

Final Cut Pro X

What's New

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Electric Entertainment Pushing TV Post on *Leverage*

Since the TNT prime-time drama *Leverage* premiered in December 2008, its audience has grown steadily over four seasons — a remarkable feat in a competitive market.

Electric Entertainment, the company that produces *Leverage*, had no pressing reason to tamper with a winning formula. The show had already developed an all-in-one Final Cut Pro-based workflow that was the envy of the industry. But *Leverage* director and Electric Entertainment chairman Dean Devlin, after seeing the new Final Cut Pro X, decided to build his season 5 post-production workflow around it. He was betting that the new editing model and superior performance of Final Cut Pro X would translate to an even faster and more flexible all-digital workflow.

Pushing Quality

Where Devlin sees the payoff is in the early results from the set. "We've always been a very ambitious show," he says. "And even though our production quality has always been ahead of most television, we wanted to push it further this year. We're now shooting the show on the RED EPIC cameras in 4K, so we're getting much bigger files that improve the quality of the images. And we've moved to Final Cut Pro X as the heart and soul of a workflow that is changing how we approach post-production — technologically and creatively."

"The Magnetic Timeline has been working great for me. I do a lot of cutting in the timeline, and I never even think about losing sync."

Now in the early stages of posting the new season 5 episodes, Devlin is thrilled with his decision to make the switch. "Back in 2007, we had taken

At a Glance

- *Leverage*, a weekly prime time drama starring Oscar winner Timothy Hutton; premiered in 2008.
- Season 5 begins July 15, 2012. Fifteen episodes air Sunday nights at 9 p.m. on TNT.
- Produced by Electric Entertainment.

Gallery



Synopsis

The television series *Leverage* follows a team of thieves, hackers, and con artists who act as modern-day Robin Hoods, standing up for the little guy who has been victimized by the rich and powerful. Former insurance agency investigator Nathan Ford heads a team of former top criminals. They handle unorthodox cases of people unlikely to get their due through regular channels and legal procedures. That often involves stinging or otherwise scamming criminals.

Workflow

Portland, OR

- Shooting on the RED EPIC camera at 4K and 5K.

the leap with Final Cut Pro, and we ended up with something that was really miles ahead of everyone else," he says. "It gave us flexibility, saved us a lot of money and a lot of time, and got a lot of creativity going in directions that we had been prohibited from taking before. Since that had been such a good experience, my feeling was, let's do it again. And from what I've seen so far, that move is paying off."

File-Based Workflow

Even early in production, Devlin says the show is benefiting from the accelerated performance and flexibility of Final Cut Pro X.

"We think that Final Cut Pro X shows how simply and inexpensively a powerful file-based workflow can be implemented," he says. "We've been able to do things on *Leverage* that no other cable show does simply because we can afford to do it using our all-digital workflow. It's very rare to see a television show that averages 40 digital effects per episode. Or has four- or five-day sound mixing sessions. We're able to do it and still produce a show for basically \$1.8 million an episode. Not only does it change the price, but it actually changes creatively the way in which we work. We don't have to wait to lock picture to start our digital effects shop."

To keep up with the number of shots coming in every day from the set in Portland, the Electric Entertainment team syncs picture and sound in one step as a batch process with the Intelligent Assistance program Sync-N-Link X, which takes advantage of the new metadata capabilities of Final Cut Pro X.



Dean Devlin reviews a rough cut in Final Cut Pro X.

Meeting the Schedule

Production for *Leverage* runs roughly from the first week of March until the middle of August. Devlin and the show's other directors shoot all 15 hour-long episodes in Portland. As the shoots continue, files are sent to Hollywood and edited by three editors and five assistants during a 10- or 11-week post-production window.

Veteran picture editor Brian Gonosey, who is editing the first episode of season 5 in Final Cut Pro X, is no stranger to the intensity of TV post turnarounds. "The show that I'm editing will be the first to air," he says. "I presented a live cut to the director last week, so I'll be working to implement any changes before it goes to the network this week."

It was no surprise that speed registered with Gonosey as one of the standout results of the switch to Final Cut Pro X. "I'm taking advantage of a much faster engine, so everything I'm doing is happening faster. We shoot a lot of footage in 4K, and the dailies are HD. So we use every ounce of horsepower available in our systems," he says. "We're about three weeks

- Dailies shipped to Hollywood arrive a day later on hard drive.
- Each episode includes seven days of shooting, generating 1400 video files (200 per day).

Hollywood, CA

- All RED .r3d files are converted to ProRes Proxy using RED ROCKET cards at faster than real time.
- RED files are archived while ProRes files are synced with audio using Intelligent Assistance Sync-N-Link X, named based on scene and take number, and checked against shooting logs. All dailies are placed centrally on an Xsan network.
- Organized dailies are further prepped by the editor's assistant to customize the material according to the individual editor's requests. Multicam Clips are created.
- Dailies arrive every day for seven shoot days and are merged with the main Final Cut Pro X event each day.
- Dailies are made available for the individual editors to begin cutting in the afternoon of the first day. Each of several editors works on an entire episode that consists of six acts.
- Editors review the cut with the director and then the network sees changes and comments.
- Picture is locked.
- Finished XML is sent through Marquis X2Pro Audio Convert to Pro Tools for sound mixing.
- XML is also sent to the DaVinci Resolve color grading suite for the final grade. The edit reconnects to the original RED .r3d files, which are graded and rendered out as ProRes 4444 files.
- Color-graded and audio-sweetened files return to be combined in Final Cut Pro X and checked against the original offline project. Changes can still be made to content during color grade and sound mix.
- The finished episode is exported as ProRes 4444 for digital delivery to TNT.

Gear List

- iMac
- MacBook Pro
- OS X
- Final Cut Pro X
- Xsan
- Intelligent Assistance Sync-N-Link X
- Marquis Broadcast X2Pro Audio Convert
- Blackmagic DaVinci Resolve
- Avid Pro Tools
- AJA KONA 3G

into picture editing now, and we've been able to meet every timeline and schedule."

Fast-Track Edits

As a long-time professional editor, Gonosey was particularly interested in the application's new editing model. "Given how I work in the timeline, Final Cut Pro X has been a very smooth and fluid transition," he says. "The Magnetic Timeline has been working great for me. I do a lot of cutting in the timeline, and I never even think about losing sync. And the new trim tool makes quick work of whatever I need to use it for. It lets me edit a lot more efficiently with the waveforms, mostly putting dialogue in and cutting a lot of sound. So the new editing tools have been really helpful."

Also Featured

As part of the post-production process, Gonosey and company rely on a collection of powerful new tools built into Final Cut Pro X. "If something happens on set with a camera, maybe a difference in the camera look from one take to the next, we've been able to manage that with the application's built-in color correction tools. And it renders nearly instantaneously."

He also found an unexpected use for Auditions, a new feature in Final Cut Pro X that allows editors to quickly cycle through alternate takes in the timeline. "At one point, I temp'd in a lot of music for a specific scene and sent it to my music editor. What I got back from him was essentially a much more fluid, cleaner version of what I'd done, sometimes with totally different creative choices. It's been great to be able to take his music edits, just add them on top of mine as an Audition, and then play — it's essentially a very clean way of keeping my work and his work in the timeline at the same time."

Leverage director Dean Devlin reports that the production units are shooting with multiple cameras, which are handled in post by the new multicam feature of Final Cut Pro X. "We recently shot an explosion in a car with nine cameras running simultaneously," he says. "We usually shoot with a minimum of two cameras, sometimes three, so we're beating it with a stick. If this software can survive Leverage, it can survive anything."

Fitting In

Gonosey estimates that 95 percent of the show's production and post-production workflow changed for season 5 — from using new cameras and locations in Portland to working with new color grading and sound mixing software in Hollywood. At the center of the new workflow was Final Cut Pro X. Given the scope of those changes, Gonosey believes it was a significant editorial achievement to maintain the signature high production quality of the show and still hit their deadlines.

"You don't want to edit something and have viewers say, 'That's a lot of editing.' You want them not to know you're there," says Gonosey. Final Cut Pro X allows him to "produce the episodes in an exciting and creative way, while still delivering a very nice-looking show."

Strong Finish

When the network approves Gonosey's cut, the picture will be locked. Then finished XML files will be sent to DaVinci Resolve for color grading and through Marquis X2Pro Audio Convert to Pro Tools for sound mixing. The ability of Final Cut Pro X to fit so seamlessly into the company's finishing suites was critical to the Leverage workflow.

"Final Cut Pro X started out by completely redefining our approach to

editing,” says Devlin. “But the giant improvement since it was originally released is that now it interfaces with a professional workflow in a way that Final Cut Pro never could before.”



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