



Hirender S3 User Manual

V 4.6.0



Contents

| | | |
|-----|---|-----|
| I | Introduction..... | 1 |
| II | Core Function of Hirender S3..... | 1 |
| III | Operation environment and operation mode of Hirender S3 | 2 |
| | Operating environment | 2 |
| | Operation mode..... | 3 |
| IV | Installation and encryption lock authorization of Hirender S3 | 3 |
| | Encryption lock authorization..... | 7 |
| V | Function introduction of Hirender S3..... | 10 |
| | Startup interface | 10 |
| | Operation interface..... | 12 |
| | File | 14 |
| | Edit | 30 |
| | Mode | 31 |
| | Stage..... | 33 |
| | Stage Preview..... | 42 |
| | Media resources | 45 |
| | Program management | 51 |
| | Timeline | 56 |
| | Lighting Library..... | 67 |
| | Tool | 70 |
| | Window | 72 |
| | Help..... | 73 |
| | Toolbar | 74 |
| | File tools..... | 74 |
| | Editing tools | 74 |
| | Timeline tool | 74 |
| | Effect editing tool for timeline media materials..... | 74 |
| | Window tool..... | 75 |
| | Program management tools | 75 |
| | Resource..... | 75 |
| | Media | 75 |
| | Screen Management..... | 82 |
| | Program Effects | 83 |
| | Device | 89 |
| | Input control..... | 90 |
| | Output control | 96 |
| | List..... | 105 |
| | AUX Timeline..... | 106 |
| | Content editing..... | 108 |
| | Timeline management..... | 108 |
| | Layer Settings | 109 |
| | Timeline media settings | 110 |

| | |
|--|-----|
| Effect editing..... | 112 |
| Shortcut key | 112 |
| Program management | 114 |
| Program window layer..... | 115 |
| Effect layer..... | 115 |
| Process label layer | 116 |
| Program node | 116 |
| shortcut button | 118 |
| Stage..... | 118 |
| Add Locate / Network Display | 120 |
| Add virtual Display..... | 121 |
| Connect | 123 |
| Standby..... | 124 |
| Preview..... | 125 |
| Hardware performance test..... | 125 |
| Status | 126 |
| Network..... | 127 |
| LTC..... | 128 |
| MTC | 128 |
| Properties | 129 |
| Display properties | 129 |
| Program layer properties..... | 151 |
| Program properties..... | 155 |
| Program node properties..... | 158 |
| Timeline properties | 168 |
| Timeline layer properties | 169 |
| Effect Properties..... | 171 |
| Virtual Display Properties..... | 171 |
| VI Viappendix..... | 171 |
| frequently asked questions..... | 171 |
| 1. The problem of playing super-resolution video lagging. | 172 |
| 2. Open the software to prompt that there is no authorization information | 172 |
| 3. After the software is opened, the plug-in window, media resource window and stage editing window does not exist. | 173 |
| 4. Software opens prompts the maximum number of users. | 173 |
| 5. The encryption lock interface pops up when open Hirender S3 software. (Error code: 102541) | 173 |
| 6. After the software is opened, the edited program cannot be played normally..... | 174 |
| 7. The computer boot screen is on the display device, and the computer screen only display a desktop..... | 174 |
| 8. Picture has malposition while doing screen splicing..... | 175 |
| 9. After debugging the software and restart the computer. The output resolution is disordered..... | 175 |
| 10. The encryption lock is locked..... | 175 |

| | |
|---|-----|
| Recommended video encoding and format | 178 |
| Technical support contact information | 178 |

I Introduction

Hirender S3 is a multi-function professional media server used in the exhibition and performance industry. With the powerful "Timeline mode", "window mode" and "light library mode", Hirender S3 can easily manage the broadcast and control process in projects, and easily realize gorgeous visual effects and flexible creative display. A single server can support up to 6 channels of 4k x 2k ultra-high definition display. At the same time, servers can be connected infinitely and output synchronously to meet the diversified needs of super-resolution led splicing, projection fusion, creative display etc.. Hirender S3 is widely used in conferences, performances and various large-scale activities.

II Core Function of Hirender S3

After extensive market research and according to the actual activity needs, we focus on building the following core function modules:

● **Window play mode**

Users can preset the window position and size, edit program flow flexibly and conveniently, suitable for the performance scene.

● **Timeline mode**

Accurately time control, powerful program effects and media management are more suitable for conference applications.

● **Support large resolution PPT**

PPT can be directly added to S3 software for playback and display, and supports high-resolution PPT.

● **Effect**

It supports frame, Gaussian blur, flash screen, color wheel and special effects of marquee lights, providing diversified choices for picture display and effect realization.

● **Filter**

This function can calibrate the bright part, dark part, color temperature, gamma, effect comparison and other parameters of the video, so that each video can meet the color requirements.

● **Support virtual screen**

Virtual screen can split, rotating, cut, zoom or do screenshots to medias, provide an extremely convenient way for innovative LED display applications.

● **Slice function**

It can realize the segmentation and reorganization of arbitrary polygons, realize led special-shaped splicing and creative display. The screen slice supports the windows structure and automatic alignment of slices.

● **NDI collection network support**

Hirender S3 supports more flexible NDI network acquisition mode and can realize up to 10 channels of 1920x1080 network screen acquisition. The extremely low delay, high-definition image quality and cross windows / MacOS platform features make screen acquisition more flexible.

- **Support more video console and matrix control**

The control command of switching console can be sent on the time line to realize the accurate synchronization of playback and video console switching.

- **Support 4K Capture Card Devices**

It can realize the real-time acquisition and output of 4K PPT / camera.

- **Powerful video decoding and 2D / 3D rendering capabilities**

Hirender engine is the core non editing rendering engine, which supports real-time high-performance 2D / 3D graphics rendering and covers almost all current video formats, including more than 30 Video Codes.

- **Ultra HD output**

A single machine can support up to 8K×4K output with load, and support super-resolution video decoding, which can easily complete the point-to-point display of the high-resolution display system.

- **Humanized operation**

Single host multi-channel output with humanized unified stage management mode, the perfect combination of timeline and window, and the intuitive operation interface can enable zero based technicians to get started quickly, so that the flexible display of screen layout and arbitrary creative display are no longer "on paper".

- **Preview mode**

The preview mode can view other edited programs in advance in the editing interface without affecting the normal output screen of the software, so as to ensure the smooth progress of the activity.

- **Light library mode**

The program window is directly connected with the light console, and the effect of the program can be adjusted in real time.

- **Time code**

Support LTC and MTC time code control to realize audio, video and light synchronization.

- **Support HVC**

HVC coding is independent research and development by enlightV Technology Co.,Ltd. Based on video decoding function of Nvidia GPU. Support super-resolution media up to 16384*16384, with high-definition output and small resource consumption. Adobe HVC plug-in is a video plug-in developed by Lanjing technology for Adobe series software to export HVC encoding format, which can be applied to Adobe Premiere, After Effects, Media Encoder software without transcoding again, simplifying the workflow.

III Operation environment and operation mode of Hirender S3

Operating environment

Operating environment:

Original Microsoft Windows7 64-bit and above are recommended. Windows10 is preferred

| Video input interface | | |
|---|-----------------------|---|
| Signal Type | Quantity | Input specification |
| DVI/HDMI/SDI | optional | 4 channels HDMI(SDI/DVI/VGA/HDMI/Ypbpr/CVBS to choose) |
| Supports a maximum of six 4K signal collection channels. The maximum resolution for a single channel is 3840x2160@60HZ. | | |
| Video output interface | | |
| Signal Type | Quantity | Input specification |
| DP | 4 | DP signal, The maximum supported resolution is 3840x2160@60HZ |
| Support 40-channel network HD signal acquisition | | |
| Other ports | | |
| USB3.0X2; USB2.0X2;RJ45(10M/100M/1000M)X1;COM Expansion Port X1(optional) | | |
| Hardware Specifications | | |
| Operating Voltage | 100-240V 50/60Hz | |
| Moderate work | 30-75% | |
| Support Protocols | TCP/IP, UDP/IP | |
| Output Control | MTC,DMX512(ARTNET),IP | |
| Chassis | 4U Industrial PC box | |
| Weight | 15Kg | |
| Chassis Size | 482W*445D*178H(mm) | |
| Operating System | Win10 64bit Pro | |

Operation mode

Hirender S3 needs to set your computer and output screen to the extended mode, which can be switched by [Win + P]. You can click the resolution setting to operate the display as the main display, and the screen or projector as the extended display.

Single server mode:

The usage of a single server—the operation interface and the video signal output are all performed on the same server. You can perform software operation, edit media effect, control output, and output video images to the display device. At the same time, real-time preview of the captured camera signal can be performed, making real-time preview, real-time editing and real-time rendering output become true. You can easily cope with application scenarios with fewer output channels as well.

Multiple server connection mode:

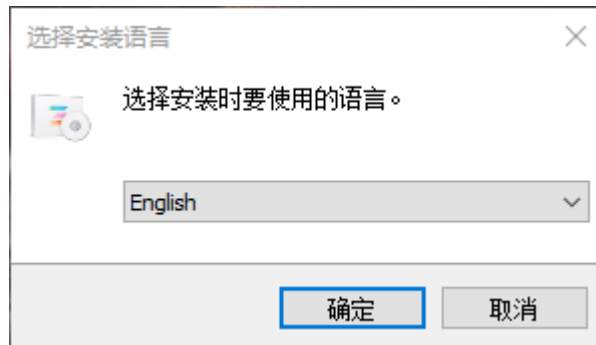
Multiple servers are cascaded—there is a separate console server for software operation, and other display servers are used for video signal output. As the number of display servers increases, the number of graphics interfaces that can be used for video signal output increases, and the number of connectable display devices increases. It satisfies the current market demand for more and more display devices and increasing resolution.

IV Installation and encryption lock

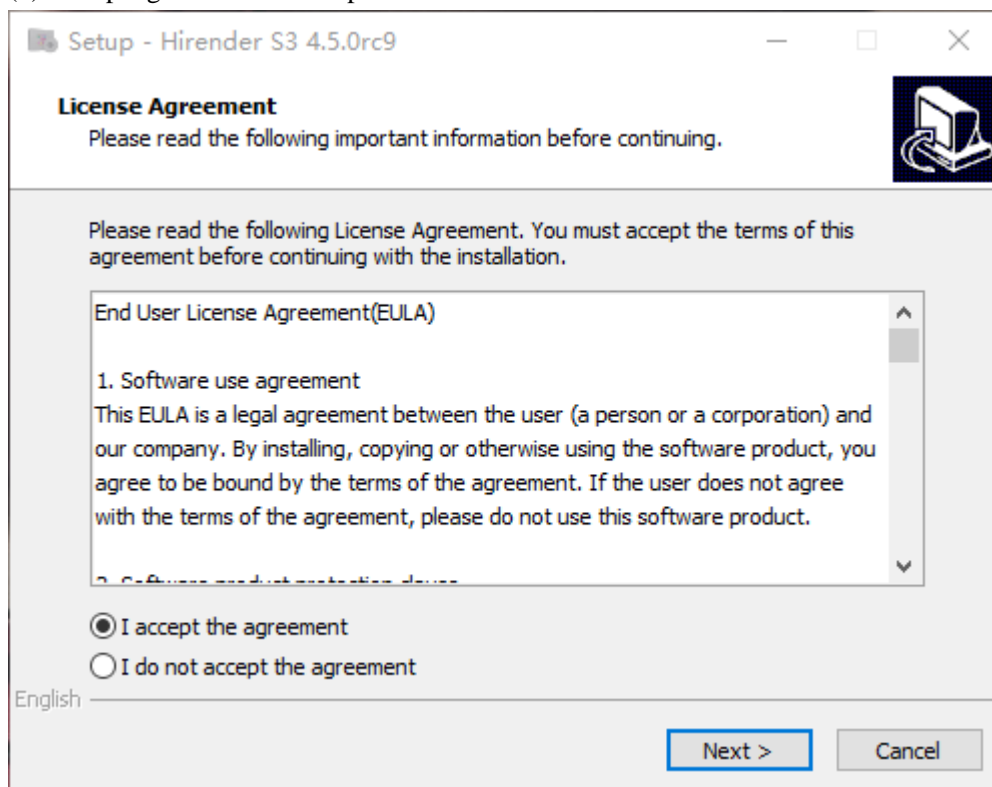
authorization of Hirender S3

Installation and debugging method

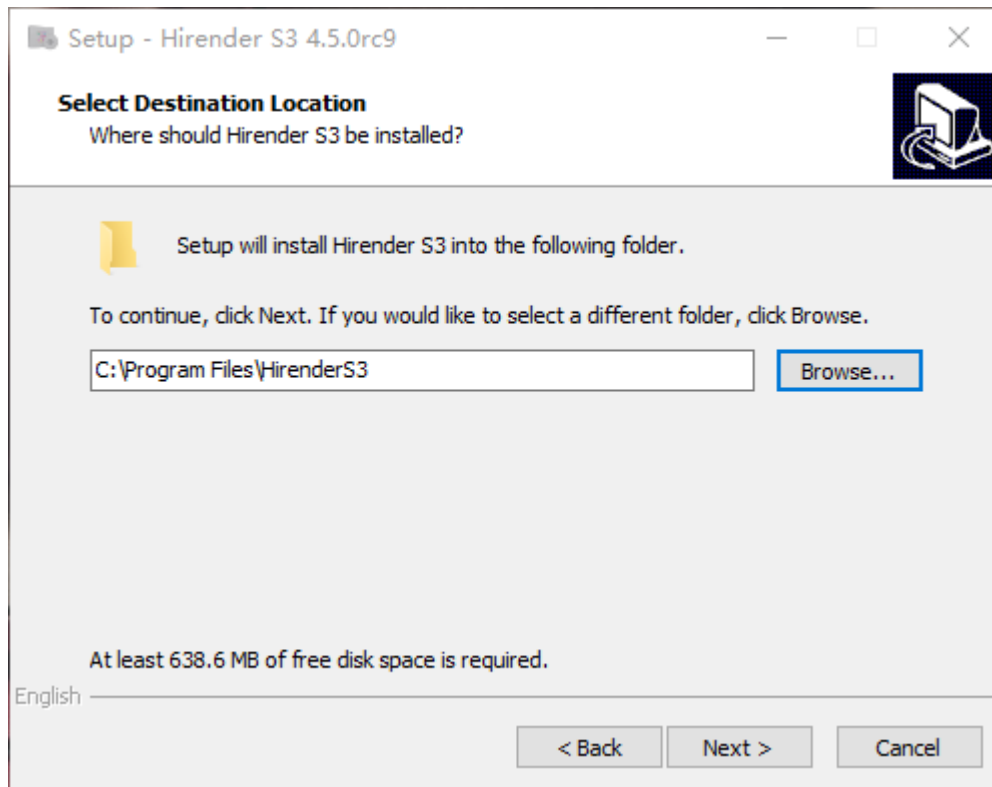
(1) Choose language according to personal situation:



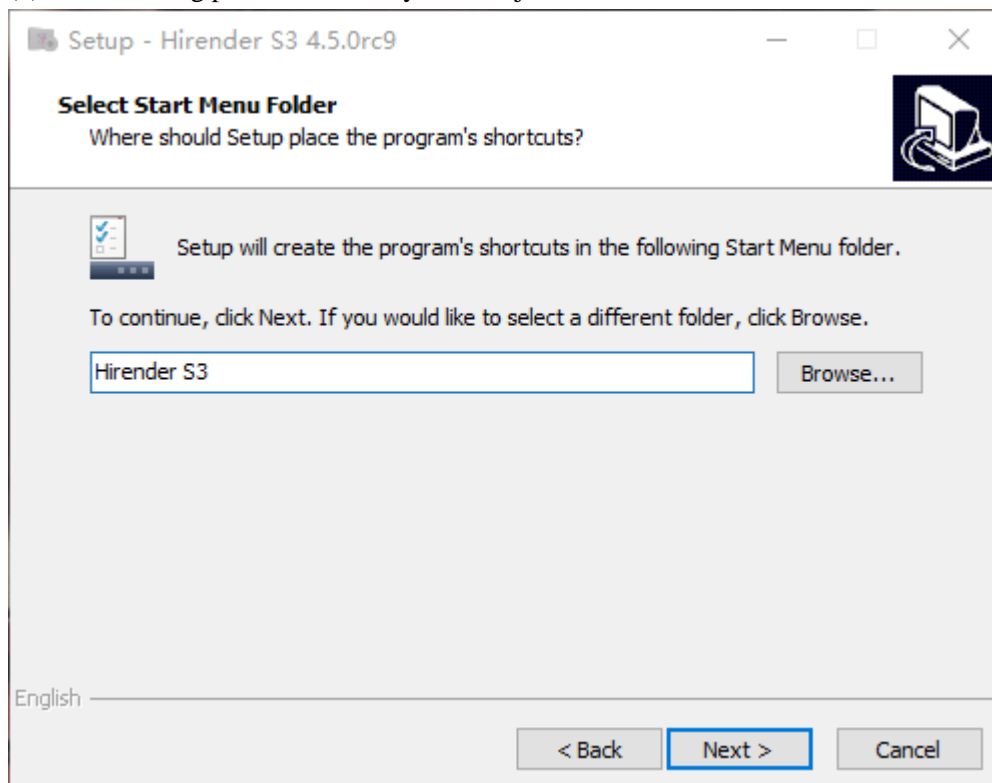
(2) Accept agreement-next step:

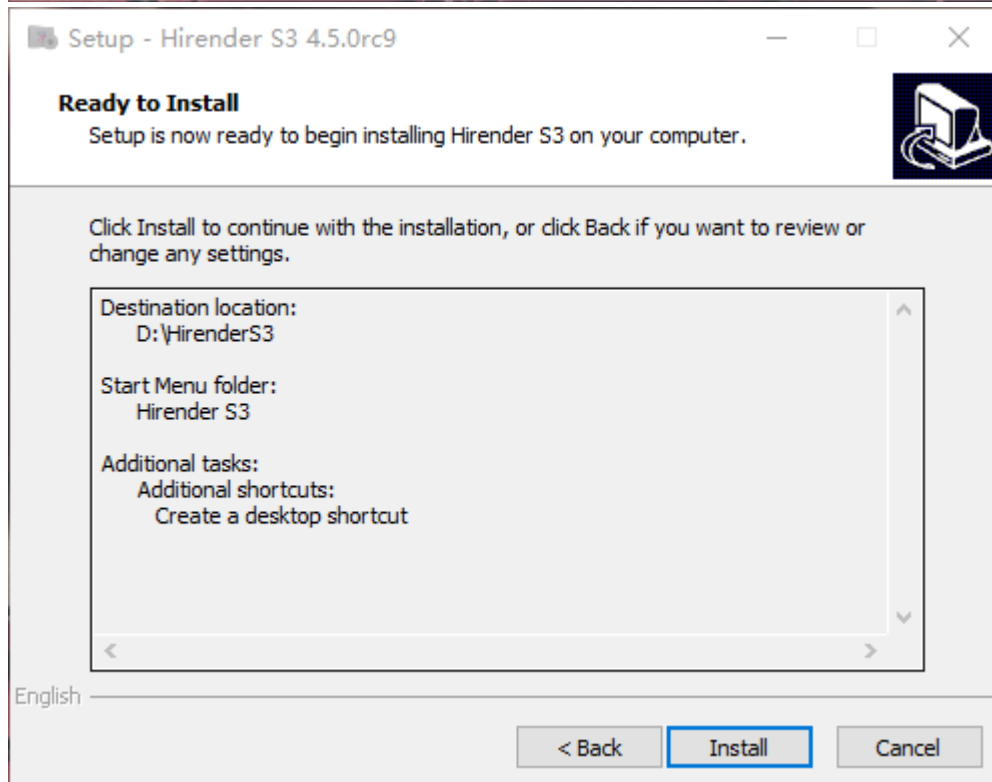
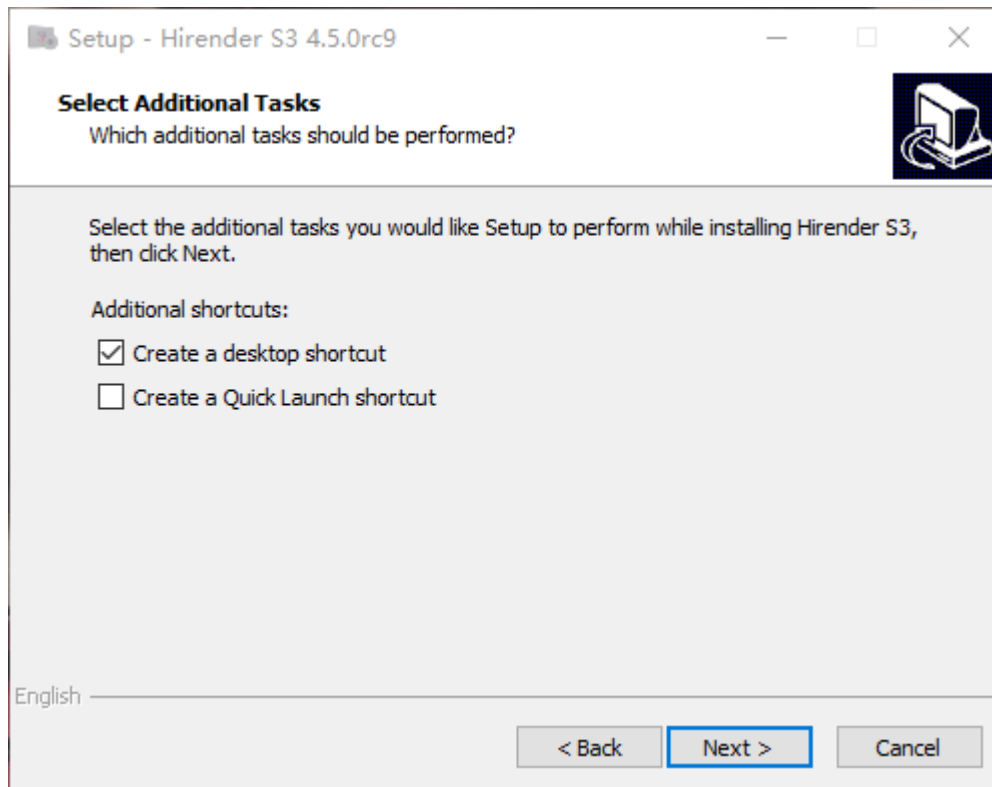


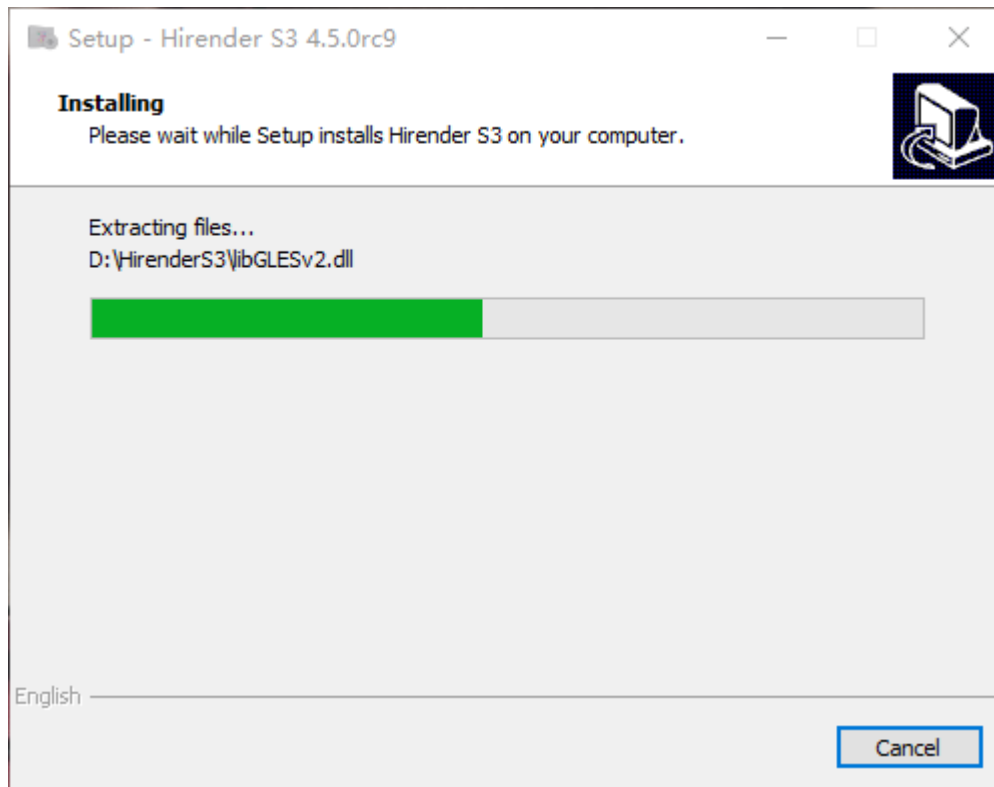
(3) Choose installation path:



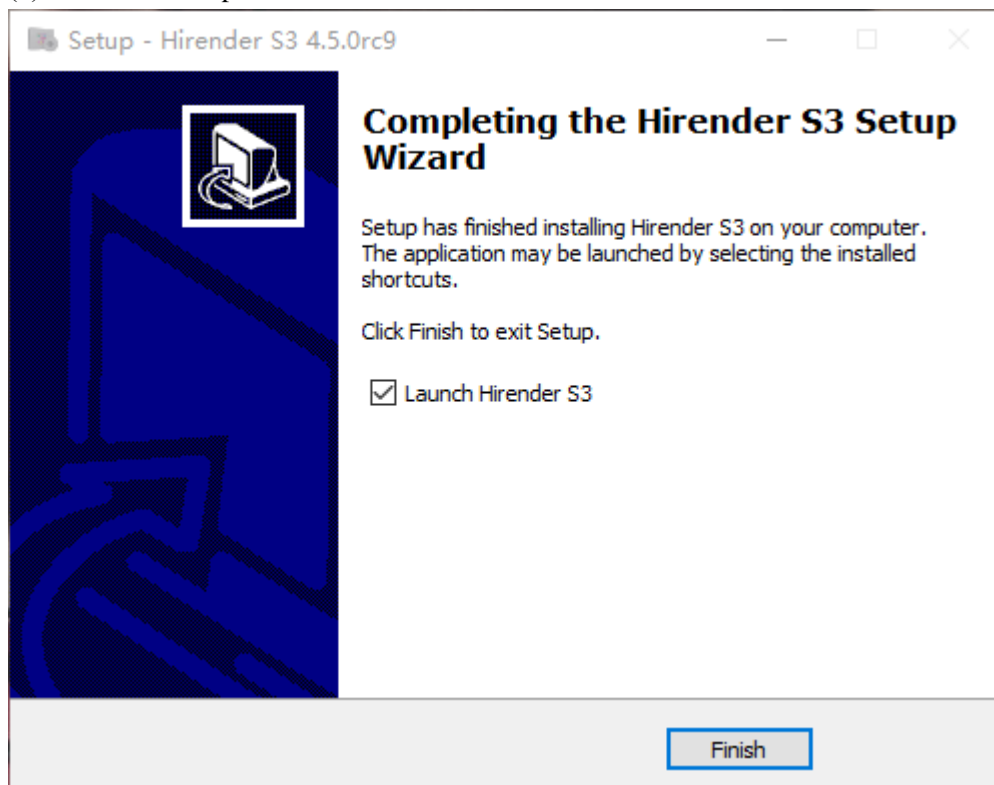
(4)The remaining part is installed by default, just select Next to continue:







(5) Installation completed



Encryption lock authorization

Authorization steps:

(1) Insert the encryption lock and click the codemeter control center in the bottom right corner of

the computer.



(2) Click the "license update" button.



(3) Click "next" in the pop-up "welcome to cmfas assistant" interface.



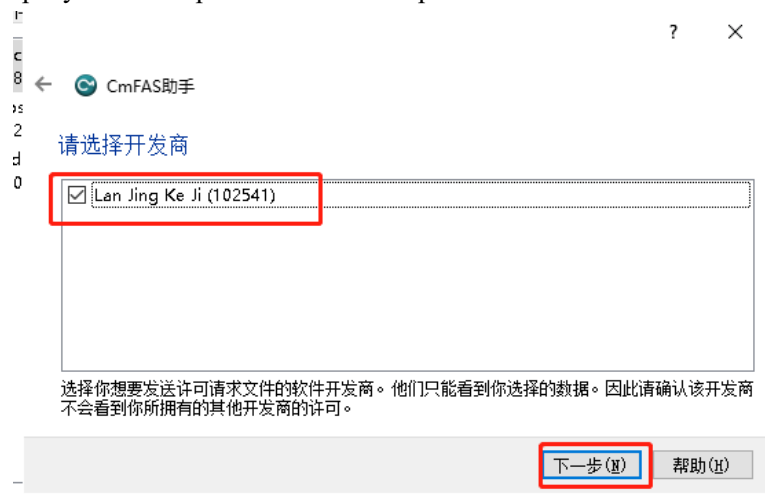
(4) Select "create license request" in the next interface.



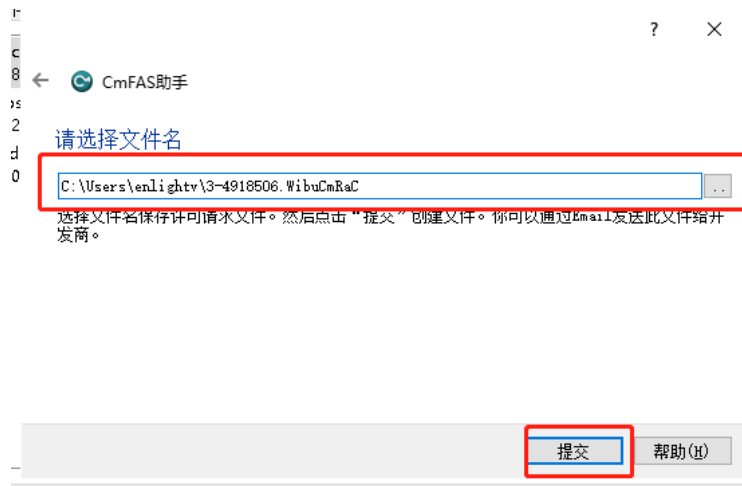
(5) Select "extend existing license" in the next interface.



(6) Check all company codes of "please select developer" in the next interface.



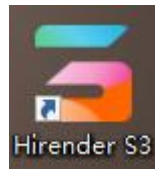
(7) Select the file generation directory in the next interface and click the "submit" button. The generated file is the authorization file.



V Function introduction of Hirender S3

Startup interface

Double click to start the program:



Enter the startup interface as shown in the figure below:

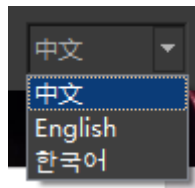




① Scene template: the software provides two kinds of templates, blank and three split screen. Users can also add scene templates by saving the project template.

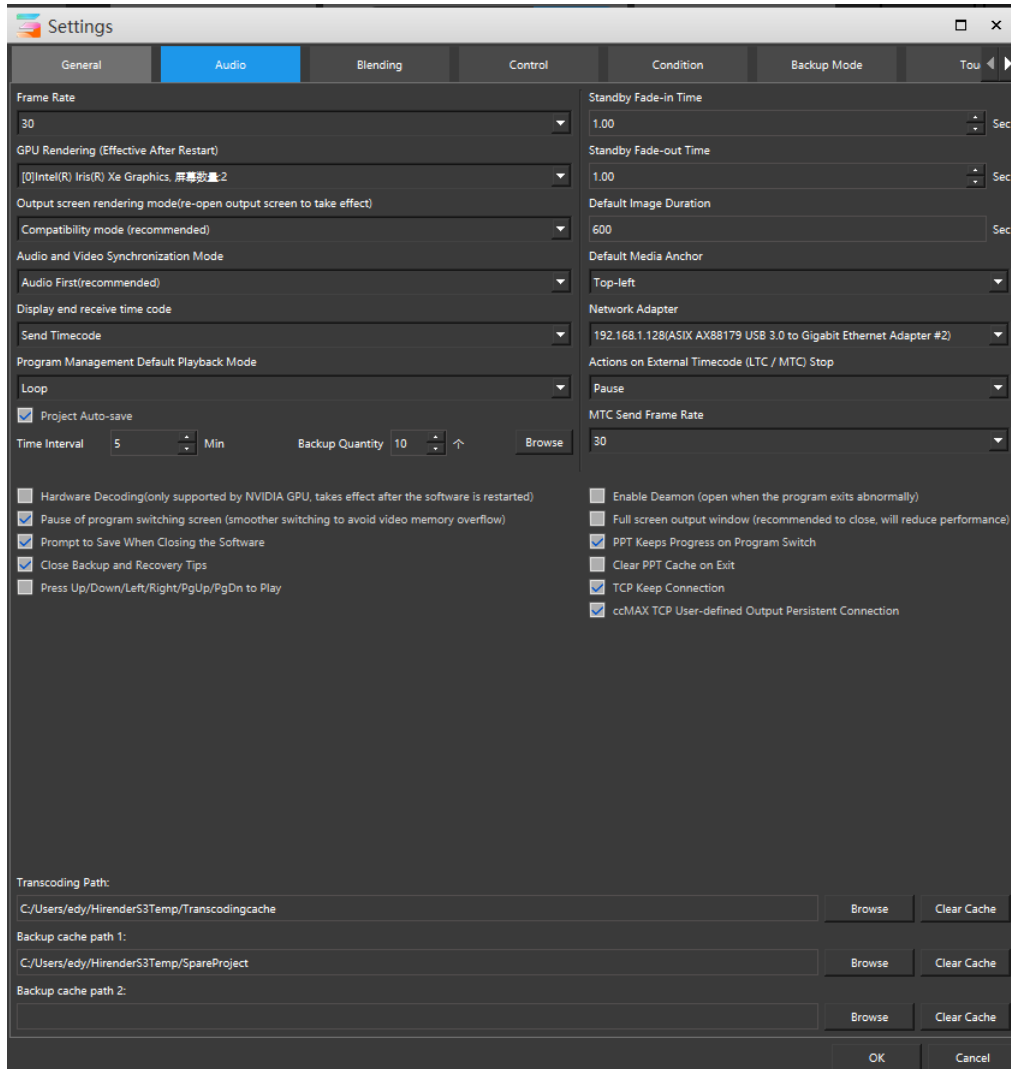
② Recent Projects: displays the recently opened project files. Click the clear all button to clear the display.

③ Language selection: the default is Chinese. The software provides three language switching as shown in the figure below. The switching language needs to restart the software.



④ Open Project: select the file to be opened and click open program to open the selected file.

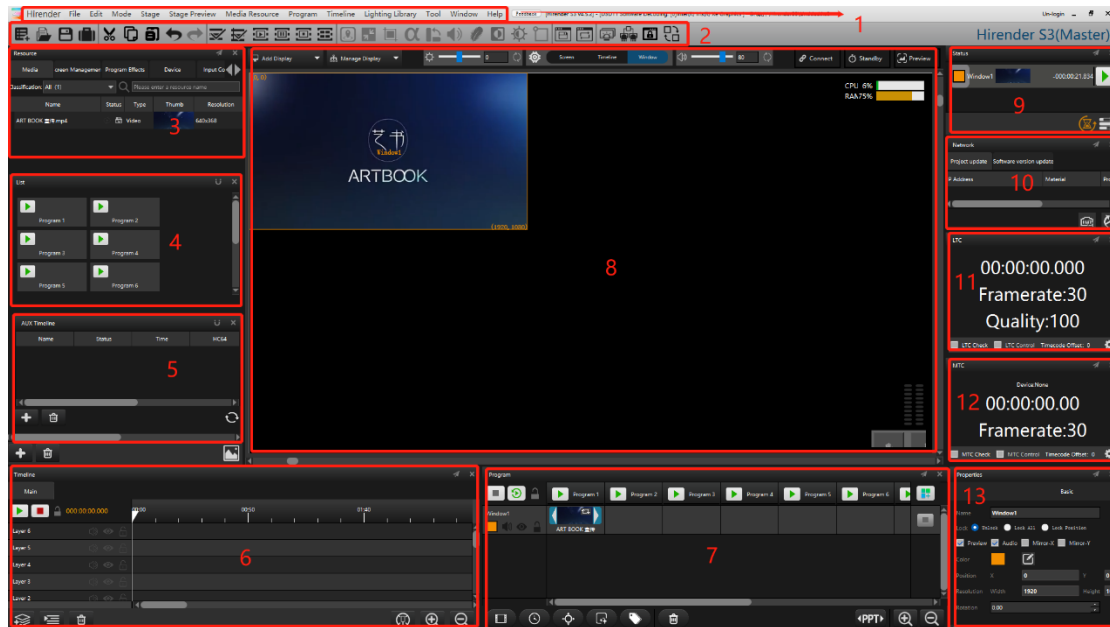
⑤ Setting: Click to open the setting menu to modify the general setting, which is described in detail in. The interface is shown in the following figure:



⑥ Quit: Click to exit the software.

Operation interface

Enter the software operation interface by creating a new program / opening a program, or clicking template / project. The operation interface is divided into 13. There are four parts, as shown in the figure below:



① Menu bar: it is divided into 12 menus, including file, edit, mode and stage. Almost all the commands that can be used by the application can be found in the menu bar.

② Toolbar: including shortcut keys for common operations such as saving project, opening project and canceling.

③ Resource: it includes resource database, screen management, program special effects and other modules to systematically sort and edit resources.

④ List: display all programs in the layer in the form of windows list, and you can quickly play and jump the programs.

⑤ AUX Timeline: users can click the Add button to set multiple program insertion, and use expressions to specify their trigger conditions.

⑥ Timeline: users can edit timeline and material effect.

⑦ Program: The main functions of the program management node are program layer and program management / tab.

⑧ Stage area: the main function is the display and editing of screen, window and timeline media resources, as well as the hardware detection module of the equipment.

⑨ Status: display the playback status of all editing windows and timeline in real time. You can control the playback through the playback button. Drag the window playback progress bar to control the fast forward playback of materials.

⑩ Network: including engineering update and software update, which displays the update status of the connected network screen and software in real time.

11 LTC: the main time line of the software and the light console can accept the LTC audio synchronization time code, and the time line is synchronized with the time code to realize the synchronous control of light, audio and video.

12 MTC: similar to LTC function, it realizes the synchronous control of lighting, audio and video.

13 Properties: This is a variable window that displays the corresponding properties of different modules selected.

Menu Bar

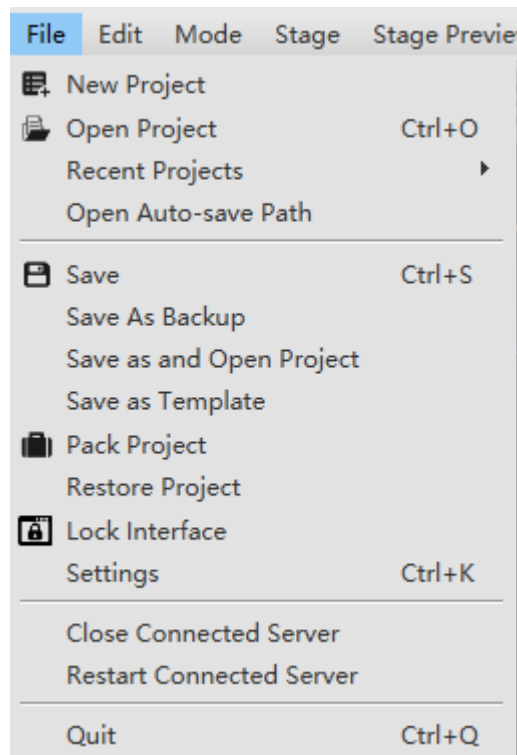
The menu bar is divided into 12 menus: file, edit, mode, stage and stage preview. The commands used by the application can be found here, as shown in the following figure:



The 12 menus will be described in detail below:

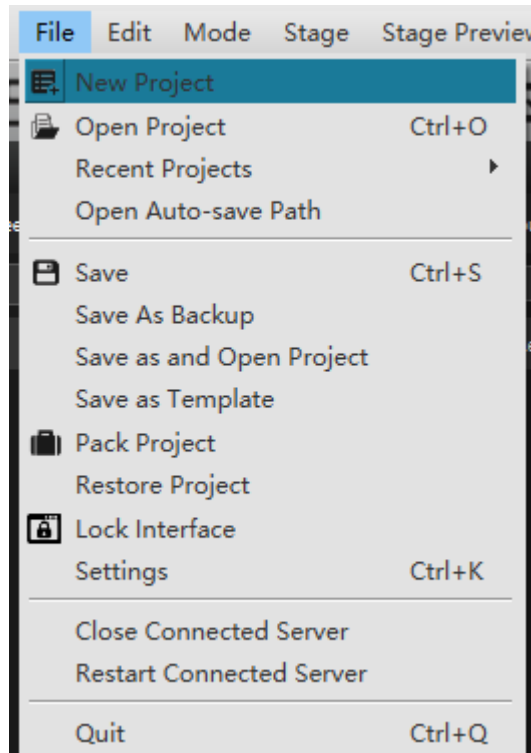
File

The file menu is mainly for the management and setting of projects in the software. Click to display the menu as shown in the following figure:



1. New Project

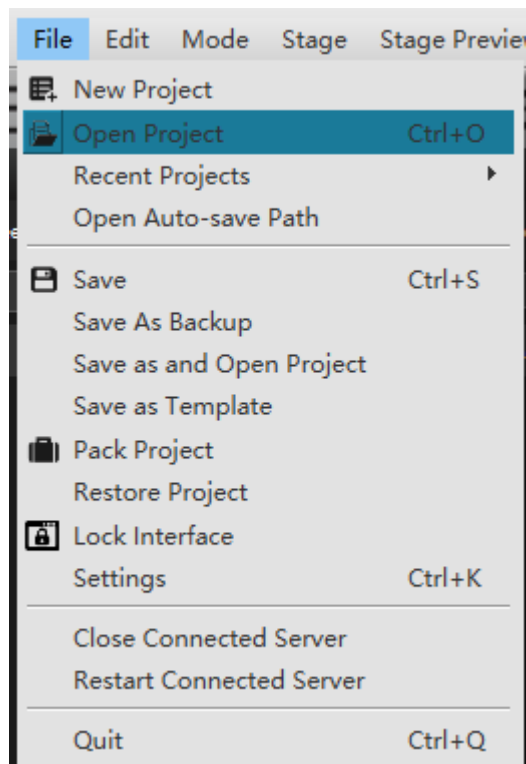
Click new project:



After saving the current project, select the project storage path and project name, and create a new project file.

2. Open Project

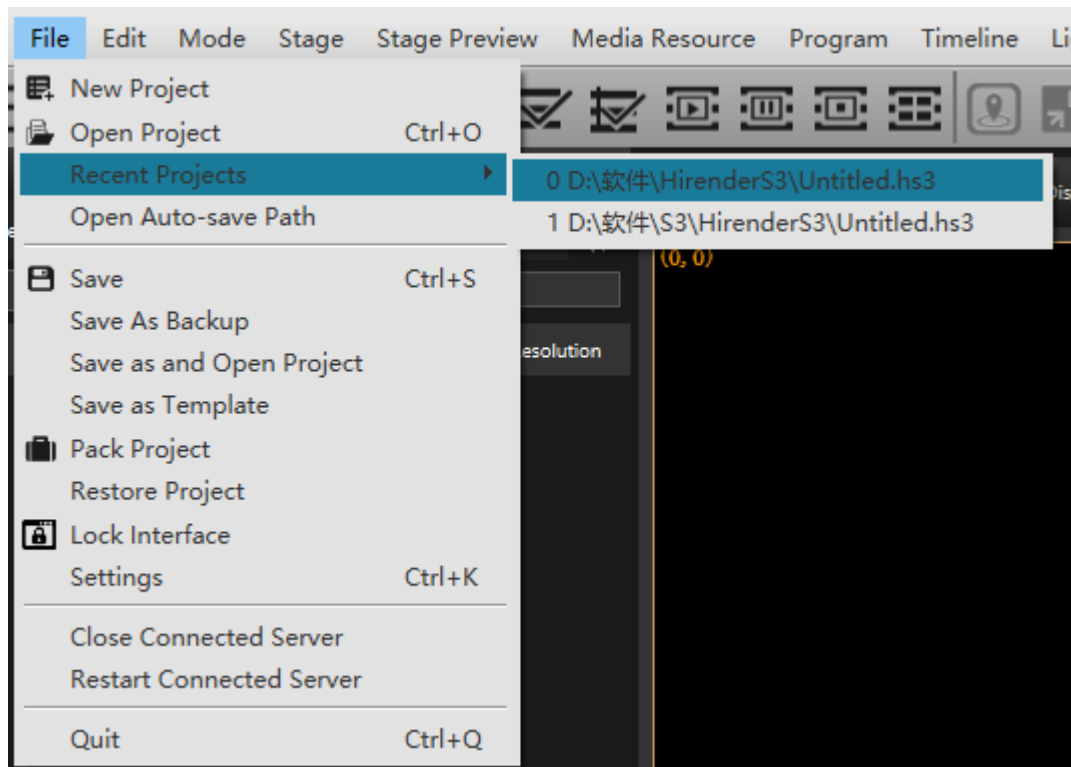
Click to open the project:



Select and open a created project.

3. Recent Projects

You can quickly open several recently opened projects, as shown in the following figure:



4. Open Auto-save Path

Quickly open the path to save the automatic backup file of the project.

5. Save Project

Quickly save the current project.

6. Save As Backup

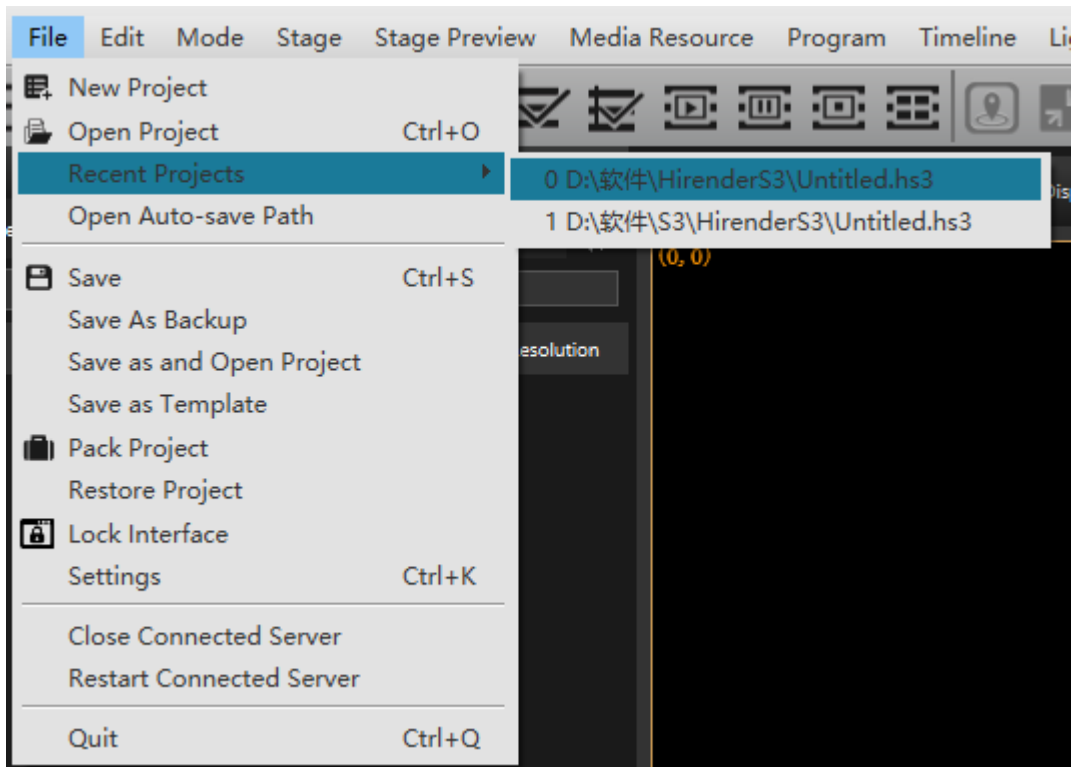
Save the current project to the path selected by the user.

7. Save as and Open Project

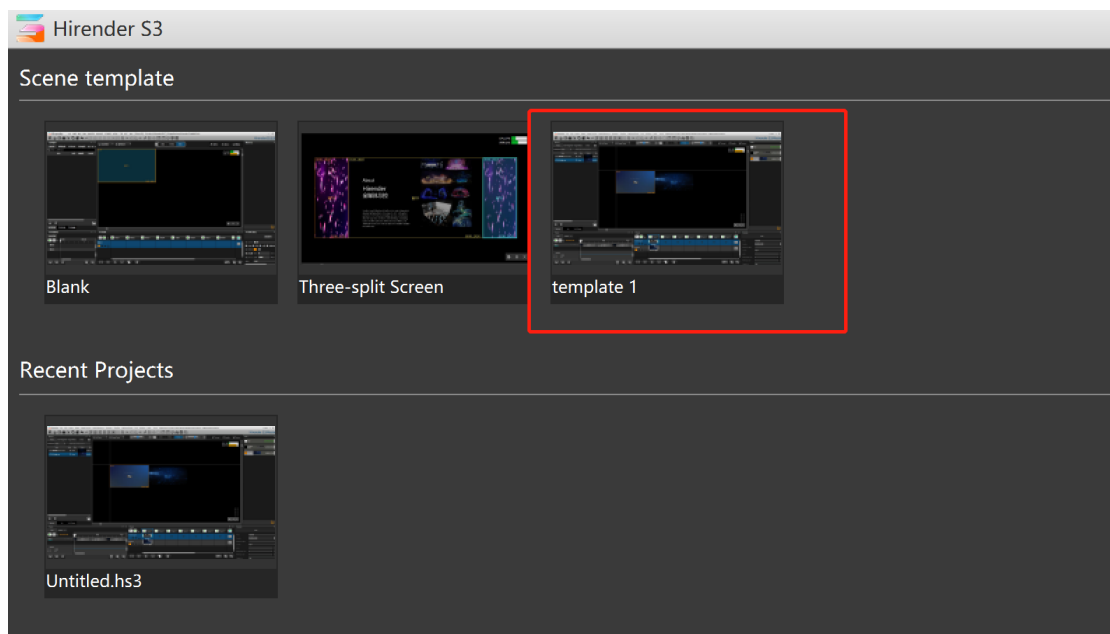
Save the current project to the path selected by the user, and open the project under the new path.

8. Save as Template

Save the current project as a template, and then save it, window layout and layer in program management after naming, but do not save media resources and special effects. The saving interface is shown in the following figure:

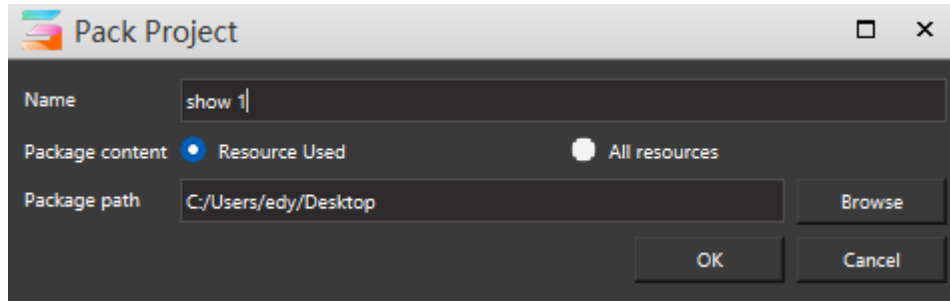


After saving, it will appear in the startup interface - scene template, as shown in the following figure:



9. Pack Project

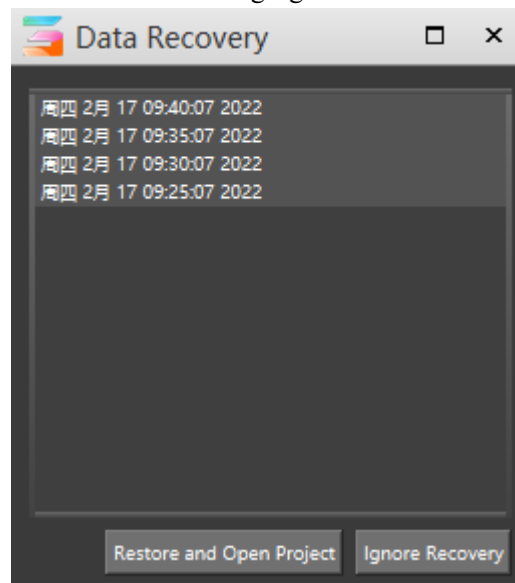
Click package project, and the pop-up window is as follows:



- ① Name: enter the name of the packaged project.
- ② Package content: you can select used resources or all resources.
- ③ Package path: you can click Browse to select the save path. After prompting that the sorting is successful, you will see the folder under the corresponding path.

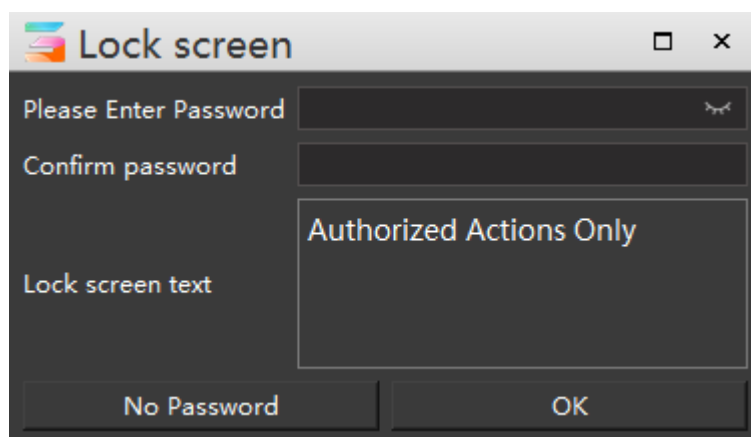
10. Restore works

Enter the data recovery page to recover the project data automatically saved by the system. The data recovery interface is shown in the following figure:



11. Lock Interface

Click interface lock to lock the software interface, as shown in the following figure:



In the locked state, you can click the lock sign in the lower right corner or click the space to enter

the unlocking interface, as shown in the following figure:



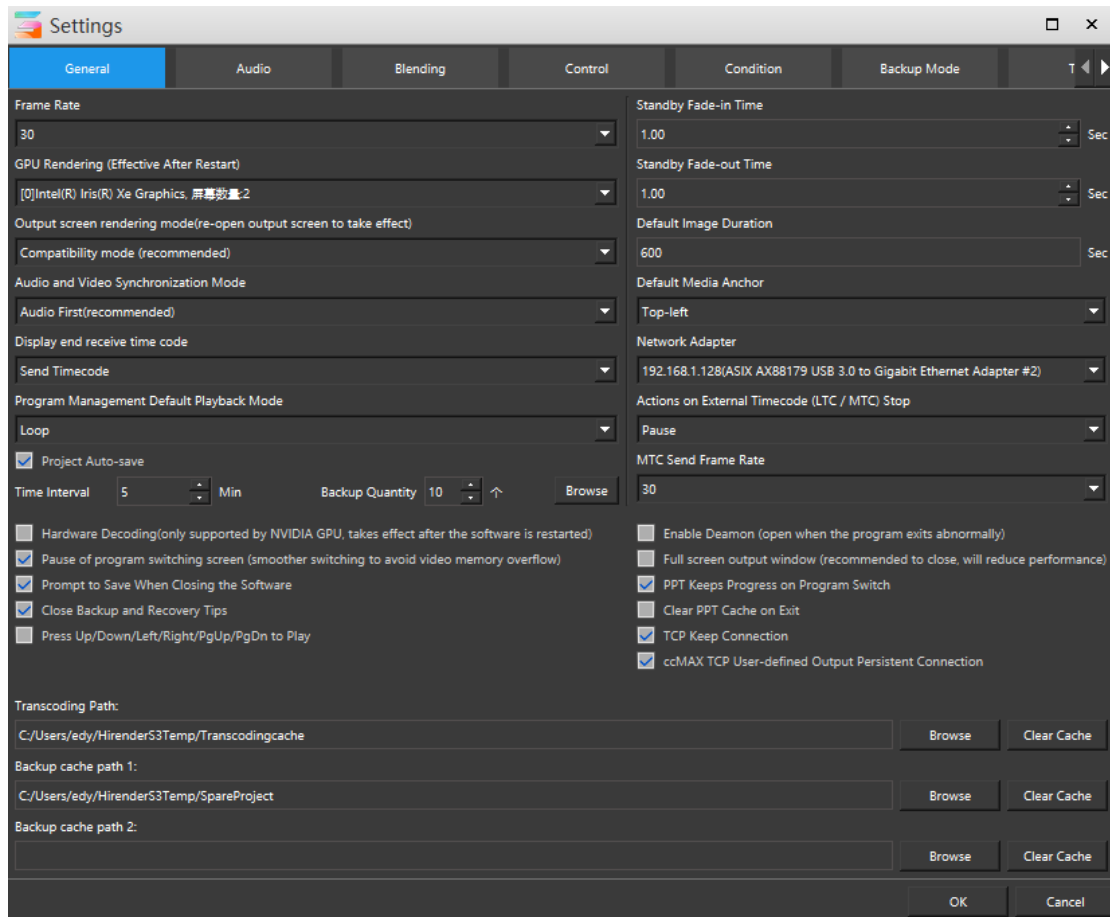
If you want to continue to operate the software, you need to enter the password to unlock before setting.

12. Settings

Open the setting menu to set various basic functions and properties of the project and software.

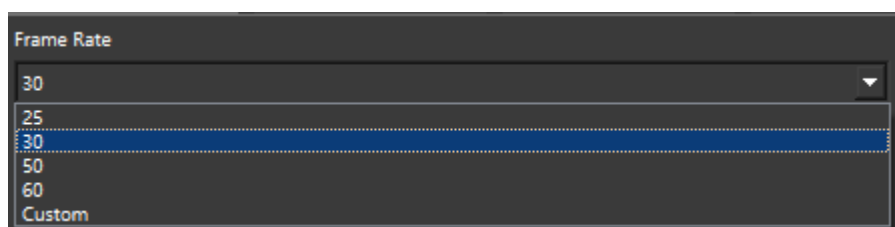
(1) General

General contains many basic settings, which will be described in detail below. The setting interface is shown in the figure below:



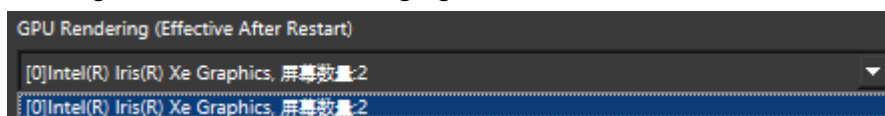
1) Frame Rate

The default is 30 frames. This setting is used to match the video frame rate used in the program and display device to ensure the smoothness and synchronization of video playback. The options are shown in the following figure:



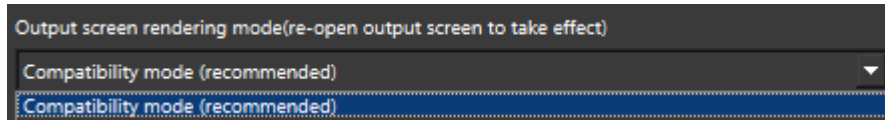
2) GPU Rendering

You can select the rendering GPU of the device, which will take effect after restarting the software after setting, as shown in the following figure:



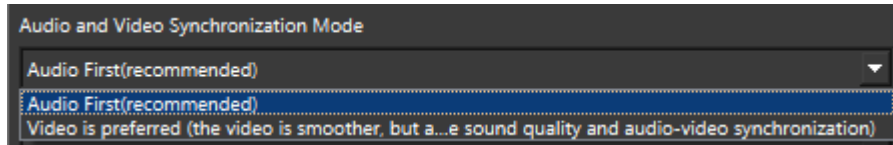
3) Output screen rendering mode

You can select compatibility mode or performance mode. After modification, re-open the output screen to take effect. The interface is shown in the following figure:



4) Audio and Video Synchronization mode

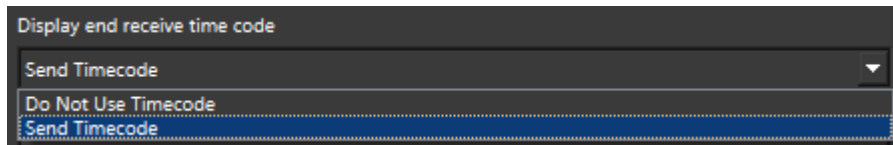
You can choose audio priority or video priority, as shown in the figure below:



It is recommended to use the audio first mode to synchronize both video and audio. Video first: Video synchronization is preferred. It is recommended to use pure video materials

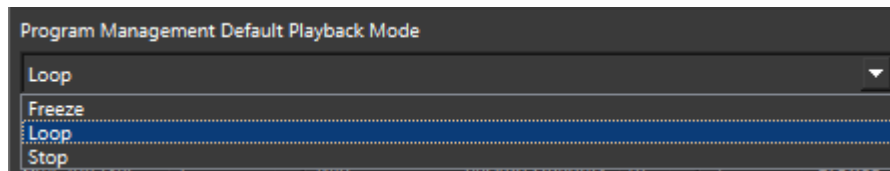
5) Display end receive time code

You can select whether the display end uses the network synchronization code when receiving the time code, as shown in the following figure:



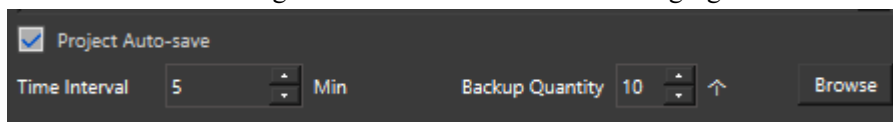
6) Program Management Default Playback Mode

The default playback mode of program management can be modified, including three playback modes as shown in the figure below:



7) Project Auto-save

Click to check auto save project to modify the time interval and time of auto save. Click Browse to view the saved file. The setting interface is shown in the following figure:

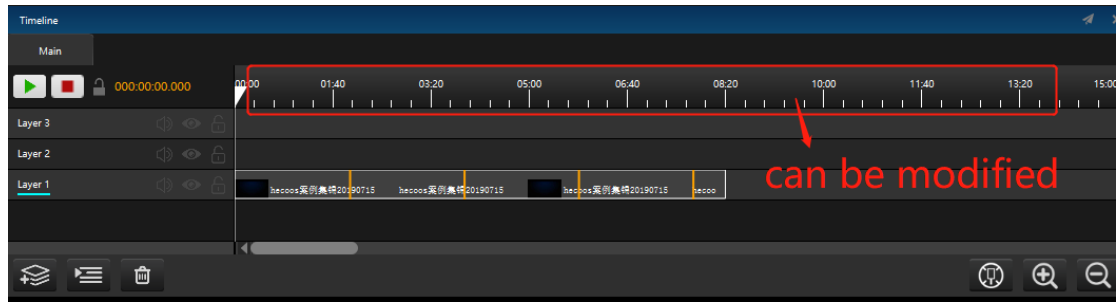


8) Standby Fade-in / Fade-out Time

You can modify the material fade in / fade out time at the program playback connection

9) Default image Duration

You can change the default display time length of the image, as shown in the following figure:



10) Default Media Anchor

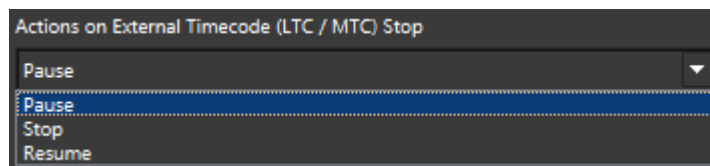
It defaults to the upper left corner and can be modified to the center point of the media

11) Network Adapter

For devices with two network cards, you can choose the network card IP to use here, which is convenient for selection when online.

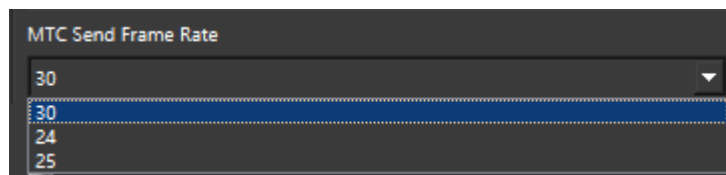
12) Actions on Eternal Timecode

For the default operation when the external time code stops, there are three options, as shown in the figure below:



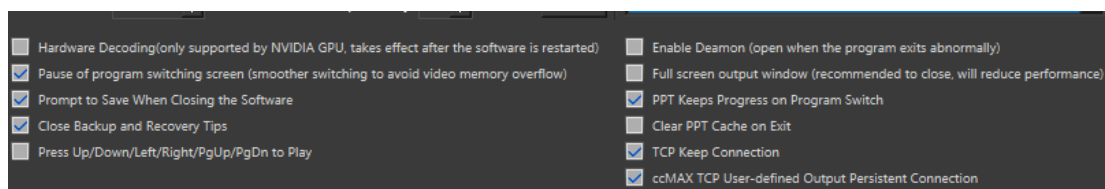
13) MTC send Frame Rate

For the transmission frame rate of MTC time code, three frame rates are provided by default, as shown in the figure:



14) Tick options

As shown in the figure, users can check the 11 options according to their needs:

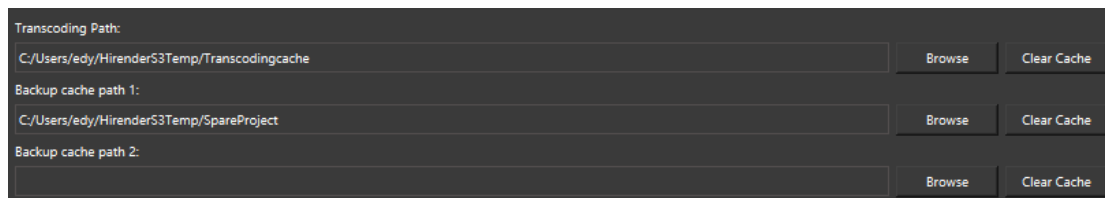


1. Hardware decoding: the software supports the switching between software and hardware decoding. Hardware decoding is carried out by GPU, which can reduce the workload of CPU, and the video is relatively smooth. At present, Hirender S3 hardware decoding only supports NVIDIA GPU. After checking, restart the software to take effect.
2. Pause of program switching screen: when checked, the program switching is smoother to avoid video memory overflow. It is checked by default
3. Prompt to save when closing the software: prompt to save the file when closing. It is

- checked by default
4. Close Backup and Recovery Tips: prompt appears when closing backup and recovery. It is checked by default
 5. Press Up / Down / Left / Right / PgUp / PgDn to Play: after checking, the programs in the program management can be played by up / down / left / right / PgUp / PgDn keys
 6. Enable unattended: when checked, if the program exits abnormally, it will be opened automatically
 7. Full screen output window: If computer configure dual graphics cards and has malposition on output pictures, you can check this option to solve this problem. But the performance will be reduced. It is recommended not to check
 8. PPT keeps Program on Program Switch: you can synchronously maintain the playback speed of PPT animation node to make the PPT screen switch more smoothly. It is checked by default.
 9. Close PPT Cache on Exit: when checked, the picture PPT cache will be automatically cleared when closing the project file, so as to reduce the storage space occupied by the project file
 10. TCP Keep Connection: checked by default
 11. ccMAX TCP User-defined Output Persistent Connection : checked by default, to keep ccMAX TCP connection.

15) Transcoding file / Backup cache path setting

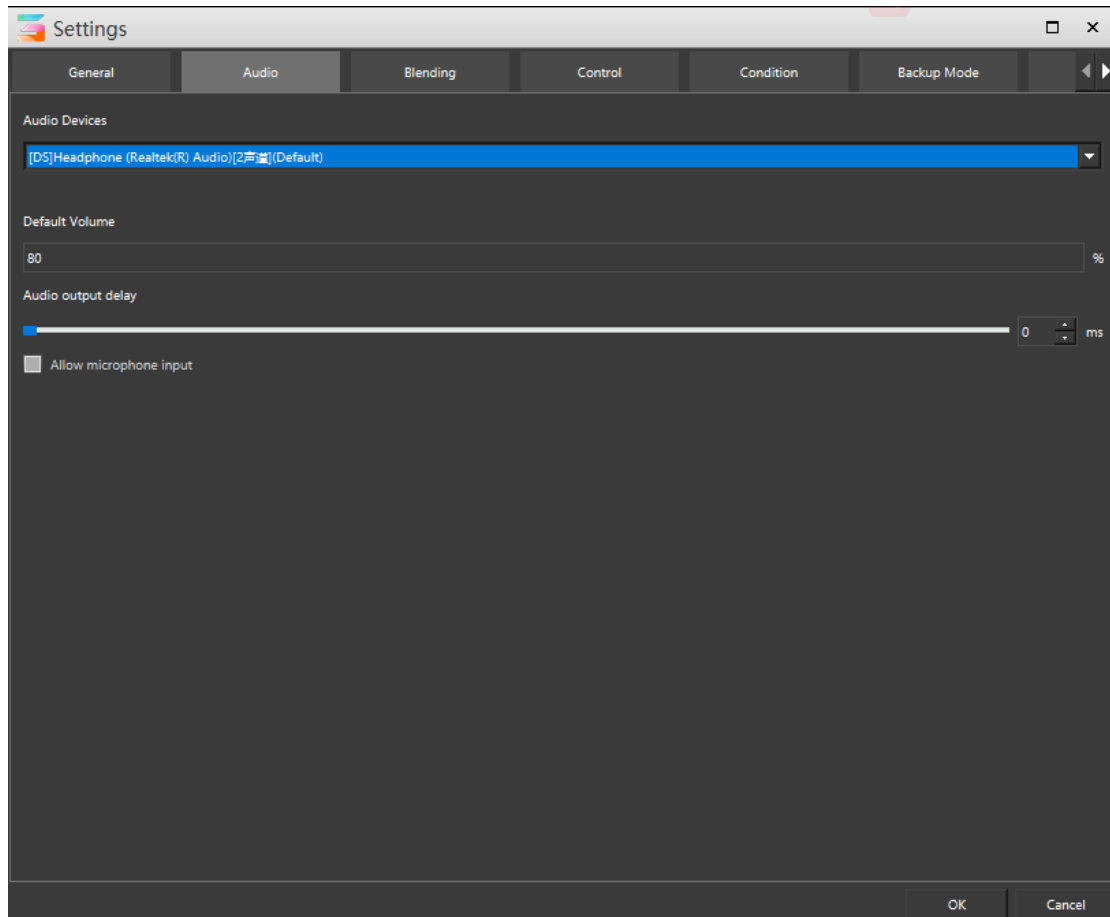
The default path is shown in the following figure:



Click path selection to modify the path of transcoding file / standby cache, and click clear cache to clear the files under the path.

(2) Audio

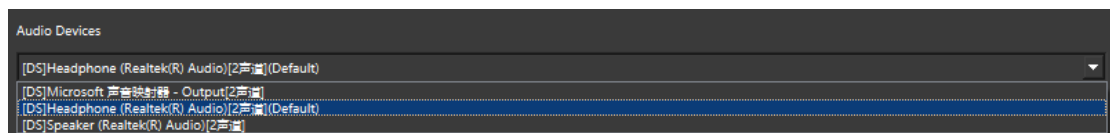
The audio setting interface is shown in the figure below:



S3 software supports 5.1 and 7.1 channels, which can output surround sound audio, and can set channel mapping to map the audio of ordinary video to different sound tracks of the sound card according to the requirements, so as to realize the effect of the same host outputting different sounds at the same time.

1) Audio Devices

In the drop-down option, the output audio output device of this server will be displayed, which can be selected according to the situation. If there is no sound output when playing the program, you need to check the volume or whether the selected output device is valid here, as shown in the following figure:



2) Audio output delay

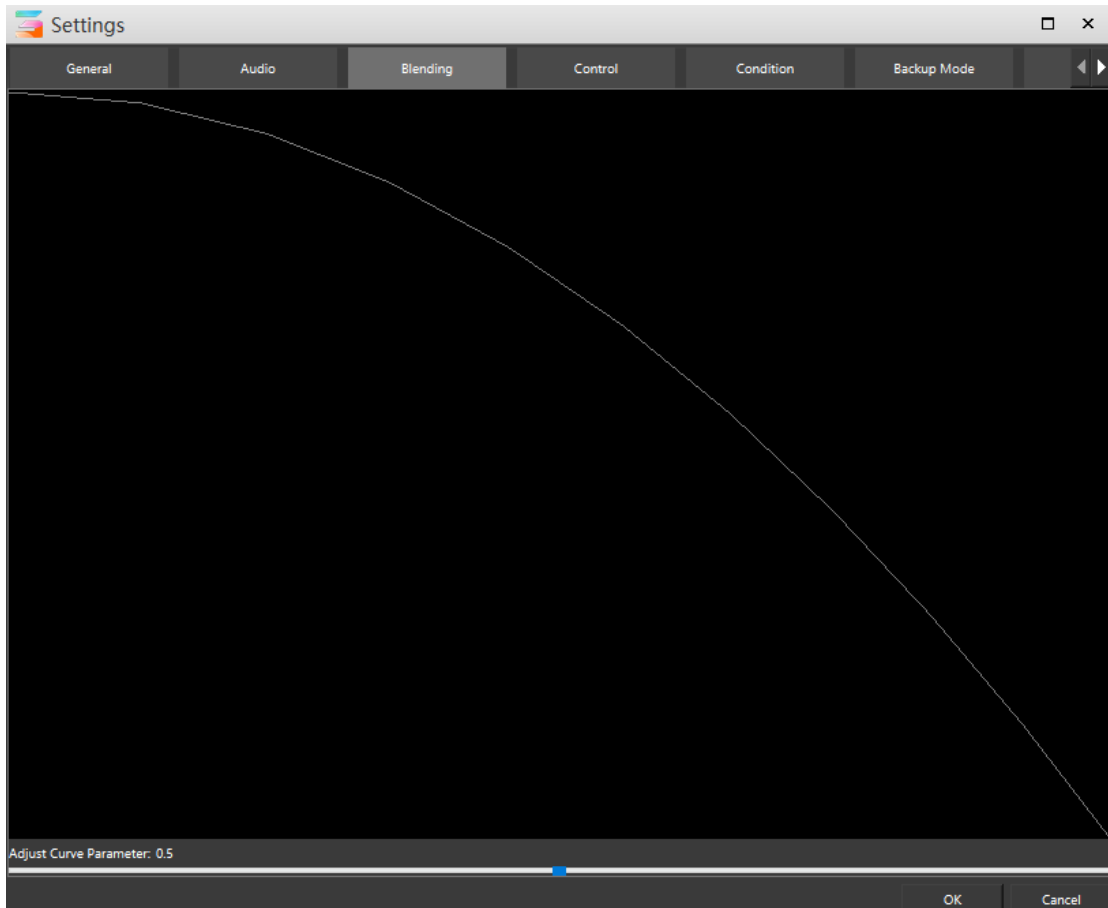
Set the audio delay here. In addition, you can choose to allow microphone input, as shown in the following figure:



Audio output delay is the delay processing of sound signal, especially used for long-distance sound reinforcement.

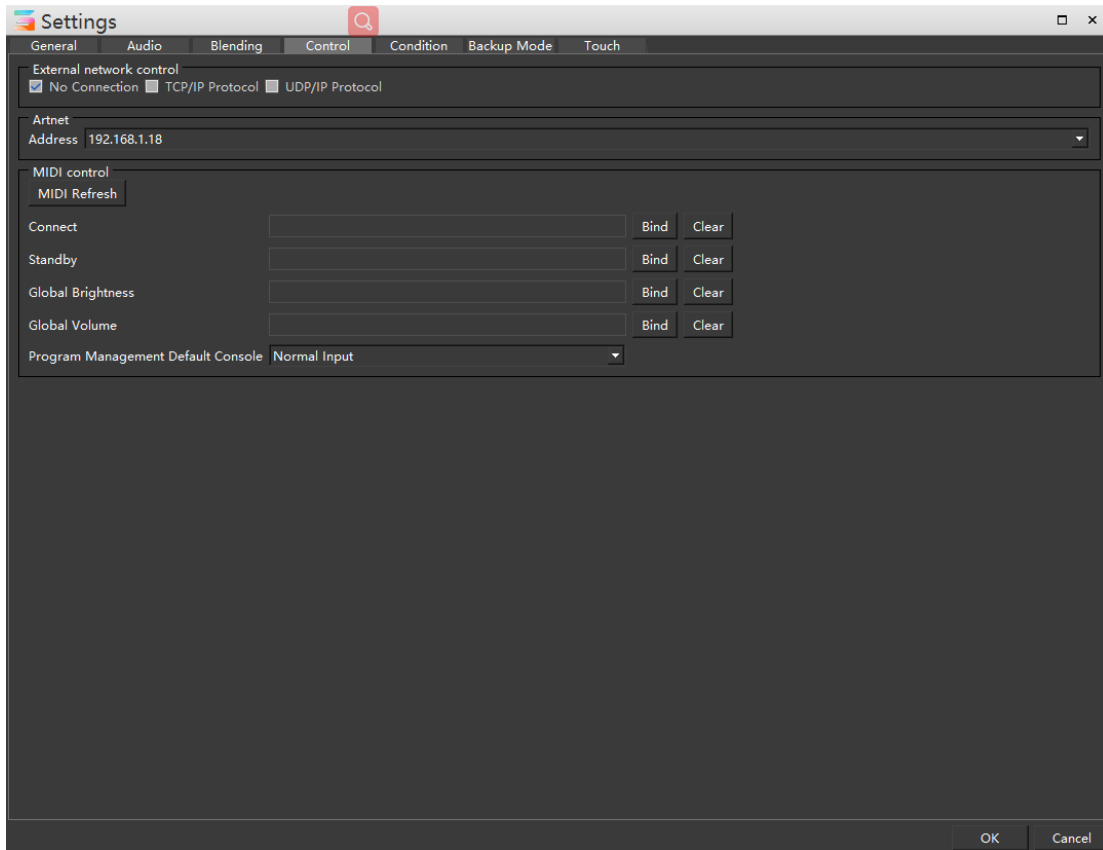
(3) Blending

The smoothness of blending can be modified by adjusting curve parameters. It is mostly used in the fusion zone. The curve setting interface is shown in the following figure:



(4) Control

Support external network control and artnet control. TCP / UDP protocol can be selected for external network control, and the artnet address of Hirender S3 can also be set. The control settings are shown in the following figure:



1) External network control

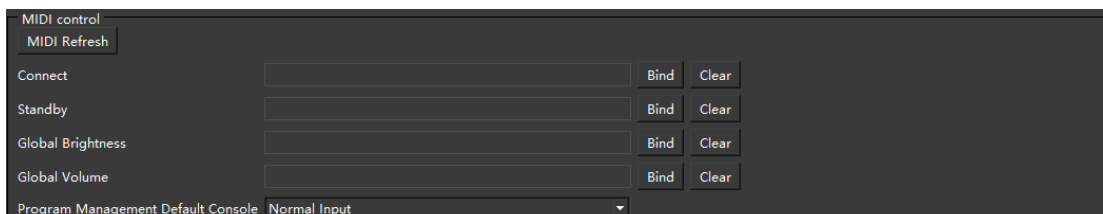
It supports external network control. The default is no connection. You can select TCP / IP protocol or UDP / IP protocol for external network control

2) Artnet

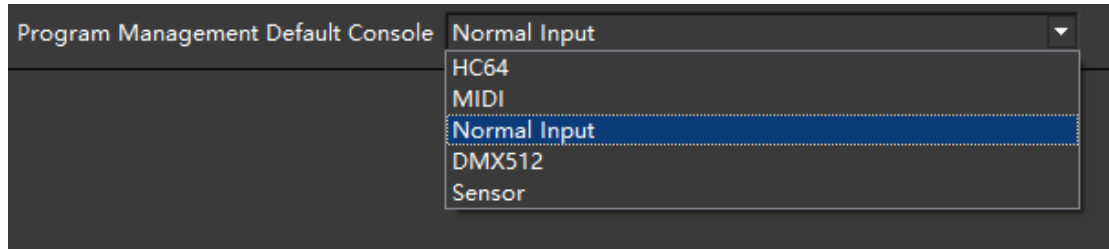
Support artnet control. When using the light console to control the program, you need to set the artnet address of Hirender S3. After setting, the light console can control the program playback in program management

3) MIDI control

MIDI control is supported, and the interface is shown in the following figure:



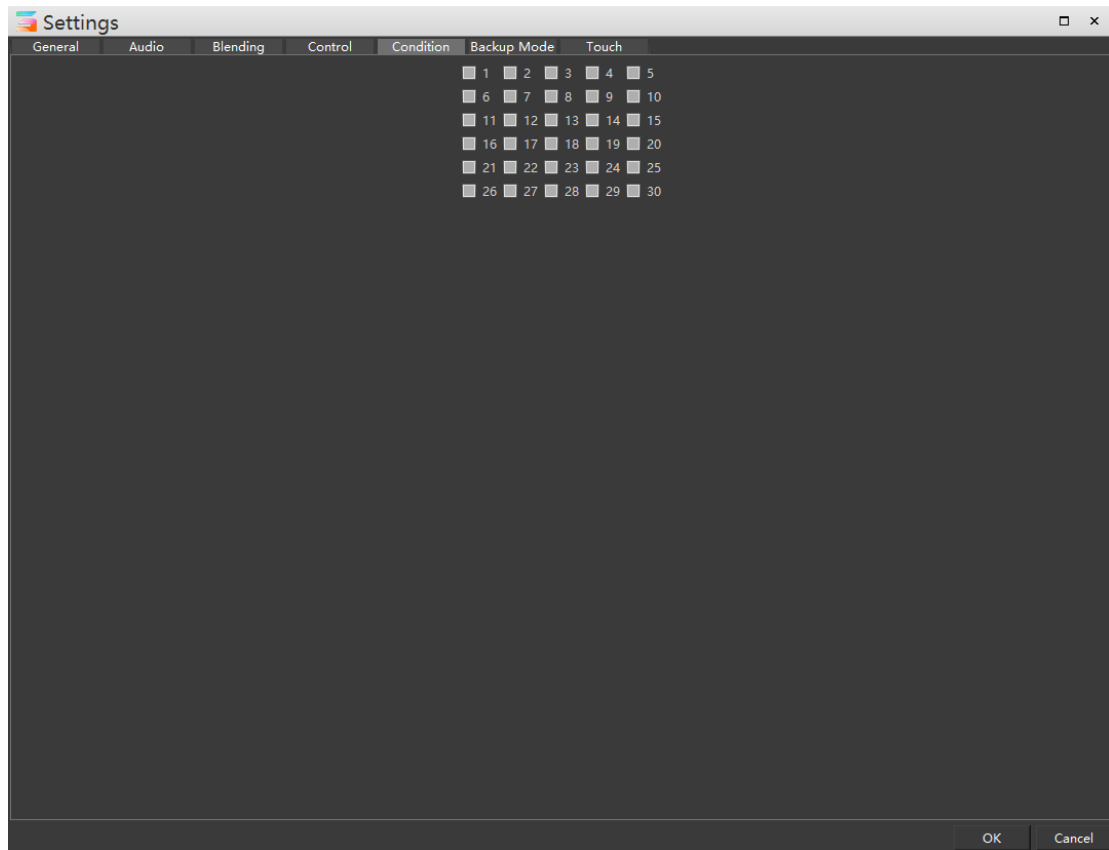
MIDI control binding and clearing can be carried out for connection, standby, global brightness and global volume. The default program management default console is hc64. There are also options as shown in the following figure:



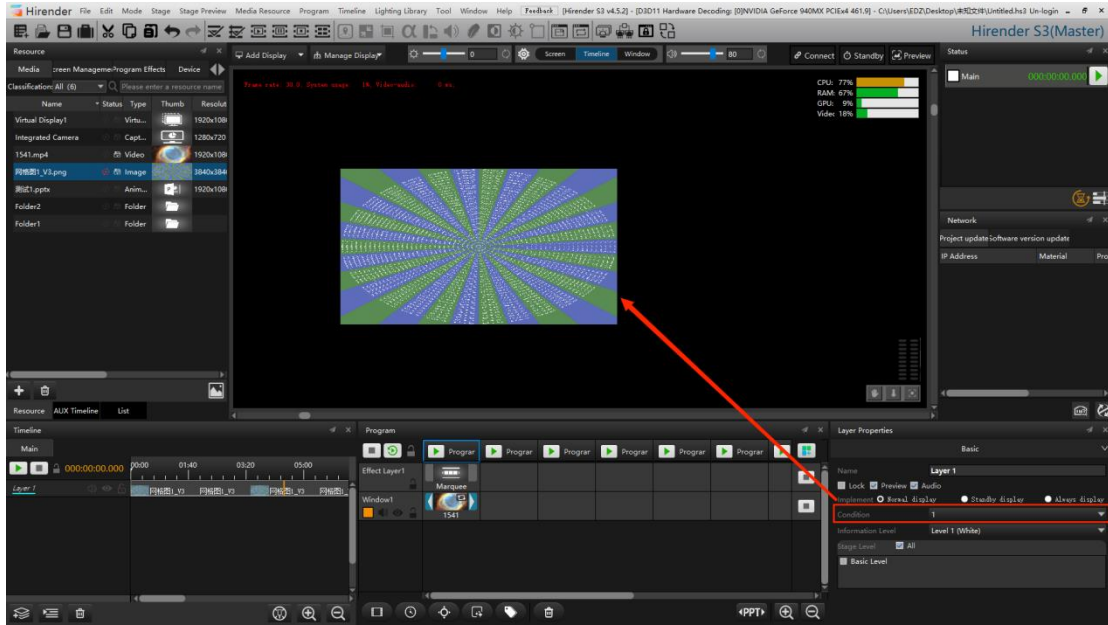
After setting, MIDI console can play, connect and standby programs in program management

(5) Condition

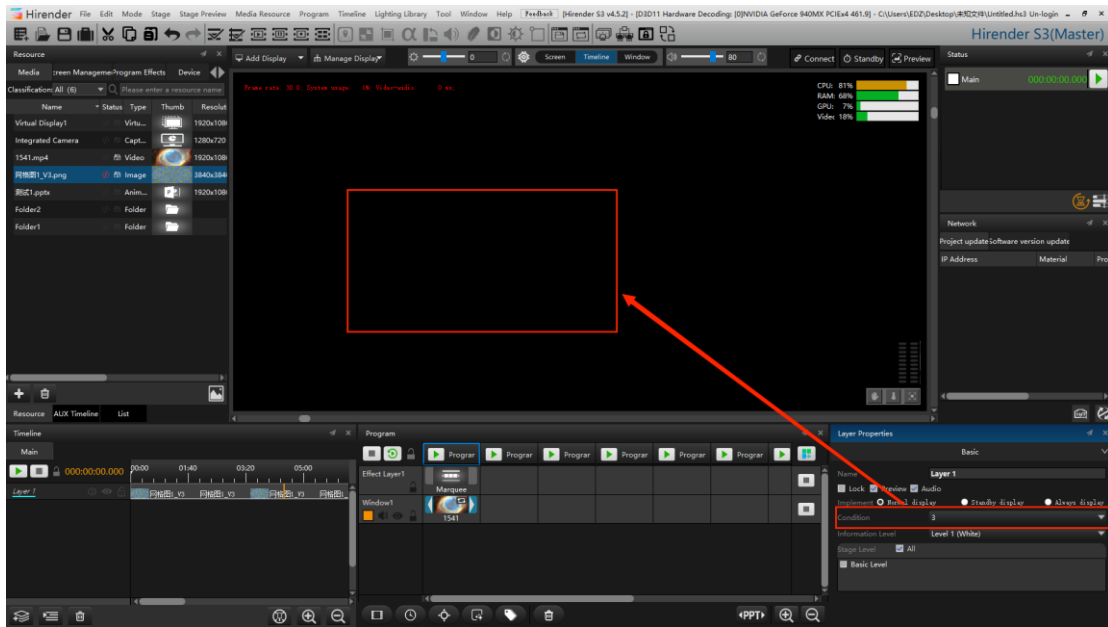
In the timeline layer settings, you can set conditions for each layer, and the maximum number of conditions is 30.



After checking here, you can select the corresponding conditions for adding to the timeline material properties. When the conditions are met, the options will be executed, as shown in the following figure:

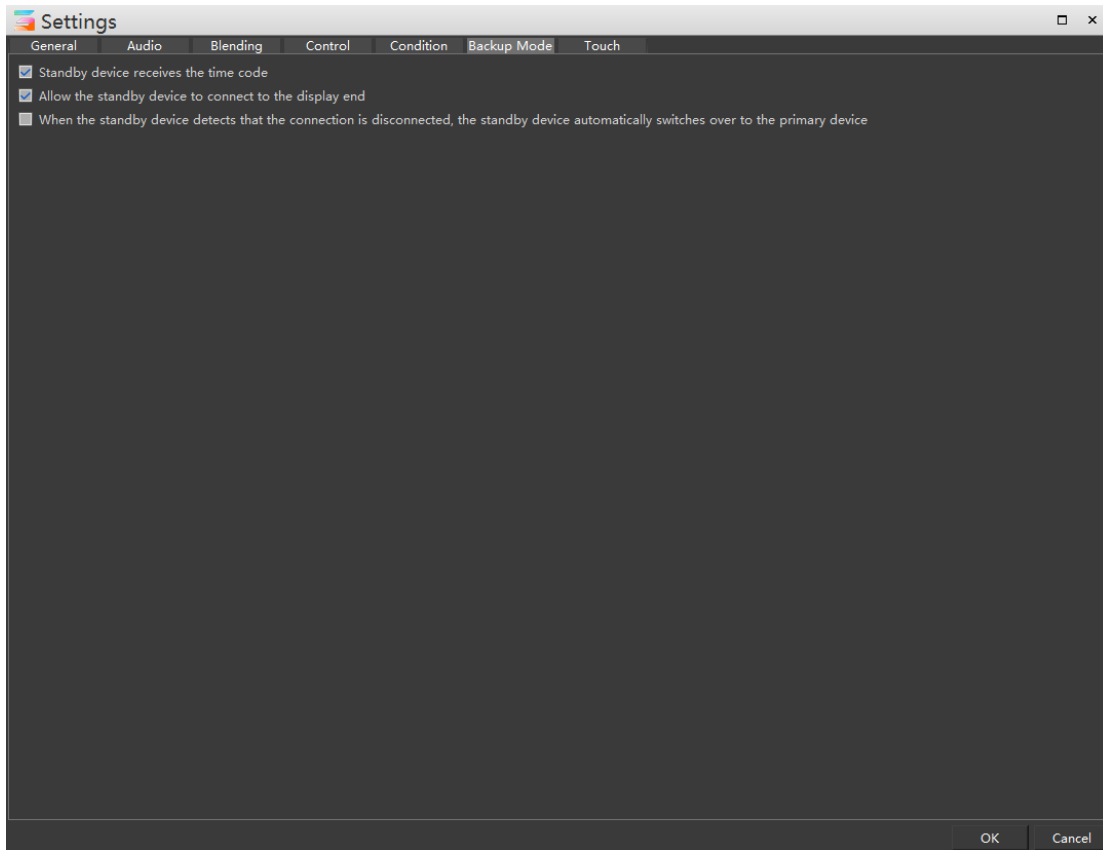


If the execution condition is not checked, as shown in the figure below:



(6) Backup Mode

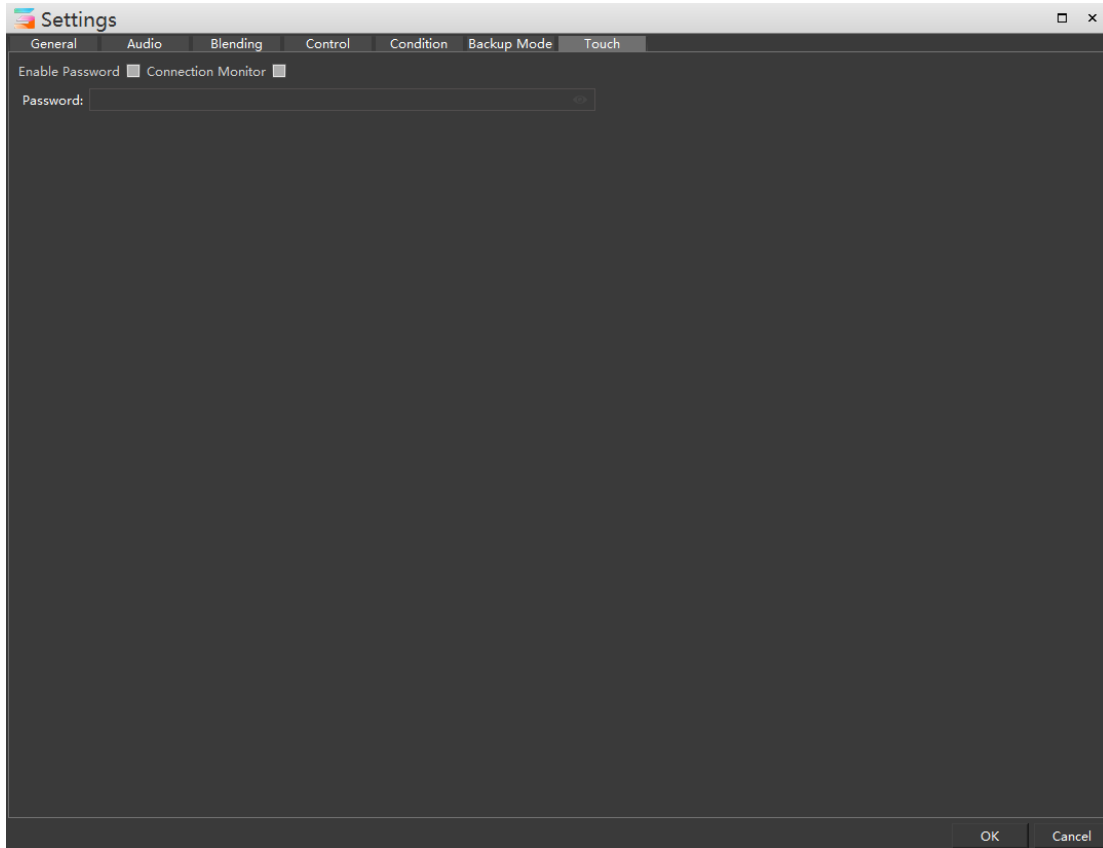
The master / standby mode setting interface is shown in the following figure:



If “Standby device receives the time code” is selected, the standby device accepts the timecode sent by the master device, and the playback progress of the Standby device is synchronized with that of the master device. If “Allow the standby device to connect to the display end” is selected, the standby device can connect to the display device. This function is used for display device backup. Check “When the standby device detects that the connection is disconnected, the standby device automatically switches over to the primary device”. When the primary device crashes or shuts down due to problems, the secondary device automatically switches to the primary device.

(7) Hirender Touch

Support Hirender Touch connection monitoring and enable password setting, as shown in the following figure. Hirender Touch is a remote control APP for Hirender S3 software:



13. Close / Restart Connected Servers

Turn off / restart the connected display server.

14. Quit

Click to exit the software.

Edit

The edit menu bar includes undo, restore, copy, paste and cut operations. The menu is shown in the following figure:



1. Undo

Undo the previous action

2.Redo

Redo undone action

3.Cut

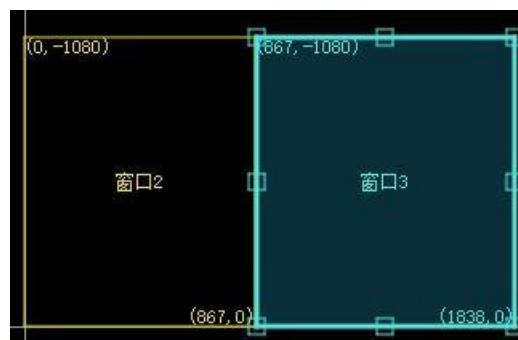
Cut the selected text

4.Copy / paste

Copy / paste text, program nodes, layer properties, etc

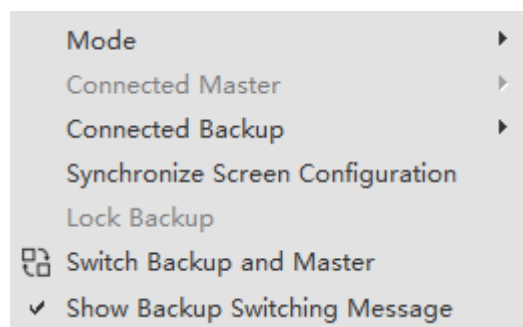
5.Align

After selecting alignment, when arranging windows, screens and materials in the stage, alignment and docking icons will appear to align them, as shown in the following figure:



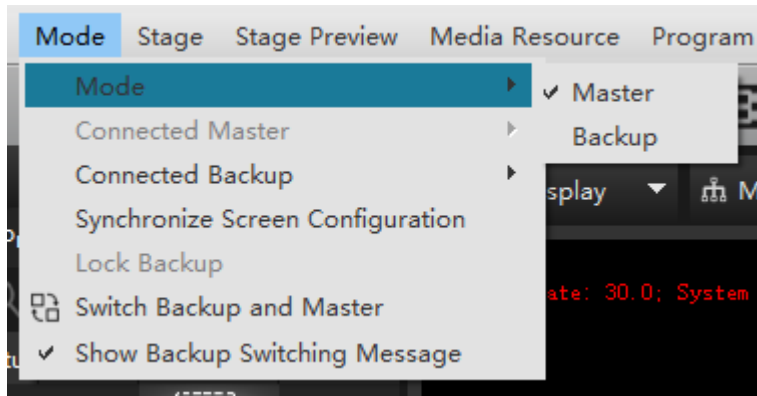
Mode

The mode menu includes mode selection, connected master / standby devices and other operations, which can quickly switch modes. The menu interface is shown in the following figure:



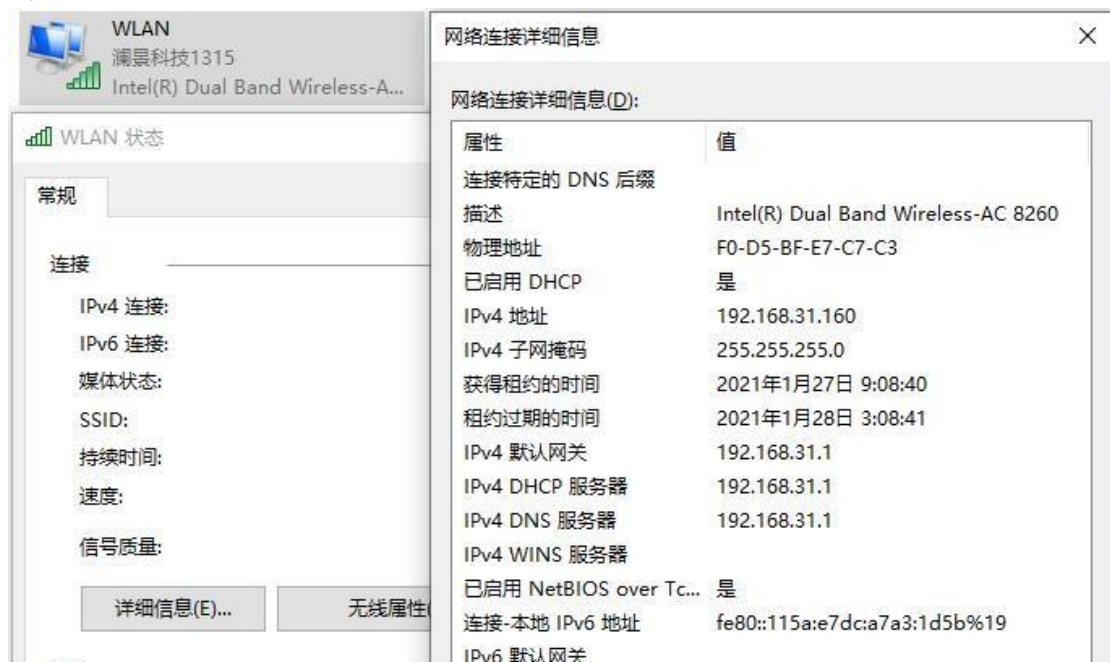
1. Mode

The master / standby mode can be set in the mode selection, as shown in the following figure:



Set the two hosts to different fixed IP addresses, and the IP addresses need to be in the same network segment. For example, the host set IP is 192.168.1.2, and the standby set IP is 192.168.1.3. One host is set as the primary server and the other as the standby server.

The local IP address can be viewed in network connection - details, as shown in the following figure:



2.Connected Master

If this host mode is the primary server, the selected primary option is grayed out; When it is a standby server, the connected standby is displayed.

3. Connected Backup

Under this menu, you can view the connected standby terminal, or select the IP address to connect the standby device.

4. Synchronization Screen Configuration

When this option is checked, click Update (Ctrl + D) to synchronize the current settings of the master and standby device.

5. Lock Backup

Only when the host is selected as the standby terminal can it be selected. After checking, the standby terminal will be locked and cannot perform other operations. Click the exit button in the center of the screen to unlock the state.

6. Switching Backup and Master

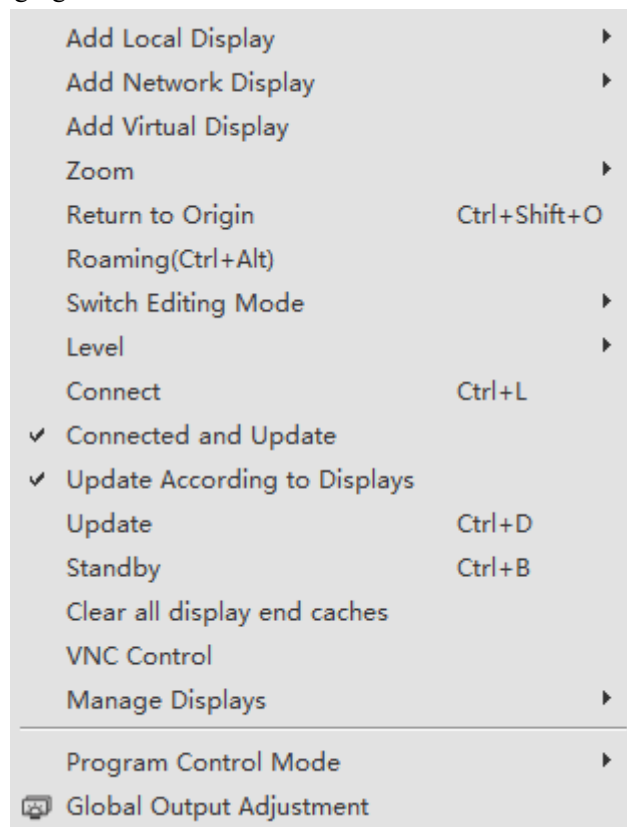
Convert the current master / standby relationship.

7. Show Backup Switching Message

Select whether a pop-up window is required to prompt the standby terminal to switch.

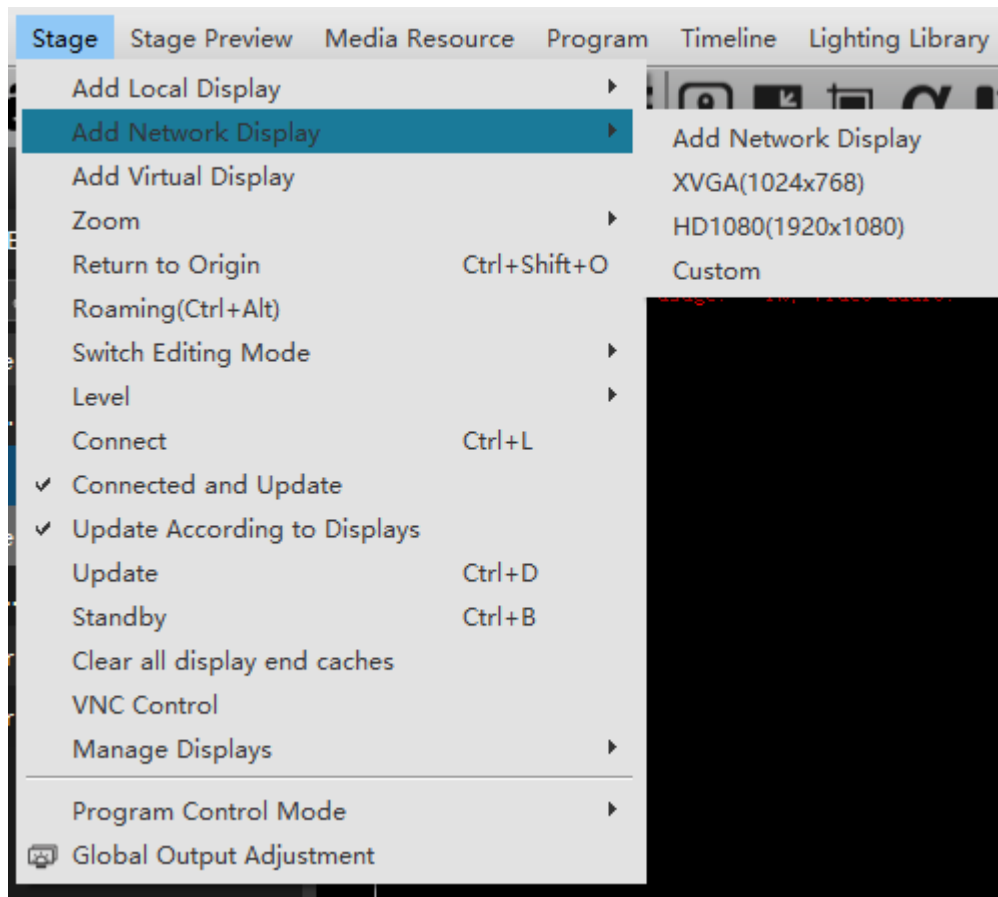
Stage

Add virtual screen, zoom and return to the stage origin through the stage menu. The stage menu is shown in the following figure:



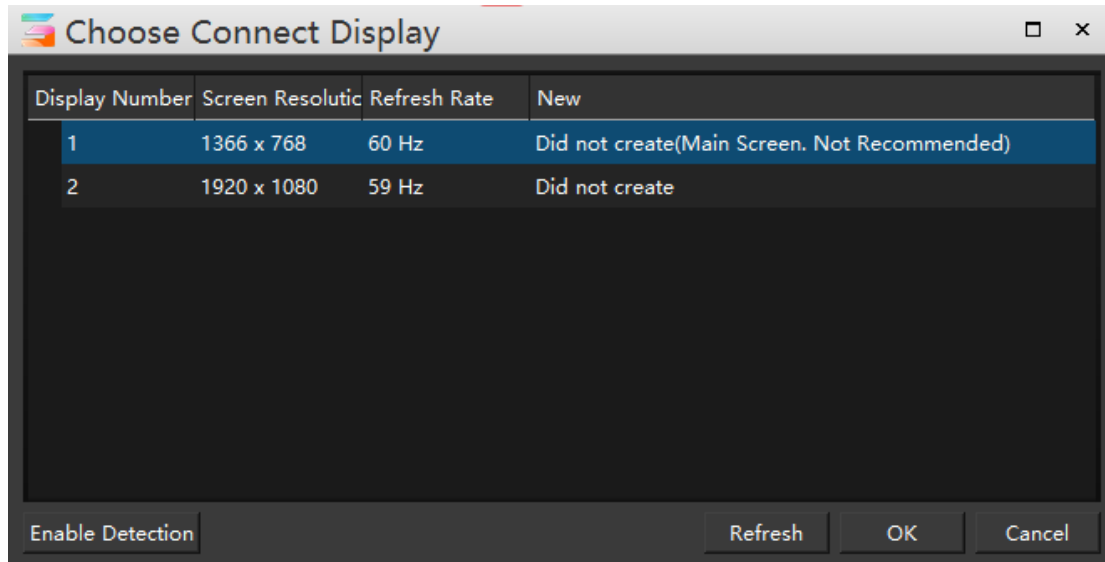
1.Add Locate / Network Display

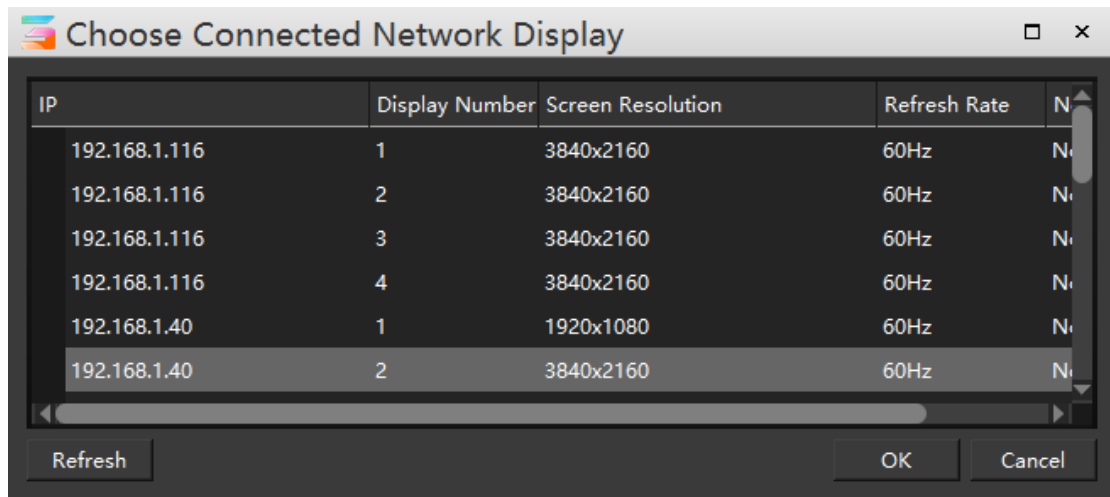
Click the add network screen, and a dialog windows will pop up, as shown below:



(1) Add Locate / Network Display

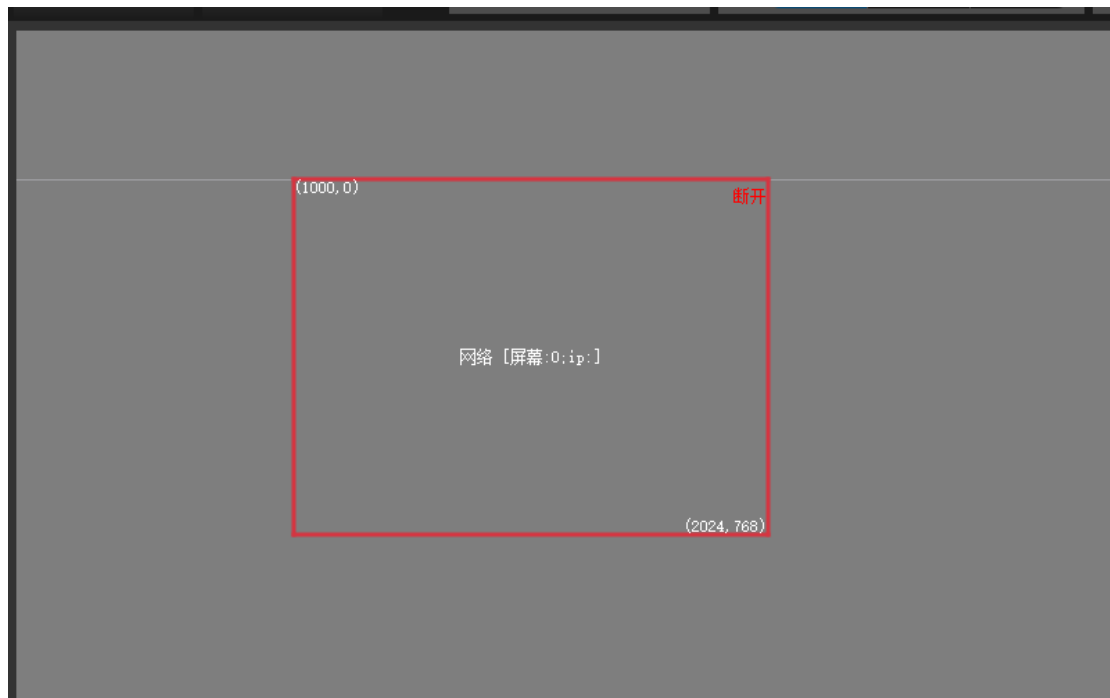
Click add network connected to pop up the connected screen list, as shown in the following figure:





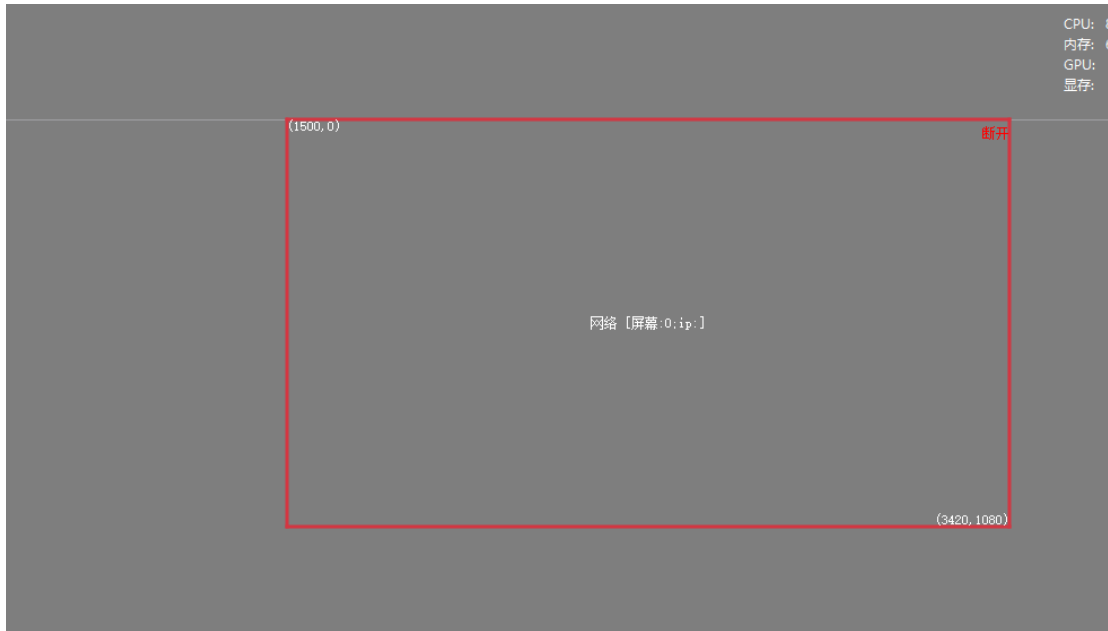
(2)XVGA

Click xvga to automatically add a screen in the stage, as shown in the following figure:



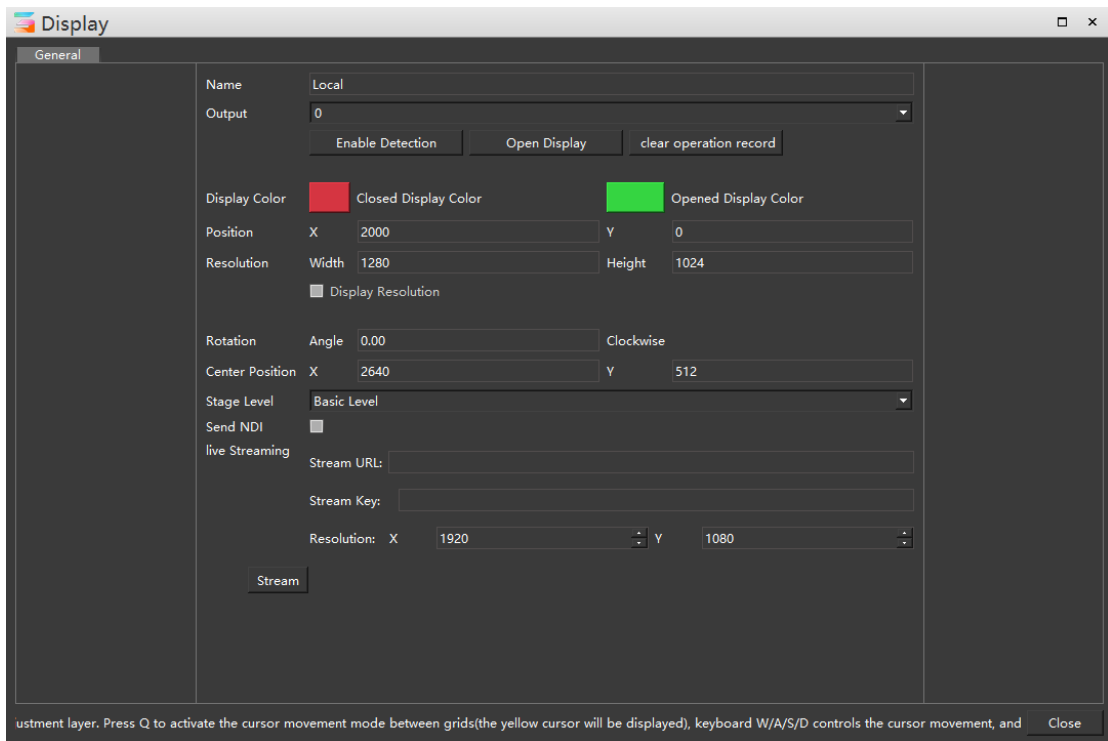
(3)HD 1080

Click HD 1080 to automatically add a screen in the stage, as shown in the following figure:

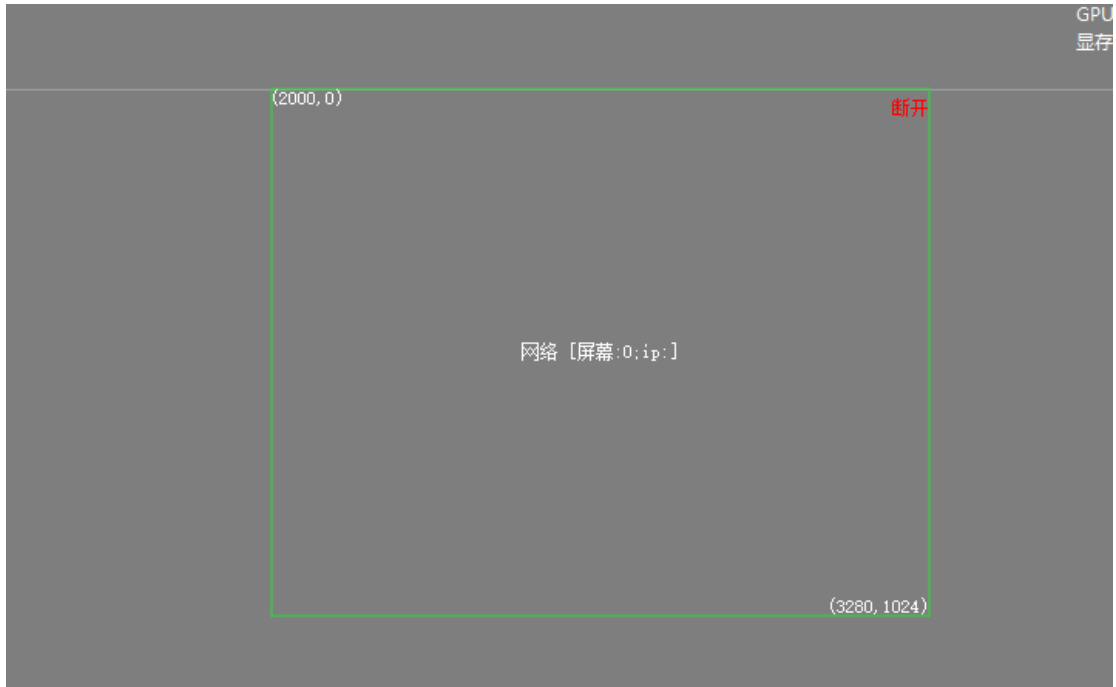


(4)Custom

Click Customize to pop up the general setting window, as shown in the following figure:



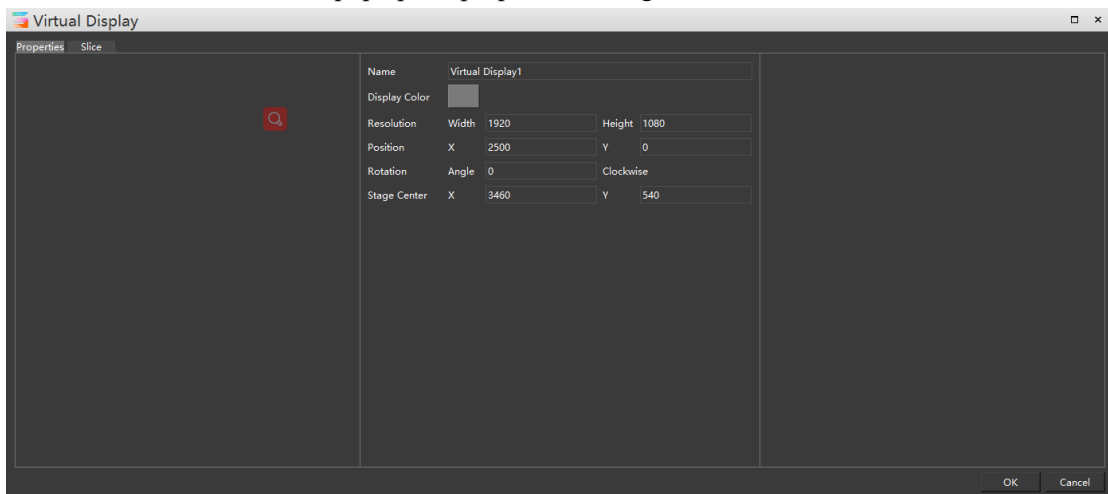
Related properties settings can be viewed in properties - display properties. After setting, a customized screen will appear in the stage:



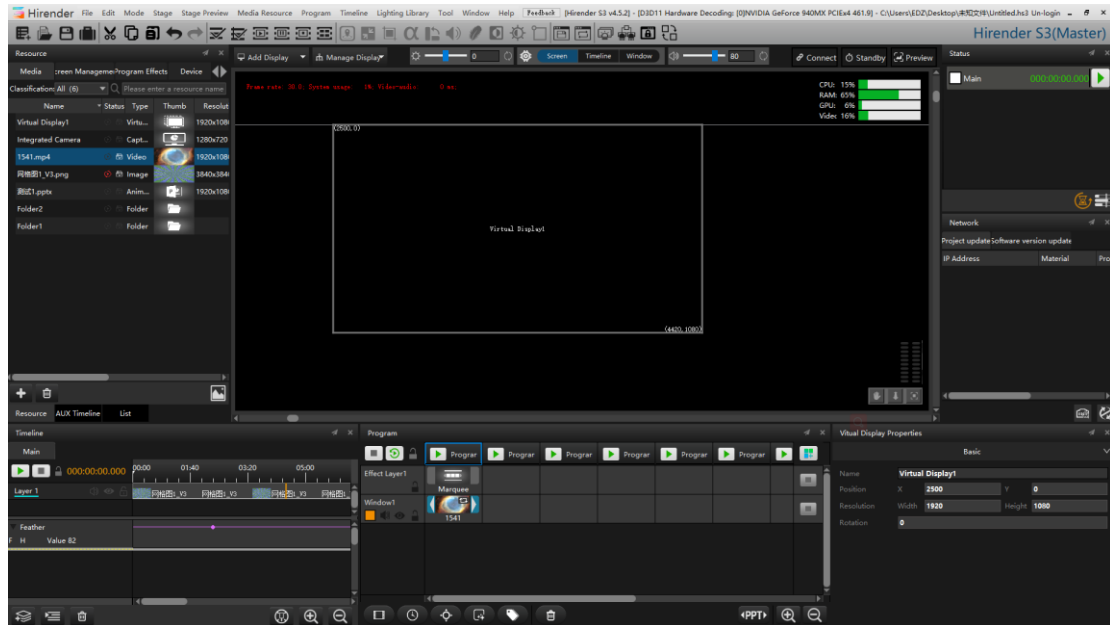
2. Add Virtual Display

The virtual screen collects and plays the programs in stage management in real time. The virtual screen can be directly used as media resources to realize the functions of camera splicing, camera close-up, live interception, special-shaped screen playback etc..

Click add virtual screen to pop up the properties setting window, as shown below:

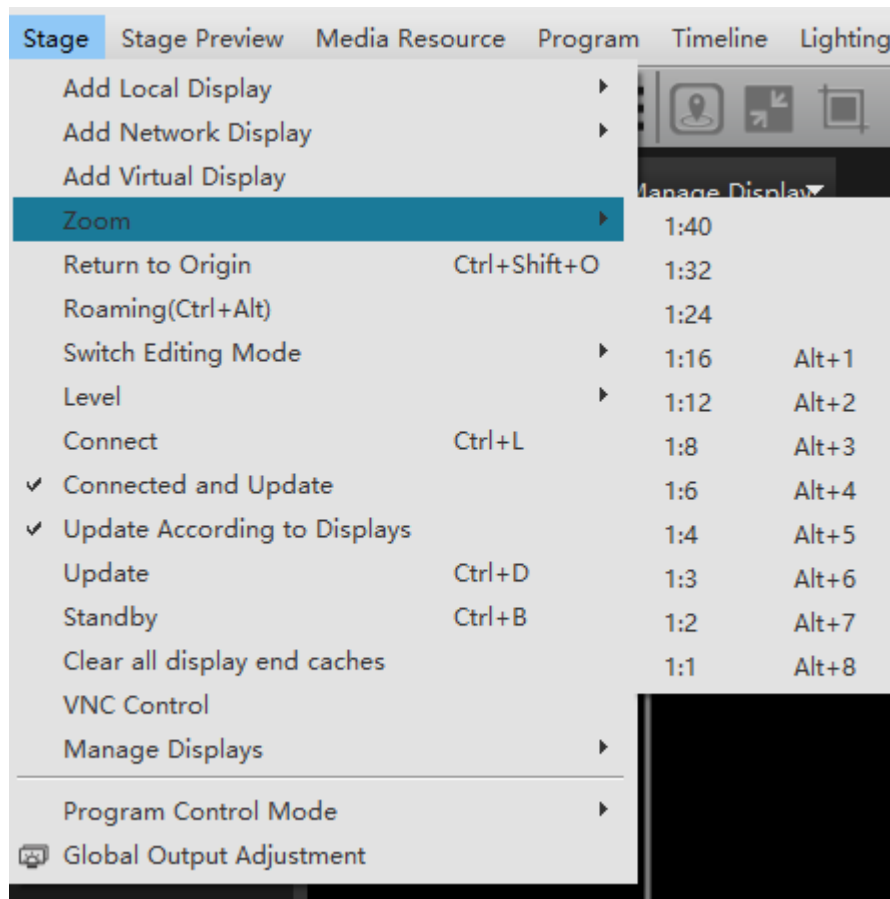


After setting, the virtual screen appears on the stage, as shown in the following figure:



3. zoom

The stage menu contains zoom options, or shortcut keys to select different zoom ratios, or scroll the mouse wheel in the stage to reduce and enlarge the stage. The zoom ratio provided by the menu bar is shown in the following figure:



4. Return to Origin

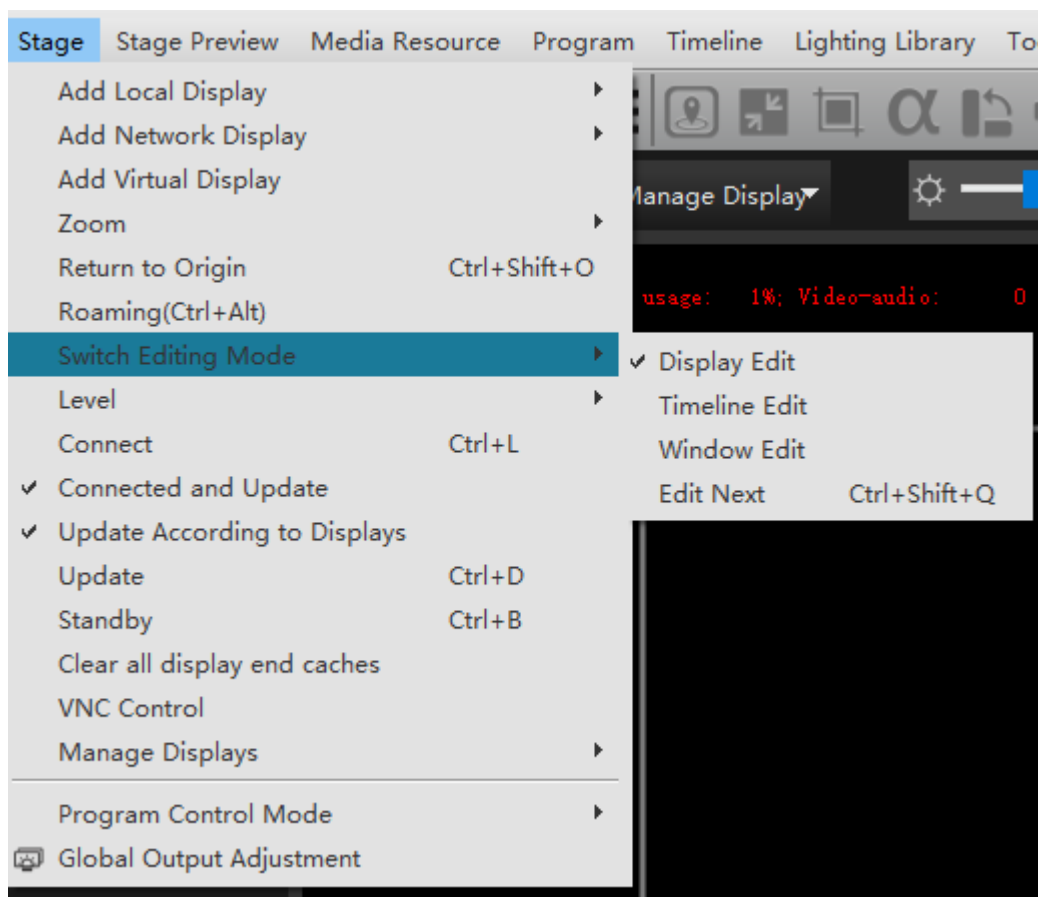
Return the stage to the intersection of X and Y axes in the stage.

5. Roaming

Click roaming to enter the roaming state, drag the stage to move as a whole, or drag by pressing and holding the mouse wheel

6. Switching Editing Mode

The editing status can be switched between screen mode, timeline editing mode, window mode and the next editing mode, as shown in the following figure:



- (1) Screen editing mode: in this mode, you can only edit the screen in the stage
- (2) Timeline editing mode: in this mode, only timeline materials in the stage can be edited
- (3) Window editing mode: in this mode, only windows in the stage can be edited
- (4) Next editing mode: Click to automatically switch to the next editing mode of the current editing mode

7. Level

The stage level is the basic level by default. You can set the addition and renaming of stage level

8. Connect

Connection refers to the connection to the display device. Once the connection is successful, the edited material screen will be projected onto the display device, provided that the connected display screen has been added to the software and all connected displays are opened. You can also connect or disconnect by clicking the connection button in the upper right corner of the stage.

9. Connected and Update

Click the connection, and the connected display device / standby end will automatically update the data.

10. Update According to Displays

Click to check and update according to the display windows

11. Update

Update the changes made by the master to the program on all connected display devices.

12. Standby

Click standby, and the display terminal will be in a black screen state. In this state, the program will continue to play without stopping.

13. Clear all display end caches

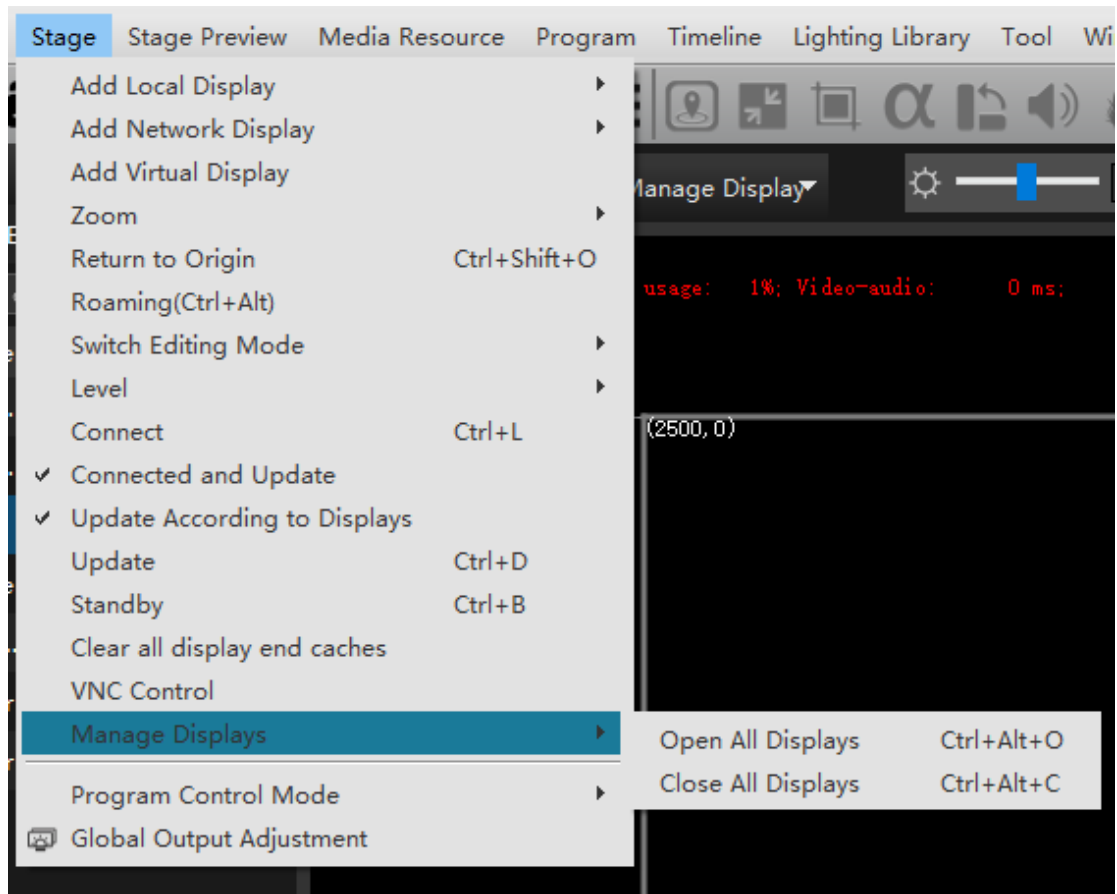
After clicking, all display side caches will be cleared, and they need to be reloaded when they are opened again

14. VNC control

By adding VNC control, the remote control of the software can be realized

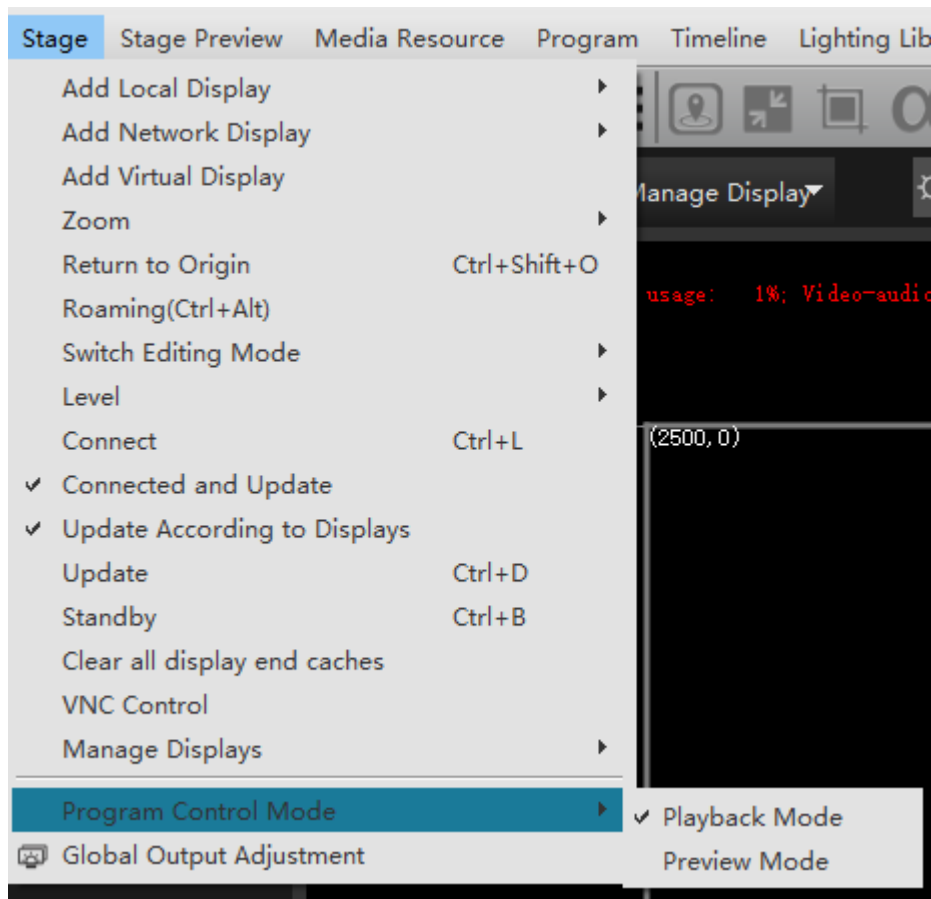
15. Manage display

You can choose to turn on all connection display or turn off all connection display, as shown in the following figure:



16. Program Control Mode

The control stage switches between broadcast control and preview modes, including broadcast control mode and preview mode, as shown in the following figure:



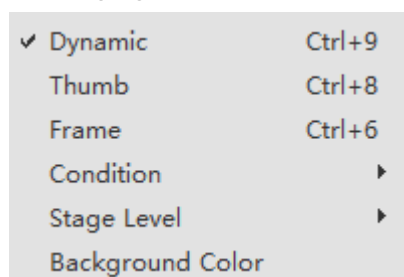
17. Global Output Adjustment

Control the adjustment of global brightness, volume and contrast of the output picture, as shown in the following figure:



Stage Preview

The stage preview menu includes real-time preview, thumbnail, wireframe and background color options, as shown in the following figure:



1. Dynamic

It can play and preview the stage in real time.

2. Thumb

Using the low resolution thumbnail as the media preview can improve the efficiency of the editing interface when playing multiple large video clips at the same time in the demonstration program. When selected, the following logo will appear:

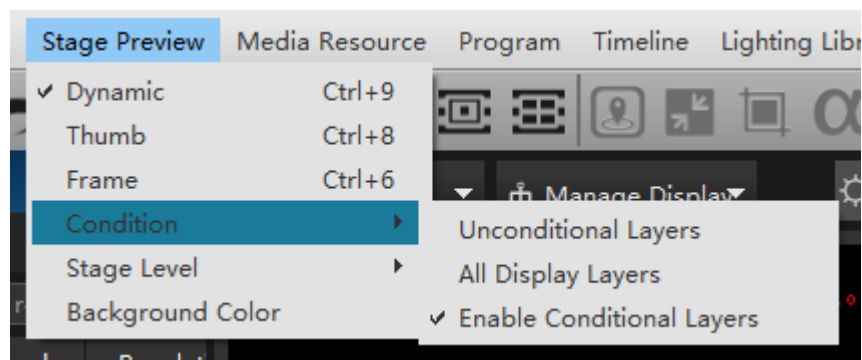


3. Frame

All pictures and videos are displayed in a rectangular wireframe. The name and duration of the media will be displayed in the rectangular wireframe. The effect of using wireframe is the same as that of thumbnail, which can save memory space and improve the efficiency of editing interface.

4. Condition

If the condition is enabled, all layers will be displayed regardless of whether the condition is selected or not.

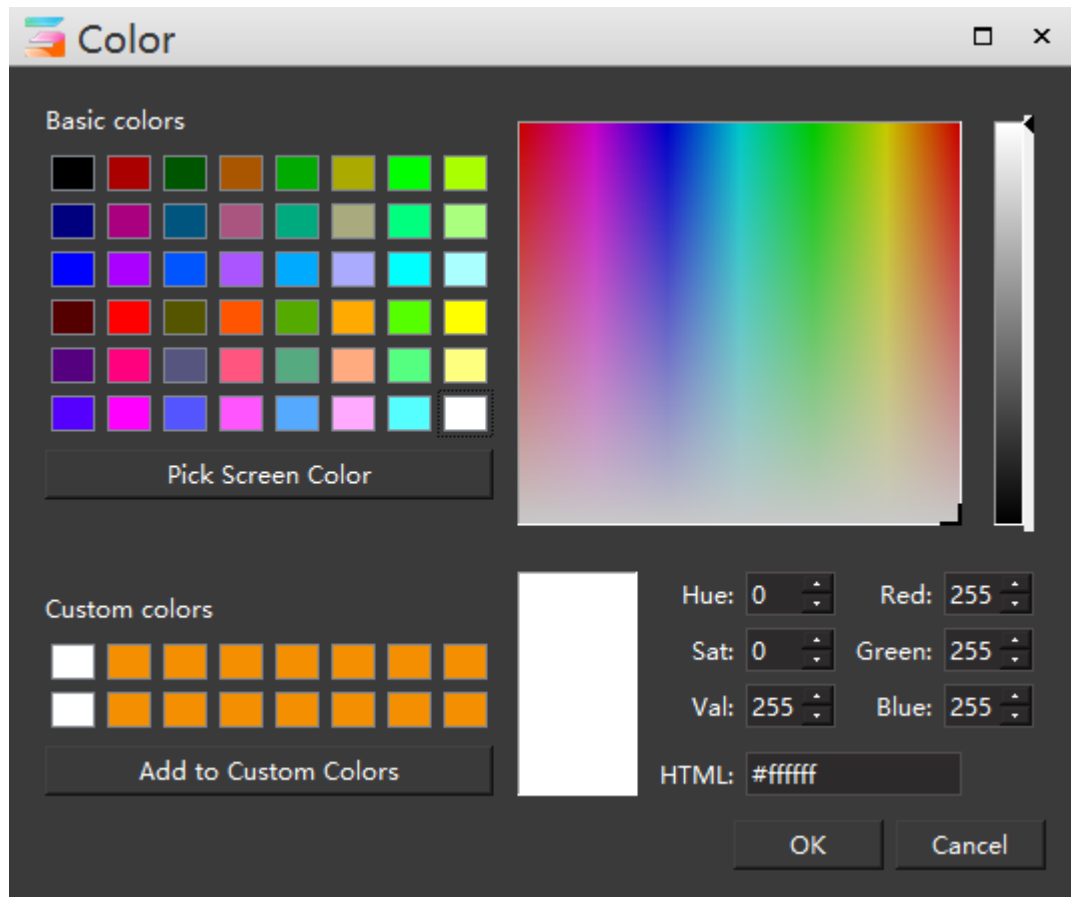


5. Stage Level

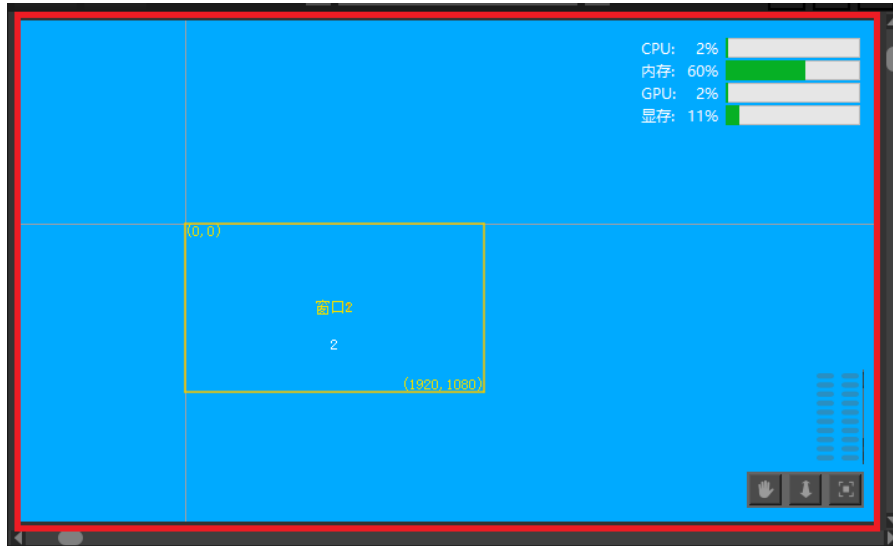
After setting the stage level, you can select and drag it only when the stage level matches the screen.

6. Background Color

You can choose different stage background colors, as shown in the following figure:

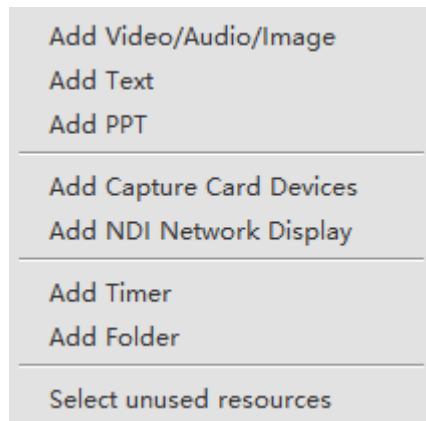


For example, after selecting the blue background, the stage background will change to blue, as shown in the following figure:



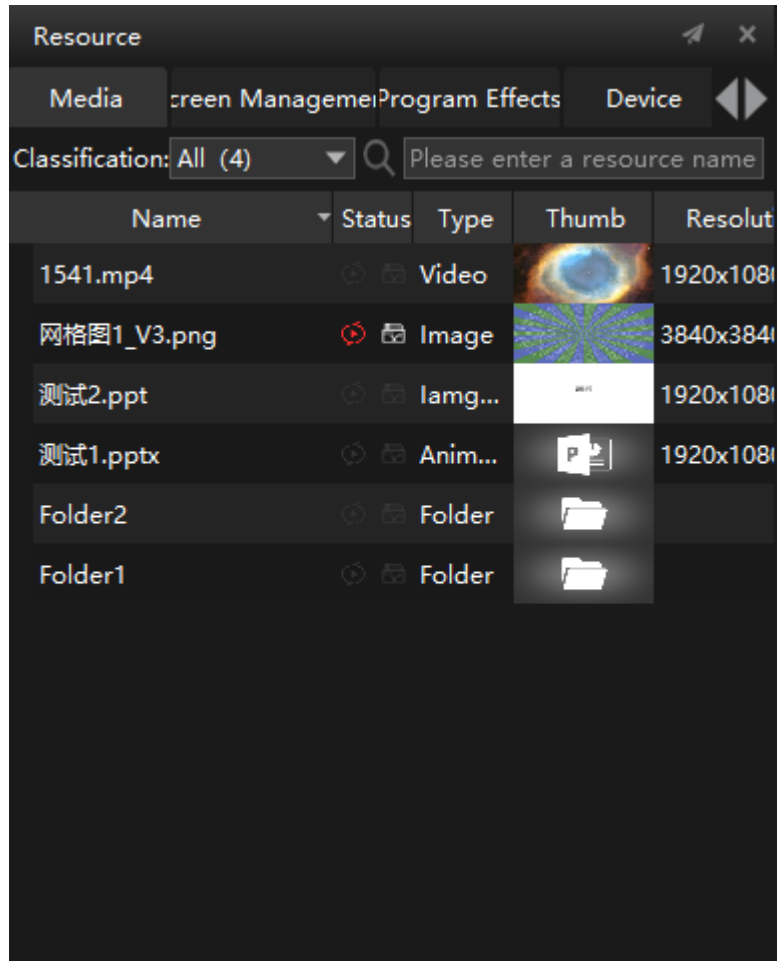
Media resources

Media resources are the menu responsible for adding media materials, including video / audio / pictures, text, PPT, Capture Card Devices equipment and other resources, as shown in the figure below:



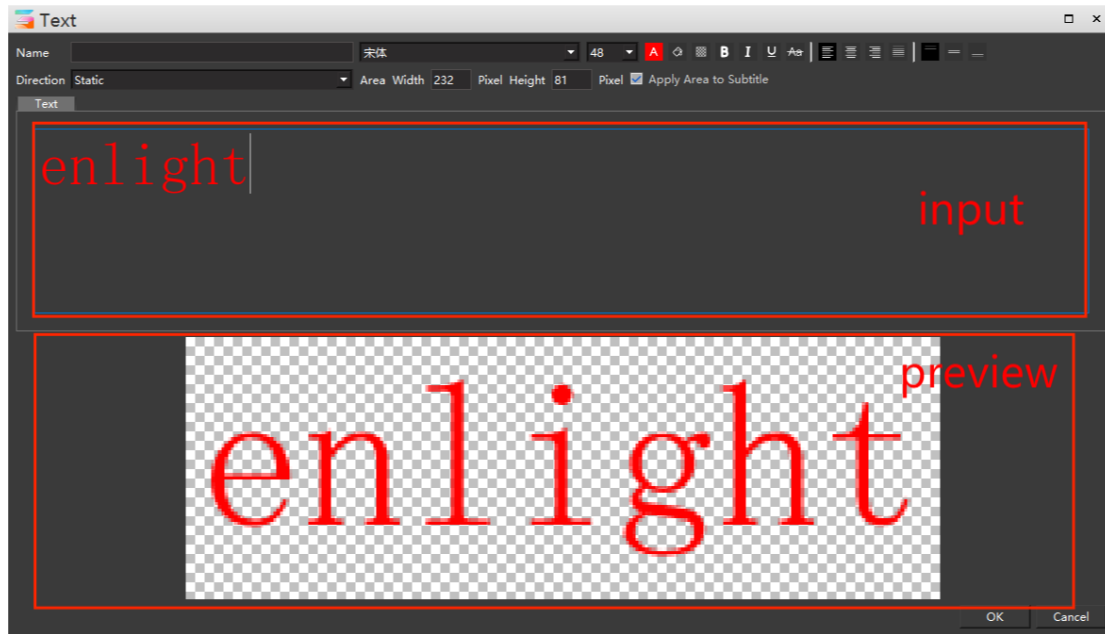
1. Add Video / Audio / Image

With this command, media files can be added to the material library from disk or media folder. The material library displays the material name, material type, thumbnail, resolution, duration and other information.



2. Add Text (subtitle function)

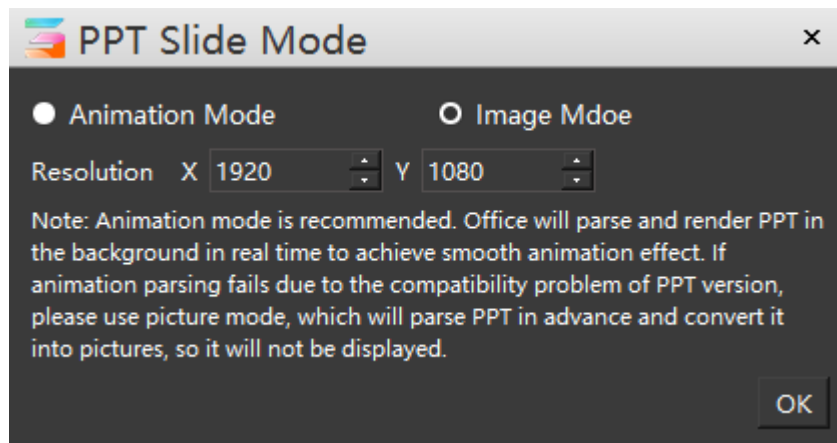
Use this command to add text to media and perform various adjustments like other media. You can change the font style, size, color, subtitle background color, scrolling mode, etc. of the input text. You can edit the text in the text or paste the text to be displayed directly into the text windows. Finally, the software will generate scrolling subtitles according to the settings. After the fixed scrolling area is cancelled, the scrolling speed, width and height of scrolling subtitles can be set, as shown in the following figure:



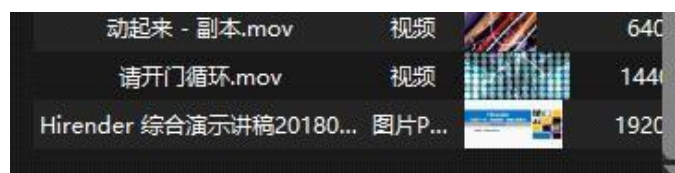
3. Add PPT

For the added PPT, you can choose two different modes: animation mode and picture mode. Display resolution can be set. For animation mode, it is required to install office 2016 (64 bit) and above on the computer running Hirender S3 software (office365 is not supported), and ensure that the PPT is activated and can be opened and played normally.

When adding, you can set the resolution and playback mode of PPT, as shown in the following figure:



After setting, the added PPT will be displayed in the media resource window, as shown in the following figure:



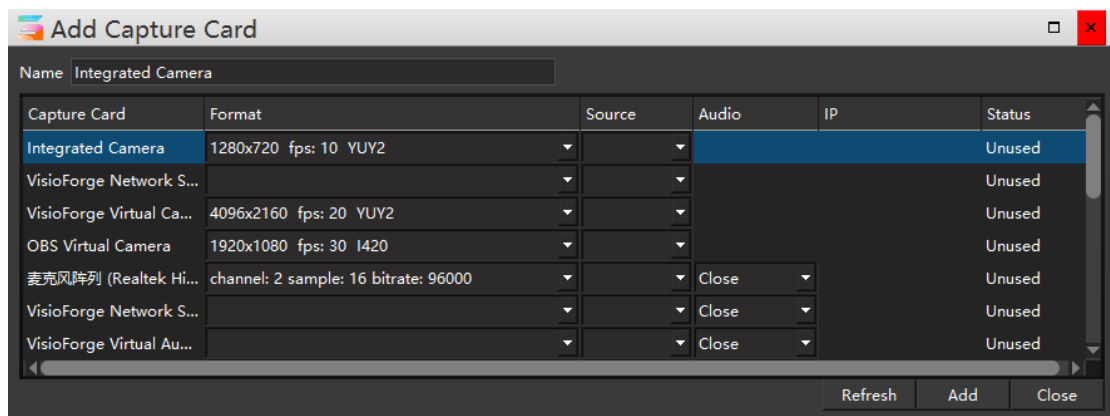
PPT materials can be added to the program window and edited. During the playback of PPT,

you can press the direction key of the keyboard to turn pages, which is consistent with the normal use of PPT. As the PPT button shown in the figure below, when the button is activated (green), PPT page turning playback is applicable to the whole world. No matter which window is selected by the software at present, the function of the direction key is used for PPT page turning playback. When the PPT button is inactive (black), play other programs without PPT files in the program management, and the direction key restores the program switching function.

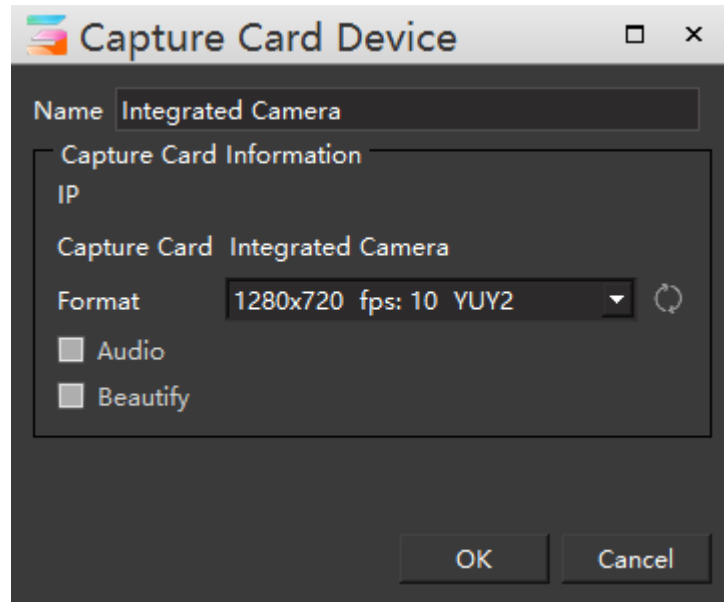


4. Add Capture Card Devices

Through this command, the Capture Card Devices can be added to achieve the effects of real-time acquisition of on-site video, and Hirender supports the simultaneous acquisition of multiple Capture Card Devices and the adjustment of the collected video. The Capture Card Devices is played independently by default and cannot be changed. Through custom settings, the display format of the collected image can be changed. The added Capture Card Devices can be directly used as material and added to the program management window. The interface is shown in the figure:



Double click the added Capture Card Devices, check the sound function to output sound together with the picture, and check the beauty function to add beauty effect to the Capture Card Devices picture. The setting interface is shown in the following figure:



5. Add NDI Network Display

Set the computer to be collected and the computer to be collected in the same LAN. Run this command to add the NDI network screen. NDI adopts digital HD Ethernet transmission technology to achieve more stable transmission effect. Added NDI network screen, which can be used directly as material, to the program management window.

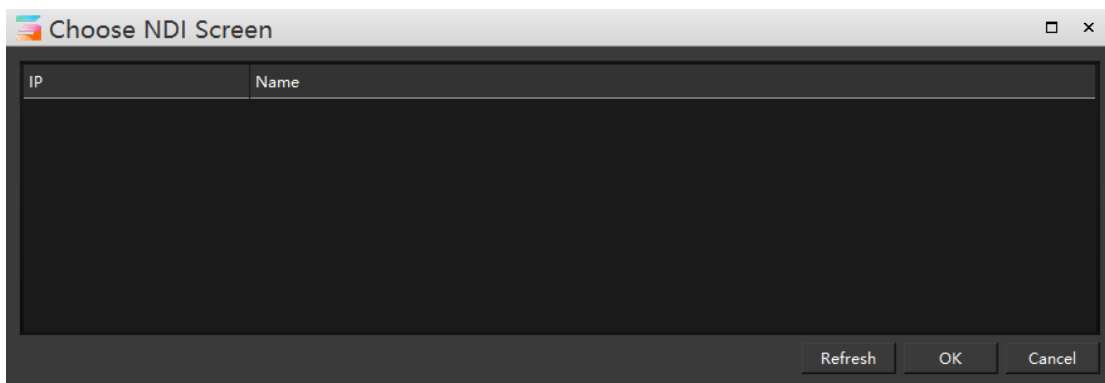
First, we need to build NDI equipment environment. Install the Hirender NDI software on other acquisition computers, and then double-click in the Hirender NDI folder in the start menu to open the Hirender NDI software (as shown in the figure below). After clicking start, the acquisition signal will be sent.



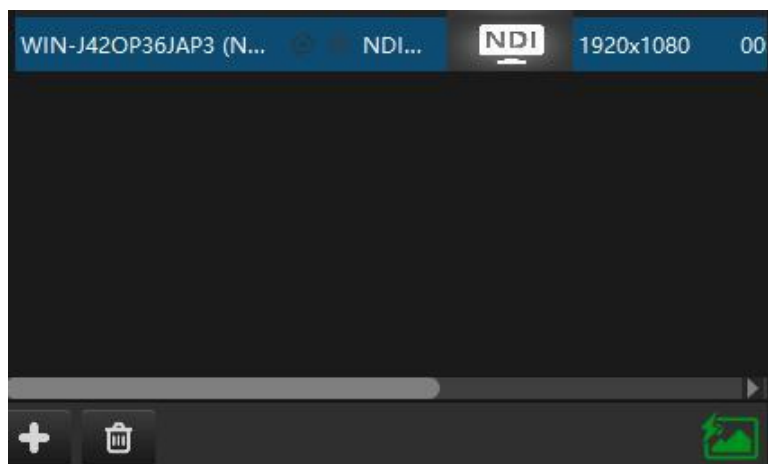
Click set to set the transmitted frame rate and video source.



In this way, the sending device has set the NDI, open S3 on the computer of the other receiving end, right-click in the material library - select Add NDI device, select the corresponding NDI device according to the IP of the computer of the collected end, and then click OK, and then the added NDI device can be used as a material:



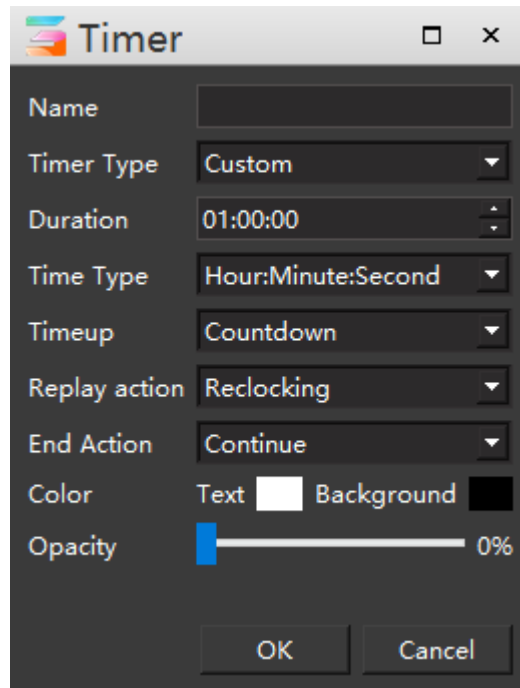
The NDI screen added in the stage can also be used as media material and will be displayed in the material library:



6. Add timer

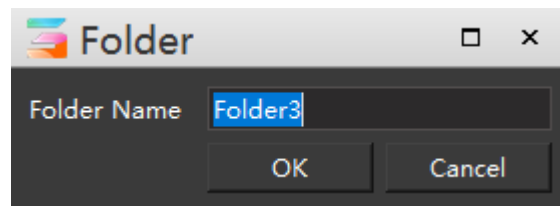
Click the media resource add button, or right-click in the media resource window, and the pop-up menu will have the option of adding timer. After selection, you can set parameters such as name, duration, time type, timing status, replay / stop action, or set color and transparency.

After setting, click OK to add the timer to the media resource. The timer setting interface is shown in the figure:



7. Add Folder

You can add folder to media window with all media resource in it, you can also drag folder to the media window to add these media resources in :

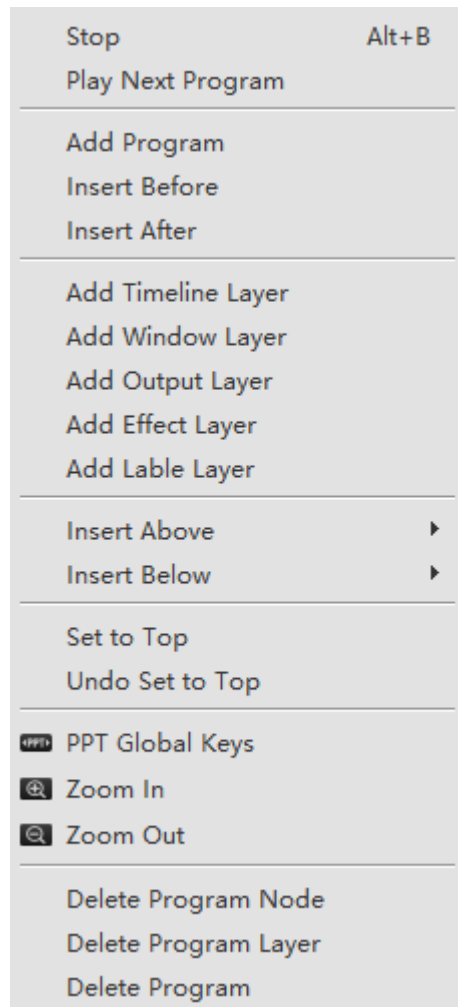


8. Select unused resources

Click to select unused resources, and the unused media resource will be selected.

Program management

The overall management and setting of all programs, including stopping the program, playing the next program, adding programs, etc., are shown in the following figure:




1. Stop

Stop the program being played in the window on the stage.

2. Play Next Program

Immediately play the next program of the program being played in the window of the stage.

3. Add Program

Add a program. In the upper right corner of program management, you can quickly add a program through the  button.

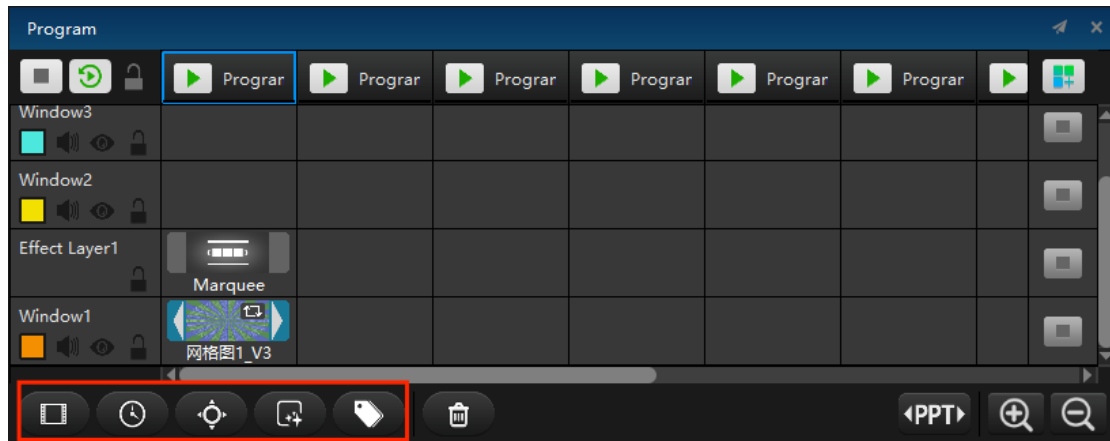
4. Insert Before / After

Insert a program in front of or behind the selected program.

5. Add Timeline / Window / Output / Effect / Label layer

Click to add corresponding timeline / window / output control / special effects / process label layer at the top of program management.

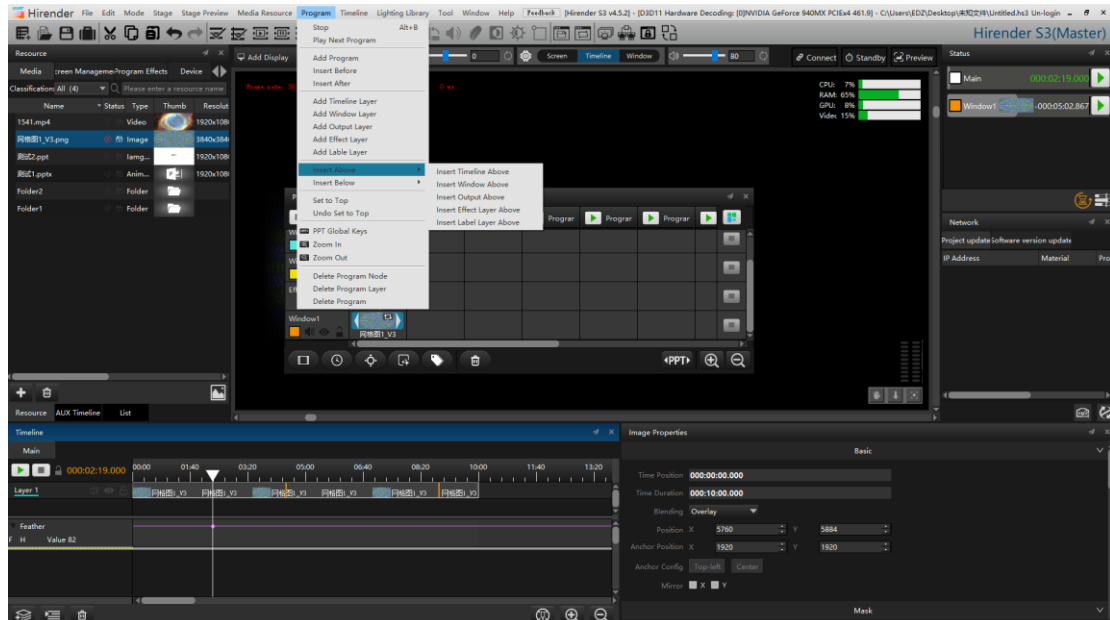
The following figure shows the shortcut buttons corresponding to the new window / timeline / output control / special effects / process label layer in the program management window:



The following button can quickly delete the selected layer.

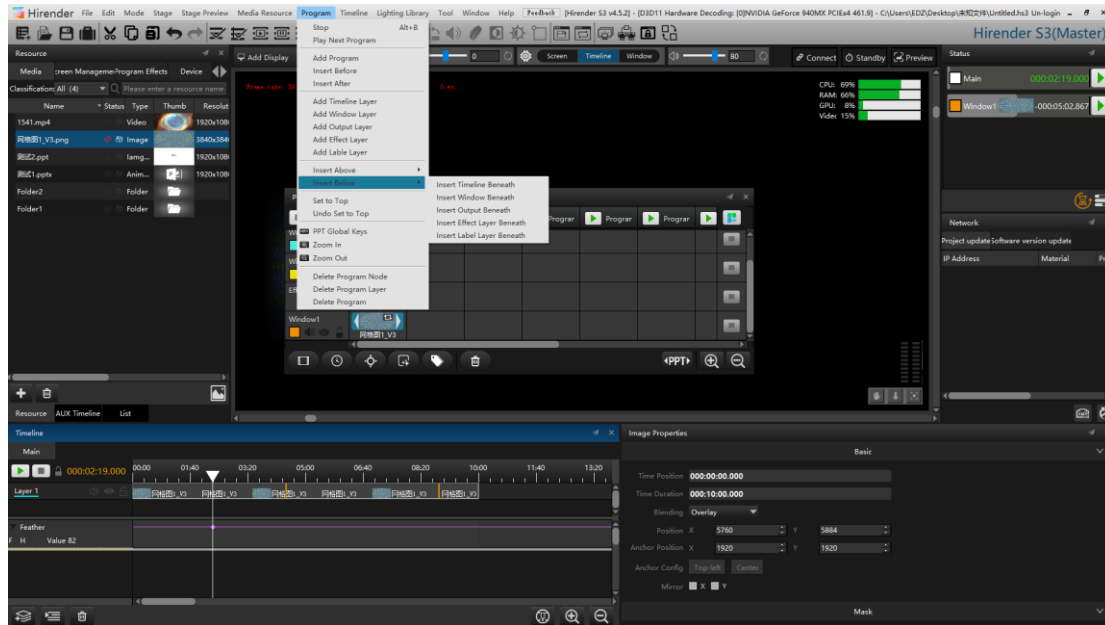
6. Insert Above

You can select the type of inserted layer above the selected layer, as shown in the following figure:



7. Insert Below

You can select the type of inserted layer below the selected layer, as shown in the following figure:



8. Set to Top

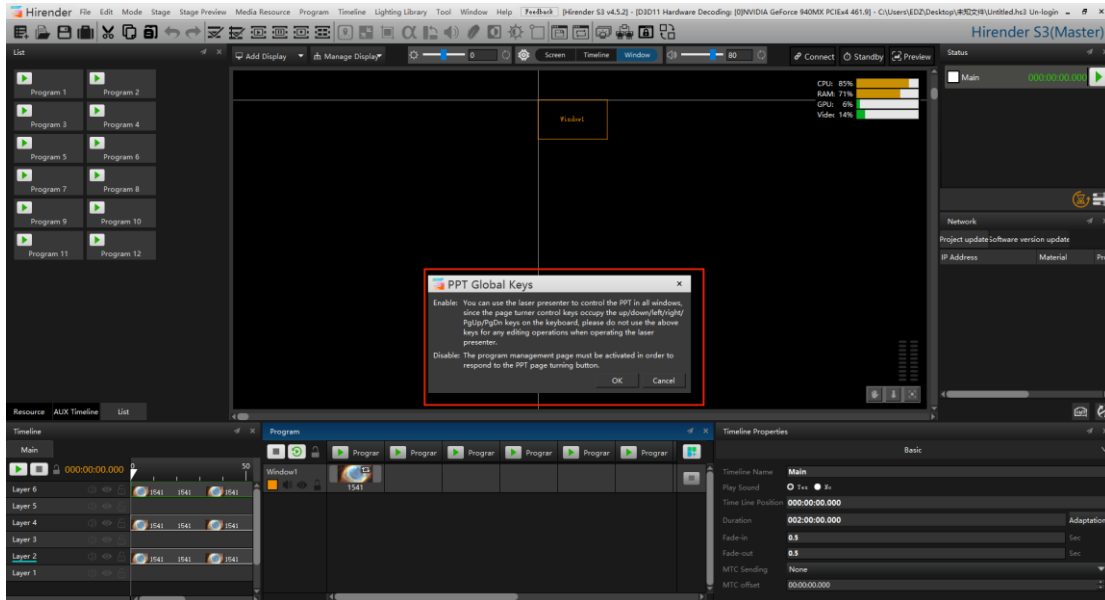
Place the selected program bar at the top of the window layer.

9. Undo Set to Top

Restore the top program bar to its original position.

10. PPT Global Keys

In the unopened state, the PPT page turning button can be responded only when the program management window is operated: in the open state, the PPT page turning button can be controlled with the up / down / left / right / PgUp / PgDn buttons in the use state of all windows, and the prompt window is shown in the following figure:

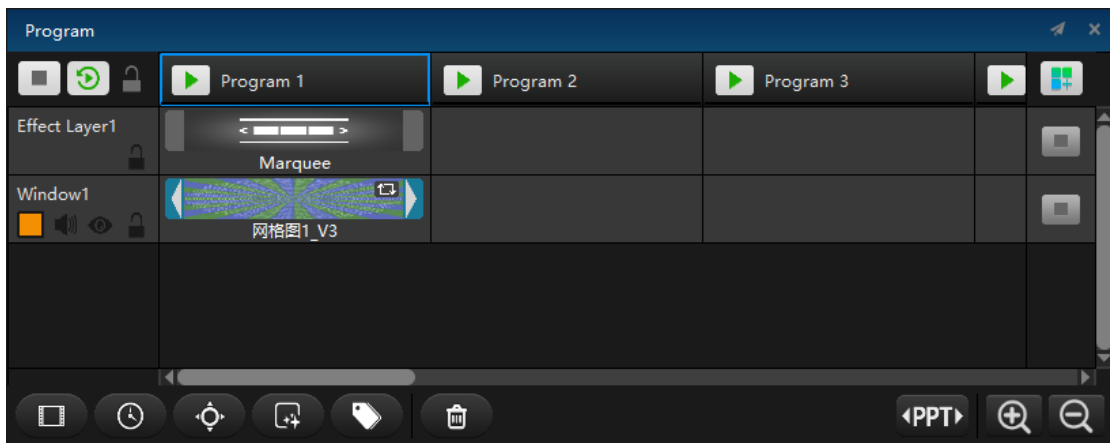


11. Zoom in / out

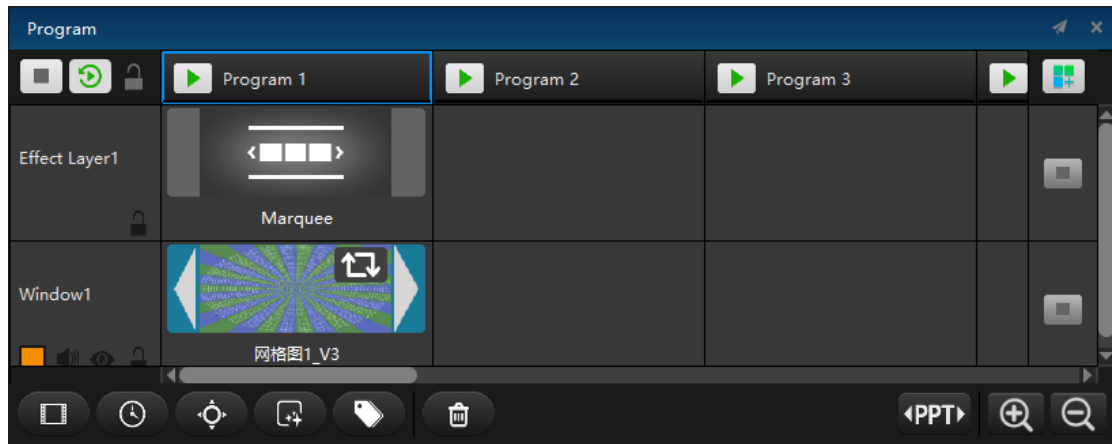
You can enlarge the outer frame of the program node in the layer to adjust the size of the program window.

Note: the zoom out operation will not react until it is zoomed in.

At first magnification:



At the second magnification:



When you click zoom out, it will be carried out in the reverse order of zoom in.

10.Delete Program node / Program layer / Program

Delete the media material in the selected program / program layer / program node in the window

Timeline

The timeline menu is mainly used to modify the media and timeline layers on the timeline

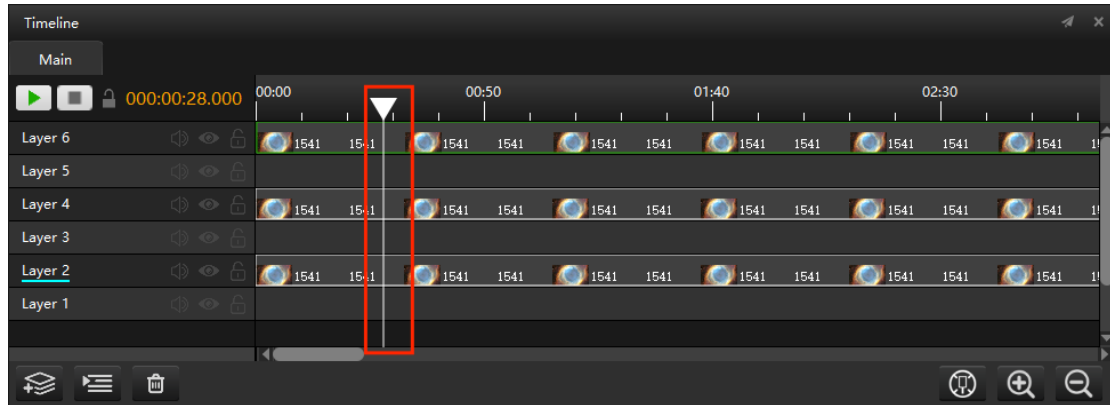
| | |
|---|--------------|
| Stop All Timeline Playing | Ctrl+Alt+B |
| ✓ Cursor Follows Selected Media | Ctrl+T |
| Shortcut Key jump to Play Synchronously | Ctrl+Shift+T |
| Adjustment | ▶ |
| Edit Main Timeline | Ctrl+G |
| Timing Information | ▶ |
| Add Control Command | ▶ |
| ☒ Select All Media | Ctrl+A |
| ☒ Select All Meida Behind the Cursor | Ctrl+E |
| Add Layer | Ctrl+I |
| Insert Layer | |
| Delete Layer | Ctrl+Del |
| Layer Properties | |
| Lock All Layers | |
| Unlock All Layers | |

1. Stop All Timeline Playing

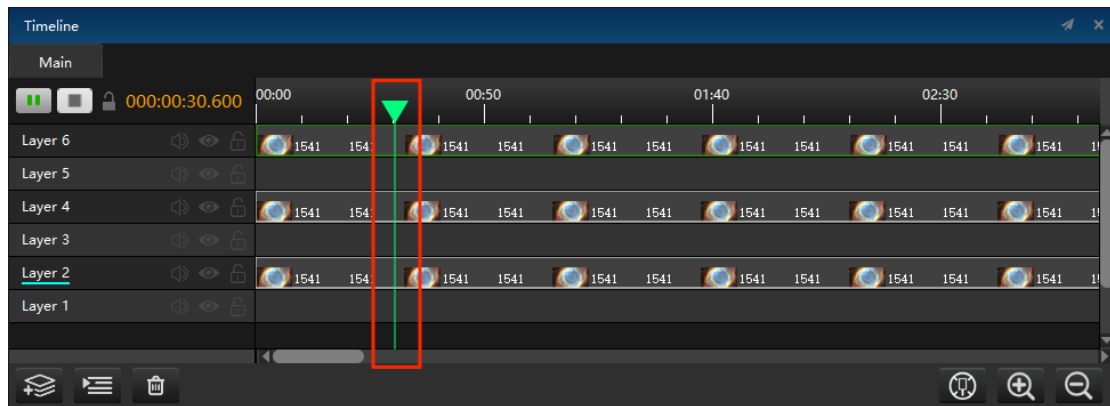
Stop all the time lines in the stage.

2. Cursor Follows Selected Medias

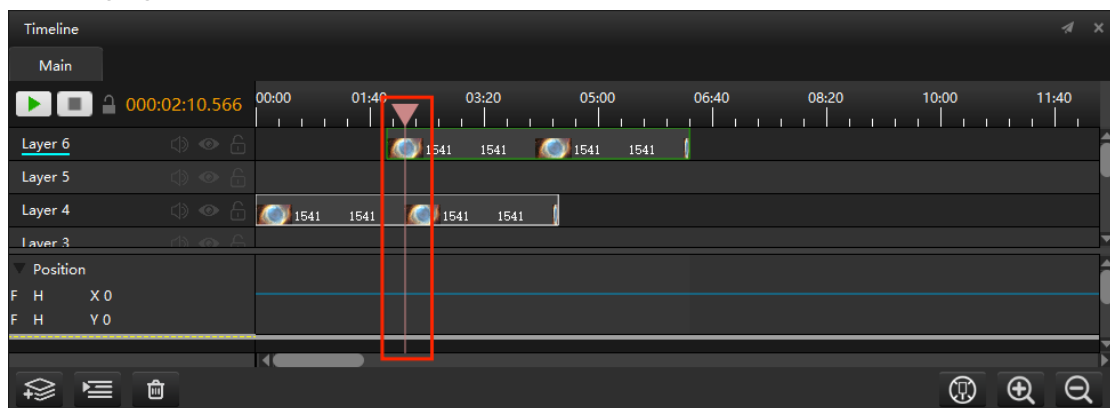
After the media material is selected on the timeline, it is not necessary to manually move the time cursor to the material position, and the cursor will follow automatically to quickly obtain the time position of the material, and you can click play to preview the material in real time without moving the cursor, as shown in the following figure:



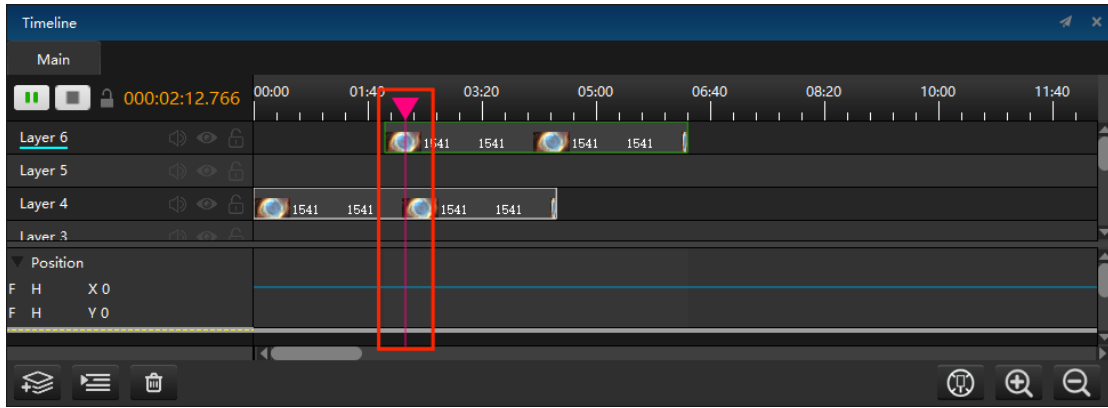
The playback status is shown in the following figure:



When the cursor does not follow the selected media, the cursor displays pink, as shown in the following figure:

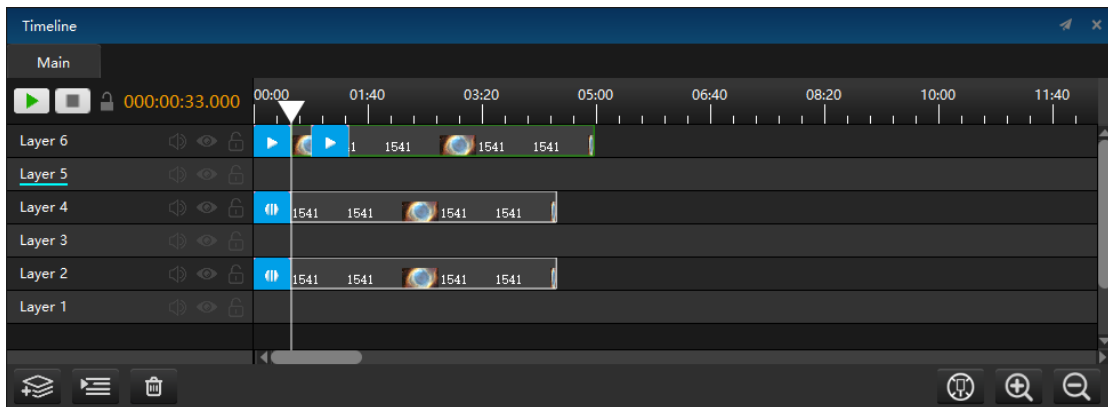


The playback status cursor at this time is shown in the following figure:



3.Shortcut key jump to play synchronously

Select the shortcut key to jump to synchronous play, then press the shortcut key to jump to different commands and execute the commands.

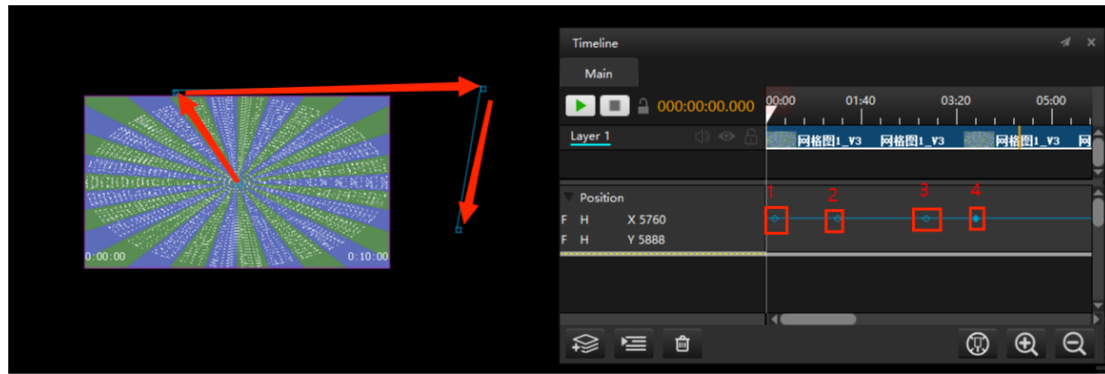


4.Adjustment

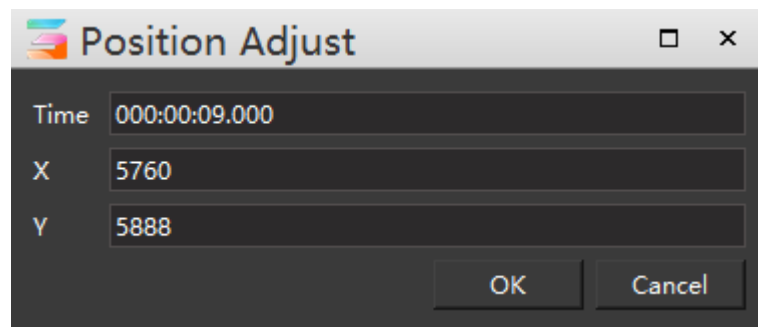
Select the media material on the timeline and select timeline - effect. You can choose to edit the material position, zoom, clipping, transparency, volume etc.;At the same time, the adjustment effect will be displayed at the bottom of the timeline interface.

(1) Position

Set the time cursor to the time point for editing the material position information, and double-click the intersection of the position line and the cursor to pop up the position adjustment information.You can also left click the intersection and move the position of the material in the stage window to realize the dynamic movement of the material.The following figure shows the different display of material location points in the timeline and stage.

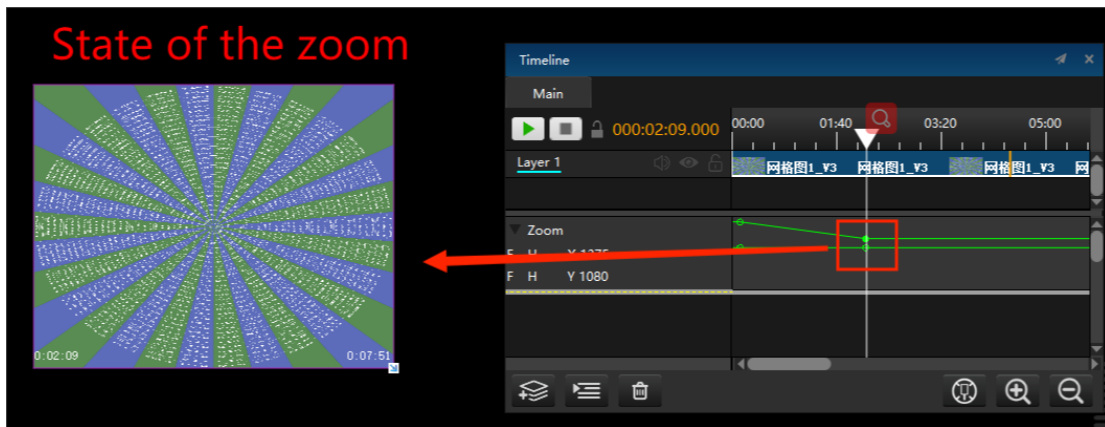
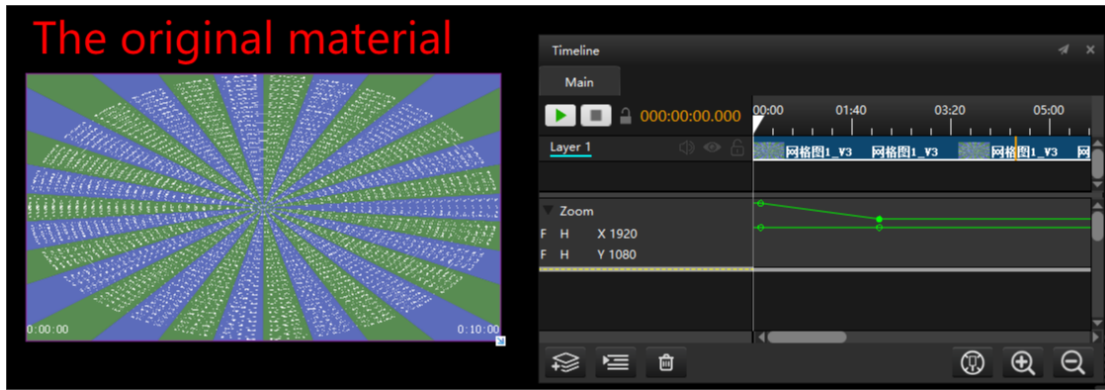


Double click the intersection to manually enter the precise setting value and setting time, which is applicable to each effect:



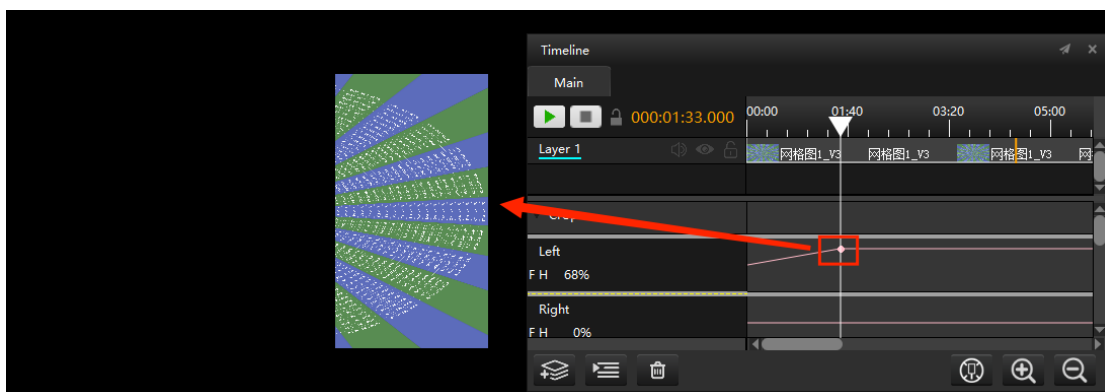
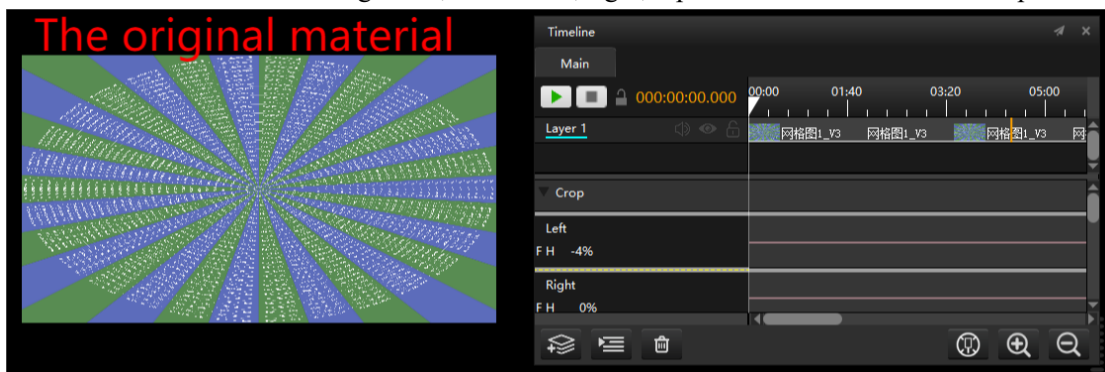
(2) Zoom

Select the media material on the timeline, select timeline - effect - zoom, or the shortcut key Alt + S. you can see the zoom button in the stage editing window and drag the zoom button. You can also left click the intersection of cursor and pixel in the window below the timeline to set the zoom in the pop-up dialog windows. As shown below:

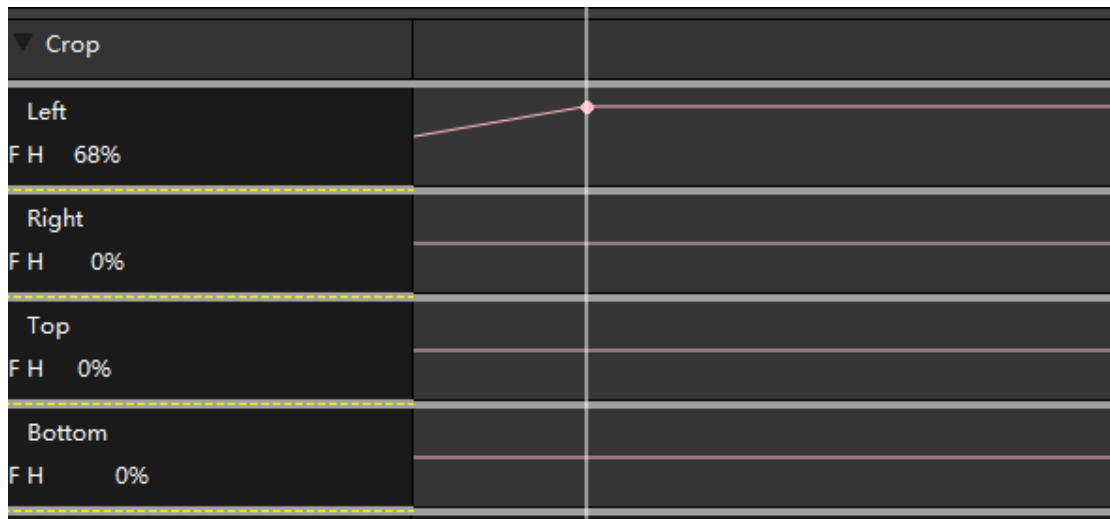


(3) Crop

At the bottom of timeline management, cut the left, right, top and bottom at different time points.

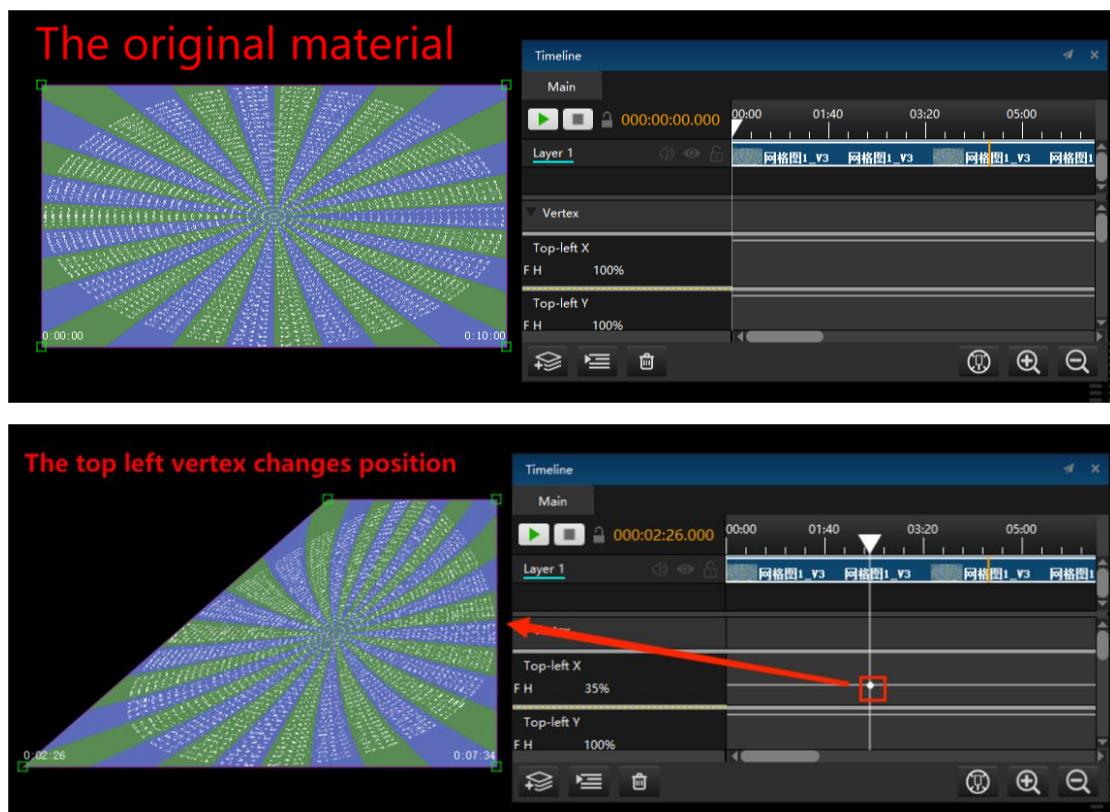


The same applies to the right, top and bottom.



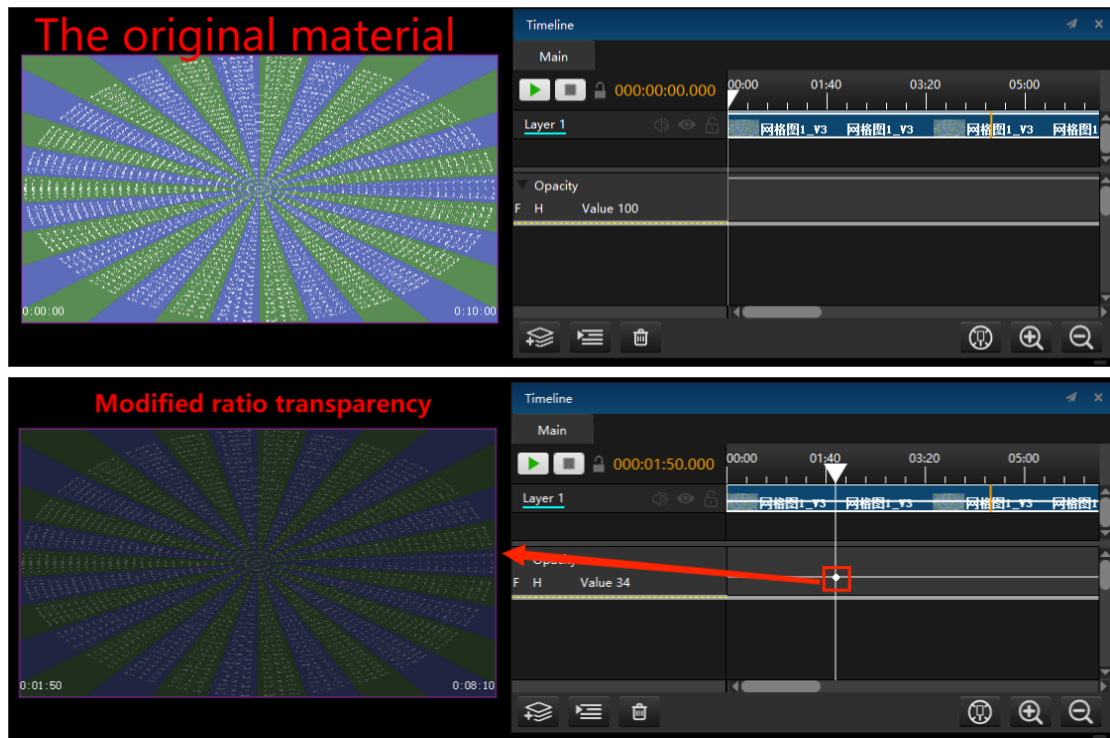
(4) Vertex

Under the timeline management, the top left, bottom left, upper right and lower right vertex positions of the media can be set at different time points respectively. Transparency is visible in real-time on the left.



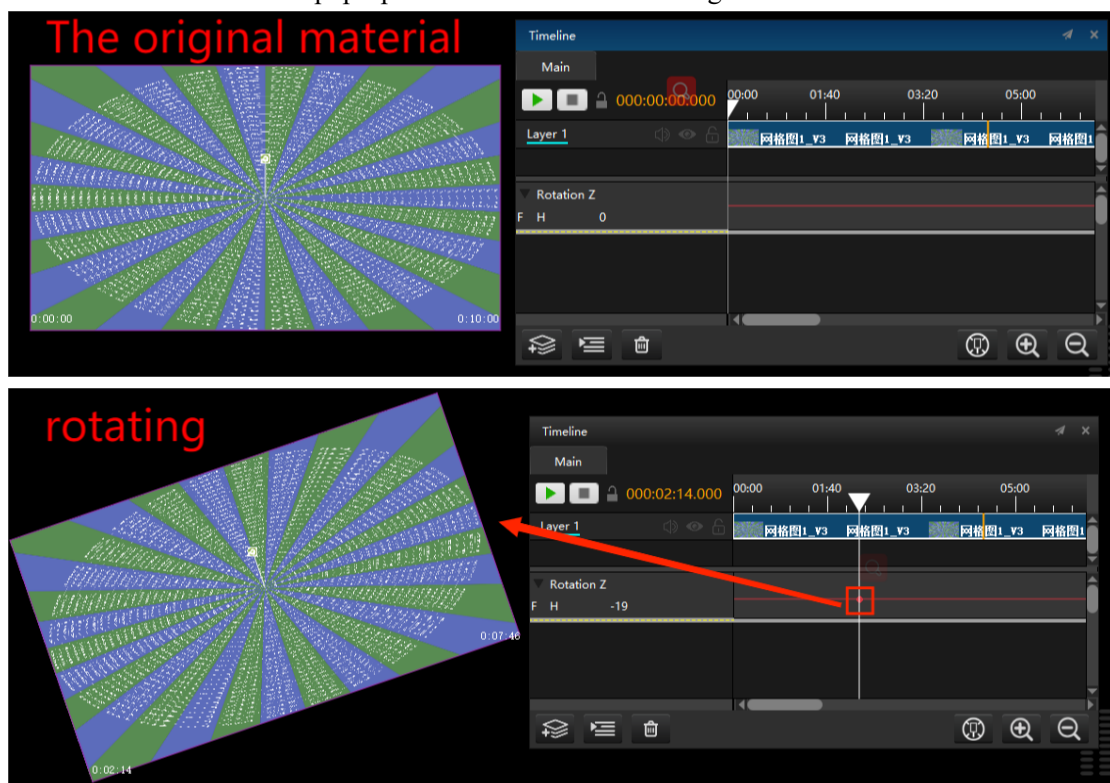
(5) Opacity

Under timeline management, slide the intersection of cursor and transparency up and down. Transparency can be seen in real time on the left.



(6) Rotation Z

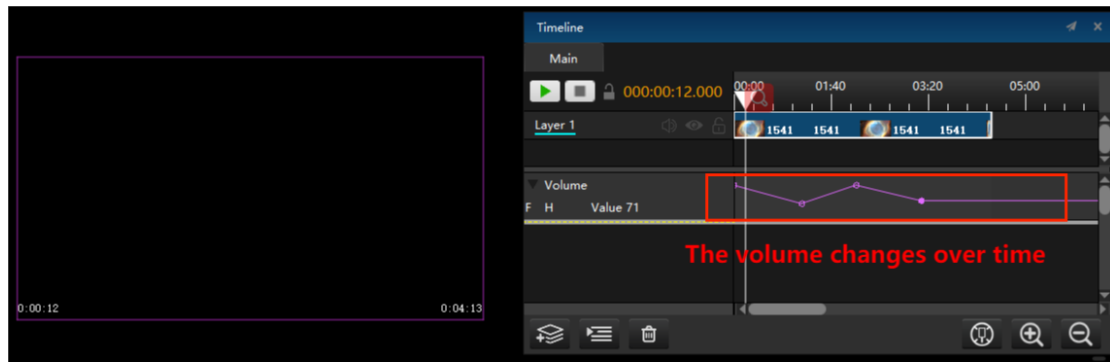
Click timeline - effect - rotate Z axis, and the rotation icon will appear in the stage editing window. The rotation can be realized by dragging the icon with the mouse. You can also slide their intersection up and down below the timeline to see the degree of rotation on the left, left-click the intersection to rotate in the pop-up window. As shown in the figure:



Other effects such as volume, vertex, hue and saturation, contrast and brightness, feathering etc. are set in the same way as transparency.

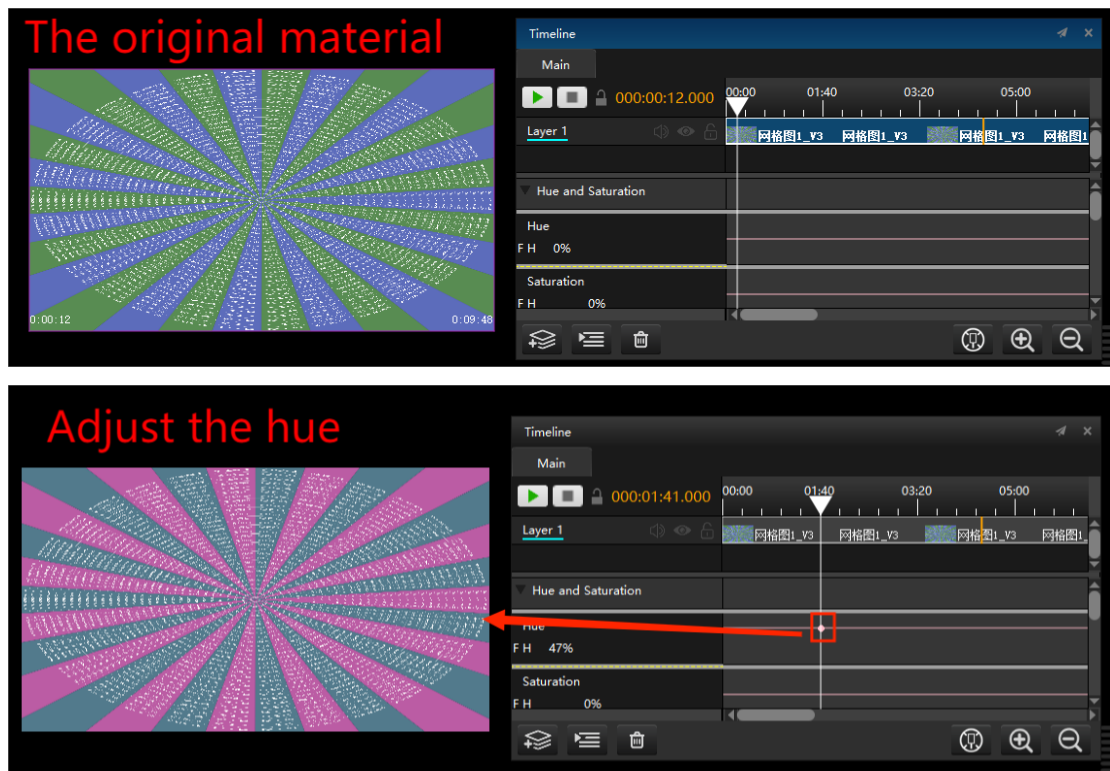
(7) Volume

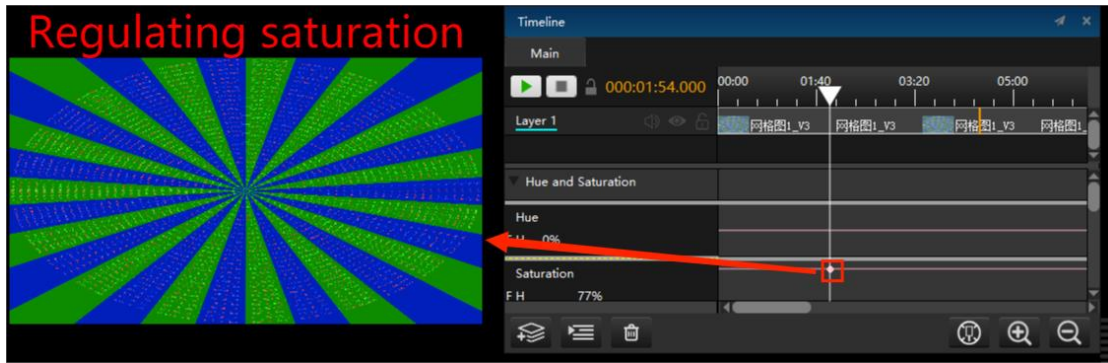
Under the timeline management, swipe the intersection of the volume between the cursor up and down. You can change the media playback volume change in real time on the left.



(8) Hue and Saturation

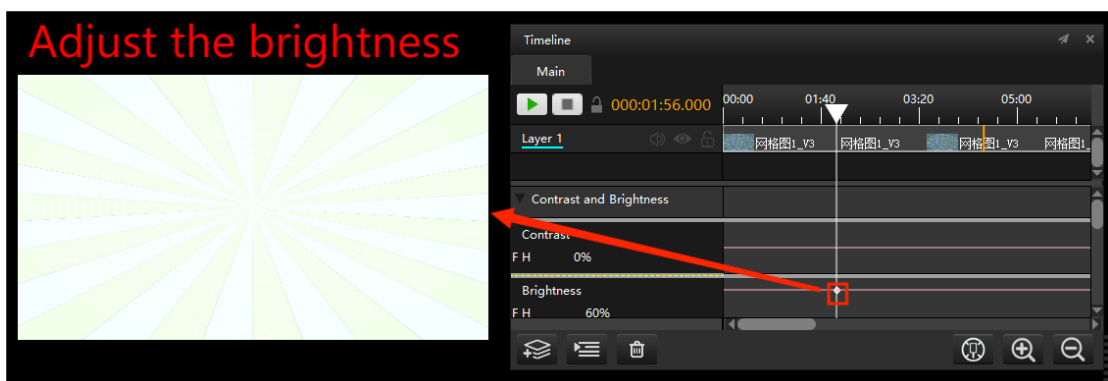
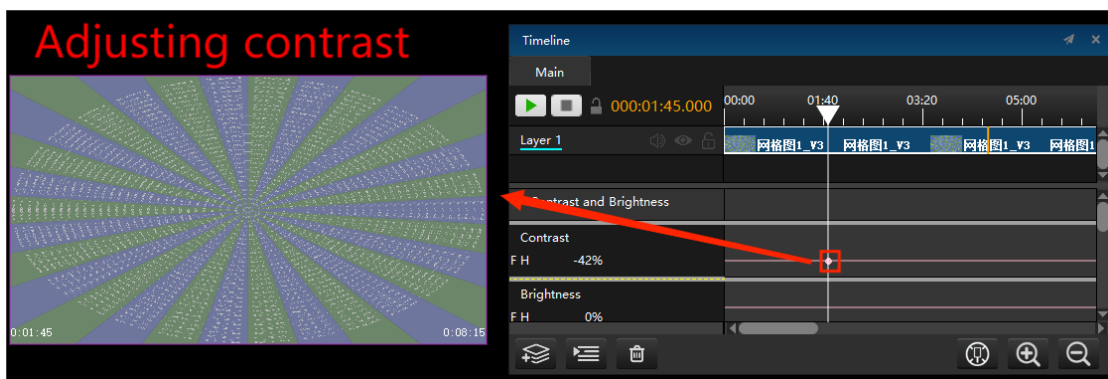
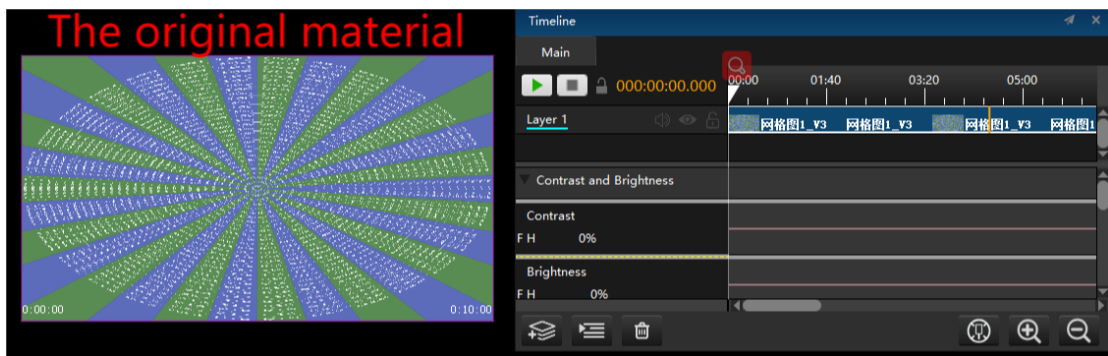
Under the timeline management, slide the intersection of up and down the cursor, color and saturation. You can change the media playback color and saturation changes in real time on the left.





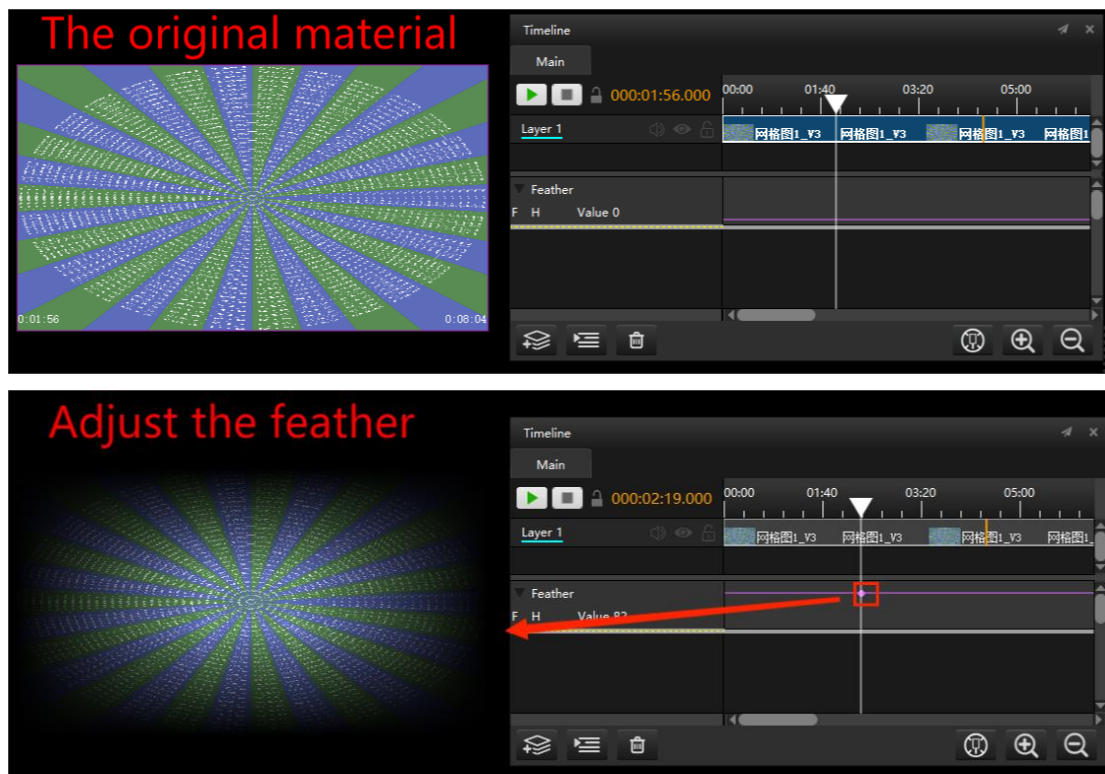
(9) Contrast and Brightness

Under the timeline management, swipe the intersection between the cursor and the contrast and brightness. Change the media playback contrast and brightness changes in real time on the left.



(10) Feather

Under the timeline management, swipe the intersection of the cursor up and down. You can change the media play in real time on the left.



(11) Fade in/ Fade out

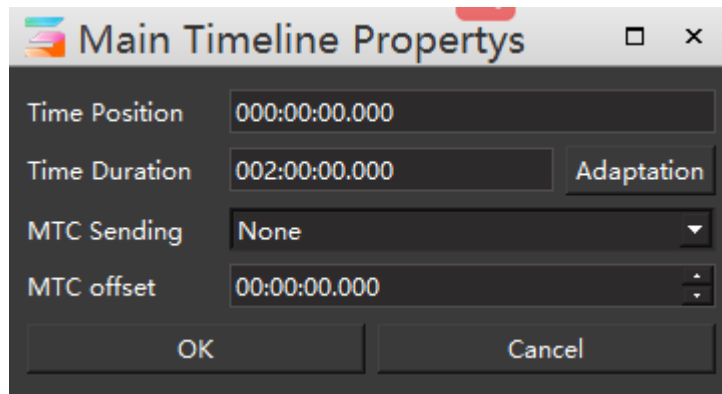
Set the material playback to fade in or fade out. You can edit the fade in and fade out time in the settings.

(12) Attention

1. Check and cancel the effect command to delete all adjustment actions. If you want to delete a single adjustment point, you can click it first adjust the point and press del to delete it.
2. for various adjustment operations and action combinations added, you can select the effect at the front of the adjustment panel first make the name, and then press Ctrl + X to cut or Ctrl + C to copy, and Ctrl + V to paste, which will adjust the action Cut and copy to other points.

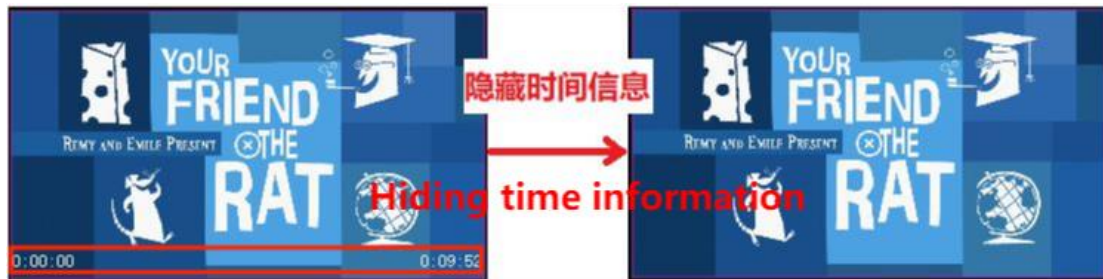
5.Edit Main Timeline

Edit the cursor of the main timeline to initially display the time position and the length of the timeline. Select the adaptive material to spread the timeline over the end position of the material.



6. Timing information

Displays or hides the time position and time length of the selected material or all materials.



7.Add Control Command

The play, pause and stop commands are for the timeline. The stop program management command can stop the program being played in program management. This section will be described in detail in timeline management.

8.Select All Media

Under this command, all media on the timeline can be dragged as a whole and cannot be edited. Click anywhere to deselect all media.

9.Select All Media Behind the Cursor

Similar to selecting all media, under this command, all media behind the cursor can be dragged as a whole and cannot be edited. Click anywhere to deselect the media.

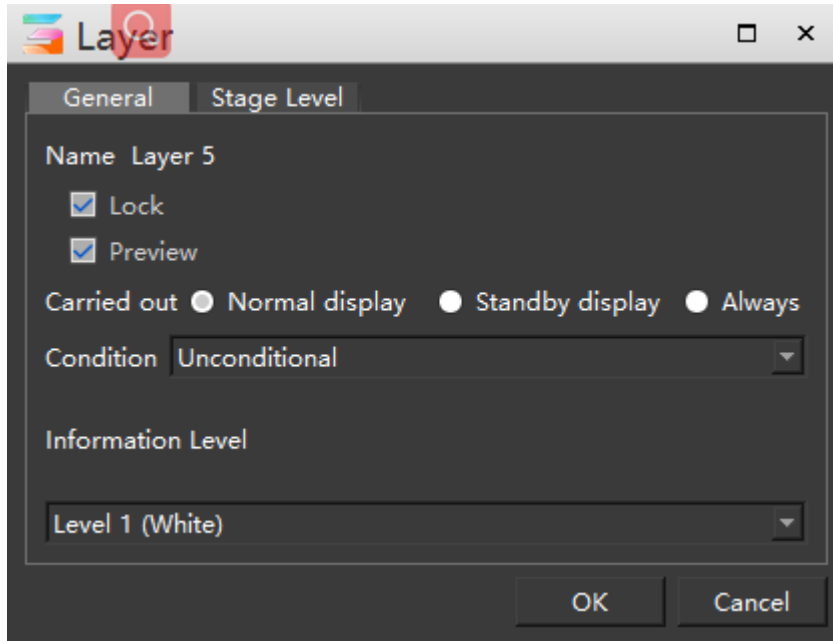
Note: these two media selection commands can be used only when the timeline management window is selected.

10.Add / Insert / Delete layers

Add / insert / delete operation of timeline layer

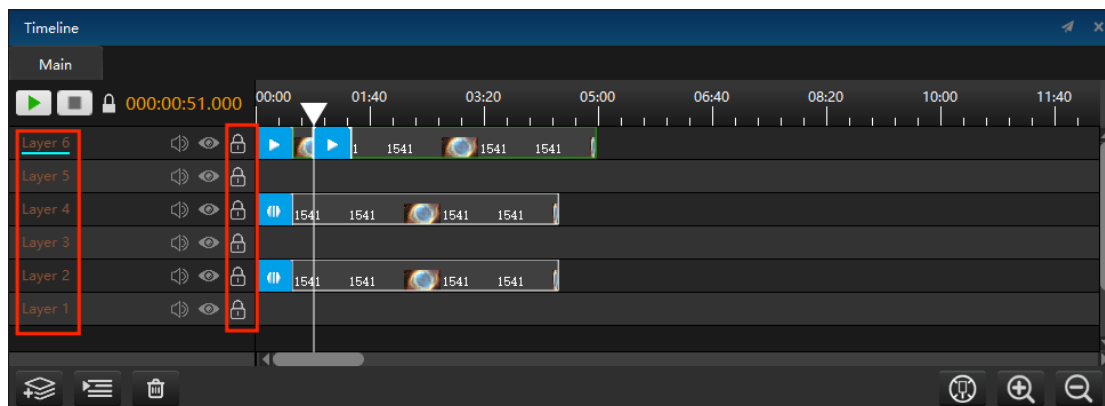
11.Layer Properties

In timeline management, add, insert, delete layers and edit layer properties. If the layer is set to standby, the layer will be displayed only when standby is executed. Right click the layer and select layer properties. You can also set the layer.



12. Lock All Layers

After click lock all layers, it is forbidden to edit any layers. You can click the lock flag behind the layer to activate the layer.



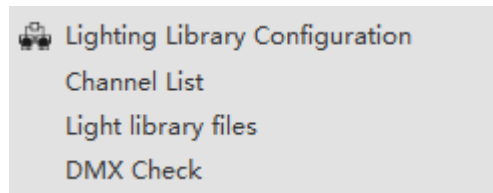
13. Unlock All Layers

All layers are allowed to be edited.

Lighting Library

The software supports the light library mode, and can monitor the light library mode,

channel table, light library file and DMX, as shown in the following figure:



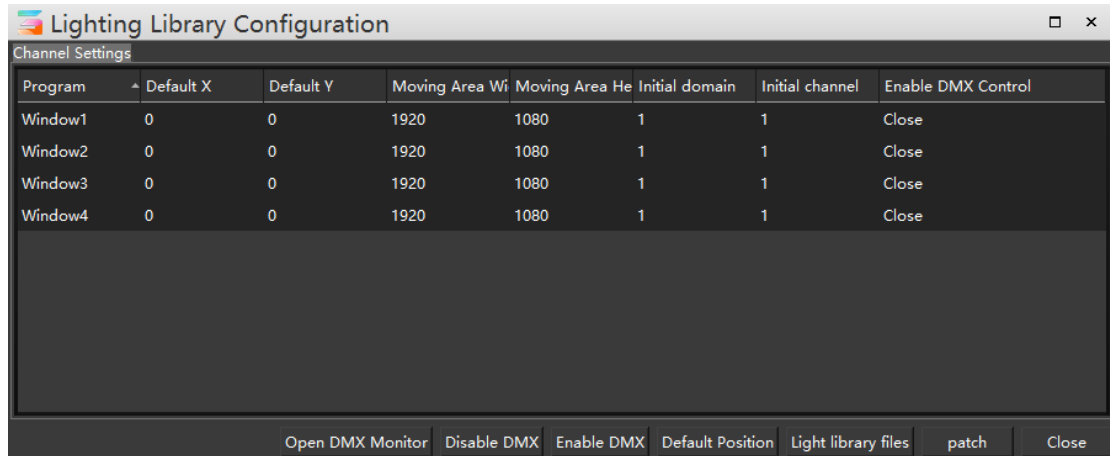
The light library mode can directly associate the program window with the light console and adjust the properties of the program in real time. When using this mode, it is necessary to set S3 server and Ma light console in the same network segment. It should be noted that the IP address should start with 2 or 10 and set the fixed IP, as shown in the following figure:



After IP setting is completed, some settings are made in S3 software.

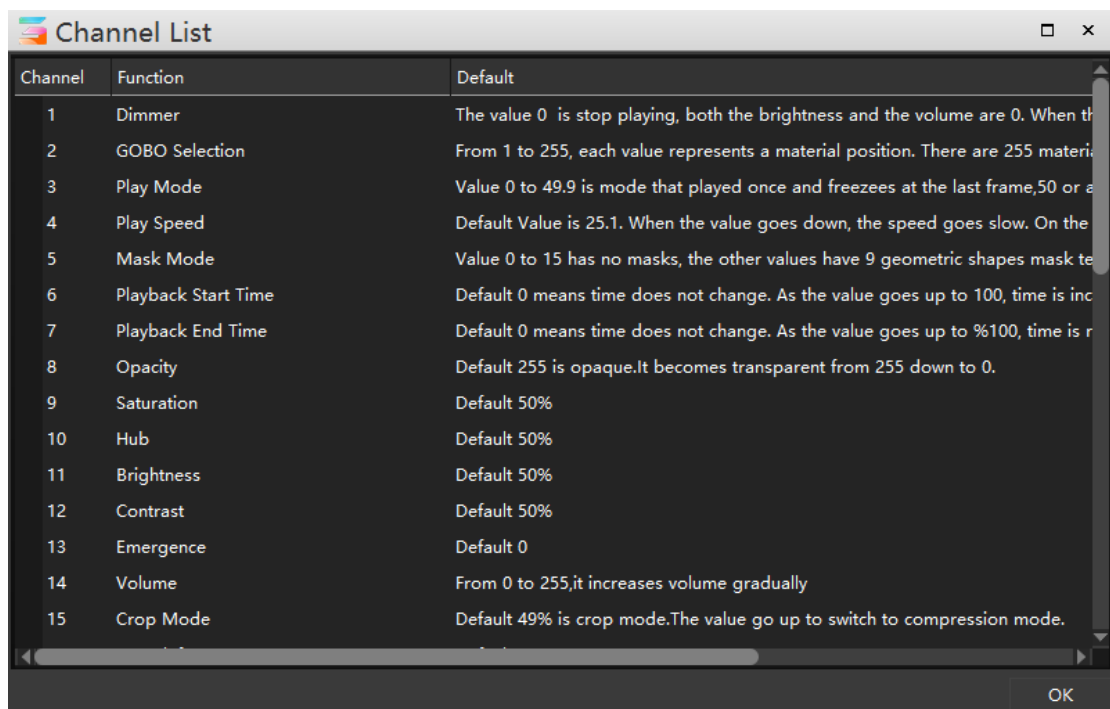
1. Light library Configuration

In the light library configuration window, DMX can be turned on or off in batch and the configuration can be completed automatically. When there are multiple windows, window 2 can set the starting channel to 43, because each window occupies 42 channels. The default position of the window can also be set at this position, and then it can be matched, as shown in the following figure:



2. Channel List

The channel table gives the details of 42 channels, as shown in the figure below:

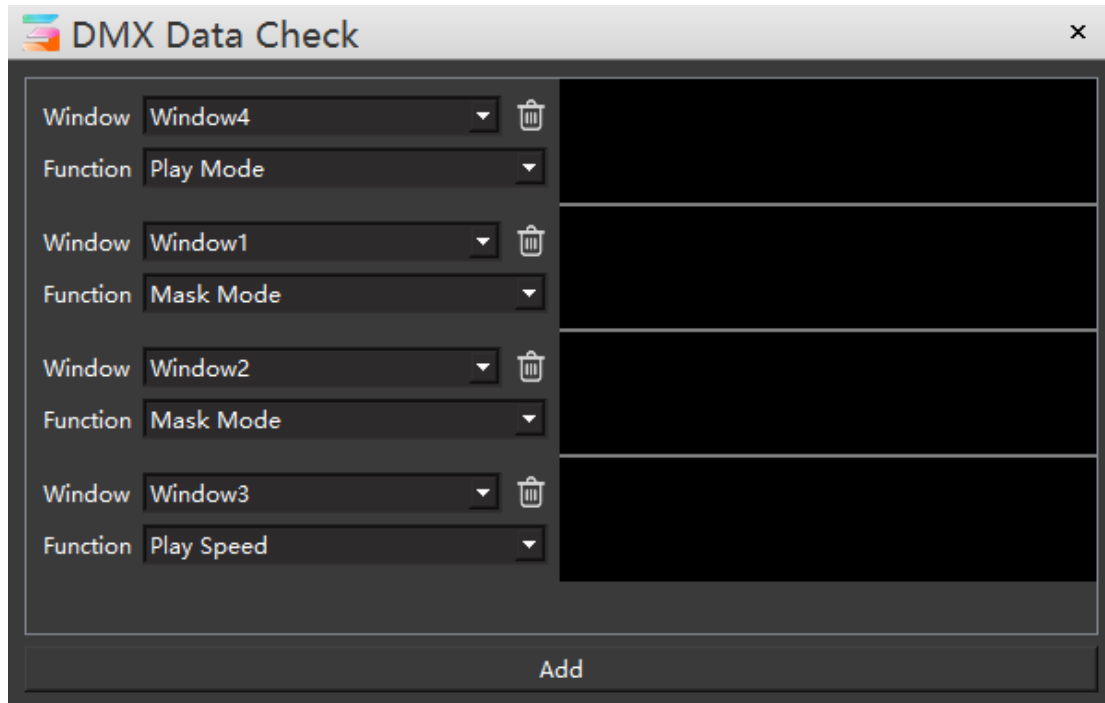


3. Light Library Files

Open the configured light library file path.

4. DMX Check

The DMX data of each channel in the window is monitored.



Tool

The tools include broadcast control assistant, Hirender Touch, local performance detection, display window performance monitoring and port detection, as shown in the following figure:

- Hirender Assistant
- Hirender Touch
- Checking Updates for Display Server
- Local Performance Monitor
- Display Window Performance Monitoring
- Port Detection

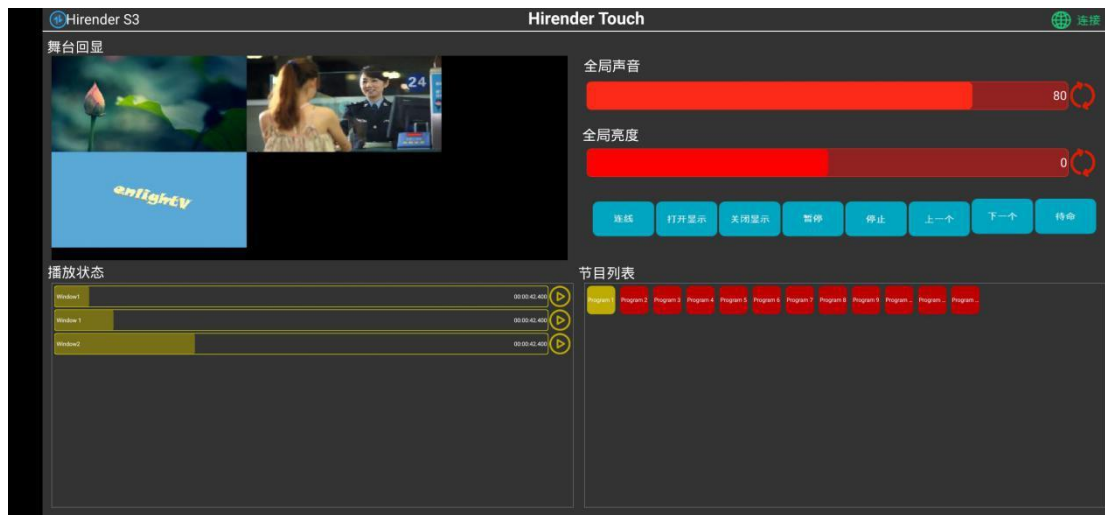
1. Hirender Assistant

It can be used for video and picture transcoding. In the broadcast control assistant, a more detailed transcoding scheme is provided.



2. Hirender Touch

After the LAN is connected, the program can be controlled remotely through the IP based program list.

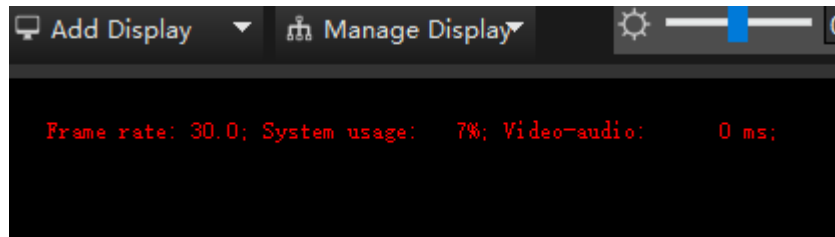


3. Checking updates for Display Server

When online, the software version of the display side can be detected and updated, and the version update can be viewed in the network update status window

4. Local Performance Monitor

Display performance information on stage.



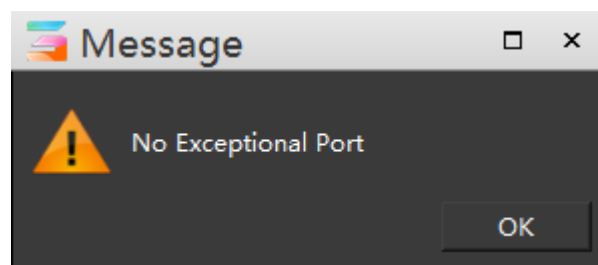
5. Display Window Performance Monitoring

Displays performance information on the display screen.



6. Port Detection

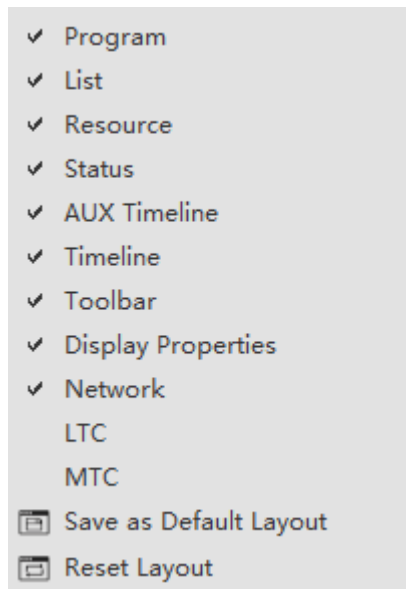
In port monitoring, you can monitor whether the port is occupied. When the port is not occupied, no abnormal port is displayed:



If the port is occupied, such as opening multiple Hirender software at the same time, the port error will be displayed.


Window

The window menu mainly controls the display and layout adjustment of the window. Check which window the user wants to display. You can also set your favorite window layout and "save as default layout", and restart the program to use it. When the window layout is confused and the required window cannot be found, click Reset layout to restore the layout to the default state, as shown in the following figure:

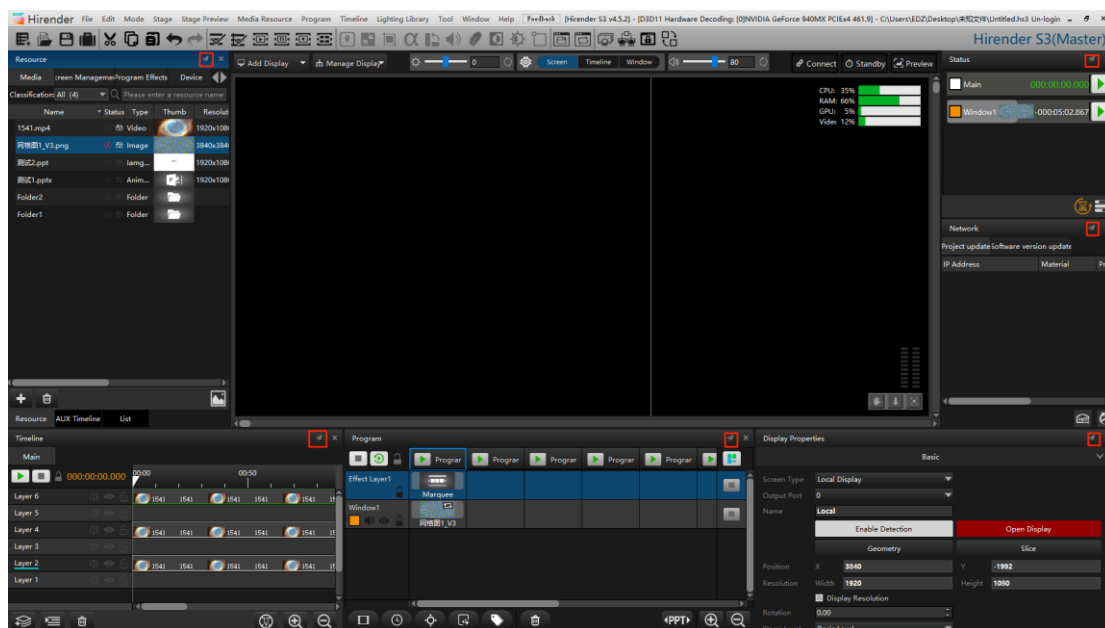


suspension



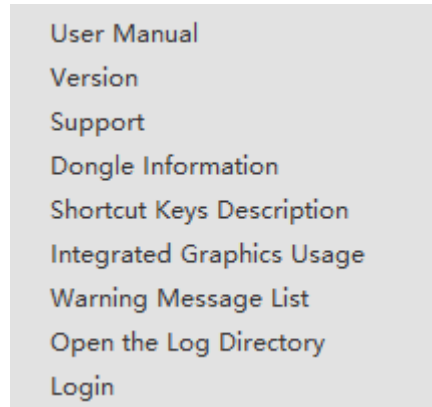
Click the suspension button  to set the window suspension. Click the button again to cancel the suspension status. The hover button makes the window easy to operate. It can be set according to users' preferences.

Users can also drag and drop various windows to other places for layout arrangement according to their personal preferences.



Help

In the "help" menu, we provide user manuals to help users use our software. It also provides software version information, encryption lock information, shortcut key information, etc., as shown in the figure below:



Toolbar

The toolbar provides users with some common shortcut buttons, including:

File tools

It includes the functions of new / open project and save / package project. The buttons are shown in the figure below:



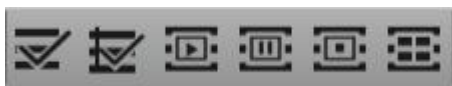
Editing tools

Including cut, copy, paste and undo / restore functions. The buttons are shown in the figure below:



Timeline tool

It includes the functions of selecting all media, selecting all media after cursor, adding play instruction, adding pause instruction, adding stop instruction and adding stop program management instruction. The buttons are shown in the following figure:



Effect editing tool for timeline media materials

Including position, zoom, clipping, transparency, feathering, volume, hue and saturation, contrast and brightness, vertex functions, and the buttons are shown in the figure below:



Window tool

It includes the function of resetting the window and saving it as the default layout. The buttons are shown in the following figure:



Program management tools

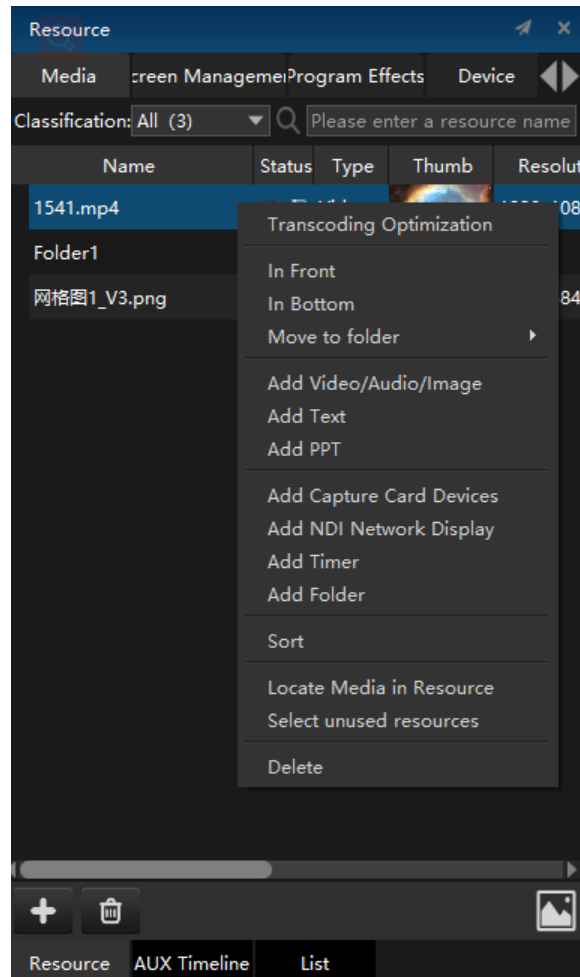
It includes global output adjustment, lamp library configuration, interface locking and active / standby switching functions. The buttons are shown in the figure below:



Resource

Media

The Medis is a window for managing media materials, as shown in the following figure:

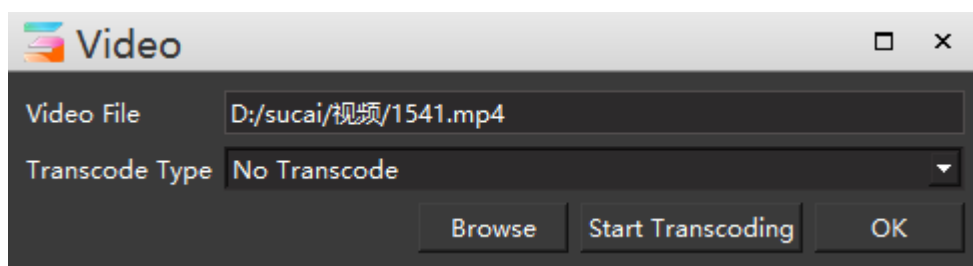


CTRL (shift) + left mouse button, click the material, you can select multiple materials, and drag them into the program management window for editing. They will be arranged in order in the window. Multi selected materials can also be dragged into the added folder as a whole.

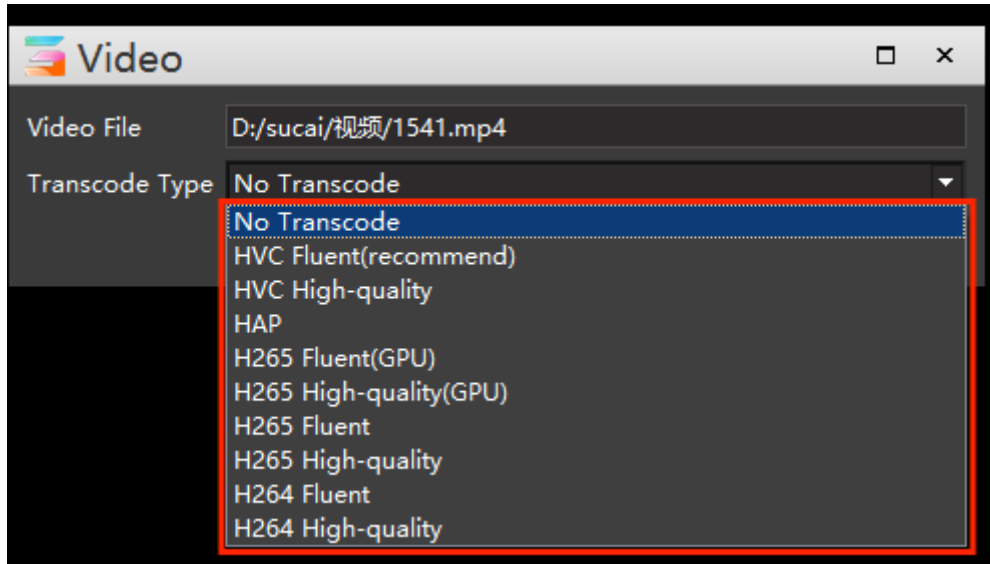
1. Material editing

(1) Transcoding optimization

Select any video, double-click or right-click [Transcoding optimization] to enter the transcoding optimization pop-up window:



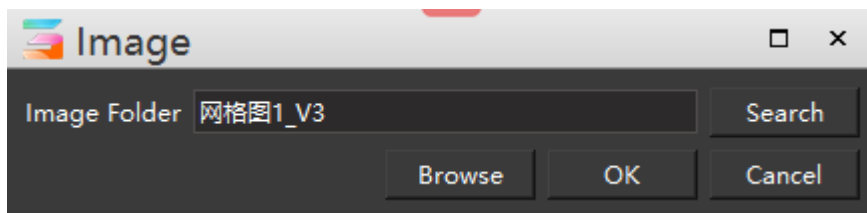
High quality, lossless and HAP and other types can be selected to transcode the video. The transcoding type is shown in the figure below:



In case of video lagging, the video can be transcoded to realize smooth playback. Files can be replaced whether they are decoded or not, but they cannot be replaced between different types of media files.

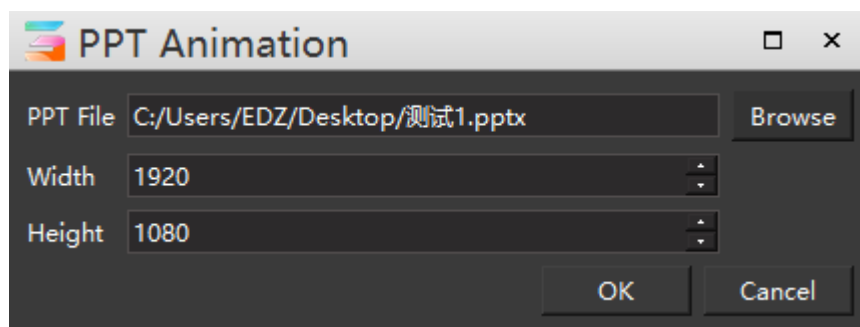
(2) Edit

Select any picture, right-click [Edit] to enter the editing pop-up window, where you can replace and find the folder where the picture is located.

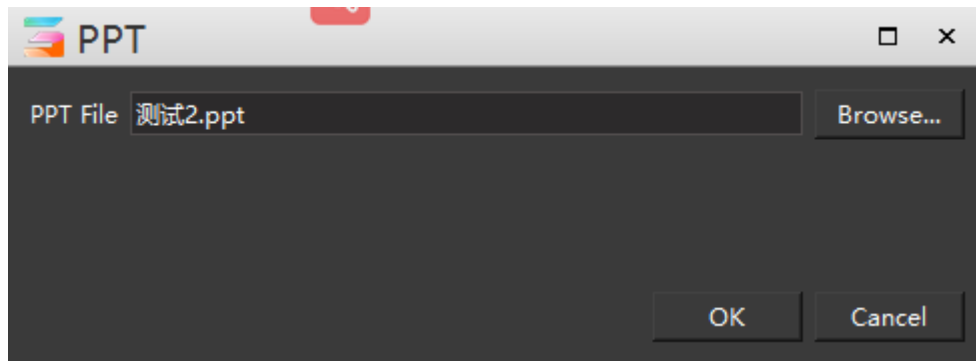


Note: if the media file has been used in program management and timeline, the original material will be automatically replaced after replacing the file.

Select the PPT of the added animation mode to edit the displayed height and width, as shown in the following figure:



Select the PPT in the added picture mode to browse the file location, as shown below:

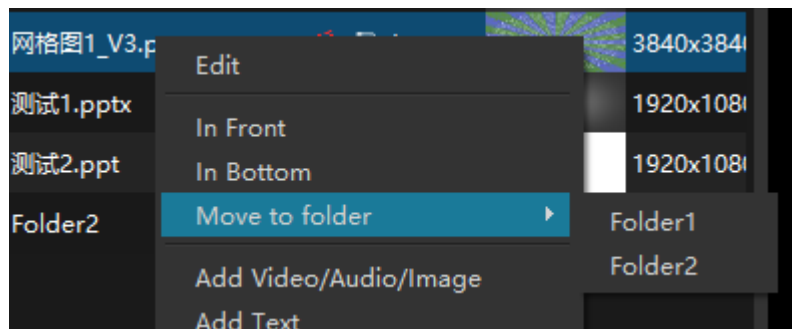


(3) in Top / in Bottom

Set the top / bottom of the material library to select the material.

(4) Move to folder

The selected material can be directly moved to the folder, as shown in the following figure:

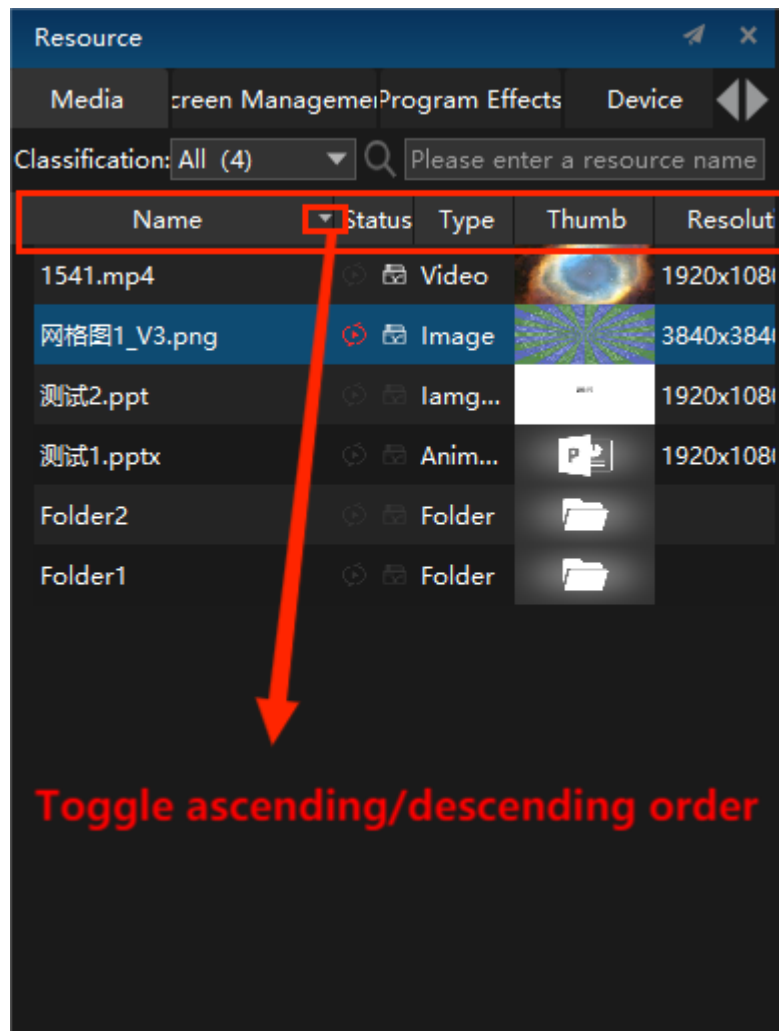


(5) Material addition

See menu bar - media resources for details.

(6) Sort

To sort the files in the material library globally, you can choose to arrange the materials in ascending / descending order according to the name, status and type, as shown in the following figure:



(7) Located Media in Resource

The path to the folder where the material file is opened.

(8) Select unused resources

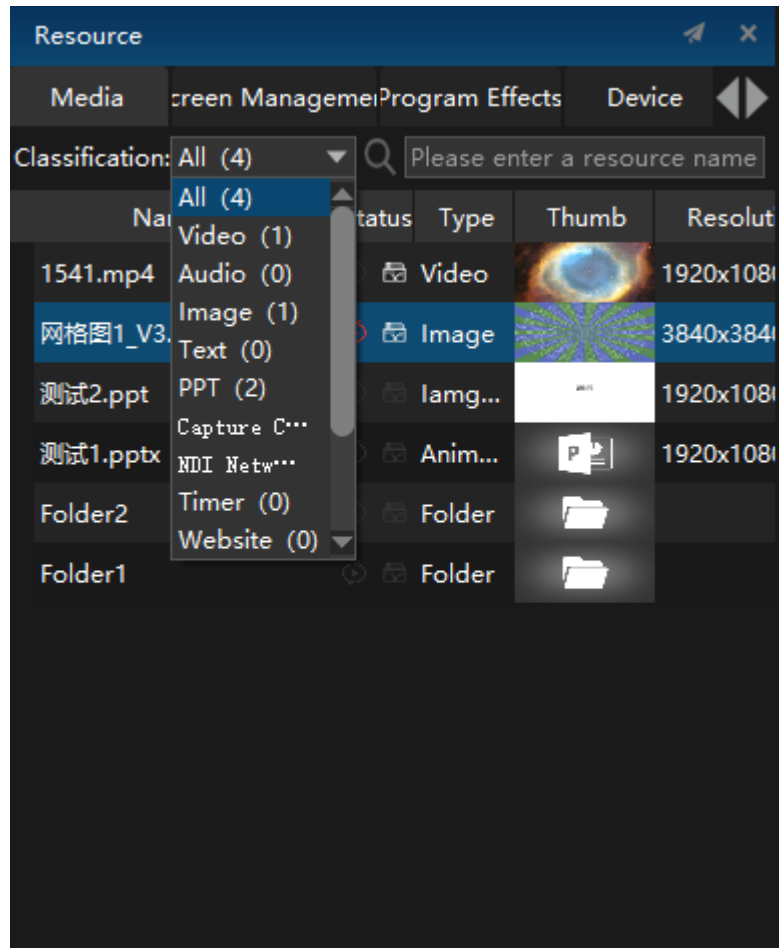
Unused resources in the selected material library.

(9) Delete

Delete selected material.

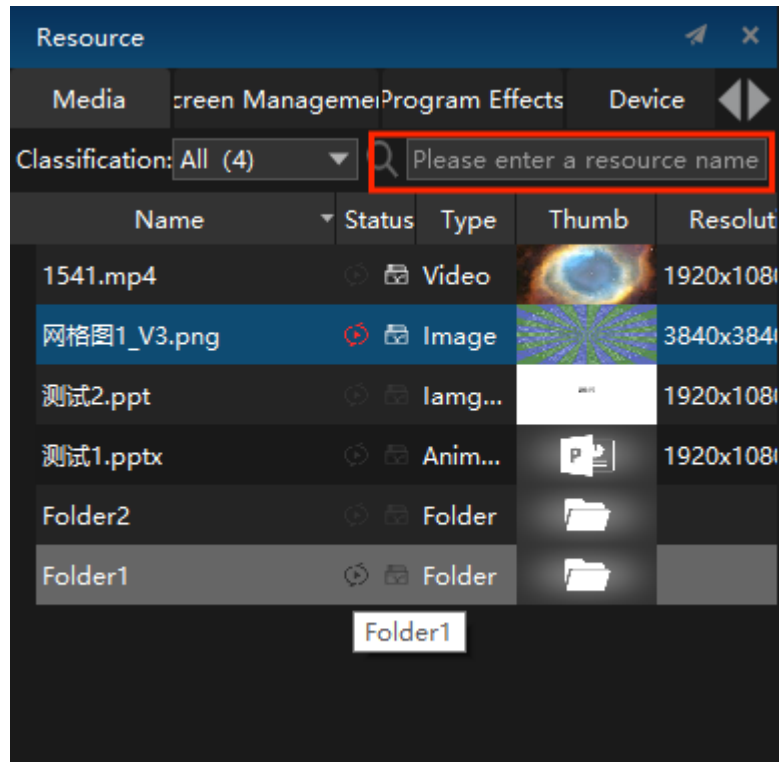
2. classification

Click classification to quickly find all the required materials of the same type, and mark the number of materials of the same type in the material library behind each type, as shown in the figure below:



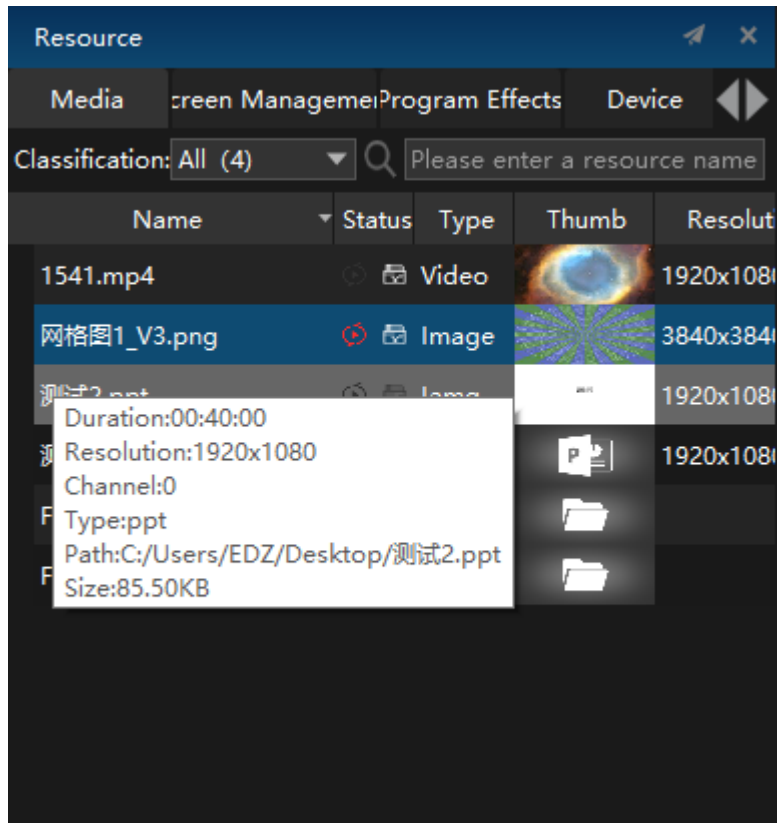
3.Quick search function

Resource search can quickly find the target material from the material library. The search is not case sensitive. Enter the name of the media material to be found.



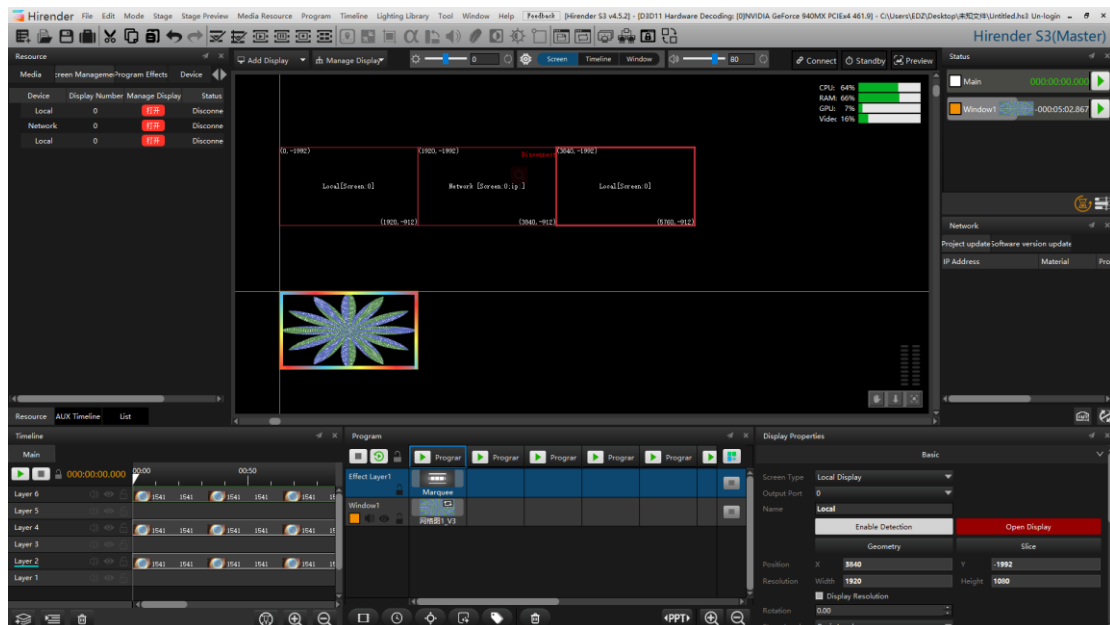
4. Quickly browse material information

Point the mouse to the media material added locally, and the material information display windows will appear. In the display windows, the duration, resolution, channel, type, path and size of the material are displayed.



Screen Management

In the window display all added screens in the stage, including network and virtual screens, as shown in the figure below:



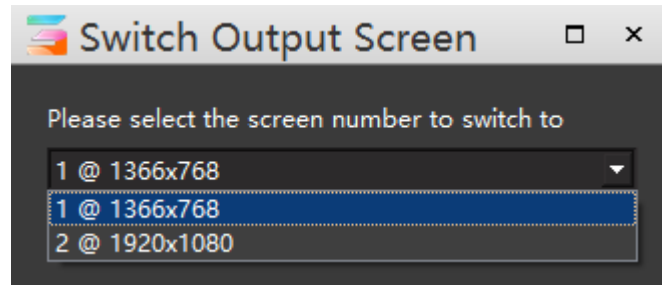
In this window, you can quickly manage the displays to open and close.

1.Delete

Delete the selected screen.

2.Switch Number

Click on the following pop-up window:



In this window, you can switch the output screen number and switch the output screen at the same time.

3.Find

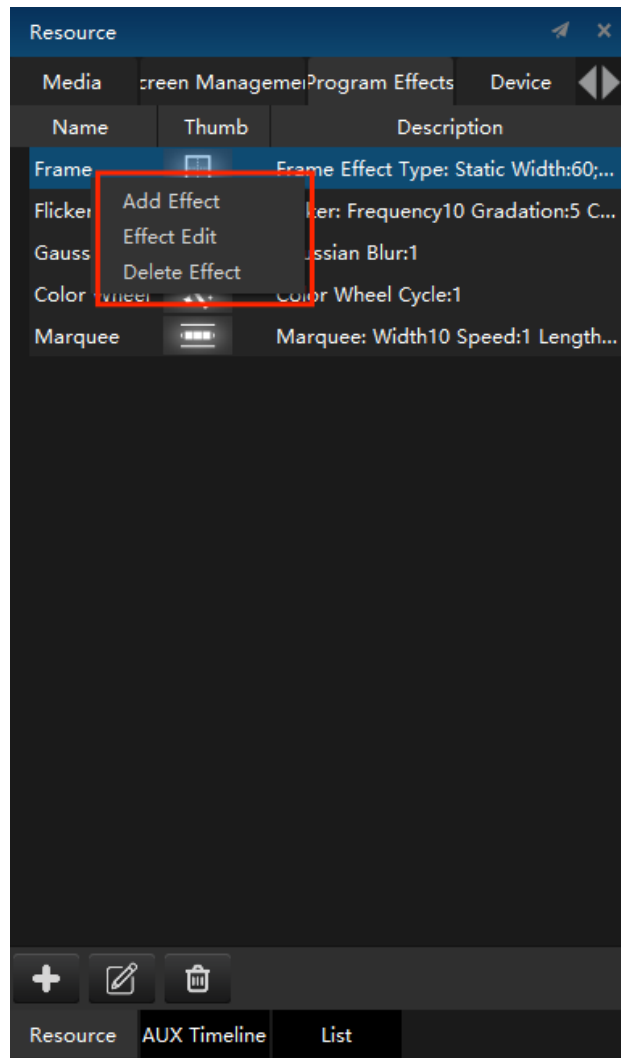
Click Discovery to quickly locate the selected screen in the stage.

4.Properties

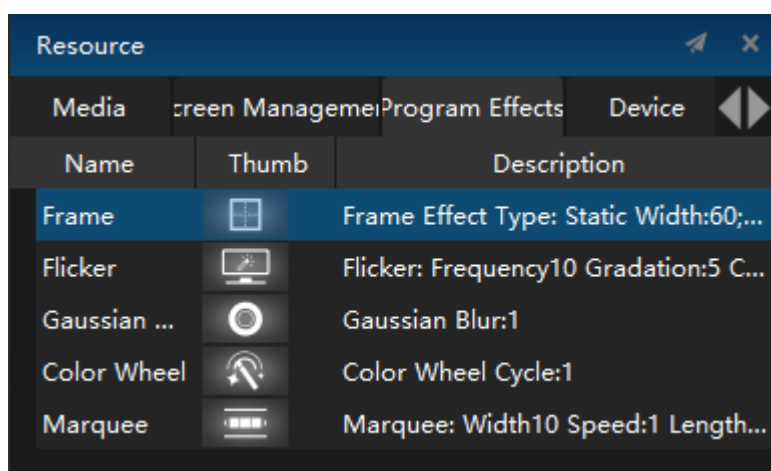
Click on the pop-up properties window to set its properties.

Program Effects

The special effect function can make the picture output diversified and present a more gorgeous effect. Add a special effect layer in the interface management of S3 software. Different special effects can be added to the special effect layer corresponding to each program. The special effect layer will apply special effects to all program layers below it (except PPT). Flexible special effect control and combination can be realized by adjusting the layer order. Hirender S3 creates the following special effects by default: border, Gaussian blur, flash screen, color wheel and marquee lights.

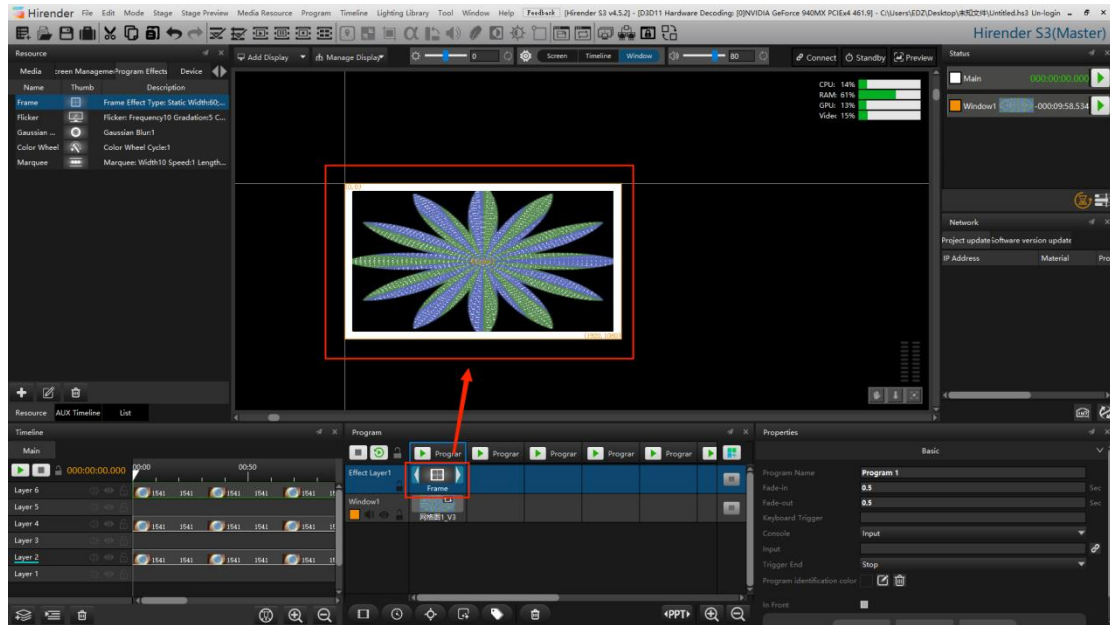


Users can create special effects according to their usage, and provide the default special effects as shown in the figure below:

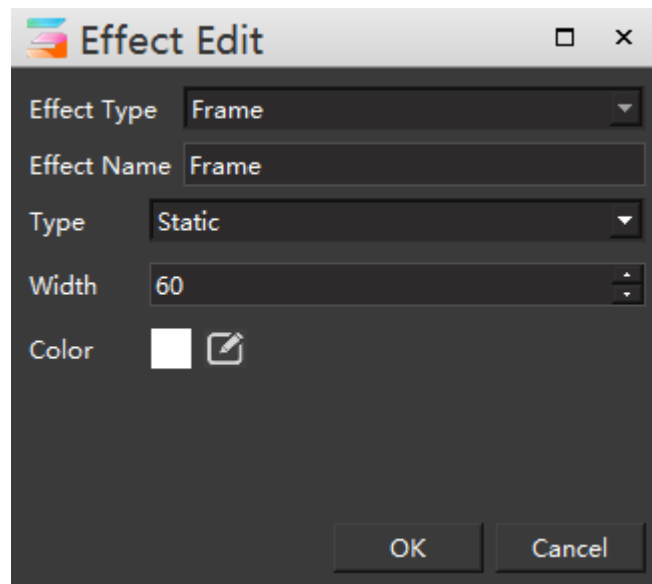


1. Add / Edit Frame effect

The border effect is displayed as shown in the figure:

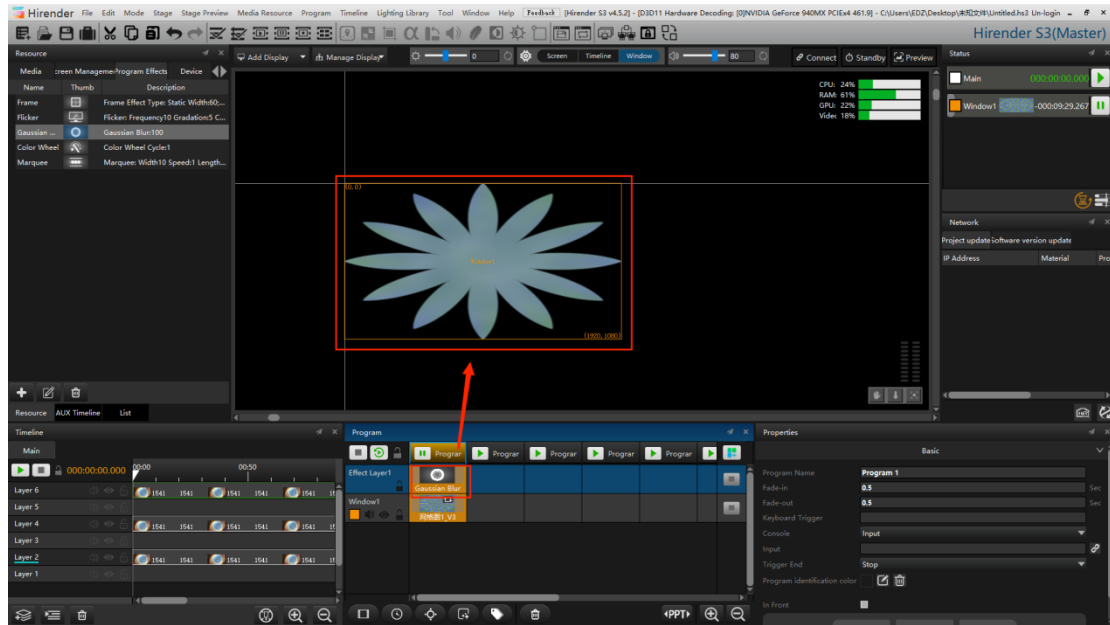


Set the special effect name, border width, type, color and border cycle (seconds), as shown in the following figure:

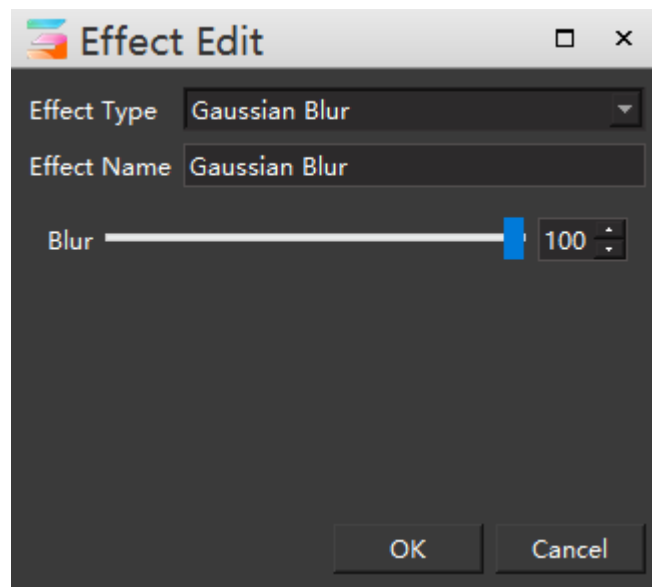


2. Add / Edit Gaussian Blur effect

The Gaussian Blur effect is displayed as shown in the figure:

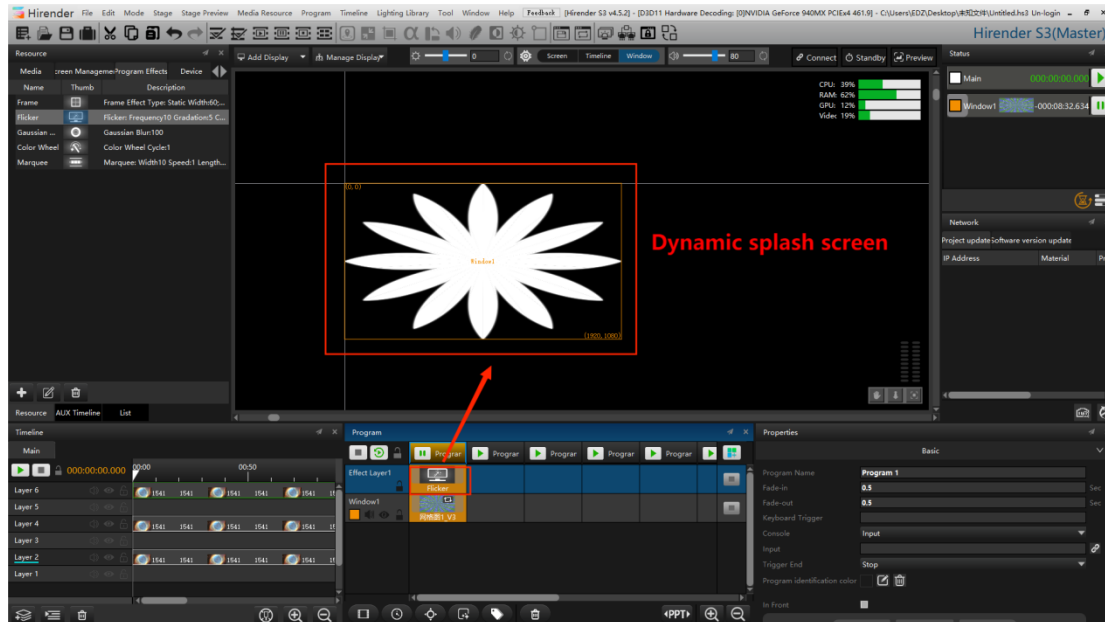


Set the special effect name and blur, as shown in the following figure:

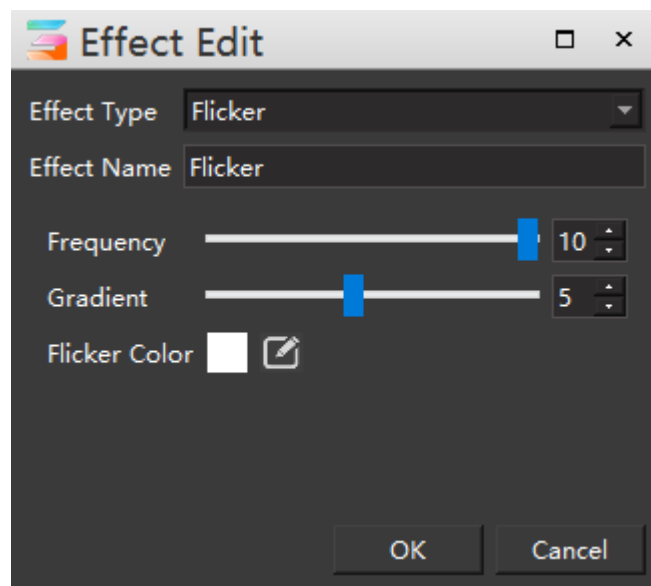


3. Add / Edit Flicker effect

The display of flash screen effect is shown in the figure:

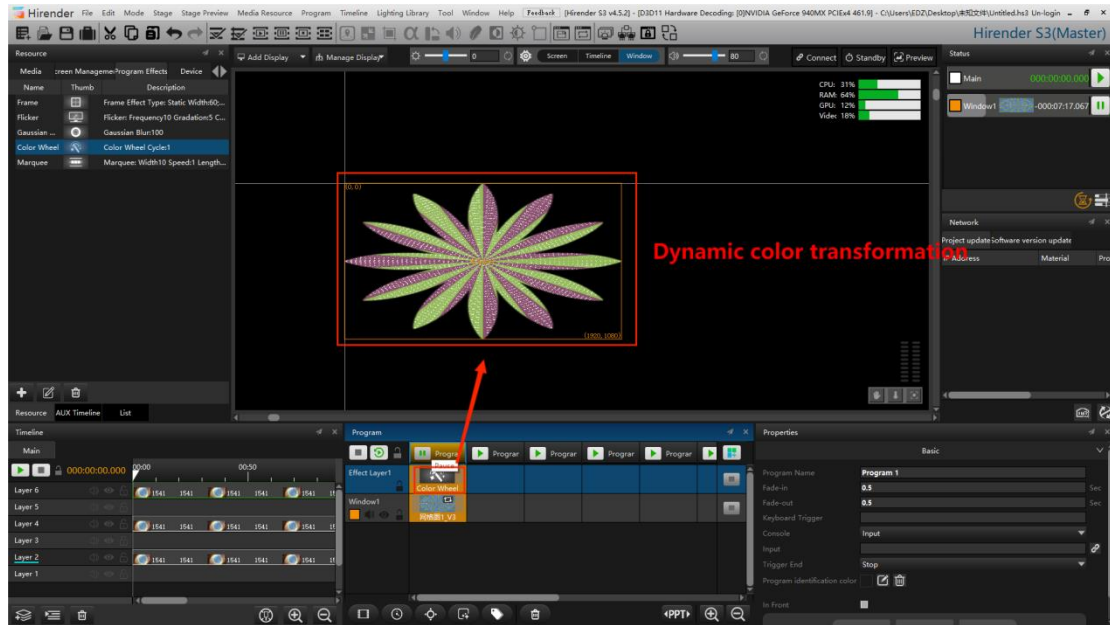


Set the name of the special effect and the frequency, gradient, color and other properties of the flash screen, as shown in the following figure:

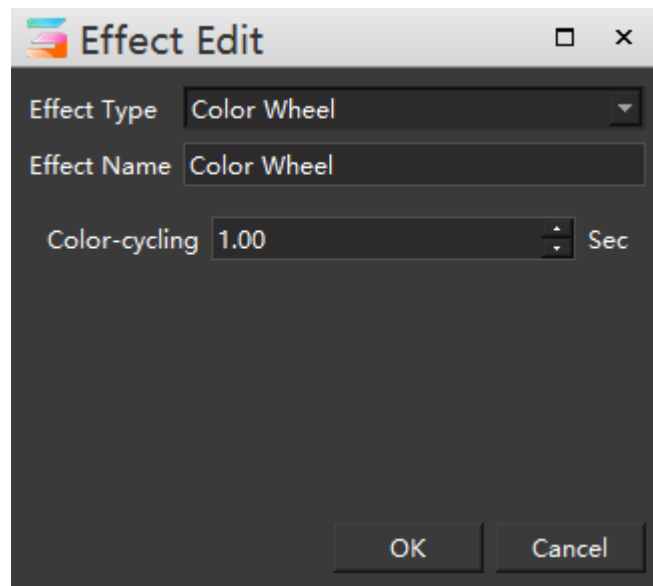


4. Add / Edit color wheel effect

The color wheel effect is displayed as shown in the figure:

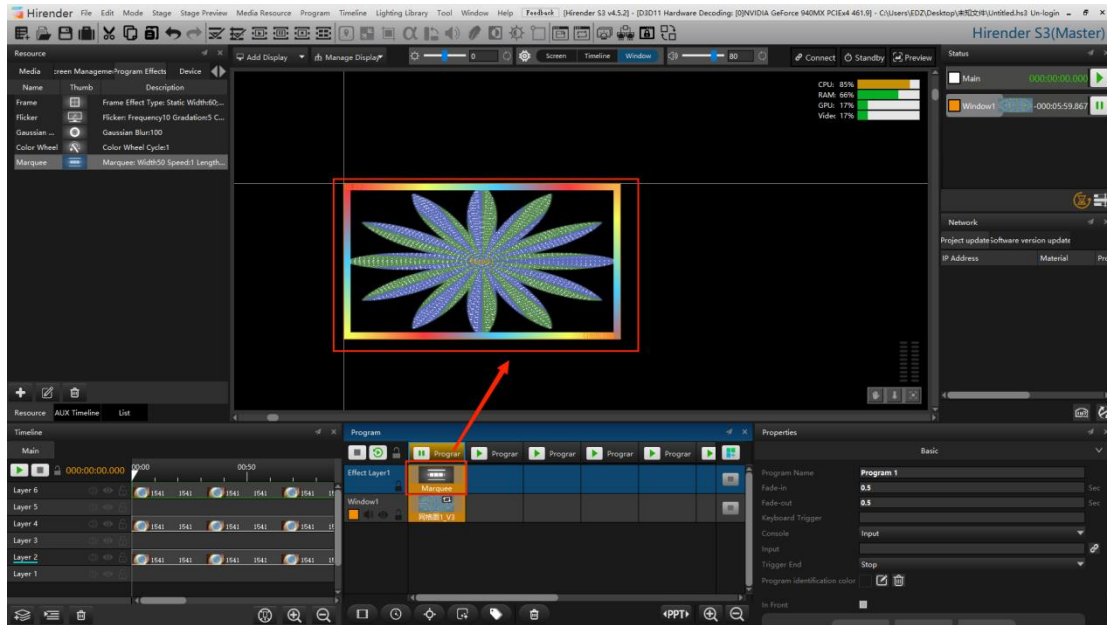


Set the special effect name and color wheel change cycle (seconds). The color wheel special effect is rainbow seven color rotation, as shown in the following figure:

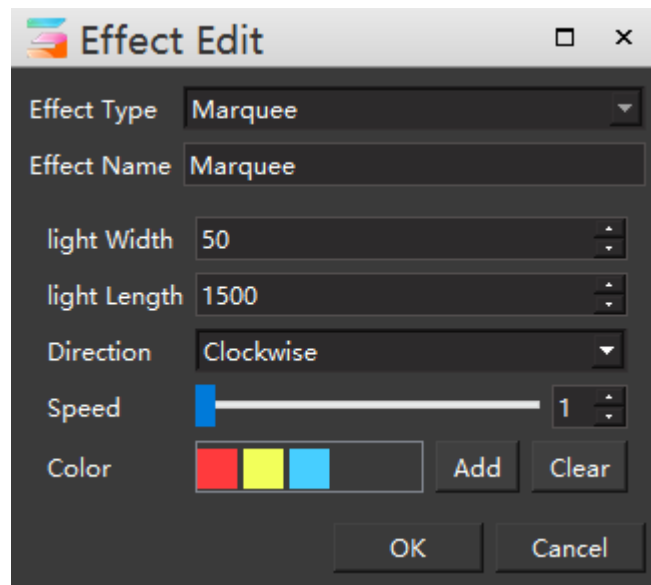


5. Add / Edit marquee lights effect

The special effect display of the marquee lights is shown in the figure:

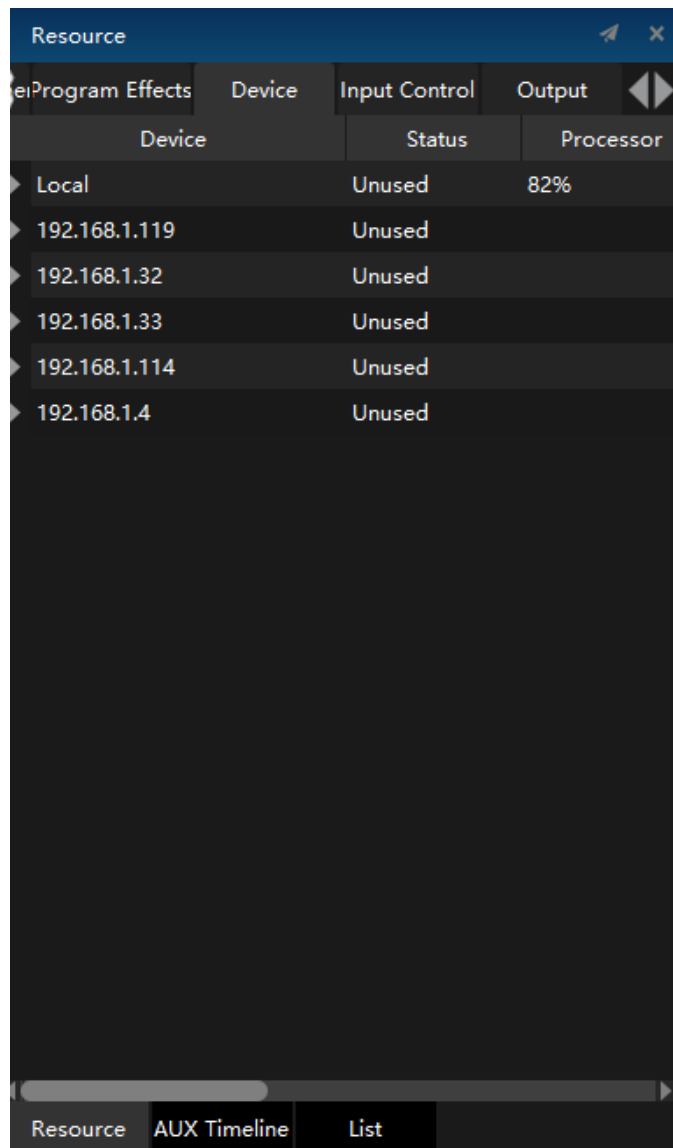


Set the name of the special effect, the width and length of the light strip, the direction of circular motion, motion, speed and color, as shown in the following figure:



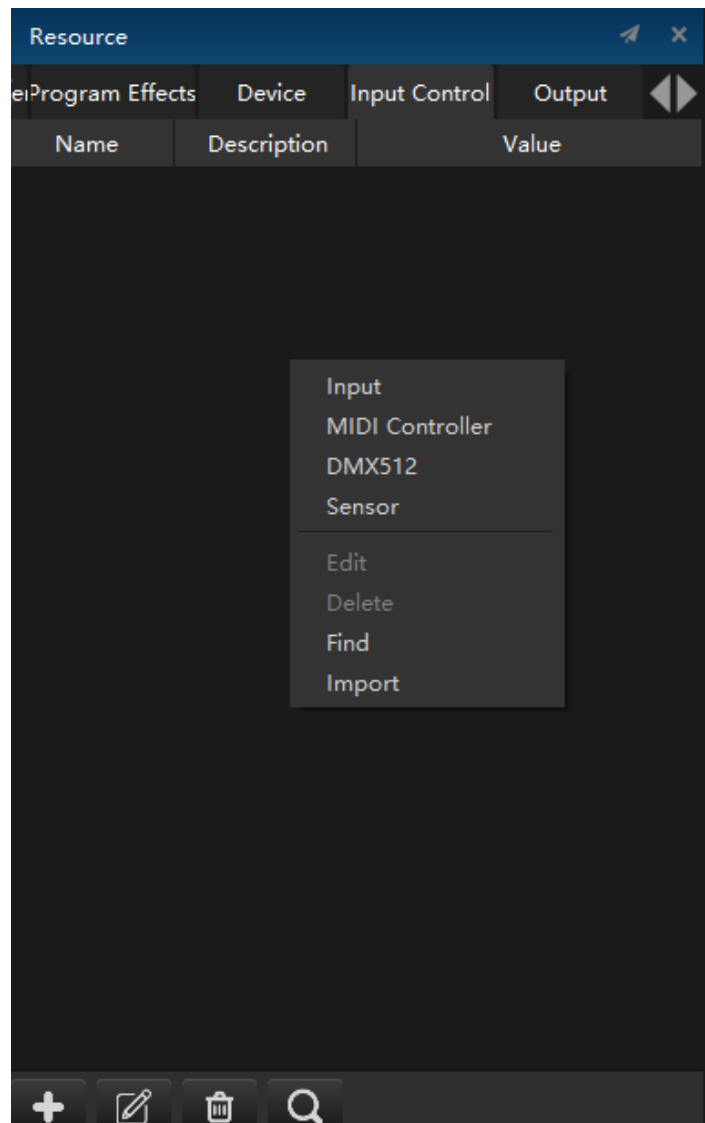
Device

Display all connected devices in the window and display usage status, processor, memory, etc., as shown in the figure below:



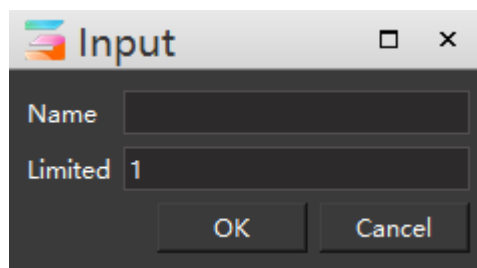
Input control

Click the Add button in the lower left corner of the input control interface to add input control: normal input, MIDI controller, DMX512 and sensor input. Input control can make Hirender accept external signals, and the introduced signal instructions can be used to control program playback and adjust program effect, as shown in the following figure:



1. Add input

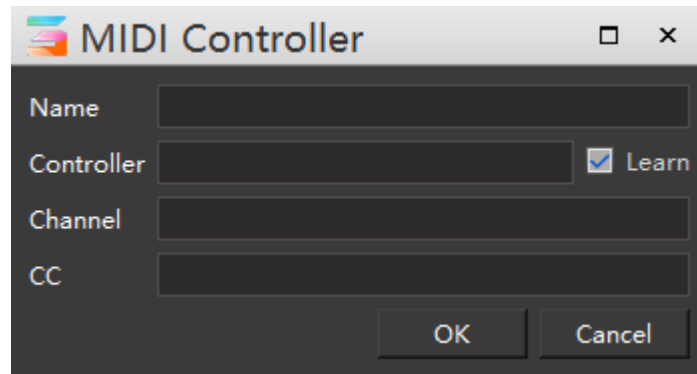
Names and restrictions can be set. The limit option is 0-1 by default. You can set it to any positive number as needed.



2. Add MIDI controller

This module will introduce a knob or slider of the keyboard. Click "learn" and move the knob or slider of the controller. The system will automatically select the channel and MIDI controller number.

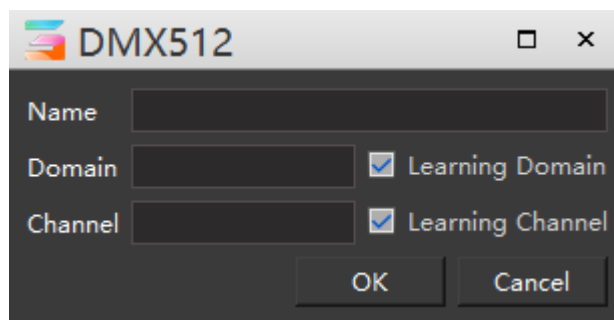
In the input windows, you can see that when the input is normal, the value in the dialog windows is any positive number. When the input is MIDI controller, the value in the dialog windows ranges from 0 to 1. The interface is shown in the figure below:



After setting, move the controller and pay attention to the bar indicators in the input windows to determine the normal operation.

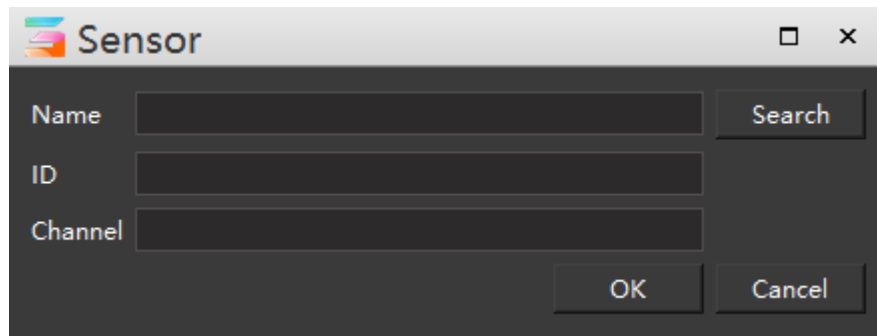
3. Add DMX512 control

Similar to MIDI devices, when the DMX512 protocol controller is introduced, the remote sensing of the mobile console, clicking the learning domain and learning channel can automatically match the domain and channel of the console, so as to directly use the console to control the program playback. The values of fields and channels can also be set manually, as shown in the following figure:



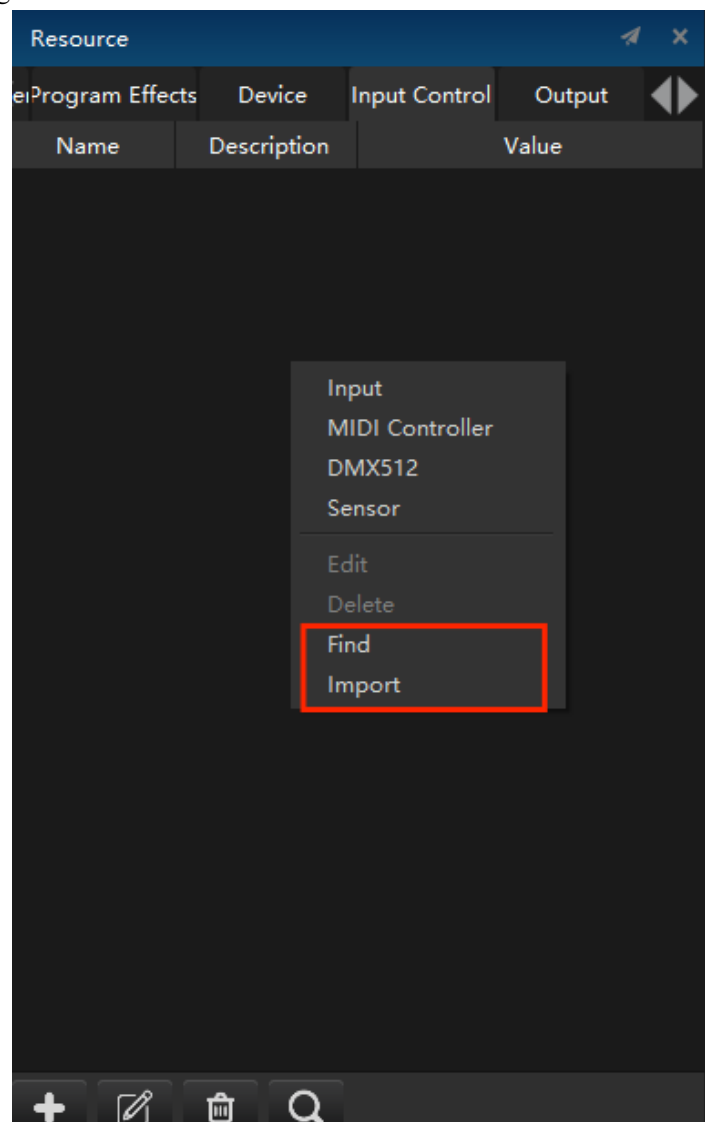
4. Add sensor

When adding a sensor as a control signal, you can automatically search for the sensor of the connected device by searching, or manually enter the sensor ID to complete the connection, as shown in the following figure:



5. Find and import

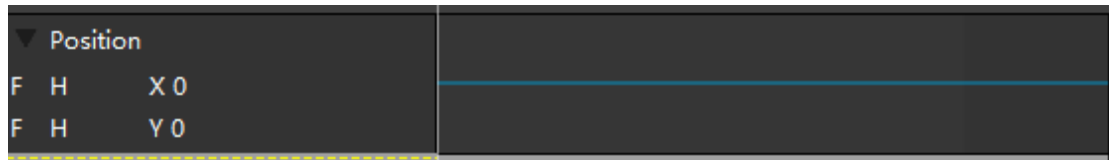
It can automatically identify the MIDI device connected to the device and control the import and output through the outside.



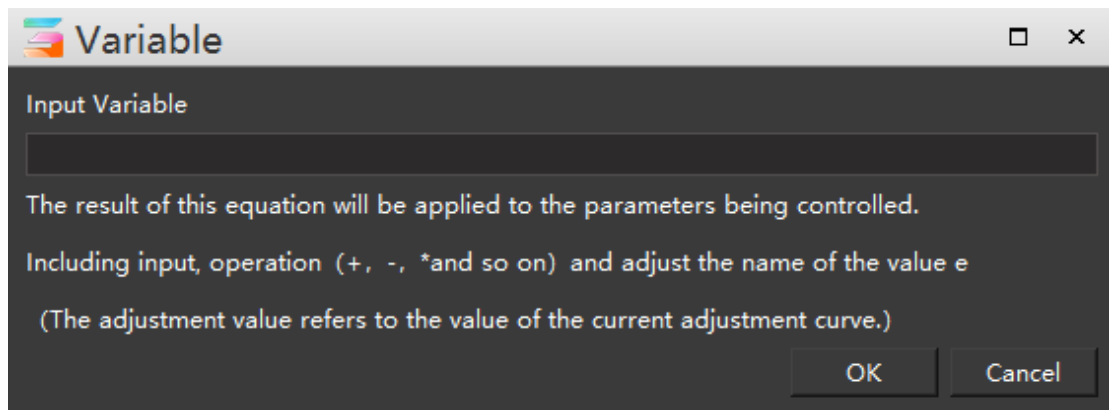
6. Input and control the influence of various values on media materials

(1) Use the input control to adjust the effect of the material in the timeline

Click the material in the layer, and then select the effect you want to adjust, and the effect editing will appear in the timeline Management:



Click "F" in front and fill in the expression equation in the pop-up dialog windows:



The expression of the input variable can be the name of a single input control or the addition and subtraction of the names of all input controls.

Multiplication and division. The result of this expression is applied to the controlled parameter value.

In position adjustment, the expression represents the pixel value.

In scaling adjustment, the expression represents the scaling percentage.

In crop adjustment, the expression represents the crop percentage.

In transparency adjustment, the expression represents the percentage of transparency.

In the z-axis rotation adjustment, the expression represents the number of clockwise turns, that is, when the result of the expression is 1.

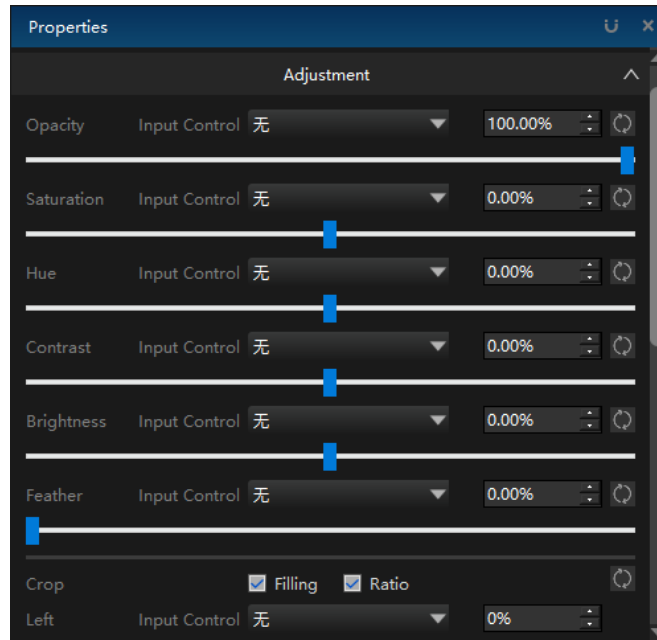
The media rotates 360 degrees clockwise.

In volume adjustment, the expression represents the percentage of volume, etc.

"H" stands for hc64, and the setting method is the same as that of ordinary input.

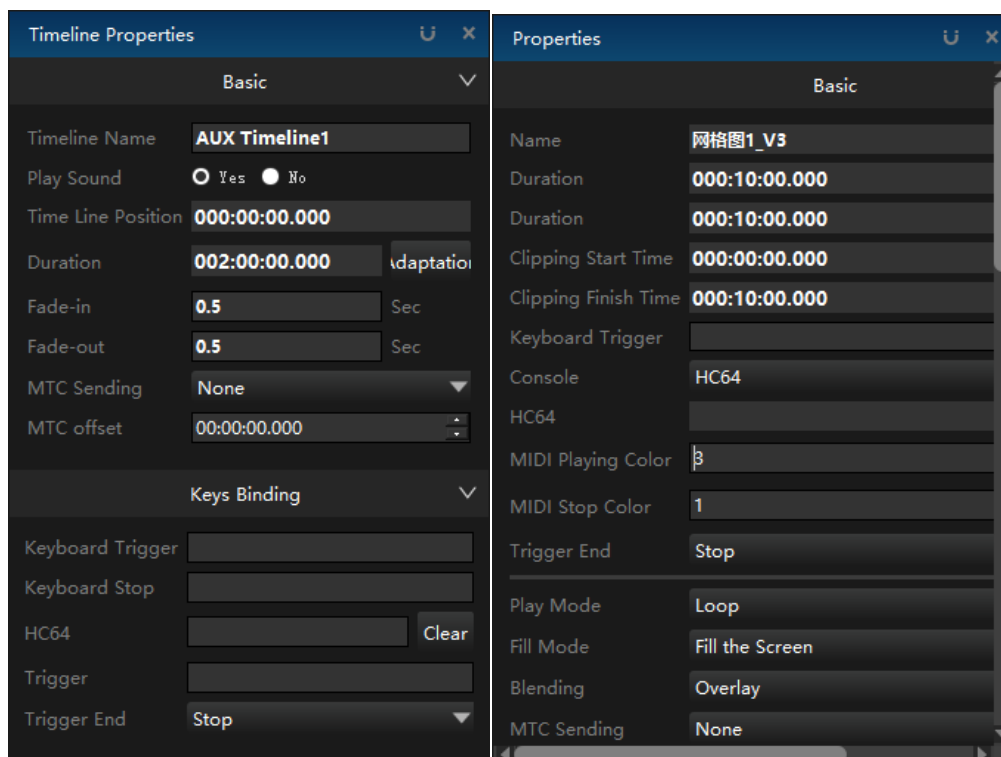
(2) Use input control to adjust the effect of program nodes in program management

In the input control, add the name of the input control and adjust the value of the input control to adjust the effect of the material.

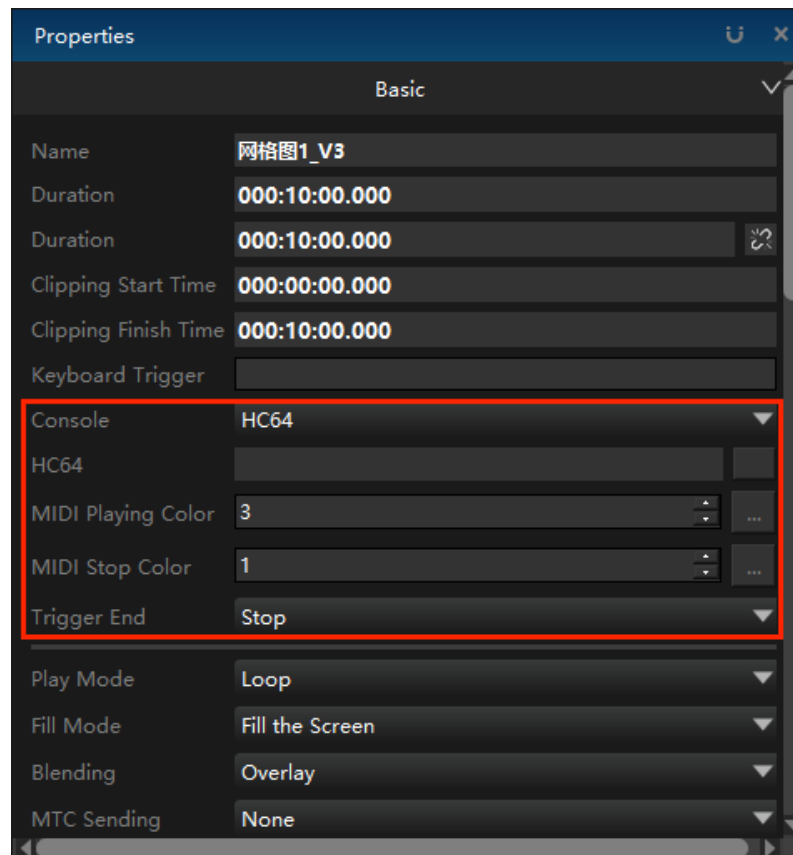


(3) Use input control to regulate the playback of programs

In the program insertion properties windows and the program properties windows, there are the following settings:

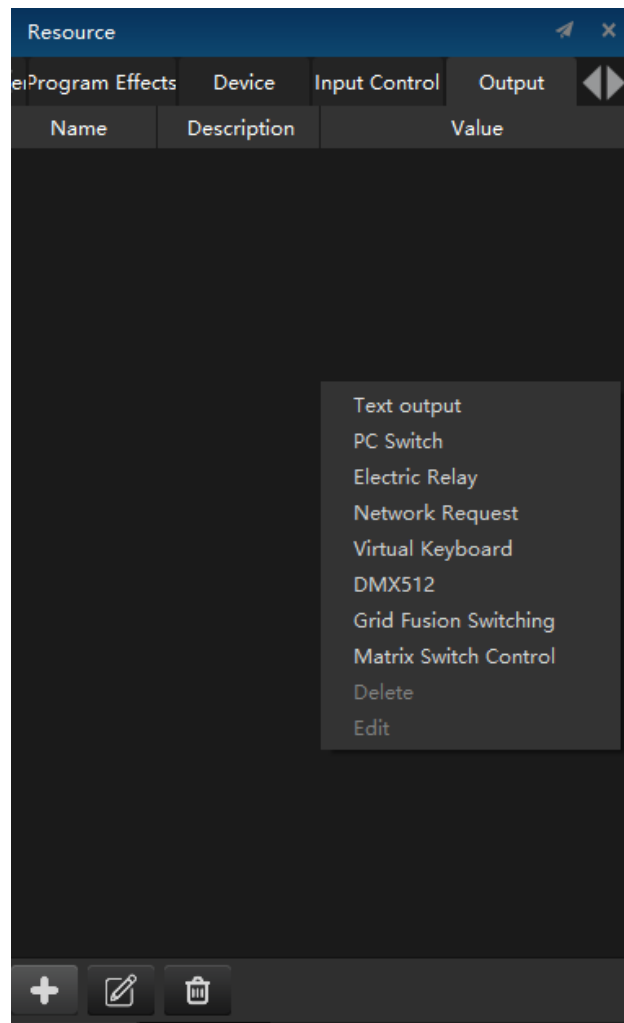


Trigger conditions can be added to the trigger, such as a > 0.5 . When the trigger conditions are met, the program will be played. When the trigger ends, you can set the action after the trigger ends: stop playing, pause playing, and do nothing. Similar to controlling the playback of programs, input control can also set the playback of program nodes.



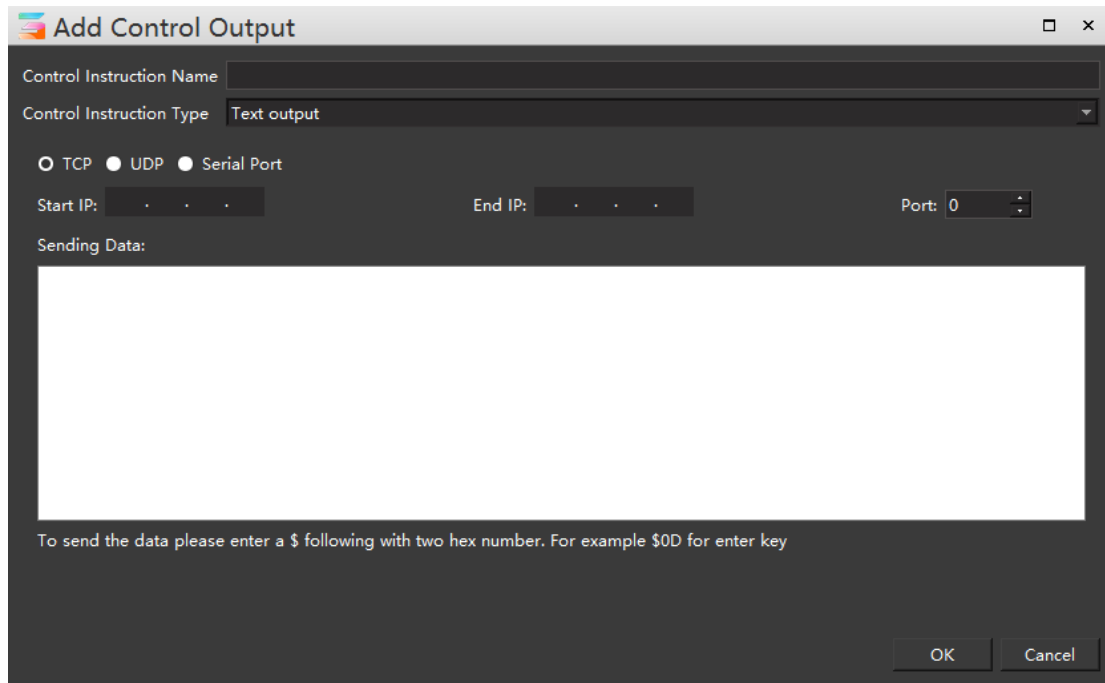
Output control

Text control, PC on-off, relay, etc. can be added to the output control, as shown in the figure below:



1. Text output

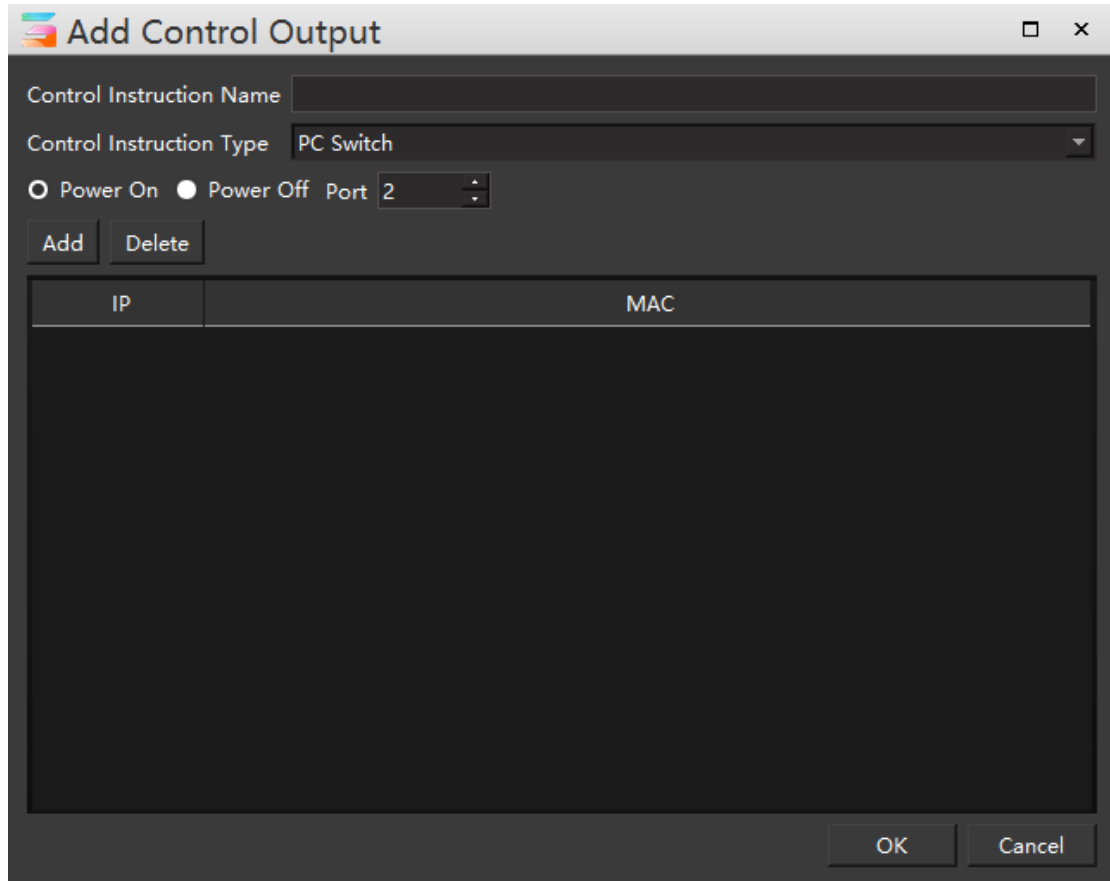
Click text output and the following interface will pop up:



- ① Output control window: including control command name, control command type, network connection mode, IP, port, instruction input windows.
- ② Control instruction name: The name used to identify the control instruction.
- ③ Control instruction type: Use to select the type of output control created by this addition.
- ④ Network connection mode: TCP / UDP.
- ⑤ Data sent: The instruction to be sent to another device or server can be a string type (e. g: addag4hdseg) or a 16 decimal instruction (e. g: \$15\$2a\$1b).

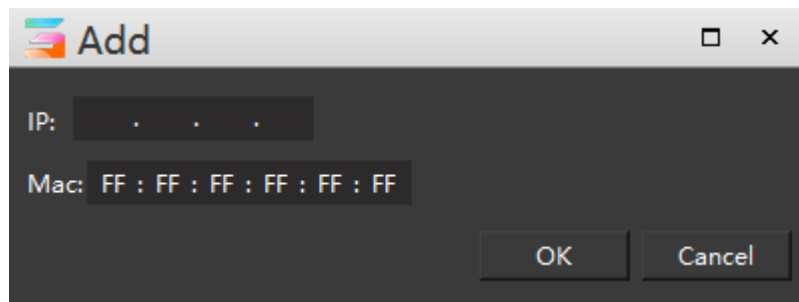
2. PC Switch

The PC switch machine can remotely control the switch machine of the server hardware equipment. This output control includes the start-on function and the shutdown function, which needs to be selected in the figure below. The required information includes the IP address of the server and the MAC address. The information of multiple servers can be added to achieve the effect of batch switch. The addition interface is shown in the following figure:



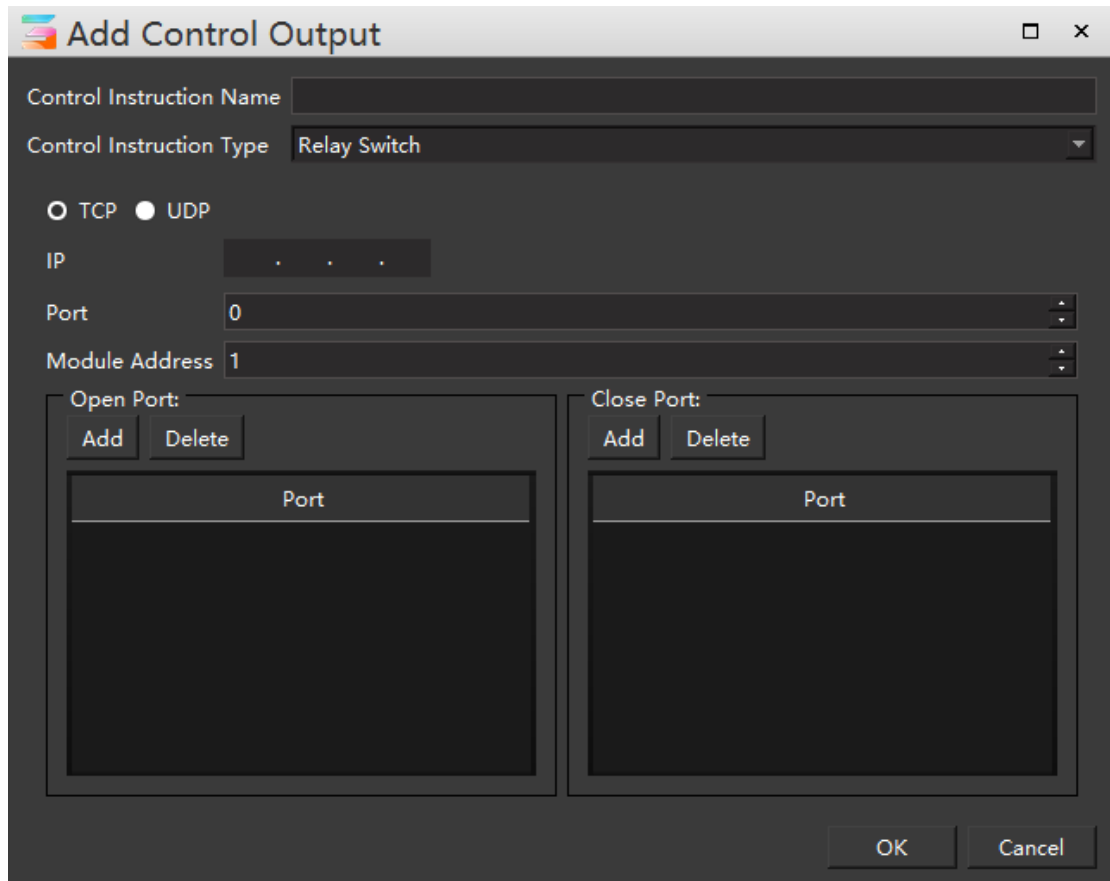
In this interface, you can modify the control instruction name, control instruction type and startup or shutdown options.

Click the Add button to input the IP at the output end. The window is as follows:



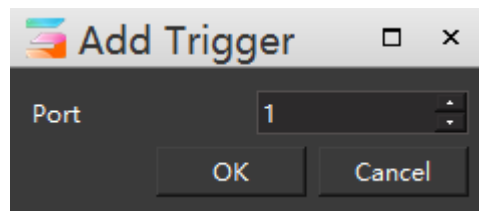
3. Electric Relay

Relay switch output control to control the switch of a terminal of the network relay to control some common lights (e. g: solar lights) and some circuits. The IP address and port number of the network relay are required. It can be set up on the corresponding open trigger and close trigger window. The add interface is shown in the following figure:



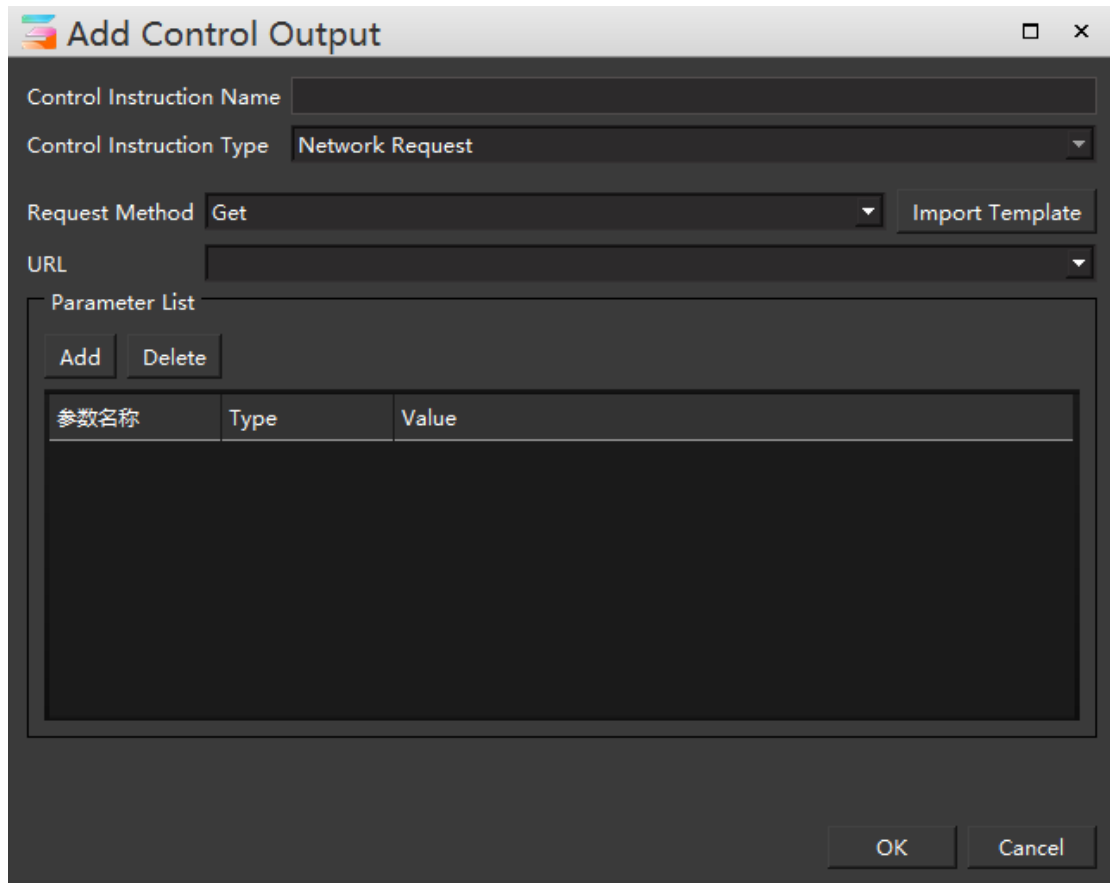
In this interface, you can modify the control instruction name, control instruction type, protocol options, and enter IP, port and module address.

Click the Add button to open / close the trigger port. The window is as follows:



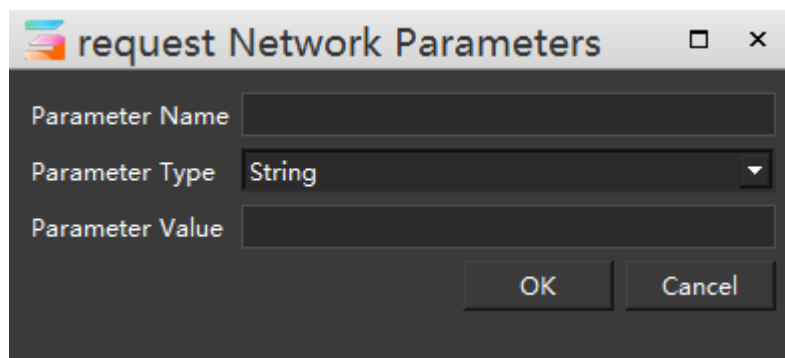
4. Network Request

This instruction is mainly connected to the network http server and the https server, to communicate with the remote http / https server. The function is defined by HTTP server. For example, now used: send open live request to the remote server, close live request, etc.. Add the interface is shown in the figure below:



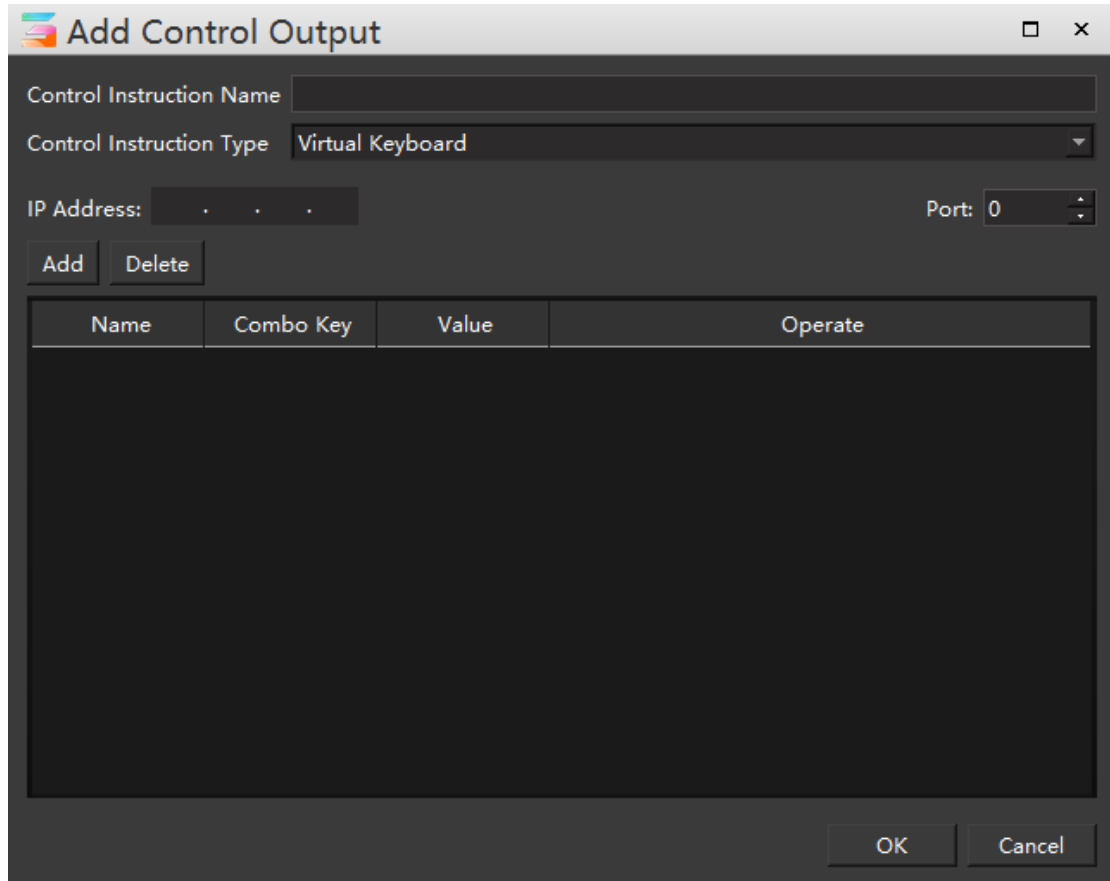
In this interface, you can modify the control instruction name, control instruction type and request mode options. The request mode supports the module import function.

Click the Add button to modify the network request parameters. The window is shown in the following figure:



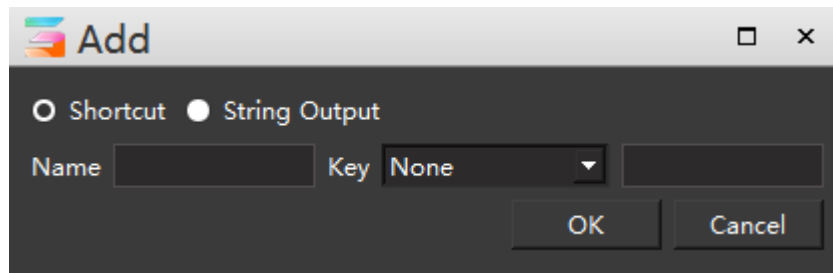
5.Virtual Keyboard

The virtual keyboard requires the cooperation of the serial port server, which turns the network signal to a string signal. There are two ways to create a virtual keyboard instruction: a normal string instruction (e. g: shutdown), and a special key combination.(e. g: Windows + p), and the added interface is shown in the figure below:



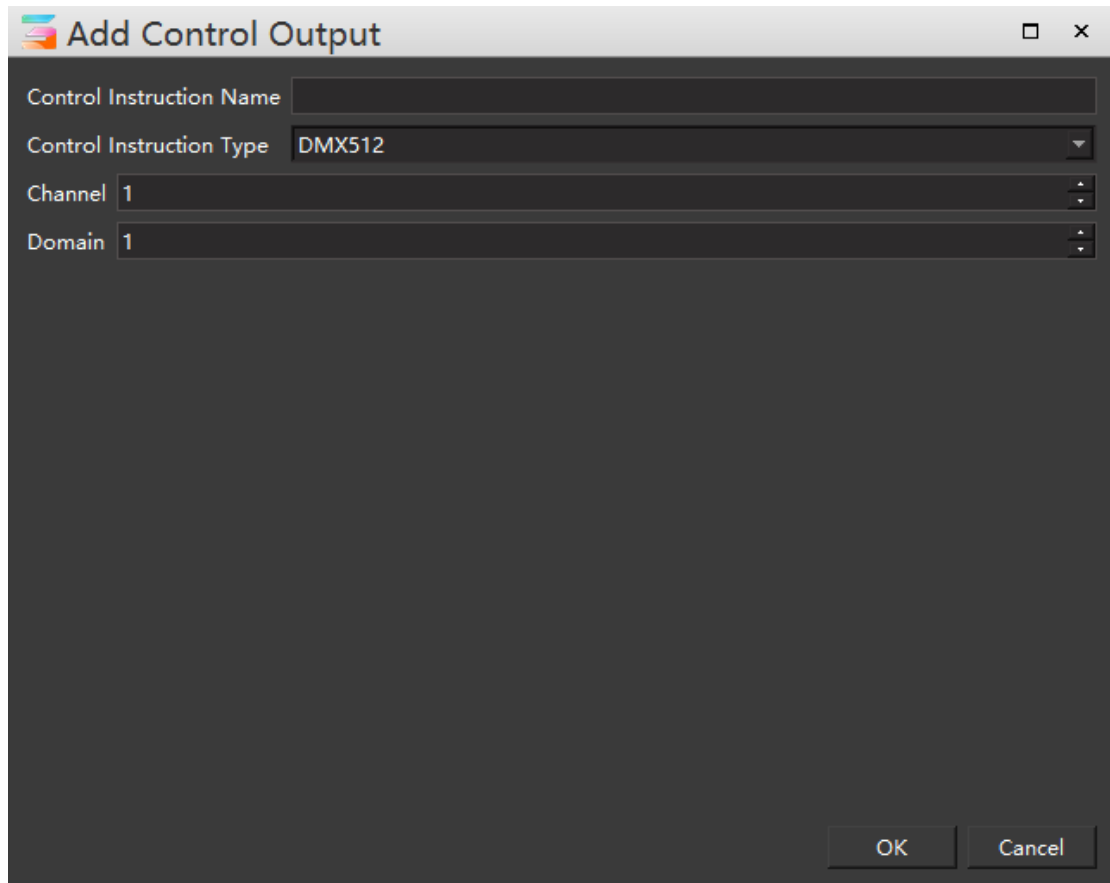
In this interface, you can modify the control instruction name, control instruction type and IP address.

Click the Add button to pop up the following interface:



6.DMX512

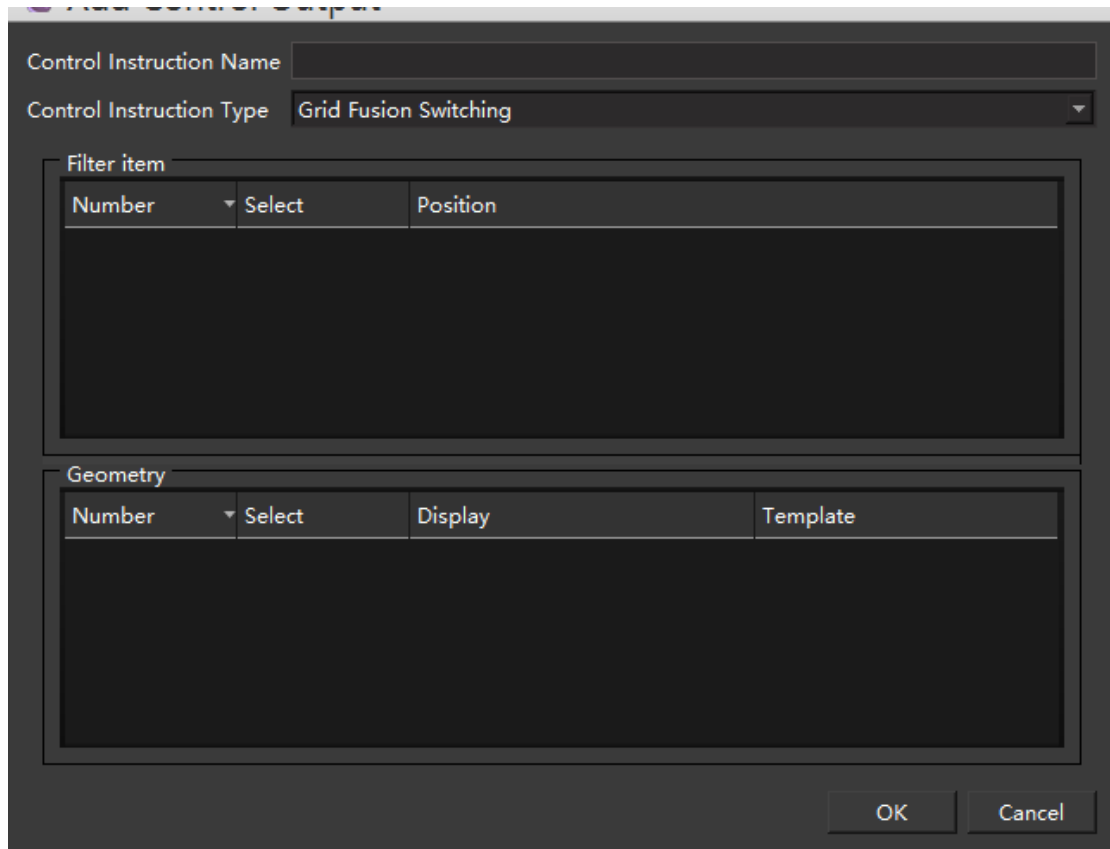
DMX512 output control to send the corresponding DMX512 signal by adding the values of the corresponding channel and domain. Control the sanctions DMX512 protocol for the peripheral equipment (mechanical arm, rotating screen, lamp console, etc.), and the added interface is shown in the following figure:



In this interface, you can modify the control instruction name, control instruction type, channel and domain.

7.Grid Fusion Switching

Grid fusion switch can be switched at different times or locations in the output control layer added to the timeline line or window management. The addition interface is shown in the following figure:

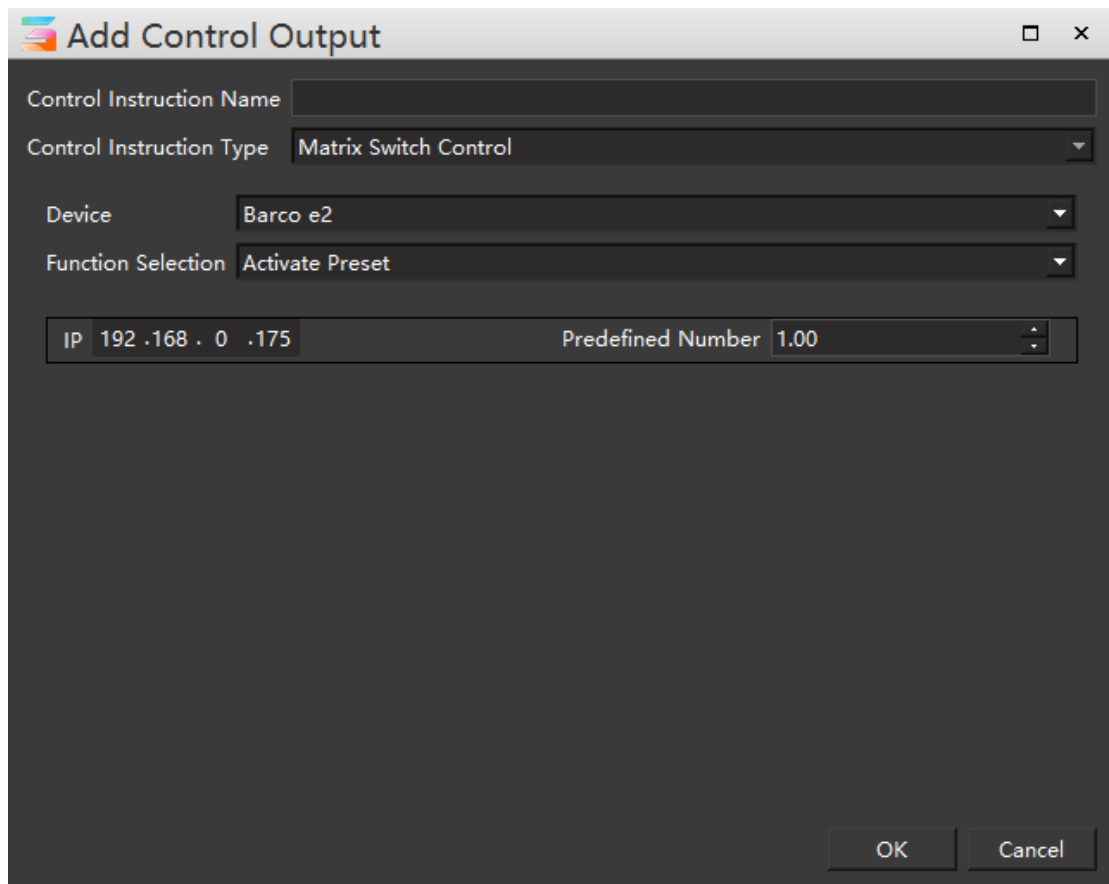


In this interface, you can modify the name and type of control instruction.

8.Matrix Switch Control

The output control allows the Hirender S3 software to directly control the console to call the preset or switch the console. Click the Add button in the lower left corner of the output control interface to add console switching. At present, the software supports three models: Zhonghe 4ktwo pro, Jesstron lvp9000 and Barco E2.

Add the control command name in the pop-up windows of console switching, select the equipment name and function selection. After setting, the added output control can be added to the main timeline or the timeline in the program as material.



Add Control Output

Control Instruction Name

Control Instruction Type

Device

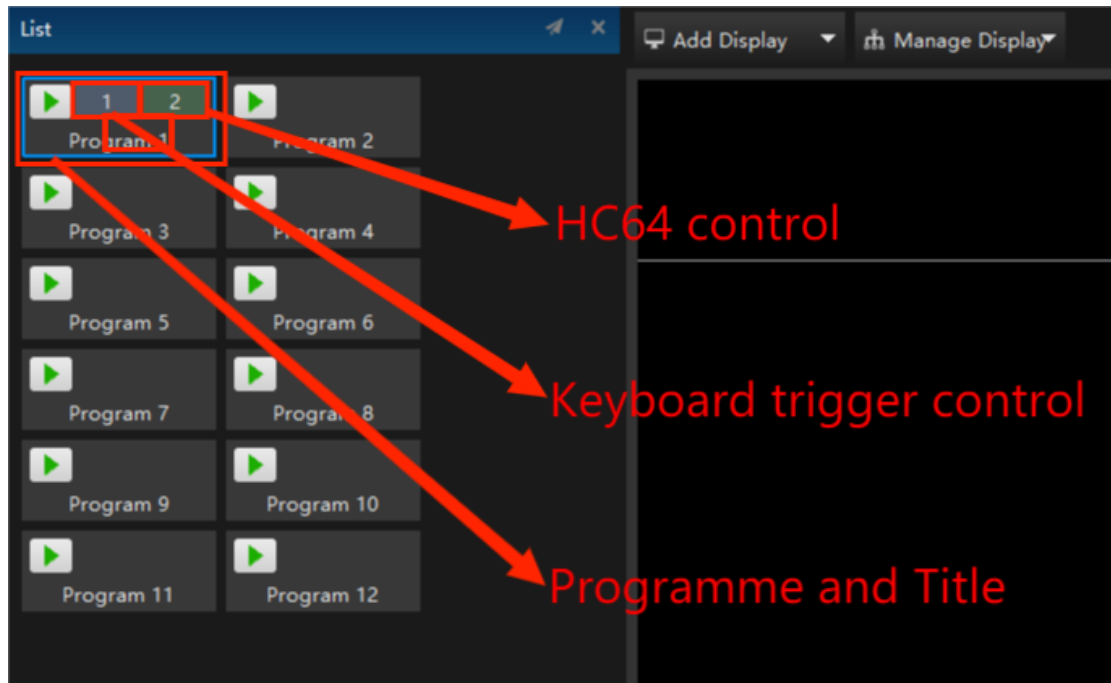
Function Selection

IP Predefined Number

OK Cancel

List

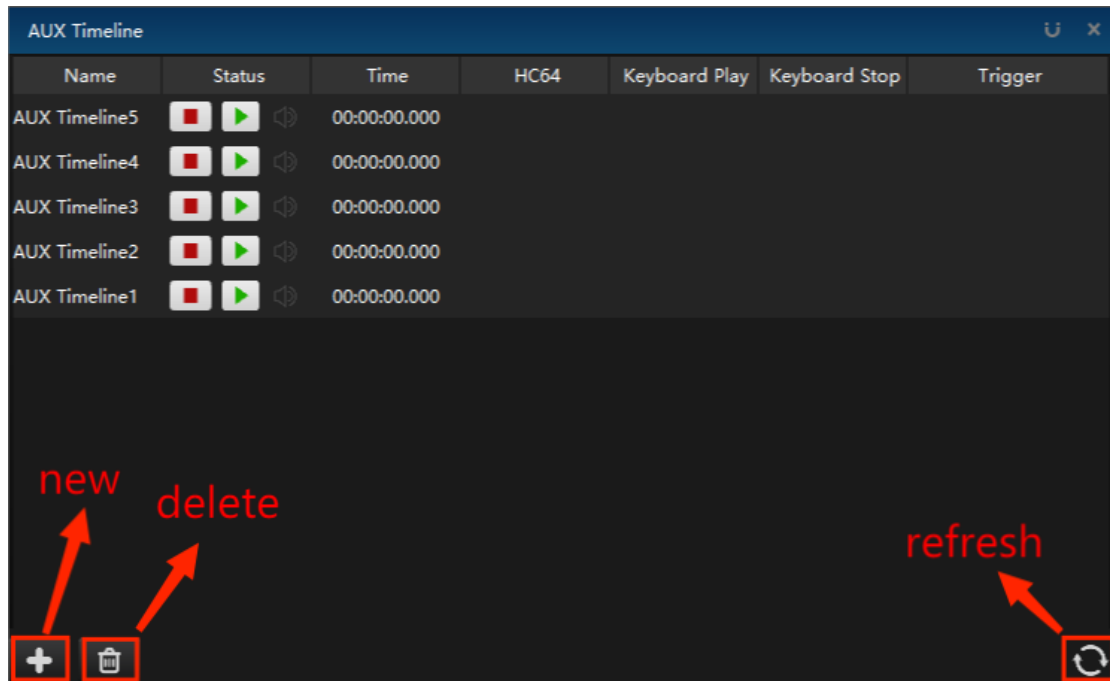
The program list shows all created programs in the form of windows list. Users can play all programs on the floating window of the program list. As shown in the figure: the program represented by a single grid includes play button, keyboard trigger, program name, hc64 control, etc.



After clicking the program, all the properties of the program will be displayed in the properties window.

AUX Timeline

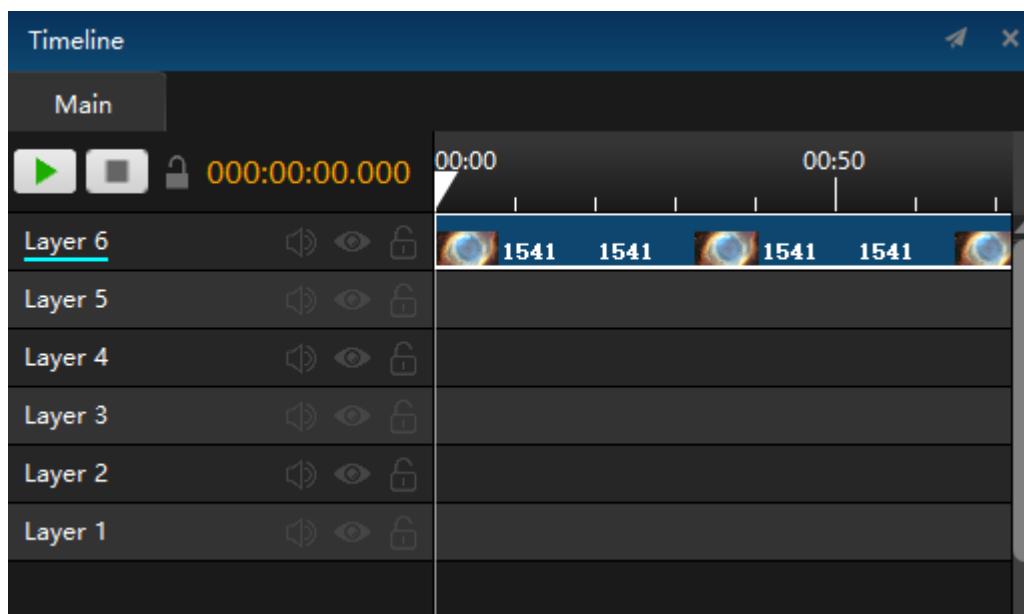
In the program insertion window of Hirender S3 software, users can click the Add button at the bottom left to set multiple program insertion, and use expressions to specify their trigger conditions. The priority of program insertion is higher than that of all programs in the main timeline and program management: when the content of program insertion is played, it will be displayed at the top of the screen to cover the video screen in the main timeline and program management.



In the program insertion interface, the name, status, time position and trigger mode of the program are displayed. In the status, click the play button, or realize the play of program insertion by means of keyboard and hc64 trigger.

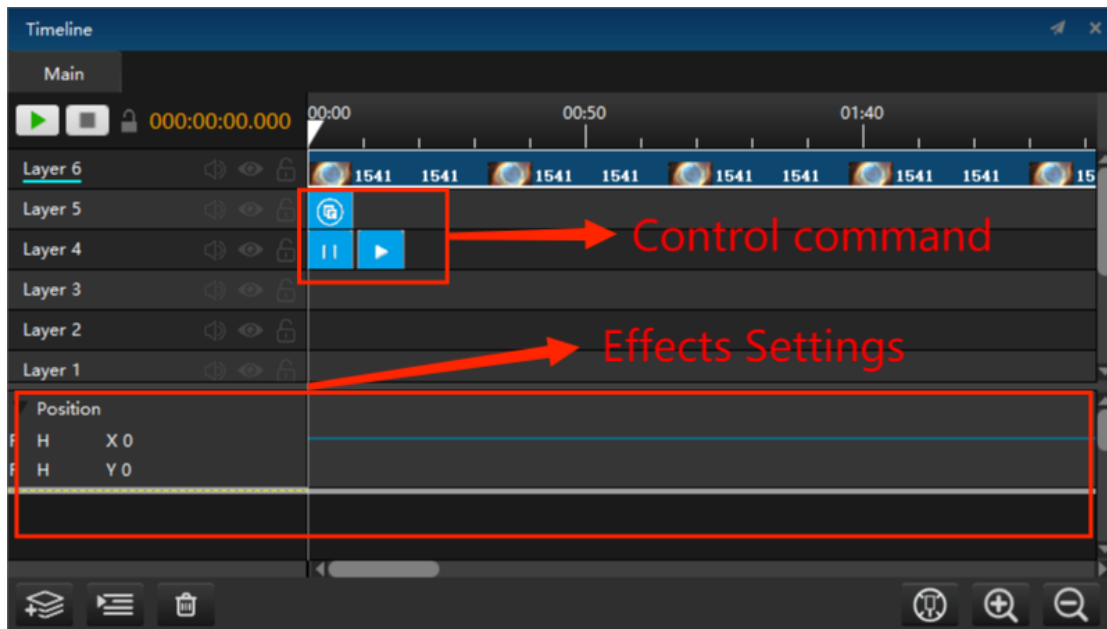
Right click any program insertion to enter the program insertion property page: set its name, time position in the main timeline, time length, trigger mode, fade in and fade out time and MTC equipment.

Right click the selected program insert, select edit or double-click the program insert, and the timeline of the program insert will be displayed at the main timeline position. The editing method of program insertion is the same as that of the main timeline.

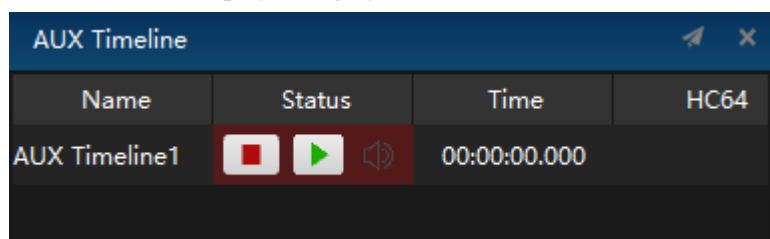


Content editing

Right click the selected program insert, select edit or double-click the program insert, and the time line of the program insert will be displayed at the main time line. The editing method of the program insert is the same as that of the main time line. Select the timeline of program insertion, add the display content on the timeline, and set the properties of fade in, fade out, position, zoom, clipping etc. for the materials added to the timeline. In addition, you can set the playback mode (loop playback, jump, etc.):

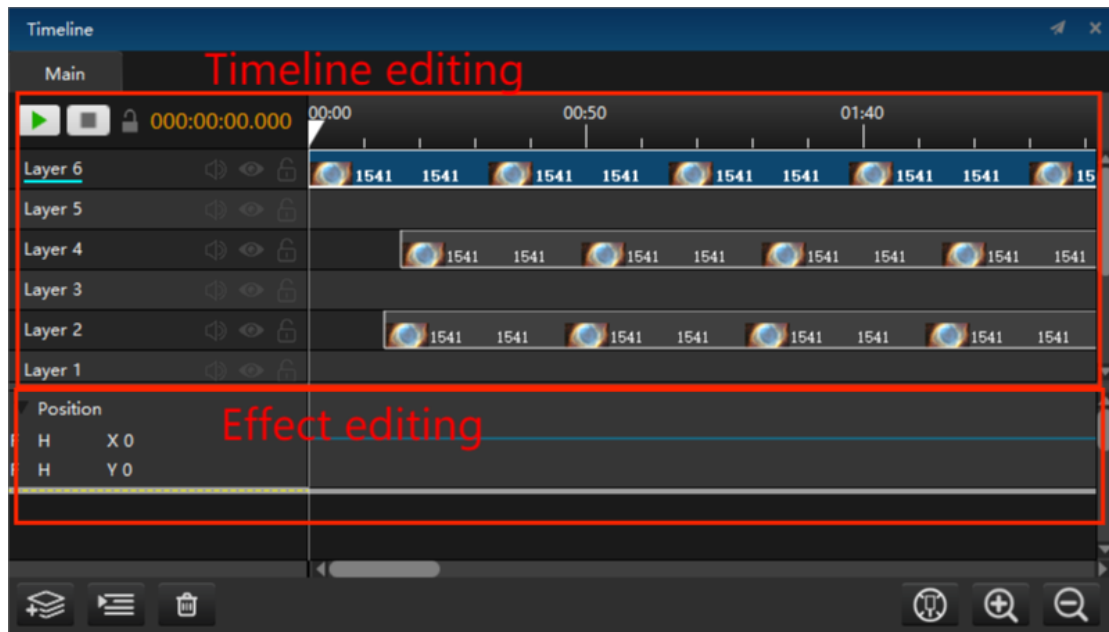


Hirender S3 distinguishes the playing state of the program in the program insertion. The background color of the program that has been played is reddish brown, and the background color of the program that has not been played is gray.



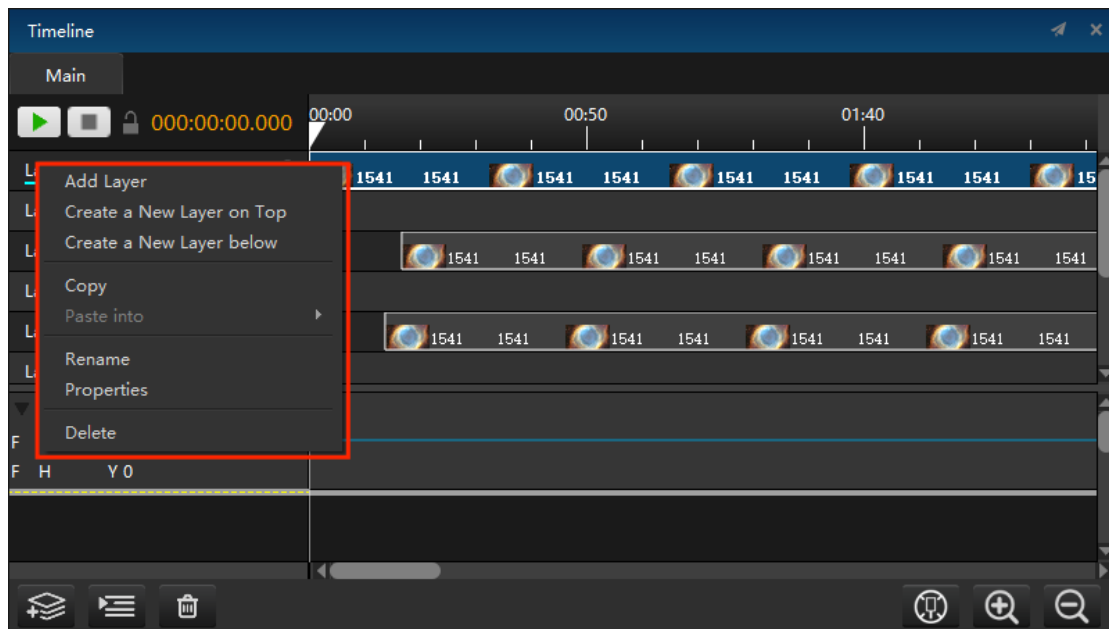
Timeline management

The timeline management interface includes timeline editing and material effect editing, as shown in the following figure:



Layer Settings

Right click the timeline layer to pop up the following window:



1. Add layer

Quickly add timeline layers.

2. Create a New layer on top / below

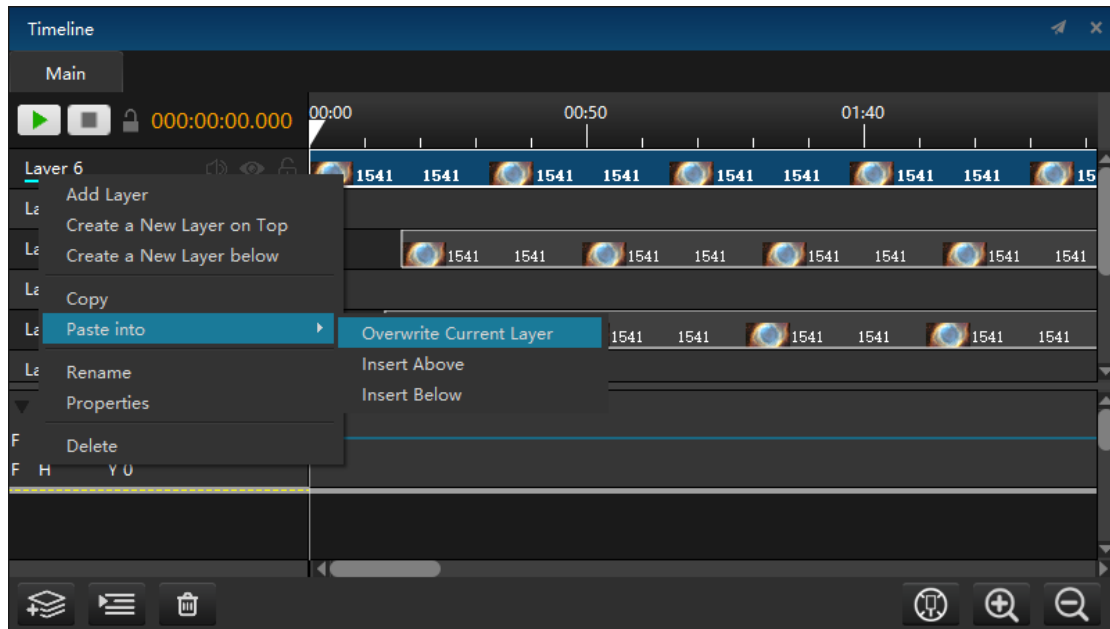
Create a new timeline layer above / below the selected layer.

3. copy

Copies all properties of the selected layer and its media content.

4. Paste into

There are three ways to quickly paste the copied layer in the following figure:



Overwrite current layer: overwrite the current layer with all the contents of the copied layer

Insert above / below: create a new layer above / below and paste everything.

5. Rename

Change the name of the timeline layer.

6. Properties

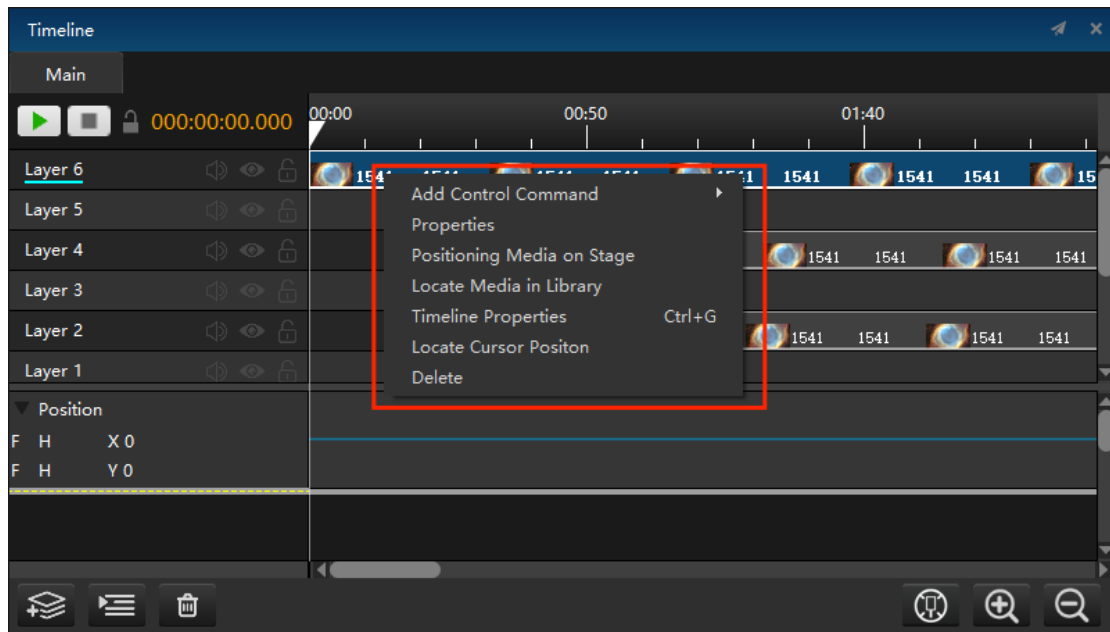
Click properties to pop up the properties setting window. The introduction of specific properties can jump to properties - layer properties.

7. delete

Delete the selected timeline layer.

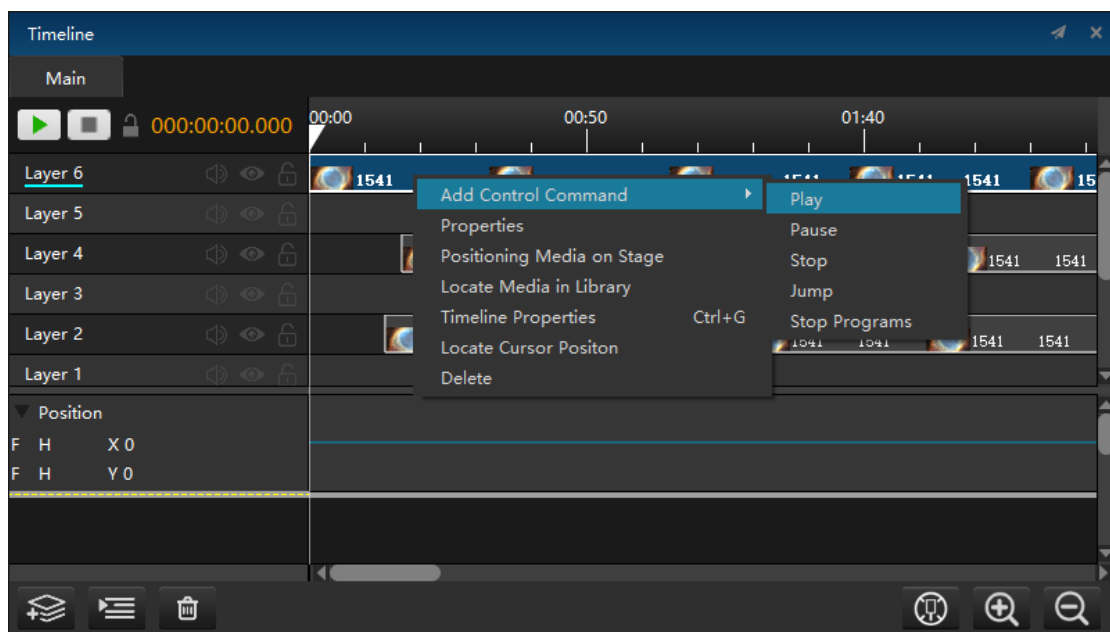
Timeline media settings

Right click the media on the timeline layer to pop up the following menu:



1. Add Control Command

Select the time position on the timeline to add control commands: play, pause, stop, jump and stop program management. The stop command is that the time cursor jumps to the starting point of 0 and the program stops. Jump command is to jump to a certain point in time or a certain command position (it can be used for circular playback, for example, set a playback command at the beginning and a jump to the beginning command at the end.) After adding a play command at a certain time, all media on all layers at that time are controlled by it. Generally, only one command is added at the same time.



Edit control command name: when using a single letter or a number of 1-9, you can use the corresponding keys on the keyboard to jump the command. Pause after the jump. If you want to continue playing, you must click the start or space again (using the same number or letter in

program arrangement and program insertion does not interfere, but you need to select the corresponding window when using);Time: the position of the playback command on the timeline.

2.Properties

Click properties to pop up the properties setting window. The detailed description of the corresponding media properties on the timeline can jump to the Properties to view.

3.Positioning Media on Stage

Quickly locate the selected timeline media in the stage.

4. Locate Media in library

Quickly locate the selected timeline media in the material library.

5.Timeline Properties

Click timeline properties to pop up the properties setting window. The detailed description of the properties can jump to Properties - timeline properties to view.

6. Locate Cursor Position

Quickly locate the position of the cursor in the timeline management window.

7. Delete

Delete selected media.

Effect editing

See menu bar - timeline - effect for details.

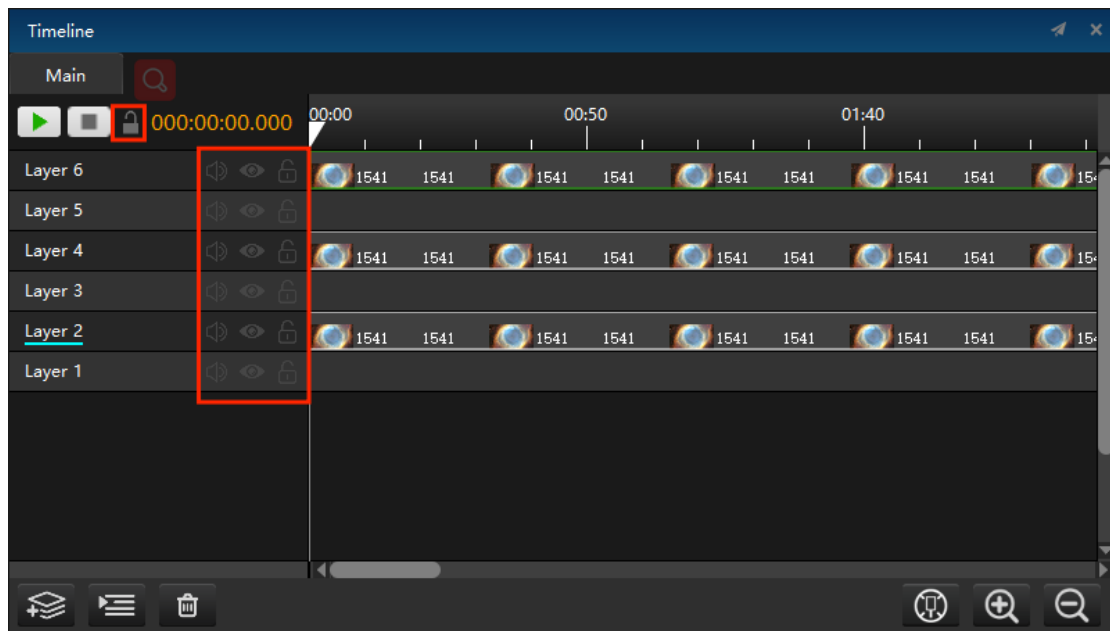
Shortcut key

The media pictures on different layers can be superimposed. At the same time, the upper layer has higher priority than the lower layer, unless the transparency of the layer is adjusted or it is the material with transparent channel.

When the condition, standby state or stage level properties of the layer is changed, the layer name is tilted.




1. Sound / Visual / Lock

The shortcut buttons to the right of the layer name indicate whether the layer outputs sound, whether it is visible, and whether the layer is locked. Next to the play pause button above the layer, you can lock all layers with one click through the lock button..



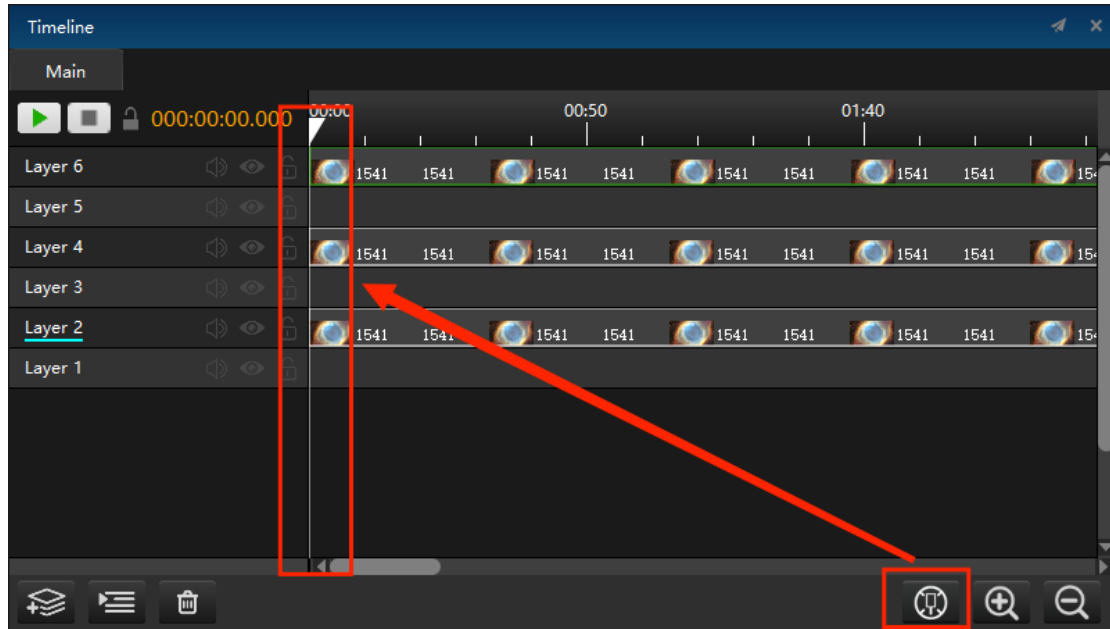
2. Add / Insert / Delete layers

At the bottom left of the timeline management interface, you can quickly add a layer by clicking

the button , insert a layer by clicking the button , and delete a layer by clicking the button . If the layer contains media materials, click Delete to prompt whether to delete it.

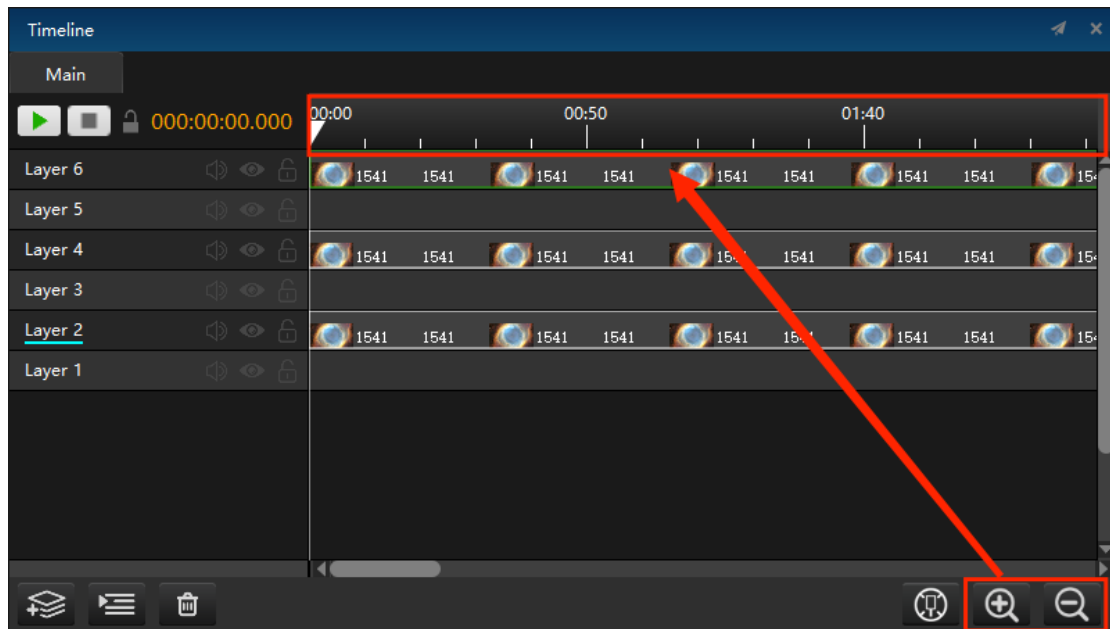
3. Position cursor

Click the shortcut key to locate the cursor position in the lower right corner of timeline management to quickly find the position of the cursor in the window.



4. Zoom in / out

Clicking the zoom in / out shortcut button will zoom in / out the scale value of the timeline in the window.

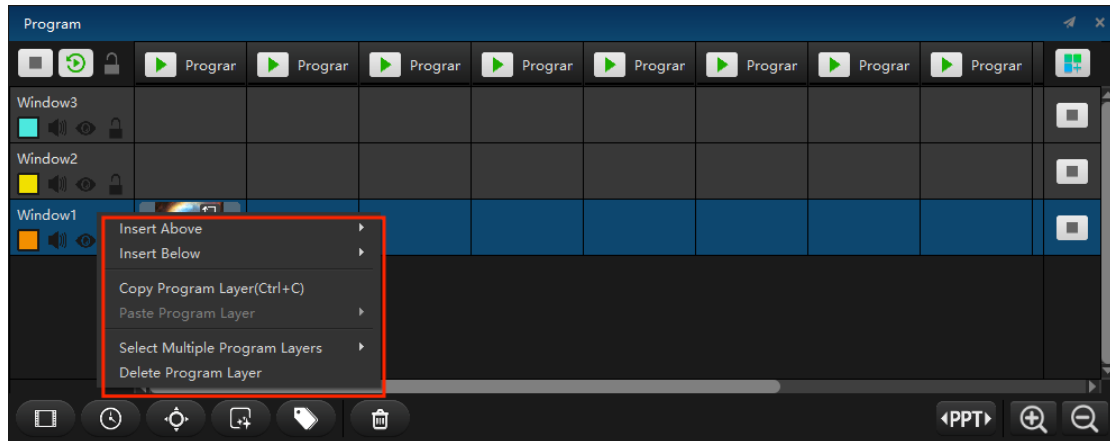


Program management

The management and deletion of program / special effect / process label layer, program window and program node of the system are introduced one by one below:

Program window layer

Right click to set the layer in the pop-up menu as shown in the following figure:



1.Insert Above / Below

You can choose to insert window / special effect / process label layer above / below the selected layer.

2.Copy Program Layer

Copy all media and properties settings in the layer.

3.Paste Program Layer

You can choose to overwrite the selected layer or create a new one above or below it and overwrite the layer.

4.Select Multiple Program Layers

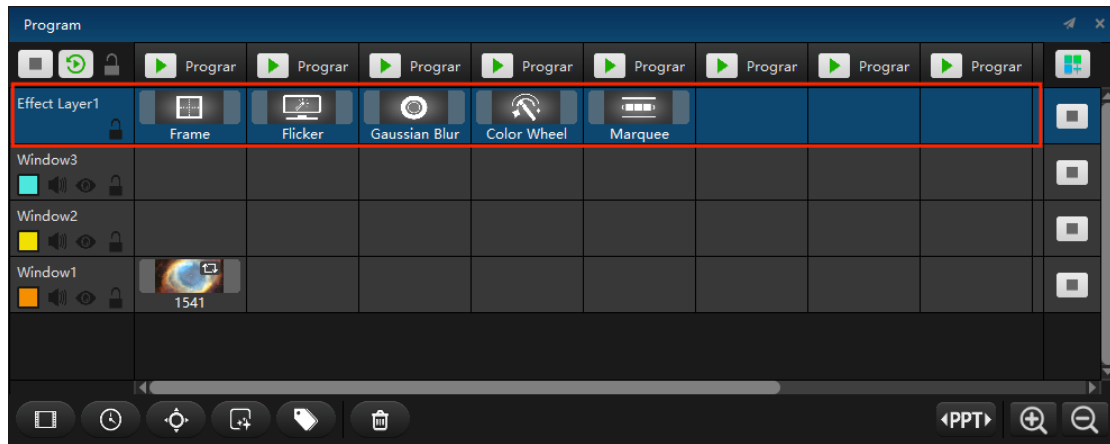
You can choose to select all layers or multiple layers above or below.

5.Delete Program Layer

Delete the selected layer and support multiple selection.

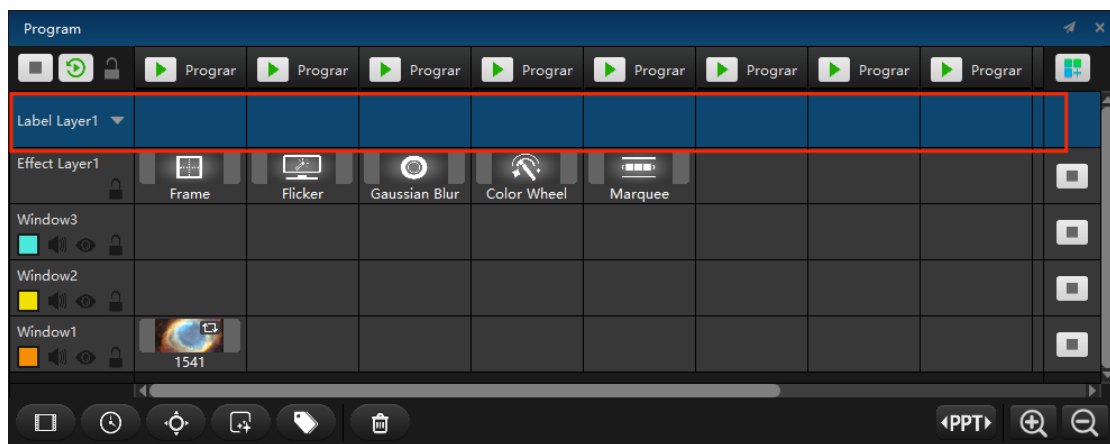
Effect layer

Create a special effect layer in program management. Resource management - special effects in program special effects can be directly dragged to the program node of the special effect layer. Select a special effect node and edit the special effect in the program node properties. The special effect layer is only effective for the layer below it, as shown in the following figure:



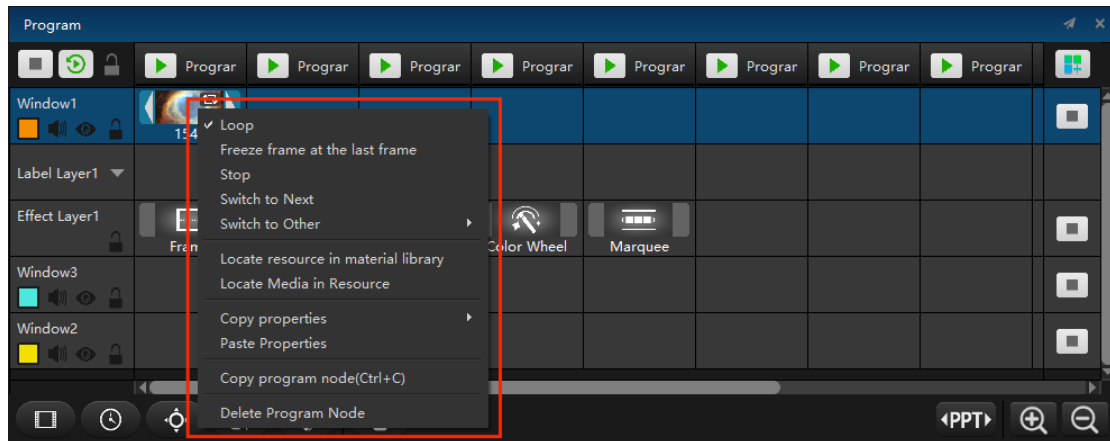
Process label layer

This layer has label function, which is used to mark the name of each program or performance process, time node, etc. multiple process label layers can be added to mark different contents or precautions, as shown in the following figure:



Program node

Right click the program node to pop up the menu as shown in the figure:



1. Loop

Cycle the media in the program node.

2. Freeze frame at the last frame

After the media in the program node is played, the picture is fixed in the last frame of the media.

3. Stop

Stop the program after the media in the program node is played.

4. Switch to next

The next program will be played immediately after the media in the program node is played.

5. Switch to other

You can choose to play any program in the same window. After the media in the program node is played, it will automatically jump to play.

6. Locate resources in material library

Select the material in the program node in the material library.

7. Locate media in Resource

Find the location of the material in the device.

8. Copy / paste Properties

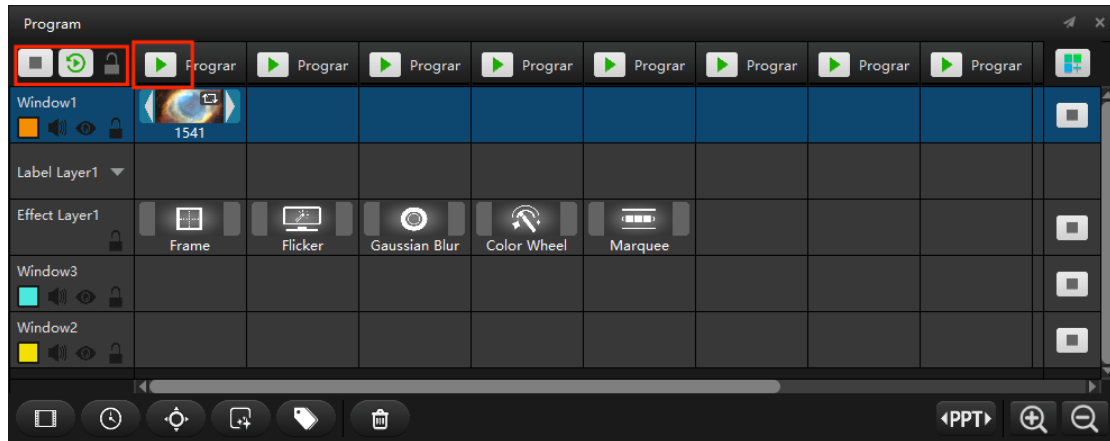
You can choose to copy / paste the mask / matting / effect properties.

9. Copy / Delete Program node

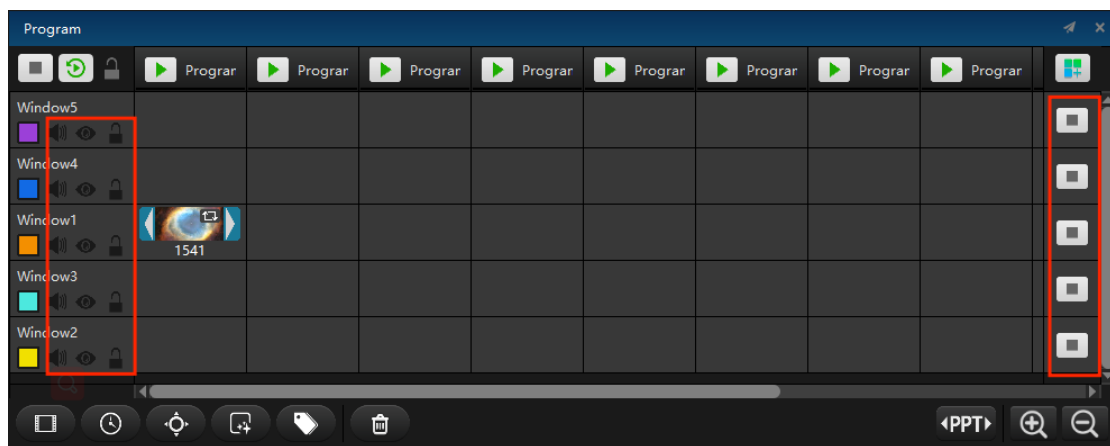
You can copy / delete the material in the selected program node.

shortcut button

Click the play button in front of the program name and the stop button above the layer, replay the program and lock all layers with one click:

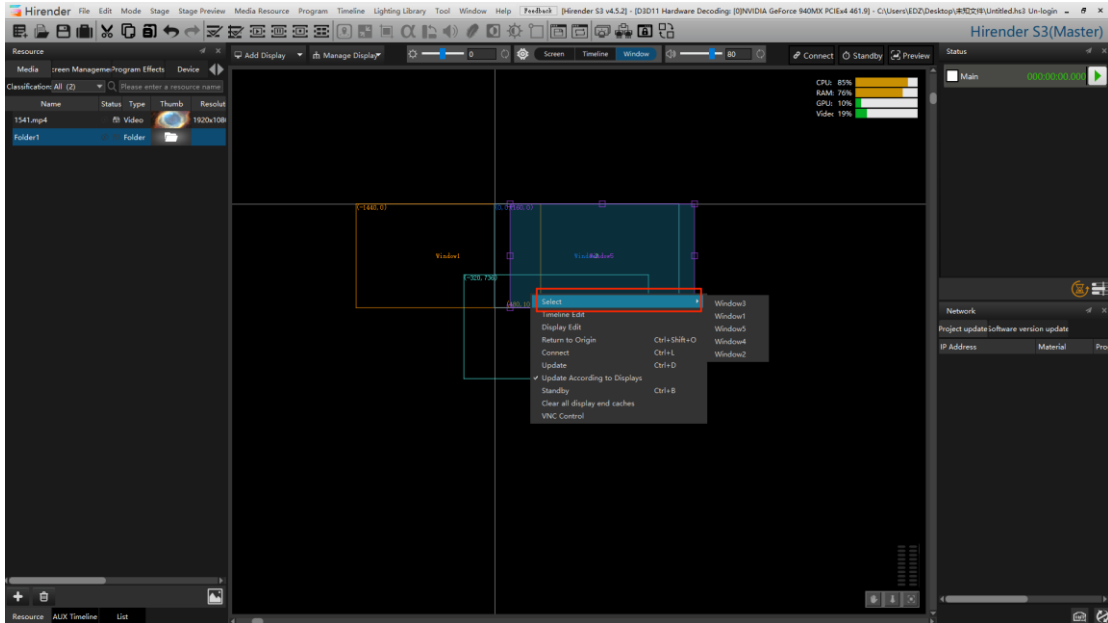


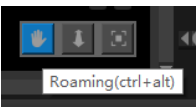
Click the close sound, close preview, lock and stop layer in front of the window to set the window:

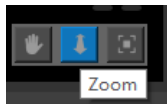


Stage

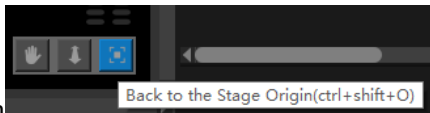
All added windows, timeline materials and screens are displayed on the stage. In screen mode, the screen can be moved freely; In the Timeline mode, you can move the timeline material at will; In window mode, you can move the window at will. Special case: when the stage level of the screen does not match the current stage level, the screen is locked. In the area with screen, timeline or window in the stage area, right-click to select screen, timeline media or window, and select it to operate.



Click the roaming icon  to drag the stage arbitrarily. Click the zoom button

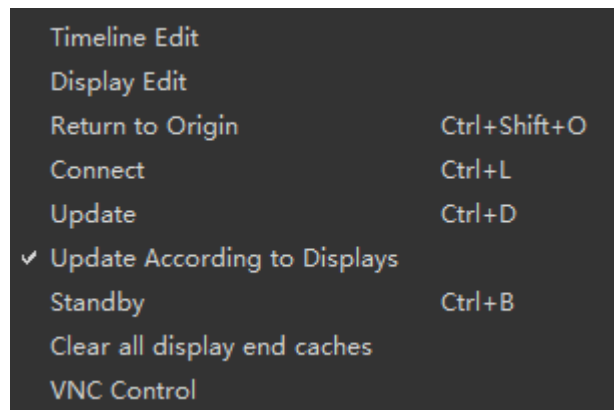


and the optional scale will be displayed Zoom out and zoom in on the table. Click

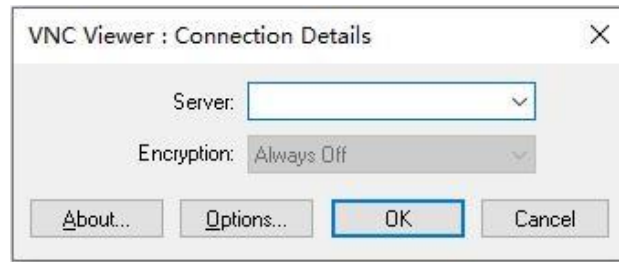


the button to return the stage to point (0,0,0). Right click any position of the stage and select return to the starting point of the stage (shortcut key Ctrl + Shift + O). You can also return to point (0,0,0); This command is mostly used when the stage position cannot be found due to wrong operation. Click the X (y) axis, drag or scroll the progress bar to move the stage position in one direction.

Right click anywhere on the stage, and you can select connection, real-time update and update, return to the stage origin, etc., as shown in the figure below:



Select VNC control and add the address of the server to realize remote control:

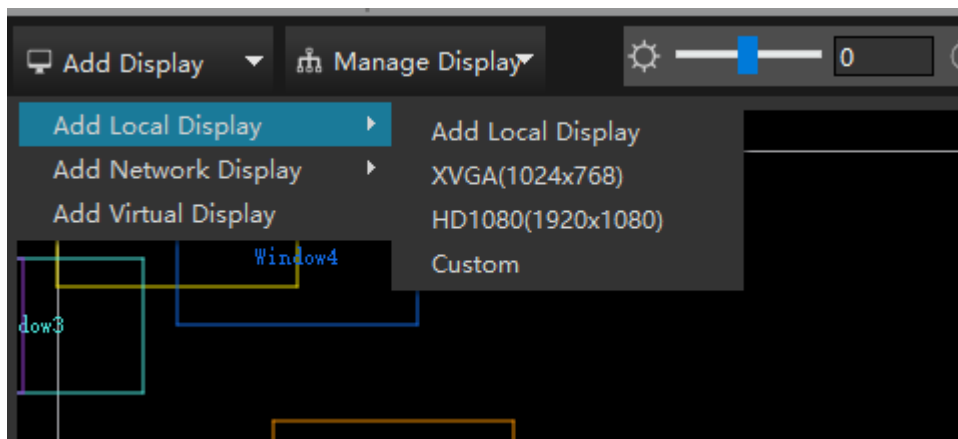


The global volume and brightness can be modified above the stage. After the stage is reduced to 950 pixels, the button text at the top of the stage is hidden and only the icon is retained; After clicking the volume / brightness button, the adjustment lever and value are displayed below, as shown in the figure below:

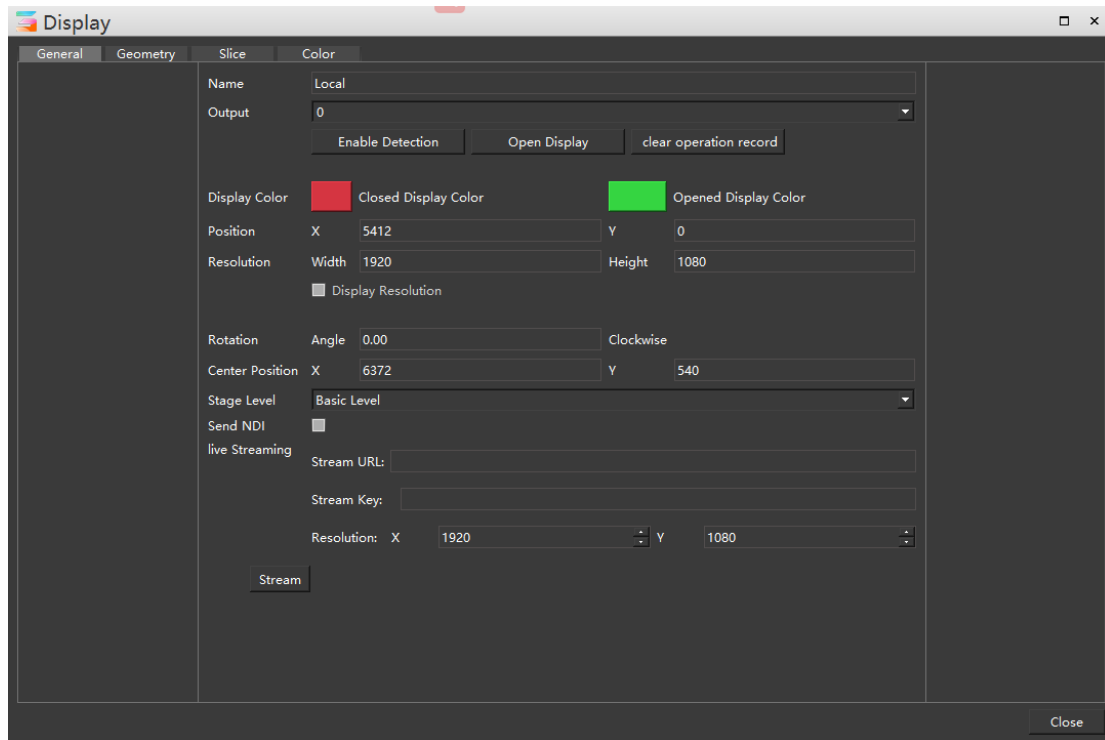


Add Locate / Network Display

Click add screen to add local connected screen, network display screen and virtual screen, as shown in the following figure:



Double click the added screen on the stage window to pop up the display window to set the screen properties, as shown in the following figure:



For the setting of each properties in the display window, you can jump to the properties - display properties section for details.

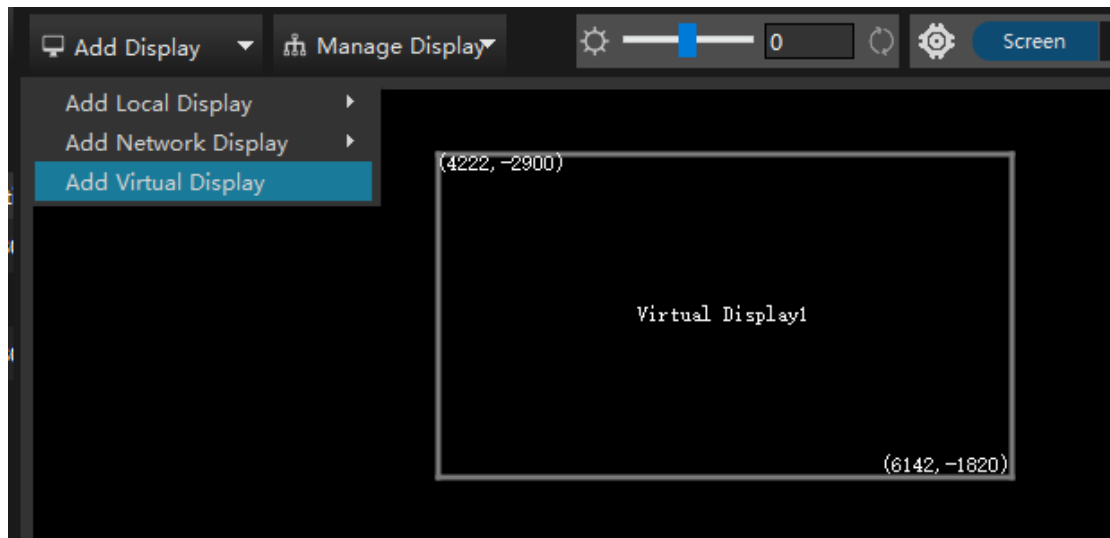
Right click on the added screen to switch between network display and local display.

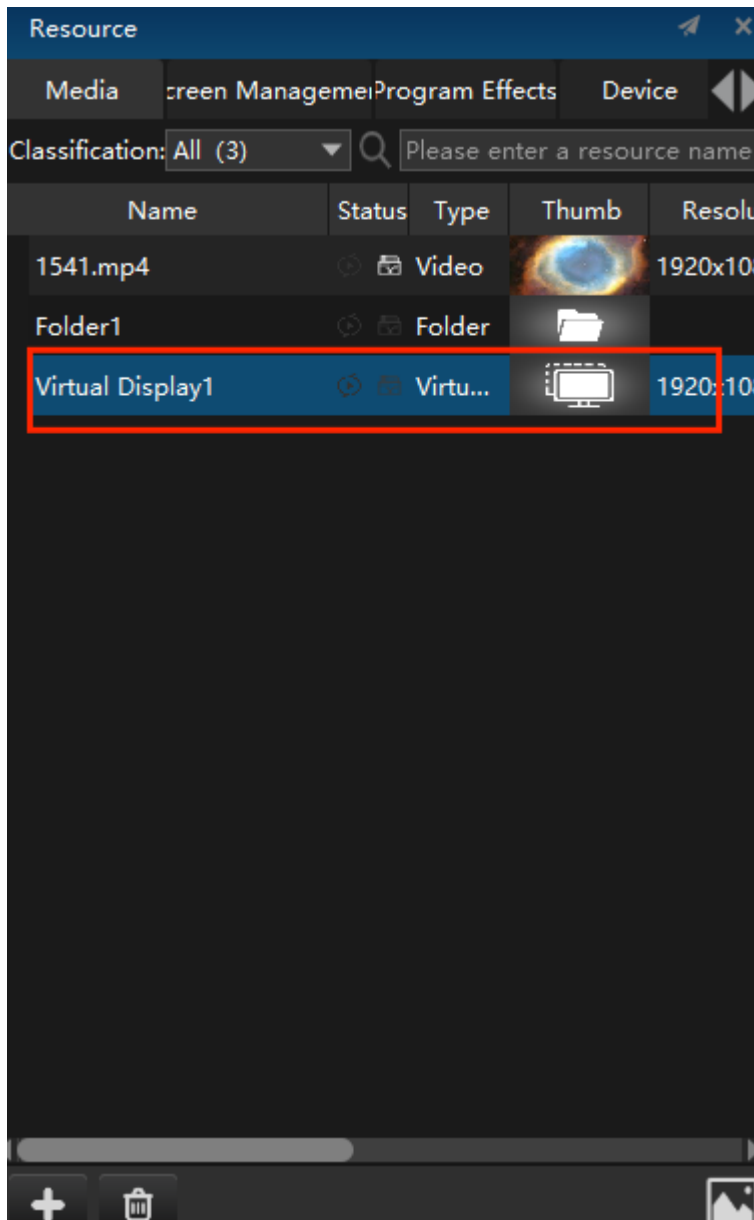


Add virtual Display

The virtual screen is to collect and play the programs in stage management in real time. The size and rotation of the virtual screen can be adjusted freely. It can realize various functions such as camera splicing, camera close-up, live interception, special-shaped screen playback etc.. Select "add virtual screen" on the stage window to create a virtual screen. The created virtual screen will be added to the material library as

material and can be used as media resources, as shown in the following figure:



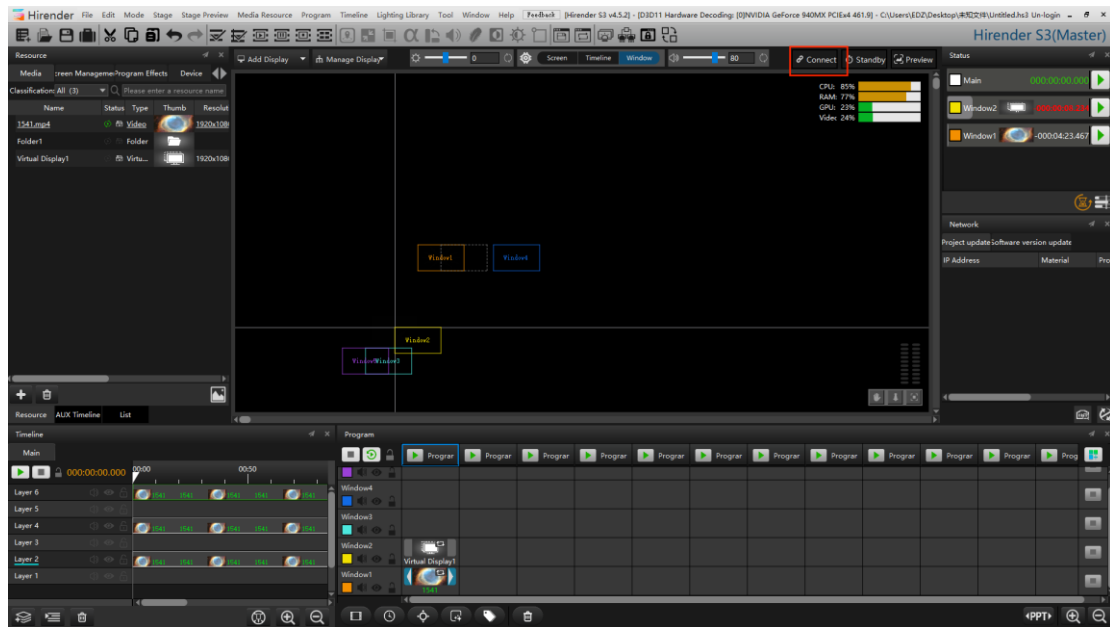


The gray virtual screen windows in the stage interface is the input source of virtual screen materials. The virtual screen will intercept the pictures within the current gray windows and generate new material resources, which can be further added to the program management for playback. You can drag the position of the virtual screen directly in the screen editing mode, or you can modify the size, position, angle and other parameters of the virtual screen through the property page or double-click the pop-up editing interface.

Connect

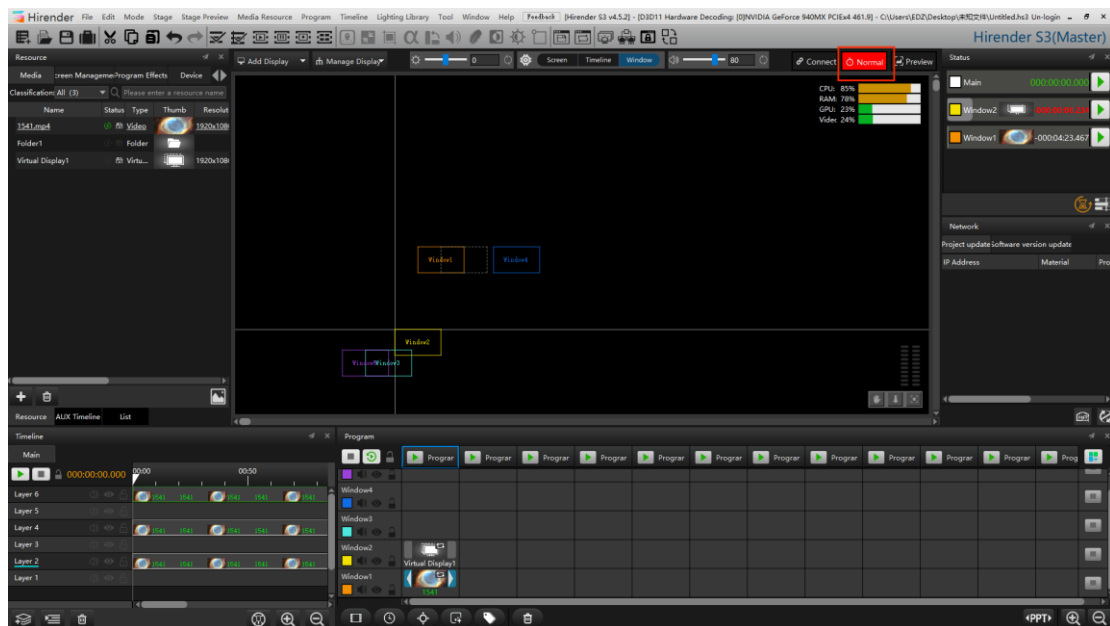
Connection refers to projecting the edited material picture onto the display device, provided that all the added display screens have been arranged in the software and all the displays have been turned on, and the connection or disconnection can be carried out by clicking the connection option in the upper right corner of the stage. In connection mode, the screen in the stage interface

cannot be moved.



Standby

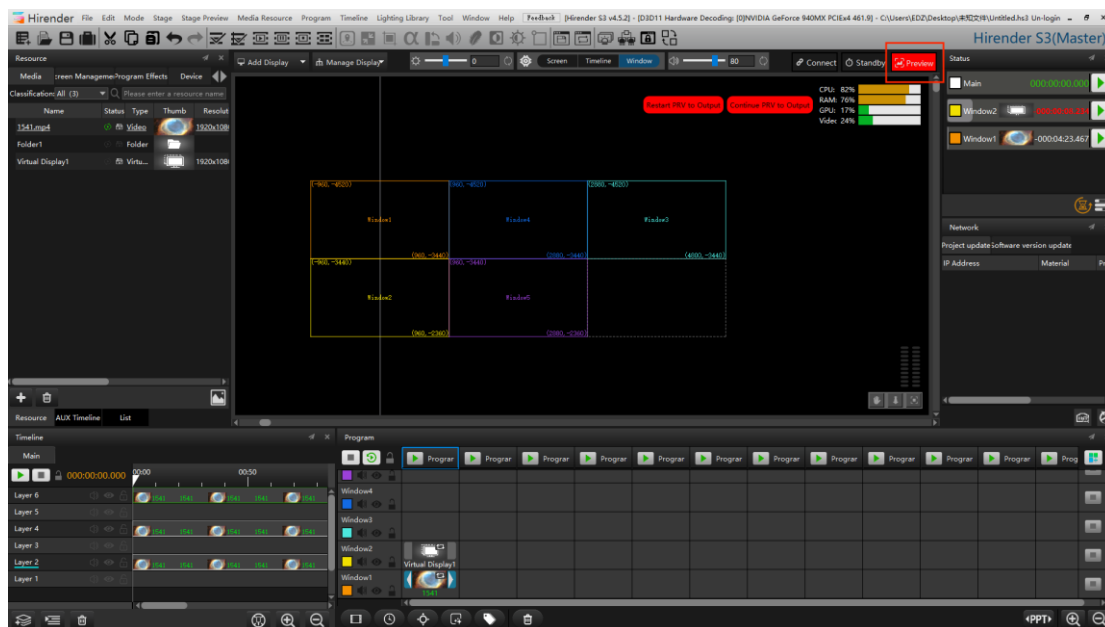
In standby mode, the window will be black and cannot output picture and sound, but it will not affect the playback of the current program. When the video material in the standby layer is played in the normal state, it will not be played on the display device. When switching to the standby state, the material on the standby layer will be played on the display device. Use the standby button in the upper right corner to switch between standby status and execution status, or use the shortcut key Ctrl + B to switch



Preview

The preview mode can monitor other programs to be played in advance without affecting the normal output. For example, the media has been connected and played normally. The next program is the collected SDI signal or other signals. You can see whether SDI and other signals are normal through the preview mode, and you can also see whether other programs to be played are normal through the preview mode. This can avoid the problem of abnormal signal after switching to the next program.

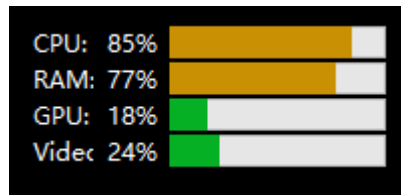
The preview interface is shown in the following figure:



- (1) When the program has been played, click the preview button in the stage management, or select the program control mode in the stage menu bar, and then switch from the broadcast control mode to the preview mode. When the preview mode is turned on, it will be displayed in green flashing mode.
- (2) After the preview mode is turned on, the stage interface screen at the control end disappears and the screen at the display end plays normally. As shown in the figure above, program 1 is normally played and displayed. At this time, program 2 is previewed and the content of program 2 will appear in the stage screen, and the screen of original program 1 on the large screen will not be affected (the color can be distinguished, yellow is the current playing display screen, and blue is the previewed program).
- (3) After the preview mode is turned on, there are two options: output replay and output continue playback. After previewing and playing program 2, click output to play again, and the large screen will play the content of program 2 from the beginning. After clicking output to continue playing, the large screen will continue playing from the progress of current program 2.

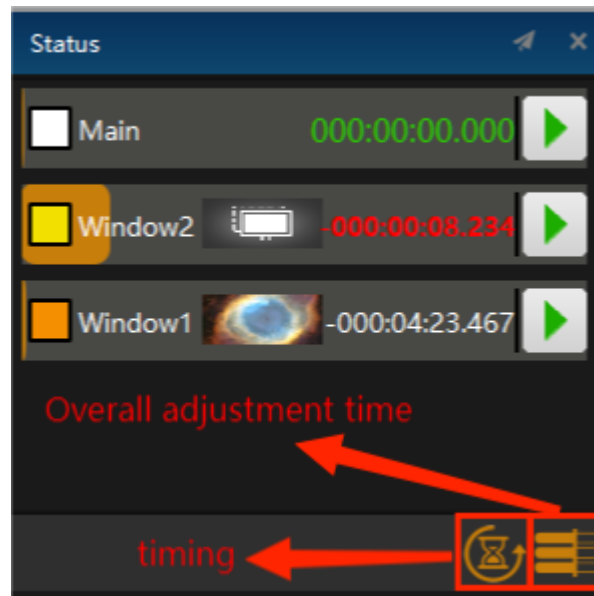
Hardware performance test

Hardware performance monitoring can monitor the hardware use status of the whole server at each time point. If the software finds that the output video picture is very stuck during use, you can first look at the monitored utilization rate of CPU, memory, GPU and video memory. The interface is shown in the following figure:

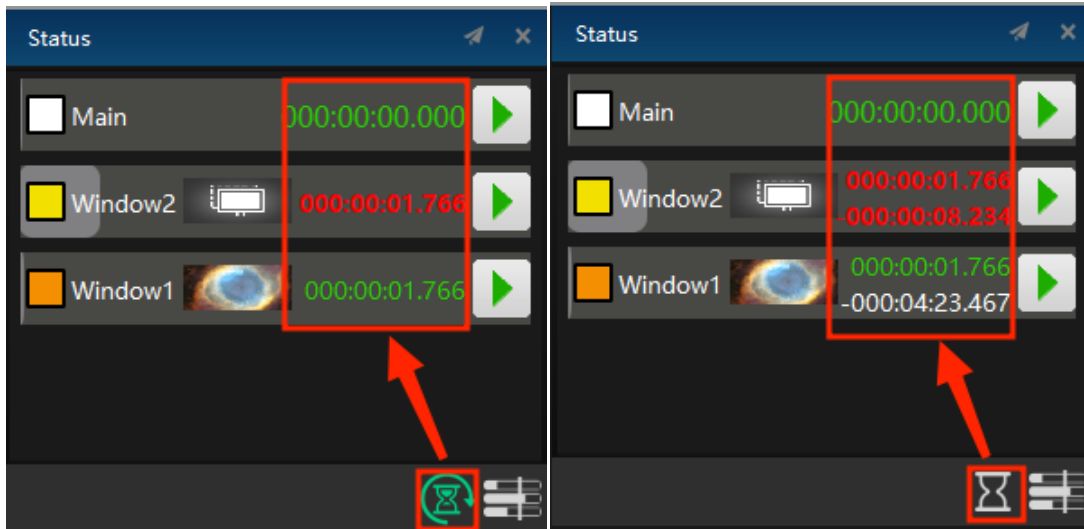


Status

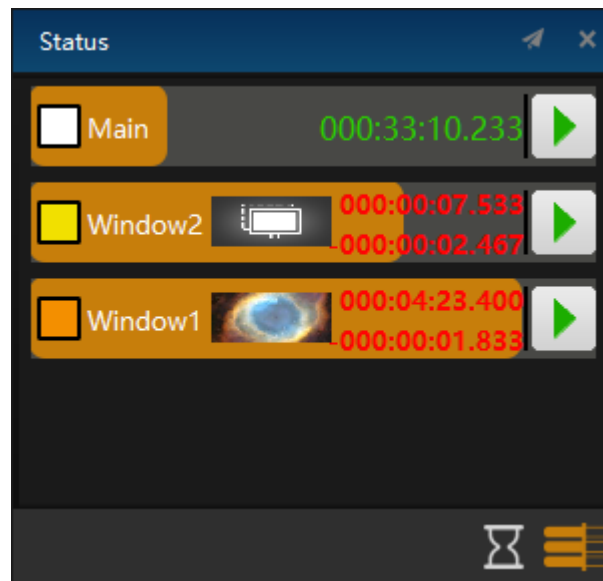
The playback status interface will display the playback status of all editing windows. You can control the playback through the playback button on the right. Drag the window playback progress bar to control the fast forward playback of materials.



The playback status interface will display the playback status of all editing windows. You can control the playback through the playback button on the right. Drag the window playback progress bar to control the fast forward playback of materials.

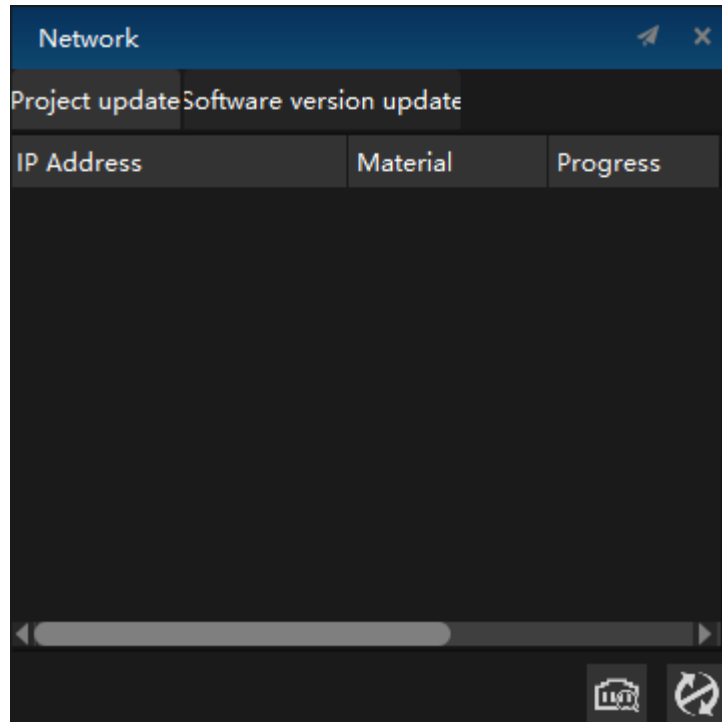


You can adjust the playback status bar to display video timing, countdown, or both. In the countdown 10s, the timing status will be displayed in red for reminder, as shown in the following figure:



Network

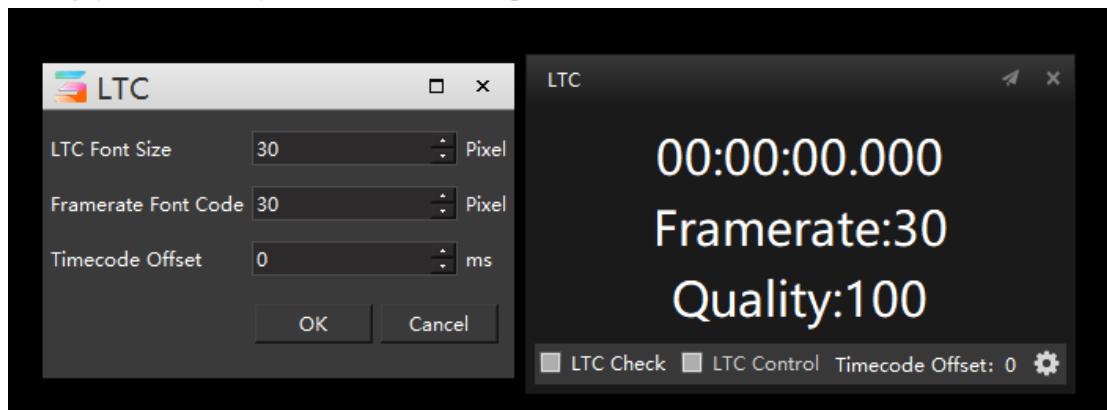
Network update status displays the transmission and update status when the control server transfers all the edited materials to each display server or secondary server in online mode or master/standby mode, and software update can be carried out in this window.



LTC

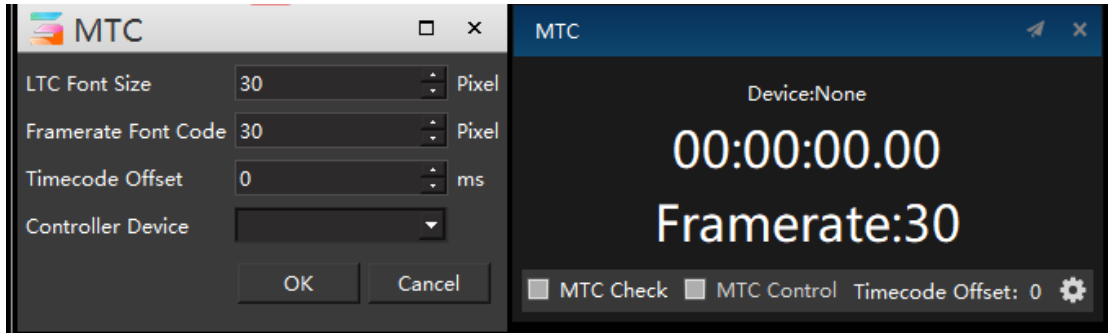
Select the main timeline to accept the audio time code (LTC): the main timeline of Hirender S3 software and the light console can accept the LTC audio synchronization time code, and the time line is synchronized with the time code to realize the synchronization control of light, audio and video.

When the main timeline accepts the audio time code, the LTC time code monitoring window displays the time position of the time code, as well as the frame rate and offset. When the main timeline does not accept the time code, the time code is displayed in white. When the time code is received, the time code is displayed in green. If it is interrupted, it is displayed in red. In the setting, you can modify the font size and the position of the offset correction time code.



MTC

Hirender S3 software supports MTC control to realize synchronous control of light, audio and video.

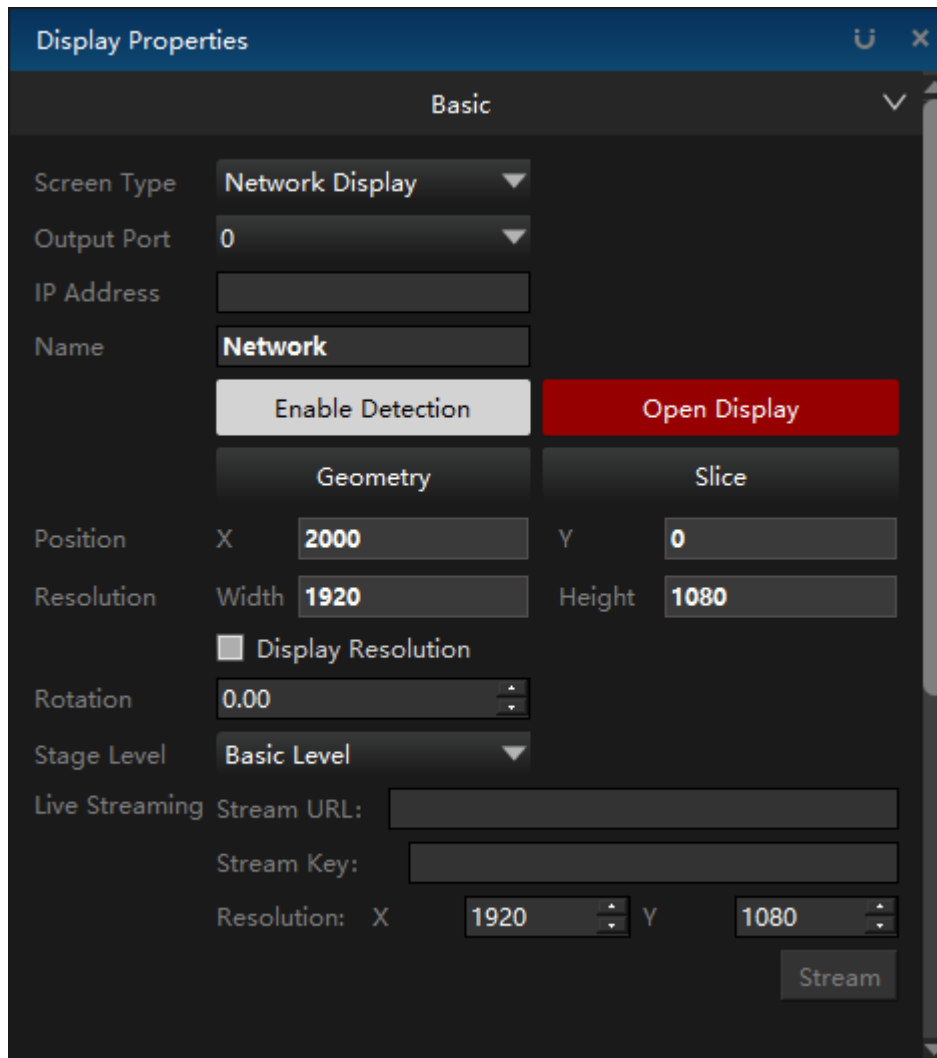


Properties

The properties interface will display the properties of program nodes, programs, program windows and special effects. Users can edit them in the properties window, which is shown one by one below:

Display properties

General properties of the screen: the user can set the name, output port selection, resolution, stage position, etc. as required. The editing of screen resolution, stage position and center point position supports four operations, and the window is shown in the following figure:



1. Screen type

Select the screen type as network screen or local screen.

2. Output Port

The default is 0, that is, there is no physical screen for output. The local screen can directly select the corresponding output port, and the network screen can be modified by inputting the IP address of the response.

3. IP Address

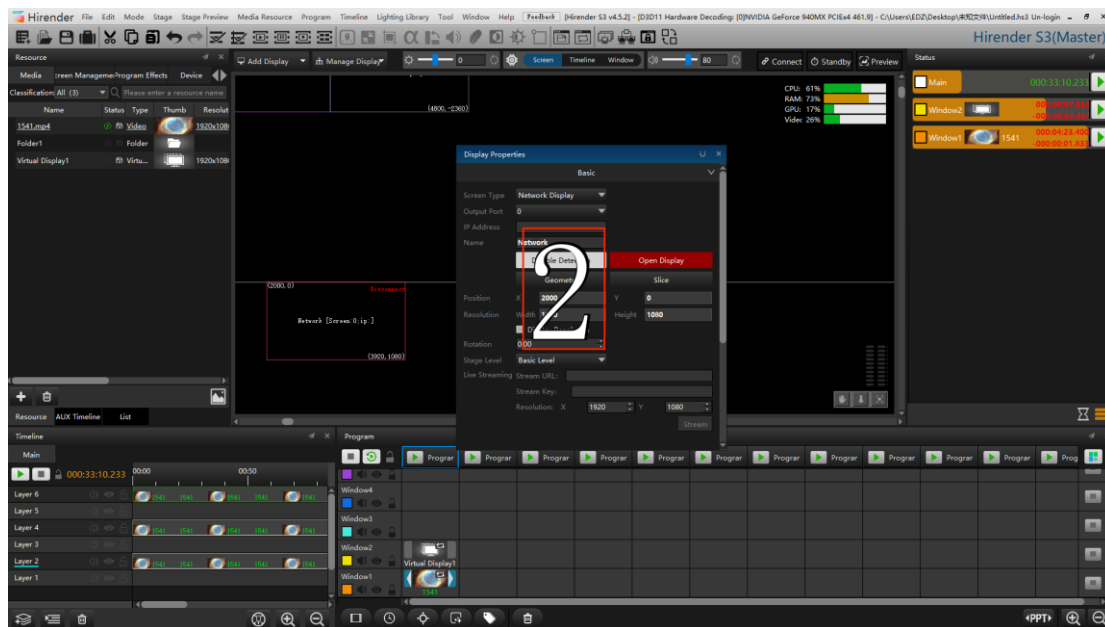
Input IP address for output.

4. Name

Edit and modify the screen name.

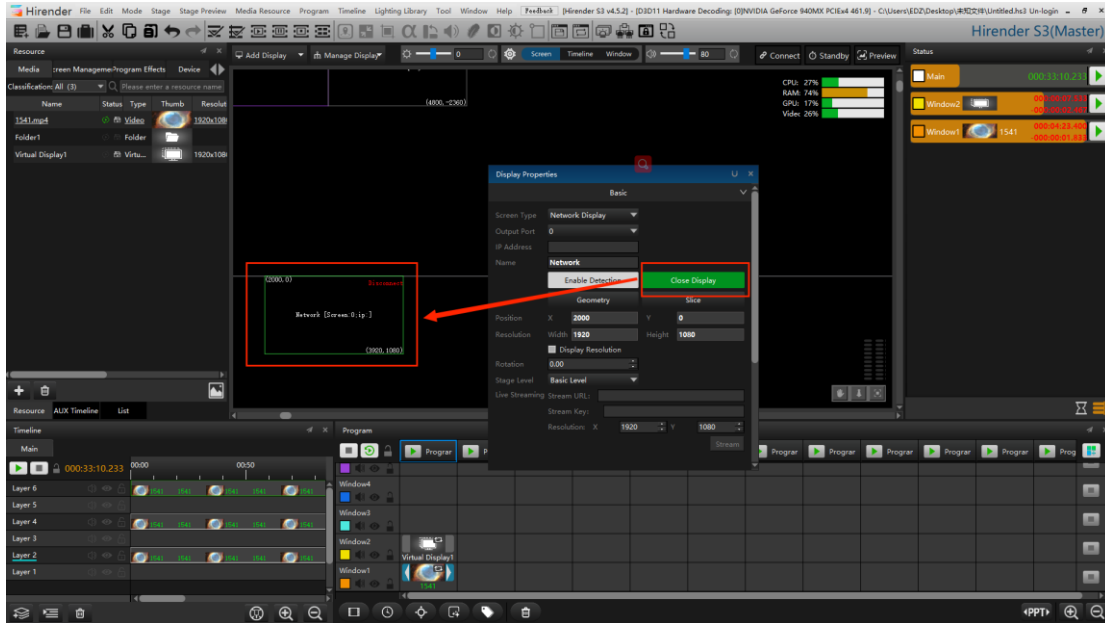
5. Enable Detection

Click to open identification, and the number will appear on the connected physical screen, which can be used to identify the screen number, as shown in the following figure:



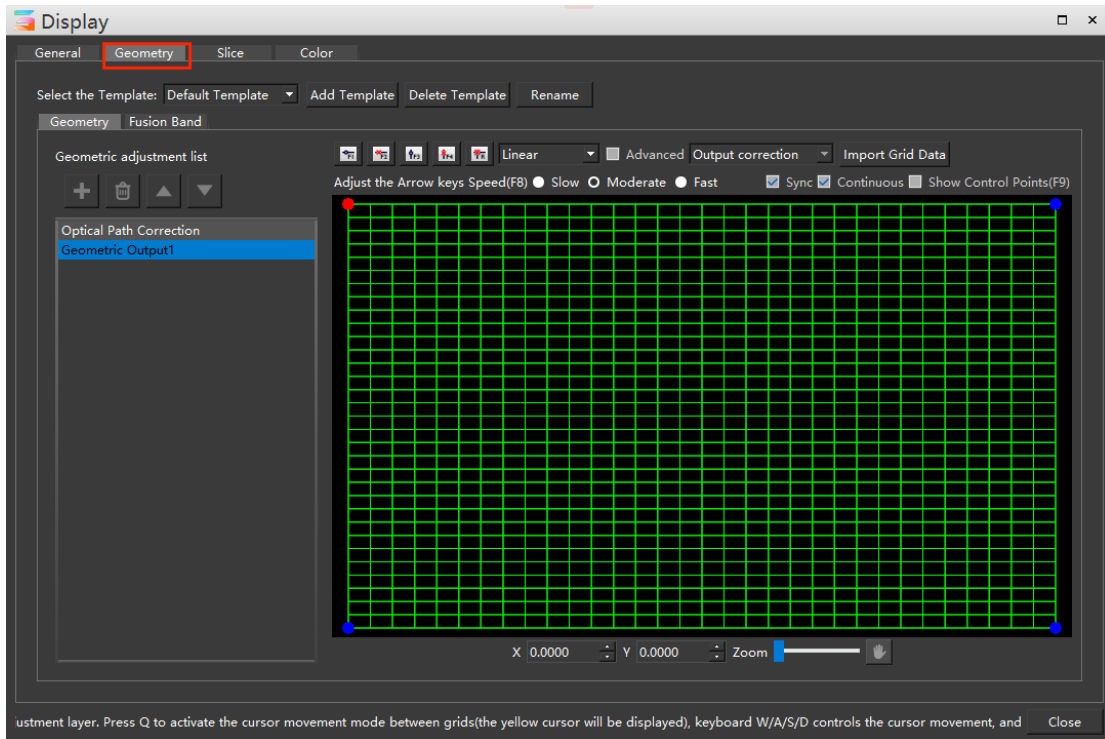
6. Open Display

After selecting the corresponding output port, open the display, and the screen windows will change to the open display color, as shown in the following figure:

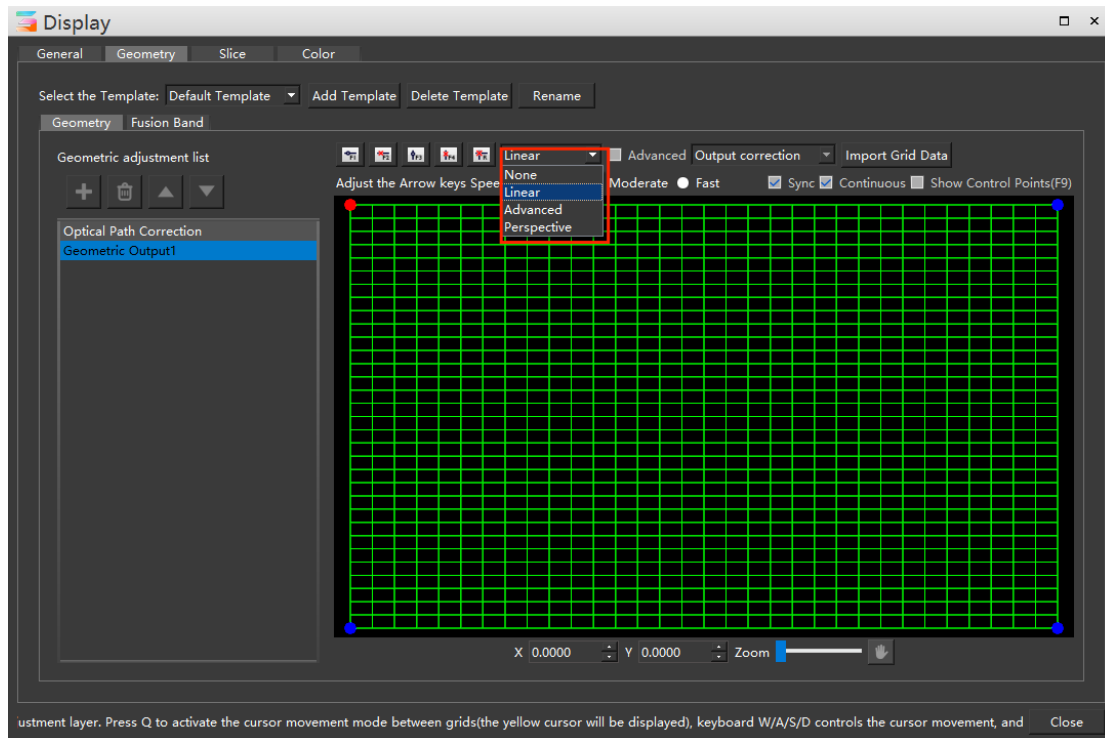


7.Geometric

Click grid fusion to enter the following grid adjustment page:



Introduction to the whole debugging interface: these five buttons represent adding vertical points and deleting vertical points in turn. Add horizontal points, delete horizontal points, empty all points and restore the grid to its original state.



The mode selected in the figure above is used to switch the mode of grid debugging, including Linear, Advanced and Prehensive mode. The geometric deformation debugging of linear mode is applicable to special-shaped projection, plane projection, mountain projection, etc., and the details can be adjusted for each grid. Perspective mode is applicable to plane projection debugging, which can adjust the whole picture while keeping the overall proportion of the picture unchanged. Advanced mode is suitable for arc projection debugging.

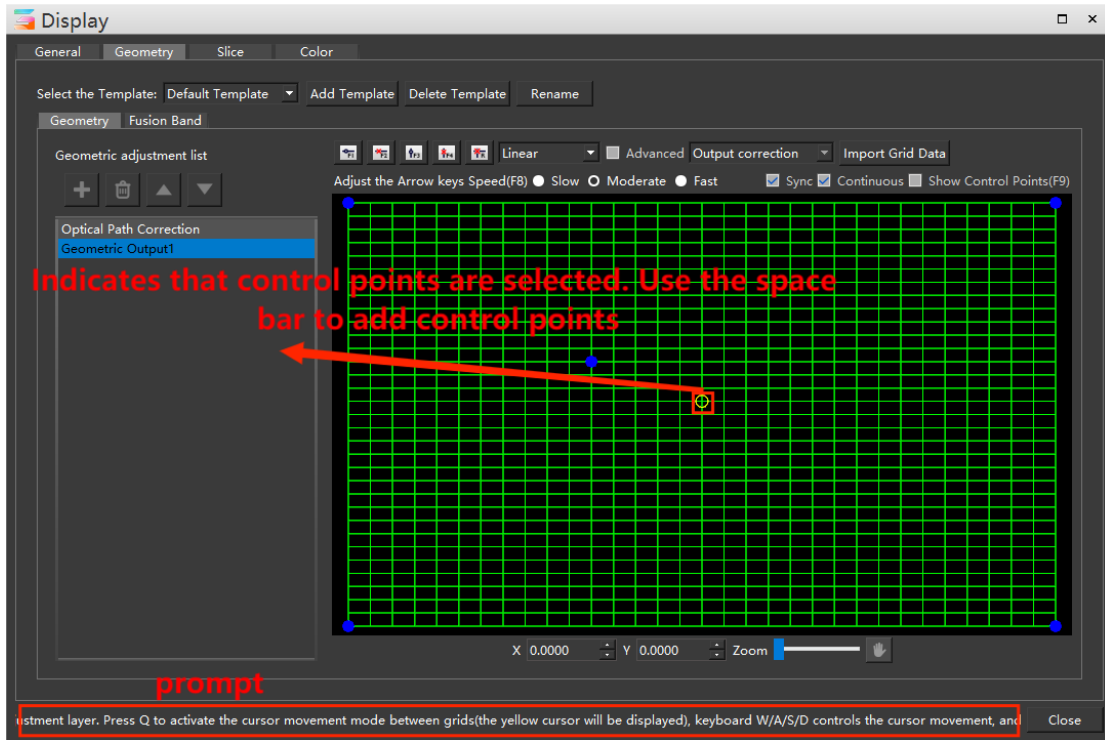
1) During mesh editing, it supports adding vertices and controlling vertex positions through the keyboard

① Press Q to activate the grid adjustment cursor movement mode, and the Yellow cursor is displayed. By default, the point in the upper left corner is selected.

② The keyboard W / A / S / D controls the cursor movement, and the direction keys adjust the control points. In full mode, control points.

To select a point between the cross handles, press Ctrl + direction key in the red mode, and use the direction key for adjustment.

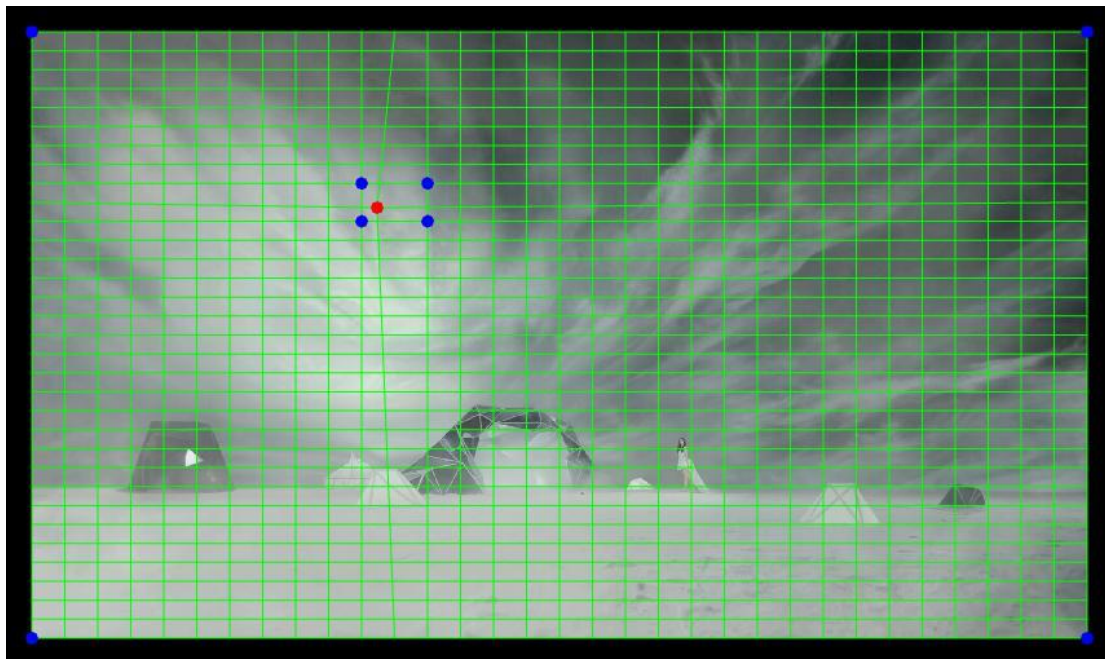
③ Support the [and] key to switch the geometric adjustment list.



2) Linear

The linear mode is applicable to the projection debugging of special-shaped surface, plane and irregular surface, as shown in the figure below.

Add debugging points in batch. Right click the intersection of lines to add debugging points freely



Left click or windows select the blue debugging point, and the selected debugging point will turn red. Click the up, down, left and right buttons on the keyboard or left click and drag the selected debugging point to move the point.

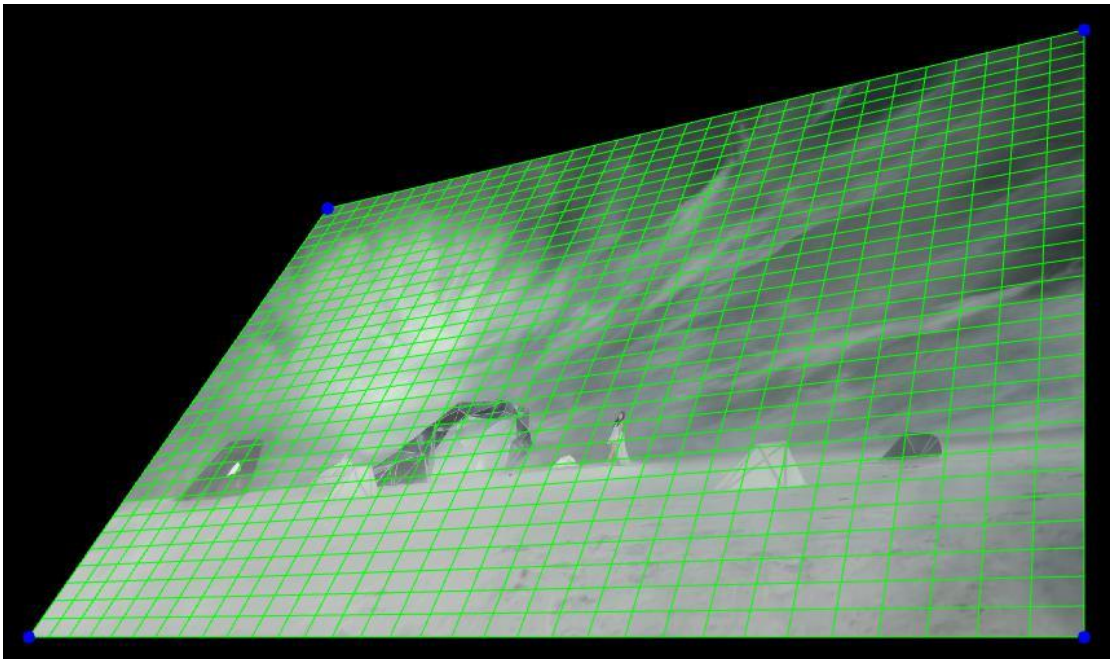


Select "direction key

adjustment speed" to adjust the speed of the direction key moving points, or frame multiple points at one time for displacement at the same time. If a location needs to be separately added with debugging points for debugging, you can right-click the intersection of green grid to add debugging points. Through the overall coordination and debugging of each debugging point, the picture output can achieve a perfect effect.

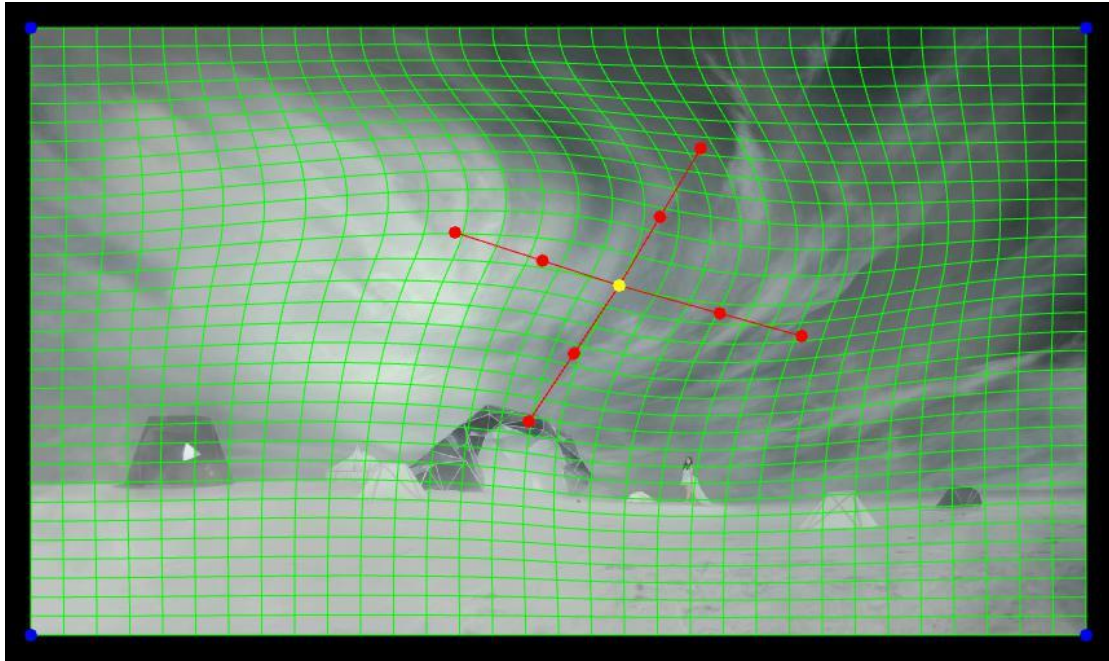
3) Perspective

Perspective mode is only applicable to the debugging of plane projection. The perspective mode cannot add debugging points, but can only adjust the picture as a whole through the four vertices of the screen. Left click or windows select the blue debugging point, click the up, down, left and right keys on the keyboard or left drag to move the point position, and adjust it according to the actual situation on site.



4) Advanced

Advanced mode is used to debug arc surface. After selecting a debugging point in the Advanced mode, the debugging point like the cross handle will appear. Each point on the cross handle can be debugged by left clicking, and the outermost point can move up, down, left and right. After the debugging point is moved, it will not change linearly like the linear mode and perspective mode, but will appear radian.

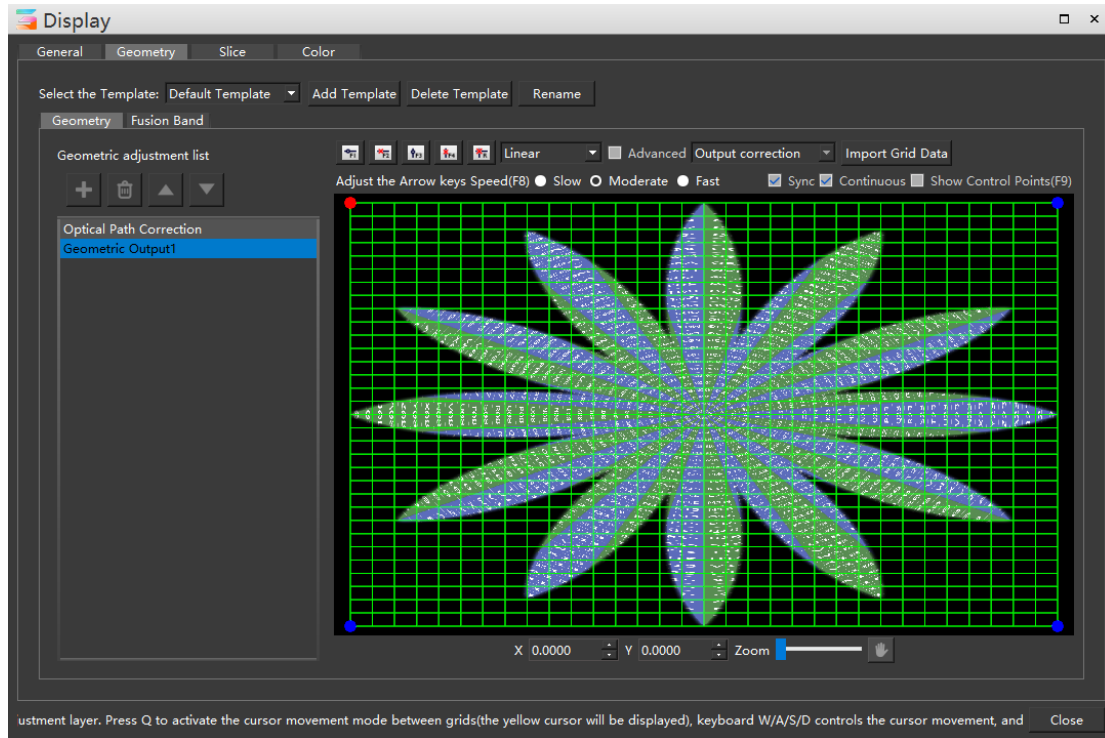


The center point and the outermost point of the cross handle can be moved in any direction by dragging with the direction key or left key, and the debugging point in the middle can only be adjusted along the direction of the cross axis.

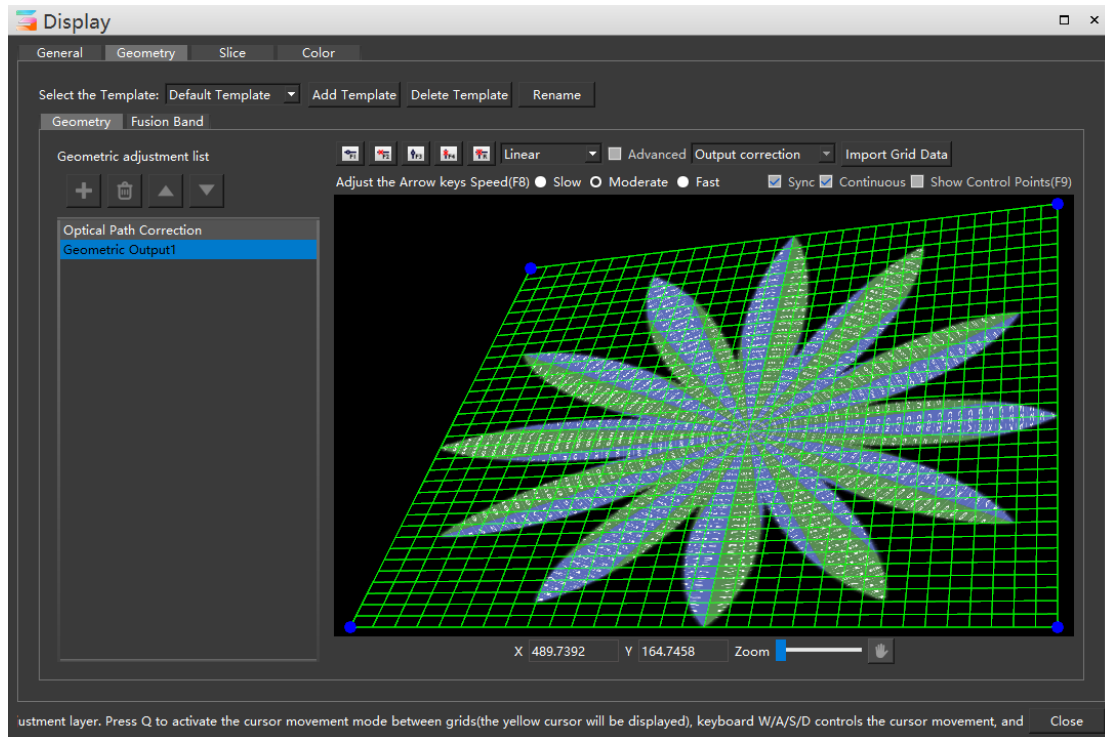
5) Optical Path correction

The light path correction layer can only use the perspective mode to adjust the picture as a whole. After adjusting the light path correction layer, create another layer to adjust the details of the picture. In the new layer, the picture is still filled with the whole grid adjustment window, so as to adjust the details on the basis of the overall penetration adjustment of the picture. Use light path correction to adjust the perspective of the whole picture:

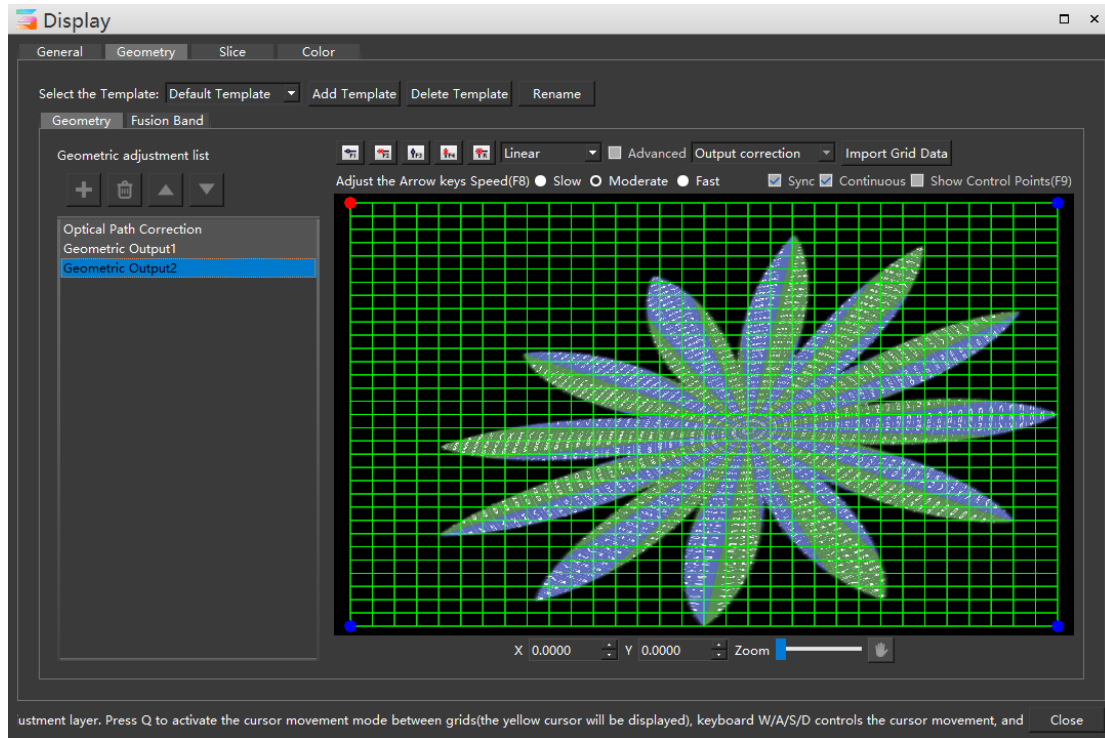
Create another layer and the screen will still fill the whole window:



Without using the light path correction layer, use the perspective mode in layer 1 to adjust the whole picture:



Create another layer. In the new layer, the picture is still in perspective mode, and the adjusted shape:

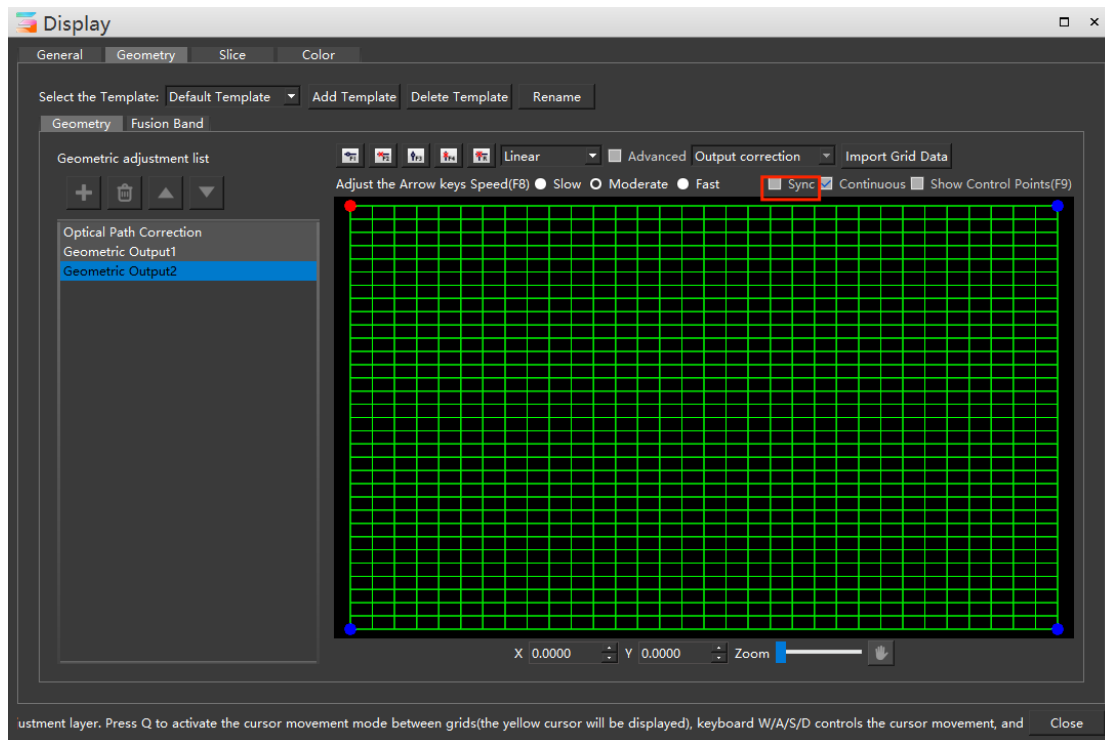


By checking the synchronous display image



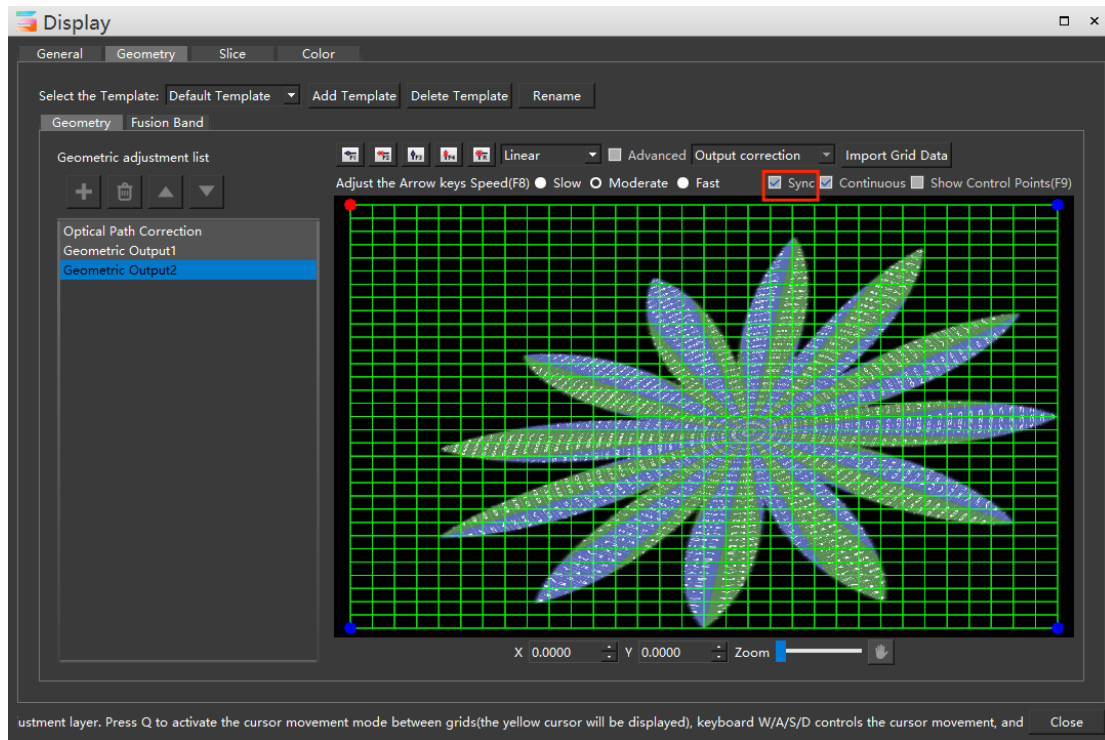
the material screen is synchronously displayed on the grid.

Unchecked synchronous display image:



the material screen is synchronously displayed on the grid.

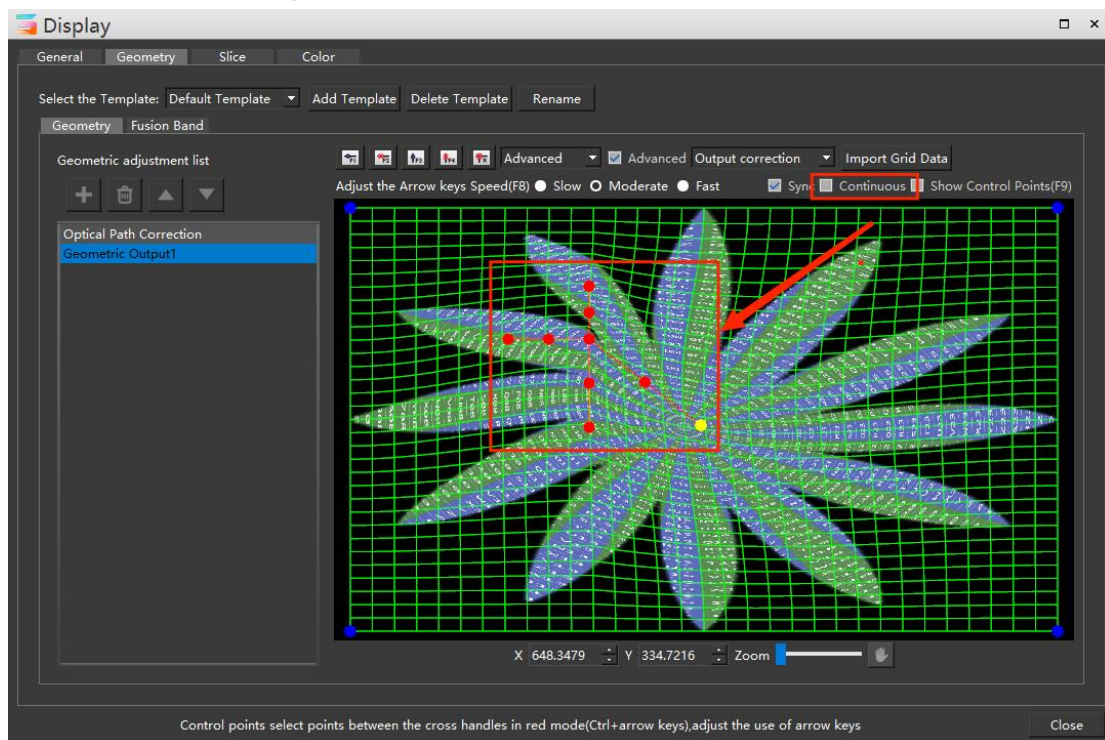
Unchecked synchronous display image:



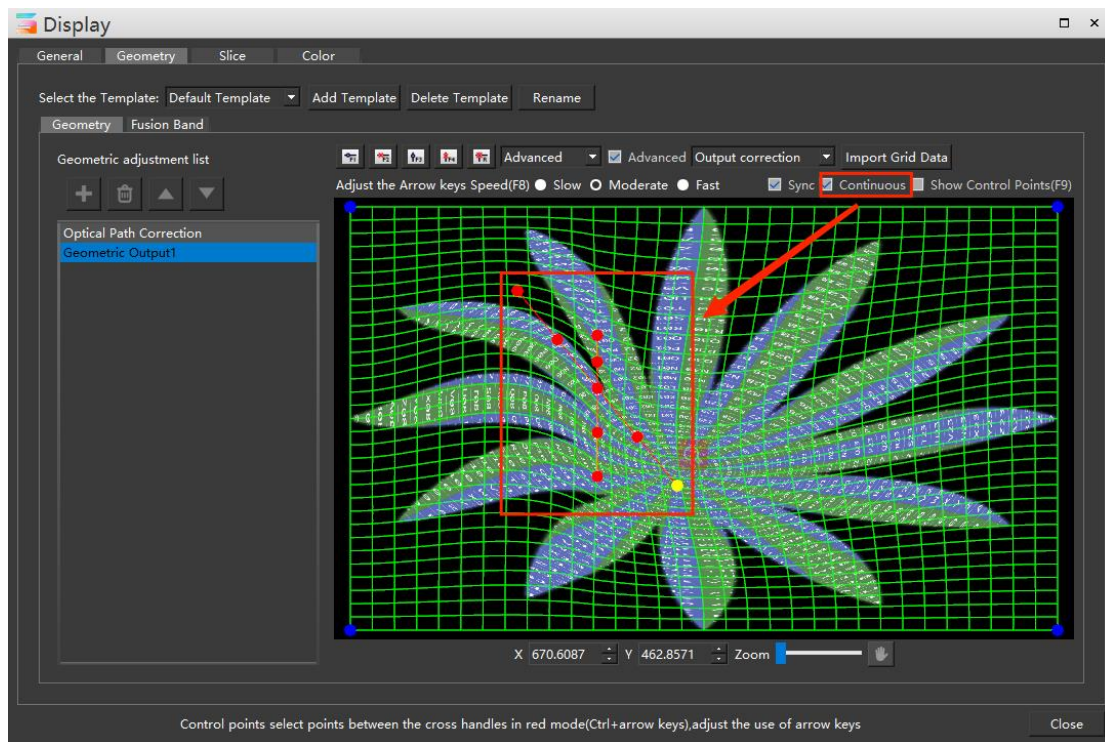
6) Continuous

It is used to perform symmetrical actions on the left and right sides when debugging the cross handle. For example, after checking the smooth curve, when the rightmost point of the cross handle is moved upward, the corresponding left handle will move downward. After removing the check state of curve smoothing, move the point on the right up and down, and only the handle on the right moves up and down.

Uncheck curve smoothing:



Check curve smoothing:



8) Show Control Points

Display the control points of the current layer on the screen, which takes effect only when the screen properties adjustment window is opened:

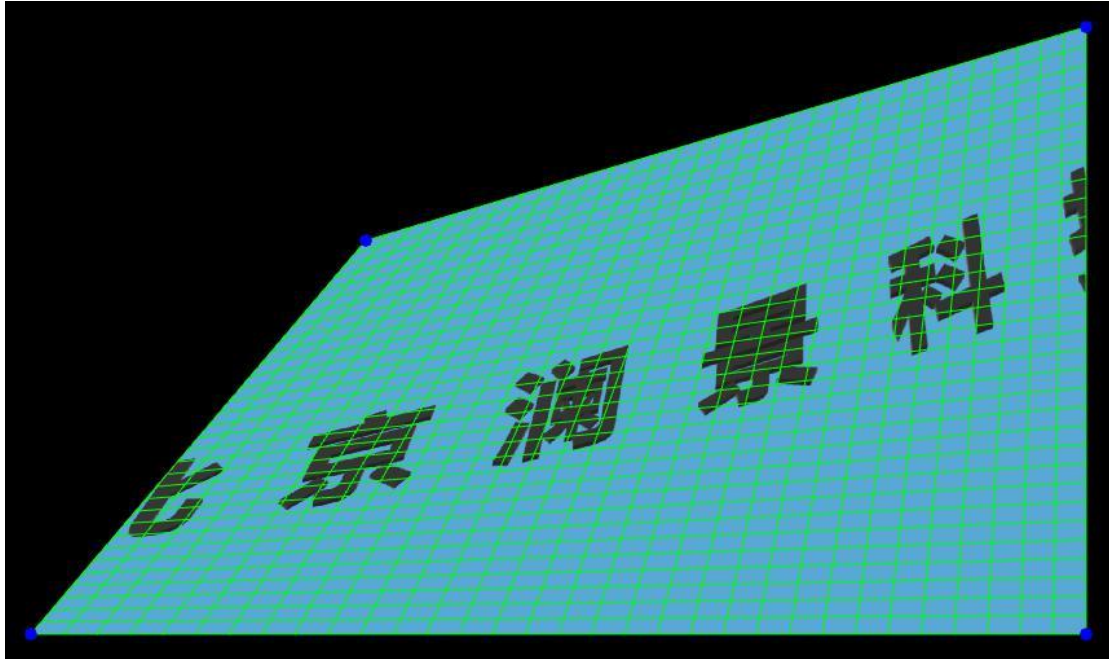


9) Output / Texture correction

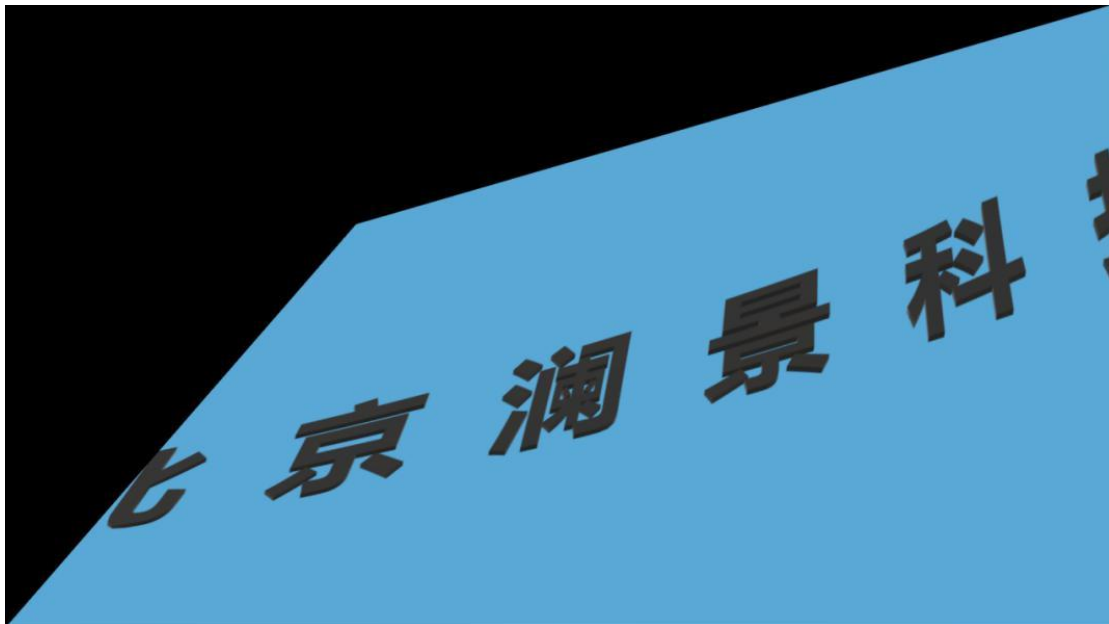
The default mode is output correction mode. In this mode, only the pictures of the screen

intercepted part can be adjusted. When the grid at the edge of the screen moves, the screen may appear black edge.

Adjust the perspective of the whole picture under output correction:

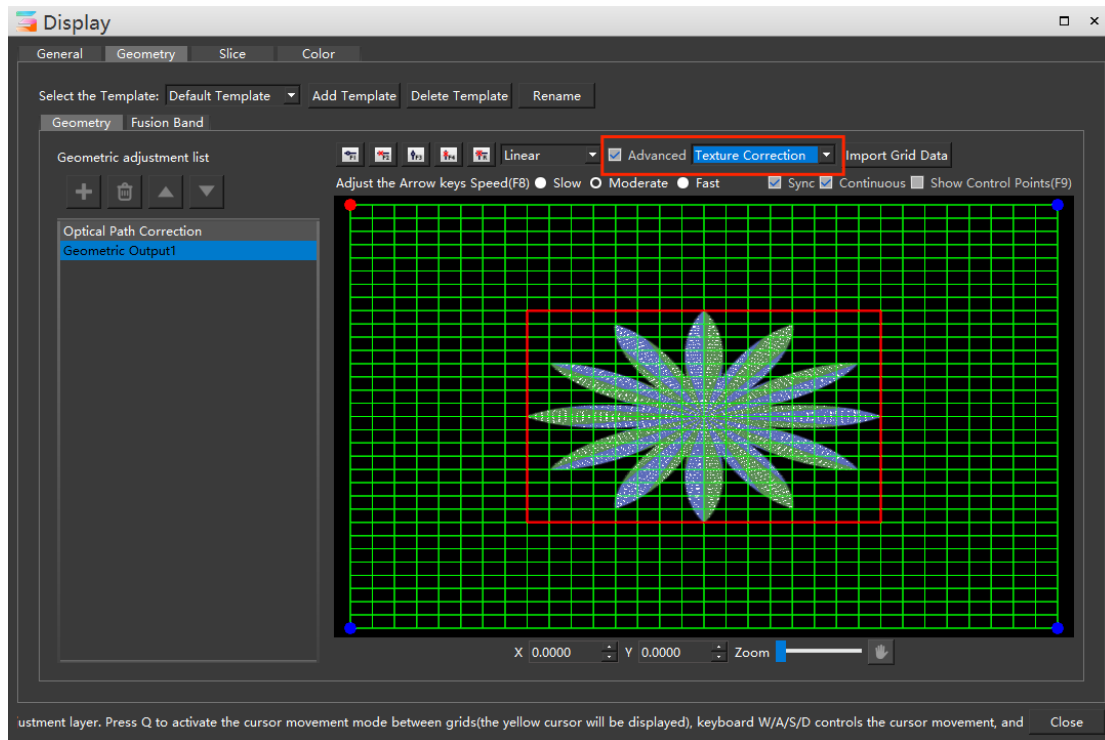


Screen display:

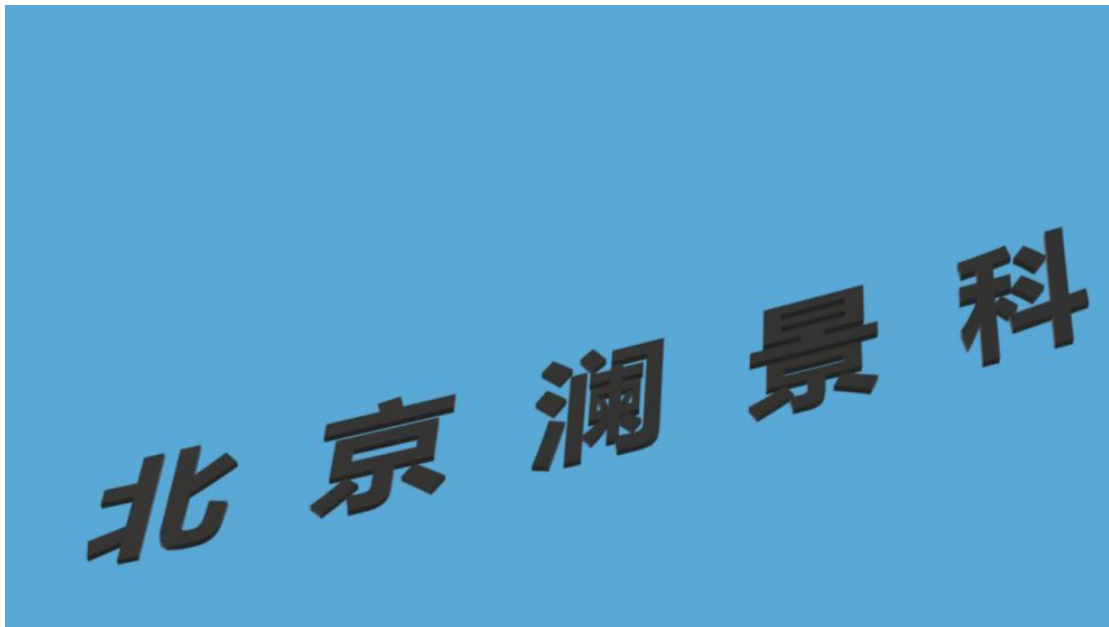


After the texture correction mode is turned on, you can not only adjust the intercepted part of the screen, but also adjust the whole picture of the material, including the non intercepted part of the screen, so as to avoid black edges.

The whole picture can be adjusted by checking:



There is no black edge on the screen:



10) Import Grid Data

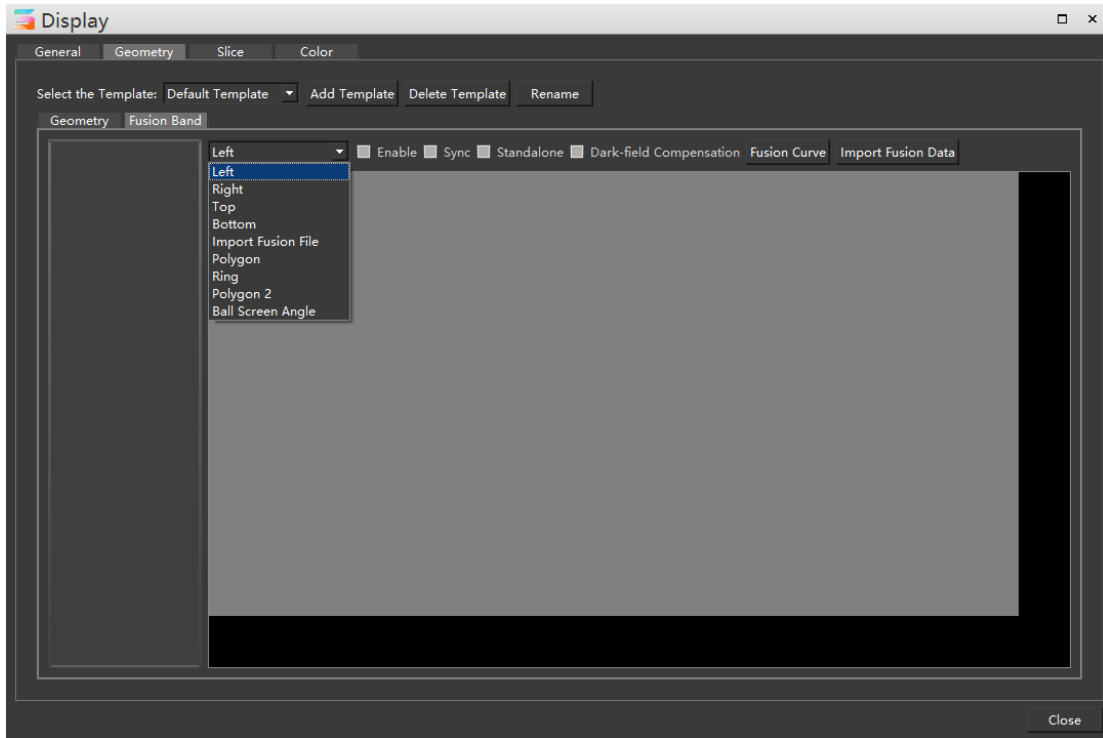
Import the grid data in the edited project locally.

8.Fusion Band

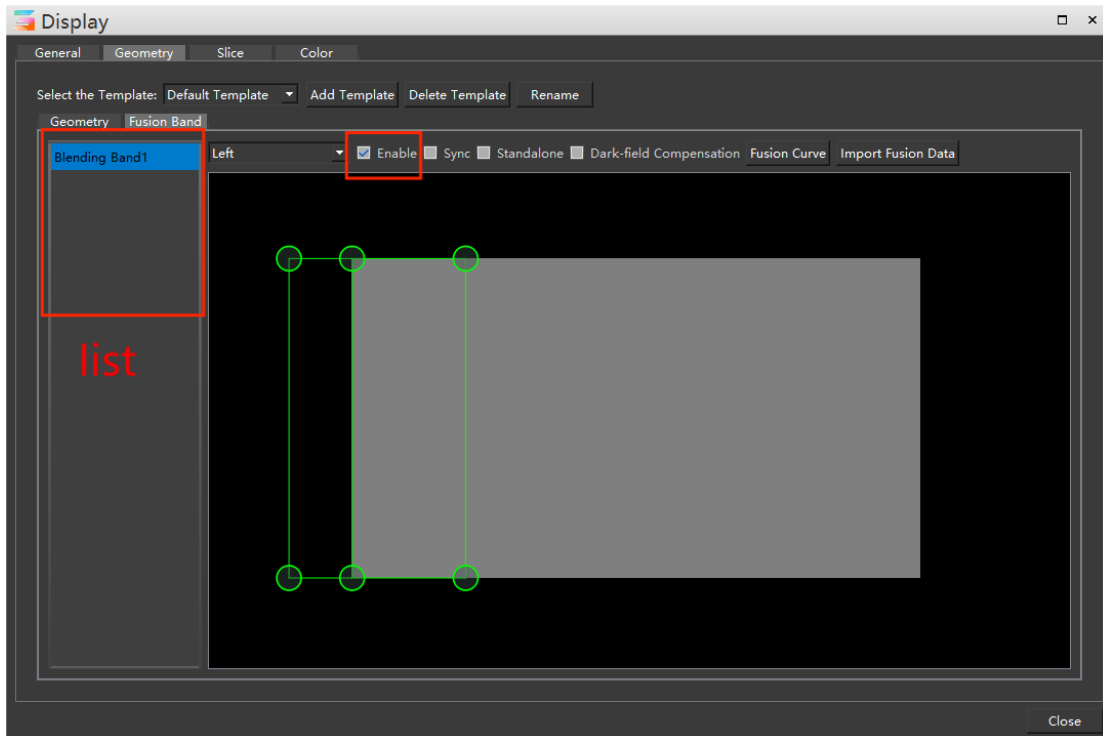
Click the fusion zone in the software operation interface and select geometry fusion zone in the pop-up windows. When adding the fusion band, the actual situation of the display frame corresponding to the projected fusion area shall be considered. If the two projectors are spliced

and fused on the left and right, the left display windows adds a right fusion belt, and the right display windows adds a left fusion band.

Select the part to add fusion zone to create a new fusion zone. The created fusion zone will be displayed in the list on the left:



After adding the fusion belt, as shown in the figure below: after checking the synchronization button, the green border of the fusion belt will be synchronously displayed on the projector screen.



1) Enable

Select the fusion zone, and you can choose to enable or disable it. If you choose not to enable it, the fusion band effect will not be displayed.

2) Sync

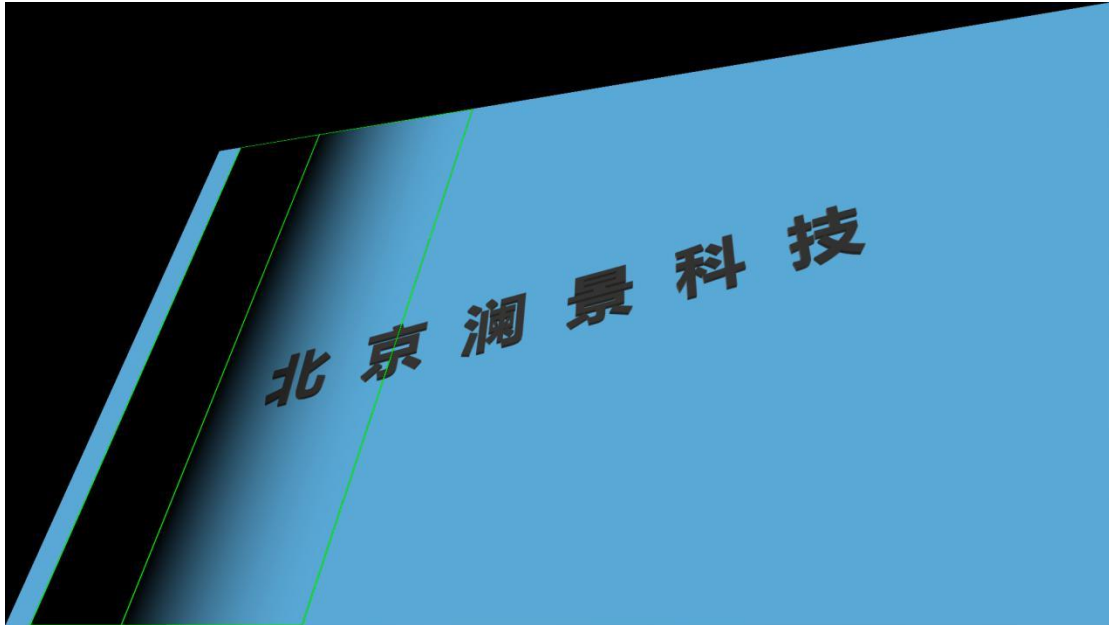
Make the added fusion belt synchronously displayed on the screen.
Enable and synchronize the fusion belt:



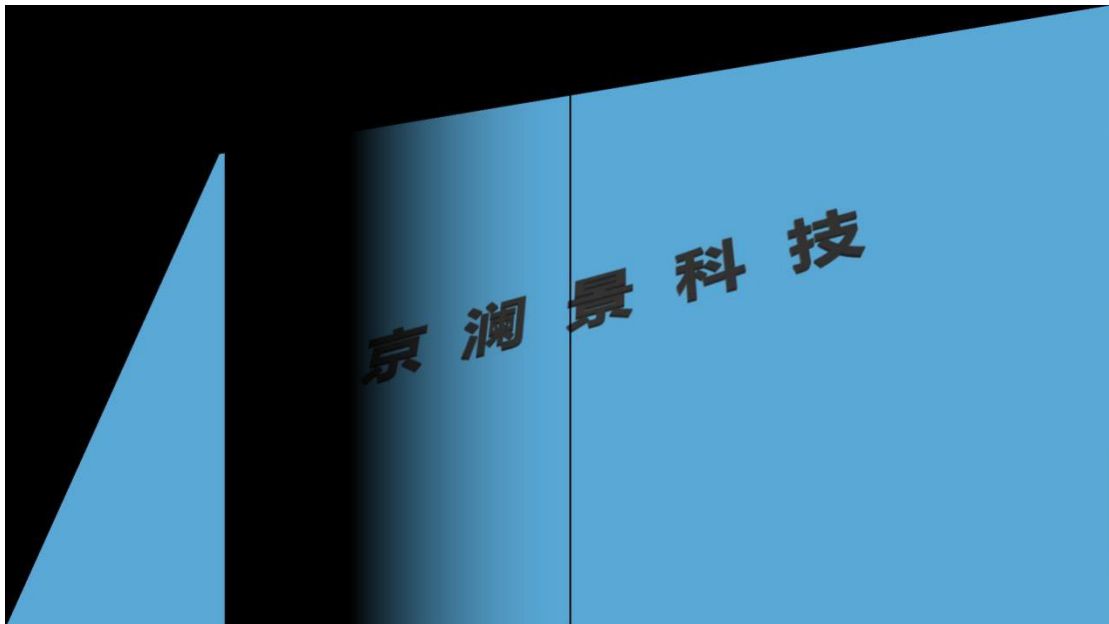
3) Standalone

If this command is checked, the fusion belt will not follow the mesh adjustment. If not selected, the fusion zone will adjust the overlay display with the grid.

Uncheck the fusion zone, which is independent of geometric deformation, and the shape of the fusion zone changes with the mesh:



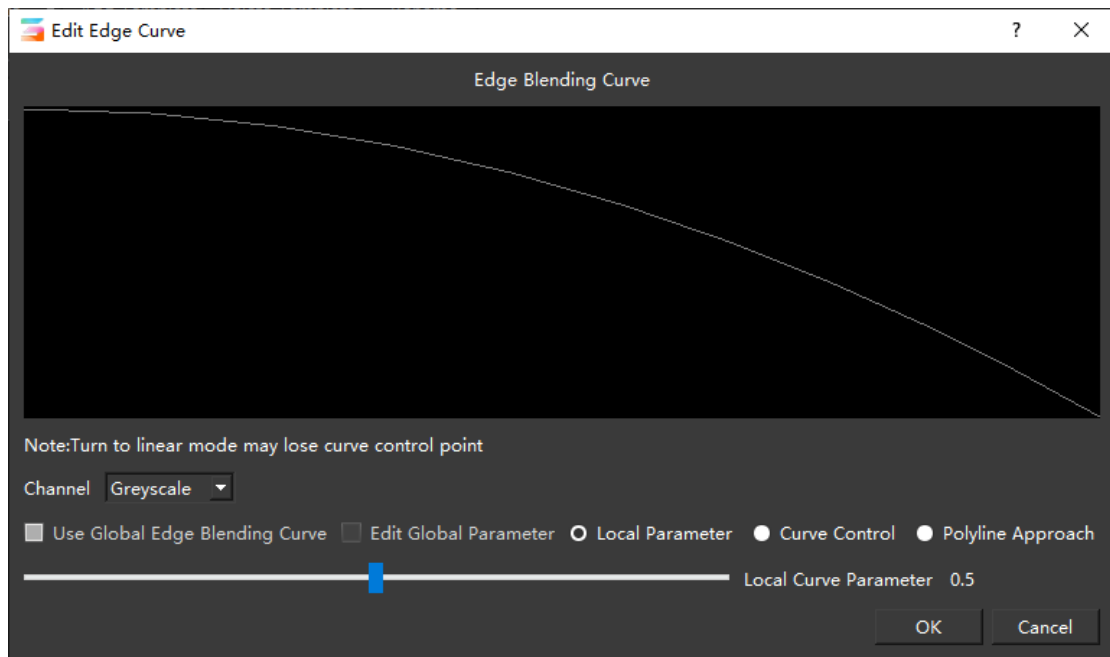
Check that the fusion zone is independent of geometric deformation, and the shape of the fusion zone is not affected by the mesh:



4) Dark-field Compensation

When checked, the fusion band turns white, which is applicable to the situation of insufficient brightness on site.

Click the edge curve to adjust the fusion zone in more detail. The setting interface is shown in the following figure:



Channel: fusion band with different color display

Local parameters: use local curve parameters to adjust the fusion zone

Curve control: adjust the brightness of the fusion belt with a curve.

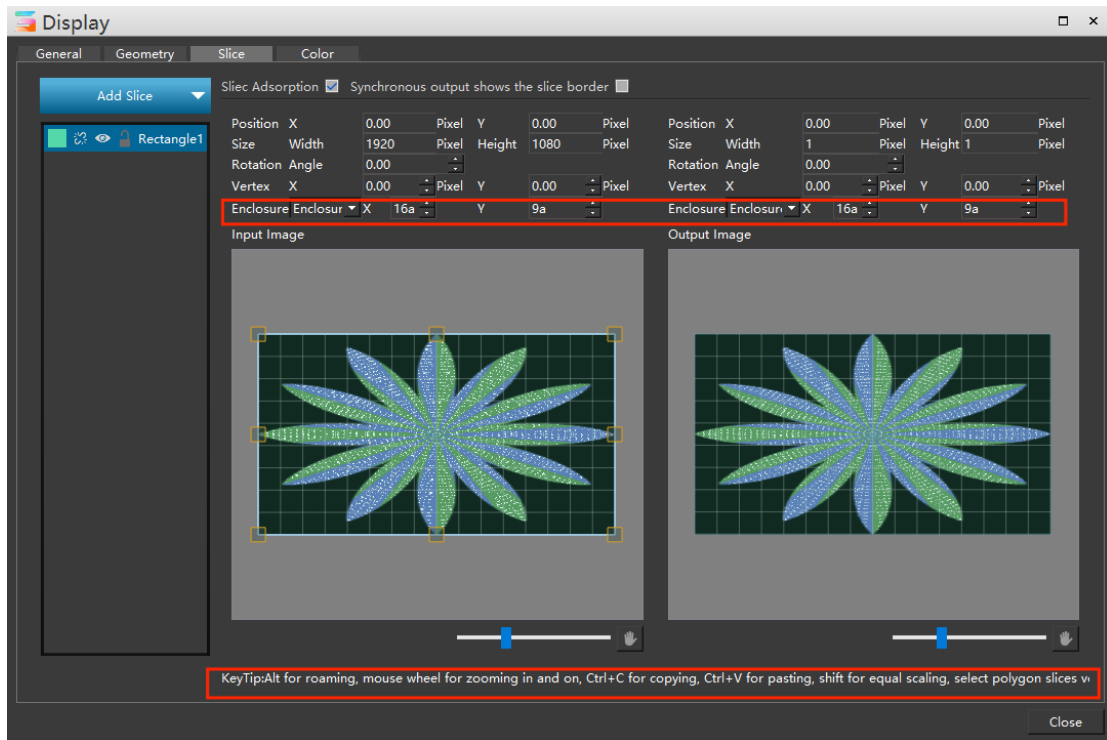
Polyline approximation: select points on the polyline and adjust the brightness of the fusion zone.

9.Slice

Enter the screen - slice - add slice to add rectangular / polygonal slices.

1) Add rectangle slice

Click Add slice on the left to add a slice of the specified shape. You can adjust the position and size of the slice by dragging with the left mouse button. You can also select a point on the slice and press “Ctrl + direction key” to adjust the size of the slice, or select the slice and use the direction key to adjust the position of the slice. It supports the windows structure and can set the number of horizontal and vertical windows to facilitate users actual operation.



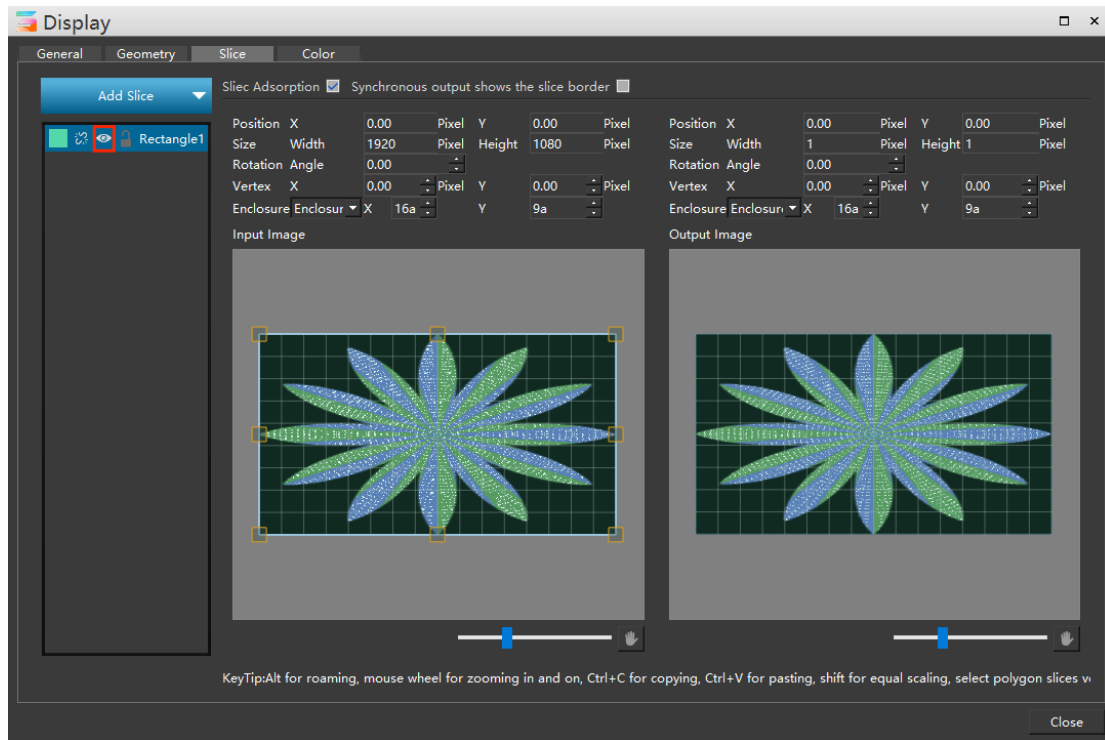
① Slice adsorption

When adding multiple slices, the edges of the slices will automatically stick together when they are close to the vertices, which is convenient for alignment.

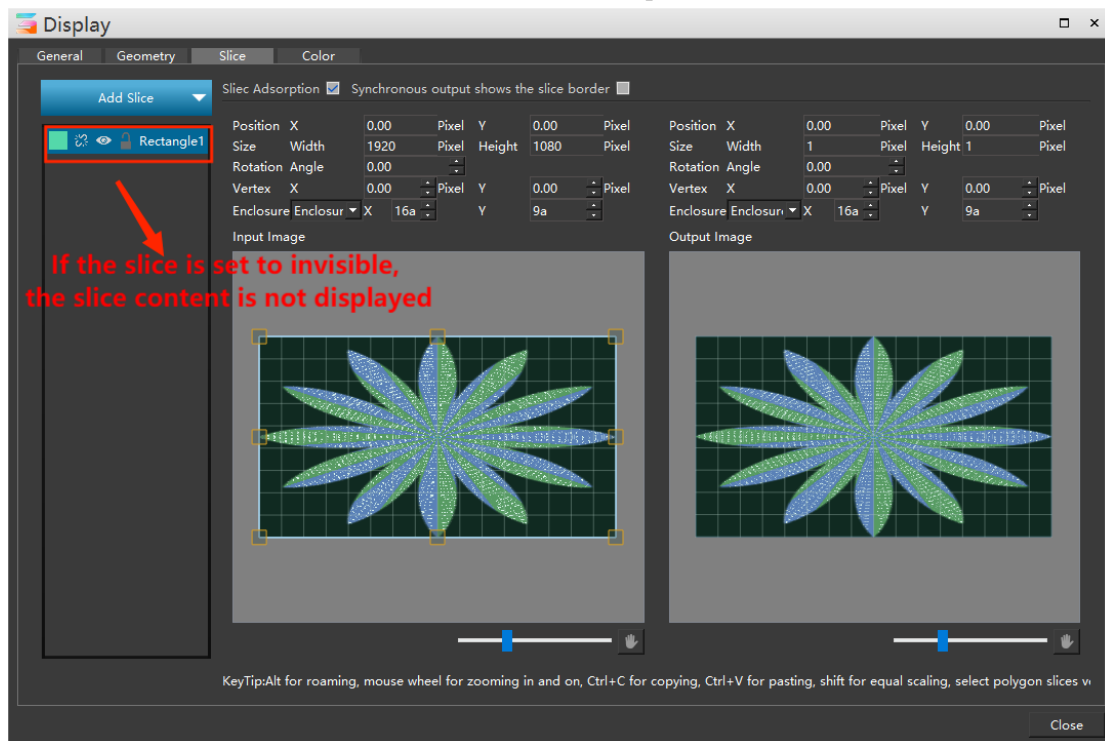
② Synchronous output shows slice border

Displays the slice border on the screen.

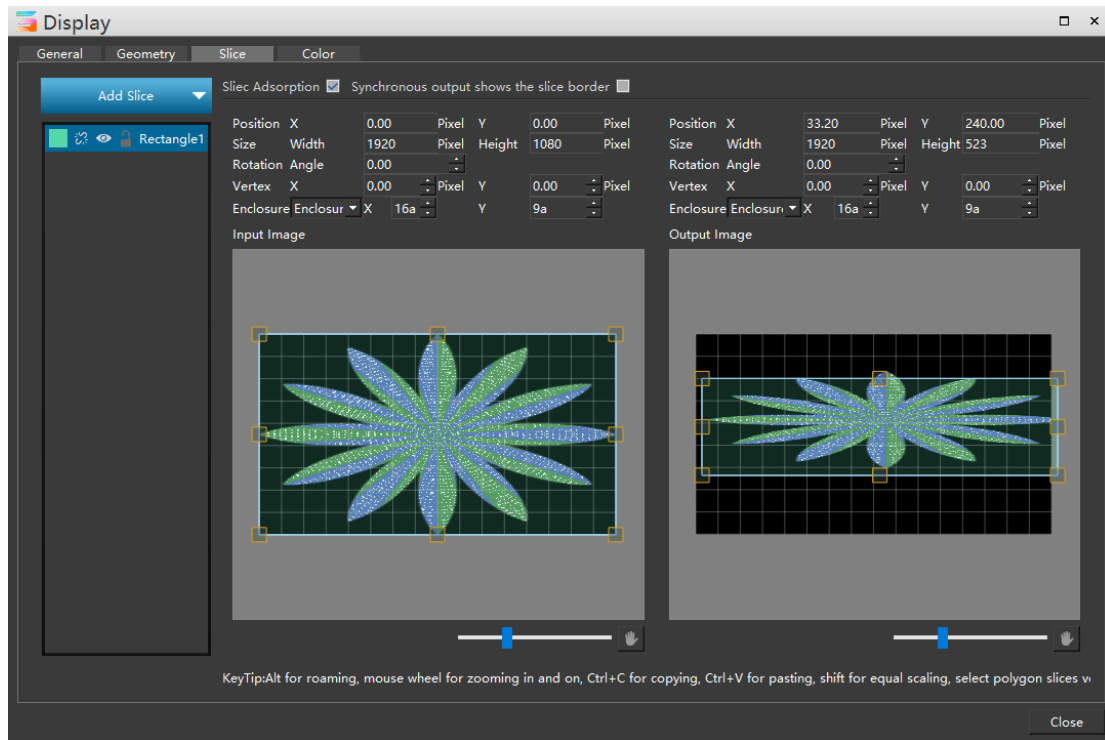
The left window can adjust the position, size and shape of each slice, and the right window displays the actual output screen of the screen. Click the eye icon in the slice list on the left to adjust the slice visualization. In the case of slice binding visualization, the picture displayed by the slice in the right window is the same as the picture intercepted by the slice in the left window.



When hidden, the slice is invisible and cannot be manipulated.

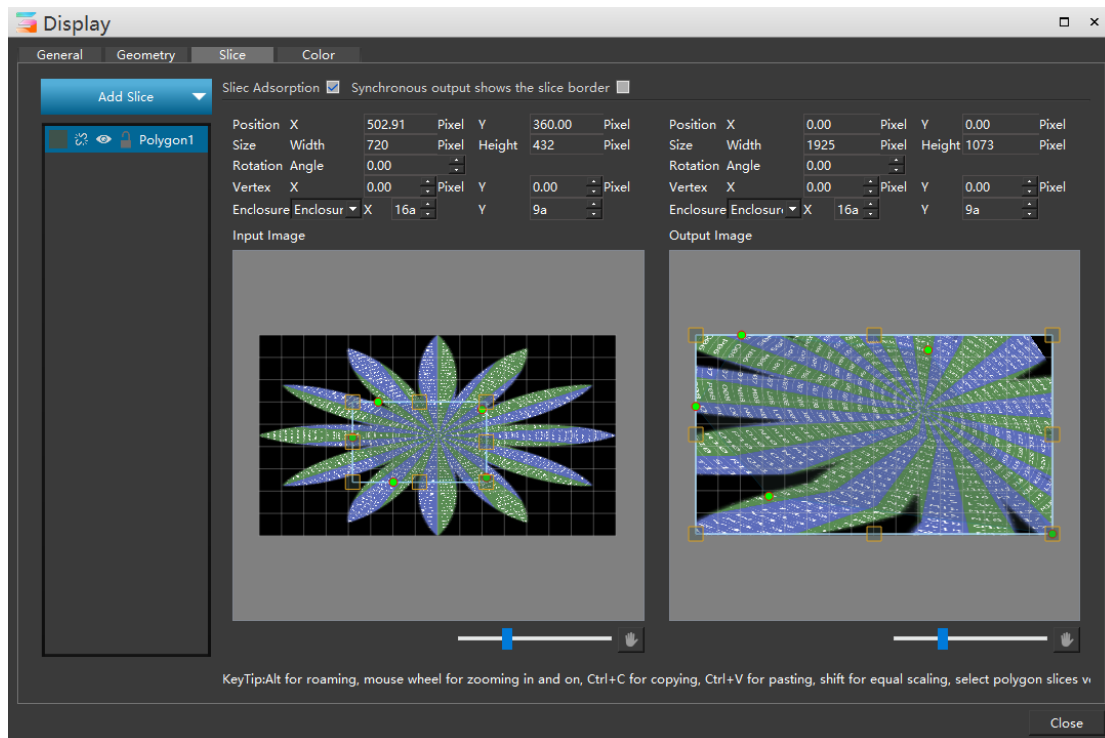


In the right display window, you can set the position, size and rotation angle of the slice separately without affecting the left slice.



2) Add polygon slice

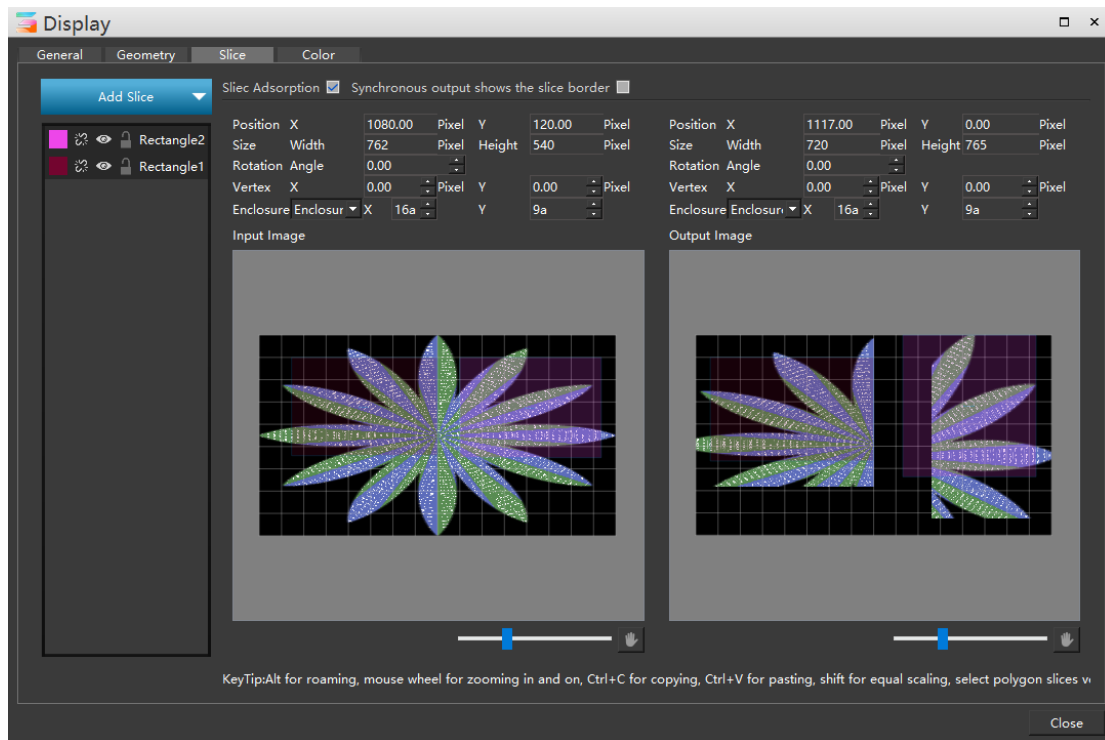
Select Add polygon slice. In the left area, the mouse pointing will become the shape of a pen, click the points you want to select in turn (the backspace key can cancel the wrong points), and finally click the starting point to complete the creation of polygon slice. Press ESC to exit slice creation.



The operations of moving and adjusting polygon slices are the same as those of rectangular slices.

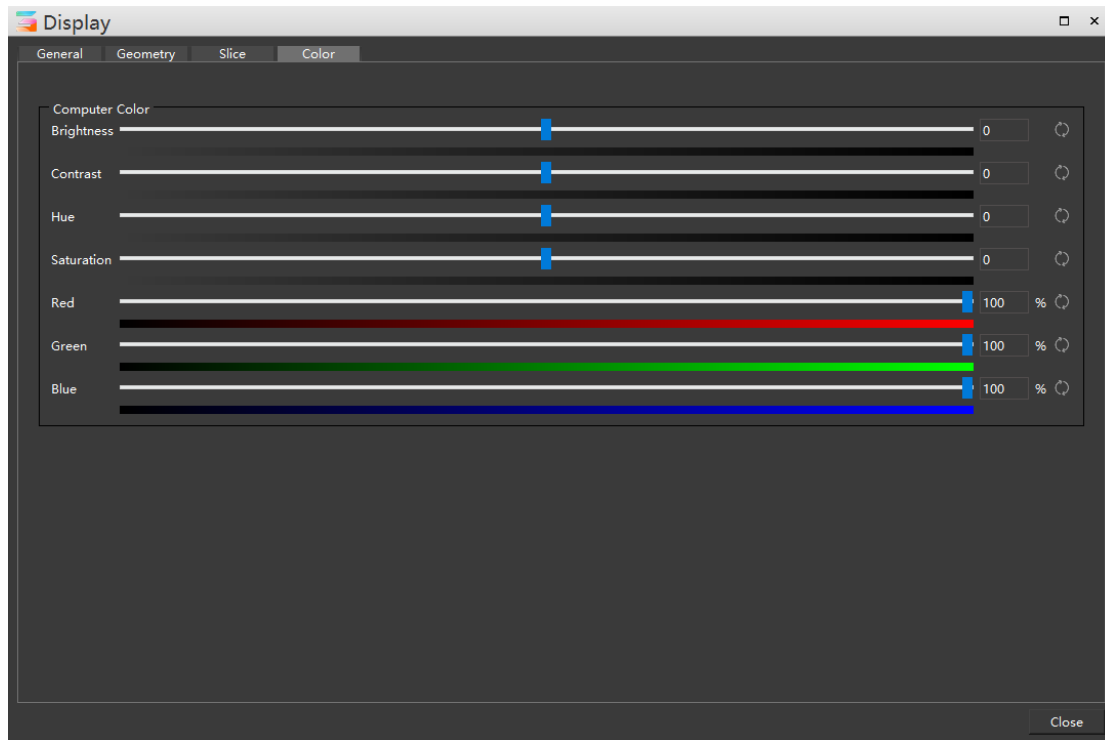
3) Splicing

Multiple polygons can be selected at the same time for splicing display. Users can design by themselves according to their own needs to achieve a variety of creative splicing effects. When splicing, you can check the adsorption option to adjust the slice position and achieve better splicing effect.



10.Color

The brightness, contrast, chroma, saturation and color of the screen output can be adjusted freely, which is similar to the color effect of editing media materials.



11.Position

Adjust the position of the screen in the stage.

12.Resolution

To adjust the display resolution of the screen, click and tick to use the physical resolution of the screen.

13.Rotation

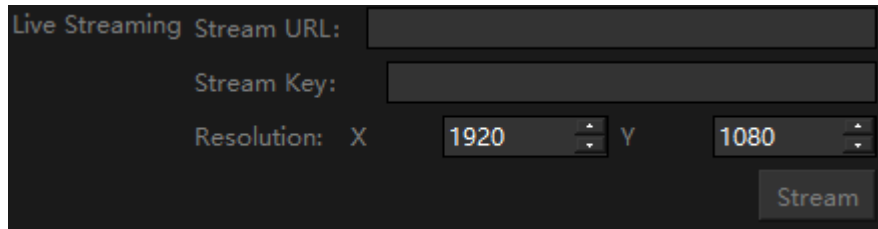
You can set the rotation angle of the selected screen. The positive number is clockwise and the negative number is counterclockwise.

14.Stage level

Set the stage level of the screen, which can be edited only when it is the same as the stage level.

15.Live Streaming

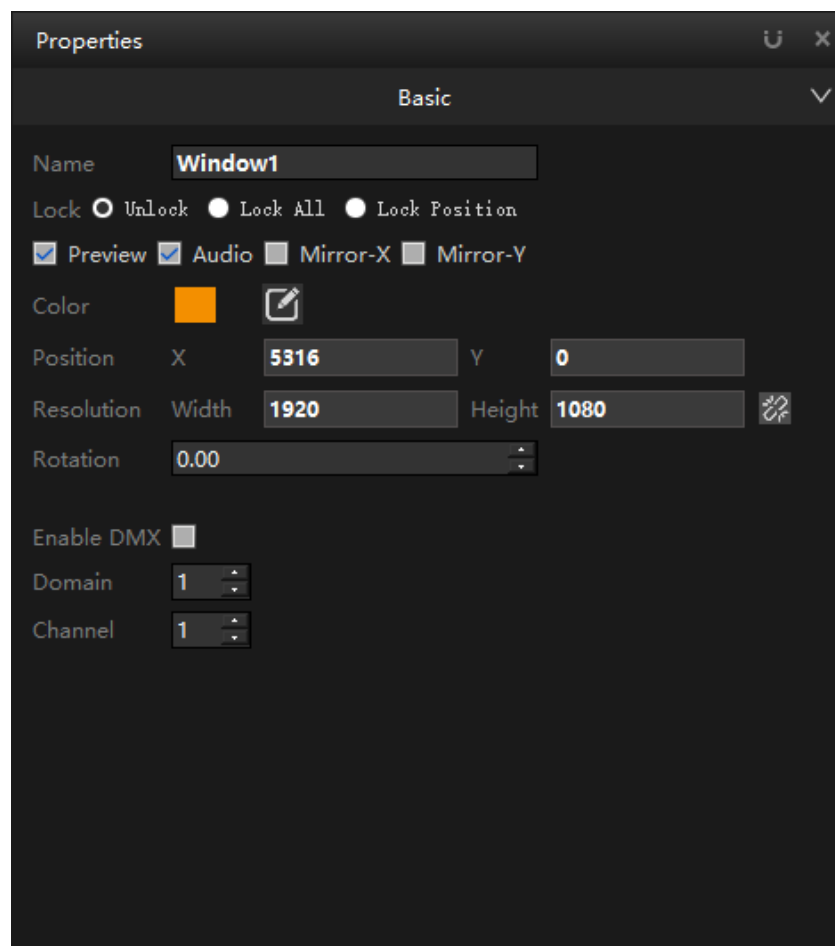
Enter the streaming address and streaming code and set the resolution. Click streaming to push the live broadcast, as shown in the following figure:



Program layer properties

1. Program window layer properties

Click and select the window to be modified in the program management windows to modify the window name, display color, window position and size, window rotation angle and other properties in the window properties windows on the right. The interface is shown in the following figure:



① Name

The program window name can be modified.

② Lock

After locking is checked, you cannot set the properties of the window layer.

③ Preview

When checked, the program will be played in real time in the window.

④ Audio

When checked, there is sound playback. When not checked, the program will be played silently.

⑤ Mirror-X / Mirror-Y

Mirror horizontal: take the central axis in the Y direction of the window as the central axis, and do mirror flip:

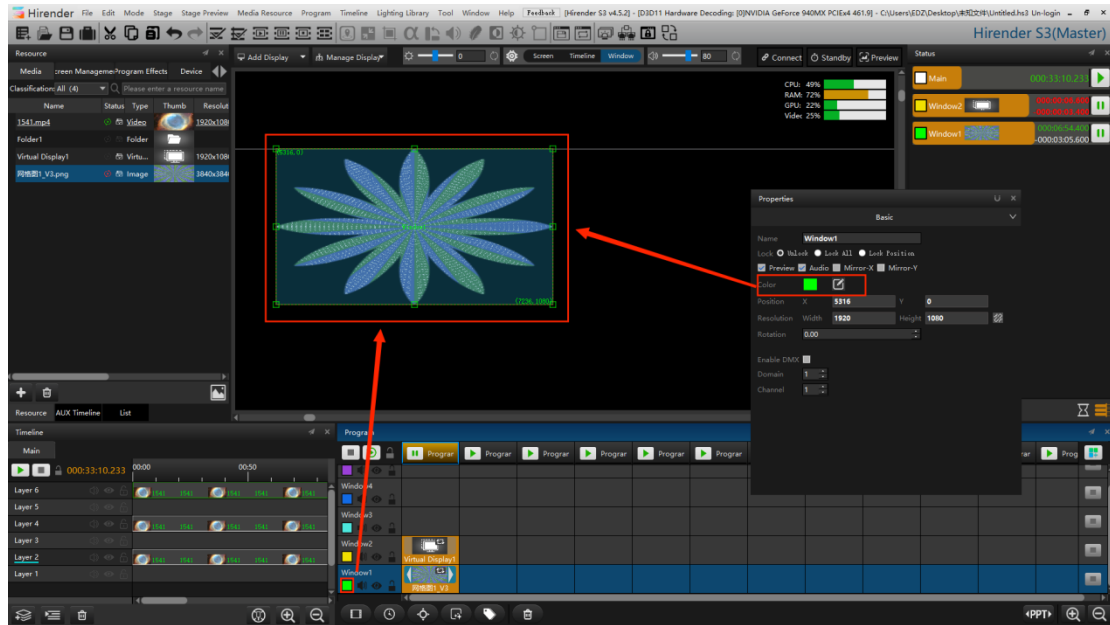


The mirror vertical direction is to take the central axis in the X direction of the window as the central axis to do mirror flip:



⑥ Color

You can change the color of the corresponding window border in the main screen, and delete it to restore the default color, as shown in the following figure:



⑦ Position

Change the corresponding values respectively, modify the position and size of the window in the stage, and click the back button to bind the resolution.

⑧ Rotation

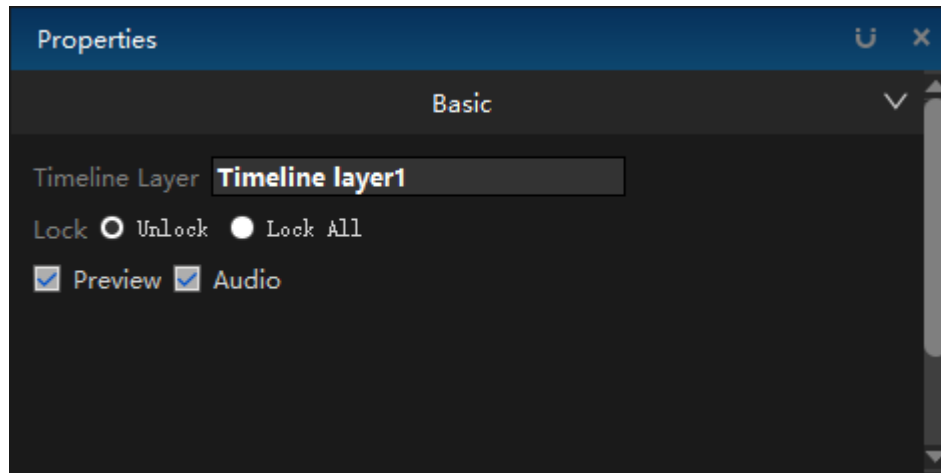
Modify the rotation angle of the window. A positive number is clockwise and a negative number is counterclockwise.

⑨ Enable DMX

It supports the operation of opening DMX control window, checking and setting corresponding fields and channels.

2.Program timeline layer properties

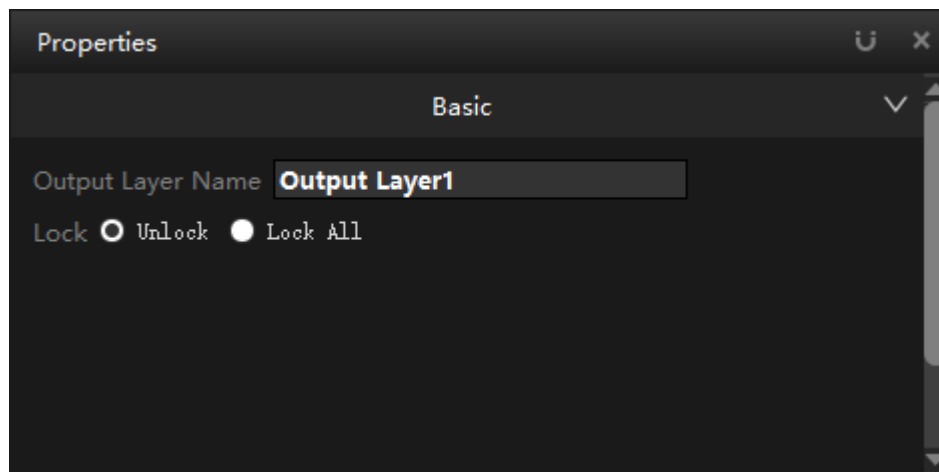
The program timeline layer properties window is shown in the following figure:



You can set the name, lock status, preview and sound status respectively.

3.Program output layer properties

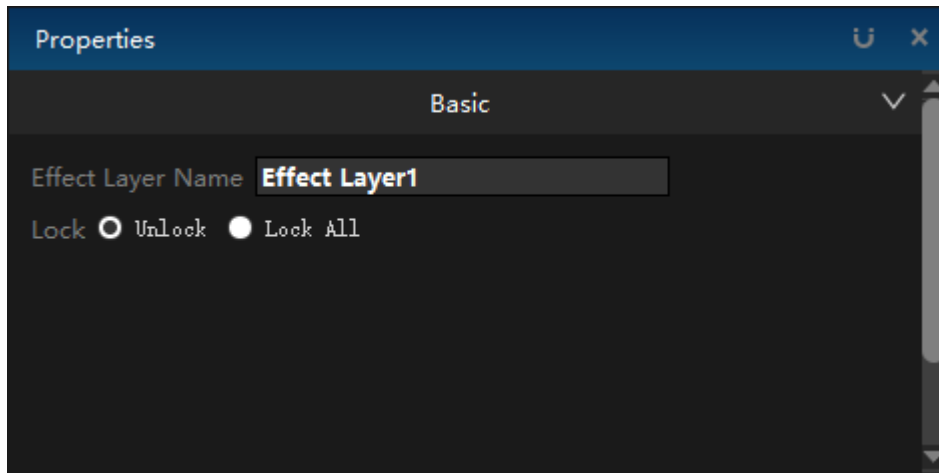
The program output layer properties window is shown in the following figure:



You can set the name, lock status, preview and sound status respectively.

4.Program effect layer properties

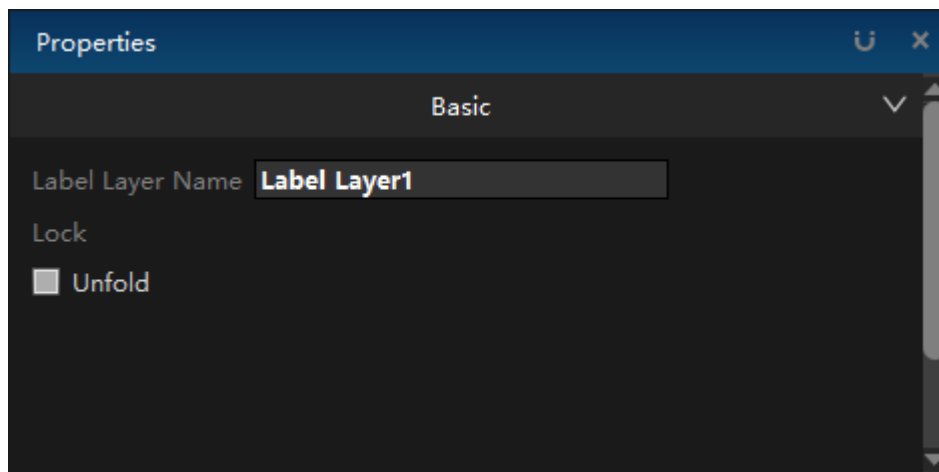
The program special effect layer properties window is shown in the following figure:



The name and locking status can be set respectively.

5. Program flow tag layer properties

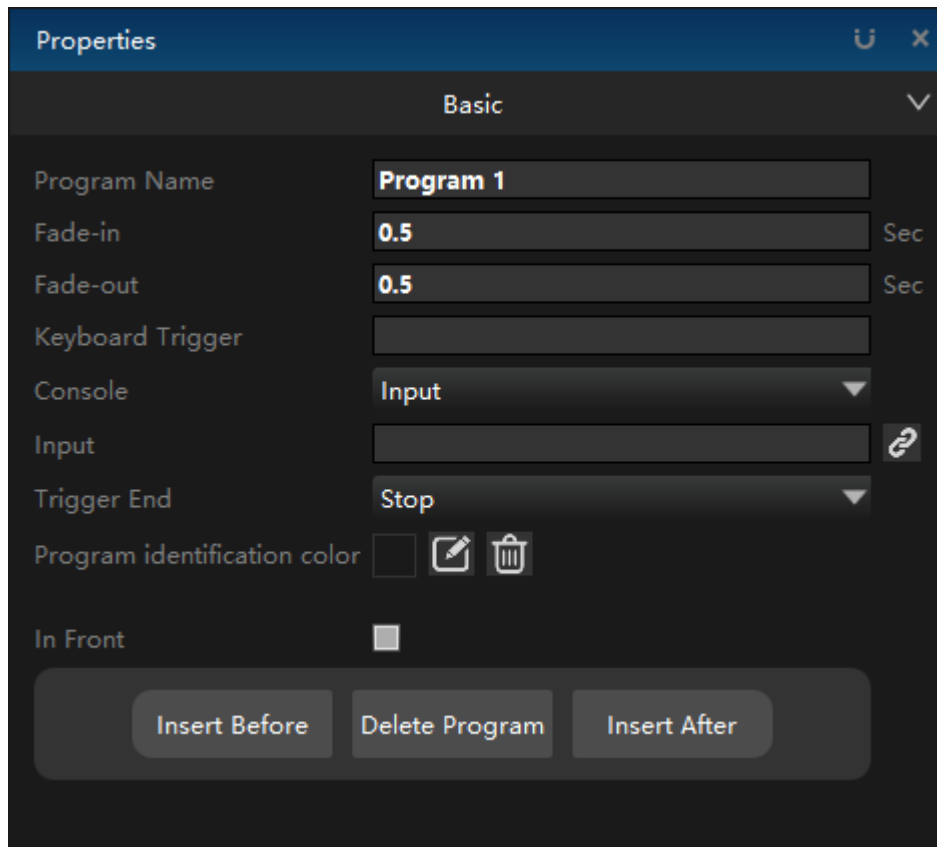
The program special effect layer properties window is shown in the following figure:



You can set the name and deployment status respectively.

Program properties

The program properties window is shown in the following figure:



1. Program name

Modify the program name.

2. Fade-in / Fade-out

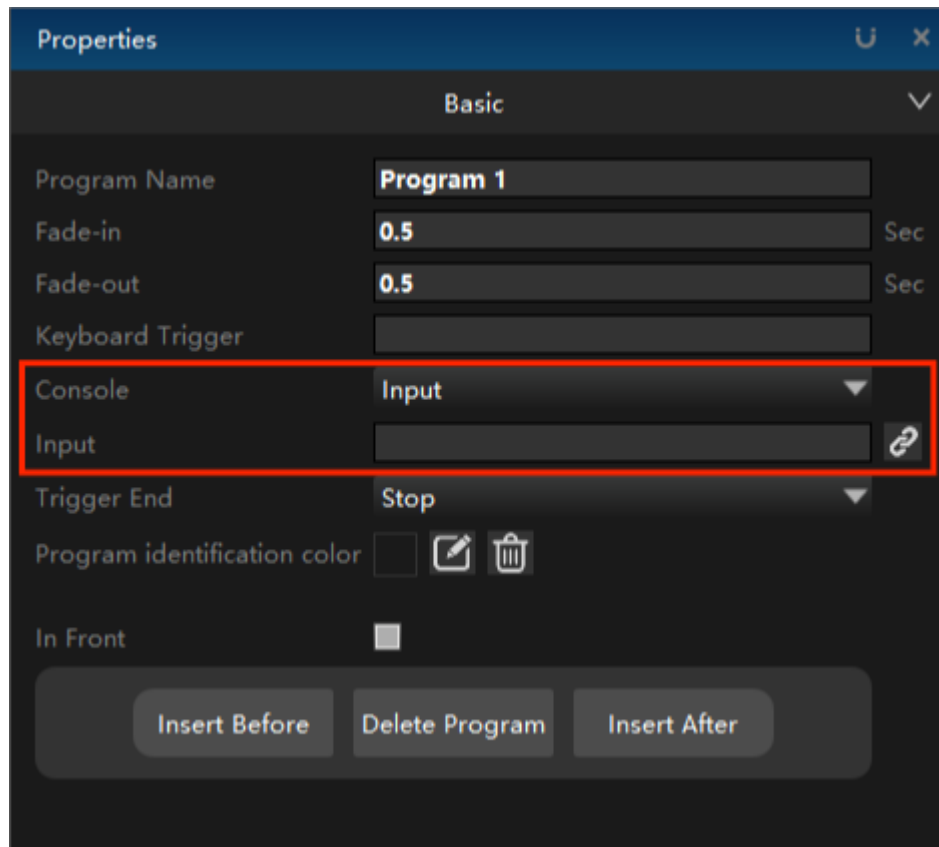
Set the fade in / fade out switching duration of program switching.

3. Keyboard Trigger

Quickly switch programs by setting the keyboard trigger button.

4. Console

Hc64 / MIDI / common input / DMX512 / sensor options can be selected. After the console is set, the corresponding binding can be carried out, as shown in the figure below:



5. Trigger End

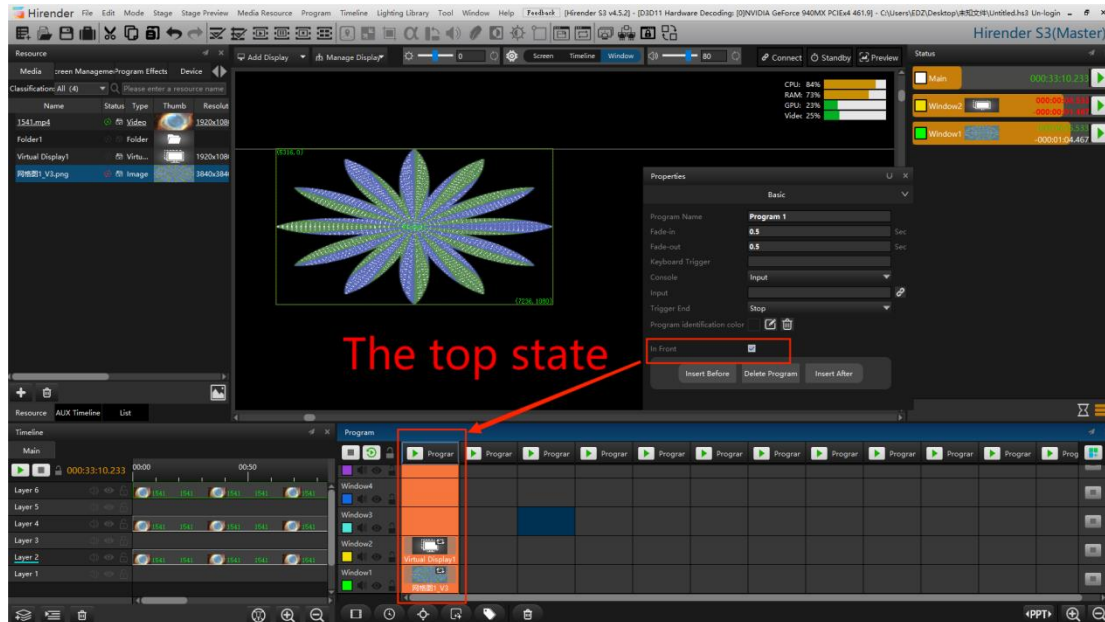
Trigger the end action, you can choose to stop playing / pause playing / do nothing.

6. Program identification color

You can modify the selected color of the program, and click the delete button to restore the original color.

7. In Front

Select the top program after checking, as shown in the following figure:



8. Insert Before / Delete Program / Insert After

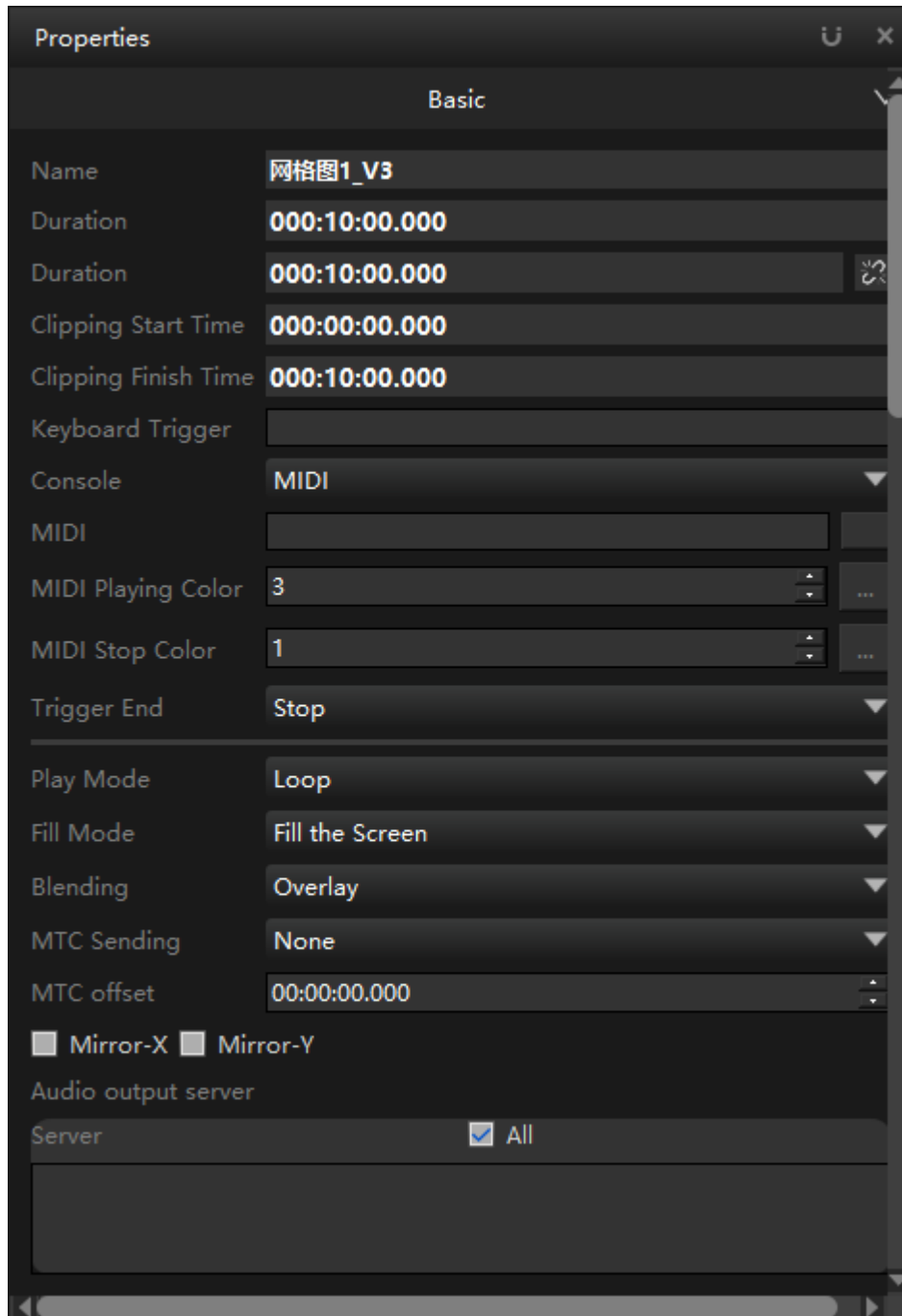
Insert or delete programs before and after the selected program.

Program node properties

There are many properties involved in the program node, and the corresponding properties will be different according to the different materials. Various situations will be introduced one by one below.

1. Basic properties

This part is the common part of the material, and its functions are shown in the figure below;

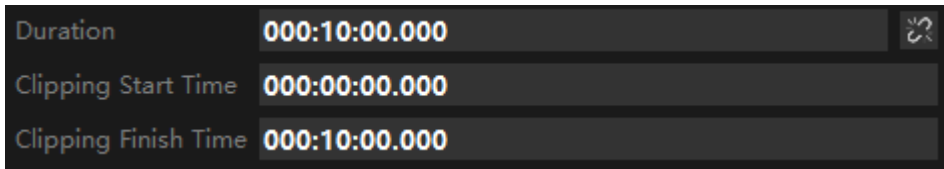


1) Name and Duration

Consistent with media and cannot be modified.

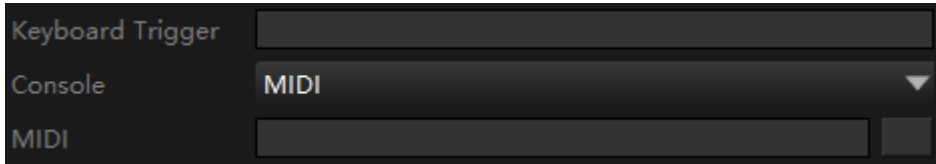
2) Time and Clipping Start / Finish time

Set the playback duration to intercept a section of the media for playback. The start time can set the time when the program starts broadcasting from the media resource, and the end time can set the time when the program ends broadcasting to the resource.



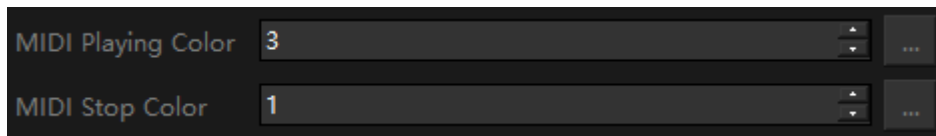
3) Keyboard Trigger

Keyboard trigger can be bound with keyboard shortcut keys to control the playback and stop of program nodes. The console can select hc64 or trigger, which needs to be bound with the corresponding trigger.



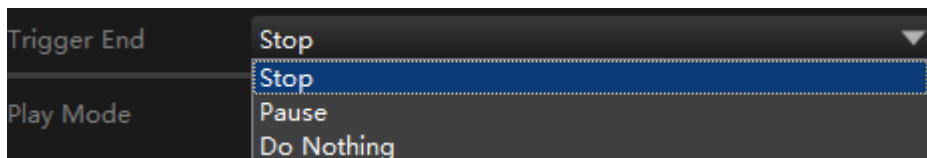
4) MIDI Playing / Stop Color

MIDI play / stop color: you can set the color of MIDI console button when the program is played or stopped



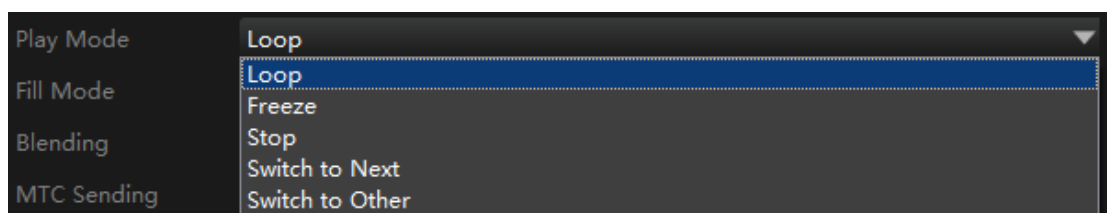
5) Trigger end

Select and set the end action when the keyboard is triggered, as shown in the following figure:

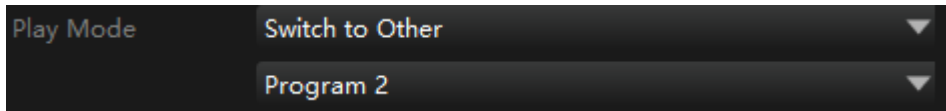


6) Play Mode

Set the action when the program node is finished playing, and the options are shown in the following figure:



When you choose to jump to other programs, you need to select the jump object, as shown in the following figure:



7) Fill Mode

The filling mode sets the way for media materials to fill the window. The full screen mode fills the screen space as much as possible without retaining the original proportion of materials. The following figure shows the state of full screen mode:



Equal proportion filling will fill the window while retaining the original proportion of the material. The following figure shows the state in the equal proportion filling mode:



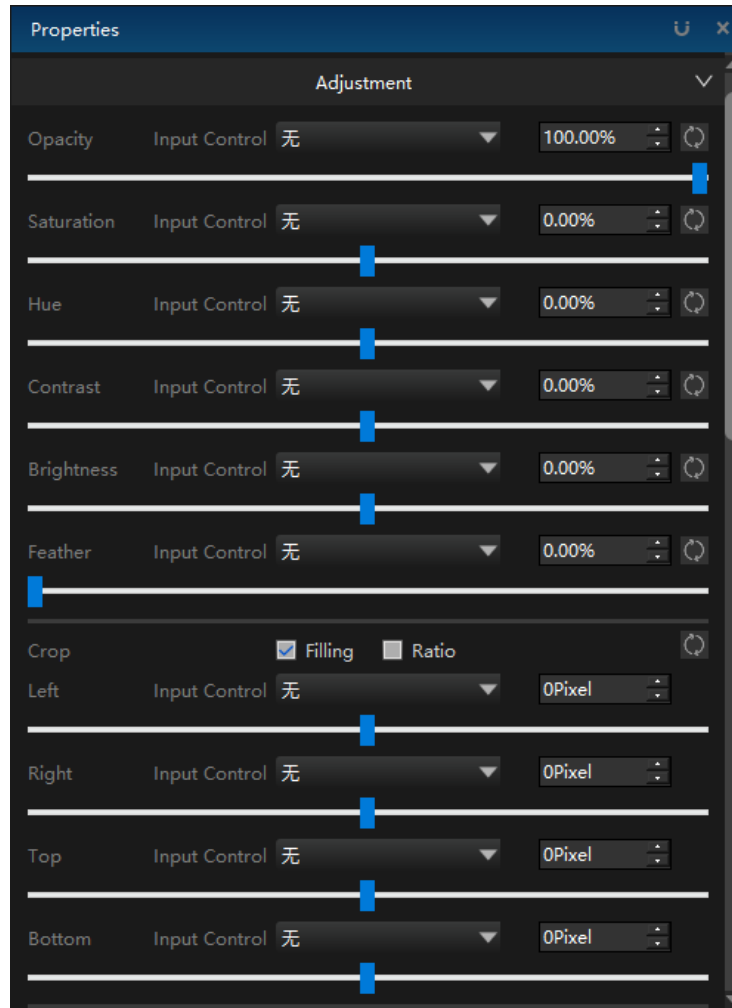
8) Mixed Mode

In the mixed mode, there are two ways: cover and overlay. In cover mode, the upper layer

overwrites the lower layer; In overlay mode, the effect of overlaying two layers.

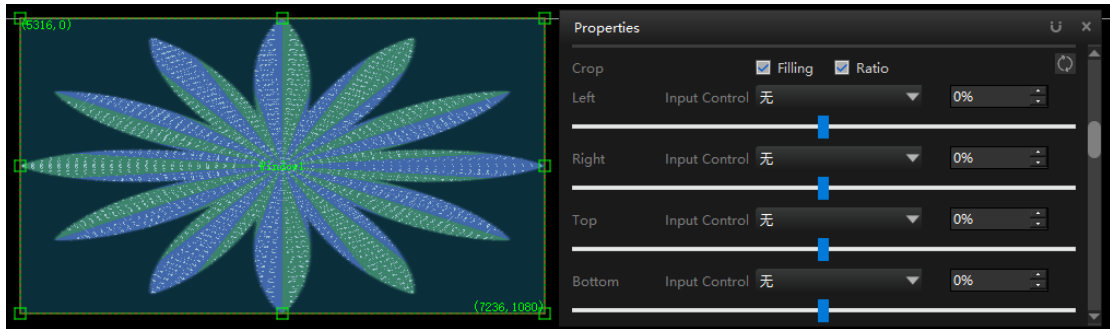
2.Adjustment

Edit playback speed, volume, saturation, hue, contrast, brightness, feathering and other effects. When adjusting the volume of media, you need to control the playback speed to 1, otherwise there will be no sound output.

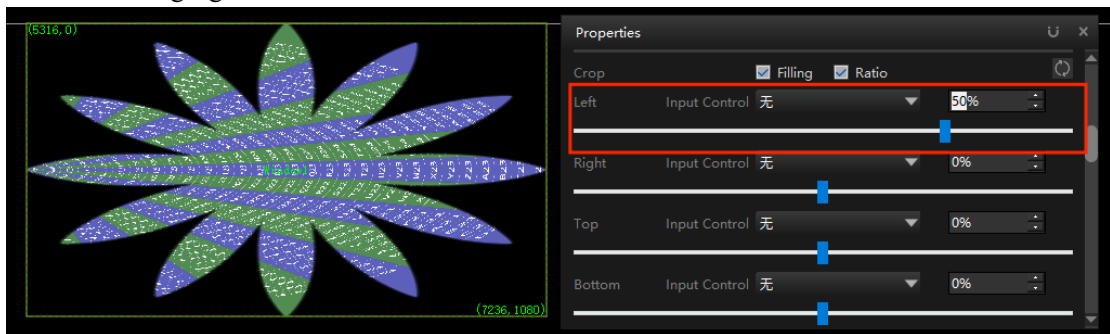


1) Crop

When the stretch option is checked, clipping will stretch the material in one or more directions while retaining the original material picture, and the original proportion of the material will change, as shown in the following figure:



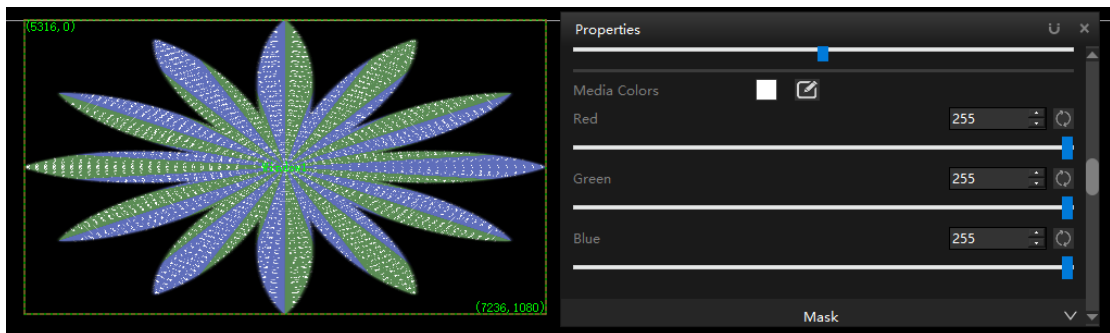
When filling is checked and display by proportion is selected, the clipping operation will set the left clipping interface while keeping the proportion of the original material unchanged, as shown in the following figure:



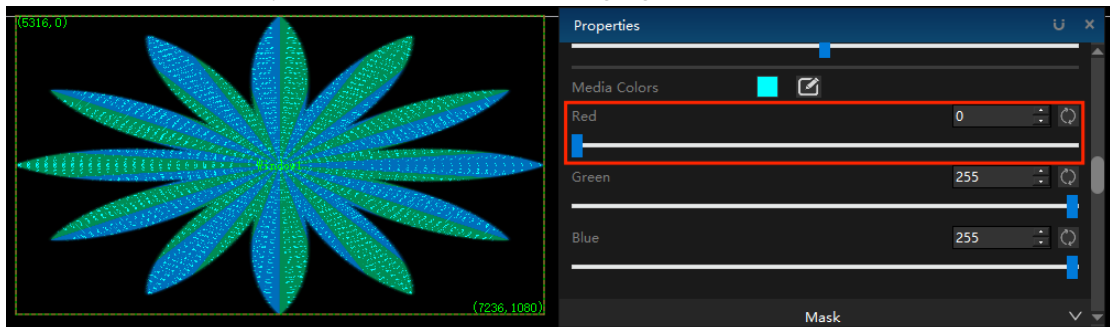
2) Media color

Setting the media color can change the overall tone of the media material. The following figure shows the effect comparison of pictures on the stage after setting the media color.

Raw material:

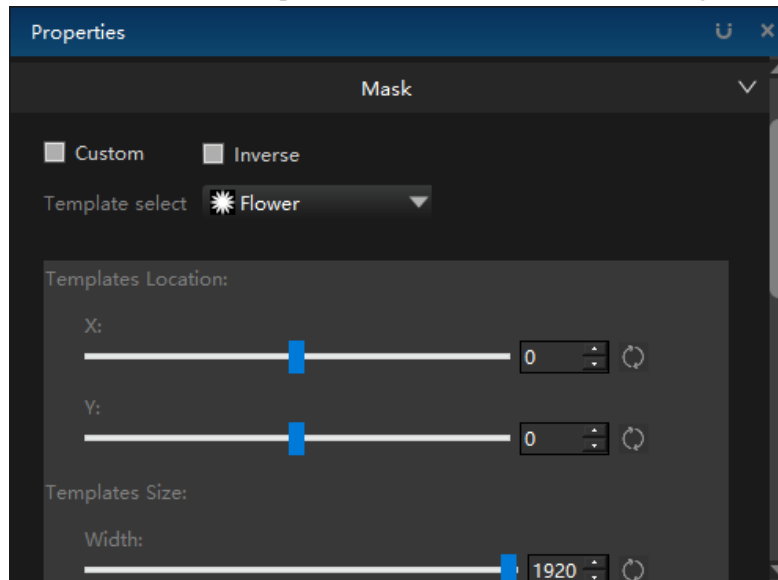


Set the media color to cyan, as shown in the following figure:



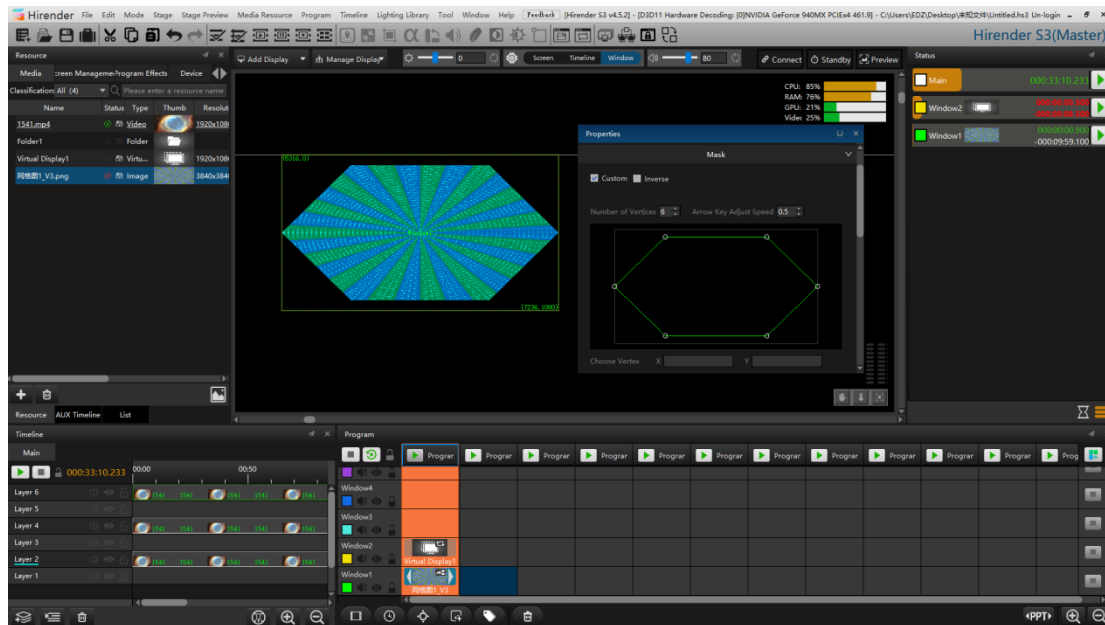
3.Mask

Here you can customize or select a template. The interface is shown in the figure:



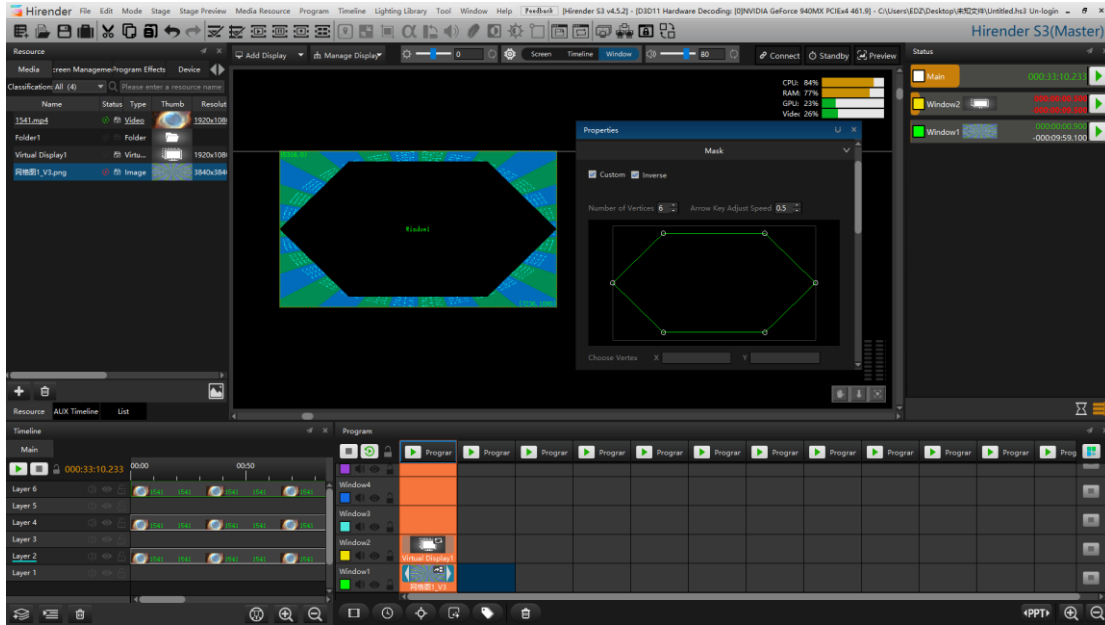
1) Custom

You can click Customize to draw the mask template:



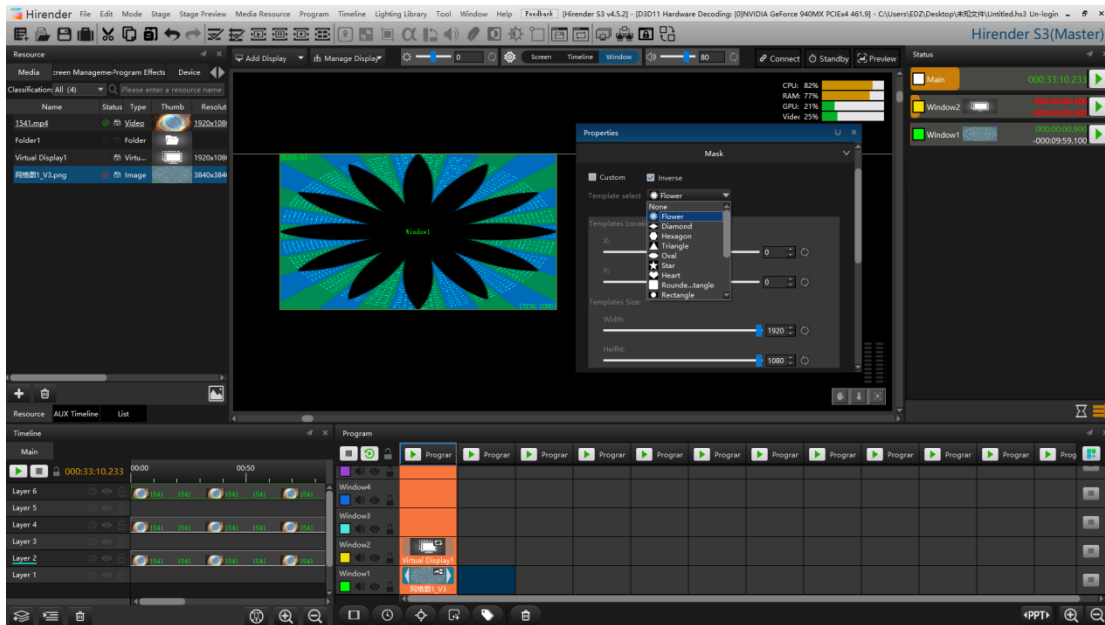
2) Inver

The default is to block the outside. Click reverse to block the middle part:



3) Template select

Different template options are built in the software, including flower, diamond, hexagon, etc., as shown in the figure below:

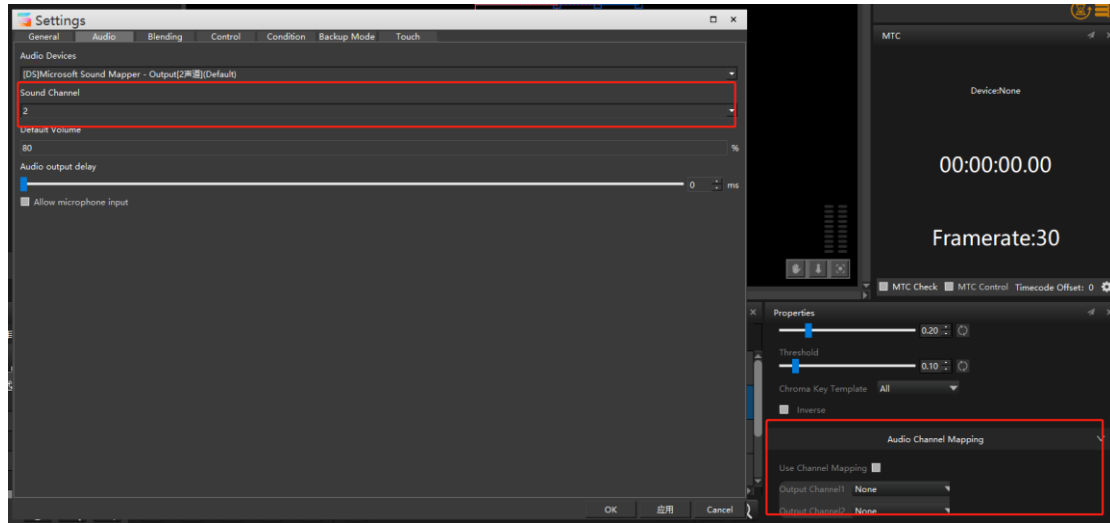


4) Templates Location / Size

Modify the position of the template by modifying the value of the input windows.

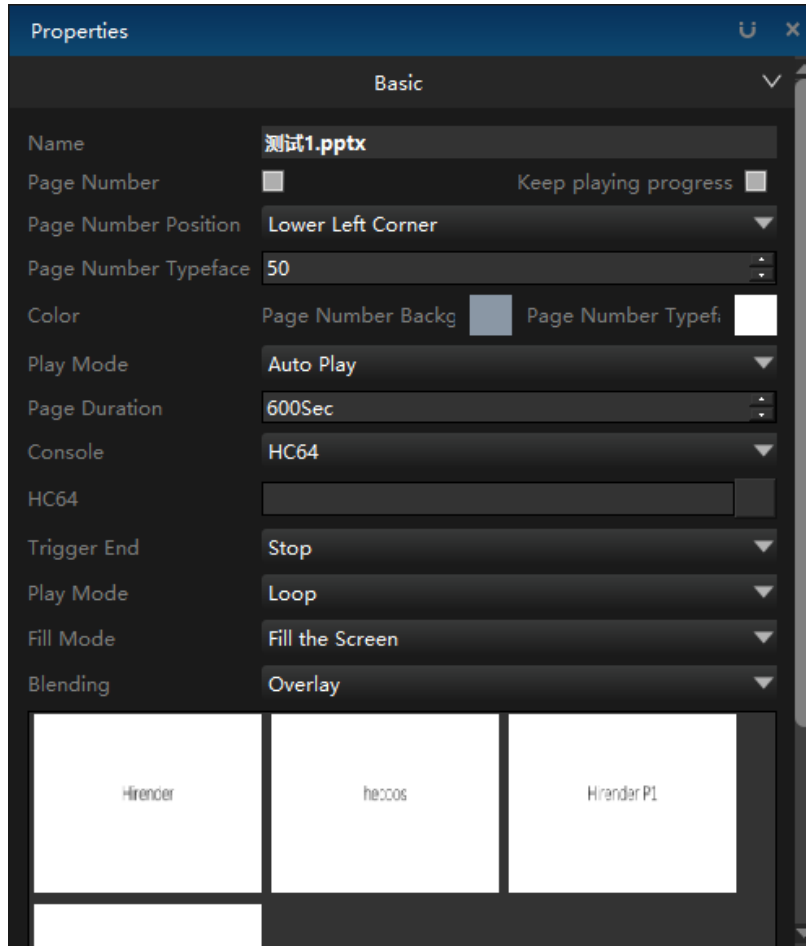
4. Audio Channel mapping

In file settings, after setting the channel, set the channel in the program node properties. The following figure shows the output channel selection displayed in the program node after selecting two channels.



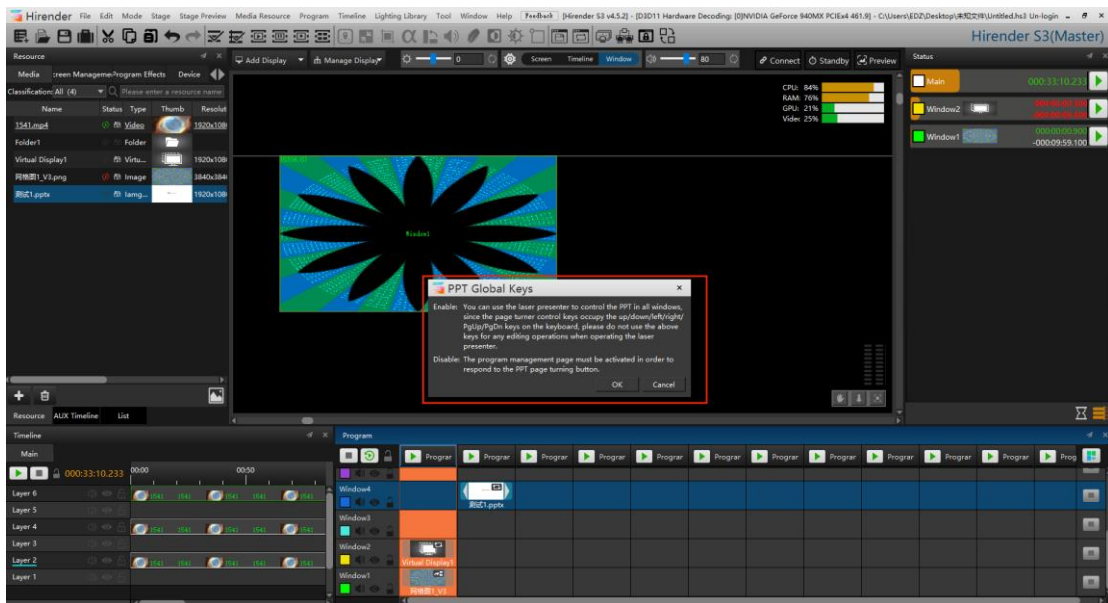
5. PPT properties editing

PPT can only be used in program management. In the PPT program node properties windows in picture mode, you can edit the playback mode of PPT: automatic playback and manual playback. During automatic playback, set the single page playback duration in PPT playback. At the bottom of the property windows, you can see all pages of PPT. Double click any page and then play the program to realize PPT playing from any page. The specific properties interface is shown in the following figure:



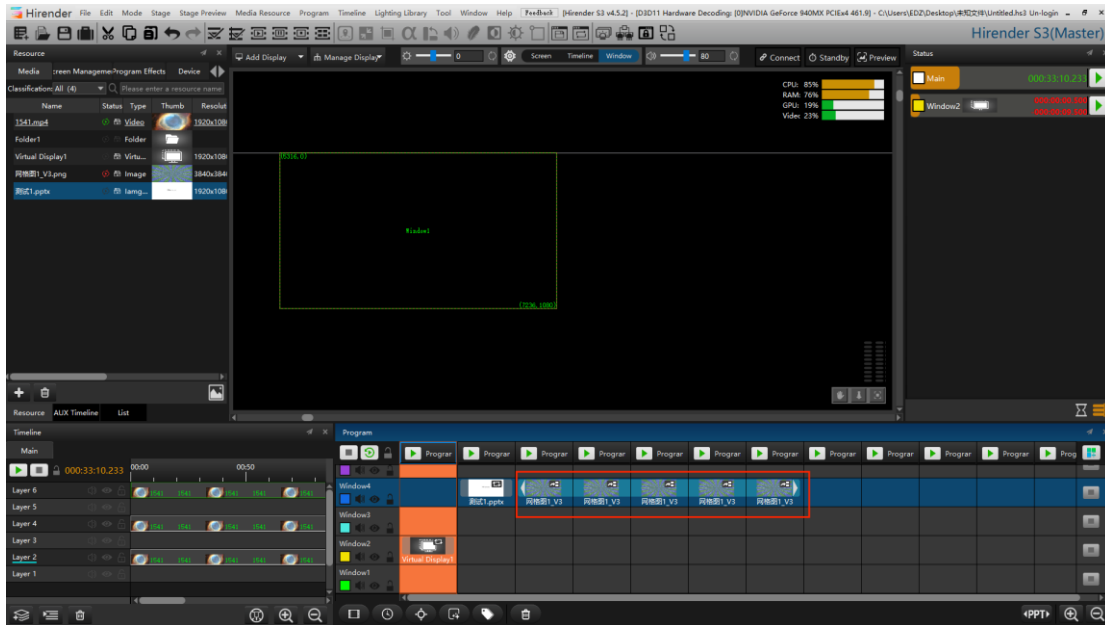
The properties of PPT in animation mode are basically the same as the program nodes of media materials.

PPT global page flipping: open this function to pop up a window.



6.Cross Node

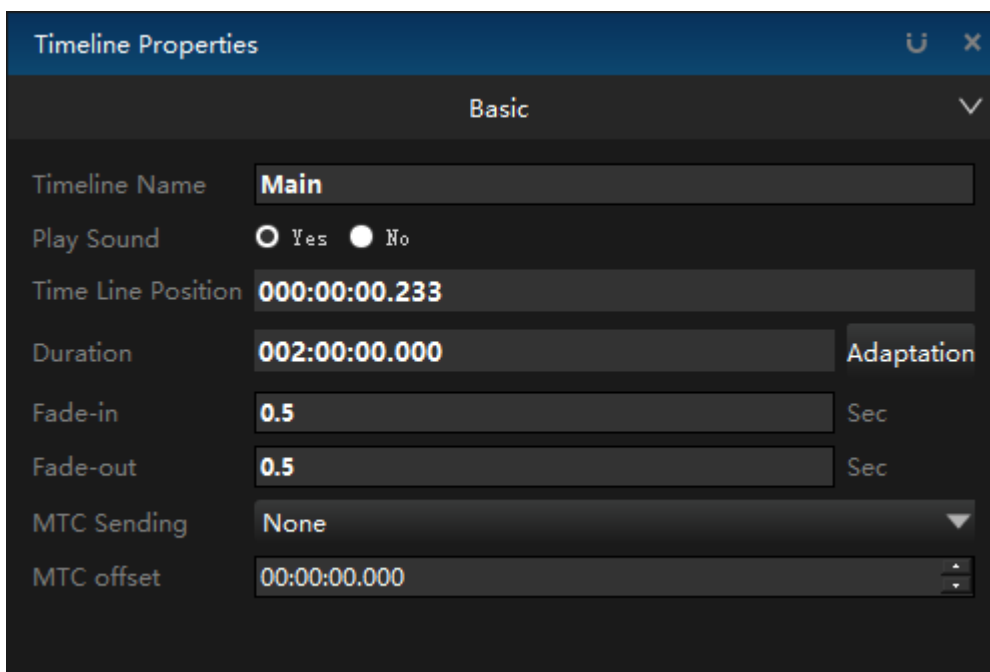
In the program window, add material. Point the mouse to the edge of the material and a two-way arrow will appear. Drag the arrow to span the material to the next program. When the program is played, the three materials are played at the same time. This node also belongs to another node, called cross node. When replicated across nodes, only one program node is copied.



Note: cross node operation can be carried out only when the rear program node does not exist and there is no prompt.

Timeline properties

The timeline properties window is shown in the following figure:



1. Timeline name

The name of the timeline can be modified.

2. Play sound

Select whether to play the sound of timeline material.

3. Timeline location

Modify the position of the timeline where the cursor is located.

4. Duration

The default is 2 hours. You can modify the duration of the timeline by yourself.

5. Fade-in / Fade-out time

The default value is 0.5. You can modify the fade in and fade out time of timeline material switching.

6. MTC Sending

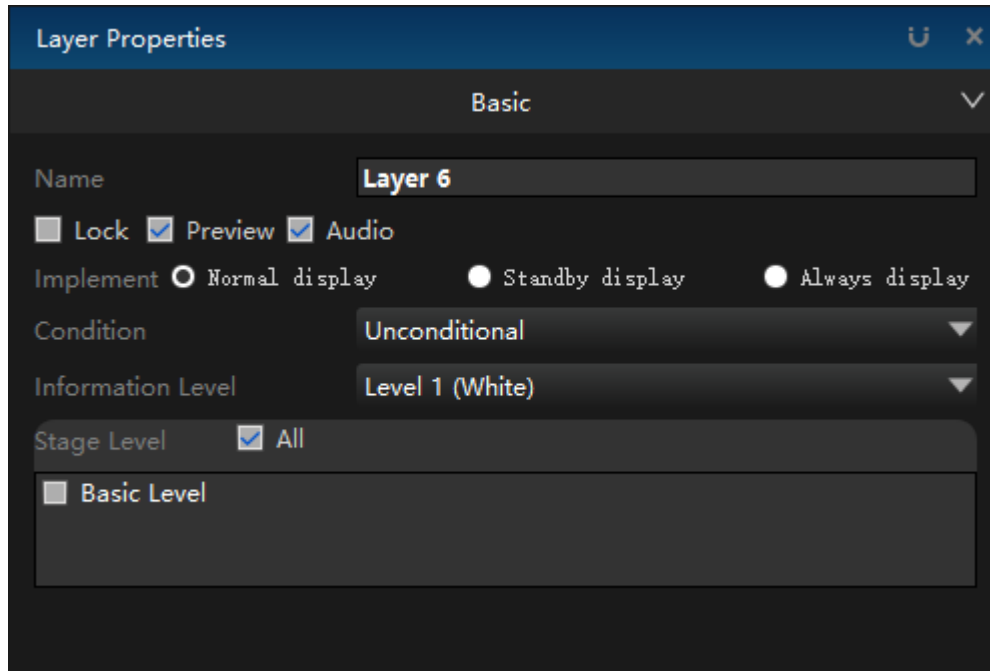
Set whether to send MTC time code. This setting will send MTC synchronization time code to lighting console and other software or equipment that can accept MTC synchronization time code. So as to realize the synchronization of sound, light and video, and achieve the effect of sound photoelectric integrated control.

7. MTC offset

The software is used to set the start time offset of the video when the MTC is playing.

Timeline layer properties

The properties of timeline layer are shown in the following figure:



1. Name

The layer name can be modified by yourself.

2. Lock

When lock is checked, the layer cannot be edited.

3. Preview

If checked, the material on the layer can be played and previewed on the stage. If unchecked, it will not be displayed.

4. Audio

When checked, there is sound when playing the material. If not checked, it will be played silently.

5. Implement

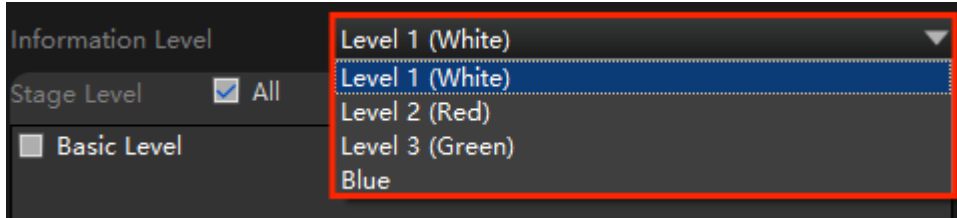
Three execution modes can be selected: normal display, standby display and always display.

6. Condition

Set layer playback conditions.

7. Information level

The layer information level can be set, and the classification is shown in the following figure:



8. Stage level

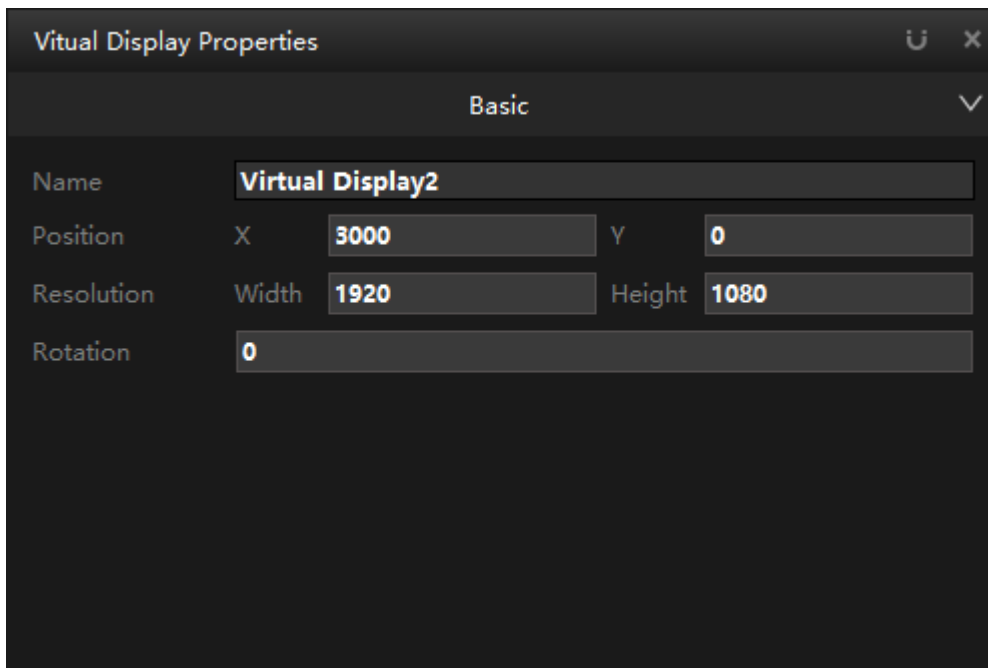
Set the level limit of the layer in the stage.

Effect Properties

If you select different effects in the special effects layer, the properties of the program node will be different. The specific properties can be viewed in resource management - program special effects.

Virtual Display Properties

After creating the virtual screen, you can click the virtual screen to open the following properties window. You can change the name, stage position, display resolution and rotation angle of the selected virtual screen.

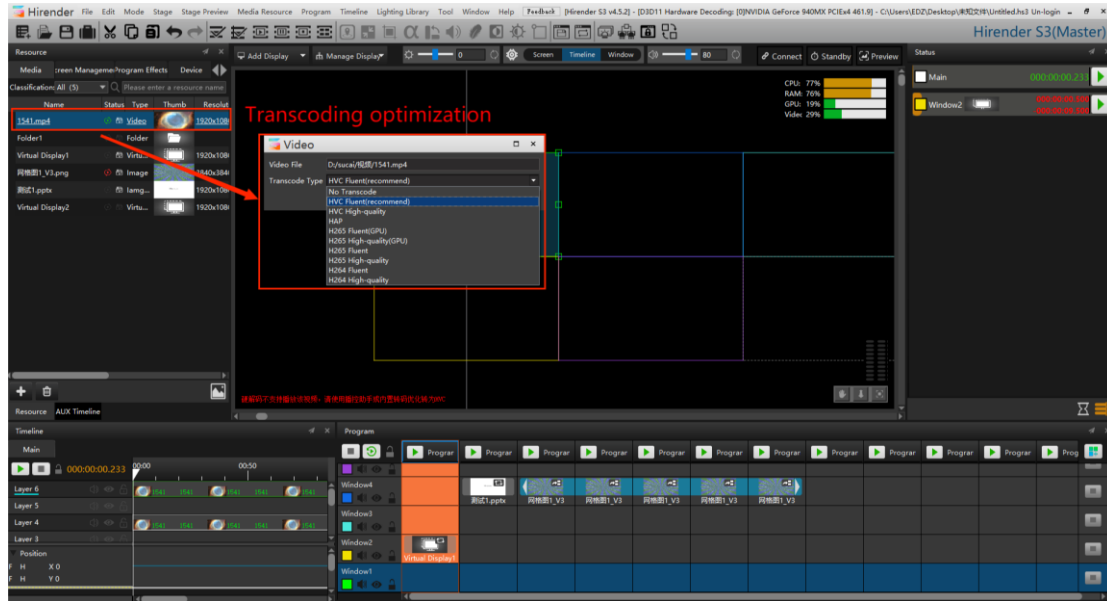


VI Viappendix

Frequently asked questions

1. The problem of playing super-resolution video lagging.

If the video of large-size got stuck when broadcasting, you can transcode the video by using our broadcast assistant software, or double-clicking the media directly in the software resource list to select the decoding optimization. After optimization, check the use of the optimized file.




You can also click menu bar - tools - Broadcast Control Assistant to open the broadcast control assistant software and transcode the material:



2. Open the software to prompt that there is no authorization information

Confirm whether the dongle is inserted into the host. If not, please insert the dongle. If the dongle still prompts that there is no authorization, you need to check whether the driver of the

dongle is installed successfully and whether there is an icon  in the lower right corner of the

desktop; If not, you need to reinstall the dongle driver, which is in the S3 installation folder and named codemeterruntimeExe, double-click to install the software by default, or reinstall S3 software.

3. After the software is opened, the plug-in window, media resource window and stage editing window does not exist.

Click the window command in the menu to check the program insertion, media resources and stage editing window.

4. Software opens prompts the maximum number of users.



This situation is a problem with software open duplicates. Solution: First check the system address bar to see if there is an S3 program open, if any, close all S3 programs, and then re-open the program. If there is no S3, right click on the address bar, click Task Manager, find Hirender S3.exe or HirenderS3Display.exe, then turn off the found program and reopen the software.



5. The encryption lock interface pops up when open Hirender S3 software. (Error code: 102541)



This problem belongs to the encryption lock, which requires the authorization to be extracted and then re authorized.

Specific operation steps for extracting the sub lock information file: insert the sub lock, open the Codemeter control center in the lower right corner of the system, click the "license update" button, the pop-up "welcome to cmfas assistant" interface, click "next", select "create license request" in the next interface, and select "extend existing license" in the subsequent interface, Then in the "please select developer" interface, check all company codes, select the file generation directory in the next interface, click the "submit" button, the file will be generated in the selected directory, and the generated file will be sent to the technical or business personnel for unlocking.



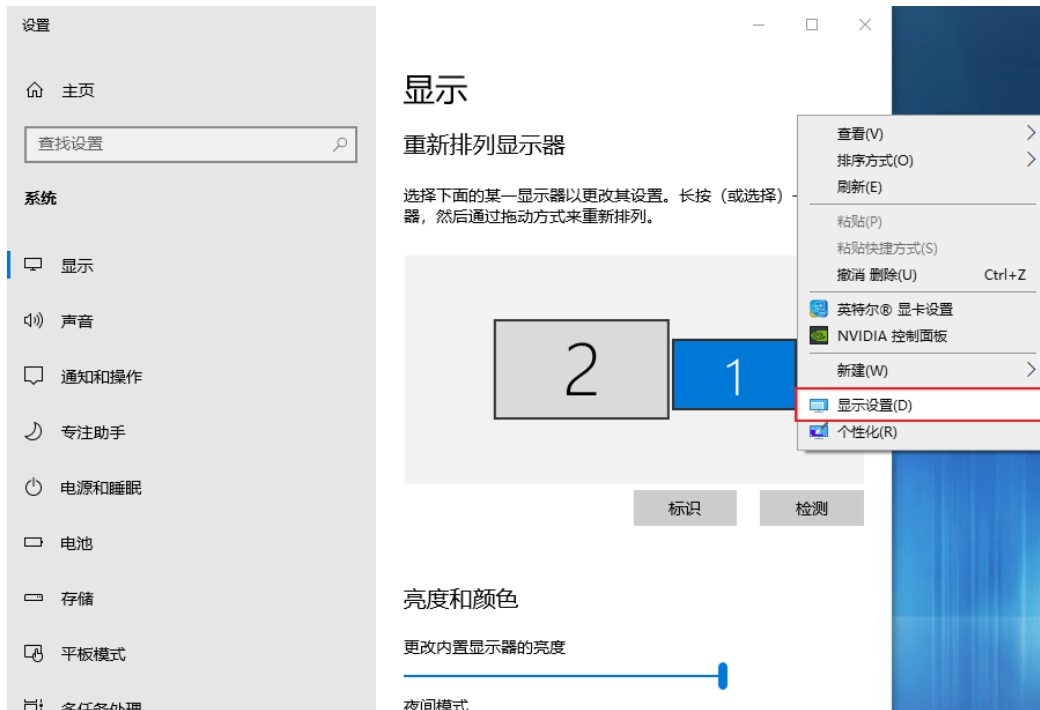
6. After the software is opened, the edited program cannot be played normally

Open the saved program and find that the media resources are all 0, and the resource path is red, indicating that the path has not found the file. At this point you need to relocate the show file to its original location.

7. The computer boot screen is on the display device, and the computer screen only display a desktop.

This situation is caused by the system's main desktop settings on the display device, we need to set the system's main desktop to the display, the specific steps are as follows:

Right click on the blank area of the desktop and select the screen resolution or display settings.



Click the logo button in the settings screen to view the screen number of the monitor.

Click on the screen number, select the display, then check the settings below to set the current screen as the main desktop.

多显示器设置

多显示器设置



8. Picture has malposition while doing screen splicing.

Check whether the graphics card is set the stitching. If the graphics card is not set, you need to set the graphics card the stitching to ensure the synchronization of the graphics output. If there is still a gap in the graphics card splicing, you need to check whether the device such as the back end processor has set the synchronization mode.

9. After debugging the software and restart the computer. The output resolution is disordered.

- Reason:
1. The system has a virus.
 2. The system is a pirate system.
 3. Installed pirated WATCHOUT.
 4. Antivirus software leads to.

Solution: After the original system image file is installed, the genuine activation is performed. The authorization file for extracting the Dongle is sent to the relevant sales personnel, who provide the new authorization file.

10. The encryption lock is locked.

Reasons: the system has virus, the system is a pirated system, pirated watchout has been installed, anti-virus software, etc.

Solution: after installing the original system image file, activate the original version, extract the authorization of the encryption lock and send it to the relevant salesperson, who will provide a new authorization file.

11.Play video stuck and video out of sync solution

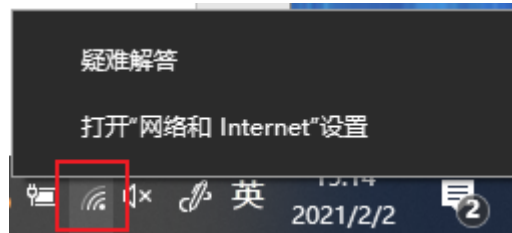
When the machine performance is sufficient, optimize the host system to ensure the optimal state of the machine, optimize the video transcoding, and transcode the video into the most appropriate coding, code stream and format. If there is still jamming, it is recommended to divide the video and transcode it.

12.Settings of master and backup and multiple machine-connected LANs.

(1)Set the primary and backup machines to different fixed IP addresses, and the IP addresses need to be on the same network segment.

For example, the primary setting IP is 192.168.1.2, and the backup setting IP is 192.168.1.3.

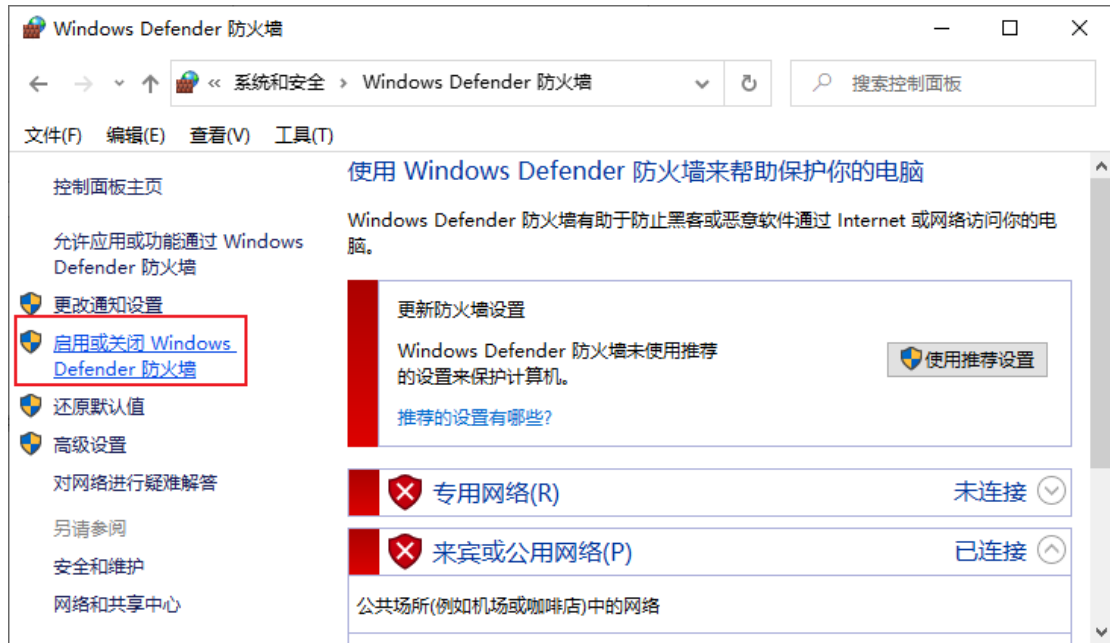
(2)Turn off the system's firewall. Right click on the network icon in the task bar and click on Open Network and Sharing Center



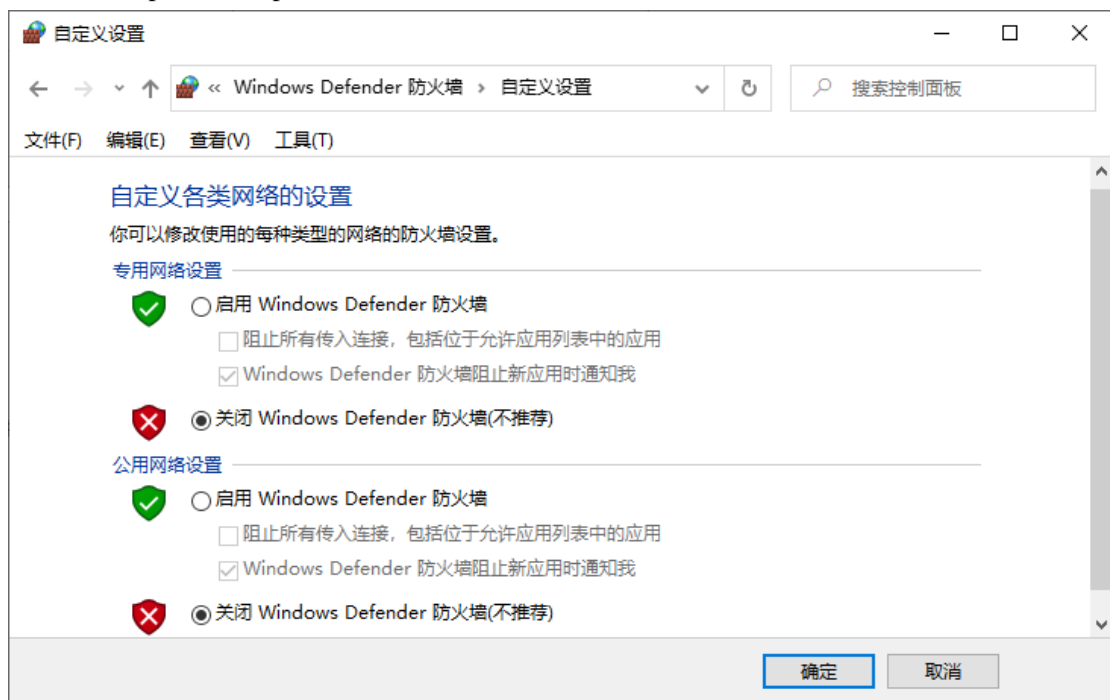
Click on the Windows Firewall in the interface:



Then click to enable or disable the firewall:



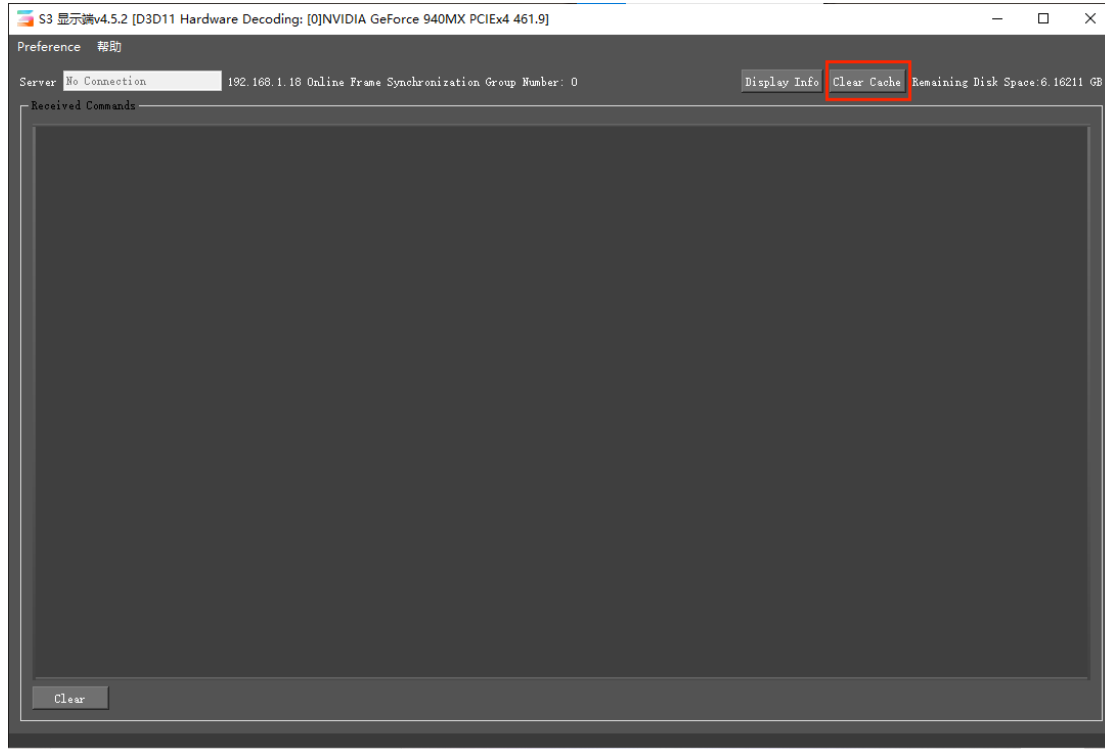
Set both the public and private networks to turn off the firewall.



13.Update fails in Master/standby mode and multiple online modes

Insufficient cache path space. Change the cache path of the active or backup device or clear the junk files on the disk, leaving enough space.

Steps: Click the setting button in the upper left corner of the S3 display. You can then choose to empty the cache or change the cached path to a different location.、



Network error, check the network settings to see whether the active and standby networks are connected, and whether the IP is displayed correctly. You can reset the network according to the instructions in section 13.

Recommended video encoding and format

| Resolution | Frame rate (frames /second) | Recommended bit rate (megabits/ second) | Encoding format | Encapsulation format |
|--------------------|-----------------------------|---|-----------------|----------------------|
| 1280x720(720p30) | 30 | 5 | H.264 MPEG2 | MP4/MOV/MKV MPG |
| 1920x1080(1080p30) | 30 | 10-15 | H.264 MPEG2 | MP4/MOV/MKV MPG |
| 1920x1080(1080p60) | 60 | 25-35 | H.264 MPEG2 | MP4/MOV/MKV MPG |
| 3840x2160(4K 30p) | 30 | 50-70 | H.264 MPEG2 | MP4/MOV/MKV MPG |
| 3840x2160(4K 60p) | 60 | 80-120 | H.264 MPEG2 | MP4/MOV/MKV MPG |
| 7680x4320(8K 30p) | 30 | 130-160 | H.264 MPEG2 | MP4/MOV/MKV MPG |
| 7680x4320(8K 60p) | 60 | 200 | H.264 MPEG2 | MP4/MOV/MKV MPG |

Technical support contact information

Hirender website: <http://www.Hirender.cn/#/>

Forum: <https://www.artbook.top/live/index.html>

Enlightv website: <https://www.enlightv.com/>

Sales Hot-line:400-600-1196

Company tel: + (86) 010-53608556

Email: admin@enlightv.com