PCIe version of Axio LE
now available!

matrox **axio**™

Most powerful realtime HD and SD editing engines for broadcast and post

The Matrox Axio family of HD and SD platforms provides a complete post-production solution that lets you get the best from the Adobe CS3 Production Premium software. The Axio platforms are designed to give you the most comprehensive realtime feature set, the highest quality native codec technology, and complete file-based workflows – totally integrated with the Adobe software.

Matrox Axio goes far beyond the capabilities of systems that combine Premiere Pro with a simple I/O card. The additional benefits you get with the Axio platforms include:

- Many more realtime layers of video and graphics in HD and SD
- Realtime mixed-format timelines
- More effects in real time including color correction, chroma/luma keying, speed changes, blur/glow/soft focus, and much more
- Broadcast-quality, realtime 3D effects with soft edges, and realistic shadows
- Native MXF file support for Panasonic P2, Sony XDCAM, and Sony XDCAM HD in Adobe Premiere Pro and After Effects
- Support for Omneon media servers via native MXF file transfers
- Matrox EZ-MXF utility for native MXF file support in video for Windows (AVI) applications
- Native support for additional codecs including: DVCPRO HD, MPEG HD, offline HD, MPEG-2 I-frame in HD and SD, IMX, DVCPRO, and DVCPRO50

- Realtime playback of 32-bit compressed and uncompressed AVI with alpha
- Support for Panasonic VariCam
- Support for 720p@50 and 59.94 fps (JVC ProHD)
- Realtime mixed-format multi-cam
- Realtime high-quality downscaling from HD to SD (simultaneous HD and SD output on Axio LE)
- Accelerated export to DVD, all multimedia formats including Flash Video, and Adobe Clip Notes
- WYSIWYG for Adobe After Effects, Bridge, and Photoshop, Autodesk Combustion and 3ds Max, eyeon Fusion, NewTek LightWave 3D, and Windows Media Player with dynamic Alt+Tab switching
- Audio VU meters on capture

There are three Matrox Axio platforms to choose from, Matrox Axio HD, Matrox Axio SD, and Matrox Axio LE. All offer ultra high performance editing in HD and SD formats. They differ only in terms of the editing codecs supported, the method of performing Matrox Flex GPU effects, and the audio and video inputs and outputs provided on the breakout boxes.

Matrox Axio key features

- Makes Adobe Premiere Pro the foremost HD and SD editor for broadcast and post
- Full-resolution, mixed-format, multi-layer realtime editing of HD and SD video, graphics, and effects
- Realtime Matrox Flex CPU effects such as color correction, speed changes, and chroma/luma keying
- Realtime and accelerated Matrox Flex GPU effects such as 2D/3D DVE, blur/glow/soft focus, and shine
- Native MXF file support for Panasonic P2, Sony XDCAM, and Sony XDCAM HD in Adobe Premiere Pro and After Effects
- Support for Omneon media servers via native MXF file transfers
- Extensive native codec support in HD and SD – uncompressed, MPEG-2 I-frame, DVCPRO HD, MPEG HD, HDV 1080i, HDV 1080p, HDV 720p (JVC ProHD), IMX, DVCPRO50, DV, DVCPRO, DVCAM
- Realtime playback of 32-bit compressed and uncompressed AVI with alpha
- 24 fps editing in HD and SD with pull down, reverse pull down, and Panasonic VariCam support
- Realtime high-quality downscaling from HD to SD
- Accelerated export to DVD, multimedia formats including Flash Video, and Adobe Clip Notes
- WYSIWYG for Adobe After Effects, Bridge, and Photoshop, Autodesk Combustion and 3ds Max, eyeon Fusion, NewTek LightWave 3D, and Windows Media Player
- Matrox EZ-MXF utility for native MXF file support in Video for Windows (AVI) applications

Matrox Axio LE
Realtime HD and SD editing for broadcast and post

- Uncompressed 8- or 10-bit HD and SD editing
- Relies on the power of your system GPU to process Matrox Flex effects
- DV-1394, composite, Y/C, HD/SD analog component, and HD/SD SDI input and output
- Simultaneous HD and SD output
- 2-in/6-out AES/EBU audio, 2-in/6-out XLR audio, 8-in/6-out SDI embedded audio, 1/4" output jack for stereo monitoring

Matrox Axio HD
Realtime HD and SD editing with HD I/O for broadcast and post

- Uncompressed 8- or 10-bit HD and SD editing
- Dedicated on-board GPU for guaranteed realtime Matrox Flex effects
- DV-1394, HD/SD SDI input and output
- RGB and YPbPr analog component output
- 4-in/8-out AES/EBU audio, 8-in/8-out SDI embedded audio, 2 XLR outputs for monitoring

Matrox Axio SD
Realtime HD and SD editing with SD I/O for broadcast and post

- Uncompressed 8- or 10-bit SD editing
- Uncompressed 8-bit HD editing
- Dedicated on-board GPU for guaranteed realtime Matrox Flex effects
- DV-1394, composite, Y/C, analog component, and SD SDI video input and output
- 2-in/2-out RCA and XLR audio, 8-in/8-out SDI embedded audio
- Upgradeable to Matrox Axio HD by simply adding the Axio HD breakout box

The combination of realtime and accelerated CPU-based and Matrox Flex effects gives you all the features you need to finish your projects in record time.

Realtime primary and secondary color correction

Primary color correction is a critically important effect for all productions, whether to achieve continuity when cutting between shots, ensure broadcast safe levels, or establish and emphasize a "look". The secondary color corrector is an advanced tool that offers all the controls found in the primary color correction filter with the added capability of limiting the effect to a specific range of pixels.

Realtime chroma and luma keying

Matrox Axio provides one of the finest realtime chroma keyers in the industry. It upsamples your video to 4:4:4:4 and uses advanced noise reduction algorithms to ensure superior results.
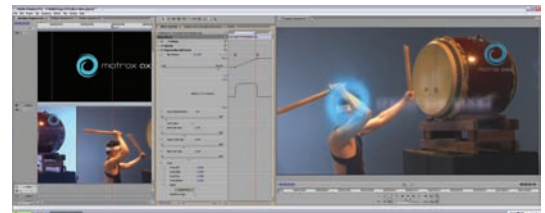

Realtime advanced 2D/3D DVE

Matrox Axio lets you position your clips anywhere in 3D space while adding soft edges, and rounded borders in real time.
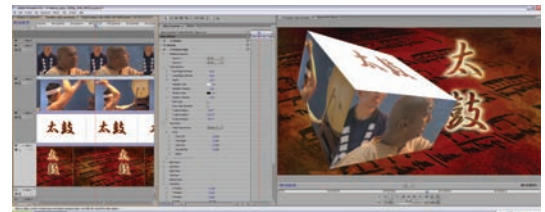

Realtime blur/glow/soft focus

The blur/glow/soft focus effect lets you simulate camera defocus and create unique effects in real time.


Realtime cube

The cube effect lets you map video, graphics, or solid colors to the faces of 3D cubes and slabs in real time, then rotate them in 3D space.

Realtime pan & scan

The realtime pan & scan filter lets you easily convert footage from any aspect ratio to any other. Tracking on-screen action to make accurate judgments is easy because you see the entire source clip and the section of it that will become the final result.
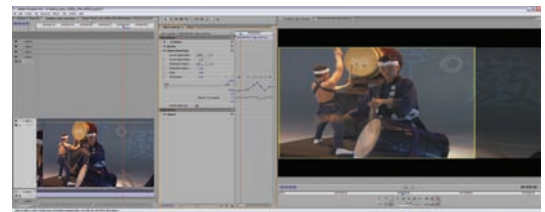
Accelerated shine

Shine is the shimmering light ray effect often seen on TV and film titles. There's no need to buy an expensive plug-in to get this look. With Matrox Axio, processing of the shine effect is accelerated in HD and SD.

Product selection table

Capture/editing formats

	Axio LE	Axio HD	Axio SD
HDV 1080i	X	X	X
HDV 1080p	X	X	X
HDV 720p	X	X	X
DVCPRO HD	X	X	X
DV, DVCPRO, DVCAM	X	X	X
DVCPRO50	X	X	X
P2 MXF – DVCPRO50, DVCPRO HD	X	X	X
XDCAM MXF – DVCAM, IMX	X	X	X
XDCAM HD MXF 18, 25, 35 mbps Slow & Quick Motion	X	X	X
MPEG-2 4:2:2 I-frame SD*	10-50 mbps	10-50 mbps	10-50 mbps
Uncompressed 8-bit SD*	X	X	X
Uncompressed 8-bit HD*	X	X	editing only
Uncompressed 10-bit SD*	X	X	X
Uncompressed 10-bit HD*	X	X	—
MPEG-2 4:2:2 I-frame HD at 1440 horizontal resolution*	50-300 mbps	50-300 mbps	editing only
MPEG-2 4:2:2 I-frame HD at 1920 horizontal resolution*	50-300 mbps	50-300 mbps	editing only
MPEG-2 4:2:2 I-frame HD at 1280 horizontal resolution*	50-300 mbps	50-300 mbps	editing only
Compressed HD for offline	X	X	editing only
Playback of legacy Matrox DigiSuite AVI files	X	X	X
Playback of legacy RT series AVI files	X	X	X

* Also available as 32-bit AVI with alpha.

Realtime video effects**

	Axio LE	Axio HD	Axio SD
Three-way primary color correction	X	X	X
Three-way secondary color correction	X	X	X
Super smooth field- or frame-blended slow motion	X	X	X
Advanced 3D DVE	X	X	X
Chroma/luma keying	X	X	X
Dissolve, wipes	X	X	X
Surface finish	X	X	X
Blur/glow/soft focus	X	X	X
Shadow	X	X	X
Transitions	X	X	X
Page curls	X	X	X
Mask	X	X	X
Pan & Scan	X	X	X
Mask mosaic	X	X	X
Mask blur	X	X	X
Four-corner pin	X	X	X
Track matte	X	X	X
Native Adobe transitions	X	X	X
Native Adobe effects – opacity, crop, motion, etc.	X	X	X
Accelerated shine	X	X	X
Crystallize	X	X	X
Old movie	X	X	X
Lens flare	X	X	X
Move & scale	X	X	X
Cube	X	X	X
Ripple	X	X	X
Twirl	X	X	X
Impressionist	X	X	X
Adobe garbage mask	X	X	X
Sphere	X	X	X
Timecode	X	X	X

** Certain complex effects at certain resolutions using certain codecs may not playback in real time, but they still benefit from hardware acceleration. Matrox Axio LE relies on the power of your system CPU and GPU to process realtime Matrox Flex effects. Please visit our website for system configuration guidelines.

System

System requirements	workstation 1 PCI-X slot or 1 PCIe 4x slot full-length workstation 2 PCI-X slots workstation 2 PCI-X slots

Video editing

	Axio LE	Axio HD	Axio SD
Ultra high performance editing with Adobe Premiere Pro CS3	X	X	X
Realtime mixed-format timelines	X	X	X
EDL import and export	X	X	X
AAF export for interoperability with other systems	X	X	X
Waveform and vectorscope monitors for color correction and broadcast safe output	X	X	X
User customizable keyboard	X	X	X
Multiple nestable timelines for managing multi-layer effects and complex timelines	X	X	X
Accelerated export to DVD, all multimedia formats, and Adobe Clip Notes	X	X	X
WYSIWYG for compositing and graphics applications	X	X	X
Realtime mixed-format multi-cam	X	X	X
Closed captioning support in NTSC	X	X	X

Audio editing

	Axio LE	Axio HD	Axio SD
Support for multi-channel 5.1 surround sound mixing and monitoring	X	X	X
Sub-frame audio editing	X	X	X
Audio sweetening with VST plug-in supportX	X	X	
Voiceover recording in the timeline	X	X	X
VU meters on capture	X	X	X

Video inputs and outputs

	Axio LE	Axio HD	Axio SD
Simultaneous HD and SD output	X	—	—
Realtime high quality downscaling from HD to SD	X	X	X
SD			
1394	X	X	X
Composite	X	—	X
Y/C	X	—	X
Analog component	X	output only	X
SDI – SMPTE 259M	X	X	X
Analog and digital genlock	analog only	X	X
HD			
1394	X	X	X
SDI HD – SMPTE 292M	X	X	—
Analog RGB component	—	output only	—
Analog YPbPr component	X	output only	—
Tri-level genlock	X	X	—

Supported editing resolutions

	Axio LE	Axio HD	Axio SD
720p @ 23.98, 25, 29.97, 50, 59.94	X	X	X
1080i @ 25, 29.97	X	X	X
HDV 1080i (1440 x 1080) @ 25, 29.97	X	X	X
HDV 1080p (1440 x 1080) @ 23.98, 25, 29.97	X	X	X
1080p @ 23.98, 25	X	X	X
1080p @ 24	X	X	—
NTSC	X	X	X
PAL	X	X	X
486p @ 23.98, 29.97	X	X	X
576p @ 25	X	X	X

Audio inputs and outputs

	Axio LE	Axio HD	Axio SD
RCA audio	—	—	2-in/2-out
XLR audio (analog)	2-in/6-out	2-out	2-in/2-out
AES/EBU audio	2-in/6-out	4-in/8-out	—
SDI embedded audio	8-in/6-out	8-in/8-out	8-in/8-out
1/4" output jack for stereo monitoring	X	—	—

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Digital Video Solutions