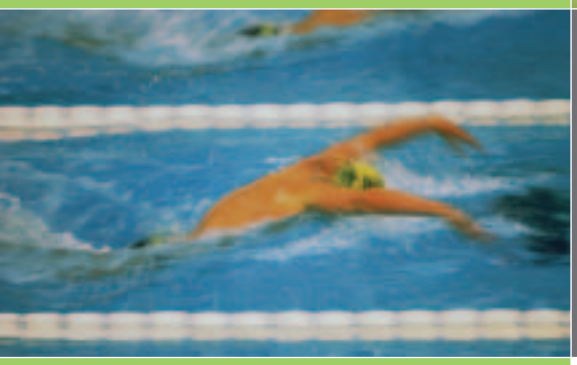
SGI® Broadcast SOLUTIONS



Premier Media Group's FOX SPORTS

"Currently, we can record at any one time from 16 remote sources, be they satellite, or fiber optic tails, which are recorded to tape as they are sent out live from one of our two sports channels."

– Michael Day, Chief Engineer, Premier Media Group, Australia

Premier Media Group, operators of FOX SPORTS ONE and TWO in Sydney, Australia, is making a quantum leap into the 21st century of digital IP-based broadcasting. They selected SGI to help architect their comprehensive vision, purchasing and currently installing a complete digital infrastructure for end-to-end D10/MXF operation. The SGI broadcast solutions with InfiniteStorage moves Premier Media Group from an operation with an aging tape-based ingest and editing process with a large and cumbersome archive to a state-of-the art facility.

The new infrastructure is based on SGI Media Server™ for broadcast systems for ingest and transmission, SGI® InfiniteStorage Shared Filesystem CXFS™ Storage Area Network (SAN), and Ardendo's suite of ingest and asset management software tools for content management. The SGI ingest and storage solution was chosen to overcome the workflow slowdowns and restrictions of tape-based ingest that the business currently faces and help move the operation to a fully digital infrastructure to support an increase in new digital program outputs. Premier Media Group has recently expanded by adding two new channels, FUEL and HOW TO, to its existing FOX SPORTS ONE and FOX SPORTS TWO channels and adding interactive services.

SGI Broadcast Solutions

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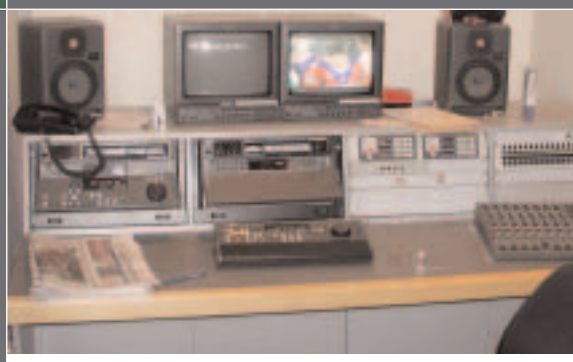
– Michael Day, Chief Engineer, Premier Media Group, Australia

Based in Sydney, New South Wales, and employing approximately 200 people on its premises, Premier Media Group currently accesses 16 remote feeds to generate 11 hours daily of live sports while shooting, editing and airing a huge variety of sports-related programming, including broadcasts of re-edited sporting events.

"Currently, we can record at any one time from 16 remote sources, be they satellite, or fiber optic tails, which are recorded to tape as they are sent out live from one of our two sports channels," explains Michael Day, Chief Engineer, Premier Media Group, Australia. "For instance, if we are receiving a live sport feed, we could have four tape machines sitting across it, recording the feed. And that might be for all 16 sources, so we've got a lot of tape machines sitting across a lot of feeds. Those four tapes can be used for turnaround or they can be used for archive or they can be cut down for another time slot. They can be used for news material and/or they can be used for our magazine shows. We've got a lot of duplication in the recording process and in the sharing of content. In the new world of SGI Media Server for broadcast, D10/MXF, and SGI DMF, we're talking about recording those 16 sources to server-based systems, having content management systems in place that will allow us to track and share the media between editing, news, producers, and playout , so that we can get the material out quickly, re-purpose it quickly and share it across the different parts of the business."

Premier Media Group selected SGI due to its comprehensive approach to meeting all requirements for all the different types of broadcast applications, and—essential to its decision—the SGI CXFS shared filesystem will easily expand with its planned future growth. As prime contractor for the digital archive component, SGI Professional Services has been integrating key SGI components with the Ardendo applications, a Sony® PetaSite® archive and establishing interfaces to planned nonlinear editing systems (NLEs), the existing traffic system and TV automation. Core components for the new channels were up and running and on air in March 2004.



FOX SPORTS

"SGI CXFS shared filesystem, which allows files to be instantly shared across hardware platforms and among multiple operating systems without file copying or transcoding, was a contributing factor; it was at the core of some very strong elements," continues Day. "SGI's diverse approach is strong in equipment and strong in the ability to work with third parties such as Ardendo."

For transmission and ingest, Premier Media Group purchased two five-channel capable MXF format SGI Media Server systems with redundant SGI® TP900 storage. This is supported by SGI® InfiniteStorage TP9100 and TP9300 storage systems sufficient to store 70 hours of D10 material in the MXF format and years of on-line browse material. An archive based on the Sony PetaSite Tape Library for archiving low-resolution browsing material and 30Mbps high-resolution D10/MXF clips is supported under SGI® InfiniteStorage Data Migration Facility (DMF) data lifecycle management software. Management of VTR ingest, scheduled automated ingest from live sources and the Odetics videotape robot, as well as transcoding for browse/edit and key frame extraction will be managed under Ardendo's ARDCAP, DART and ARDENC applications. Automated routing for ingest to servers using the existing station router, will be managed under the automated DART ingest application. Media file management to the SGI InfiniteStorage solution and from storage to the transmission servers is handled by Ardendo as is the interface to future NLEs and graphics workstations for file management.

From ingest to playout of MXF, Ardendo's ARDOME Enterprise MAM solution will provide comprehensive asset management, with interface to the traffic and automation solutions, and enterprise-wide desktop browse/editing and high-resolution conforming of MXF files for transmission or fulfillment. Within the InfiniteStorage solution, an SGI® Origin® 350 file server provides NFS and CXFS file services to Ardendo servers and desktop systems to support browsing, editing, storage and recovery. The SGI Origin 350 server with CXFS SAN also hosts SGI DMF software, which provides user configurable software tools to manage migration of media between TP9100 and TP9300 disk-based storage and the PetaSite datatape archive.

"We record a lot of long-format events – cricket matches, and football for example," explains Day. "After it airs once live, we cut the match down to 90 minutes and play the

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Premier Media Group's FOX SPORTS

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edited version multiple times, for up to two years. But from the moment we record, we know we'll want to cherry-pick elements and re-use it to make new programs: highlights of Wimbledons, or magazine shows about football, the history of football, those sorts of things. SGI DMF allows us to reach down into the archive and pick out elements from a large box of media we can easily repurpose any way we want."

The premier solution for data lifecycle management, SGI DMF allows high-performance, reliable and efficient data management with virtually unlimited storage capability while also dramatically lowering total cost of ownership by moving data seamlessly between high-performance storage arrays and lower-cost-per-megabyte tape libraries. An SGI® InfiniteStorage TP9300 Serial ATA storage array providing shared disk storage for up to 10 years for instant access to on-line low-resolution proxies in MPEG-1 format and all metadata, is also attached. Software installations include the SGI® IRIX® OS for SGI Media Server for broadcast and Origin 350, SAMBA® protocol for file serving to Windows® OS-based PCs. The SAN is prepared for an NFS server for file serving to UNIX® servers and SGI CXFS shared filesystem clients for two Ardendo servers based on the Linux® operating system, two SGI IRIX systems and two Windows® 2000 PCs.

"Our problem was workflow restrictions because we are tape-based and had an aging infrastructure," concludes Day. "For us to grow, we needed to make changes. It seemed the right time to go to an IT infrastructure since broadcasters in Europe and the U.S. have successfully gone down the same path. SGI seemed to provide a really good and flexible backbone. As a small facility that does news, magazine shows, live, postproduction and promos, we saw SGI in various types of facilities, running the same hardware, supporting different types of broadcasters. We could see that SGI would be able to deliver a solution that caters to all the different elements of our business. SGI had the diverse experience that would support our IP infrastructure."

sgi®

Corporate Office
1500 Crittenden Lane
Mountain View, CA 94043
(650) 960-1980
www.sgi.com

North America +1 800.800.7441
Latin America +55 11.5509.1455
Europe +44 118.925.7500
Japan +81 3.5488.1811
Asia Pacific +1 650.933.3000

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