

Matrox® Release Notes

Matrox® Maevox™ 5100 Series and Maevox™ 6100 Series

Software version 2.03.00

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www.matrox.com/graphics

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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 (for MaeveX 6100 Series devices only)

- Support for IPv6.
- Option to disable EDID pass through (separately for each input/output pair).
- Support for HLS streaming protocol.
- Active Directory® support for centralized user access management.
- Support recording of fragmented MP4 (*.fmp4*) and *.mov* file types.
- Support of RTMPS to Facebook® Live.
- Ability to disable recording.
- Support for full-screen input monitoring through the local DisplayPort™ output.
- Easy configuring when streaming to main CDNs (Content Distribution Networks), such as Wowza®, YouTube®, Facebook® Live, Livescale™, Restream™, Twitch™, and IBM® Watson™ Media.
- SMB2 (Samba2) support for compatibility with Windows® 10 default settings when recording to shared folders.
- HTTPS firmware file transfer to devices (as a backup protocol in case the default faster FTP file transfer is unsuccessful or disabled).
- Support for Windows® Server® 2019.
- Added user name and password authentication for RTSP (optional).
- The LCD goes into power saving mode approximately 10 minutes after the last device power-on, configuration reset, or reboot, or after the last push of the LCD control buttons (up/down). A persistent blue LED on the last two buttons indicates that the unit is operating and a push of either of these two buttons can relight the LCD. The LCD power-saving mode doesn't affect device functionality.
- New default state for the programmable buttons (labeled **1**, **2**, **3**, **4**) on the device. The buttons are now unassigned to device functions with their blue

LED off. When older firmware versions are updated, the previous button assignments and last known states are preserved and carried forward, and only a device configuration reset would revert back to the new default values.

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.

Downgrading to an older version of the firmware

- Firmware downgrading is limited to version 2.02.01.017 (which supports the TLS1.2 protocol). To downgrade to an older firmware version, downgrade first to version 2.02.01.017, and then downgrade further.
- Firmware downgrading to version 2.02.01.017 is supported *only* from the default IP mode **IPv4 and IPv6** and from **IPv4**. Downgrading from **IPv6** isn't supported, because the 2.02 release supports only IPv4.

Fixed issues and improvements

- Moved **SRT** to the list of streaming protocols (previously a sub-option of the MPEG-2 TS protocol).
- Improved RTMP network traffic spreading.
- Allowed selection and use of RTSP port 554, unavailable in previous releases. [1490]
- Removed mod6 (multiples of 6) network port reservation constraint. [1354]
- Improved RTSP keep-alive implementation for improved compatibility.
- Improved local pass through display EDID processing for improved compatibility with 4K60 monitors. [1293]
- Fixed an issue with MPEG-2 TS A/V synchronization. [1301]
- Fixed HDMI audio compatibility with some HDMI sources. A/V streaming and connection to decoders is maintained even if the audio input signal is disrupted, as long as it recovers without changes to settings (for example, sampling frequency). During this audio source signal blackout, no audio is streamed. [1468, 1534]
- Maintain A/V stream even if audio has interruptions by streaming silence during the audio blackout period. [1468]
- Improved LCD display contrast setting for improved clarity. [1572]

- Fixed connection issues to Maevox 5150 decoders in some configurations when also using analog audio as an input. [1091]
- Removed TLS 1.0 support for increased security (using TLS 1.2).
- **Maevox 6100 Series and 5100 Series** – Security improvements.

Notes and limitations

Maevox 6100 Series

- Can't record to an IPv6 local-link address. [1791]
- HLS has a limited and fixed list of frame sizes. For more information, contact your Matrox representative [1691].
- 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 PowerStream Plus. To avoid this, reduce the analog audio level from the source, from PowerStream Plus, or from both.
- 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).
- **Maevox 6150/6120** – While recording to local or network storage, no warning appears if device is full or near full. Make sure there's enough available space on the destination device (USB-based storage or network-based storage) 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.
- **Maevox 6150/6120** – After connecting a new local DisplayPort console display, the Maevox device must be rebooted for the DisplayPort output to be enabled.
- **Maevox 6150/6120** – If the resolution of DisplayPort console output is higher than Full HD (determined by the connected monitor's preferred resolution), the preview content frame rate will be limited to 15 fps. This limitation has no impact on the streamed or recorded frame rate.

- **Maevox 6150/6120** – To be able to record to **LAN2**, make sure to specify a unique IP address for your LAN2 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 multicast and is properly configured for 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.
- **Maevox 6150/6120** – 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.

Maevox 5100 Series

- **PowerStream Plus** – If a password that's longer than 8 characters is set for a Maevox 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 1.05.07.003 for Maevox 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 Maevox 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 on 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 Maevox devices can only be detected on a DHCP network. To locate a Maevox device outside the DHCP subnet, first detect the Maevox device on the subnet, then set the Maevox device to a fixed IP address known to be available on the LAN outside the subnet. Remove the Maevox device from the subnet and place it in the intended location on the LAN.
- Multicast streaming requires networking hardware that supports multicast 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 Maevox 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 auto-negotiating network switches and routers, your Maevox devices use auto-negotiation for their network speed and duplex settings. We recommend you configure the networking hardware your Maevox product is connected to so that it also auto-negotiates these settings. We also recommend you make sure the speed and duplex settings of your Maevox devices and networking hardware match. If image corruption occurs, make sure your networking hardware (and the ports connected to your Maevox devices) isn't overloaded and dropping data packets. If necessary, increase the bandwidth allocated to the ports connected to your Maevox devices, or try using different ports.
- Connecting a networked device other than a Maevox decoder (such as a computer, networked display, etc.) to the second network port of a Maevox decoder is currently unsupported.
- If you're using **Pass through** mode without a local monitor present, the source system may not output a valid signal, making capture impossible. To resolve this issue, we recommend trying one of the following:
 - Use **Confidence preview** mode instead of **Pass through** mode.
 - Connect a local monitor to a Maevox encoder's local output (**HDMI OUT**) before enabling the **Pass through** mode in PowerStream Plus.
- 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

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

Contact us

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

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