

# **Video Matrix Platform**

Quick Start Guide

**V1.0.1**

# Foreword

## Overview

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

## Model

Video Matrix Platform-4U

## Safety Instructions

The following categorized signal words with defined meaning might appear in the manual.

Signal Words	Meaning
 <b>DANGER</b>	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 <b>WARNING</b>	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 <b>CAUTION</b>	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
 <b>TIPS</b>	Provides methods to help you solve a problem or save you time.
 <b>NOTE</b>	Provides additional information as the emphasis and supplement to the text.

## Revision History

Version	Revision Content	Release Time
V1.0.1	Modify interface snapshots.	August 2019
V1.0.0	First release.	October 2017

## Privacy Protection Notice

As the device user or data controller, you might collect personal data of others such as face, fingerprints, car plate number, Email address, phone number, GPS and so on. You need to be in compliance with the local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures include but not limited to: providing clear and visible identification to inform data subject the existence of surveillance area and providing related contact.

## About the Manual

- The manual is for reference only. If there is inconsistency between the manual and the actual product, the actual product shall prevail.
- We are not liable for any loss caused by the operations that do not comply with the manual.
- The manual would be updated according to the latest laws and regulations of related regions. For detailed information, see the paper manual, CD-ROM, QR code or our official website. If there is inconsistency between paper manual and the electronic version, the electronic version shall prevail.
- All the designs and software are subject to change without prior written notice. The product updates might cause some differences between the actual product and the manual. Please contact the customer service for the latest program and supplementary documentation.
- There still might be deviation in technical data, functions and operations description, or errors in print. If there is any doubt or dispute, please refer to our final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and the company names in the manual are the properties of their respective owners.
- Please visit our website, contact the supplier or customer service if there is any problem occurred when using the device.
- If there is any uncertainty or controversy, please refer to our final explanation.

# Important Safeguards and Warnings

This Chapter describes the contents covering proper handling of the Device, hazard prevention, and prevention of property damage. Read these contents carefully before using the Device, comply with them when using, and keep it well for future reference.

## Operation Requirement

- Do not place or install the Device in a place exposed to sunlight or near the heat source.
- Keep the Device away from dampness, dust or soot.
- Keep the Device installed horizontally on the stable place to prevent it from falling.
- Wall-mounting is not supported.
- Do not drop or splash liquid onto the Device, and make sure there is no object filled with liquid on the Device to prevent liquid from flowing into the Device.
- Install the Device in a well-ventilated place, and do not block the ventilation of the Device.
- Operate the device within the rated range of power input and output.
- Do not dismantle the Device.
- Transport, use and store the Device under the allowed humidity and temperature conditions.

## Electrical Safety

- Use the battery of specified manufacturer; otherwise there might result in explosion. When replacing battery, make sure the same type is used. Improper battery use might result in fire, explosion, or inflammation.
- Follow the instructions to dispose of the used battery.
- Use the recommended power cables in the region and conform to the rated power specification.
- Use the power adapter provided with the Device; otherwise, it might result in people injury and device damage.
- The power source shall conform to the requirement of the Safety Extra Low Voltage (SELV) standard, and supply power with rated voltage which conforms to Limited power Source requirement according to IEC60950-1. Please note that the power supply requirement is subject to the device label.
- Connect the device (I-type structure) to the power socket with protective earthing.
- The appliance coupler is a disconnection device. When using the coupler, keep the angle for easy operation.

# Table of Contents

<b>Foreword</b> .....	<b>I</b>
<b>Important Safeguards and Warnings</b> .....	<b>III</b>
<b>Table of Contents</b> .....	<b>IV</b>
<b>1 Device Installation</b> .....	<b>1</b>
1.1 Inspection Steps.....	1
1.2 Introduction to Complete Device.....	2
1.2.1 Introduction to Front Side .....	2
1.2.2 Introduction to Reverse Side .....	2
1.3 Preparation of Installation Environment.....	3
1.4 Installation Steps.....	4
1.5 Booting/shutdown .....	6
1.5.1 Booting.....	6
1.5.2 Shutdown .....	7
<b>2 Local Interface Config</b> .....	<b>8</b>
<b>3 Basic Operation of WEB Interface</b> .....	<b>10</b>
3.1 Network Connection.....	10
3.2 Login.....	10
3.3 Add Video Wall .....	12
3.4 Add Window .....	14
3.5 Add Network Signal.....	15
3.6 Signal on Wall .....	18
3.7 Signal Tour .....	18
3.8 Add Scheme.....	19
3.9 Scheme Tour .....	19

# 1 Device Installation



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

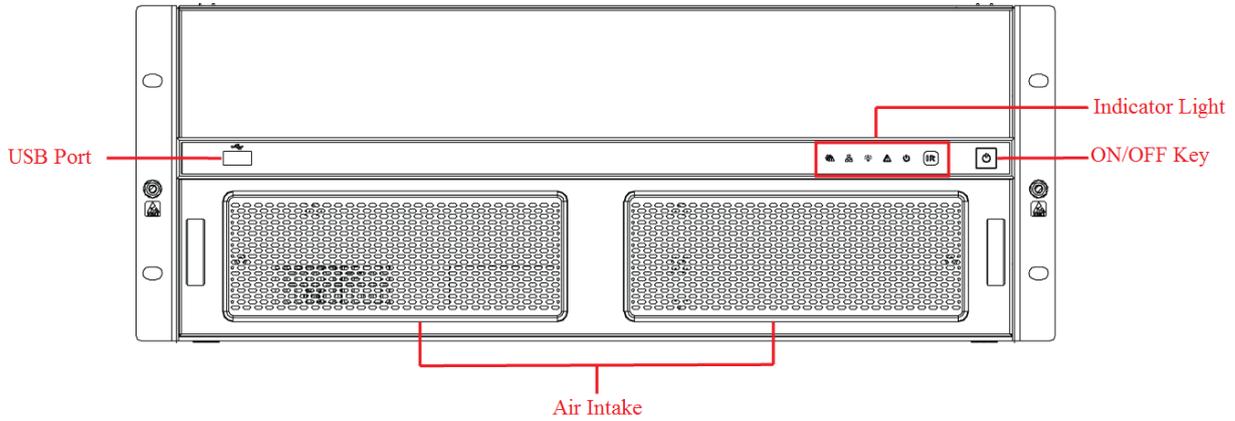


Figure 1-1

## 1.2.2 Introduction to Reverse Side

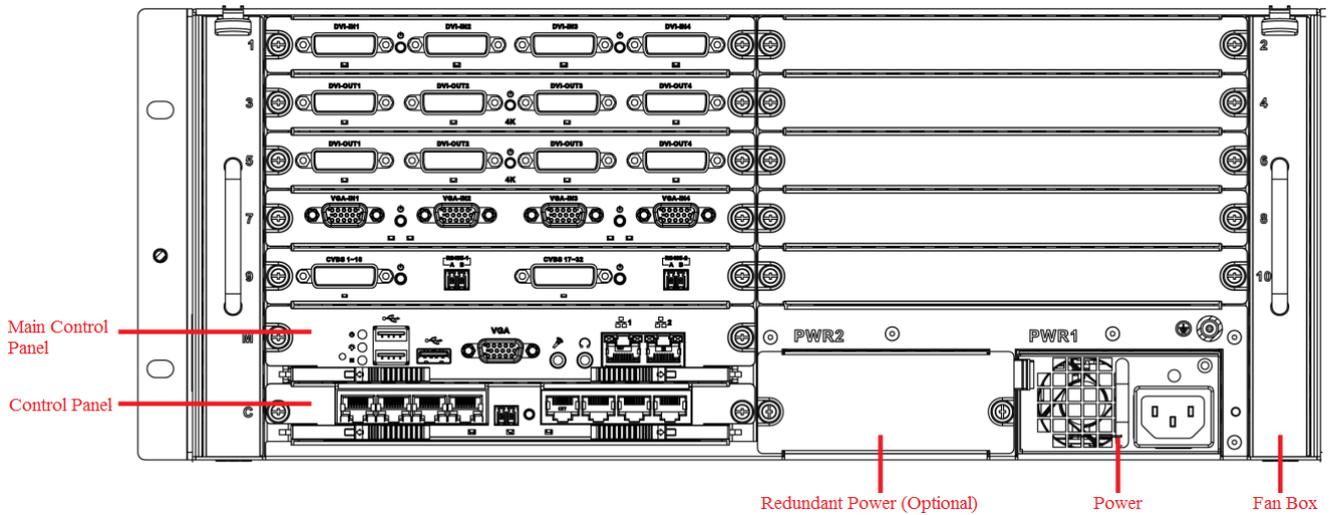


Figure 1-2

### 1.2.2.1 Main Control Panel

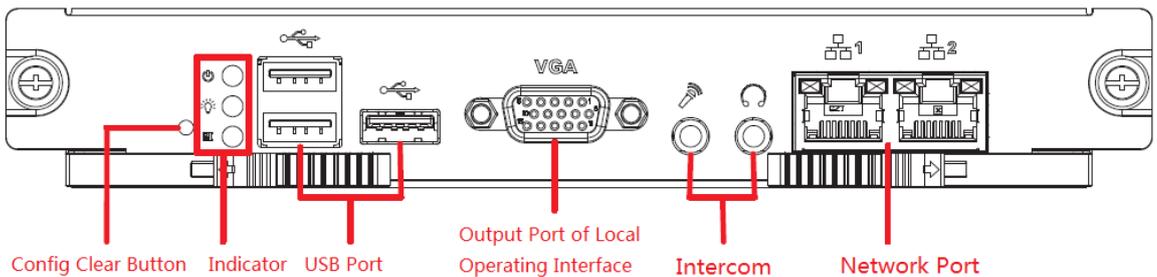


Figure 1-3

## 1.2.2.2 Control Panel

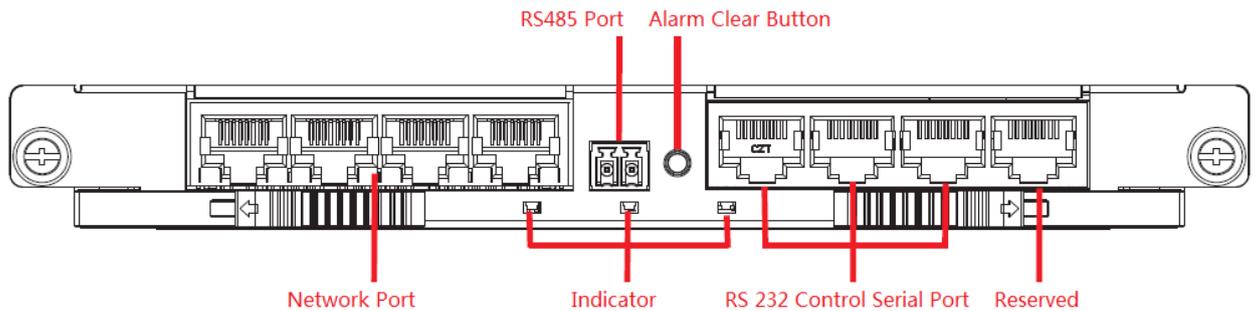


Figure 1-4

## 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.

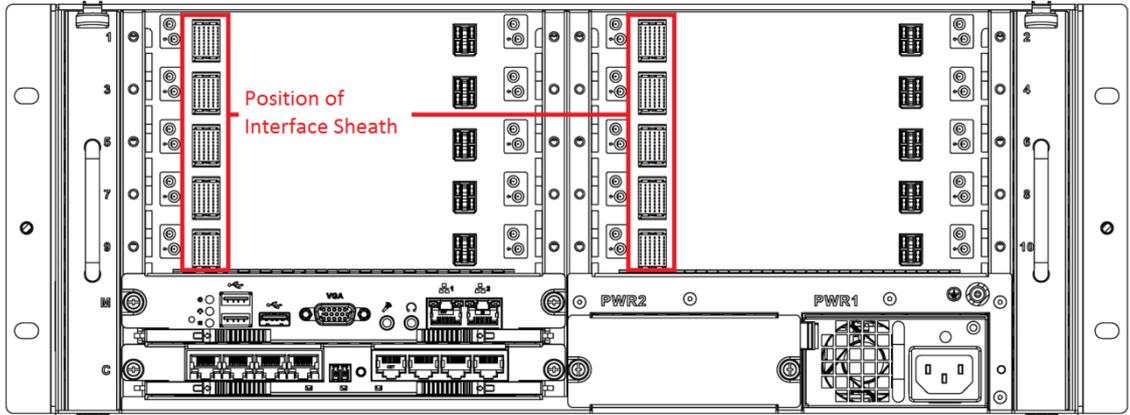


Figure 1-5

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

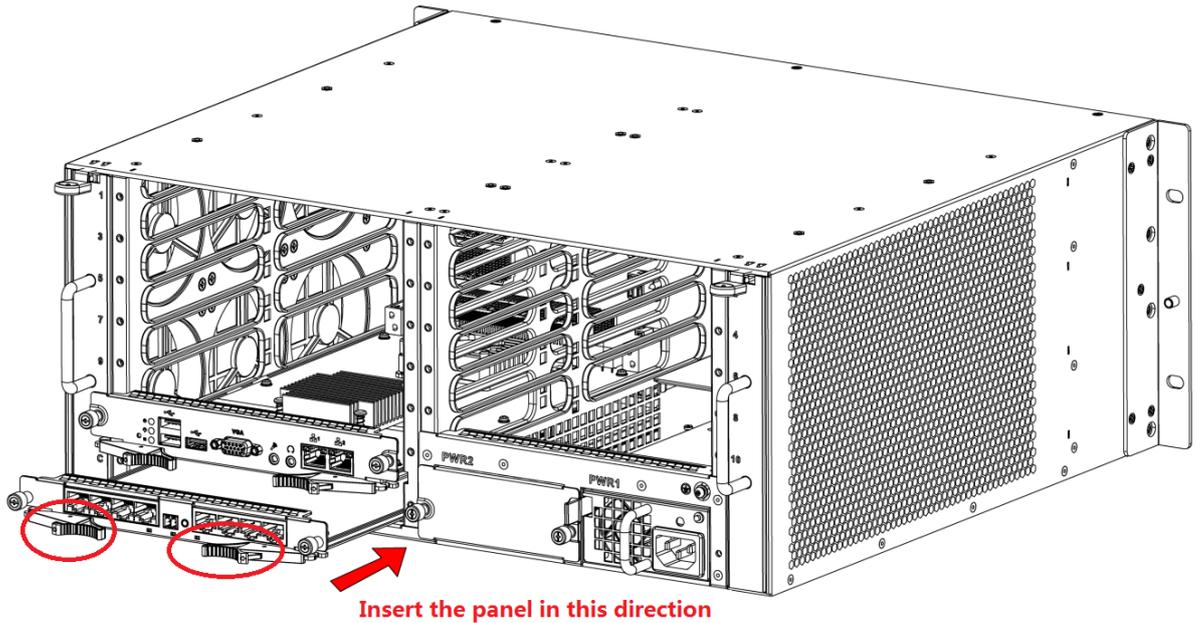


Figure 1-6

 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.

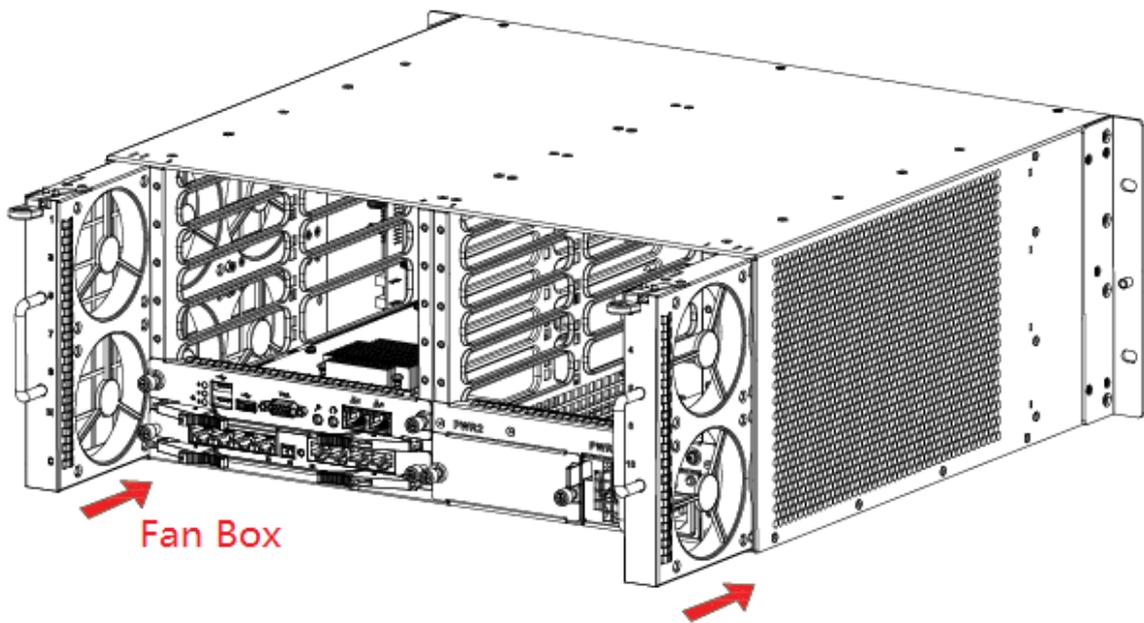


Figure 1-7

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

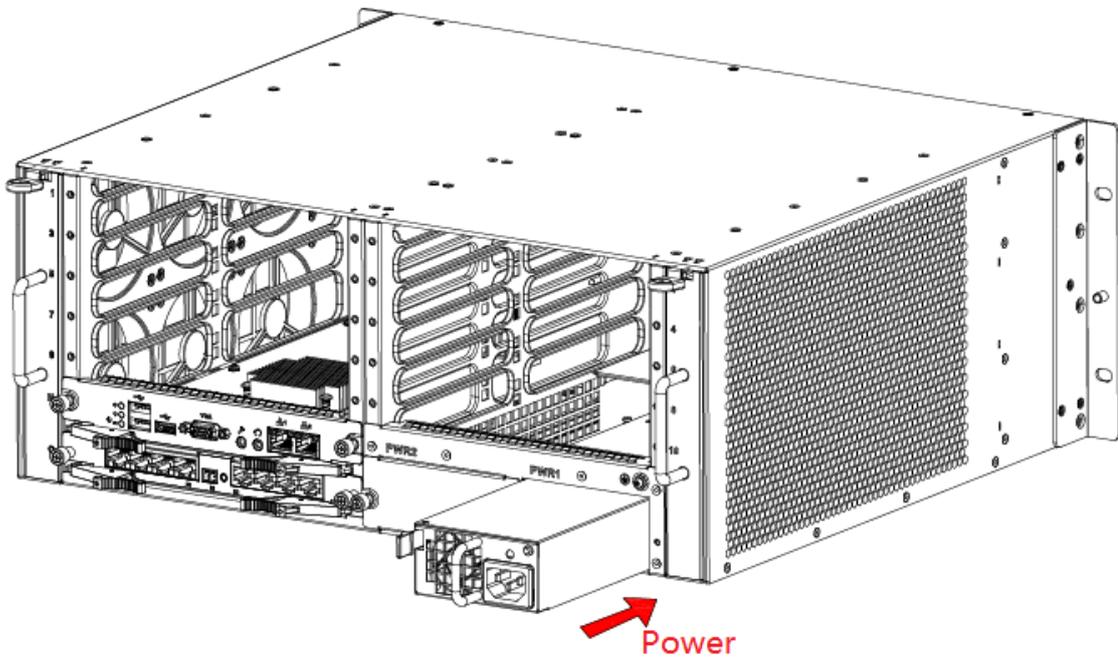


Figure 1-8

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.

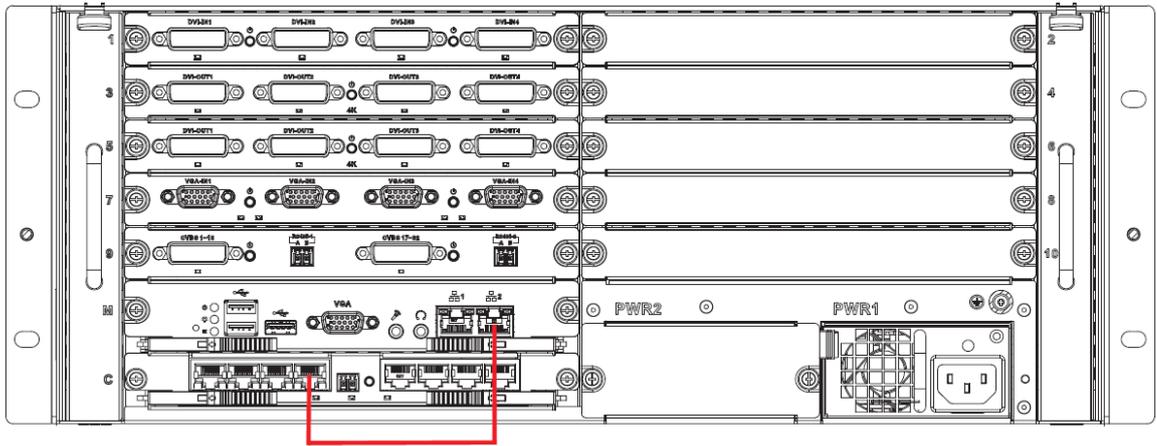


Figure 1-9

**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.

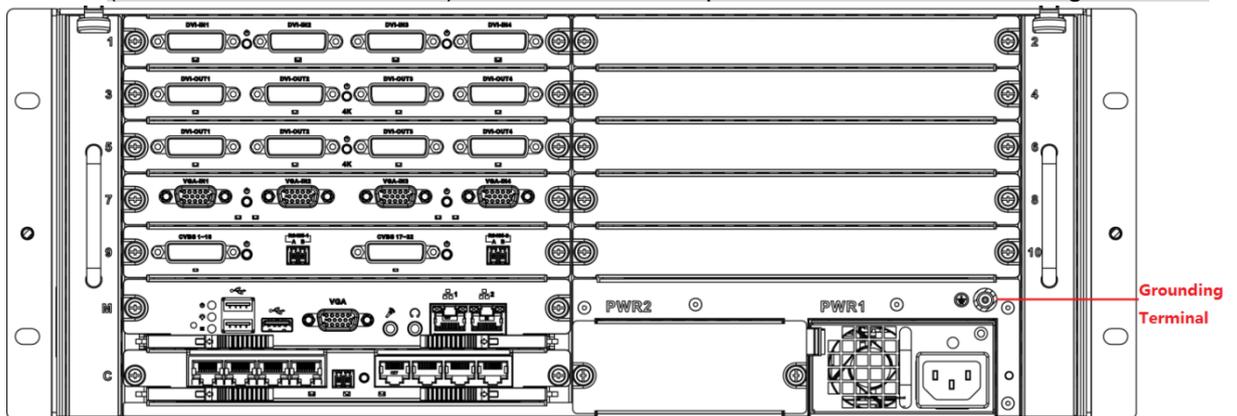


Figure 1-10



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.

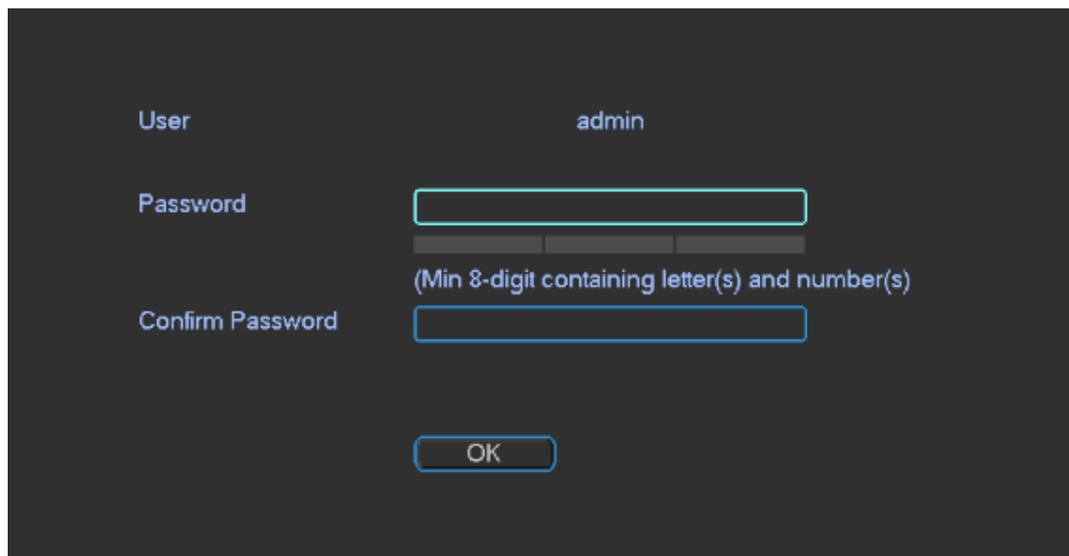
# 2 Local Interface Config



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.



User admin

Password

(Min 8-digit containing letter(s) and number(s))

Confirm Password

OK

Figure 2-1

Step 2 Set the password of admin user.



The password must consist of 8 to 32 non-blank characters and contain at least two types of characters among upper case, lower case, number, and special character (excluding ' " ; : &'). 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.

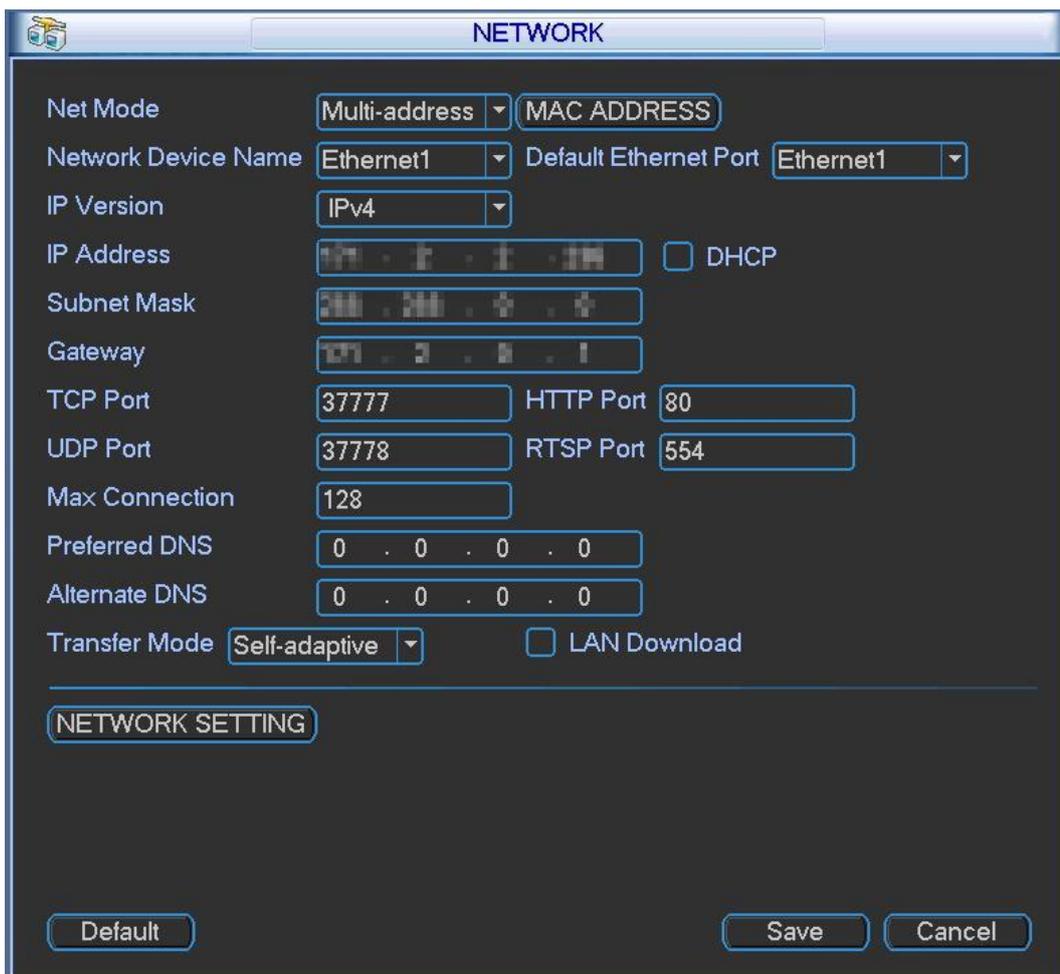


Figure 2-3

**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.

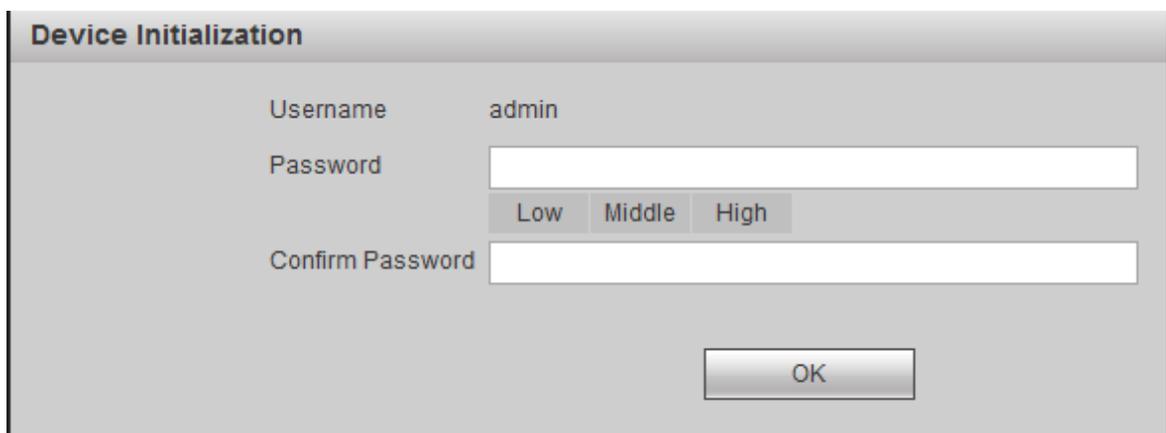


To upgrade a new program, make sure to delete previous controls before opening WEB.  
Method to delete the controls: enter C:\Program Files and delete webrec folder.

## 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 web interface titled "Device Initialization". It contains the following fields and controls:

- Username:** A text input field containing the value "admin".
- Password:** A text input field that is currently empty.
- Security Level:** Three radio buttons labeled "Low", "Middle", and "High". The "Low" button is selected.
- Confirm Password:** A text input field that is currently empty.
- OK Button:** A rectangular button with the text "OK" centered on it.

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.



Figure 3-2

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

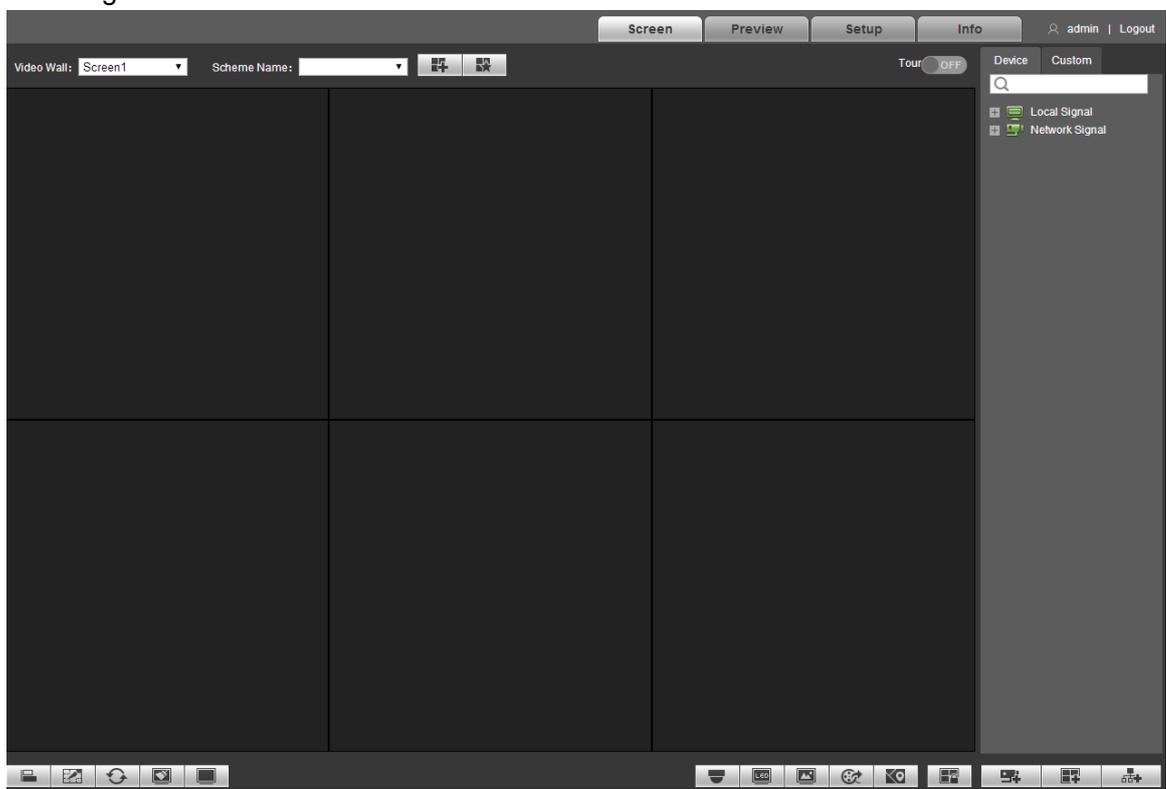


Figure 3-3

**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.

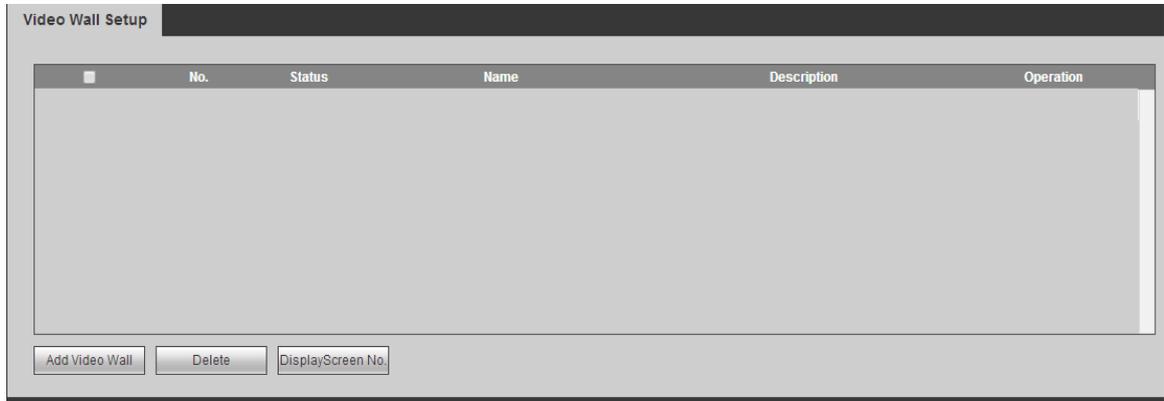


Figure 3-4

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

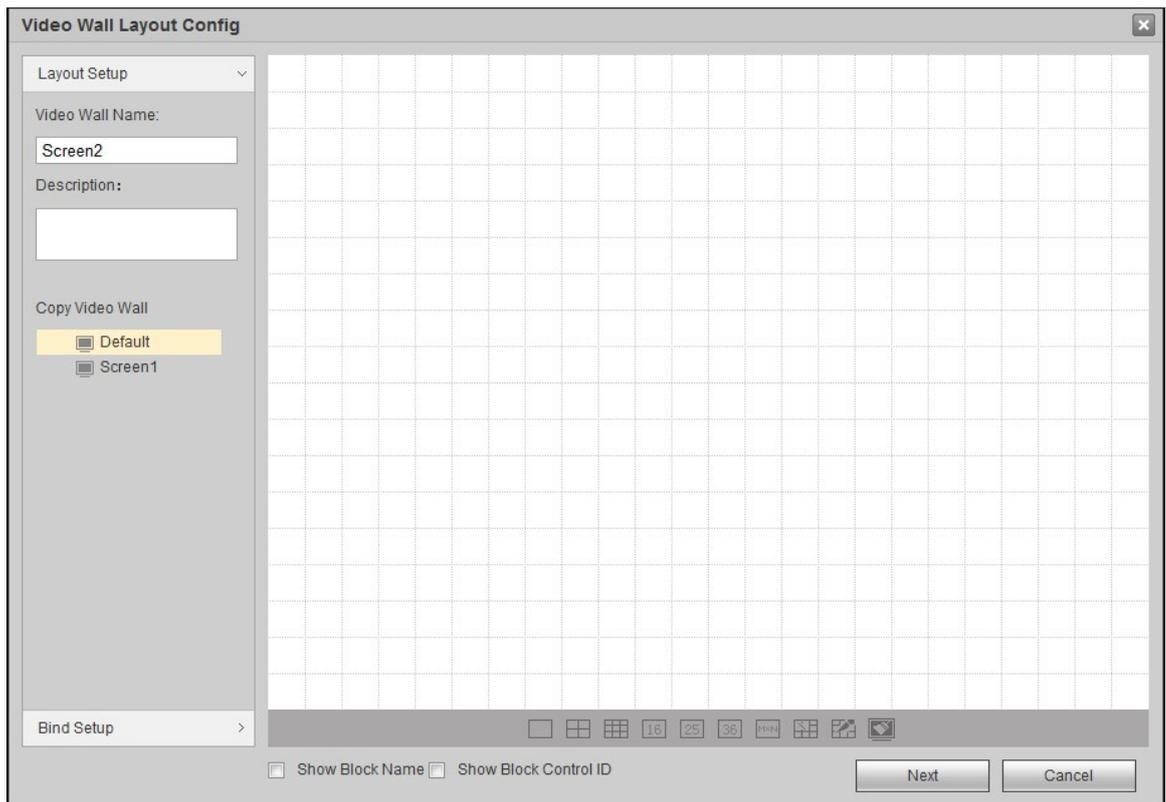


Figure 3-5

**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.

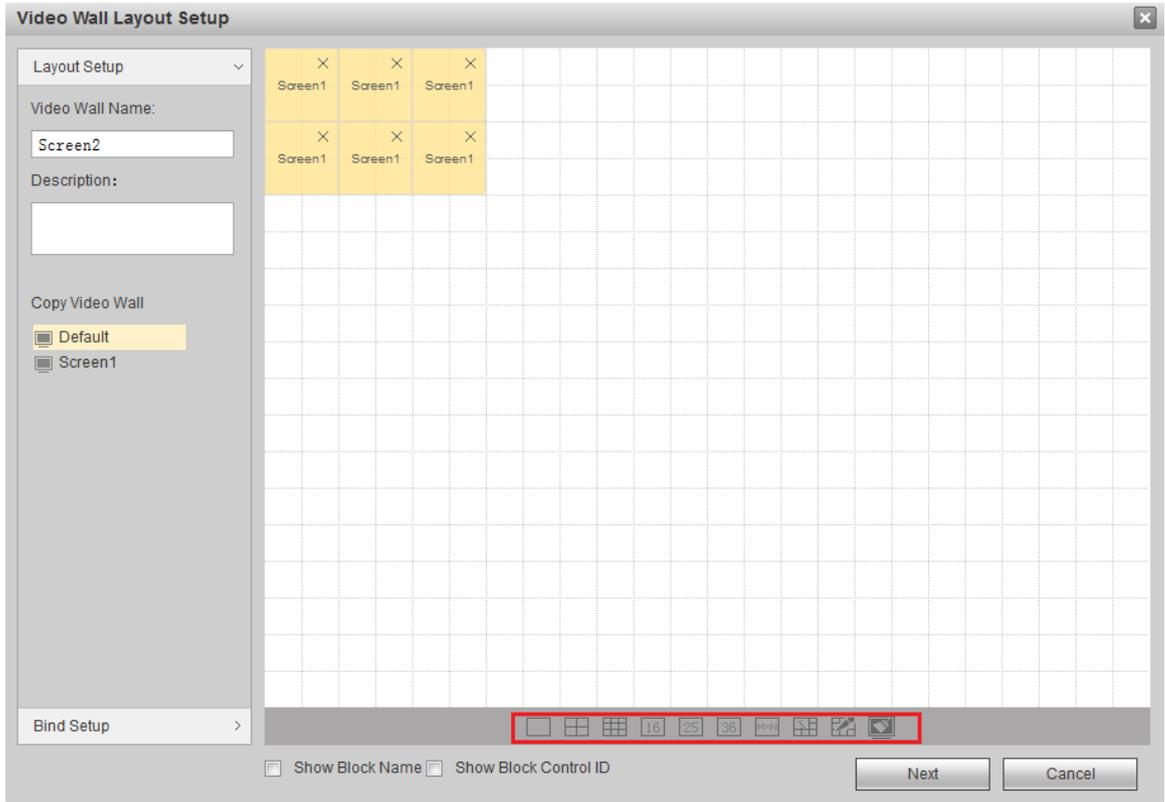


Figure 3-6

**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.

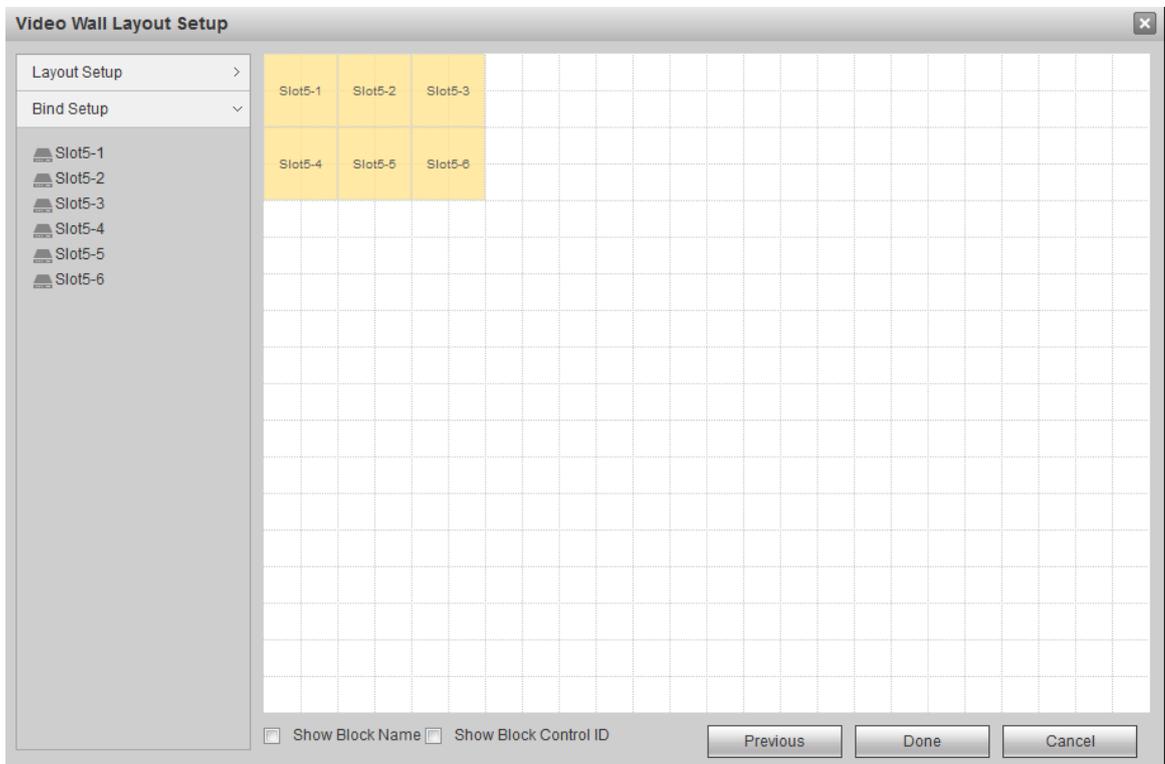


Figure 3-7

**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.

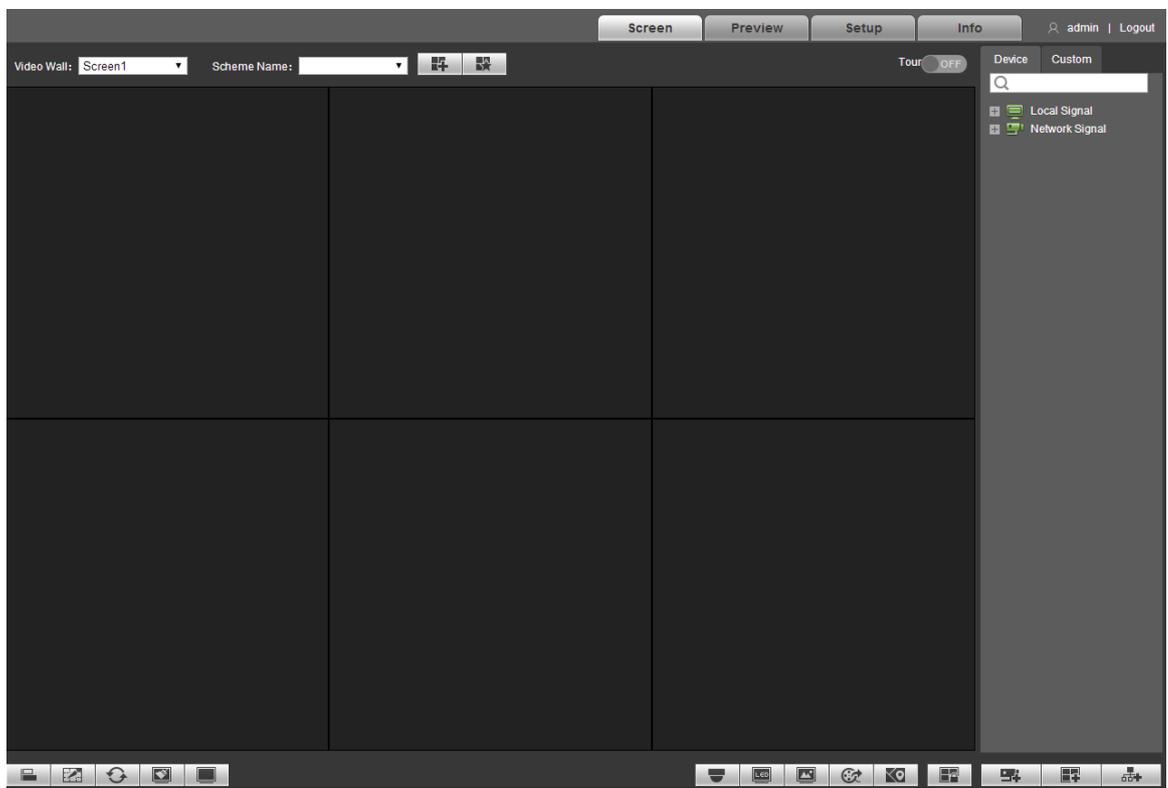


Figure 3-9

## 3.4 Add Window

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

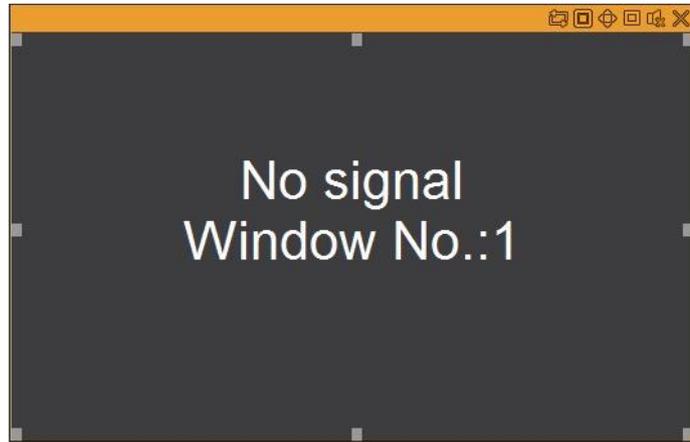


Figure 3-10

## 3.5 Add Network Signal

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

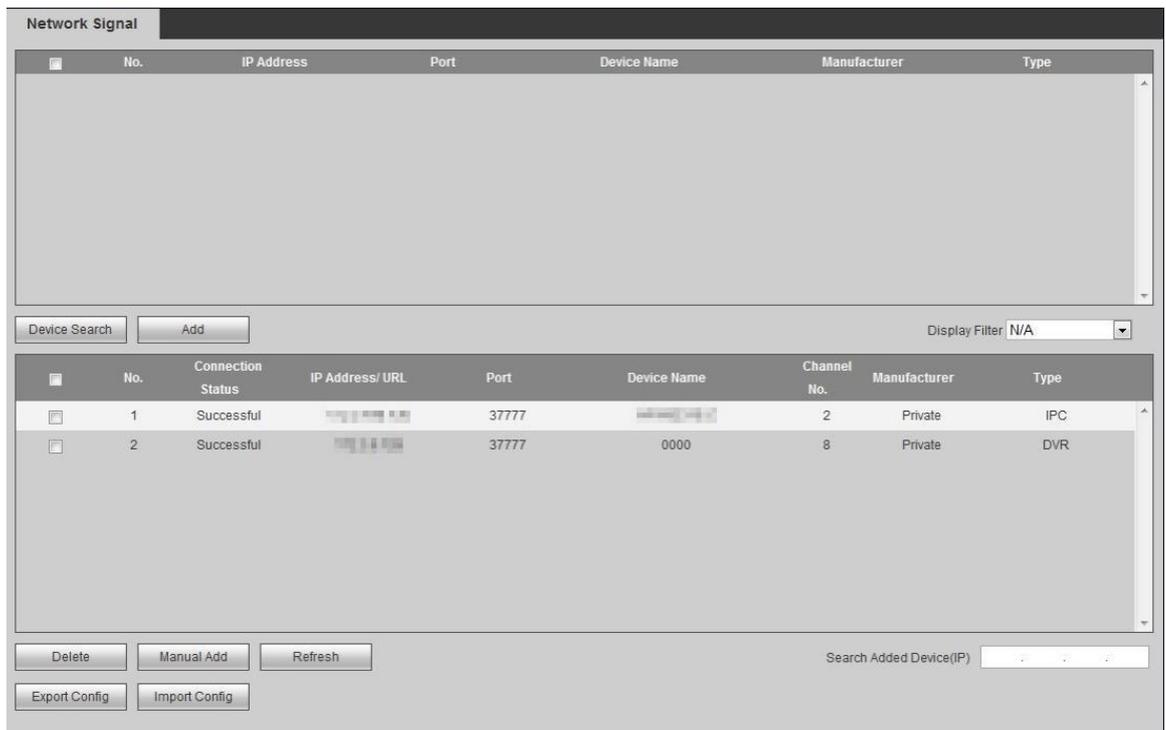


Figure 3-11

**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	192.168.1.1	80	192.168.1.1	Onvif	
2	192.168.1.2	80	192.168.1.2	Onvif	
3	192.168.1.3	80	192.168.1.3	Onvif	
4	192.168.1.4	80	192.168.1.4	Onvif	
5	192.168.1.5	80	192.168.1.5	Onvif	
6	192.168.1.6	80	192.168.1.6	Onvif	
7	192.168.1.7	80	192.168.1.7	Onvif	
8	192.168.1.8	80	192.168.1.8	Onvif	

Device Search   Display Filter: N/A

No.	Connection Status	IP Address/ URL	Port	Device Name	Channel No.	Manufacturer	Type
1	Successful	192.168.1.1	80	192.168.1.1	1	Onvif	ONVIF
2	Successful	192.168.1.2	80	192.168.1.2	1	Onvif	ONVIF
3	Successful	192.168.1.3	37777	192.168.1.3	2	Private	IPC
4	Successful	192.168.1.4	37777	192.168.1.4	8	Private	DVR

Search Added Device(IP)

✔ 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

 Note

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".

 Note

- 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.

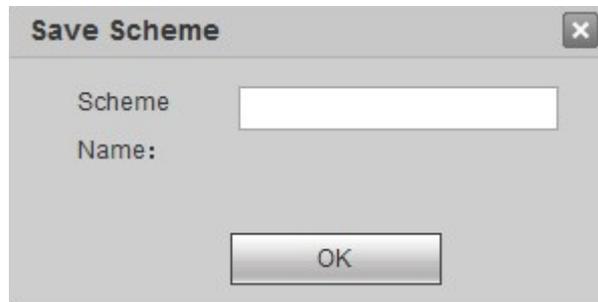


Figure 3-16

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.

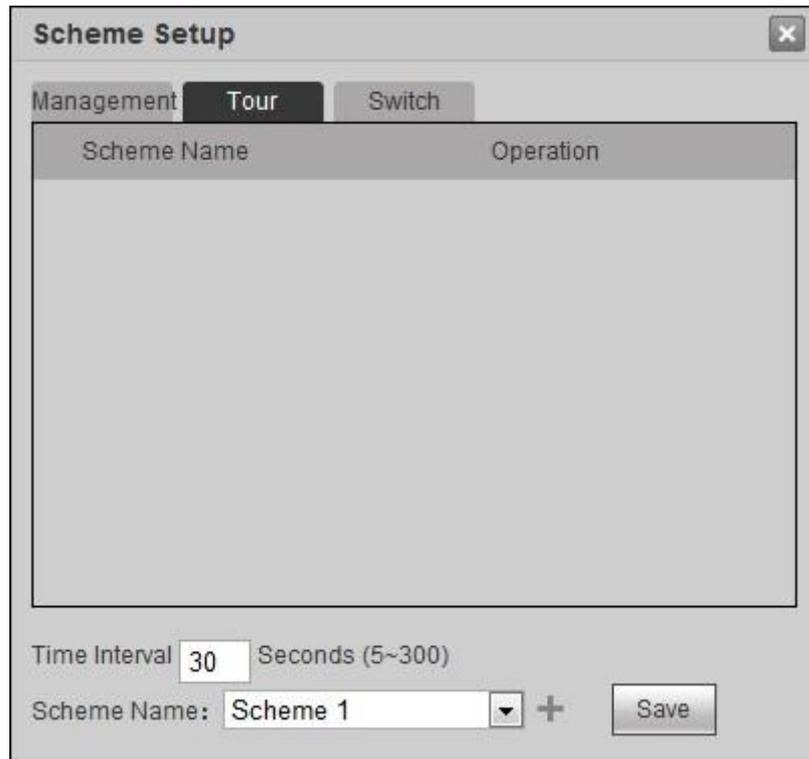


Figure 3-17

**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.

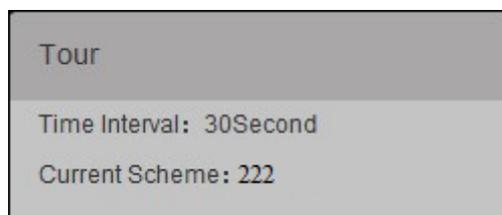


Figure 3-18