

PUTTING VISUAL EFFECTS TO THE TEST

During our tour of ILM, Scott C. Smith, production engineer and Mac technician, explained how ILM uses Macs to play back visual effects test shots so that a director can see how well a new effect works with existing CG and video elements. We met Dennis Muren, ILM's chief visual effects supervisor, and Martin Rosenberg, *The Hulk*'s director of photography, and watched their team test a scene in which a fired missile hits a rock wall behind the Hulk and explodes into a fireball. The team rigged up and fired a real pyrotechnic explosion against a blue screen, and used a CCD-loaded camera to capture the footage onto a digital disk recorder (DDR). Here's how they composited the scene for preview.

Hulk

HEAVY LIFTING The Hulk can lift more than 100 tons, withstand up to 3,000 degrees Fahrenheit, and leap up to three miles in a single bound—only when utterly enraged, of course.



1. Video playback technician Clark Higgins brought the scene's CG Hulk animation, as well as a CG missile and smoke, into Final Cut Pro running on a Power Mac G4. (Some technicians use After Effects or even iMovie.)



2. He then composited the three elements atop a video of the rock-wall background, and positioned them appropriately within the timeline sequence.



3. On his PowerBook, Higgins used a HyperCard-created program called Film/Vari Speed Video (www.retinavision.com) to control the DDR, and brought the blue-screen explosion footage into Final Cut, placing the element where the missile hits the wall at the exact moment in the sequence.

4. Higgins then played back the video sequence for Rosenberg's approval. Once approved, the explosion scene was shot for real on film.



PHOTOGRAPH BY SCOTT C. SMITH

Here's one of the Mac video-assist rigs used to play back test shots.

