



NVIDIA GPUs POWER DIGITAL DAILIES FOR EC3

EC3
CASE STUDY

EC3 is one of the motion picture industry's leading providers of on-location dailies and technical services. Harnessing the combined brainpower and technology of feature film post production giants EFILM and Company 3, EC3 brings what were traditionally post production services to productions shooting anywhere and everywhere, increasing efficiencies throughout the filmmaking process. EC3, EFILM and Company 3 are all part of Deluxe's Content Creation Group.

CHALLENGE

As Hollywood transitions to all-digital production technology, filmmakers face new challenges in processing and viewing dailies. Digital cameras capture footage in increasingly higher frame rates and resolutions (including 4K), all of which require tremendous processing power to ingest and quickly process material for dailies. Plus, there is an explosion of different camera formats. Clients might want to preserve multiple native formats throughout production and post or transcode everything into a single mezzanine format. Workflows are as varied as the number of projects.

EC3 is an industry pioneer in digital dailies, having worked on top films such as *The Avengers*, *Skyfall*, *Lone Ranger*, *Lone Survivor*, *X-Men* and many others – and its workflow makes extensive use of NVIDIA GPUs to handle the myriad challenges that accompany every assignment with ease and efficiency.

SOLUTION

To process digital dailies, EC3 uses a system combining proprietary and specially tweaked off-the-shelf technology to provide filmmakers mobility, flexibility, and efficiency. EC3 can ingest and sync camera material of any format, create a dailies color pass, and render dailies files for playback on any platform right there on location. Dailies colorists can collaborate with cinematographers and other



Colorist Rajiv Bedi working on DaVinci Resolve in EC3 mobile facility

creatives to make real-time adjustments to color, contrast and all the attributes necessary to make the most of the color graded dailies. NVIDIA's GPUs accelerate every step of this pipeline.

"Advances in hardware and software have really made it possible for EC3 to offer these cutting edge services," said Joachim Zell, Deluxe Creative Services' Vice President, Imaging Science and Technical Director. "Thanks to the speed and power provided by NVIDIA's GPUs and software solutions like Colorfront's On-Set Dailies and Blackmagic Design's Resolve, we can put our entire dailies pipeline onto an HP Z820, a Mac Pro, or even a MacBook Pro and follow a production anywhere.

"Just a few years ago," he declares, "we needed several rooms full of workstations and render processors to handle the same tasks. Now without being tied down to a physical facility, we have much greater flexibility."

This level of portability is ideal for today's filmmakers and cinematographers, who need faster results even as they

require more and more computing power. GPU acceleration has gone a long way to enable Zell and his colleagues to process and distribute the day's material faster than ever – without leaving the location.

“The workflow is so fast now that a unit could potentially see a problem in the dailies that they hadn't realized was there and reshoot the scene that same day. That would have been unimaginable not too long ago,” Zell added.

IMPACT

EC3 also makes use of GPU acceleration in its proprietary eVue product, which combines with a dailies solution such as Colorfront's, to allow filmmakers to see completely color accurate dailies on set, at home, in a trailer, or anywhere they would like to view dailies.

GPU acceleration also plays a significant role in EC3's Colorstream product. “Colorstream is essentially like a previz tool for the cinematographer,” explained Zell. “It connects to the camera and allows him or her to view color before actually shooting the shot. With a GPU-accelerated computer, a cinematographer can know instantly whether or not the shot will work. We used it on-set for Skyfall, and it worked beautifully – Cinematographer Roger Deakins [ASC] could be on set and see how exactly what a shot would look like when it got to the final DI facility.”



EC3 mobile facility to process digital dailies on location

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Ultimately, NVIDIA GPUs have helped EFILM, Company 3 and EC3 stay on the cutting edge of today's entertainment technology and push the limits of the digital dailies workflow. Zell concluded, “NVIDIA GPUs have really helped EC3 evolve. Being able to run multiple software programs on just one computer, powered by just one GPU, has given us incredible flexibility and enabled us to take on challenging projects with great success. Our workflow now requires less space and less power consumption and that translates into money savings. In short, GPUs are invaluable to us.”



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To learn more about NVIDIA Quadro, go to www.nvidia.com/quadro

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