

# The Basement

## HD gurus

Top VFX artists adopt Adobe® OpenHD™ workstations and Adobe Video Collection software to deliver HD for broadcast and film



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For top VFX artists Rob Legato and Ron Ames, use of desktop tools such as Adobe Video Collection represent a major, long-term shift in the way commercials, films, and other motion content is created. Studios no longer have to pay tens of thousands of dollars for a single effects shot or composite. Instead, Legato and Ames can experiment without costing Hollywood a fortune.

Legato and Ames rank among the film industry's most elite visual effects artists. Their careers include decades of groundbreaking production and visual effects work with the finest directors, including James Cameron (*Titanic*), Michael Bay (*Armageddon* and *Bad Boys II*), Robert Zemekis (*What Lies Beneath*), Robert De Niro (*The Good Shepherd*), Ron Howard (*Apollo 13*), and Martin Scorsese (*The Aviator* and *The Departed*). Legato has also been a second-unit director with Scorsese, has directed numerous television commercials, and directs for Untitled, a production company in Santa Monica, California.

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Rob Legato,  
co-founder,  
*The Basement*

Although visual creativity is their main stock in trade, Legato and Ames are also ahead of the technology curve. These days, the bulk of their work is produced in high-definition (HD) format using Adobe OpenHD certified workstations and Adobe Video Collection software. Legato and Ames found that their innovative HD workflow enables them to try creative ideas and deliver above and beyond their clients’ quality expectations at a fraction of the cost of using proprietary systems.

“Using Adobe Video Collection on Adobe OpenHD workstations, we can run 5 to 10 rough previsualized shots by directors in minutes that otherwise wouldn’t be included because of budget limitations,” says Legato. “Instead of creating one shot that costs \$15,000 or \$20,000, we can use Adobe Video Collection software to produce several shots in a few hours, for a few thousand dollars. And, we can deliver in HD versus standard video without charging clients a premium.”

### Movie studio in a basement

Ames and Legato met after Legato came to Los Angeles from film school. That meeting blossomed into a long-term friendship and professional collaboration. Both worked at production house Bob Abel Associates, where Ames was assistant director and Legato was producer. After working on *The Aviator* in 2004, Ames and Legato solidified their business relationship by founding The Basement, a production and effects house that operates out of Legato’s basement in Pasadena, California.

Legato initially began using Adobe Video Collection software because, working as a visual effects supervisor, he was frustrated using the traditional visual effects pipeline. Typically, large studios create and use their own proprietary software which costs millions of dollars. They train artists to use their high-end gear, but freelancers like Legato who move among different studios and projects rarely receive training on how to use each studio’s tools.

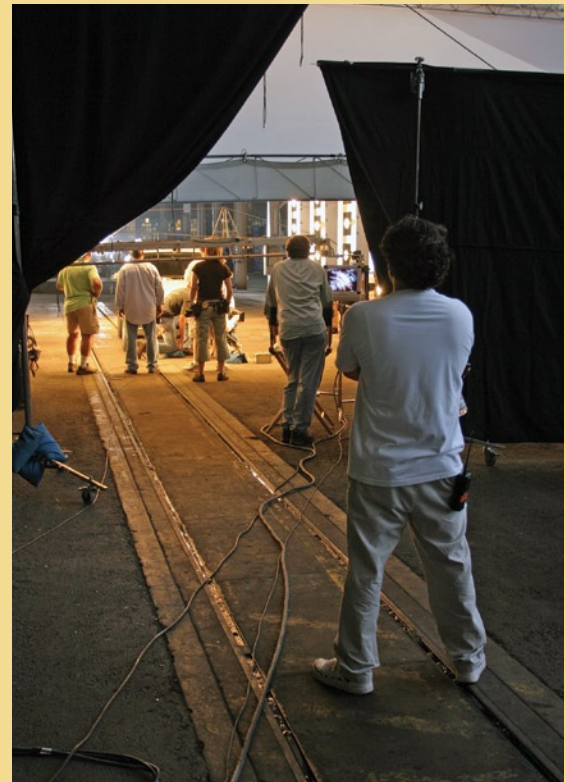
“I was constantly trying to describe how I wanted shots to look because I didn’t know how to use the studios’ tools for previsualization, and time on the systems was too expensive,” says Legato. “I started using Adobe Video Collection software to show people what I had in mind. I was able to work on my own time, without deadlines. Then I discovered I could also finish the shots using Adobe Video Collection, and I’ve never looked back.”

### Moving to HD

Ames and Legato now use Adobe Video Collection for HD work. Their low-cost, high-performance Adobe OpenHD workstations and Adobe Video Collection software allow them to work in 2K resolution to finish the visual and optical effects for feature films—including Martin Scorsese’s *The Departed* and Robert De Niro’s *The Good Shepherd*—and broadcast television spots for clients such as Ford Motor Company and PacifiCare.

The Basement’s HD workflow continues to evolve. On a Ford SUV commercial, for instance, Ames and Legato started by creating animated project storyboards for the client using Adobe Acrobat® software that combined film clips, imagery from the Internet, effects created in Adobe Photoshop® software, text, and voice annotations. The 30-second spot features matte paintings created in Adobe Photoshop, stock footage, and other visual and optical effects to place a car in Africa with a herd of elephants—all next to the Great Wall of China. A dispersed team from Ford and its advertising agency

While shooting the TV spots promoting the Ford World Traveler, Legato used Adobe Premiere Pro, Photoshop, and After Effects software to previsualize shots. This enabled everyone to see what the final product would look like and helped ensure that all the necessary shots were captured.





Since forming The Basement, Legato and Ames have created numerous TV spots using the Adobe Video Collection. In this spot, Legato and his team reconstructed the Great Wall of China to produce an impressive shot.



Legato and team used visual and optical effects to place a car in Africa with a herd of elephants. Here, the crew sets up a faux tree that will be composited into the shot later using Adobe After Effects.

Photos: Copyright Darius Fisher, DIGITAL NEURAL AXIS (DNA)

started with a clearer understanding of the direction of the project and were able to review and comment on the storyboards electronically.

Once the storyboards were approved, the team shot principal photography on 35mm film at 24 frames per second. During the shoot, Legato used Adobe Premiere® Pro, Photoshop, and After Effects® software to previsualize shots. This gave everyone a clearer understanding of how each scene would look when completed and helped ensure that the necessary shots were captured.

“No matter how much money you have, it’s never enough; that’s just the nature of filmmaking,” says Ames. “Tools for previsualization in Adobe Video Collection allow us to let everyone see how shots will look and make critical decisions before they start spending the big money: the production money. Because once that starts, you’re committed.”

### 10-bit, 4:4:4

With shooting of the Ford SUV commercial complete, the team transferred footage to SR HD tape with no color correction to create digital negatives. Scans at 4K resolution were down-converted to 2K as they were being transferred to the SR HD tape. Legato digitized what he needed from the SR tape using Adobe Premiere Pro software and the Blackmagic Design DeckLink HD-SDI Pro card, enabling the team to work with 4:4:4, 10-bit RGB color—twice the color resolution of standard 4:2:2 HD.

“Anyone viewing this initial HD tape would realize that it is not properly color-corrected footage,” explains Legato. “This is an important key to our workflow. Because we start with 10-bit, 4:4:4 bit depth and frame size, not only can we do serious color-correction in post production using Adobe Video Collection, we can also handle our own visual effects work because we have high-quality keys.”

### HD finishing in Adobe Premiere Pro

Effects house Digital Neural Access (DNA) created visual effects for the Ford commercial using After Effects for compositing and effects. DNA then sent the completed segments back to Legato to cut in.

Adobe Premiere Pro is quickly becoming The Basement’s preferred tool for finishing HD projects. Thanks to unparalleled integration, as cuts are made in Adobe Premiere Pro, Legato or others working on projects can jump into After Effects to create online effects. Upon returning to Adobe Premiere Pro, all effects are updated and ready to play out. As changes are made in one program or the other, sequences are dynamically updated and kept in sync.

“Adobe Premiere Pro is a terrific HD finishing tool,” says Legato. “Because of its extreme level of integration with After Effects, we can basically auto-assemble HD projects by taking assets in standard definition or other formats and swapping them out for high-resolution images. It’s like being on autopilot, so we save time and reduce costs—all while enhancing the quality of our work.”

### An integrated set of tools

Throughout the project, Legato and his team used Adobe Encore® DVD software to produce DVDs for interim client review. “The integration among Photoshop and Encore DVD is phenomenal,” says Ames. “Whether we’re creating a DVD for client approval or just to showcase our work, we can use Photoshop to create and edit menus, and everything is automatically updated in Encore DVD. We can produce sophisticated DVDs very quickly.”

“We walk in with our projects from our Adobe Premiere Pro finishing environment and, because the color is relatively close, sometimes the colorists don’t even have to touch the footage.”

Ron Ames, co-founder, The Basement

By using computers and Adobe Video Collection software, Legato and his team can play an integral role in each shoot. Instead of shooting the main unit and leaving a space for visual effects, the effects team directs and guides the shoot to help ensure that all of the elements of the piece will come together during compositing and postproduction.



The Basement team also uses Adobe Audition® software for laying in sound tracks and editing sound. Adobe Audition offers powerful multi-track editing tools with the added bonus of integration with other components of Adobe Video Collection.

“Adobe Video Collection software features similar interfaces so there’s minimal learning curve,” says Legato. “Once you know one or two Adobe applications, you can figure out how to use all of them. And, whether you’re swapping out a typeface or making another change to a composite, changes automatically ripple through all of the other applications so you’re not plagued with making them all over the place.”

### Digital intermediate for cost-effective color

Legato then took the completed commercial to a colorist for one last color correction pass. By using a digital intermediate workflow, the team gets the color very close and then fine-tunes it as a last step.

“We walk in with our projects from our Adobe Premiere Pro finishing environment and, because the color is relatively close, sometimes the colorists don’t even have to touch the footage,” says Ames. “Telecine and colorist work typically costs about \$1,000 per hour, so we save a ton of money by using this process.”

### Experimentation without the cost

For clients like Ford and others, use of desktop tools such as Adobe Video Collection lets artists experiment cost effectively.

“Experimentation really shouldn’t cost you or your client anything, but traditionally this has not been the case,” says Legato. “With Adobe Video Collection, you can play with ideas, even if you’re on an airplane. I can see when something is working or not, and I can correct it and move on. From previsualization to finishing, Adobe OpenHD workstations and Adobe Video Collection software are revolutionizing the way we work.”

For more information on The Basement, please visit [www.adobe.com/motion/basement.html](http://www.adobe.com/motion/basement.html).

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### Company

The Basement  
Pasadena, CA

### Challenge

- Experiment and finish HD effects shots without charging the client a premium
- Previsualize effects without having to use studios’ million-dollar, proprietary tools
- Work with ease in HD
- Save money and time on color correction

### Solution

- Use Adobe Video Collection, including Adobe After Effects, Photoshop CS, and Adobe Premiere Pro, to experiment and previsualize ideas for shots
- Leverage an Adobe OpenHD solution
- Create animated storyboards using Adobe Acrobat
- Finish HD projects using Adobe Premiere Pro
- Use a digital intermediate process to complete color correction

### Benefits

- Achieved similar or better quality using desktop tools
- Communicated more clearly using animated storyboards and early previsualization
- Worked in efficient, streamlined manner because of integration among tools

### Tool Kit

- Adobe Acrobat Professional
- Adobe Video Collection Professional. Products used include:
  - Adobe After Effects Professional
  - Adobe Audition
  - Adobe Encore DVD
  - Adobe Photoshop CS
  - Adobe Premiere Pro
- Uncompressed HD Adobe OpenHD workstation
- Adobe Video Collection Professional Software
- HP xw8200 Workstation
- Dual CPU 64-bit Intel® Xeon™ 3.4Ghz 533 FSB Hyperthreaded
- 2GB 400MHz DDR2 ECC RAM in dual channel configuration
- 7,200RPM 160GB SATA System Drive
- Blackmagic DeckLink™ HD-SDI Pro card (Dual Link)
- HUGE Systems 1.6TB External Dual Channel RAID Array
- DUAL CHANNEL ULTRA 320 SCSI HOST ADAPTER
- PCI Express NVIDIA® Quadro® FX 1400 128MB video card
- Sound Blaster® Audigy® 2 ZS sound card
- 16x DVD+/-RW Drive
- Microsoft® Windows® XP Professional SP2

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