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LCB4K LCD Multimedia Player

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Change History

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

HAN NOVASTAR TECH CO., -

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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.

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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.



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

E 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.

Configuration Item	LCD Display	LED Display
Playback management	\checkmark	\checkmark
Brightness adjustment	×	\checkmark
Video source switching	\checkmark	$\overline{\mathbf{v}}$
Screen status control	\checkmark	\checkmark
Time synchronization management	\checkmark	\checkmark
Restart configuration	\checkmark	\checkmark
Color temperature	×	\checkmark
Monitoring	\checkmark	\checkmark
Play logs	\checkmark	\checkmark
Font management	V	\checkmark
Network settings	\checkmark	\checkmark
Server configuration	A	\checkmark
Terminal upgrade	\checkmark	\checkmark
Power control	×	\checkmark
RF management	\checkmark	\checkmark
Sensor	×	×
Terminal information	\checkmark	\checkmark

Table 3-1 Configurations in ViPlex Express

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.

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

Table 3-2 Configurations in ViPlex Handy

Configuration Item		LCD Display	LED Display
	Clear all Media	\checkmark	\checkmark
	Restore factory settings		\checkmark
Screen settings	Screen status control	\checkmark	\checkmark
	Brightness control	×	\checkmark
	Scheduled restart	\checkmark	\checkmark
Network settings		\checkmark	\checkmark
Monitoring		\checkmark	\checkmark
Video control		×	×
Playback management		\checkmark	\checkmark
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.

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

Table 3-3 Configurations in VNNOX

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. www.novastar.tech

- 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	re 3-1	Adaptive	mode
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			📼 Video source 🗸		
Term	inal Name Screen Name 🜲	Q Screen IP 🖨	Current screen: Information Obtained On: Terminal Time	LCB4K-39000118 2022/9/5 11:20:02	
	LCB4K-39000118	169.254.85.253	Local Time	2022/9/5 18:22:42	
•	Taurus-40002453	192.168.41.1	Internal Source Resolution Resolution (px)	3840x2160p-60	
			HDMI Output Display	Adaptive resolution Custom resolution The device will automatically adapt to the resolution display. This is suitable for a single LCD display.	n of the 2 Apply
					Read back

			🖃 Video source 🗸		-	•	×
Term	ninal Name Screen Name CLCB4K-39000118	Q Screen IP \$ 169.254.85.253	Current screen: Information Obtained On: Terminal Time Local Time	LCB4K-39000118 2022/9/5 11:20:02 2022/9/5 18:22:42			
•	Taurus-40002453	192.168.41.1	Internal Source Resolution Resolution (px)	3840x2160p-60			
			HDMI Output Display	Adaptive resolution Custom resolution The device will force the source resolution on the display. This suitable for an LED displays.			
			Playback Window	Width 3840 Hei 2160	• • • • • • • • • • • • • • • • • • •		
					Rea	ad back	

3.2.2 Setting Multifunction Card Power

Figure 3-2 Custom mode

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
------------	-------	---------

			() Power cont	rol 🗸		-	•	×
Ter	minal Name		Current Terminal:	LCB4K-3900011	8			
	Terminal Name 🖨	Terminal IP 🗘	Information acquired On:	2022/9/5 18:24:	28			
•	LCB4K-39000118	169.254.85.253	Configure Power Tag					
•	Taurus-40002453	192.168.41.1	Manual		Scheduled			
				FAN Close				
						Re	ad Bad	ck

Step 3 Select the target terminal from the terminal list.

Step 4 Click Configure Power Tag.

Figure 3-4 Power tag

		Power Tag	×
Multi-function	card power1		
Sending Card No.:	1 CEther No.	ernet Port 1 Card No.: 1	
	Switch 1	FAN	
	Switch 2	Enter a name	
	Switch 3	Enter a name	
	Switch 4	Enter a name	
	Switch 5	Enter a name	
	Switch 6	Enter a name	
	Switch 7	Enter a name	
		ОК Сапсе	

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 O.

riquie 3-3 Scheduled Contro	Figure	3-5	Scheduled	contro
-----------------------------	--------	-----	-----------	--------

				() Pov	ver control 🚿					
Ten	minal Name Terminal Name 🖨	Q Terminal IP¢	Curre	nt Terminal: nation acqui	I red On: 2	_CB4K-390001 2022/9/5 18:2	118 4:28			
۲	LCB4K-39000118	169.254.85.253	Co	nfigure Pow	er Tag					
•	Taurus-40002453	192.168.41.1	○ ►	lanual			Scheduled			
			Multi +	-function ca	rd power	*				
				Contro	Power	Power	Repeat method	Validity Period	Enable	
				FAN	08:30:00	18:00:00	Don't repeat (2022	2022-09-05 ~ 2022		
1									Apply	
									Read Bac	

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		
V	ViPlex Express Async Mode	ninals Solutions Advanced Solu	tions Terminal Control
	$\begin{bmatrix} Total \\ 14 \end{bmatrix} = \begin{bmatrix} I \\ I \end{bmatrix} \begin{bmatrix} Online \\ 1 \end{bmatrix}$	+ Not Log +	Offline 10 Terminal Name Q Refresh •
	Screen Name 🗢	Screen IP 🜲	Screen Size
	LCB4K-39000121 <mark> </mark>	172.18.179.65	1920*1080
•	Taurus-50001144	172.18.179.184	400*400
•	Taurus-50001143	172.18.179.200	400*400
•	Taurus-10006847	172.18.179.1	160*160
Θ	JT-10022245	172.18.175.12	640*720
•	Taurus-80000015	172.18.175.10	720*440
•	Taurus-80006601	172.18.175.220	1920*1080
•	Taurus-12004693	172.18.175.81	640*720
•	Taurus-50000081	172.18.175.107	160*80
•	Taurus-80000043	172.18.179.83	1600*800
•	Taurus-40005677	172.18.179.227	720*480
		······································	

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.

- Understand the terminal is online and can be logged in. Go to Step 3.
- • Enotes 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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Official website www.novastar.tech

Technical support support@novastar.tech