



Lightning Fast H.264 Encoding Technology

Matrox MAX is a unique technology that speeds up H.264 encoding for resolutions ranging from iPod to HD. It uses a dedicated hardware processor to accelerate the creation of H.264 files for Blu-ray, the web, and mobile devices. By using specialized hardware acceleration, jobs are finished with amazing speed and system resources are liberated for other tasks. Quality and flexibility are ensured through direct integration with professional applications such as Adobe Media Encoder and Adobe Premiere Pro on the PC.

Matrox MAX technology for PC is available in the Matrox CompressHD accelerator card and the Matrox MXO2 family of I/O devices.

Key features

- Accelerated encoding of H.264 files for Blu-ray, Apple TV, YouTube, Flash, web formats, and mobile devices including iPhone and iPod from various video sources including SD, HD, and RED R3D 2K and 4K files
- A specialized, dedicated hardware processor liberates system resources for other tasks
- Direct integration with Adobe Media Encoder and Adobe Premiere Pro on the PC to simplify workflow
- Creation of Blu-ray H.264 files that can be authored in Adobe Encore then burned without re-encoding



Support for Adobe Media Encoder

Matrox MAX technology taps into Adobe Media Encoder to let you quickly and easily create H.264 files from a variety of video sources including SD, HD, and RED R3D 2K and 4K files. You get the HD encoding speed and quality of a high-end workstation from a laptop or older PC when delivering to Blu-ray, Flash, and YouTube from Adobe Media Encoder. If you do own a high-end system, the Matrox MAX hardware can be dedicated to cranking out HD H.264 deliverables, freeing up more system resources for you to continue editing.

You can use the two categories of Matrox MAX presets – Matrox 264 (Blu-ray) or Matrox MP4 – or you can create your own customized settings. Matrox Blu-ray presets are used to create Blu-ray compliant H.264 files. Matrox MP4 presets are used for other H.264 deliverables such as those destined for Apple TV, YouTube, Flash, the web, and mobile devices including iPhone, and iPod. The Matrox MAX hardware performs proper color space conversions from HD to SD and SD to HD as well as proper color space conversion from RGB to YUV to prevent gamma shift.

Customized settings with the following parameters can be created:

- Resolutions: even frame sizes from 64x64 to 1920x1088
- Frame rates: 23.98, 24, 25, 29.97, 30, 50, 59.94, and 60
- Bit rates: from 100 Kb/s to 20 Mb/s
- Baseline or main profile encoding
- CABAC or CAVLC entropy encoding
- GOP structure controls

Efficient Blu-ray disc creation

Matrox MAX technology lets you create Blu-ray H.264 video files, directly from Adobe Media Encoder, that can be authored in Adobe Encore and burned without re-encoding on either Blu-ray or DVD media.

Use H.264 level 4.0 if you want to create Matrox MAX H.264 files intended for mass replication of Blu-ray discs. Use either H.264 level 4.0 or 4.1 if you want to author and burn individual copies that are compatible with Blu-ray disc players.

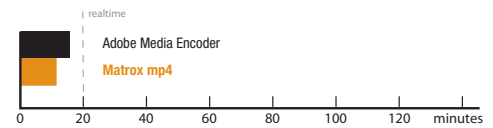
Support for Adobe Premiere Pro

Matrox MAX technology is also accessible directly from Adobe Premiere Pro. You can export your editing sequence to an H.264 file using the Matrox export function.

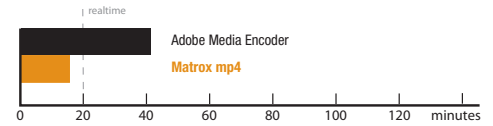
Matrox MAX H.264 encoding performance with Adobe Media Encoder

Typical H.264 encoding times for a 20 minute clip from a XDCAM HD 50 Mb/s 1080i 29.97 fps source

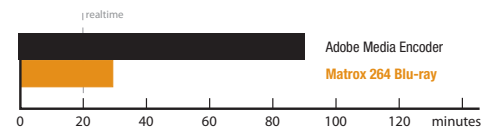
iPod/iPhone 640x480 at 24 fps – 1 Mb/s



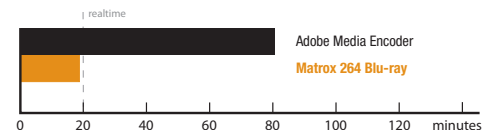
YouTube 1280x720p at 29.97 fps – 5 Mb/s



Blu-ray 720p at 59.94 fps – 10 Mb/s



Blu-ray 1080i at 29.97 fps – 15 Mb/s



■ Using Adobe Media Encoder 4.1 alone on an HP xw4600 Intel Core2 Quad Q6700 system with 4 GB RAM
 ■ Using Matrox MX02 Mini with the MAX option and Adobe Media Encoder 4.1 on an HP xw4600 Intel Core2 Quad Q6700 system with 4 GB RAM

www.matrox.com/video

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