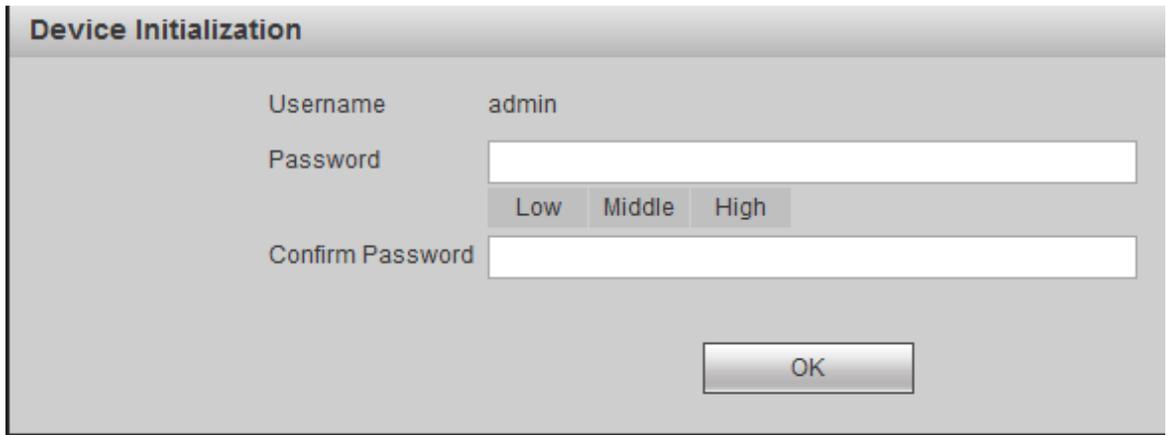
- Step 1 Ensure that video matrix platform and PC have been connected with network correctly.
- Step 2 Set the IP address, subnet mask and gateway of PC and video matrix platform respectively.
- In case of no router in the network, please distribute IP address in the same network segment.
 - In case of router in the network, corresponding gateway and subnet mask shall be set.
- Step 3 Use ping `***.***.***.***` (IP of video matrix platform) to check whether network connection is OK or not.
- Step 4 Open IE browser, in “Tool > Internet Option> Security> Custom Level”, select ActiveX and plug-in to be “Enable” or “Prompt”.
- Step 5 At address bar of IE browser, input IP address of video matrix platform.
- Step 6 (Optional) To use preview function, control package shall be installed. Please download and install it according to prompts at the interface. If the system prohibits downloading, please check whether other plug-ins that prohibit downloading are installed, and lower IE security level.



To upgrade a new program, make sure to delete previous controls before opening WEB.
Method to delete the controls: enter C:\Program Files and delete webrec folder.

3.2 Login

- Step 1 At address bar of the browser, input IP address of video matrix platform (taking 192.168.4.111 for example). That is to say, input `http:// 192.168.4.111` in address bar and press [Enter] key.
- After successful connection, the system displays “Device Initialization” interface, as shown in Figure 3-1.



The image shows a 'Device Initialization' dialog box. It has a title bar with the text 'Device Initialization'. Inside, there are three main sections: 'Username' with the value 'admin', 'Password' with an empty text input field, and 'Confirm Password' with another empty text input field. Below the password field, there are three buttons labeled 'Low', 'Middle', and 'High' for password strength selection. At the bottom right, there is an 'OK' button.

Figure 3-1

Step 2 Set a password of admin user.

 Note

Password can be 8 ~ 32-digit non-empty characters; it can consist of at least two types among capital letter, small letter, number and special character (except “'”, “'””, “,””, “.”” and “&”). “Password” and “Confirm Password” shall be the same. Please set a high-security password according to password strength prompt.

Step 3 Click “OK”.

The system displays login interface, as shown in Figure 3-2.



The image shows a 'WEB SERVICE' login dialog box. It has a title bar with the text 'WEB SERVICE' and a small server rack icon on the right. Inside, there are two main sections: 'Username:' with an empty text input field, and 'Password:' with a yellow-highlighted text input field. Below the password field, there are two buttons labeled 'Login' and 'Cancel'.

Figure 3-2

Step 4 Input username and password, and click “Login” to login the system. The system displays Figure 3-3.

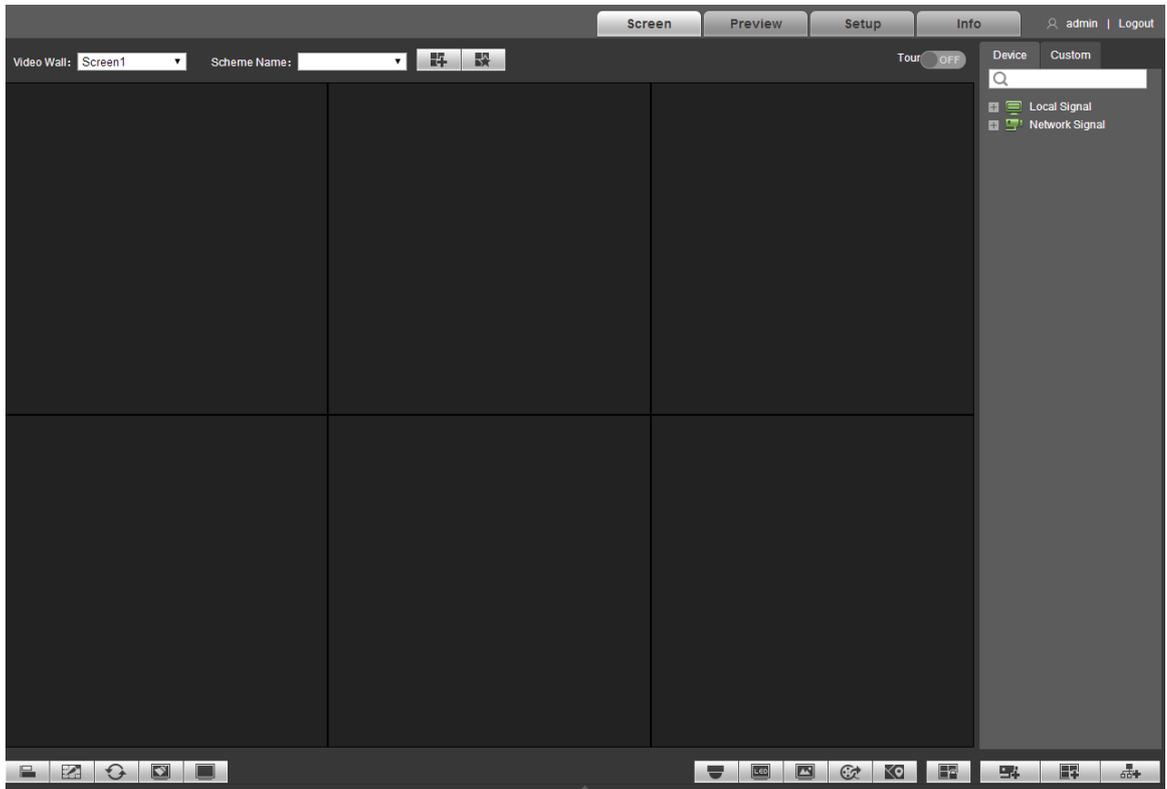


Figure 3-3

Step 5 Install or load the controls according to system prompt.



Note

Click “Logout” to log out the system.

3.3 Add Video Wall



Step 1 Click  in the center or  at the lower right corner of the screen, to enter “Video Wall Config” interface, as shown in Figure 3-4.



Figure 3-4

Step 2 Click “Add Video Wall”. The system displays “Video Wall Layout Config” interface, as shown in Figure 3-5.

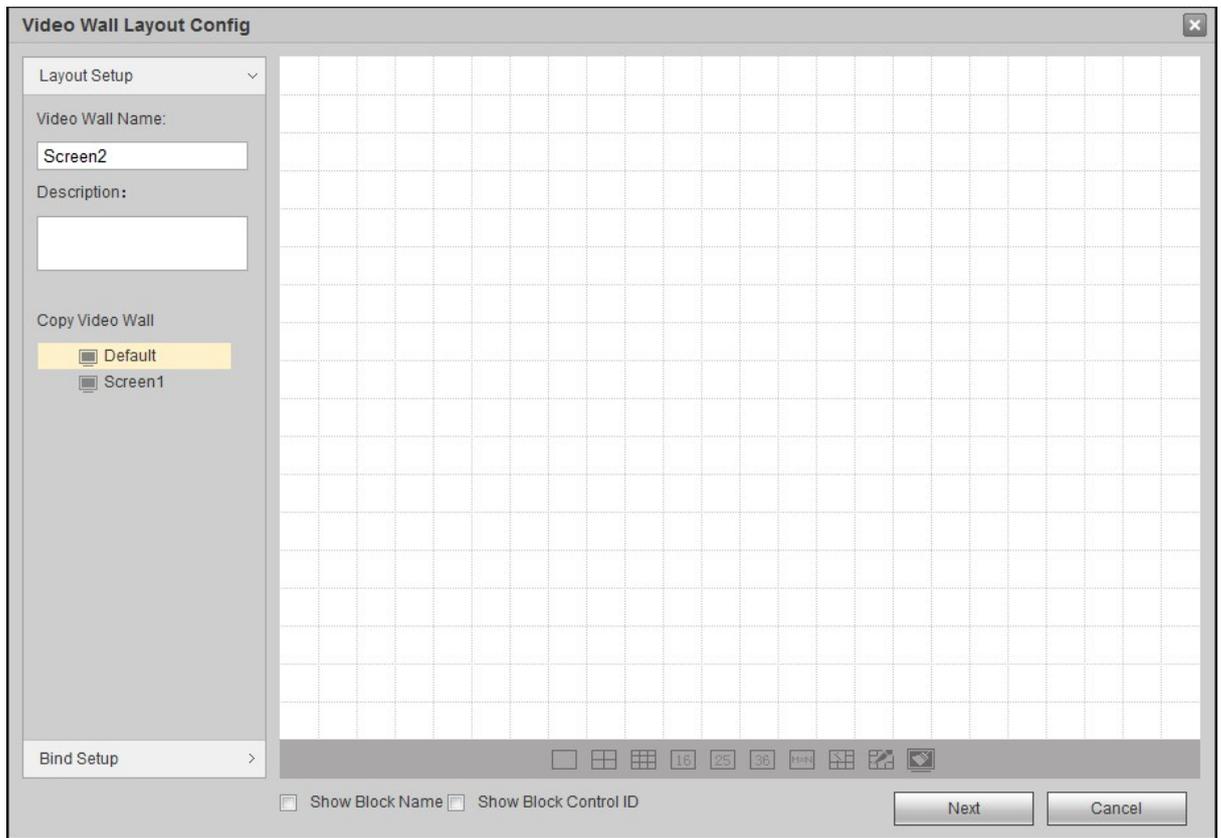


Figure 3-5

Step 3 Set the layout.

1. Customize “Video Wall Name” and “Description”.
2. Click interface icons to add single video wall and splicing video wall quickly, as shown in Figure 3-6.

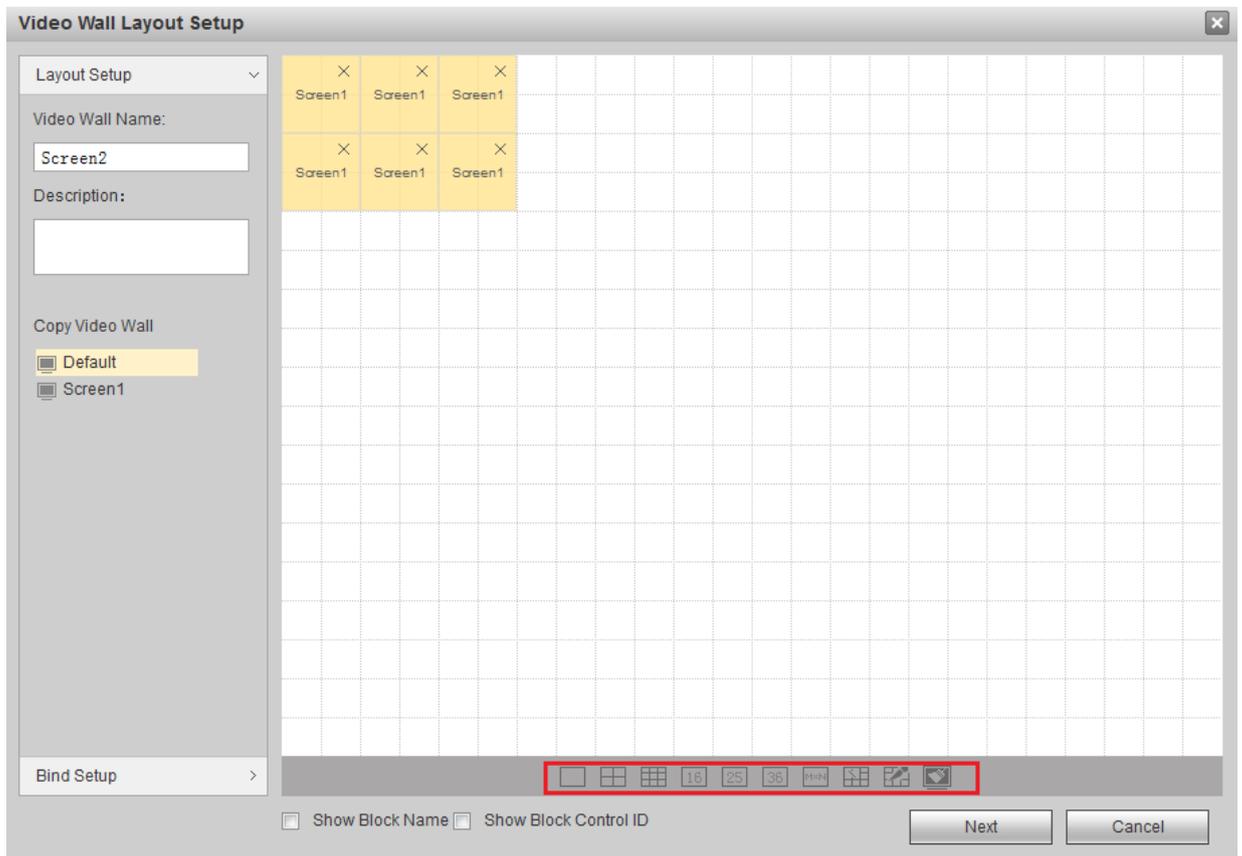


Figure 3-6

- Step 4 Click “Bind Setup” tab or “Next”. The system displays slot info.
- Step 5 Hold the left mouse button, drag the slot into screen, so as to bind the slot channel with screen, as shown in Figure 3-7.

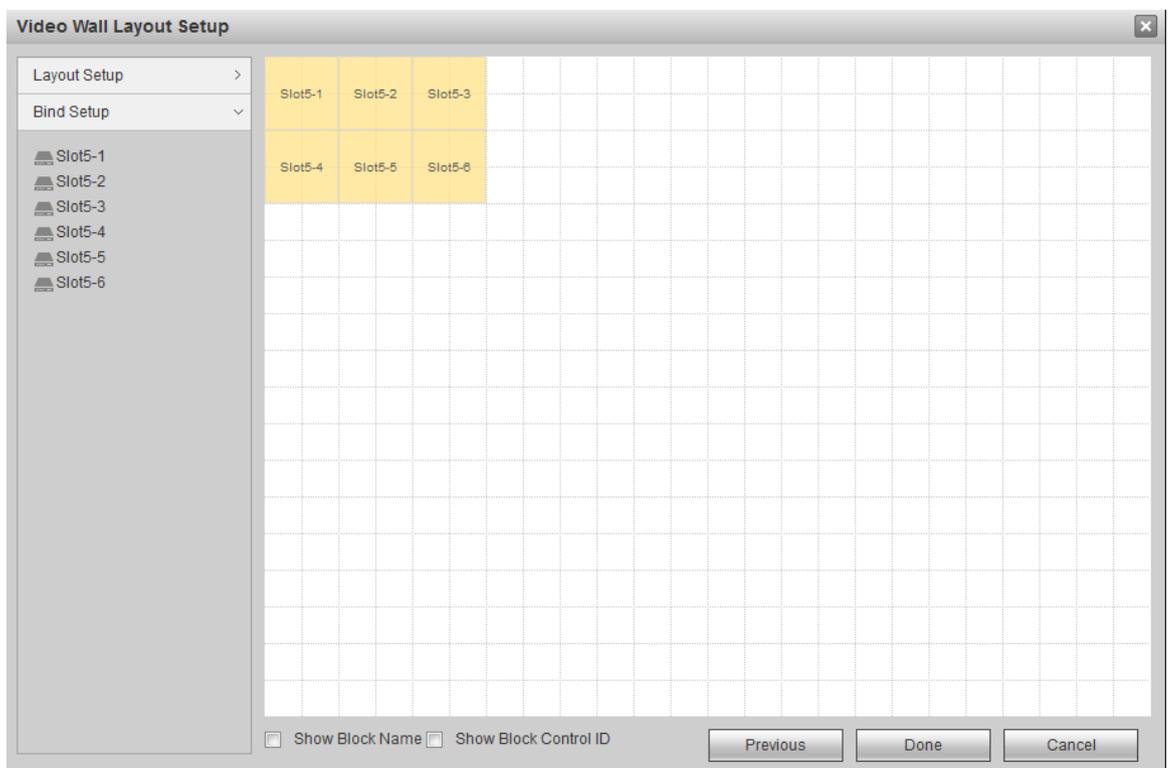


Figure 3-7

Step 6 Click “Done”. The system exits “Video Wall Layout Config”. New video wall will be displayed in the list, as shown in Figure 3-8.

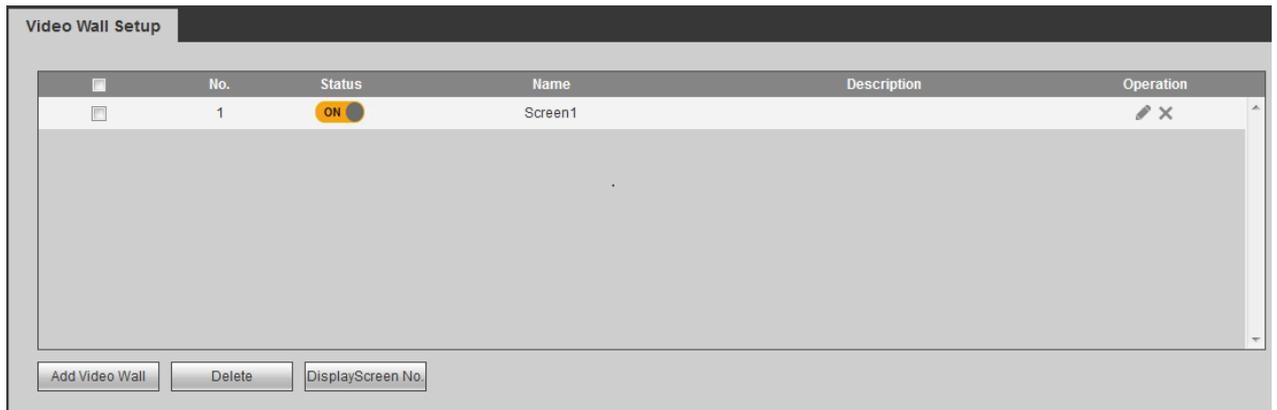


Figure 3-8

At operation interface of video wall, select the added “Screen 1”, as shown in Figure 3-9.

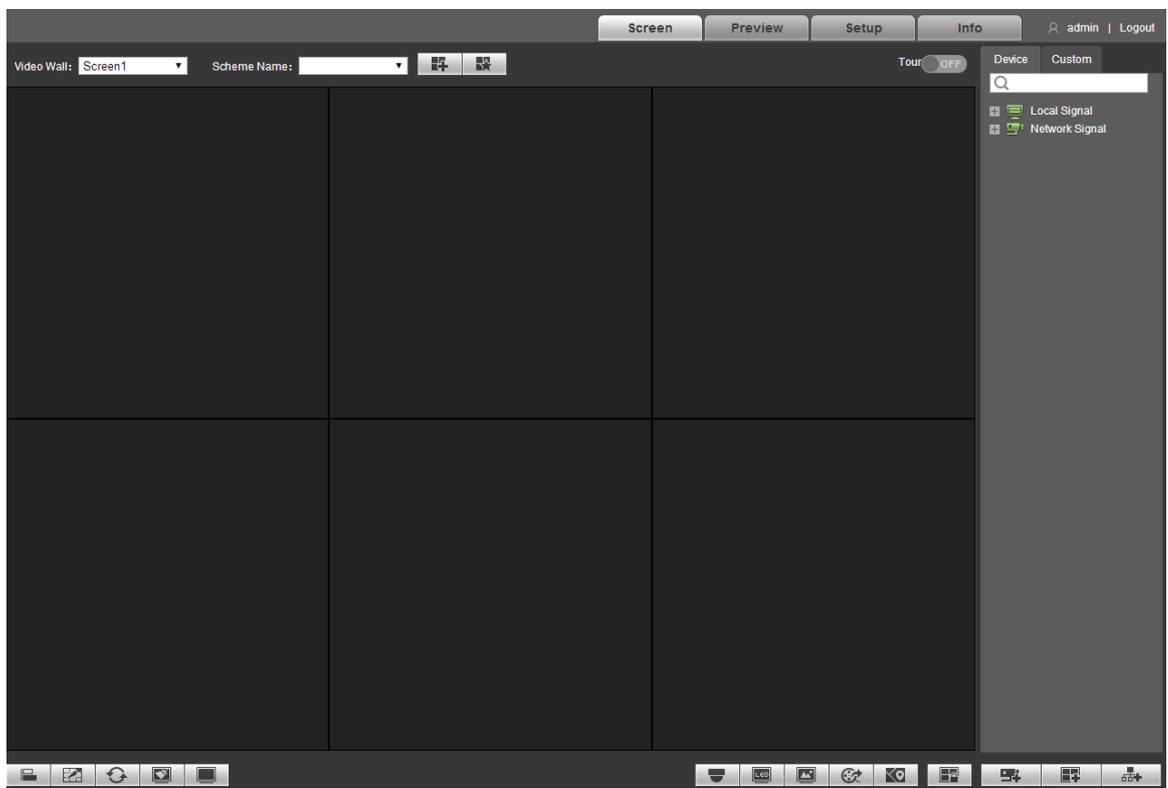


Figure 3-9

3.4 Add Window

Hold the left mouse button and draw a window on video wall, as shown in Figure 3-10.

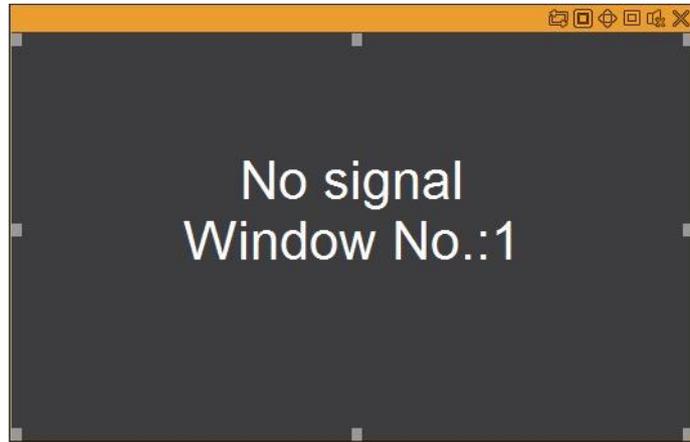


Figure 3-10

3.5 Add Network Signal

Step 1 Click . The system displays “Network Signal” interface, as shown in Figure 3-11.

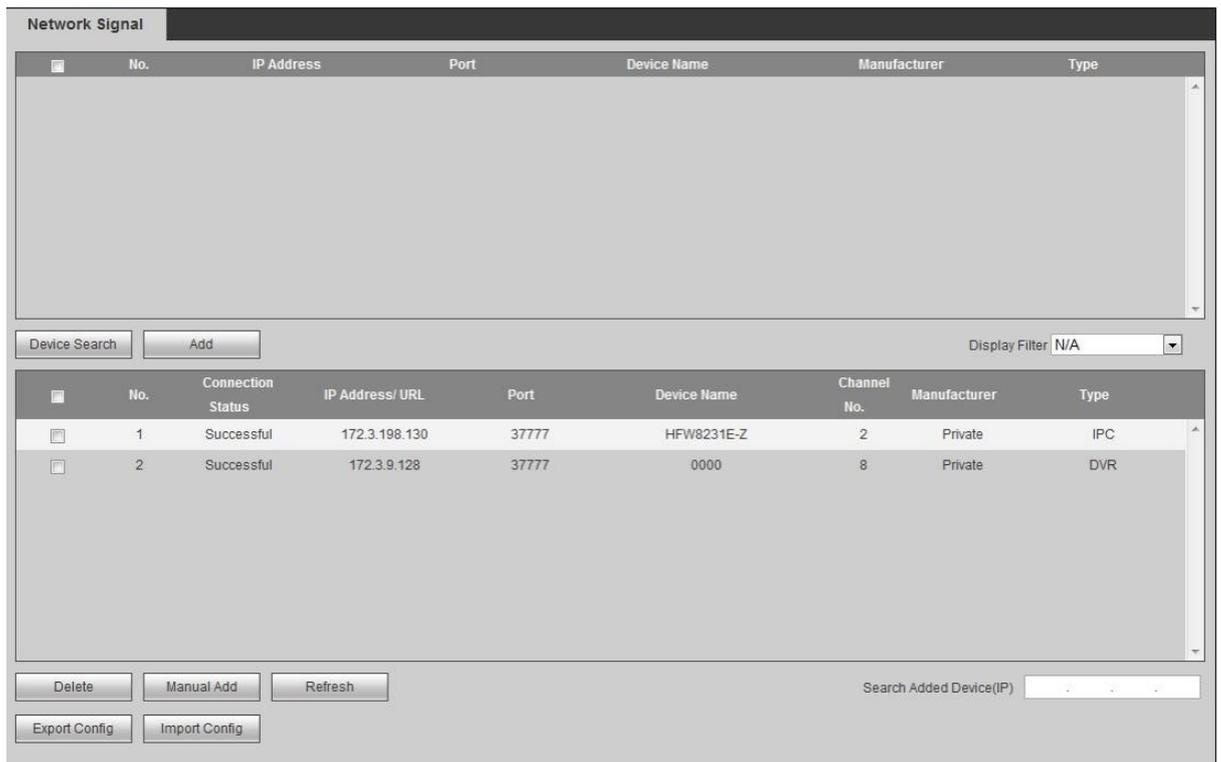


Figure 3-11

Step 2 Add network signal.

- Search
 1. Click “Device Search”. The system starts to search all network signals within the LAN
 2. Select the network signal to be added, and click “Add”. The network signal will be displayed in the list, and the system will show “Operate successfully”, as shown in Figure 3-12.

Network Signal

No.	IP Address	Port	Device Name	Manufacturer	Type
1	171.2.1.133	80		Onvif	
2	171.2.100.1	80		Onvif	
3	171.2.100.100	80		Onvif	
4	171.2.100.141	80		Onvif	
5	171.2.100.2	80		Onvif	
6	171.2.100.25	80		Onvif	
7	171.2.100.27	80		Onvif	
8	171.2.100.35	80		Onvif	

Device Search Display Filter

No.	Connection Status	IP Address/ URL	Port	Device Name	Channel No.	Manufacturer	Type
1	Successful	171.2.100.25	80	171.2.100.25	1	Onvif	ONVIF
2	Successful	171.2.100.2	80	171.2.100.2	1	Onvif	ONVIF
3	Successful	172.3.198.130	37777	HFW8231E-Z	2	Private	IPC
4	Successful	172.3.9.128	37777	0000	8	Private	DVR

Operate successfully!

Figure 3-12

- Manual add
 1. Click "Manual Add". The system displays "Manual Add" interface, as shown in Figure 3-13.

Manual Add

Device Name:

Manufacturer:

Protocol:

IP Address:

Port: (1~65535)

Username:

Password:

Channel Type:

Channel No.: (0~2000)

Chan	nel	Channel Name	Channel Note	ControllID
<input type="checkbox"/>	nel			
No.				

Note: Check the fixed channel, do not check the temporary channel

OK Cancel

Figure 3-13

2. Configure relevant parameters. For parameter descriptions, please refer to Table 3-1.

Parameter	Description
Device Name	Fill in device name.
Manufacturer	Device manufacturer.
Protocol	Device protocol, default is "TCP".
IP Address	Set device IP address.
Port	Set the port of added device.
Username	Set device username to login.
Password	Set password to login.
Channel Type	Set input channel type.
Channel No.	Device input channel number.

Table 3-1

3. Click "OK". The network signal will be displayed in the list, and the system will show "Operate successfully".

3.6 Signal on Wall

- Step 1 Select one window on video wall, or hold left mouse button to draw a box on video wall.
- Step 2 Select signal source in “Device Tree” or “Signal Group”. Take “Device Tree” as an example, as shown in Figure 3-14.



Figure 3-14

- Step 3 Signal goes on wall.

- Click  to output this signal to the window.
- Hold left mouse button to drag signal to designated window. This signal will be output to the window.
- Select a window, double click channel preview or main/sub-stream. This signal will be output to the window.

3.7 Signal Tour



Set signal group in “Favorites”.

- Step 1 Select a window to tour signal.
- Step 2 In “Signal Group>Favorites”, select one signal group, hold left mouse button to drag the signal group to designated window. The window will start to tour automatically.
- Step 3 Click . The system displays all signal info in the window, as shown in Figure 3-15.

No.	IP	Channel Name	Stay Time:	Stream Type	Operation
1		Slot01-04	10	Main Stream	X

Figure 3-15

- Step 4 Set “Stay Time” and “Stream Type”.



- Click  corresponding to one signal, so the signal won't appear in tour list. But it

still exists in signal group.

- The setting takes effect at once.
- Click  at the top right corner to stop signal tour.

3.8 Add Scheme

Step 1 Customize window layout on screen.

Step 2 Click . The system pops up “Save Scheme” window, as shown in Figure 3-16.

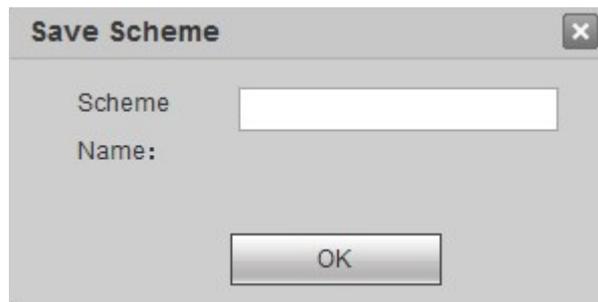


Figure 3-16

Step 3 Enter customized “Scheme Name”.

 Note

If new scheme name overlays existing scheme name, the system will ask if you want to overwrite info. If you overwrite info, the existing scheme will be replaced by new scheme.

Step 4 Click “OK” to complete the adding of scheme.

After adding the scheme successfully, you can select the scheme in “Scheme Name” in homepage.

3.9 Scheme Tour

Step 1 Click  and select “Tour” tab. The system displays “Tour” interface, as shown in Figure 3-17.

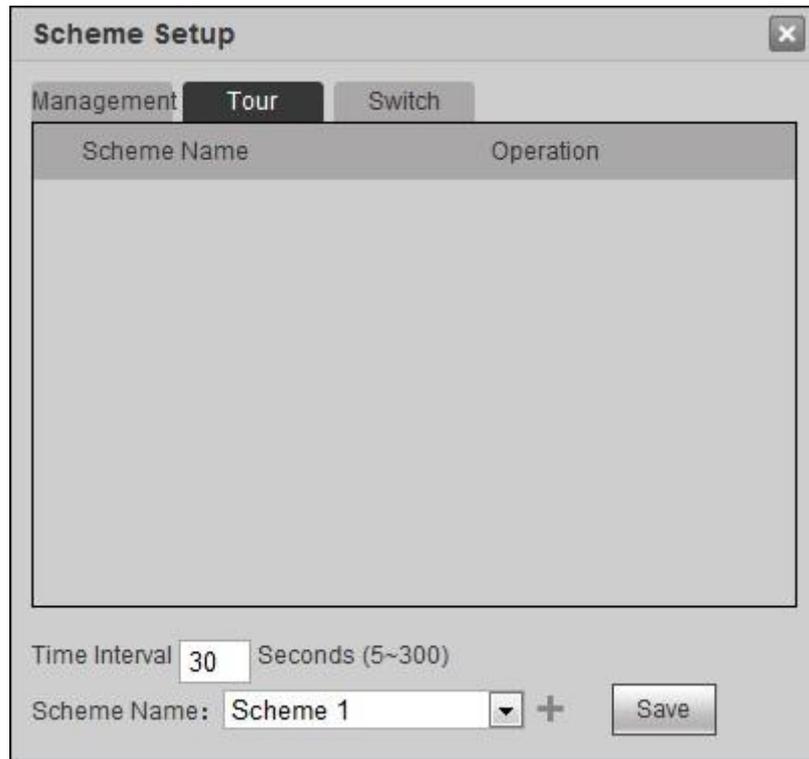


Figure 3-17

Step 2 Set “Time Interval” and “Scheme Name”. Click .

 Note

- Time interval refers to single scheme tour time. If it is set for many times, the system will tour according to the time interval set at last.
- Click  corresponding to the scheme, to adjust tour sequence.

Step 3 Click “Save” to save configuration.

Click  at the top right corner of video wall and select “ON”, to start tour.

Then, tour status is displayed at the lower right corner of the interface, as shown in Figure 3-18.

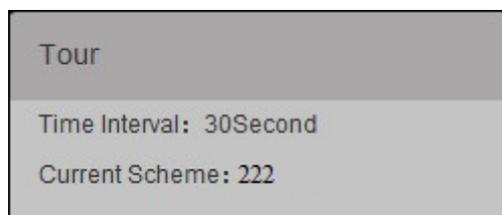


Figure 3-18