

Advanced Digital Cinema Non Linear Editing Suite Brings Realtime 4K Playback and Full 3D Post Capability To Ryerson's Rogers Communications Centre

**From: Office of Program Director, Operations and Technology,
Rogers Communications Centre, Ryerson University**

August 1, 2010 – Continuing its tradition of ensuring leadership and relevance in the wake of technological advancement, the Rogers Communications Centre continues to provide substantial investment to ensure student projects in the Faculty of Communication and Design will be able to be produced in both 4K and 3D media. Pulling together pioneering work accomplished in 09-10, that included the availability of a Red Digital Red One 4K digital cinema camera, the shooting of an on location 3D music video and in-house research relating to 3D visualization, the Advanced Digital Cinema Non Linear Editing Suite has been designed to ensure FCAD remains on top of advances in Digital Cinema and editing technologies from 3D cinema through 4K media and beyond.

The Centre's advanced suite has seen significant investment in fiscal 10-1. Technologies in the suite now include;

Ryerson Universities' Most Advanced Apple Mac Pro Installation...



The most advanced Apple Mac Pro installation on the Ryerson campus. It includes an ATI Radeon HD 4870 512MB graphics card, 32 GB of RAM, dual 2.93GHz Quad-Core Intel Xeon CPU's, an installed Mac Pro RAID card, a Quad-channel PCI Express 4Gb fiber channel for X-San connectivity, four 7200-rpm 2TB Serial ATA 3Gb/s, an 18x SuperDrive and two 30" Apple Cinema HD displays running Apple's Final Cut Studio.

CineForm Neo3D - Professional 3D Editing for Film and Broadcast....

Intended for 3D cinema, broadcast, Blu-Ray, and Internet distribution, Neo3D empowers traditional 2D industry editorial and effects tools and evolves Final Cut Studio into feature-rich 3D editorial tools. CineForm's Neo3D delivers a real-time 3D editing workflow by creating CineForm 3D media that contains full-resolution Left and Right eye information in a single AVI or MOV wrapper. CineForm Intermediate compression employs high visual fidelity and is used routinely as the mastering format for 2D and 3D film, television, and archive workflows. The workhorse application for making 3D adjustments is First Light which is included with Neo3D. First Light implements 3D image adjustments, non-destructive primary color correction, plus 2D/3D text and graphics overlays as Active Metadata™ layers on top of the underlying 3D video layer. During editorial, First Light allows for choosing 3D display modes for an external monitor, real-time keyframeable adjustments of convergence, keystoneing, primary color correction, and much more, all performed in real time and implemented through Active Metadata.

neo3d

3D JVC Monitor Model GD-463D10....



JVC's 46" GD-463D10 color monitor is a flicker-free 3D display that has been employed in the creation of many of Hollywood's 3D movies. The high picture quality 3D display with eye-friendly circular polarizing technology boasts excellent color reproduction and a 1920 x 1080 LCD panel with Xpol® glass filter. The set employs the horizontal interleaving polarization method that complements the side-by-side format and converts to line interlace (line-by-line). The monitor

requires inexpensive (passive) polarized glasses to watch 3D content and can be used at anytime for conventional 2D display HDTV display.

JL Cooper Eclipse CX Midnight Color Correction Controller

JLCooper's Eclipse CX Midnight is a fully integrated Colorist Command Station for use with the advanced video color correction and editing software found in Apple's Final Cut Studio. It has a Midnight finish and white LEDs and indicators to reduce light emissions and intrusion on colorist's eyes. The Eclipse CX Midnight is a professional-quality control surface with conveniently placed and features a full array of controls including 3 custom transparent, backlit trackball mechanisms with purpose designed, free-spinning control rings. Molded ring surface insures precise control. It provides fast access to color parameters with 6 smooth, high-resolution rotary encoders and 5 detented rotary encoders. There are 41 illuminated function keys, 7 edit keys, 3 VF displays, blue LED timecode display, professional transport buttons with status indicators and JLCooper's custom optically encoded jog/wheel with concentric shuttle ring.



Real Time 4K Playback Employing Red Digitals Red Rocket Card



Red Rocket Card with its Quad DVI and Dual Link HD-SDI connections decodes and debayers 4K R3D files realtime. Employing hyper-accelerated transcode to any system codec the card provides the capacity to play full quality realtime 4K to 4K monitor or projector from DVI output. The system is currently configured to play full quality 2K/1080P scaled from RED's 4K footage.

The Advanced Digital Cinema Non Linear Editing Suite is part of a number of advanced 3D, Digital Cinema and Non Linear Editing Facilities found in Ryerson's Rogers Communications Centre. More information on the Rogers Communications Centre can be found at

<http://www.rcc.ryerson.ca/technology/index.htm>