

P20 & P20-DS V2.0.0



Release Notes

1 Supporting Software

PixelFlow V2.2.0

2 Supporting Event Controllers

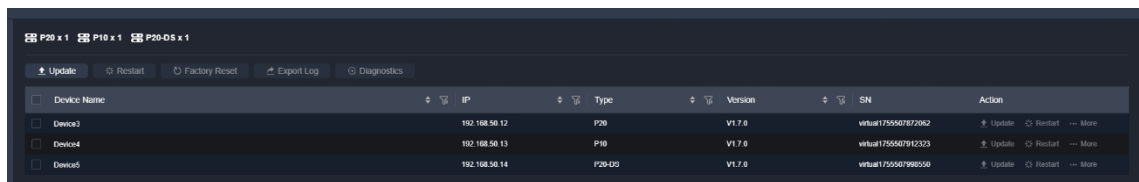
U5 V2.2.0

U5 Pro V2.2.0

U5 MINI V1.0.2

3 Update Instructions

3.1 Online Update

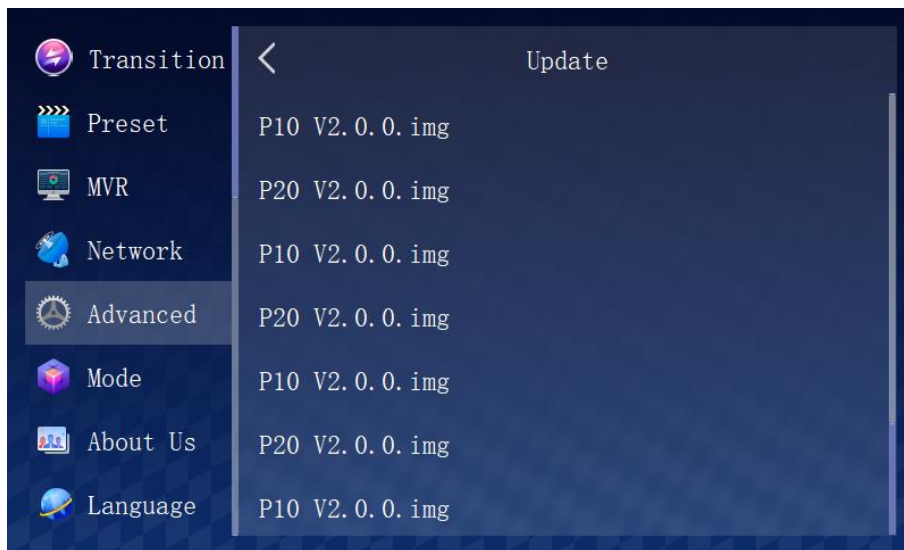


Device Name	IP	Type	Version	SN	Action
Device3	192.168.50.12	P20	V1.7.0	virtual1755507172062	↑ Update ↻ Restart → More
Device4	192.168.50.13	P10	V1.7.0	virtual1755507912323	↑ Update ↻ Restart → More
Device5	192.168.50.14	P20-DS	V1.7.0	virtual1755507980550	↑ Update ↻ Restart → More

3.2 Local Update

The P20/P20-DS can be updated via USB drive. To update P20/P20-DS via USB drive, save the update file in the root directory of the USB drive and then insert the USB drive into the USB port on the P20/P20-DS.

On the **Advanced** screen, select **Update** to access the device update screen, where the system will automatically detect and read the update file from the USB drive.



Select the update file, then select **Update**, and the update will be completed automatically.
The P20/P20-DS automatically restarts during the update.

4 New Features

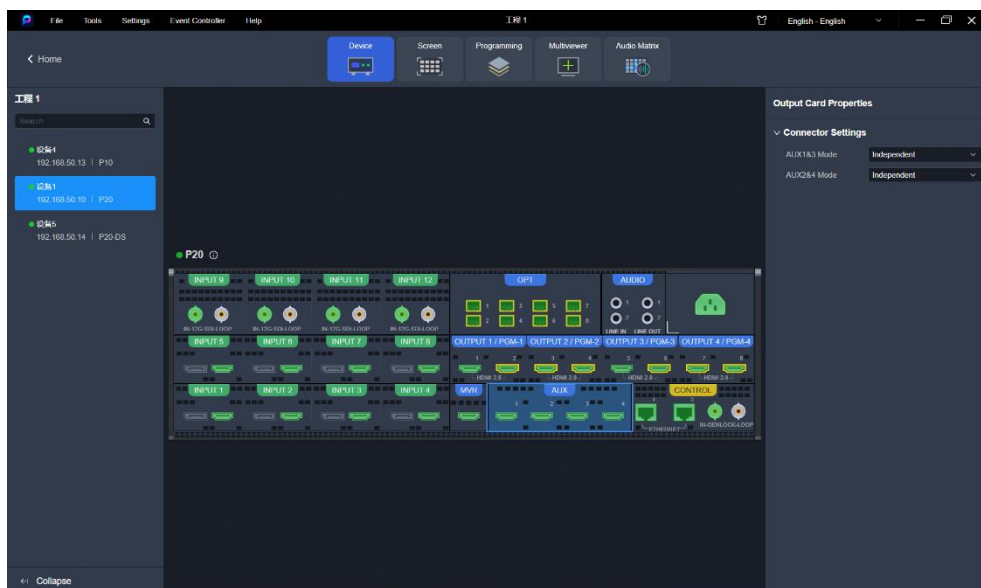
4.1 Dual Layers Supported by an AUX Screen

Purpose

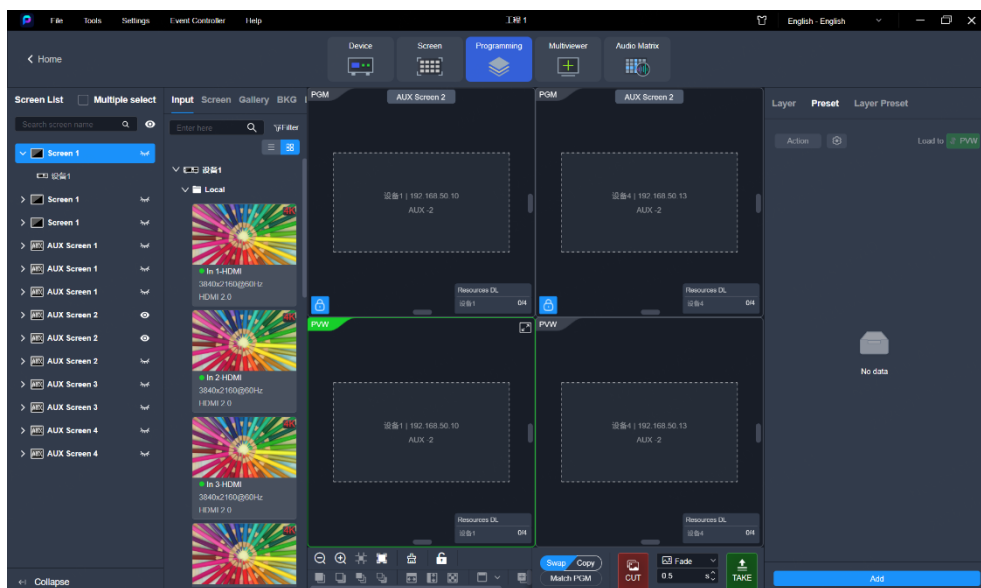
To meet customer requirements for PIP on AUX screens, dual layers are supported by an AUX screen.

Description

- The number of AUX layers can be adjusted by configuring the AUX connector mode.



- The layer resource usage is displayed on the AUX screen.



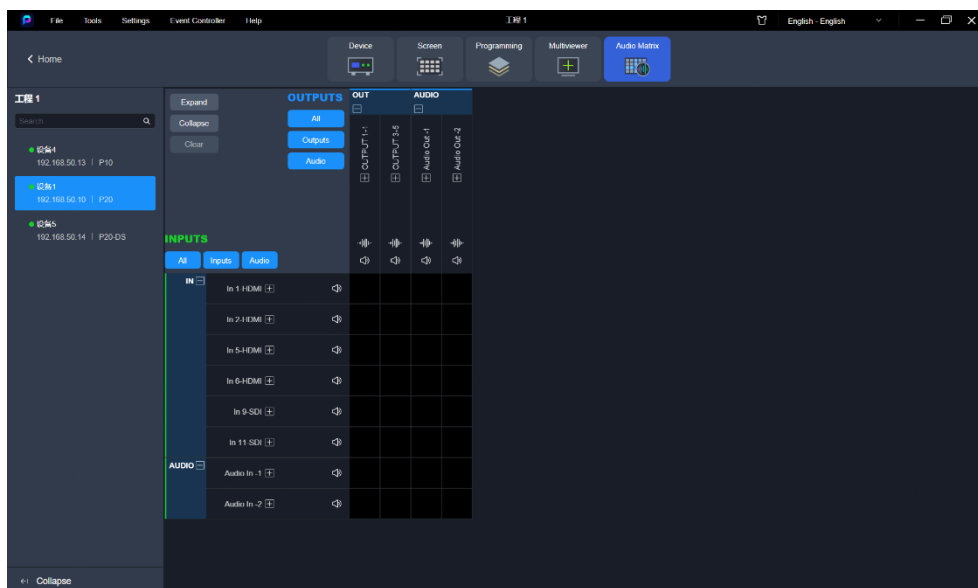
4.2 Audio Matrix

Purpose

Enhance the audio capabilities of the P20.

Description

Supports audio matrix mapping among embedded audio on specific input connectors (INPUT 1, 3, 5, 6, 9, and 11), embedded audio on the main output connectors, and 2 line-in and 2 line-out analog audio.



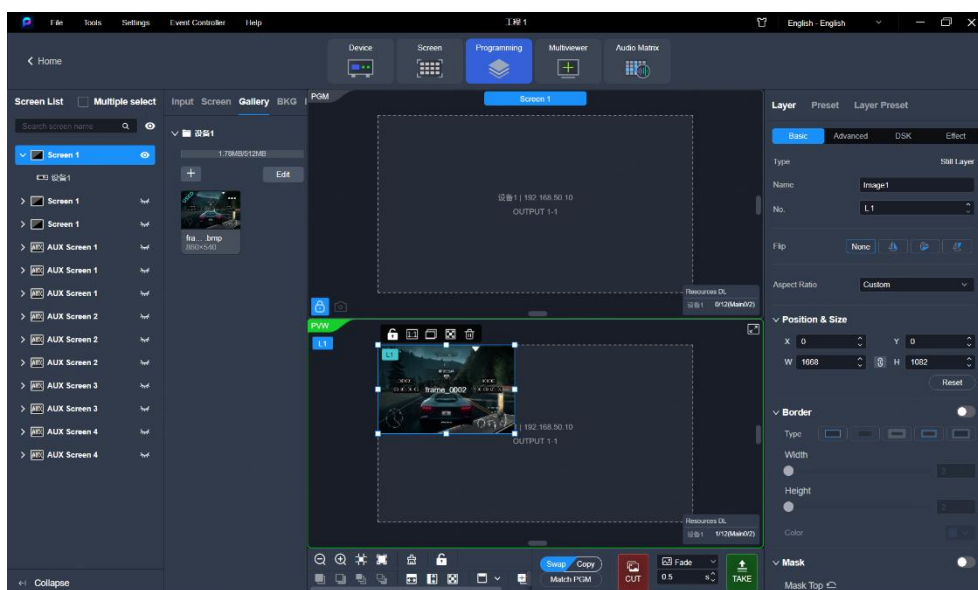
4.3 Still Layers

Purpose

Meet customer requirements for using images to create layers.

Description

Images can be uploaded to the gallery and used to create layers on screens. Additionally, the alpha channel can be enabled in advanced properties and applied to still layers.



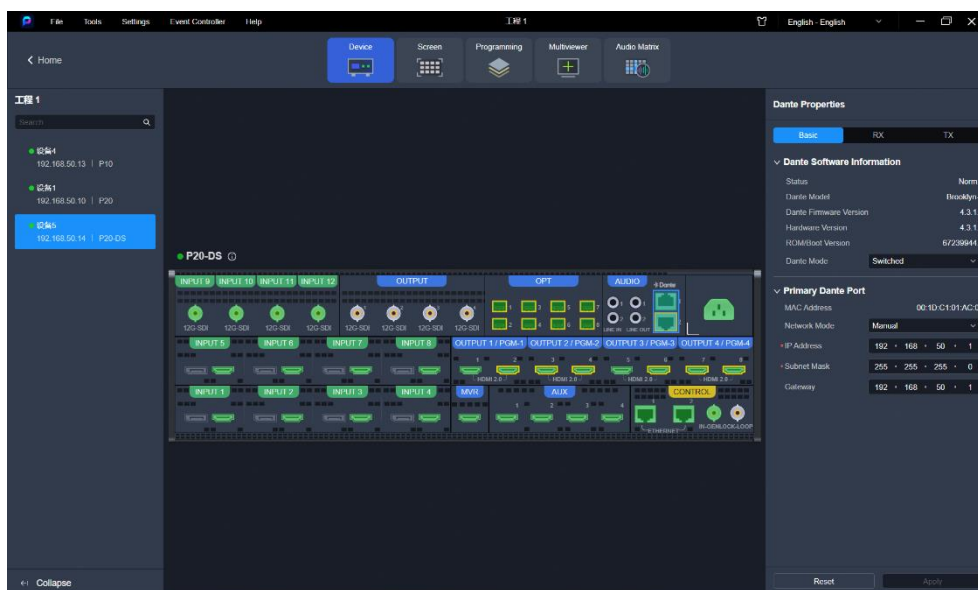
4.4 Dante DHCP Settings (P20-DS)

Purpose

Enhance Dante capabilities for streamlined settings.

Description

The Dante connectors of the P20-DS support DHCP settings and connector mode switching.



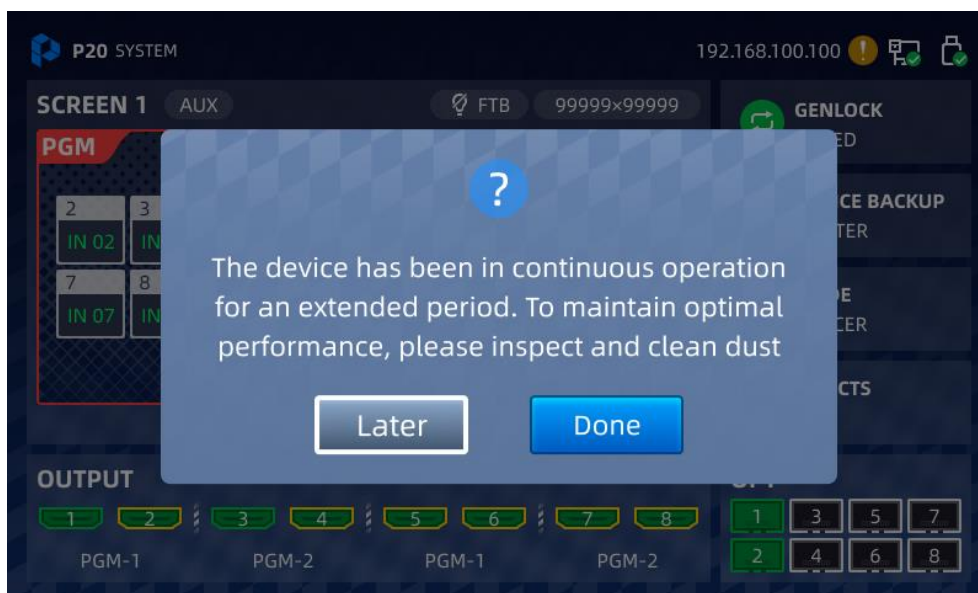
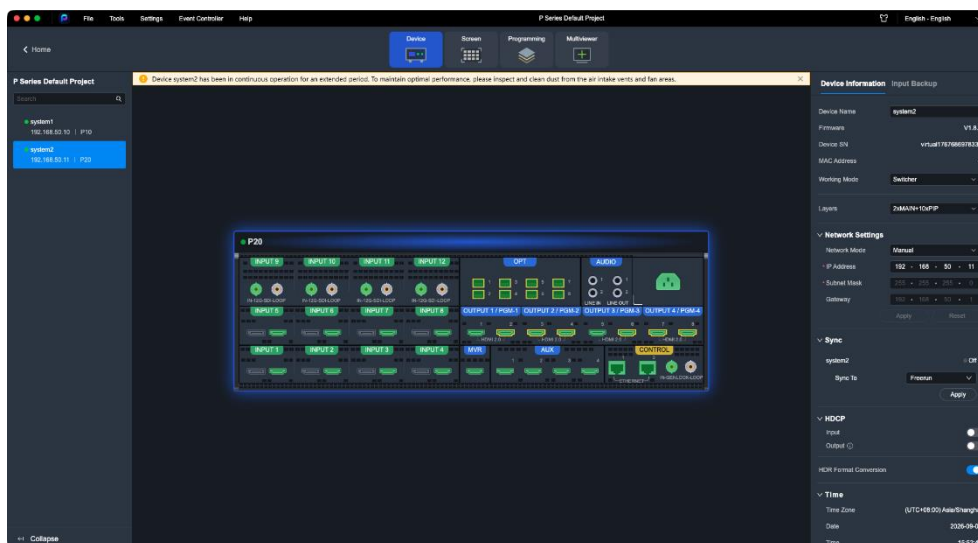
4.5 Dust Cleaning Reminder

Purpose

Add a device maintenance reminder.

Description

Based on the monitoring of the cumulative device runtime, a reminder is displayed in the control software and front panel LCD once the specified threshold is reached.



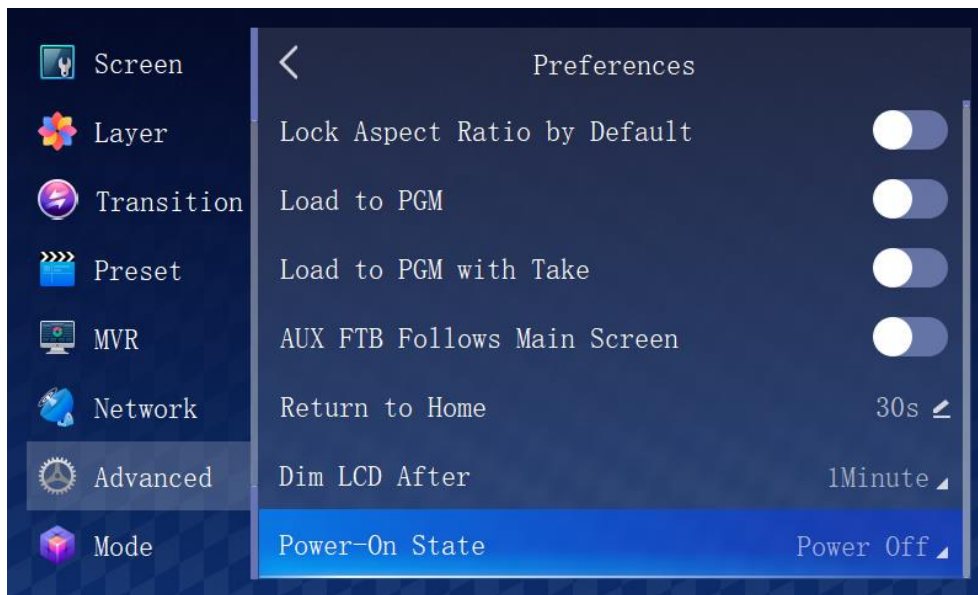
4.6 Power-on State Settings

Purpose

Add settings for the device's power-on state.

Description

Users can configure the device's behavior upon power connection: automatically power on, remain powered off, or restore the last state before power disconnection.



5 Improvements

- Added support for syncing screen selection across multiple control terminals.
- Improved the prompts for the use of Companion to ensure optimal device performance during operation.
- Improved the device time display on the front panel LCD.
- Improved LCD dimming behavior: The logo is not displayed, and 5 timeout intervals and a **Never** option are provided.
- Changed the default setting for screen mosaic to **Advanced**.
- Improved the input source information displayed on AUX screens in Multiviewer.
- Synchronized the device's input view control.
- Added HDR peak brightness to the displayed input source information.
- Improved EDID settings: Removed the "CVT-RBv1" suffix from the standard resolutions, and changed the default reduced blanking for custom resolutions to "CVT-RBv1".
- Added 5:4 to the aspect ratio options.
- Improved the effect of KeyFrame.
- Improved font display in Multiviewer.
- Improved the order of Multiviewer templates.
- Improved the names of certain functions.
- Improved the icons for filling the entire screen and filling the connector with a layer.
- Allows the AUX screen to fade to black synchronously with the main screen to align with user habits.

6 Changes

None

7 Bug Fixes

Module	Bug Description	Remarks
Device	Fixed the issue where the device occasionally gets stuck in the syncing state.	
Device	Fixed the issue where the power-on self-test clock showed 0 after Genlock is enabled.	
Connector	Fixed the issue of abnormal HDCP encryption on connectors.	
Connector	Fixed the occasional no-output issue.	

8 Notes

Version compatibility:

- Project files earlier than V1.7.0 cannot be imported into devices of V1.7.0 and later.
- Updating the device from a version earlier than 1.7.0 to the latest version will automatically reset the device to its factory settings.

9 Components

P20 V2.0.0

P20-DS V2.0.0

10 Previous Versions

10.1 V1.8.0

10.1.1 Supporting Software

PixelFlow V2.0.0

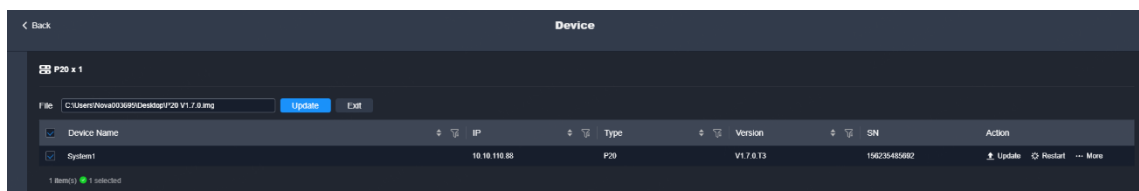
10.1.2 Supporting Event Controller

U5 V2.0.0

U5 Pro V2.0.0

10.1.3 Update Instructions

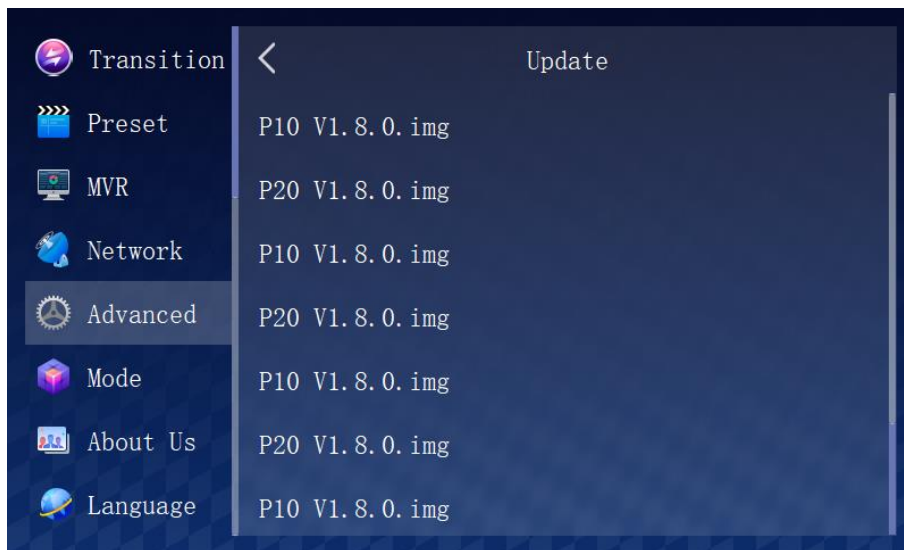
10.1.3.1 Online Update



10.1.3.2 Local Update

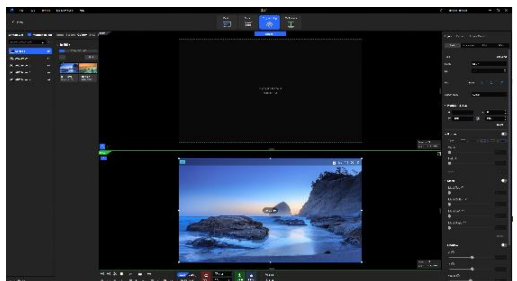
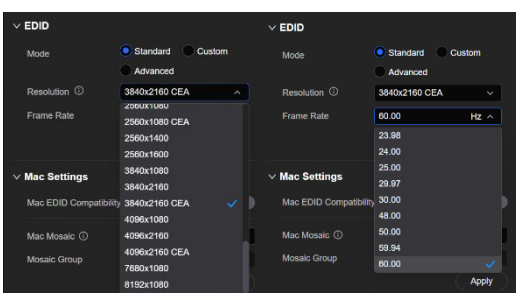
The P20/P20-DS can be updated via USB drive. To update P20/P20-DS via USB drive, save the update file in the root directory of the USB drive and then insert the USB drive into the USB port on the P20/P20-DS.

On the **Advanced** screen, select **Update** to access the device update screen, where the system will automatically detect and read the update file from the USB drive.



Select the update file, then select **Update**, and the update will be completed automatically. The P20/P20-DS automatically restarts during the update.

10.1.4 New Features

No.	Feature	Reason	Description
1	Still layers	Enhance device capabilities to enable images from the gallery to be used as input sources.	Allows users to drag images from the gallery into the screen editing area for use. 
2	Resolution adjustment	Add a new resolution list to expand the support range and ensure compatibility with more timing standards.	Added support for more resolutions and frame rates. 

10.1.5 Improvements

Module	Description	Remarks
Layer	Improved the issue where the interface gets stuck when users alternately switch between layers and input sources using the front panel buttons after the number of layers reaches the limit.	
Layer	Improved the issue where the interface gets stuck when users adjust the width and height in the layer source crop settings.	
Device	Added a pop-up notification on the LCD when the event controller/software T-Bar is in progress.	
Layer	Removed the pixel-to-pixel function from the scaling mode of AUX layers.	
Device backup	Improved the implementation strategy for device backup.	
Input backup	Improved the implementation strategy for input source backup.	

10.1.6 Changes

None

10.1.7 Bug Fixes

Module	Bug Description	Remarks
Connector	Fixed the connector stability issue.	
Layer	Fixed the issue where the cut layer does not align correctly when the fill layer is moved via LCD in certain scenarios.	
OPT port	Fixed the issue where the image becomes abnormal when using the EP4 fiber extender to transmit videos at 1080i.	
Multiviewer	Fixed the Multiviewer screen flickering issue.	
Multiviewer	Fixed the issue of UMD fonts disappearing in certain scenarios.	
Central control	Fixed the issue where special characters cause central control to fail.	
LCD	Fixed the occasional LCD starting issue.	
EDID	Fixed the issue where the output timing supports a width of 8192.	
Known bug	Fixed abnormal issues in certain extreme scenarios.	

10.1.8 Notes

Version compatibility:

- Project files earlier than V1.7.0 cannot be imported into devices of V1.7.0 and later.
- After a device is updated from a version earlier than 1.7.0 to the current version, manually reset the device to factory settings.
- V1.8.0 is backward compatible with project files from V1.7.0 but not with exported project files from devices earlier than V1.7.0.

10.1.9 Components

P20 V1.8.0

P20-DS V1.8.0

10.2 V1.7.1

10.2.1 Supporting Software

PixelFlow V1.7.1

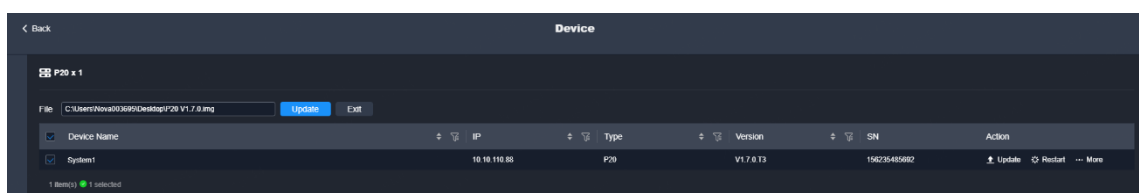
10.2.2 Supporting Event Controller

U5 V1.7.1

U5 Pro V1.7.1

10.2.3 Update Instructions

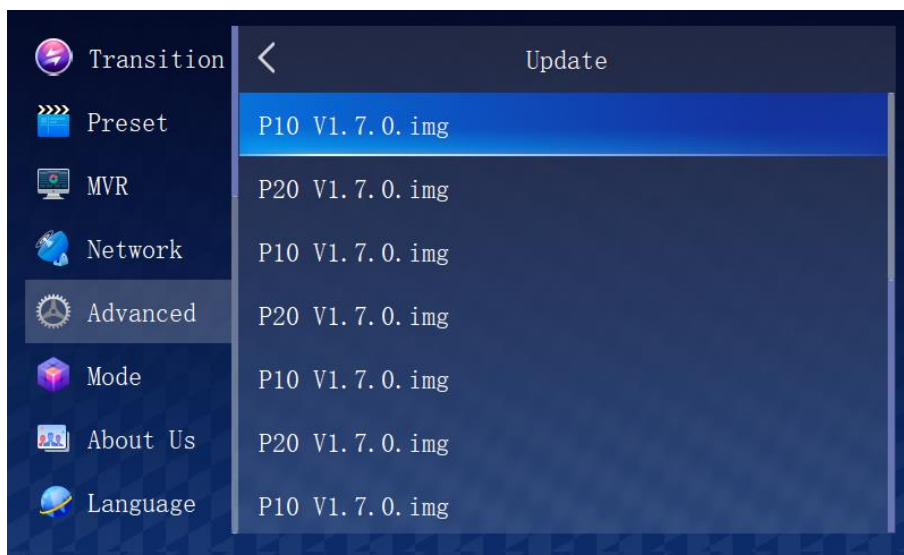
10.2.3.1 Online Update



10.2.3.2 Local Update

The P20/P20-DS can be updated via USB drive. To update P20/P20-DS via USB drive, save the update file in the root directory of the USB drive and then insert the USB drive into the USB port on the P20/P20-DS.

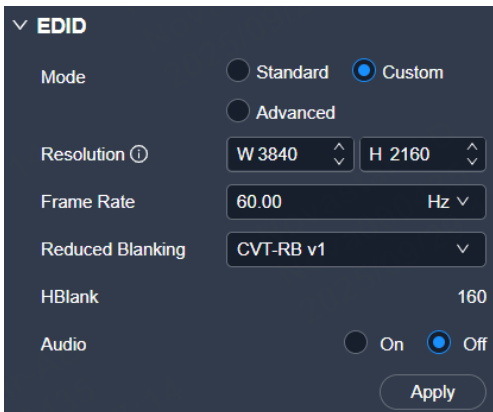
On the **Advanced** screen, select **Update** to access the device update screen, where the system will automatically detect and read the update file from the USB drive.

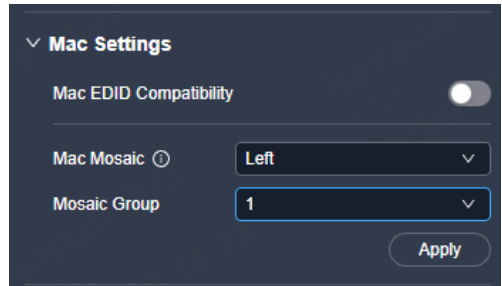


Select the update file, then select **Update**, and the update will be completed automatically.

The P20/P20-DS automatically restarts during the update.

10.2.4 New Features

No.	Feature	Reason	Description
1	EDID reduced blanking	Enhance EDID functionality to support a wider range of timing standards.	Supports the selection of multiple reduced blanking standards. The capability for audio transmission is determined by the value of HBlank. 

			• Reduced blanking options: ➤ Standard: The value of HBlank is displayed, which is calculated according to the current resolution and cannot be adjusted. ➤ CVT-RBv1: The value of HBlank is displayed, which is fixed at 160 and cannot be adjusted. ➤ CVT-RBv2: The value of HBlank is displayed, which is fixed at 80 and cannot be adjusted. ➤ CVT-RBv3: The value of HBlank is displayed, which can be adjusted within a range of 80 to 200. It defaults to 80 and the adjustment increment is 8. Audio functionality is supported only when the HBlank value is ≥ 110. (P20-DS)
2	Mac mosaic	Compatible with Mac mosaic	When Mac is used as the input source, image mosaic is supported.  It is required to use the same Mac for mosaic and ensure the connector type and timing are consistent. Otherwise, the mosaic may fail.

10.2.5 Improvements

None

10.2.6 Changes

The SDI output connectors of the P20-DS do not support the following five resolutions:

- 1280×720@24Hz
- 1280×720@60Hz
- 1920×1080@24Hz
- 2048×1080@24Hz
- 2048×1080@48Hz

10.2.7 Bug Fixes

Module	Bug Description	Remarks
Connectors	Fixed the issue that the deletion of output connectors during screen configuration is slow.	

10.2.8 Notes

Version compatibility:

- Project files earlier than V1.7.0 cannot be imported into devices of V1.7.0 and later.
- After a device is updated from a version earlier than 1.7.0 to the current version, the device will be automatically reset to factory settings.

10.2.9 Components

P20 V1.7.1

P20-DS V1.7.1

10.3 V1.7.0

10.3.1 Supporting Software

PixelFlow V1.7.0

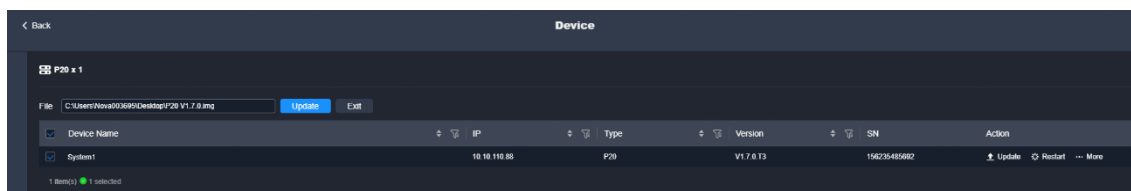
10.3.2 Supporting Event Controller

U5 V1.7.0

U5 Pro V1.7.0

10.3.3 Update Instructions

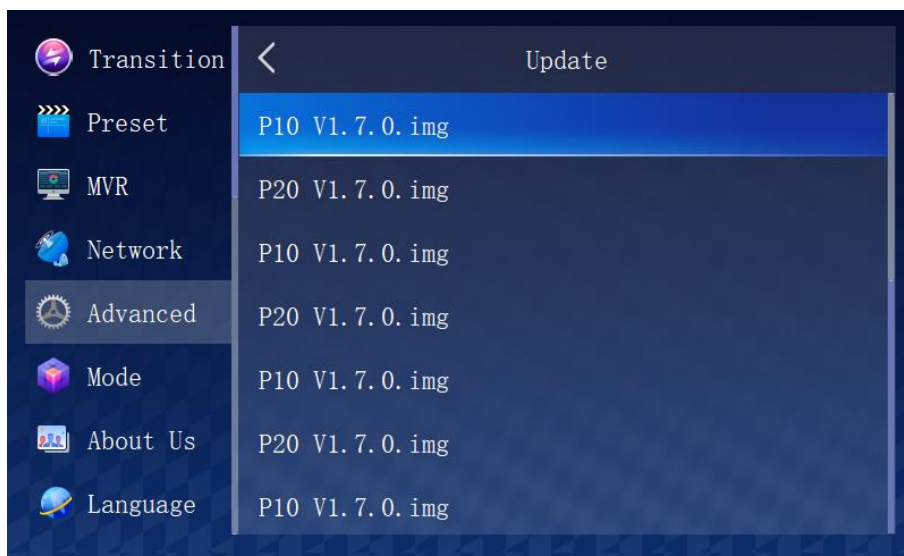
10.3.3.1 Online Update



10.3.3.2 Local Update

The P20/P20-DS can be updated via USB drive. To update P20/P20-DS via USB drive, save the update file in the root directory of the USB drive and then insert the USB drive into the USB port on the P20/P20-DS.

On the **Advanced** screen, select **Update** to access the device update screen, where the system will automatically detect and read the update file from the USB drive.

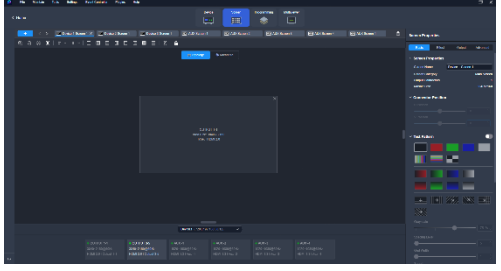
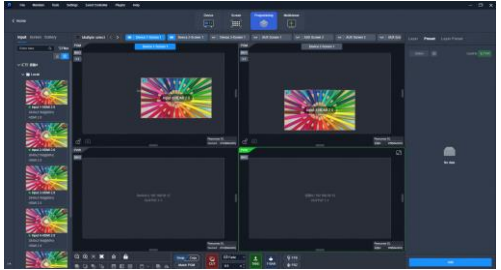


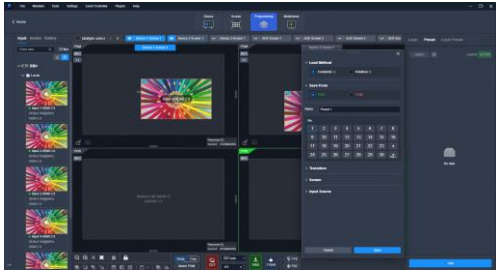
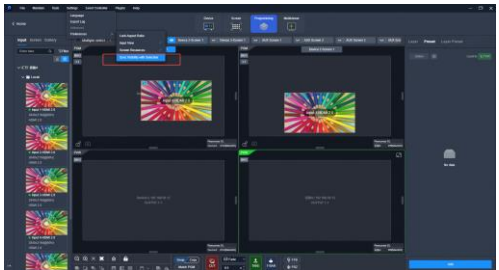
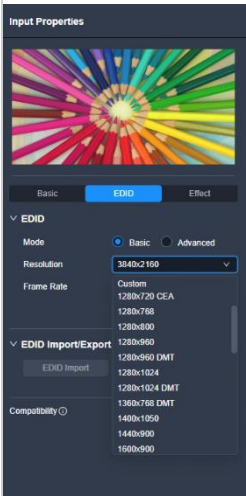
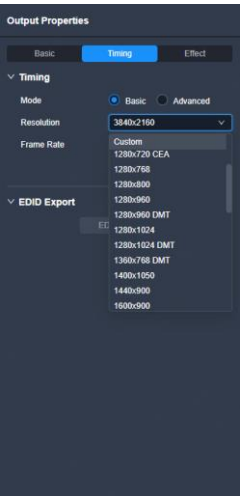
Select the update file, then select **Update**, and the update will be completed automatically.

The P20/P20-DS automatically restarts during the update.

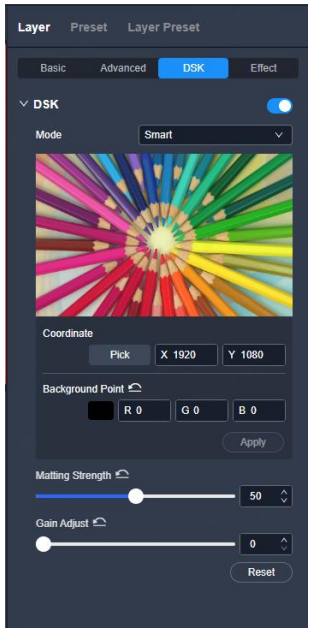
10.3.4 New Features

No.	Feature	Reason	Description
1	Default project	When multiple switchers are being controlled	The procedure for creating projects is streamlined: There is no need to create new

		simultaneously, the logic for creating projects is complex and needs to be simplified.	projects and switchers of the same series are automatically organized into a single project, enhancing simultaneous control. 
2	Improvements made to screen management on the Screen and Programming interfaces	- It is not convenient to configure multiple devices simultaneously. - In standard uniform control operations, there are excessive adjustment limitations, and the results for unselected devices are not displayed. - When devices are being managed by multiple users, their screen operations on screens interfere with one another.	- Changed from single-device operation to simultaneous multi-device operation, inherently enabling simultaneous control of multiple devices.   - The screen selection and transition effect settings from multiple terminals are independent, allowing for convenient multi-user operation without interference.
3	Improvements made to the preset feature	- Layers saved within a preset cannot be selected and differential loading is not supported. - Data other than layers, such as effect and input source parameters, cannot be saved within a preset. - The order of presets is fixed and does not align with the preset loading order during events. - Transition effects are not supported when presets are being loaded to PGM. - When a preset contains multiple screens, only one screen's layer outlines are displayed in the thumbnail of the preset.	- When saving a preset, users can choose between relative and complete. - Relative preset: Only the data within the preset is loaded. The data not within the preset remains unchanged. - Complete preset: Only the data within the preset is loaded. The layers not within the preset are either turned off or removed. - More details in preset thumbnails: The layer outlines of all the screens within a preset are displayed. - Users have the option to load a preset to PGM or PVW, making it suitable for various applications. - Users have the option to load a preset to PGM or PVW, making it suitable for various applications. - Loading a preset to PGM supports the fade effect. - The preset list can be rearranged to align more accurately with the preset loading

			order during events. 
4	Preferences > Sync Visibility with Selection	The visibility of screens follows the changes of screen selection, which does not align with the habits of users.	Added a Sync Visibility with Selection option in Preferences. 
5	EDID/Timing settings	The standard resolutions only support fixed timings, failing to meet the requirements of different applications.	Added various common timings to all the standard resolutions for users to select.  

10.3.5 Improvements

Improvement	Description	Remarks
Improved the operation of picking a color for smart keying	After a color is picked for smart keying, users need to click Apply to apply the picked parameters. The Apply button is now grayed out and remains disabled until any parameters are modified.	

10.3.6 Changes

None

10.3.7 Bug Fixes

Module	Bug Description	Remarks
Input view	When multiple outputs display still images, the input view displays a flickering or green screen.	
Connectors	When Mac outputs three signal sources to the P20/P20-DS, the three outputs occasionally display black screens at the same time.	

10.3.8 Notes

Version compatibility:

- Project files earlier than V1.7.0 cannot be imported into devices of V1.7.0 and later.

- After a device is updated from a version earlier than 1.7.0 to the current version, the device will be automatically reset to factory settings.

10.3.9 Components

P20 V1.7.0

P20-DS V1.7.0

10.4 V1.6.3

10.4.1 Supporting Software

PixelFlow V1.6.3

10.4.2 Supporting Event Controllers

U5 V1.6.3

U5 Pro V1.6.3

10.4.3 Improvements

Improvement	Description	Remarks
OPT ports	Improved the output parameters of the OPT ports on P20, enhancing the stability when the devices work with all-in-one video controllers.	

10.4.4 Changes

None

10.4.5 Bug Fixes

Module	Bug Description	Remarks
T-Bar	When the T-Bar is pushed and the input source is unstable, layers cannot be created.	

Output connectors	When NEC projectors are connected, the output image flickers. (P20)	
	The output signal of OUT1-1 is not stable. (P20)	
Front panel buttons	The SCALE button can scale up the LOGO layer.	
BKG	BKG of screen 1 cannot be turned on.	
Input connectors	When the P20-DS works with the 4K ViewPro for source detection, the input source information becomes 0*0 occasionally. (P20-DS)	

10.5 V1.6.2

10.5.1 Supporting Software

PixelFlow V1.6.2

10.5.2 Supporting Event Controllers

U5 V1.6.2

U5 Pro V1.6.2

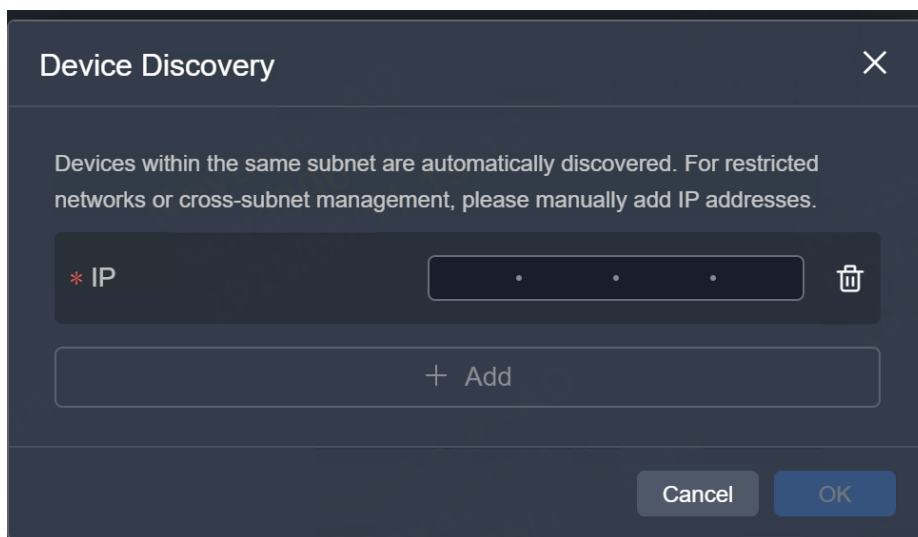
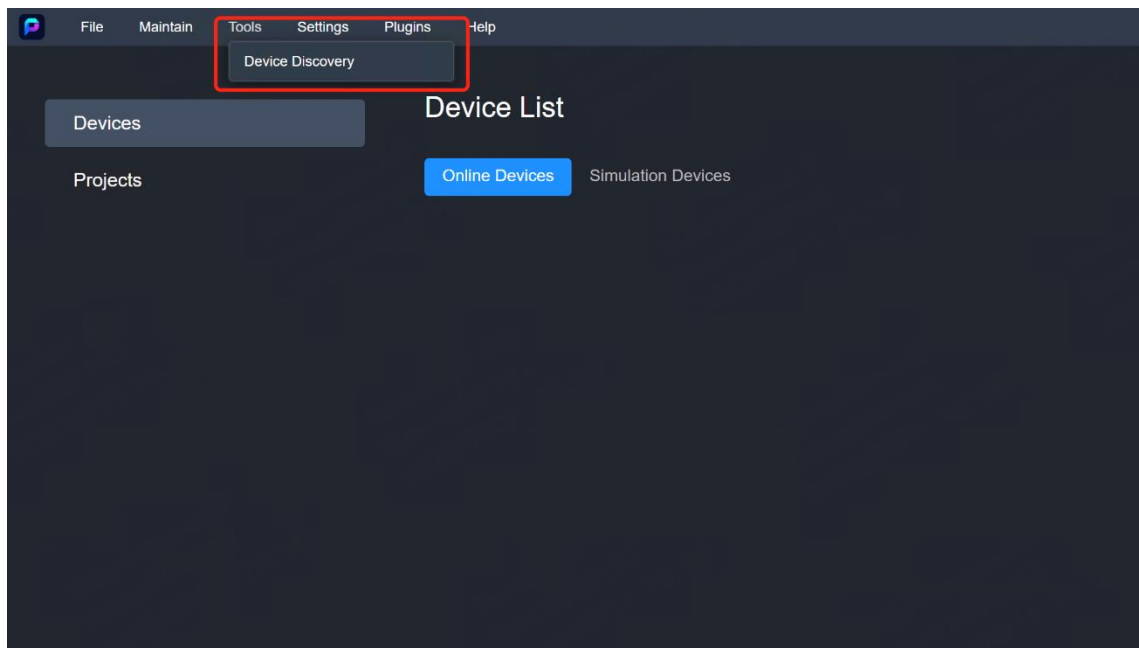
10.5.3 New Features

10.5.3.1 Capable of Adding Devices on Different Subnets Within a LAN via

PixelFlow

Description

Choose **Tools > Device Discovery** from the menu bar of PixelFlow to add devices by entering their IP addresses.



10.5.4 Supported Cards

Dante card (P_12G SDI_Dante Audio-OPT Combo Card)

The entire P20 unit can be updated to P20-DS.

10.5.5 Improvements

None

10.5.6 Changes

None

10.5.7 Bug Fixes

Function	Bug Description	Remarks
Common function	PixelFlow experiences lags due to unstable input sources.	
Common function	An incorrect device model is displayed due to IP conflicts.	
Update	The device gets stuck occasionally during update.	
Preset	The layer brightness is abnormal after a preset is loaded.	
Update	Connector compatibility issues caused by the IC firmware version	
-	Fixed some known issues.	

10.5.8 Notes

- Firmware V1.6.2 must work with PixelFlow V1.6.2.
- After switching the working mode, re-import the EDID file.
- After a device restart or update, if the connector status displayed in PixelFlow is not the same as the actual status, you can restore it by going back to the homepage and entering the device again.

10.5.9 Components

P20 V1.6.2

P20-DS V1.6.2

10.6 V1.6.1

10.6.1 Supporting Software

PixelFlow V1.6.1

10.6.2 Supporting Event Controllers

U5 V1.6.1

U5 Pro V1.6.1

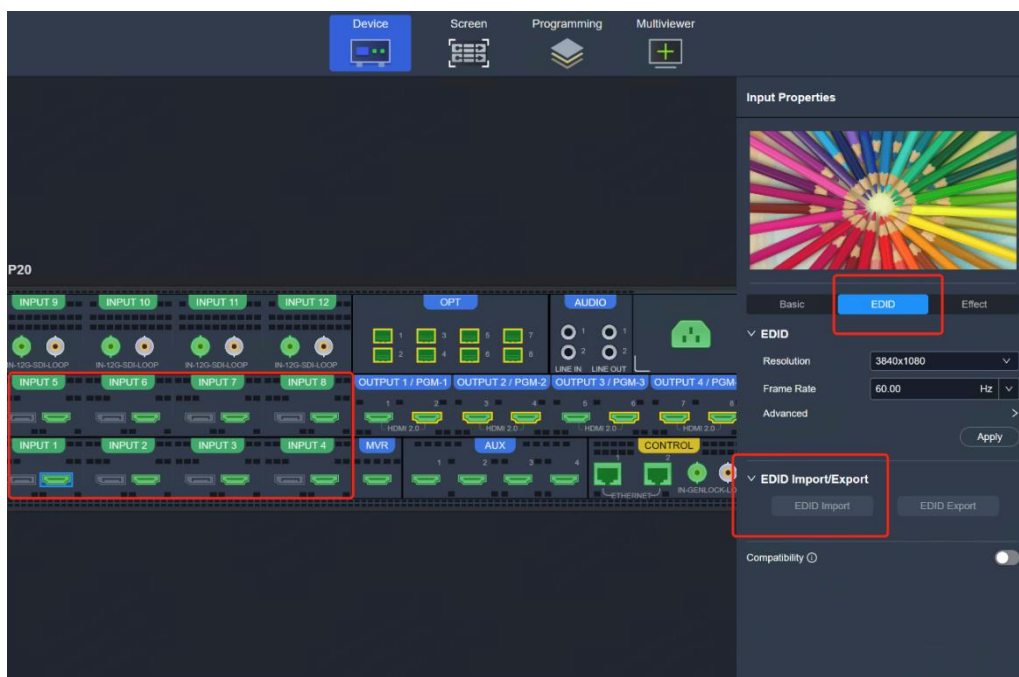
10.6.3 New Features

10.6.3.1 Importing EDID Files Containing DisplayID Information

Description

This feature allows more information to be contained in the EDID information of the input connectors to accurately output video sources.

On the **Device** tab, click an input connector. In the **Input Properties** panel on the right, select the **EDID** tab. Click **EDID Import** and choose an EDID file.



10.6.4 Supported Cards

Dante card (P_12G SDI_Dante Audio-OPT Combo Card)

The entire P20 unit can be updated to P20-DS.

10.6.5 Improvements

None

10.6.6 Changes

None

10.6.7 Bug Fixes

Function	Bug Description	Remarks
-	Fixed some known issues.	

10.6.8 Notes

10.6.8.1 Hardware and Software Version Compatibility

Firmware V1.6.1 must work with PixelFlow V1.6.1.

10.6.8.2 Instructions for Importing EDID Files

- After importing an EDID file containing DisplayID information, if the EDID resolution of the input connector is modified in the PixelFlow, the default EDID file will overwrite the imported one, requiring the EDID file to be re-imported.
- After switching the working mode, re-import the EDID file.

10.6.9 Components

P20 V1.6.1

P20-DS V1.6.1

10.7 V1.6.0

10.7.1 Supporting Software

PixelFlow V1.6.0

10.7.2 Supporting Event Controllers

U5 V1.6.0

U5 Pro V1.6.0

10.7.3 New Features

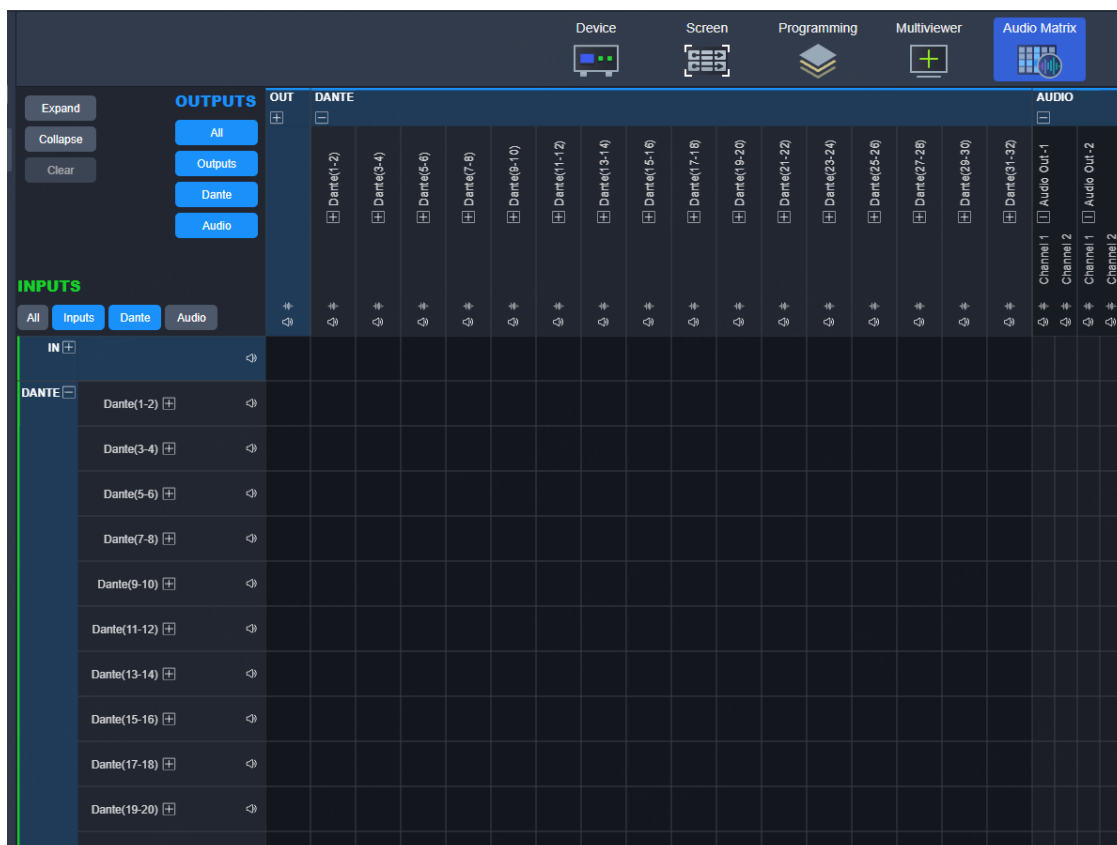
10.7.3.1 Audio Matrix (P20-DS)

Allows users to manage audio inputs and outputs and map audio channels.

Description

V1.6.0 of switchers introduces an audio matrix feature. By clicking the **Audio Matrix** tab at the top of the homepage of PixelFlow, users can access the **Audio Matrix** tab page.

The top left corner of the page is the quick actions panel. The list on the left displays the inputs, where you can view input channel names and channel audio status, and mute the channels. The list at the top displays the outputs, where you can view the output channel names, play the test sound, and mute the channels. Click an input/output to expand or collapse the list.



On the **Device** tab page, click the Dante Ethernet ports to view Dante settings and change RX and TX channel names.



10.7.3.2 Output Connector Groups (P20-DS)

Purpose

Increases the utilization of all connectors, allowing more connectors to be used for display, while accommodating different types of connectors for concurrent screen configuration.

Description



- Connectors are selected in groups. When the timing and effects of one connector within a group are modified, the timing and effects of the other connectors within this group are synchronously modified.
- When the specified timing is not supported by another connector, a prompt is displayed, saying that the connector will have no output.
- Different types of connectors can be used for configuration of a single screen.
- The connectors within a connector group output contents simultaneously, increasing the utilization of connectors.

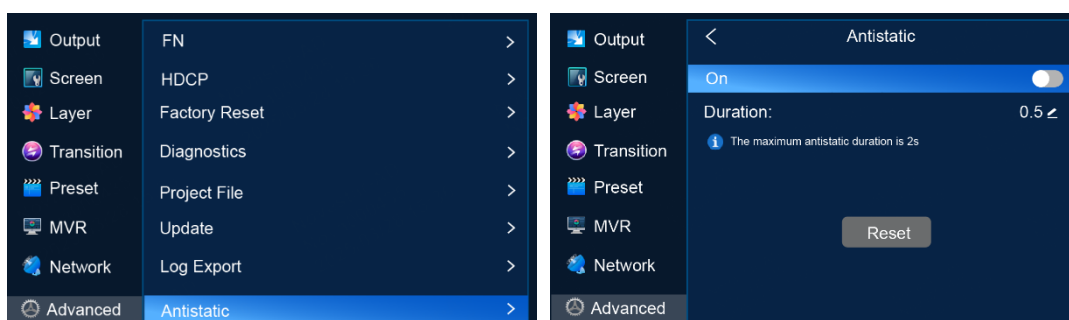
10.7.3.3 Antistatic

Purpose

In dry climate regions, static electricity tends to be more prevalent and can destabilize input sources, causing frequent disconnections. However, connectivity resumes immediately after static interference ceases. During such periods, users expect to avoid unintended triggers like hot-switching from primary source to backup source or screen blackouts. An antistatic function is required to prevent unwanted changes during interference.

Description

Access: Front panel LCD > Advanced > Antistatic

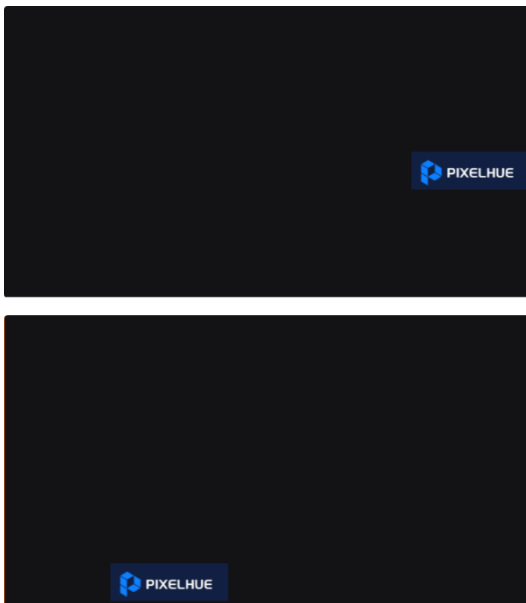


10.7.3.4 LCD Screensaver

Purpose

Prolonged display of a static image on the LCD screen may cause screen burn-in. Using a screensaver can effectively protect the screen.

Description



- When the LCD remains inactive for more than one minute, a screensaver will appear.
- The screensaver will be displayed over the current screen, without redirecting to the home screen.
- To exit the screensaver, press any button on the front panel.
- Icons within the screensaver will move along a set path at a consistent frequency.

10.7.3.5 Layer Mode Switching

Purpose

Offers users a variety of options, allowing them to switch between two layer modes according to their preferences.

Description

On the **Device Information** tab page, users can switch between **2×MAIN+10×PIP** and **4×MAIN+4×PIP** layer modes.

Device Information

Input Backup

Device Name

Device 3

Firmware Version

V1.6.B0

Device SN

virtual1737097436027

MAC Address

DC:21:5C:05:74:72

Working Mode

Switcher

Layers

2xMAIN+10xPIP

2xMAIN+10xPIP

4xMAIN+4xPIP

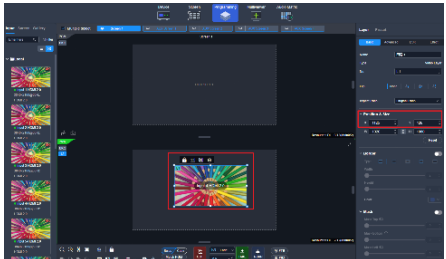
Network Settings

10.7.4 Supported Cards

Dante card (P_12G SDI_Dante Audio-OPT Combo Card)

The entire P20 unit can be updated to P20-DS.

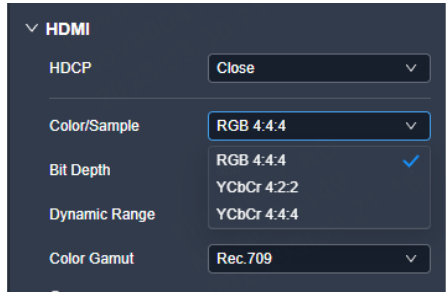
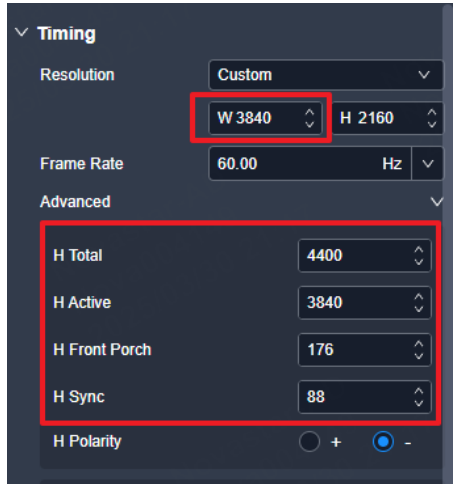
10.7.5 Improvements

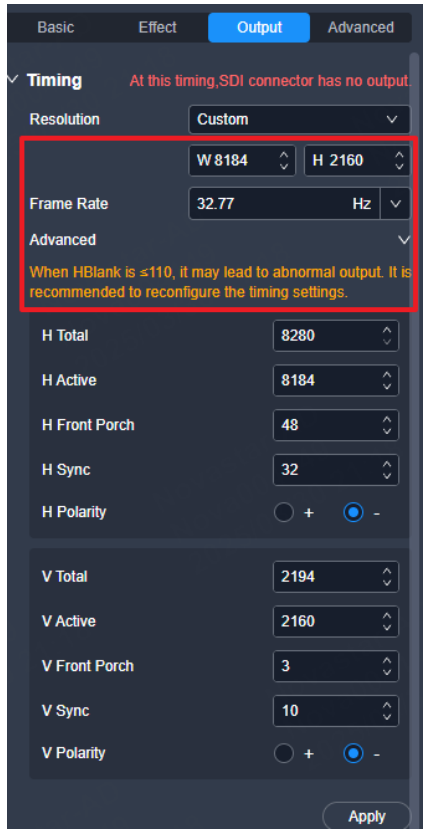
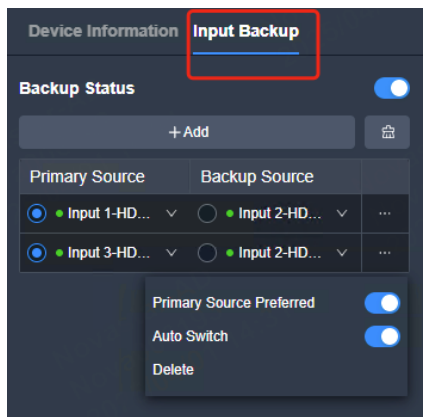
Improvement	Before	After
Layer repositioning by keyboard shortcuts	Layers can be repositioned only by dragging them or entering the coordinates.	After selecting a layer, you can move it in one-pixel increments using the keyboard arrow keys. By using Shift along with the arrow keys, the layer will move in increments of ten pixels. Holding the keys allows for continuous movement. 
Capable of keying out white background	DSK in smart mode does not allow white background to be keyed out.	DSK in smart mode allows white background to be keyed out.

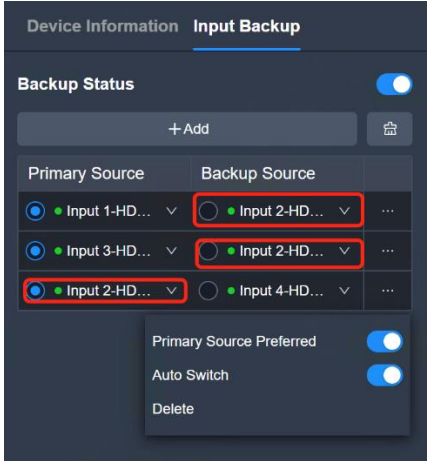
Improvement	Before	After
		
Deinterlacing delay	Deinterlacing delay: 2 frames	Deinterlacing delay: 1 frame

10.7.6 Changes

Change	Before	After
Genlock synchronization rule	After synchronization settings are completed, the synchronization signal is unstable, and it automatically synchronizes each time when the signal is reconnected.	Automatic synchronization is removed. After a synchronization failure, the user needs to click Apply to resend synchronization parameters.
Output color space	The color space options on the output connector and screen properties pages support YCbCr 4:2:0.	YCbCr 4:2:0 is removed from the color space options on the output connector and screen properties pages.

Change	Before	After
		
Horizontal timing increment	Horizontal timing increment: 8	Horizontal timing increment: 4 
A prompt is added in advanced timing. (P20-DS)	Audio information is not included in advanced timing.	After audio is added, if HBlank is ≤ 110 in advanced timing, it may result in a black screen. A prompt is added: "When HBlank is ≤ 110 , it may lead to abnormal output. It is recommended to reconfigure the timing settings."

Change	Before	After
		
Advanced timing	Minimum vertical back porch: 1	Minimum vertical back porch: 3
Input backup location	Input backup needs to be configured on the device information page.	Moved to Input Backup in the upper right corner of the Device page. 
Input backup		- The backup source can be used to create layers independently and does not participate in the backup relationship. - Users can switch between the primary and backup sources using the buttons on the event controller. - One source can be configured as the backup of multiple primary sources.

Change	Before	After
		- Each backup relationship supports the independent configuration of primary source prioritization and automatic switching. - Input backup relationships between sources with different capacities are not allowed. 

10.7.7 Bug Fixes

Function	Bug Description	Remarks
Layer	After a BKG image is used, perform Take operation, delete the BKG image, and then import it again. The LCD displays the status of the BKG image as PGM.	
Output	When the output connector capacity is set to 4K in PGM Only mode, output connectors 2-3 and 4-7 display the same image.	
Factory mode	The device cannot return to the home screen after entering factory mode.	
Layer	After aspect ratio is enabled and a source ratio is selected in BKG, the display aspect ratio appears abnormal.	
-	Fixed some known issues.	

10.7.8 Notes

10.7.8.1 Hardware and Software Version Compatibility

Firmware V1.6.0 must work with PixelFlow V1.6.0.

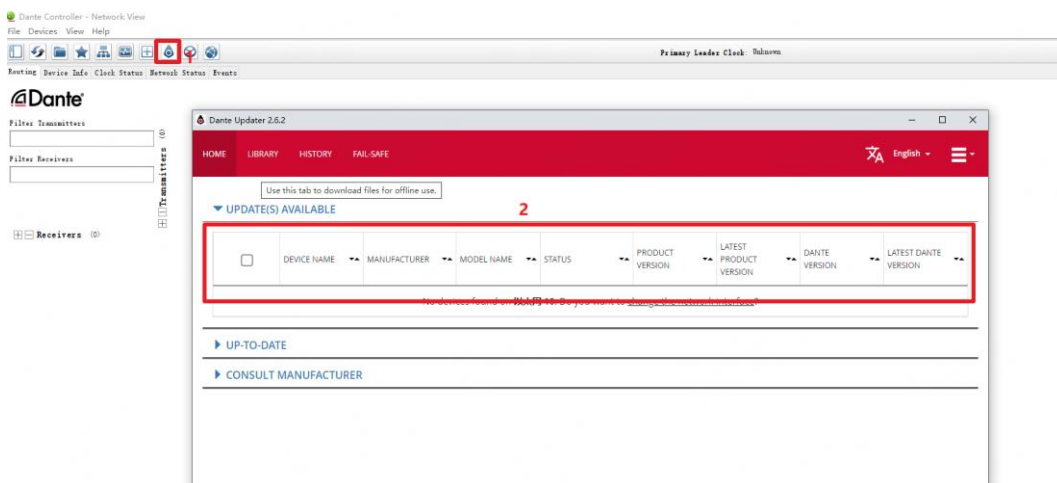
10.7.8.2 Update P20 to P20-DS

- After the P_12G SDI _Dante Audio-OPT Combo Card is installed on the third-layer board of the P20, the hardware of the entire unit must be updated. Otherwise, the update will fail.
- After the P20 is updated to the P20-DS for the first time, the entire unit must be restored to factory settings without keeping user data.
- The project files of the P20 and P20-DS are not compatible.

10.7.8.3 Update Dante

The Dante firmware (.dnt) is pre-installed upon manufacture, and the audio matrix function can be directly used in PixelFlow. It is not advisable for users to update Dante firmware with packages not officially released by PixelFlow. Should any subsequent updates be necessary, use the official Audinate software, Dante Controller, as detailed below:

1. Download the official Audinate software, Dante Controller, from the website:
<https://www.audinate.com/>
2. Within the Dante Controller software, click **Dante Updater** and select the firmware update released by PixelFlow from the available updates, as illustrated in the figure below.



10.7.8.4 Antistatic

When the antistatic function is enabled, if an input signal is disconnected due to instability, the source image will freeze on the last frame before signal loss throughout the specified protection duration. This prevents input source hot-switching until signal recovery. If the signal remains disconnected beyond this duration, it will be treated as disconnection. The longer the duration you set, the longer the image remains frozen.

10.7.9 Components

P20-DS V1.6.0

10.8 Earlier Versions

***** November 25, 2024 P20 V1.5.1

[Supporting Software]

PixelFlow V1.5.1

[Supporting Event Controllers]

U5 V1.5.1

U5 Pro V1.5.1

[New Features]

None

[Supported Cards]

None

[Improvements]

None

[Changes]

None

[Bug Fixes]

1. Fixed the problem that diagnostics is abnormal.
2. Fixed the problem that the display of AUX layers is abnormal.
3. Fixed the problem that shadow and mask effects are abnormal.
4. Fixed the problem that the display is abnormal during preset loading.
5. Fixed the problem that source cropping is abnormal.
6. Fixed the problem that the functions related to BKG are abnormal.

[Notes]

P20 V1.5.1 must work with PixelFlow V1.5.1.

[Components]

P20 V1.5.1

***** November 6, 2024 P20 V1.5.0

[Supporting Software]

PixelFlow V1.5.0

[Supporting Event Controllers]

U5 V1.5.0

U5 Pro V1.5.0

[New Features]

1. The main output connectors support interlaced signal output.
2. The frame rate of the MVR output can be adjusted.
3. Supports edge blending.
4. BKG can be edited.
5. Supports preference setting for the source aspect ratio.
6. Supports integration of the third-party protocol: Central control protocol (UDP).
7. Allows the third-party plugin Companion to be imported into the device.

[Supported Cards]

None

[Improvements]

1. Improved the algorithm for dynamic range conversion.
2. Improved the function of restoring the device by using a USB drive when device update fails.
3. Improved the response speed for preset loading and screen editing.

[Changes]

None

[Bug Fixes]

1. Fixed the problem that an exception occurs when Take is performed after enabling KeyFrame.
2. Fixed the problem that the device crashes after power cycle.
3. Fixed the problem that the content displayed on the screen is abnormal after Take.
4. Fixed the problem of recognizing a USB drive having multiple partitions.

[Notes]

None

[Components]

P20 V1.5.0

***** August 23, 2024 P20 V1.4.2 *****

[New Features]

None

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.4.2

[Supporting Event Controllers]

U5 V1.4.2

U5 Pro V1.4.2

[Improvements]

None

[Changes]

None

[Bug Fixes]

1. Fixed the problem that the layer positions do not match when AUX layer backup takes effect.
2. Fixed the problem that an exception occurs when Mosaic parameters are applied.
3. Fixed the problem that the effect of DSK on a layer with no signal source is abnormal.
4. Fixed the problem that Genlock synchronization locking takes too much time.
5. Fixed the problem that the connected sending device cannot recognize the resolutions of the OPT ports after power cycle.

[Notes]

None

[Components]

P20 V1.4.2

***** July 29, 2024 P20 V1.4.1

[New Features]

None

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.4.1

[Improvements]

1. Improved the Genlock adjustment speed to ensure that the HDMI output remains stable, avoiding any flickering or black screen issues when the GenLock reference source goes online or offline.
2. Improved the GenLock locking speed when deleting and adding connectors.
3. Improved the OPT output parameters to make it more compatible with multimode optical fibers.

[Changes]

None

[Bug Fixes]

1. Fixed the problem that the actual output is not switched when users switch between the primary and backup sources after enabling primary source priority for input source backup.
2. Fixed the problem that when a screen is added to AUX and FTB is enabled, the position of UMD on the Multiviewer screen is incorrect.
3. Fixed the problem that when the magnification of the PGM layers is excessively high, a vertical line appears in the middle of the PGM screen when viewed from AUX.
4. Fixed the problem of asynchronous output connector timing caused by abnormal reconfiguration of soft core.
5. Fixed the problem that when DSK is enabled for a layer without a source, it displays an abnormal image.
6. Fixed the problem that when users view the PGM of an irregular screen from AUX, flickering abnormal images appear occasionally in the area with no data.
7. Fixed the problem that the input source cannot be recognized occasionally.
8. Fixed the problem that the number of layers is occasionally abnormal during KeyFrame playback when half of the layer is outside the screen.
9. Fixed the problem that the 2432x5217@30Hz YUV444 10Bit output is not recognized upon looping back to the input.
10. Fixed the problem that in PGM only mode, an incorrect number of main layer resources is displayed occasionally during preset loading.

[Notes]

None

[Components]

P20 V1.4.1

***** June 17, 2024 P20 V1.4.0

[New Features]

1. Allows multiple switchers to be controlled simultaneously.

2. Supports KeyFrame on layers.
3. Supports adjustment of BKG size and position.
4. Supports full-link HDR settings.
5. Supports layer presets.
6. Supports smart key.

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.4.0

[Improvements]

1. Improved the UX design on the front panel LCD.
2. Improved the problem that 10bit resolutions are not supported when the input connector bandwidth exceeds 297M.
3. Improved the power-on loading process to ensure the success of power-on loading.
4. Improved the problem that when users load presets on the front panel LCD in abnormal situations, the loading window on the LCD does not disappear.

[Changes]

None

[Bug Fixes]

1. Fixed the problem that the device responds very slowly when there are multiple screens and users perform freeze and FTB.
2. Fixed the problem that Genlock synchronization is abnormal after the output connector capacity is changed.
3. Fixed the problem that Multiviewer becomes abnormal occasionally after a preset is loaded.
4. Fixed the problem that the resolution of the related screen is not updated after a connector is replaced or the resolution is changed.
5. Fixed the problem that when a screen with edge blending enabled is added to AUX output, the image in the bottom right corner of the screen flashes.
6. Fixed the problem that changing the screen resolution in PGM only mode causes an exception.
7. Fixed the problem that the screen becomes blurry occasionally at some resolutions when the bandwidth of the output connectors and AUX connectors is the maximum.
8. Fixed the problem that commands such as Take/FTB on layers do not keep in sync occasionally.
9. Fixed the problem that the output image of the Multiviewer connector shakes occasionally after the device is powered on.

10. Fixed the problem that OPT ports do not support device backup.

11. Fixed other known problems.

[Notes]

None

[Components]

P20 V1.4.0

***** April 1, 2024 P20 V1.3.2

[New Features]

None

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.3.2

[Improvements]

1. Improved the problem that when users load presets on the front panel LCD in abnormal situations, the loading window on the LCD does not disappear.

[Changes]

None

[Bug Fixes]

1. Fixed the problem that the T-Bar is invalid occasionally after continuous T-Bar operations.
2. Fixed the problem of anti-static function failure.
3. Fixed the problem that layers cannot be moved occasionally.
4. Fixed the problem that when AUX layer crop is enabled, the crop parameters are abnormal after Take in swap mode.

[Notes]

None

[Components]

P20 V1.3.2

***** March 14, 2024 P20 V1.3.1

[New Features]

None

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.3.1

[Improvements]

None

[Changes]

None

[Bug Fixes]

1. Fixed the problem that memory leaks cause the device to malfunction.
2. Fixed the problem that the output of Multiviewer flashes when the Multiviewer PGM layer is dragged.
3. Fixed the problem that the primary output is reset but the copying output keeps unchanged when dynamic range conversion is turned on or off.
4. Fixed the problem that when there are multiple screens, changing the resolution of a screen causes other screens to flash and go black once.
5. Fixed the problem that horizontal lines flash on the screen during hot backup switching.
6. Fixed the problem that short lines flash on the screen when the input or output resolution is increased.
7. Fixed the problem that dots flash occasionally when the source is SDI.
8. Fixed the problem that capturing causes the output screen to get blurred when the pixel width is 8192.
9. Fixed the problem that UMD is displayed incorrectly when Multiviewer windows overlap.
10. Fixed the problem of output connector settings in Output and Screen on the LCD menu.
11. Fixed the problem of resolution settings in Output and Screen on the LCD menu.
12. Fixed the problem of Mosaic Settings on the LCD menu.
13. Fixed the problem of PGM Edit function of AUX on the LCD menu.

[Notes]

None

[Components]

P20 V1.3.1

***** February 4, 2024 P20 V1.3.0

[New Features]

1. Supports basic property settings of AUX screens.
2. Supports output timing settings of AUX screens.
3. Supports individual RGB adjustment of AUX screens.
4. Supports AUX layer source switching.
5. Supports common AUX layer source cropping.
6. Supports AUX layer size and position adjustment.
7. Added the following border effects: hard border, soft border, halo-in and halo out.
8. Supports layer shadow.
9. Supports position and size adjustment of PGM and PVW windows in Multiviewer.
10. Supports layer and screen settings on the front panel LCD.
11. Supports manual switching between primary and backup input sources.
12. Supports HDR input source format recognition and HDR output format settings.

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.3.0

[Improvements]

None

[Changes]

None

[Bug Fixes]

1. Fixed the problem that the 12G-SDI input signal at 3840x2160@59.94Hz cannot be recognized.
2. Fixed the problem that the window goes black occasionally caused by unstable input signal when the input source is connected and disconnected or the input source EDID is changed.
3. Fixed the problem that the window flashes occasionally when DSK is turned on or off.
4. Fixed the problem that the knob does not take effect when users scroll the knob to OPT on the home screen of the front panel LCD.
5. Fixed the problem that the device response times out when input source cropping and layer editing are being performed at the same time.
6. Fixed the problem that switching between pages causes PixelFlow to get stuck and switching between presets causes a timeout prompt to be displayed when the device is controlled from PixelFlow.

[Notes]

None

[Components]

P20 V1.3.0

***** January 27, 2024 P20 V1.2.1

[New Features]

None

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.2.1

[Improvements]

None

[Changes]

None

[Bug Fixes]

1. Fixed the problem that the 12G-SDI input signal at 3840x2160@59.94Hz cannot be recognized.
2. Fixed the problem that the output flashes once occasionally during the switching between presets containing BKG.
3. Fixed the problem that the AUX layer flashes occasionally when the layer source is switched.
4. Fixed the problem that the layer flashes occasionally when the primary source fails and the layer source is switched to the backup.

[Notes]

1. The user data can be kept after P20 V1.1.0 or later is updated. After P20 of V1.0.X is updated, users need to reset it to the factory settings.

[Components]

P20 V1.2.1

***** January 13, 2024 P20 V1.2.0

[New Features]

1. Supports quick switching to the backup input source.
2. Supports device backup.
3. Supports creation and deletion of multiple screens and connector settings for the screens.

4. Supports individual RGB component adjustment for brightness and contrast of inputs, outputs and layers.
5. Added an output module on the front panel LCD.
6. Supports 2x Main layers and 10x PIP layers.
7. Supports Cut and Fill.
8. Supports edge blending.
9. Supports LCD bezel compensation.
10. Supports 4K and DL input modes.
11. Added DL output mode.

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.2.0

[Improvements]

1. Improved the fan noise.
2. Improved the effect and speed of switching from PVW to PGM by using T-Bar.

[Changes]

None

[Bug Fixes]

1. Fixed the problem that the device cannot be connected during update and rollback.
2. Fixed the problem that the front panel LCD gets stuck on the main menu screen after users rotate the knob.
3. Fixed the problem that the output connector is not displayed on the output mosaic screen of the front panel LCD.
4. Fixed the problem that AUX layer names are displayed incorrectly.
5. Fixed the known problem of EDID assessment.
6. Fixed the problem that presets cannot be saved after update but can be saved after restart.

[Notes]

1. The user data can be kept after P20 V1.1.0 or later is updated. After P20 of V1.0.X is updated, users need to reset it to the factory settings.
2. Before the update progress of V1.2.0 reaches 32%, switching between pages in PixelFlow may cause a service timeout prompt to be displayed and the update progress bar on the front panel LCD may disappear for a short time. This does not affect the update.

[Components]

P20 V1.2.0

***** December 26, 2023 P20 V1.1.3

[New Features]

None

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.1.1

[Improvements]

None

[Changes]

None

[Bug Fixes]

1. Fixed the problem that vertical lines appear on the Multiviewer screen and PGM content occasionally during operation.

[Notes]

1. The fixed problem occurs occasionally during operation and the device must be restarted after the problem occurs. This problem has a serious impact. The device firmware needs to be updated from V1.1.2 to V1.1.3.

[Components]

P20 V1.1.3

***** November 24, 2023 P20 V1.1.2

[New Features]

None

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.1.1

[Improvements]

None

[Changes]

None

[Bug Fixes]

1. Fixed the problem that Take and playback of the AUX screen get stuck caused by AUX layer data redundancy.
2. Fixed the problem that the screen gets blurry when the input 12G-SDI is connected to a 3840*2160 video source and a layer is added on PVW.
3. Fixed the problem that the SDI LOOP connector cannot be recognized in some scenarios.

[Notes]

1. The improvements to TAKE are available when the software is V1.1.1 or later.
2. After the device is updated from V1.0.1 or V1.0.2 to the latest version, the device database will be cleared. Save the user data before updating the device. After the update, import the project file or reconfigure the user data.

[Components]

P20 V1.1.2

***** November 7, 2023 P20 V1.1.1

[New Features]

None

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.1.1

[Improvements]

None

[Changes]

None

[Bug Fixes]

1. Fixed the problem that TAKE responds slowly while switching with software.
2. Fixed the problem that the input source screen on the front panel LCD refreshes slowly after startup.
3. Fixed the problem that the input source LEDs stay on after the device is shut down using the front panel button.

4. Fixed the problem that HDR parsing of the input connector is wrong.
5. Fixed the problem that the status of the TAKE button LED is wrong after the button is pressed continuously.
6. Fixed the problem that button presses can take effect when the device is connected to power but not completely started up.

[Notes]

1. The improvements to TAKE are available when the software is V1.1.1 or later.
2. After the device is updated from V1.0.1 or V1.0.2 to the latest version, the device database will be cleared. Save the user data before updating the device. After the update, import the project file or reconfigure the user data.

[Components]

P20 V1.1.1

***** October 13, 2023 P20 V1.1.0

[New Features]

1. Can be controlled from Stream Deck.
2. Supports virtual device.
3. Supports layer operation shortcut in PixelFlow, allowing users to set pixel-to-pixel scaling.

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.1.0

[Improvements]

1. Improved the processing logic of the front panel knob to make the operation interaction more accurate.
2. Improved the display of the drop-down box and layer names of the Layer menu on the front panel LCD.
3. Improved the logic for pop-up windows to appear and disappear on the front panel LCD.
4. Improved the interaction logic of the USB drive status on the LCD menu to allow USB drive status to be displayed on the control device.
5. Improved the startup speed.

[Changes]

None

[Bug Fixes]

1. Fixed the problem that USB drive status was not recognized on the LCD menu after the device is upgraded.
2. Fixed the problem that images cannot be captured normally after users cancel capturing images for multiple times on the LCD menu.
3. Fixed the problem that the LCD menu gets stuck when the Mosaic Settings menu on the front panel LCD is operated repeatedly.
4. Fixed the problem that the connector names displayed on the LCD menu is not consistent with the connector names printed on the product.
5. Fixed the problem that the Factory Mode menu on the front panel LCD is opened unexpectedly.
6. Fixed the problem that the prompt is abnormal when the layer resource limit is exceeded.
7. Fixed the problem that the connector status on the event controller becomes gray after the working mode is changed on the LCD menu of P20.
8. Fixed the problem that the display is abnormal when an AUX layer is opened on PGM.
9. Fixed the problem that the T-Bar operation has a latency of one second before taking effect.
10. Fixed the problem of the stepping of EDID.

[Notes]

1. After the product is upgraded from V1.0.1 or V1.0.2 to the latest version, the device database will be cleared. Save the user data before upgrading the product. After the upgrade, import the project file or reconfigure the user data.

[Components]

P20 V1.1.0

***** September 14, 2023 P20 V1.0.2

[New Features]

None

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.0.2

[Improvements]

1. Improved the output compatibility of optical fiber ports.
2. Improved the problem that Genlock causes no output timing when the input synchronization source is unstable.
3. Improved the HDCP version information recognized by the DP connector.

4. Improved the process to obtain input source information after startup.

5. Improved the display of the resolution on the home screen.

[Changes]

None

[Bug Fixes]

1. Fixed the problem that the second output fails to connect to the VX1000.

2. Fixed the problem that a prompt box appears multiple times during diagnostics.

3. Fixed the problem of IP information on the log export screen.

4. Fixed the problem that there is a dotted box around the lock icon, connection status icon and USB icon on the home screen.

5. Fixed the problem that the BKG export screen gets stuck.

6. Fixed the problem that the prompt is abnormal when the layer resource limit is exceeded.

7. Fixed the problem that the connector status becomes gray after the mode is switched on the front panel LCD of the device.

8. Fixed the problem that the information displayed on the Genlock screen is not consistent with the actual status.

9. Fixed the problem that cropping is abnormal when the layer source is changed.

10. Fixed the problem that input view is abnormal after factory reset.

11. Fixed the problem that cropping is abnormal when the input source resolution is changed.

12. Fixed the problem that the output resolution EDID evaluation is abnormal causing the resolution to be 0.

13. Fixed the problem that short lines appear on BKG occasionally when the output resolution is 4K.

14. Fixed the problem that the AUX screen goes wrong when 1*2 PGM layout is used to open AUX windows in PGM only mode, Genlock is turned on/off and the resolution is changed.

[Notes]

None

[Components]

P20 V1.0.2

***** August 22, 2023 P20 V1.0.1

[New Features]

None

[Supported Cards]

None

[Supporting Software]

PixelFlow V1.0.1

[Improvements]

1. Improved the connector compatibility of long-distance transmission with optical fiber.
2. Improved the startup speed.
3. Improved the problem that other operations are disabled during the Take process.
4. Improved the switching speed of Take and Cut.
5. Improved the speed of importing and capturing images.
6. Improved the problem that switching between Multiviewer layout templates gets stuck.
7. Supports more flexible use of resources.

[Changes]

None

[Bug Fixes]

1. Fixed the problem of HDCP switch.
2. Fixed the problem that the Multiviewer screen flickers occasionally.
3. Fixed the problem of abnormal input view.
4. Fixed the problems caused after HDCP is turned on.
5. Fixed the problems related to preset loading and saving.
6. Fixed the problems of occasional freeze and FTB failures and screen flickering.
7. Fixed the problem that the images on AUX screens are displayed incorrectly.
8. Fixed the problem that the layer data on PGM is not the same as that on PVW.
9. Fixed the problem that the operations in PixelFlow and front panel LCD are not synchronized.
10. Fixed the problems related to connector replacement and AOI.
11. Fixed other known bugs.

[Notes]

None

[Products]

P20 V1.0.1

***** July 15, 2023 P20 V1.0.0 First Release

[New Features]

1. Comes with 12x 4K video inputs: 4x 12G-SDI (with loop output), 8x DP 1.2/HDMI 2.0. All these connectors accept 12bit/10bit/8bit video sources and support HDCP decoding.
2. Supports Genlock input and loop output.
3. Supports up to 4x 4K outputs (PGM only) or 2x 4K outputs (switcher): 8x HDMI 2.0 (In PGM only mode, 4 connectors work as primary and the other 4 connectors work as backup and the output resolution is up to 8K×4K@60Hz. In switcher mode, 2 connectors work as primary and the other 6 connectors work as backup and the resolution per output is up to 4K×2K@60Hz.)
4. Designed with 4x AUX outputs (HDMI 1.3) allowing auxiliary display devices such as teleprompters to be connected.
5. Designed with 1x Multiviewer (MVR) output (HDMI 1.3) allowing for live monitoring of all the inputs, PVW and PGM. The resolutions and frame rates are also displayed on the Multiviewer screen.
6. Designed with 8x 10G optical fiber output ports to copy the output of 4 primary HDMI 2.0 connectors. 4 optical fiber ports work as primary and the other 4 ports work as backup.
7. Supports two working modes: PGM only and switcher. Users can switch between the two modes as required.
8. Supports high-precision output synchronization.
9. Supports output connector replacement in software: In PGM only mode, if a connector fails, it can be replaced with a normal one by using software.
10. Supports up to 7 layers (3x 4K@60Hz layers and 4x 2K@60Hz layers, or 4x 4K@60Hz layers). Each layer allows for cross-connector output. DSK, copying, mirroring, and Z-order adjustment are available for all the layers. Input source cropping is also supported.
11. Supports dynamic range conversion between SDR, HDR10 and HLG.
12. Comes with advanced DSK capability. Chroma key and luma key can be implemented for the input source after color adjustment.
13. Supports BKG settings. BKG can be loaded on the control PC or event controller. Both image BKG and pure color BKG are supported. An image captured from the input source or PGM can also be used as BKG.
14. Supports up to 128 presets which can be quickly loaded.
15. Supports cut and fade transition effects.
16. Supports custom test patterns making it easier to assess and calibrate the display performance.
17. Supports input backup. Users can specify a primary input connector and backup input connector. Once the primary input source fails, it will be switched to the backup source seamlessly.
18. Supports connector status monitoring. The real-time status of each connector is displayed on the front panel LCD.

19. Supports flexible control options: Front panel buttons and LCD, event controller, software on the control PC

[Supported Cards]

None

[Supporting Software Version]

PixelFlow V1.0.0

[Improvements]

None

[Changes]

None

[Bug Fixes]

None

[Notes]

None

[Components]

P20 V1.0.0

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