

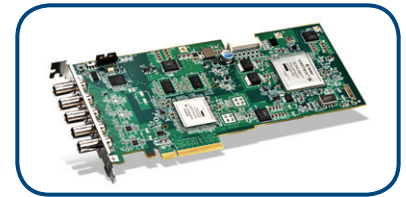
what's new

The Matrox Video Products Group OEM Newsletter

NAB 2012 - April 2012

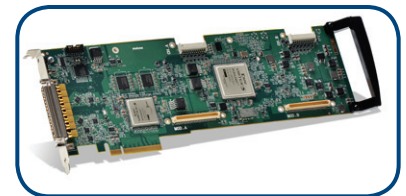
New Addition to the Matrox Developer Products — DSX LE3

Matrox DSX LE3 is a new family of cost effective multi-channel I/O hardware for ingest, playout, and live production solutions. All SDI inputs and outputs are completely independent and provide support for embedded audio and ancillary data. The ¼-length PCI cards feature BNC connectors directly on board to simplify wiring. The card is offered in four different configurations: 4 inputs (/40), 4 outputs (/04), 2 inputs and 2 outputs (/22), 1 input and 1 output of video and key (/12). The hardware is shipping with full DSX.sdk support in release 9.1.



X.mio2 Plus Release

X.mio2 Plus, featuring the Matrox Control Engine (MCE), will have its first official release in the upcoming 9.1 DSX.sdk. Its built-in fail-safe mechanisms add a unique new dimension for off-the-shelf IT-based broadcast equipment. X.mio2 Plus can be used throughout the broadcast chain from production all the way to master control.



Coupled to the feature-rich DSX.sdk, X.mio2 Plus can address playout, ingest, and live production workflows while guaranteeing on-air integrity, advanced fail-safe operation, and sophisticated system recovery schemes.

X.mio2 Plus offers multi-channel I/O with frame synchronization and audio resampling, multi-layer scaling and compositing, and switcher functionality. It also provides audio mixing, time code (LTC and VITC on blackburst) support, and advanced ancillary data handling.

Nvidia GPUDirect

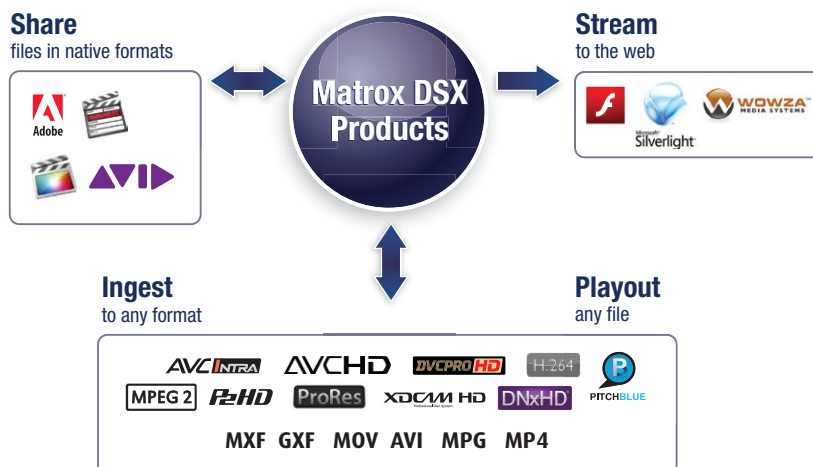
Matrox DSX.sdk has integrated the GPUDirect for Video SDK from Nvidia to offer low latency and high throughput data transfers between all DSX.sdk modules and the Quadro GPU series. Initial qualification of this integration on a Z800 Xeon X5660 system has demonstrated an SDI input-to-output latency from an X.mio2 through a Quadro 4000 GPU of 2 frames with a 1080i signal.

Matrox is demonstrating this functionality at NAB 2012.



File Interoperability Expanded

Matrox DSX.sdk continues to increase its industry-wide file interoperability.



The ability to wrap video essence with audio and ancillary data in the GXF format (as per SMPTE 360 and SMPTE291M) has been added. GXF file capture coupled with GXF playback that was already supported in the DSX.sdk, allows for completely seamless media asset transfer between Grass Valley K2 and GVG Profile servers with Matrox-based solutions.

Interoperability with Avid solutions is augmented with native capture of DNxHD with OP-Atom MXF and playback of DNxHD wrapped in MOV, OP1a and Op-Atom MXF.

X.open2: PCIe x1 Version of X.open

X.open2 features a PCIe x1 interface that allows offline solutions to exercise the full scope of the Matrox DSX.sdk within a wider variety of systems. These cards will be supported post 9.1 release.

New X.264 SKUs

New SKUs of the X.264 co-processor card allow offline solutions to exercise the full scope of the Matrox DSX.sdk with hardware-based H.264 encoding. These cards will be supported in the 9.1 release.

Tunnel to DirectShow

Matrox DSX.sdk will offer a new module that will interface to DirectShow. This new module will allow host video surfaces, along with their audio samples, to be shared from a DSX.sdk-based process to another DirectShow-based process such as Adobe Flash Live Media Encoder or Microsoft Expression Encoder. Therefore, any video and audio content in a DSX.sdk application can be streamed to Adobe Flash Server or Microsoft Silver Light Server via the Matrox DirectShow Tunnel.

SDK Release 9.1 Feature Set

New hardware features

- Support for four different SKUs of the new DSX LE3
 - DSXLE3/12: 1 input and 1 video/key output
 - DSXLE3/22: 2 inputs and 2 outputs
 - DSXLE3/40: 4 inputs
 - DSXLE3/04: 4 outputs
- Support for three different SKUs of the new X.mio2 Plus
 - Xmio2P/44: 4 inputs and 4 outputs
 - Xmio2P/24: 2 inputs and 4 outputs
 - Xmio2P/12: 1 input and 2 outputs
- Support for new versions of the X.264 card that enable software codecs and effects with H.264 hardware encoding

New software features

- Support for multi-threaded processing with more than 16 cores in one system
- Support for playing back closed captions, AFD, timecode, and other ancillary data in PitchBlue files
- Support for 16-bit audio in .mov files, including mux/demux and fade-in/out
- Support for capturing to gxf files. This includes capture to SD (NTSC and PAL) and HD resolutions (1080i@25 fps, 1080i@29.97 fps, 720p@50 fps, and 720p@59.94 fps) in DV/DVCAM, DVCPRO, DVCPRO50, DVCPRO HD, MPEG-2 I-frame, and MPEG-2 IBP formats
- Support for capturing ancillary data and time code to .gxf files
- Support for playing back Avid DV .mov files
- Support for capturing to DNxHD 422 OP-Atom .mxf files, and playing back DNxHD OP1a .mxf files and DNxHD .mov files
- Auto-detect file formats such as AVI, MOV, MXF, and GXF by the Flex File Reader
- Support for 16 audio tracks in MPEG-2 IBP 4:2:0 .mxf files