

120M H.265 AV over IP Extender work with CMP System

Max resolution 4K@30HZ,4:4:4

Support Video Wall, Multi Viewer, Matrix

/// OPERATION MANUAL

Encoder



Decoder



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Dear Customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

1. Features

- Compression Technology: H.265
- Max resolution 4K@30HZ YUV 4:4:4
- Latency Time (from TX to RX) 30-80 millisecond
- Transmit up to 120m over single Cat5e/6 cable, with 1x looping HDMI output
- Request for (many to many mode) IGMP Switch
- Support IP/ICMP/IGMP/TCP/UDP Control (PC Tool)
- Support KVM RS232, IR, Local HDMI output on TX
- Additional Features VLC / Looping HDMI output
- Support RTSP/RTMP protocol
- Support Video Wall, Multi Viewer, Matrix work with CMP system supports real-time switch OSD; Displaying firmware version, IP address, MAC address, etc
- Support Multicast(one to many, many to many), Unicast (one to one)
- DC12V Power supply

2. Specifications

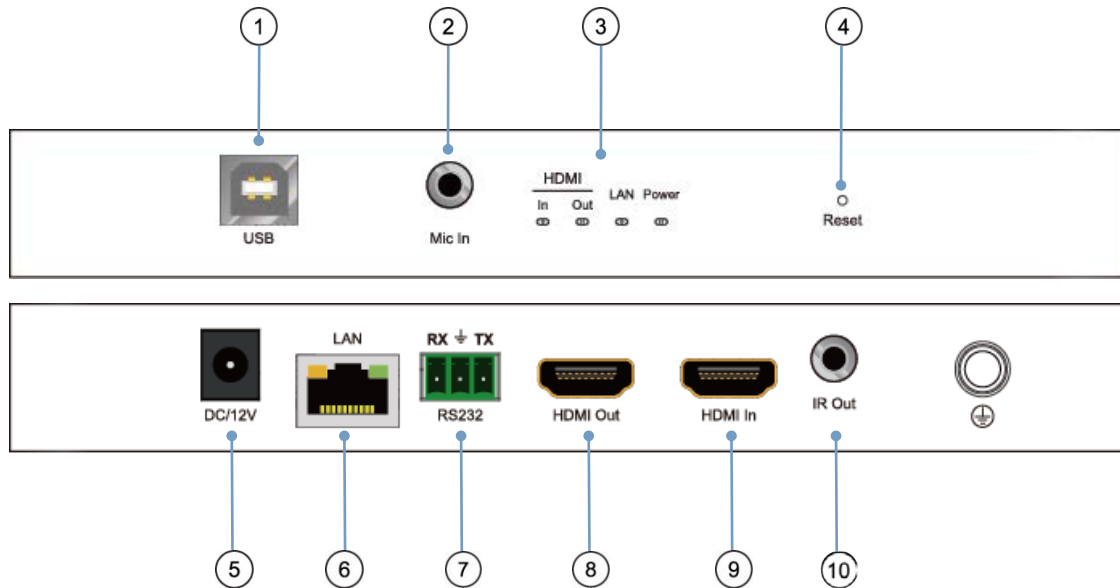
Performance	
Protocol	H.265 Encoder over TCP/IP
Video format	480P/720P/1080P/4K2K/800*600/1280*1024@60hz etc
Audio format	Analog Embedded and Analog Extractor
Streaming Bit Rate	0-100Mbps Default: 20Mbps
IR frequency	38-56Khz
RS232 Baud Rate	115200
IP SETTING	
Request for Switch/Router	Support IGMP, support DHCP
Environmental & Power Requirements	
Operating temperature	-5 to +35 °C (+23 to +95°F)
Operating Humidity Range	5 to 90%RH (No Condensation)
Power supply	12V1A
Power consumption	TX: 4.68W; RX: 3.36W
Dimension	TX&RX: 184*95*24mm
Net Weight	

3. Package Contents

- 1). Main Unit Encoder and Decoder x1
- 2). Power Adapter DC12V1A x2
- 3). IR TX cable; IR RX cable
- 4). Disk (PC TOOL; User manual; Update software; CMP system) x1

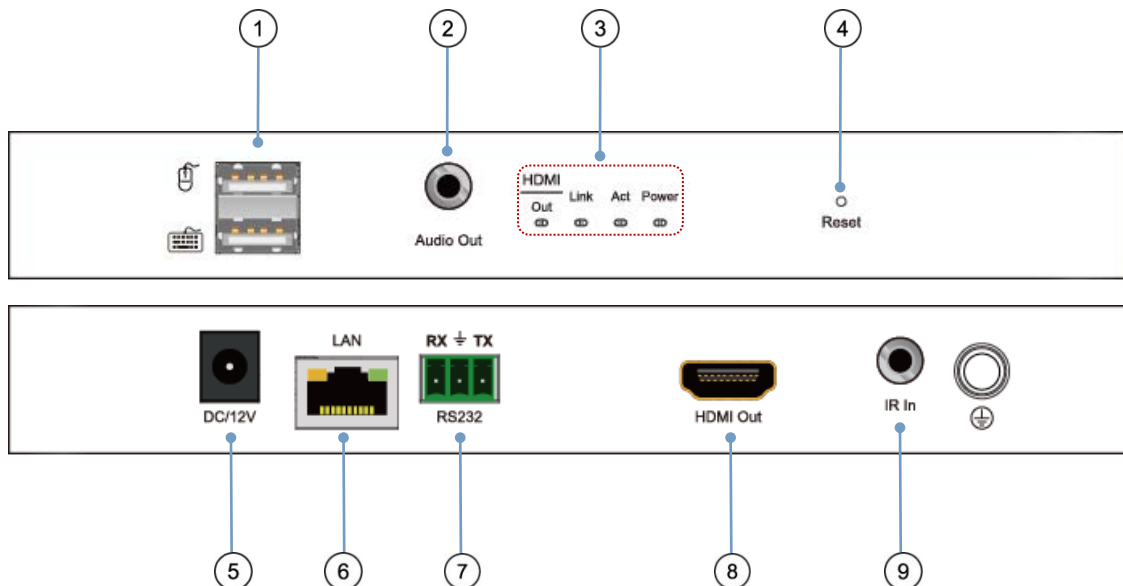
4. Panel Descriptions

4.1. Encoder:



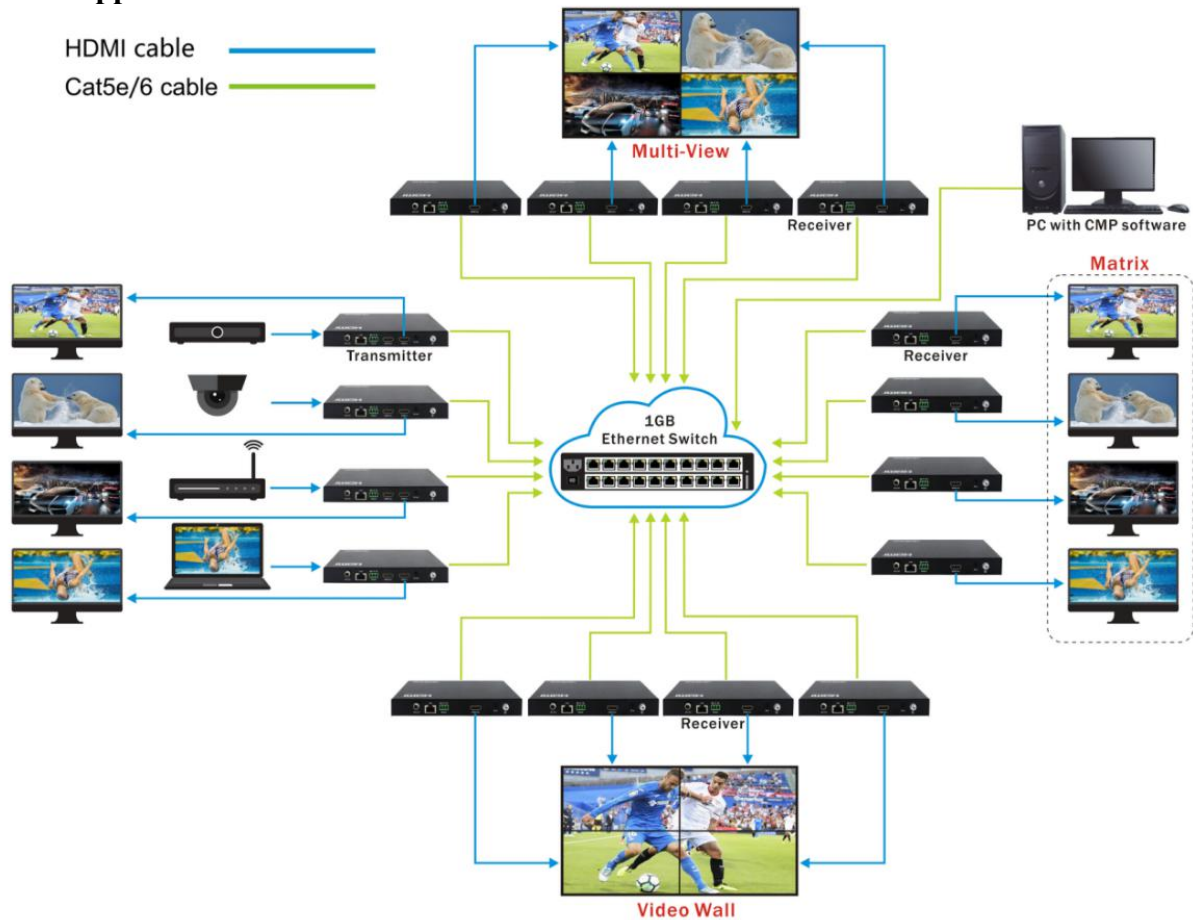
- ① USB Type B input
- ② Analog Input
- ③ Indicator of HDMI; LAN; Power
- ④ Reset button
- ⑤ DC/12V input
- ⑥ Cat5/6 output
- ⑦ RS232 pass through
- ⑧ HDMI Loop output
- ⑨ HDMI Input
- ⑩ IR out

4.2. Decoder:



- ① USB Type A output
- ② Analog Output
- ③ Indicator of HDMI; Link; Act; Power
- ④ Reset button
- ⑤ DC/12V input
- ⑥ Cat5e/6 input
- ⑦ RS232 pass through
- ⑧ HDMI output
- ⑨ IR input

5. Application:



6. CMP System:

6.1. Installation process description:

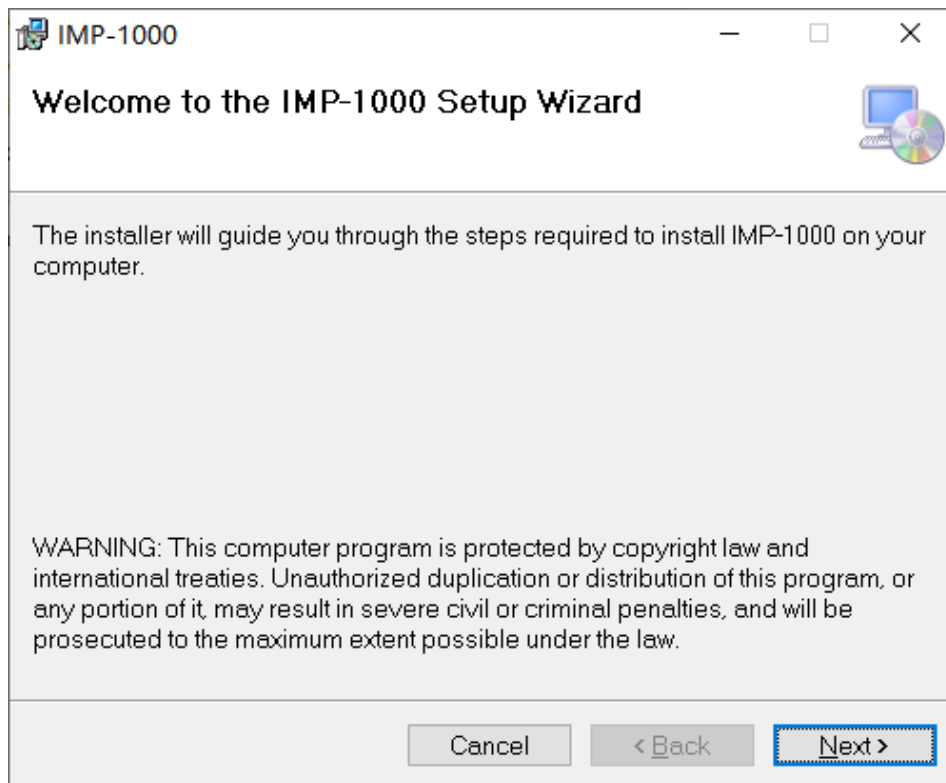
Before connecting the product, copy "CMP plate-setup" from the CD, double-click the software in the installation package to run, and install the platform on the computer.

Take Win7 operating system as an example, the installation process is as follows

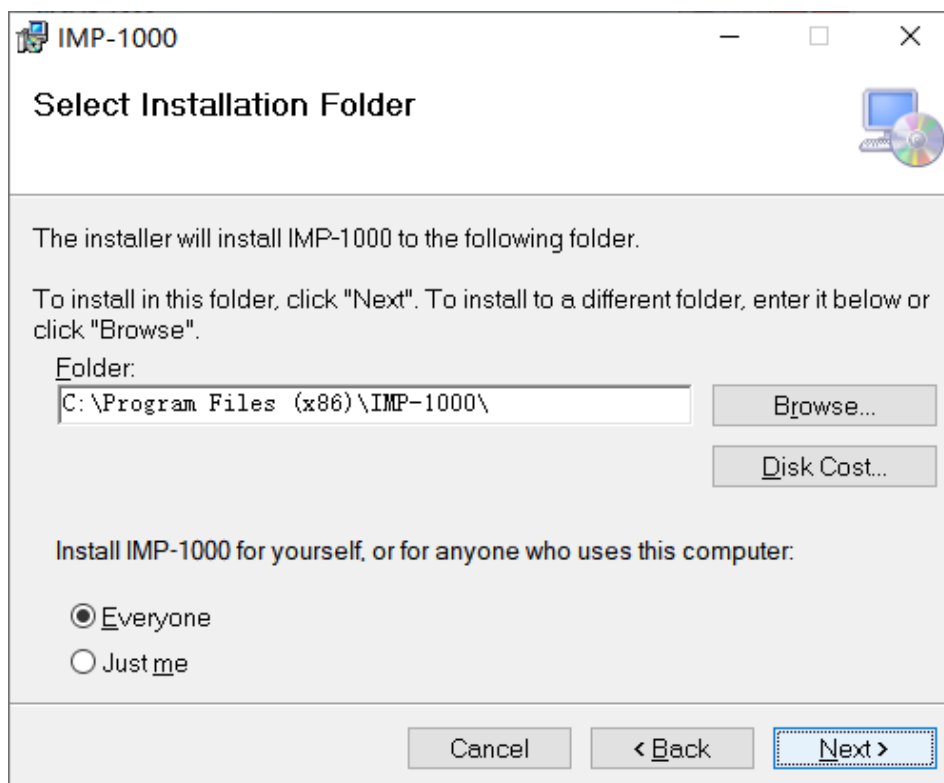
DotNetFX40		
DotNetFX40Client		
vcredist_x86		
WindowsInstaller3_1		
setup.exe	443,904	192,254
Setup1.msi	42,231,808	40,754,2...

install

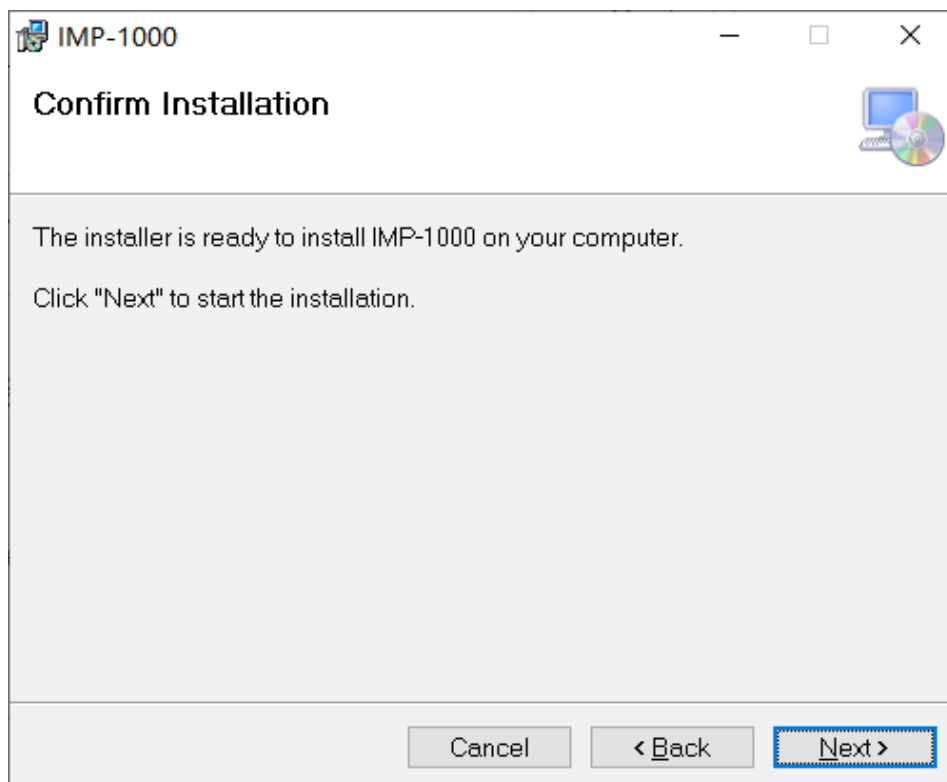
CMP (P1)



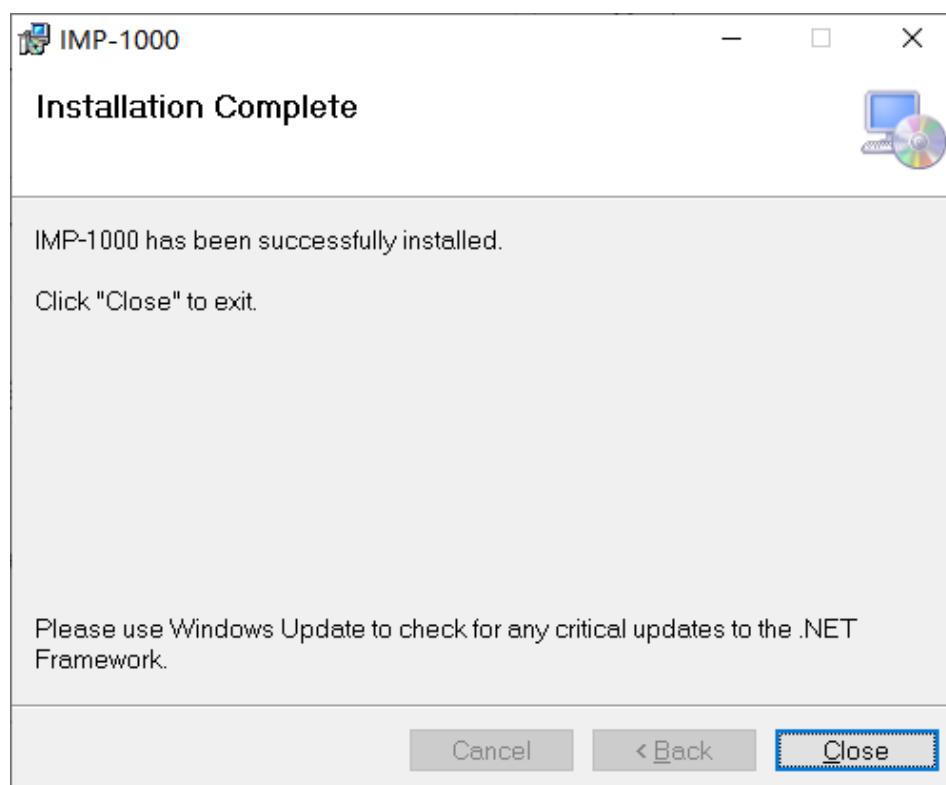
CMP (P2)



CMP (P3)



CMP (P4)



CMP (P5)

6.2. Registration and login platform

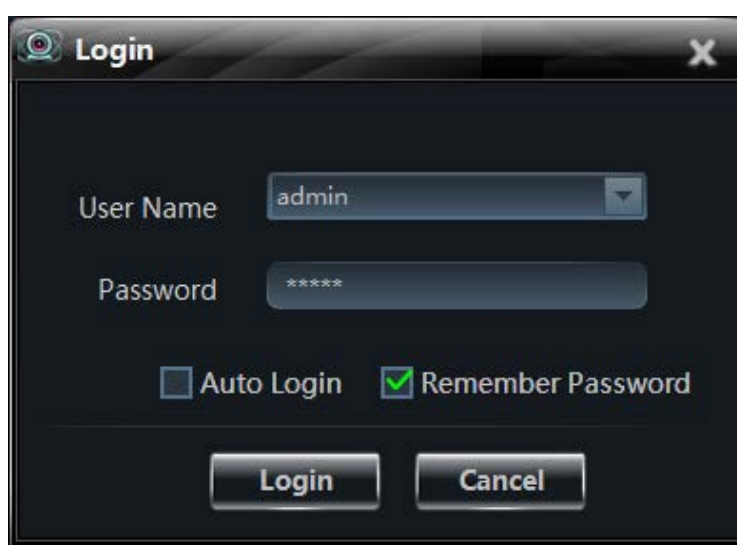
6.2.1. Registration

Double-click the mouse to open imp-1000 integrated management platform, and the registration window will pop up when it is opened for the first time. Enter username, password, confirmation password, and any questions and answers. To retrieve the password if you forget.

A registration window titled '注册超级用户' (Register Super User). It contains the following fields: '用户名' (Username), '密码' (Password), '确认密码' (Confirm Password), '问题' (Question) with a dropdown menu showing '大学的学号是?' (University student ID is?), and '答案' (Answer). At the bottom are '注册' (Register) and '取消' (Cancel) buttons. A note in the center says: '为了避免遗忘, 请填写真实信息, 这将帮助您以后通过回答问题快速找回密码。' (To avoid forgetting, please fill in real information, which will help you quickly retrieve your password by answering questions in the future.)

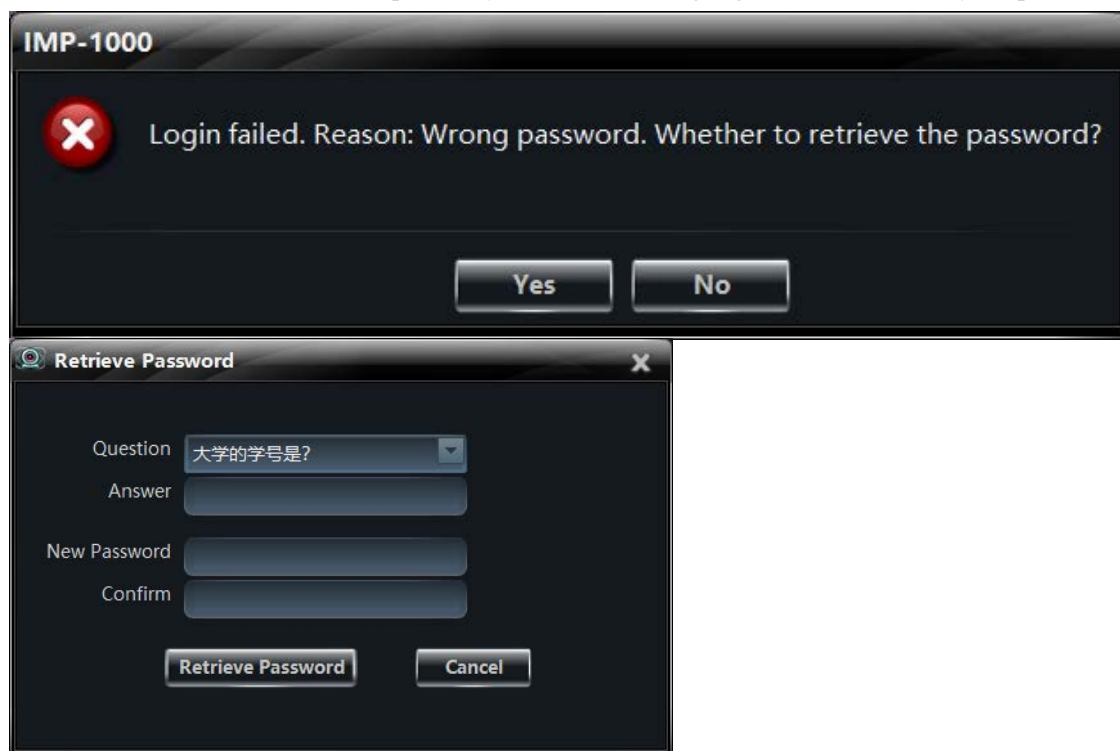
6.2.2. Login

After registration, the login interface will pop up, enter the registered user name and password, and you can choose to log in automatically or remember the password. Click login to log in to the main interface of the platform.

A login window titled 'Login'. It contains the following fields: 'User Name' with a dropdown menu showing 'admin', and 'Password' with a masked input field showing '*****'. Below these are two checkboxes: 'Auto Login' (unchecked) and 'Remember Password' (checked). At the bottom are 'Login' and 'Cancel' buttons.

6.2.3. Retrieve the Password

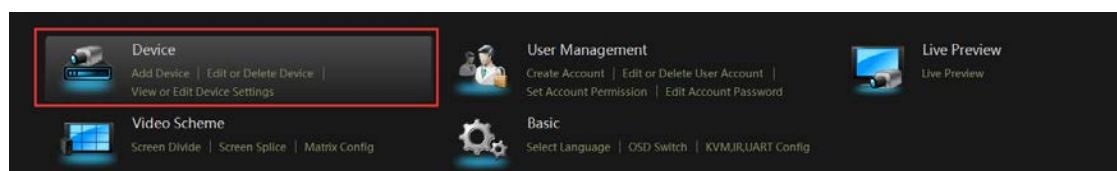
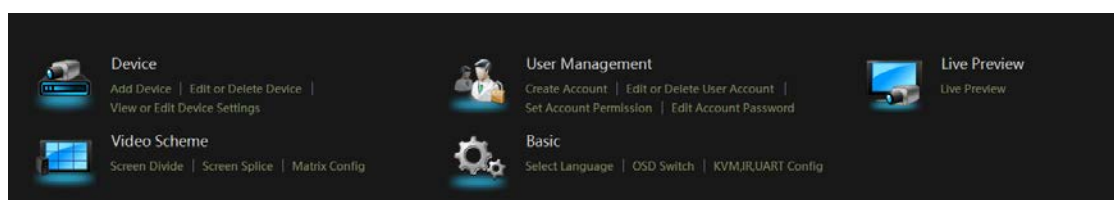
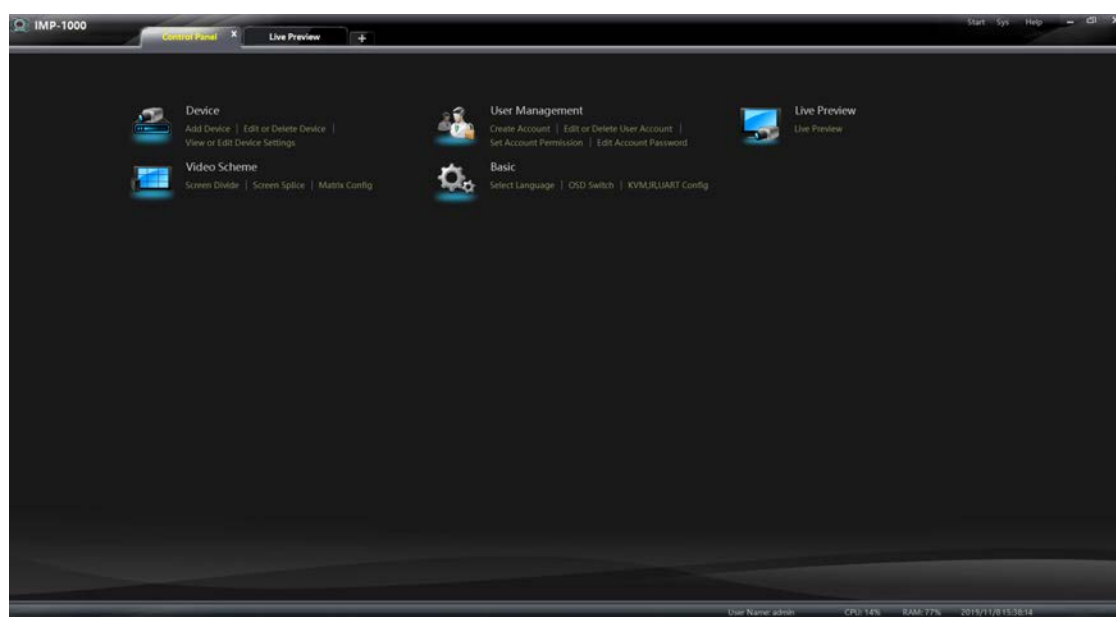
If you enter a wrong password or forget your password in the login interface, the system will automatically pop up a prompt to retrieve your password. You can enter the password retrieval interface, enter the answer to the question you filled in during registration, and reset your password.



6.2.4. Enter CMP System

Enter the user name and password correctly and enter the main function interface.





6.3. Add Device Instruction

According to the above diagram, connect the products to the switch. And the router LAN port is connected to the switch through the network cable. And the network property IPV4 is set as automatic acquisition. Because the product default DHCP is ON, the router DHCP address pool can automatically assign IP addresses to the product and computer. Then the computer can open the software platform to manage and operate.

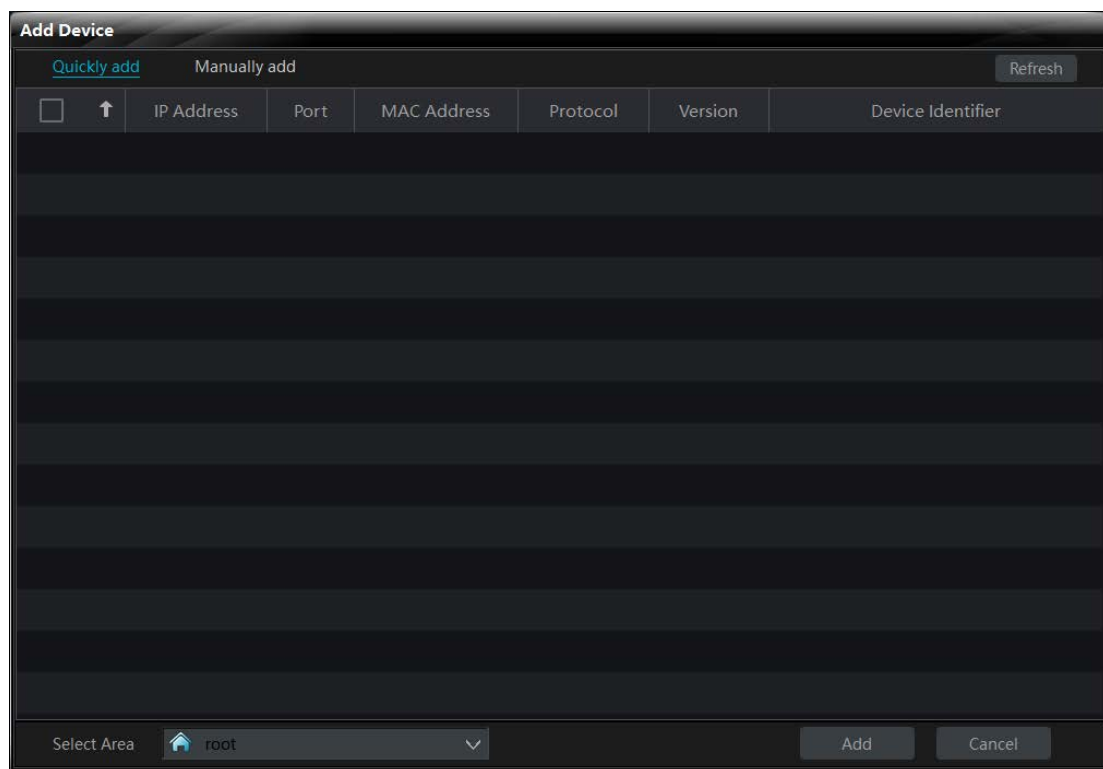
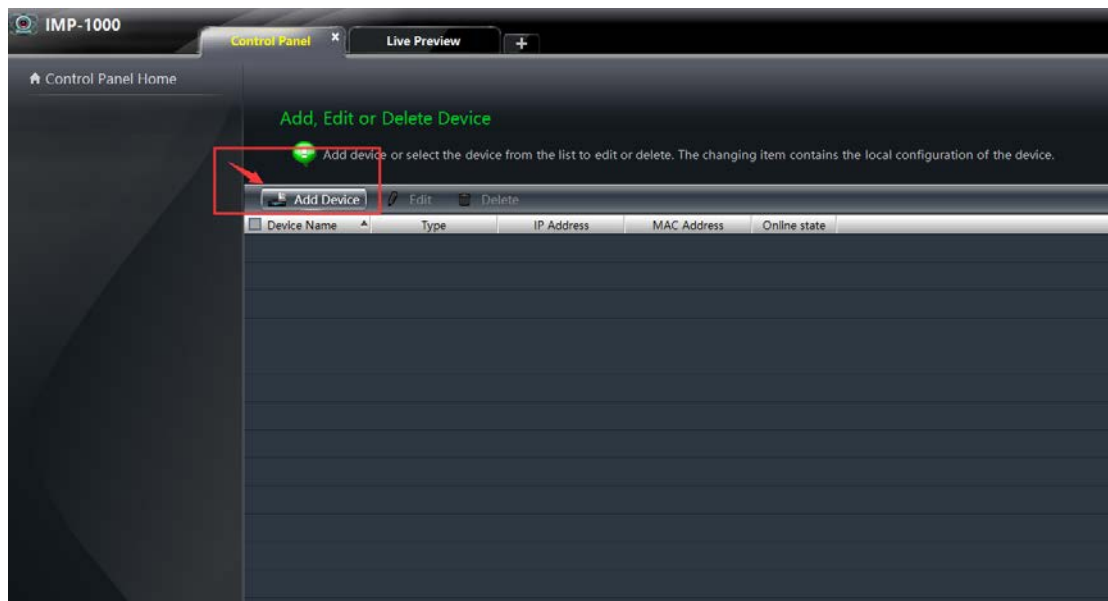
To login to the platform for the first time, click add device in device management, and you can choose to add device quickly (automatically scan all devices in the regional network) or manually. Quick add only need to check add, manually add need to input network parameters and other settings can be successfully added.

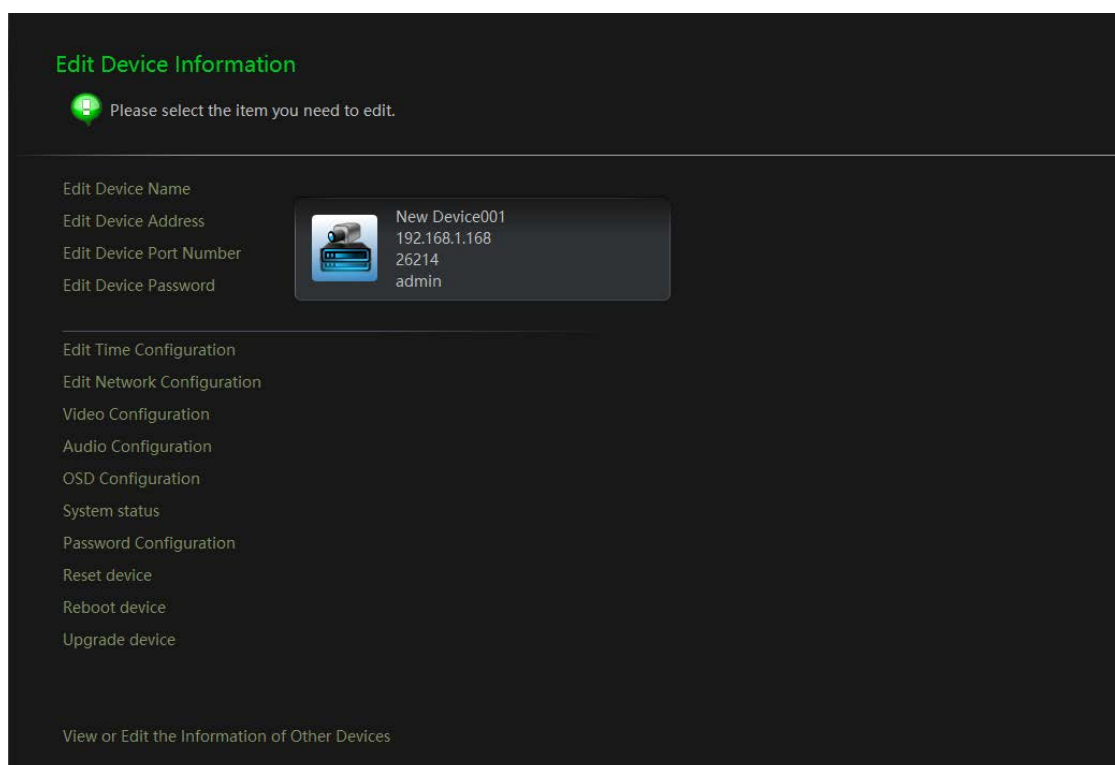
6.3.1. Specific steps

3.1 Open the software of the control platform, enter the account and password, enter the verification into the main interface, and click "Add Device" with the mouse.

Quick add: Click refresh key will automatically search all product IP address in LAN

Manually add: Enter known IP address, protocol (TX/RX), port, default username/password admin.
Enter the correct IP address and other parameters by clicking "test connection" to ensure that the device added is correct.





In Edit page, device parameters can be configured.

3.2.1 After each device was set, click “View or Edit the Information of Other Devices” to return, and select other devices for parameter setting.

3.2.2 Edit device Name, Edit Device Address, Edit Device Port Number, Edit Device Password (the default user name/password of all devices is admin), change the password of the login device, and it will take effect immediately after it is confirmed. The above change function is only used for the platform when the device is manually added, the parameter error can be quickly modified here, and the parameter of the device itself cannot be changed.

3.2.3 Edit Time Configuration

Default check the NTP server synchronization. You can check the NTP server synchronization to select time zone or un-check the NTP server synchronization for manual calibration.



3.2.4 Edit Network Configuration

1. UDP port, RTSP port, Auto get IP address, IP address, Sub-net mask, Gateway and Domain name server can be implemented in the network configuration. Once the network configuration is modified, need manually restart of the device to take effect.

2. Provide two video streaming protocols: RTSP primary and secondary bit streams and RTMP live streaming protocols

3. RTSP anonymous access: check means that there is no need to enter account and password when receiving video stream; otherwise, you need to enter account and password when you do not check

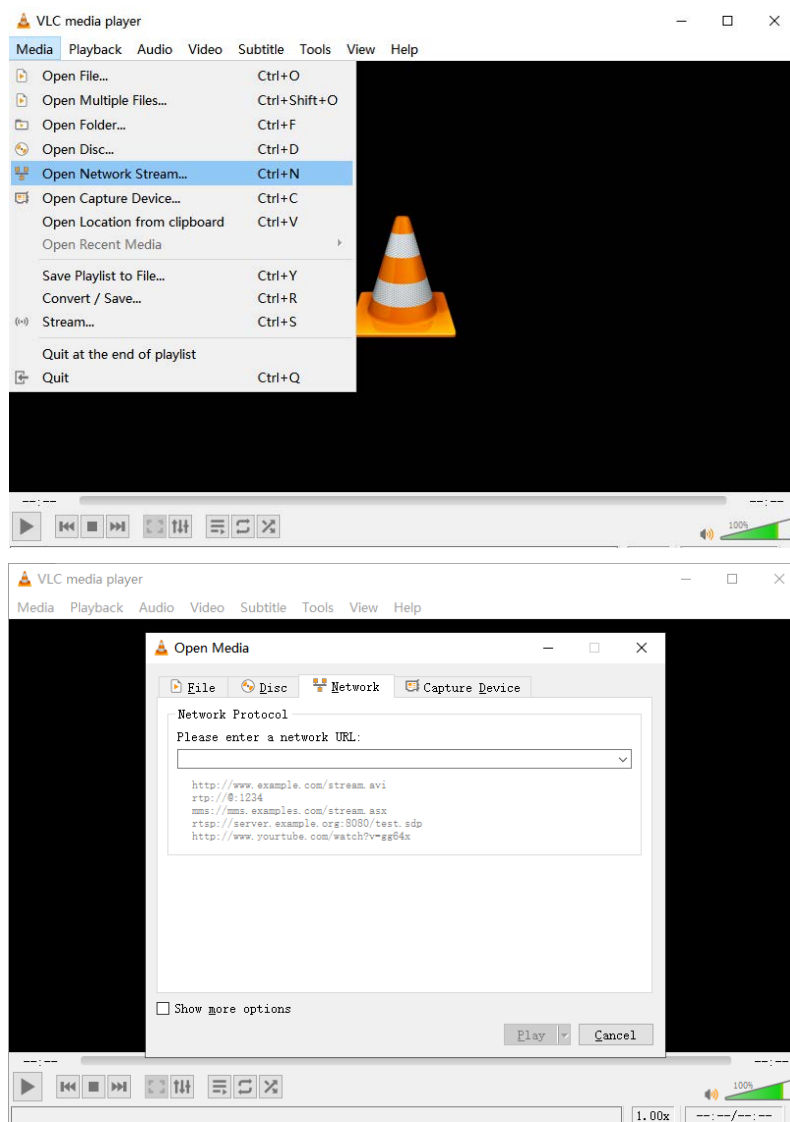
4. Default account and password: admin

Note: the modified IP address cannot be the same as the IP address of all connected devices in the network

5. RTSP usage instructions:

Pre-install and open the VLC player (download address: <http://www.videolan.org/>) in the computer, then select media → open the network streaming as shown in the figure below, enter the device RTSP code stream address, click play as shown in the figure below, you can successfully play the video stream encoded by the device. The device stream address is composed of IP address and RTSP port number.

Specific steps are as follows:



Operating Instruction



3.2.5 Video Configuration

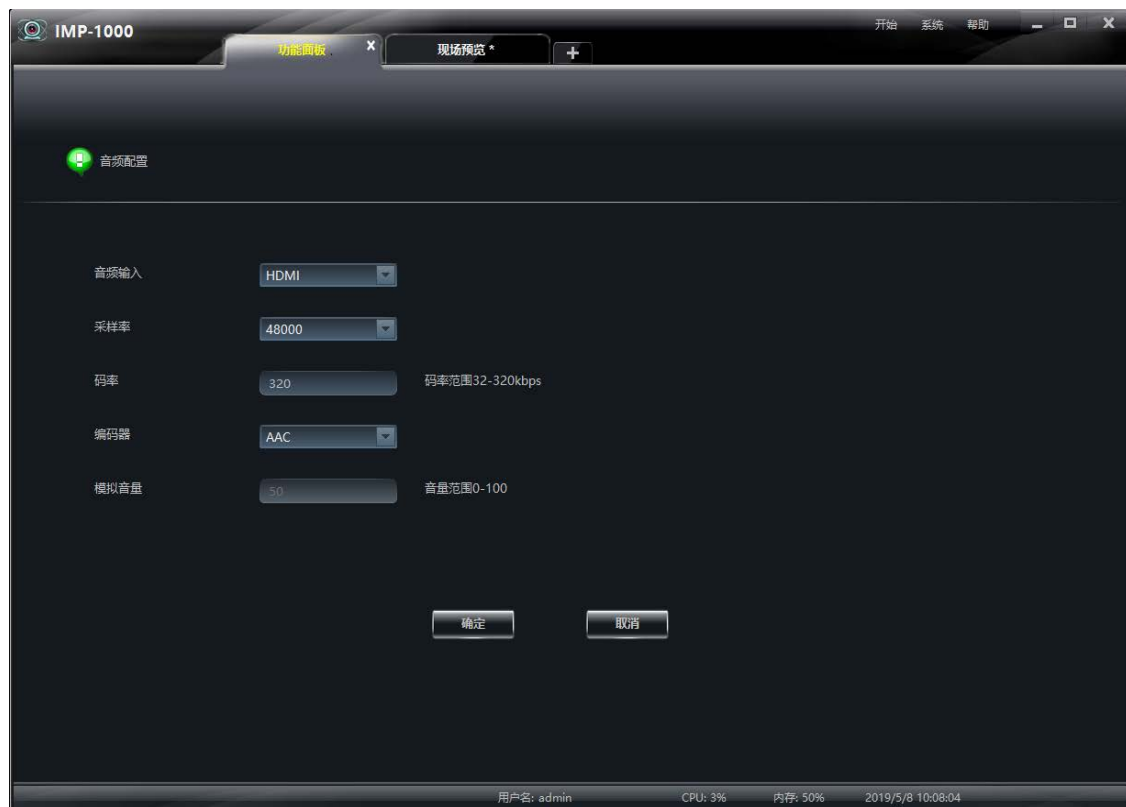


In video configuration, the parameters of the main and sub streams can be set as shown in the figure. Once the parameter modification is confirmed, it can take effect immediately.

Note: these Settings are valid only if the encoding type is set to h.264.

Operating Instruction

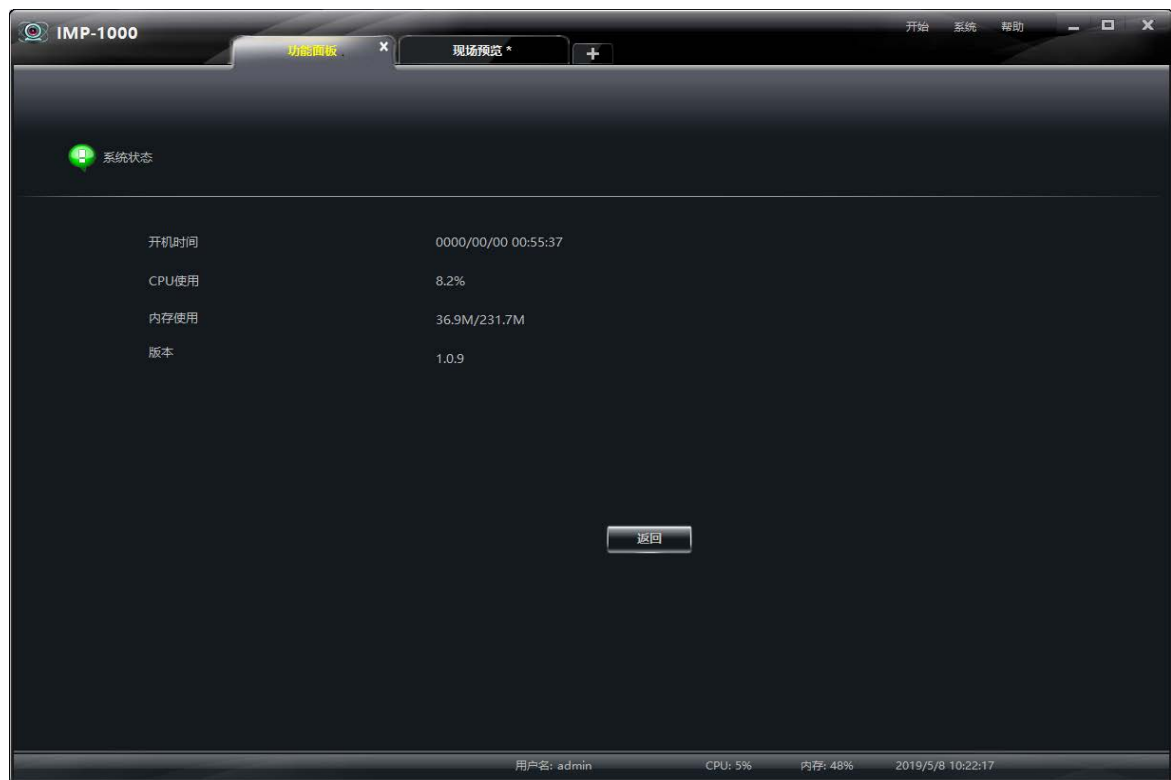
3.2.6 Audio Configuration



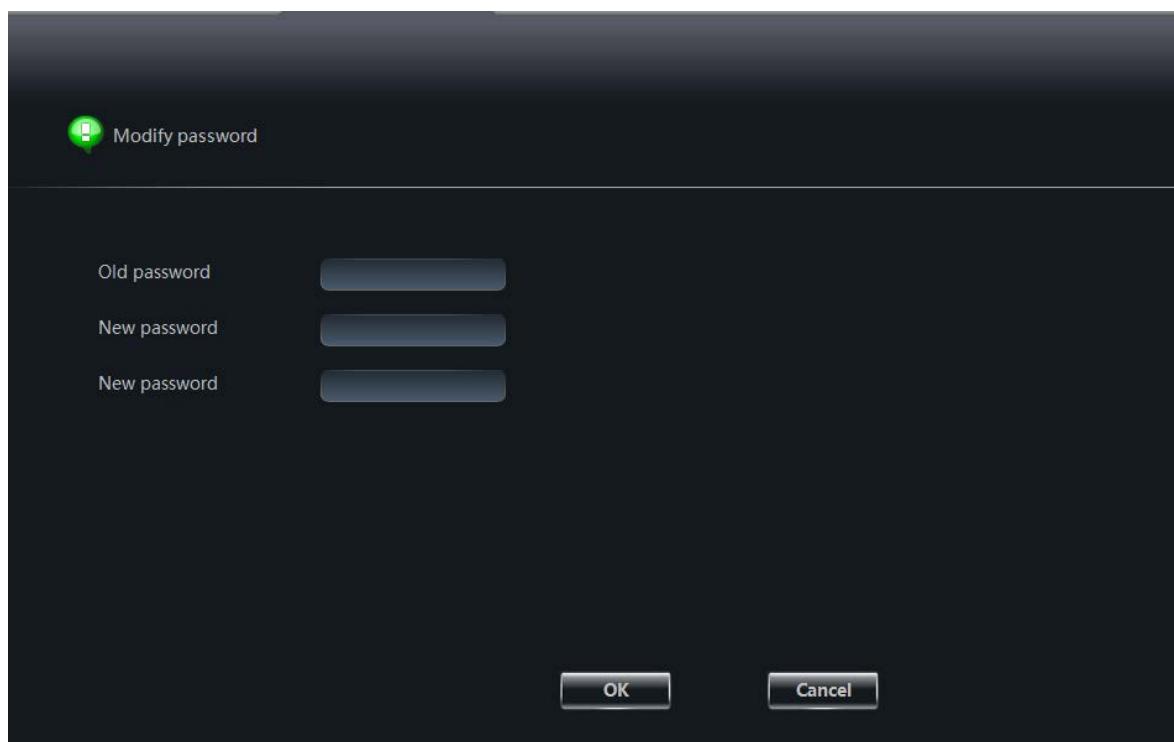
3.2.7 OSD Configuration



3.2.8 System Status



3.2.9 Password Configuration

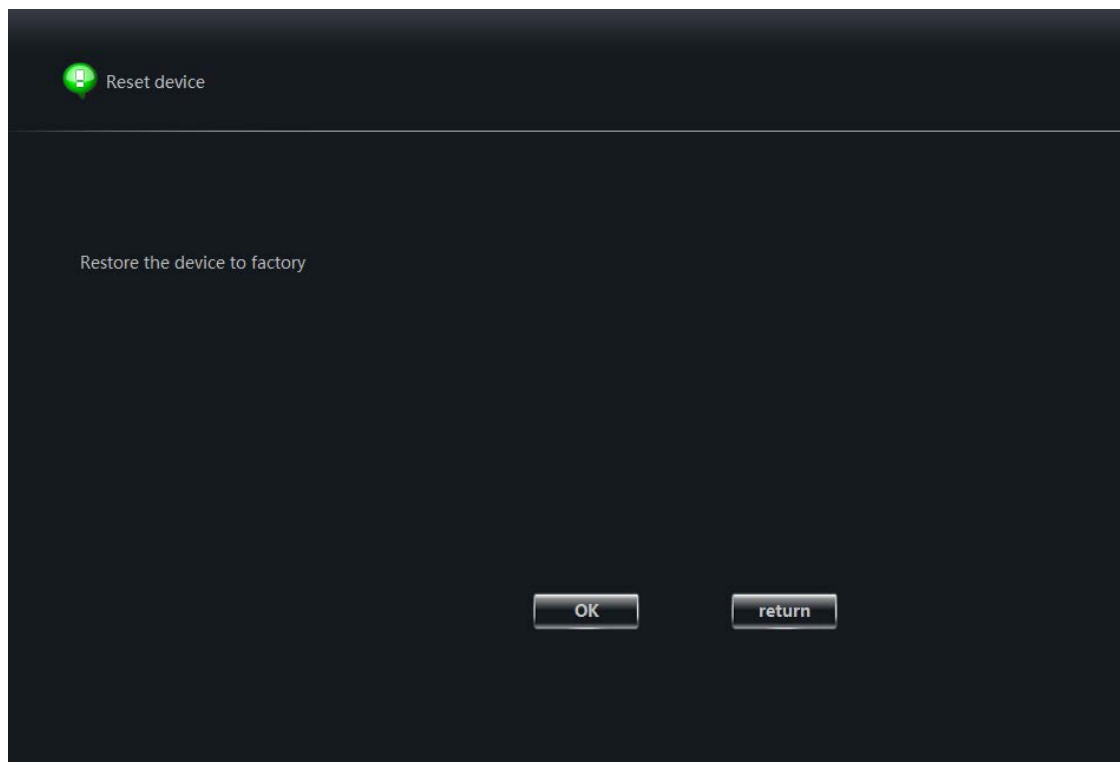


-
1. The default password for communication between platform and device is admin
 2. After the device password is changed, the connection between the platform and the device will go offline
 3. Return to the device function panel, select the login device password input, enter the newly modified password to enter confirmation
 4. After the device and platform verify the password successfully, it will automatically restore to the online state

3.3.0 Reset Device

Once the reset device is determined, the device will restore factory Settings and all parameters will be restored to the initial state.

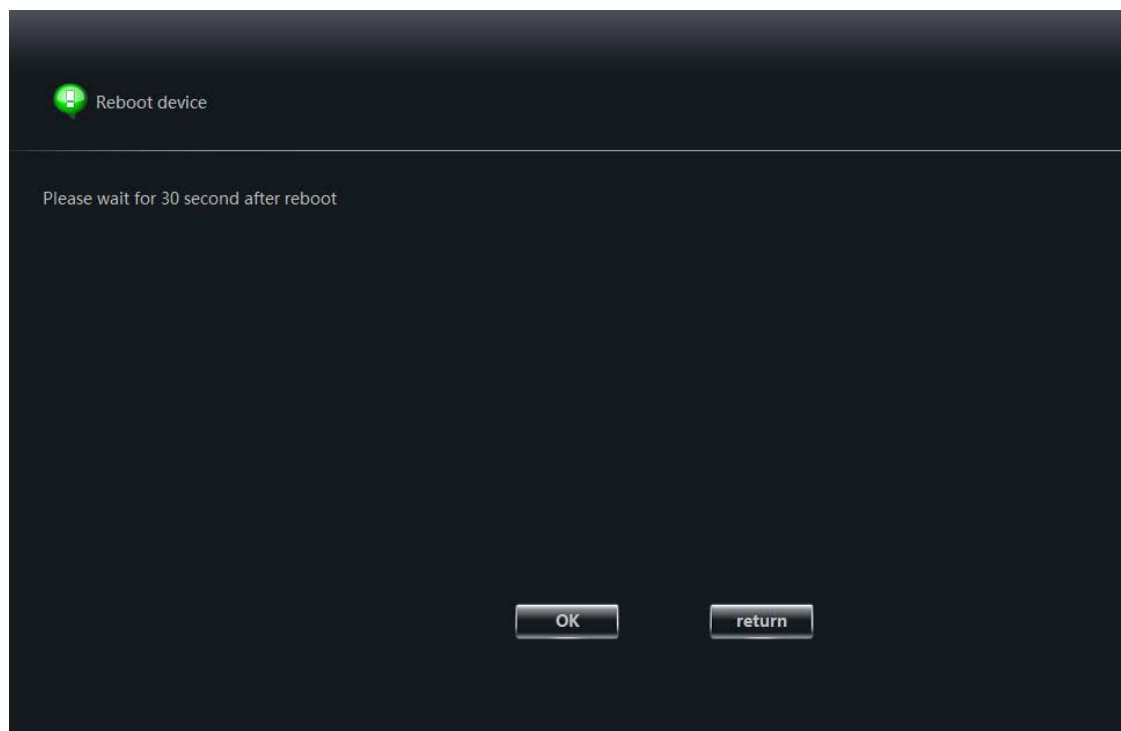
Note: if factory Settings are restored, the router will reassign the IP address of the product. If the original address fails, the device should be added again



3.3.1 Reboot Device

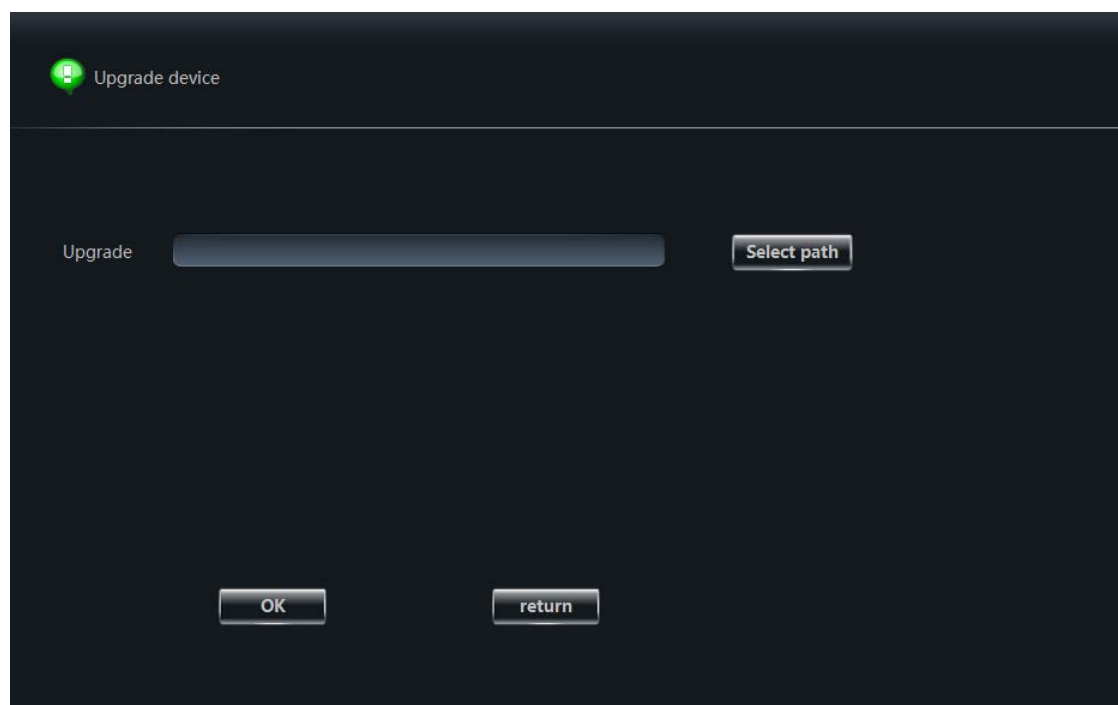
The parameters previously set will be saved on restart. The device can also be restarted through the restart button on the product.

The platform will be offline for a short time with the device, and the online state of the device will be automatically restored after the restart



3.3.2 Upgrade Device

Select the path to find the upgrade file (bin format) and complete the software upgrade after confirmation. The platform upgrade device will not change the previous parameter configuration. Successful upgrade will be prompted and restart.



6.4. User Management Instruction:



Access to user accounts and permissions through the function panel, you can create accounts, edit or delete user accounts, set account permissions, edit account password

6.4.1. Create Account:

Super administrators can create other administrators or operators and set permissions as needed. To login to the created account, you must either logout of the current user or switch the user to the login screen in the upper right corner of the screen.

Specific operation steps:

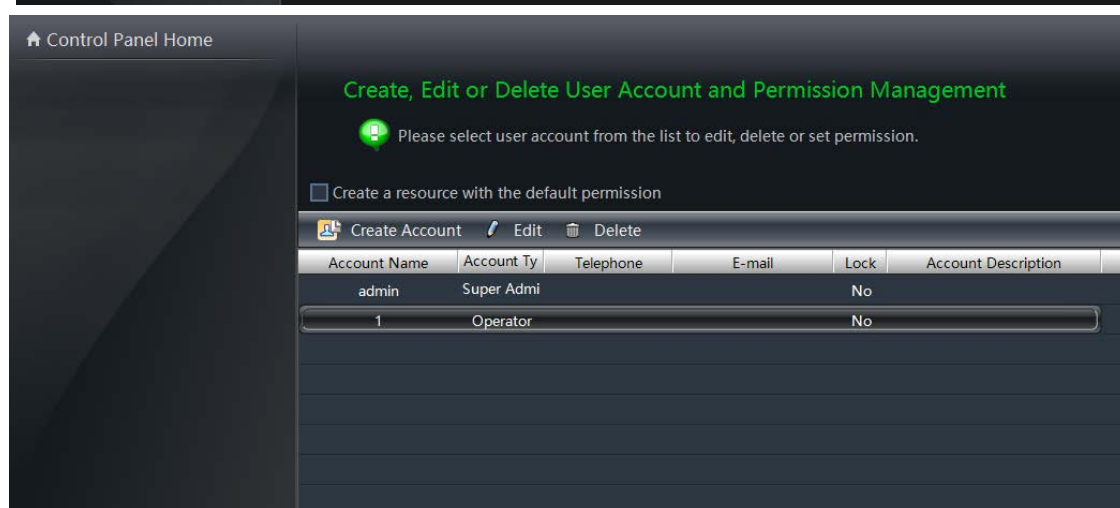
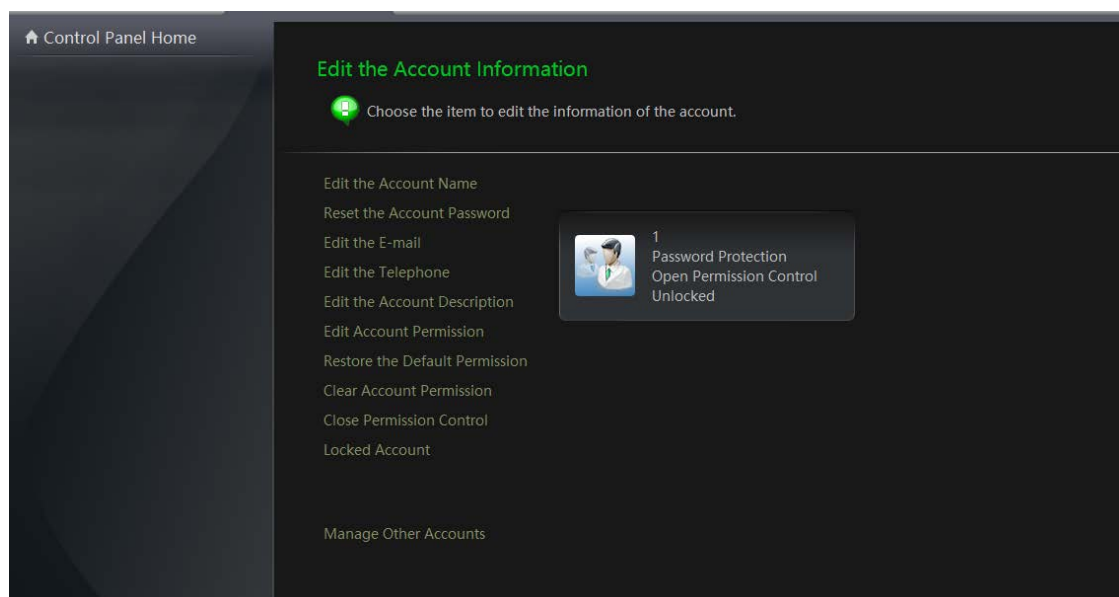
1. Open the platform and enter the main function interface
2. Select "Create Account", fill in new account name and password, set account type (administrator, operator) and click confirm
3. Return to the main function interface and click "user account and permission"
4. Check the list of accounts created after entering
5. If the account is wrong, can click on a group of accounts to select and delete them.

Note: the first created account is super administrator by default.

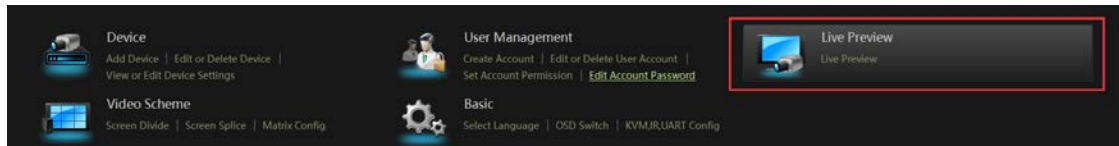
A screenshot of the 'Create Account' dialog box in the IMP-1000 software. The dialog box has a dark background and contains the following fields and options:

- New Account Name**: A text input field with a note '*Limited to 1-60 characters'.
- Password**: A text input field with a note 'Limited to 16 characters'.
- Confirm Password**: A text input field.
- Account Type**: Two radio buttons, 'Administrator' (selected) and 'Operator'.
- Locked Account**: A checkbox.
- E-mail**: A text input field with a note 'Limited to 60 characters'.
- Telephone**: A text input field with a note 'Limited to 15 characters'.
- Account Description**: A large text area with a note 'Limited to 255 characters'.
- Buttons**: 'OK' and 'Cancel' buttons at the bottom right.

The status bar at the bottom shows 'User Name: admin', 'CPU: 9%', 'RAM: 67%', and the date/time '2019/11/8 11:33:13'.



6.5. Live Preview Instruction:



The Live Preview can monitor the input signal source image in real time, so that it can be used as a monitoring function.

Live Preview area: can accommodate 1-100 groups of signal source devices access and view at the same time (with one key to close all and full screen)

Each group of devices can select the following functions by right mouse button:

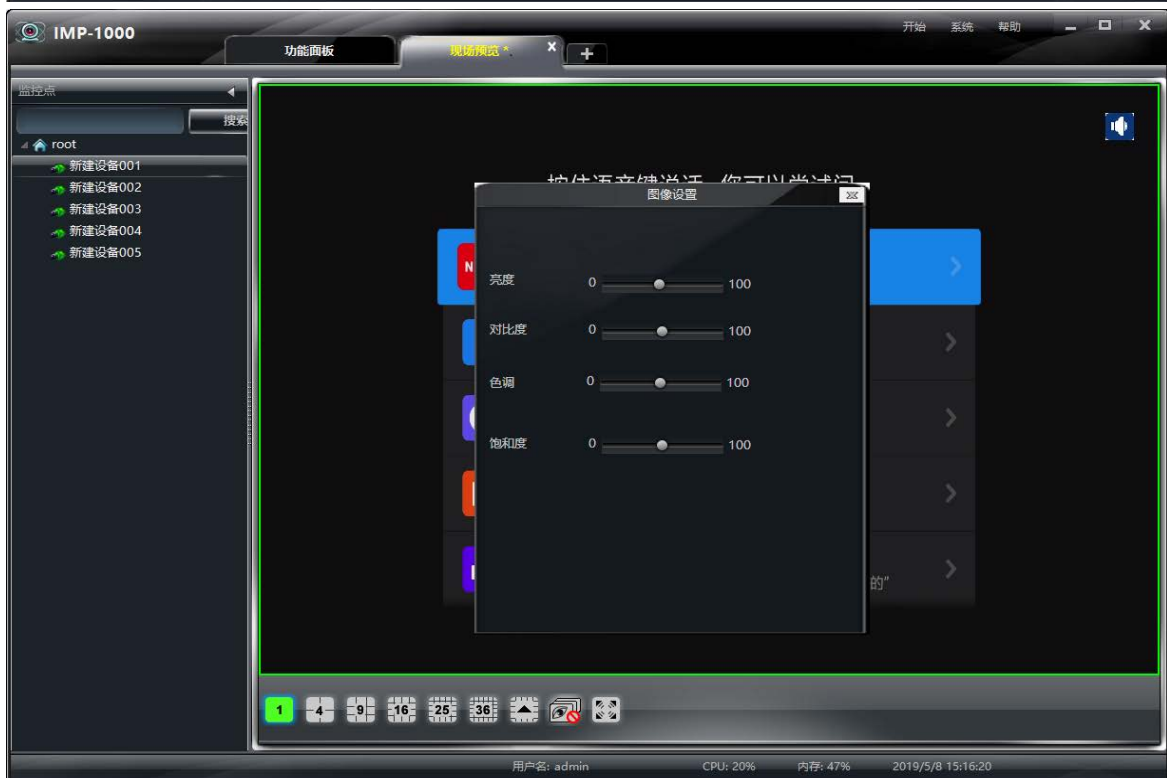
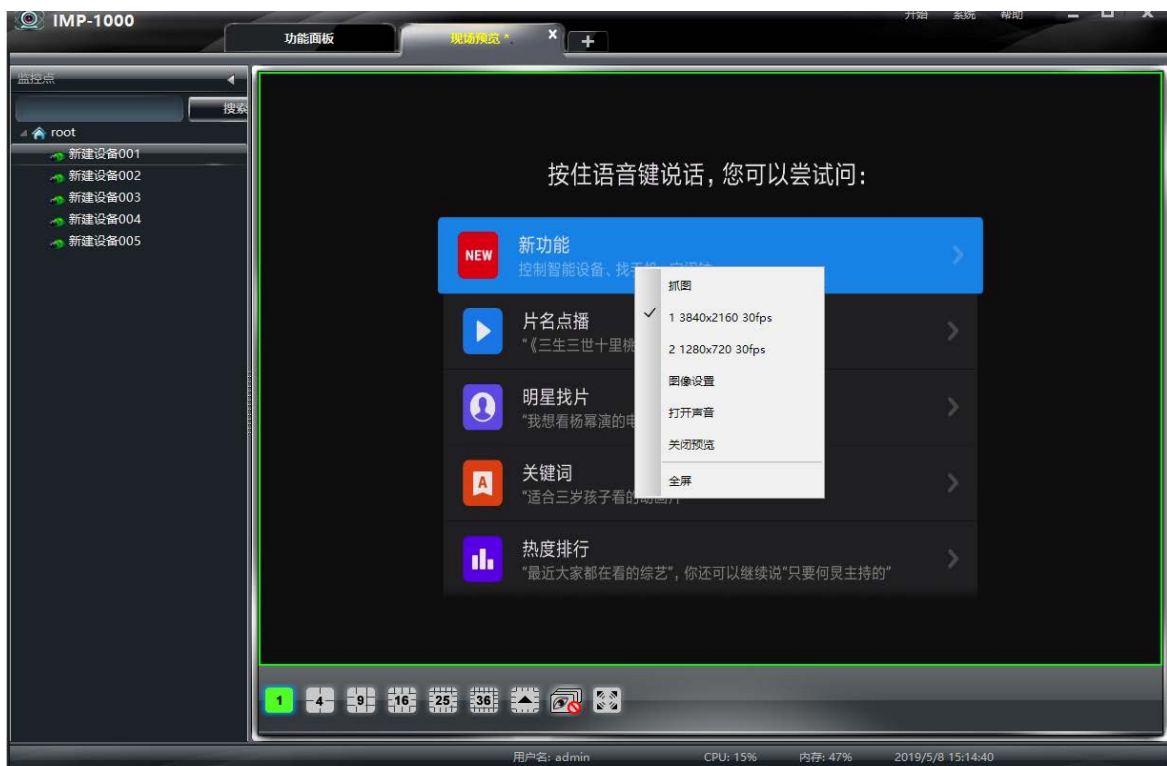
1. Capture (capture five identical images in a row)
2. Switch between primary and secondary streams
3. Image setting (brightness, contrast, hue, saturation)
4. Turn on sound and turn off sound
5. Close preview
6. Full screen

Specific steps are as follows:

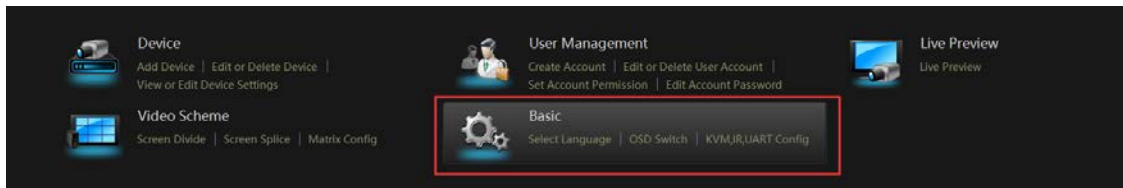
1. Open Live preview in the function panel
2. A list of TX device names will be displayed on the left
3. Long press the left button to select a group of devices and drag the current device name into the segmentation box
4. Complete live preview

Noted: right mouse button to select the resolution of the main stream will automatically enter the full screen state. Switch to other segmentation image to recover sub stream automatically.



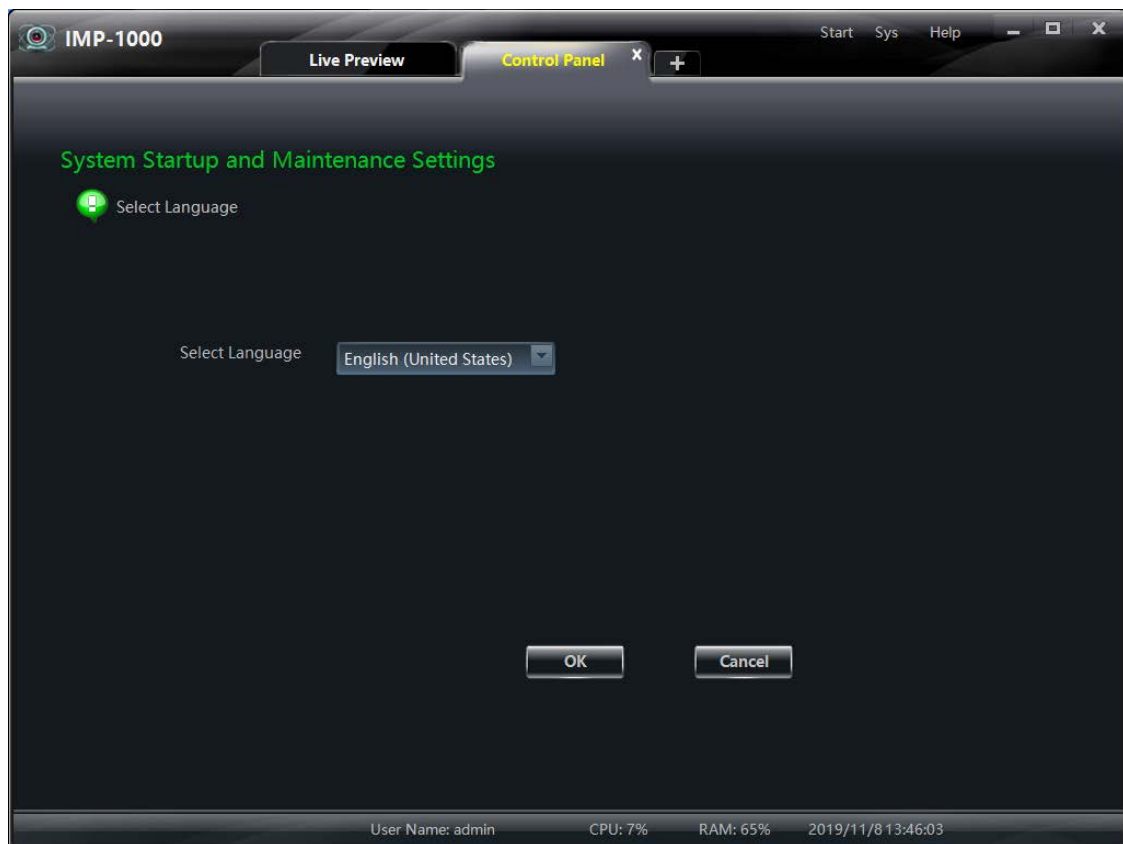


6.6. Basic Instruction:



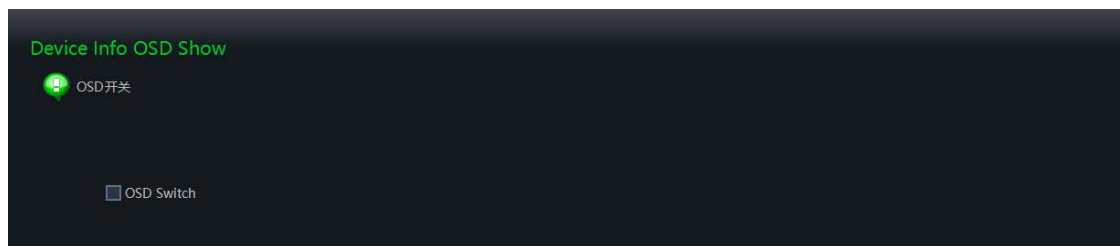
6.6.1. Select Language:

The platform supports switching between Chinese and English. If the switching is completed, the platform needs to be restarted.



6.6.2. OSD Switch:

For large screen segmentation, large screen splicing, matrix configuration to find RX IP address and other information, in order to quickly operate the configuration.



6.7. Video Scheme Instruction:



6.7.1. Matrix Configuration

Before use RX with the platform. Set up the matrix configuration on the platform. Many-to-many or one-to-many can be preset as video matrix.

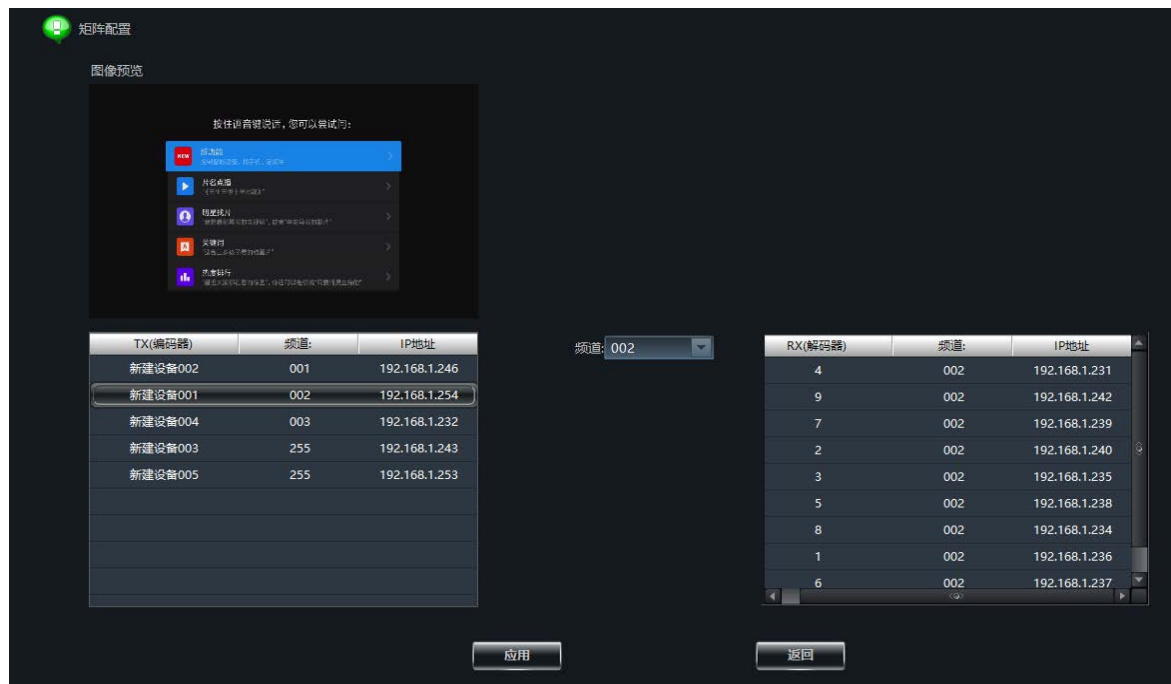
Factory default OSD interface is as follows:

The current software version information, RX IP address and RX MAC address are displayed in the light blue background



Specific steps are as follows:

1. Open the function panel and select matrix configuration
2. The top of the left column represents the preview window, and the bottom of the left column represents the TX device list information
3. The middle represents the group channel ID, and the right column represents the RX device list information
4. Click any device in the TX list once with the left mouse button, and the upper window will take the real-time preview image as the current signal source
5. Customize the channel ID of TX device (click the blank in the list to unselect it with the left mouse button)
6. The RX list corresponds to the TX device channel set to be consistent
7. Completion of matrix configuration

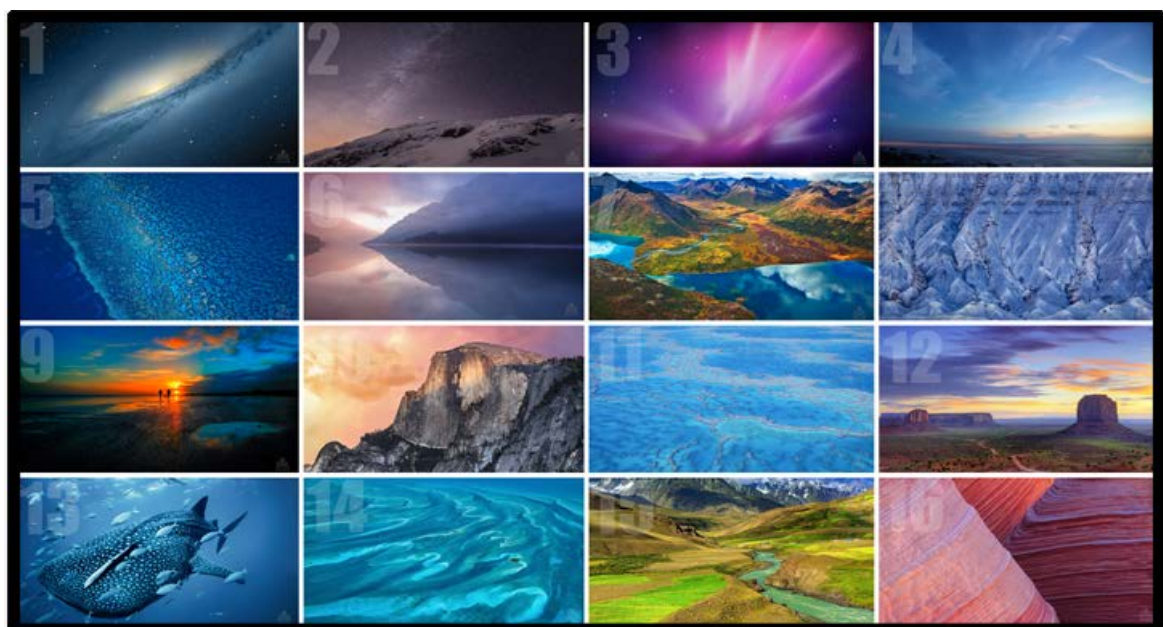


6.7.2. Screen Divide:

Large screen divide means that multiple groups of signal sources are displayed in one screen.

See the example image below:

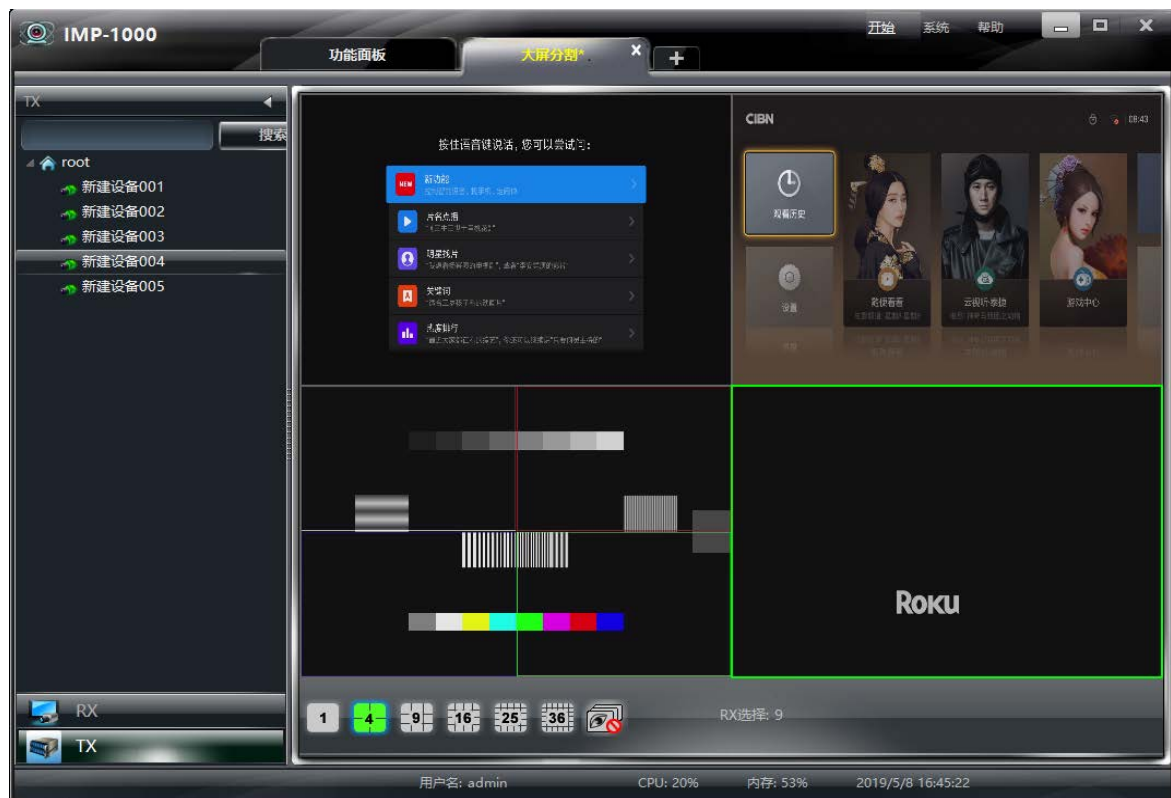
- 1). Each group of video sources is presented as a sub stream within the large screen divide.
- 2). Up to 36 groups of signal source segmentation can be supported



Specific steps are as follows:

- 1) open the CMP integrated management platform and enter the main interface of the functional panel;
- 2) select the "OSD switch" option, check the OSD switch and return to the main interface of the functional panel;
- 3) select the "Screen Divide" option to enter the large-screen divide interface;
- 4) set the required number of divide boxes (1, 4, 16, 25, 36);
- 5) select the RX device to be divided according to the IP address displayed by OSD;
- 6) open the RX device list in the monitoring point area (left side), select the required RX device, and long press the left mouse button to drag it into the divide box;
- 7) open the TX device list in the monitoring point area, select the required TX device, and long press the left mouse button to drag it into the divide box;
- 8) large screen divide operation is completed.

Note: if the RX returns to normal one-to-many or many-to-many, it can be restored by re-entering the matrix configuration. Exit will prompt you to save the view.

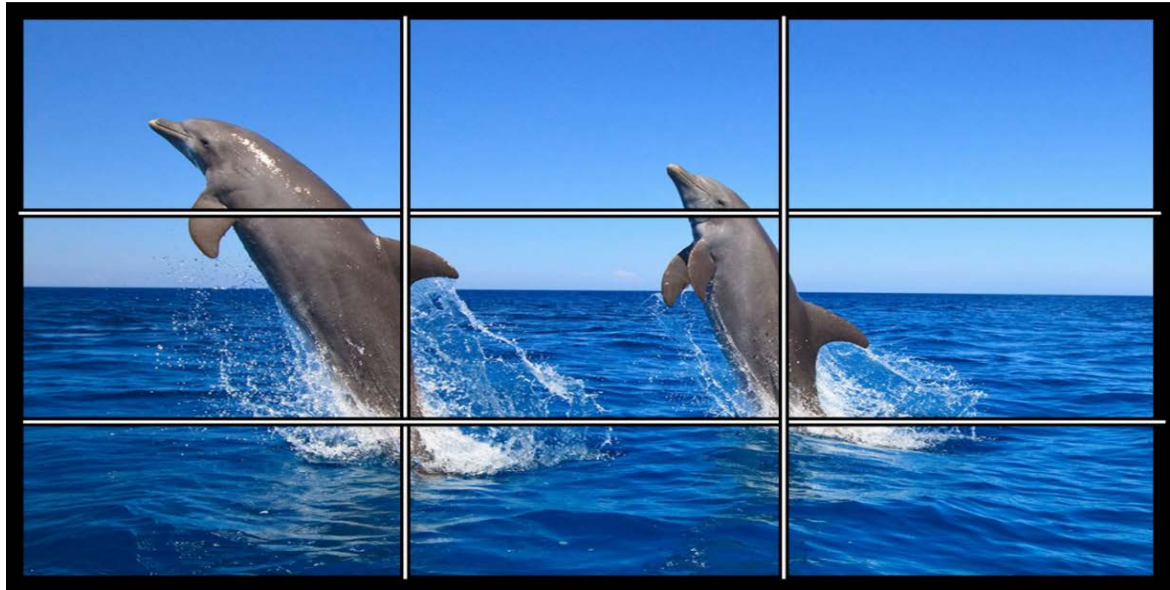


6.7.3. Screen Splice:

A large screen splice consists of a single signal source splicing multiple sets of RX (TV) into a single image. See the example image below

- 1) . Under large screen splicing, the maximum resolution of each group of RX devices supports 4K30.

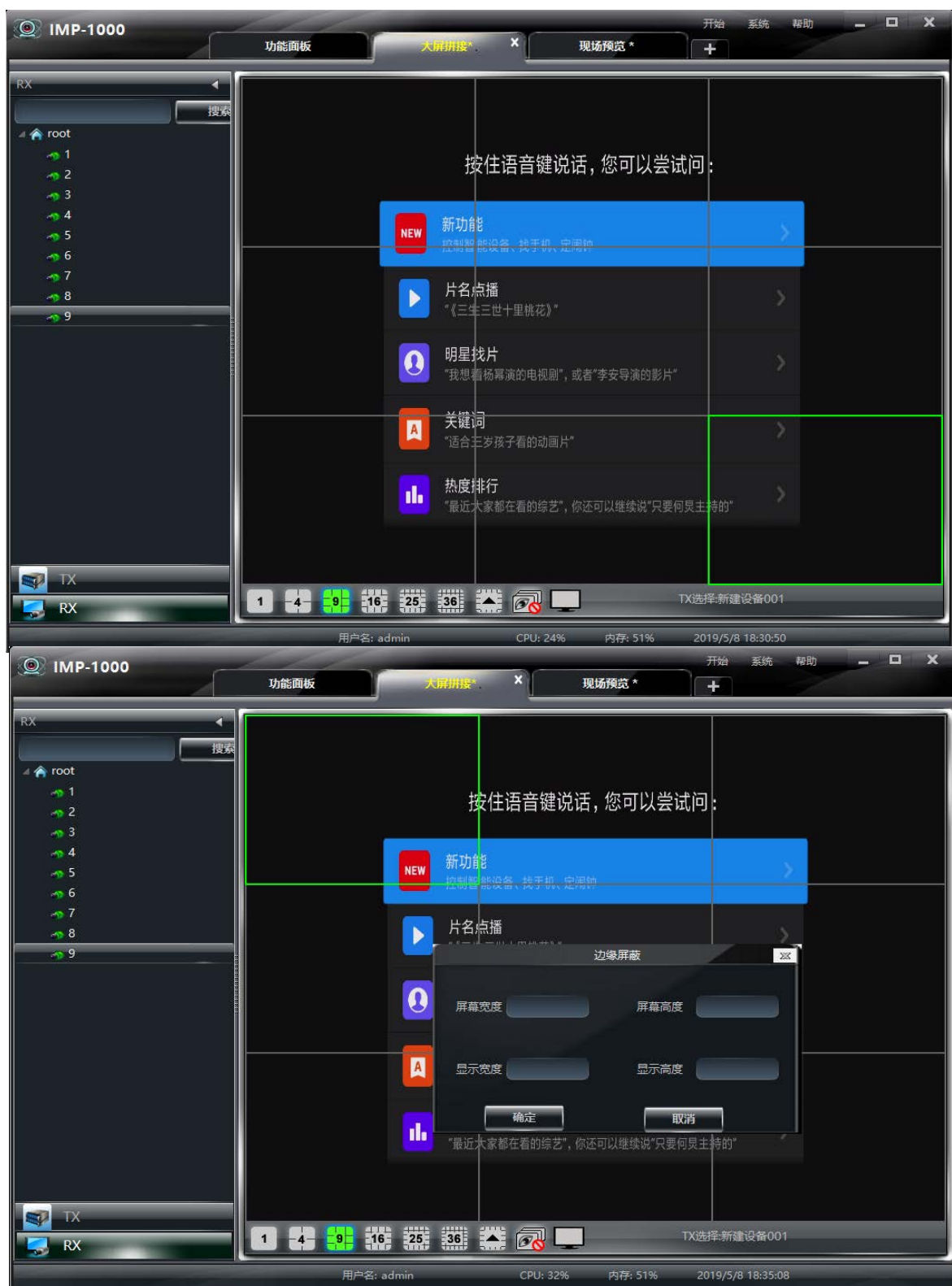
- 2). The current maximum support is 9×9 splicing
- 3). Edge shielding (screen width, screen height, display width and display height) can be set separately for each group of spliced images.



Specific steps are as follows:

- 1) Open the CMP integrated management platform and enter the main interface of the functional panel;
- 2) Select the "OSD switch" option, check the OSD switch and return to the main interface of the functional panel;
- 3) Select the "Screen Splice" option to enter the big-screen splicing interface;
- 4) Select the required number of splicing boxes (1, 4, 16, 25, 36);
- 5) Select the RX device signal source required to be spliced first according to the IP address displayed by OSD;
- 6) Open the TX device list in the monitoring point area, select the required TX device, and long press the left mouse button to drag it into the splicing box;
- 7) Open the RX device list in the monitoring point area, select the required RX device, and long press the left mouse button to drag it into the splicing box;
- 8) Large screen splicing operation is completed.

Note: if RX returns to normal one-to-many or many-to-many, that is, reentry into matrix configuration can be restored, exit will prompt whether to save the view.



6.7.4. KVM/IR/RS232 configuration:

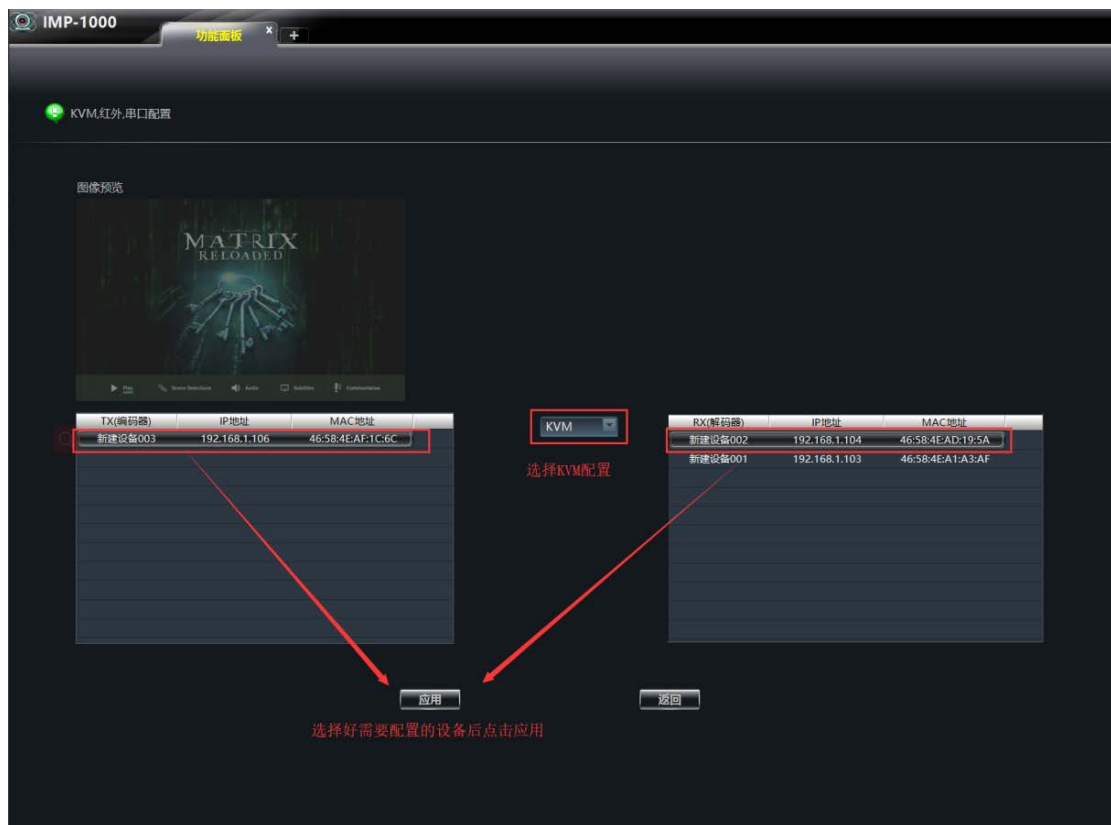
KVM:

Devices can be pre-configured one to one, one to many, or many to many when paired with KVM capabilities.

Specific operating instructions:

- 1) open the CMP integrated management platform and enter the main functional interface;
- 2) select the option of "KVM, infrared and serial port configuration" to enter the interface of KVM, infrared and serial port configuration;
- 3) in the configuration interface of KVM, infrared and serial ports, there are image preview window, TX device list window, RX device list window and function selection window

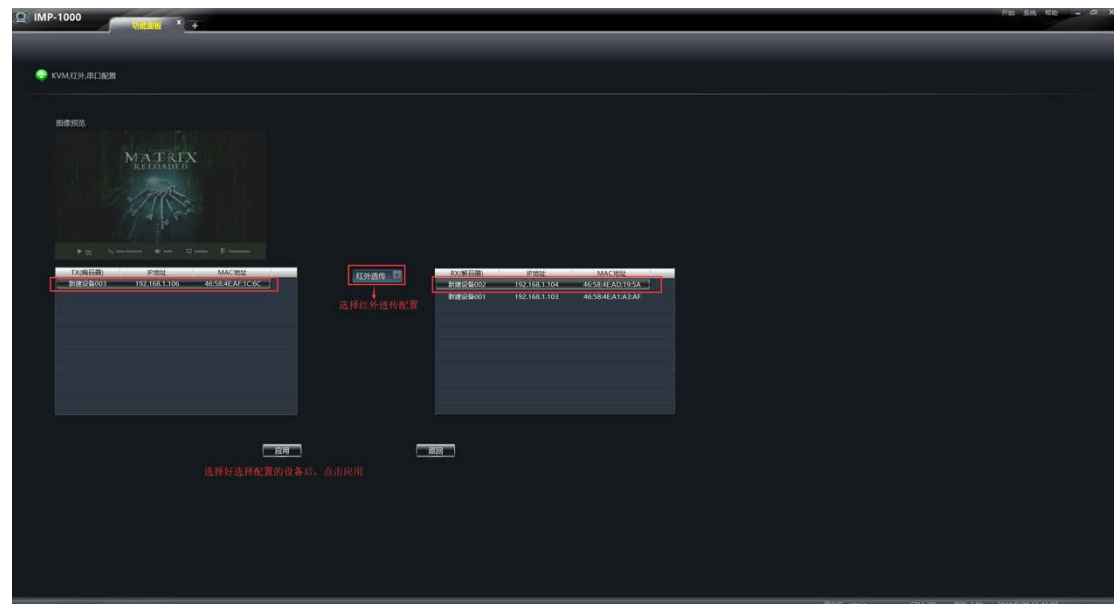
As shown below:



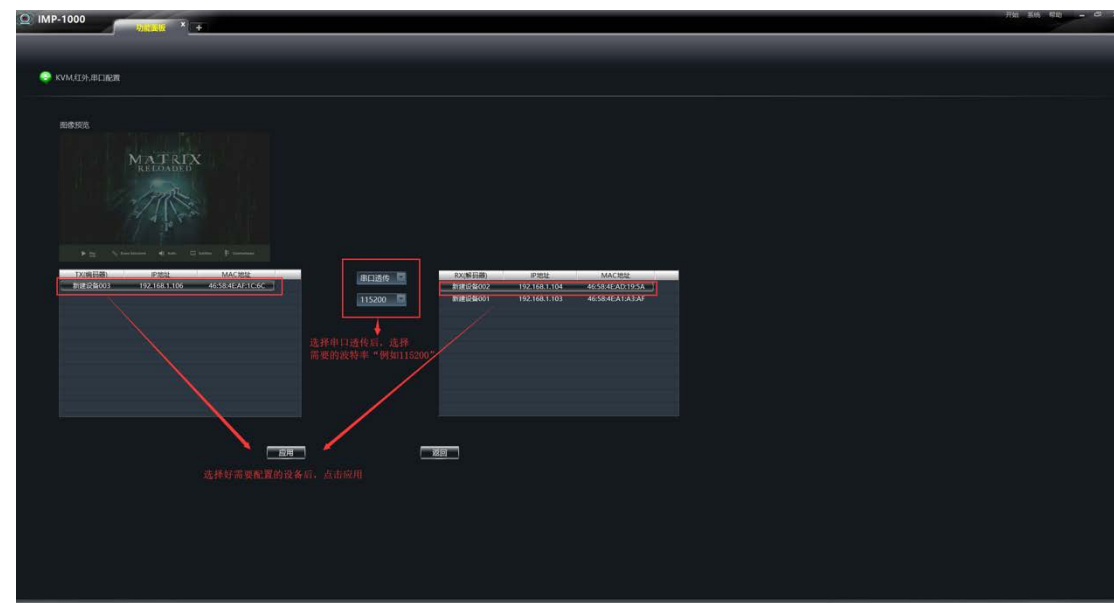
- 1) select "KVM" in the function selection window
- 2) select the TX device to be configured in the TX list window;
- 3) in the RX list window, select the RX device to be configured (click the left mouse button to select the device, hold down the Ctrl key, then select the device with the left mouse button for multiple selection, and click the right mouse button to cancel the current selection in the blank in the window), and then click apply.
- 4) after the selected TX device and RX device are configured, the rx-connected keyboard and mouse will normally control the tx-connected computer.

Operating Instruction

IR:



RS232:



MAINTENANCE

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

PRODUCT SERVICE

(1) Damage requiring service:

The unit should be serviced by qualified service personnel if:

- (a) The DC power supply cord or AC adaptor has been damaged;
- (b) Objects or liquids have gotten into the unit;
- (c) The unit has been exposed to rain;
- (d) The unit does not operate normally or exhibits a marked change in performance;

The unit has been dropped or the cabinet damaged.

(2) **Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.

(3) **Replacement parts:** When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other Hazards.

(4) **Safety check:** After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

WARRANTY

If your product does not work properly because of a defect in materials or workmanship, our Company (referred to as "the warrantor") will, for the length of the period indicated as below, **(Parts)2)Year, Labor(90) Days)** which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the "Labor" Limited Warranty period there will be no charge for labor.

During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

MAIL-IN SERVICE

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone and/or email address where you can be reached.

LIMITED WARRANTY LIMITS AND EXCLUSIONS

1) This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage.

The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty

installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service center or other Authorized Servicer, or damage that is attributable to acts of God.

2) THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.)

3) PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.