

STREAMING IN ACTION

The Matrox Monarch HD

by Steve Kline

The Matrox Monarch HD is a stand-alone video streaming appliance, which provides an H.264 encoded stream directly to your Content Delivery Network



The venue for our review is our Notre Dame High School, Fairfield, CT, which is currently serving as a temporary sanctuary for Black Rock Church while our new facility is in its final stages of completion. Streaming and recording services has become a priority for many churches including ours, because it enables us to reach more people. We use a simple two-camera setup to provide views of the risers and the stage. Two Panasonic HD AVCHD cameras were set up to receive audio directly from the event audio via XLR inputs. We fed the camera video and embedded audio through to a Blackmagic Design ATEM TV Studio HD switcher via an HDMI and SDI feed, which gave us the desired HDMI program output for our Matrox Monarch HD. We used the Monarch HD with an embedded audio signal. Once we had our event and acquisition systems setup and rearing to go, we needed a method to encode the signal to distribute the stream on the web.

We encoded our signal with the Matrox Monarch HD, which delivers an RTSP or RTPM compatible H.264 stream. We chose to use UStream.com as our compatible Content Distribution Network (CDN). Whether you want to build your equipment setup around your CDN or pick your CDN based on your equipment setup, it's important to assure compatibility and then test, test, and test again. Nothing is worse than spending hours trouble shooting only to find out your software/hardware combination is simply not compatible.

Set up

When we first opened the box, we followed the instructions provided, which guided us through the process of accessing and configuring the Monarch HD.

Find the IP

Matrox has a great tool "matroxmonarchfinder.exe" that detects the Monarch HD on the network and returns the IP address. Once logged in using the IP address, we were able to customize our username and password in the Monarch Command Center web interface.

Configure

We entered the streaming server settings (server URL and stream name) and the recording/archiving settings. You can save to SD card, USB drive, or network shared drive.

Start & Stop

Starting and stopping the stream and the archive recording can be done in the web interface or with front-panel buttons on the appliance. From the bottom of the web interface you are also able to specify additional Monarch HD devices to control if you have more than one in your configuration.

After we were configured, we hooked up our camera and sent the HDMI signal directly to the Monarch HD, pressed the Stream button on the left, and presto – we were streaming to Ustream!

Once the Monarch was configured to stream to our server, we did not need to use a computer or the web interface. So long as your on-site network allows communication to the CDN, you can plug it in, connect the video and start/stop streaming and archiving. Stream and Record can be controlled easily with the two buttons on the front.

As with all Matrox products, the beauty of this streaming appliance is that once it's set up, it works. Other capture cards require a separate computer and encoding software to do the heavy lifting. An appliance like this has all the processing power on the device itself. Even the configuration interface is running on an internal web server.

We showed up on site, hooked up our cameras and switcher, enabled the embedded audio to pass through the switcher, and we were ready to go.

We archived our video using the SD card media and the system flawlessly recorded the event. With the front controls, we were able to start and stop the archive to avoid capturing long delays in action, which gave us separate clips, as expected. Many encoding systems don't allow independent controls of the streaming and archiving – it's either running or it's not. In this case we wanted a consistent stream, but we wanted to record sporadically.

Conclusion

In all areas, the Matrox Monarch HD delivered a quality stream with ease of use that surpassed my expectations. It interfaced well with our switcher's output and was one of the easiest encoders I have used in my 15+ years of streaming. Being that it's highly reliable, we highly recommend this product for all streaming and recording events. ◆

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