

Case study

Hurlbut Visuals

Leading cinematographer chooses HP Z Workstations for post-production



Industry

Media & Entertainment

Objective

Meet deadlines, control costs in creating educational videos

Approach

Speed post-production with HP Z840 Desktop Workstations, HP DreamColor displays

IT matters

- Speed post-production transcoding, editing, color grading
- Playback 5K, 6K native files, multiple formats, in real time
- Dramatically speed up renders and file exports

Business matters

- Meet audience demand; enable business growth
- Eliminate barriers to productivity, creativity
- Eliminate costly time waste, resource consumption
- Speed up total project turnaround time



“Great technology supports great storytelling. The HP Z840 Desktop Workstation and HP DreamColor Display drove the bottlenecks out of our post-production workflows.”

– Shane Hurlbut, A.S.C., owner, Hurlbut Visuals



Create. Innovate. Educate. That’s the mission of Hurlbut Visuals, the company created by world-renowned cinematographer Shane Hurlbut, ASC, to inform and inspire emerging filmmakers worldwide. Subscribers to *Shane’s Inner Circle* gain exclusive access to a wealth of industry knowhow. Behind the scenes, the post-production tools making it all possible include HP Z840 Workstations and HP DreamColor Professional Displays.

Since shooting his first feature film, *The Rat Pack*, in 1998, Hurlbut has filmed numerous features, including the recent *Fathers and Daughters*, as well as commercials for organizations ranging from a children's hospital to the U.S. Marines. A member of the prestigious American Society of Cinematographers and The Academy of Motion Picture Arts and Sciences, Hurlbut is among a select group of leading cinematographers who, with his elite team of camera operators, constantly tests new products and experiments with innovative techniques.

Wanting to share his knowledge with new generations of filmmakers—particularly those for whom film school or a move to Hollywood are not options—Hurlbut with his wife, Lydia, formed Hurlbut Visuals. Enthusiastic audience response to Hurlbut's free informational blog inspired him to create *Shane's Inner Circle*, a monthly membership club offering in-depth guidance on everything from gear tests to advanced theory.

Prior devices cause crippling bottleneck

Digital filmmakers capture raw footage in the field using high-resolution cameras—4K, 5K, and now 6K. These master files are so large they must be converted—transcoded—to codec format for editing. In the editing process of cutting and moving clips, raw footage is transformed into a story. Finally, the edit file is connected back to high-resolution media to create the final product, color graded and finished to make each pixel perfect. Hurlbut had been shooting 6K to test RED Dragon cameras and wanted to edit the raw digital footage—which means no transcoding—using Adobe Premiere Pro® software, into a few dozen videos of up to 15 minutes each to upload online.

Once the project went into post-production, however, things did not go well. The Hurlbut Visuals edit bays at the time used Mac Pro devices. Although equipped with RED Rocket cards to improve performance and playback, the computers could not deliver the consistent level of performance necessary to process multiple streams of the high-resolution media. Struggling to handle the Adobe® software, the systems would lock up; the editors would have to shut down all other programs to get things moving again. David Weldon, creative director of Hurlbut Visuals, estimates he lost about 10 minutes out of every working hour just waiting for the slow computer.

“The biggest benefits HP Z840 Workstation are time saving, performance and speed. If I’m in that moment of creative clarity, I don’t have to stop what I’m doing and wait.”

– David Weldon, creative director of Hurlbut Visuals

“The RED Rocket card made it possible to play the video back, but it was very cumbersome; we were playing back at 1/16th the resolution within Adobe Premiere®,” recalls Weldon. “The problem was the limitations of the hardware. When we started to export the videos, it took 17 hours to export one 15-minute clip from the original native timeline down to a 4K H.264 YouTube file. With just two days to go online, we were like, ‘We’re never going to get this done!’”

Hurlbut resorted to calling in a favor from colleagues at Light Iron, a leading post-production house, in order to complete the project. Engagement of outside resources was required and without this one-time option, would have added substantially to the cost of the project. Using the Hurlbut Visuals in-house system for post-production, Weldon says, was like running a marathon that narrowed to one lane near the finish line—a bottleneck at the very end of the race. To meet the demands of the future and avoid supplemental costs, the company needed a better solution. “We were growing faster than our tools allowed. It almost crippled us,” he says. “We have to have systems that work, so we’re not handicapped by our technology.”

Transformation with HP Z Workstations, DreamColor

This is where HP comes into the picture. In both of its edit bays, Hurlbut Visuals deployed an HP Z840 Workstation, connected to two HP DreamColor Z27x Professional Displays. The main edit bay houses two G-Tech 64TB G-Speed Studio XL storage devices, connected via Thunderbolt™ to the HP Z Workstation, which is networked to the second HP Z Workstation via 10GB Ethernet lines. One immediate advantage of the HP Z Workstations, Weldon says, is that they were easy to customize without having to buy an external chassis.



Known For *Terminator Salvation, Need for Speed, Act of Valor, Semi-Pro, Into the Blue, Fathers and Daughters, Into the Badland*

The HP Z840 Workstation features seven PCIe slots, up to 10 internal drive bays, and 16 memory slots supporting up to 2TB of memory¹. Weldon added RED Rocket cards for handling both RED Dragon and Weapon camera footage, as well as Thunderbolt™ and Blackmagic DeckLink cards. Hurlbut Visuals uses, in addition to Adobe® software, DaVinci Resolve from Blackmagic for color grading.

“I do a lot of multi-camera editing, working with R3D native files. The HP Z Workstation just handles its business.”

—Dylan Leong, lead editor, Hurlbut Visuals

“It’s been a totally different environment for our post workflow—to be able to sit in the editor bay and play back five streams of 5K resolution from RED Dragon footage. If I had tried to do that on the Mac Pro, I could barely hit on one stream at 12-to-1 compression. I’m doing five at 8-to-1. Having the right NVIDIA® graphics card and the right throughput—the power and performance of the HP Z Workstations under the hood—makes a world of difference.”

Goodbye post-production bottlenecks

When Hurlbut Visuals creates educational videos, it often uses five different cameras shooting from different angles. Then, editors work with all five streams, often captured in several different file formats, to create one

video. “I do a lot of multi-camera editing, working with R3D native files,” says Dylan Leong, lead editor of Hurlbut Visuals. “Many computers lag up, and my old computer crashed on a lot of things it shouldn’t have. The HP Workstation just handles its business. It lets me do my work without waiting for things to load or holding back my ideas because I can’t trust the technology.”

Creative Director Weldon estimates that rendering tasks that consumed three or four hours with the old system now take about 20 minutes with the HP Z Workstations². In addition, he’s stanch the constant slow bleed of a couple of seconds here and there that added up to significant productivity loss over time. He estimates project turnaround is about one-third faster, enabling Hurlbut Visuals to tackle more work and avoid paying a premium for extra editing time to meet deadlines. “When you sit back and think of all the time you spent waiting for the system to catch up—now we have that time back to be creative, be productive, and run this business.”

HP DreamColor Displays support color accuracy

Complementing the HP Z Workstations, the HP DreamColor Professional Displays with 10-bit color accuracy ease rough color grading. “I was introduced to the HP DreamColor Display on *Act of Valor*, which was my first digitally captured film,” Hurlbut says. “When I began working with Bandito Brothers on the film, Bandito’s Mike McCarthy brought the DreamColor Display from their color correction bay to have on set with us. It was a computer

¹ Available with 128GB DIMMs.

² Based on comparison of same project completed on previous device and HP Workstation.

Customer at a glance

Application

Editing and postproduction

Hardware

- HP Z840 Desktop Workstation
- HP DreamColor Z27x Professional Displays

monitor with a little stand for your desk! I asked, 'Mike, what is this?' He said, 'Trust me, this monitor rocks.' He wasn't kidding.³" The HP DreamColor Professional Display becomes my eye. It becomes my viewfinder. When I'm in the color-correction bay, I'll have the plasma up there but I'll correct off the DreamColor. I love that you can see the subtlety, the nuance and the color on that monitor better than anything else I've seen."

With its post-production bottlenecks now eliminated, Hurlbut Visuals is tripling the number of projects it takes on, and its staff

is free to pursue creative work they feel passionate about—sharing their knowledge and experience with other filmmakers. "I have a lot of friends who come into the office and say, 'How do you like the HP Workstations?' I tell them the biggest benefits are time savings, performance and speed. If I'm in that moment of creative clarity, I don't have to stop what I'm doing and wait."

Learn more at

hp.com/zworkstations
hp.com/go/videoandfilm
hp.com/go/dreamcolor

³From "Shooting on the Cutting Edge," CreativeCOW.net https://library.creativecow.net/hurlbut_shane/HP_New-Dimensions_Hurlbut/1

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