

Matrox™ Release Notes

Matrox™ Mura™ IPX 4K IP Decode and Display card

Software version 3.01.00

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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 Mura IPX 4K IP Decode and Display card and for the Mura IPX Series Updater for Microsoft® Windows® and Linux® operating systems.

The Mura IPX 4K IP Decode and Display card is a standalone multiviewer product and only uses the PCIe® slot to receive power. The network stack, software, and firmware run on the card. There are no requirements for any operating system to be present on the system.

Matrox provides these notes to describe bug fixes and improvements to the software, and API.

What's new in this release

This release of the Mura IPX Series Updater adds support for the following features and options:

- Support for RTP, MPEG-2 TS, and SRT streaming protocol for IP decode only.
- Support for SDP (Session Description Protocol) with RTP streaming protocol.
- Supports the decoding of Extio 3 Series - 4:4:4 streams (up to and including 4K30). Extio3 version 1.00.05 or later is supported.
- Support for audio. The audio is always coming out on the first output of a Mura IPX 4K IP Decode and Display card. The playback of only 1 audio source (from an IP Source) is allowed at any given point in time.
- Support for audio from any IP streams (RTSP, RTP, MPEG2-TS and SRT).
- Addition of an /ALL parameter to NetAPI command Source.
- Addition of a NetAPI command/parameter to return status of streams.
- Support for Low-Latency decoding.
- General stability improvements.
- General bug fixes.

Notes and limitations

The following are known issues that may be fixed in a future release:

- A Mura IPX 4k Decode and Display card performance is limited to the following number of streams (or combination of):
 - Two (2) 4K60 streams
 - Four (4) 4K30 streams
 - Eight (8) 1080p60 streams
 - Sixteen (16) 1080p30 streams
 - Forty-eight (48) D1@24Hz streams

Adding more streams may affect performance.

- For audio, the following limitations exists:
 - Audio is only supported on the first output of the Mura IPX Series card.
 - No support for audio-only streams.
 - 16-bit audio.
 - Support sampling rates from 32 KHz to 96 KHz.
 - Support for stereo and mono.
 - Support for AAC and PCM.
 - Audio support may affect latency.
 - Support for only 1 IP audio source at a time.
 - Audio is unsupported for streams from a Matrox Extio 3 product.
- There may be audio-video synchronization issues with 4K streams.
- Displays of the same make and model need to be used on all outputs of the Mura IPX Series card.
- The Mura IPX 4K IP Decode and Display card works independently of other hardware in your system. It can only be controlled by using NetAPI (or MuraControl for Windows) and can only display sources decoded by itself.
- If static IP addressing is used, your network must have an NTP server for the Mura IPX Series card to function properly.
- Interlaced video on both the inputs and outputs are currently unsupported on Mura IPX Series.
- All outputs must have the same resolution and refresh rate.

- The Output mode list from the monitor EDID is obtained only from the monitor connected to output connector 1.
- Framelocking across multiple Mura IPX Series cards is unsupported.

Notes and limitations with the Network API interface

The following are known issues and limitations when using the Network API interface:

- Not all Network API commands are supported in all supported display wall hardware configurations. For example, some commands supported on controllers using Mura MPX Series products are unsupported for the Mura IPX Series 4K Decode and Display product and vice versa. For a complete list of supported commands, use the Capabilities functionality in the Network API.
- The Network API parameter /F (Filtering) is unsupported.
- When the Network API parameters /ARA (AutoRecoveryAttempt) and /ARD (AutoRecoveryDelay) are set individually, the value of the other is reset to default despite it having been set in the past. This also occurs when /AR (AutoRecovery) is enabled.
- SetPassword command returns Invalid Command instead of Not supported.
- Alpha Blending, color keying, transitions, previews and effects are unsupported on the Mura IPX 4K IP Decode and Display card.
- HTTPS communication with the Network API is unsupported with the Mura IPX 4K IP Decode and Display card.
- Source image overlay may not be placed in the correct position and may bleed out of a Window surface.
- Source text overlay doesn't scale accordingly when a window is being resized.
- Marquee text transparency is unsupported.
- Rotation of IP sources is unsupported.

Setting up your Mura IPX 4K IP Decode and Display card

- 1** Install and connect your Mura IPX Series card in a system, chassis, or enclosure providing PCIe power to the board. For more information, see your user guide.
- 2** Make sure your card is connected to the network by using the network jack on your Mura IPX Series card.
- 3** Run the Mura IPX Series Updater. Make sure to use the latest firmware available on our website. For more information, see “Matrox Mura IPX Series Updater”.
- 4** You may set your output configuration and output resolution by using MuraControl for Windows and/or the Network API.

Matrox Mura IPX Series Updater

The Matrox IPX Series Updater enables you to update the software on your Matrox Mura IPX 4K IP Decode and Display products.

Note: Your Mura IPX 4K IP Decode and Display product may ship with older software versions. Before using your Mura IPX 4K IP Decode and Display product, you must update the software installed on your devices to use the version of your deployed release.

Operating system support

The Matrox Mura IPX Series Updater supports the following operating systems:

- Windows® 10 (64-bit)
- Windows® 7 (64-bit)
- Windows® Server® 2008 R2
- Ubuntu® 14.04
- CentOS™ 7.2

Before you begin

Before you update your Mura IPX 4K IP Decode and Display devices, read the following guidelines:

- Make sure you have at least 1 GB of free disk space available.
- **Windows only** – Make sure Microsoft .NET Framework version 4.5 is installed on your system.
- **Linux only** – Make sure Xamarin “mono-complete” package version 5.4.0.201 or later is installed on your system.
- To avoid possible problems with your Mura IPX 4K IP Decode and Display devices, we recommend running only one instance of the Mura IPX Series Updater at a time.
- Make sure you’re running the latest version of the Mura IPX Series Updater.
- Close any programs that may be running and using any of the Matrox display wall APIs.
- Close any display wall layout.

Obtaining the Matrox Mura IPX 4K IP Decode and Display package

Matrox makes the latest updater and software package for your Mura IPX 4K IP Decode and Display products available on the Matrox web site (www.matrox.com/graphics/en/support/drivers/download/mura).

Updating your Mura IPX Series 4K Decode and Display devices

On a system on the same subnet as your Mura IPX Series device:

- 1 Download the latest software package and extract the files to a local folder on your system (for example, *C:\Updater*).
- 2 Browse to the folder containing the extracted files.
- 3 **Windows** – Run the *UpdaterOverNetwork.exe* file.

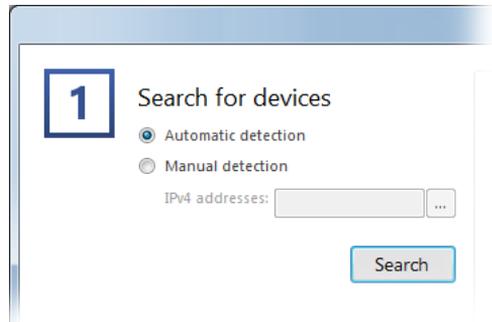
Linux – Enter the command *mono UpdaterOverNetwork.exe*.

This opens the Matrox Mura IPX Series Updater.

- 4 Scan for available Mura IPX Series devices or locate your Mura IPX Series device using its IP address.

To scan for Mura IPX Series devices on your subnet, select **Automatic detection**, and then click **Search**.

To locate one or more Mura IPX Series devices using their IP address, select **Manual detection** and enter the IP address of each Mura IPX Series device you want to locate. Separate each IP address with a space.



You can also click the browse icon (...), enter one IP address per line, then click **Apply** once all addresses are entered. When you're done, click **Search**.

Clicking **Search** again adds newly located devices to the list.

- 5 Select the devices to update

Select the devices you want to update. Devices with an older firmware version are automatically selected.

To change the sort order of the device tiles, right-click the device list box, select **Sort by** and the sorting order to use. To deselect all items, right-click the device list box and select **Unselect all devices**.

6 Enable update options

To reset device settings, including the IP address, while updating the software, enable **Reset configuration**.

7 Update your devices

When you're done adding Mura IPX Series devices to the list of devices you want to update, click **Update**.

Updating devices may take up to 5 minutes. For more information on the process of a firmware update, click **Show log** at the bottom of the program window.

If you're updating a Mura IPX Series and the updater is suddenly interrupted (for example, in the event of a network or power interruption), your Mura IPX Series may not be fully updated and will continue to run in maintenance mode. To recover and resume the update, re-launch the updater.

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.

You can get technical assistance by contacting Matrox technical support at dwcsupport@matrox.com.

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