

# ViPlex Express



# Async Mode User Manual

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# **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 general windows, cut-to-display window, Office documents, images, videos, GIF, text, colorful text, digital clocks, analog clocks, timers, weather, RSS, streaming media, and web pages.

#### 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 Terminal Control

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

# 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 Source Note and click OK. ViPlex Express will be in async mode after a restart.

# 2.4 Connecting to Displays

Figure 2-2 and Figure 2-3 use the TB6 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.

The DHCP of multimedia players is enabled, the DHCP in the top-left corner of ViPlex Express is turned on. Select a local IP address and click **OK**. ViPlex Express will automatically connect to the Taurus. If the connection is not stable, set a static IP address for the PC.

Note: Before enabling the DHCP service, turn off the firewall of the PC or set the ICMP echo reply policy.

#### 🕈 🛛 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 instance, when the multimedia player has a built-in Wi-Fi AP, the default SSID is "AP+*Last 8 digits of the 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.

If this method is used, the configuration is not required.

#### 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. The DHCP of multimedia players is enabled. 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 Terminals

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

## **Required Information**

Login user name and password of the multimedia player, for example, the default login user name of the Taurus series multimedia players is "admin" and the default password is "123456" (Taurus earlier than V4.6.0) or "SN2008@+" (Taurus V4.6.0 and later).

#### Logging In to Terminals

Step 1 Click Refresh to refresh the screen list.



#### Figure 2-4 Terminal management

	-			_
V	ViPlex Express Async Mode	inals Solutions Advanced Soluti	Reedback (⊖ APP) (\$ – □ > ions Terminal Control	¢
	$ \begin{bmatrix} Total \\ 4 \end{bmatrix} = \begin{bmatrix} Online \\ 0 \end{bmatrix} $	+ - Not Log +	Offline 3 Terminal Name Q Refresh	
	Screen Name 🌲	Screen IP 🜲	Screen Size	
	Taurus-40002453	172.18.12.100	64*32	
•	VPlayer_B3_1B9C.	172.18.12.173	400*400	
•	VPlayer_W9A15TF2	172.18.12.61	512*512	
•	Taurus-30005257	172.18.179.37	256*256	

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

If terminals and ViPlex Express are not on the same network segment and their network segments can be pinged.

Click 🚬 next to **Refresh**, select Specify IP and enter an IP address or IP range to connect to terminals manually.

- • Denotes that the terminal is online and you can log in to it. Go to Step 2.
- Denotes the terminal is offline and you cannot log in to it.
- Denotes you have successfully logged into the terminal.
- 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 terminal 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 terminal.
- Obtain SN: Obtain the SN of the terminal. Batch obtaining of SNs is supported.
- Rename: Rename the terminal.
- 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.
- Download Operation Log: Download the operation logs of asynchronous terminals.

## 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 management page.

	<u> </u>				
V	ViPlex Express Async Mode	Terminals	Advanced Solutions	Terminal Control	nde (⊖ APP) 43 _ □ ×  Vnnox
N.		USB pl •			
	Name ≑		Resolution 🖨	File Size 🜲	Last Modified 🜲
	NewSolution20220630101612		400×400	1KB	2022/6/30 10:21:44

Figure 2-5 Solution management

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

The **Solution** Information dialog box appears.

Solution Name NewSolution20200630200234
Resolution
Width 400 px 
Specify Terminal >
Specify Terminal >
100character(s) remaining
Cancel

Figure 2-6 Solution information for a regular screen

	Solution Information	×
Solution Name	NewSolution20200630200248	
Resolution	Width 4000 px 🔷 Height 256 px 🔷	
Direction	Horizontal	
Number of Parts	2 ~	
Remarks		
	OK Cance	el

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 use to view the schedule of each page in the solution.
- Step 6 (Optional) At the upper right of the page, click even 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 to refresh the preview window.

Step 7 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.

- Step 1 Choose Solutions.
- Step 2 In the solution list, move your mouse over a solution and click

.k 🚄

The **Publish** dialog box appears.

Figure 2-8 Publishing a solution

	Publish					
Solutio	pn Name: Solution001					
	Terminal Name	Screen Size	Terminal IP	Progress		
	Taurus-40003500	1536X256	192.168.1.106			
Re		🗸 Star	t Playback Simultaneou	Isly 🕐 Publish	Done	



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

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

Step 4 (Optional) Select Start Playback Simultaneously.

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

- Step 5 Select one or more terminals and click **Publish**.
- Step 6 After the solution is published successfully, click Done.

#### Note:

Unltr-long-screen solutions do not support Start Playback Simultaneously.

# 2.8 Controlling Terminals

Users can control the brightness, display status, video source switching, etc. of a terminal in real time or as scheduled. For details, see 4 Terminal Control.

# **3** Solution Management

## 3.1 Creating 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 Creating a Regular-Screen Solution

#### **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 management 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

	Solution Information	×
Solution Name	NewSolution20200630200234	
Resolution	Width 400 px 🔷 Height 400 px 🗘	
Remarks		
	OK Cance	el



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

You can also set a resolution by clicking **Specify Terminal** and the resolution will be the same as the resolution of the terminal you select.

1	NewSolution20200630200125 (400x400) 2	<u> </u>
Save Save as Setting Gen	eral Window Cut-to-Display File Text Colorful Word Clock Analog Clock Timer >>	🛗 💿 🖪 View Schedule Preview Publish
+ · □ × ↑ ↓ 1 Itimes	Q 130% Q III 28 X A th L L L L L X A Th L L L L L X A Th L L L L L X A Th L L L L X A Th L X A T	Widget Properties     Page Properties       Page Name     Page1       Play Count     1       times     \$       Validity Range       Schedule       1     00: 00 \$       23: 59 \$     +       Every Week:       S     M       T     W       T     F
- <u></u>		Apply Schedule

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	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	. General window	E Cut-to-display window		
	corresponding media item.	Eile	Text: Text		
		Colorful text	EIII: Digital clock		
		C : Analog clock	: Timer		
		: Weather	Environment monitoring		
		: Table	RSS: RSS		
		: Streaming media	: Web page		
3	Viewing schedules, previewing pages, and publishing solutions	Used for viewing schedules publishing solutions	s, previewing the current page and		
4	Editing solution pages You can add, copy, and delete	+ : Add	: Open the <b>Page Template</b> dialog box		
	pages. Pages are played in order from	<b>П</b> : Сору	E Delete		



No.	Function	Description		
	top to bottom.	: Move up	: Move down	
		the thumbnail view (Only the thumbnails of pages are displayed.)	List view: (The thumbnails of pages and the names of the media items contained in the currently selected page are displayed.)	
5	Editing media on pages	E Zoom editing area in	Q: Zoom editing area out	
		EShow the editing area in the original size	ESS: Automatically fit the editing area according to the software interface	
		: Delete selected media	: Clear all media	
		ा. Crop image	E Bring forward	
		E Send backward	E Bring to front	
		E: Send to back	Fill the entire screen	
		: Fit the screen horizontally	Fit the screen vertically	
		III: Align top	Center vertically	
		Let: Align bottom	E Align left	
		: Center horizontally	EI: Align right	
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.		
		<ul> <li>Page Properties: Set the n playback schedule of a pa</li> </ul>	name, play count, validity range, and ge.	
		<ul> <li>Play Count: Set the n continuously.</li> </ul>	number of times to play a page	
		<ul> <li>Validity Range: After the Date and End Date p pages will be skipped</li> </ul>	this option is selected, the <b>Start</b> parameters are displayed. Expired I during solution playback.	
		<ul> <li>Schedule: Allows you page and select the c timeslots of different p played in order from t</li> </ul>	to specify the timeslots to play a days to repeat the playback. If the pages overlap, the pages will be top to bottom.	
		<ul> <li>Apply Schedule: Allov current page to other pages and apply a sc</li> </ul>	ws you to apply the schedule of the pages. You can select multiple shedule to them at the same time.	

#### Notes

- When you add an Excel file, the number of rows of the Excel file must be less than or equal to 600 and 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. Please scan the Feedback QR code in the navigation bar to give feedback if needed.
- A valid URL is required when you add RSS, streaming media, or web page media.



- When you add weather media, the terminal 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 terminal. For details, see 4.17 Sensor.
- For the limitations on cut-to-display windows, see 8 Limitations on Cut-to-Display Windows for Regular Screens.

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

- Step 5 (Optional) At the upper right of the page, click use to view the schedule of each page in the solution.
- Step 6 (Optional) At the upper right of the page, click is 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 to refresh the preview window.

Step 7 After the solution editing is done, click **Publish** and select players to publish the solution.

#### 3.1.2 Creating an Ultra-Long-Screen Solution

## **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 9-1.

### Application Example

The resolution of a screen is 23040×98 and the screen works with the TB60 multimedia player for content playback.

- Number of parts: 23040/096=5.625 (Here an integer is required, so the number of parts is 6.)
- Screen width to be configured: 23040/6=3840
- Screen height to be configured: 98×6=588

#### 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 9-1.

## **Screen Configuration**

When you set the connection of receiving cards, if an Ethernet port loads two rows/columns or more, the connection must follow the shape of the letter Z, 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.





## **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 Solution information of an ultra-wide screen

	Solu	ution Informa	tion			×
Solution Name Resolution Remarks	NewSolution Width 2304	0 px	1926 Height	98 px		
			100charact			
				ОК	Cancel	



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

- The resolution of the solution must be consistent with the actual pixel width and height of the screen.
- Only images, text, videos and colorful text can be placed across the boundary.
- Step 4 At the top of the solution editing page, click **Video**.

In the page media editing area, the page is displayed based on the actual screen resolution.

Figure 3-6 Ultra-long-screen solution editing page

				Ne	wSolution	202310	120955								
			/ Imag	e Video										4 Publi	
											Widget Proper	ties	Page Pr	opertie	
1 Itim	<b>105</b>										Page Name	Page1 1	tin	nes 🍨	
		l									Schedule 1 00:00 C Every Week:	; ~ 2	14:00 🗘	÷	-
										×					

Step 5 Select a video (multiple videos can be added) from the folder and click Open.To set playlist playback, choose General Window > + to add multiple videos.

							N	lewSo	lution	202310	01209	5545	(23040	x98)							-		×
	9	B	() ()							1212 Clock				Ö									
													L 1	<b>1</b>	ъ.	×	=	Wid	get Propertie		Pag	e Prope	erties
1	1 times																	〜 Area X W 〜 館行	a (px) 485 256 年 纪件 • ×				\$
																		Prop	perties of Sel	lected	Media	i Item	
				-1																			

Figure 3-7 Setting playlist playback

- Step 6 (Optional) At the upper right of the page, click of the 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
- Step 8 Select players and click **Publish** to publish the solution.



#### Note

- Ultra-long-screen solutions do not support synchronous playback.
- To ensure smooth playback, playing videos and text simultaneously is not recommended.

# 3.2 Scheduling Solutions

# **Applications**

An advanced solution is a collection of scheduled regular-screen solutions or ultra-long-screen solutions.



# **Operating Procedure**

Step 1 Choose Advanced Solutions to access the advanced solutions page.



#### Figure 3-8 Advanced solutions

V	<b>ViPlex Express</b> Async Mode	Terminals Solutions	Advanced Solutions	Terminal Control	С <mark>(; арр</mark> ф) – – – , ч	×
N	<b>ew</b> Edit Delete	Import Export USE				
	Name ≑		Solution Qty 🖨	File Size 🜲	Last Modified 🜲	
	高级节目0			ОВ	2022-06-30 15:58:00	

Step 2 Click New to open the New Advanced Solution page.

Figure 3-9 New advanced solution

			New Advanced Soli	ution	×
Name	Advan	cedSolution0			
+					
	No.	Scheduled Solution	Validity Range	Repeat	Playback duration
When th					
Non-Sch	reduled Co	ntent During the non-sched			
					Add Cancel

Step 3 Enter a name for the advanced solution.

Step 4 Click +

#### Figure 3-10 Adding playback plan

8 81	, ,	
	Add Playback Plan	×
Solution	<b>_</b>	
Validity Range	Never expires	
Repeat	Every day 🗸 🗸	
Playback duration		
	00:00:00 🗘 ~ 23:59:59 よ 🗙	
	Add	Cancel

- Step 5 Select a solution and set its validity range, repeat method, and playback durations.
- Step 6 Click Add.
- Step 7 Repeat Step 5 and Step 6 to add more solutions.
- Step 8 After solutions are added, click Cancel.
- Step 9 (Optional) Click the box next to **Non-Scheduled Content**, select a solution and click **OK**. The non-scheduled content will be played by default during the non-scheduled period.



			Edit Advanced Sol	ution	×
Name +	Adva	ncedSolution1 $\times \uparrow \downarrow$			
	No.	Scheduled Solution	Validity Range	Repeat	Playback duration
		NewSolution2020063	Never expires	Every day	00:00:00-23:59:59
		NewSolution2020063	Never expires	Every day	00.00:00-23:59:59
When t bottom Non-So	the playb to top i cheduled	ack times of multiple solu n the list. Content During the nor			
					OK Cancel

Step 10 Click Add.



# 3.3 Publishing Solutions

## **Applications**

Send regular-screen solutions, ultra-long-screen solutions and scheduled advanced solutions to terminals.

## **Related Information**

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

## **Operating Procedure**

Step 1 Choose Solutions or Advanced Solutions.



The **Publish** dialog box appears.

Figure 3-12 Publishing a solution

		Publish			×
Solutio	on Name: Solution001				٩
$\checkmark$	Terminal Name	Screen Size	Terminal IP	Progress	
	Taurus-40003500	1536X256	192.168.1.106		
Re		🗸 Star	t Playback Simultaneou	usly 🕐 🛛 Publish 🛛 D	one

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

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

Step 4 (Optional) Select Start Playback Simultaneously.

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

Step 5 Select one or more terminals and click Publish.

If the storage space of the terminal is insufficient, click **Clean Up & Republish** of the corresponding terminal to clean up storage. The solution will be published automatically after the cleanup.

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

#### Note:

Unltr-long-screen solutions do not support Start Playback Simultaneously.



## 3.4 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.

### **Operating Procedure**

- Step 1 Choose Solutions or Advanced Solutions.
- Step 2 In the solution list, move your mouse over a solution and click **LLI**, or select one or more solutions and click **USB Playback**.

The USB playback dialog box appears.

Figure 3-13 USB playback

	USB playback	×
Play Mode	Plug and play Copy and play	
Path	C:\Users\Nova003025\Desktop ····	
Terminal password		
Specify solution	<ul> <li>NewSolution20200630201328</li> <li>NewSolution20200630200125</li> </ul>	
	OK Cancel	

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 terminal. 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 terminal. Do NOT remove the USB drive during playback.

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

Step 5 Enter the connection password of the terminal.

After the USB drive where solutions are stored is inserted into the terminal, 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.



# 3.5 Exporting/Importing Solutions

## **Applications**

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

## **Related Information**

- A solution containing media can be exported.
- Regular-screen solutions, ultra-long-screen solutions, and scheduled advanced solutions can be exported and imported.

#### **Operating Procedure**

#### Export solutions

- Step 1 Choose Solutions or Advanced Solutions.
- Step 2 From the solution list, select one or more solutions and then choose More > Export.

Figure 3-14 Exporting solutions

	Ехро	rt		×
Path	C:\Users\Nova003025\Desktop			
Solution	ı Name	Progress		
NewSol	ution20200630201328			
NewSol	ution20200630200125			
		Export	Cancel	

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

Step 4 Click Export.

#### Note

During solution exporting, ViPlex Express automatically converts the video formats not supported by the terminal.

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

#### Import solutions

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

Or click Import on the Advanced Solutions page.



#### Figure 3-15 Importing solutions

	Import	×
Path	C:\Users\Nova003025\Desktop	
	Next	Cancel

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 Terminal Control

# **Function List**

Function	Sub-Function	Taurus LED Players	Taurus LCD Players	VPlayer
	Adjust volume in real time	$\checkmark$	$\checkmark$	
Playback management	Manage terminal solutions	$\checkmark$	$\checkmark$	
Brightness adjustment	-	$\checkmark$		
Video source	Configure video source parameters	$\checkmark$		
	Switch video source	$\checkmark$		
Screen status control	-	$\checkmark$		
Time synchronization	Sync time manually	$\checkmark$	$\checkmark$	
	Sync time with NTP	$\checkmark$	$\checkmark$	
	Sync time with RF	$\checkmark$		
Restart configuration	-	$\checkmark$	$\checkmark$	
Color temperature	-	$\checkmark$		
Monitoring	-	$\checkmark$	√ (Available memory usage and CPU usage are not available.)	
Play logs	Query play logs	$\checkmark$	$\checkmark$	
	Export play logs	$\checkmark$	$\checkmark$	
Font management	Add fonts	$\checkmark$	$\checkmark$	
	Delete fonts	$\checkmark$	$\checkmark$	
Network configuration	Configure wired network	$\checkmark$	$\checkmark$	
	Configure Wi-Fi AP	$\checkmark$	$\checkmark$	
	Configure Wi-Fi Sta	$\checkmark$		
	Configure mobile network	$\checkmark$	$\checkmark$	
	Configure network detection	$\checkmark$	$\checkmark$	
Server configuration	Bind to VNNOX Standard/AD	$\checkmark$	$\checkmark$	
Terminal upgrade	Online upgrade	$\checkmark$	$\checkmark$	$\checkmark$



Function	Sub-Function	Taurus LED Players	Taurus LCD Players	VPlayer
	Local upgrade	$\checkmark$	$\checkmark$	$\checkmark$
Power control	-	$\checkmark$	√ (No support for multi-function card power)	
RF management	-	$\checkmark$		
Sensor	-	$\checkmark$		
Screen information	-	$\checkmark$	$\checkmark$	

## **Common Operations**

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

			(i) Screen information	~	-		×
Term	inal Name Screen Name 💠 Taurus-40002453	Q Screen IP ♦ 172.18.12.29	Current screen: Information Obtained On: Terminal Time Local Time	Taurus-40002453 2022/5/16 17:12:14 2022/5/16 17:10:36			
•	Taurus-30005257	172.18.179.37	Registered Address SN MAC address IP address System Version Product Model Major Software Version Advanced	BZSA17375J1B40002453 30:34:02:62:63:95 172.18.12.29 T6V030709CN0101 T6 3.7.9.0101			
					Read	back	

Figure 4-1 Readback

• In the terminal list, you can select multiple terminals with the Ctrl+Shift keyboard shortcut.

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

#### Figure 4-2 Selecting multiple terminals

			.수는 Brightness adjustm	ient V		-	×
Termi	nal Name Screen Name ¢	Q Screen IP ≑	Current screen: Information Obtained On: Terminal Time	Taurus-10006847 2022-5-16 11:31:28			
•	Taurus-10006847 Taurus-40002453	172.18.179.39	Local Time	2022-5-16 18:29:47	Smart		
•	Taurus-20017397 Taurus-20004871	172.18.179.47			0 %		
•	Taurus-300001.86 Taurus-499999571	172.18.179.117					
•	Taurus-90000043 Taurus-23031691	172.18.179.179 172.18.179.146					
•	Taurus-30005257 Taurus-80000047	172.18.179.37					
•	Taurus-40003481 Taurus-90000266	172.18.179.135 172.18.179.178					

# 4.1 Playback Management

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

### 4.1.1 Adjusting Volume in Real Time

- Step 1 Choose Terminal Control > Playback Management.
- Step 2 Select the target terminal from the terminal 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 4-3, it indicates that volume synchronization is enabled on the current terminal. See relevant operations in 4.16 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 an RF signal.

Figure 4-3 RF synchronization-volume

RF synchronization	Master device(Group ID: 777)
Volume	47 % 🗘

## 4.1.2 Managing Terminal Solutions

#### Note:

Only T30/T50/T60/TB30/TB40/TB50/TB60 support exception log and requirements check.



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

Figure 4-4 Viewing the screenshot

Playback Information							
Double	Solution : NewSolution1 Exception Log	View Screenshot					

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

Figure 4-5 Solution list

Local Solution List			
Delete			
Double	VNNOXProgram		

- 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 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.

Figure 4-6 Playback configuration





# 4.2 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 4-7, it indicates that brightness synchronization is enabled on the current terminal. See relevant operations in 4.16 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 the RF signal.



RF synchronization	Master device(Group ID: 777)
Manual	Smart
•	0 % 🔷

## 4.2.1 Manual Adjustment

- Step 1 Choose Terminal Control > Brightness adjustment.
- Step 2 Select the target terminal in the terminal list.
- Step 3 Choose Manual, and drag the slider or enter a value to adjust screen brightness.

```
Figure 4-8 Manual adjustment
```



#### 4.2.2 Smart Adjustment

- Step 1 Choose Terminal Control > Brightness adjustment.
- Step 2 Select the target terminal in the terminal list.
- Step 3 Choose Smart and click E. In the window that appears, choose Timing or Auto, set the corresponding brightness adjustment rules, and then click Add.

#### Figure 4-9 Smart brightness adjustment

◯ Manual			) Smart			
Auto brigi	Auto brightness adjustment table					
+	i × #	<b>}</b>			Brightness Ma	pping Table
	Start time	Adjustment	Repeat	Validity R	ange	Enable
	00:00:00	Auto	Never	2020-08-0	03 ~ 2020-08-03	•
	00:00:00	Timing 30%	Never	2020-06-2	23 ~ 2020-06-23	
	08:00:00	Auto	Never	2020-06-2	23 ~ 2020-06-23	
						Apply

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

#### Figure 4-10 Scheduled brightness adjustment

		New			×
Timing		Auto			
Timing brightness	10			<b>•</b>	%
Repeat	Every day				
Execution time	00:00:00			<b>\$</b>	
Validity Range	2020/8/17	<b>=</b> ~	Never expires		
			Add		Close

 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 4-11 Automatic brightness adjustment

	New	×
◯ Timing	Auto	
Repeat	Every day	
Execution time	00:00:00	¢
Validity Range	2020/8/17 🛗 ~ Never expires	
	bbA	Close

Figure 4-12 Brightness mapping table

	Brightness Mapping Table		×
✓ If ambient brightness readi	ing fails, adjust the brightness to	10 🔷 % Quick sub:	section
Ambient brightness (Lux)	Screen Brightness (%)	Operate	
65534	100	ß ×	
58981	90	e ×	
52427	80	ß ×	
45874	70	Ľ ×	
39320	60	c ×	
Brightness Collection Interval	3 ∨ s Times to Collect	Brightness 5 🗸	
		ОК	Cancel

Step 4 After configuration, click Apply.

# 4.3 Video Source

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

## 4.3.1 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 Terminal Control > Video Source.
- Step 2 Select the target terminal from the terminal list.
- Step 3 In the Internal Source Resolution area, specify a resolution 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:

Only the TB30, TB40, TB50 and TB60 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.

Requirments of full screen zoom in studio mode:

- 64 pixels ≤ Video source width ≤ 2048 pixels
- Support for zooming out only

#### Figure 4-13 Parameter configuration

			📼 Video source 🗸						
Term			Current screen:	Taurus-40002453					
	Screen Name 🌲	Screen IP 💠	Information Obtained On:						
	Taurus-40002453	172.18.12.29	Terminal Time Local Time	2022/5/16 16:59:08 2022/5/16 16:57:30					
•	Taurus-30005257	172.18.179.37	Internal Source Resolution Resolution (px)	1280x720p-60		~ Apply			
			Control Mode						
			Manual	○ Timing		HDMI preferre	d		
			Video Source Type	HDMI					
			Parameter Configuration						
			Output Position (px)	x 0 🗘		o 🗘			
			HDMI Source Resolution	Width 1920	Hei	1080			
			Full Screen Zoom	Enable					
						Apply			
							Read	d back	

Step 5 After the configuration, click Apply.

## 4.3.2 Manual Switching

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

- Step 1 Choose Terminal Control > Video source.
- Step 2 Select the target terminal in the terminal list.
- Step 3 In the Control Mode area, choose Manual and configure the parameters.

#### Figure 4-14 Manual switching

) Manual	◯ Timing	HDMI preferred
Video Source Type	Internal source	~

Step 4 Click Apply.

## 4.3.3 Scheduled Switching

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

- Step 1 Choose Terminal Control > Video source.
- Step 2 Select the target terminal in the terminal list.
- Step 3 In the Control Mode area, choose Timing.

Figure 4-15 Scheduled switching

O Manual	Timing		HDMI preferred
$+$ $\square$ $\times$ $m$			
Time	Туре	Repeat method	Sure to enable

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 4-16 Creating a scheduled rule

	A new time setting rule	×
	Internal source	
Time	00:00:00	
Repeat method	Every day v	
	Add Can	cel

Step 5 After the configuration, click Apply.

### 4.3.4 HDMI Preferred

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

- Step 1 Choose Terminal Control > Video source.
- Step 2 Select the target terminal in the terminal list.
- Step 3 In the Control Mode area, choose HDMI preferred.
- Step 4 After configuration, click **Apply**.



# 4.4 Screen Status Control

Set the current playing status of the screen.

#### 4.4.1 Manual Control

- Step 1 Choose Terminal Control > Screen Status Control.
- Step 2 Select the target terminal in the terminal list.
- Step 3 Choose Manual to enter the manual settings page.

#### Figure 4-17 Manual Control

Manual	◯ Timing	
Blackout		
Normal		

Step 4 Click Blackout or Normal.

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

## 4.4.2 Timing Control

- Step 1 Choose Terminal Control > Screen Status Control.
- Step 2 Select the target terminal in the terminal list.
- Step 3 Choose **Timing** and click **I**. In the window that appears, click **Blackout** or **Normal**, set the playback time and interval, and then click **Add**.

#### Figure 4-18 Scheduled control

O Manual			Timing			
Scheduled	Scheduled adjustment list					
+ 2						
	Time	Screen Control	Repeat	Enable		
	08:00:00	Normal	Every day			
	20:00:00	Blackout	Every day			

## Figure 4-19 Creating a scheduled rule

	N	ew			×
Blackout		🔵 Normal			
Time	00:00:00			▲ ▼	
Repeat	Every day				
		(	Add		Cancel

Step 4 After the settings, click Apply.

# 4.5 Power On/Off

## **Scenarios**

Schedule the power on/off of players.

## **Operating Procedure**

- Step 1 Choose Terminal 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 4-20 Creating a scheduled control command.

				ⓓ On/Off ∨						×
			Current se	creen:	1-NS2K-13011176					
	Screen Name 💲	Screen IP 🌲	Informati	on Obtained On:						
	1-NS2K-13011176	192.168.1.103	Loca	ninal Time Il Time	2023/6/30 14:46:34 2023/6/30 14:46:35					
•	6-NS2K-13011190	192.168.1.109	Power Or	n/Off						_
•	4-NS2K-13011194	192.1€		A new time setting	rule					
•	2-NS2K-13011177	192.16								1
•	3-NS2K-13011189	192.1€	Power On	08:00:00			Repeat			
•	5-NS2K-13011191	192.16	Power Off	12:00:00		<b>•</b>				
•	7-NS2K-13011193	192.16	Repeat	Every day						
•	zjt-NS2K-13011195	192.16								
•	8-NS2K-13011185	192.16			Add					
	Taurus-40002453	192.168.41.1								
	Taurus-80000049	192.168.41.1								
										_
								Apply		
								Read	back	

Step 5 Select a player from the terminal 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 4-21 Scheduling power on/off

			じ On/Off 〜			×
			Current screen:	1-NS2K-13011176		
	Screen Name 🌲	Screen IP 🌲	Information Obtained On: Terminal Time	2023/6/30 14:50:35		
			Local Time	2023/6/30 14:50:35		
•	6-NS2K-13011190	192.168.1.109	Power On/Off			
•	4-NS2K-13011194	192.168.1.104				
•	2-NS2K-13011177	192.168.1.102	Bower On	Bower Off	Perest	
•	3-NS2K-13011189	192.168.1.105		120000	Fundaria davi	
•	5-NS2K-13011191	192.168.1.108		12:00:00	Every day	
•	7-NS2K-13011193	192.168.1.114	13:00:00	18:00:00	SAT/SUN	
•	zjt-NS2K-13011195	192.168.1.101				
•	8-NS2K-13011185	192.168.1.106				
	Taurus-40002453	192.168.41.1				
	Taurus-80000049	192.168.41.1				
						Apply
						Read back

# 4.6 Time Synchronization

Time synchronization is used for syncing the time of terminal players.

Method	Time Reference	Application Scenario	
Manual	Time of the PC with ViPlex Express installed	Manually set the time zone of the terminal.	
Automatic	GPS time synchronization: Radio signal from a GPS satellite	Sync the time of the Taurus with GPS, NTP, or RF. these three methods are applicable to synchronc	
	NTP time synchronization: Time of the NTP server	<ul> <li>playback.</li> <li>The accuracy of GPS time synchronization depends on the actuality signal and it is suitable for outdoor</li> </ul>	
RF	Time of the reference device	<ul> <li>The accuracy of NTP time synchronization depends on the network speed and it is suitable for situations with a low requirement for synchronization.</li> <li>RF time synchronization does not depend on the</li> </ul>	
		network and has a high synchronization performance. It is suitable for situations with an increased requirement for synchronization.	

Table 4-1 Time synchronization methods

#### Note:

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

## 4.6.1 Manual Time Synchronization

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

- Step 1 Choose Terminal Control > Time synchronization management.
- Step 2 Select the target terminal from the terminal 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 4-22 Selecting a time zone

Time synchronization			
To use GPS for time synchronizat	ion, please install a network module	for the terminal.	
Time zone	(UTC-09:00) America/Anchorage		
Date and time	2021/3/15   Daylight saving time enabled	01:23:35	<b>~</b>
	Automatically sync time		
			Apply

Step 4 After the settings, click Apply.

## 4.6.2 GPS Time Synchronization

### **Prerequisites**

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

#### **Operating Procedure**

- Step 1 Choose Terminal Control > Time synchronization management.
- Step 2 Select the target terminal from the terminal 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 4-23 GPS time synchronization

Time synchronization	
Time zone	(UTC+08:00) Asia/Shanghai ~
Date and time	2021/3/15 🛗 17: 42: 07 🖕
	✓ Automatically sync time
	GPS time synchronization     NTP
	When using GPS for time synchronization, please make sure that a GPS antenna is connected to the terminal and the terminal is placed outdoors without obstructions around.
	Apply

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

## 4.6.3 NTP Time Synchronization

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

- Step 1 Choose Terminal Control > Time synchronization management.
- Step 2 Select the target terminal from the terminal 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 an NTP server to sync the time of the terminal with the time of the NTP server. If the existing NTP servers cannot meet the requirements, click to customize a server.

Figure 4-24 Selecting an NTP server

<b>Time synchronization</b> To use GPS for time synchronization, please install a network module for the terminal.			
Time zone	(UTC+08:00) Asia/Shanghai		
Date and time	2021/3/15	7:31:44	
	✓ Automatically sync time		
		NTP	
NTP server	China		
		Apply	

Step 5 After the settings, click Apply.

## 4.6.4 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 T3, T6, TB3, TB4, TB6, and TB8.
- 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 Terminal Control > RF management.
- Step 2 Select the target terminal from the terminal 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 4-25 Master device

Parameter Information	
RF synchronization	•
Set this terminal as	
Group ID	123
	Please enter a new group ID for the master device. Numbers and letters are supported.
Apply RF synchronization to	Time synchronization
	Apply



#### Figure 4-26 Slave device

Parameter Information	
RF synchronization	-
Set this terminal as	
Group ID	123
	Please enter a new group ID for the master device. Numbers and letters are supported.
Apply RF synchronization to	Time synchronization
	Apply

#### Step 7 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 8 Choose Terminal Control > Time synchronization management.
- Step 9 Select the master terminal from the terminal list.

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

#### Figure 4-27 RF synchronization-Time synchronization

<b>Time synchronization</b> To use GPS for time synchronization, please install a network module for the terminal.						
RF synchronization	Master device(Group ID : 777)					
Time zone	(UTC+08:00) Asia/Shanghai					
Date and time	2021/3/16         問         09:19:07	<b></b>				
	Automatically sync time					
	GPS time synchronization     O     NTP					
NTP server	China					
	Арр	ły				

Step 10 View the time zone and time of the current terminal.

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 11 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 terminal 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 4.6.2 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 terminal with the time of the NTP server. If the existing NTP servers

cannot meet the requirements, click 🔯 to customize a server.

Step 12 After the settings, click Apply.

# 4.7 Restart Configuration

Restart terminals immediately and configure restart rules.

## 4.7.1 Restarting Immediately

- Step 1 Choose Terminal Control > Restart Configuration.
- Step 2 Select the target terminal in the terminal list.
- Step 3 Click Restart Now.

#### Figure 4-28 Restart

	$z_{c}^{\prime\prime}$ Restart Configuration $\checkmark$						
			Current screen:	Taurus-40002453			
	Screen Name 🌲	Screen IP 💲	Information Obtained On: Terminal Time	2022/5/16 17:00:50			
•	Taurus-40002453	172.18.12.29	Local Time	2022/5/16 16:59:12			
•	Taurus-30005257	172.18.179.37					_
			Restart Now				

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

### 4.7.2 Scheduled Restart

- Step 1 Choose Terminal Control > Restart Configuration.
- Step 2 Select the target terminal from the terminal list.

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

#### Figure 4-29 Scheduled adjustment

Scheduled adjustment list						
+ 🗹 × 🗯						
Restart Time	Repeat method	Sure to enable				
00:00:00	Every day					
12:00:00	Every day	•				
22:00:00	Every day	•				



#### Figure 4-30 Creating a scheduled rule

	A new time setting rule		×
Time	00:00:00	:	
Repeat method	Every day		
		Add	Cancel

Step 4 After the settings, click Apply.

# 4.8 Color Temperature

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

- Step 1 Choose Terminal Control > Color temperature.
- Step 2 Select the target terminal in the terminal list.
- Step 3 Select a color temperature type.

#### Figure 4-31 Color temperature

	К Color temperature 🗸				
Terminal Name     Q       Screen Name     Screen IP       Turner 40002452     172 18 12 20	Current screen: Information Obtained On: Terminal Time	Taurus-40002453 2022/5/16 17:03:45			
Taurus-40002453         172.18.12.29           Taurus-30005257         172.18.179.37	Local Time	2022/5/16 17:02:07 Standard white	Cool white		
			R	ead back	

# 4.9 Monitoring

- Step 1 Choose Terminal Control > Monitoring.
- Step 2 Select the target terminal in the terminal list.
- Step 3 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

Figure 4-32 Monitoring

			🗄 Monitoring 🗸			
Term	inal Name Screen Name 🜲	Q Screen IP ◆	Current screen: Taurus-40002453 Information Obtained On: Terminal Time 2022/5/16 17:09:24			
•	Taurus-30005257	172.18.1229	Local Time       2022/5/16 17:07:46			
				Read	d back	

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

# 4.10 Play Logs

View and export play logs.

## 4.10.1 Querying Play Logs

- Step 1 Choose Terminal Control > Play logs.
- Step 2 Select the target terminal in the terminal 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.

## 4.10.2 Exporting Play Logs

- Step 1 Choose Terminal Control > Play logs.
- Step 2 Select the target terminal in the terminal list.
- Step 3 In the play log list, select the target play log.
- Step 4 Click Export.

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

Step 6 Click OK.

# 4.11 Font Management

Manage the fonts supported by the Taurus.

## 4.11.1 Adding Fonts

- Step 1 Choose Terminal Control > Font management.
- Step 2 Select the target terminal in the terminal list.
- Step 3 Click next to **Name** to acquire local fonts on the PC.

## Figure 4-33 Local fonts

	Font		×
No.	Font Name	Font size	í
7	078-CAI978	41kb	
8	079-CAI978	35kb	
9	087-CAI978	37kb	
10	126-CAI978	63kb	
11	AcadEref	7kb	
12	Agency FB	248kb	
13	Aharoni	82kb	
14	AIGDT	29kb	
15	Algerian	74kb	
16	AlternateGothic2 BT	26kb	
		OK Cance	el .

- 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 4-34 Adding a font

			Ē	ont management V	 	_ □	x
Font N	lame	033-CAI978 Please make sure the					
✓		Screen name 🌲	Screen IP 🜲	Font	Screen name		
$\checkmark$	•	Taurus-40002453	172.18.12.125		Update succeeded.	100 %	
Ref	fresh				Update	Read Back	

## 4.11.2 Deleting Fonts

- Step 1 Choose Terminal Control > Font management.
- Step 2 Select the target terminal in the terminal list.
- Step 3 Click **Read back** at the bottom right to read back the fonts on the terminal.

Figure 4-35 Reading back a font

			F Font m	anagement V		_ □	x
Font Ne	ame	033-CA1978 Please make sure that t					
✓		Screen name 🌲	Screen IP 🌲	Font	Screen name Update result		٩
$\checkmark$	•	Taurus-40002453	172.18.12.125				
Refr	esh				Update	Read Bad	:k

Step 4 Click the link in the Font column of the target terminal. The Font list in terminal page is displayed.

#### Figure 4-36 Terminal font list

		Terminal Font List		>	¢
Note: If the cus Termina Del	f a custom fo tom font by al Name: Ta	nt and system font have the sa default. wrws-40002453			
	No.	Font Name	Font Type		ŕ
	4	033-CAI978	Custom font		
		Arial	System font		
	6	Calibri	System font		
	7	KaiTi	System font		
	8	Microsoft YaHei	System font		
	9	SimSun	System font		
	10	Wingdings2	System font		
				Close	

- Step 5 Select target fonts.
- Step 6 Click Delete.

# 4.12 Network Configuration

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

## 4.12.1 Configuring Wired Network

## **Application Scenarios**

- Set IP address based on the actual needs while connecting terminals to the Internet via Ethernet cable.
- When the PC with ViPlex Express installed and the multimedia player are connected with an Ethernet cable, turn on the DHCP of the multimedia player and the DHCP service at the bottom left of ViPlex Express, select a local IP address, and then click **OK** to connect to the Taurus automatically.

If the connection is not stable, set a static IP address for the PC.

3		
ViPlex Express Async Mode	Feedback ⊗ APP ☆ –       Image: Terminals     Solutions     Advanced Solutions     Terminal Control	□ X Vnnox
$\Box_{4}^{\text{Total}} = \Box_{4}^{\text{Total}}$	Online + I Not Log + I Offline Terminal Name Q Refre	sh •
Screen Name 🌲	DHCP Service X	
Taurus-40002453	Network Adapter IP Address:	
VPlayer_B3_1B9C.	✓ Realtek PCIe 2.5GbE Family Controller	
VPlayer_W9A15TF2	172.18.12.173	
Taurus-30005257	OK Cancel	
DHCP Service 🦲	v	2.17.0.1701

#### Figure 4-37 DHCP service (ViPlex Express)

## **Related Information**

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

## **Operating Procedure**

- Step 1 Choose Terminal Control > Network configuration.
- Step 2 Select the target terminal in the terminal 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 4-38 Wired network configuration

Wired Network	Wi-Fi Network Ma	bile Network				Network Detection	n
	DHCP	🗸 Enable					
	IP Address						
	Subnet Mask						
	Gateway						
	DNS						
	DNS2						
		Apply	R	ead bac	k		

#### Step 4 Click Apply.

## 4.12.2 Configuring Wi-Fi Network

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

#### 4.12.2.1 Configuring Wi-Fi AP

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

- Step 1 Choose Terminal Control > Network configuration.
- Step 2 Select the target terminal from the terminal list.
- Step 3 Go to Wi-Fi Network > Player Wi-Fi AP and do the following as required.
  - AP: Turn on/off the terminal Wi-Fi AP.
  - Hotspot Name and Password: Change the SSID and password of the terminal Wi-Fi AP.

The default SSID of the terminal Wi-Fi AP is "AP + *Last 8 digits of the 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 terminal 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 terminal software is V2.2.0 or later.

#### Figure 4-39 Player Wi-Fi AP configuration

Wired Network W	Vi-Fi Network Mobile	: Network	
Player Wi-Fi AP	AP	•	
	Hotspot Name	AP 1-24 characters including numbers, letters and	
	Password	symbols	
Isolate	from Local Network	symbols Finable Advanced	
		Асру	

Step 4 Click Apply.

4.12.2.2 Configuring Wi-Fi Sta

## **Application Scenarios**

The Taurus terminals designed with dual Wi-Fi modes, such as T3, T6, TB3, TB6, and TB8, support the following functions after users configure Wi-Fi Sta for the Taurus with ViPlex Express.

- If the router is connected to the Internet, terminals 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 Terminal Control > Network configuration.
- Step 2 Select the target terminal from the terminal list.
- Step 3 Go to Wi-Fi Network > Wi-Fi Configuration area and turn on Wi-Fi.



#### Figure 4-40 Wi-Fi configuration

Wi-Fi Configuration		
Wi-Fi		
DIRECT-B0-HP M329dw LJ	PSK,WPA2	<b>□</b> ()
yanfa2	PSK,WPA_WPA2	<b>□</b>
医真云-B区	PSK,WPA2	<b>-</b>
NovaStar		<b>-</b>
NovaStar		<b>-</b>
TPGuest_7523	PSK,WPA_WPA2	<u> </u>

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

#### Note:

When the terminal 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 4-41 Wi-Fi connection

	Wi-Fi Connection	×
User Name Password	yonghedoujiang	
	ОК	Cancel



# **Application Scenarios**

For the Taurus terminals 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 terminals.

## **Prerequisites**

Taurus	Firmware Version	ViPlex Express Version
T1-4G	V3.2.0 and later	V2.6.2.0201 and later
TB1-4G		
TB2-4G		
TB4		

Table 4-2 Product model and version requirements



Taurus	Firmware Version	ViPlex Express Version
TB4A		
ТВ30		
ТВ40		
ТВ50		
ТВ60		

## **Operating Procedure**

#### Note:

This section introduces how to switch the built-in Wi-Fi AP mode of a terminal 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 terminal with an Ethernet cable.

#### Log In to Terminals

- Step 1 Open ViPlex Express.
- Step 2 At the bottom left of the page that appears, turn on the DHCP service, select a local IP address and click OK.

Figure 4-42 DHCP service switch

VIPlex Express Async Mode	Terminals Solutions Advance	d Solutions Terminal Control	eedback) 😪 APP 🔅 💶 🗆 🗙
I7 =	Online + Not Logge +	- Offine 15 Termina	Name Q Refresh
Screen Name 🌲	C 70 A DHCP Service	e X	<u> </u>
😑 Taurus-40002453 🤨	Network Adapter IP Address:		
e Taurus-49999760	<ul> <li>Intel(R) Ethernet Connection (2) I219-V #2</li> </ul>		
VPlayer_B3_1B9C.	172.18.12.61		
VPlayer_W9A15TF2			
G Taurus-30005257			
G Taurus-10006847			
G Taurus-20017397		OK Cancel	
G Taurus-20004871	172.18.179.77	400*400	
G Taurus-80000047	172.18.179.105	1920*1080	
rtestename	172.18.179.119	500*800	
G Taurus-30000186	172.18.179.117	128*128	
DHCP Service			V2.18.0.0201

Step 3 Click Refresh to refresh the screen list.

After detecting a terminal, ViPlex Express will try to log in to the terminal 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 4.
- • Denotes the Taurus is offline and you cannot log in to it.



- • Denotes you have successfully logged into the Taurus.
- Step 4 Click **Connect** next to the screen information.
- Step 5 Enter the password for the "admin" user and click **OK**.

The login user name of the Taurus series multimedia players is "admin" and the default password is "123456".

#### Switch the Wi-Fi Mode

- Step 6 Choose Terminal Control > Network configuration.
- Step 7 Select the target terminal from the terminal list.
- Step 8 Click Wi-Fi Network.

#### Figure 4-43 Network configuration

Wired Network Wi-Fi Network M	Aobile Network	Network Detection
🖲 Wi-Fi AP Mode	🔿 Wi-Fi STA Mode	
AP		
Hotspot Name	АР	
Password	••••••	
Isolate from Local Network	Enable	
	Apply	
	Read back	
	Head back	

Step 9 Select Wi-Fi-STA Mode. In the box that appears, enter the network name and password of the Wi-Fi AP.

Figure 4-44 Wireless network configuration

	Switch to Wi-Fi STA	×	
Prompt: If the terminal is currently connected via Wi-Fi AP, switching to Wi-Fi STA will disconnect the terminal.			
Network Name			
Password			
	OK Cancel		

Step 10 Click OK. The connection is successful, as shown in the figure below.

Wired Network Wi-Fi Network	Mobile Network	Network Detection
🔿 Wi-Fi AP Mode	Wi-Fi STA Mode	
Wi-Fi		•
w_c	PSK,WPA_WPA2	<b>≞</b> 🛜 []
AC85	PSK,WPA_WPA2	<b>•</b> $\widehat{\overline{\mathbf{r}}}$
Tenda_D00B60	PSK,WPA_WPA2	<b>•</b> ()
Redmi_2A94	PSK,WPA_WPA2	
AP10007625	PSK,WPA2	
TP_LINK_Android	PSK,WPA_WPA2	<b>-</b> $\widehat{\mathbf{r}}$

#### 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.
- Step 11 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.

### 4.12.3 Configuring Mobile Network

Terminals 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 Terminal Control > Network configuration.
- Step 3 Select the target terminal in the terminal list.
- Step 4 Go to Mobile Network > Physical SIM and turn on mobile network.
- Step 5 Click Model 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 terminals, select the terminals, click Add & Connect to APN, enter the required information, and click OK.

## 4.12.4 Configuring Network Detection

Terminals 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 Terminal Control > Network configuration.
- Step 2 Select the target terminal in the terminal list.
- Step 3 Click Network Detection to configure detection addresses.
  - Click Add to add an address.
  - Click do modify an address.
  - Click X to delete an address.

The default configuration cannot be modified and deleted.

Figure 4-45 Network detection

Network Detection		
The player pings the addresses below to detect the network. Add		
Address	Enable	Operate
www.novastar.tech	•	c ×
www.baidu.com		
Cloud Platform	•	

Step 4 Enable or disable detection addresses.

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

Step 5 Click Apply.

# 4.13 Server Configuration

Bind to VNNOX Standard/AD. Authentication information is required during the configuration.

How to obtain player authentication information:

Log in to VNNOX (www.vnnox.com) and choose 2 > **Player Authentication** on the homepage of the cloud platform.



## 4.13.1 Binding to VNNOX Standard/AD

You can bind a terminal to VNNOX Standard/AD.

- Step 1 Choose Terminal Control > Server configuration.
- Step 2 Select the target terminal from the terminal 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 4-46 Binding to VNNOX Standard/AD

Current screen:	Taurus-40002453	
Information Obtained On:		
Terminal Time	2022-5-17 08:49:39	
Local Time	2022-5-17 08:49:32	
Bind to VNNOX Standard/AD		
Server address	Y EC	
Authentication User Name		
Authoritication prosword		
Autoritication password		
Status	Unbound	
	Bind	

Step 4 Click Bind.

4.13.2 Viewing iCare Binding Information

#### Notes:

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

View the binding information of the current terminal.

- Step 1 Choose Terminal Control > Server configuration.
- Step 2 Select the target terminal from the terminal list.
- Step 3 In **Bind to iCare**, view the binding information of the current terminal.

### Figure 4-47 Binding information

Bind to iCare		
Server address	China ~	
User Name	nova_huixy	
Status	Bound	
	Bind	



# 4.14 Terminal 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.

#### 4.14.1 Online Upgrade

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

- Step 1 Choose Terminal Control > Terminal Upgrade.
- Step 2 Select Online Upgrade.

The system decides whether a terminal needs to be upgraded.

- Yes. The current version information and will be displayed, as shown in Figure 4-48. Go to Step 3.
- No. Only the current version information is displayed. No further operation is required.

Figure 4-48 Online upgrade

	⑦ Screen upgrade ∨ ×							
Upgra	Upgrade method Online upgrade CLocal upgrade							
Total:								
		Screen Name 🜲	Screen IP 🜲	Version	Туре	Progress		
	•	Taurus-30003289	10.10.10.149	system: T6V010209CN0201 More software: 1.2.9.0201	Т6			
	•	Taurus-30003300	10.10.10.160	system: T6V010209CN0201 More software: 1.2.9.0201	т6			
	Θ	Taurus-10000209	172.16.22.253	system: software:				

- Step 3 Click More and view the related information of the new version.
- Step 4 In the terminal information list, select one or more upgradable terminals and click **Upgrade**.

The upgrade progress is displayed.

#### 4.14.2 Local Upgrade

Use local files to upgrade terminal versions.

- Step 1 Choose Terminal Control > Terminal Upgrade.
- Step 2 Select Local Upgrade.
- Step 3 Select the upgrade package path.

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Step 4 In the terminal information list, select one or more upgradable terminals and click Upgrade.

The upgrade progress is displayed.

### 4.14.3 Flashing Firmware

Flashing firmware can roll back the terminal firmware to any version earlier than V4.6.0.

## **Prerequisites**

- terminals of V4.6.0 and later supports firmware version rollback via flashing firmware.
- The terminal and PC with ViPlex Express installed are connected via serial cable.
- The required version package is obtained.
- Make sure the terminal is connected correctly during flashing.
- Flashing firmware for the first time requires users to install the driver. See detailed operations in Step 1 to Step 2.

## **Operating Procedure**

Example: Roll back Taurus V4.6.0 to V4.5.0.

- Step 1 Ask the technical engineers for the driver installation file.
- Step 2 Unzip the installation file and double click "DriverInstall.exe" to install the driver.
- Step 3 Unzip the Taurus firmware packages of V4.6.0 and V4.5.0.
- Step 4 Copy the ".ini" configuration file in the V4.6.0 firmware package to the unzipped V4.5.0 firmware package.
- Step 5 Zip the V4.5.0 firmware package containing the ".ini" configuration file.
- Step 6 In ViPlex Express, choose Terminal Control > Terminal Upgrade.
- Step 7 Select Flashing Firmware.

Figure 4-49 Flashing firmware

① Terminal Upgrade ∨						
Upgrade Method Online upgrade To avoid device returns and repairs, plea		Local upgrade   Flashing Firmware lease keep the device powered on and do not exit the software during flas		Firmware e during flashing.		
						<u>م</u>
Screen Name 🗢	Screen IP \$	Version system: JT50V011300CN0501 software: 1.13.0.0501	Туре ЛТ50	Progress		
🛑 Taurus-39000307	192.168.1.100		T40			
🗌 🥚 Taurus-30009680	10.40.60.128		T40			
🛑 Taurus-80000011	10.40.61.238		T60			
— Taurus-10000200	10.40.60.136		Л200			
Refresh						*



- Step 8 Click . , select V4.5.0 flashing package from the folder that appears, and click **Upgrade**.
- Step 9 (Optional) After the flashing is complete, check whether the flashing in successful on the **Terminal Upgrade** page.

If the flashing is abnormal, flash the terminal firmware again with the factory flashing software.

## 4.15 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.

## 4.15.1 Configuring Power Tags

## **Application Scenarios**

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

## **Prerequisites**

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

If the terminal 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 terminal to V2.2.0 or later.

#### **Operating Procedure**

- Step 1 Choose Terminal Control > Power control.
- Step 2 Select the target terminal from the terminal 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 terminals. The default tag is Screen Power which can be customized.
  - External power: Control power supplies using relays on terminals with customized baseboards (Only
    when the TKS series terminals have customized baseboards and are installed with relays, external power
    supplies can be connected.). 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.

Step 4 Click OK.

## 4.15.2 Controlling Power Manually

- Step 1 Choose Terminal Control > Power control.
- Step 2 Select the target terminal from the terminal list.
- Step 3 Select Manual to enter the manual setting page.
- Step 4 Turn on or off the power switch.

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An example of information on the multi-function card power supply is shown in Figure 4-50.

#### Figure 4-50 Manual setting

🔵 Manual			) Scheduled
	1 2 3 4 Screen Power	Enable Enable Enable Enable Exception ?	Enable   Close Enable   Close Enable   Close Enable   Close Multi-function card(Ethernet port: 1 No.: 1) Switch 6 : Enable Switch 7 : Close Switch 8 : Close

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.

## 4.15.3 Controlling Power as Scheduled

- Step 1 Choose Terminal Control > Power control.
- Step 2 Select the target terminal from the terminal 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.

## 4.16 RF Management

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

The Taurus products that support RF management include the T3, T6, TB3, TB4, TB6, and TB8.

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

- Step 1 Choose Terminal Control > RF management.
- Step 2 Select the target terminal from the terminal list.
- Step 3 Turn on RF synchronization.
- Step 4 Set the current terminal 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.

Figure 4-51 RF	management
----------------	------------

				(•) RF management 🗸		_ □	×
•	Terminal Name Screen Name 🜩 T2-4G-playcore-4G	Screen IP 🜲	Q Group ID	Current screen: Information Obtained On: Terminal Time Local Time	Taurus-50001110 2022/5/17 2:56:11 2022/5/17 9:56:07		
•	T2-4G-Taurus-3001 TC300-20000680 Taurus-50001110 TC300-playcore-Ta	192.168.1.110 192.168.1.107 192.169.253.2 192.168.1.108		Parameter Information RF synchronization Set this terminal as Group ID	Master device     Slave device     Please enter a new group ID for the master dev     and latters are supported.		
				Apply RF synchronization to	Time synchronization Brightness Synchronization Volume Synchronization Environment monitoring data	pply	
				Synchronous Playing			
						Read back	

Step 7 Click Apply.

# 4.17 Sensor

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

When the related information of RF synchronization is displayed, as shown in Figure 4-52, it indicates that environment monitoring data synchronization is enabled on the current terminal. For related operations, see 4.16 RF Management. 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 4-52 RF synchronization- environment monitoring data

RF synchronization	Master device(Group ID: 777)	
Product Model	NovaStar	~
Select Sensor	Brightness	lux ℃

Step 1 Choose Terminal Control > Sensor.

Step 2 Select the target terminal from the terminal list.

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

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#### Step 4 Select a sensor type.

- NovaStar: Brightness, temperature
- Nenghui: Air temperature, air humidity, air pressure, wind direction, CO<sub>2</sub>, 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 4-53 Sensor types

Parameter Configuration			
Product Model	Nenghui		
Select Sensor	Air temperature	℃	
	Air humidity	%RH	
	Air pressure	kPa	
	Wind direction		
	CO2	ppm	
	Wind speed	Level	
	PM2.5	µg/m³	
	PM10	µg/m³	
	Noise	dB	
	Brightness	lux	

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

# 4.18 Screen Information

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

- Step 1 Choose Terminal Control > Screen information.
- Step 2 Select the target terminal from the terminal list.
- Step 3 View the terminal information

## Figure 4-54 Terminal information

(i) Screen information ∨								×
Term	iinal Name Screen Name 🜩 Taurus-40002453	Q Screen IP 💠 172.18.12.29	Current screen: Information Obtained On: Terminal Time Local Time	Taurus-40002453 2022/5/16 17:17:13 2022/5/16 17:15:34				
•	Taurus-30005257	172.18.179.37	Registered Address SN MAC address IP address System Version Product Model Major Software Version Advanced	BZSA17375J1B40002453 30:34:02:62:63:95 172:18:12:29 T6V030709CN0101 T6 3.7:9.0101				
						Read	l back	



# 5 VNNOX Login

At the top right of the page, click to enter VNNOX login page. VNNOX supports remote content management and terminal control.

For related operations, see VNNOX user manual.

# 6 System Settings

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

Menu	Description					
Language	Set the display language.					
Working Mode	Select working mode, including studio mode and async mode.					
RF management	Manage the playback of all terminals 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.					
	<ul> <li>Specify an FTP library version to improve the network adaptability of ViPlex Express.</li> </ul>					
	• Choose whether to remember the connection password. After <b>Remember</b> <b>Password</b> is deselected, users have to enter the password when connecting to a terminal each time.					
	• Enable or disable automatic refresh of terminal list, and set the refresh interval.					
Video Tutorials	View the instructional videos of ViPlex Express.					
Check for Updates	Check for and install new updates of ViPlex Express.					
Help	View the documentation related to the software.					
About	Display the version of ViPlex Express and the official website of NovaStar.					

Table 6-1 System settings

# 7 Audio and Video Decoder Specifications

# 7.1 Image

Туре	Codec		Type Codec		Supported Image Size	Container	Remarks
JPEG	JFIF file 1.02	format	48×48 pixels~8176×8176 pixels	JPG, JPEG	Not Support Non-interleaved Scan Software support SRGB JPEG Software support Adobe RGB JPEG		



Туре	Codec	Supported Image Size	Container	Remarks
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

# 7.2 Audio

Туре	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~48K Hz	MP1, MP2, MP3	N/A
Windows Media Audio	WMA Version 4, 4.1, 7, 8, 9, wmapro	2	8kbps~320Kbps	8KHZ~48K Hz	WMA	Non-support WMA Pro, lossless and MBR
WAV	MS-ADPCM, IMA-ADPCM, PCM	2	N/A	8KHZ~48K Hz	WAV	Support 4bit MS-ADPCM, IMA-ADPCM
OGG	Q1~Q10	2	N/A	8KHZ~48K Hz	OGG, OGA	N/A
FLAC	Compress Level 0~8	2	N/A	8KHZ~48K Hz	FLAC	N/A
AAC	ADIF, ATDS Header AAC-LC and AAC-HE, AAC-ELD	5.1	N/A	8KHZ~48K Hz	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

# 7.3 Video

Туре	Codec	Supported Image Size	Maximum Frame Rate	Maximum Bit Rate (Ideal Case)	File Format	Remarks
MPEG- 1/2	MPEG- 1/2	48×48 pixels~1920×1080 pixels	30fps	80Mbps	DAT, MPG, VOB, TS	Support Field Coding
MPEG- 4	MPEG4	48×48 pixels~1920×1080 pixels	30fps	38.4Mbps	AVI, MKV, MP4, MOV, 3GP	Not support MS MPEG4 v1/v2/v3, GMC, DivX3/4/5/6/7 /10
H.264/ AVC	H.264	T3&T6&TB3&TB4& TB6&TB8: 48×48 pixels~4096×2304	T3&T6&TB3&TB 4&TB6&TB8: 4K@25fps,	T3&T6&TB3&TB 4&TB6&TB8: 100Mbps	AVI, MKV, MP4, MOV, 3GP, TS, FLV	Support Field Coding, MBAFF



Туре	Codec	Supported Image Size	Maximum Frame Rate	Maximum Bit Rate (Ideal Case)	File Format	Remarks
		pixels Other models: 48×48 pixels~1920×1080 pixels	1080P@60fps Other models: 1080P@60fps	Other models: 57.2Mbps		
MVC	H.264 MVC	48×48 pixels~1920×1080 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~1920×1080 pixels	T3&T6&TB3&TB 4&TB6&TB8: 4K@60fps, 1080P@60fps Other models: 1080P@60fps	T3&T6&TB3&TB 4&TB6&TB8: 100Mbps Other models: 57.2Mbps	MKV, MP4, MOV, TS	Support Main Profile, Tile & Slice
GOOG LE VP8	VP8	48×48 30fps pixels~1920×1080 pixels		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 30fps pixels~1920×1080 pixels		45Mbps	WMV, ASF, TS, MKV, AVI	N/A
MOTIO N JPEG	MJPEG	48×48 pixels~1920×1080 pixels	30fps	38.4Mbps	AVI	N/A

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

# 8 Limitations on Cut-to-Display Windows for Regular Screens

Product	TB4, TB6, TB8	TB1-4G (Optional 4G), TB2-4G (Optional 4G)			
Recommended screen resolution (width × height)	4096 × 288 pixels	1920 × 1080 pixels			
Number of parts	Cut horizontally: Actual screen width/Playback window width ≤8 Cut vertically: Actual screen height/Playback window height ≤8				

# 9 Limitations on Playback Parameters for Ultra-long Screens

	TB10	Pixel capacity up to 650,000 Maximum pixel width: 23,040 Maximum pixel height: 4096
Maximum Pixel Width/Height	ТВ30	Pixel capacity up to 650,000 Maximum pixel width: 23,040 Maximum pixel height: 4096
	TB40/TB50	Pixel capacity up to 1,300,000 Maximum pixel width: 23,040

Table 9-1 Ultra-long-screen-solution playback parameter description

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		Maximum pixel height: 4096					
	TB60	Pixel capacity up to 2,300,000					
		Maximum pixel width: 23,040					
		Maximum pixel height: 4096					
Minimum Solution Resolution		3841					
Maximum Image Res	solution and Quantity	Up to 10 images can be displayed simultaneously when the resolution lower than 1080p.					
		Up to 2 images can be displayed simultaneously when the resolution higher than 2K and lower than 4K.					
Maximum Video Res	solution and Quantity	Resolution: No restrictions					
		Quantity: 1 (You are advised to set the video resolution according to the screen resolution.)					
Maximum Pixel Widt	th of Text	Text sharpening enabled					
		<ul> <li>Maximum pixel width: 23040</li> </ul>					
		<ul> <li>Maximum number of characters: 3000</li> </ul>					
		Text sharpening disabled					
		<ul> <li>Maximum pixel width: 16384</li> </ul>					
		Maximum number of characters: Table 9-2					
General Window Quantity		1					
Supported Image ViPlex Express		JPG, JEPG, BMP, GIF, PNG, WEBP					
ronnats	VNNOX Standard	JPG, PNG, ICO, JPEG, BMP, GIF					
Supported Video Formats		MP4, FLV					

Table 9-2 Scrolling text limitations

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

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