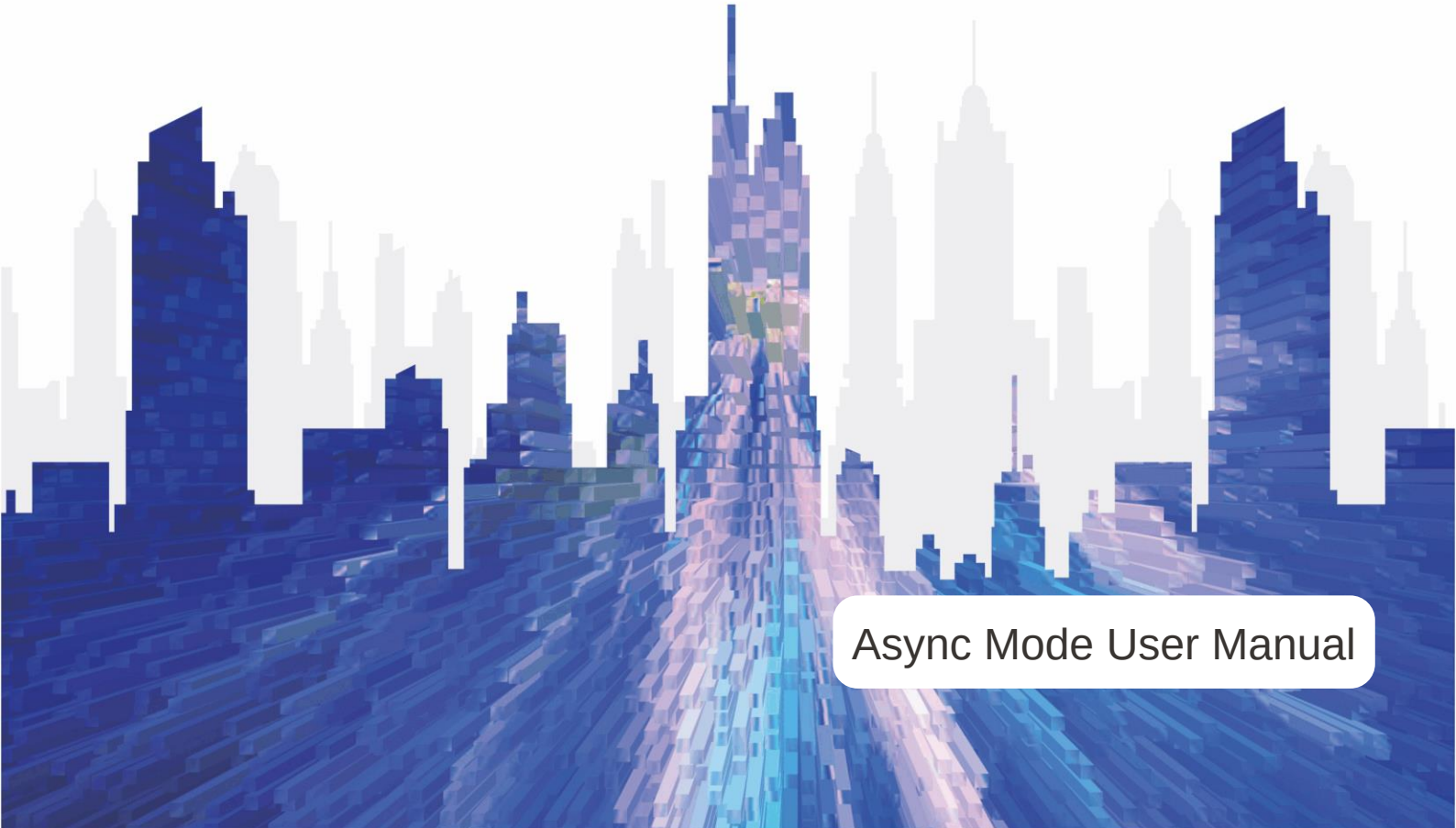
ViPlex Express



Async Mode User Manual

Contents

1 Software Introduction

ViPlex Express is a content publishing management system for PC, which is available for Windows and allows users to edit and play solutions on LCD or LED displays. In async mode, ViPlex Express is also used to control multimedia players. This document introduces you to the functions and operations in async mode.

Two Working Modes

ViPlex Express has two working modes, and you can switch to your desired mode based on the application scenario.

- **Studio Mode**

  When a solution is being played in ViPlex Express, the solution is also played synchronously on the display. This mode is applicable to synchronous playback.

  The playback window is on the extended display. You can use the screen monitoring function to view the playback on your primary monitor.

- **Async Mode**

  ViPlex Express sends solutions to multimedia players. The solutions will be stored in the multimedia players and played according to their playback plans. This mode is applicable to the scenario when multimedia players load displays.

Professional Solution Editing

ViPlex Express is designed with a professional solution editing function allowing you to edit solutions with various contents and complex schedules as required.

- **Multiple pages**

  A solution can be added with multiple pages that are played in order from top to bottom.

- **Flexible layout**

  You can use a system template or customize a template when adding a page. You can set the number, coordinates, width, and height of windows based on your needs in a template.

- **A variety of media**

  On a page, you can add images, text, mixed media, colorful text, clock widgets, timers, weather widgets, RSS, streaming media, web pages, and cut-to-display windows.

- **Multiple properties**

  Every type of media has multiple properties that can satisfy your needs and present a variety of solutions.

- **Scheduling as you wish**

  You can set a timeslot and cycle for each page to play. The schedules of a page can be batch applied to other pages. If the timeslots of several pages overlap, the pages will be played in order from top to bottom

- **Quick preview**

  Clicking the preview button allows you to preview the current page. The preview window immediately refreshes when you move on to another page.

All-round Control

In async mode, ViPlex Express enables you to fully control multimedia players, such as brightness adjustment, time synchronization, font management, player upgrade, video source switching, screen status control, play log query, network configuration, RF management, standalone playback.

2 Getting Started

2.1 Preparing a PC

Minimum requirements:

- OS: Windows 7 SP1 64-bit

- CPU: i5
- RAM: 4 GB
- HDD: 60 GB

2.2 Installing Software

Prerequisites

- Framework 4.6.x is installed.
- The official version of Visual C++ 2017 runtime components are installed.
- The installation package of ViPlex Express is obtained.

Where to Obtain

https://www.vnnox.com/download

Operating Procedure

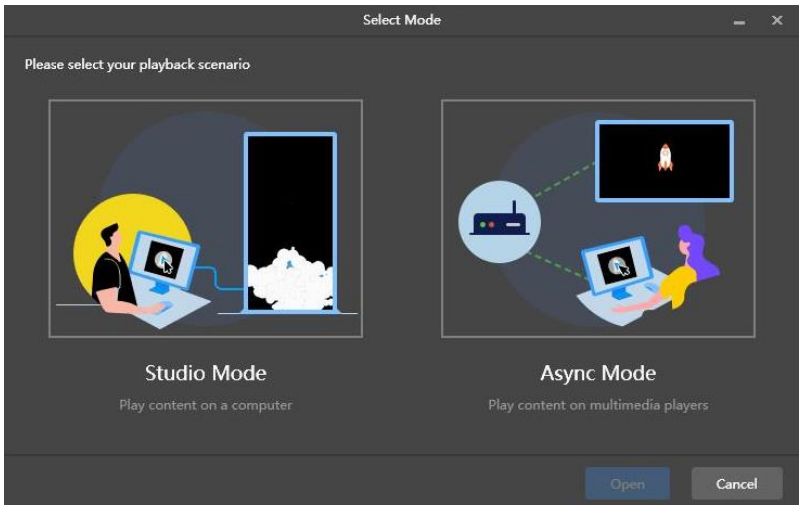
Double click the installer and install ViPlex Express according to the setup wizard.

2.3 Selecting Working Mode

First Installation

After ViPlex Express is first installed, a **Select Mode** dialog box appears when you open ViPlex Express. Select **Studio Mode** and click **Open**.

Figure 2-1 Selecting a mode



Other Situations

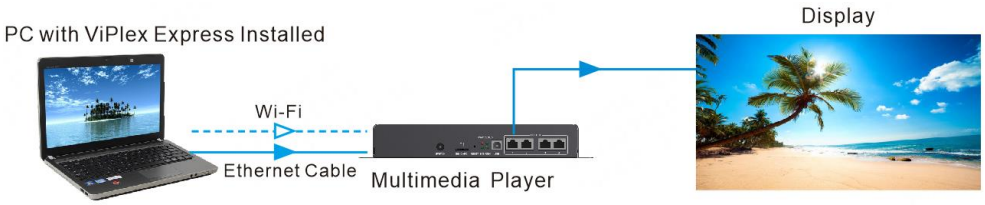
If you have installed ViPlex Express or selected a working mode before, the dialog box shown in Figure 2-1 will not appear. If ViPlex Express is in studio mode by default after opened, switch to the async mode by following the steps below:

In the top-right corner, choose  > **Working Mode** > **Async Mode** and click **OK**. ViPlex Express will be in async mode after restarted.

2.4 Connecting to Displays

Figure 2-2 and Figure 2-3 use the TB60 Taurus series multimedia player as an example to show the connection.

Figure 2-2 Ethernet cable



- **Ethernet cable**

  The PC with ViPlex Express installed is connected to multimedia players via Ethernet cable.

  To connect to a multimedia player of V4.7.7 or later by using this method, make sure the IP addresses of the PC and the multimedia player are on the same network segment.

- **Wi-Fi**

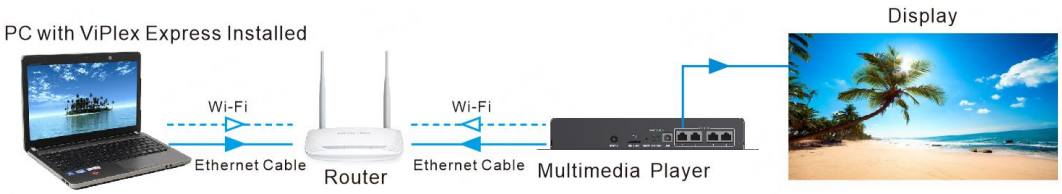
  The PC with ViPlex Express installed is connected to multimedia players via Wi-Fi.

  When the multimedia player has a built-in Wi-Fi AP, you can use this method without the need for configuration.

  For example:

  Taurus series and NS series: The default SSID is "AP+*Last 8 digits of SN*" and the default password is printed on the SSID label of the product.

Figure 2-3 LAN



- **Wired LAN**

  The PC with ViPlex Express installed and multimedia players connected to the same wired LAN via Ethernet cable.

  To connect to a multimedia player of V4.7.7 or later by using this method, make sure the IP addresses of the PC and the multimedia player are on the same network segment.

- **Wireless LAN**

  The PC with ViPlex Express installed and multimedia players connected to the same wireless LAN via Wi-Fi.

  This method is available when multimedia players support Wi-Fi Sta. Log in to multimedia players with ViPlex Express and connect to the Wi-Fi AP of the router on the network configuration page.

2.5 Logging In to Screens

After you select async mode, the screen page of async mode will be displayed.

Note:

If port 16600 is in use by another program, a notification will appear upon launching ViPlex Express, indicating that the port is being used by XXX. Please exit the XXX program and restart ViPlex Express.

Required Information

Login user name and password of the multimedia player

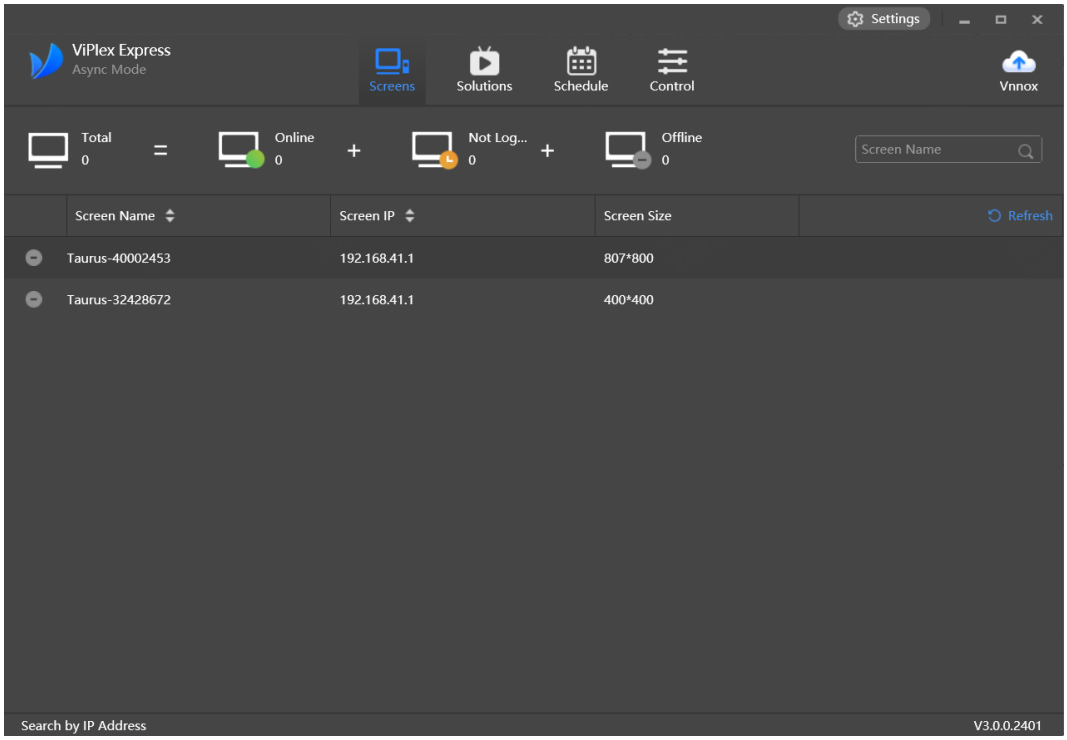
For example:

Taurus series and NS series: The login user name is “admin” and the default password is printed on the SSID label of the product.

Logging In to Screens

Step 1 Click **Refresh** to refresh the screen list.

Figure 2-4 Screens



After detecting a screen, ViPlex Express will try to log in to the screen with the default account or the account used for the last login.

If screens and ViPlex Express are not on the same network segment. Click **Search by IP Address** at the bottom left, select **Specify IP** or **Specify IP Range** to enter an IP address or specify an IP range, and click **Search**. After the search, connect to the screens manually.

- : Denotes that the screen is online and you can log in to it. Go to Step 2.
- : Denotes the screen is offline and you cannot log in to it.
- : Denotes you have successfully logged into the screen.

Step 2 Click **Connect** next to screen information.

Step 3 Enter the password for the "admin" user and then click **OK**.

After successful login, ViPlex Express saves the account information automatically.

Related Operations

After successful login, if the password is verified as a weak password, will be displayed next to the screen name. You are advised to change the password to a complex one to enhance security.

Right-click the screen information, and the related operations will be displayed:

- Log Out: Log out of the screen.
- Obtain SN: Obtain the SN of the screen. Batch obtaining of SNs is supported.
- Rename: Rename the screen.
- Change Password: Change the connection password of the Taurus Wi-Fi AP and the login password for the "admin" user.
- Forget Password: Delete the password saved during the last login.
- VPN settings: Connect to VPN, Set the VPN name and server address, select the VPN type, user name, password and secret key.

- Download Operation Log: Download the operation logs of asynchronous screens.

Notes:

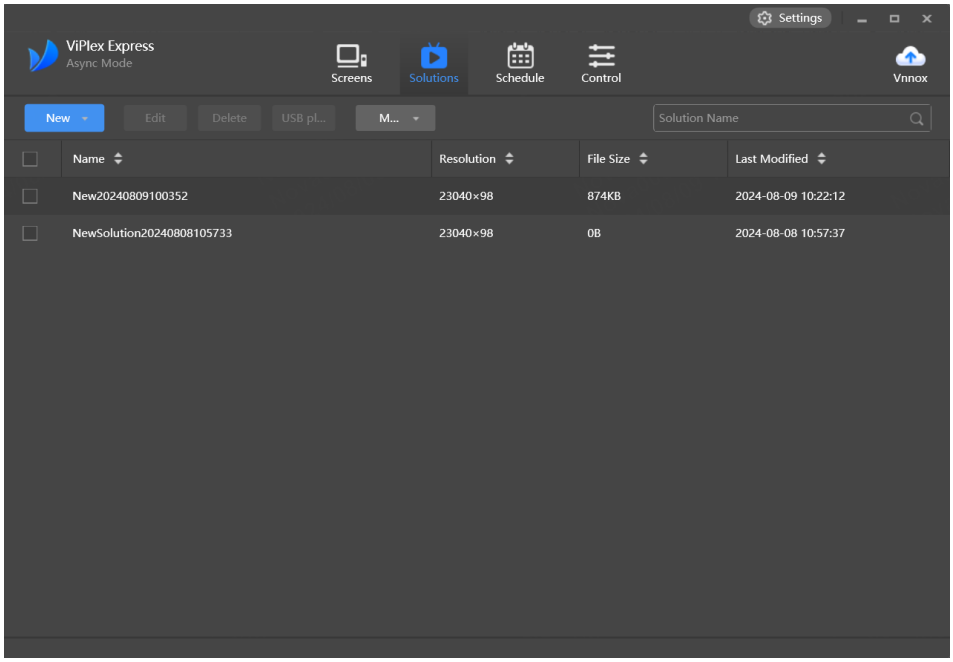
- When the player is connected via USB cable or Ethernet cable, it is recommended that you change the Wi-Fi AP password and device connection password at the same time.
- When the player is connected via Wi-Fi AP, if you change the Wi-Fi AP password and device connection password at the same time, the Wi-Fi AP will be disconnected and the device will go offline, causing the device connection password change to be failed.

2.6 Creating Solutions

After updated, the solution data in async mode will be synchronized to studio mode.

Step 1 Choose **Solutions** to access the solution page.

Figure 2-5 Solutions



Step 2 Click **New** and select **Regular Screen** or **Ultra-Long Screen** from the drop-down menu.

The **Solution Information** dialog box appears.

Figure 2-6 Solution information for a regular screen

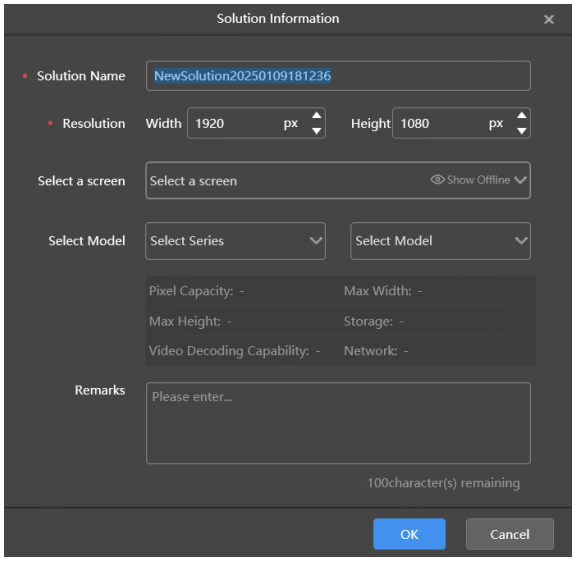
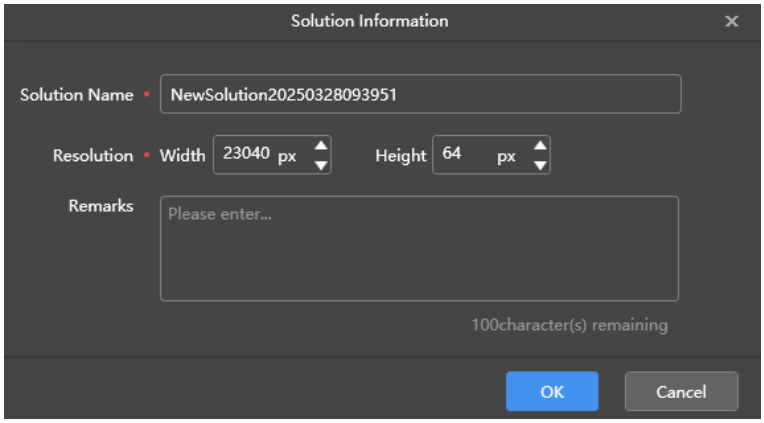


Figure 2-7 Solution information for an ultra-long screen



Step 3 Set a name, resolution, and other information for the solution, then click **OK** to access the solution editing page.

- The resolution of a solution for a regular screen (hereinafter referred to as "regular-screen solution") must be consistent with the resolution of the screen.
- The resolution of a solution for an ultra-long screen (hereinafter referred to as "ultra-long-screen solution") must be consistent with the configured screen width and height.

Step 4 After the solution editing is done, click **Save**.

Step 5 (Optional) At the upper right of the page, click  to preview the Beginner's Guide, and then click **Get Started**.

Step 6 (Optional) At the upper right of the page, click  to preview the current page.

When the preview window is opened, you can also select other pages to preview. If you make changes to the current page, click **Refresh** at the top right to refresh the preview window.

Step 7 (Optional) At the upper right of the page, click **View Schedule** to view the schedule of each page in the solution.

Step 8 After the solution editing is done, click **Publish** and select players to publish the solution.

2.7 Publishing Solutions

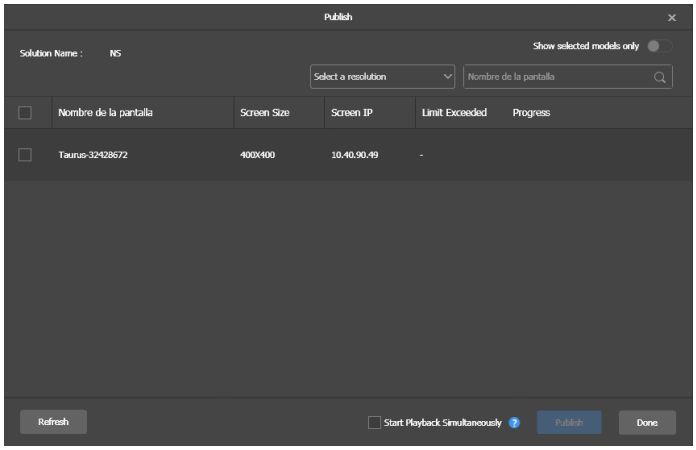
Solutions containing media can be published. Solution containing empty pages cannot be published.

Step 1 Choose Solutions.

Step 2 In the solution list, move your mouse over a solution and click  .

The **Publish** dialog box appears.

Figure 2-8 Publishing a solution



Step 3 Click **Refresh** to display all the screens that are logged in.

Note: During solution publishing, ViPlex Express automatically converts the video formats not supported by the screen.

Step 4 (Optional) Select **Start Playback Simultaneously**.

Start Playback Simultaneously: The screens used for synchronous playback will start playing the solution at the same time.

Step 5 Select one or more screens and click **Publish**.

Step 6 After the solution is published successfully, click **Done**.

Notes:

- Unltr-long-screen solutions do not support Start Playback Simultaneously.
- When a media file exceeds the specification limit, you can view the detailed information in the **Media Check** column and make improvements according to the suggestions or decode the media file through the software.

2.8 Controlling Screens

Users can control the brightness, display status, video source switching, etc. of a screen in real time or as scheduled. For details, see 4.4 USB Playback.

3 Solutions

3.1 Creating and Publishing Solutions

- For different screens, you can create regular-screen solutions and ultra-long-screen solutions.
- After updated, the solution data in async mode will be synchronized to studio mode.

3.1.1 Regular-Screen Solutions

Related Information

- A regular-screen solution contains one or more pages and each page contains one or more media items.
- The pages of a solution are played in order from top to bottom.

Operating Procedure

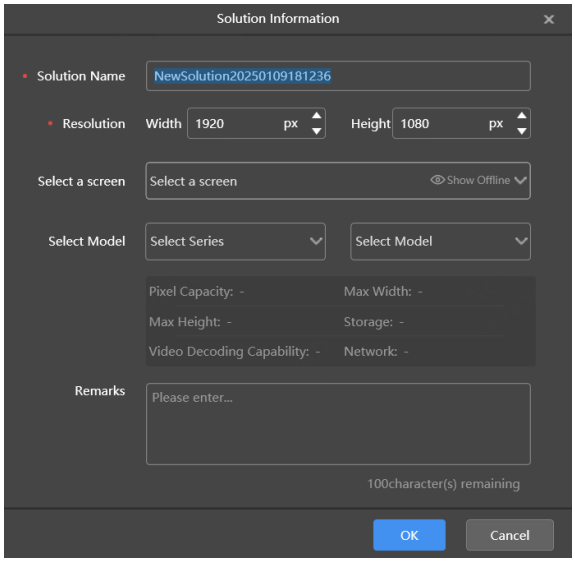
Before you create a solution, get the screen resolution in advance.

Step 1 Choose **Solutions** to access the solution page.

Step 2 Click **New** and select **Regular Screen** from the drop-down menu.

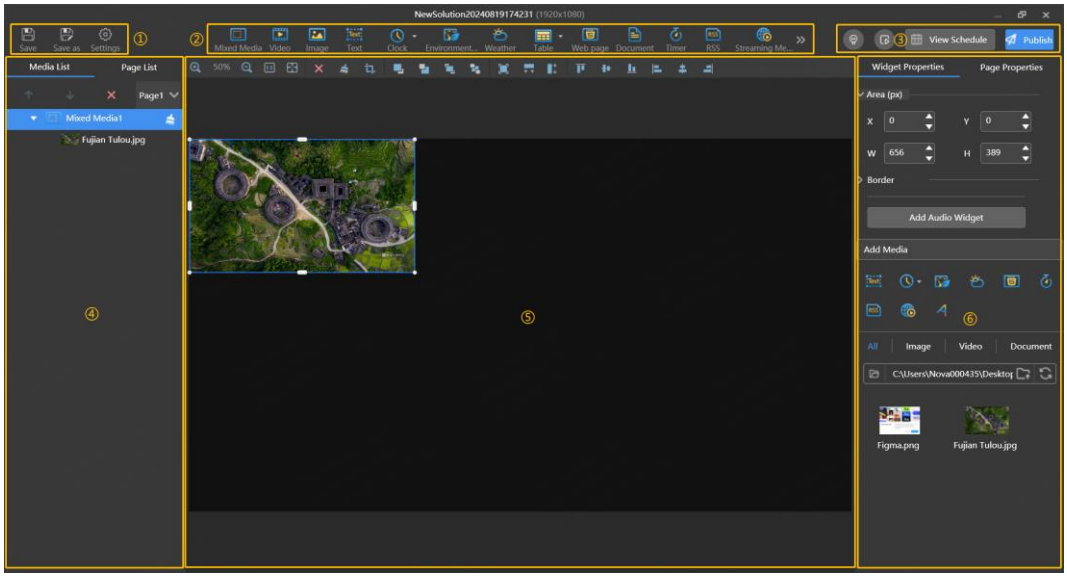
The **Solution Information** dialog box appears.

Figure 3-1 Solution information



Step 3 Set a name and resolution for the solution, select a screen and model (optional), then click **OK** to access the solution editing page, as shown in Figure 3-1.

Figure 3-2 Solution editing page



The description of the solution editing page is shown in Table 3-1.

Table 3-1 Description of the solution editing page

No.	Function	Description	
1	Saving a solution, saving a solution as another solution and setting solution information	Used for saving a solution, saving a solution as another solution and setting solution information	
2	Adding media You can click an icon to add a corresponding media item.	: Mixed media	: Video
		: Text	: Image
		: Colorful text	: Digital clock

<table>
<tr><th>No.</th><th>Function</th><th colspan="2">Description</th></tr>
<tr><td rowspan="5"></td><td rowspan="5"></td><td>  : Analog clock</td><td>  : Timer</td></tr>
<tr><td>  : Weather</td><td>  : Environment monitoring</td></tr>
<tr><td>  : Table</td><td>  : RSS</td></tr>
<tr><td>  : Streaming media</td><td>  : Web page</td></tr>
<tr><td colspan="2">  : Cut-to-display window</td></tr>
<tr><td>3</td><td>Viewing the Beginner’s Guide, previewing pages, viewing schedules, and publishing solutions</td><td colspan="2">Used for viewing the Beginner’s Guide, previewing pages, viewing schedules, and publishing solutions</td></tr>
<tr><td>4</td><td>Editing media and pages.
• Media list: Adjust media order and delete media.
– Click the up/down buttons or drag media to change the layer order.
– Media includes media types such as images, videos, mixed media, and documents, which can be adjusted in playback order by clicking the up/down buttons or manually dragging the media.
• Page list: Add, copy and delete pages, and adjust the page order.
Pages play sequentially from top to bottom.</td><td>  : Add</td><td>  : Open the Page Template dialog box</td></tr>
<tr><td>  : Copy</td><td>  : Delete</td></tr>
<tr><td>  : Move up</td><td>  : Move down</td></tr>
<tr><td>5</td><td>Editing media on pages</td><td>  : Zoom editing area in</td><td>  : Zoom editing area out</td></tr>
<tr><td>  : Show the editing area in the original size</td><td>  : Automatically fit the editing area according to the software interface</td></tr>
<tr><td>  : Delete selected media</td><td>  : Clear all media</td></tr>
<tr><td>  : Crop image</td><td>  : Bring forward</td></tr>
<tr><td>  : Send backward</td><td>  : Bring to front</td></tr>
<tr><td>  : Send to back</td><td>  : Fill the entire screen</td></tr>
<tr><td>  : Fit the screen horizontally</td><td>  : Fit the screen vertically</td></tr>
<tr><td>  : Align top</td><td>  : Center vertically</td></tr>
<tr><td>  : Align bottom</td><td>  : Align left</td></tr>
<tr><td>  : Center horizontally</td><td>  : Align right</td></tr>
</table>

No.	Function	Description
6	Editing properties	Used for editing widget and page properties • Widget Properties: Widgets are the media added to a page. The properties of different types of media vary. Click a widget to select it before you edit its properties. • Page Properties: Set the name, play count, validity range, and playback schedule of a page. – Play Count: Set the number of times to play a page continuously. – Validity Range: After this option is selected, the **Start Date** and **End Date** parameters are displayed. Expired pages will be skipped during solution playback. – Schedule: Allows you to specify the timeslots to play a page and select the days to repeat the playback. If the timeslots of different pages overlap, the pages will be played in order from top to bottom. – Apply Schedule: Allows you to apply the schedule of the current page to other pages. You can select multiple pages and apply a schedule to them at the same time.

Notes

- When selecting a screen, you can choose to show or hide the offline screens.
- When you add an Excel file, you are advised to use the default row height and the number of rows of the Excel file must be less than or equal to 500. The maximum number of rows is subjected to the row height. The total width of the columns must be less than or equal to the width of an A4 landscape paper. It is recommended that you set the page layout of the Excel file to A4 landscape.
- Users can set the text color and merge the cells in the Excel file to be imported. Other properties of the cells in the Excel file currently cannot be displayed. From the navigation bar at the top, choose **Setting** > **Feedback** to give feedback if needed. If the cells have other property settings, parsing may fail or an error may occur. You can try to clear the cell formatting and import the Excel file again.
- When you add an Excel file, you cannot insert images and customize number cells.
- A valid URL is required when you add RSS, streaming media, or web page media.
- When you add weather media, the screen must be connected to the Internet to obtain real-time weather information.
- When you add environment monitoring media, connect to the sensor logically in ViPlex Express after the sensor is connected to the screen. For details, see 5.17 Sensor.
- Only the TU40 Pro/TU4K Pro support HDMI IN media, which allows the input source from HDMI 1 and the internal source to be displayed on the same screen simultaneously, enabling dual-source display.

Step 4 At the top of the solution editing window, click **Video/Image/Document/Mixed Media** to open the local file explorer below the property editing area. Select the corresponding type of media from your local files for editing.

A solution can be previewed after created, ensuring the accuracy of the content and its playback effect. Multiple media files can be added to a single window, enabling playlist playback.

Note:

Video files do not support real-time preview and are presented in the form of still images.

Step 5 After the solution editing is done, click **Save**.

Step 6 (Optional) At the upper right of the page, click  to preview the Beginner's Guide, and then click **Get Started**.

Step 7 (Optional) At the upper right of the page, click  to preview the current page.

When the preview window is opened, you can also select other pages to preview. If you make changes to the current page, click **Refresh** at the top right to refresh the preview window.

Step 8 (Optional) At the upper right of the page, click **View Schedule** to view the schedule of each page in the solution.

Step 9 After the solution editing is done, click **Publish** and select screens to publish the solution.

Notes

- When the solution resolution does not match the selected screen resolution, it may result in stretched or distorted images, affecting the playback quality.
- If the media specifications exceed the limit of the screen, you can view the details in the **Media Check** column and make improvements according to the suggestions provided.

3.1.2 Ultra-Long-Screen Solutions

Prerequisites

The player must supports ultra-long-screen solutions.

Supported devices: TB10 Plus/TB20 Plus/TB30/TB40/TB50/TB60/T30/T50/T60/TCC160

Applications

If the pixel width of the resolution of a screen is greater than the pixel width of the maximum loading capacity of a multimedia player, but the screen resolution does not exceed the maximum loading capacity of the multimedia player, you can use ultra-long-screen solutions.

Note:

For the limitations on the playback parameter specifications for ultra-long screens, see Table 3-2.

Application Example

The screen resolution is 23040×64 and the screen works with the TB60 multimedia player for content playback.

- Number of parts: 23040/4096=5.625, rounded to 6
- Screen width to be configured: 23040/6=3840 pixels
- Screen height to be configured: 64×6=384 pixels

Note

The maximum pixel capacity of the TB60 is 2.3 million. Within the maximum pixel capacity, the maximum pixel width is 23040 and the maximum pixel height is 4096. For the detailed pixel capacity limits of other models of products, see Table 3-2.

Table 3-2 Ultra-long-screen-solution playback parameter description

Maximum Pixel Width/Height	**TB10 Plus**	• Pixel capacity up to 650,000 • Pixel width ranging from 2048 to 8192 • Pixel height ranging from 16 to 2048
	TB20 Plus	• Pixel capacity up to 650,000 • Pixel width ranging from 2048 to 8192 • Pixel height ranging from 16 to 2048
	TCC160	• Pixel capacity up to 650,000 • Pixel width ranging from 2048 to 8192 • Pixel height ranging from 16 to 2048
	TB30	• Pixel capacity up to 650,000 • Pixel width ranging from 3841 to 23,040 • Pixel height ranging from 16 to 4096
	TB40/TB50	• Pixel capacity up to 1,300,000 • Pixel width ranging from 3841 to 23,040 • Pixel height ranging from 16 to 4096
	TB60	• Pixel capacity up to 2,300,000

		• Pixel width ranging from 3841 to 23,040 • Pixel height ranging from 16 to 4096
Maximum Image Resolution and Quantity		• Up to 10 images can be displayed simultaneously when the resolution is equal to or lower than 1080p. • Up to 2 images can be displayed simultaneously when the resolution is higher than 2K and equal to or lower than 4K.
Maximum Video Resolution		See the Media Decoding Specifications chapter in the product specifications.
Maximum Pixel Width of Text		• Text sharpening disabled – Maximum pixel width: 23040 – Maximum number of characters: 3000 • Text sharpening enabled – Maximum pixel width: 16384 – Maximum number of characters: Table 3-3
Supported Image Formats	**ViPlex Express**	JPG, JEPG, BMP, GIF, PNG, WEBP
	VNNOX Standard	JPG, PNG, ICO, JPEG, BMP, GIF
Supported Video Formats		MP4, FLV

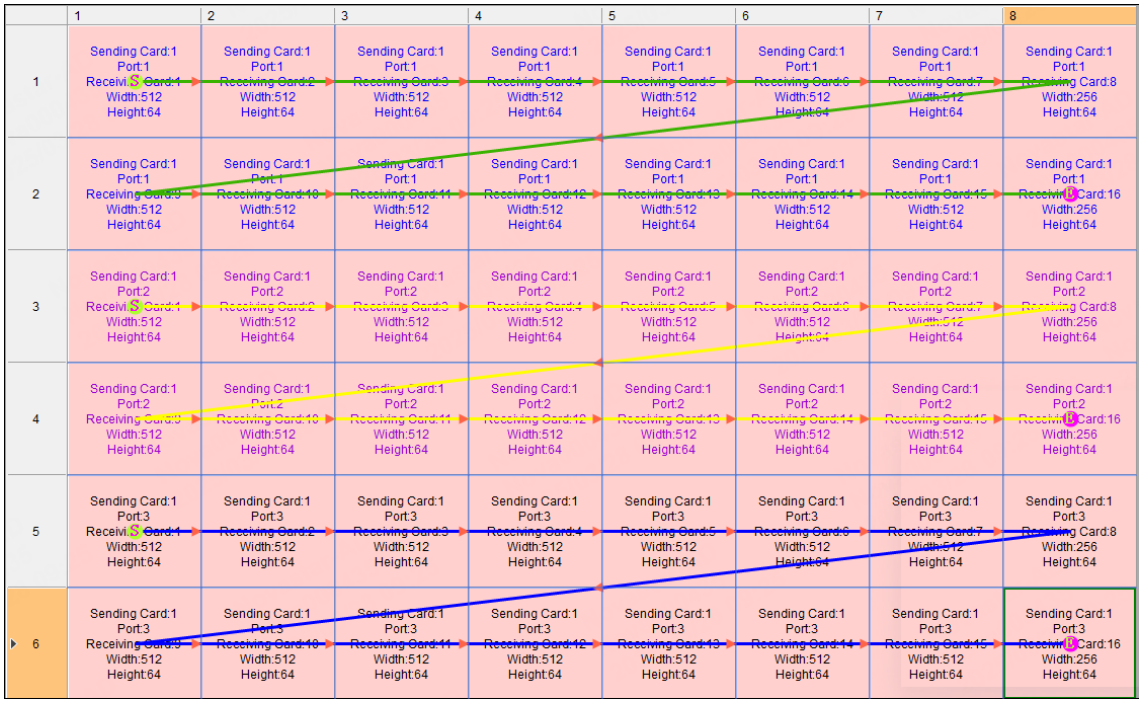
Table 3-3 Scrolling text limitations

Horizontal Scrolling	**Font Size**	8	12	14	16	18	24	32	64	96	128	256	512
	Number of Characters	2048	1365	1170	1024	911	685	512	256	170	127	62	10
Vertical Scrolling	**Font Size**	8	12	14	16	18	24	32	64	96	128	256	512
	Number of Characters	1504	1002	859	752	668	501	376	188	125	94	47	8

Screen Configuration

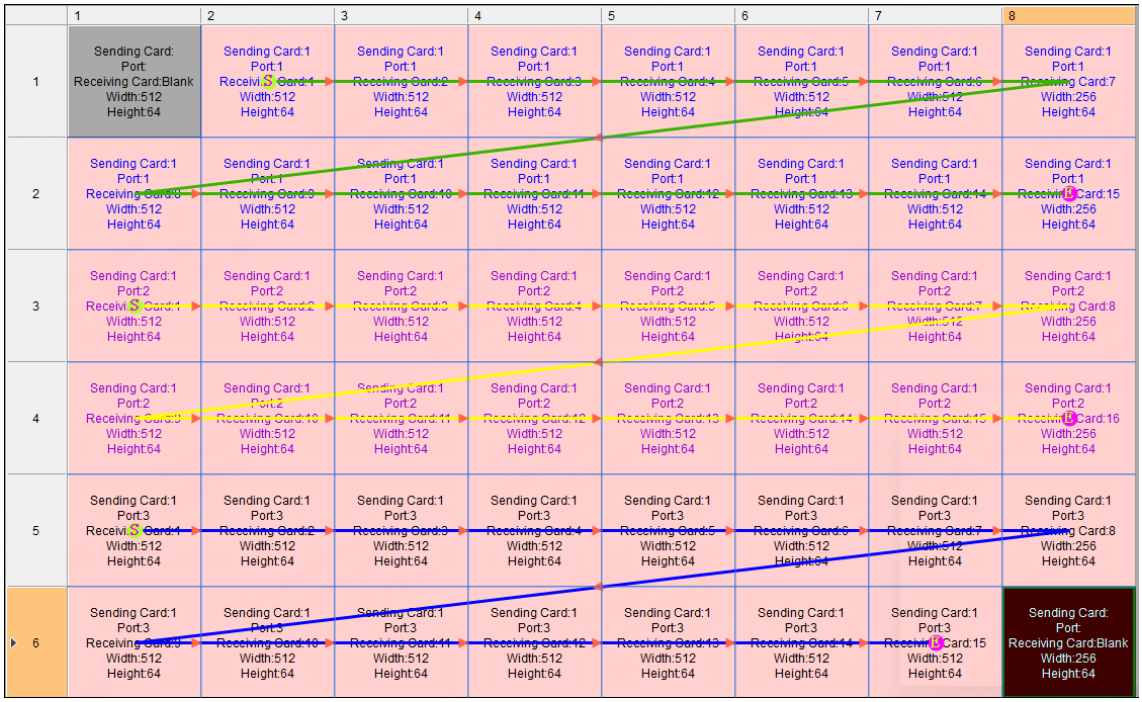
When users set the connection between receiving cards, it is necessary to calculate the number of parts due to the limitation of the maximum pixel width supported by the device and the connection must be a Z-shaped pattern, as shown in Figure 3-3.

Figure 3-3 Ultra-wide screen connection



If you want to set receiving cards to blank, you can only set the receiving cards at both ends to blank, as shown in Figure 3-4 (if receiving cards are set to blank, you also need to set corresponding blank for the solution).

Figure 3-4 Blank receiving cards of an ultra-wide screen



Note

If there is a blank at the begining, the window resolution of the ultra-long screen needs to be increased with the blank resolution.

Operating Procedure

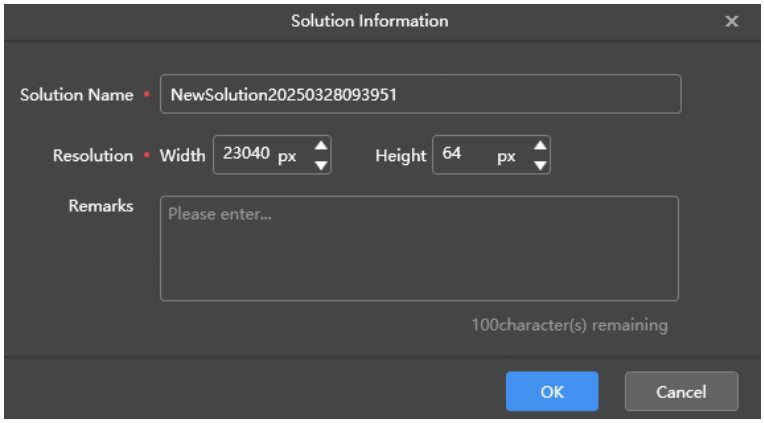
The preceding application will be used as an example to introduce how to create an ultra-long-screen solution.

Step 1 Choose **Solutions** to access the solution management page.

Step 2 Click **New** and select **Ultra-Long Screen** from the drop-down menu.

The **Solution Information** dialog box appears.

Figure 3-5 Ultra-long-screen solution information



Step 3 Set the solution information and click **OK**.

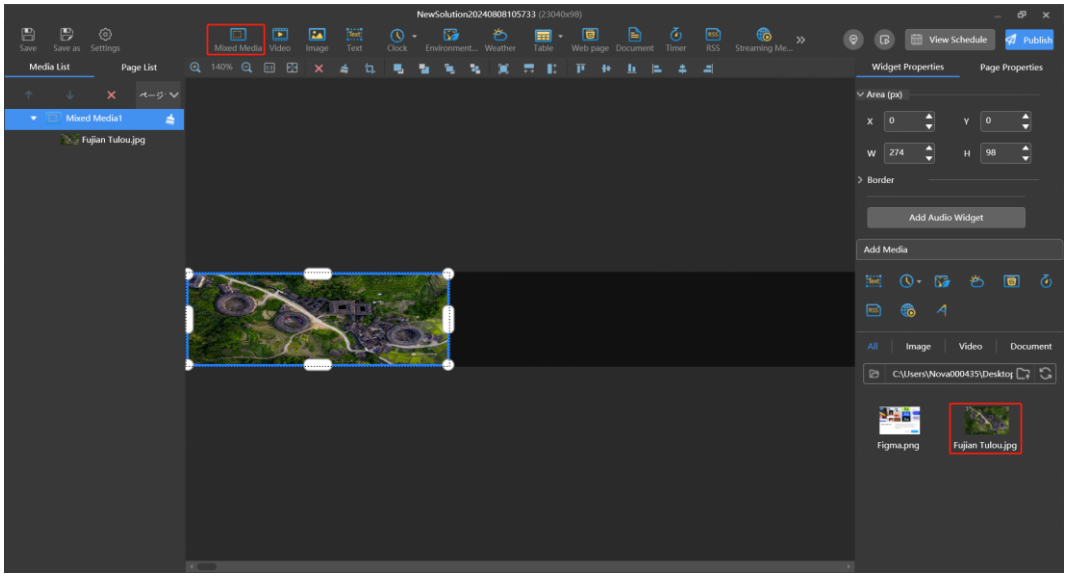
Set the resolution as the actual screen resolution. Set the width to 23040 and height to 64.

Step 4 Choose a media type.

The editing page is displayed based on the actual screen resolution.

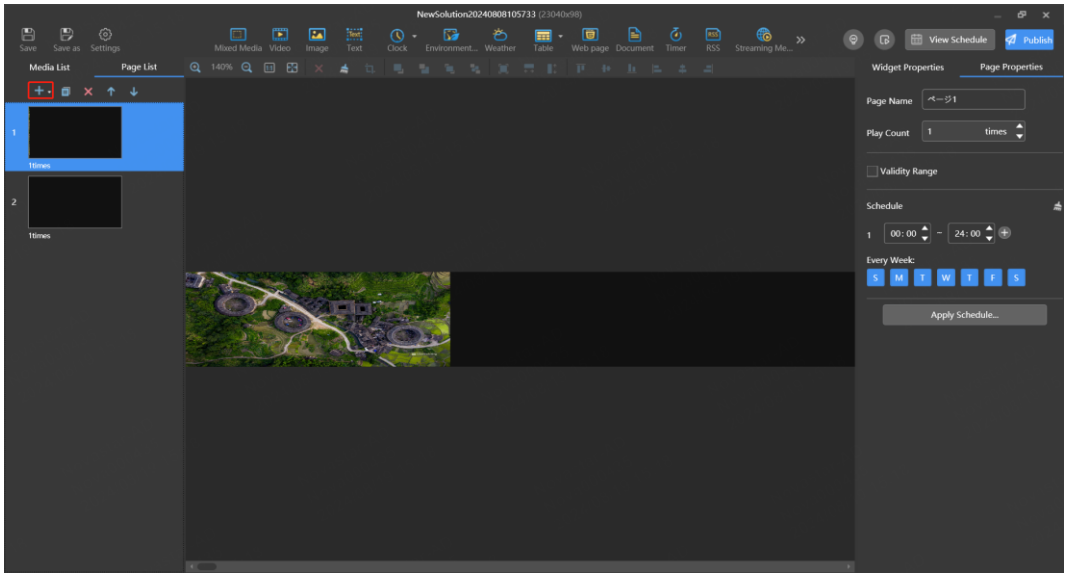
1. Click **Mixed Media**.
2. Below the property editing area, open the local resource manager and choose the corresponding type of media from the local storage.
3. On the media editing area, edit the solution.

Figure 3-6 Mixed media



Step 5 (Optional) In the page list, set playlist playback. Click  on the left of the editing page to add pages and add media widgets to the pages.

Figure 3-7 Playlist playback



Step 6 (Optional) At the upper right of the page, click **Preview** to preview the current page.

The preview window is displayed based on the configured screen aspect ratio.

Step 7 After the solution editing is done, click **Publish**.

Step 8 Select players and click **Publish** to publish the solution.

Notes

- Ultra-long-screen solutions do not support synchronous playback.
- To ensure smooth playback, playing videos and text simultaneously is not recommended.
- The TB10, TB30, TB40, TB50 and TB60 allow mixed media, text, clock widgets, weather widgets to be placed in the boundaries.
- To preview a ultra-long-screen solution, the solution width cannot be greater than 16384 pixels. To use the page flipping and scrolling effect, the media width cannot be greater than 16384 pixels.
- When the solution resolution does not match the selected screen resolution, it may result in stretched or distorted images, affecting the playback quality.
- If the media specifications exceed the limit of the screen, you can view the details in the **Media Check** column and make improvements according to the suggestions provided.

3.2 USB Playback

Applications

When a multimedia player can play solutions imported from a USB drive, users can import solutions to a USB drive by using the USB playback function in ViPlex Express and then insert the USB drive into the multimedia player to enable solution playback.

Related Information

- A solution containing media supports USB playback.
- Multiple solutions can be exported to a USB drive each time.
- During USB playback, the specified solution is played by default.
- Ultra-long screens do not support USB playback.

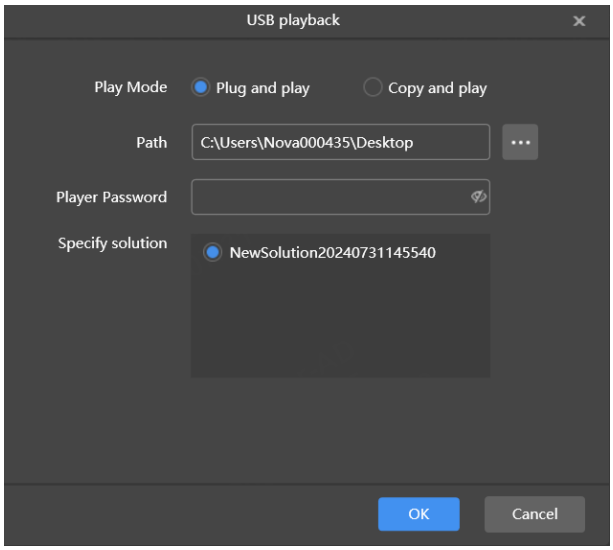
Operating Procedure

Step 1 Choose Solutions.

Step 2 In the solution list, move your mouse over a solution and click  , or select one or more solutions and click **USB Playback**.

The USB playback dialog box appears.

Figure 3-8 USB playback



Step 3 Specify a playback mode.

- Plug and play: The solution starts to play as soon as you insert the USB drive where the solution is stored in the player. Do NOT remove the USB drive during playback.
- Copy and play: The solution starts to play after the solution in the USB drive is copied to the player. The USB drive can be removed during playback.

Step 4 Click  to choose a location to store the solutions to be exported.

Step 5 Enter the connection password of the player.

After the USB drive where solutions are stored is inserted into the screen, the solutions can be played only when the password is correct.

Step 6 Select a solution and click **OK**.

Step 7 After solutions are exported successfully, click **Done**.

3.3 Exporting/Importing Solutions

Applications

Transfer solutions by exporting and importing solution files with ViPlex Express.

Related Information

A solution containing media can be exported.

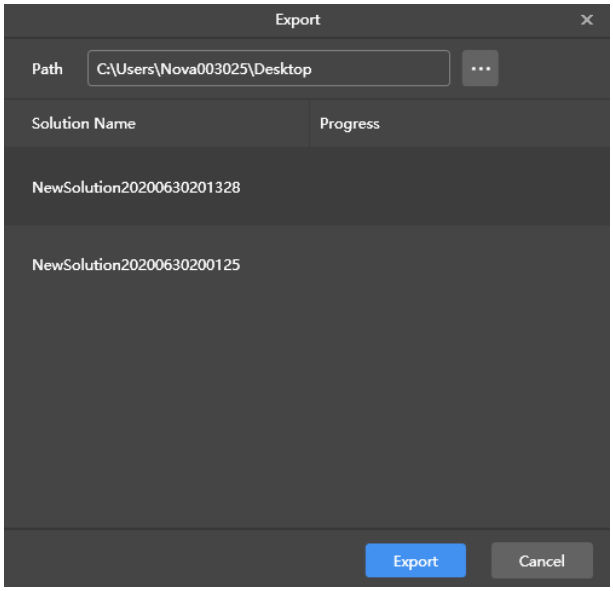
Operating Procedure

Export solutions

Step 1 Choose Solutions.

Step 2 From the solution list, select one or more solutions and then choose **More** > **Export**.

Figure 3-9 Exporting solutions



Step 3 Click ... to choose a location to store the solutions to be exported.

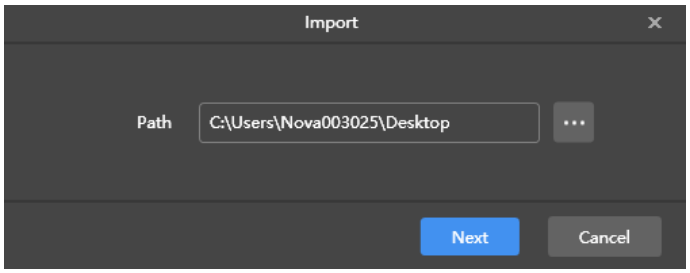
Step 4 Click **Export**.

Step 5 After the solutions are exported successfully, close the dialog box.

Import solutions

Step 1 From the **Solutions** page, choose **More** > **Import**.

Figure 3-10 Importing solutions



Step 2 Click ... to choose the location of the local files.

Step 3 Click **Next**.

Step 4 After the solutions are imported successfully, click **Done**.

4 Schedules

4.1 Adding Schedules

Applications

Add one or more solutions to a schedules.

Operating Procedure

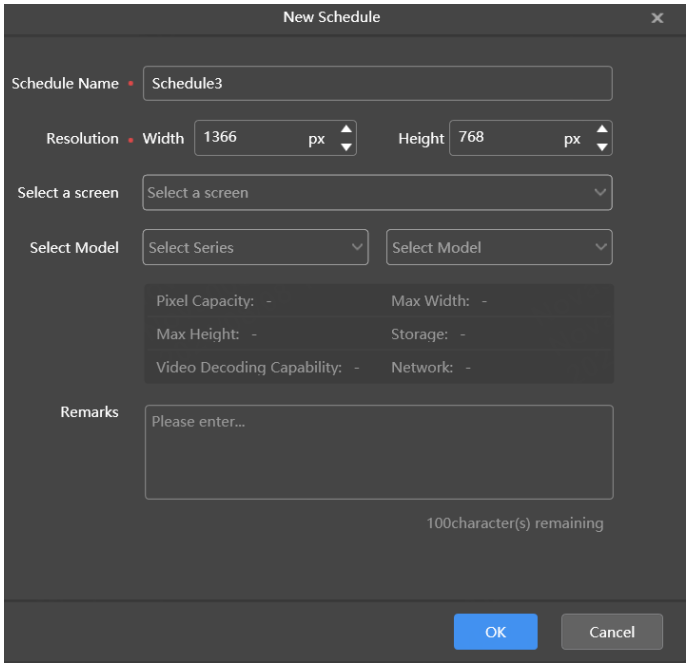
Step 1 Choose **Schedule** to access the schedule page.

Step 2 (Optional) At the upper right of the page, click  to preview the Beginner's Guide, and then click **Get Started**.

Step 3 At the bottom left of the page, click **New Schedule**.

A **New Schedule** window is displayed.

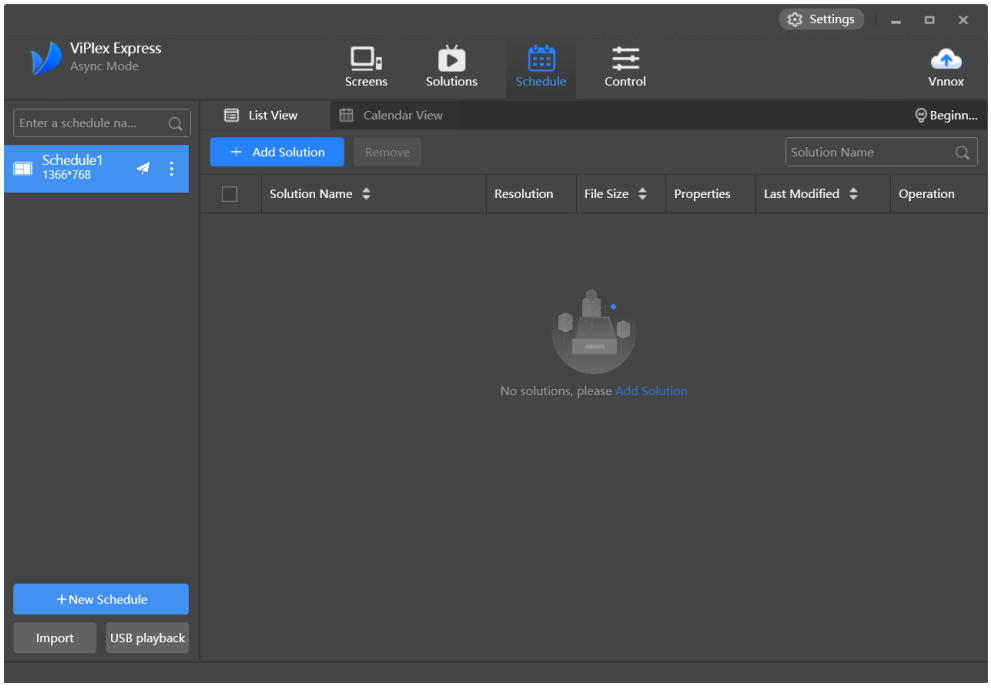
Figure 4-1 New schedule



Step 4 Specify a name and resolution for the schedule, and click **OK**.

Step 5 On the **Schedule** page, click **Add Solution**.

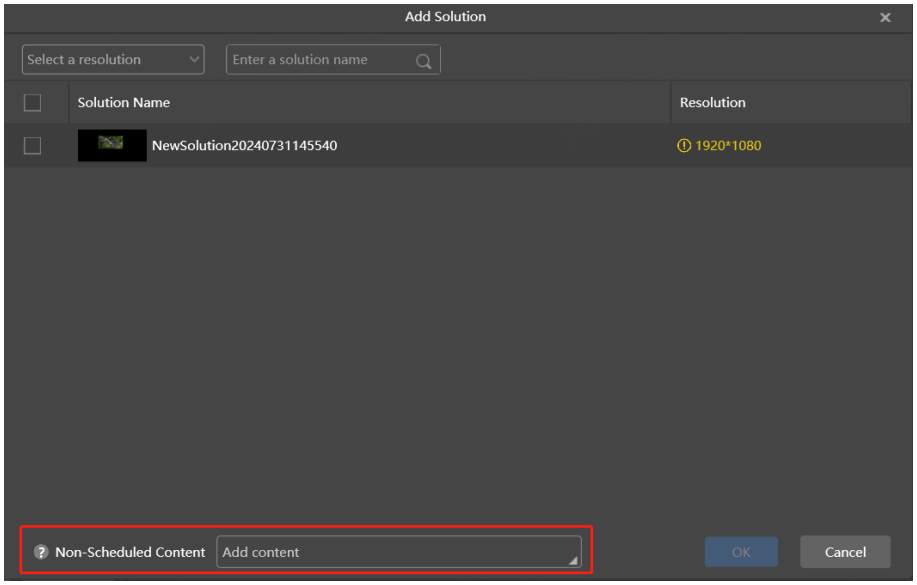
Figure 4-2 Adding solutions



Step 6 (Optional) At the bottom of the **Add Solution** window, click the box next to **Non-Scheduled Content** to select a solution and click **OK**.

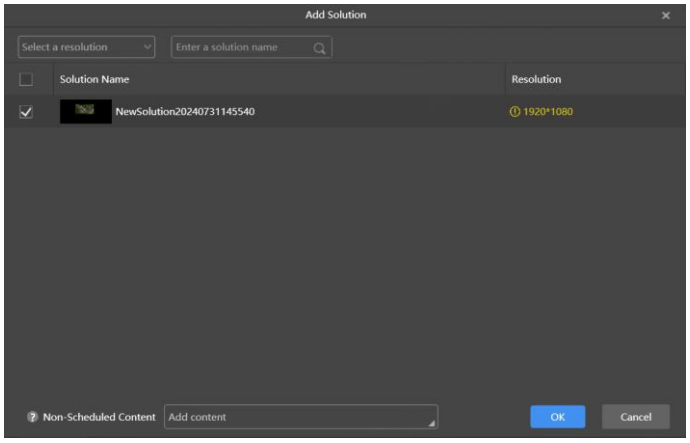
The non-scheduled content will be played by default during the non-scheduled period.

Figure 4-3 Adding non-scheduled content



Step 7 From the solution list, select one or more solutions and click **OK**.

Figure 4-4 Selecting solutions



Notes

- Users can edit and delete schedules in the schedule list.
- Users can edit and remove the solutions in a schedule.

4.2 Scheduling Solutions

Operating Procedure

Step 1 Choose **Schedule**.

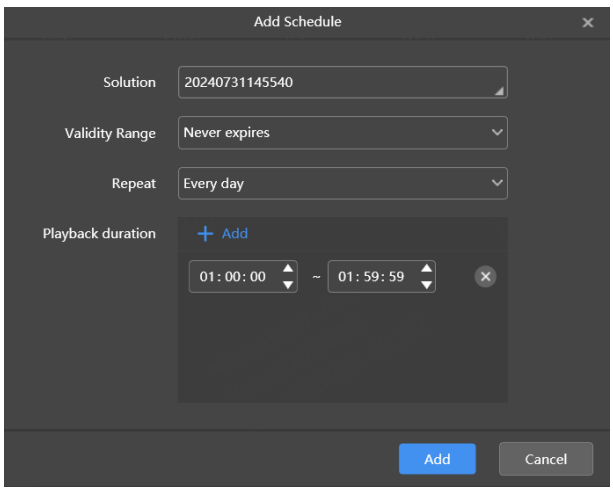
Step 2 In the schedule list, click the target schedule.

Step 3 Select the **Calendar View** tab.

Step 4 Do any of the following to create a schedule.

- Click **New** to create a schedule.
- Click a cell in the timetable and click  . (Each cell in the timetable represents one hour.)

Step 5 On the **Add Schedule** window that appears, select a solution and specify the validity range, repeat method and playback duration.



Step 6 Click **Add**.

Step 7 Repeat Step 4 to Step 6 to add multiple schedules.

Schedules are graphically displayed in the timetable.

Step 8 Do the following as required.

- Edit schedule: Click a schedule and click **Edit**.
- Delete schedule: Click a schedule and click **Edit**.
- Clear schedule: Click **Clear**.

Note:

If a schedule is empty, it cannot be published.

4.3 Publishing Schedules

Operating Procedure

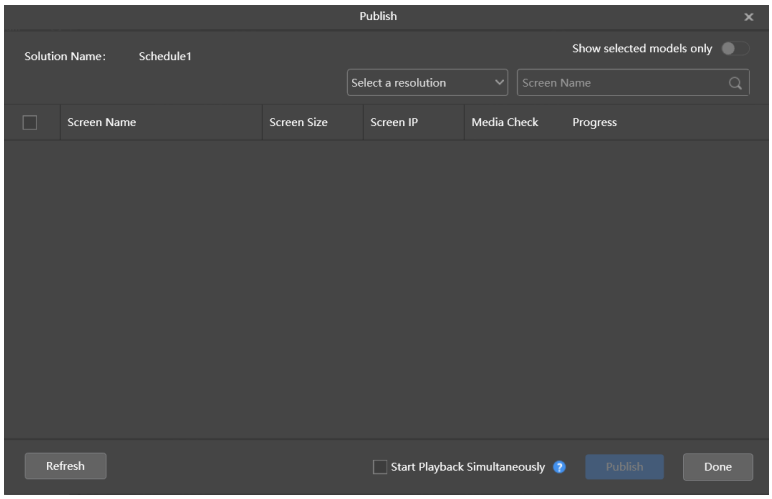
Step 1 Choose **Schedule**.

Step 2 From the schedule list, select the target schedule and click  next to the schedule.

Step 3 (Optional) Select **Start Playback Simultaneously**.

Start Playback Simultaneously: The screens used for synchronous playback will start playing the solution at the same time.

Step 4 Select one or more screens and click **Publish**.



Notes:

- When the solution resolution does not match the selected screen resolution, it may result in stretched or distorted images, affecting the playback quality.
- If the media specifications exceed the limit of the screen, you can view the details in the **Media Check** column and make improvements according to the suggestions provided.
- Unltr-long-screen solutions do not support Start Playback Simultaneously.

Step 5 After the solution is published successfully, click **Done**.

4.4 USB Playback

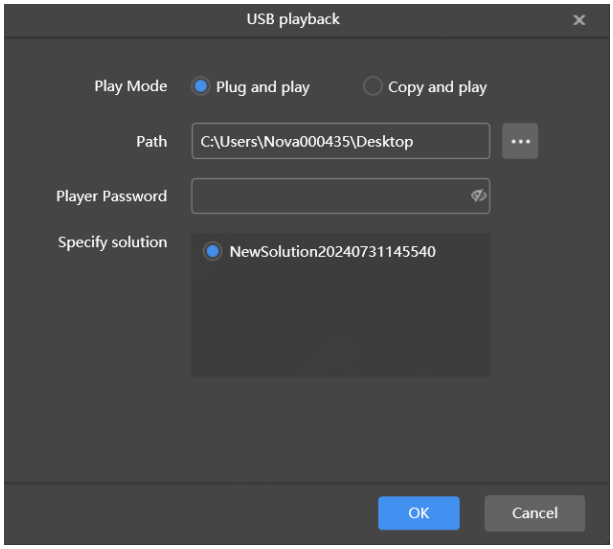
Operating Procedure

Step 1 Choose **Schedule**.

Step 2 At the bottom left of the page, click **USB Playback**.

The USB playback dialog box appears.

Figure 4-5 USB playback



Step 3 Specify a playback mode.

- Plug and play: The solution starts to play as soon as you insert the USB drive where the solution is stored in the player. Do NOT remove the USB drive during playback.
- Copy and play: The solution starts to play after the solution in the USB drive is copied to the player. The USB drive can be removed during playback.

Step 4 Click  to choose a location to store the solutions to be exported. (The path must be in the root directory of the USB drive.)

Step 5 Enter the connection password of the player.

After the USB drive where solutions are stored is inserted into the player, the solutions can be played only when the password is correct.

Step 6 Select a solution and click **OK**.

Step 7 After solutions are exported successfully, click **Done**.

4.5 Exporting/Importing Solutions

Applications

Export and import schedules with ViPlex Express.

Related Information

A schedule containing solutions can be exported.

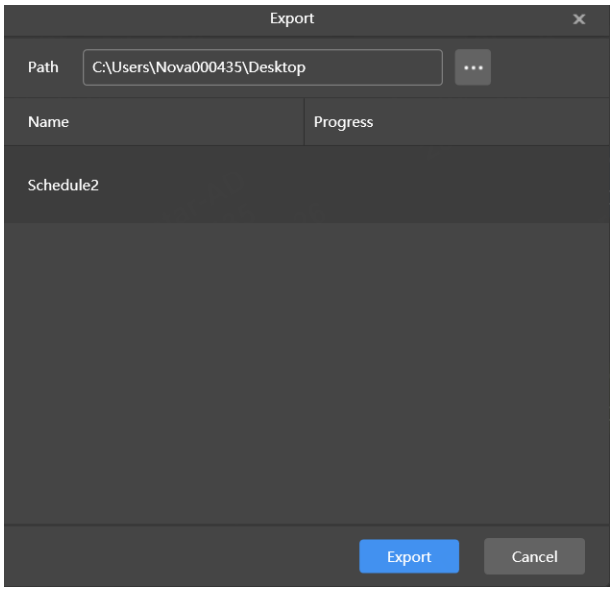
Operating Procedure

Export schedules

Step 1 Choose **Schedule**.

Step 2 From the schedule list, choose > **Export**.

Figure 4-6 Exporting a schedule



Step 3 Click to choose a location to store the schedule to be exported.

Step 4 Click **Export**.

Note

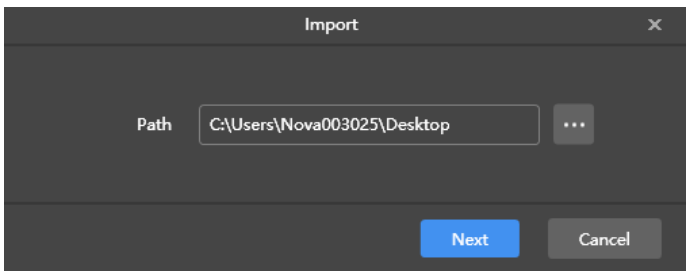
During schedule exporting, ViPlex Express automatically converts the video formats not supported by the screen.

Step 5 After the schedule is exported successfully, close the dialog box.

Import schedules

Step 6 At the bottom left of the page, click **Import**.

Figure 4-7 Importing a schedule



Step 7 Click  to choose the location of the local files.

Step 8 Click **Next**.

Step 9 After the schedule is imported successfully, click **Done**.

5 Control

Function List

Function	Sub-Function	Taurus LED Players	Taurus LCD Players	TU Players
Playback management	Adjust volume in real time	√	√	√
	Manage solutions	√	√	√
Brightness adjustment	-	√		√
Video source	Configure video source parameters	√	√ (LCB4K)	√
	Switch video source	√		√
Screen status control	-	√	√ (LCB4K)	√
On/Off	-	-	-	-
Time synchronization	Sync time manually	√	√	√
	Sync time with NTP	√	√	√
	Sync time with RF	√	√	
Restart configuration	-	√	√	√
Color temperature	-	√		√
Monitoring	-	√	√	√
Play logs	Search for play logs	√	√	√
	Export play logs	√	√	√
Font management	Add fonts	√	√	√
	Delete fonts	√	√	√
Network configuration	Configure wired network	√	√	√
	Configure Wi-Fi AP	√	√	√
	Configure Wi-Fi Sta	√		√
	Configure mobile network	√	√	
	Configure network detection	√	√	
Server configuration	Bind to VNNOX Standard/AD	√	√	√
Player upgrade	Online upgrade	√	√	√

Function	Sub-Function	Taurus LED Players	Taurus LCD Players	TU Players
	Local upgrade	√	√	√
Power control	-	√	√ (No support for direct control of multi-function cards)	√
RF configuration	-	√	√	
Sensor	-	√	√ (Board)	√
Screen information	-	√	√	√
Multi-screen mosaic	-	√		

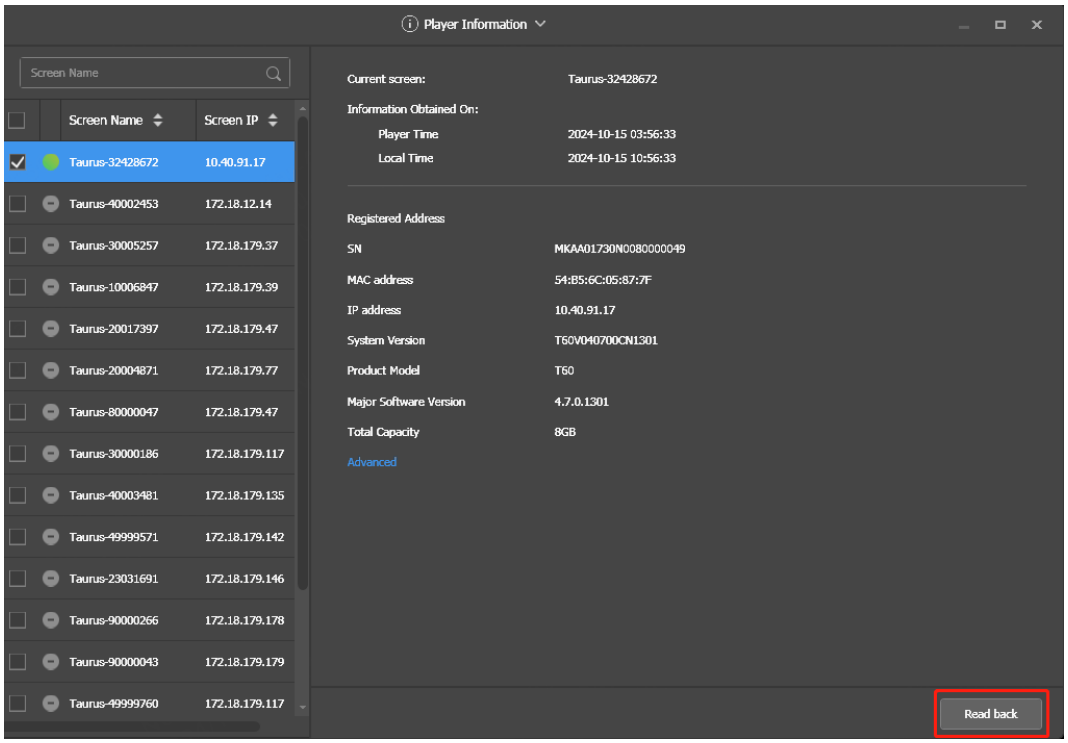
Note:

For a more detailed functions of the LCB4K, see *LCB4K LCD Multimedia Player Configuration Guide*.

Common Operations

- Click the **Read back** button to read player information back to ViPlex Express and display it.

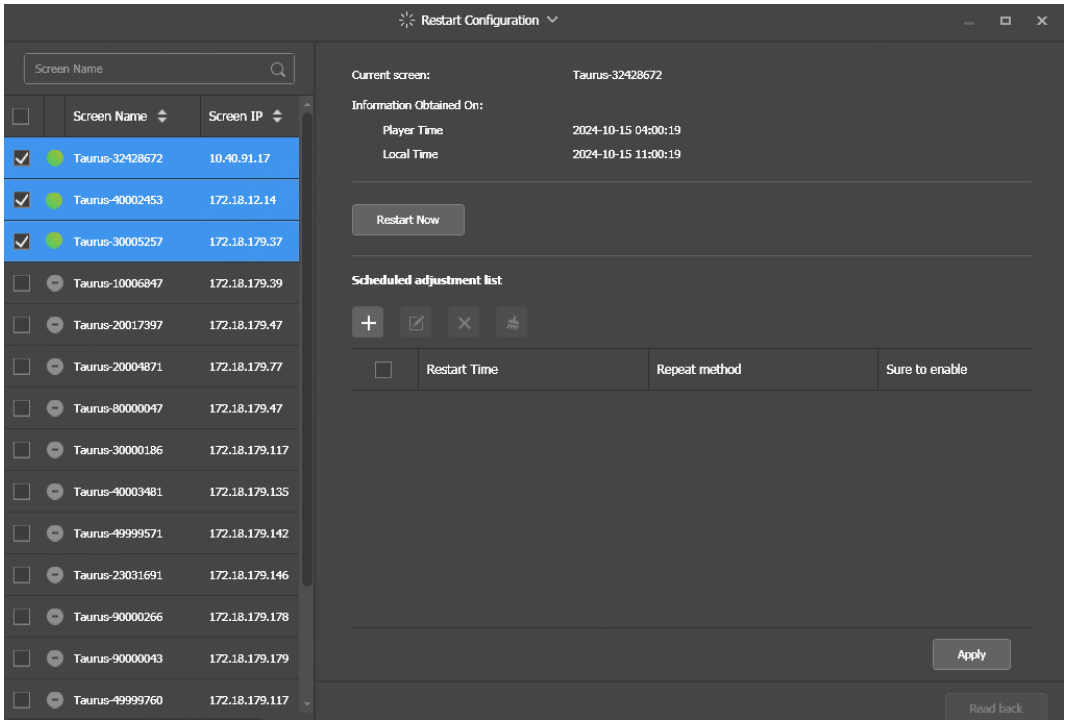
Figure 5-1 Readback



- In the screen list, you can select multiple screens by selecting the checkboxes.

Selecting multiple screens is not available in **Playback management**, **Video source**, **Network configuration**, **Sensor**, and **Player information**.

Figure 5-2 Selecting multiple screens



5.1 Playback Management

Manage the playback mode, volume, and content of screens.

5.1.1 Adjusting Volume in Real Time

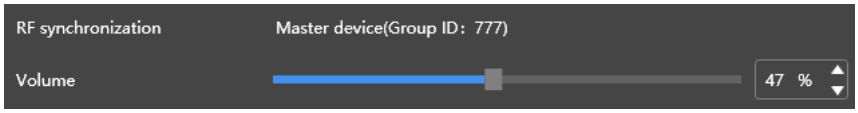
Step 1 Choose **Control** > **Playback Management**.

Step 2 Select the target screen from the screen list.

Step 3 In the **Playback Configuration** area, adjust the volume by dragging the slider or entering a value.

When the information related to RF synchronization is displayed, as shown in Figure 5-3, it indicates that volume synchronization is enabled on the current screen. See relevant operations in 5.16 RF Configuration. RF synchronization requires you to specify a master device and slave devices. Users only need to set the volume of the master device. The slave devices will keep the same volume as the master device via an RF signal.

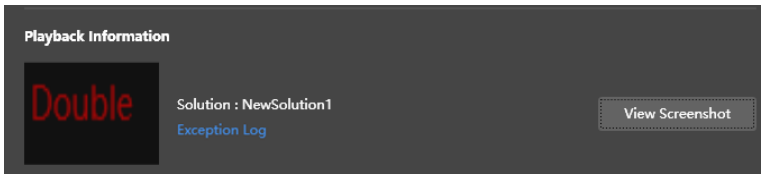
Figure 5-3 RF synchronization-volume



5.1.2 Managing Solutions

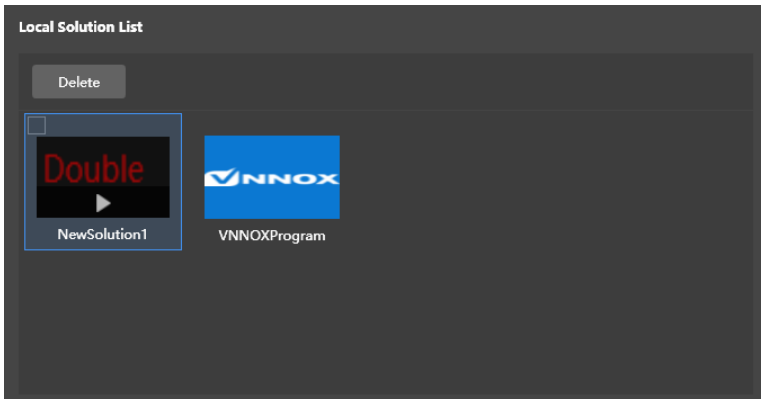
- Viewing screenshot: Click **View Screenshot** to view the real-time screenshot of the solution which is being played on the screen.

Figure 5-4 Viewing the screenshot



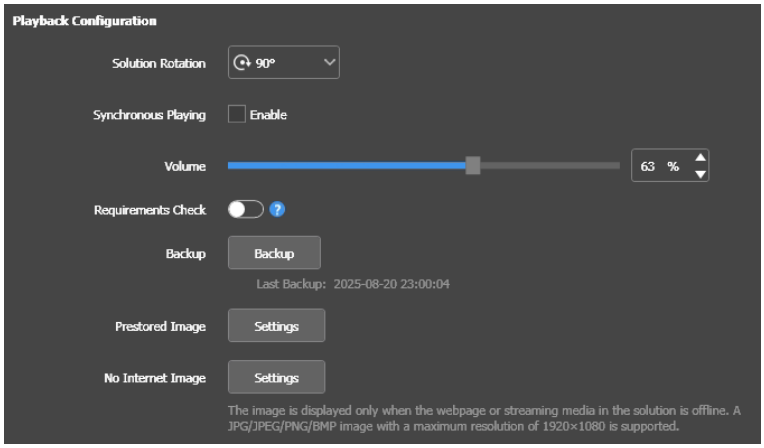
- Exception log: Click **Exception Log** to view the details of the exceptions occurring during playback.
- Playing a solution: Move the mouse to the thumbnail of the solution and click  .

Figure 5-5 Solution list



- Stopping playing a solution: Move the mouse to the thumbnail of the solution and click  .
- Deleting a solution: Select a solution in the solution thumbnail list and click **Delete**.
- Rotating a solution: Select a playback window rotation angle from the drop-down box next to **Solution Rotation**. The rotation angle is absolute.
- Synchronous playing: Enable or disable the synchronous playback.
- Requirements Check: After this function is enabled, the device can automatically detect the media not meeting the requirements.
- Backup: Back up important system data.
- Prestored Image: When the system malfunctions and causes solution loss, the prestored image will be displayed.
- No Internet Image: This image is displayed only when the webpage or streaming media in the solution is offline. An image of JPG/JPEG/PNG/BMP format with a maximum resolution of 1920×1080 is supported.

Figure 5-6 Playback configuration



Note:

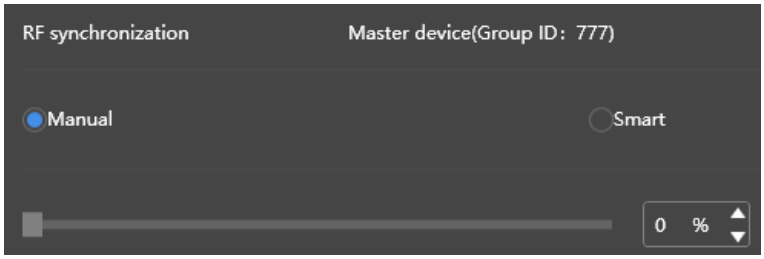
Taurus V4.6.0 and later support important system data backup and prestored image settings. Taurus V4.7.7 and later support no Internet image settings.

5.2 Brightness Adjustment

Manually adjust the brightness or set rules of smart brightness adjustment.

When the information related to RF synchronization is displayed, as shown in Figure 5-7, it indicates that brightness synchronization is enabled on the current screen. See relevant operations in 5.16 RF Configuration. RF synchronization requires you to specify a master device and slave devices. Users only need to set the brightness of the master device. The slave devices will keep the same brightness as the master device via the RF signal.

Figure 5-7 RF synchronization-brightness



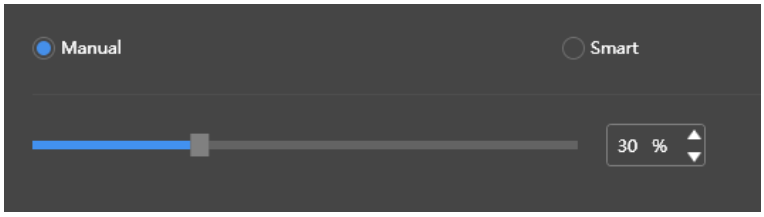
5.2.1 Manual Adjustment

Step 1 Choose **Control** > **Brightness adjustment**.

Step 2 Select the target screen in the screen list.

Step 3 Choose **Manual**, and drag the slider or enter a value to adjust screen brightness.

Figure 5-8 Manual adjustment



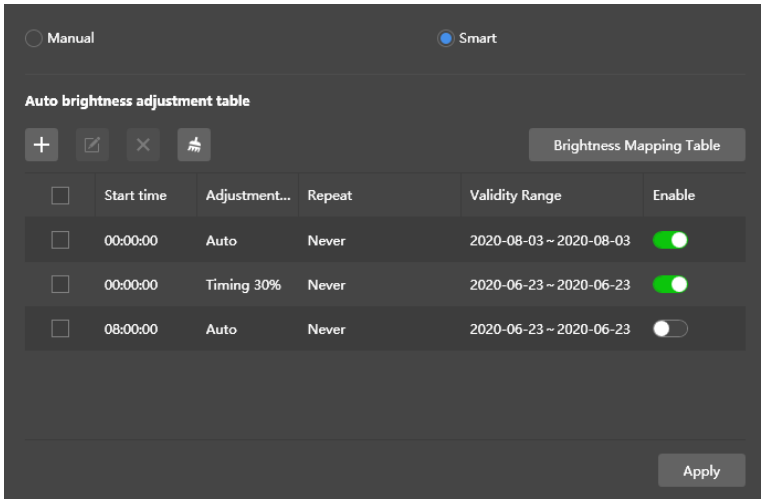
5.2.2 Smart Adjustment

Step 1 Choose **Control** > **Brightness adjustment**.

Step 2 Select the target screen in the screen list.

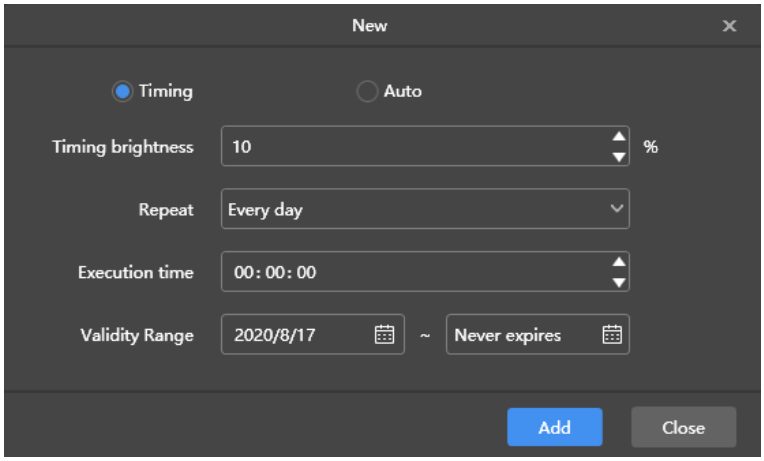
Step 3 Choose **Smart** and click  . In the window that appears, choose **Timing** or **Auto**, set the corresponding brightness adjustment rules, and then click **Add**.

Figure 5-9 Smart brightness adjustment



- Timing brightness adjustment: During the period you set to enable smart adjustment, the screen brightness will be the fixed value you manually set.

Figure 5-10 Scheduled brightness adjustment



- Automatic brightness adjustment: During the period that you set to enable auto adjustment, the screen brightness will be automatically adjusted according to the automatic brightness mapping table.

  The automatic brightness mapping table allows users to divide the ambient brightness into several subsections, set corresponding screen brightness for each subsection, and specify a brightness collection interval and the number of times to collect brightness. The screen brightness automatically changes according to the ambient brightness subsection to which the collected ambient brightness belongs.

Figure 5-11 Automatic brightness adjustment

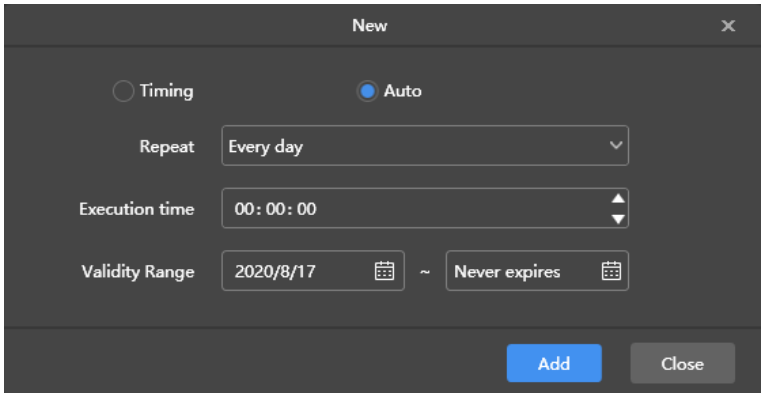
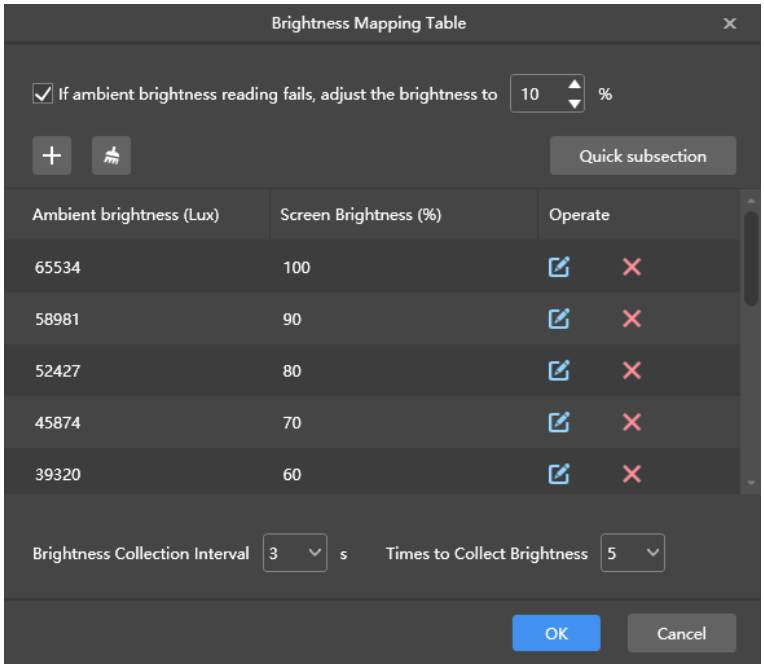


Figure 5-12 Brightness mapping table



Step 4 After configuration, click **Apply**.

Note:

Automatic brightness adjustment requires a light sensor.

5.3 Video Source

Configure video source parameters and specify the rule of setting the input source to HDMI or the internal video source.

5.3.1 Video Source Parameter Configuration

Set the output offset position of the video source, resolution of the internal video source, and resolution of the HDMI video source.

Step 1 Choose Control > Video Source.

Step 2 Select the target screen from the screen list.

Step 3 In the **Internal Source Resolution** area, specify a resolution and frame rate, and click **Apply**.

This resolution refers to the operating system resolution of the Taurus multimedia player and must be higher than the screen resolution.

Note:

The TB10 Plus, TB20 Plus, TB30, TB40, TB50, TB60, LCB4K, TCC160, and TU series support custom resolutions.

Step 4 In the **Parameter Configuration** area, configure the following parameters.

- Output Position: Set the start position of the image displayed on the screen.
- HDMI Source Resolution: Refers to the resolution of the external video source input from the HDMI IN connector.

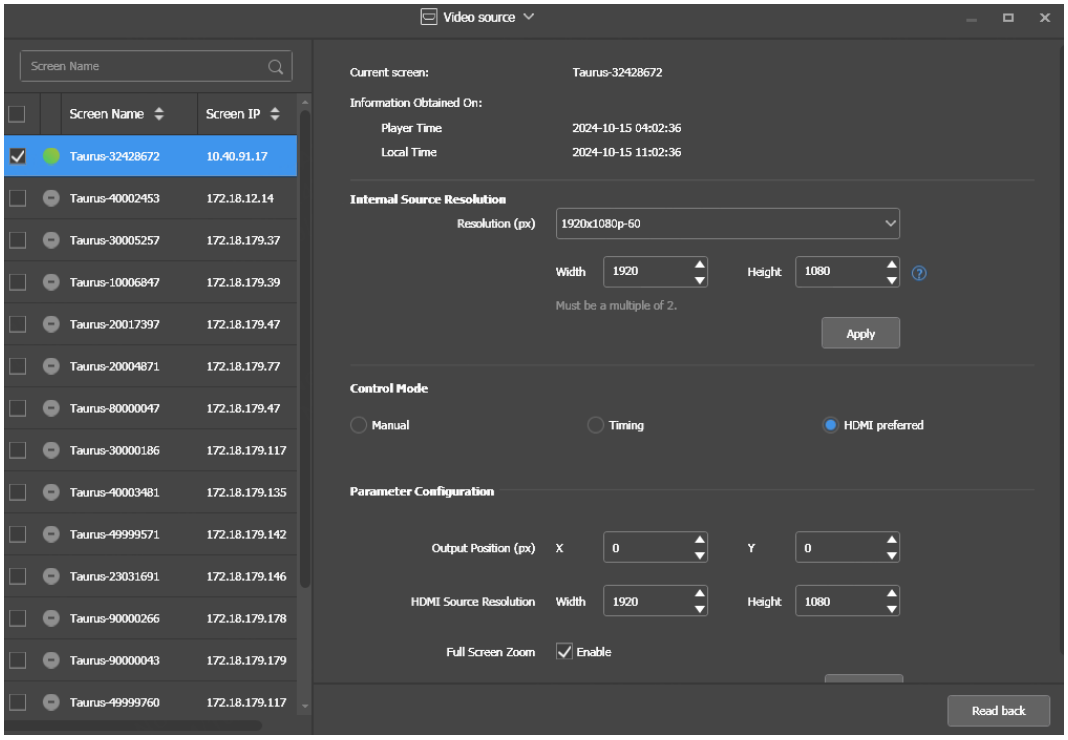
  In studio mode, users can enable full screen zoom to let the image automatically fit the screen.

  Requirements of full screen zoom in studio mode:

  - 512 pixels ≤ Video source width ≤ 2048 pixels
  - 512 pixels ≤ Video source height ≤ 2048 pixels
  - Maximum resolution: 1920×1080
  - Support for zooming out only

Note: The video source width must be greater than or equal to the screen width, and the video source height must be greater than or equal to the screen height.

Figure 5-13 Parameter configuration



Step 5 After the configuration, click **Apply**.

5.3.2 Manual Switching

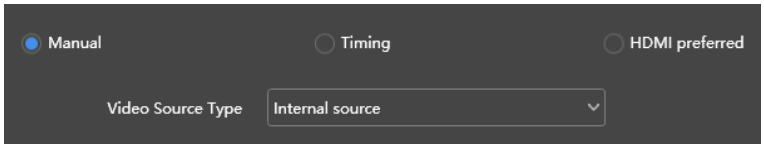
Immediately switch between the internal input source and HDMI input source.

Step 1 Choose **Control** > **Video source**.

Step 2 Select the target screen in the screen list.

Step 3 In the **Control Mode** area, choose **Manual** and configure the parameters.

Figure 5-14 Manual switching



Step 4 Click **Apply**.

5.3.3 Scheduled Switching

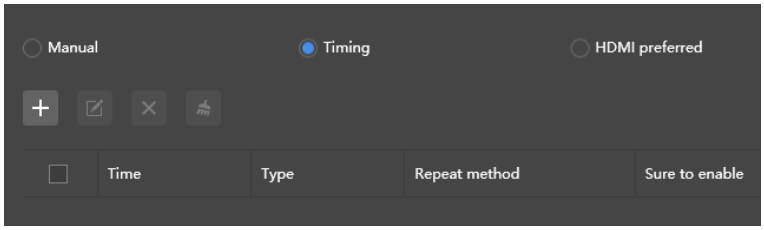
Switch between the internal input source and HDMI input source as scheduled.

Step 1 Choose **Control** > **Video source**.

Step 2 Select the target screen in the screen list.

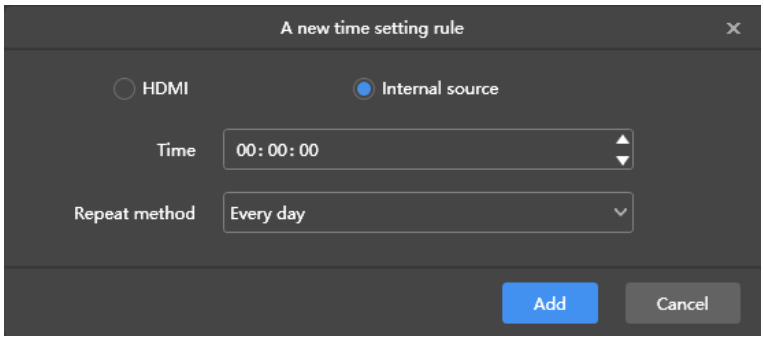
Step 3 In the **Control Mode** area, choose **Timing**.

Figure 5-15 Scheduled switching



Step 4 Click  . In the pop-up dialog box, choose **Internal** or **HDMI**, and then set the time and cycle to use the video source. At last, click **Add**.

Figure 5-16 Creating a scheduled rule



Step 5 After the configuration, click **Apply**.

Note:

For the TU series devices, only the TU40 Pro/TU4K Pro V1.5.2 and later support scheduled switching.

5.3.4 HDMI Preferred

The HDMI port is preferred for playing the video in synchronous mode.

Step 1 Choose **Control** > **Video source**.

Step 2 Select the target screen in the screen list.

Step 3 In the **Control Mode** area, select HDMI preferred.

Step 4 After configuration, click **Apply**.

5.4 Screen Status Control

Set the current playing status of the screen.

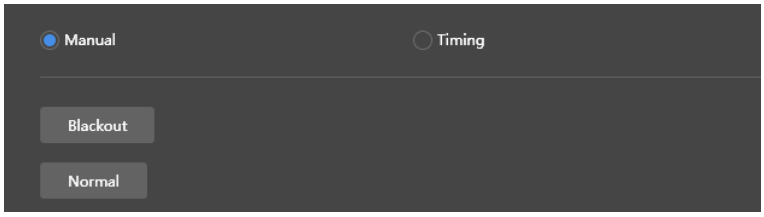
5.4.1 Manual Control

Step 1 Choose **Control** > **Screen Status Control**.

Step 2 Select the target screen in the screen list.

Step 3 Choose **Manual** to enter the manual settings page.

Figure 5-17 Manual Control



Step 4 Click **Blackout** or **Normal**.

Here the blackout is to decrease the screen brightness to 0% instead of turning off the power.

5.4.2 Scheduled Control

Step 1 Choose **Control** > **Screen Status Control**.

Step 2 Select the target screen in the screen list.

Step 3 Choose **Timing** and click  . In the window that appears, click **Blackout** or **Normal**, set the playback time and interval, and then click **Add**.

Figure 5-18 Scheduled control

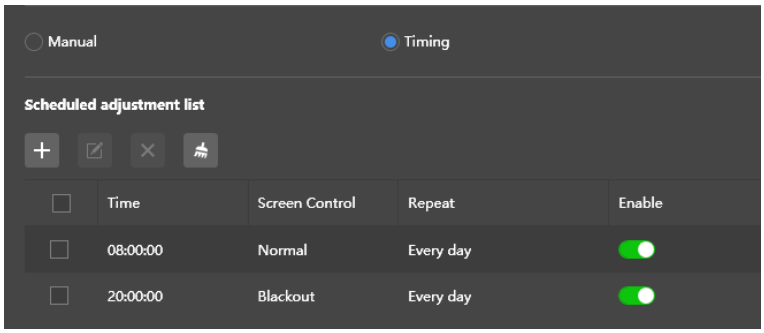
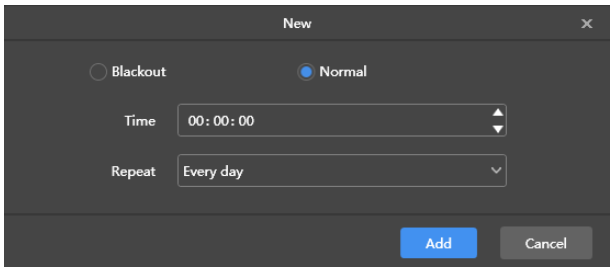


Figure 5-19 Creating a scheduled rule



Step 4 After the settings, click **Apply**.

5.5 On/Off

Scenarios

Schedule players to power on/off.

Prerequisites

Only the NS series devices supports this feature.

Operating Procedure

Step 1 Choose **Control** > **On/Off**.

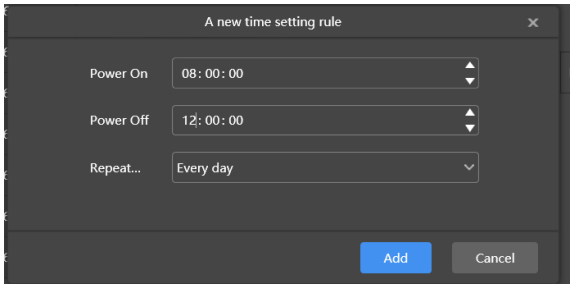
Step 2 In the **Power On/Off** area, click + to create a scheduled control command.

Step 3 Specify the time to power on and off the player and select a repeat method.

The interval between the power-on time and power-off time cannot be less than 2 minutes. When the power-off time is earlier than the power-on time, the device will be powered off on the next day.

Step 4 After the settings, click **Add** to save the command.

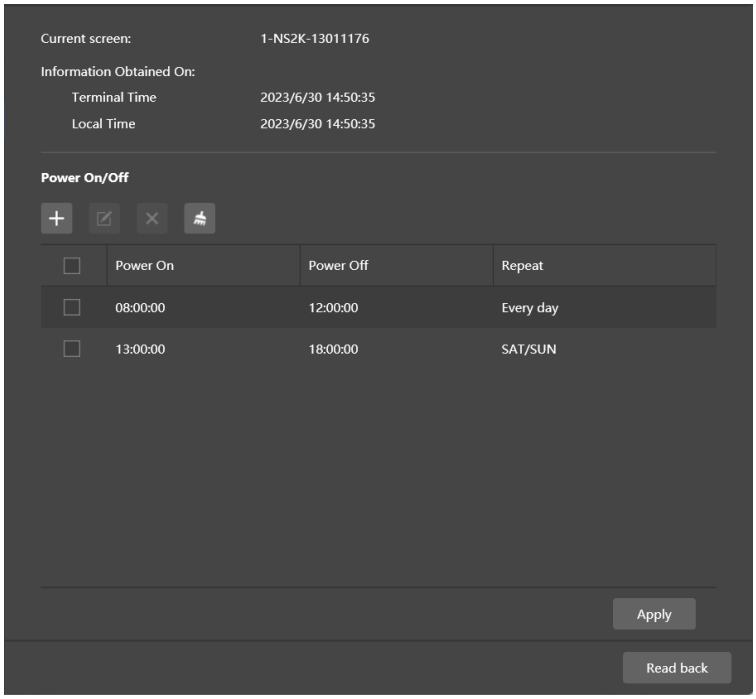
Figure 5-20 Creating a scheduled control command.



Step 5 Select a player from the player list.

Step 6 Select a command and click **Apply** to apply the command. (If no command is selected, all the commands will be applied by default.)

Figure 5-21 Scheduling power on/off



5.6 Time Synchronization Management

Time synchronization is used for syncing the time of players.

Table 5-1 Time synchronization methods

Method	Time Reference	Application Scenario
Manual	Time of the PC with ViPlex Express installed	Manually set the time zone of the screen.
Automatic	GPS time synchronization: Radio signal from a GPS satellite	Sync the time of the Taurus with GPS, NTP, or RF. All these three methods are applicable to synchronous playback. • The accuracy of GPS time synchronization depends on the satellite signal and it is suitable for outdoor applications without obstructions around • The accuracy of NTP time synchronization depends on the network speed and it is suitable for situations with a low requirement for synchronization. • RF time synchronization does not depend on the network and has a high synchronization performance. It is suitable for situations with an increased requirement for synchronization.
	NTP time synchronization: Time of the NTP server	
RF	Time of the reference device	

Note:

To enable synchronous playback, you need to turn on the synchronous playback function after syncing the time automatically or with RF.

5.6.1 Manual Time Synchronization

Sync the time of the screen with the date and time of the selected time zone.

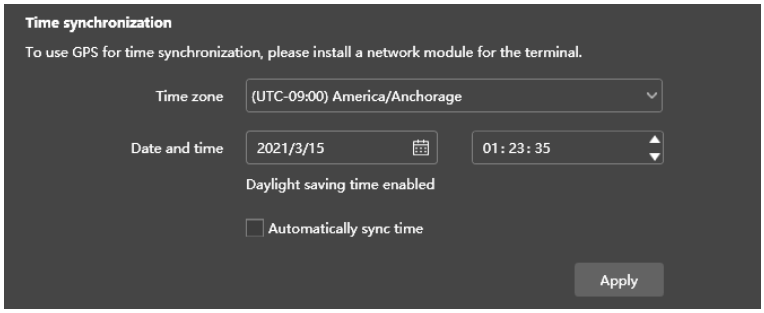
Step 1 Choose **Control** > **Time synchronization management**.

Step 2 Select the target screen from the screen list.

Step 3 Select a time zone from the **Time Zone** drop-down box. You can also adjust the current date and time as required.

If the current time zone observes daylight saving time and the current date is within the range of daylight saving time, **Daylight saving time enabled** will be displayed. Otherwise, it will not be displayed.

Figure 5-22 Selecting a time zone



Step 4 After the settings, click **Apply**.

5.6.2 GPS Time Synchronization

Prerequisites

- Before GPS time synchronization, users need to buy and install network modules.
- The Taurus version is V3.3.0 or later.

Operating Procedure

Step 1 Choose **Control** > **Time synchronization management**.

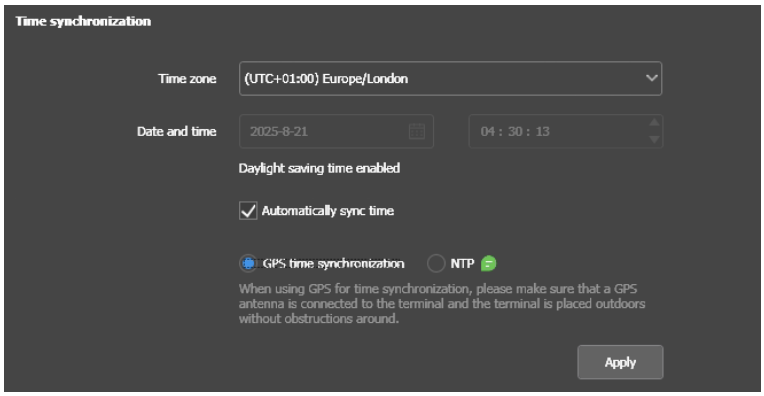
Step 2 Select the target screen from the screen list.

Step 3 (Optional) Select a time zone from the **Time zone** drop-down box.

If the current time zone observes daylight saving time and the current date is within the range of daylight saving time, **Daylight saving time enabled** will be displayed. Otherwise, it will not be displayed.

Step 4 Check **Automatically sync time** and select **GPS time synchronization**.

Figure 5-23 GPS time synchronization



Step 5 After the settings, click **Apply**.

5.6.3 NTP Time Synchronization

Sync the time of players with the time of the NTP server.

Step 1 Choose **Control** > **Time synchronization management**.

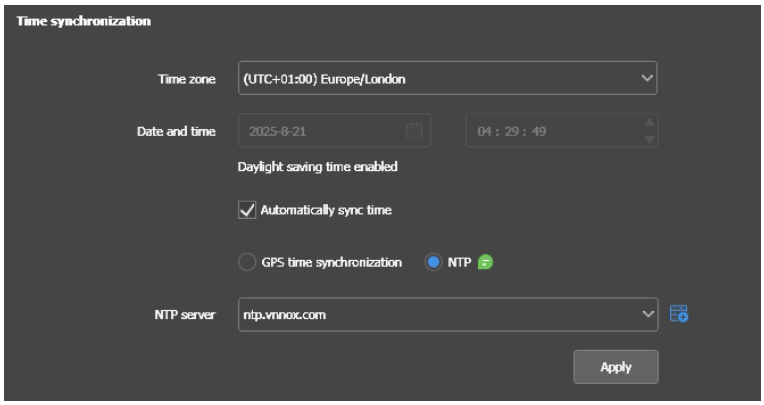
Step 2 Select the target screen from the screen list.

Step 3 (Optional) Change the time zone in the **Time Zone** drop-down box.

If the current time zone observes daylight saving time and the current date is within the range of daylight saving time, **Daylight saving time enabled** will be displayed. Otherwise, it will not be displayed.

Step 4 Check **Automatically sync time** and **NTP**, and then select a time server to sync the time of the screen with the time server. If the existing time servers cannot meet the requirements, click  to customize a server.

Figure 5-24 Selecting an time server



Step 5 After the settings, click **Apply**.

Step 6 (Optional) Set NTP server.

1. Turn on **NTP Server**.

   After the function is enabled, this device can function as an NTP server for other devices to synchronize time via NTP.

   Note: Both the NTP server device and the synchronizing devices must maintain wired network connections to ensure stable time synchronization. As an NTP server device, screen loading and solution publishing remain unaffected.

2. Click **Apply.**
3. Click  . The **Customer server** window appears.
4. Click  . In the **New** window that appears, select **Player (master device for NTP service)** as the server type, and set the server name as the master device with the NTP server enabled. The IP address of the selected NTP server device will automatically be displayed. After the settings are done, click **Add**.

Figure 5-25 NTP server

5.6.4 RF Time Synchronization

Related Information

To use RF time synchronization, you need to set one of the Taurus units on the RF network as the master device and others as slave devices.

- The master device is used for time reference and the time of the slave devices is synced with the time of the master device via the RF signal.
- The Taurus allows the master device to sync time with an NTP server.

Prerequisites

- The Taurus products support RF time synchronization, such as TB30, TB40, TB50, and TB60.
- Before RF time synchronization, RF modules must be installed. ViPlex Express can detect and display the RF module status.

Operating Procedure

Set the master and slave devices

Step 1 Choose **Control** > **RF management**.

Step 2 Select the target screen from the screen list.

Step 3 Turn on **RF synchronization**.

Step 4 Set the current device as the master device or slave device.

Step 5 Set a group ID.

If you enter the group ID of the master device for a slave device, the slave device will be assigned to the same group as the master device.

Step 6 Select **Time synchronization**.

After RF synchronization is applied, the time, brightness, volume, and environment monitoring data of the slave devices will be kept the same as the master device via the RF signal. Select the options that require RF synchronization.

Figure 5-26 Master device

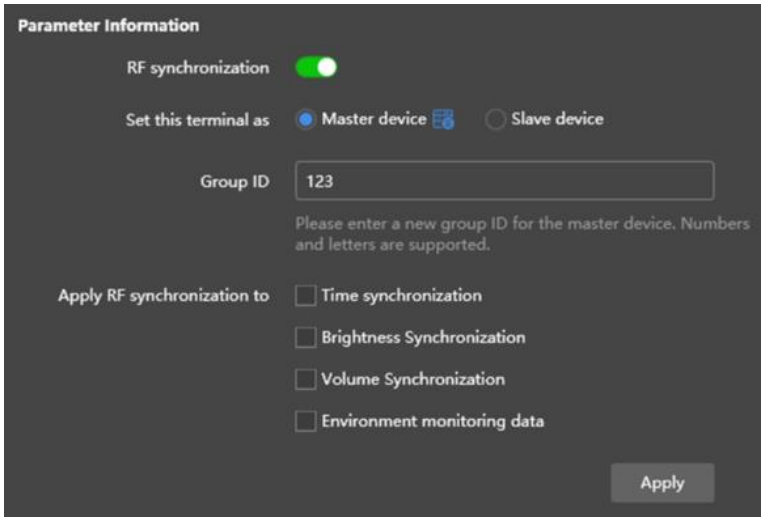
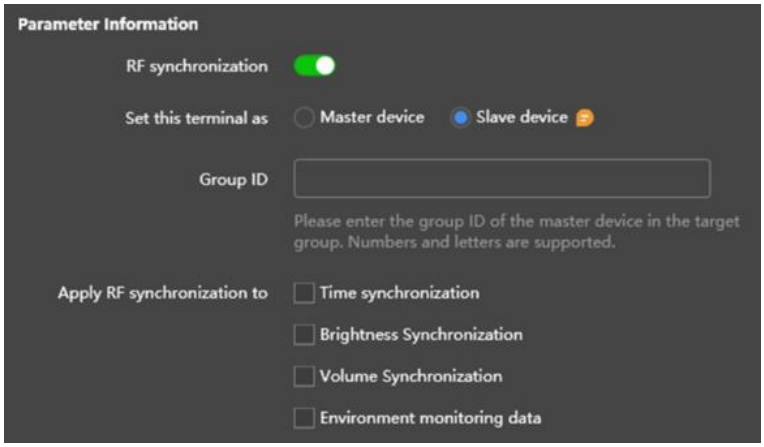


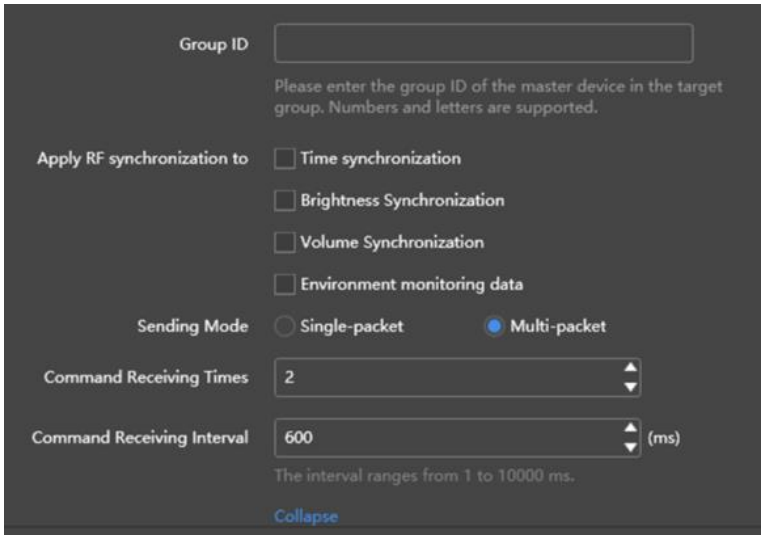
Figure 5-27 Slave device



Step 7 (Optional) Select **Slave device** and click **Advanced** to specify a mode for the slave device to receiving commands.

- Single-packet: The slave device receives the command once.
- Multi-packet: Set the command receiving times to “X” and command receiving interval to “Y”. The slave device will receive the command twice, with an interval of 5 seconds each time.

Figure 5-28 Advanced



Step 8 Click **Apply**.

Set a time synchronization method for the master device

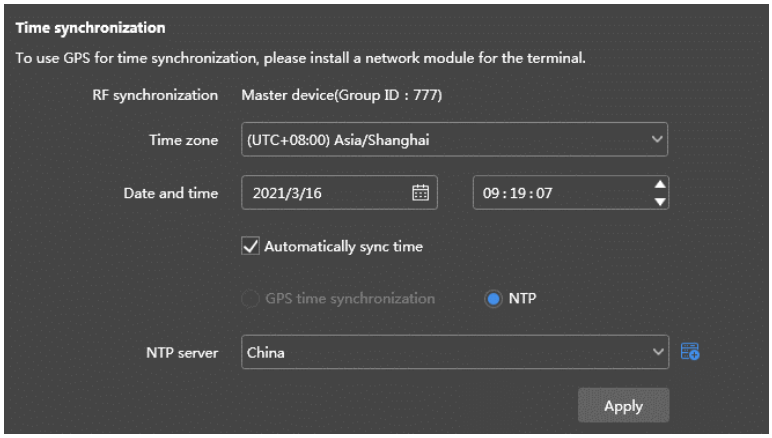
You need to set time synchronization rules for the master device only and the time of the slave devices will be kept in sync with the time of the master device via the RF signal.

Step 9 Choose **Control** > **Time synchronization management**.

Step 10 Select the master screen from the screen list.

The information relating to RF synchronization is displayed, which indicates that RF synchronization of the current screen is enabled.

Figure 5-29 RF synchronization-Time synchronization



Step 11 View the time zone and time of the current screen.

If the current time zone observes daylight saving time and the current date is within the range of daylight saving time, **Daylight saving time enabled** will be displayed. Otherwise, it will not be displayed.

Step 12 Configure rules for time synchronization.

- Manual time synchronization: Select a time zone from the **Time Zone** drop-down box to sync the time of the screen with the date and time of the time zone. You can also adjust the current date and time as required.

- GPS time synchronization: Check **Automatically sync time** and select GPS time synchronization.

Note:

GPS time synchronization can be implemented when the master device meets the prerequisites in 5.6.2 GPS Time Synchronization.

- NTP synchronization: Check **Automatically sync time**, select NTP time synchronization, and then select an NTP server to sync the time of the screen with the time of the NTP server. If the existing NTP servers cannot meet the requirements, click  to customize a server.

Step 13 After the settings, click **Apply**.

5.7 Restart Configuration

Restart players immediately and configure restart rules.

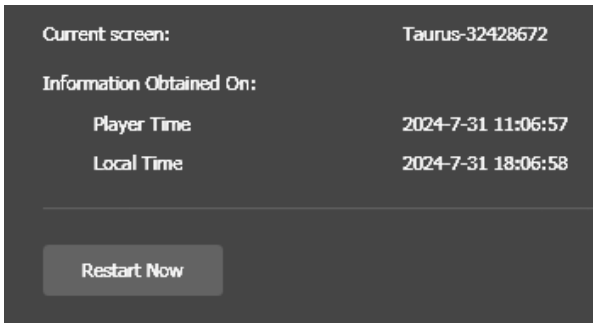
5.7.1 Restarting Immediately

Step 1 Choose **Control** > **Restart Configuration**.

Step 2 Select the target screen in the screen list.

Step 3 Click Restart Now.

Figure 5-30 Restart



Step 4 Click **OK** in the pop-up dialog box to restart the player immediately.

5.7.2 Scheduled Restart

Step 1 Choose **Control** > **Restart Configuration**.

Step 2 Select the target screen from the screen list.

Step 3 Click  . Set the time and interval to restart a player in the pop-up dialog box and then click **Add**.

Figure 5-31 Scheduled adjustment

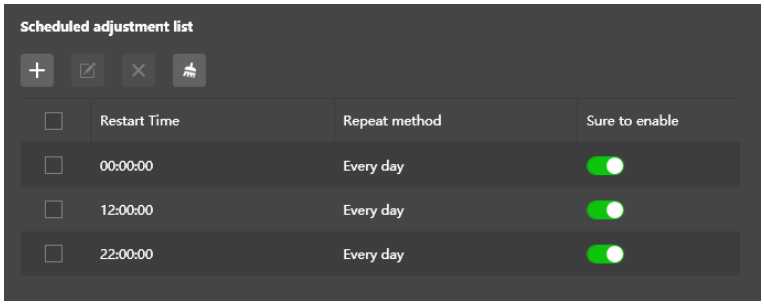
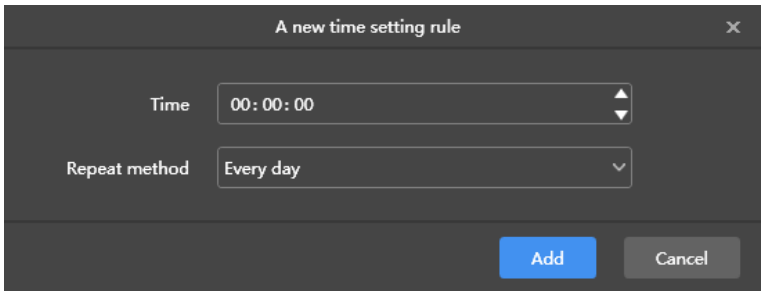


Figure 5-32 Creating a scheduled rule



Step 4 After the settings, click **Apply**.

5.8 Color Temperature

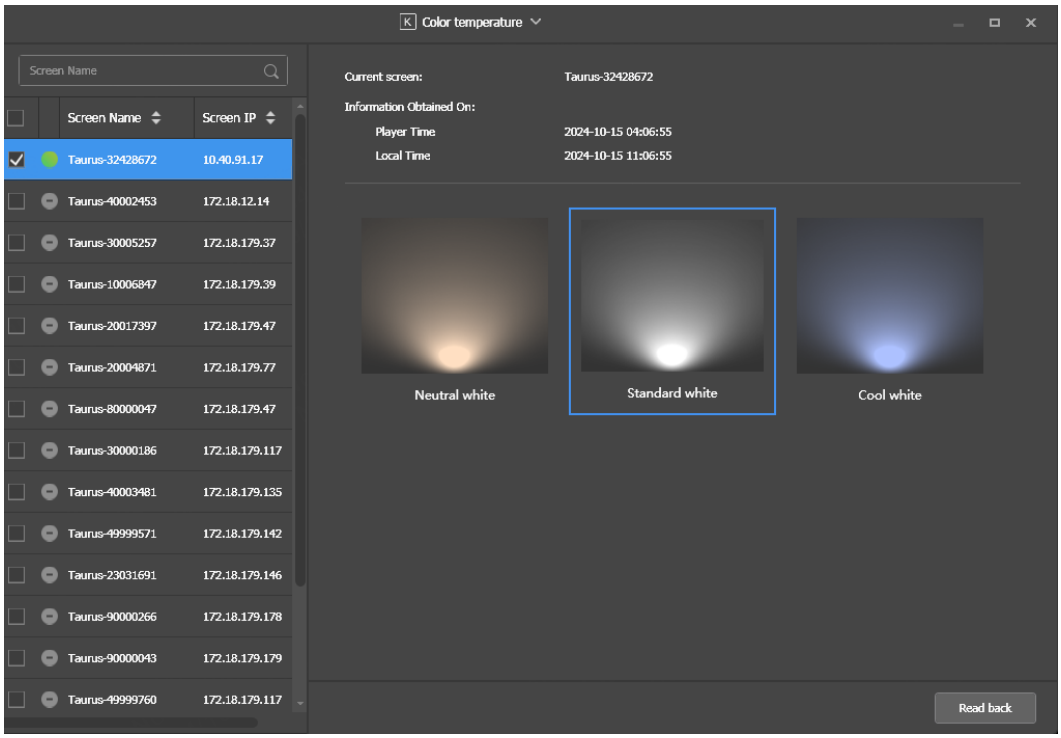
Set the color temperature of the screen, including neutral white, standard white, and cool white.

Step 1 Choose **Control** > **Color temperature**.

Step 2 Select the target screen in the screen list.

Step 3 Select a color temperature type.

Figure 5-33 Color temperature



5.9 Monitoring

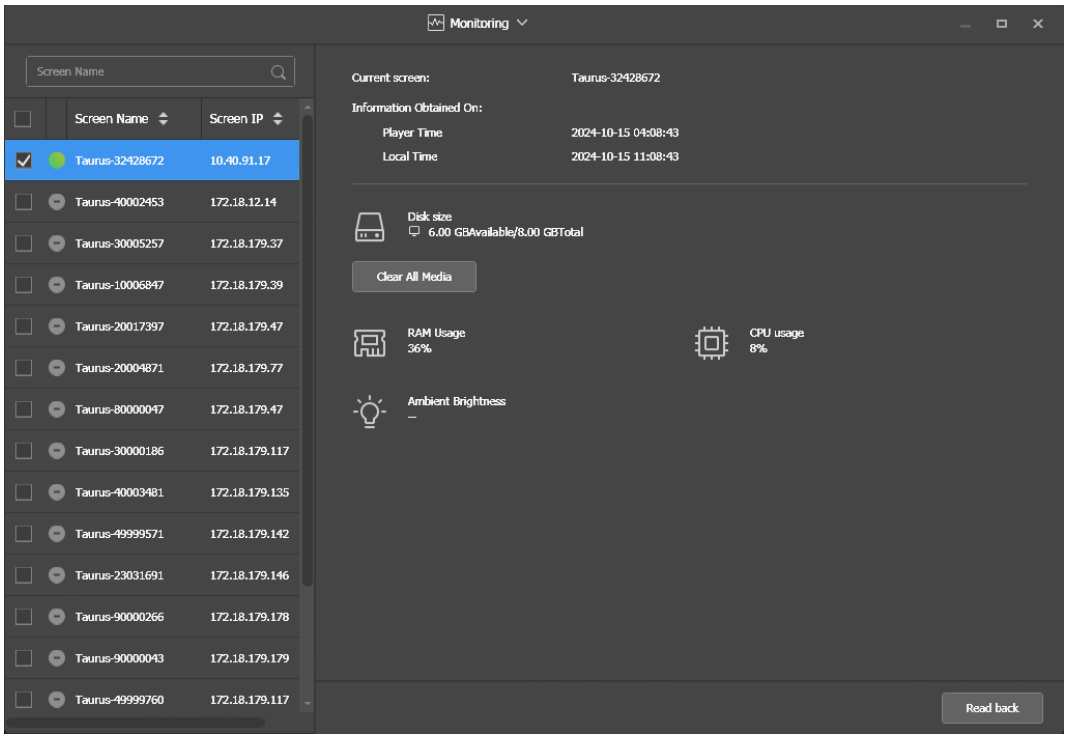
Step 1 Choose **Control** > **Monitoring**.

Step 2 Select the target screen in the screen list.

Step 3 Do the following as required:

- View the hardware information including the disk size, memory usage, CPU usage and ambient brightness. In addition, if the screen has an external storage device, you can also view the external storage information.
- Clear all media: Click **Clear All Media** and select the media you want to clear and click **OK**.
- Device diagnostics (only available for TU V1.5.0 and later): Click **Device Diagnostics** > **Run Diagnostics**. After the diagnostics is completed, you can view and download the diagnostics report.

Figure 5-34 Monitoring



Step 4 Click **Clear All Media,** select the cleanup scope and click **OK**.

5.10 Play Logs

View and export play logs.

5.10.1 Querying Play Logs

Step 1 Choose **Control** > **Play logs**.

Step 2 Select the target screen in the screen list.

Step 3 Choose the time range of the play log that you want to view and then click **Query**.

Step 4 In the play log list, click a play log name to view the summary and detailed information of the log.

5.10.2 Exporting Play Logs

Step 1 Choose **Control** > **Play logs**.

Step 2 Select the target screen in the screen list.

Step 3 In the play log list, select the target play log.

Step 4 Click **Export**.

Step 5 In the pop-up dialog box, choose the export path and format.

Step 6 Click **OK**.

5.11 Font Management

Manage the fonts supported by the Taurus.

5.11.1 Adding Fonts

Prerequisites

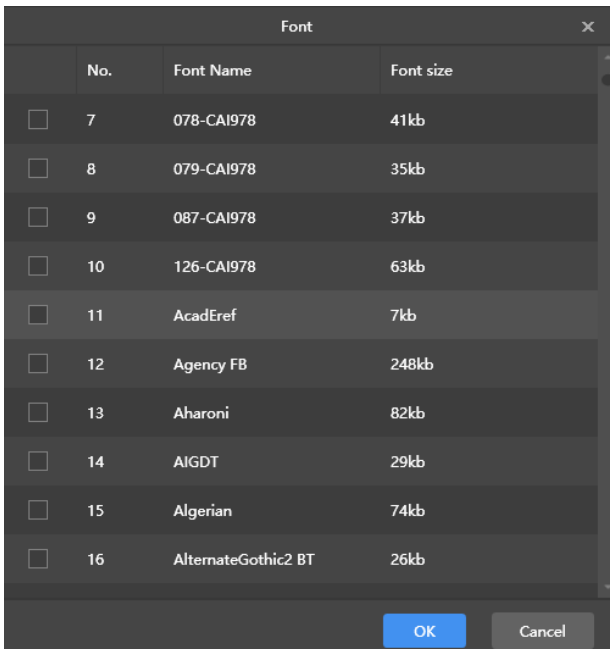
The supported fonts include TTC and TTF.

Step 1 Choose **Control** > **Font management**.

Step 2 Select the target screen in the screen list.

Step 3 Click  next to **Name** to acquire local fonts on the PC.

Figure 5-35 Local fonts

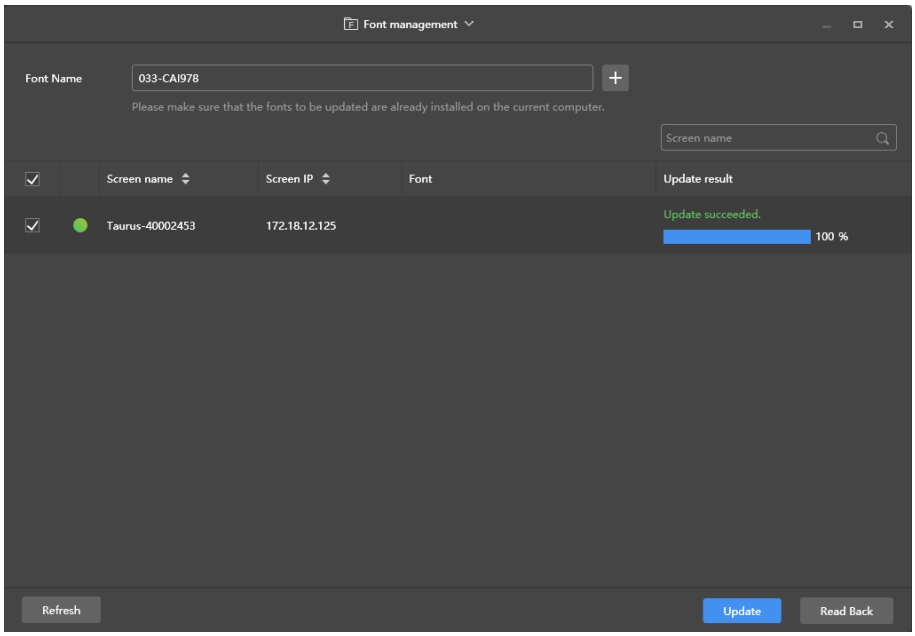


Step 4 Select the target font in the pop-up dialog box.

Step 5 Click **OK**.

Step 6 Click **Update**. The update progress will be shown in the **Update result** column.

Figure 5-36 Adding a font



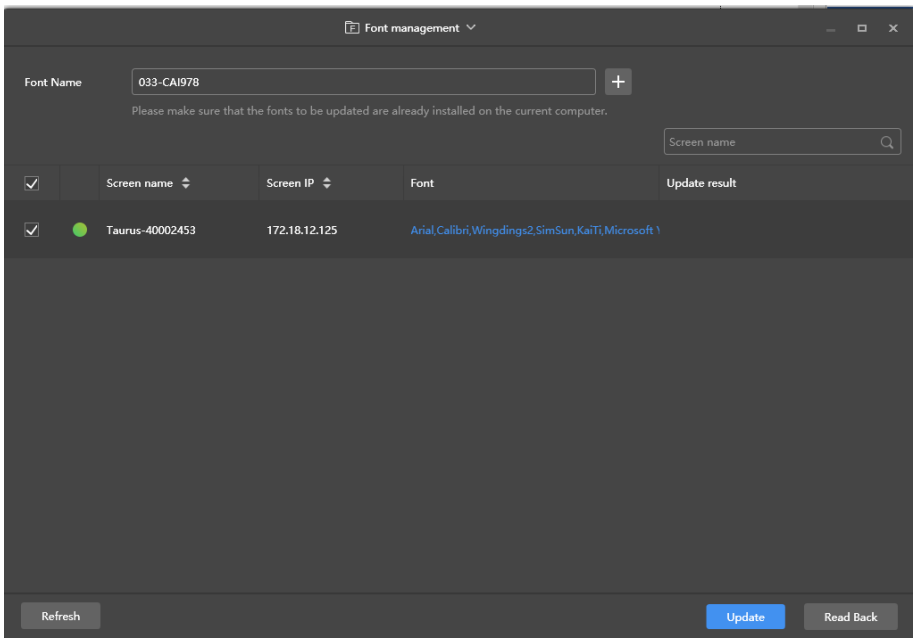
5.11.2 Deleting Fonts

Step 1 Choose **Control** > **Font management**.

Step 2 Select the target screen in the screen list.

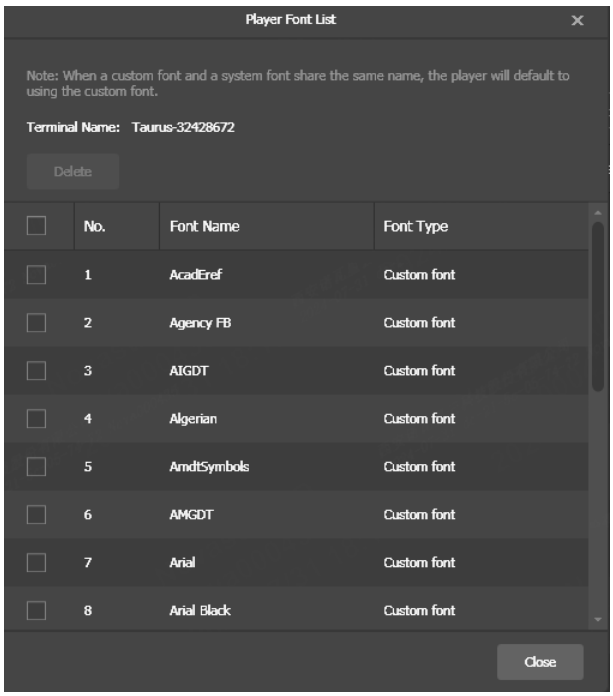
Step 3 Click **Read back** at the bottom right to read back the fonts on the player.

Figure 5-37 Reading back a font



Step 4 Click the link in the **Font** column of the target player. The **Player Font list** window is displayed.

Figure 5-38 Player font list



Step 5 Select target fonts.

Step 6 Click **Delete**.

5.12 Network Configuration

Configure the current network, including wired network, Wi-Fi AP, Wi-Fi Sta, and mobile network.

5.12.1 Configuring Wired Network

Application Scenarios

Configure the network based on the actual needs when a screen is connected to the Internet via Ethernet cable.

Related Information

When the Taurus is delivered, DHCP is turned on by default.

Operating Procedure

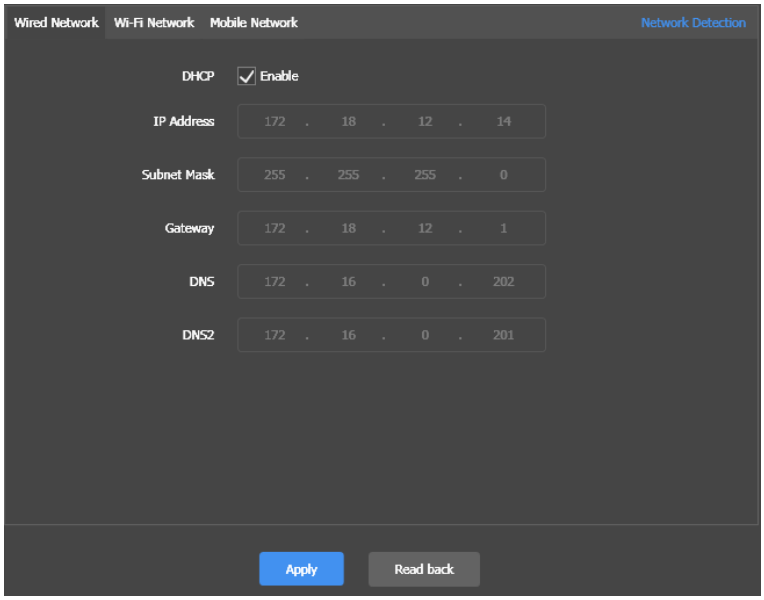
Step 1 Choose **Control** > **Network configuration**.

Step 2 Select the target screen in the screen list.

Step 3 In the **Wired network configuration** area, perform the following operations based on actual needs.

- Select **Enable** next to **DHCP** to get an IP address automatically.
- Deselect **Enable** next to **DHCP** and configure a static IP address.

Figure 5-39 Wired network configuration



Step 4 Click **Apply**.

5.12.2 Configuring Wi-Fi Network

Configure the Wi-Fi AP and Wi-Fi Sta of the player.

5.12.2.1 Configuring Wi-Fi AP

Change the SSID, password and channel of a screen and set AP isolation.

Step 1 Choose **Control** > **Network configuration**.

Step 2 Select the target screen from the screen list.

Step 3 Go to **Wi-Fi Network** > **Player Wi-Fi AP** and do the following as required.

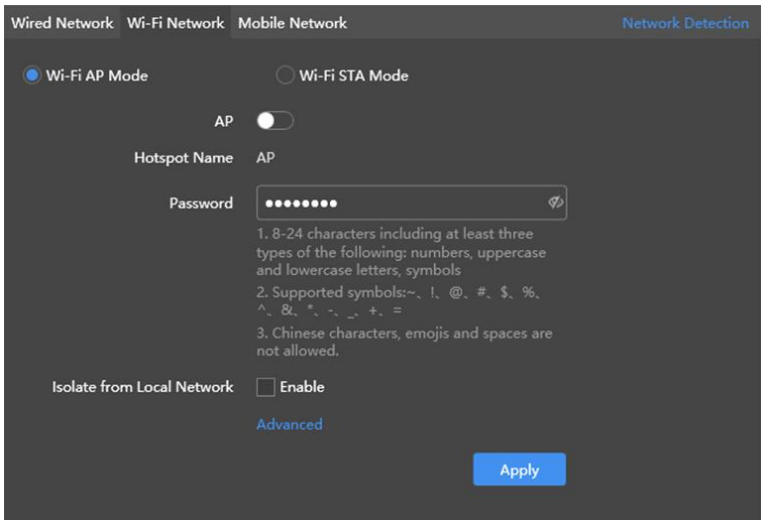
- AP: Turn on/off the screen Wi-Fi AP.
- Hotspot Name and Password: Change the SSID and password of the screen Wi-Fi AP.

  For example:

  Taurus series and NS series: The default SSID is "AP+*Last 8 digits of SN*" and the default password is printed on the SSID label of the product.
- Isolate from Local Network: After enabled, the Wi-Fi AP of the player is isolated from the local network and users cannot access the local network by connecting to the Wi-Fi AP.
- Advanced > Channel: Switch the channel of the Wi-Fi AP.

  The channel can be switched when the player software is V2.2.0 or later.

Figure 5-40 Player Wi-Fi AP configuration



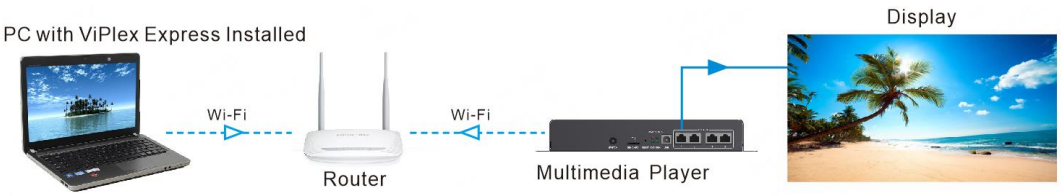
Step 4 Click **Apply**.

5.12.2.2 Configuring Wi-Fi Sta

Application Scenarios

The Taurus designed with dual Wi-Fi modes, such as TB60, supports the following functions after users configure Wi-Fi Sta for the Taurus with ViPlex Express.

- If the router is connected to the Internet, players can access the Internet via the router after Wi-Fi Sta is configured.
- The PC with ViPlex Express installed and the multimedia player are connected to the same WLAN via the Wi-Fi AP of the router.



Operating Procedure

Step 1 Choose **Control** > **Network configuration**.

Step 2 Select the target screen from the screen list.

Step 3 Go to **Wi-Fi Network** > **Wi-Fi Configuration** area and turn on Wi-Fi.

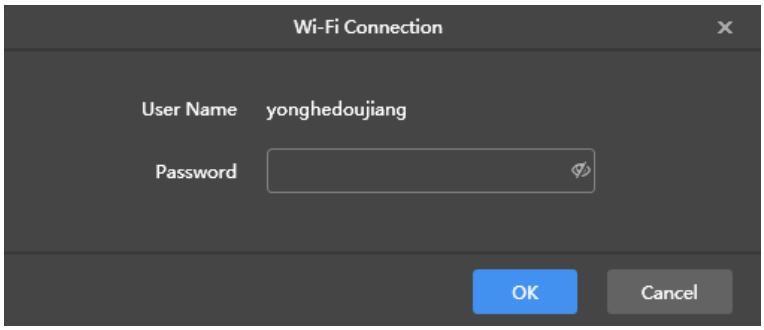
Figure 5-41 Wi-Fi configuration

Step 4 Double click the Wi-Fi information of the router, enter the password and then click **OK**.

Note:

When the player version is V3.8.2 or later, Wi-Fi without a password can be connected. To connect Wi-Fi without a password, you do not have to enter a password in Step 4 and only need to click **OK**.

Figure 5-42 Wi-Fi connection



5.12.2.3 Switching Wi-Fi Mode

Application Scenarios

For the Taurus designed with a single Wi-Fi mode, such as T1-4G, TB1-4G, TB2-4G, TB4, and TB4A, users can switch the built-in Wi-Fi AP mode to Wi-Fi Sta mode with ViPlex Express to allow for WLAN connection configuration of the Taurus.

Prerequisites

Table 5-2 Product model and version requirements

Taurus	Firmware Version	ViPlex Express Version
T1-4G	V3.2.0 and later	V2.6.2.0201 and later
TB1-4G		
TB2-4G		
TB30		

Taurus	Firmware Version	ViPlex Express Version
TB40		
TB50		
TB60		

Operating Procedure

Note:

This section introduces how to switch the built-in Wi-Fi AP mode of a player to Wi-Fi Sta mode. To ensure that the mode switching is not affected by network disconnection, connect the PC with ViPlex Express installed to the screen with an Ethernet cable.

Log In to screens

Step 1 Open ViPlex Express.

Step 2 Click **Refresh** to refresh the screen list.

After detecting a player, ViPlex Express will try to log in to the player with the default account or the account used for the last login.

- : Denotes that the Taurus is online and you can log in to it. Go to Step 3.
- : Denotes the Taurus is offline and you cannot log in to it.
- : Denotes you have successfully logged into the Taurus.

Step 3 Click **Connect** next to the screen information.

Step 4 Enter the password for the "admin" user and click **OK**.

For example, Taurus series and NS series: The default password is printed on the SSID label of the product.

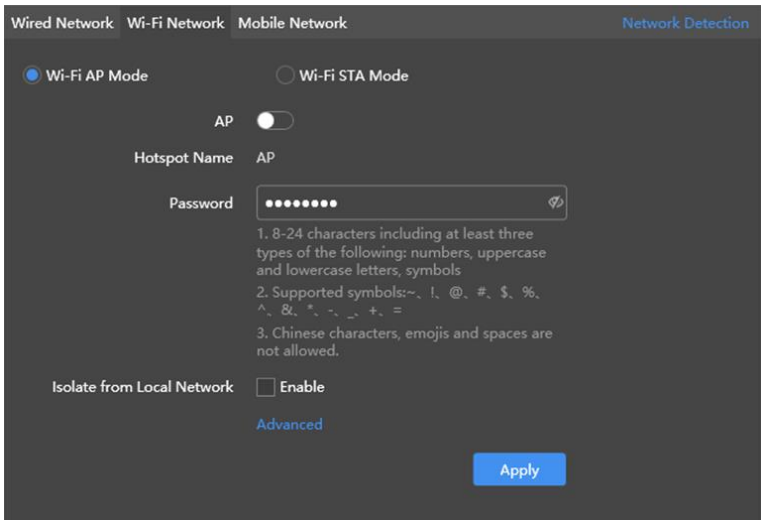
Switch the Wi-Fi Mode

Step 5 Choose **Control** > **Network configuration**.

Step 6 Select the target screen from the screen list.

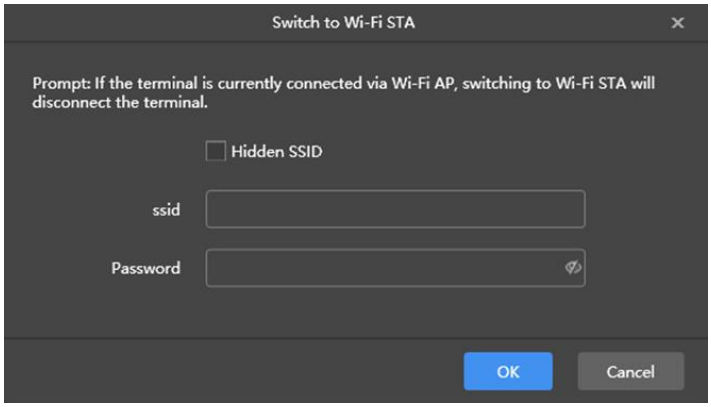
Step 7 Click **Wi-Fi Network**.

Figure 5-43 Network configuration

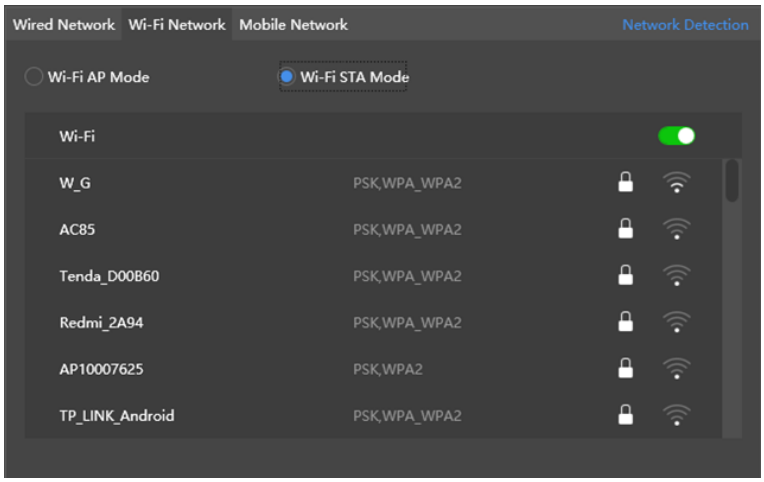


Step 8 Select **Wi-Fi-STA Mode**. In the box that appears, enter the network name and password of the Wi-Fi AP.

Figure 5-44 Wireless network configuration



Step 9 Click **OK**. The connection is successful, as shown in the figure below.



Notes:

- Make sure the **CLOUD** indicator is always on, which denotes that the Internet connection is available.

- Make sure the frequency band of the connected Wi-Fi is 2.4 GHz.
- Hiding SSID is available for Taurus V3.7.0 and later.

Step 10 Unplug the Ethernet cable between the PC and the Taurus.

The priority of the Internet connection methods for the Taurus is in the following order: Wired network > Wi-Fi network > 4G network. After you switch to Wi-Fi Sta mode in ViPlex Express, if a wired network is connected at the same time, the Wi-Fi network will be disconnected automatically.

5.12.3 Configuring Mobile Network

Players with a network module can access the Internet via a mobile network. ViPlex Express automatically detects mobile network status and displays the detection result.

Step 1 Insert the 4G card into the SIM card slot.

Step 2 Choose **Control** > **Network configuration**.

Step 3 Select the target screen in the screen list.

Step 4 Go to **Mobile Network** > **Physical SIM** and turn on mobile network.

Step 5 Click  to expand the APN configuration page.

Step 6 Click **Add**.

Step 7 Enter parameters according to the APN information provided by the carrier and then click **OK**.

Step 8 Select the APN and click **Connect**.

Notes:

- Step 5 to Step 8 are required for customizing an APN or setting an APN for a new SIM card.
- To add and connect to an APN for multiple players, select the players, click **Add & Connect to APN**,.enter the required information, and click **OK**.

5.12.4 Configuring Network Detection

Players ping the cloud platform and www.baidu.com to detect network connection status by default. Users can also configure required addresses to ping and enable or disable the addresses.

Step 1 Choose **Control** > **Network configuration**.

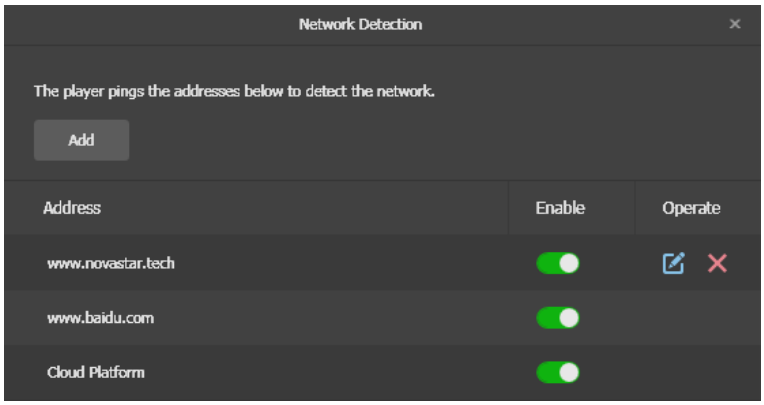
Step 2 Select the target screen in the screen list.

Step 3 Click **Network Detection** to configure detection addresses.

- Click **Add** to add an address.
- Click  to modify an address.
- Click  to delete an address.

The default configuration cannot be modified and deleted.

Figure 5-45 Network detection



Step 4 Enable or disable detection addresses.

- Set the toggle button under **Enable** to  to detect the screen network by pinging the corresponding address.
- Set the toggle button under **Enable** to  to detect screen network not by pinging the corresponding address.

Step 5 Click **Apply**.

5.13 Server Configuration

Bind to VNNOX. Authentication information is required during the configuration.

How to obtain player authentication information:

Log in to VNNOX (www.vnnox.com) and choose  > **Player Authentication** on the homepage of the cloud platform.

5.13.1 Binding to VNNOX

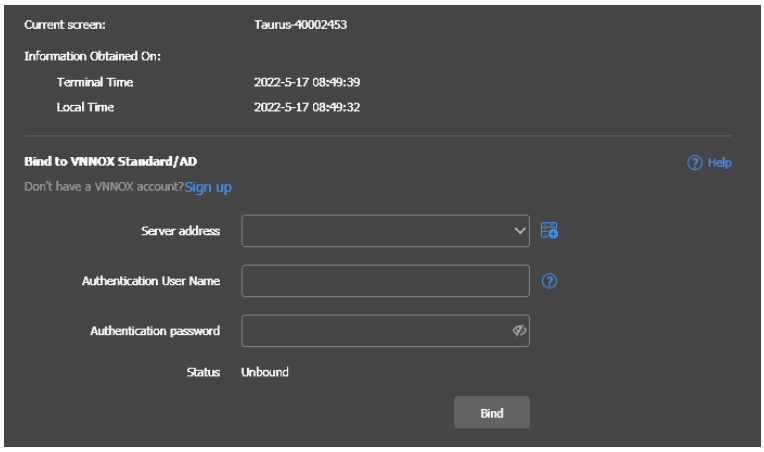
You can bind a screen to VNNOX.

Step 1 Choose **Control** > **Server configuration**.

Step 2 Select the target screen from the screen list.

Step 3 In **Bind to VNNOX Standard/AD**, select a server and enter the authentication user name, authentication password and player name. The authentication information must be consistent with the information in VNNOX.

Figure 5-46 Binding to VNNOX



Step 4 Click **Bind**.

5.13.2 Viewing iCare Binding Information

Notes:

This function is displayed only when the screen has been bound to iCare.

View the binding information of the current screen.

Step 1 Choose **Control** > **Server configuration**.

Step 2 Select the target screen from the screen list.

Step 3 In **Bind to iCare**, view the binding information of the current screen.

Figure 5-47 Binding information

5.14 Player Upgrade

- When the Taurus is earlier than V2.1.4, it cannot be directly upgraded to V3.0.0 or later. Users have to upgrade it to V2.1.4 by local upgrade first.
- When the Taurus is later than V2.1.4, there is no limit to the version during the upgrade.

Note:

Do not disconnect the power supply during the upgrade. The Taurus will restart once.

5.14.1 Device Upgrade

Upgrade player versions online. Before you begin, please make sure that your PC has access the Internet.

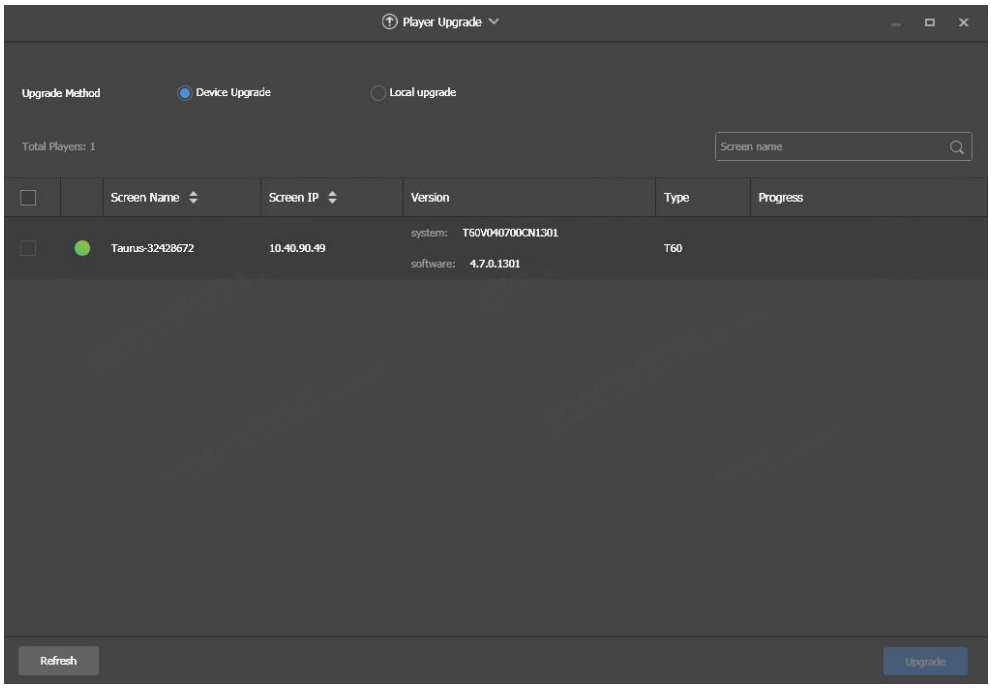
Step 1 Choose **Control** > **Player Upgrade**.

Step 2 Select **Device Upgrade**.

The system automatically decides whether a player needs to be upgraded.

- Yes. The current version information and More will be displayed, as shown in Figure 5-48. Go to Step 3.
- No. Only the current version information is displayed. No further operation is required.

Figure 5-48 Device upgrade



Step 3 Click **More** and view the related information of the new version.

Step 4 On the player information list, select one or more upgradable players and click **Upgrade**.

The upgrade progress is displayed (and the upgrade package download progress of the TU series devices also can be displayed).

5.14.2 Local Upgrade

Use local files to upgrade player versions.

Step 1 Choose **Control** > **Player Upgrade**.

Step 2 Select **Local Upgrade**.

Step 3 Select the upgrade package path.

Step 4 In the player information list, select one or more upgradable players and click **Upgrade**.

The upgrade progress is displayed.

5.15 Power Control

When the power switch in ViPlex Express is turned on, the relay will operate and the circuit is connected. When the power switch in ViPlex Express is turned off, the relay will release and the circuit is disconnected.

5.15.1 Configuring Power Tags

Application Scenarios

Customizing a tag for each relay allows player relays with the same tag to operate or release uniformly.

Prerequisites

- The player is connected to a relay card.
- The player software is V2.2.0 or later.

  If the player software is earlier than V2.2.0, the **Power control** page of the earlier versions will be displayed and a prompt will be displayed to remind the user to upgrade the player to V2.2.0 or later.

Operating Procedure

Step 1 Choose **Control** > **Power control**.

Step 2 Select the target screen from the screen list.

Step 3 Click **Configure Power Tag** to access the **Power Tag** page. Do the following according to the actual conditions.

- Board power: Control power supplies using relays on players. The default tag is **Screen Power** which can be customized.
- Multi-function card power: Control power supplies using relays on the MFN300 multi-function card. Only the tags selected and set for the multi-function card in NovaLCT can be viewed. If the device is LCB4K, set the power tags in ViPlex Express. For detailed operations, see *LCB4K LCD Multimedia Player Configuration Guide*.

Step 4 Click **OK**.

5.15.2 Controlling Power Manually

Step 1 Choose **Control** > **Power control**.

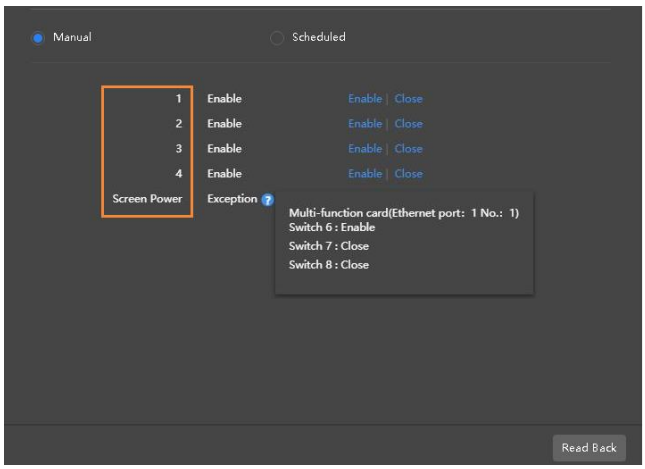
Step 2 Select the target screen from the screen list.

Step 3 Select **Manual** to enter the manual setting page.

Step 4 Turn on or off the power switch.

An example of information on the multi-function card power supply is shown in Figure 5-49.

Figure 5-49 Manual setting



The tags in the orange box can be associated with one or more relay circuits. When multiple relay circuits are associated and each of them is turned on (or off), **Enable** (or **Close**) is displayed. Otherwise, **Mixture** is displayed and the detailed information of each circuit is provided.

5.15.3 Controlling Power as Scheduled

Step 1 Choose **Control** > **Power control**.

Step 2 Select the target screen from the screen list.

Step 3 Choose **Scheduled** and click  . In the window that appears, specify the device to be controlled, time and interval, and then click **OK**.

Step 4 After the settings are done, click **Apply**.

5.16 RF Configuration

Set parameters related to RF synchronization and apply the parameters to time synchronization, brightness synchronization, volume synchronization and environment monitoring data synchronization and enable or disable synchronous playback.

Prerequisites

- The Taurus series, LCB2K and LCB4K support RF management.
- Before using RF synchronization, install an RF module. ViPlex Express can detect and display RF module status.

Step 1 Choose **Control** > **RF Configuration**.

Step 2 Select the target screen from the screen list.

Step 3 Turn on **RF synchronization**.

Step 4 Set the current player as the master device or a slave device.

Step 5 Set a group ID.

Enter the group ID of the master device for a slave device, and this slave device and the master device will be grouped.

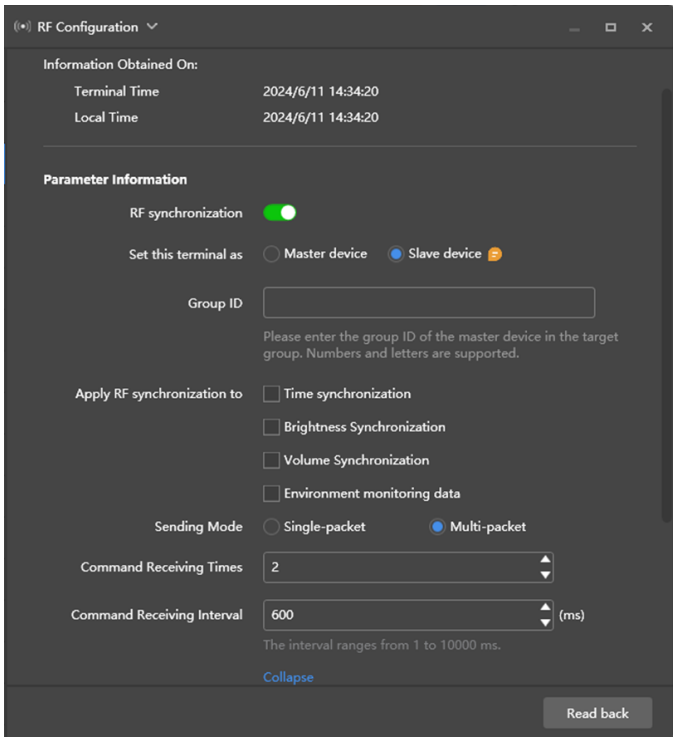
Step 6 Select the options that require RF synchronization.

After RF synchronization is applied, the time, brightness, volume, and environment monitoring data of the slave device will keep the same as the master device via the RF signal.

Step 7 (Optional) Select **Slave device** and click **Advanced** to specify a mode for the slave device to receiving commands.

- Single-packet: The slave device receives the command once.
- Multi-packet: Set the command receiving times to “X” and command receiving interval to “Y”. The slave device will receive the command twice, with an interval of 5 seconds each time.

Figure 5-50 Advanced



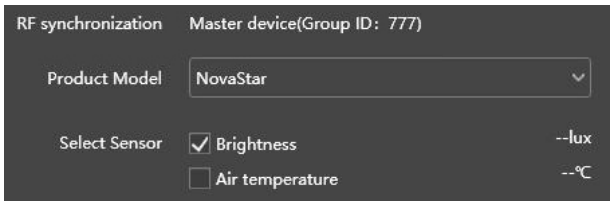
Step 8 Click **Apply**.

5.17 Sensor

If a sensor is connected to the player, the user needs to connect to the sensor logically in ViPlex Express to enable the player to collect environment monitoring data.

When the related information of RF synchronization is displayed, as shown in Figure 5-51, it indicates that environment monitoring data synchronization is enabled on the current player. For related operations, see 5.16 RF . RF synchronization requires users to specify a master device and slave devices. Users need to set the sensors of the master device only and the monitoring data of the slave devices will be the same as the master device via RF signal.

Figure 5-51 RF synchronization- environment monitoring data



Step 1 Choose **Control** > **Sensor**.

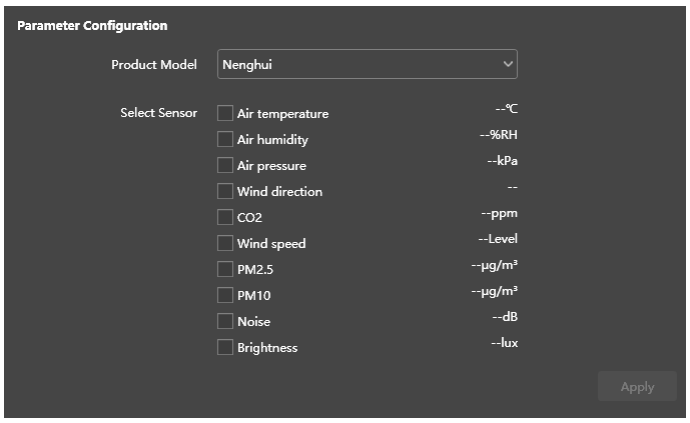
Step 2 Select the target screen from the screen list.

Step 3 Select a sensor manufacturer. Sensors of only NovaStar, Nenghui and Jingxun Changtong are supported.

Step 4 Select a sensor type.

- NovaStar: Brightness, temperature
- Nenghui: Air temperature, air humidity, air pressure, wind direction, CO_2, wind speed, PM2.5, PM10, noise, brightness
- Jingxun Changtong: Wind direction, wind speed, PM2.5, PM10, air pressure, air temperature, air humidity, noise, brightness

Figure 5-52 Sensor types



Step 5 After the configuration is done, click **Apply**.

5.18 Player Information

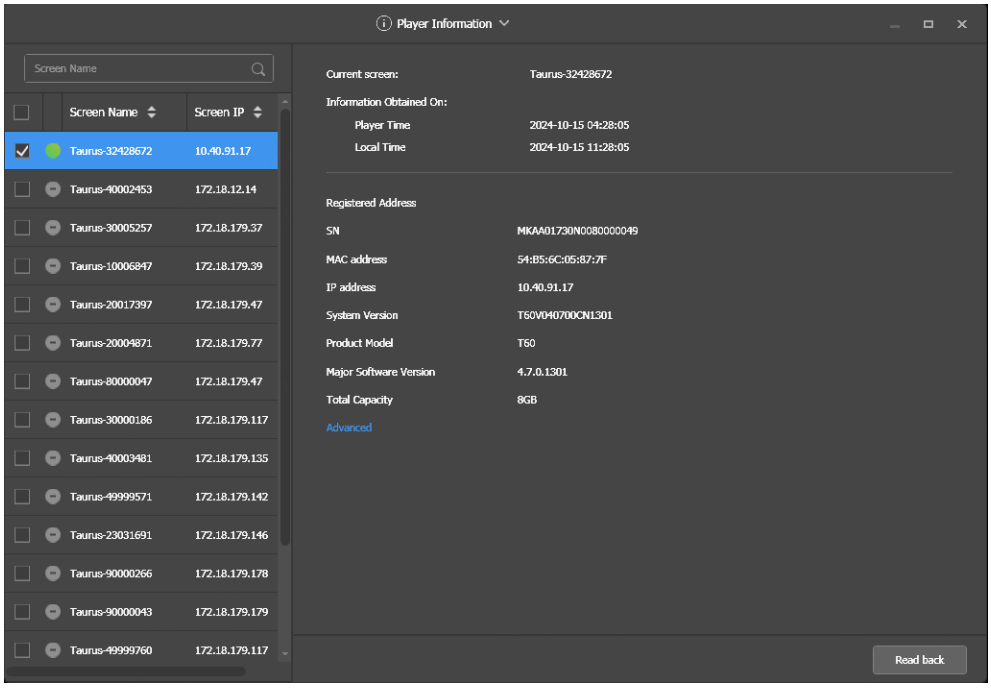
The information displayed here includes the player's MAC address, IP address, system software version, product model, application software version.

Step 1 Choose **Control** > **Player Information**.

Step 2 Select the target screen from the screen list.

Step 3 View the player information

Figure 5-53 Player information



5.19 Studio Mode

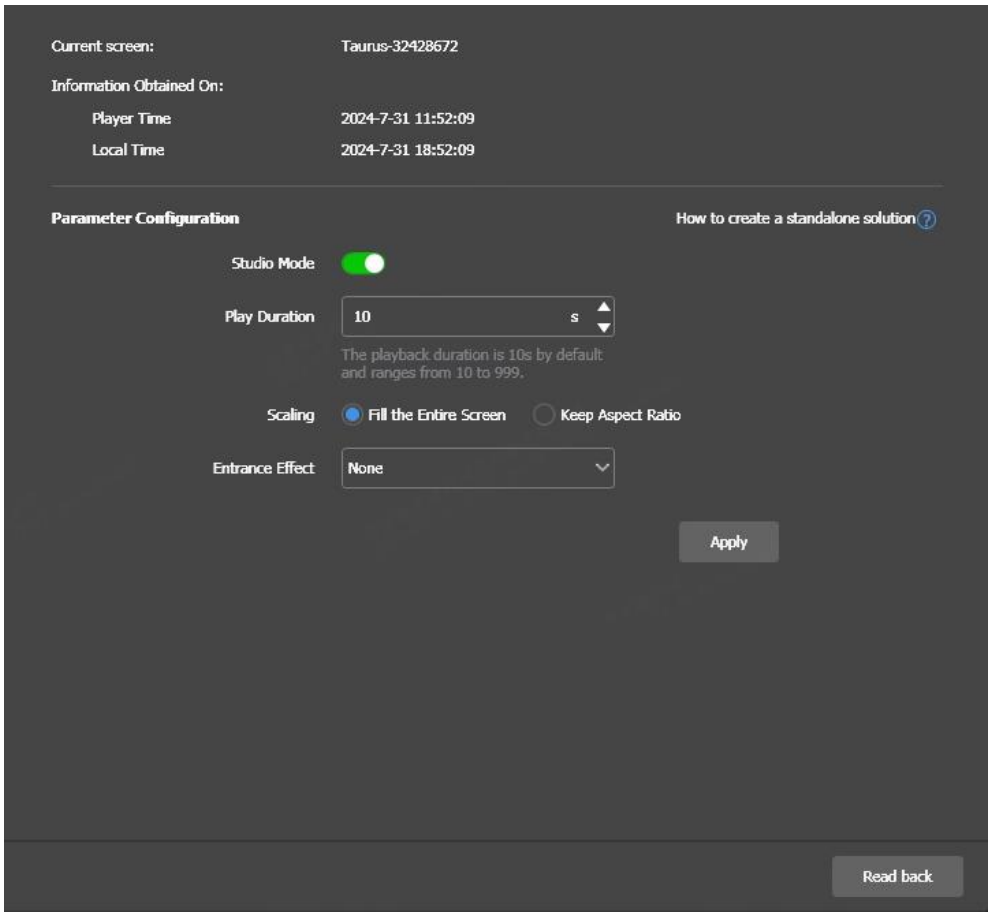
The device can play image and video files stored in a USB drive without requiring the device password.

Step 1 Choose **Control** > **Studio Mode**.

Step 2 Select the target screen from the screen list.

Step 3 Turn on studio mode and click **OK**.

Figure 5-54 Studio mode



Step 4 Set the solution playback duration, scaling and entrance effect as required.

Step 5 Click **Apply** for the standalone playback settings to take effect on the screen.

Step 6 Insert a USB drive into the computer, create a playback directory, and place the required files to the root directory of the USB drive.

Rules for solution file names: 3-digit numbers in ascending order (example: 001-XXX, 002-XXX…999-XXX)

Step 7 Insert the USB drive into the device.

The copying progress is displayed on the screen. After the files are copied to the device, the solutions will be played on the screen.

5.20 Multi-Screen Mosaic

Applications

Quickly mosaic multiple screens with the same resolution.

Prerequisites

- The devices support multi-screen mosaic and are connected.
- The screens used for mosaic are of the same resolution and support horizontal mosaic.

- Screens must be connected in order via HDMI. Users need to configure the starting screen and publish a solution to it.
- The total resolution of the mosaicked screens cannot exceed the internal source resolution of the first device (the internal source resolution of the first device can be changed if needed).

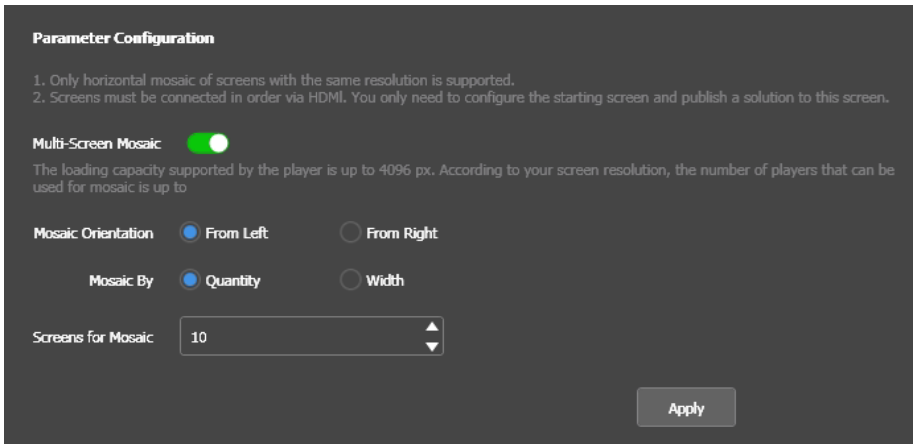
Operating Procedure

Step 1 Choose **Control** > **Multi-Screen Mosaic**.

Step 2 Turn on **Multi-Screen Mosaic**.

Step 3 Set relevant parameters as needed.

- Mosaic Orientation: Set the orientation of screen mosaic. Options include **From left** (default) and **From right**.
- Mosaic By: Supports mosaic by screen quantity (default) or by mosaic screen width (you need to enter the mosaic width).
- Screens for Mosaic: When **Mosaic By** is set to **Quantity**, you need to specify **Screens for Mosaic**, which indicates the number of screens involved in the mosaic setup.



Note:

The maximum loading capacity for multi-screen mosaic can support up to 4096 pixels, allowing up to 10 screens to be mosaicked. For further details, see *Multi-Screen Mosaic Configuration Guide*.

Step 4 Once you are done, click **Apply**.

6 VNNOX Login

At the top right of the page, click 

to enter VNNOX login page. VNNOX supports remote content management and screen control.

For related operations, see the user manual of VNNOX.

7 System Settings

At the top right of the page, click  and select the required menu.

Table 7-1 System settings

Menu	Description
Language	Set the display language.
Working Mode	Select working mode, including studio mode and async mode.
Appearance	Select an appearance for ViPlex Express. Dark and light colors are available.
RF Control	Manage the playback of all screens except the reference device when the RF time synchronization mode is enabled. Before the operation, enter the password “admin”.
Custom server	Add, modify, or delete custom servers. Users can choose customized servers on the pages of connecting to cloud publishing and monitoring services and the page of setting NTP synchronization.
Preferences	● Set the location to save files, including ViPlex Express configuration files, data, temporary files, etc. ● Specify an FTP library version to improve the network adaptability of ViPlex Express. ● Choose whether to remember the connection password. After **Remember Password** is deselected, users have to enter the password when connecting to a screen each time.
Check for Updates	Check for and install new updates of ViPlex Express.
Feedback	Scan the QR code to give your feedback.
Reset Screen	Reset screens. Users can select the reset options and specify the export path. ● If **Connection Password** is selected, the device connection password will be reset to the default password. ● If **Binding Information** is selected, the VNNOX Care/VNNOX binding information will be cleared.
APP	Scan the QR code to download ViPlex Handy.
Help	View the documentation related to the software.

About	Display the version of ViPlex Express and the official website.
Open NovaLCT	Open NovaLCT from ViPlex Express with one click.

8 Media Decoding Specifications

8.1 Image

Codec	Supported Image Size	Format	Remarks
JFIF file format 1.02	48×48 pixels~8176×8176 pixels	JPG, JPEG	No support for non-interlaced scan Support for SRGB JPEG Support for Adobe RGB JPEG
BMP	No Restriction	BMP	N/A
GIF	No Restriction	GIF	N/A
PNG	No Restriction	PNG	N/A
WEBP	No Restriction	WEBP	N/A

8.2 Audio

Codec	Channel	Bit rate	Sampling rate	Format	Remarks
MPEG1/2/2.5 Audio Layer1/2/3	2	8kbps~320kbps, CBR and VBR	8KHZ~48KHz	MP1, MP2, MP3	N/A
WMA Version 4, 4.1, 7, 8, 9, wmapro	2	8kbps~320kbps	8KHZ~48KHz	WMA	No support for WMA Pro, lossless codec and MBR
MS-ADPCM, IMA-ADPCM, PCM	2	N/A	8KHZ~48KHz	WAV	Support for 4bit MS-ADPCM and IMA-ADPCM
Q1~Q10	2	N/A	8KHZ~48KHz	OGG, OGA	N/A
Compress Level 0~8	2	N/A	8KHZ~48KHz	FLAC	N/A
ADIF, ATDS Header AAC-LC and AAC-HE, AAC-ELD	5.1	N/A	8KHZ~48KHz	AAC, M4A	N/A
AMR-NB, AMR-WB	1	AMR-NB 4.75~12.2kbps@8kHz AMR-WB 6.60~23.85 kbps@16kHz	8KHZ, 16KHz	3GP	N/A

Codec	Channel	Bit rate	Sampling rate	Format	Remarks
MIDI Type 0 and 1, DLS version 1 and 2, XMF and Mobile XMF, RTTTL/RTX, OTA, iMelody	2	N/A	N/A	XMF, MXMF, RTTTL, RTX, OTA, IMY	N/A

8.3 Video

Codec	Resolution	Maximum Frame Rate	Maximum Bit Rate (Ideal Case)	Format	Remarks
MPEG-1/2	48×48pixels~1920×1080pixels	30fps	80Mbps	DAT, MPG, VOB, TS	Support for field coding
MPEG4	48×48pixels~1920×1080pixels	30fps	38.4Mbps	AVI, MKV, MP4, MOV, 3GP	No support for MS MPEG4 v1/v2/v3, GMC
H.264	T3&T6&TB3&TB4&TB6&TB8: 48×48 pixels~4096×2304 pixels Other models: 48×48pixels~1920×1080pixels	T3&T6&TB3&TB4&TB6&TB8: 4K@25fps, 1080P@60fps Other models: 1080P@60fps	T3&T6&TB3&TB4&TB6&TB8: 100Mbps Other models: 57.2Mbps	AVI, MKV, MP4, MOV, 3GP, TS, FLV	Support for field coding and MBAFF
H.264 MVC	48×48pixels~1920×1080pixels	60fps	38.4Mbps	MKV, TS	Support for Stereo High Profile only
H.265/HEVC	T3&T6&TB3&TB4&TB6&TB8: 64×64pixels~4096×2304pixels Other models: 64×64pixels~1920×1080pixels	T3&T6&TB3&TB4&TB6&TB8: 4K@60fps, 1080P@60fps Other models: 1080P@60fps	T3&T6&TB3&TB4&TB6&TB8: 100Mbps Other models: 57.2Mbps	MKV, MP4, MOV, TS	Support for Main Profile, Tile & Slice
VP8	48×48pixels~1920×1080pixels	30fps	38.4 Mbps	WEBM, MKV	N/A
H.263	SQCIF(128×96), QCIF(176×144), CIF(352×288), 4CIF(704×576)	30fps	38.4Mbps	3GP, MOV, MP4	No support for H.263+
VC-1	48×48pixels~1920×1080pixels	30fps	45Mbps	WMV, ASF, TS, MKV,	N/A

Codec	Resolution	Maximum Frame Rate	Maximum Bit Rate (Ideal Case)	Format	Remarks
				AVI	
MJPEG	48×48pixels~1920×1080pixels	30fps	38.4Mbps	AVI	N/A

Note: Output data format is YUV420 semi-planar, and YUV400 (monochrome) is also supported for H.264.