LCB4K
LCD Multimedia Player

Configuration Guide

Change History

Document Version	Release Date	Description
V1.0.0	2022-09-06	First release

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1 Purpose

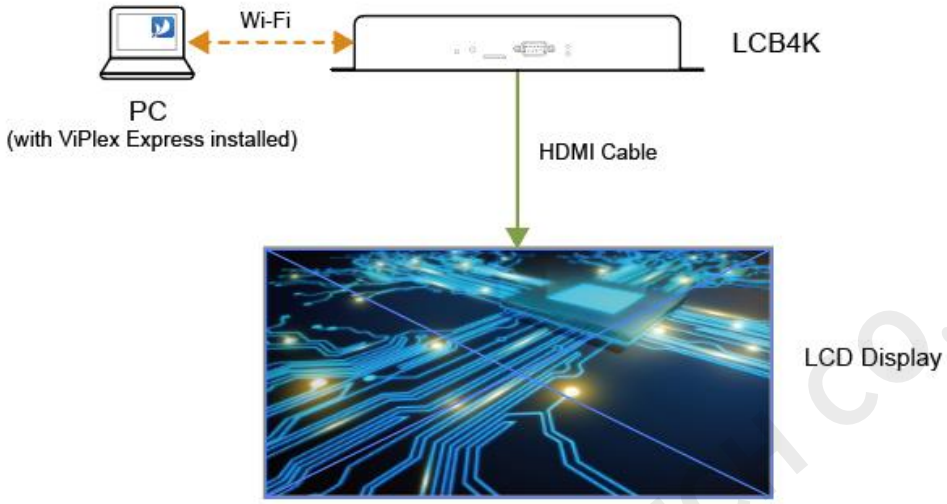
The LCB4K is an LCD multimedia player created by NovaStar. This document introduces the applications, terminal configuration and content publishing of the LCB4K to help users get started with the product.

2 Applications

A PC and LCB4K can be connected via Ethernet cable, Wi-Fi AP, wired LAN, and wireless LAN. In the connection diagrams of applications 1, 2 and 3, connecting a PC to the built-in Wi-Fi AP of the LCB4K is used as an example.

Application 1: Connecting to a Single LCD Display

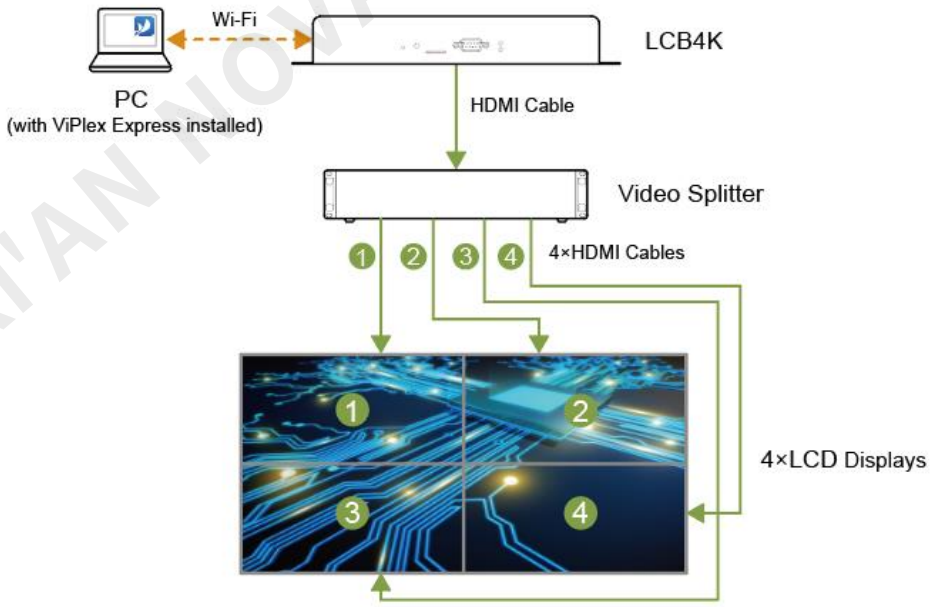
Figure 2-1 Connecting to a single LCD display



Required configuration: In ViPlex Express, set the LCB4K to adaptive mode or custom mode. In custom mode, you also need to manually set the playback window resolution.

Application 2: Connecting to Multiple LCD Displays

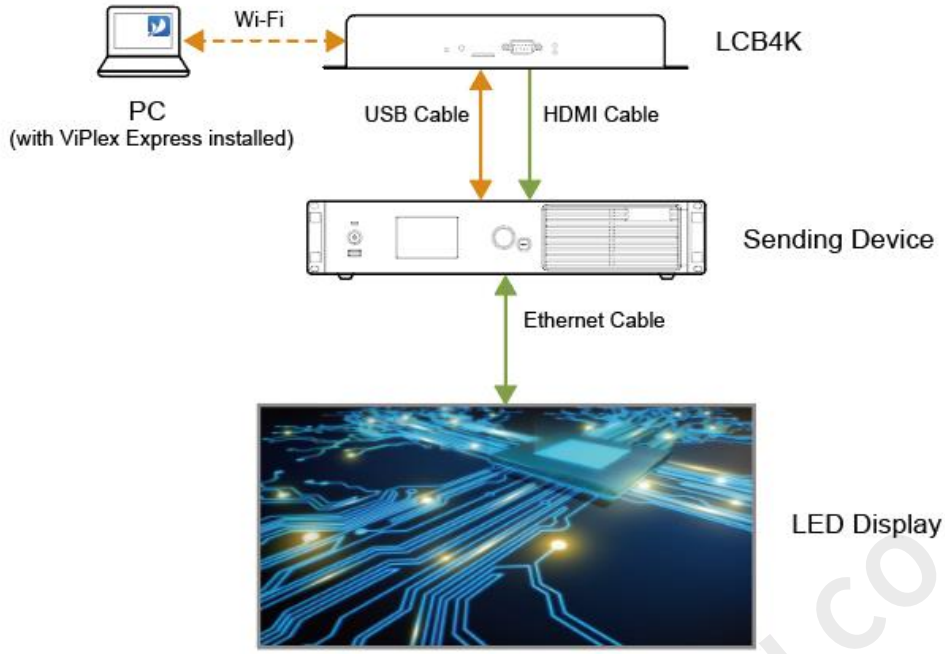
Figure 2-2 Connecting to multiple LCD displays (4 displays used for illustration)



Required configuration: In ViPlex Express, set the LCB4K to adaptive mode or custom mode. In custom mode, you also need to manually set the playback window resolution.

Application 3: Connecting to an LED Display

Figure 2-3 Connecting to an LED display



Required configuration: In ViPlex Express, set LCB4K to custom mode and set the playback window resolution.

Notes:

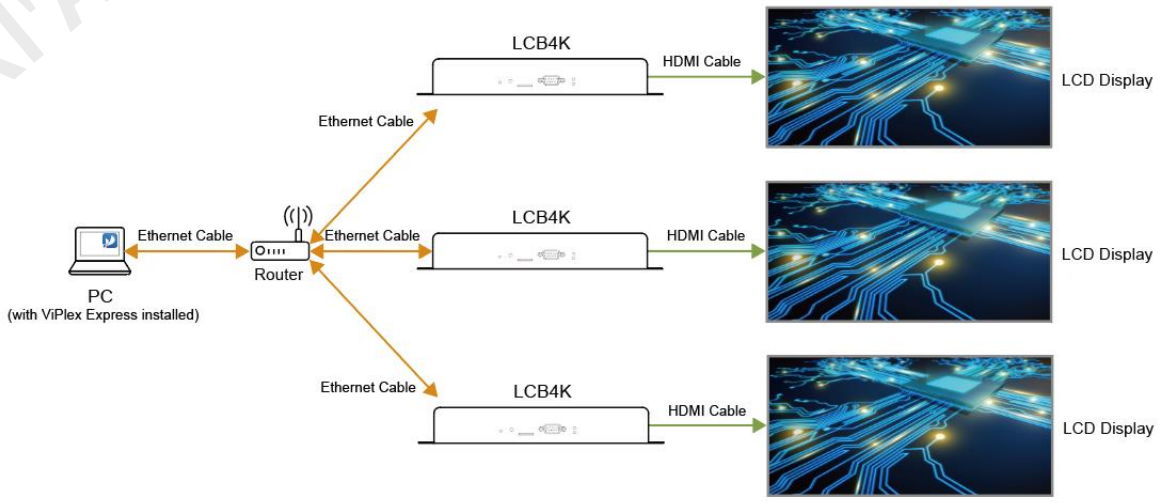
- The HDMI output connector of the LCB4K is connected to the HDMI input connector of the sending device for sending solution data.
- The USB (Type A) port of the LCB4K is connected to the USB (Type B) port of the sending device for sending control commands.

Caution

Custom mode is recommended for this application. If adaptive mode is selected, the LED screen may not display content correctly and not be controlled normally.

Application 4: Synchronous Playback Across Multiple LCD/LED Displays

Figure 2-4 Synchronous playback across multiple LCD/LED displays (3 LCD displays used for illustration)



Required configuration:

- LCD display
  a. In ViPlex Express, set the LCB4K to adaptive mode or custom mode. In custom mode, you also need to manually set the playback window resolution.
  b. In ViPlex Express, ViPlex Handy or VNNOX, enable the synchronous playback function and set the time synchronization method.
- LED display
  a. In ViPlex Express, set the LCB4K to custom mode and set the playback window resolution.
  b. In ViPlex Express, ViPlex Handy or VNNOX, enable the synchronous playback function and set the time synchronization method.

Time synchronization methods:

- NTP time synchronization
- GPS time synchronization (A specified 4G module must be installed.)
- RF time synchronization (A specified RF module must be installed.)

3 Terminal Configuration

Note

When the LCB4K works with an LED display, the MCTRL4K can be connected via the USB port to control the display.

3.1 Configuration List

3.1.1 ViPlex Express

The configurations that the user can do for the LCB4K with ViPlex Express are shown in Table 3-1. For detailed configuration methods, see the user manual of ViPlex Express.

Table 3-1 Configurations in ViPlex Express

Configuration Item	LCD Display	LED Display
Playback management	√	√
Brightness adjustment	×	√
Video source switching	√	√
Screen status control	√	√
Time synchronization management	√	√
Restart configuration	√	√
Color temperature	×	√
Monitoring	√	√
Play logs	√	√
Font management	√	√
Network settings	√	√
Server configuration	√	√
Terminal upgrade	√	√
Power control	×	√
RF management	√	√
Sensor	×	×
Terminal information	√	√

3.1.2 ViPlex Handy

The configurations that the user can do for the LCB4K with ViPlex Handy are shown in Table 3-2. For detailed configuration methods, see the user manual of ViPlex Handy.

Table 3-2 Configurations in ViPlex Handy

Configuration Item		LCD Display	LED Display
Quick control	Time zone	√	√
	Volume adjustment	√	√
	Color temperature	×	√
Bind to cloud services		√	√
Advanced settings	Time synchronization	√	√
	Synchronous playback	√	√
	Restart	√	√

Configuration Item		LCD Display	LED Display
	Clear all Media	√	√
	Restore factory settings	√	√
Screen settings	Screen status control	√	√
	Brightness control	×	√
	Scheduled restart	√	√
Network settings		√	√
Monitoring		√	√
Video control		×	×
Playback management		√	√
Device information		√	√
Multi-screen mosaic		×	×

3.1.3 Configurations in VNNOX

The configurations that the user can do for the LCB4K with VNNOX are shown in Table 3-3. For detailed configuration methods, see the user manual of VNNOX.

Table 3-3 Configurations in VNNOX

Configuration Item	LCD Display	LED Display
Brightness adjustment	×	√
Volume adjustment	√	√
Video source switching	×	×
Player restart	√	√
Screen status control	√	√
Monitoring	√	√
Power control	×	×
Time synchronization	√	√
Synchronous playback	√	√
Playback management	√	√
Playback control	√	√
Bind players	√	√
Terminal upgrade	√	√

3.2 Configuration Methods

ViPlex Express allows users to set the working mode for the LCB4K and set the multifunction card power. ViPlex Handy and VNNOX currently do not support the settings.

3.2.1 Setting Working Mode

Prerequisites

Hardware connection is completed.

Operating Procedure

Step 1 Log in to the LCB4K with ViPlex Express. For details, see 5 General Operations.

Step 2 Choose **Terminal Control** > **Video source**.

Step 3 Select the target terminal from the terminal list.

Step 4 In the **HDMI Output** area, do the following as required.

- Set adaptive mode

  Select **Adaptive resolution** and click **Apply**. The LCB4K will automatically adjust the playback window resolution according to the EDID of the LCD display.

- Set custom mode

  Select **Custom resolution**, set the playback window resolution, and click **Apply**.

  - Maximum width: 4096 pixels (4096×2160@60Hz)
  - Maximum height: 4096 pixels (2160×4096@60Hz)

Figure 3-1 Adaptive mode

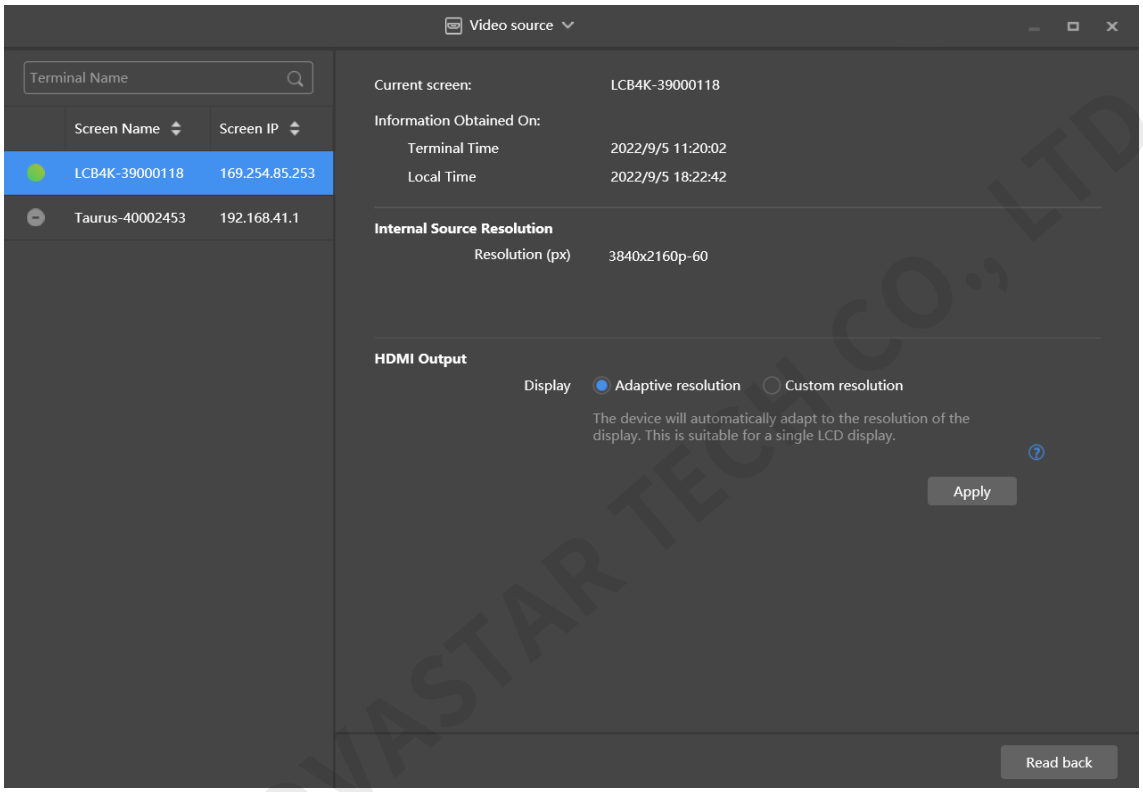
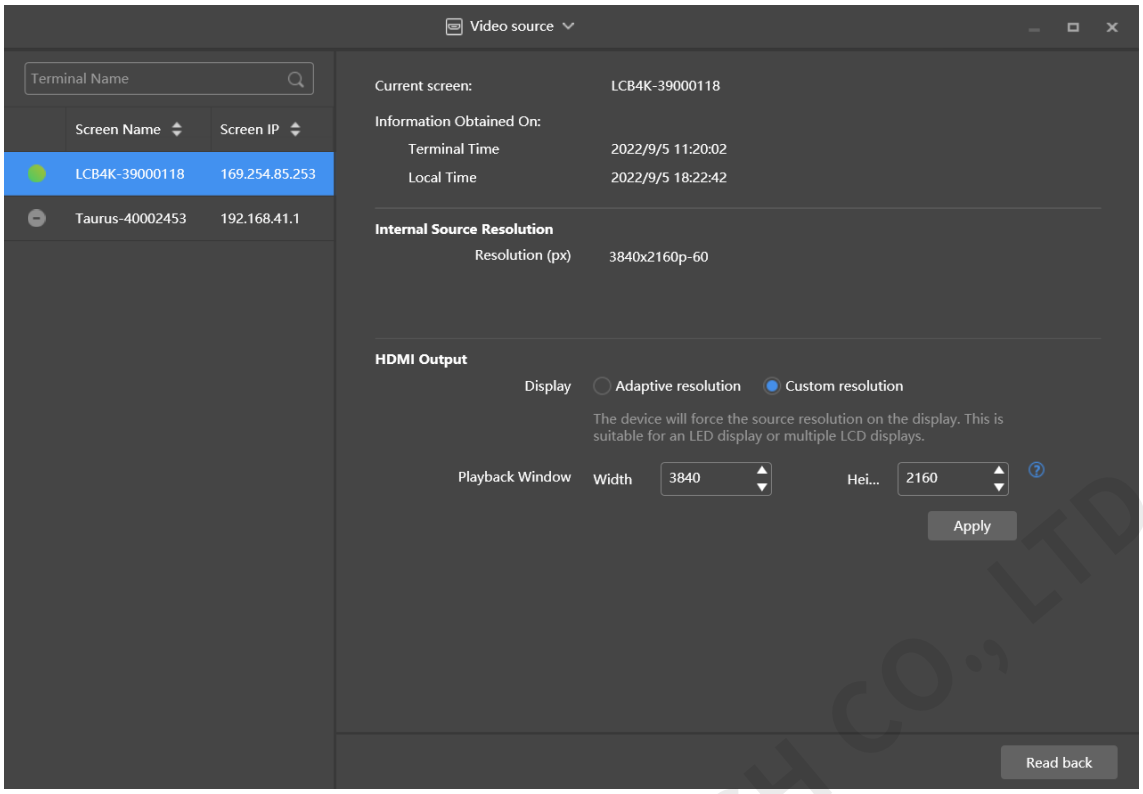


Figure 3-2 Custom mode



3.2.2 Setting Multifunction Card Power

Prerequisites

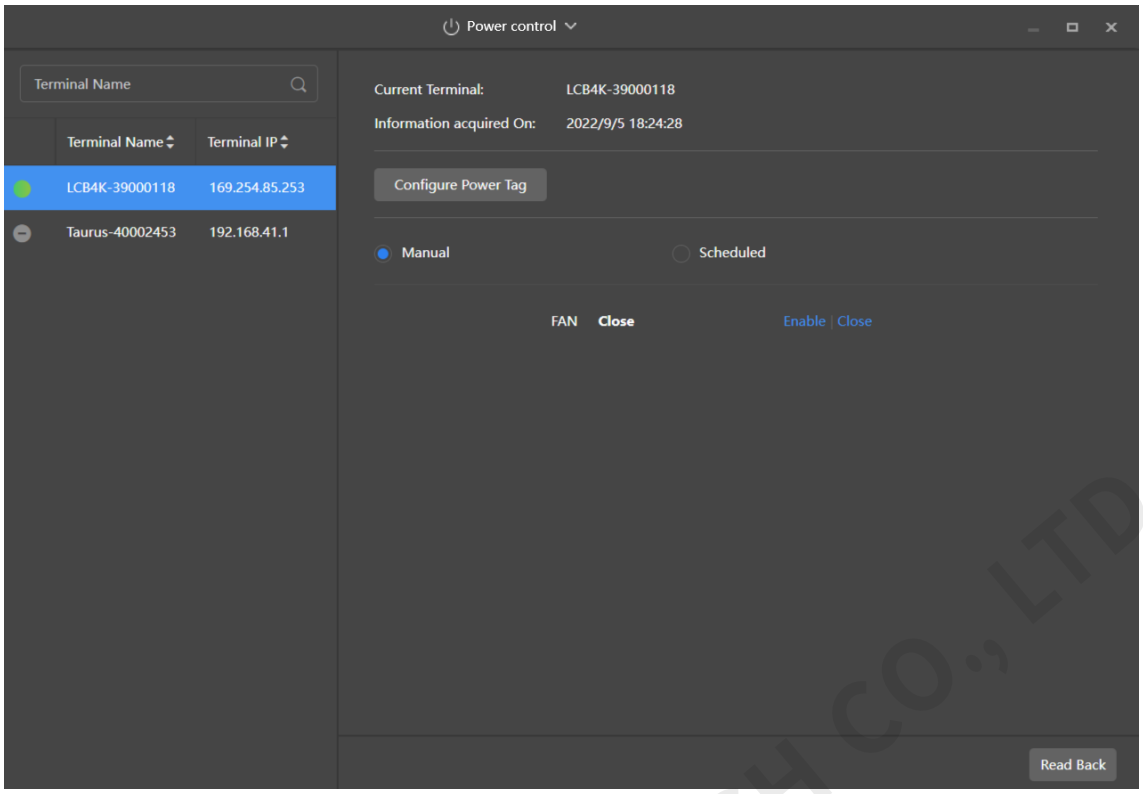
Hardware connection is completed.

Operating Procedure

Step 1 Log in to LCB4K with ViPlex Express. For details, see 5 General Operations.

Step 2 Choose **Terminal Control** > **Power control**.

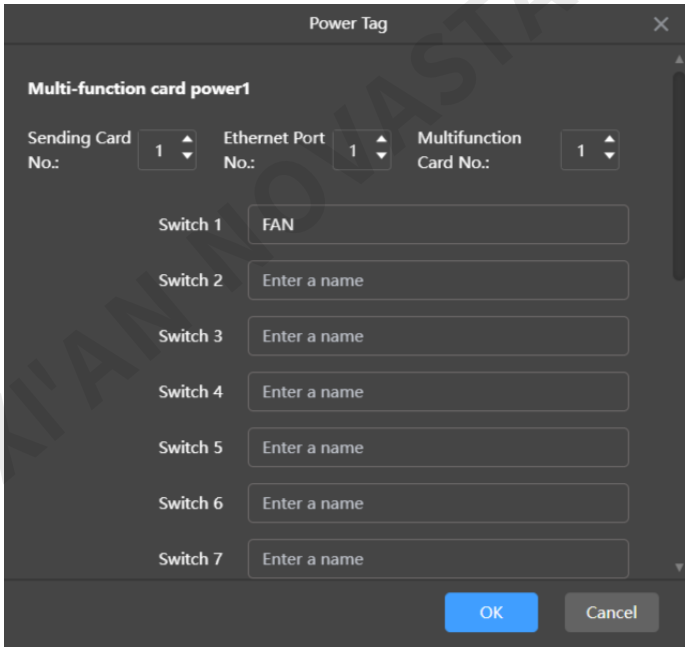
Figure 3-3 Power control



Step 3 Select the target terminal from the terminal list.

Step 4 Click **Configure Power Tag**.

Figure 3-4 Power tag



Step 5 In the **Power Tag** dialog box, set the serial numbers of the sending card, Ethernet port and multifunction card.

Step 6 Enter a power tag name and click **OK**.

Step 7 Do the following as required to turn on or off the power supply.

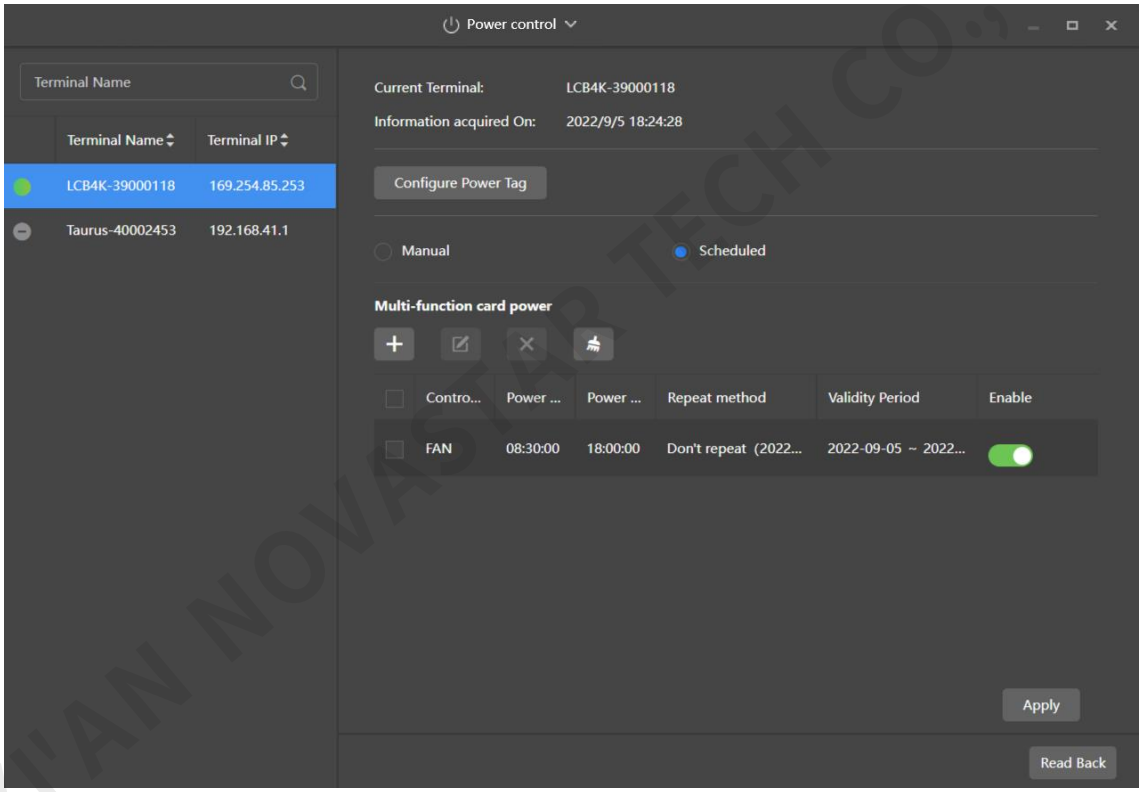
- Manual control
  a. Select **Manual**.
  b. Click **Enable** or **Close** corresponding to the power tag.

- Scheduled control
  a. Select **Scheduled**.
  b. Click  .
  c. In the **New** dialog box, select a power tag and set the power-on time, power-off time, repeat method, and execution date.
  d. Click **OK**.
  e. After the settings, close the **New** dialog box.
  f. Click **Apply**.

  After a scheduled control policy is added, you can do the following.

  - Edit: Click  .
  - Delete: Click  .
  - Clear: Click  .
  - Enable: Set the toggle button in the **Enable** column to  .
  - Disable: Set the toggle button in the **Enable** column to  .

Figure 3-5 Scheduled control



4 Solution Publishing

Users can create solutions and publish them to the LCB4K with ViPlex Express, ViPlex Handy and VNNOX. To publish solutions with VNNOX, you need to bind the LCB4K to VNNOX first. For detailed operations, see the user manuals of the software.

5 General Operations

To control the LCB4K with ViPlex Express, log in to the LCB4K first.

Prerequisites

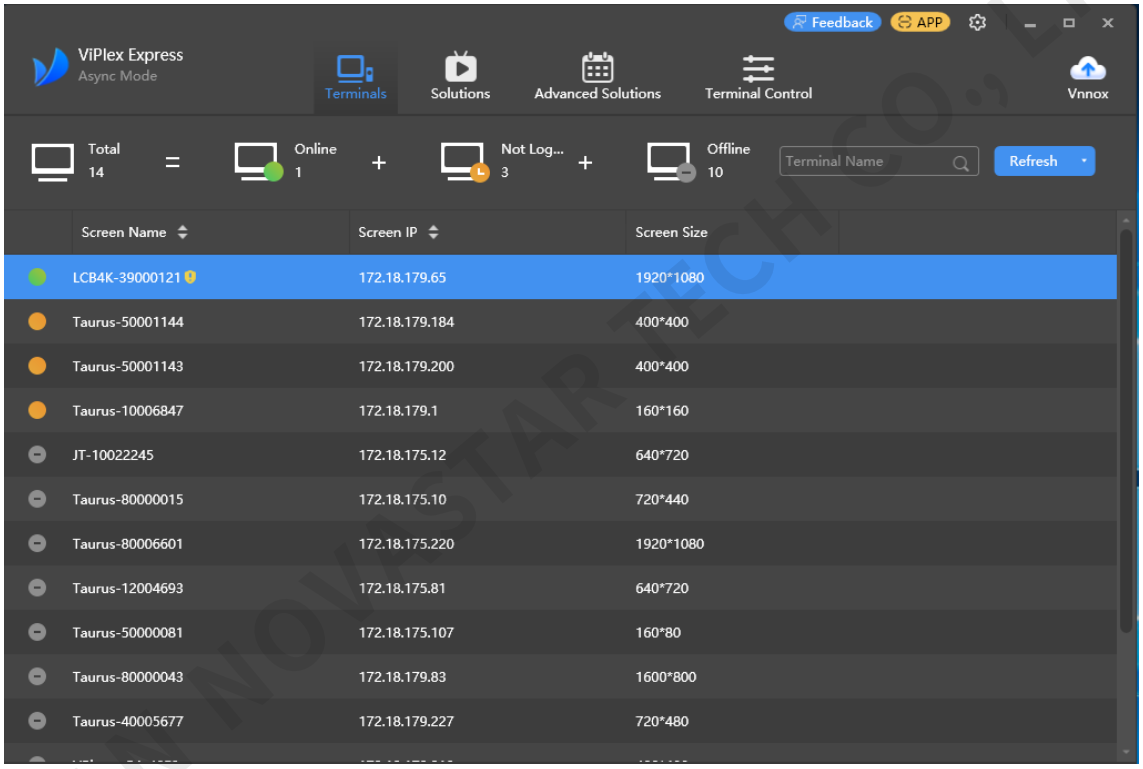
- ViPlex Express V2.18.0 or later is installed.
- The login password of the LCB4K is obtained. The default password is “123456”.

Operating Procedure

Step 1 Open ViPlex Express and access the **Terminal Management** page in async mode.

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

Figure 5-1 Terminal management



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 terminal is online and can be logged in. Go to Step 3.
- : Denotes the terminal is offline and cannot be logged in.
- : Denotes you have successfully logged into the terminal.

Step 3 Click **Connect** on the right of the terminal information.

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

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

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