ViPlex Express

LAN-Based Screen Management Software

XI'AN NOVASTAR TECH CO.,LTD.

User Guide

Product Version: V1.3.8

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Change History

Version	Release Date	Description
V1.3.8	2019-01-11	**Added 5 functions:** ● Supports VPlayer installation, upgrade, searching, connection and solution publishing. ● Allows to add background audio for text, images and windows. ● Supports manual and scheduled power control. ● Supports RF management. ● Supports time, brightness and volume synchronization between master and slave devices in an RF network. **Fixed 2 problems:** ● When a terminal is connected via AP, solution publishing may fail if the solution is greater than 1 GB. ● When the repeating methods set for multiple rules of smart brightness adjustment are different, the repeating methods that the software read back are the same.
V1.3.7	2019-01-08	**Added 1 functions:** Support for TB4 **Improved 3 functions:** ● Changed some button icons. ● Set "**admin**" as the fixed user name for logging in to terminals. ● Allows to choose or customize the resolution of internal video source. **Fixed 1 problem:** When you publish a solution containing videos on the editing page, the **Publish solution** dialog box disappears and the software cannot be operated after you click **Publish**.
V1.3.6	2018-09-28	● Allows to turn on or off board power. ● Allows to set the schedules of pages.

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Version	Release Date	Description
		● Allows to add timers and colorful words. ● Allows to clear the media on pages. ● Allows to set the display style of weather and the unit symbol of temperature. ● Allows to set valid dates for smart brightness and added three repeating methods. ● Improved the function of creating solutions, including generating default solution name, setting resolution via specific terminals and remembering the resolution which will be used as the default value for the solution to be created next time. ● Improved the function of turning on DHCP service. The IP address of PC is required.
V1.3.5	2018-08-17	Allows the installation status of an RF module to be detected. **Fixed 2 problems:** ● A wrong page appears after users click **Apply** and then click **Read back** on the video source configuration page. ● If other marks instead of dots are used as decimal symbols in the operating system of PC, ViPlex Express will still display dots on its user interface and the terminal will display a black screen.
V1.3.4	2018-07-20	● Allows to enter the editing page by clicking a solution name. ● Improved the modes of editing and playing texts in solutions. ● Allows some of the property values to be remembered while editing solutions and after saving solutions. ● Allows solutions to be published on the solution editing page. ● Allows the video formats that are not supported by terminals to be converted automatically while publishing and exporting solutions. ● Allows information related to publishing tasks to be displayed while publishing solutions.
V1.3.3	2018-07-02	● Allows to set the time format and display style of a digital clock. ● Allows to set the resolution of the internal

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Version	Release Date	Description
		video source. ● Allows images to be cropped while editing solutions. ● Allows terminal MAC address to be displayed. ● Allows to set Wi-Fi AP status.
V1.3.2	2018-06-08	● Supports daylight saving time. ● Supports real-time media.
V1.3.1	2018-06-04	● Supports external storage space checking. ● Supports APN configuration. **Fixed 4 problems:** ● The day of the week displayed on the digital clock is wrong. ● The time is not centered on the digital clock when the hour, minute and second are displayed. ● The city displayed on the weather widget is wrong. ● The connection with DHCP server is not stable.
V1.3.0	2018-05-08	● Added several types of media, including analog clock, Office file and RSS. ● Added the function of zooming in or out the media page during solution editing. ● Added the function of setting the line spacing of texts and connecting the tail to head of texts when the texts are scrolling. ● Added the function of setting the content displayed on the digital clock. ● Added the function of customizing the weather label. ● Added the function of connecting to the Taurus with a specified IP address. ● Added the function of enabling and disabling the DHCP service. ● Added the function of binding a single or a batch of Taurus to VNNOX Lite. ● Improved the method of registering the Taurus on NovaiCare and supported batch operation. ● Improved the upgrade speed.
V1.2.0	2018-01-24	● Added several types of media, including clock,

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Version	Release Date	Description
		weather and container. ● Added the function module of advanced solution. ● In the **Play Management** module, added the function of viewing screenshots. ● In the system settings, added the function of auto reconnection.
V1.1.0	2017-11-22	● Added multiple function modules, including brightness adjustment, video source, screen status control, time synchronization management, color temperature, play log and font management. ● Modified several function modules, including play management, restart configuration, monitor, network configuration and server configuration. ● In the system settings, added the RF management and custom server functions.
V1.0.0	2017-07-20	First release

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1 Introduction

ViPlex Express is a LAN-based screen management software application which can automatically search for and connect to terminals, configure screens, publish solutions, control playback, etc.

ViPlex Express supports Windows only and can manage terminals including Taurus and VPlayer.

- Taurus series multimedia players are hardware products based on Andorid, which serve as the terminal players of asynchronous system and **supports all the functions of ViPlex Express**.
- VPlayer is a software application for Windows, which serves as the terminal player on PC and **supports the terminal management and terminal upgrade functions of ViPlex Express**.

Key features of ViPlex Express:

- Friendly user interface: UI design takes full account of users' habits.
- Ease of use: Capable of connecting to terminals via wireless network, providing an easy access to terminals.
- Synchronous playing: Capable of playing the same content on different screens synchronously.
- Dual Wi-Fi function: Capable of setting Wi-Fi AP mode and Wi-Fi Sta mode.
- 4G connection: Capable of setting mobile data network of the Taurus with 4G module.
- Terminal binding: Taurus series players can be easily bound to VNNOX cloud-based publishing system and NovaiCare cloud-based monitoring system.

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2 Installation

Before You Begin

- Install Framework 4.6.x.
- Install official Visual C++ 2017 runtime components.
- Get the installation package of ViPlex Express.

Where to Get

http://www.en.vnnox.com/#downloadT

Operating Procedure

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

During installation of ViPlex Express, VPlayer is automatically installed.

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3 Media Types

The media types supported by ViPlex Express and the types of media that can be played by Taurus and VPlayer are shown in Table 3-1.

Table 3-1 Media types

Media type	Taurus	VPlayer
Text	√	√
Image	√	√
Video	√	√
GIF	√	√
Digital clock	√	×
Analog clock	√	×
Office file	√	√
Temperature widget	√	×
Weather widget	√	×
RSS	√	√
Timer	√	×
Colorful word	√	×
Window	√	√

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4 Quick Start

This chapter introduces how to create solutions and publish them to Taurus and VPlayer to play by using ViPlex Express and helps users to quickly get started with ViPlex Express.

4.1 Creating Solutions

4.1.1 Creating Common Solutions

Choose **Solutions** and perform the operations in 5.1 Creating Solutions.

4.1.2 Creating Advanced Solutions

Choose **Advanced Solutions** and perform the operations in 6.1 Creating Solutions.

4.2 Conencting to Terminals

Required Information

Please use the actual values of the information in Table 4-1.

Table 4-1 Required information

Category	Account Name	Default Password
Connecting to Taurus Wi-Fi AP	AP + *last 8 digits of SN* For example: AP10000033	12345678
Logging in to Taurus or VPlayer	admin	123456

Connecting to Terminals

ViPlex Express can be connected to multiple Taurus or VPlayer.

- Use any of the following methods to connect ViPlex Express to Taurus:
  - Wi-Fi AP of Taurus
  - Router
  - Ethernet cable

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If PC and Taurus are connected via Ethernet cable and the there is no other DHCP servers on the network, click  at the top right of the page, choose **DHCP Service** and select a local IP address to turn on DHCP service and connect to Taurus automatically.

- To connect to VPlayer, make sure that VPlayer and ViPlex Express are installed on:
  - The same PC.
  - Different PCs on the same LAN.
  - PCs on different network segments which can be pinged successfully.

Logging in to Terminals

Step 1 Open ViPlex Express.

Step 2 Click **Refresh**, and the screen list will appear.

If a terminal and ViPlex Express are not on the same network segment and can be pinged successfully, click  next to **Refresh** and select **Specify IP** to connect manually.

-  : Denotes that the terminal is online and you can log in to it.
-  : Denotes that the terminal is offline and you cannot log in to it.
-  : Denotes that you have successfully logged in to the terminal.

After searching out terminals, ViPlex Express will try to log in to the terminals with the default account or the account used for last login.

Step 3 Perform the corresponding operation below according to the result of the automatic login.

- Succeeds,  will be displayed. No further operation is required.
- Fails,  will be displayed. Go to Step 4.

Step 4 Click **Connect** next to screen information.

Step 5 Enter the password of the **admin** user and click **OK**.

After successful login, ViPlex Express will save the account information, which can be used for automatic login in future.

Related Operations

Right click the screen information, and the related operations are displayed:

- Log Out: Log out of the terminal.
- Rename: Rename the terminal.
- Change Password: Modify the password of the **admin** user.
- Forget Password: Delete the password saved during last login.

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4.3 Publshing Solutions

- Only solutions containing media can be published.
- Only one solution can be sent to a terminal each time.
- One solution can be sent to multiple terminals simultaneously.

After solutions are published, files related to the solutions will be downloaded to terminals.

Method to set file save path:

- Taurus: Not supported
- VPlayer: In the top right corner, click  and choose **Setting** > **Download**.

4.3.1 Publishing Common Solutions

Choose **Solutions** and perform the operations in 5.6 Publishing Solutions.

4.3.2 Publishing Advanced Solutions

Choose **Advanced Solutions** and perform the operations in 6.6 Publishing Solutions.

4.4 Play Management

4.4.1 Taurus

Choose **Screen Control** > **Play management**. To perform the following operations, see 7.2 Play Management.

- Enable synchronous playing
- Adjust volume in real time
- Manage terminal solutions

4.4.2 VPlayer

Setting Display Window

Step 1 Open VPlayer.

Step 2 Set the position and size of the display window and select an option of keeping the window on top.

If **Same as desktop** is selected, the size of the display window and desktop will be the same.

Setting Hotkeys

Step 1 Open VPlayer.

Step 2 In the top right corner, click  and choose **Setting**.

Step 3 Choose **Hotkey**.

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Step 4 Set a hot key to show/hide the display window.

The default hotkey is **Shift**+**H**.

Step 5 Click **OK**.

4.5 Cleaning up Solutions

Users can delete all the files related to the solutions downloaded by terminals. If the solutions are being played, black screens will appear.

4.5.1 Taurus

Step 1 Open ViPlex Express.

Step 2 Choose **Screen Control** > **Monitor**.

Step 3 Click **Clear All Media**.

Step 4 Click **OK**.

4.5.2 VPlayer

Step 1 Open VPlayer.

Step 2 In the top right corner, click  and choose **Setting**.

Step 3 Choose **Download** to view the save path of solution files.

Step 4 Delete the folder where solutions are saved.

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5 Solution Management

This chapter introduces how to create, edit, delete, import, export and publish solutions.

5.1 Creating Solutions

Get the screen size before creating solutions.

Step 1 Click **New**.

Step 2 Set the solution name and resolution, and then click **OK**.

Note: You can set the resolution by clicking **Specify Terminal** and the resolution will be the same as that of the selected terminal.

The editing page of the solution appears, as shown in Figure 5-1. Each area of the page is explained in Table 5-1.

Figure 5-1 Editing page of a solution

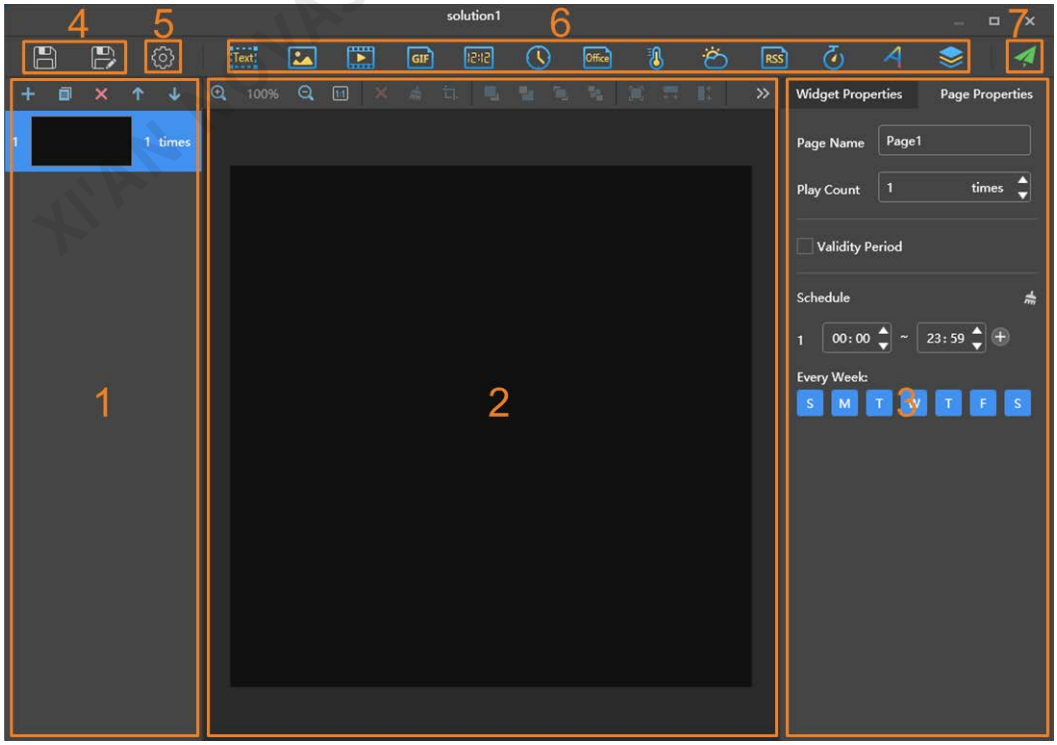

Table 5-1 Description of the editing page of a solution

No.	Name	Description
1	Editing area of solution page	Create, copy and delete pages, and adjust the order of pages. Pages are played according to the order from the top to bottom.
2	Editing area of page media	Delete media, clear media, zoom in or out pages, crop images and adjust media layout. Before operation, click to select a media.
3	Property editing area	Edit widget properties and page properties. Widgets are the media added in pages. Before editing the widget properties, click to select a widget. In the page properties, you can set the playback schedule of a page. If the schedule of the page overlaps with the schedules of other pages, these pages will be played according to the page order from the top to the bottom. This function is available for Taurus but not available for VPlayer.
4	Buttons for saving	Save a solution and save a solution as another solution.
5	Setting button	Set solution name and resolution.
6	Buttons for adding media	Add media to a solution page.
7	Button for publishing solutions	Publish solutions to terminals.

Media types supported by ViPlex Express are shown in Table 5-2.

Table 5-2 Media types

Icon	Description
	Text Supports background audio.
	Image Supported formats: JPEG, BMP, GIF, PNG, WEBP Supports background audio.
	Video If a video format is not supported by terminals, ViPlex Express will automatically convert the format while publishing and exporting solutions. Video formats supported by terminals: Supported formats: MPEG-1/2, MPEG-4, H.264/AVC, MVC, H.265/HEVC, Google VP8, H.263, VC-1, Motion JPEG

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Icon	Description
	GIF image
	Digital clock
	Analog clock
	Office file
	Temperature widget If the terminal is connected to a temperature sensor, the temperature widget will display the latest temperature detected by the temperature sensor during solution playback.
	Weather widget
	RSS
	Timer Can be set as countdown or count up timer.
	Colorful word
	Window All the above types of media can be added in a window. When multiple media are added, the media will be played from the top to the bottom. Supports background audio.

Step 3 After the solution is edited, click  to save.

Step 4 (Optional) Publish the solution.

1. Click  .
2. Select one or more terminals and click **Publish**.

   Note: ViPlex Express will automatically convert the video formats that are not supported by terminals.

5.2 Editing Solutions

In the solution list, perform any of the following operations to enter the solution editing page.

- Select a solution and click **Edit**.
- Click a solution name.

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5.3 Deleting Solutions

In the solution list, select a solution and click **Delete**.

5.4 Importing Solutions

Step 1 Click **Import**.

Step 2 In the pop-up dialog box, click  to select the file path.

Step 3 Click **Next**.

Step 4 When **Progress** shows 100%, click **Done**.

5.5 Exporting Solutions

Only the solutions that contain media can be exported.

Step 1 In the solution list, perform any of the following operations.

- Exporting a single solution: Click  corresponding to the target solution.
- Exporting solutions in batch: Select multiple solutions and click **Export**.

Step 2 In the pop-up dialog box, click  to select the file path.

Step 3 Click **Export**.

Note: ViPlex Express will automatically convert the video formats that are not supported by terminals.

Step 4 When **Progress** shows 100%, click **Next**.

Step 5 Select the play mode and solution.

- **Plug and play**: As soon as the USB drive that stores the solution is inserted into the Taurus, the solution will be played. During playing, the USB drive cannot be removed.
- **Copy and play**: After the solution that is stored in the USB drive is copied to the Taurus, the solution will be played. During playing, the USB drive can be removed.

Step 6 Click **OK**.

Step 7 Enter the Taurus login password and click **OK**. If you click **Skip**, the Taurus will not identify the file.

After the USB drive that stores the solution is inserted into the Taurus, the solution will be played only if the passwords match.

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5.6 Publishing Solutions

- Only solutions containing media can be published.
- Only one solution can be sent to terminals each time.
- One solution can be sent to multiple terminals simultaneously.

On the solution editing page, click  at the top right to publish solutions. On the solution list page, follow the steps below to publish solutions.

Step 1 Select a solution and click **Publish**, or click  next to the solution information.

Step 2 Click **Refresh** in the **Publish solution** dialog box to show the information of terminals which are logged in.

Step 3 Select one or more terminals and click **Publish**.

Note: ViPlex Express will automatically convert the video formats that are not supported by terminals.

Step 4 After the solution is successfully published, click **Done**.

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6 Advanced Solutions

An advanced solution is a solution added with a playback schedule. Users can create, edit, delete, import, export and publish advanced solutions.

6.1 Creating Solutions

Get the screen size before creating solutions.

Step 1 Click **New**.

Step 2 Name the advanced solution.

Step 3 Click  .

Step 4 select a common solution, and set the validity range, repeating method and playback duration.

Step 5 Click **Add**.

Step 6 Click **Cancel**.

Step 7 (Optional) Click the box next to **Non-Scheduled Content** to select a solution and click **OK**.

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

Step 8 Click **Add**.

6.2 Editing Solutions

On the advanced solution list, perform any of the following operations to enter the solution editing page.

- Select a solution and click **Edit**.
- Click a solution name.

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6.3 Deleting Solutions

In the advanced solution list, select a solution and click **Delete**.

6.4 Importing Solutions

Step 1 Click **Import**.

Step 2 In the pop-up dialog box, click  to select the file path.

Step 3 Click **Next**.

Step 4 When **Progress** shows 100%, click **Done**.

6.5 Exporting Solutions

Only the solutions that contain media can be exported.

Step 1 In the advanced solution list, perform any of the following operations.

- Exporting a single solution: Click  corresponding to the target solution.
- Exporting solutions in batch: Select multiple solutions and click **Export**.

Step 2 In the pop-up dialog box, click  to select the file path.

Step 3 Click **Export**.

Step 4 When **Progress** shows 100%, click **Next**.

Step 5 Select the play mode and solution.

- **Plug and play**: As soon as the USB drive that stores the solution is inserted into the Taurus, the solution will be played. During playing, the USB drive cannot be removed.
- **Copy and play**: After the solution that is stored in the USB drive is copied to the Taurus, the solution will be played. During playing, the USB drive can be removed.

Step 6 Click **OK**.

Step 7 Enter the Taurus terminal login password and click **OK**. If you click **Skip**, the Taurus will not identify the file.

After the USB drive that stores the solution is inserted into the Taurus, the solution will be played only if the passwords match.

6.6 Publishing Solutions

- Only solutions containing media can be published.
- Only one solution can be sent to terminals each time.

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- One solution can be sent to multiple terminals simultaneously.

Step 1 Select a solution in the advanced solution list and click **Publish**, or click  next to the solution information.

Step 2 Click **Refresh** in the **Publish solution** dialog box to show the information of terminals which are logged in.

Step 3 Select one or more terminals and click **Publish**.

Step 4 When **Progress** shows 100%, click **Done**.

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7 Screen Control

7.1 General Function

Click the **Read back** button to read terminal inforamtion back to ViPlex Express and display it.

7.2 Play Management

Manage the play mode, volume and content of terminals.

7.2.1 Enabling Synchronous Playing

Enabling or disabling the synchronous playing function will restart the terminal.

Step 1 Select the target terminal in the terminal list.

Step 2 Select **Enable** next to **Synchronous Playing**.

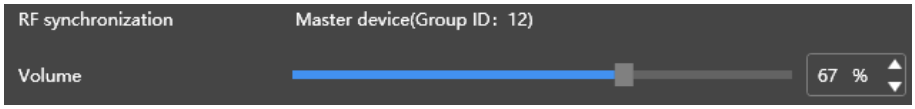
Step 3 Click **Confirm** in the pop-up dialog box.

7.2.2 Adjusting Volume in Real Time

Drag the slider or enter a value to adjust volume. Volume can be adjusted only when the Taurus is in asynchronous mode.

When the information related to RF synchronization is displayed, as shown in Figure 7-1, it indicates that volume synchronization is enabled on the current terminal. See relevant operations in 7.16 RF Management. 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 RF network.

Figure 7-1 RF synchronization-volume



7.2.3 Managing Terminal Solutions

- Viewing screenshot: Click **View Screenshot** to view the real-time screenshot of the solution which is being played on the terminal.
- Playing a solution: Move the mouse to the thumbnail of the solution and click  .

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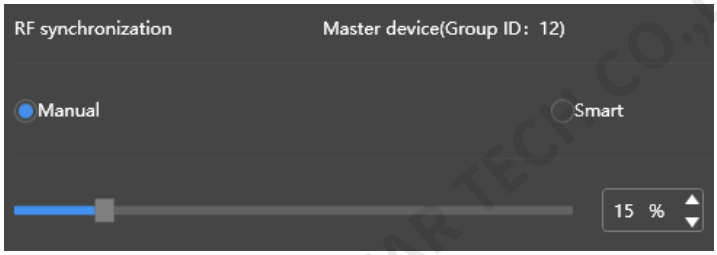
- Stoping a solution: Move the mouse to the thumbnail of the solution and click  .
- Deleting a solution: Select a solution in the solution thumbnail list and click **Delete**.

7.3 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 7-2, it indicates that brightness synchronization is enabled on the current terminal. See relevant operations in 7.16 RF Management. 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 RF network.

Figure 7-2 RF synchronization-brightness



7.3.1 Manual Adjustment

Step 1 Select the target terminal in the terminal list.

Step 2 Choose **Manual**, and drag the slider or enter a value to adjust screen brightness.

7.3.2 Smart Adjustment

- Timing brightness adjustment: During the time period that you set to enable smart adjustment, the screen brightness will be the fixed value that you manually set.
- Auto brightness adjustment: During the time period that you set to enable auto adjustment, the screen brightness will be automatically adjusted according to the auto brightness adjustment table.

The auto brightness adjustment table divides the ambient brightness into several subsections and sets corresponding screen brightness to each subsection. The screen brightness will be automatically adjusted according to the ambient brightness subsection where the current ambient brightness belongs to.

Step 1 Select the target terminal in the terminal list.

Step 2 Choose **Smart** to enter the smart adjustment page.

Step 3 Perform the following operations based on actual needs.

- Creating a rule: Click  . In the pop-up dialog box, choose **Timing** or **Auto**, and then set the corresponding brightness adjustment rules. At last, click **Add**.

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- Modifying a rule: Select a rule and click . Then, modify the rule and click **OK**.
- Deleting rules: Select one or more rules and click . In the pop-up dialog box, click **Confirm**.
- Clearing rules: Click and then click **Confirm** in the pop-up dialog box.
- Enabling a rule: In the rule list, turn on the **Enable** switch next to a rule.
- Viewing the current brightness: Click .

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

7.4 Video Source

Control the video input mode, video source and output offset position.

7.4.1 Manual Mode

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

Step 1 Select the target terminal in the terminal list.

Step 2 Choose **Manual** and configure parameters.

Step 3 Click **Apply**.

7.4.2 Timing Mode

Switch between the internal input source and HDMI input source at regular time.

Step 1 Select the target terminal in the terminal list.

Step 2 Choose **Timing**. Perform the following operations based on actual needs.

- Creating a rule: 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**.
- Modifying a rule: Select a rule and click . Then, modify the time and cycle to use the video source. At last, click **OK**.
- Deleting rules: Select one or more rules and click . In the pop-up dialog box, click **Confirm**.
- Clearing rules: Click and then click **Confirm** in the pop-up dialog box.
- Enabling a rule: In the rule list, turn on the **Sure to enable** switch next to a rule.
- Parameter configuration: Set the position and size of the display window.

Step 3 After configuration, click **Apply**.

7.4.3 HDMI Preferred Mode

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

Step 1 Select the target terminal in the terminal list.

Step 2 Choose **HDMI preferred**.

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Step 3 Set the position and size of the display window.

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

7.5 Screen Status Control

Set the current playing status of the screen.

7.5.1 Manual Control

Step 1 Select the target terminal in the terminal list.

Step 2 Choose **Manual** to enter the manual settings page.

Step 3 Click **Blackout** or **Normal**.

7.5.2 Timing Control

Step 1 Select the target terminal in the terminal list.

Step 2 Choose **Timing** to enter the timing settings page. Then, perform the following operations based on actual needs.

- Creating a rule: Click  . In the pop-up dialog box, choose **Blackout** or **Normal**, and then set the playing time and cycle of the screen. At last, click **Add**.
- Modifying a rule: Select a rule and click  . Then, modify the playing time and cycle of the screen. At last, click **OK**.
- Deleting rules: Select one or more rules and click  . In the pop-up dialog box, click **Confirm**.
- Clearing rules: Click  and then click **Confirm** in the pop-up dialog box.
- Enabling a rule: In the rule list, turn on the **Enable** switch next to a rule.

Step 3 After setting, click **Apply**.

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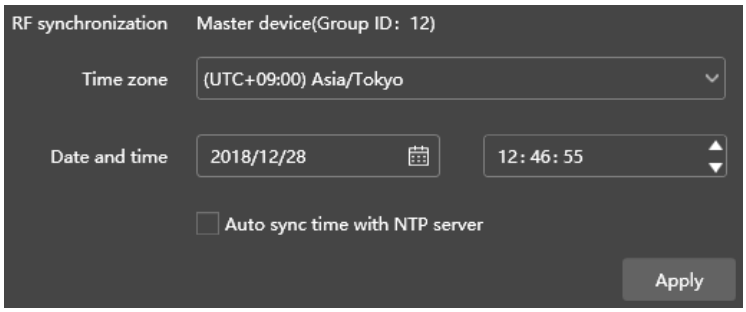
7.6 Time Synchronization Management

Set time synchronization rules of the Taurus.

Step 1 Select the target terminal in the terminal list.

When the information related to RF synchronization is displayed, as shown in Figure 7-3, it indicates that RF time synchronization is enabled on the current terminal. See relevant operations in 7.16 RF Management. RF synchronization requires you to specify a master device and slave devices. Users only need to set the time synchronization rules for the master device. The slave devices will keep the same time as the master device via RF network.

Figure 7-3 RF synchronization-time synchronization



Step 2 View the current time zone and time.

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

Step 3 Configure time synchronization rules.

- Manual time synchronization: Select a time zone from the drop-down box next to **Time zone**. Taurus will sync time according to the date and time of this time zone. Users are also allowed to adjust the current date and time as required.
- NTP time synchronization: Seelct **Auto sync time with NTP server** and then select an NTP server. Taurus will sync time according to the time of the NTP server. If the existing NTP servers cannot meet the requirements, click to customize a server.

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

7.7 Restart Configuration

Restart terminals immediately and configure restart rules.

7.7.1 Restarting Immediately

Step 1 Select the target terminal in the terminal list.

Step 2 Click **Restart promptly**.

Step 3 Click **Confirm** in the pop-up dialog box to restart the terminal immediately.

7.7.2 Configuring Restart Rules

Step 1 Perform the following operations based on actual needs.

- Creating a rule: Click . Set the time and cycle to restart a terminal in the pop-up dialog box and then click **Add**.
- Modifying a rule: Select a rule and click to modify the time and cycle to restart a terminal and then click **OK**.
- Deleting rules: Select one or more rules and click . Then click **Confirm** in the pop-up dialog box.

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- Clearing rules: Click  and then click **Confirm** in the pop-up dialog box.
- Enabling a rule: In the rule list, turn on the **Sure to enable** switch next to a rule.

Step 2 After setting, click **Apply**.

7.8 Color Temperature

Set the screen display's color temperature, including neutral white, standard white and cool white.

Step 1 Select the target terminal in the terminal list.

Step 2 Select a color temperature type.

7.9 Monitor

Step 1 Select the target terminal in the terminal list.

Step 2 Check the terminal hardware information listed below. If the terminal has an external storage device, you can also check the external storage information.

- Disk size
- Memory availability
- CPU usage
- Ambient brightness

Step 3 If you want to clean up the hard disk, click **Clear All Media** to delete all the media and solutions.

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7.10 Play Log

View and export play logs.

7.10.1 Viewing Play Logs

Step 1 Select the target terminal in the terminal list.

Step 2 Choose the time range of the play log that you want to view and then click **Query**.

Step 3 In the paly log list, click a play log name to view the summary and detailed information of the log.

7.10.2 Exporting Play Logs

Step 1 Select the target terminal in the terminal list.

Step 2 In the paly log list, select the target play log.

Step 3 Click **Export**.

Step 4 In the pop-up dialog box, choose the export path and format.

Step 5 Click **OK**.

7.11 Font Management

Manage the fonts used by the Taurus.

7.11.1 Adding Font Names

Step 1 Select the target terminal in the terminal list.

Step 2 Click  next to **Name** to acquire local fonts on the PC.

Step 3 Select the target font in the pop-up dialog box.

Step 4 Click **OK**.

Step 5 Click **Update**. The update progress will be shown in the **Update result** column.

7.11.2 Deleting Fonts

Step 1 Select the target terminal in the terminal list.

Step 2 Click **Read back** at the bottom right to read back the fonts on the terminal.

Step 3 Click the link in the **Font** column of the target terminal. The **Font list in terminal** page is displayed.

Step 4 Select target fonts.

Step 5 Click **Delete**.

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7.12 Network Configuration

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

7.12.1 Configuring Wired Network

It is required to set static IP address for Taurus while connecting Taurus via Ethernet cable. Set IP address based on actual needs while connecting Taurus to the Internet via Ethernet cable.

Step 1 Select the target terminal in the terminal list.

Step 2 In the **Wired network configuration** area, perform the following operations based on actual needs.

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

Step 3 Click **Apply**.

7.12.2 Configuring Wi-Fi AP

The default SSID of terminal Wi-Fi AP is "AP + *the last 8 digits of the SN*" and the default password is "**12345678**".

Step 1 In the **Screen AP configuration** area, turn on **AP**.

Step 2 Enter the SSID and password of terminal Wi-Fi AP.

Step 3 Click **Apply**.

7.12.3 Configuring Wi-Fi Sta

If the external router is connected to the Internet, terminals can access Internet via the external router after Wi-Fi Sta is configured.

Step 1 In the **Wi-Fi configuration** area, turn on **Wi-Fi**.

Step 2 Double click the Wi-Fi information of the external router, enter password and then click **OK**.

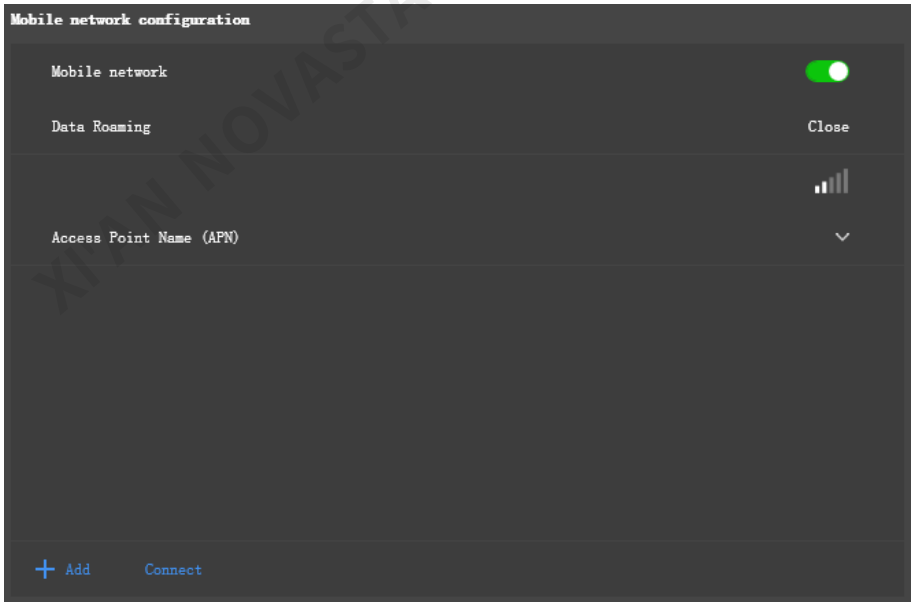
7.12.4 Configuring Mobile Network

Terminals with 4G module can access Internet via mobile network.

Step 1 Insert 4G card into the slot.

Step 2 On the Mobile network configuration page, turn on Mobile network.

Step 3 Click  to expand the APN configuration page.



Step 4 Click **Add**.

Step 5 Enter parameters according to the APN information provided by the carrier and then click **OK**.

Step 6 Select the APN and click **Connect**.

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7.13 Server Configuration

7.13.1 Binding VNNOX Players

You can bind a terminal to VNNOX Lite and create an asynchronous player, or bind to an existing asynchronous player in VNNOX Pro. Multiple terminals can be selected and bound to VNNOX Lite in batches.

Viewing Authentication Information

Step 1 Visit http://www.vnnox.com and log in to VNNOX Lite or VNNOX Pro.

Step 2 Enter the player authentication information page and view the server address, authentication user name and password.

- VNNOX Lite: Choose  > **Account**.
- VNNOX Pro: Choose  > **Organization Management** > **System Management** and click the **Player Authentication** tab.

Binding Players

Step 1 Select the target terminal from the terminal list.

Step 2 In **Configure parameters for connecting screens to VNNOX**, select VNNOX server and enter the authentication user name and password. The authentication information must be consistent with the information in VNNOX.

Step 3 Click  next to **Player**.

Step 4 Perform one of the following operations as required and click **Bind**.

- Select **Bind to VNNOX Lite** from the drop-down list to bind the terminal to VNNOX Lite and create an asynchronous player.
- Select an asynchronous player from the drop-down list to bind the terminal to the existing player in VNNOX Pro.

7.13.2 Binding NovaiCare

Terminals can be registered on NovaiCare. Multiple terminals can be selected for batch operations.

Step 1 Select the target terminal from the terminal list.

Step 2 In **Configure parameters for connecting screens to NovaiCare**, select NovaiCare server and enter the login user name.

Step 3 Click **Send**.

7.14 Screen Upgrade

Upgrade the application software and system software of terminals.

Note: Keep the power on during upgrade.

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7.14.1 Upgrading Application Software

Step 1 Select a terminal type.

Step 2 Select **Screen software**.

Step 3 Select upgrade package path.

Step 4 Select one or more terminals in terminal information list and click **Upgrade**.

7.14.2 Upgrading System Software

Step 1 Select a terminal type.

Step 2 Select **Screen system**.

Step 3 Select upgrade package path.

Step 4 Select one or more terminals in terminal information list and then click **Upgrade**.

7.15 Power Control

Power on or off screens, fans, etc. and set rules for scheduled control of power supplies remotely.

- Board power: Control power supplies with relays on terminals.
- Multi-function card power: Control power supplies with relays on multi-function cards.

When the power switch in ViPlex Express is turned on, the relay will be closed and the power supply is connected. When the power switch in ViPlex Express is turned off, the relay will be released and the power supply is disconnected.

7.15.1 Manual Control

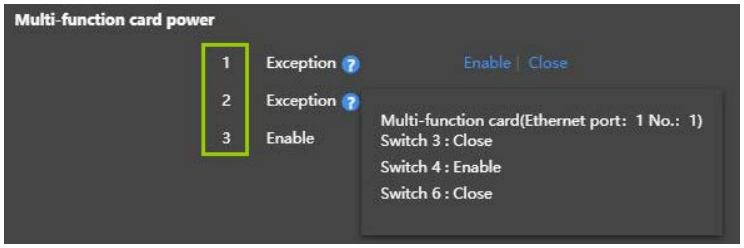
Step 1 Select the target terminal from the terminal list.

Step 2 Select **Manual** to enter the manual setting page.

Step 3 Turn on or off the power switch.

An example of information of the multi-function card power supply is shown in Figure 7-4.

Figure 7-4 Multi-function card power



The labels in the green box are defined in NovaLCT. One or more relay switches can be associated with a label. When multiple relay switches are associated and each of

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them is turned on (or off), **Enable** (or **Close**) will be displayed, otherwise **Exception** is displayed and the detailed information of each switch is provided.

7.15.2 Scheduled Control

Step 1 Select the target terminal from the terminal list.

Step 2 Select **Timing** to enter the scheduled setting page. Perform the following operations according to actual needs.

- Create a rule: Click  . In the dialog box that appears, set the object, time and cycle to control and then click **OK**.
- Change a rule: Select a rule, click  to change the rule to control, and then click **OK**.
- Delete a rule: Select one or more rules and click  . In the dialoge box that appears, click **OK**.
- Clear all rules: Click  . In the dialoge box that appears, click **OK**.
- Enable a rule: In the rule list, turn on **Sure to enable**.

Step 3 After the settings are done, click **Apply**.

7.16 RF Management

Set parameters related to RF synchronization and apply the parameters to time synchronization, brightness synchronization or volume synchronization.

Before using RF synchronization, install an RF module. ViPlex Express can detect and display RF module status.

Step 1 Select the target terminal from the terminal list.

Step 2 Turn on **RF synchronization**.

Step 3 Set the current terminal as the master device or a slave device.

Step 4 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 together.

Step 5 Select the options that require RF synchronization, including time synchronization, brightness synchronization and volume synchronization.

After RF synchronization is applied, the time, brightness and volume of the slave device will keep the same as the master device by using RF network.

Step 6 Click **Apply**.

7.17 Screen Information

Information displayed here includes the terminal MAC address, terminal IP address, system software version, product model, application software version.

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8 System Settings

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

Table 8-1 System settings

Menu	Description
Language	Set system language.
RF management	Manage the playback of all Taurus units except the reference device when the RF time synchronization mode is enabled. Before operation, enter the password "**admin**".
Custom server	Add, modify or delete custom servers.
DHCP service	Configure DHCP service. If the PC and Taurus are connected via Ethernet cable and there are no other DHCP servers on the network, select a local IP address and turn on DHCP service to connect to Taurus automatically. If the connection is not stable, please set a static IP address for the PC. Note: Before you turn on the DHCP service, turn off the firewall of the PC or set the policy for ICMP echo reply.
Setting	● Set the location to save files, including ViPlex Express configuration files, data, temporary files, etc. ● Enable or disable the automatic terminal reconnection function, and set the reconnection interval.
Help	View the documentation related to the software.
About	Display the version of ViPlex Express and the official website of NovaStar.

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9 Audio and Video Decoder Specifications

9.1 Image

9.1.1 Decoder

Type	Codec	Supported Image Size	Container	Remarks
JPEG	JFIF file format 1.02	48×48 pixels~8176×8176 pixels	JPG, JPEG	Not Support Non-interleaved Scan Software support SRGB JPEG Software support Adobe RGB JPEG
BMP	BMP	No Restriction	BMP	N/A
GIF	GIF	No Restriction	GIF	N/A
PNG	PNG	No Restriction	PNG	N/A
WEBP	WEBP	No Restriction	WEBP	N/A

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9.1.2 Encoder

Type	Codec	Supported Image Size	Maximum Data Rate	File Format	Remarks
JPEG	JPEG Baseline	96×32 pixels~8176×8176 pixels	90Mpixels/Second	JFIF file format 1.02	N/A

9.2 Audio

9.2.1 Decoder

Type	Codec	Channel	Bit rate	Sampling rate	File Format	Remarks

Type	Codec	Channel	Bit rate	Sampling rate	File Format	Remarks
MPEG	MPEG1/2/2.5 Audio Layer1/2/3	2	8kbps~320Kbps, CBR and VBR	8KHZ~48KHz	MP1, MP2, MP3	N/A
Windows Media Audio	WMA Version 4, 4.1, 7, 8, 9, wmapro	2	8kbps~320Kbps	8KHZ~48KHz	WMA	Non-support WMA Pro, lossless and MBR
WAV	MS-ADPCM, IMA-ADPCM, PCM	2	N/A	8KHZ~48KHz	WAV	Support 4bit MS-ADPCM, IMA-ADPCM
OGG	Q1~Q10	2	N/A	8KHZ~48KHz	OGG, OGA	N/A
FLAC	Compress Level 0~8	2	N/A	8KHZ~48KHz	FLAC	N/A
AAC	ADIF, ATDS Header AAC-LC and AAC-HE, AAC-ELD	5.1	N/A	8KHZ~48KHz	AAC, M4A	N/A
AMR	AMR-NB, AMR-WB	1	AMR-NB 4.75~12.2kbps@8kHz AMR-WB 6.60~23.85kbps@16kHz	8KHZ, 16KHz	3GP	N/A
MIDI	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

9.2.2 Encoder

Type	Codec	Channel	Bit rate	Sampling rate	Container	Remarks
AMR	AMR-NB, AMR-WB	2	4.75kbps~12.2Kbps, CBR	8KHZ, 16KHZ	3GPP	N/A
AAC	AAC-ADTS-LC	1	4.75kbps~60Kbps, CBR	8KHZ~44.1KHZ	AAC, 3GPP, Mpeg2TS	N/A

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9.3 Video

9.3.1 Decoder

Type	Codec	Supported Image Size	Maximum Frame Rate	Maximum Bit Rate (Ideal Case)	File Format	Remarks
MPEG-1/2	MPEG-1/2	48×48 pixels~1920×1088 pixels	30fps	80Mbps	DAT, MPG, VOB, TS	Support Field Coding
MPEG-4	MPEG 4	48×48 pixels~1920×1088 pixels	30fps	38.4Mbps	AVI, MKV, MP4, MOV, 3GP	Not support MS MPEG4 v1/v2/v3 Not support GMC
H.264/ AVC	H.264	T3&T6&TB3&TB4&TB6&TB8: 48×48 pixels~4096×2304 pixels Other models: 48×48 pixels~1920×1088 pixels	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 Field Coding Support MBAFF
MVC	H.264 MVC	48×48 pixels~1920×1088 pixels	60fps	38.4Mbps	MKV, TS	Support Stereo High Profile only
H.265/ HEVC	H.265/ HEVC	T3&T6&TB3&TB4&TB6&TB8: 64×64 pixels~4096×2304 pixels Other models: 64×64 pixels~1920×1088 pixels	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 Main Profile Support Tile & Slice
GOOGLE VP8	VP8	48×48 pixels~1920×1088 pixels	30fps	38.4 Mbps	WEBM, MKV	N/A
H.263	H.263	SQCIF(128×96), QCIF(176×144), CIF(352×288), 4CIF(704×576)	30fps	38.4Mbps	3GP, MOV, MP4	Not support H.263+
VC-1	VC-1	48×48 pixels~1920×1088 pixels	30fps	45Mbps	WMV, ASF, TS, MKV, AVI	N/A

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Type	Codec	Supported Image Size	Maximum Frame Rate	Maximum Bit Rate (Ideal Case)	File Format	Remarks
MOTION JPEG	MJPEG	48×48 pixels~1920×1088 pixels	30fps	38.4Mbps	AVI	N/A

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

9.3.2 Encoder

Type	Codec	Supported Image Size	Maximum Frame Rate	Maximum Bit Rate (Ideal Case)	File Format	Remarks
H.264/AVC	H.264	144×96 pixels~1920×1088 pixels	30fps	20Mbps	MOV, 3GP	Not support MBAFF
Google VP8	VP8	96×96 pixels~1920×1088 pixels	30fps	10Mbps	WEBM	N/A

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