

# **V016-AI Operation and configuration instructions**

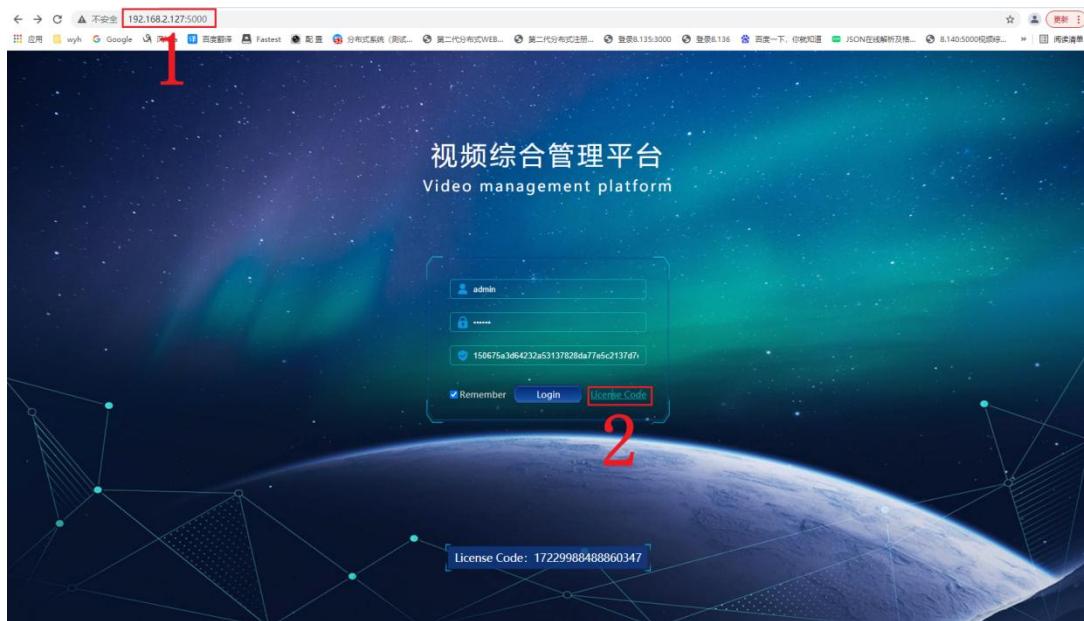
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# I. Instructions for the use of functional modules

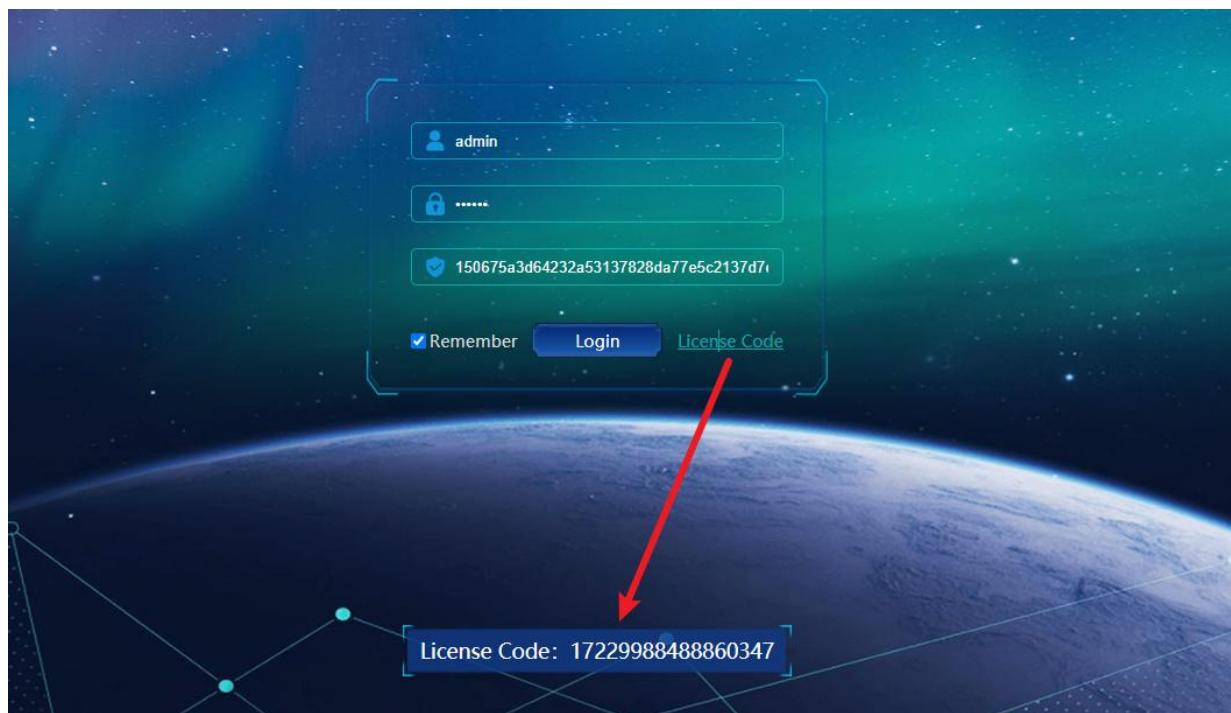
## 1.1 System login and registration

Sample label diagram:



1: The web page address is IP + :5000, and IP is the board IP.

2: The device is registered by default when it leaves the factory, and the verification code is not empty. If the verification code is empty when you login after receiving the device, you can click the "**device registration**" button, and the registration form that appears can be sent to the after-sales technology, as shown below.



The default login user name and password is admin 888888

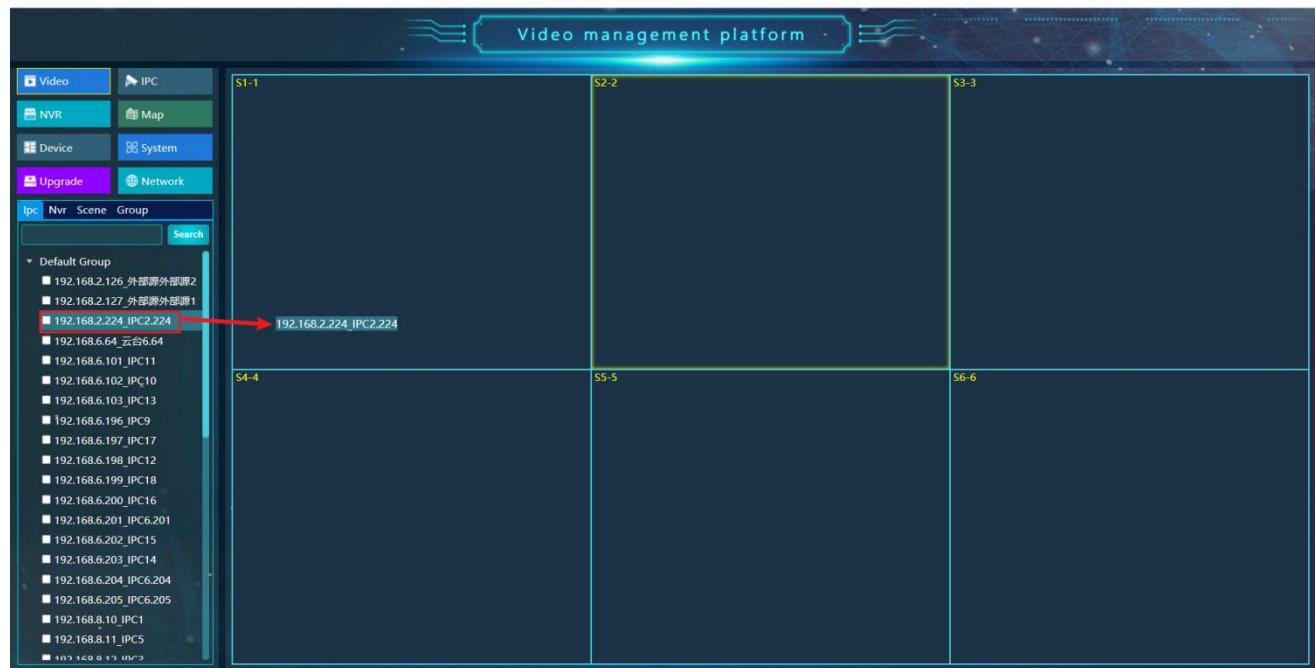
After the login page, you can change it in "**User Management**" in "**System Configuration**".

## 1.2 Video Management

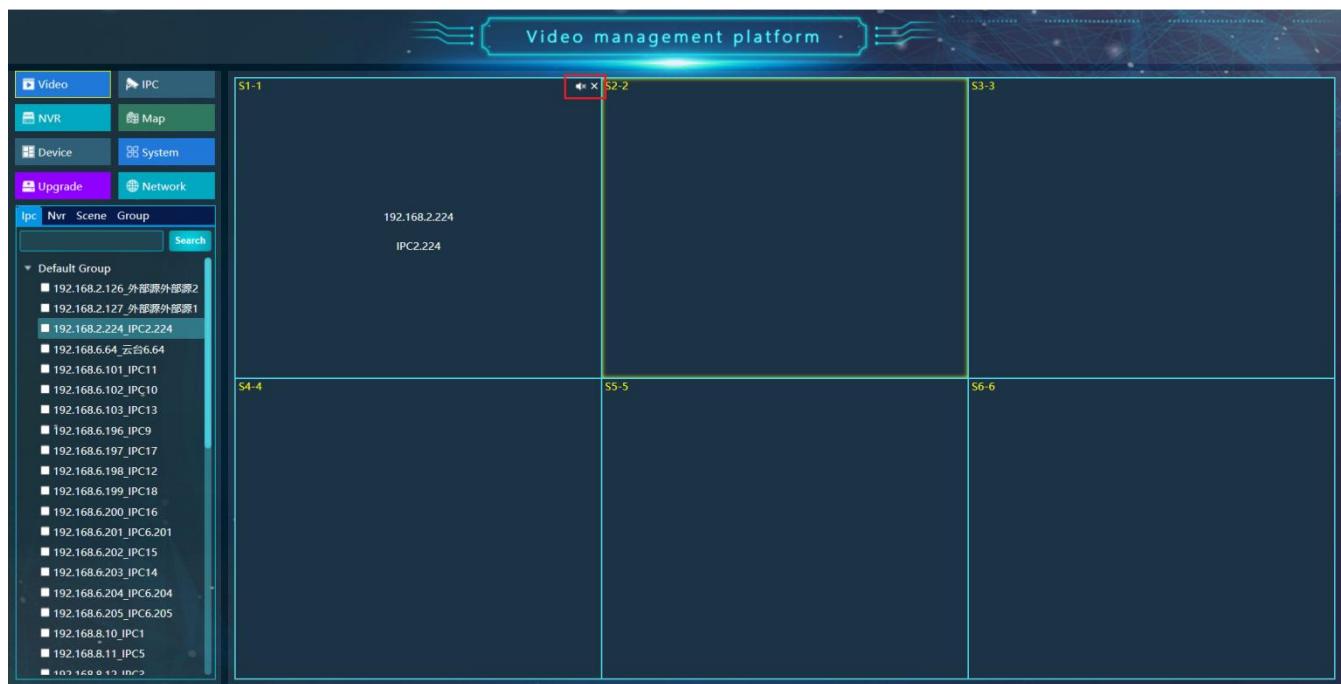
Video Management page:



Click "IPC" or "NVR" to drag the monitoring IP or video recorder in the list into the right curtain wall. (See 1.12 and 1.3 for NVR and monitoring point configuration.

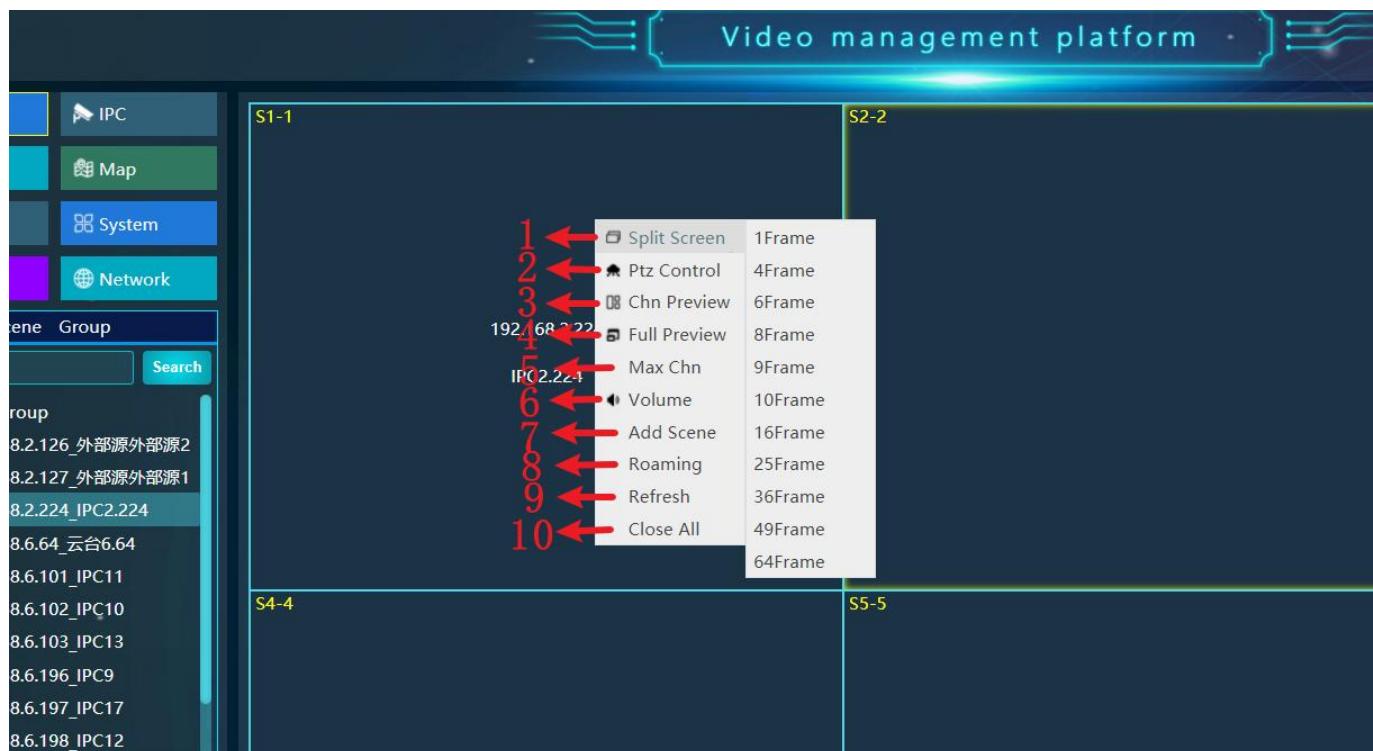


The upper right corner of the channel can turn on the sound and turn off the input source in the channel.



### 1.2.1 Right mouse button function menu

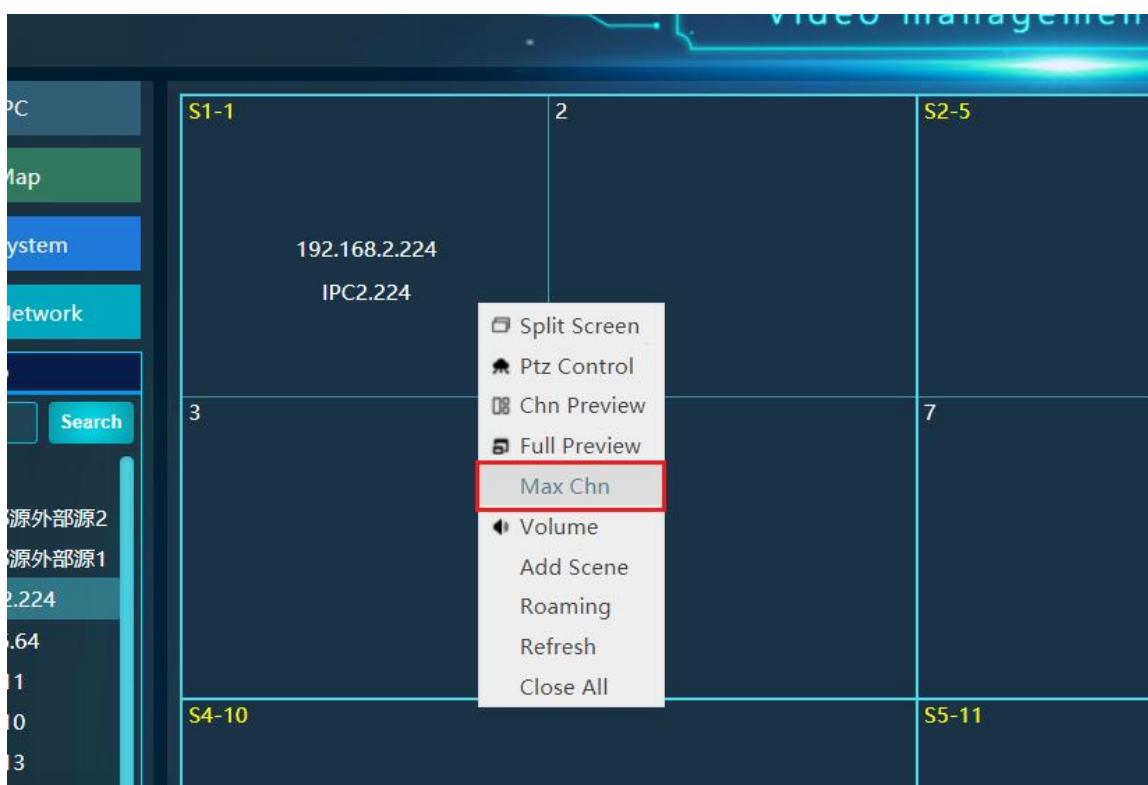
Menu button label diagram:



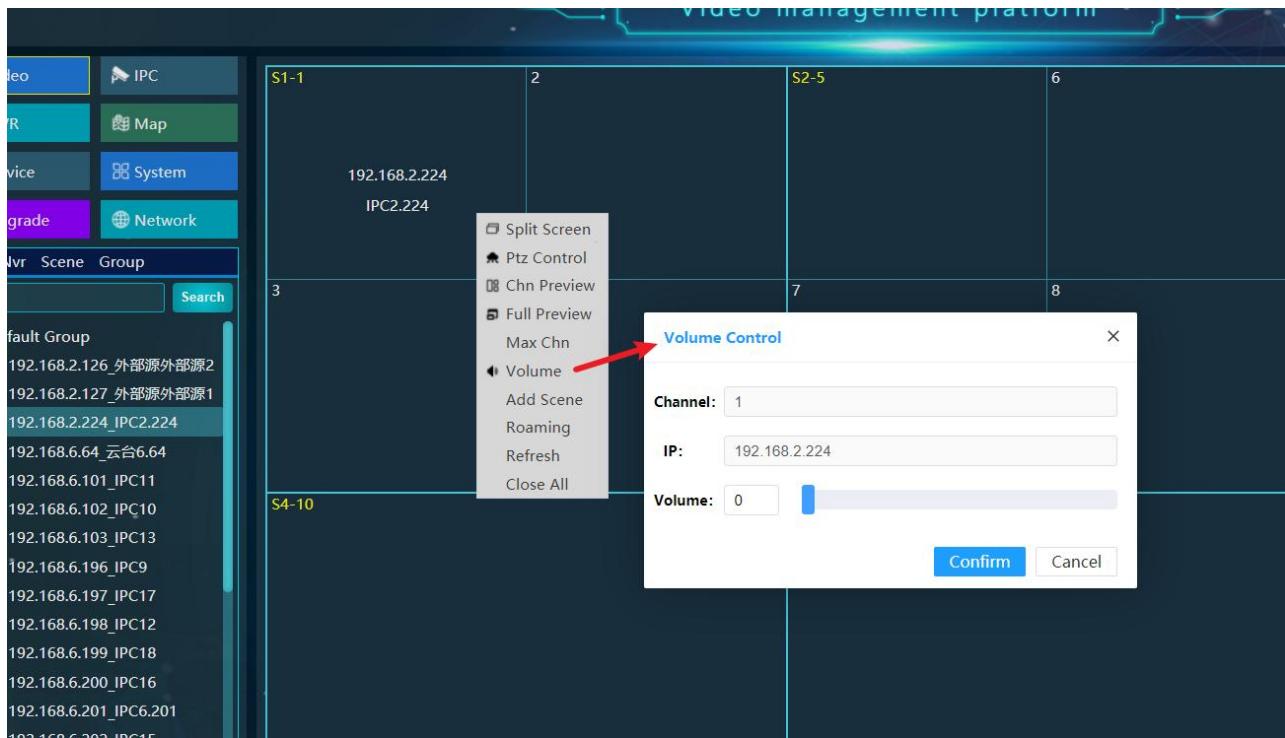
1. Click "Split Screen" to select the screen number to divide the single output of the board into 1, 4 and 9 channels, and change it into 1, 4 and 9 channels.
2. Click "Ptz Control" to pop up the direction key and preset button, which can control the ball machine, and the non-ball machine camera cannot be controlled.
3. Click "Channel Preview" to echo the real-time picture of the signal source in the channel. (As shown below) A plug-in is required for this function.



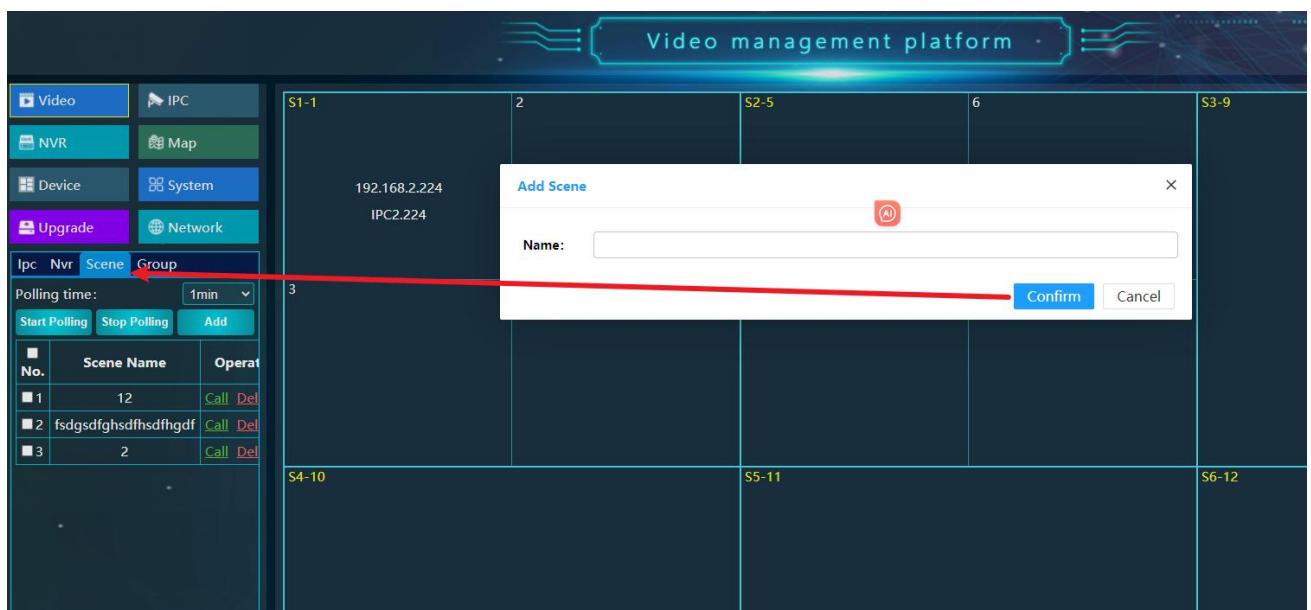
4. Click "Full Preview" to full screen echo.
5. Click "Max Channel" to restore the segmentation to 1. The segmentation occupies the whole channel.



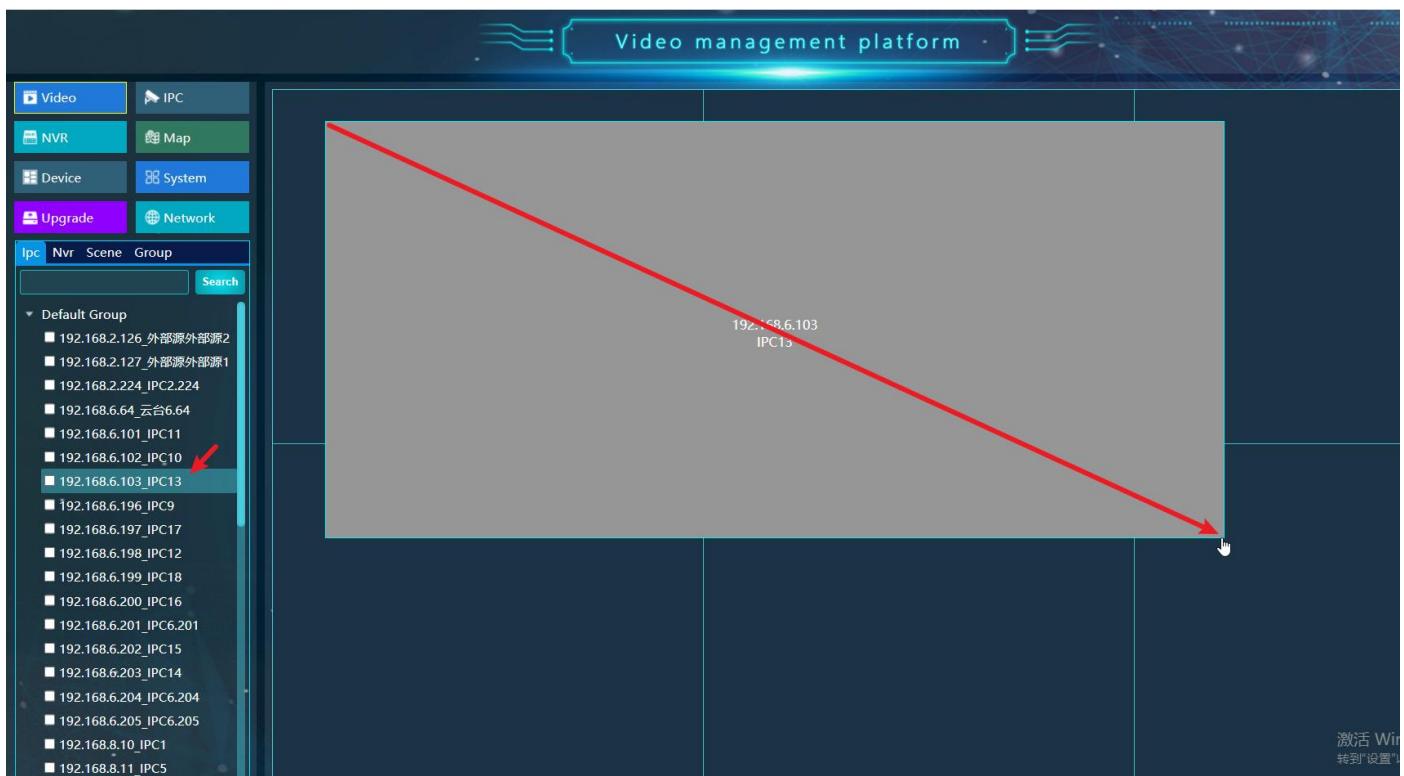
6. Click "Volume" to pop up the volume adjustment button to adjust the volume of the current IP input source.



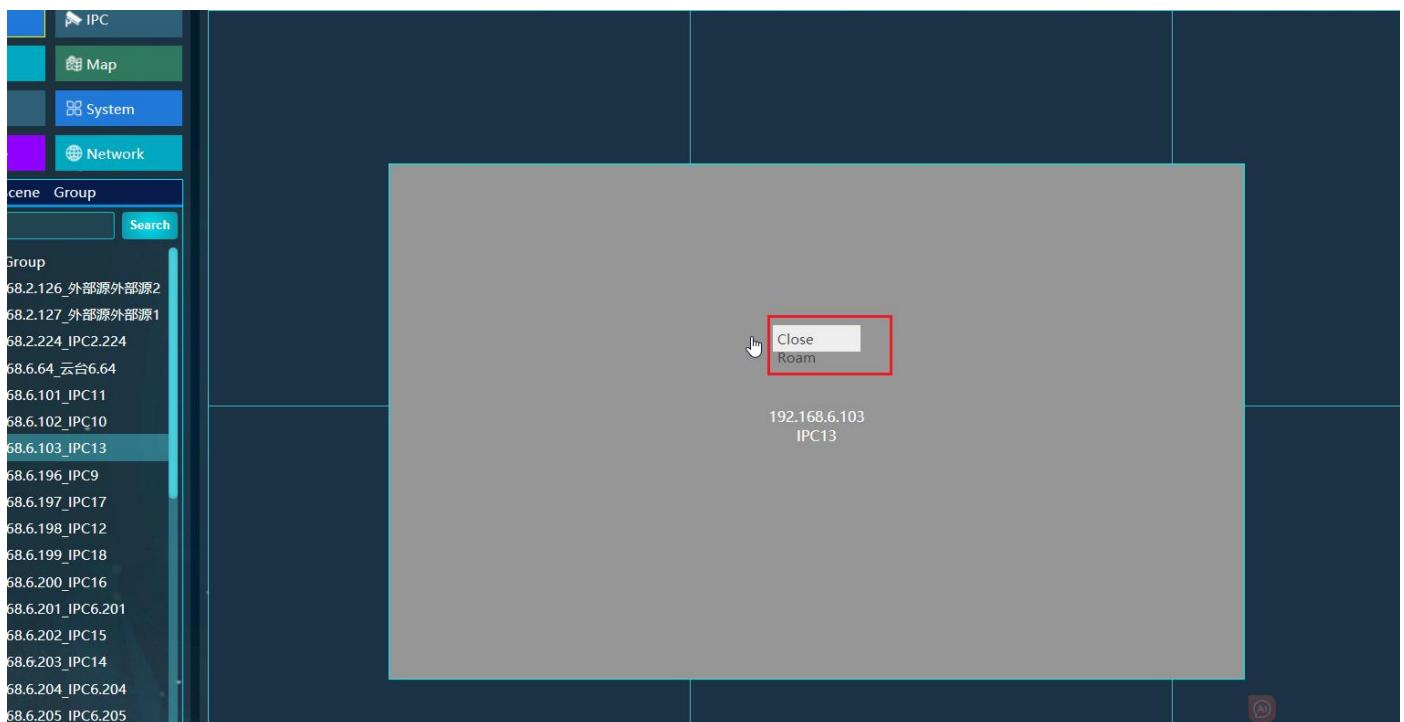
7. Click "Add Scene" and a naming box will pop up. Click "Confirm" to save the channel layout and input source distribution of the current page.

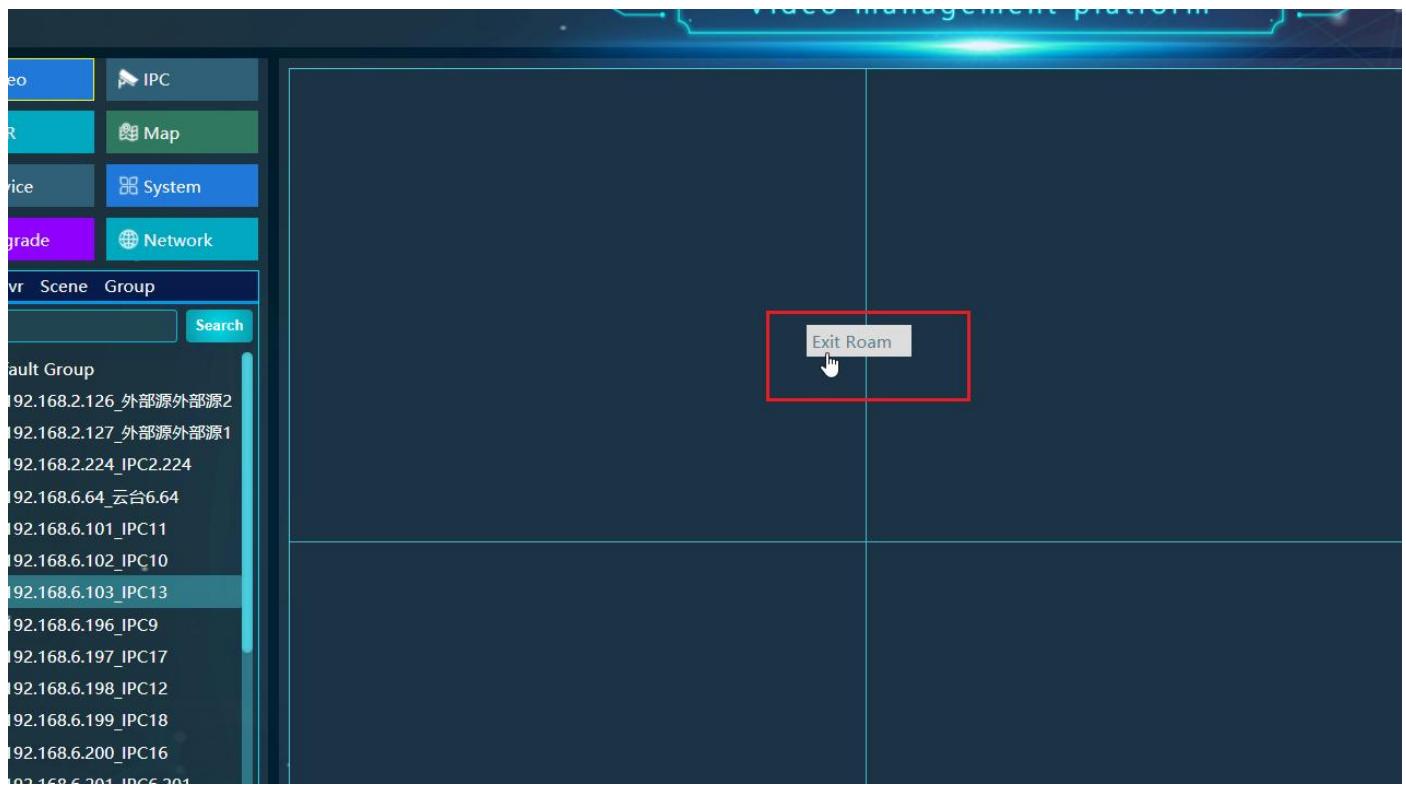


8. Before clicking "Roaming", you need to select an input source in the left "IPC" list. After selecting it, right-click "Roaming" in the channel will display an empty channel, and the large screen will not be affected at this time. The large screen will display the signal source of the current IP in the corresponding position.



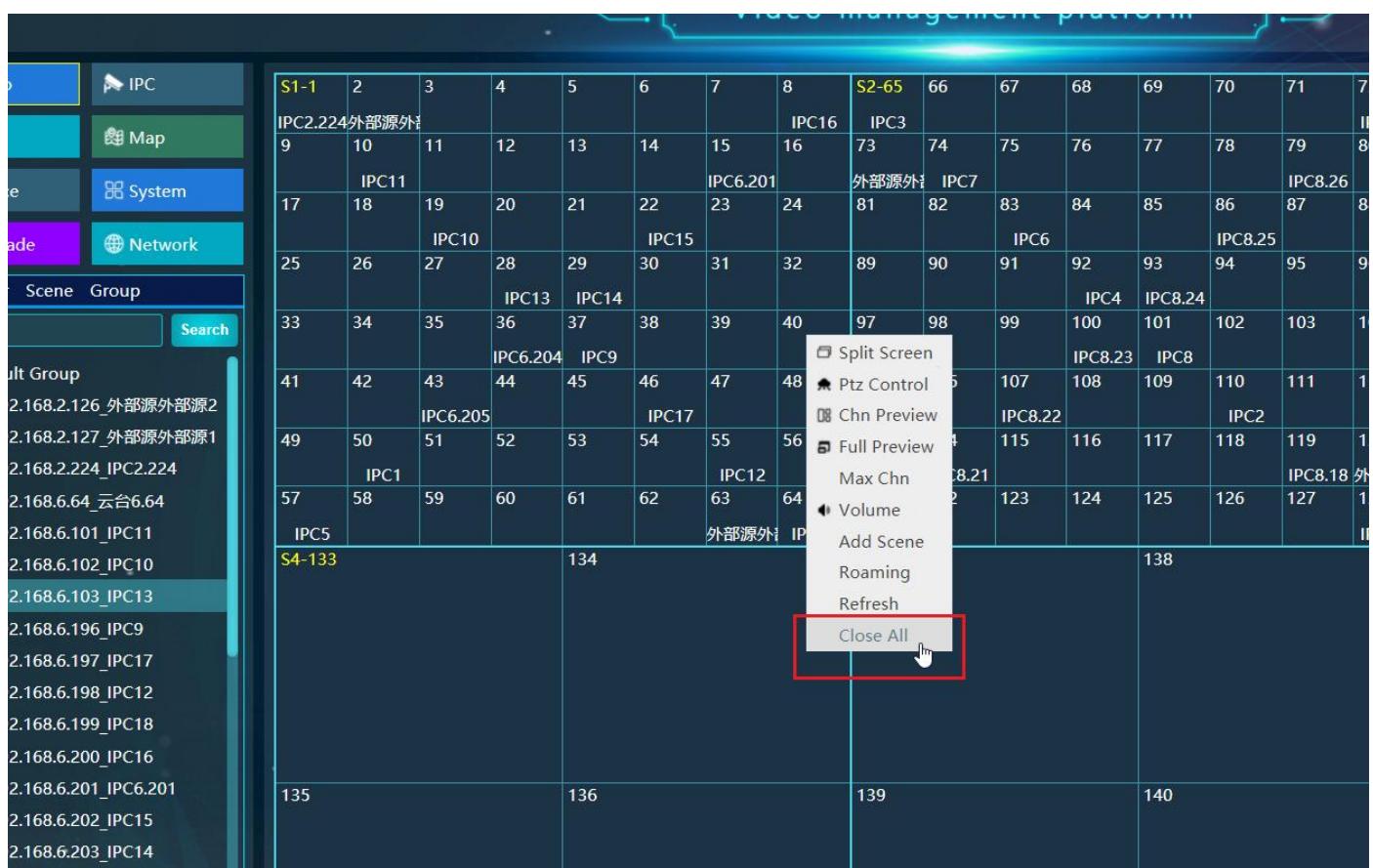
Click the right button of the mouse to close the current window, click the right button again to exit the roaming back to the previous division and layout.





9. Click "Refresh" to refresh the channel.

10. Click "Close All" to close the input sources in all channels, the channel segmentation state in the output outlet is unchanged, and the large screen is empty.



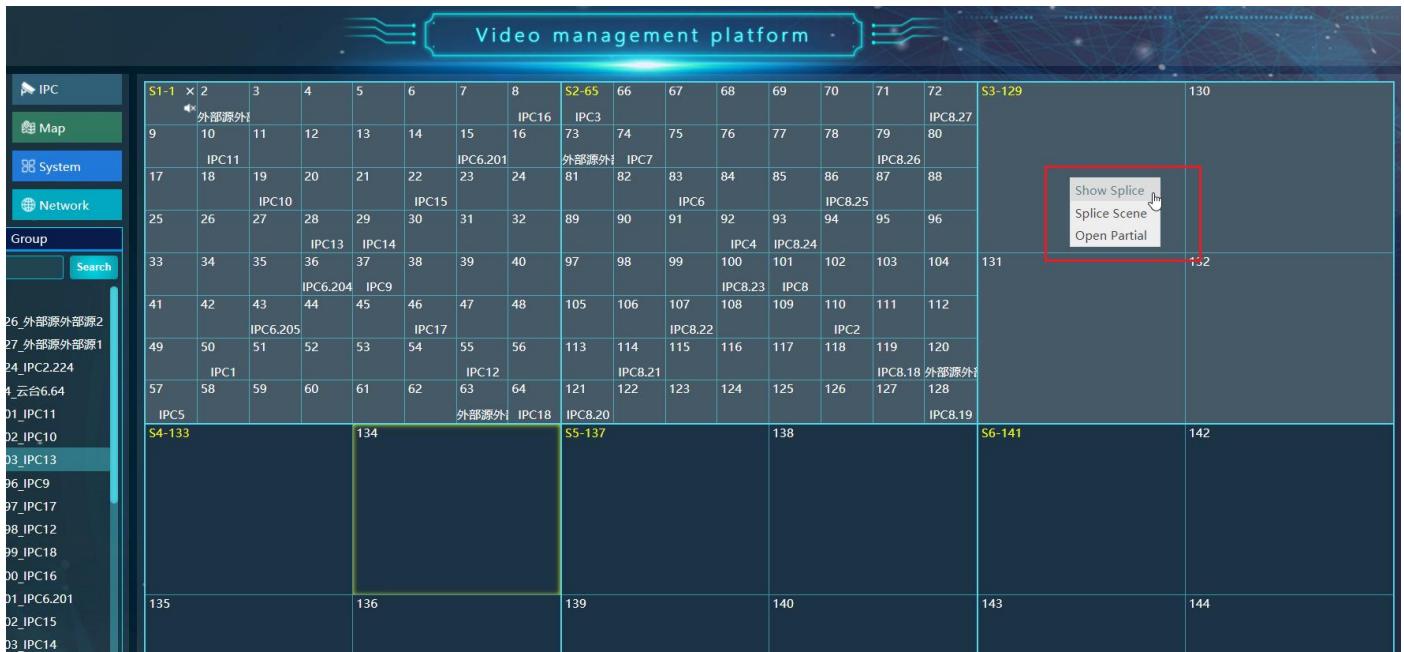
## 1.2.2 Channel splicing

After selecting the channel with the left mouse button, the channel will be grayed out. The grayed channel can be displayed with the right mouse button "stitching display".

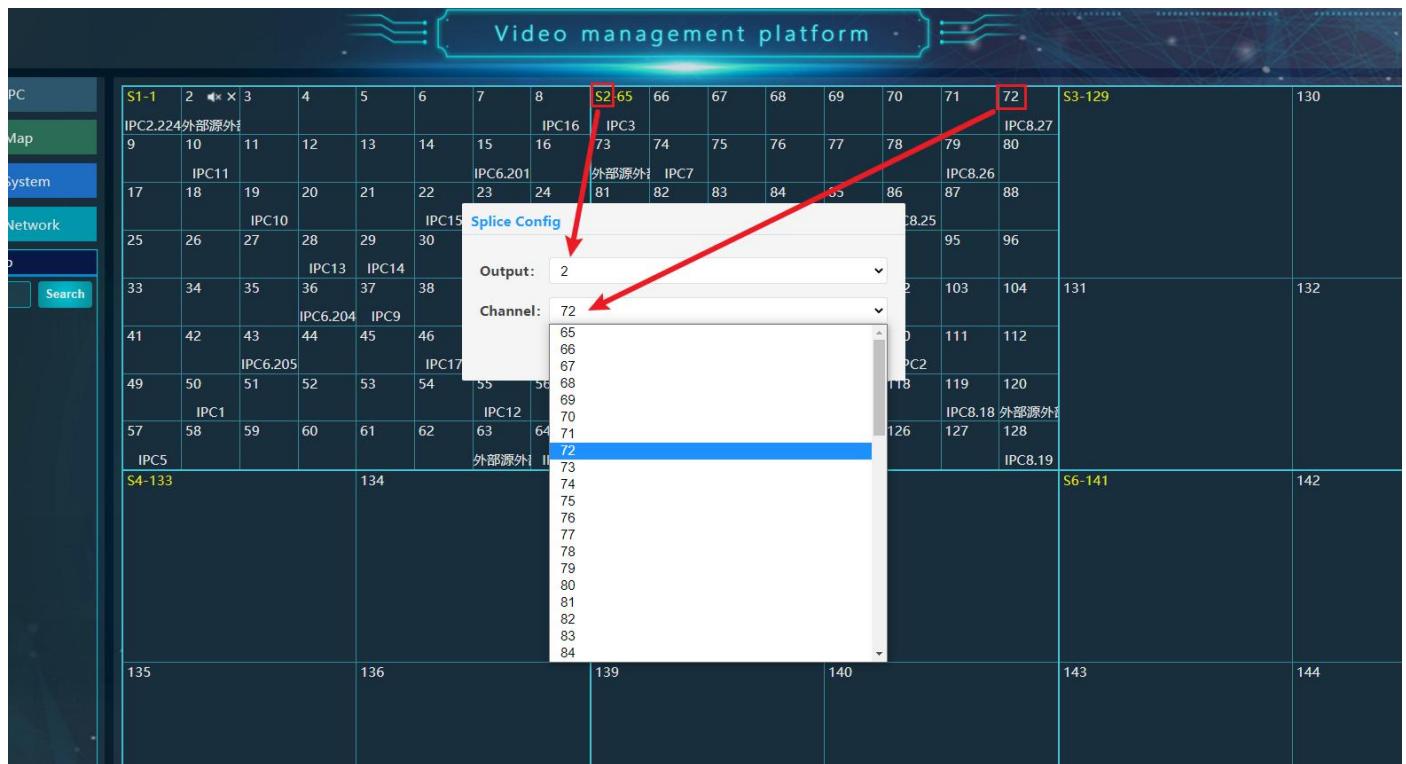
Left mouse button box selection (at least two channels -  $s1 \setminus s2 \setminus s3$ ).



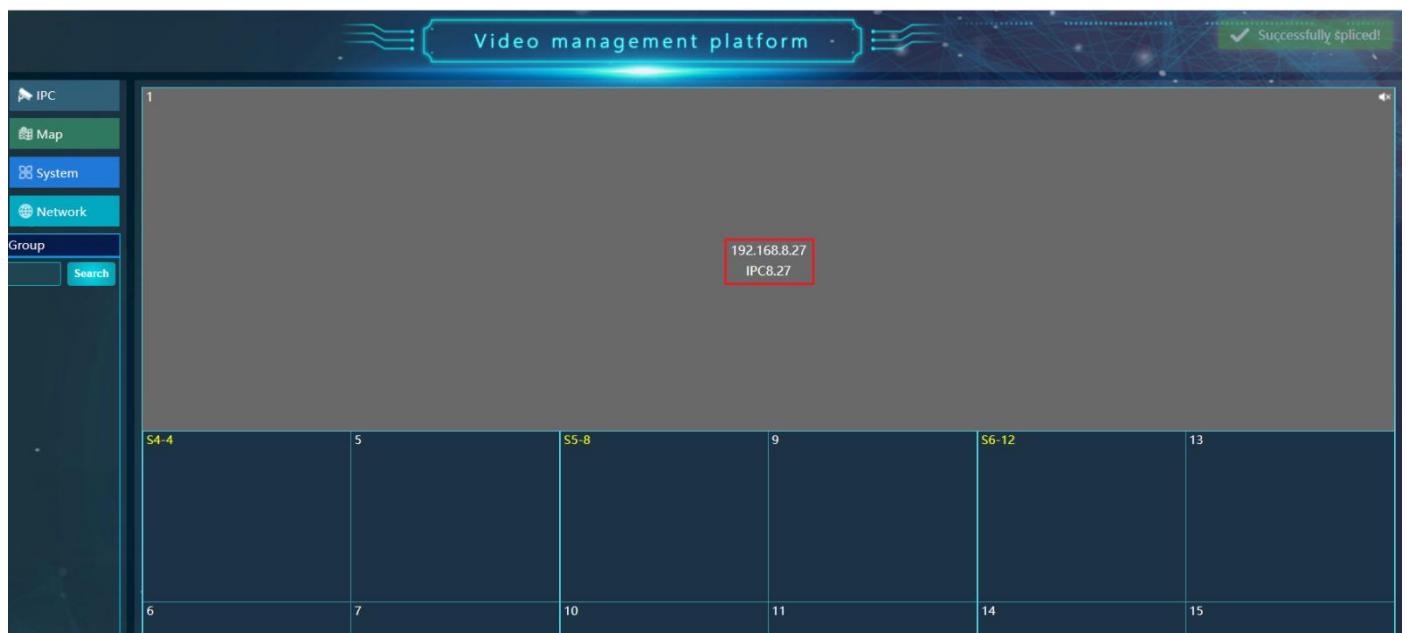
Right mouse button to splice.



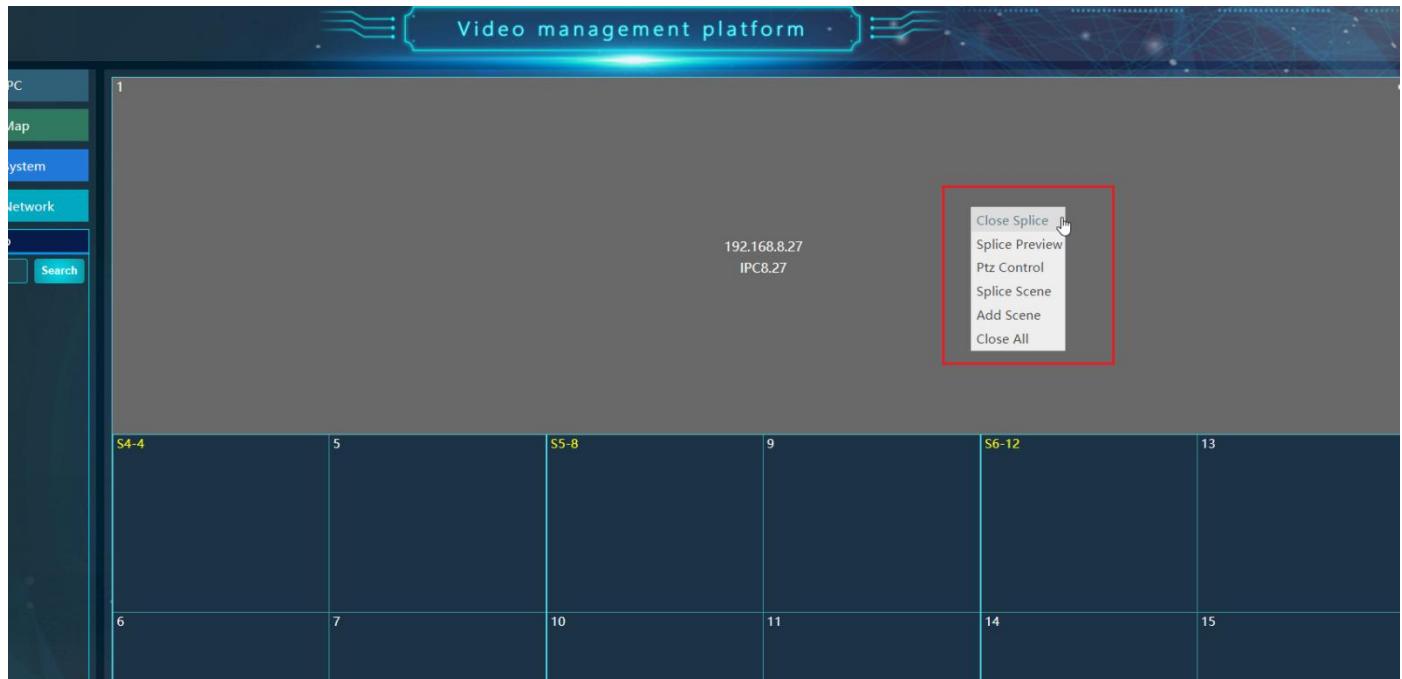
Select the input source that you want to display.



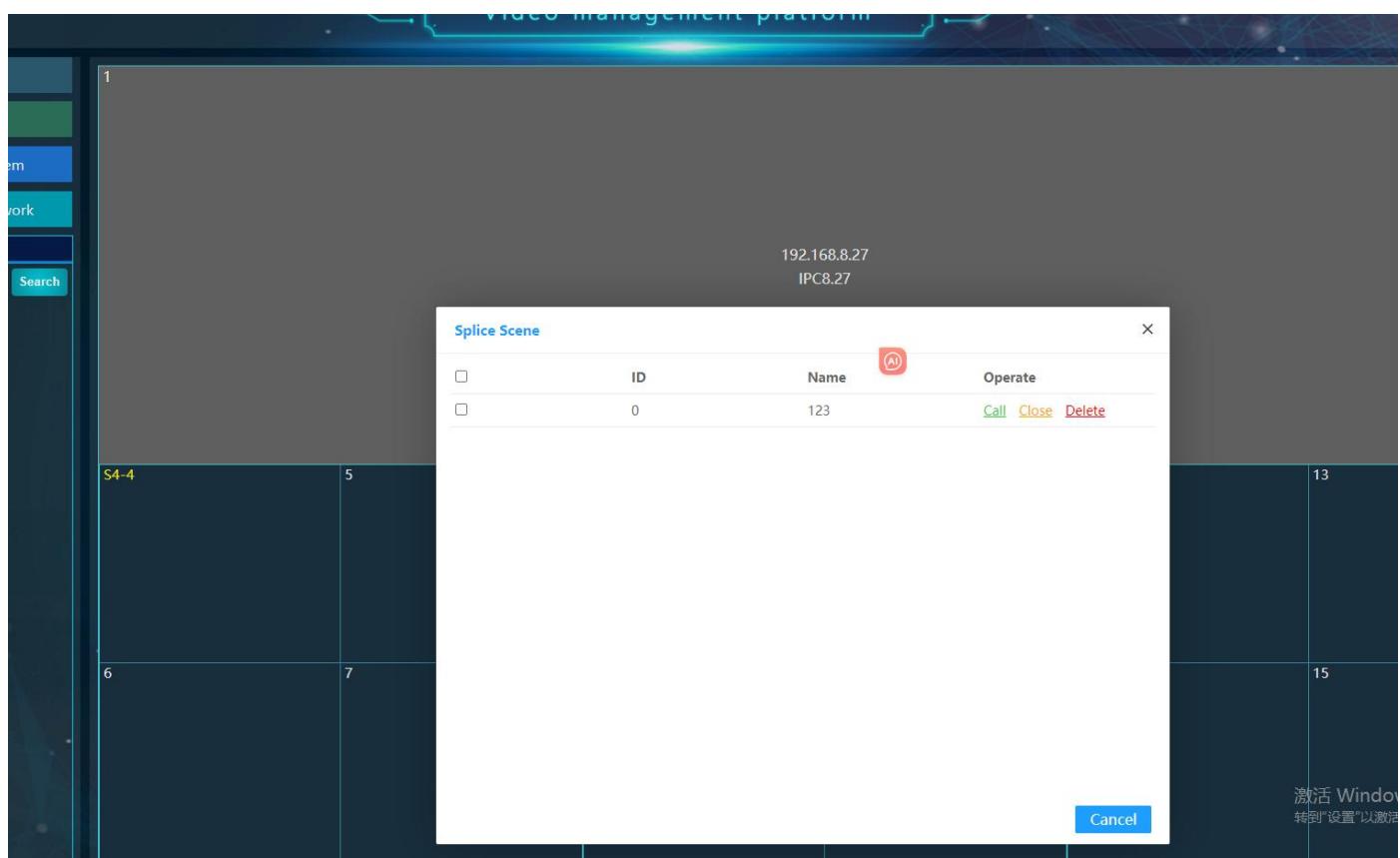
After clicking confirm, the range of box selection will show the IP source within the channel just selected.



Right click within the splicing range to call out the splicing function drop-down list.



Click "Add Scene" to save this splicing plan, and click "Splice Scene" to view the saved splicing style.



# 1.3 Monitoring and Management

Monitoring and Management page:

The screenshot shows the 'Video management platform' interface. On the left, there is a sidebar with icons for Video, IPC, NVR, Map, Device, Upgrade, and Network. Below this is a list of monitoring points under 'Default Group' with their IP addresses. The main area is a table titled 'Video management platform' with columns: No., IPC-ID, Name, IP, Username, and Password. The table contains 19 rows of camera information. On the right, there is a search interface with fields for Username (admin), Password (admin12345), and a 'Search' button. Below the search is a table with columns: No., IP, and Device. It shows three entries: 1 (IP null, Device HIKVISION), 2 (IP 192.168.2.125, Device HIKVISION), and 3 (IP 192.168.2.183, Device HIKVISION). At the bottom right, there is a note: '激活 Windows 转到“设置”以激活 Windows.' (Activate Windows Go to "Settings" to activate Windows.).

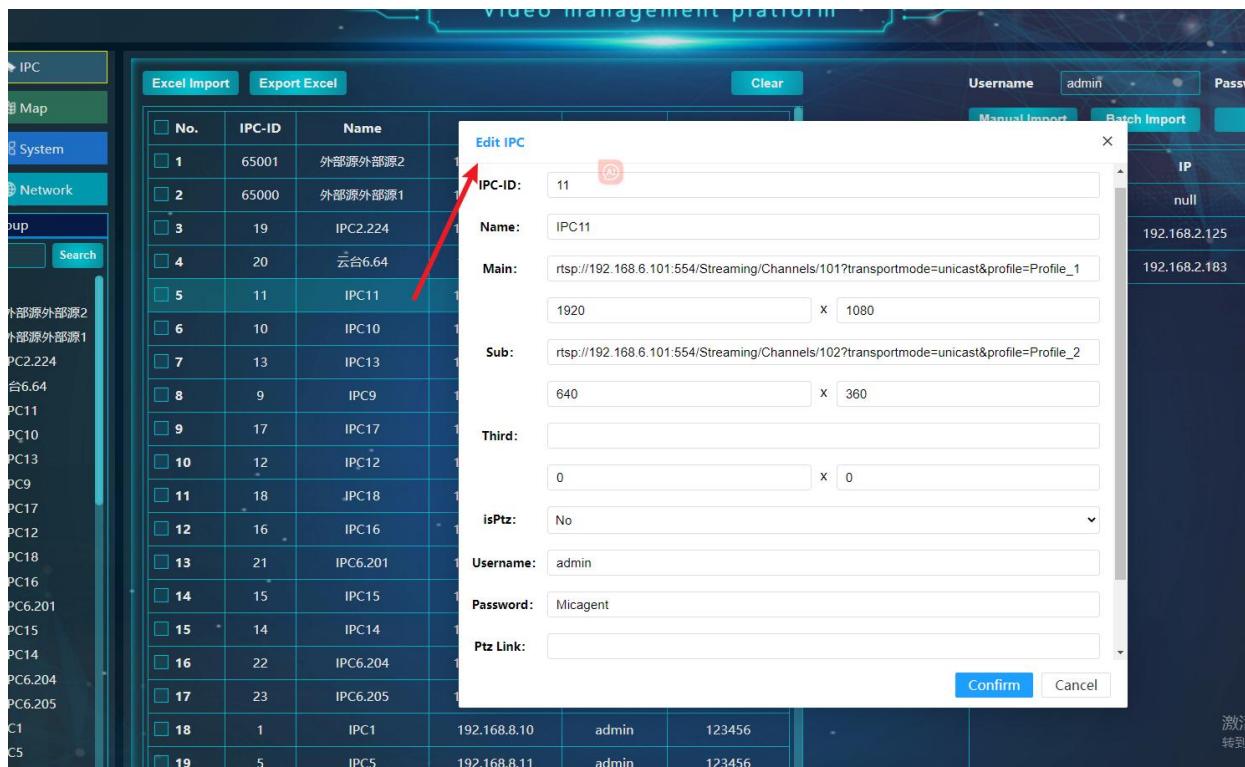
Step 1 Click the "Search" button on the right side of the page, and the search result is the camera information that has not been added.

Step 2 Set the camera's own username and password on the top.

Step 3 Check the camera that needs to be added (the camera checked should correspond to the user name and password, if the password of the camera itself is not consistent with the above preset, the screen cannot be displayed).

Step 4 Click "Enter" to add the selected camera to the left list, refresh the page, click the monitoring point on the left to display the list of added cameras.

Double-click the input source in the list to change the relevant configuration.



When you have the original exported monitoring point Excel sheet, you can directly click "Excel Import" to pop up the file selection box and select the Excel file with monitoring data.

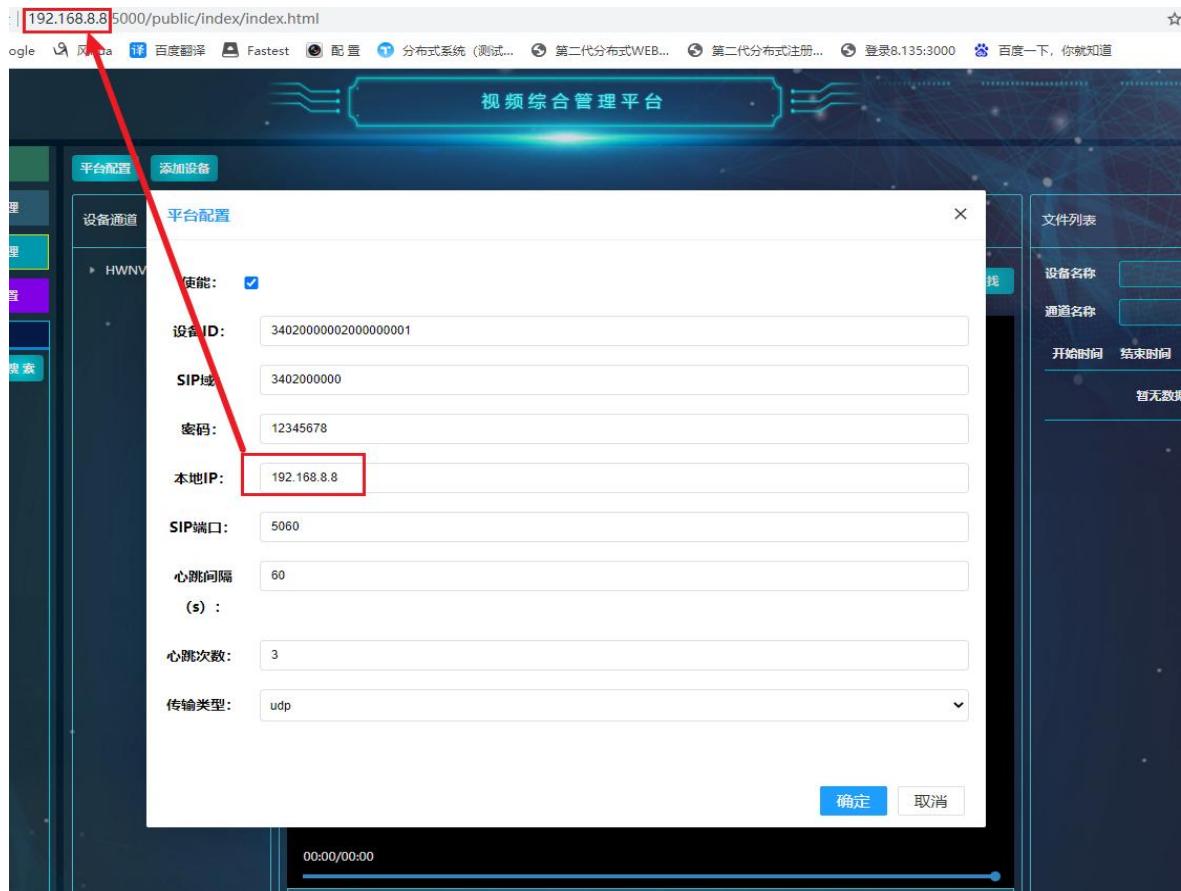
## 1.4 Video Management

This function can only be added in line with the Chinese national standard video recorders

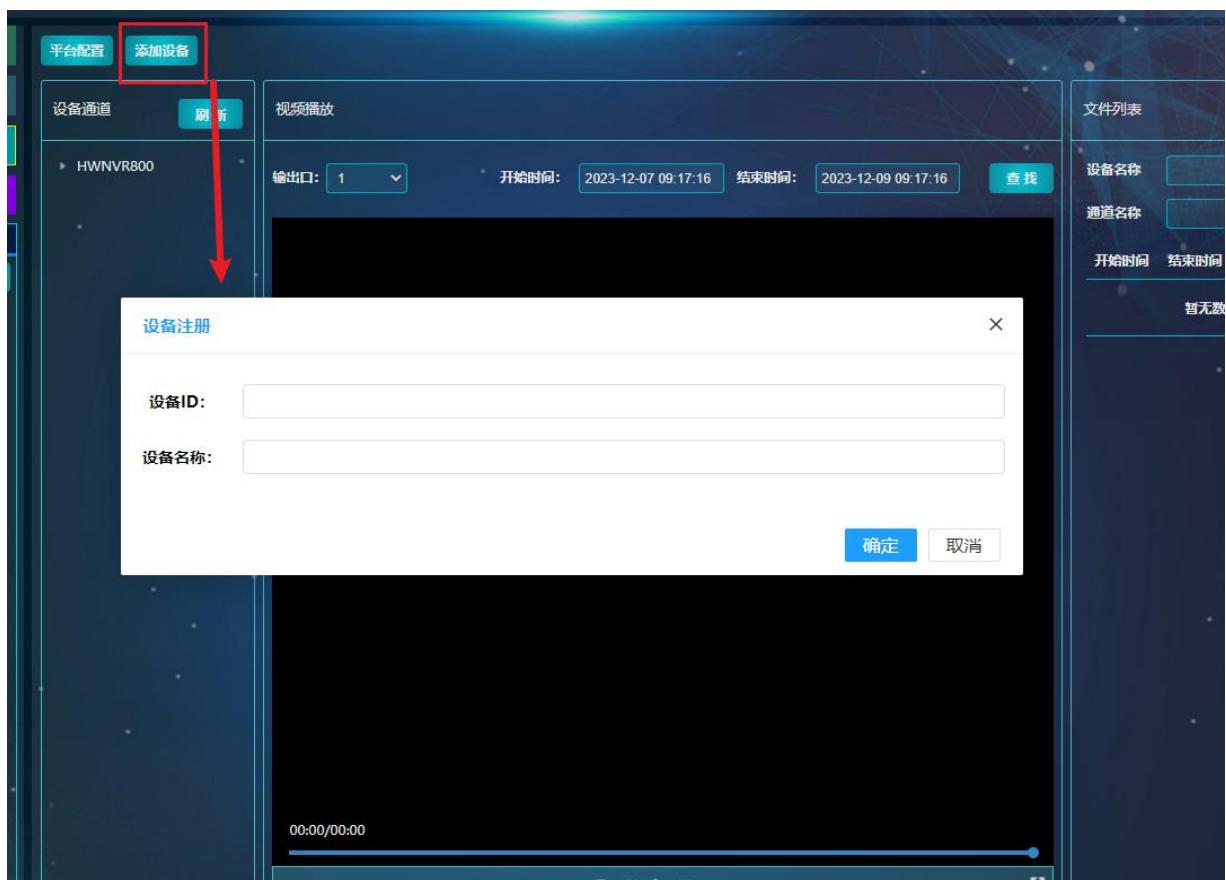
Functions and steps:



Step 1: Click "Platform configuration", the default configuration of the device factory is basically unchanged, just change the local IP to the IP address of the web page login.



Step 2: Click "Add device".



The device ID is the 20-digit SIP user authentication ID set in the NVR or the device number. (Label 1 in Figure 1 and Figure 2 below)

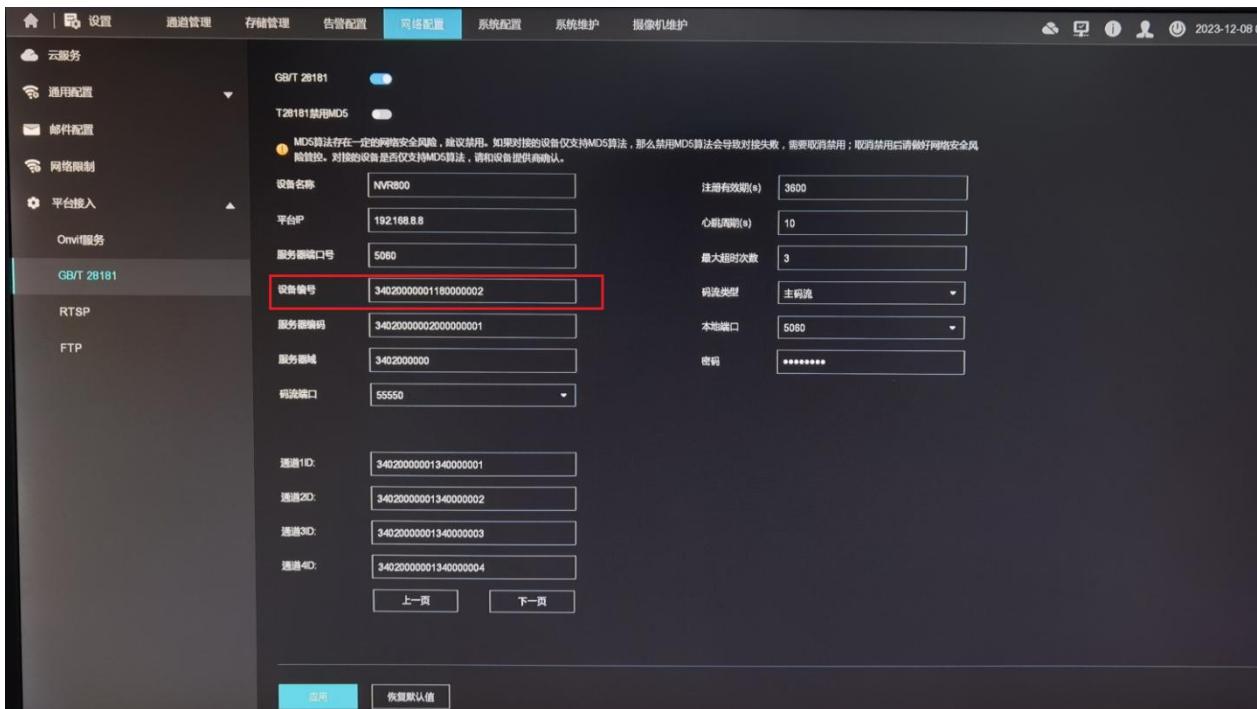


Figure 1

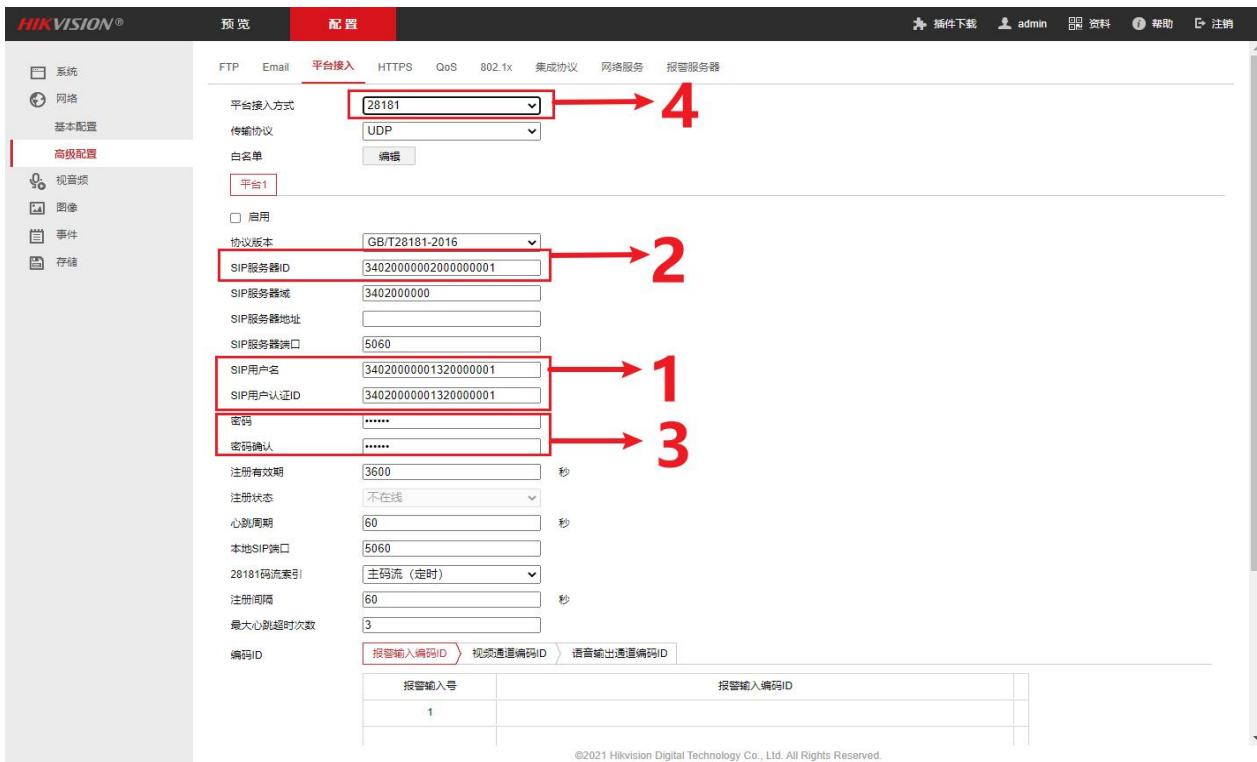


Figure 2

In general, the platform access method should be GB28181 (label 4 in Figure 2). Label 2 in Figure 2: SIP server ID should be consistent with "device ID" in "Platform Configuration" of label 2 in Figure 3, and the password of video recorder should be consistent with the password in "Platform Configuration". (Label 3 in Figure 2 and label 3 in Figure 3)

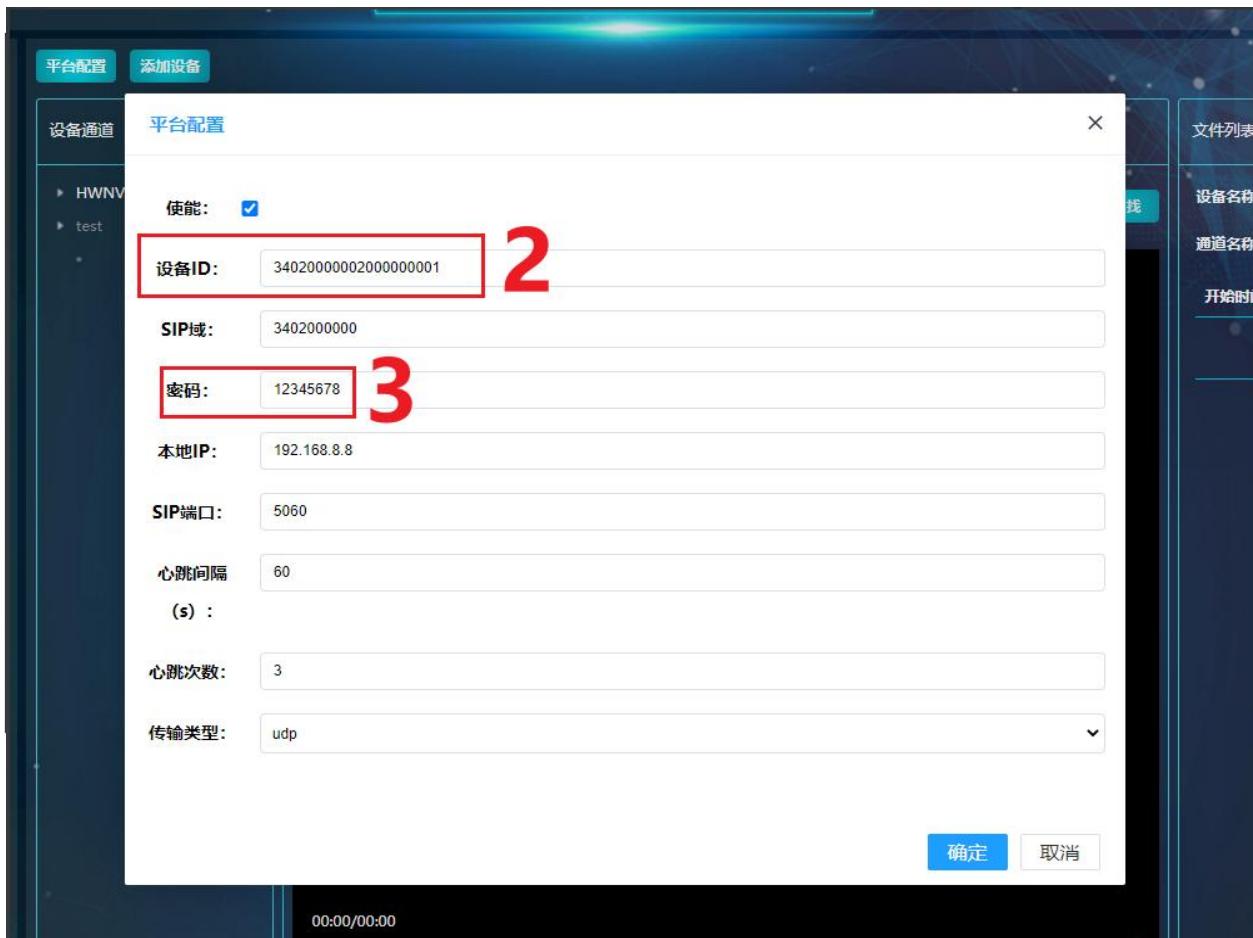


Figure 3



Step 3: Observe whether the NVR is white highlighted in the box of Step 4 after clicking Refresh.

Step 4: Click the triangle button selected in the box to bring up the list of NVR and select the camera channel with white highlighted.

Step 5: Select lookup time Click "Find".

Step 6: Select the corresponding time in the right search bar and click "Play".

## 1.5 Digital Map

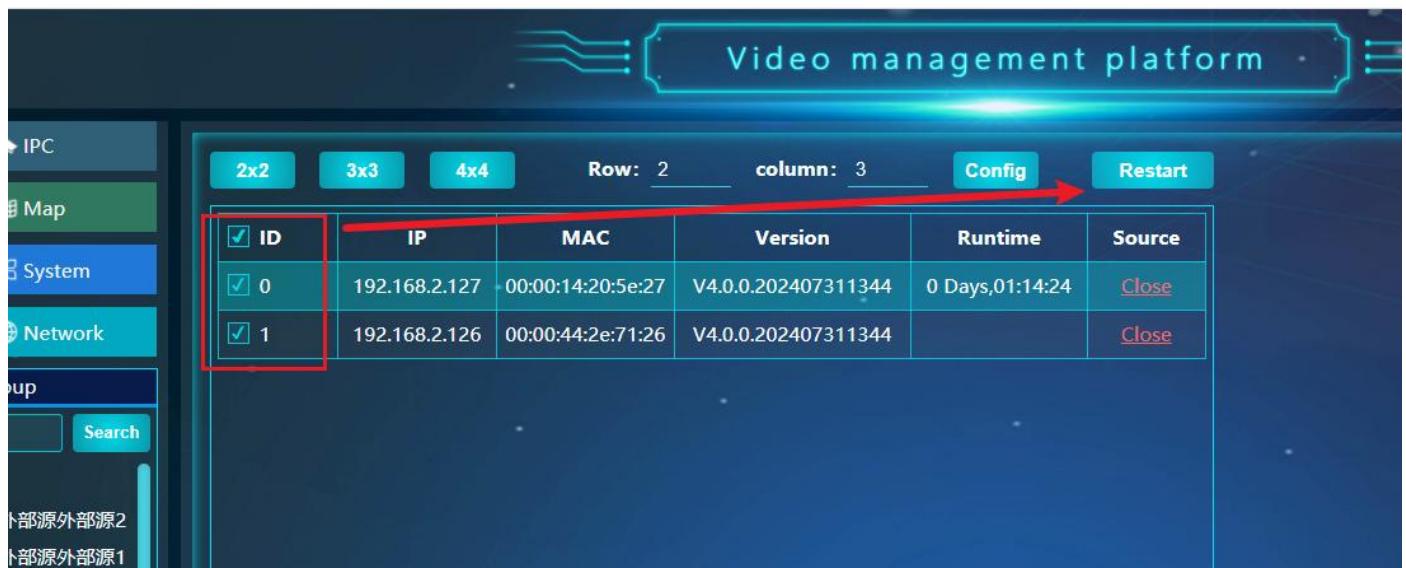
This feature is temporarily unavailable outside of China

## 1.6 Curtain wall management



After clicking the preset number above or setting the number of rows and columns, click "Config", and the channel layout of the video management page will change accordingly.

Select the check box in the IP list of the board below and click "Restart" to restart the selected board.



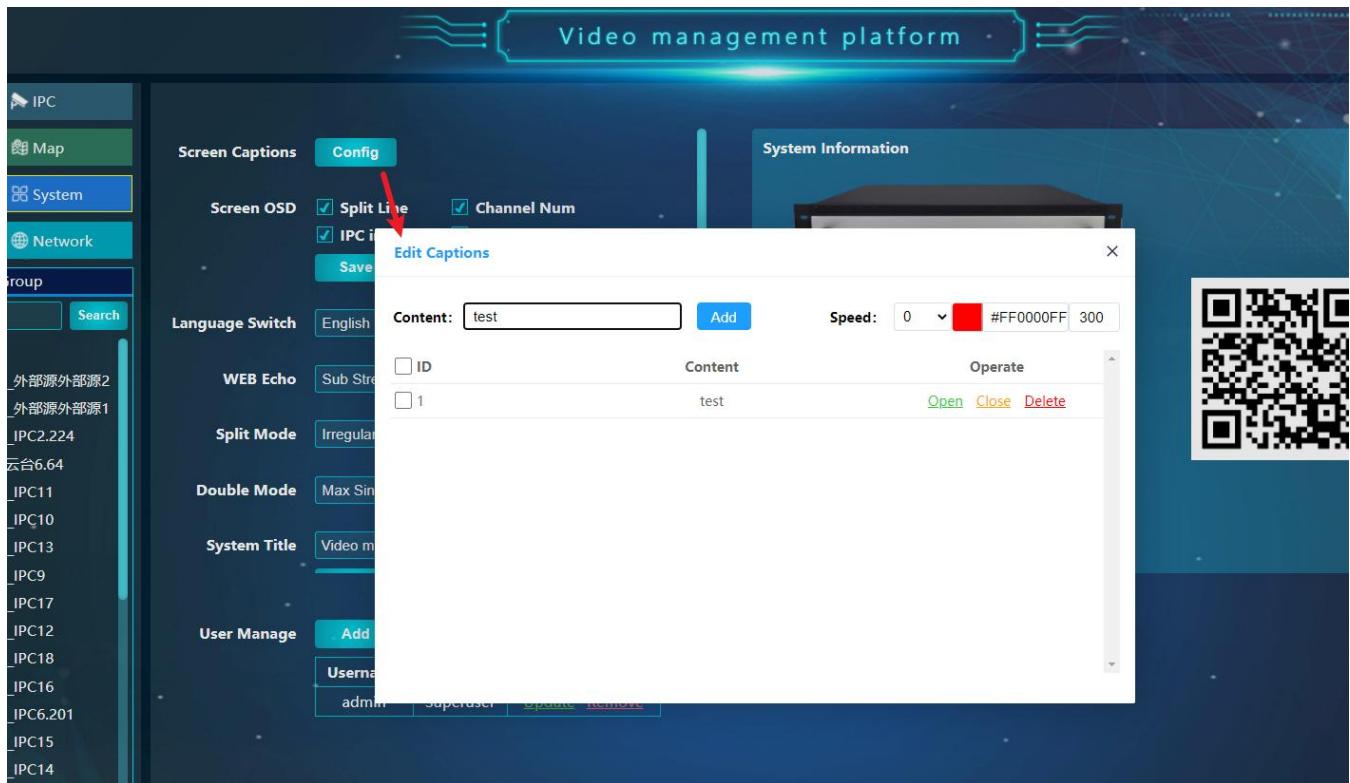
Double-click the card and the card information edit box will pop up (modify with caution).

The screenshot shows a list of devices in a table with columns: ID, IP, MAC, Version, Runtime, and Source. The first device (ID 0) is selected, and a red box highlights the entire row. An 'Edit Device' dialog box is overlaid on the list, containing fields for ID, Resolution, FPS, IP, Mask, Gateway, and MAC. The 'ID' field is set to 0. The 'Resolution' field is set to 1920\*1080. The 'FPS' field is set to 60. The 'IP' field is set to 192.168.2.127. The 'Mask' field is set to 255.255.255.0. The 'Gateway' field is set to 192.168.2.1. The 'MAC' field is set to 00:00:14:20:5e:27. At the bottom of the dialog are 'Confirm' and 'Cancel' buttons.

## 1.7 System Configuration

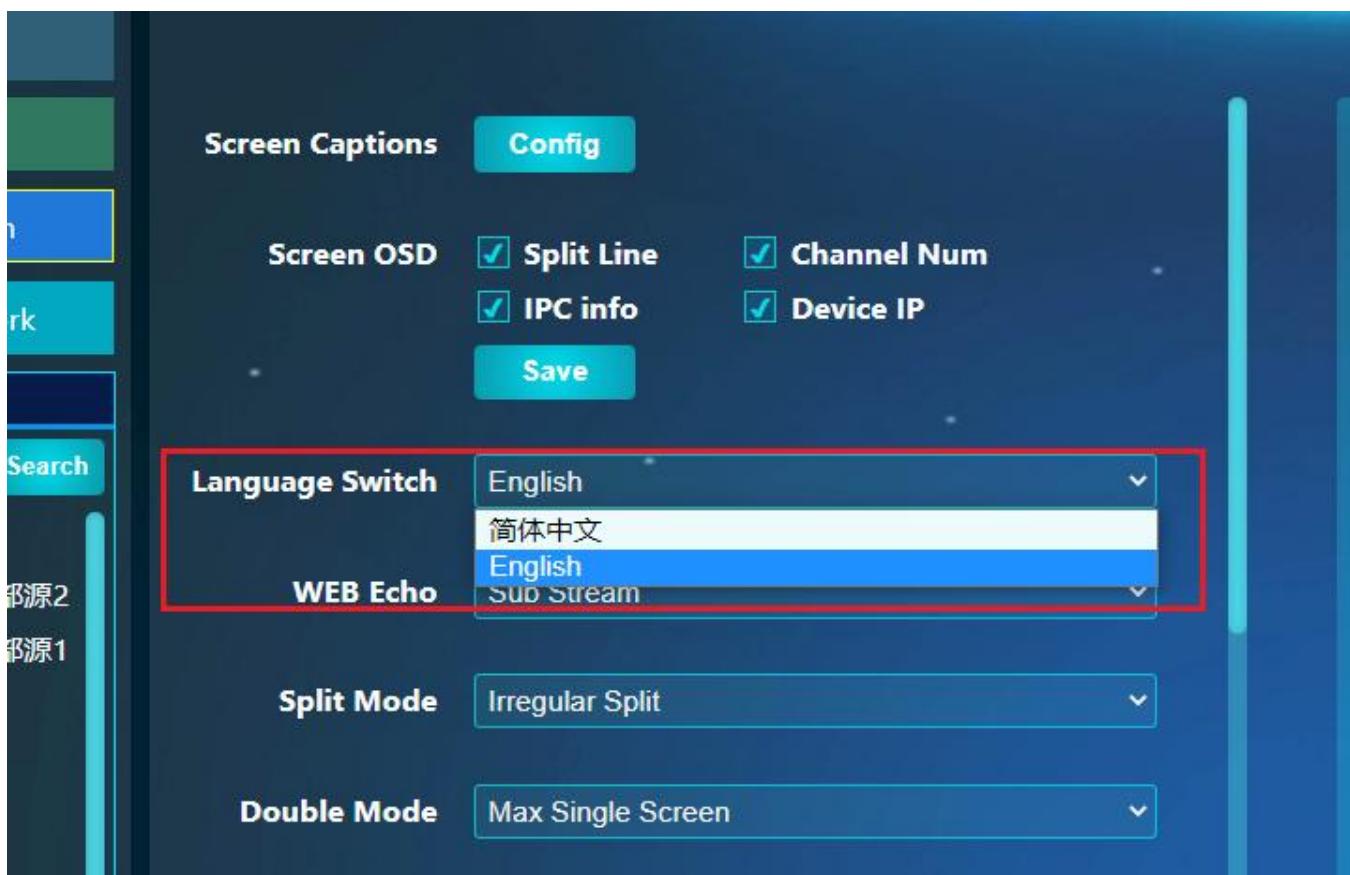
The screenshot shows the 'Config' tab of the 'System Configuration' section. It includes settings for Screen OSD (Split Line, Channel Num, IPC info, Device IP), Language Switch (English), WEB Echo (Sub Stream), Split Mode (Irregular Split), Double Mode (Max Single Screen), System Title (Video management platform), and User Manage (Add, Username: admin, Type: Superuser, Operate: Update, Remove). To the right, the 'System Information' panel displays the device as a Network Video Decoder, with SN: 17229988488860347 and Version: V2.6.6 Build 202408061655V0016. It also features a QR code and buttons for Time Calibration, Restore Factory, and Restore Inactive State.

Click "Config" to pop up the curtain wall subtitle edit box.

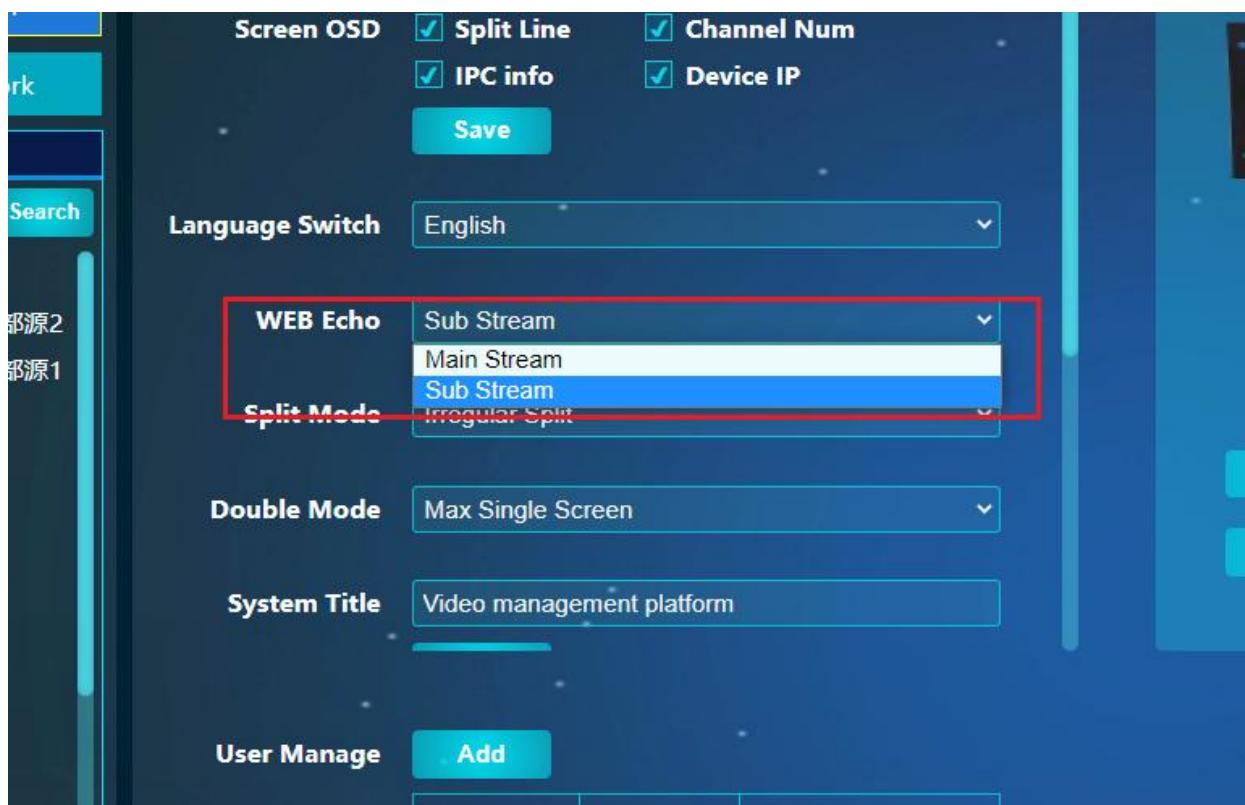


Fill in the subtitle information, click Add to join the subtitle list, select the scrolling rate and click open to go on the screen, 0 is stationary.

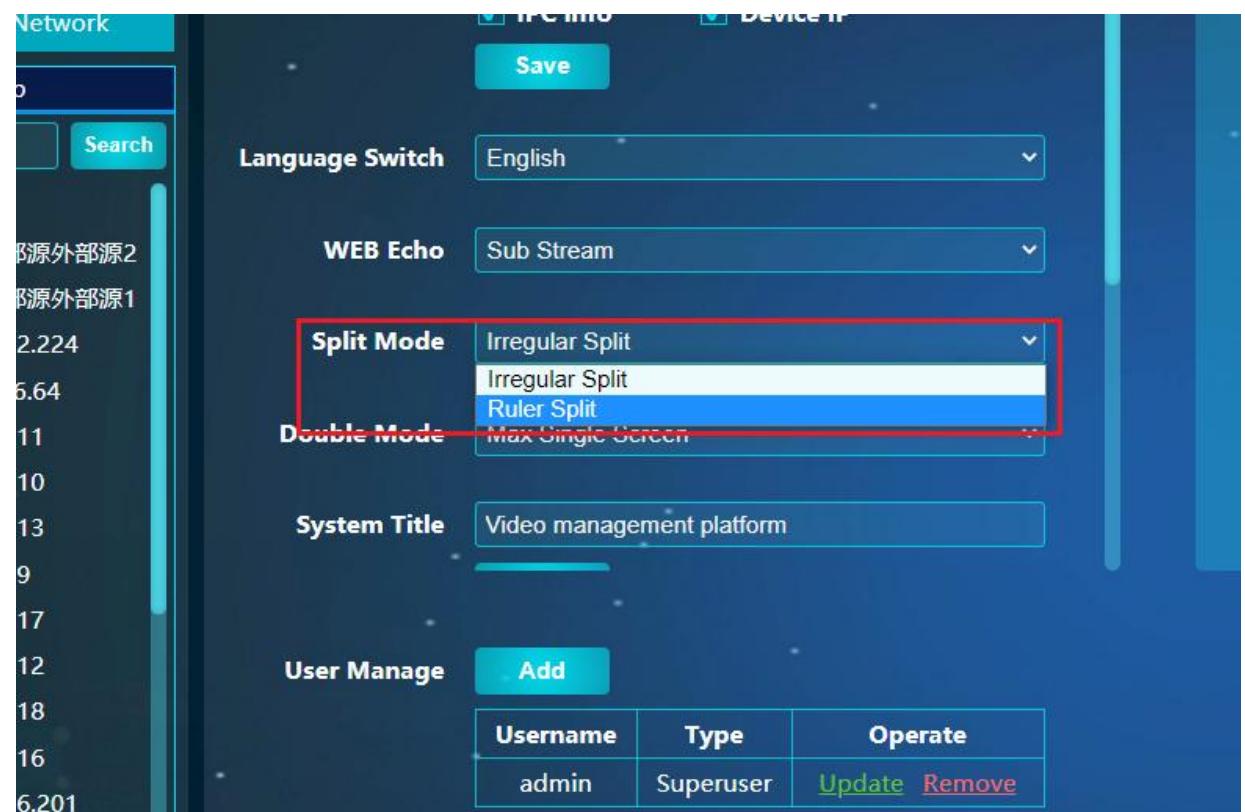
Switch between Chinese and English:



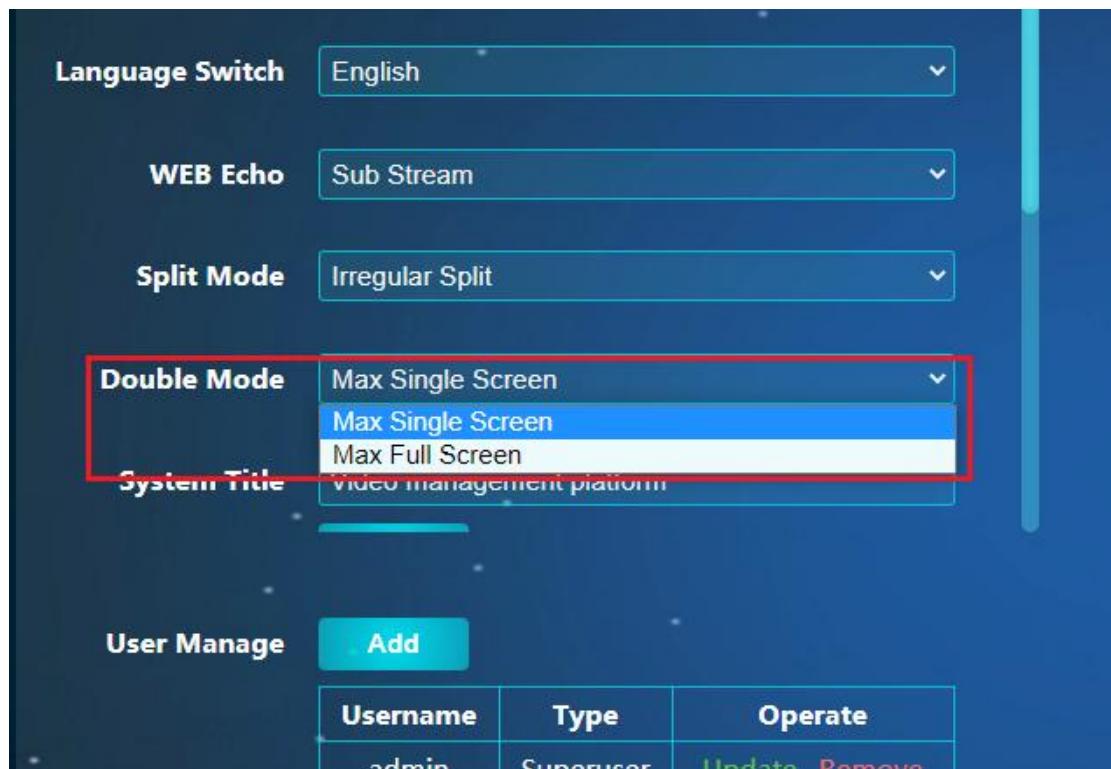
Echo clarity (the main stream is clearer, but the computer performance requirements are higher, the more echo channels, the higher the computer load, the secondary stream of computer performance requirements are lower, can open multiple channels echo at the same time).



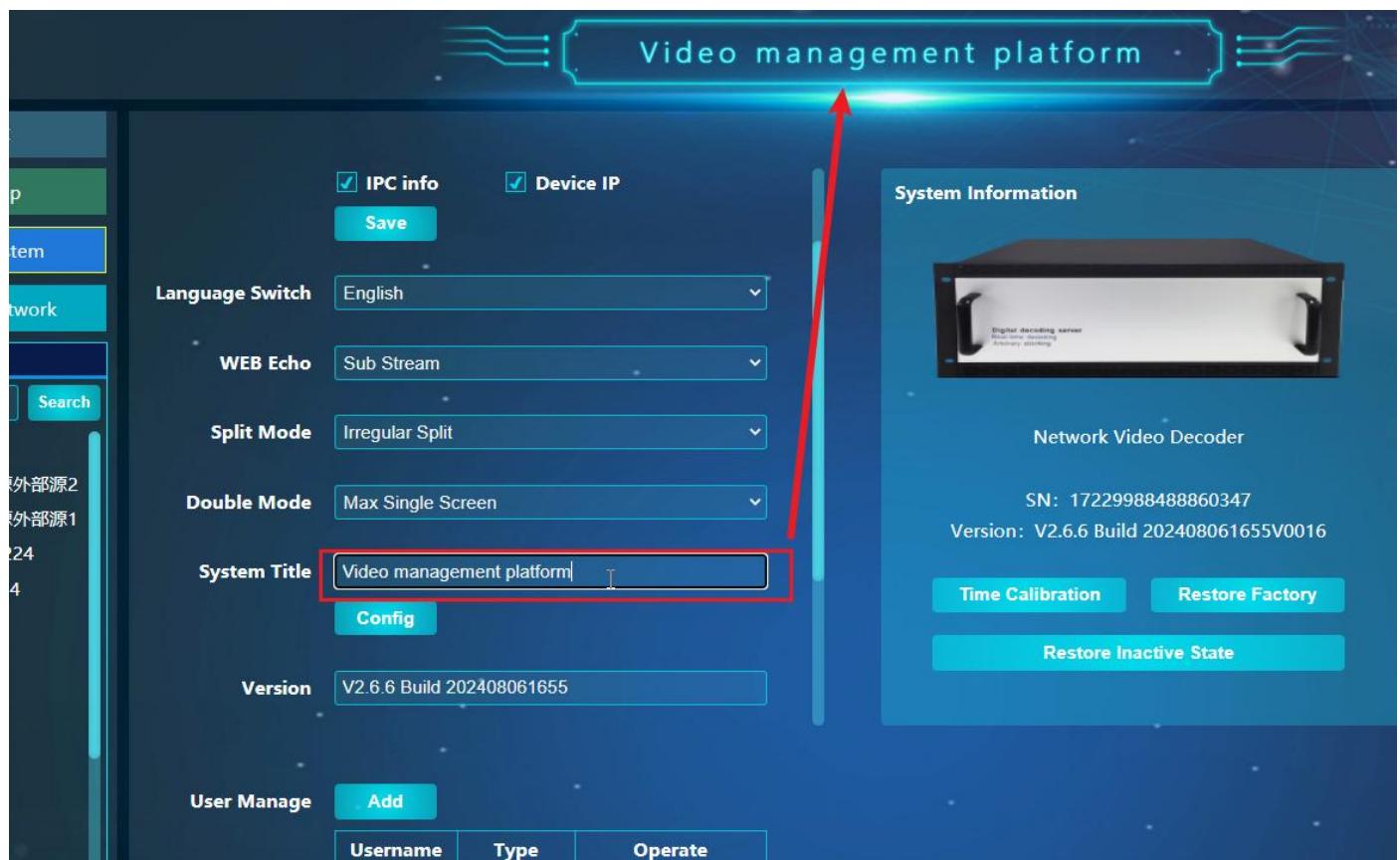
Segmentation mode selection, mainly used in the "video" management right click on the screen segmentation selection.



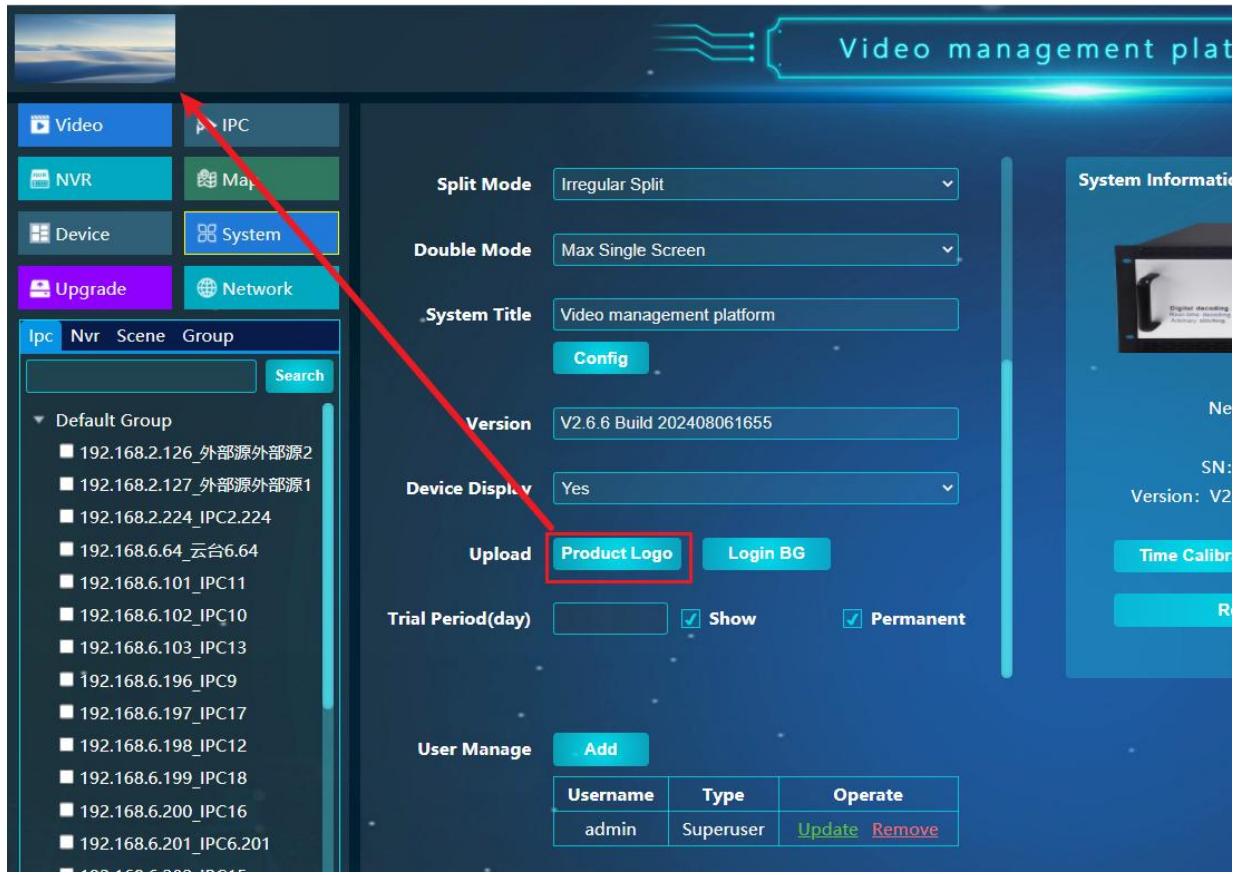
"Double click mode" selection, "Max Single Screen" in the "Video" management double-click channel signal will only be partially amplified, "Max Full Screen" mode in the early "Video" management double-click channel signal will be full screen amplification.



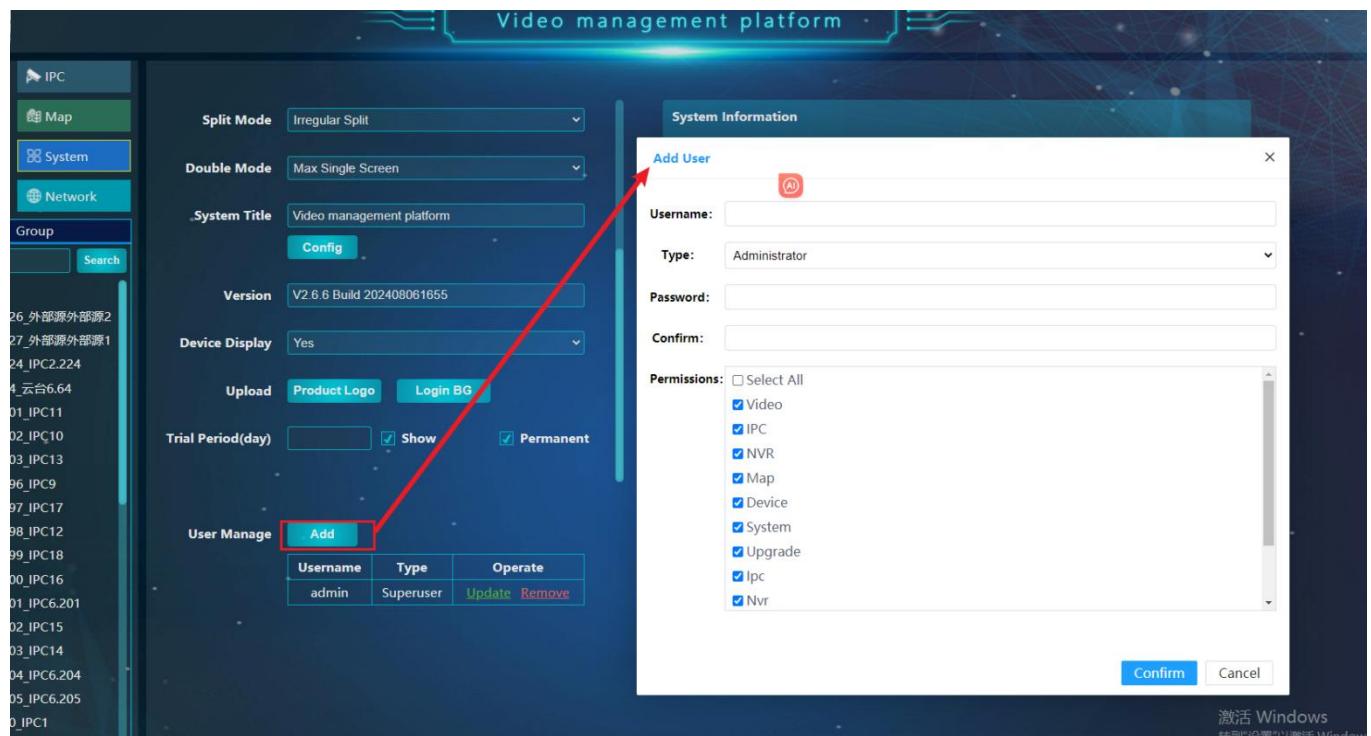
System title change function:



Product logo upload function, click the file selection box, select the logo picture, the picture will be uploaded to the upper left corner of the page.



User management function, set the user name login password, etc., select the function permissions, in addition to the super administrator other users can be deleted and modified.



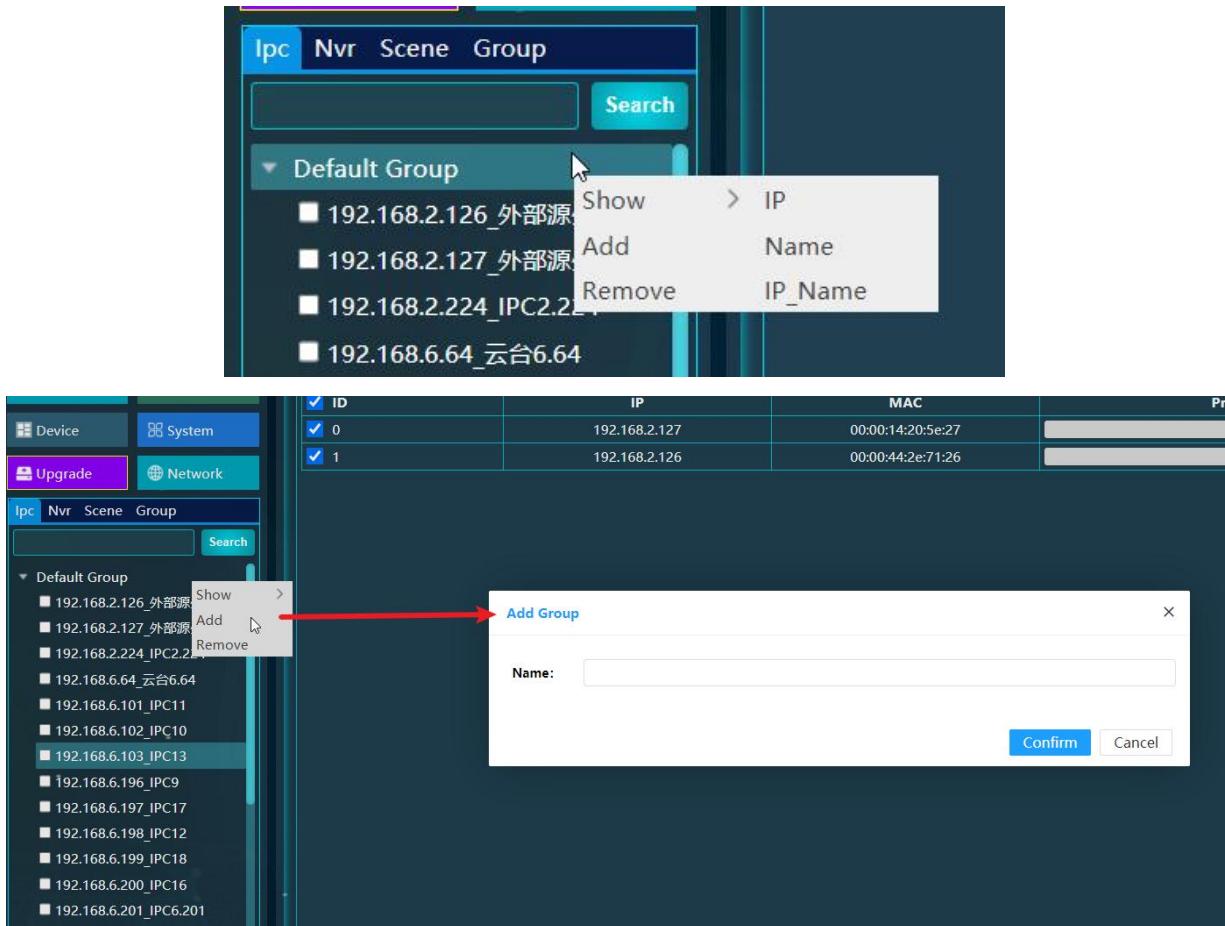
## 1.8 Equipment Upgrade

After checking the card, click "Path" after "Upgrade" to select the upgrade file, and click Upgrade. After the progress reaches 100%, the board will be restarted, and you cannot log in during the restart. After the restart, you can log in to the website normally.

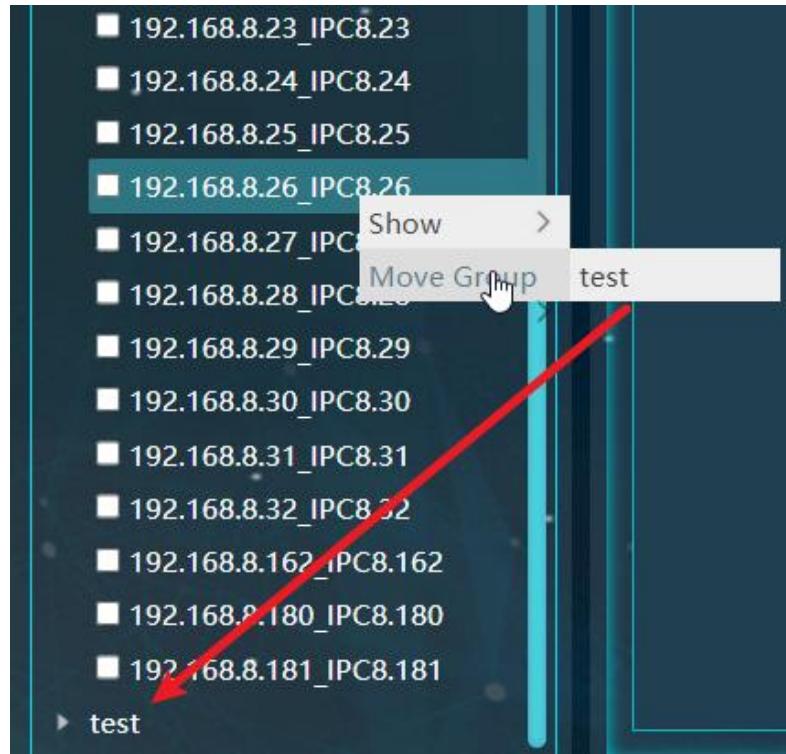


## 1.9 Monitoring point

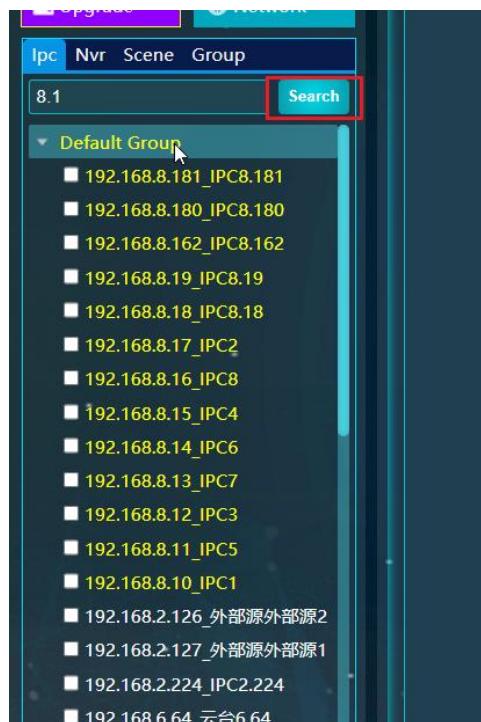
Right-click the list of monitoring points to pop up the group selection box, you can select the display mode, and add the function of deleting groups.



After the "Add" group is created, right click the mouse and select the monitoring IP to move to the group just created.



Search function, the searched IPC will be highlighted in yellow, and the group where the IPC is located will also be highlighted in yellow.



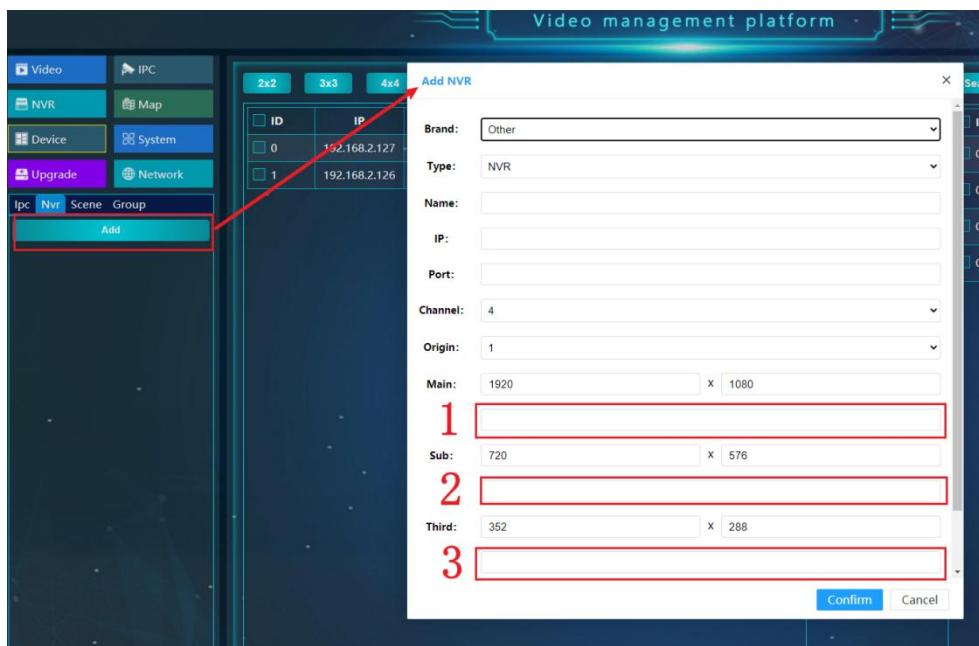
## 1.10 NVR

Click the "Add" button to pop up the "Add NVR" setting box, select and enter the corresponding parameters, user name and password of the recorder's own account and password, and fill in the specific information to log in to the software of the recorder brand itself, refer to the network configuration related

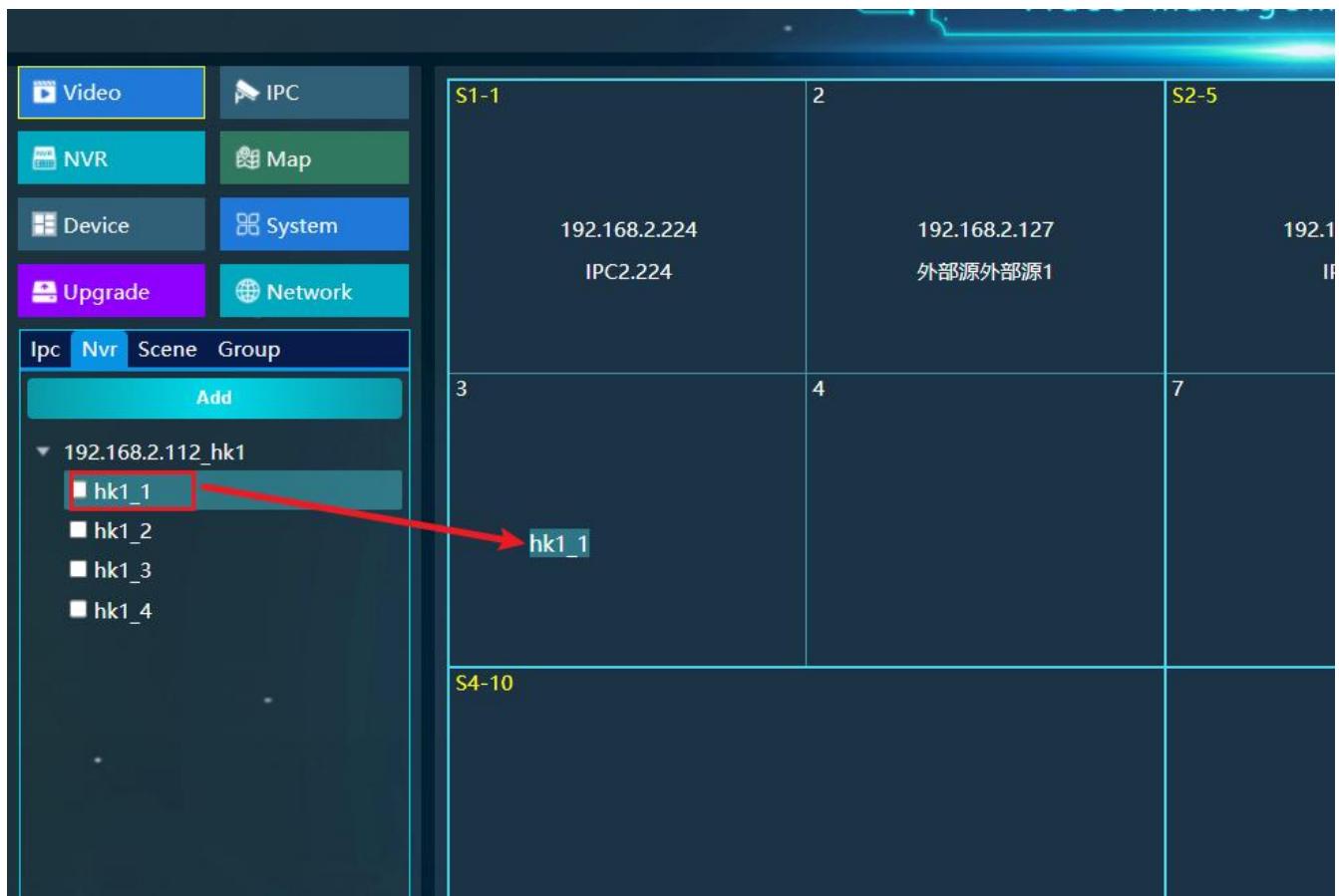
information inside. If it is a non-Chinese brand or not in the brand list, select other brand!

When selecting other brands, it is necessary to fill in the stream address of 3 kinds of streams under the resolution, 1, 2 and 3 correspond to the main stream, secondary stream and third stream respectively.

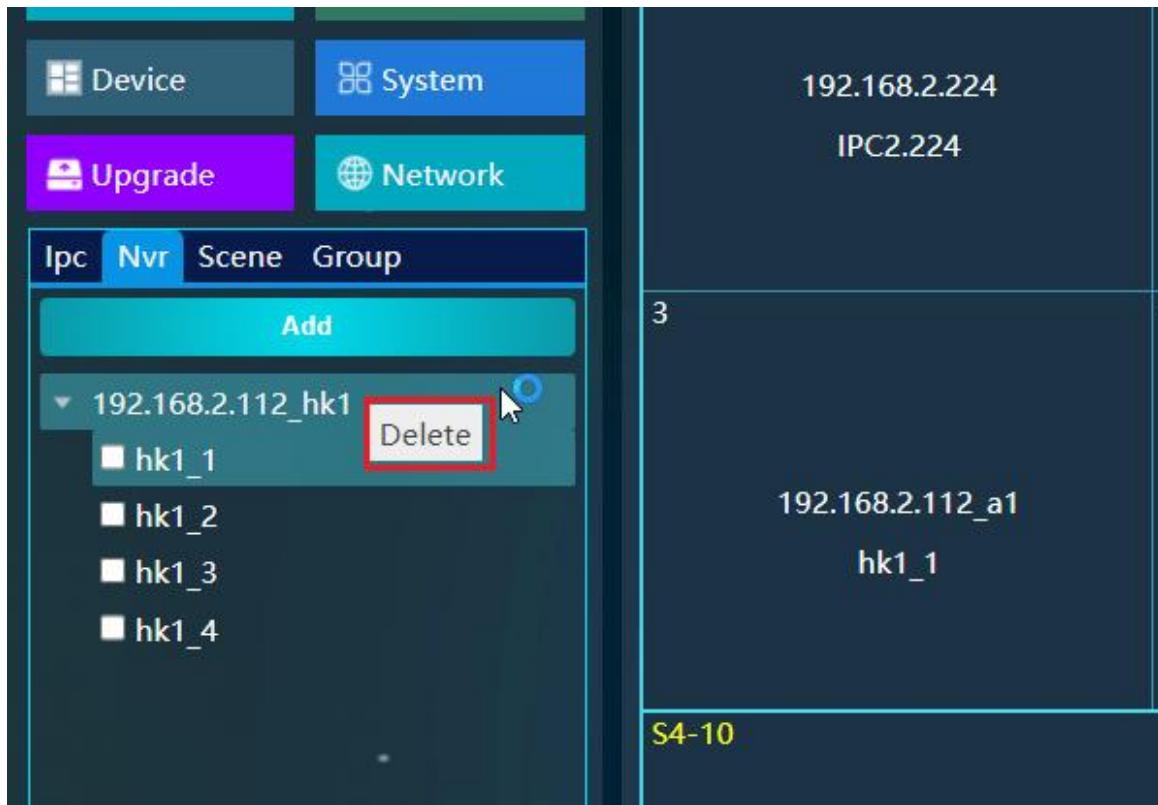
The entered stream address must comply with the stream address specification of the brand.



The added NVR can be dragged to the "Video" management channel to display the picture.

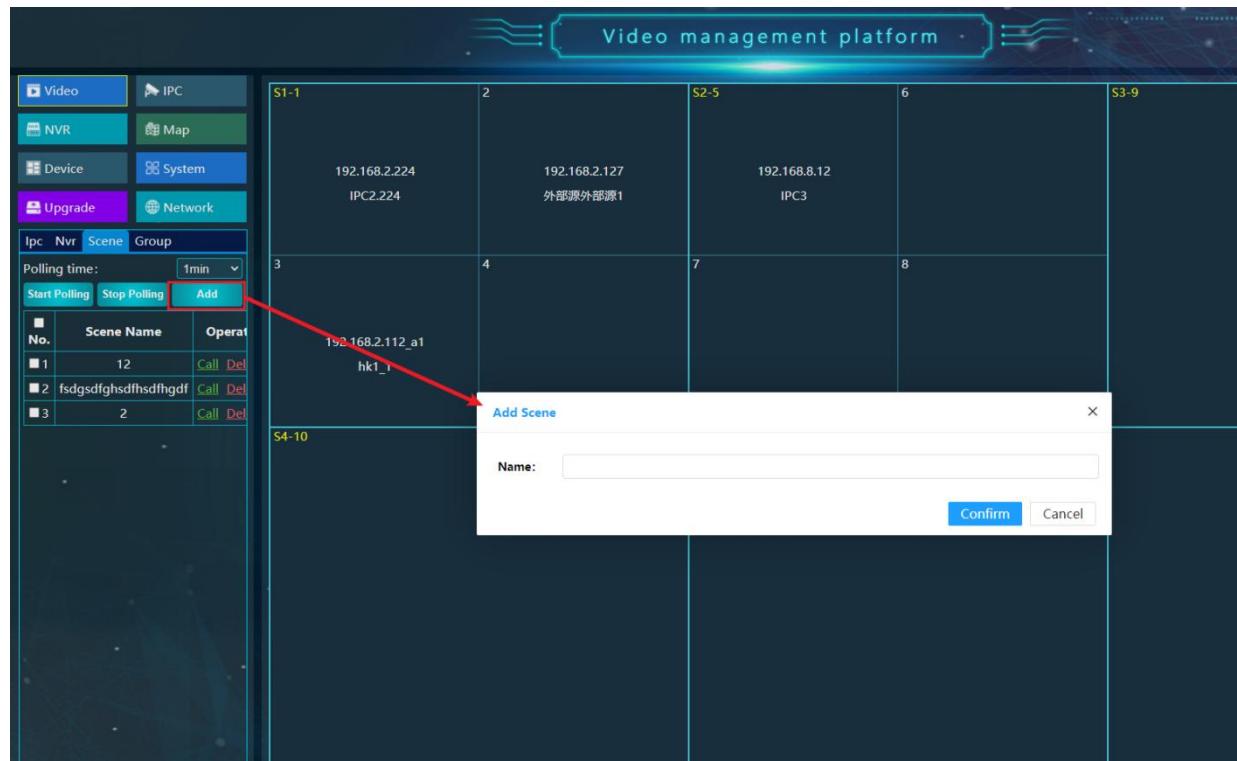


Right click on NVR to delete it.

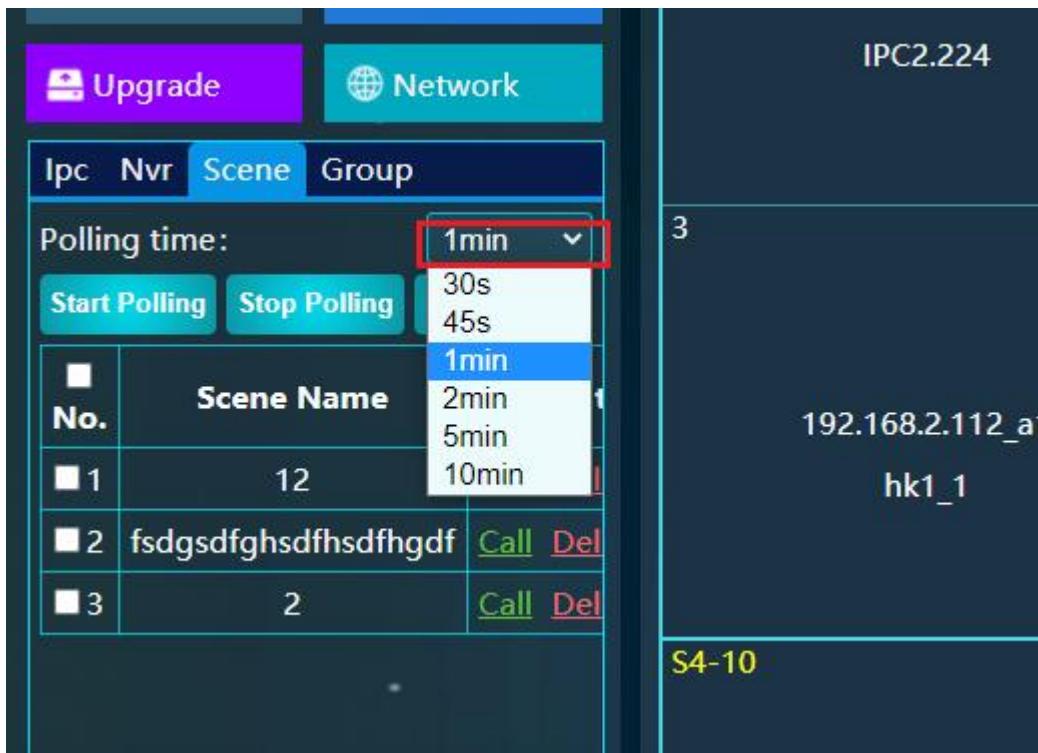


## 1.11 Scene

After all the right channels are laid out, click the "Add" button and save the current scene layout after naming (the scene can not only save the arrangement of channels and signal sources, but also save the state of channel segmentation).

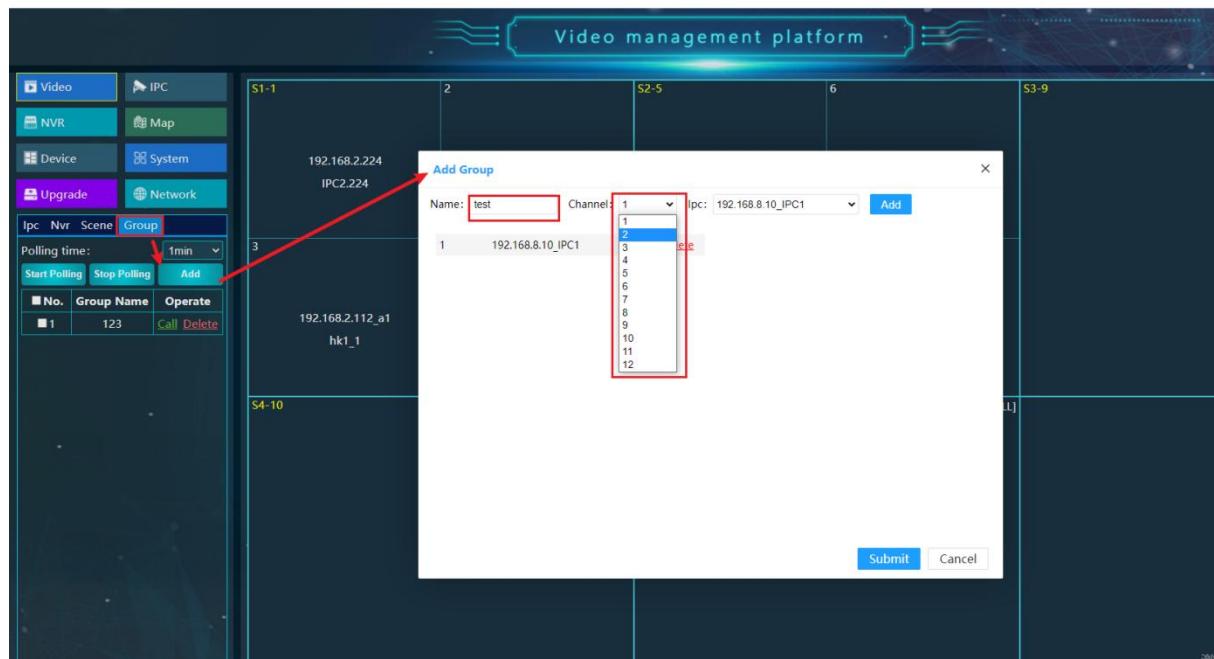


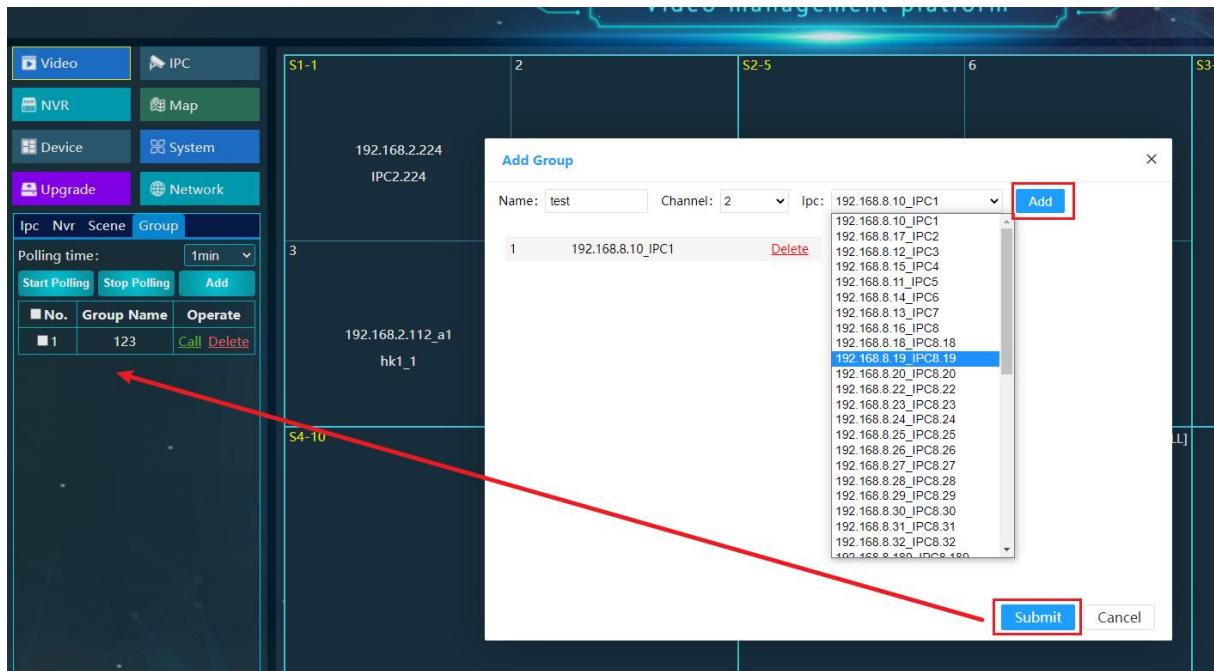
Scene round robin function: check the scene selection time and click "Start Polling".



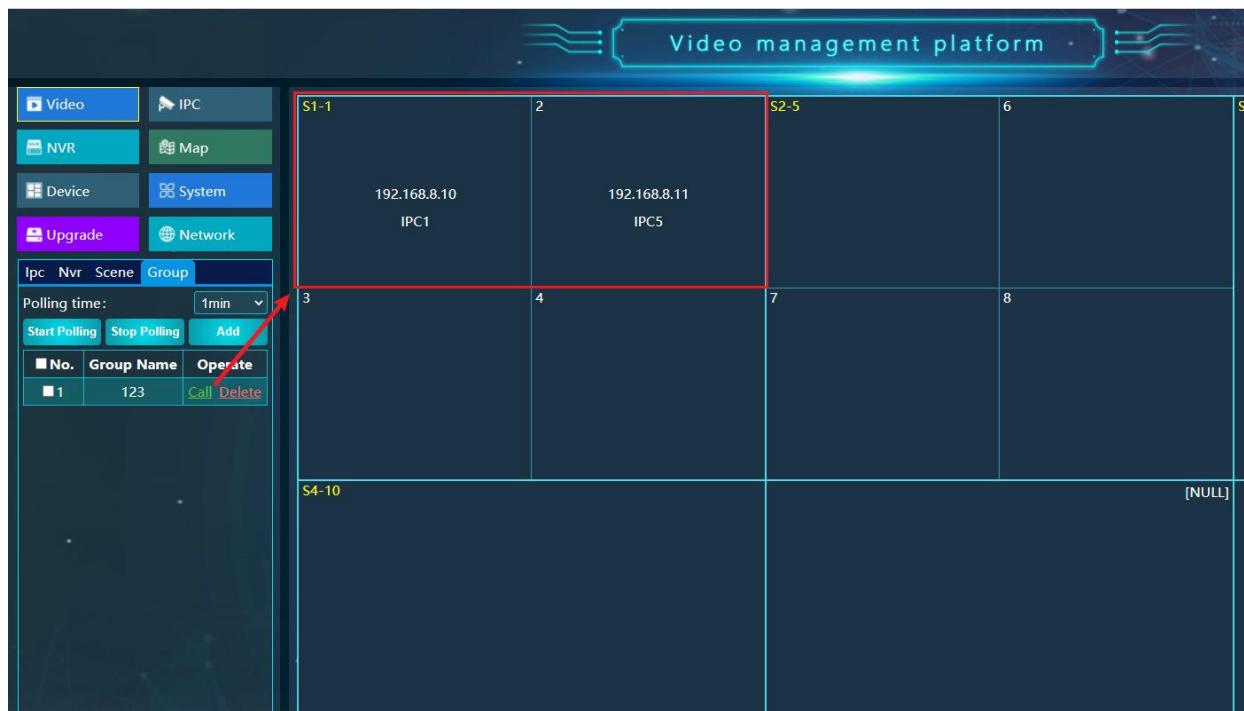
## 1.12 Groups

Click "Add" to pop up the group configuration box, set the name, and select the signal source for each channel to add. Any channel layout will be arranged in the order of channel number and source configuration of the "group". (The group only saves the channel number and signal source, not the channel division state)

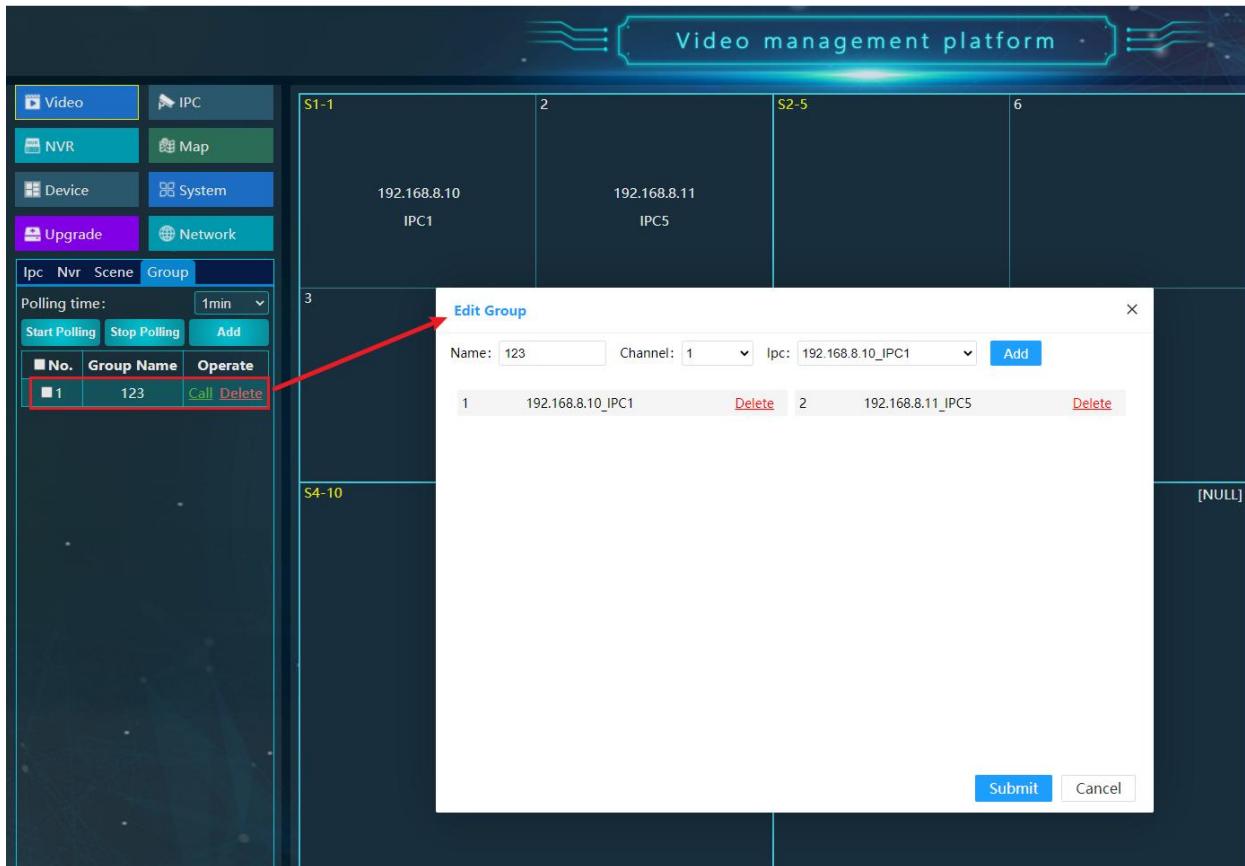




Click to call the effect is as follows:



Double-click on the group to edit.



The rotating method is the same as the scene, check the group selection time and click "Start Polling".

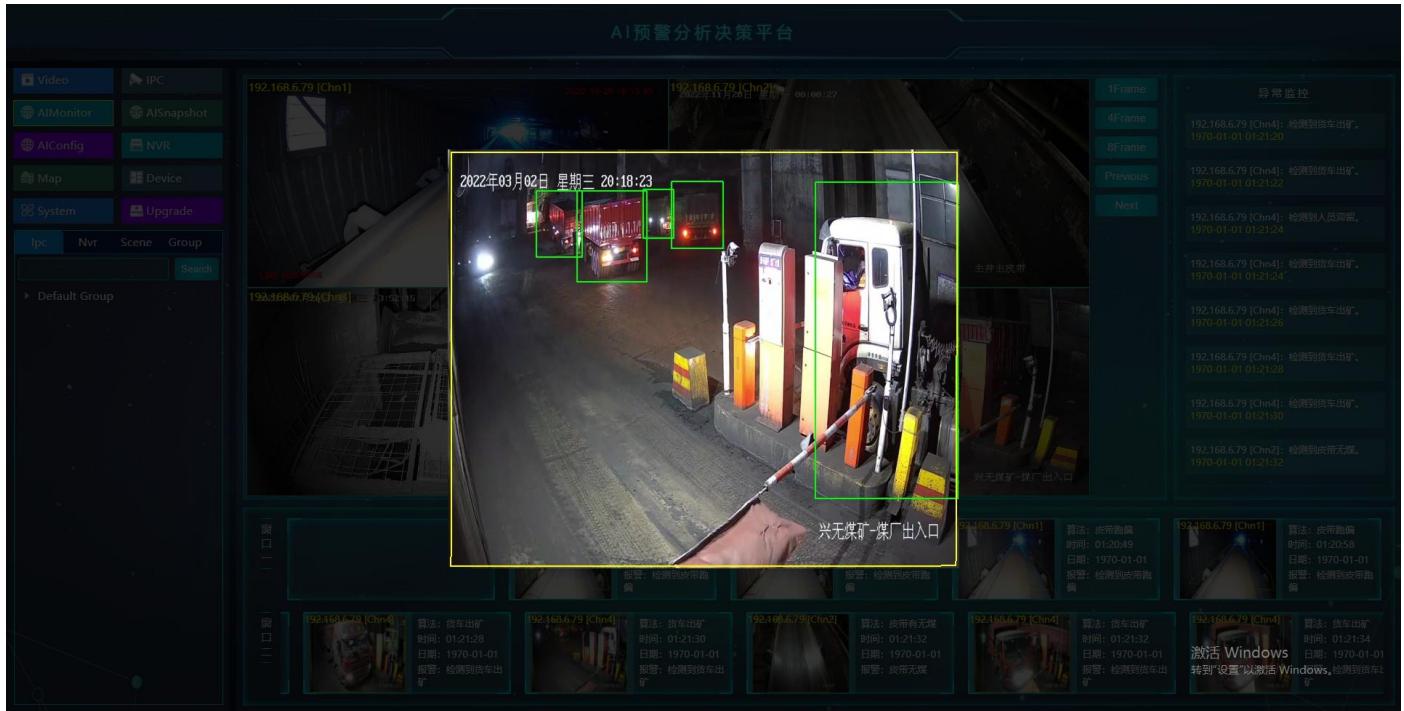
## 1.13 AI real-time Analytics page

AI real-time analytics page:



1. The number of segmented screens of the analysis page can be selected on the right side, and the figure shows 8 segmented screens.

2. Click on the picture in the lower scroll snapshot window to enlarge the view, and click outside the picture to exit the enlargement.



## 1.14 Capture and record page



Click "Capture record" to select the IP of the board with the algorithm at the top right, select the channel number, select the date and click "Search" to search the corresponding capture picture, and the picture can be enlarged by clicking.

## 1.15 The AI configuration page



It is mainly used to configure the algorithm, select the corresponding board IP, board channel, and the required AI algorithm to add. Each channel is limited to 1-4 algorithms, and the sum of algorithms in all channels in an AI board is not more than 16. After addition, the algorithm identification range is configured, the number of people is identified, and so on. (For details, please see: 2.4)

## II. AI configuration process description

### 2.1 Configure the board

There is a master card in the curtain wall management by default after logging in the system webpage. The master and slave cards are configured and added to the list of curtain walls when they are shipped out. No need to search repeatedly for additions. Take this as an example (Figure 1). Currently, there is only one board with ID 0 as the main card, and one board has two output outlets. The curtain wall set here is in the form of one row and two columns, and the channel in "video management" is the state in Figure 2.



S1-1 and S2-2 correspond to the first channel of the first outlet of the first board and the second window of the second outlet, respectively.



The right mouse button can be used to divide each outlet again. A single outlet can be divided into 9 channels at most, and 9 input sources can be put into it.



When the number of rows and columns multiplied by the number of channels is greater than the total number of board channels, the extra channels are NULL.

ID	IP	MAC	Version	Runtime	Source
0	192.168.6.79	00:26:a5:b2:61:79	V4.0.0.202410091859		<a href="#">Open</a>

## 2.2.Adding input sources

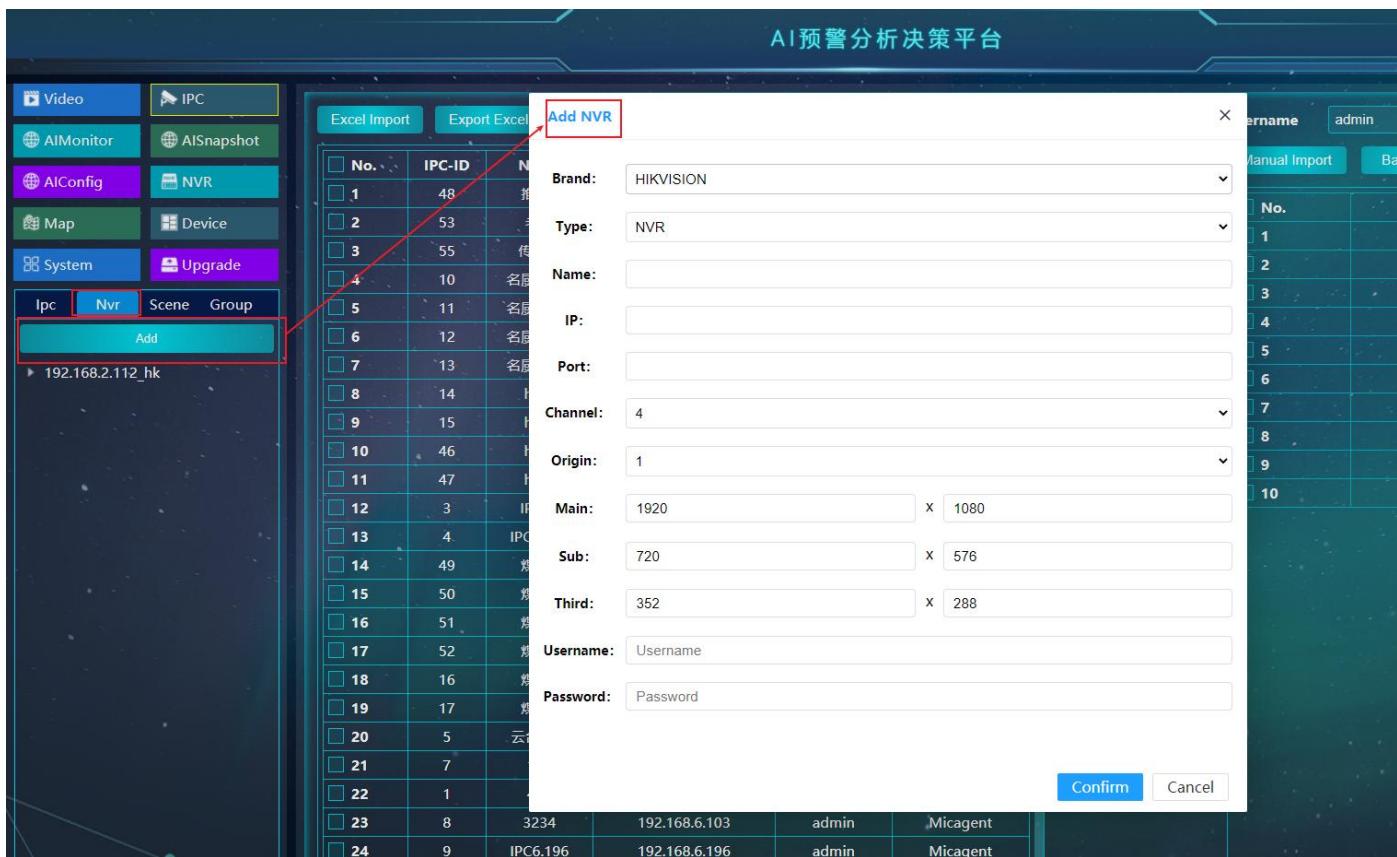
The input sources include ordinary monitoring points, input sources of each sub-camera of the Nvr, external sources, and input sources with distributed rtsp addresses.

Ordinary IPC monitoring points can be imported in "IPC".

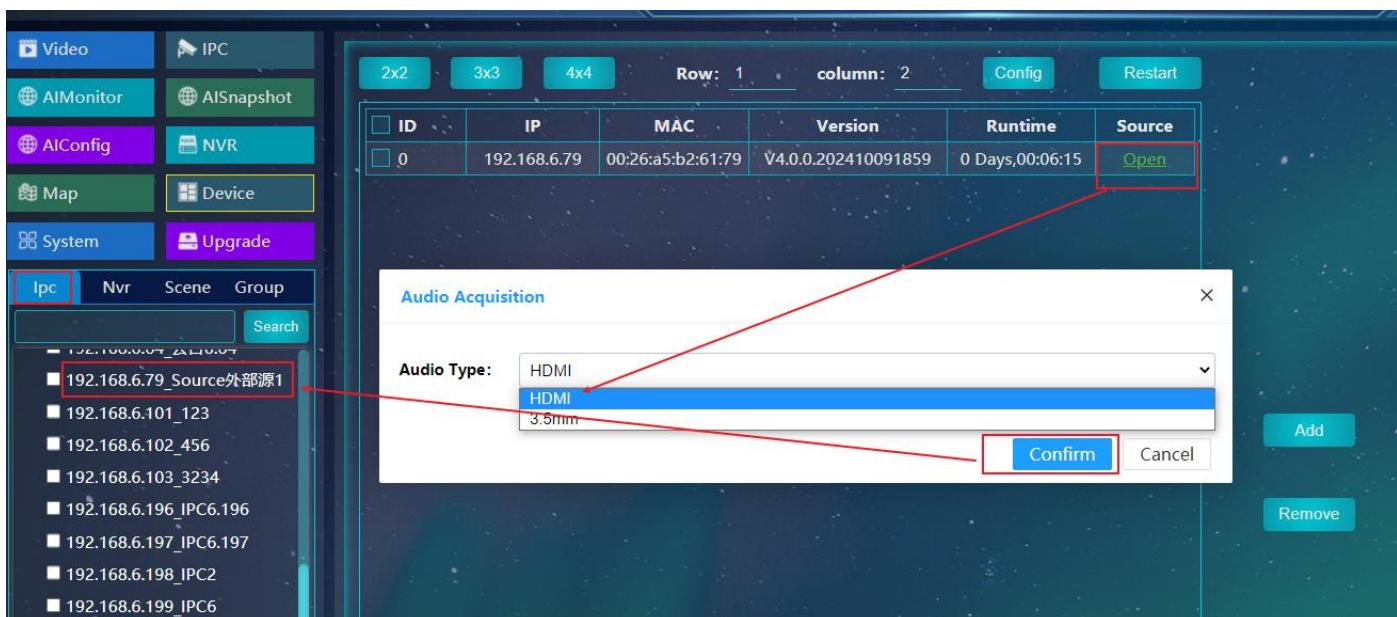
No.	IPC-ID	Name	IP	Username	Password
1	48	推流1	192.168.1.101	admin	admin
2	53	老鼠	192.168.1.102	admin	admin
3	55	传送带	192.168.1.103	admin	admin
4	10	名厨亮灶1	192.168.2.63	admin	admin
5	11	名厨亮灶2	192.168.2.64	admin	admin
6	12	名厨亮灶3	192.168.2.65	admin	admin
7	13	名厨亮灶4	192.168.2.66	admin	admin
8	14	hk_1	192.168.2.112_a1	admin	a12345678
9	15	hk_2	192.168.2.112_a2	admin	a12345678
10	46	hk_3	192.168.2.112_a3	admin	a12345678
11	47	hk_4	192.168.2.112_a4	admin	a12345678
12	3	IPC49	192.168.2.183	admin	Micagent
13	4	IPC2.224	192.168.2.224	admin	123456
14	49	煤矿1	192.168.6.32	admin	admin
15	50	煤矿2	192.168.6.33	admin	admin
16	51	煤矿4	192.168.6.34	admin	admin
17	52	煤矿3	192.168.6.36	admin	admin
18	16	煤矿5	192.168.6.37	admin	admin
19	17	煤矿6	192.168.6.38	admin	admin
20	5	云台6.64	192.168.6.64	admin	admin12345
21	7	123	192.168.6.101	admin	Micagent
22	1	456	192.168.6.102	admin	Micagent
23	8	3234	192.168.6.103	admin	Micagent
24	9	IPC6.196	192.168.6.196	admin	Micagent

No.	IP	Device
1	192.168.2.240	IP-Camera
2	null	HIKVISION
3	192.168.2.125	HIKVISION
4	192.168.6.203	Dahua
5	192.168.8.10	ONVIF IPNC
6	192.168.8.11	ONVIF IPNC
7	192.168.8.12	ONVIF IPNC
8	192.168.8.13	ONVIF IPNC
9	192.168.8.14	ONVIF IPNC
10	192.168.8.15	ONVIF IPNC

The VCR input source will click "Add" in the "Nvr" module, and after adding it will appear under the "Nvr" module, and it will also appear in the list of the "IPC" module.

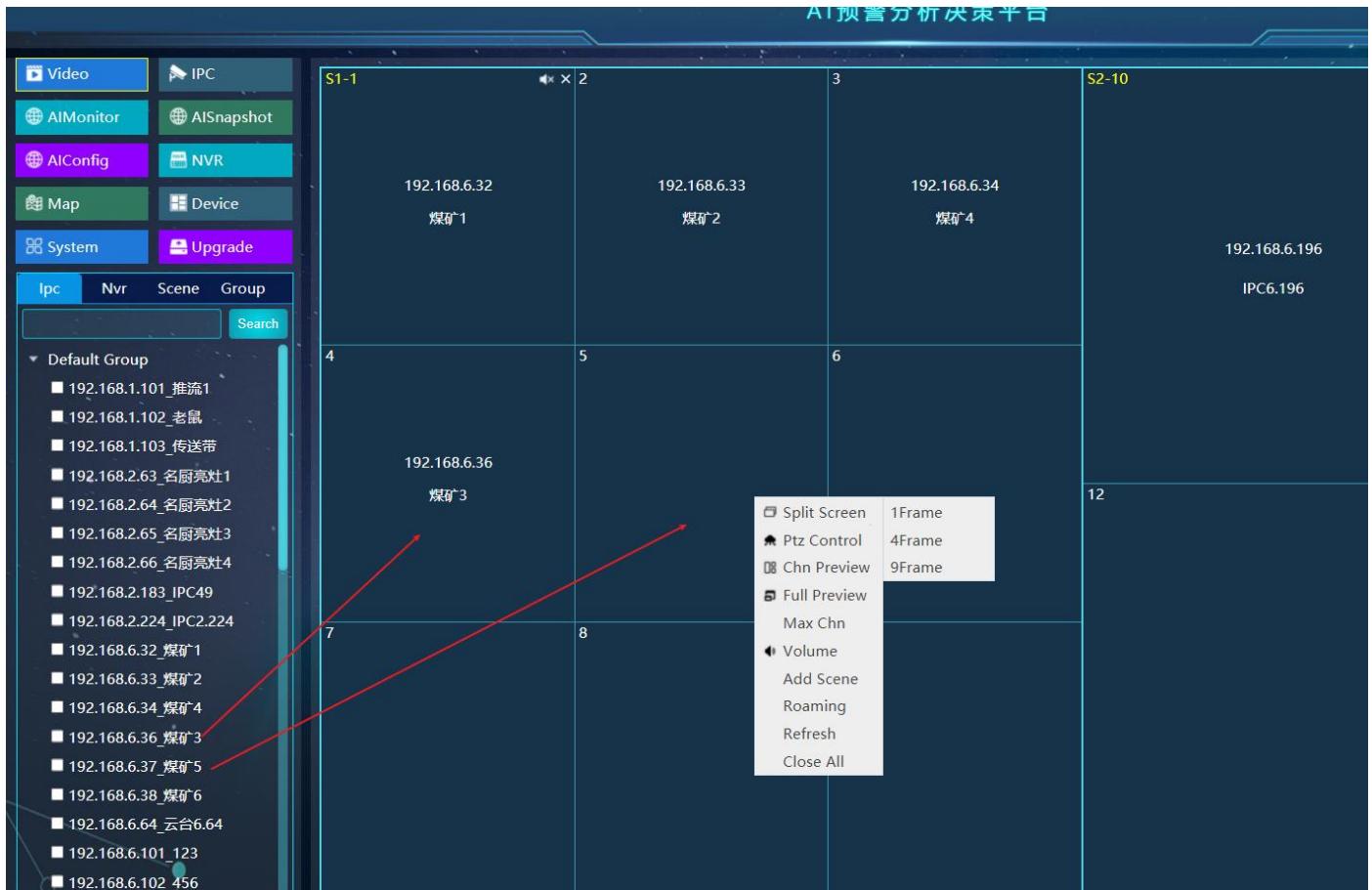


Open the external source in the "Device", select the access type, and it will appear in the "IPC" list on the left side of the "Nvr" module.



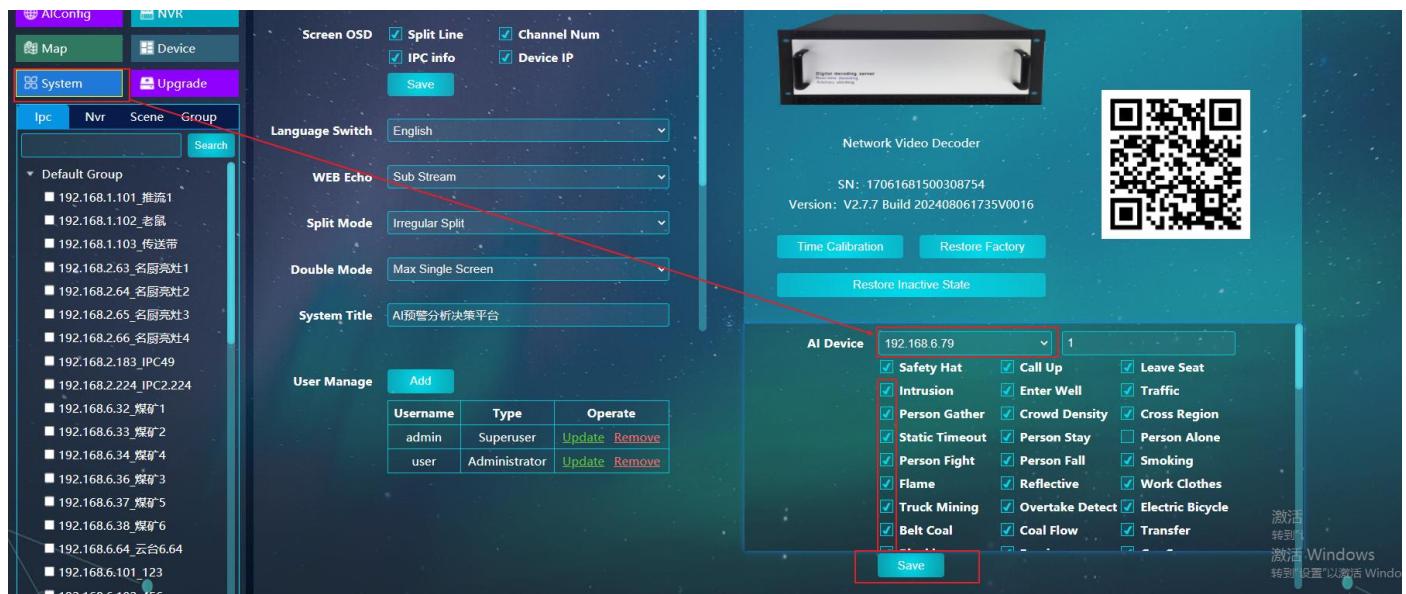
## 2.3 Channel division Layout and signal source drag

After splitting the channel, drag the IPC source from the list of monitoring points on the left.



## 2.4 Adding algorithms to the AI board

Step 1: Click "System", select the IP address of the AI device board in the lower right corner of the page, check the Algorithm, click Save, and refresh the page.



Step 2: Click "AI Config", select the AI card IP you just configured, you can see the algorithm you just checked below.



Step 3: Select the outlet channel of the board. Each board has two outlets (1 or 2). If an outlet is divided into 9, there will be 9 channels.



Step 4: Check any 1-2 algorithms in the AI algorithm (a maximum of 4 algorithms in a channel), click Add after selection, it will appear in the "AI channel" below.



Step 5: Select the channel just added to "AI Channel", select the corresponding algorithm in the right "Channel Algorithm", select the input boxes such as detection time interval and alarm time interval according to the actual situation, and then click "Detection Area Range".

序号	Channel	Type	Operate
1	Channel1	皮带跑偏	<a href="#">Delete</a>
2	Channel2	皮带有无煤 皮带流量	<a href="#">Delete</a>
3	Channel3	提升并堵料 提升并残留	<a href="#">Delete</a>
4	Channel4	区域入侵 人员滞留 货车出矿 行车不行人	<a href="#">Delete</a>

Channel:  Channel Algorithm:  [皮带有无煤](#) [皮带流量](#)

Open or not AI:  Detection Interval (s):  Alarm Interval (s):

Detection Area Range:  [Draw Detection Area](#)

Accuracy (pixels):  Alarm Conditions (number):  Duration time (s):

Time Switch Open or not:  Time Switch Start Time:  Time Switch Duration:

[Submit](#)

Step 6: In the pop-up box, draw the polygon with the mouse (up to 8 sides and end to end) and click Save after identifying the range. One algorithm can only draw one recognition area in the image in a single channel.



**Note:** If you want to draw multiple recognition areas with the same algorithm on one monitor screen, you can drag a single monitor screen to multiple channels before going to step 4 configuration.

After saving, click Save configuration, then select the second algorithm in the channel in the "Channel Algorithm", and do the same configuration. After all the algorithms in the channel are configured and saved, click the "Save" button below. Wait for a moment after submission and the algorithm recognition area will appear in the channel on the large screen.

序号	Channel	Type	Operate
1	Channel1	皮带跑偏	<a href="#">Delete</a>
2	Channel2	皮带有无煤 皮带流量	<a href="#">Delete</a>
3	Channel3	提升并堵料 提升并残留	<a href="#">Delete</a>
4	Channel4	区域入侵 人员滞留 货车出矿 行车不行人	<a href="#">Delete</a>

Open or not AI:  Detection Interval (s):  Alarm Interval (s):

Detection Area Range:  [Draw Detection Area](#)

Accuracy (pixels):  Alarm Conditions (number):  Duration time (s):

Time Switch Open or not:  Time Switch Start Time:  Time Switch Duration:

[Submit](#) [Save](#)