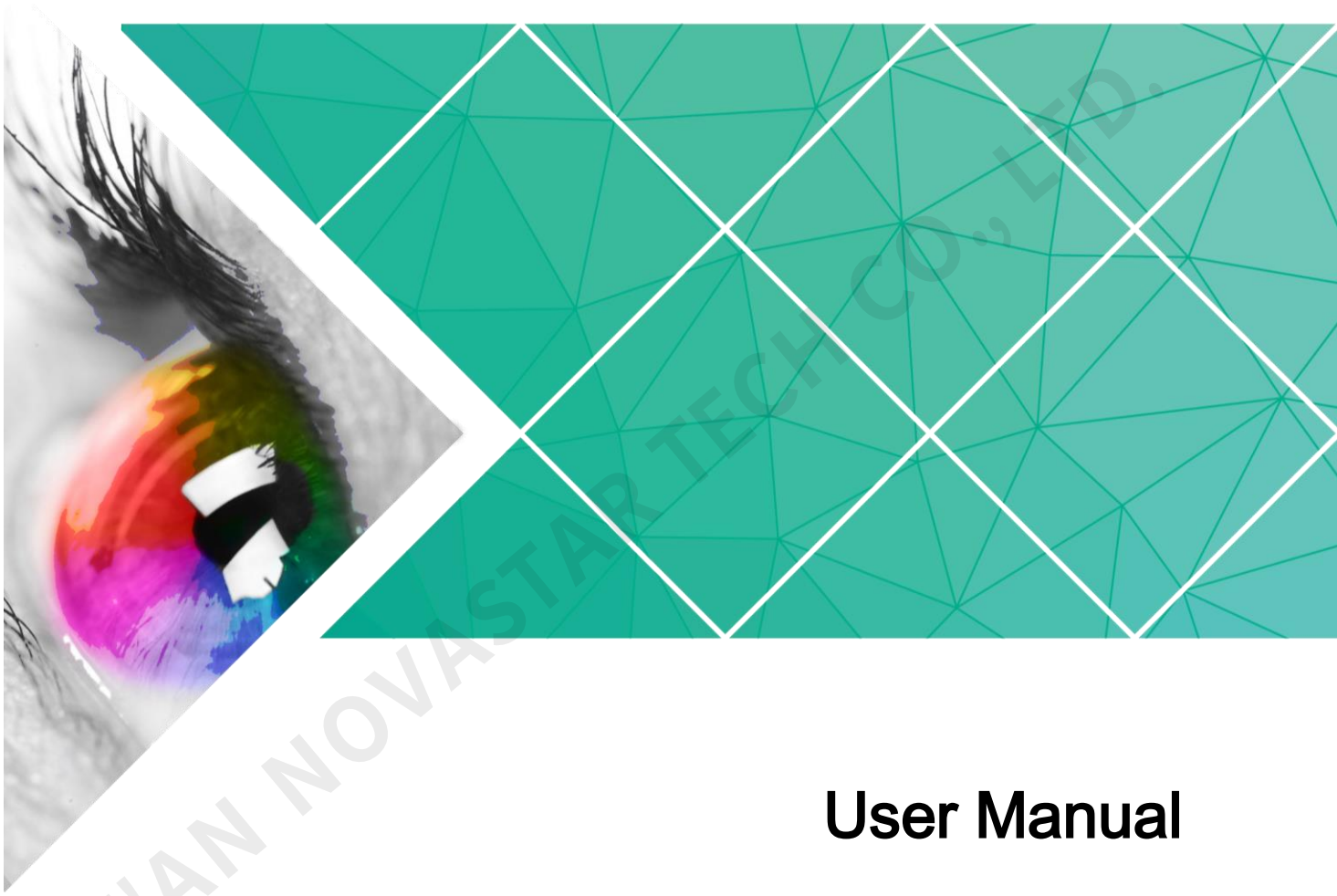
V-Can

Video Control Software



User Manual

Version: V3.6.0

Trademark

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

Statement

Thank you for choosing NovaStar's product. 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 the contact information given in this document. We will do our best to solve any issues, as well as evaluate and implement any suggestions.

Contents

1 Overview

V-Can is an intelligent control platform for NovaStar's video processors such as J6 and N9, as well as all-in-one controllers such as VX5s and VX6s. Users can easily and quickly control and manage video processors and all-in-one controllers on Windows and Mac platforms. The user interface and features of V-Can may vary depending on the features of the connected devices.

Main features:

- User-friendly interface
- Completely visualized operations, easy to operate and use
- Cross-platform design, Windows & Mac supported
- Simultaneously connect and control multiple video processors and all-in-one controllers

2 Software Installation

2.1 Obtain Software

Visit NovaStar's official website (www.novastar.tech) and then go to **DOWNLOADS** > **Software** > **V-Can**. Select the matched V-Can version and documents according to your device and PC version.

2.2 Install Software

Requirements of software operating environment

- CPU: 64-bit, 1 GHz or greater
- RAM: 2GB or greater
- GPU: DirectX 128M and above
- HD space: 16GB minimum available
- Monitor: resolution ≥ 1280×720 pixels
- OS: Windows 7 or later, macOS 10.10 or later
- For a Mac system, it is not recommended to connect your computer's Ethernet port directly to the device Ethernet port.

Software Installation

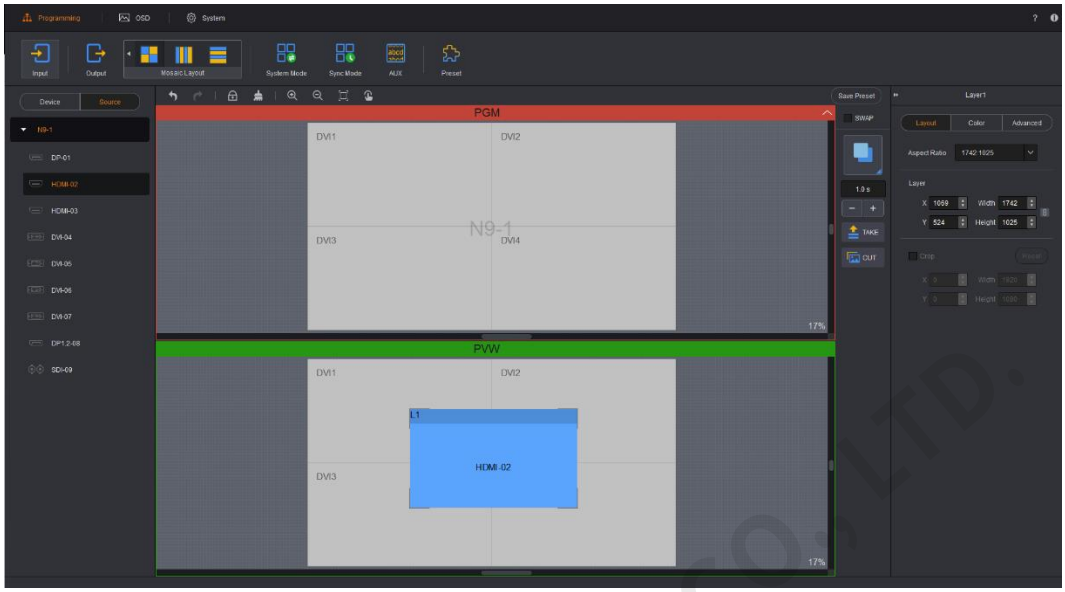
The installation process of V-Can is an ordinary one. Just follow the setup wizard prompted to complete the installation.

2.3 Run Software

After the software is successfully installed, double-click the icon 

on your desktop to run V-Can and the main user interface after a successful start is as shown in Figure 2-1.

Figure 2-1 Main user interface of V-Can



2.4 User Interface

The user interface can be divided in to 8 areas as shown in Figure 2-2. The functions of each area are illustrated in Table 2-1. The interface presented by V-Can may vary when different devices are connected. The following figure is an illustration using the N9 as an example.

Figure 2-2 User interface function areas

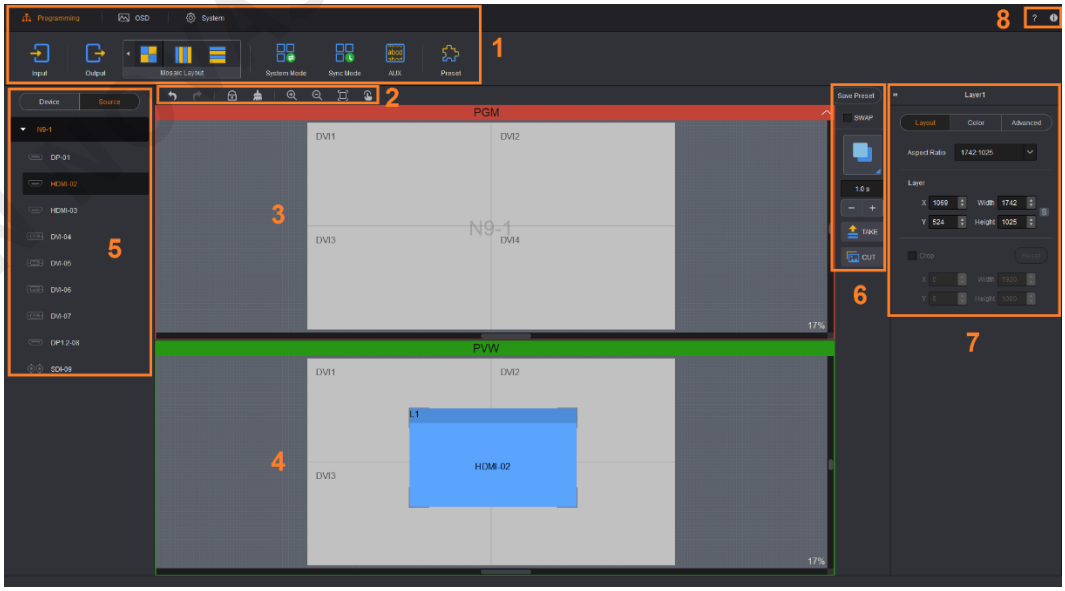


Table 2-1 Function area descriptions

No.	Name	Description
1	Menu bar	V-Can provides three major functions and multiple sub-function modules. Three major functions are **Programming**, **OSD** and **System**.
2	Shortcut function buttons	: Undo the last operation. • : Redo the last operation. • / : Lock and unlock all the layers. • : Clear all the layers in the editing area. • / / : Zoom in, zoom out and restore (auto fit) the editing area. • : Restore all layer sizes and arrange the layers using Z-order. – The layer size is restored to the half input source width and height. – The layer 1 starts from the top left corner (starting point), and every subsequent layer gets a 50-pixel offset both horizontally and vertically from its previous layer. • / : Freeze or unfreeze the current frame of PGM. • / : Black out the PGM or cancel the blackout.
3	PGM	PGM display area Note: When the connected device is a splicing processor or all-in-one controller, there are no PGM and PVW.
4	PVW	• Display the screen mosaic layout. • Add, edit and delete layers. • Set the size and position of OSD, BKG and LOGO.
5	Devices/Signal sources	• Device: Display and delete the connected devices. • Source: Display the accessed signal sources and input connector types, as well as rename the signal source.
6	Transition	• SWAP: Set whether to exchange the PVW with PGM. – Checked: Click **TAKE** or **CUT** to swap the PVW and PGM. – Unchecked: Click **TAKE** or **CUT** to copy the PVW to PGM. • TAKE: Send the PVW layers to PGM with a selected transition effect. • CUT: Send the PVW layers to PGM without any transition effect.
7	Properties	• Layout: Set the layer aspect ratio, size and position, mask and input source cropping. • Color: Set the layer image quality.

No.	Name	Description
		• Advanced: Set the layer border, keying and cloning effects.
8	Help and about	• Help: Read the user manual of V-Can. • About: View the version and copyright for V-Can.

3 Functionality

3.1 Programming

Under the **Programming** tab, you can set the input, output, mosaic, transition, preset, layers, system mode, sync mode, AUX, HDR, 3D, output mapping and more.

Note:

When different devices are connected, the sub-function modules under **Programming** vary and the functions of each function module may also vary.

3.1.1 Input Settings

3.1.1.1 Set Input Resolution

Input resolution settings are required when pixel-to-pixel output display is needed and the current output capacity does not match the resolution given by the input.

Standard and custom input resolution settings are both supported.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

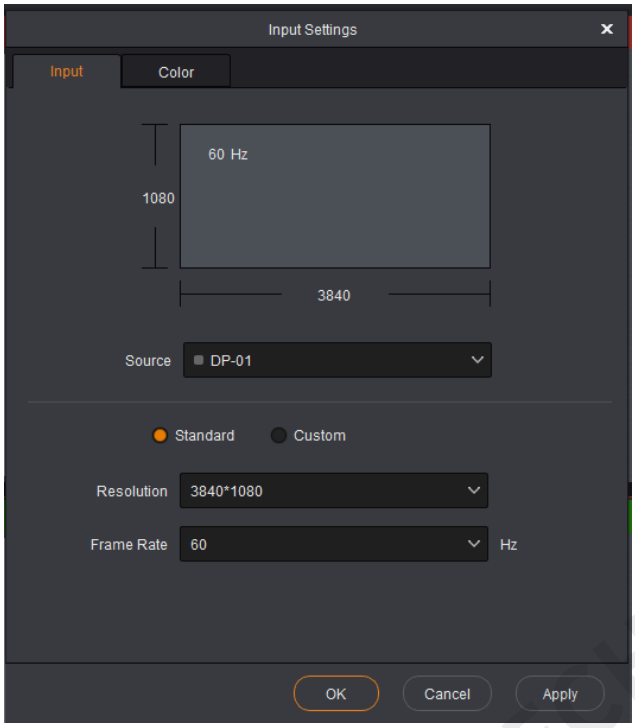
Notes

- When the inputs are from the computer graphics card, the input resolution can be set.
- Only DVI, HDMI and DP connectors support input resolution settings.

Operating Procedure

Step 1 Go to **Programming** > **Input** > **Input** to open the input settings window as shown in Figure 3-1.

Figure 3-1 Input resolution



Step 2 Select a desired input source from the drop-down list next to **Source**.

- Set a standard resolution: Select **Standard**, and select a desired resolution and frame rate from the drop-down list.
- Set a custom resolution: Select **Custom**. Drag the slider, enter a value in the text box or click the up or down arrow next to the text box to set a desired input width and height, and then select a desired frame rate from the drop-down list.

Step 3 Click **Apply** or **OK** to complete the input resolution settings.

3.1.1.2 Set Input Mosaic

Mosaic multiple input sources of the same type to form a new source.

Applicable Products

NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

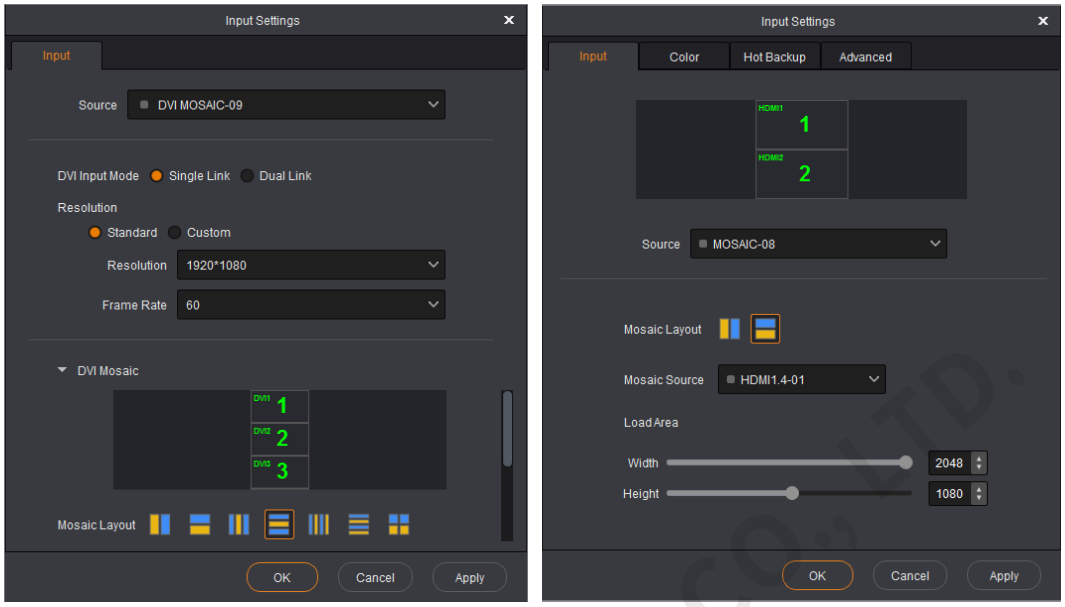
The input connectors must be of the same type.

Operating Procedure

Step 1 Go to **Programming** > **Input** to open the input settings window.

Step 2 Select **DVI MOSAIC** from the drop-down list next to **Source** as shown in Figure 3-2.

Figure 3-2 Input settings



Step 3 Select the DVI input mode.

DVI input modes include single link and dual link modes. The former one supports mosaic of up to 4 DVI connectors, but the latter one supports at most 2.

Step 4 (Optional) Set the input resolution for the DVI connector.

Step 5 Select a desired mosaic layout from the layouts provided.

Step 6 Select a desired input source from the drop-down list next to **Mosaic Source**.

Note:

When the VX1000 or VX600 is connected, **Mosaic Source** is available.

Step 7 Under **Load Area**, set the width and height of the area by dragging the slider, entering a value in the text box or clicking the up or down arrow next to the text box.

Note:

If the resolution of the input source for mosaic is too high, go to **Load Area** to crop the input source. The starting point of the cropping is the top left corner of the source by default.

3.1.1.3 Adjust Input Color

V-Can allows you to adjust the brightness, contrast, hue and saturation of each signal source accessed to the device.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, VX600, VX1000

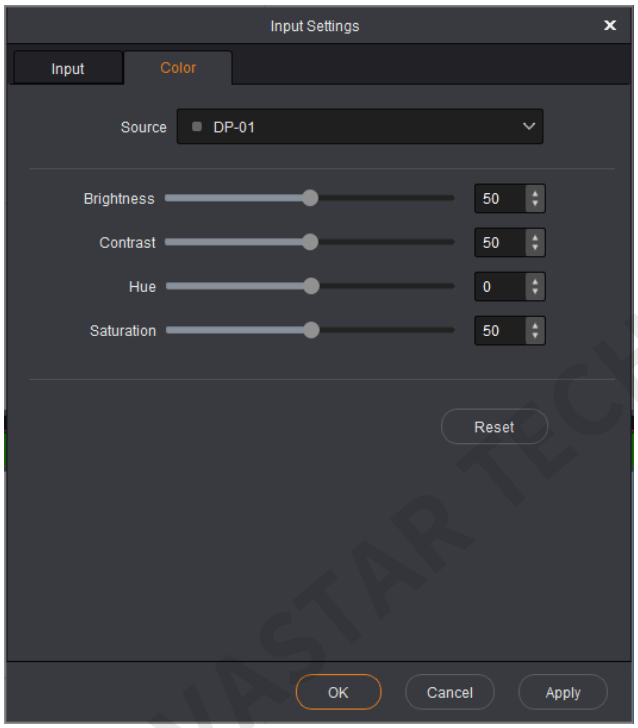
Notes

The NovaPro UHD Jr and VX16s do not support input color adjustment.

Operating Procedure

Step 1 Go to **Programming** > **Input** > **Color** to open the input color settings window as shown in Figure 3-3.

Figure 3-3 Input color



Step 2 Select a desired input source from the drop-down list next to **Source**.

Step 3 Drag the slider, enter a value in the text box or click the up or down arrow next to the text box to set a desired value for the selected color parameter.

Step 4 Click **Apply** or **OK** to complete the input color settings.

Click **Reset** to reset all the color parameters to defaults.

3.1.1.4 Set Hot Backup

V-Can allows you to set input backup channels in case of input failures. When a fault occurs on the input connector, the backup channel can be a timely alternative to avoid black screen and other display abnormalities.

Applicable Products

VX1000, VX600

Notes

- In each hot backup group, two input sources serve as the backup for each other.

- Only the source from the same type of the input connector can be set as the backup source.
- Restrictions on hot backup functions:

  Input sources A and B form a hot backup group. The current input source of the layer is input source A.

  - Input A: No signal

    Input B: Signal

    The layer input source is switched to input B automatically. When input A resumes and input B still has a signal, the layer input source will not be switched.
  - Input A: No signal

    Input B: Signal

    The layer input source is switched to input B automatically. When input A resumes but input B does not have a signal, the layer input source will be switched to input A.
  - Input A: No signal

    Input B: No signal

    The layer input source will not be switched.
  - Input A: Signal

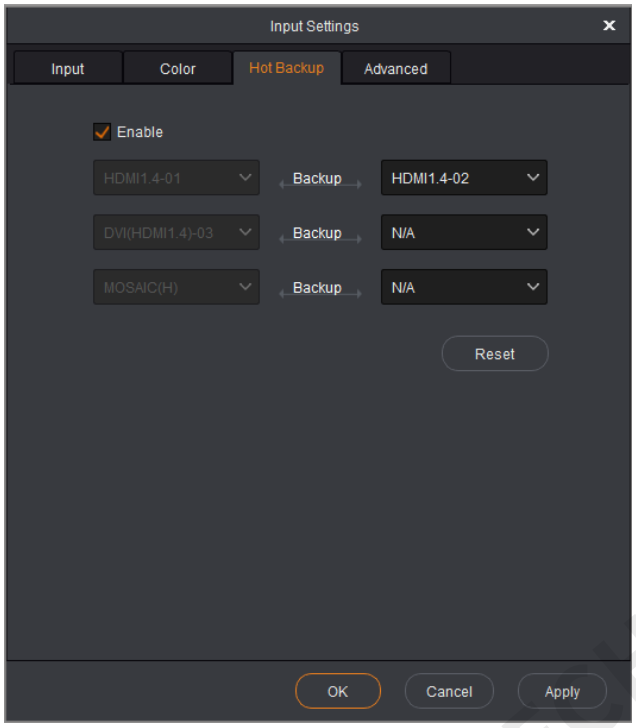
    Input B: No signal

    If you manually switch the layer input source to input B, the source will be switched to input A automatically.
- After the hot backup function is enabled, once the input source changes, including but not limited to resolution change and input failure, the layer input source will be switched to the backup source.

Operating Procedure

Step 1 Go to **Programming** > **Input** > **Hot Backup** to open the input hot backup window as shown in Figure 3-4.

Figure 3-4 Input hot backup



Step 2 Select **Enable** to turn on the function.

Step 3 On the right side, click the drop-down arrow to select a desired backup source from the list that appears.

Step 4 Click **Apply** or **OK** to complete the input hot backup settings.

3.1.1.5 Other Advanced Settings

Advanced features allow you to set whether to enable the limited to full, HDCP and audio functions for the input source, as well as view the input source color space and sampling rate.

Applicable Products

VX1000, VX600

Notes

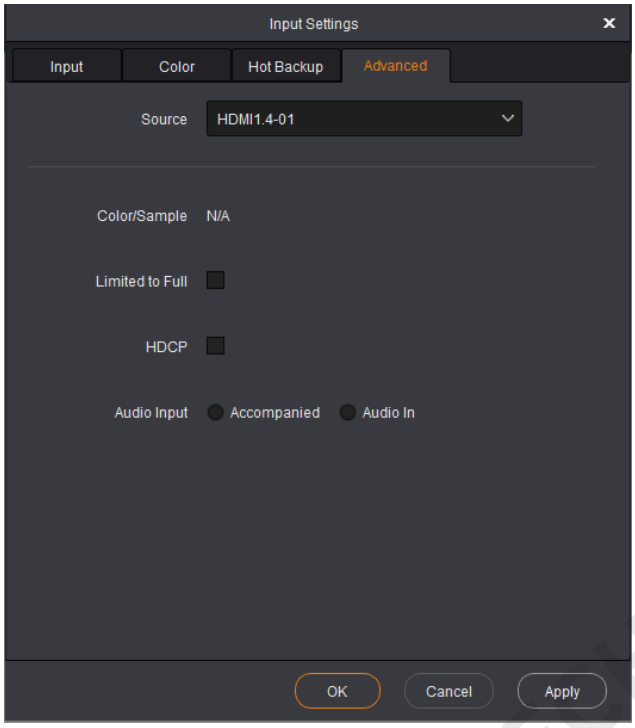
You cannot set the limited to full and HDCP functions for the OPT, Mosaic and SDI sources.

You cannot view the color space and sampling rate for the OPT and Mosaic sources.

Operating Procedure

Step 1 Select a desired input source from the drop-down list next to **Source**.

Figure 3-5 Advanced settings



Step 2 View the color space and sampling rate of the input source.

The system will automatically identify the input source color space and sampling rate and display them next to **Color/Sample**.

Step 3 Set whether to enable the limited to full function.

This function automatically converts the color space of the video source from RGB limited to RGB full, allowing for more accurate video processing.

- Checked: The converting function is turned on, i.e. convert the color space of the current input source from RGB limited to RGB full. You are advised to turn on this function when the color space of the video source is RGB limited.
- Unchecked: The converting function is turned off, i.e. do not convert the color space of the current input source from RGB limited to RGB full.

Step 4 Set whether to enable the HDCP function by checking or unchecking the box next to **HDCP**.

- Checked: The input source HDCP function is turned on. When an HDCP-encrypted source is accessed, you are advised to turn on this function.
- Unchecked: The input source HDCP function is turned off.

Step 5 Select the audio input.

The audio input options may vary for different input connectors.

- The HDMI connectors support **Accompanied** and **Audio In**.
  - Accompanied: Use the audio that comes with the HDMI source.
  - Audio In: Use the audio that comes from the audio input connector.
- The DVI, SDI, OPT and Mosaic connectors support **None** and **Audio In**.
  - None: There is no audio that comes with the input source.

- Audio In: Use the audio that comes from the audio input connector.

Note:

The VX1000 and VX600 do not support audio input settings.

3.1.2 Output Settings

3.1.2.1 Set Output Resolution

You can set the device output resolution.

Applicable Products

J6, N9, VS7, VX1000, VX400, NovaPro UHD Jr, VX16s

Notes

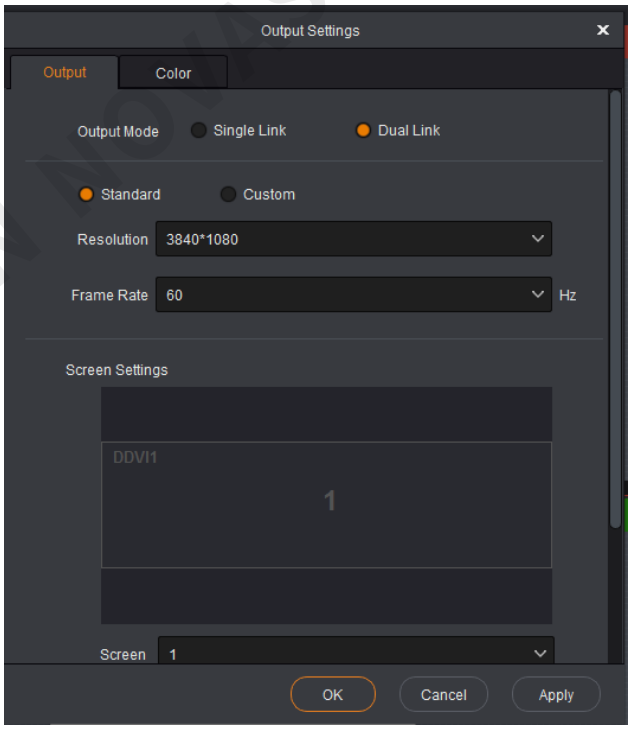
- When the VX1000 and VX600 work in the video controller mode and the HDMI output connector is used for video output, the output settings are available.
- The NovaPro UHD Jr and VX16s all-in-one controllers only support output frame rate settings.

Operating Procedure

- When the connected device is J6, N9 or VS7,

Step 1 Go to **Programming** > **Output** > **Output** to open the output settings window as shown in Figure 3-6.

Figure 3-6 Output settings



Step 2 Select the output mode.

The DVI output connector of video processor supports single link and dual link output modes.

- Single Link: All output connectors of the video processor are used for output. Each output connector supports up to 1920×1200@60Hz output resolution.
- Dual Link: Half output connectors of the video processor are used for output, and the other half are unavailable. Each output connector supports up to 3840×1080@60Hz output resolution.

Step 3 Set the output resolution.

- Set a standard resolution: Select **Standard**, and select a desired resolution and frame rate from the drop-down list.
- Set a custom resolution: Select **Custom**. Drag the slider, enter a value in the text box or click the up or down arrow next to the text box to set a desired input width and height, and then select a desired frame rate from the drop-down list.

Step 4 Set the screen width and height according to the actual screen size.

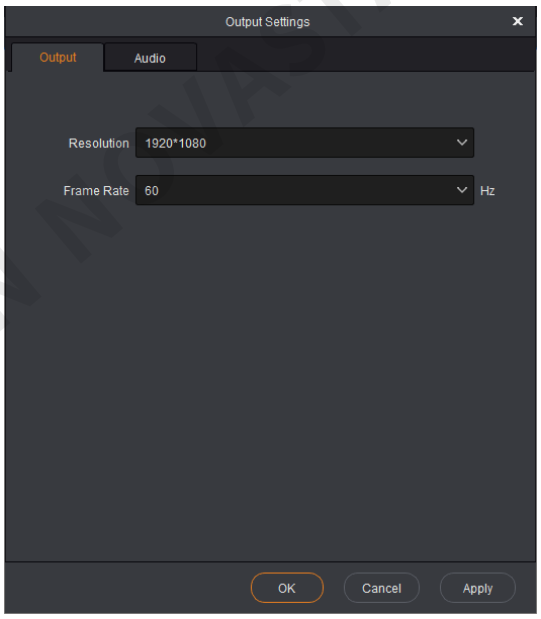
1. Select a desired screen from the drop-down list next to **Screen**.
2. Set the width and height for the selected screen.

Step 5 Click **Apply** or **OK** to complete the output resolution settings.

- When the connected device is VX1000 or VX600,

Step 1 Go to **Programming** > **Output** > **Output** to open the output settings window.

Figure 3-7 Output settings



Step 2 Select a desired output resolution for the HDMI connector from the drop-down list next to **Resolution**.

Step 3 Select a desired frame rate from the drop-down list next to **Frame Rate**.

Step 4 Click **Apply** or **OK** to complete the output resolution settings.

3.1.2.2 Set Output Color

You can adjust the output brightness, contrast, hue and saturation.

Applicable Products

J6, N9, VS7, NovaPro UHD Jr, VX16s

Notes

None

Operating Procedure

Step 1 Go to **Programming** > **Output** > **Color** to open the output color settings window as shown in Figure 3-8.

Figure 3-8 Output color

Step 2 Drag the slider, enter a value in the text box or click the up or down arrow next to the text box to set a desired value for the selected color parameter.

Note:

The J6 and VS7 support individual RGB brightness adjustment.

Step 3 Click **Apply** or **OK** to complete the output color settings.

Click **Reset** to reset all the color parameters to defaults.

3.1.2.3 Set Output Audio

You can set the output audio and volume.

Applicable Products

VX1000, VX600

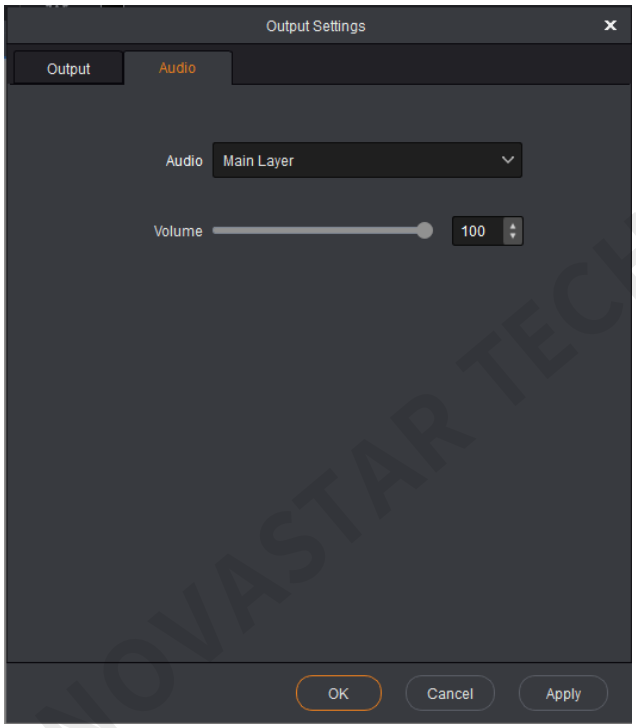
Notes

None

Operating Procedure

Step 1 Go to **Programming** > **Output** > **Audio** to open the output audio settings window.

Figure 3-9 Audio settings



Step 2 Select the audio output.

- Off: Turn off the output audio.
- Main Layer/PIP 1/PIP 2: Play the audio that comes with the main layer, PIP 1 or PIP 2.

Step 3 Adjust the audio volume.

Drag the slider, enter a value in the text box or click the up or down arrow next to the text box to set a desired value for the audio volume. The value ranges from 0 (silent) to 100 (loudest).

3.1.3 System Mode

NovaStar devices usually offer different working modes. You can set different working modes to meet the requirements of your actual on-site applications.

Applicable Products

J6, N9, VX5s, VX6s, VX1000, VX600

Notes

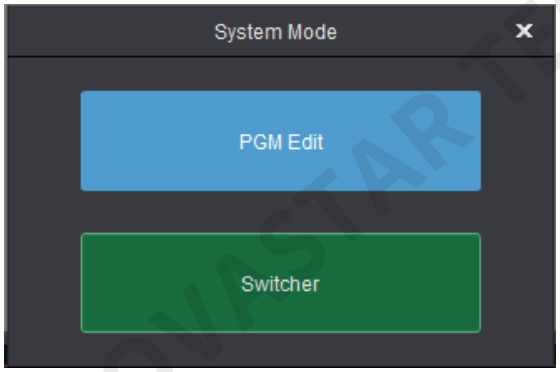
- When the connected device is the J6, V-Can supports **Splicer** and **Switcher** modes.
- When the connected device is the VX5s or VX6s, V-Can supports **Direct** and **Switcher** modes.
- When the connected device is the N9, V-Can supports **PGM Edit** and **Switcher** modes.
- When the connected device is the VX1000 or VX600, V-Can supports **Video Control** and **ByPass** modes.

Operating Procedure

Step 1 Go to **Programming** > **System Mode** to open the system mode window.

Step 2 Select the target mode.

Figure 3-10 System mode



- PGM Edit: Directly edit the layers on PGM.
- Switcher: Add and edit the layers only in PVW area. After the editing, click TAKE or CUT to send the display content to the LED screen.
- Splicer/Direct: The layers are synchronously displayed on the LED screen.
- Video Control: The device works as a video controller, and supports scaling, layer and preset settings, switching and more.
- ByPass: The device works as an independent controller, and supports pixel-to-pixel display without any processing.

3.1.4 Mosaic Settings

Mosaic include connector mosaic and image mosaic.

3.1.4.1 Set Connector Mosaic

Applicable Products

J6, VS7, N9

Notes

- When the connected device is J6, the supported mosaic layouts may vary according to different system modes and output connector modes.
  - Splicer

    Single link output: 1×1, 1×2, 1×3, 1×4, 2×1, 3×1, 4×1, 2×2

    Dual link output: 1×1, 1×2, 2×1
  - Switcher

    Single link output: 1×1, 1×2, 2×1

    Dual link output: 1×1
- When the connected device is N9, the supported mosaic layouts may vary according to different output connector modes.
  - Single link output: 1×1, 1×2, 1×3, 1×4, 2×1, 3×1, 4×1, 2×2
  - Dual link output: 1×1, 1×2, 2×1

Prerequisites

- You have completed the output connector mode settings in **Output Settings**.
- You have completed the system mode settings in **System Mode**.

Operating Procedure

Step 1 Click **Programming** to enter the layer editing page.

Step 2 Click  or  next to **Mosaic Layout** to expand the mosaic layout pane.

Figure 3-11 Mosaic layouts available in Splicer mode

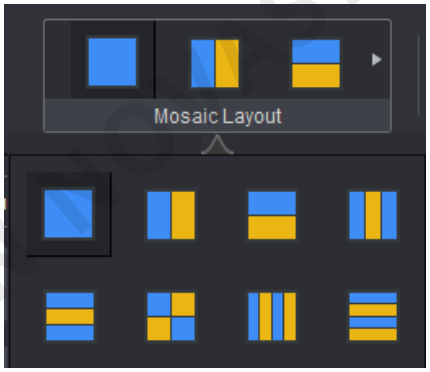
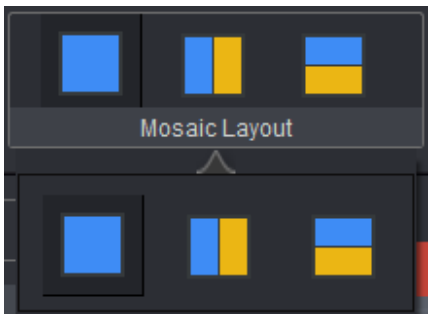


Figure 3-12 Mosaic layouts available in Switcher mode



Step 3 Select a desired layout based on your screen structure and then the layout will be shown in the editing area.

Step 4 Go to **Settings** > **Output** > **Output** to open the output settings window.

Step 5 Set the screen width and height according to the actual screen size.

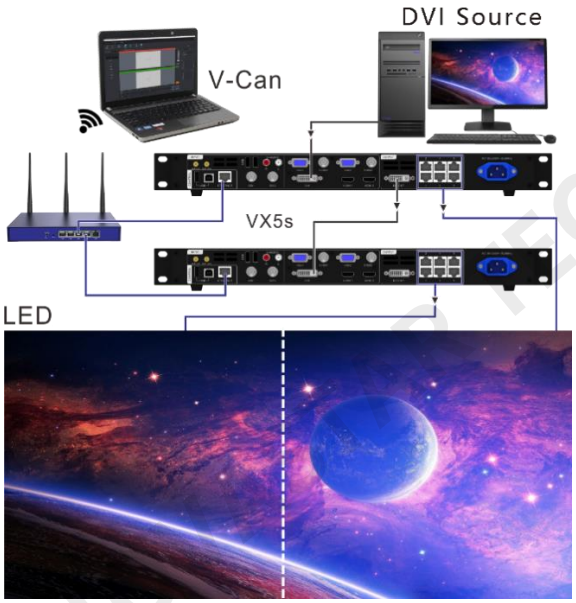
1. Select a desired screen from the drop-down list next to **Screen**.
2. Set the width and height for the selected screen.

Step 6 Click **Apply** or **OK** to complete the output mosaic settings.

3.1.4.2 Set Image Mosaic

Image mosaic is to connect two or more all-in-one controllers of the same model to realize larger loading capacity.

Here we use two VX5s units as an example to illustrate the device connections.



Applicable Products

VX5s, VX6s, VX1000, VX600, NovaPro UHD Jr

Notes

- Only the devices of the same model and system mode can be used for image mosaic.
- If the added layer does not cross over the devices, the layer will only occupy the resources of the current device.
- If the added layer crosses over more than one devices, once the layer crosses one device, the layer will occupy one layer resource of the crossed device.
- After the layers have been added, the mosaic layout cannot be set. If you do need to rearrange the mosaic, please delete all the layers first.

Prerequisites

- You have completed the screen configuration on all the devices for image mosaic.
- You have enabled the synchronization function on all the devices and their sync sources are the same.

Operating Procedure

Step 1 V-Can will automatically connect all the online devices after the device connections are completed.

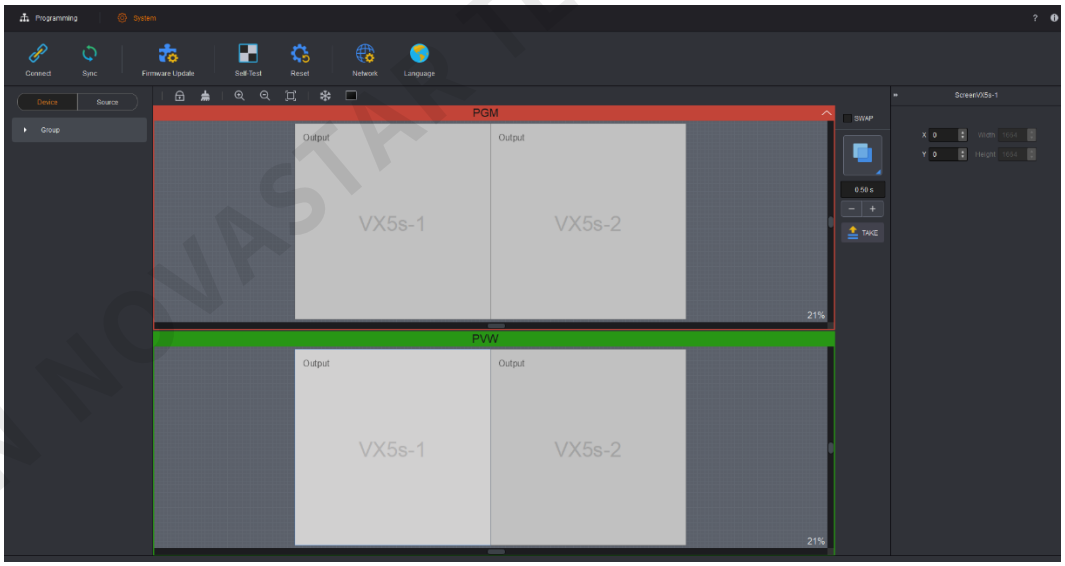
Step 2 Click **Device** on the left pane to view all the connected devices.

Step 3 Click a desired device and drag it to the target device, and then a mosaic group is created as shown in Figure 3-13.

The system will assign a name for the mosaic group, such as Group 1 and Group 2.

- Click next to the group to rename it.
- Click next to the group to ungroup it.
- Click next to a device to remove it from the group.

Figure 3-13 Image mosaic



Step 4 In PVW area, click and drag the output area to set the mosaic layout based on the loaded screen structure.

Step 5 Click **Source** on the left pane to view all the signal sources accessed to the device. Signal source statuses are described as below.

- Green: The signal is accessed to the same connector on each device.
- White: No signal is accessed or no signal is accessed to one or more devices.

Step 6 Click and drag the selected signal source to PVW, and then release the mouse to add an 800×600 layer.

- The added layer crosses over several devices
  - When the same signal source is accessed to the LOOP connector or video splitter, each device will display the image area loaded by itself and all the image areas together form a complete image.
  - When different signal sources are accessed to the devices, each device will display its own image.
- The added layer does not cross over several devices
  The image will be output only by the crossed device, while other devices will not output any images.

3.1.5 Group Control

V-Can supports the control of multiple video processors. You can perform preset switching, TAKE, CUT, FTB and freeze operations on these video processors simultaneously.

Applicable Products

- J6 V3.0.0.0 or later
- N9 V2.1.0.0 or later

Notes

In group control mode, all the video processors and control PC must be on the same network segment.

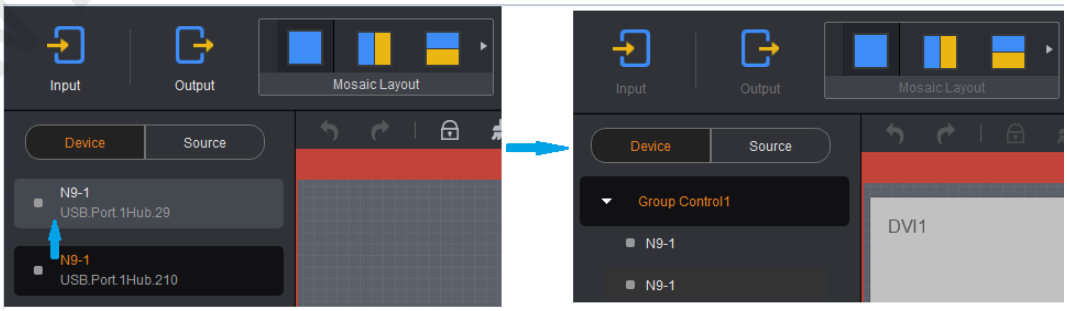
Operating Procedure

Step 1 On the **Programming** page, click **Device** on the left pane to show the device list.

Step 2 Click a desired device and drag it to the target device to form a device group.

If you want to add more devices to this group, simply click and drag the device to the group.

Figure 3-14 Group control



- Load preset
  Go to **Programming** > **Preset** to open the preset window, and then select a saved preset to load it.
  - When all the presets with the same sequential number are not empty, the presets will be loaded on all the devices in the group.

  - When all the presets with the same sequential number are all empty, the presets will not be loaded.
  - When any of the presets with the same sequential number is empty, the nonempty presets will be loaded.
- FTB

  Click ■ / ◪ to make the output images on all devices fade to black or not.
- Freeze

  Click ❄ / ❄ to freeze or unfreeze the output images on all devices.

3.1.6 Add Layers

A layer is an editable container containing and displaying video or image data.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

None

Prerequisites

None

Operating Procedure

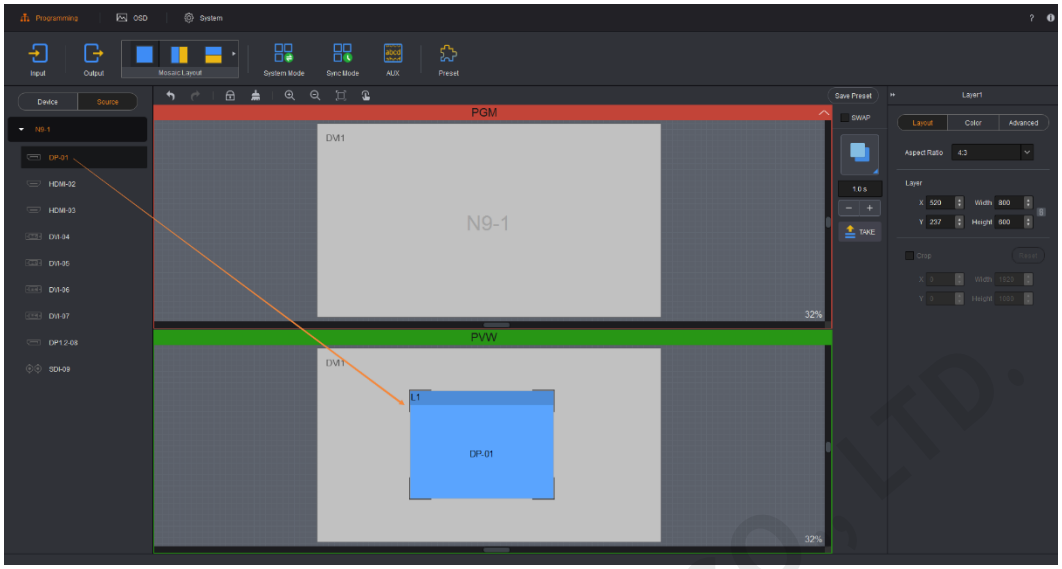
Step 1 Click **Source** on the left pane to show the signal sources.

Step 2 Select a desired signal source.

Step 3 In PVW area, click and drag the mouse, and then release the mouse to add a layer.

Or click and drag the selected signal source to the editing area, and then release the mouse to add a layer.

Figure 3-15 Add layers



Notes:

- For online devices, the size of each added layer created by dragging signal source is half of the input source resolution by default. For example, if the input source resolution is 1920×1080, the size of the added layer is 960×540.
- If the input source resolution is smaller than 800×600, the layer resolution is 800×600 by default.
- For offline devices, the layer resolution is 800×600 by default.

Step 4 Adjust the layer, such as position and size.

- Hover the mouse over the edge of a layer. When the mouse pointer changes into a double arrow, press and hold down the left mouse button, move the mouse to adjust the size of the layer.
- Move the mouse within a layer, press and hold down the left mouse button, drag the layer to move it to any position.
- When you hover the mouse over the layer, some function buttons appear at the top right of the layer. The functions of the buttons are as described in Table 3-1.

Table 3-1 Layer buttons

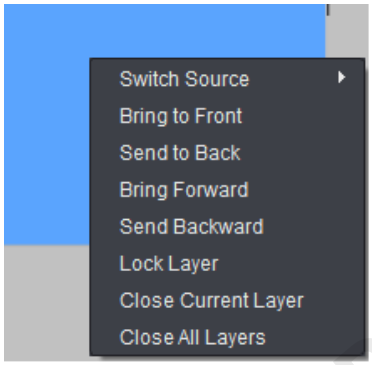
Icon	Description
	Click this icon to make the layer fill the area loaded by the output connectors where the layer locates. Click this icon again to make the layer fill the whole screen.
	Click this icon to make the layer fill the whole screen.
	Click this icon to exit the full screen and restore the layer to its original size and position.
	Click this icon to close the layer.

Icon	Description
	Click this icon to unlock the layer.
	Click this icon to lock the layer. After the layer is locked, the layer properties cannot be set.
	Click this icon to make the layer display the input source image in pixel-to-pixel mode.

Note:

In image mosaic mode, a layer can be locked, unlocked and closed only.

- When a layer is locked, right click the layer and select **Unlock Layer** to unlock it.
- The right-click context menu allows you to perform the following operations.



  - Select **Switch Source** to switch the input source of the selected layer.
  - Select **Bring to Front** to send the selected layer to the top.
  - Select **Send to Back** to send the selected layer to the bottom.
  - Select **Bring Forward** or **Send Backward** to move the selected layer one level up or down.
  - Select **Lock Layer** or **Unlock Layer** to lock or unlock the selected layer.
  - Select **Close Current Layer** to close the selected layer.
  - Select **Close All Layers** to close all the layers.

3.1.7 Switch Layer Input Sources

If you want to switch the layer input source, but keep the layer size and position, simply use this function to quickly switch the source.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

None

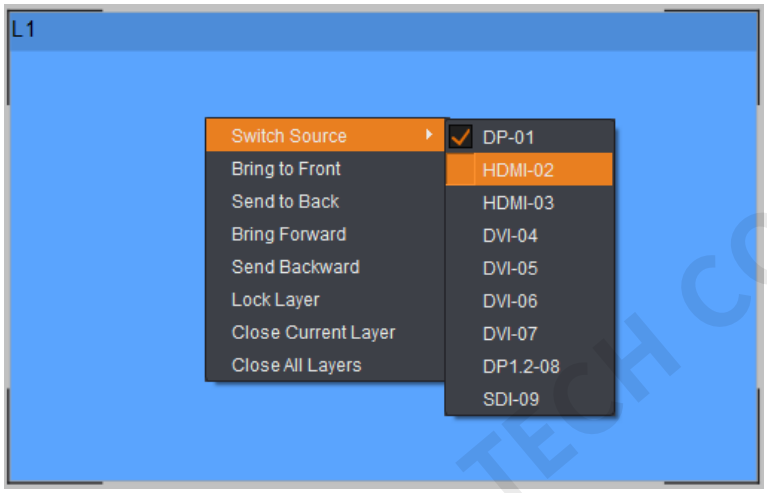
Prerequisites

You have added a layer.

Operating Procedure

Step 1 Right click the layer and select **Switch Source** from the context menu that appears. All input sources of the device will be listed.

Figure 3-16 Switch layer input sources



Step 2 Scroll up or down to select the target source to complete the switching.

3.1.8 Set Layer Properties

You can precisely adjust the layer properties, such as size and position.

3.1.8.1 Adjust Layer Layout

After a layer is selected, go to **Layout** on the right pane to adjust the layer aspect ratio, position and size, as well as cropping.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

- BKG does not support property settings.
- OSD supports position adjustment only.

Prerequisites

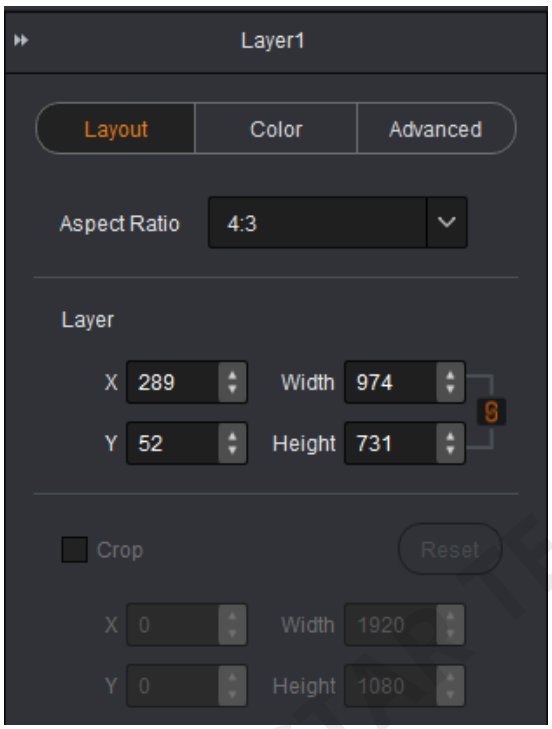
You have added a layer.

Operating Procedure

Step 1 Select the target layer.

Step 2 Click **Layout** on the right pane to show the layout settings as shown in Figure 3-17.

Figure 3-17 Layout



Step 3 Set the aspect ratio, size and position of the layer according to your actual needs.

- Aspect Ratio: The ratio of layer width to height. You can set either a fixed or custom aspect ratio.

  When you set a fixed aspect ratio, the lock icon next to the width and height sliders is highlighted indicating the aspect ratio is locked. You can adjust either width or height to change the layer size with the aspect ratio unchanged.
- Layer: Freely adjust the layer position and size.
  - X: Adjust the horizontal initial position of the layer on the screen.
  - Y: Adjust the vertical initial position of the layer on the screen.
  - Width: Adjust the layer width.
  - Height: Adjust the layer height. Click to lock the layer aspect ratio. At this time, only the width or height can be adjusted, and the other one will be calculated and adjusted automatically according to the aspect ratio you set.

3.1.8.2 Crop Input Source

You can crop the layer input source and only keep the desired part to be displayed.

Applicable Products

- VS7, J6, N9

- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

After the cropping, the cropped (left) part will be stretched to fill the whole layer.

Prerequisites

None

Operating Procedure

Step 1 Select the target layer.

Step 2 Click **Layout** to show the layout settings as shown in Figure 3-17.

Step 3 Select **Crop** to enable the input source cropping function.

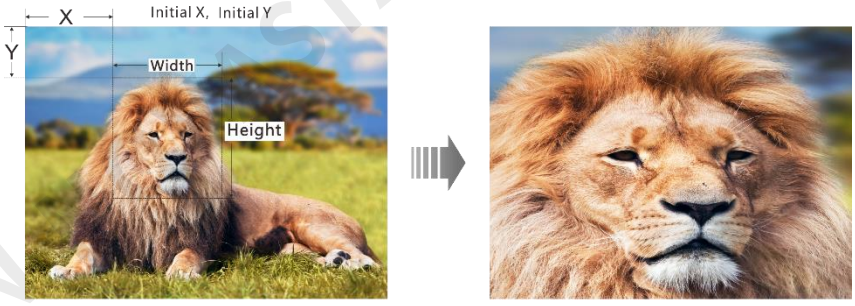
Step 4 Adjust **X** and **Y** to precisely set the starting position for the cropping. The cropping reference is the top left corner of the layer image.

- X: Set the horizontal initial position for the cropping.
- Y: Set the vertical initial position for the cropping.

Step 5 Adjust **Width** and **Height** to precisely set the size of the cropped part.

- Width: Set the image width after cropping.
- Height: Set the image height after cropping.

Figure 3-18 Crop



Click **Reset** to reset all the cropping parameters to defaults.

3.1.8.3 Adjust Layer Color

You can adjust the brightness, contrast, hue, saturation and opacity of the layer image.

Applicable Products

VX1000, VX600, J6, VS7, N9

Notes

- The VX1000 and VX600 support layer opacity adjustment only.

- The J6, VS7 and N9 supports layer brightness, contrast, hue and saturation adjustments.

Prerequisites

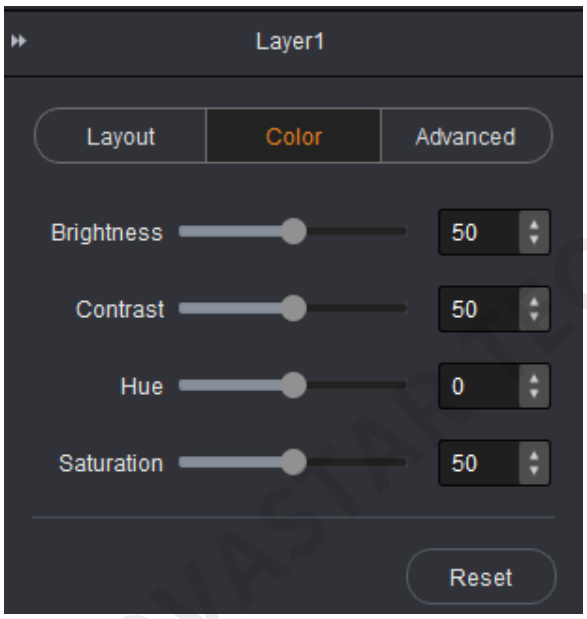
You have added a layer.

Operating Procedure

Step 1 Select the target layer.

Step 2 Click **Color** on the right pane to show the color settings as shown in Figure 3-19.

Figure 3-19 Color



Step 3 Drag the slider, enter a value in the text box or click the up or down arrow next to the text box to set a desired parameter value.

Note:

The J6 and VS7 support individual RGB brightness adjustment.

3.1.8.4 Set Layer Border

You can enable the layer border function and set a border effect for the layer. When multiple layers have been added, borders may help you to quickly position and distinguish the target layer.

Applicable Products

- J6 V3.0.0 or later
- VS7 V3.0.0 or later

Notes

None

Prerequisites

You have added a layer.

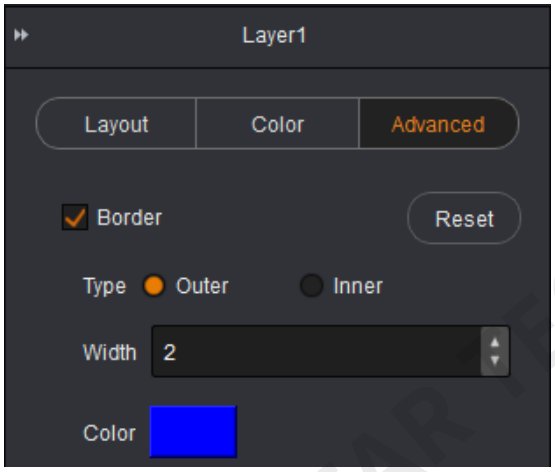
Operating Procedure

Step 1 Select the target layer.

Step 2 Click **Advanced** on the right pane to show the advanced settings as shown in Figure 3-20.

Step 3 Select **Border** to enable the layer border function.

Figure 3-20 Layer border



Step 4 Select the layer border type. **Inner** and **Outer** options are provided.

- Outer: The border that locates outside the layer area
- Inner: The border that locates inside the layer area

Step 5 Set the layer border width.

The border width (unit: pixel) ranges from 0 to 16 and defaults to 2.

Step 6 Set the layer border color.

Click the color block next to **Color** and select a desired color in the window that appears.

3.1.8.5 Copy Layers

When you need to display the same content on both screen synchronously, simply use this function. Layer cloning and mirroring do not occupy layer resources.

Applicable Products

N9

Notes

- The original layer and the cloned/mirrored layer cannot be placed on the screen loaded by the same connector.

- The input source and color of the cloned/mirrored layer are the same as those of the original layer.
- When the mosaic layout is 1×2, 1×3, 1×4 or 2×2, layer cloning and mirroring functions are supported.
- When the original layer moves, the original layer and the cloned/mirrored layer will move together vertically.
- When the size of the original layer is adjusted, the size of the cloned/mirrored layer will keep the same with that of the original layer.

Prerequisites

- You have added a layer.
- The connector mosaic layout must be 1×2, 1×3, 1×4 or 2×2.

Operating Procedure

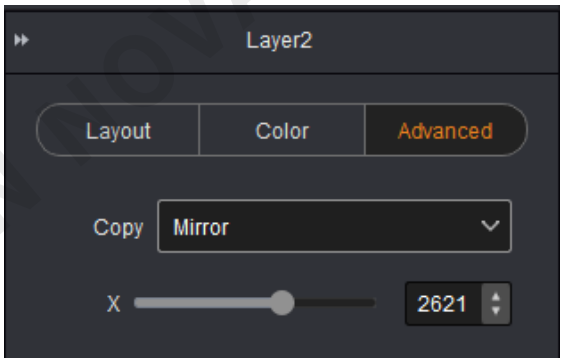
Step 1 Select the target layer.

Step 2 Click **Advanced** on the right pane to show the advanced settings.

Step 3 Select **Clone** or **Mirror** from the drop-down list next to **Copy**.

- Clone: Create a copy for the selected layer. The two layers have the same size, but in a symmetric position with the respect to the screen center. The new layer and original layer display exactly the same image.
- Mirror: Create a mirrored layer for the selected layer. The two layers have the same size, but in a symmetric position with the respect to the screen center. The new layer displays the mirrored image.
- Off: Turn off the copying function and delete the cloned or mirrored layer.

Figure 3-21 Copy layers



Step 4 Drag the slider next to **X** to adjust the horizontal coordinate of the cloned or mirrored layer.

3.1.8.6 Set Layer Keying

When you key out a value, all pixels that have colors or luminance values similar to that value become transparent.
Keying makes it easy to replace a background, which is especially useful when you work with objects too complex to mask easily. When you place a keyed layer over another layer, the result forms a composite, in which the background is visible wherever the keyed layer is transparent.

Applicable Products

N9 V2.1.0.0 or later

Notes

None

Prerequisites

- You have added a layer.
- You have connected an external monitor.

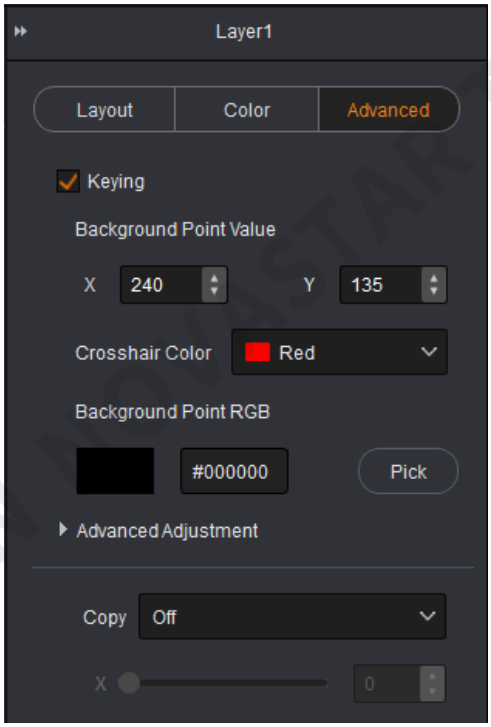
Operating Procedure

Step 1 Select the target layer.

Step 2 Click **Advanced** on the right pane to show the advanced settings.

Step 3 Select **Keying** to enable this function.

Figure 3-22 Keying



Step 4 Set **X** and **Y** in the **Background Point Value** area to set the position of the color to be keyed.

At this time, a crosshair appears on the connected monitor for you to locate the color.

Step 5 Set the crosshair color.

It is recommended you set a color that is quite different from the input source image color, which would be easier for you to check the background point position.

Step 6 Click **Pick** to view the selected color and color value in the **Background Point RGB** area.

Step 7 (Optional) Go to **Advanced** > **Background Threshold** to set the background threshold value to perform keying more precisely.

The background threshold ranges from 0 to 100.
The green background ranges from 0 to 0.4 and defaults to 0.20. The adjustment stepping is 0.01.

Step 8 (Optional) Go to **Advanced** > **Foreground Threshold** to set the foreground threshold value to perform keying more precisely.

The foreground threshold ranges from 0 to 100.
The green background ranges from 15 to 25 and defaults to 20. The adjustment stepping is 0.01.

3.1.9 Set Effects

Effects are the animation presented during image switching, such as fade in and fade out.

V-Can supports a variety of transition effects, providing you a more vivid and flexible visual experience. When different devices are connected, the effects may be different in quantity.

3.1.9.1 Set Transition Effects for Switching Sources

You can set the transition effect and duration for switching layer input sources.

A transition effect here refers to the animation presented when the layer input source is being switched to another.

Transition duration allows you to set the time the transition effect lasts.

Applicable Products

J6, VS7, VX1000, VX600

Notes

- The J6 supports transition settings under the splicer mode.
- The VX1000 and VX600 support transition settings under the video controller mode.

Prerequisites

You have added a layer.

Operating Procedure

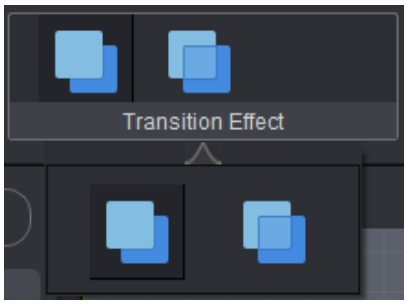
Step 1 Click **Programming** to enter the programming page.

Step 2 Click an effect icon in the transition effect area or click  below to show all the available effects.

Step 3 Select a desired transition effect.

Currently only **Cut** and **Fade** effects are supported.

Figure 3-23 Effects for switching sources



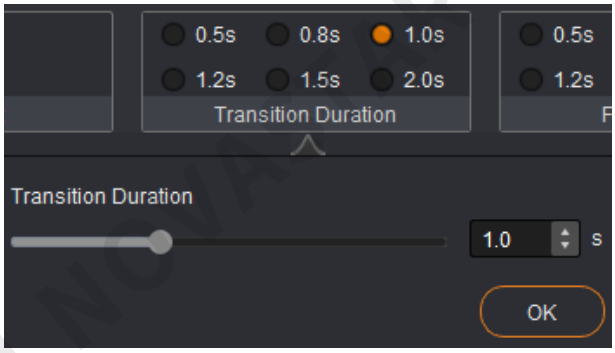
Step 4 Set the transition duration.

You can set the duration via either of the following ways.

- Select a time duration directly from the commonly-used duration list.
- Click  below **Transition Duration** and drag the slider to adjust the duration value, and then click **OK**.

  Click  below **Transition Duration** and set a duration value by either clicking the up or down arrow or entering a value in the text box, and then click **OK**.

Figure 3-24 Transition duration



The duration ranges from 0.5s to 2.0s and defaults to 1.0s.

3.1.9.2 Set Transition Effects for TAKE

Transition effect here refers to the animation presented on the PGM layers when PVW is being sent to PGM by clicking TAKE.

Applicable Products

J6, N9, VX5s, VX6s

Notes

None

Prerequisites

You have set the system mode to Switcher.

Operating Procedure

Step 1 Click  above **TAKE** to show all the available effects.

Figure 3-25 Take effects

Step 2 Select a desired transition effect.

Currently only **Cut** and **Fade** effects are supported.

Step 3 Set the transition duration.

You can set the duration via either of the following ways.

- Enter a duration value in the text box above **TAKE**. The duration ranges from 0.5s to 2.0s and defaults to 1.0s.
- Click **+** or **-** to adjust the duration.

3.1.10 Set FTB Duration

FTB duration refers to the lasting time the output image fades to totally black.

Applicable Products

VX1000, VX600, J6, VS7, N9

Notes

None

Prerequisites

Device version requirements:

- J6 V3.0.0.0 or later

- VS7 V3.0.0.0 or later
- N9 V2.1.0.0 or later

Operating Procedure

Step 1 Click **Programming** to enter the programming page.

Step 2 Set the FTB duration.

The duration ranges from 0.5s to 2.0s.

You can set the duration via either of the following ways.

- Select a time duration directly from the commonly-used duration list.
- Click  below **FTB Duration** and drag the slider to adjust the duration value, and then click **OK**.
- Click  below **FTB Duration** and set a duration value by either clicking the up or down arrow or entering a value in the text box, and then click **OK**.

3.1.11 Set Sync Mode

When multiple devices are cascaded, the sync mode must be enabled. Synchronization between signal sources makes sure the display of the mosaic screen is intact and consistent.

When devices such as cameras are connected, enabling sync mode can remove scan lines.

Applicable Products

VX5s, VX6s, J6, VS7, N9, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

None

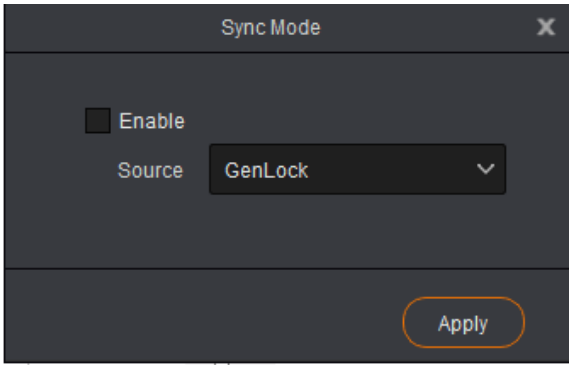
Prerequisites

When an external Genlock is used as the sync source, make sure you have connected the Genlock source to Genlock In connector on the device rear panel.

Operating Procedure

Step 1 Go to **Programming** > **Sync Mode** to open the synchronization settings window as shown in Figure 3-26.

Figure 3-26 Sync mode



Step 2 Select **Enable** to turn on the function.

Step 3 Select a desired sync source from the drop-down list next to **Source**.

- Genlock: Use an external signal source as the sync source.
- Other connectors: Use an internal input source as the sync source.

Step 4 Click **Apply** to complete the sync settings.

3.1.12 Set AUX

When the connected device supports auxiliary output function, you can set the input source for AUX output in V-Can.

Applicable Products

N9, J6

Notes

None

Prerequisites

The J6 supports AUX settings under the switcher mode.

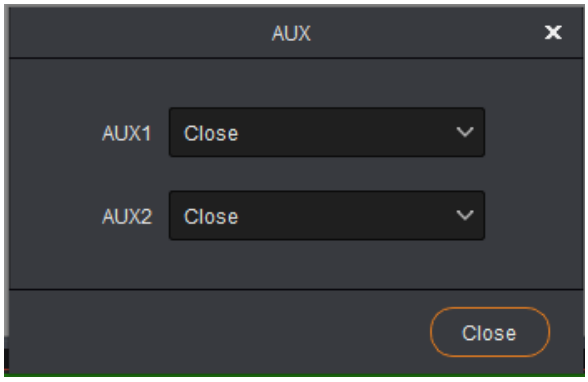
Operating Procedure

The following procedure takes the N9 as an example to illustrate.

- For N9 V2.1.0.0 earlier versions

Step 1 Go to **Programming** > **AUX** to open the AUX settings window as shown in Figure 3-27.

Figure 3-27 AUX settings

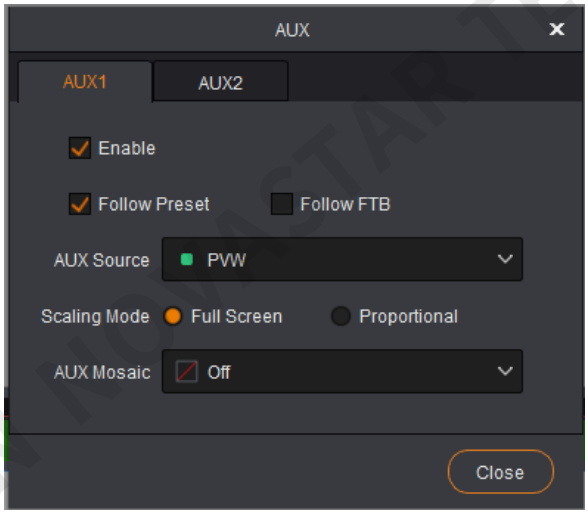


Step 2 Select the input sources for AUX 1 and AUX 2 respectively from the drop-down lists next to **AUX1** and **AUX2**.

- For N9 V2.1.0.0 and later versions

Step 1 Go to **Programming** > **AUX** to open the AUX settings window as shown in Figure 3-28.

Figure 3-28 AUX settings



Step 2 Click the **AUX1** or **AUX2** tab to show the respective settings.

Step 3 Select **Enable** to enable the AUX function.

Step 4 Select a desired input source for AUX from the drop-down list next to **AUX Source**.

Step 5 Check or uncheck the box next to **Follow Preset**.

- Checked: After the AUX is changed, you need to click **TAKE** or **CUT** to send the changed information to the AUX screen.
- Unchecked: After the AUX is changed, the changed information will be sent to AUX screen directly.

Step 6 Check or uncheck the box next to **Follow FTB**.

- Checked: If the LED screen fades to black, the AUX will follow the screen to fade to black.
- Unchecked: If the LED screen fades to black, the AUX will not follow the screen to fade to black.

Step 7 Set the AUX scaling mode.

- Full Screen: Make the AUX output image display in full screen.
- Proportional: Scale the AUX output image proportionally based on the aspect ratio of the input source, and then display the image in full screen (with image width or height display in full size).

Step 8 Set the AUX mosaic layout.

- Off: Disable the AUX mosaic output. At this time, AUX 1 and AUX 2 can be set respectively.
-  /  : Select a desired mosaic layout. At this time, AUX 2 cannot be set.

3.1.13 Set HDR

HDR is the abbreviation for High-Dynamic Range. HDR function can greatly enhance the display image quality, allowing for a more clear and vivid image when the device is used together with NovaStar A8s receiving cards.

Applicable Products

NovaPro UHD Jr

Notes

- Currently only HDR10 video sources are supported.
- When the HDR function is enabled, the device loading capacity will be reduced by 50%.

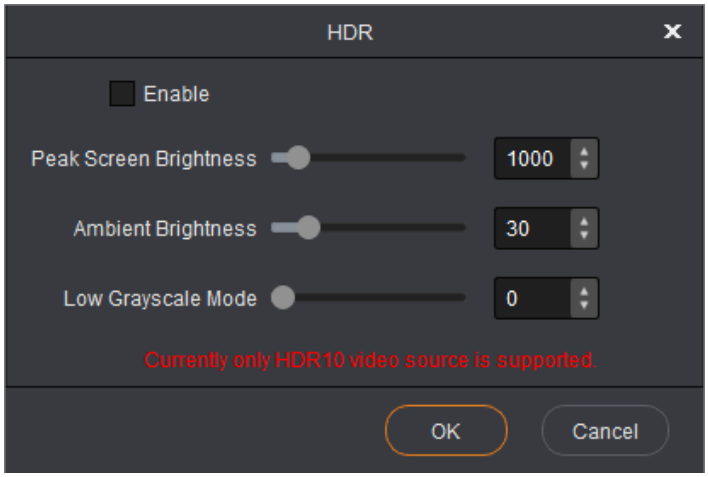
Prerequisites

None

Operating Procedure

Step 1 Go to **Programming** > **HDR** to open the HDR settings window as shown in Figure 3-29.

Figure 3-29 HDR settings



Step 2 Select **Enable** to turn on the HDR function.

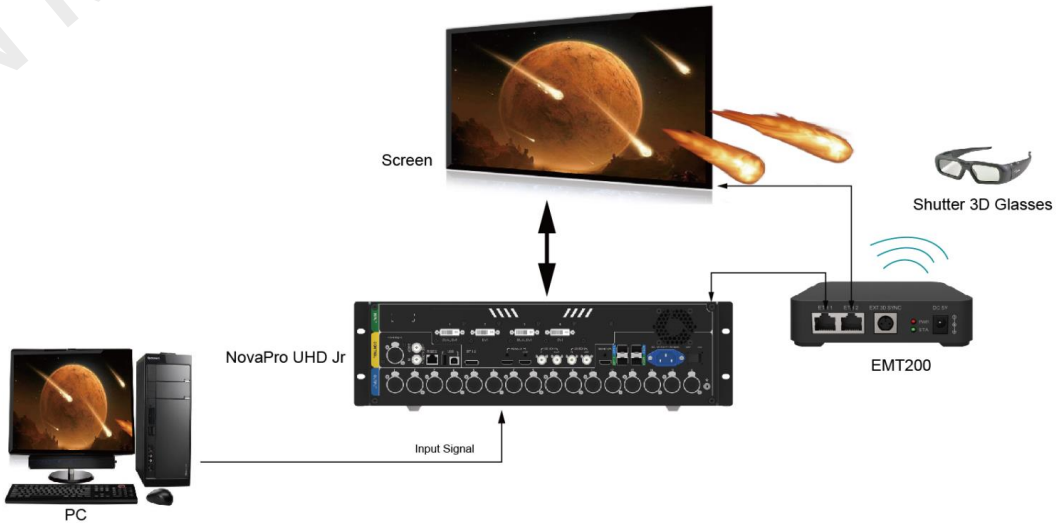
Step 3 Set **Screen Peak Brightness** and **Ambient Brightness** to adjust the image display effect.

- Peak Screen Brightness: Set the screen brightness under normal operation. The value ranges from 100 to 10000 and defaults to 1000.
- Ambient Brightness: Set the brightness of the surrounding environment where the screen locates. This brightness value can be measured. The value ranges from 0 to 200 and defaults to 30.
- Low Grayscale Mode: Set the grayscale value of the image displayed on the screen. The value ranges from 0 to 50 and defaults to 15.

3.1.14 Set 3D

Work with NovaStar EMT200 3D transmitter and matched 3D glasses to present you 3D visual experience.

Figure 3-30 3D solution architecture



Applicable Products

NovaPro UHD Jr, VX16s, VX1000

Notes

- When the 3D function is enabled, the device loading capacity will be reduced by 50%.
- When the 3D function is enabled, only the main layer will be kept and other PIP will be closed automatically.
- 3D effect only works for the main layer.

Prerequisites

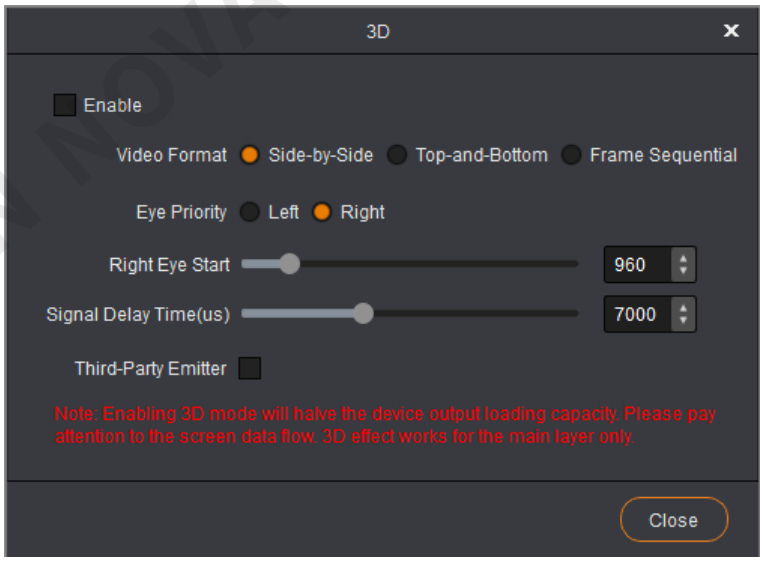
- Device version requirements:
  - NovaPro UHD Jr V1.2.1.1 or later
- To realize pixel-to-pixel 3D effect, the eye frame settings vary according to different 3D source formats.
  - Side-by-Side: Set the frame width to the half of the resolution width of the 3D source.
  - Top-and-Bottom: Set the frame height to the half of the resolution height of the 3D source.

Operating Procedure

Step 1 Go to **Programming** > **3D** to open the 3D settings window.

Step 2 Select **Enable** to turn on the 3D function.

Figure 3-31 3D settings



Step 3 Select the 3D format of the video source. The options include **Side-by-Side**, **Top-and-Bottom** and **Frame Sequential**.

Step 4 Set the eye priority according to the mode of the 3D glasses. The options include **Left** and **Right**.

Step 5 Set the starting position for the right eye frame.

- Side-by-Side: 960 (default)
- Top-and-Bottom: 540 (default)
- Frame Sequential: unavailable

Step 6 Set the signal delay time.

Step 7 (Optional) If you use a third-party 3D emitter, select **Enable third-party emitter**.

3.1.15 Preset Operations

3.1.15.1 Save Presets

Applicable Products

J6, N9, NovaPro UHD Jr, VS7, VX5s, VX6s, VX16s, VX600, VX1000

Notes

Empty presets cannot be saved.

Prerequisites

You have added a layer.

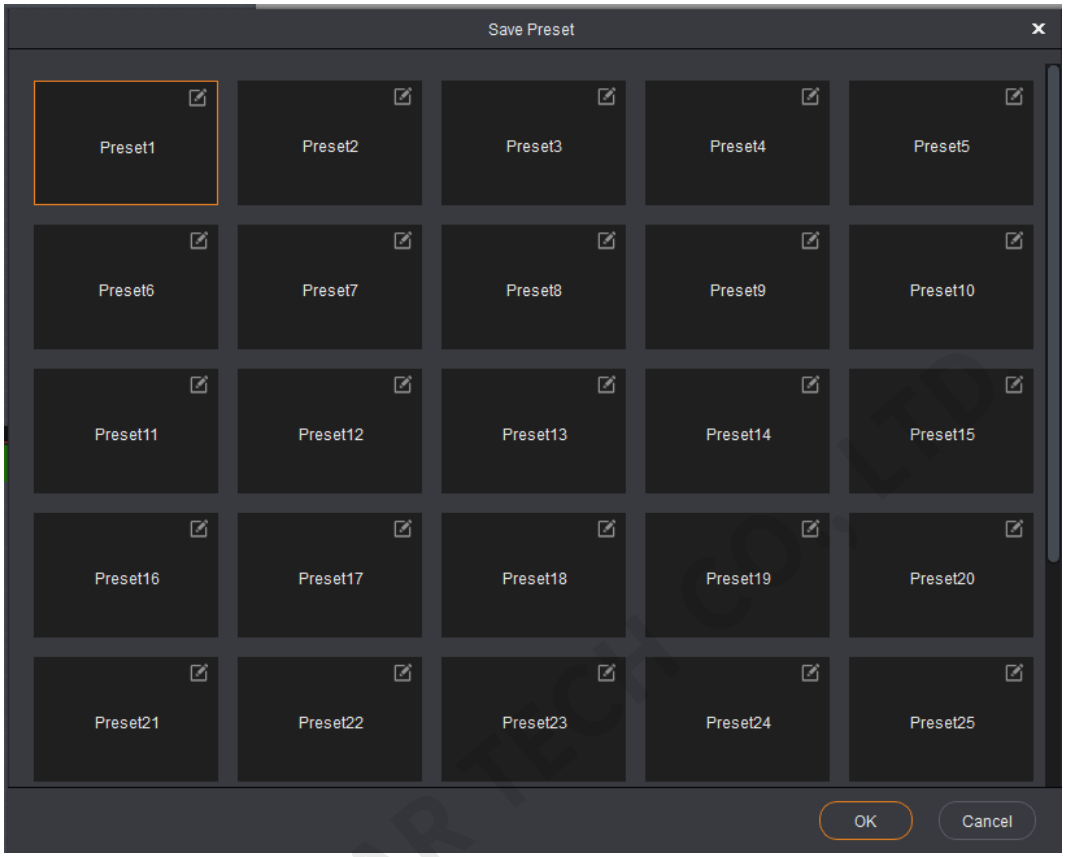
Operating Procedure

Step 1 Add and edit the layers in the video editing area.

Step 2 Click **Save Preset** at the top right of the area.

Step 3 Select the target preset in the window that appears.

Figure 3-32 Save presets



Step 4 Click **OK** to save the preset.

A saved preset will have a green bar at the bottom.

Note:

You can also go to **Programming** > **Preset** after the layer editing, and then right click an empty preset and select **Save** to save a new preset.

3.1.15.2 Load Presets

After the presets are successfully saved, you can quickly apply a layer layout and settings to the screen by loading a saved preset to the screen or PVW.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

None

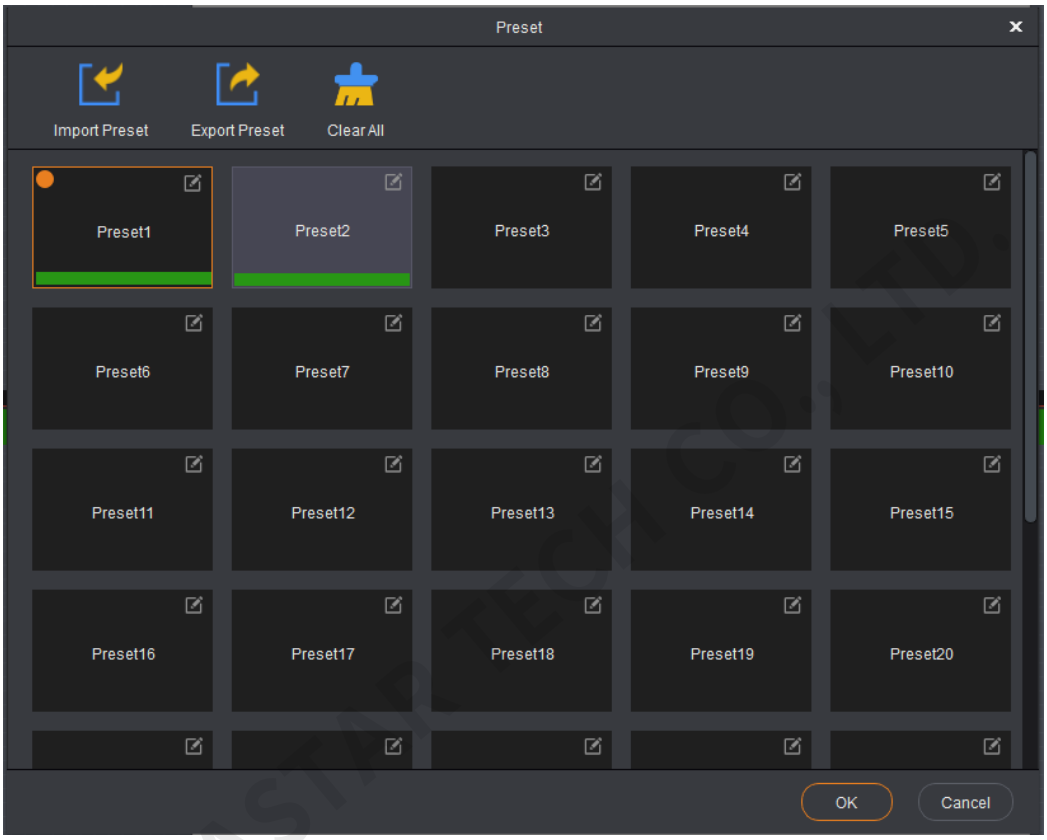
Prerequisites

You have saved a preset.

Operating Procedure

Step 1 Go to **Programming** > **Preset** to open the preset window.

Figure 3-33 Presets



Note:

- Presets with a green bar at the bottom are the saved presets, and others are empty presets which cannot be loaded.
- Right click a saved preset and select **Clear** to clear the data in the preset.

Step 2 Click a saved preset to load it to PVW or the screen.

Step 3 Click **OK** to close the preset window.

3.1.15.3 Rename Presets

After the presets are successfully saved, they are all named by preset n (n stands for a sequential number), which is not easy to distinguish. You can use this function to rename the preset according to your reference.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

- N9 V2.1.0.0 earlier version does not support the renaming function.
- Empty presets cannot be renamed.

Prerequisites

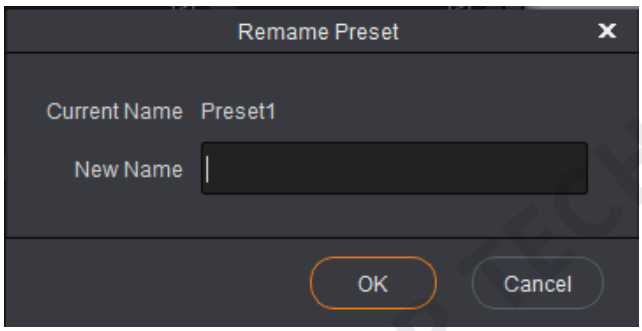
You have saved a preset.

Operating Procedure

Step 1 Go to **Programming** > **Preset** to open the preset window.

Step 2 Click  at the top right of a saved preset to open the preset renaming window.

Figure 3-34 Renaming



Step 3 Click **OK** to complete the renaming.

3.1.15.4 Copy Presets

You can copy the layer layout and settings in a saved preset to a new preset.

Applicable Products

NovaPro UHD Jr, VX1000, VX600, VX16s, VS7, J6, N9

Notes

- VS7 V3.0.0.0 or later
- J6 V3.0.0.0 or later
- N9 V2.1.0.0 or later

Prerequisites

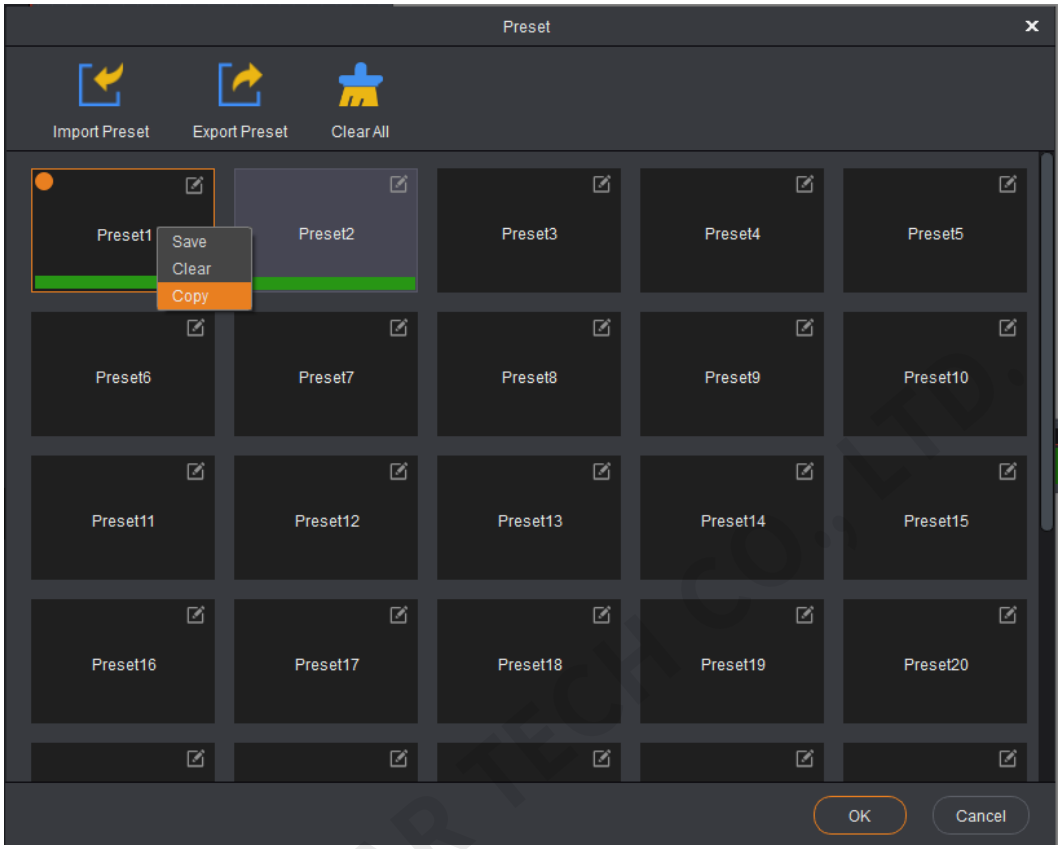
You have saved a preset.

Operating Procedure

Step 1 Go to **Programming** > **Preset** to open the preset window.

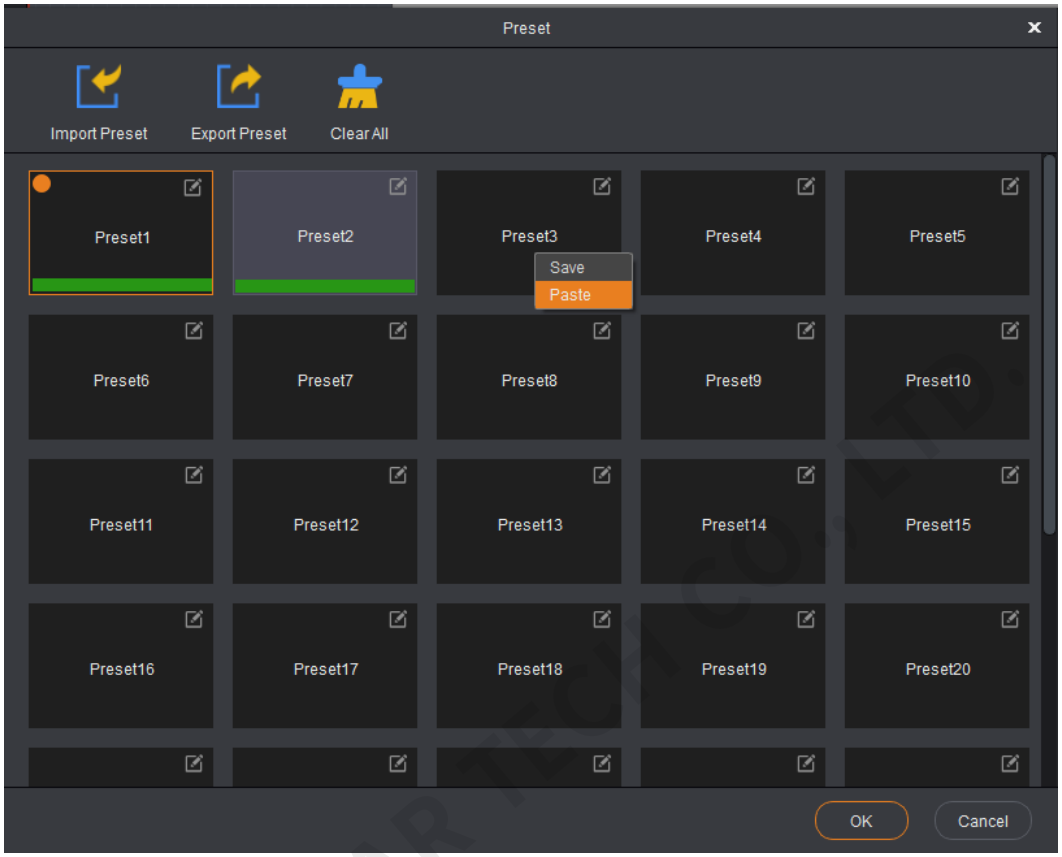
Step 2 Right click a saved preset and select **Copy**.

Figure 3-35 Copy presets



Step 3 Right click the target preset and select **Paste** to complete the copying.

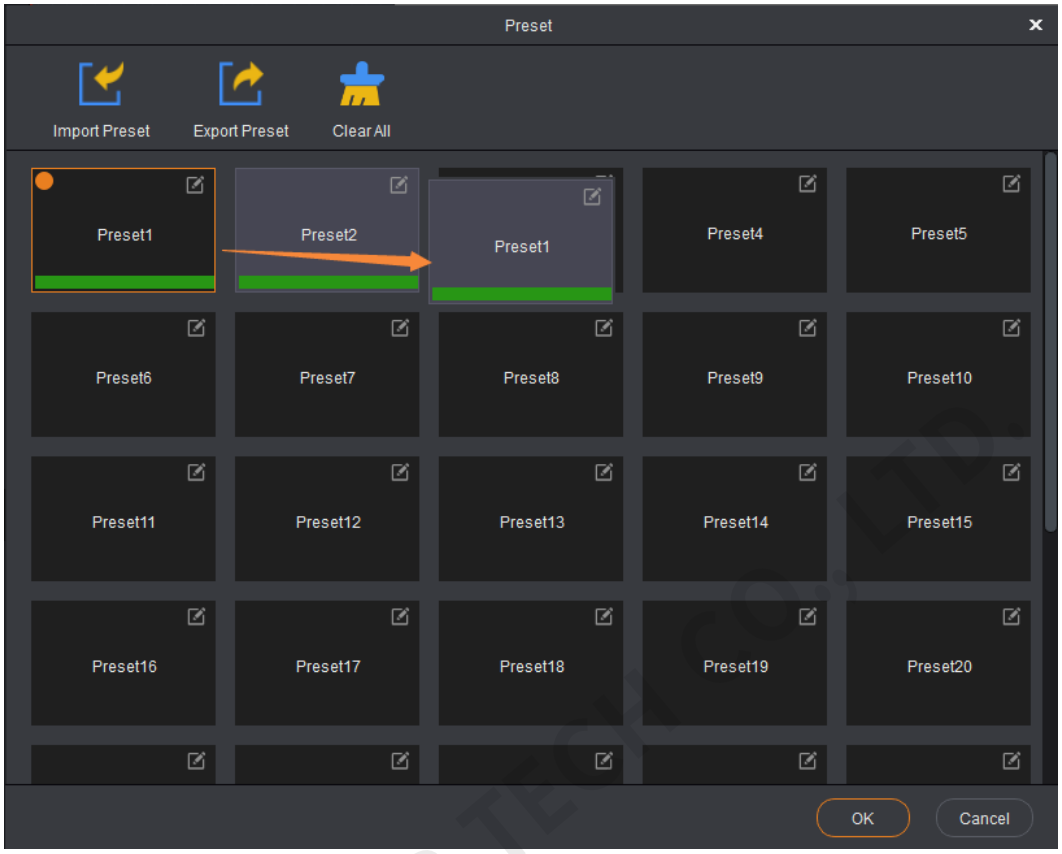
Figure 3-36 Paste presets



Note:

Quick copying:

Click a saved preset and drag it to the target preset, and then release the mouse to complete the copying.



3.1.15.5 Import/Export Presets

You can export the saved presets as independent preset files, and import them to another device when needed.

Applicable Products

VX1000, VX600, J6, VS7, N9

Notes

- J6 V3.0.0.0 or later
- VS7 V3.0.0.0 or later
- N9 V2.1.0.0 or later
- Presets can be imported to the devices of the same model only.

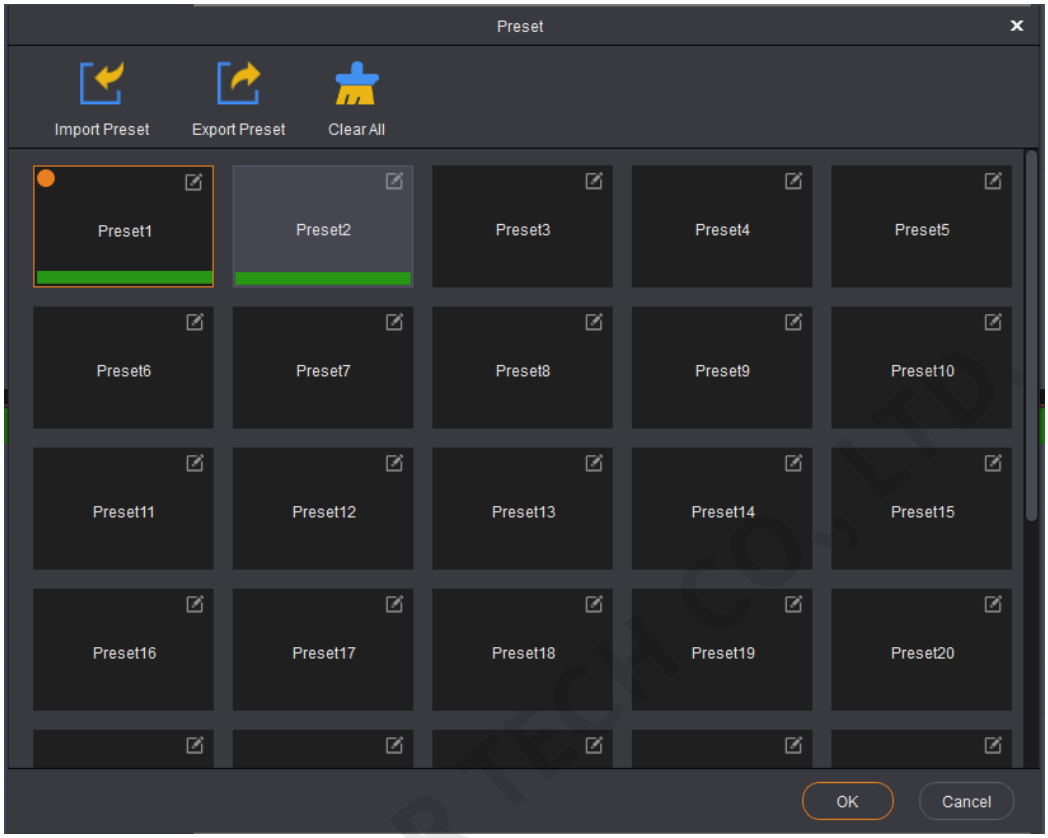
Prerequisites

None

Operating Procedure

Step 1 Go to **Programming** > **Preset** to open the preset window.

Figure 3-37 Presets



Step 2 Click **Import Preset** or **Export Preset**.

- Import Preset: Import the preset files to the current device, and the new presets will overwrite the existing ones.
- Export Preset: Export the presets to your local computer for future importing if needed.

Step 3 Select the target folder from the window that appears.

Step 4 Click **Browse** to complete the importing or exporting.

3.1.15.6 Play Presets

You can set the starting time of the playback, and the presets will be played in turn according to your schedule.

Applicable Products

VS7

Notes

Only the VS7 V3.0.0.0 supports the preset playback function.

Prerequisites

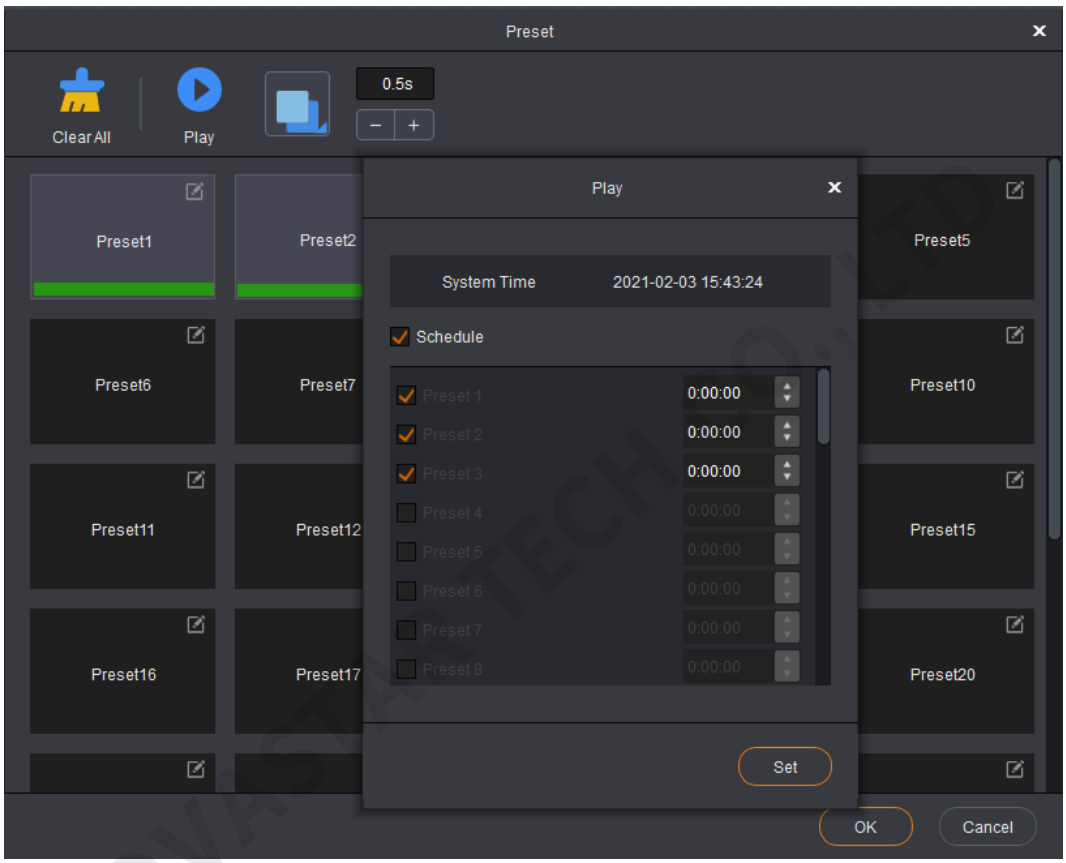
You have saved a preset.

Operating Procedure

Step 1 Go to **Programming** > **Preset** to open the preset window.

Step 2 Click **Play** to open the playback settings window.

Figure 3-38 Play presets



Step 3 Select **Schedule** to enable the scheduled playback function.

Step 4 Select the desired presets to be played.

Step 5 Set the playback starting time for each preset.

Step 6 Click **Set** to complete the playback settings.

Step 7 Click **OK** to close the playback window.

3.1.15.7 Set Transition Effects for Switching Presets

You can set the animation presented when a preset is being switched to another. Currently only **Cut** and **Fade** effects are supported.

Applicable Products

VS7, J6

Notes

The J6 supports transition settings for preset switching under the splicer mode.

Prerequisites

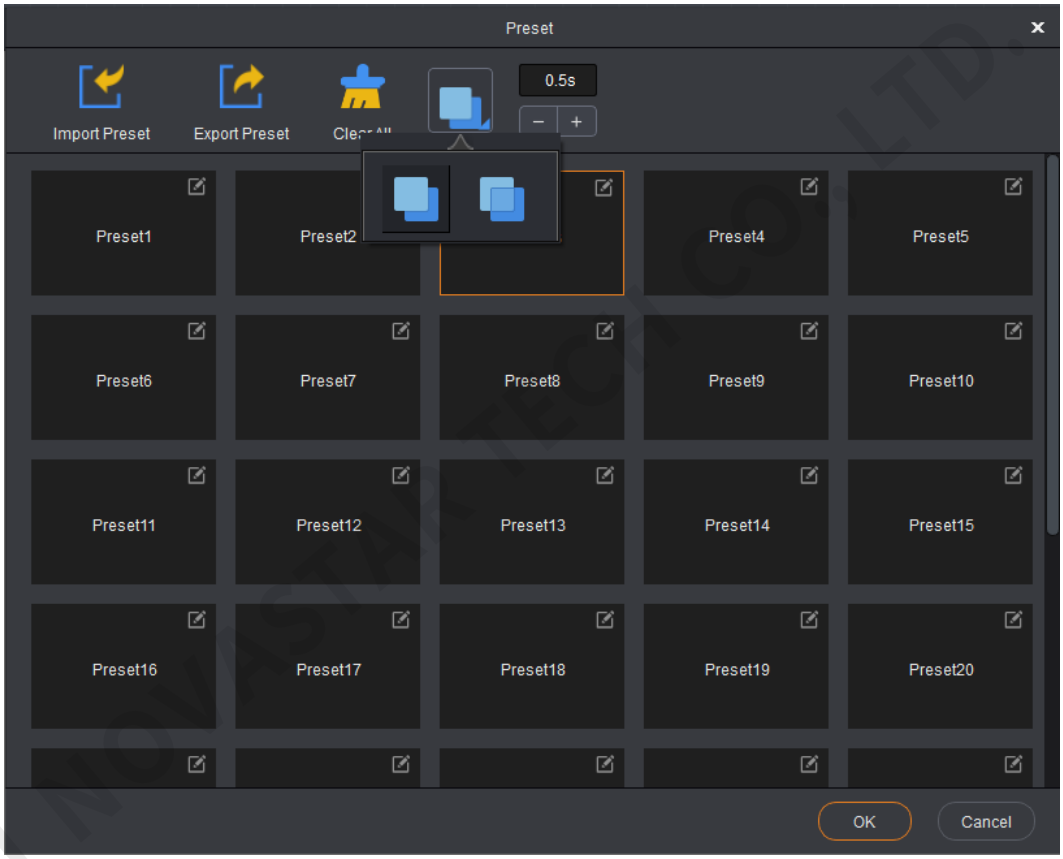
None

Operating Procedure

Step 1 Go to **Programming** > **Preset** to open the preset window.

Step 2 Click  to show all the available effects.

Figure 3-39 Transition effects for switching presets



Step 3 Select a desired transition effect.

Step 4 Set the transition duration.

Click **+** or **-** to adjust the duration.

Enter a duration value in the text box. The duration ranges from 0.5s to 2.0s and defaults to 0.5s.

3.2 OSD

3.2.1 Add BKG

BKG is the abbreviation for background. BKG has the lowest priority and cannot be adjusted.

Applicable Products

J6, VS7, N9, NovaPro UHD Jr

Notes

- BKG locates at the bottom layer.
- BKG fills the whole screen. BKG position and size cannot be adjusted.

Prerequisites

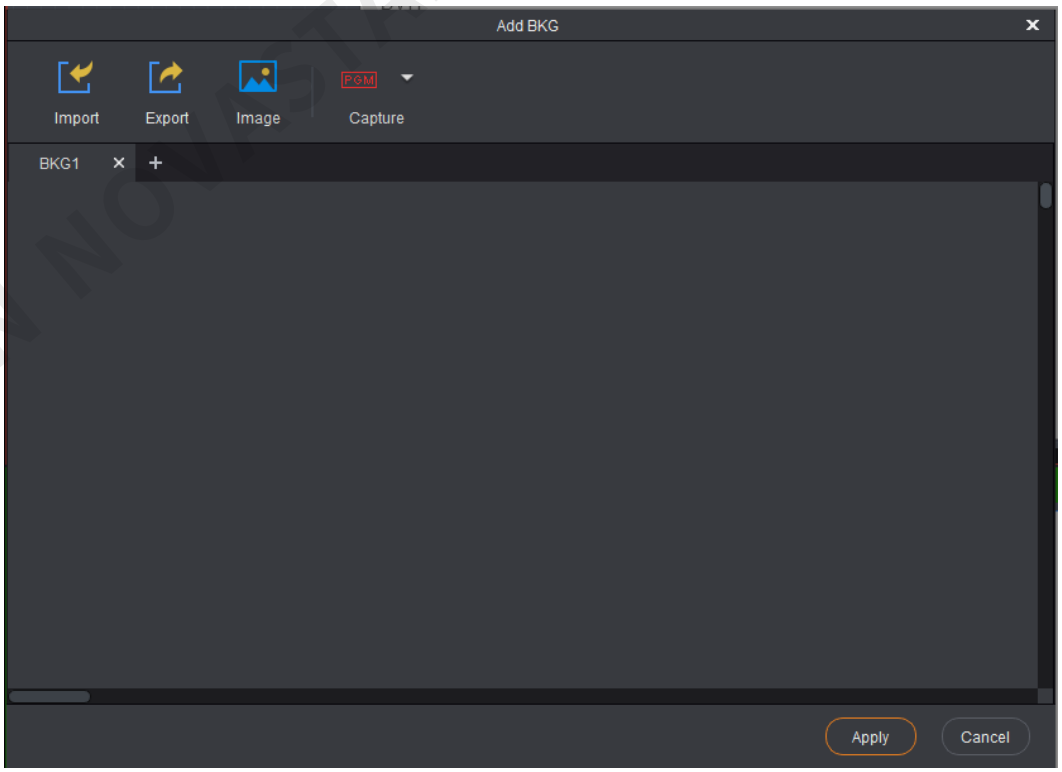
None

3.2.1.1 Add BKG Images

Step 1 Click **OSD** to enter the OSD and BKG settings page.

Step 2 Click  in the BKG area to open the BKG settings window.

Figure 3-40 Add BKG

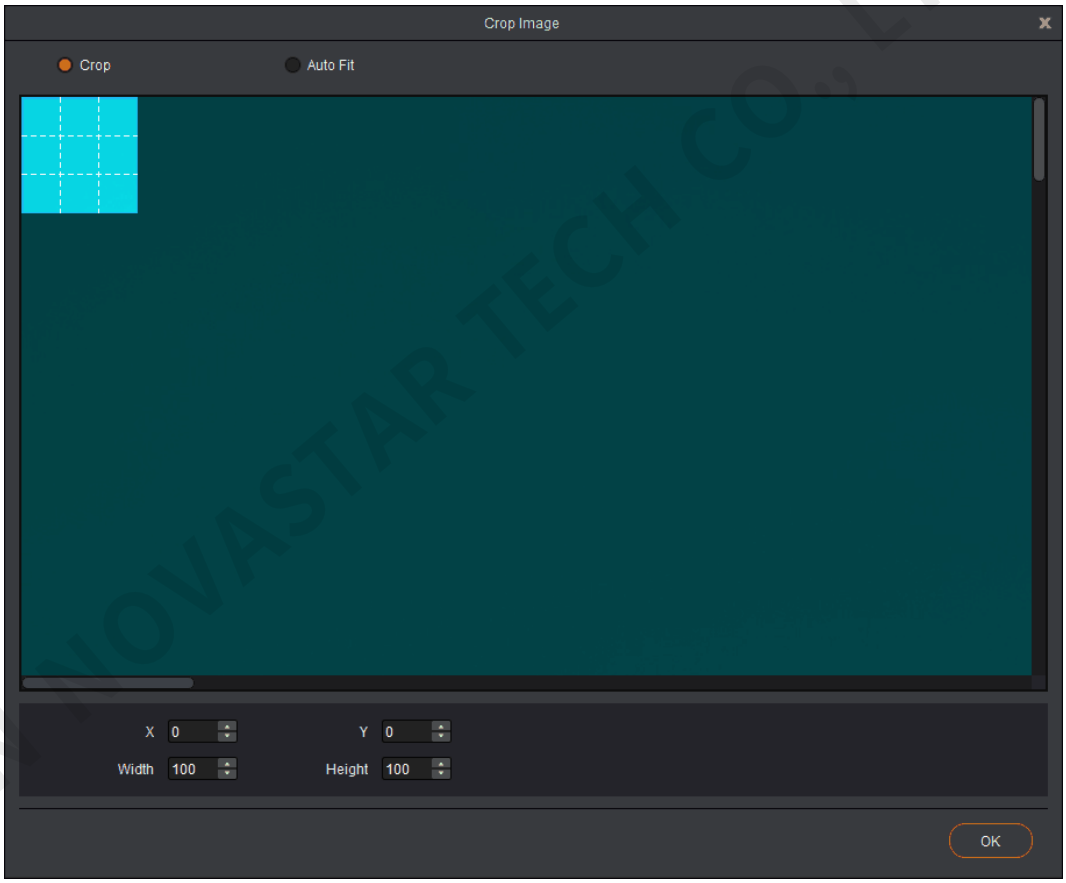


Step 3 Click **Image** to select a desired image from your local computer.

Step 4 Click **Open** to add the image.

- If the image size is greater than the screen resolution, the below window appears as shown in Figure 3-41. The dotted box indicates the cropped area.
  1. Hover the mouse over the edge of the dotted box. When the mouse pointer changes into a double arrow, click and drag the box to adjust the size of the cropped area. You can also directly enter the values for **Width** and **Height** to adjust the size of the cropped area.
  2. Click and drag the dotted box to adjust the position of the cropped area. You can also directly enter the values for **X** and **Y** to adjust the position of the cropped area.
  3. After the settings, click **OK**.

Figure 3-41 Crop BKG

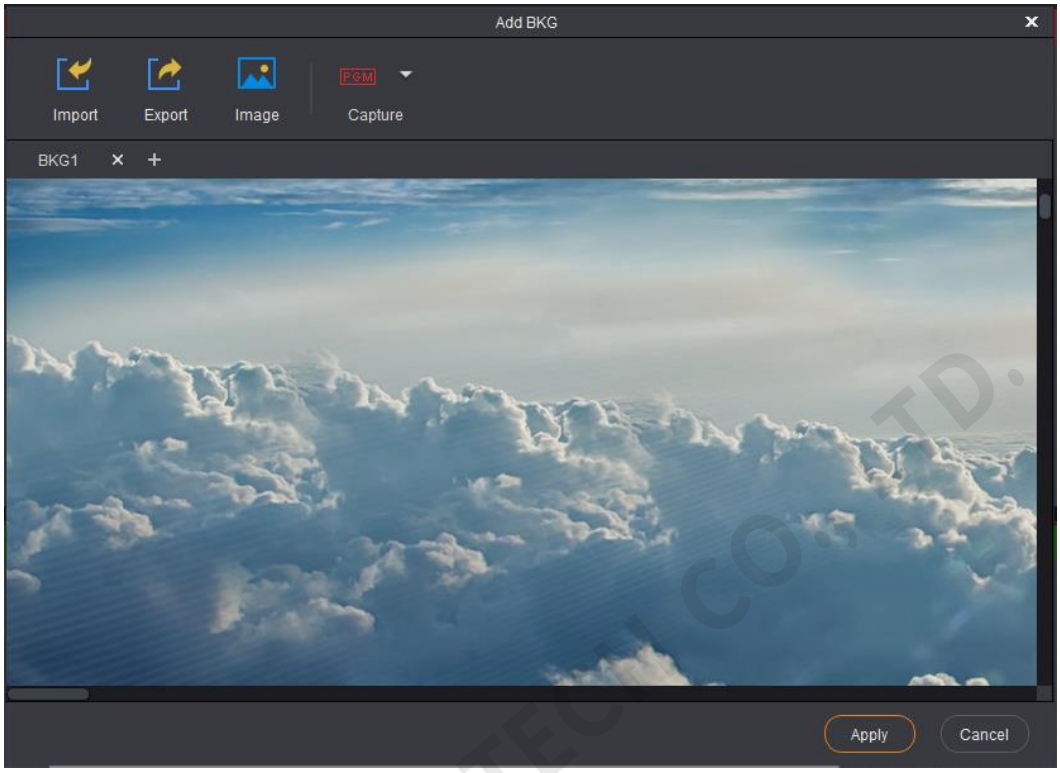


Note:

Select **Auto Fit** to make the image fill the whole screen.

- If the image size is smaller than the screen resolution, the image is added directly as shown in Figure 3-42.

Figure 3-42 Add BKG



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

3.2.1.2 Add A Captured Image as BKG

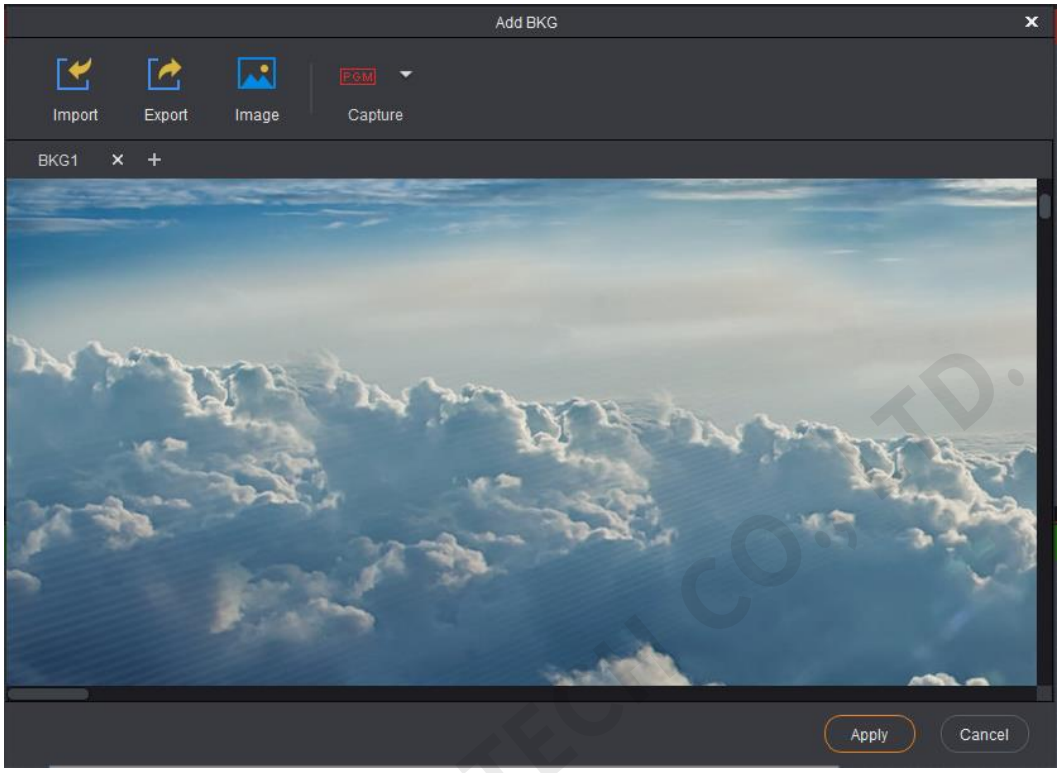
You can capture the current frame of the input source and save the captured image as a BKG image.

Step 1 Click **OSD** to enter the OSD and BKG settings page.

Step 2 Click  in the BKG area to open the BKG settings window.

Step 3 Click **Capture** to select a desired input source or PGM from the drop-down list, and the system will capture the input source or PGM image automatically.

Figure 3-43 Add a captured image as BKG



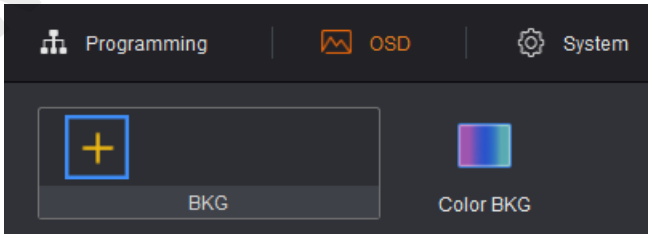
Right click the BKG area to select **Read Back**, **Read Back All** or **Delete** to perform corresponding operation to the BKG image.

- Read Back: Read the current BKG image back to V-Can.
- Read Back All: Read all the BKG images back to V-Can.
- Delete: Delete the current BKG image.

3.2.1.3 Add Pure Color BKG

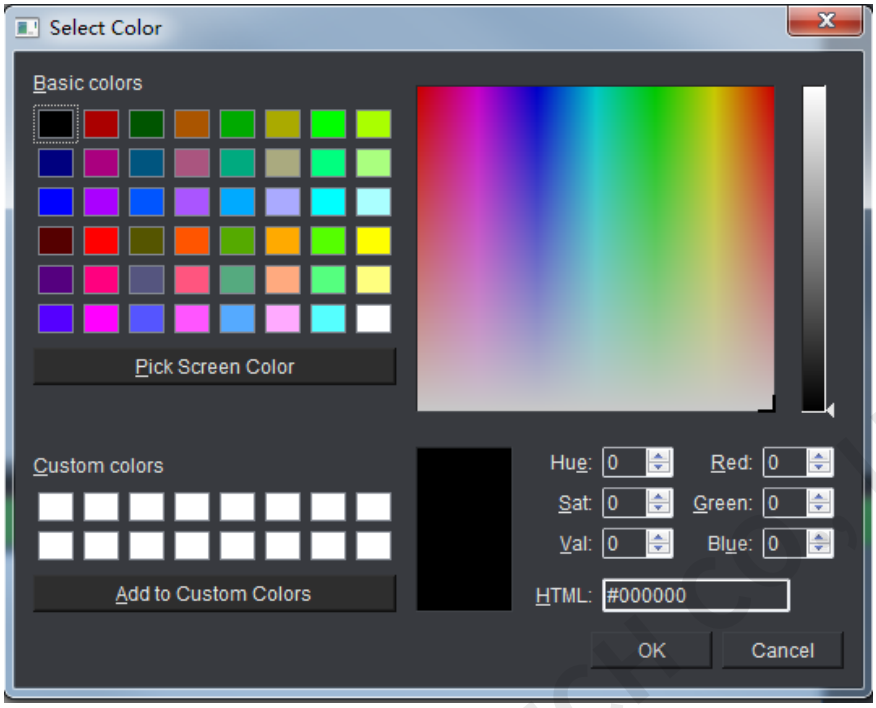
Step 1 Click **OSD** to enter the OSD and BKG settings page.

Figure 3-44 OSD menu



Step 2 Click **Color BKG** to open the BKG color settings window as shown in Figure 3-45.

Figure 3-45 Select BKG color



Step 3 Select a desired color.

Step 4 After the settings, click **OK**.

3.2.1.4 Import/Export BKG

You can export the configured BKG files to your local computer and import them back again when needed.

Note:

N9 V2.1.0.0 or later version supports BKG importing and exporting functions.

J6 and VS7 V3.0.0.0 or later version support BKG importing and exporting functions.

3.2.2 Add A BKG to Screen

Step 1 Click **OSD** to enter the OSD and BKG settings page.

Step 2 Click  or  to scroll through the added BKG images.

Click  to expand the BKG page to view all the available BKG images.

Step 3 Click a BKG thumbnail to add the BKG to screen.

Note:

When you add a pure color BKG, the selected color will be automatically added to the screen.

3.3 System

Click **System** to enter the system settings page.

3.3.1 Connect

When the device is disconnected from the control PC or you need to synchronize the device data, click **Connect** to restore the connection and perform the data synchronization.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

After you update the device in V-Can, you need to reconnect the device.

Prerequisites

You have connected the video processor or all-in-one controller to the control PC via an Ethernet cable or USB cable.

Operating Procedure

Step 1 Go to **System** > **Connect** and the system will automatically search for and connect the devices.

Step 2 Click **Device** on the left pane to view all the connected devices as shown in Figure 3-46.

Figure 3-46 Device list

Step 3 Click **Source** to view the connection and working status of the signal sources of the connected device.

3.3.2 Sync

V-Can allows you to read the configuration data of the current device and displays the device configuration data.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

None

Prerequisites

You have connected the device with V-Can.

Operating Procedure

Go to **System** > **Sync** and the system will automatically synchronize all the device information.

3.3.3 Firmware Update

You can view the versions of all the connected devices and select to update the desired ones.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

- The firmware version must match the device.
- To update the VX1000 or VX600, make sure the device is connected to the control PC via Ethernet cable.
- After the update, please go to **System** > **Connect** to reconnect the device.

Prerequisites

- You have connected the device with V-Can.
- You have obtained the software version that matches with the device.

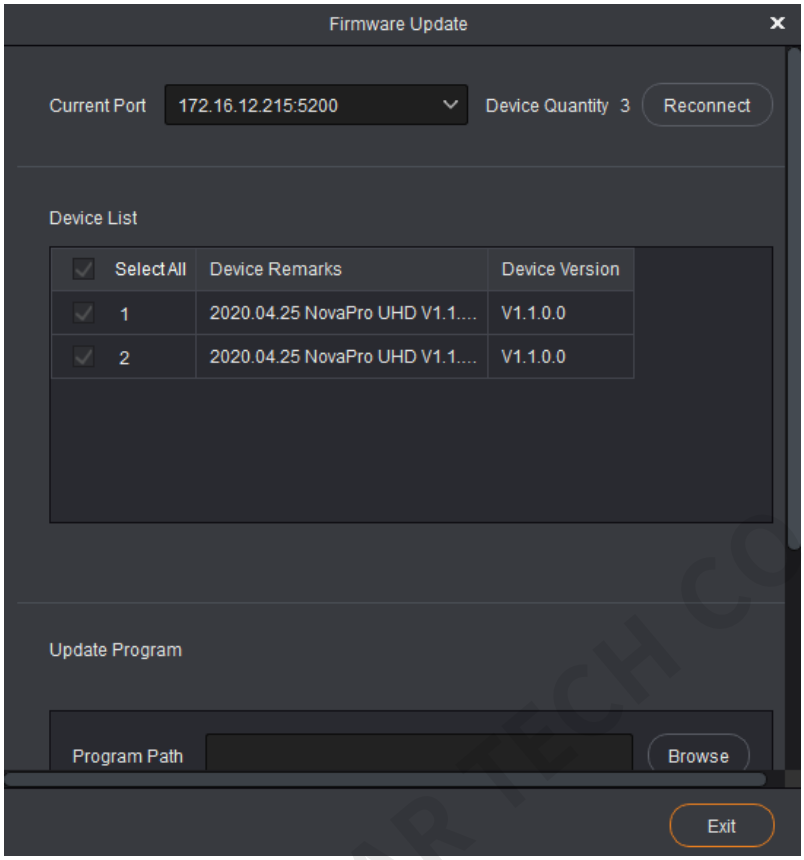
Operating Procedure

- View the device versions.

  Go to **System** > **Firmware Update** to view all the version information of the connected device in the window that appears.
- Update the firmware.

Step 1 Go to **System** > **Firmware Update** to open the update window.

Figure 3-47 Firmware update



Step 2 Select the desired communication port.

If multiple devices are connected to V-Can, select the desired port for the device connection from the drop-down list next to **Current Port**.

If multiple devices are cascaded, V-Can will automatically read the quantity of connected devices and show the quantity in **Device Quantity**. **Device List** shows the device versions, MCU versions, FPGA versions, gallery versions and font versions of all the connected devices.

Step 3 Click **Browse** to select the version that has been downloaded to your local PC from the window appears.

Step 4 Click **Update** to update the firmware of the connected device.

Note:

Click **Advanced** and type "admin" to enter the advanced mode where you can update the device MCU, FPGA_A, FPGA_B, gallery and text font.

The VX1000 and VX600 do not support the advanced mode.

3.3.4 Diagnostics

The diagnostics function helps you to diagnose the system and troubleshoot the malfunctioned device components.

You can export the device running logs to the control PC to help the developers quickly locate the problems and track the problems for analysis.

Applicable Products

VX1000, VX600

Notes

- Running diagnostics may interrupt the device output. After the diagnostics, the output will resume immediately.
- To export the logs, make sure the device is connected to the control PC via Ethernet cable.

Prerequisites

- You have connected the device to the control PC.
- You have connected the necessary inputs and outputs for the device.

3.3.4.1 Parameter Test

Step 1 Go to **System** > **Diagnostics** > **Parameter Test** to open the device parameter test window.

After the test, the system will show the test result.

Step 2 Click **OK** to complete the parameter test.

Click **Retry** to re-diagnose the device and show the test result.

3.3.4.2 Export Log

Step 1 Go to **System** > **Diagnostics** > **Export Log** to open the log exporting window.

Step 2 Select a local path to save the log.

Step 3 Name the log file.

Step 4 Click **Open** to complete the exporting.

Note:

The default name of the log file is "SN-year-month-day-log.tar". You can rename the file, but you cannot change the filename extension.

3.3.5 Backup

You can back up the device configuration to your local computer and restore it when needed.

Applicable Products

VX1000, VX600

Notes

You have connected the device to the control PC via Ethernet cable.

Prerequisites

- You have connected the device to the control PC.

- You have completed necessary device configuration.

Operating Procedure

Step 1 Go to **System** > **Backup** to open the backup window.

Step 2 Click **Export**.

Step 3 Select a local path to save the backup file.

Step 4 Name the backup file.

Step 5 Click **Open** to complete the backup.

Note:

The default name of the backup file is "Device model-YMD-hour-minute-uback.img". You can rename the file, but you cannot change the filename extension.

3.3.6 Restore

Restore the backup information on your local computer to the device for quick device configuration.

Applicable Products

VX1000, VX600

Notes

- The restoration must be done on the device of the same model with the device where you do the backup.
- You have connected the device to the control PC via Ethernet cable.

Prerequisites

You have backed up a device configuration file.

Operating Procedure

Step 1 Go to **System** > **Restore** to open the restore window.

Step 2 Click **Import**.

Step 3 Select the local path where you save the backup file.

Step 4 Enter the name of the backup file.

Step 5 Click **Open** to complete the restoring.

3.3.7 Self-Test

You can use the built-in test patterns to check whether the display of the video wall connected to the current device is normal.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

None

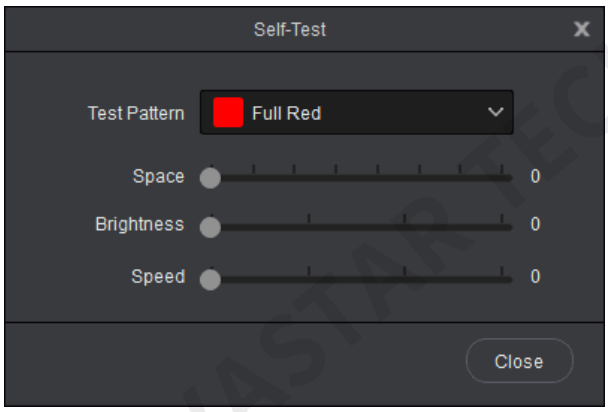
Prerequisites

- You have connected the device with V-Can.
- You have connected the device to the video display device.

Operating Procedure

Step 1 Go to **System** > **Self-Test** to open the test window.

Figure 3-48 Self-test



Step 2 Select a desired test pattern from the drop-down list next to **Test Pattern**.

Step 3 Set the space between lines, brightness and moving speed of the test pattern.

Step 4 Check whether the test patterns are displayed normally on the LED screen connected to the device.

- Yes => The LED screen functions well.
- No => The LED screen does not function well. Please calibrate the screen and test it again.

Step 5 Select **Normal** from the drop-down list next to **Test Pattern** or click **Close** to close the test pattern.

3.3.8 Reset

If you want to clear the device configuration data or user presets, this function helps you to reset the device to factory defaults.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

The reset options are different for different devices.

Prerequisites

You have connected the device with V-Can.

Operating Procedure

Step 1 Go to **System** > **Reset**.

Step 2 Read carefully the prompted message, and click **Yes** to reset the device.

3.3.9 Network

Before the device is connected to the control PC via Ethernet cable, make sure the device and control PC are on the same network segment.

Applicable Products

- VS7, J6, N9
- VX5s, VX6s, NovaPro UHD Jr, VX16s, VX1000, VX600

Notes

- Before you change the device IP address, make sure the device and control PC are on the same network segment.
- When the device IP changes, you need to reconnect the device.

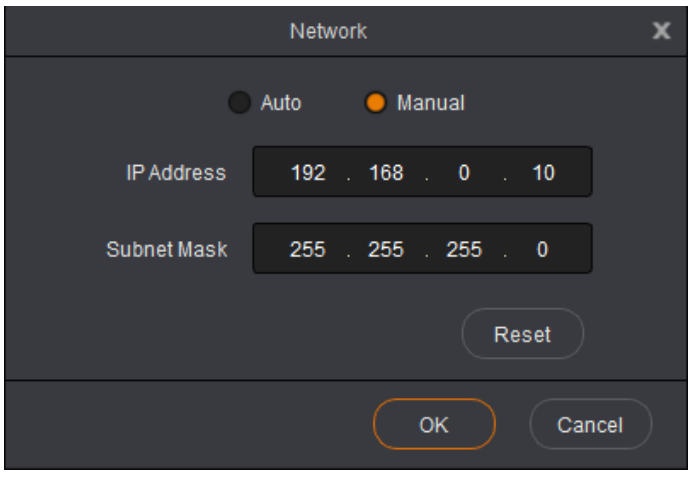
Prerequisites

You have connected the device to the control PC.

Operating Procedure

Step 1 Go to **System** > **Network** to open the network settings window.

Figure 3-49 Network settings



Step 2 Select the auto or manual mode.

- Auto => The device will automatically obtain an IP address and subnet mask.
- Manual => Go to Step 3.

Step 3 Enter the IP address and subnet mask.

Note:

The VX1000 and VX600 support gateway settings.

Step 4 Click **OK** to complete the network settings.

3.3.10 Language

Currently V-Can supports English and Simplified Chinese.

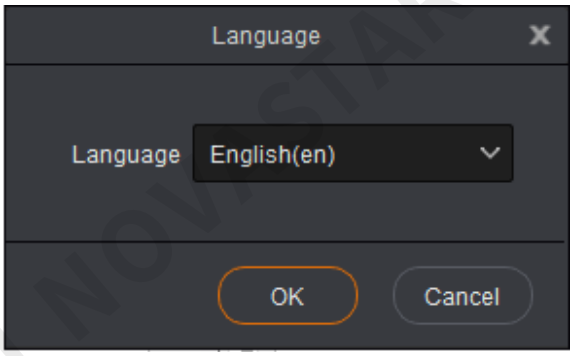
Notes

Language option here only allows you to set the UI language for V-Can, rather than set the language for the connected device.

Operating Procedure

Step 1 Go to **System** > **Language** to open the language settings window.

Figure 3-50 Language



Step 2 Select your preferred language.

Step 3 Click **OK** to complete the language settings.