Matrox Mojito 4K

Installation and User Guide

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matrox®
Digital Video Solutions

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1

Introducing Matrox Mojito 4K

This chapter lists the Mojito 4K system requirements, and describes the Mojito 4K documentation.

Welcome to Matrox Mojito 4K

Matrox Mojito 4K is a quad 3G-SDI card that provides realtime monitoring and output of video footage at resolutions ranging from SD up to 4K (4096×2160) at 59.94 fps. With support for Adobe creative tools such as Premiere Pro, After Effects, and Photoshop, you can edit and finish your productions while ensuring that what you see is what you are delivering. Matrox Mojito 4K provides the highest quality video editing experience by outputting projects with 1:1 pixel accuracy and 10-bit color precision to the monitor.

Matrox Mojito 4K supports up to eight or 16 channels of embedded SDI audio output so that you can choose from working with a simple stereo mix to surround sound and beyond for all your post-production needs.

System requirements

Matrox Mojito 4K requires a computer system with the following configuration:

- HP Z820 workstation with one of the following processors:
  - 3.3 GHz dual quad-core Intel Xeon E5-2643 (for 4K at 29.97 fps playback).
  - 2.7 GHz dual 8-core Intel Xeon E5-2680 (for 4K at 59.94 fps playback).
- Microsoft Windows 7 (64-bit) with Service Pack 1.
- 32 GB of RAM.
- One free x8 PCIe slot (x8 electrical).
- An NVIDIA GeForce GTX 780 (3 GB) display card is recommended.

Supported programs

For a complete list of the Adobe applications supported for using Matrox Mojito 4K with the current software release, see the "Supported OS and Applications" document provided in the "Downloads" section of the Matrox Mojito 4K Support website at www.matrox.com/video/support.

Check our website for equipment information

For up-to-date information about system requirements and Matrox-tested systems for Matrox Mojito 4K, check the "System Recommendations" section of the Matrox Mojito 4K Support website at www.matrox.com/video/support.

About this manual

This manual provides you with information about installing and using your Matrox Mojito 4K hardware and software, including how to configure supported applications for use with Matrox Mojito 4K.

Style conventions

The following style conventions are used in this manual:

- The names of files, folders, and manuals appear in *italics*. For example:
  - The data is stored in the *Sample.mxf* file.
  - The file is located in the *\Clips* folder.
  - Please refer to your *Matrox Mojito 4K Release Notes*.
- Menus and commands that you need to choose are displayed in the form **Menu > Command**. For example, **File > Save** means click **File** in the menu bar, and then click **Save** in the menu that appears.

Last-minute information

- Any important information that wasn't available for inclusion in this manual by publication time is provided to you in the *Matrox Mojito 4K Release Notes*.

Your notes

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Installing Your Matrox Mojito 4K Hardware and Software

This chapter explains how to install the Matrox Mojito 4K hardware and software.

Before installing your Matrox hardware

Read the following information carefully before attempting to install the Matrox Mojito 4K card.

Start with a functioning system

Before attempting any Matrox Mojito 4K installation, you should have a computer with a supported Windows operating system fully installed and functioning smoothly. This will avoid potential problems later on.

Avoid costly damage

Static electricity from your body can damage your Matrox Mojito 4K card or your computer. Although you may not notice it, static electricity is generated every time you move. It's often too small to cause a spark, but it can still cause damage to sensitive electronic components or at least reduce their life span.

To avoid damage, please observe the following precautions:

- Do not remove your Matrox Mojito 4K card from its antistatic bag until you're ready to install it. Before removing the card, place the package within easy reach of the area where you intend to perform the installation.
- You should avoid touching the chips and other components on the circuit board. Try to handle the card by its edges.
- Try to work in an area where the relative humidity is at least 50%.
- Do not wear wool or synthetic clothing. These fabrics tend to generate more static electricity than cotton, which is best for this kind of work.
- Turn off the power switches on your computer and its connected components.

Once you've opened your computer, drain static electricity from your body by touching a bare metal surface on your computer chassis before you install or remove any parts of your system. If you have a grounding wrist strap, use it while handling and installing any components in your computer.

Setting the genlock termination switch

Matrox Mojito 4K features a genlock termination switch that must be set to **75**Ω to terminate the reference input before installing the Mojito 4K card.
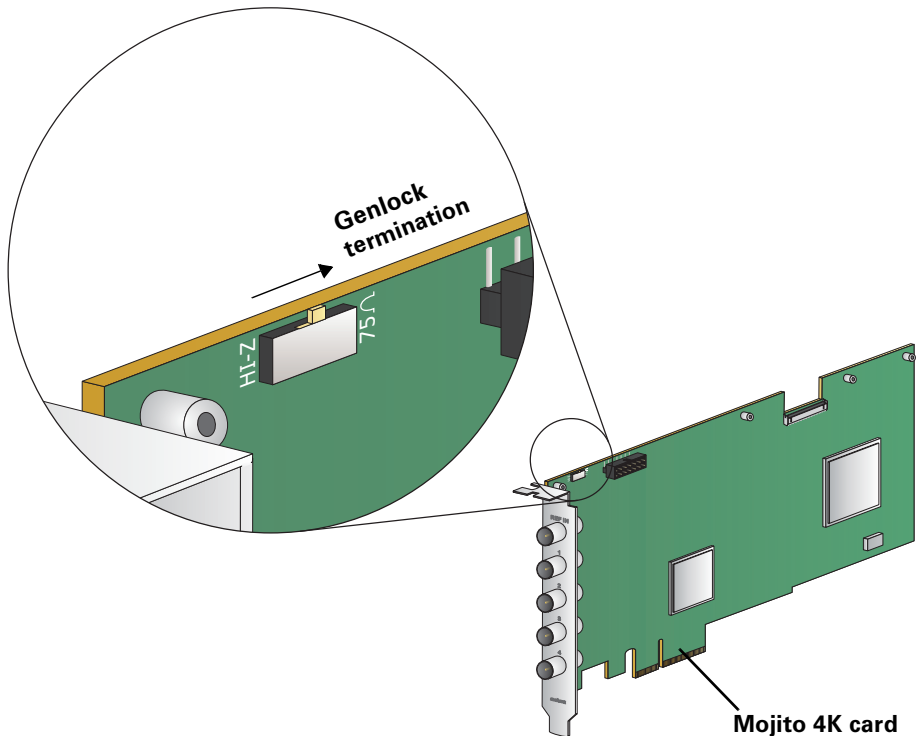
Mojito 4K card

Installing your Matrox Mojito 4K card

The Matrox Mojito 4K card is a three-quarter length PCIe (x8) card designed to operate in your computer's x8 (electrical) PCIe slot.

For detailed instructions on how to perform the following steps, refer to your computer's documentation.

1   Shut down the computer, unplug the power cord and all the cables from the unit, and open the computer's chassis.

2   Insert the Matrox Mojito 4K card in an available PCIe x8 (electrical) slot in the computer, and secure the card into place.

⚠ **Caution**   To avoid overheating issues, don't install the Matrox Mojito 4K card close to another card that generates heat, such as a display card.

3   Close the computer chassis, and reconnect the power cord and all the cables to the unit.

Installing Matrox Mojito 4K software

Matrox Mtx.utils Setup installs the Mojito 4K device drivers, and all the software required to use your Mojito 4K card with supported programs. The Matrox Video for Windows (VFW) software codecs are included so that you can play back Matrox *.avi* files on your Mojito 4K system. Before installing Matrox Mtx.utils, make sure that you've installed the third-party software that you want to use with Mojito 4K, such as Adobe Premiere Pro.

You can install Matrox Mtx.utils on a computer with or without the Matrox Mojito 4K card installed. To download and install the latest version of Matrox Mtx.utils, visit the Support section of our website at www.matrox.com/video/support. You can also contact your Matrox representative for the latest software.

Updating your Mojito 4K firmware

When you install Mtx.utils while your Mojito 4K card is installed in your computer, the Mtx.utils Setup program automatically verifies the firmware on your Mojito 4K card and updates it if required. If you install Mtx.utils on a computer without the Mojito 4K card, the next time you start your computer with your Mojito 4K card installed, Mtx.utils Setup will update your Mojito 4K firmware if needed.

⚠️ **Caution** Do not power off your computer, or interrupt the firmware update during the update process. Doing so may damage your Mojito 4K card.

Installing additional Matrox WYSIWYG plug-ins or removing unneeded plug-ins

When you install Matrox Mtx.utils, you are given the option to install the Matrox WYSIWYG plug-ins for any supported programs that are currently installed on your system. If after you've installed Matrox Mtx.utils you want to install additional Matrox WYSIWYG plug-ins, or re-install or remove a currently installed plug-in, you can update your system by choosing **Start > All Programs > Matrox Mtx.utils > Update Matrox WYSIWYG Plug-ins.** You'll be prompted to specify which plug-ins you want to install, re-install, or remove. For more information about the programs supported and required settings, see "Using the Matrox WYSIWYG plug-ins" on page 19."

📝 **Note** To install the Matrox WYSIWYG plug-in for a program, you must first install that program.

Important note about sleep and hibernation modes

Your system's sleep and hibernation modes are not supported by the Matrox Mtx.utils software. To avoid stability issues, disable sleep and hibernation modes on your system after installing Matrox Mtx.utils.

Removing your Matrox Mojito 4K software

Perform the following steps to remove the Mojito 4K software from your computer. When uninstalling the Mojito 4K software, your current Mojito 4K settings are kept for future Mojito 4K software installations.

1 Choose **Start > All Programs > Matrox Mtx.utils > Uninstall Matrox Mtx.utils**.

2 Click **Next**.

Your notes

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Connecting External Devices to Matrox Mojito 4K

This chapter explains how to connect external devices to Mojito 4K.

Available connections

Matrox Mojito 4K offers the following connections:

- **Four SDI outputs**   Each SDI output supports one SDI video stream. Up to 16 channels of embedded audio are supported for SD, HD, and QFHD resolutions, and up to eight channels of embedded audio are supported for 2K and 4K resolutions.

- **One REF IN connector**   Used to connect an analog reference input source (tri-level sync for HD or bi-level black burst for SD).

Connecting devices to Matrox Mojito 4K

Use your SDI cables (not provided) to connect an SDI output (1, 2, 3, or 4) on the Matrox Mojito 4K card to an SDI video input on your monitor. You can use the REF IN connector to connect an analog reference input source (cable not provided).

Mojito 4K card

Analog reference input cable (not provided)

SDI video cables (not provided)
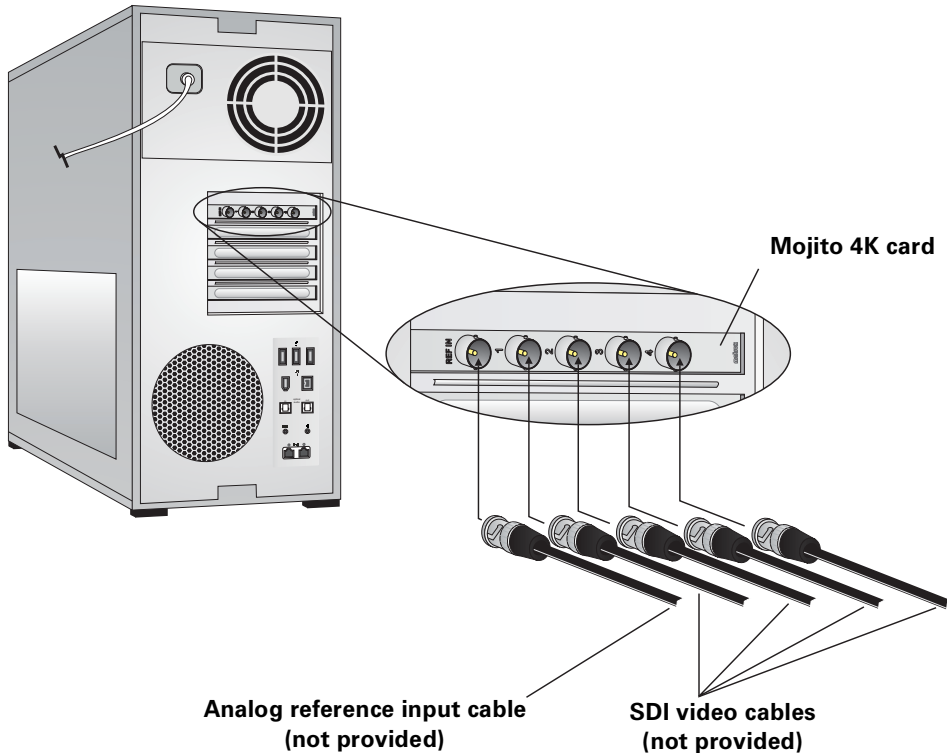
Video output mapping

To output QFHD or 4K video, all four SDI output connectors are required, and each output displays one quarter of the picture as follows:

- SDI 1: Top left
- SDI 2: Top right
- SDI 3: Bottom left
- SDI 4: Bottom right

Your notes

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Using Matrox Mojito 4K with Supported Programs

This chapter explains how to define various settings for using your Mojito 4K with supported programs.

Working with Adobe Premiere Pro

Matrox Mojito 4K supports all available sequence presets to output video and audio played back in Adobe Premiere Pro. Selecting a Matrox 2K, QFHD, or 4K preset enables full-raster H.264 intra-frame video previews in your sequence's video format.

Enabling output on Matrox Mojito 4K

To use your Matrox Mojito 4K hardware to output video and audio played back in Adobe Premiere Pro, set your video and audio devices to use the Matrox Player as follows:

1 Start Adobe Premiere Pro and either open an existing project, or create a new project.

2 Choose **Edit > Preferences > Playback**.

3 From the **Audio Device** list, select **Matrox Player**.

4 Under **Video Device**, select **Matrox Player**.

5 Click **Setup** beside **Matrox Player** under **Video Device**, and specify your settings for playback as explained in "Defining your playback settings" on page 20.
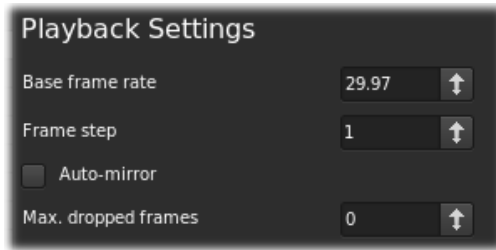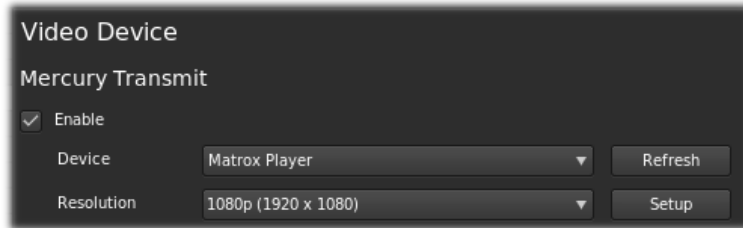
✏️ **Note** Closed captions in Adobe Premiere Pro are not supported on the Mojito 4K video outputs.

Selecting a sequence preset for use with Matrox Mojito 4K

When you create a new sequence in your Adobe Premiere Pro project for use with Matrox Mojito 4K, you can select a Matrox preset that applies settings for rendering H.264 intra-frame previews in your sequence's video format, and configures the sequence to output your mono or stereo audio to appropriate SDI output channels on your Matrox Mojito 4K hardware.

1 Choose **File > New > Sequence**. The **New Sequence** dialog box opens on the **Sequence Presets** page.

2 From the list of **Available Presets**, expand the **Matrox** folder and select the preset for the type of sequence that you want to create. For example, to create a sequence for editing 4096×2160p (4K) @ 29.97 fps material with mono audio, select the **4096x2160p 29.97** preset under **Mono** > **4K**.

✏️ **Note** The Matrox mono sequence presets provide eight mono audio tracks that are mapped to the corresponding Mojito 4K SDI output channels (A1 to channel 1, A2 to channel 2, and so on). The Matrox stereo sequence presets provide four stereo audio tracks with each stereo pair output to two SDI output channels (A1 to channels 1 and 2, A2 to channels 3 and 4, and so on).

3 In the **Sequence Name** box, specify a name for your sequence.

4 Specify any other sequence settings that you want as explained in your Adobe Premiere Pro documentation, and click **OK** to apply the settings.

Working with Adobe Prelude

To use your Matrox Mojito 4K hardware to output video and audio played back in Adobe Prelude, set your video and audio devices to use the Matrox Player as follows:

1 Start Adobe Prelude and either open an existing project, or create a new project.

2 Choose **Edit > Preferences > Playback**.

3 From the **Audio Device** list, select **Matrox Player**.

4 Under **Video Device**, select **Matrox Player**.

5 Click **Setup** beside **Matrox Player** under **Video Device**, and specify your settings for playback as explained in "Defining your playback settings" on page 20.

Working with Adobe Encore

To use your Matrox Mojito 4K hardware to output video and audio played back in Adobe Encore, set your video and audio devices to use the Matrox Player as follows:

1 Start Adobe Encore and either open an existing project, or create a new project.

2 Choose **Edit > Preferences > Audio/Video Out**.

3 From the **Audio Device** list, select **Matrox Player**.

4 Under **Video Device**, select **Matrox Player**.

5 Click **Setup** beside **Matrox Player** under **Video Device**, and specify your settings for playback as explained in "Defining your playback settings" on page 20.

Working with Adobe SpeedGrade

You can use your Matrox Mojito 4K hardware to output video played back in Adobe SpeedGrade as follows:

1 Start Adobe SpeedGrade and click **Preferences** (🔧) at the top left of the window.

2 In the **Preferences** dialog box, click **Playback** and set the base frame rate for the playback, such as **29.97**.

Playback Settings		
Base frame rate	29.97	↕
Frame step	1	↕
☐ Auto-mirror		
Max. dropped frames	0	↕

3 Click **Display** and select **Enable** under **Mercury Transmit**.

Video Device			
Mercury Transmit			
☑ Enable			
Device	Matrox Player	▼	Refresh
Resolution	1080p (1920 x 1080)	▼	Setup

4 From the **Device** list, select **Matrox Player**.

5 Click **Setup** beside **Resolution** and specify the video output settings you want for previewing your video as explained in "Defining your playback settings" on page 20.

📝 **Note** The resolution selected in SpeedGrade is ignored when using the Matrox Player to output video on Mojito 4K.

6 Click **OK** to return to the **Preferences** dialog box.

For more information about using Adobe SpeedGrade, see your Adobe SpeedGrade documentation.

Using the Matrox WYSIWYG plug-ins

The Matrox WYSIWYG plug-ins for Adobe After Effects and Photoshop let you preview your composition in After Effects or image in Photoshop on your video monitor. This lets you see the exact color temperature, safe-title area, and any interlaced artifacts as you work.

Configuring the Matrox WYSIWYG Control Panel

The Matrox WYSIWYG Control Panel lets you specify the settings you want for previewing video on your video monitor. To use the Matrox WYSIWYG Control Panel, right-click the 📺 icon on your Windows taskbar. If you don't see the icon, check your taskbar properties and make sure that you're showing the icons for your Matrox applications. If you still don't see the icon, choose **Start > All Programs > Matrox Mtx.utils > Matrox WYSIWYG Control Panel**.

✎ **Note** By default, the Matrox WYSIWYG output to your video monitor is enabled. To disable it, clear the **Enable WYSIWYG Output** option in the Control Panel.

1 Choose **Output Configuration** and specify the video output settings you want for previewing your video as explained in "Defining your playback settings" on page 20.

2 From the **Preview Type** menu, select one of the following options for the preview:

   – **Video**   Select this to view your composition/image.

   – **Alpha Channel**   Select this to view only the grayscale alpha-key (matte) information from your composition/image.

3 From the **Scaling** menu, select one of the following options for your preview output:

   – **Scale to fit**   Select this to scale your composition/image to your selected video output format (the aspect ratio will be preserved).

   – **Original Size**   Select this to output your composition/image without any scaling. The output will be centered on your video monitor, and cropped if needed.

Required steps to use the WYSIWYG plug-ins

The following sections list the steps required to use the Matrox WYSIWYG plug-ins for Adobe After Effects and Photoshop in order to preview video on your video monitor.

Adobe After Effects

1 Start Adobe After Effects and import the footage you want to preview.

2 Drag the footage from the **Project** panel to the **Composition** panel.

Adobe Photoshop

1 Start Adobe Photoshop and open the file you want to preview.

2 Choose **File > Export > Matrox WYSIWYG Preview**.

Defining your playback settings

The **Matrox Playback Settings** dialog box provides various settings that you can use to configure your Matrox Mojito 4K video output and genlock settings.
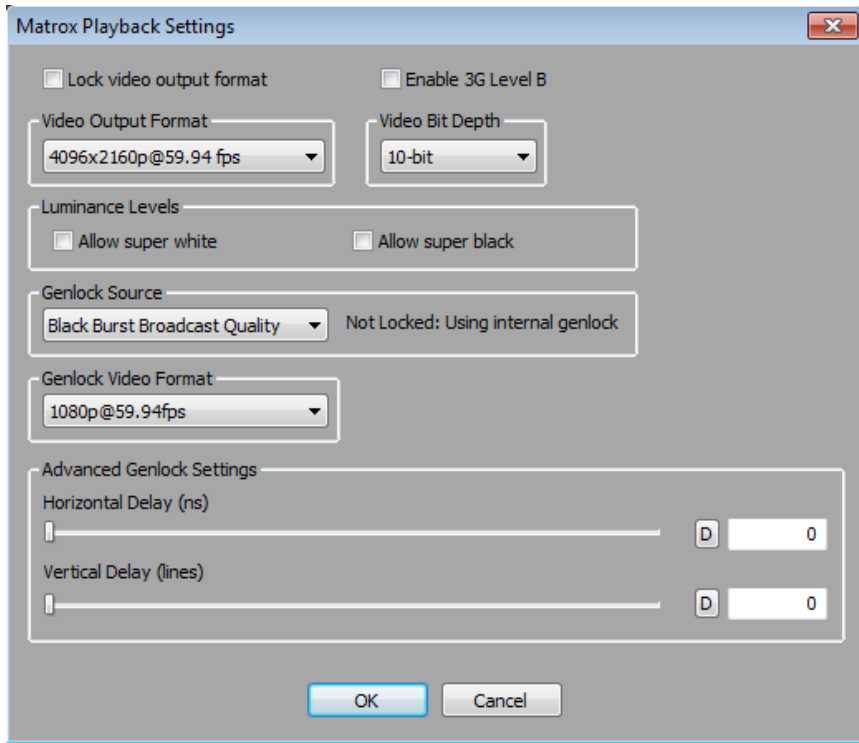
1 If you're using Adobe Premiere Pro, you can select **Lock video output format** to ensure that the currently selected video output format won't change when working in your project. When this option is cleared, your sequence's video output may change to a different format when you open a title or graphic in the Source Monitor or use the Multi-Camera Monitor.

(i) **Important** When **Lock video output format** is selected, you won't be able to change the video output format, and the currently selected format will be applied to **all** sequences in your project. Therefore, make sure that you've selected the video output format that you want (see step 3 below) before selecting this option. In order to specify a different video output format for each sequence in your project, the video output format must not be locked.

2 Select **Enable 3G Level B** if you want to output 3G Level B video when outputting1080p, 2K, QFHD, or 4K video at 50 fps or 59.94 fps. Otherwise, 3G Level A video will be output for these formats.

3 Under **Video Output Format**, select the format that you want for your video output. For a list of the supported formats, see "Supported video output formats" on page 22.

4 Under **Video Bit Depth**, select either **8-bit** or **10-bit** to indicate the bit depth you want for your video output.

5 Under **Luminance Levels**, you can select any of the following options if required:

– **Allow super white**   Allows the highest luminance level of your video output to exceed the standard maximum white level.

– **Allow super black**   Allows the lowest luminance level of your video output to fall below the standard black level.

Note   Super white and super black should not be allowed when producing your final video production for broadcast.

6 Under **Genlock Source**, select one of the following:

– **Internal**   Genlock to the Mojito 4K internal reference signal. Select this option only if you don't have an external video sync source.

– **Black Burst Broadcast Quality**   Genlock to an external analog sync source connected to the reference input (REF IN) on Mojito 4K. This must be a stable sync source, such as an external sync generator (bi-level black burst for SD or tri-level sync for HD).

Note   The status of your genlock source will be displayed, such as **Locked** or **Not Locked**, to indicate whether or not Mojito 4K is presently locked to your selected genlock source. When you change the genlock source, distorted video and silent audio will be output until Mojito 4K locks to the new genlock source.

7 Under **Genlock Video Format**, select your genlock source's video format. If you can't select a video format, make sure that your genlock source matches the specified video format. When the genlock source is set to **Internal**, the genlock video format is set to the currently selected video output format.

8 Under **Advanced Genlock Settings**, drag the **Horizontal Delay** and **Vertical Delay** sliders to adjust the horizontal and vertical timing of your video outputs with respect to your genlock source. This lets you compensate for cable delays within your system.

9 Click **OK** to save your settings.

Defining your playback settings

Supported video output formats

The following table shows the video output formats that are supported on the Matrox Mojito 4K video outputs (same format on all outputs).

Video output format	Frame rate (fps)	Transport type
SD resolutions[1]		
NTSC	29.97	1×SD-SDI
PAL	25	1×SD-SDI
HD resolutions[1]		
720p	50 or 59.94	1×HD-SDI
1080i	25 or 29.97	1×HD-SDI
1080PsF	23.98, 25, or 29.97	1×HD-SDI
1080p	23.98, 25, or 29.97	1×HD-SDI
1080p 3G Level A	50 or 59.94	1×3G-SDI Level A
1080p 3G Level B	50 or 59.94	1×3G-SDI Level B
2K resolutions[1]		
2048×1080PsF	23.98, 25, or 29.97	1×HD-SDI
2048×1080p	23.98, 25, or 29.97	1×HD-SDI
2048×1080p 3G Level A	50 or 59.94	1×3G-SDI Level A
2048×1080p 3G Level B	50 or 59.94	1×3G-SDI Level B
QFHD resolutions[2]		
3840×2160PsF	23.98, 25, or 29.97	4×HD-SDI
3840×2160p	23.98, 25, or 29.97	4×HD-SDI
3840×2160p 3G Level A	50 or 59.94	4×3G-SDI Level A
3840×2160p 3G Level B	50 or 59.94	4×3G-SDI Level B
4K resolutions[2]		
4096×2160PsF	23.98, 25, or 29.97	4×HD-SDI
4096×2160p	23.98, 25, or 29.97	4×HD-SDI
4096×2160p 3G Level A	50 or 59.94	4×3G-SDI Level A
4096×2160p 3G Level B	50 or 59.94	4×3G-SDI Level B

[1] When outputting to an SD, HD, or 2K resolution, the video and audio are duplicated on all outputs.

[2] When outputting to a QFHD or 4K resolution, the audio is output only on the first SDI output.

5

Monitoring Your Matrox Mojito 4K System

This chapter explains how to use the Matrox X.info program to display important details about your Matrox Mojito 4K system and installed Mojito 4K card.

Using X.info to display Mojito 4K information

The Matrox X.info program lets you display information about your Matrox Mojito 4K system and installed Mojito 4K card, and provides warnings when certain problems arise, such as when the temperature of your Mojito 4K card exceeds the maximum operating temperature.

Matrox X.info runs continuously to monitor your system, whenever your computer is turned on and the Mojito 4K card is installed. You can open Matrox X.info to display system and hardware details by double-clicking the 🅜 icon on your Windows taskbar.

✎ **Note** If you do not see the icon, check your taskbar properties and make sure that you're showing the icon for Matrox X.info.

Displaying system information

To display information about your Matrox Mojito 4K system, select **System** from the **Display Information About** list. On this page, you can see **Install Information**, such as the install path and version of Matrox Mtx.utils.

You can also create an HTML log file of your system information, which can be useful for troubleshooting. To create this log, use the **Browse** button under **System Information Log** to select the path and name of the log, then click **Create**. If **Open file after scan** is selected, the HTML system log opens after it is created.
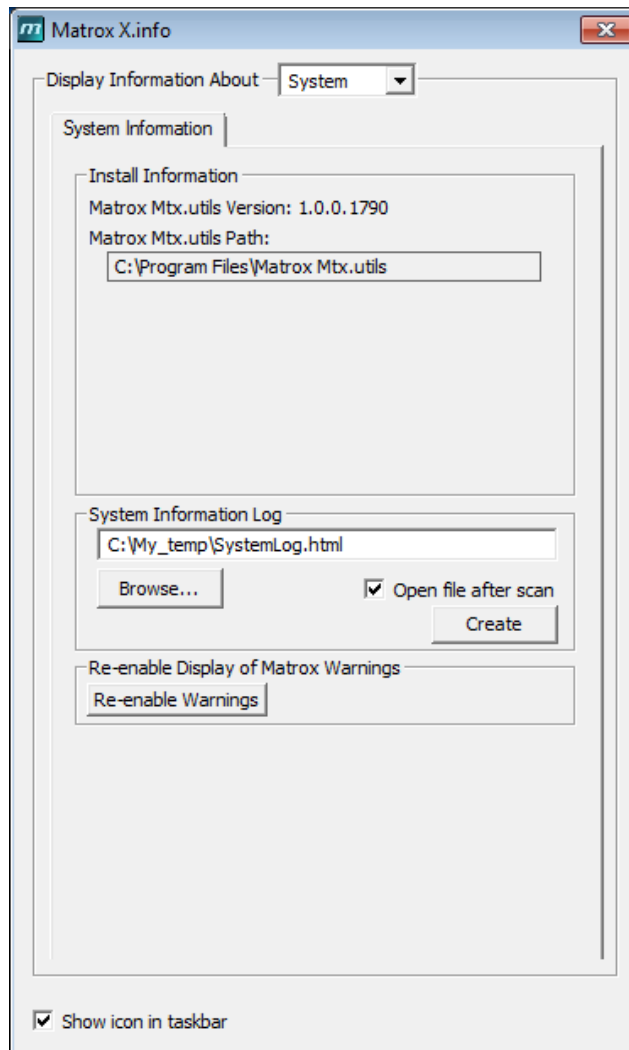
If you had previously turned off certain Matrox warnings and want them to be re-enabled, click **Re-enable Warnings**. For example, some Matrox warnings provide an option to turn off the warning (that is, you can select **Don't display this message again**). Clicking **Re-enable Warnings** allows these warnings to be displayed again.

Displaying hardware information

To display information about your Matrox Mojito 4K card, select **Hardware** from the **Display Information About** list. This displays a page with hardware information (for example, serial number and production date). You can also monitor the current and maximum operating temperatures for your card
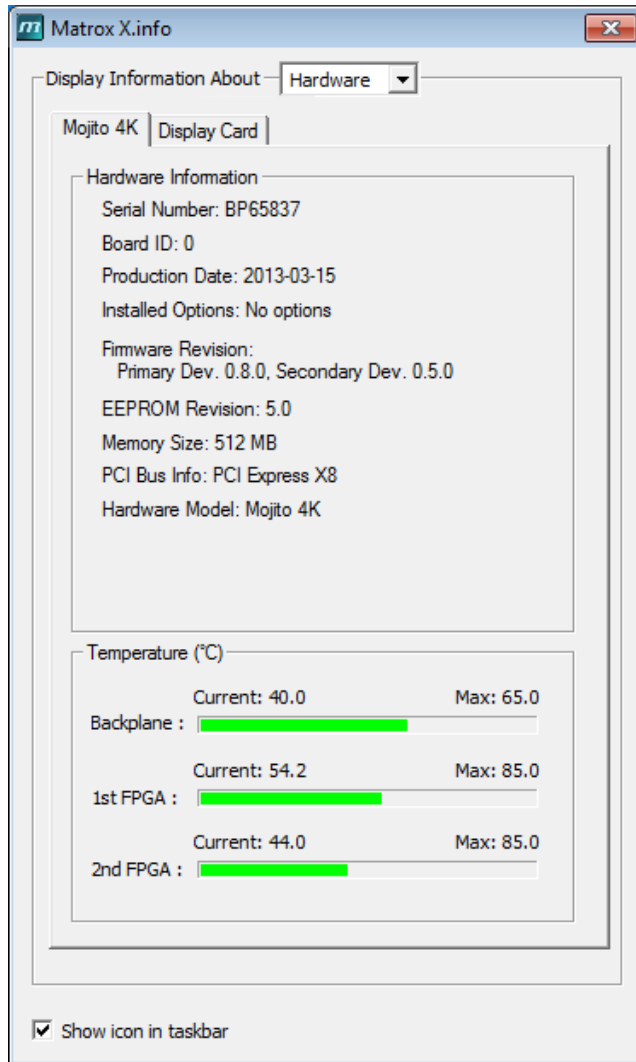
(i) Important Whether or not you have opened Matrox X.info, if your Mojito 4K card exceeds the maximum operating temperature, you'll receive a warning message with further instructions as explained in "Error notification" on page 27.

Monitoring your Mojito 4K card's operating temperatures

As shown in the X.info **Hardware** section, the **Mojito 4K Card** page displays the current and maximum operating temperatures of your Mojito 4K card's hardware components. To avoid damage to your Mojito 4K card, make sure that you don't operate your card at or near the maximum temperature for a prolonged period of time. You should target your Mojito 4K card to operate at least 10°C below the maximum operating temperature.

You should monitor the temperature of your Mojito 4K card periodically and take measures as needed to lower the room temperature and/or improve the ventilation in your Mojito 4K system. If needed, move your Mojito 4K card to a PCIe slot in your computer that is not too close to another card that generates heat, such as a display card.

Error notification

X.info provides temperature warnings and warnings for other possible Mojito 4K card problems. Once X.info has detected a hardware problem, the **Matrox X.info Notification** dialog box will be displayed to give you details of the problem and further instructions. You will not be able to close this dialog box until the problem has been resolved.

Your notes

A

Matrox Mojito 4K Specifications

This appendix provides the Matrox Mojito 4K card specifications.

General

- **Video formats**   NTSC, PAL, 720p, 1080i/p/PsF, 2K (2048×1080)p/PsF, QFHD (3840×2160)p/PsF, 4K (4096×2160)p/PsF
- **Regulatory compliance**
  - FCC Class A, CE Mark Class A, and ACMA Class A
  - RoHS Directive 2002/95/EC
- **Matrox Mojito 4K card**
  - Three-quarter length PCIe (x8) card
  - PCB dimensions:
    - L 23.2 cm (9.125 in) × W 10.7 cm (4.2 in)
    - Overall thickness including components: 1.9 cm (0.75 in)
- **Typical operating voltages and current consumption**

Voltage	+3.3 V	+12 V
Current	3.0 A	1.3 A

Total power consumption: 23 watts

Connections

- **SDI video outputs**
  - Four simultaneous SDI outputs: SD, HD (includes 2K), and 3G Level A or B
  - Compliant with SMPTE 259M, SMPTE 292M, SMPTE 424M, and SMPTE 425M-AB
  - One QFHD (3840×2160 up to 59.94 fps) or 4K (4096×2160 up to 59.94 fps) on four SDI outputs, 4:2:2 10-bit (3G Level A or B)
  - BNC connector (75 Ω), terminated
  - Equalized output for maximum cable length
- **Embedded audio outputs**
  - Up to 16 channels of embedded audio are supported for SD, HD, and QFHD resolutions
  - Up to eight channels of embedded audio are supported for 2K and 4K resolutions
  - In accordance with SMPTE 272M A, B, and C (SD), and SMPTE 299M (HD)
  - 48 kHz sampling rate
  - 24-bit audio streams are supported

- **Genlock reference input**
  - HD analog tri-level sync or SD analog bi-level black burst
  - BNC connector (75 Ω), terminated

Environmental specifications

- Minimum/maximum room operating temperature[1]: 0º to 55º C (32º to 131º F)
- Minimum/maximum storage temperature: –40º to 75º C (-40º to 167º F)
- Maximum altitude for operation: 3,000 meters
- Maximum altitude for transport: 12,000 meters
- Operating humidity: 20% to 80% relative humidity (non-condensing)
- Storage humidity: 5% to 95% relative humidity (non-condensing)

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[1] This temperature range assumes that the hardware components on the card don't exceed the maximum operating temperature as explained in "Monitoring your Mojito 4K card's operating temperatures" on page 27.

Environmental specifications

Your notes

B

Matrox Customer Support

This appendix explains how you can register your Matrox product and obtain customer support.

How to get Matrox customer support

If you have a problem that you're unable to solve by referring to the documentation for your Matrox product, please contact your Matrox representative. He or she should be able to help you quickly correct any installation or system configuration problem.

If your representative is unable to solve your problem, contact Matrox for further information and assistance.

Registration

You can register your Matrox product in the Matrox Support section of our website at www.matrox.com/video/support.

Only registered users are entitled to customer support, software updates, special promotional offers, and access to our user forum.

Keep up to date with our website

In addition to registering your Matrox product, our website offers you up-to-the-minute information about Matrox products and software updates. Be sure to place our site in your favorites or bookmarks: www.matrox.com/video/support.

Contacting us

Matrox is proud to offer worldwide customer support. Please use the contact information for your Matrox product and area as provided on our website at www.matrox.com/video/support.

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Compliance Statements

USA

FCC Compliance Statement
Remark for the Matrox hardware products supported by this guide
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING
Changes or modifications to this unit not expressly approved by the party responsible for the compliance could void the user's authority to operate this equipment. The use of shielded cables for connection of the equipment and other peripherals is required to meet FCC requirements.

Canada

(English) Industry Canada Compliance Statement
CAN ICES-3 (A)/NMB-3 (A)
Remark for the Matrox hardware products supported by this guide
These digital devices do not exceed the Class A limits for radio noise emission from digital devices set out in the Radio Interference Regulation of Industry Canada.

(Français) Conformité avec les exigences de l'Industrie Canada
CAN ICES-3 (A)/NMB-3 (A)
Remarque sur les produits matériels Matrox couverts par ce guide
Ces appareils numériques n'émettent aucun bruit radioélectrique dépassant les limites applicables aux appareils numériques de Classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par Industrie Canada.

Europe

CE

(English) European user's information – Declaration of Conformity
Remark for the Matrox hardware products supported by this guide
These devices comply with EC Directive 2006/95/EC for a Class A digital device. They have been tested and found to comply with EN55022/CISPR22 and EN55024/CISPR24. In a domestic environment these products may cause radio interference in which case the user may be required to take adequate measures. To meet EC requirements, shielded cables must be used to connect the equipment and other peripherals. These products have been tested in a typical Class A compliant host system. It is assumed that these products will also achieve compliance in any Class A compliant system.

(Français) Informations aux utilisateurs Européens – Déclaration de conformité
Remarque sur les produits matériels Matrox couverts par ce guide
Ces unités sont conformes à la directive communautaire 2006/95/EC pour les unités numériques de classe A. Les tests effectués ont prouvé qu'elles sont conformes aux normes EN55022/CISPR22 et EN55024/CISPR24. Le fonctionnement de ces produits dans un environnement résidentiel peut causer des interférences radio, dans ce cas l'utilisateur peut être amené à prendre les mesures appropriées. Pour respecter les impératifs communautaires, les câbles de connexion entre l'équipement et ses périphériques doivent être blindés. Ces produits ont été testés dans un système hôte typique compatible classe A. On suppose qu'ils présenteront la même compatibilité dans tout système compatible classe A.

(Deutsch) Information für europäische Anwender – Konformitätserklärung
Anmerkung für die Matrox Hardware-Produktunterstützung durch dieses Handbuch
Diese Geräte entsprechen EG Direktive 2006/95/EC für ein digitales Gerät Klasse A. Sie wurden getestet und entsprechen demnach EN55022/CISPR22 und EN55024/CISPR24. In einer Wohnumgebung können diese Produkte Funkinterferenzen erzeugen, und der Benutzer kann genötigt sein, entsprechende Maßnahmen zu ergreifen. Um EG-Anforderungen zu entsprechen, müssen zum Anschließen des ausrüstung und anderer Peripheriegeräte abgeschirmte Kabel verwendet werden. Diese Produkt wurden in einem typischen, der Klasse A entsprechenden, Host-System getestet. Es wird davon ausgegangen, daß diese Produkte auch in jedem Klasse A entsprechenden System entsprechend funktionieren.

(Italiano) Informazioni per gli utenti europei – Dichiarazione di conformità
Nota per i prodotti hardware Matrox supportati da questa guida
Questi dispositivi sono conformi alla direttiva CEE 2006/95/EC relativamente ai dispositivi digitali di Classe A. Sono stati provati e sono risultati conformi alle norme EN55022/CISPR22 e EN55024/CISPR24. In un ambiente domestico, questi prodotti possono causare radiointerferenze, nel qual caso all'utente potrebbe venire richiesto di prendere le misure adeguate. Per soddisfare i requisiti CEE, l'apparecchiatura e le altre periferiche vanno collegati con cavi schermati. Questi prodotti sono stati provati in un tipico sistema host conforme alla Classe A. Inoltre, si dà per scontato che questi prodotti acquiranno la conformità in qualsiasi sistema conforme alla Classe A.

(Español) Información para usuarios europeos – Declaración de conformidad
Observación referente a los productos de hardware de Matrox apoyados por este manual
Estos dispositivos cumplen con la directiva de la CE 2006/95/EC para dispositivos digitales de Clase A. Dichos dispositivos han sido sometidos a prueba y se ha comprobado que cumplen con las normas EN55022/CISPR22 y EN55024/CISPR24. En entornos residenciales, estos productos pueden causar interferencias en las comunicaciones por radio; en tal caso el usuario deberá adoptar las medidas adecuadas. Para satisfacer las disposiciones de la CE, deberán utilizarse cables apantallados para conectar el equipo y demás periféricos. Estos productos han sido sometidos a prueba en un típico sistema anfitrión que responde a los requisitos de la Clase A. Se supone que estos productos cumplirán también con las normas en cualquier sistema que responda a los requisitos de la Clase A.

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Digital Video Solutions

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