Concordia University Mel Hoppenheim School of Cinema

The Mel Hoppenheim School of Cinema at Montreal's Concordia University is Canada's largest university-based center for film production, animation, and film studies, serving a total of 635 students annually. With the infrastructure to support film production in Montreal quickly disappearing, the school secured a 2.1 million dollar fund that enabled it to transition from 80% film to 98% digital cinema production.

Challenge

Prior to the school's digital transition, its film production staff was tasked with maintaining multiple direct-attached hard drives—a challenge when dealing with 200 students. And with the department producing 200-odd projects per semester, or about 10 feature films worth of material, the amount of time consumed rendering and copying files was creating a bottleneck.

An additional challenge was the need to balance staffing with an increasingly complex production process. Said Marcus von Holtzendorff, the school's Post Production Coordinator, "Given the pace of technological change, we were aware that we needed to have a very limber, versatile system where only a couple of people could manage the volume of production."

With the prospect of shooting in digital cinema format and storing the raw 4K image files on the horizon, storage capacity was another concern. After discussing their needs with a few vendors, the school decided it had to build a solution based on shared storage.

Solution

The system that the Mel Hoppenheim School of Cinema ultimately installed consists of a Rohde & Schwarz Clipster for conversion and DCP generation, DDN SFA12K storage, and workstations running Avid and Final Cut Pro for editing and DaVinci Resolve for color grading. To integrate its Thunderbolt-equipped workstations to the 8Gb Fibre Channel SAN, the school

selected ATTO Technology's ThunderLink TLFC-2082, part of the company's portfolio of Desklink devices designed to connect workstations and laptops to high-performance Fibre Channel, 10GbE and SAS/SATA infrastructures.

For von Holtzendorff, the utility and performance offered by ATTO's ThunderLink devices made them an easy choice. "With the Thunderbolt Macs, you can't put a Fibre Channel card in, so ATTO's ThunderLink devices ended up being really crucial, both for moving material around and doing a conform and grade. Now we have 3-4 people color correcting simultaneously, pulling material off the SAN in real time."

With the school's new workflow, most projects involve students shooting in 4K or 2K using Alexa, RED and Blackmagic digital cinema cameras. The raw image files are then stored on a 150 Terabyte SAN specified to handle six uncompressed 2K streams. Management of the system is turnkey — an important requirement the department had set for the transition. Said Von Holtzendorff, "If you can pool your storage, you're using it more efficiently. It gets copied once to the SAN and when the students come back with an XML or EDL of their offline edit, they walk into the suite, and two minutes later they're color grading with their raw 4K."

Along with providing high-bandwidth access for the school's Thunderbolt-equipped workstations, ATTO's ThunderLink devices enable laptop connectivity to the SAN. Project files are transcoded to ProRes or DNxHD so that students can offline edit using laptops on their platform of choice. This step is for the most part performed offsite, a trend that von Holtzendorff attributes to "comfort and convenience" factors.

Reflecting on the school's successful digital transition, von Holtzendorff concluded, "With a few people and the right technology, we've made a very complex system quite accessible for the students and faculty. And ATTO's ThunderLink devices are right in the middle of that."

Success in Brief

- Fibre Channel SAN solution allows shared access to pooled storage for 200-student film production department
- Turnkey solution with simplified workflow, management and maintenance
- Scalable, high-bandwidth solution enables multiple students to perform online HD editing and color grading simultaneously
- ATTO ThunderLink devices provide edge connectivity for workstations and laptops

Related Products:

- Rohde & Schwarz Clipster®
- DDN SFA12K storage
- ATTO TLFC-2082 20Gb/s Thunderbolt™ 2 (2-port) to 8Gb/s FC (2-port) ThunderLink Device
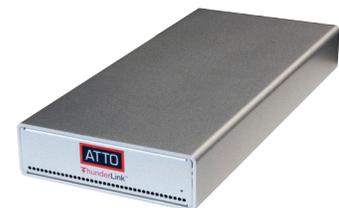
- o Dual 20Gb Thunderbolt 2 with DisplayPort and device daisy-chain support
- o Exclusive Advanced Data Streaming (ADS™) Technology
- o Auto Negotiation to 8Gb and 4Gb devices
- o Pluggable optical SFP+ LC modules included
- o ATTO Config Tool, a Graphical User Interface, for customized performance settings
- o 3-year standard product warranty
- o For more information on ATTO Desklink Devices visit https://www.attotech.com/products/family.php?id=15

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