Matrox™ Release Notes

Matrox™ Maevex™ 5100 Series and Maevex™ 6100 Series

Software version 2.02.00

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Graphics for Professionals

Overview

This document describes the current release of the Matrox Maevex 6100 Series and Maevex 5100 Series hardware, and PowerStream Plus software. Matrox provides these notes to describe new features, bug fixes, and improvements to Maevex hardware and PowerStream Plus software.

What's new in this release

■ SRT streaming protocol support with or without encryption. Supports encryption levels AES-128, AES-192, and AES-256.

■ Local HDMI display EDID processing. The EDID of the local display is passed to the HDMI source as long as it's supported by the Maevex 6150 device.

■ Options to export and import PowerStream Plus configurations.

■ Portrait-mode side-by-side compositing layout.

■ Option to force multicast-only connections (RTSP only).

■ Option to force CAVLC entropy encoding, irrespective of the selected H.264 encoding profile.

First-time installation of PowerStream Plus

If you're installing Matrox PowerStream Plus software for the first time, PowerStream Plus automatically detects the Maevex devices that are on the same subnet as PowerStream Plus, and adds them to your environment. You'll need to manually add any devices that remain undetected.

For more information, see the Matrox PowerStream Plus user guide. Matrox makes the latest PowerStream Plus software and firmware available on the Matrox web site (www.matrox.com/maevexsw).

Upgrading from an older version of Matrox PowerStream (1.0x) or PowerStream Plus (2.0x) software

If you're currently using Matrox PowerStream and corresponding firmware package, and you want to upgrade to a recent version of PowerStream Plus software and corresponding firmware package, do the following:

1 Install the latest firmware package for your Matrox Maevex 6100 Series and 5100 Series devices. (Make sure the firmware package version you're

installing corresponds to the PowerStream Plus software you're planning to install.)

2 Install the latest version of Matrox PowerStream Plus software.

3 Remove the older (previously installed) version of Matrox PowerStream software.

PowerStream Plus automatically detects the Maevex devices that are on the same subnet as PowerStream Plus, and adds them to your environment. You'll need to manually add any devices that remain undetected.

For more information, see the Matrox PowerStream Plus user guide. Matrox makes the latest PowerStream Plus software and firmware package available on the Matrox web site (www.matrox.com/maevexsw).

Downgrading your PowerStream Plus version

■ If a password that's longer than 8 characters is set, older PowerStream or PowerStream Plus versions (previous to 2.01.03) won't be able to authenticate these devices. Before downgrading your version of PowerStream Plus software, we recommend first changing the password to set a password that's between 6 and 8 characters long. For more information on changing passwords, see the Matrox Maevex User Guide.

■ If downgrading PowerStream Plus software to 2.00 (not recommended), certain user settings related to version 2.00 (like the device tile organization) won't be automatically restored. For more instructions on downgrading, contact Matrox Technical Support.

Fixed issues and improvements

■ **Maevex 6100 Series** – Improved compatibility of MP4 recorded content with Windows® Media Player and QuickTime (1920x1080p60 @ 25 Mbps and higher) that are generated with multiple slices. [MVX2-1085]

■ **Maevex 6100 Series** – Improved reliability of long-term H.264 encoding and streaming. [MVX2-1111]

Notes and limitations

Maevex 6100 Series

■ RTMP push streaming to Wowza® Cloud is supported only with no authentication.

- Depending on the analog audio input voltage level from the analog audio source, clipping (audio distortion) may occur in the stream and headphone out, especially at higher or maximum (6dB) audio input level setting from PowerStreamPlus. To avoid this, reduce the analog audio level from the source, from PowerStream Plus, or from both.

- SRT is only available for MPEG-2 TS streams and only in unicast mode.

- Recording to extFS (ext2/3/4), NTFS, and FAT32 drives is supported (exFAT-formatted drives aren't supported).

- Before recording to a networked shared drive or folder, make sure you have the appropriate user rights and credentials to do so. Different operating systems have different ways to share folders, so make sure the share is set up accordingly (for example, some Windows operating systems require a user name and password setup for the share folder to be accessible).

- **Maevex 6150** – When recording, make sure there's enough available space on the destination device (USB memory or network drive) before starting to record. If the last recorded file is larger than the available space, the file won't be able to close, and the recorded data will be lost.

- **Maevex 6150** – After connecting a new local DisplayPort console display, the Maevex 6150 device must be rebooted for the DisplayPort output to be enabled.

- **Maevex 6150** – The local DisplayPort console output is limited to 4-quadrant compositing of the HDMI inputs (1-4). A quadrant will be black if there's no HDMI input signal on the corresponding input.

- **Maevex 6150** – If the resolution of DisplayPort console output is HD or higher (determined by the connected monitor's preferred resolution), the preview content frame rate will be limited to 15fps. This limitation has no impact on the streamed or recorded frame rate.

- **Maevex 6150** – While recording to a USB or hard drive, no warning appears if device is full or near full.

- **Maevex 6150** – Performance (frame rate) may be affected while streaming 4 HD streams @100Mb/s to **LAN2** and recording 4 HD streams to **LAN1**.

- **Maevex 6150** – To be able to record to **LAN2**, make sure to specify a distinct IP address for your recording destination. Depending on the IP address of the recording destination, the data will be sent on the **LAN1** or **LAN2** output.

- HDCP (High-Bandwidth Digital Content Protection) isn't supported.

- **Windows Server 2016 and Windows 2008 R2** – Windows Server operating systems disable the SSDP Discovery service by default. For your devices to be automatically detected on your subnet, this service needs to be enabled. For more information on enabling this service, see Windows documentation.

- Multicast streaming requires networking hardware that supports and is properly configured for IPv4 multicasting. Otherwise, only unicast streaming will be supported.

- Switching between dynamic and static IP addresses isn't supported while encoding or decoding. Before you change the IP address, make sure you stop encoding or decoding.

- If you're using PowerStream Plus software to set a static IP address, make sure the IP address you want to set isn't already allocated to another device on the network.

- **Maevex 6150** – The control buttons (on the front on the device) assigned for the start/stop functionality of the recording can control only manual recording. Stopping a scheduled recording must be done through PowerStream Plus. To stop a scheduled recording, access PowerStream Plus software, then disable the **Scheduled recording** option.

Maevex 5100 Series

- **PowerStream Plus** – If a password that's longer than 8 characters is set for a Maevex 5150 device, older PowerStream versions (1.05.03.007 or older) won't be able to control these devices. Before downgrading from PowerStream Plus to PowerStream, we recommend first changing the password to set a shorter password (shorter than 8 characters).

- This firmware package includes firmware version 1.05.05.001 for Maevex 5100 Series devices.

- **Windows Server 2016 and Windows 2008 R2** – Windows Server operating systems disable the SSDP Discovery service by default. For your devices to be automatically detected on your subnet, this service needs to be enabled. For more information on enabling this service, see Windows documentation.

- Before daisy chaining your decoders, make sure each decoder is powered. This enables the decoder's internal network loop, allowing the DHCP server to allocate an IP address to the daisy-chained decoders.

- Audio distortion may occur if the analog audio input voltage level is too high. If this occurs, we recommend reducing the analog input signal voltage level from the host system (turn down the input volume).

- HDCP (High-Bandwidth Digital Content Protection) isn't supported. Depending on the source system, the local output of the Maevex 5150 encoder may result in a blank screen (black) while using the confidence preview output method, or in intended distorted display (blank screen or snowy display) while using the pass through output method.

- You can't stream and record at the same time (encoder).

- If failsafe is enabled (decoder), the feature overrides source-to-destination no signal DPMS remoting.

- USB and SD® Card connectivity aren't supported.

- Certain non-Matrox graphics cards may not properly support certain resolutions. For example, they don't output full-screen images in a 1920×1080 resolution (you can replicate this connecting your display directly to your graphics card). For information on the capabilities of your graphics card, contact your graphics hardware manufacturer.

- Your Maevex devices can only be detected on a DHCP network. To locate a Maevex device outside the DHCP subnet, first detect the Maevex device on the subnet, then set the Maevex device to a fixed IP address known to be available on the LAN outside the subnet. Remove the Maevex device from the subnet and place it in the intended location on the LAN.

- Multicast streaming requires networking hardware that supports and is properly configured for IPv4 multicasting. Otherwise, only unicast streaming will be supported.

- Switching between dynamic and static IP addresses isn't supported while encoding or decoding. Before you change the IP address, make sure you stop encoding or decoding.

- If you're using PowerStream Plus software to set a static IP address, make sure the IP address you want to set isn't already allocated to another device on the network.

- When switching between the **Use pass through** and **Use confidence preview** output methods on the encoder, the source system's HDMI® digital audio may be disabled. To re-enable the HDMI digital audio, disconnect and reconnect the HDMI input cable on the Maevex encoder.

- **Windows 10/7** – If your controller system doesn't have access to a DNS server or if response from its DNS server is slow, PowerStream Plus may take a long time to start up (several minutes). To avoid this delay, configure your controller system to use a fixed IP address (such as local host – 127.0.0.1) as its DNS server.

- To ensure compatibility with autonegotiating network switches and routers, your Maevex devices use autonegotiation for their network speed and duplex settings. We recommend you configure the networking hardware your Maevex product is connected to so that it also autonegotiates these settings. We also recommend you make sure the speed and duplex settings of your Maevex devices and networking hardware match. If image corruption occurs, make sure your networking hardware (and the ports connected to your Maevex devices) aren't overloaded and dropping data packets. If necessary,

increase the bandwidth allocated to the ports connected to your Maevex devices, or try using different ports.

■ Connecting a networked device other than a Maevex decoder (such as a computer, networked display, etc.) to the second network port of a Maevex decoder is currently unsupported.

■ Connect a local monitor to a Maevex encoder's local output (**HDMI OUT**) before enabling the **Pass through** mode in PowerStream Plus. If you're using **Pass through** without a local monitor present, the source system may not output a valid signal, making capture impossible.

■ If your source forces a signal of 1920 × 1200 @ 60 Hz, it will be automatically encoded and streamed as a 30 fps signal.

■ Updating the firmware in parallel while your decoder devices are daisy chained isn't supported. Decoder devices that are daisy chained must be added to the Firmware Update Utility's list of devices to update and updated one device at a time.

PowerStream Plus API

The current version of Maevex PowerStream Plus software and the Maevex firmware are backwards *compatible* with the Maevex PowerStream Plus API version 2.00.00 or later. The new features and capabilities of this release are documented in the corresponding PowerStream Plus API release (same version).

For more information on the Matrox PowerStream Plus API, or to obtain a version of the API, contact Matrox Technical Support (maevexsupport@matrox.com).

Contact us

The Matrox web site has product literature, press releases, technical material, a sales office list, trade show information, and other relevant material. Visit us at www.matrox.com/graphics.

If you have any questions or comments about our products or solutions, contact us at www.matrox.com/graphics/contact.

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