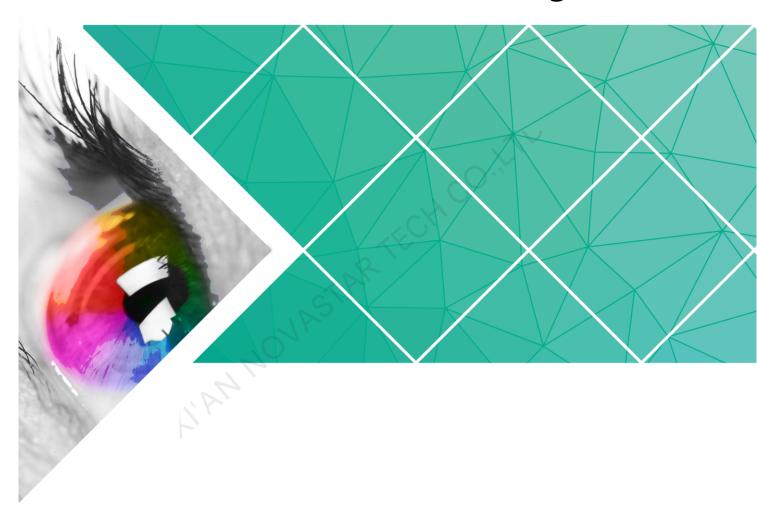


VNNOX

Cloud-Based Publishing Service



Quick Start Guide

Product Version: V7.8.0

Document Number: NS170100282

Copyright © 2019 Xi'an NovaStar Tech Co., Ltd. All Rights Reserved.

No part of this document may be copied, reproduced, extracted or transmitted in any form or by any means without the prior written consent of Xi'an NovaStar Tech Co., Ltd.

Trademark



is a trademark of Xi'an NovaStar Tech Co., Ltd.

Statement

You are welcome to use the product of Xi'an NovaStar Tech Co., Ltd. (hereinafter referred to as NovaStar). This document is intended to help you understand and use the product. For accuracy and reliability, NovaStar may make improvements and/or changes to this document at any time and without notice. If you experience any problems in use or have any suggestions, please contact us via contact info given in document. We will do our best to solve any issues, as well as evaluate and implement any suggestions.

Contents

Contents	ii
1 About This Document	1
2 Installing Required Software	3
2.1 Installing VNNOX Player	3
2.2 Installing ViPlex	
2.2.1 Installing ViPlex Handy (Android and iOS)	3
2.2.2 Installing ViPlex Express (Windows)	4
3 Registering and Logging in to VNNOX	5
3.1 Registering an Account	
3.2 Logging in to VNNOX	5
4 Publishing Solutions with VNNOX Lite	7
4.1 Setting Player Authentication Information	7
4.2 Creating Players	
4.2.1 Creating Players with VNNOX Player	7
4.2.2 Creating Players with ViPlex	8
4.3 Adding Media	10
4.4 Creating Solutions	11
4.5 Publishing Solutions	13
4.6 (Optional) Other Operations	13
4.6.1 Authorizing Players	13
4.6.2 Upgrading Terminal Players	14
4.6.3 Remote Real-Time Control	14
4.6.4 Syncing Time	15
4.6.5 Viewing Remote Control Logs	15
5 Publishing Solutions with VNNOX Pro	17
5.1 Editing Solutions	17
5.1.1 Adding Media	17
5.1.2 Creating Playlists	20
5.1.3 Creating Solutions	21
5.2 Creating Players	24
5.3 Setting Player Authentication Information	25
5.4 Binding Players	25
5.4.1 Binding Players with VNNOX Player	25

5.4.2 Binding Players with ViPlex	. 26
5.5 Publishing Solutions	. 29
5.6 (Optional) Other Operations	. 29

AN MOVASTAR TECHCO.

www.novastar.tech iii

About This Document

VNNOX is a secure cloud-based publishing service launched by NovaStar to implement remote LED display content management and terminal control.

VNNOX includes VNNOX Lite and VNNOX Pro. After successful registration, users can access both VNNOX Lite and VNNOX Pro.

This document is intended to help users to quickly get started with VNNOX Lite and VNNOX Pro for remote publishing. Below is an introduction of some basic concepts.

Remote Publishing

Remote publishing enables users to publish solutions associated with players to remote terminal players via Internet. The solutions will be downloaded and played by terminal players as scheduled.

Remote Control

Remote control enables users to perform real-time or scheduled operations such as restarting displays. Scheduled control can be implemented by sending remote control plans.

Players

Players include synchronous players and asynchronous players, which can be associated with solutions and remote control plans.

Players in VNNOX Lite are created automatically when users bind terminal players to players and the players can be transferred to VNNOX Pro after authorization.

Players in VNNOX Pro can be created manually in the player list and can be used after associated with licenses.

Terminal Players

Solutions can be downloaded and played by terminal players as scheduled.

VNNOX Player is a software application for Windows and can be used as a terminal player on PC.

Taurus series multimedia players are hardware products based on Android and can be used as the terminal players of the asynchronous system.

Player Binding

Player binding is also called terminal binding.

Binding terminal players to players enables users to publish solutions and control displays remotely. Only one player can be bound to a terminal player.

- Synchronous players: Bound to VNNOX Player
- Asynchronous players: Bound to Taurus with ViPlex

ViPlex includes ViPlex Handy (Android and iOS) and ViPlex Express (Windows).

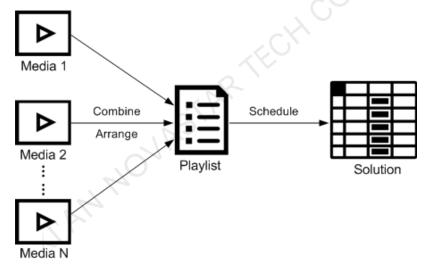
Solutions

VNNOX Lite allows users to edit and publish simple solutions. A solution can be created by adding media and then editing the solution page.

VNNOX Pro allows users to edit and publish complex solutions. After users add media, add the media to playlists and schedule the playlists, a solution is created.

The relationship between the media, playlist and solution is shown in Figure 1-1.

Figure 1-1 Media management



2 Installing Required Software

2.1 Installing VNNOX Player

Before You Begin

- Visit www.en.vnnox.com/#downloadSyn to download the VNNOX Player installation program.
- Make sure the antivirus software is stopped.
- Make sure the .NET Framework V4.0 or above is installed.

Installing Software

The installation of VNNOX Player is the same as other Windows applications.

2.2 Installing ViPlex

ViPlex includes ViPlex Handy and ViPlex Express.

2.2.1 Installing ViPlex Handy (Android and iOS)

Downloading Installation Package

Android:

https://play.google.com/store/apps/details?id=nova.priv.hand.easypluto.google

iOS:

https://itunes.apple.com/us/app/viplexhandy/id1241302188?l=zh&ls=1&mt=8

Installing Software

The installation of the ViPlex Handy is the same as other applications.

2.2.2 Installing ViPlex Express (Windows)

Downloading Installation Package

www.en.vnnox.com/#downloadT

Installing Software

The installation of the ViPlex Express is the same as other Windows applications.

3

Registering and Logging in to VNNOX

3.1 Registering an Account

- Step 1 Visit www.en.vnnox.com and click **Register** at the top right of the page.
- Step 2 Select the server node and click OK.
- Step 3 Enter the information required for the registration.

Registering by email is the default way of registration. Click **By Phone** to switch to the page for registering by phone.

Step 4 Click Register.

After successful registration, users can log in to VNNOX Lite and VNNOX Pro. In VNNOX Pro, the default role of the user is system administrator which has all the permissions. The default workgroup of the user is system workgroup that can manage all the resources. The default role and workgroup cannot be changed. VNNOX automatically distributes five free licenses to the user. The validity period of each license is one month.

3.2 Logging in to VNNOX

A registered user (system administrator) can create multiple sub-users.

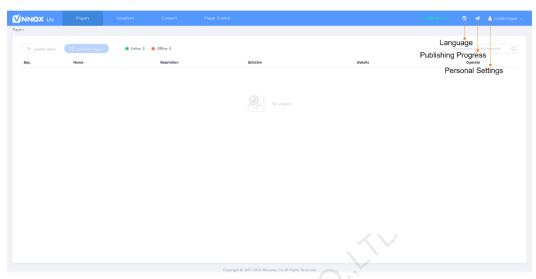
- The system administrator logs in to VNNOX Lite by default at the first login.
 Clicking VNNOX Pro can switch to VNNOX Pro.
- Sub-users log in to VNNOX Pro every time by default and cannot switch to VNNOX Lite.
- Any user will log in to the system (VNNOX Pro/VNNOX Lite) of last login by default after logging out of VNNOX.

Below are the steps for registered users to first log in to VNNOX.

- Step 1 Visit www.en.vnnox.com and click **Login** at the top right of the page.
- Step 2 Select the server node and click OK.
- Step 3 Enter the account name and password, then click **Login**.

New users will log in to VNNOX Lite by default. A guide assistant is displayed helping users to learn about the basic features of VNNOX Lite.

Figure 3-1 Home page of VNNOX Lite



- Step 4 (Optional) Perform the following operations if you want to access VNNOX Pro.
 - Click VNNOX Pro.
 A feature introduction of VNNOX Lite and VNNOX Pro is displayed by default.
 - 2. Click **Try Now** to enter the home page of VNNOX Pro.

Figure 3-2 Home page of VNNOX Pro



4 Publishing Solutions with VNNOX Lite

4.1 Setting Player Authentication Information

Related Information

After successful registration, VNNOX generates the default authentication information. To prevent terminal players from accessing VNNOX illegally, we suggest modifying the default authentication information.

Operating Steps

- Step 1 In VNNOX Lite, choose > Account.
- Step 2 Click Modify next to Certified password.
- Step 3 Set a new password and click **OK**.
- Step 4 Record the Server address, Certified user name and Certified password.

4.2 Creating Players

Players in VNNOX Lite are created automatically when users bind terminal players to players.

After the players are successfully created, the information of the players will be displayed on the **Players** page of VNNOX Lite. Users can perform the following operations:

- Update player status
- Authorize players
- Rename players
- Upgrade terminal players
- Delete plavers

See detailed introduction of authorizing players and upgrading terminal players in 4.6.1 Authorizing Players and 4.6.2 Upgrading Terminal Players.

4.2.1 Creating Players with VNNOX Player

Step 1 Open VNNOX Player, as shown in Figure 4-1.

Figure 4-1 The Config tab



- Step 2 Click the drop-down arrow on the right of **Server Address** in the **Config** tab and select **New**.
- Step 3 Enter the server name and address in the **New** dialog box and then click **OK**. The **Server Address** must be the same as the server address in VNNOX.
- Step 4 Enter certified user name and password which must be the same as the user name and password in VNNOX.
- Step 5 Click **Get** and then click **OK** to close the prompt box. **Bind and create player** will be displayed in the drop-down options.
- Step 6 Click OK.

The server connection is successful is shown in the bottom left corner of the page.

4.2.2 Creating Players with ViPlex

4.2.2.1 ViPlex Handy (Android and iOS)

Before You Begin

- Get the SSID and password of WiFi AP of the Taurus. The default SSID is "AP+the last 8 digits". The default password is "12345678".
- Get the password of the user "admin". The default password of the user "admin" is "123456".
- Connect the Taurus to Internet.

Operating Steps

The ViPlex Handy can connect any number of the Taurus products.

Step 1 Connect to the WiFi AP of the Taurus products.

Step 2 Start ViPlex Handy.

System can automatically detect the Taurus series products and refresh **Screen list**. Users can also slide down **Screen list** to manually refresh the list.

- Denotes that Taurus is online and you can log into it.
- Denotes that Taurus is offline and you cannot log into it.
- Denotes that Taurus login is successful.
- Step 3 Click Connect next to the screen name.
- Step 4 Enter username and password, and click Login.
- Step 5 Click a screen name to enter the **Screen management** page.
- Step 6 Select Remote Management > Player Binding.



- Step 7 Select the VNNOX server and enter the certified user name and password of the player. The information must be the same as the information in VNNOX.
- Step 8 Click **Obtain** and then click **OK** to close the prompt box. **Bind and create player** will be displayed in the drop-down options.
- Step 9 Click OK.

4.2.2.2 ViPlex Express (Windows)

Before You Begin

- Get the SSID and password of WiFi AP of the Taurus. The default SSID is "AP+the last 8 digits". The default password is "12345678".
- Get the password of the user "admin". The default password of the user "admin" is "123456".
- Connect the Taurus to Internet.

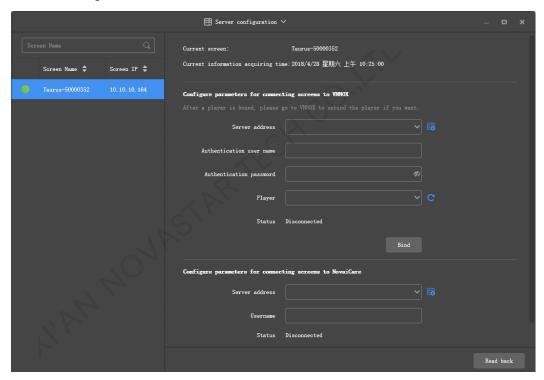
Operating Steps

ViPlex Express can connect any number of the Taurus products.

- Step 1 Connect to the WiFi AP of the Taurus products.
- Step 2 Start ViPlex Express.
- Step 3 Click Refresh.
 - Denotes the Taurus is online and you can log into it.
 - Denotes the Taurus is offline and you cannot log into it.
 - Denotes logging into the Taurus is successful.

After the Taurus is found by ViPlex Express, the ViPlex express will try to log into to the Taurus with the default account or the account used for last login.

- Step 4 Logging in Taurus is successful or not.
 - Yes. appears and then perform Step 7.
 - No. appears and then perform Step 5.
- Step 5 Click **Connect** on the right of the screen information.
- Step 6 Enter user name and password, and click **OK**.
- Step 7 Select Screen Control.
- Step 8 Click Server configuration.
- Step 9 Select the target terminal in the terminal list.



- Step 10 Select the VNNOX server and enter the certified user name and password of the player. The information must be the same as the information in VNNOX.
- Step 11 Click next to Player and select Bind to VNNOX Lite from the drop-down list.
- Step 12 Click Bind.

4.3 Adding Media

Related Information

The media types supported by VNNOX Lite are shown in Table 4-1. The total media storage space is 5 GB.

Table 4 1 Wedia types supported by VIII ex Lite			
Media Type	VNNOX Player	Taurus	
Image	JPG, PNG, ICO, BMP, GIF, JPEG	JPG, PNG, ICO, BMP, GIF, JPEG	
Video	Video container formats: MP4, AVI, RMVB, FLV, MKV, WMV, MOV	Video container formats: MP4, AVI, FLV, WMV, MOV	
Audio	Currently not supported.	MP3 Note: Audio files can be used as the background audio of text widgets only.	

Table 4-1 Media types supported by VNNOX Lite

Operating Steps

- Step 1 On the homepage of VNNOX Lite, choose **Content**.
- Step 2 Click Add media.
- Step 3 Select and open the media.

4.4 Creating Solutions

- Step 1 On the homepage of VNNOX Lite, choose **Solutions**.
- Step 2 Click New.
- Step 3 Set the name and resolution of the solution and click **OK**. Solution editing page will displayed, as shown in Figure 4-2. The introduction of the editing page is detailed in Table 4-2.

Figure 4-2 Solution editing page

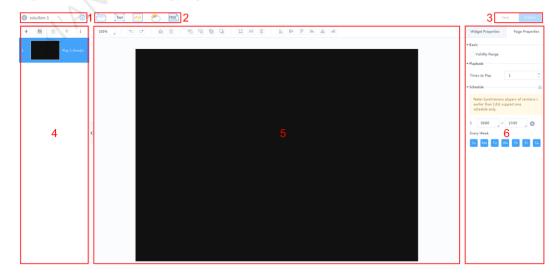


Table 4-2 Introduction of the solution editing page

No.	Function	Description
1	Basic	View or change the solution name and set the

		4 Fublishing Solutions with VNNOX Lite
No.	Function	Description
	information settings	resolution.
2	Adding media	Add media. • Text: Add a file. • Text: Add a text widget. • Add a digital clock widget. • Add a weather widget. • Add a weather widget.
3	Saving and publishing solutions	Save and publish solutions.
4	Editing solution pages	Add, copy and delete pages as well as adjust the order of pages. Pages are played according to the page order from top to bottom.
5	Editing page media	Zoom in or out pages, delete media, and adjust media layer and layout. Batch operations are supported. A text widget can be added by double clicking the blank. Users are allowed to copy media (including properties) from other pages and paste the media on the current page. • 100% : Customize zoom percentage • : Undo your last action. You can undo at most 5 steps. • : Redo your last action. You can redo at most 5 steps. • : Clear • : Delete • : Bring forward • : Send backward • : Send to back

No.	Function	Description
		: Auto fit : Fill horizontally : Fill vertically : Align bottom : Center vertically : Align top : Align left : Center horizontally : Align right
6	Editing properties	Edit the properties of widgets and pages. Widgets refer to the media on pages. Select a widget before you edit it.
After the solution is edited, click Save .		

Step 4 After the solution is edited, click Save.

4.5 Publishing Solutions

After a solution is edited, click **Publish** to publish it. In other situations, you can perform the following operations to publish a solution.

- Step 1 On the homepage of VNNOX Lite, choose Solutions.
- Step 2 Click of a corresponding solution.
- Step 3 Select one or multiple players and click **OK**.
- Step 4 Perform any of the following operations to view the publishing progress and result.
 - Choose Players and view the Solution column.
 - At the top right of the page, click The number on denotes the number of players which are publishing solutions, for example,

4.6 (Optional) Other Operations

4.6.1 Authorizing Players

Users can transfer players to VNNOX Pro by authorization.

- Step 1 On the homepage of VNNOX Lite, choose Players.
- Step 2 Click Authorize Player.
- Step 3 Select the players to be authorized.
- Step 4 Enter your contact information.

- Step 5 Choose to accept the agreements.
- Step 6 Click Confirm.
 - If there are available licenses in VNNOX Pro, the system will automatically associate the players with the licenses.
 - If there are no available licenses in VNNOX Pro, we will contact you for the payment within 2 working days.

4.6.2 Upgrading Terminal Players

Users can upgrade the software versions of terminal players.

- Step 1 On the homepage of VNNOX Lite, choose Players.
- Step 2 Click 4.
 - is displayed when the software is the latest or is being upgraded.
- Step 3 Click OK.
- Step 4 In the **Details** column, view the upgrade progress.
- Step 5 View the software version after the upgrade is done.
 - Synchronous player: The version of VNNOX Player is displayed.
 - Asynchronous player: The software version of Taurus is displayed.
 - Software: Displays the versions of the Android application and FPGA program.
 - System: Displays the version of the Android OS.

4.6.3 Remote Real-Time Control

Users can remotely control screen brightness, volume, video source, screen status, power and synchronous playback in real time and can restart terminal players.

- Step 1 On the homepage of VNNOX Lite, choose **Player Control**.
- Step 2 Click an icon to enter the corresponding page.

Table 4-3 Description of real-time control

Function	Description	
Brightness	Adjust screen brightness.	
Volume	Adjust screen volume.	
Video source	Switch between internal video source and HDMI video source.	
Restart	Restart terminal players which takes about 20 seconds. The player is offline while being restarted.	
Screen status	Switch between normal display and black screen.	
Power	Turn on or off screen power.	
Synchronous playback	Turn on or off synchronous playback.	

Step 3 On the left of the page, select the target online players.

- To restart players, click **Restart Now**.
- For other functions, set the parameters and click Apply.

4.6.4 Syncing Time

Users can sync the time of terminal players via the time synchronization function.

- Step 1 On the homepage of VNNOX Lite, choose Player Control.
- Step 2 Click Time Synchronization.
- Step 3 On the left of the page, select the online players that require time synchronization.
- Step 4 Select a time synchronization method as required and configure the relevant parameters.

Table 4-4 Description of time synchronization methods

Method	Applicable To	Time Reference	Description
Manual	Taurus	Time of the selected time zone	After you select a time zone, the new time will be displayed.
NTP	VNNOX Player Taurus	Time of NTP server	Click to add a custom server.
RF (Radio Frequenc	Taurus	Time of the reference	You need to buy and install RF devices before time synchronization.
y)	y) device	Group ID: Set a same group ID for multiple Taurus units and these units belong to the same group.	
184	Set as reference device: Sync the time of other devices in a group with the time of the reference device.		
			NTP: When NTP is turned on, the time of the reference device will be synchronized with the time of NTP server. When NTP is turned off, the time of the reference device will be synchronized with the time of the selected time zone.

Step 5 Click Apply.

4.6.5 Viewing Remote Control Logs

Users can view the logs of remote control command execution of terminal players.

- Step 1 In VNNOX Lite, choose **Logs** > **Remote Control Logs**.
- Step 2 Click Please select to select one or more players.
- Step 3 Select a control command type.
- Step 4 (Optional) Click Advanced Search to set more search criteria.

Step 5 Click Search.

AI AM MOVASTAR TECHLOO.LITE

5

Publishing Solutions with VNNOX Pro

5.1 Editing Solutions

5.1.1 Adding Media

5.1.1.1 Adding Images, Videos, Audios and Documents

The types of images, videos, audios and documents supported by VNNOX Pro are shown as Table 5-1.

Table 5-1 Supported types of media that can be uploaded by VNNOX Pro

Media Type	VNNOX Player	Taurus
Image	JPG, PNG, ICO, BMP, GIF, JPEG	JPG, PNG, ICO, BMP, GIF, JPEG
Video	Video container format: MP4, AVI, RMVB, FLV, MKV, WMV, MOV	Video container format: MP4, AVI, FLV, WMV, MOV
Audio	Currently not supported.	MP3 Note: Audio files can be used as the background audio of text widgets only.
Document	Word, Excel, PPT, PDF	

- Step 1 In VNNOX Pro, choose \longrightarrow > Media Management > Media.
- Step 2 Click Add and select Upload File.
- Step 3 Click Choose file.
- Step 4 Select the images, videos, audios and documents to be uploaded, then click Open.
- Step 5 (Optional) Specify the categories of the media. The media can be quickly found by the filter according to the categories.
- Step 6 Click **OK**. After a message appears notifying that media files have been uploaded successfully, the added media will be displayed in the media list.

- Step 7 Click the name of the media to enter the **Basic Info** tab of the media attribute page.
- Step 8 Set the validity of the images, videos, audios and documents. Expired media cannot be played. When the media type is document, you also need to set the duration and effect of each page of the document.
- Step 9 Click Save&Close.

5.1.1.2 Adding Webpages

- Step 1 In VNNOX Pro, choose \(\frac{1}{4}\) > Media Management > Media.
- Step 2 Click Add and select Webpage from the drop-down options.
- Step 3 Name the webpage and enter the address of the webpage.
- Step 4 (Optional) Specify the categories of the media. The media can be quickly found by the filter according to the categories.
- Step 5 Click **OK** and enter the **Basic Info** tab of the webpage attribute page.
- Step 6 Set the validity of the webpage. Expired media cannot be played.
- Step 7 Click **Save&Close**. After the operation is successful, the added webpage will be displayed in the media list.

5.1.1.3 Adding RSS

- Step 1 In VNNOX Pro, choose 🖶 > Media Management > Media.
- Step 2 Click Add and select RSS from the drop-down options.
- Step 3 Name the RSS and enter the address of the RSS.
- Step 4 (Optional) Specify the categories of the media. The media can be quickly found by the filter according the categories of the media.
- Step 5 Click **OK**. The **Basic Info** tab of the RSS attribute page appears.
- Step 6 Set the validity and refresh period of the RSS. Expired media cannot be played. The subscriptions will be refreshed automatically based on the refresh period.
- Step 7 Click **Save&Close**. After the operation is successful, the added RSS will be displayed in the media list.

5.1.1.4 Adding Pages

A page includes one or more media and widgets. When added to page, media's attributes will conform to page attributes.

- Step 1 In VNNOX Pro, choose -> Media Management > Media.
- Step 2 Click Add and select Page in the drop-down options.
- Step 3 Enter a name for the page and set its categories, and click **Next**.
- Step 4 Select a page template and click **OK**. Then the **Edit** page appears, as shown in Figure 5-1. Description of the **Edit** page is shown in Table 5-2.

Figure 5-1 The Edit page

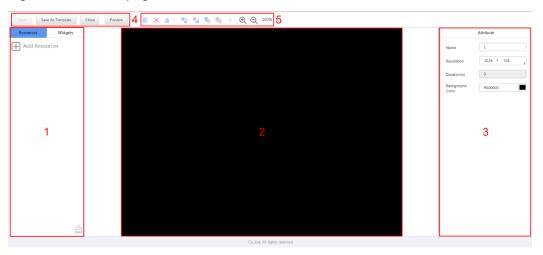


Table 5-2 Description of the Edit page

No.	Function	Description
1	Resources and widgets	• Resources: Add media to the resource list. Click do to clear the resource list.
		 Widgets: Show all the widgets provided by the system, including small containers, weather, analog clock, digital clock, calendar, syntext, temperature and humidity. Media and other widgets can be added into the small container.
2	Editing the page	Edit contents of the page, including media and widgets.
3	Editing attributes	Click and select the media and widgets in the page editing area to edit their relevant attributes.
4	Common buttons	Save, close and preview pages, and save pages as templates.
		In a text widget that is added with audio media, text can be previewed. Currently, audio cannot be previewed.
5	Icon buttons	From left to right, meanings of the icons are as follows:
		● 🗐: Copy an object
		• X: Delete an object
		• 📥 : Clear objects
		● 🛂: Bring forward
		• 📲: Send backward
		■: Bring to front
		● [■] : Send to back
		● ⊕: Zoom in
		• Q: Zoom out
		All the operation objects of the above buttons are the media and widgets in the page editing area. Click and

No.	Function	Description
		select an object before operating.

- Step 5 (Optional) Click **Add Resources** in the **Resources** tab on the left. Select one or more media in the pop-up dialog box and click **OK**.
- Step 6 Drag the media or widgets in the left side of the page to the editing area.
- Step 7 Click and select one media or widget to edit the attributes and adjust the layout.
- Step 8 Click **Save** after the attributes and layout of all the contents in the page are edited.
- Step 9 (Optional) Click Save As Template to save the page as a template.
- Step 10 Click **Close**. After the operation is successful, the added page will be displayed in the media list.

5.1.1.5 Adding Streaming Media

The Streaming Media formats supported by VNNOX are shown as Table 5-3.

Table 5-3 Streaming Media formats

Media Type	VNNOX Player	Taurus
Streaming Media	 HLS, RTMP: Can be previewed online and played. RTSP: Can be played but cannot be previewed online. 	 HLS, RTMP: Can be previewed online and played. RTSP: Can be played but cannot be previewed online.

- Step 1 In VNNOX Pro, choose -> Media Management > Media.
- Step 2 Click **Add** and select **Streaming Media** from the drop-down options.
- Step 3 Name the Streaming Media and enter the address of the webpage.
- Step 4 (Optional) Specify the categories of the media. The media can be quickly found by the filter according to the categories.
- Step 5 Click **OK** and enter the **Basic Info** tab of the Streaming Media attribute page.
- Step 6 Set the validity of the Streaming Media. Expired media cannot be played.
- Step 7 Click **Save&Close**. After the operation is successful, the added webpage will be displayed in the media list.

5.1.2 Creating Playlists

- Step 1 In VNNOX Pro, choose -> Media Management > Playlists.
- Step 2 Click New.
- Step 3 Name the playlist.
- Step 4 (Optional) Specify the categories of the playlist. The playlist can be quickly found by the filter according to its categories.
- Step 5 Click **OK**. The **Media Item** tab of the playlist attribute page appears.
- Step 6 Select the **Basic Info** tab to set the following parameters.

- Default image duration time: Set the default play duration of images. The value of this parameter is the play duration while adding images in the **Media Item** tab.
- Default web/RSS duration time: Set the default play duration of webpages and RSS. The value of this parameter is the play duration while adding webpages and RSS in the **Media Item** tab.
- Default Streaming media duration time: Set the default play duration of streaming media. The value of this parameter is the play duration while adding streaming media in the **Media Item** tab.
- Entrance effect: Set the default entrance effects of static images.
- Entrance effect duration: Set the default entrance effect duration of static images. If the duration of a static image is 30 seconds and the duration of entrance effect is set to 10 seconds, the static image will played for 20 seconds after the entrance.
- Step 7 Select the Media Item tab to add media or sub-playlists.
 - Click Add media to select one or more media, and then click OK.
 - Click Add sub-playlist to select one or more sub-playlists, and then click OK.
- Step 8 Select one media and click **Attribute**, or select more media and click **Bulk edit**. Set the duration and play plan, and then click **OK**. If no media is in the playlist, skip this step.
 - Item duration time: Set the duration time of images, webpages, RSS and streaming media. For videos, pages, and documents, this parameter cannot be modified.
 - Valid range: When this parameter is set to **Yes**, you can set the validity of the media item. The valid range is valid in current playlist only.
 - Time solution: Specify the play plan of the media item. The time solution is valid in current playlist only.

Step 9 Click Save&Close.

5.1.3 Creating Solutions

- Step 1 In VNNOX Pro, choose > Media Management > Solution.
- Step 2 Click New.
- Step 3 Enter a name for the solution and set its categories, and click Next.
- Step 4 Select a frame template and click **OK**. The **Solution Settings** tab of the frame template attribute page and the **week** timetable will appear. An example of a solution with only one frameset is shown in Figure 5-2. Description of the page is shown in Table 5-4. If the solution has more framesets, it is required to schedule each of the framesets respectively.

| The column | Solution Settings | The column | Solution | Solution Settings | The column | Solution | Solutio

Figure 5-2 The Solution Settings tab

Table 5-4 Description of the Solution Settings tab

No.	Function	Description
1	Schedule buttons	 Create: Click this button, and the Create dialog box appears. Edit: Select a schedule in the timetable and click this button. Then the Edit dialog box appears.
		 this button. Then the Edit dialog box appears. Delete: Select a schedule in the time table and click this button to delete the schedule. Clear: Click this button to clear schedules.
2	Data huttana	
2	Date buttons	Day: Show the timetable in day view.Week: Show the timetable in week view.
	103	Month: Show the timetable in week view.
	74	Schedule: List all schedules and the media contained in each schedule.
3	Common buttons	Save: Save configuration.
		Reset: Restore configuration.
		 Save&Close: Save configuration and close the attribute page.
4	Date switching buttons	Switch to a previous date by day, week or month.
		• : Switch to a subsequent date by day, week or month.
		Today: Switch the timetable to current day.
		This Week: Switch the timetable to current week.
		• This Month: Switch the timetable to current month.
5	Schedules	The default way to display timetable is by week.

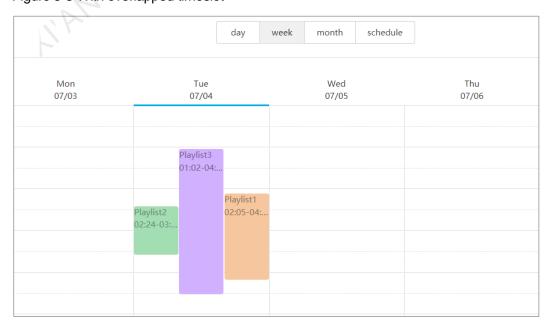
Step 5 Click **day**, **week** or **month** to enter relevant timetables. Perform any of the following operations to create the solution.

- Click Create.
- Click a cell in the timetable and click . Each cell of the timetable in day and week views stands for one hour, while in month view each cell stands for one day.
- Step 6 Select a playlist in the Playlist tab of the Create dialog.
- Step 7 Select the **Play plan** tab and set play duration and date or play duration and period.
 - When the Repeat is set to Not repeating, the solution can be played normally according to the plan if the date is set to the current day or after 7 days. The solution will not be played if the date is set to other days.
 - If the Repeat is set to Every day, Weekly, Per month or Per year, the solution will be played repeatedly according to the period you set.
- Step 8 Select the **Option** tab and set the schedule color displayed in the timetable.
- Step 9 After the configuration is completed, click **OK**. The schedule is graphically displayed in the timetable.

For the timetable in **day** and **week** views, the schedules will be displayed side by side in the timetable if the schedules have overlapped timeslot. In Figure 5-3, three schedules in the **week** timetable are taken as an example. VNNOX supports following operations on the schedules:

- Drag the top and bottom edges of a schedule to modify its timeslot.
- Drag a schedule to any position of the date when the schedule will be played to modify the timeslot.
- Drag the schedules to modify the playback priority order during the overlapped timeslot, for example, the priority order of the three playlists in Figure 5-3 is: Playlist3 > Playlist2 > Playlist3. After the playback of Playlist2 is over, Playlist3 will be played from the beginning. Playlist1 will not be played.
- Double click a schedule and the **Edit** dialog box appears.

Figure 5-3 With overlapped timeslot



Drag the three schedules in Figure 5-3 until they don't have overlapped timeslots. Then the schedules is displayed as the Figure 5-4.

Figure 5-4 Without overlapped timeslot

5.2 Creating Players

Related Information

Players include following two types:

- Synchronous players: Bound to VNNOX Player
- Asynchronous players: Bound to Taurus with ViPlex

Operating Steps

- Step 1 Choose -> Players Management > Players at the page of VNNOX Pro.
- Step 2 Click New.
- Step 3 Choose synchronous player or asynchronous player and click **Next**.
- Step 4 Enter a name for the player, associate a license, set the solution distribution type and the categories of the player, and click **OK**. The **Basic Info** tab of player attribute page will appear.

The available licenses are displayed in the drop-down options of **Associated license**. The associated and expired licenses are not displayed. After successful association, the license number and validity will be displayed in the **Player License** of the player list.

The meanings of distribution types are shown as follows:

- Manual: After a solution is bound to players or modified, users need to click
 Update solution in the player list page to distribute the solution manually.
- Auto: After a solution is bound to players or modified, VNNOX will distribute the solution automatically without any operation.

5.3 Setting Player Authentication Information

Related Information

After successful registration, VNNOX generates the default authentication information. To prevent terminal players accessing VNNOX illegally, we suggest modifying the default authentication information.

Operating Steps

- Step 1 Choose -> Organization Management > System Management at the page of VNNOX Pro.
- Step 2 Select the Player Authentication tab.
- Step 3 Set certified user name and password, then click Save.
- Step 4 Record the Server address, Certified user name and Certified password.

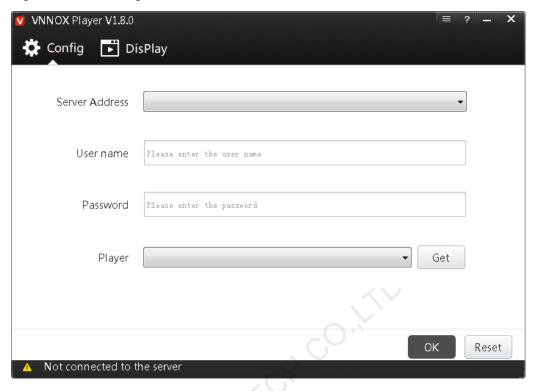
5.4 Binding Players

One terminal player can bind one player only.

5.4.1 Binding Players with VNNOX Player

Step 1 Open VNNOX Player, as shown in Figure 5-5.

Figure 5-5 The Config tab



- Step 2 Click the drop-down arrow on the right of **Server Address** in the **Config** tab and select **New**.
- Step 3 Enter the server name and address in the **New** dialog box and then click **OK**. The **Server Address** must be the same as the server address in VNNOX.
- Step 4 Enter certified user name and password which must be the same as the user name and password in VNNOX.
- Step 5 Click **Get** on the right of **Player** to get the player list.
- Step 6 Click the drop-down arrow on the right of **Player** to select a player and then click **OK**.
- Step 7 Click **OK** in the pop-up prompt box which reminds that the player is bound successfully.

• The server connection is successful is shown in the bottom left corner of the page.

5.4.2 Binding Players with ViPlex

5.4.2.1 ViPlex Handy (Android and iOS)

Before You Begin

- Get the SSID and password of WiFi AP of the Taurus. The default SSID is "AP+the last 8 digits". The default password is "12345678".
- Get the password of the user "admin". The default password of the user "admin" is "123456".
- Connect the Taurus to Internet.

Operating Steps

The ViPlex Handy can connect any number of the Taurus products.

- Step 1 Connect the WiFi AP of the Taurus products.
- Step 2 Start ViPlex Handy.

System can automatically detect the Taurus series products and refresh **Screen list**. Users can also slide down **Screen list** to manually refresh the list.

- Denotes that Taurus is online and you can log into it.
- Denotes that Taurus is offline and you cannot log into it.
- Denotes that Taurus login is successful.
- Step 3 Click **Connect** behind the screen name.
- Step 4 Enter username and password, and click Login.
- Step 5 Click a screen name to enter the **Screen management** page.
- Step 6 Select Remote Management > Player Binding.



- Step 7 Select the VNNOX server and enter the certified user name and password of the player. The information must be the same as the information in VNNOX.
- Step 8 Click **Obtain** and select an asynchronous player from the drop-down options.
- Step 9 Click **OK** after the settings are completed. A message appears prompting the operation is successful.

5.4.2.2 ViPlex Express (Windows)

Before You Begin

- Get the SSID and password of WiFi AP of the Taurus. The default SSID is "AP+the last 8 digits". The default password is "12345678".
- Get the password of the user "admin". The default password of the user "admin" is "123456".
- Connect the Taurus to Internet.

Operating Steps

ViPlex Express can connect any number of the Taurus products.

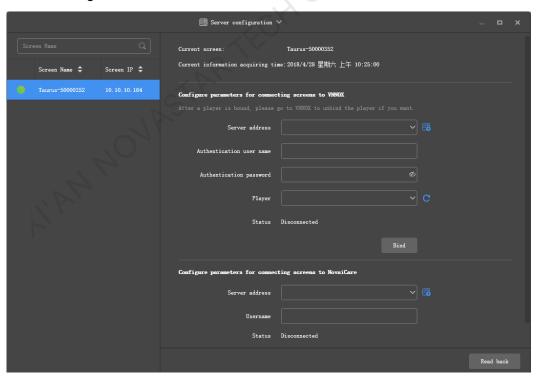
- Step 1 Connect the WiFi AP of the Taurus products.
- Step 2 Start ViPlex Express.

Step 3 Click Refresh.

- Denotes the Taurus is online and you can log into it.
- Denotes the Taurus is offline and you cannot log into it.
- Denotes logging into the Taurus is successful.

After the Taurus is found by ViPlex Express, the ViPlex express will try to log into to the Taurus with the default account or the account used for last login.

- Step 4 Loging in Taurus is successful or not.
 - Yes. appears and then perform Step 7.
 - No. appears and then perform Step 5.
- Step 5 Click **Connect** on the right of the screen information.
- Step 6 Enter user name and password, and click **OK**.
- Step 7 Select Screen Control.
- Step 8 Click Server configuration.
- Step 9 Select the target terminal in the terminal list.



- Step 10 Select the VNNOX server and enter the certified user name and password of the player. The information must be the same as the information in VNNOX.
- Step 11 Click on the right of **Player** and select an asynchronous player from the drop-down options.

Step 12 Click Bind.

5.5 Publishing Solutions

- Step 1 Choose -> Players Management > Players at the page of VNNOX Pro.
- Step 2 Enter player attribute page.
 - For a single player: Select a player and click **Attribute**, or click the player name.
 - For multiple players: Select the players and click Bulk edit.
- Step 3 Select a solution from the drop-down options of the associate solution parameter.
- Step 4 Perform the corresponding operation below according to the solution distribution type.
 - Manual: Click **Save&Close** to return to the player list page. Select the target player and click **Update solution**.
 - Auto: Click Save&Close.

5.6 (Optional) Other Operations

For other operations of VNNOX Pro, see VNNOX Cloud-Based Publishing Service User Guide (Pro).