



Success Story

SGI at Cinesite: Building Blockbusters on Schedule

Harry Potter. Band of Brothers. Tomb Raider. Die Another Day. These are just a few of the recent productions that feature the digital expertise of Cinesite, a major presence in London's Soho postproduction community. Cinesite's London facility (www.cinesite.co.uk) and its sister facility in Hollywood use a broad range of SGI® servers and workstations to provide the film and television industry with everything digital: visual effects, scanning and recording, and digital film mastering. Cinesite London's postproduction facility, which opened in 1991, uses SGI Embedded Support Partner [ESP] and SGI® Global Services to keep its high-profile projects on schedule.

Building Hot Properties with SGI Technology

"We've pretty much been an SGI house from day one," says Cinesite Senior Systems Administrator Keith Barton. "We have nearly 100 SGI workstations and servers, including SGI Origin 2000 and SGI Origin 200 systems that we use primarily for high-bandwidth applications including file serving and rendering, and Silicon Graphics Onyx2 systems running Discreet inferno and fire. Our digital lab is definitely based on SGI technology." Cinesite's artists are using SGI technology to create stunning visual effects for major film and television productions. For *Band of Brothers*, the *Harry Potter* series, and still-to-be-released productions such as *Shanghai Knights* and *Die Another Day [Bond 20]*, Cinesite was called on to create digital effects and composite them into shots filmed in the studio or on location. Cinesite scans the 35 mm film shots into 2K-resolution digital frames on Cinesite's Cineon Lightning Scanner, which incorporates SGI graphics-processing technology, creates graphics using Maya® and Pixar Renderman®, and composites them into the frames with Kodak Cineon, running on Silicon Graphics® Octane® workstations.

For *Band of Brothers*, the 10-episode television series executive-produced by Steven Spielberg and Tom Hanks, Cinesite added digital 2D or 3D effects to roughly 250 shots, most of which were shot on elaborate sets at the former Hatfield British Aerospace facility in the U.K. "They sent us the most difficult graphics and compositing assignments," says Ken Dailey, Cinesite visual effects supervisor. One memorable sequence shows 250 paratroopers making a historic jump from 40 C-47 aircraft over Eindhoven, Holland. Using real footage as a reference, Cinesite artists created or modified planes, paratroopers, skies, terrain, and background sets, composited them into frames on Octane workstations, and rendered them on SGI servers.

"The SGI workstations are fast and reliable," says Dailey. "They run on UNIX, which is great because it interacts with all the rest of the systems. And they run Cineon, the software we want to use, which runs only on the IRIX operating system. We've processed millions of frames through SGI workstations and rendered them on SGI multiprocessor boxes, including Origin 2000 servers."

ESP and SGI Global Services: Protecting Cinesite's Productivity

In Cinesite's compute-intensive, deadline-driven environment, systems availability is critical. When workstations are not being used by artists, they are utilized as part of a round-the-clock render farm. A down machine is not acceptable. "The entire way the site works relies on the SGI boxes being operational," says Barton.

With this in mind, Support Engineer Dan Boone of SGI Global Services' Reading office met with Barton and Cinesite Worldwide CFO Neil Barnett in 2001 to perform a site survey. This SGI service assessed Cinesite's business needs, identified areas of vulnerability, and supplied information about training, consulting, service contract coverage, electronic support, and other SGI services. Boone supplied Cinesite with detailed information about ESP, the electronic support tool embedded in the IRIX® software on every SGI system.



Band of Brothers ©HBO

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—Keith Barton, Senior Systems Administrator, Cinesite





ESP is a highly configurable monitoring system capable of tracking many parameters of system activity, availability, and performance and automatically alerting SGI Global Services when a specified event occurs. It can be activated under any SGI service contract and personalized to the customer's requirements. SGI continues to develop this proactive electronic support tool by adding System Group Manager and Performance Co-Pilot™ monitoring capabilities.



"One of the things they found most interesting about ESP," says SGI Support Engineer Andy Barrington, "was that they didn't need to troll through endless syslogs and error logs to find that piece of information they needed. ESP would find it for them and set the fix in motion by contacting us electronically—all at no extra charge. They loved it." The immediate savings in costs and the potential savings in availability were obvious. Cinesite's return on investment from ensuring high availability may not always be quantifiable in dollars, but the cost of missing a deadline could be huge. SGI Global Services began working with Cinesite to activate ESP on its SGI machines.



Band of Brothers ©HBO

"The advantage is that if a machine fails or has a problem, ESP will pick up on it and e-mail the relevant support staff at SGI," says Barton. "They often know about the problem before we do and contact us to say a call has been logged. It accelerates the problem-solving process, because SGI is on the case before we've logged the call. It's fantastic." As ESP was activated on Cinesite's SGI systems, it became clear that Cinesite's operating style was triggering an unnecessarily high number of calls. Cinesite easily configured ESP to restrict call logging to selected parameters.

"ESP is highly configurable," says Barton. "You can switch features on and off easily, and set the logging level at which you want SGI to be informed. If you want, you can set it to log every transaction or report periodically to SGI that it is still operating. But things like that aren't always necessary, and you can just switch them off."



Going the Extra Mile: Value-Added SGI Service

One of the problems that emerged from the survey was that Cinesite's many SGI systems, in a variety of configurations, were deployed in the rooms, corners, and basements of vintage multistory Soho buildings. With this disparate mix of operators, applications, environments, and SGI models, it was possible to lose track of the configuration and service contract coverage of the machines. Many, but not all, SGI systems were covered by 7x24 SGI® FullExpress™ service contracts. In some cases, staff members were calling SGI Global Services for middle-of-the-night service for machines that had single-shift contract coverage.

After studying the input from the survey, Boone returned with a detailed inventory of Cinesite's SGI systems and their service coverage. He attached to each machine a plastic-bound card that included its model name, its configuration, its SGI maintenance coverage, and the phone number of SGI Global Services. This kind of value-added effort is appreciated by Cinesite and typifies the way SGI Global Services works continuously to improve its services.

"SGI service has been brilliant," says Barton. "I've told industry people that it's been the best support service of any computer-based company that I've encountered. A few years ago one of our main servers had a very serious hardware fault early one morning, bringing production to a standstill. One call to SGI and their engineer had us back in production that morning. We were very close to a deadline, and we made it. You don't forget that kind of service."

"When we log a hardware-related call, the engineer always arrives with the right parts. You won't hear him say, 'I brought the wrong parts. I'll come back tomorrow.' I'm very impressed. SGI service, from my point of view, was already significantly better than the support provided by its competitors. Now ESP gives us another layer of protection."



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