

Pixel Farm

By *Claudia Kienzle*



Images courtesy of Pixel Farm.

Creative Synergy

Mohsen Sadeghi had a vision for his Minneapolis-based facility Pixel Farm—to extend the visual effects and compositing they were doing for commercials and music videos to full-length feature films. While short-form projects tend to top out at HD resolution, feature films raise the bar to 2K and beyond, as well as require a digital intermediate (DI) workflow for finishing.

When he first heard about Discreet® Lustre® color grading systems software, he knew it was just the ticket. “Lustre is a software-driven, resolution-independent system capable of interfacing with our film scanner to produce the rich, pristine images required by demanding DI and collateral print work,” says Sadeghi, owner of Pixel Farm. “Besides providing unlimited color grading, Lustre also complements our other Autodesk systems, including Discreet Fire, Discreet Inferno, Discreet Smoke, and Autodesk Combustion software, forming an extremely powerful, tapeless network that will serve us well into the future.”

Banking on the Best

When Pixel Farm was ready to upgrade its color correction system, Lustre was still in development. But Sadeghi decided they would wait for it. In the meantime, he watched as many HD jobs went to his competitors who had just bought the latest da Vinci 2K (hardware-based) color corrector.

“We suffered a little bit in business until we installed Lustre in June 2004,” Sadeghi says. “Now, we’ve surpassed the competition, and by building on an open, scalable, versatile solution, we’re well-positioned for the future.”

Autodesk®



Images courtesy of Pixel Farm.

Pixel Farm Colorist Dave Sweet explained that since Lustre capabilities are not tied to hardware, it is not limited to a small, finite number of “power windows.” “With Lustre, I can create twelve shapes, with separate control inside and outside each shape,” Sweet says. “Using the Lustre tracker, I can color-correct the area inside those shapes while tracking their movement within scenes,” says Sweet. “The da Vinci 2K comes with only three windows, but the user can add more—up to nine—at considerable expense.”

In an effect for a music video, Sweet used Lustre to draw a matte around a man’s red suit to preserve its color, and then he tracked it with a geometry that allowed him to separate the clothing from the rest of the image. In a medium shot, he could desaturate the man’s flesh-toned face and neck to a nearly black and white level without affecting the red suit.

“On Lustre, I can take color grading so much farther than I ever could on the da Vinci 2K because it’s not limited by a dedicated hardware platform,” says Sweet. “Also, while da Vinci color correctors are typically used at the front-end of the workflow during film to tape transfer, images can easily move to and from Lustre for color correction throughout the post-production. It’s more of a ‘virtual telecine’ concept.”

With a direct interface from an ARRI scanner, Sweet says they are able to bring 2K images as 10-bit Log DPX files into Lustre and color grade all that picture information to create the mood and tone for the entire piece.

In the near future, Sweet says they have plans to move to Lustre on the Linux® platform for even greater flexibility.

Complementary Systems

At Pixel Farm, artists find it extremely advantageous to move video between Smoke®, Inferno®, and Fire® effects systems without first having to lay it off to tape.

“More importantly, we can also move the metadata—files containing settings information for each project—which is hugely important to us,” says Kurt Angell, an effects editor/partner at Pixel Farm. “The complementary file structures of these Discreet systems means that when shots move back and forth between them, our artists don’t have to re-build everything from scratch.”

Tom Jacobsen, Pixel Farm’s senior effects designer agrees: “This would be completely impractical, especially for complex, multi-layered composites. Being able to transfer images and scenes between the Discreet workstations—complete with their settings, EDLs, color correction, effects layers, and other modifications—gives us an incredibly fast, efficient workflow.”

While Fire, Smoke, and Inferno can access each other’s databases, Pixel Farm also uses a NAS (Network-Attached Storage) called Sledgehammer® (from Maximum Throughput) to extend tapeless production to its other systems, including Lustre and Combustion®, as well as Autodesk® Maya®, Softimage® XSI®, and Apple® Shake® workstations. To move projects between these disparate systems, artists need only deposit files onto Sledgehammer or retrieve them from the NAS, all without ever touching videotape.

Dynamic Give and Take

Effects-intensive projects recently completed at Pixel Farm—including five national spots for Target and the Hilary Duff music video “Beat of My Heart” for Hollywood Records—benefited from the creative collaboration enabled by tapeless transfer of images complete with their settings files between their Discreet systems.

While the Target spots don’t look like they have any effects at all, considerable image manipulation was done using Fire and Smoke to enhance the appearance of talent and products. For the Hilary Duff music video, many creative looks were explored using tools in the Fire, Smoke, and Inferno systems. The Pixel Farm team was able to experiment with many layers of 3D wire-framing, green screen compositing, keying, tracking, DVEs, and color correction to create multiple versions of the music video for Harder/Fuller Films director Phil Harder to review and approve.

With the direct interface between Fire, Smoke, and Inferno, “We can move any part of any job to whichever artist or Discreet workstation is best suited to handle it,” says Angell. “And because all of our workstations can access files from the NAS, we are also maximizing the talents of our team and our creative collaboration is intensified.”