storageDNA®

Case Study
Digital Pictures

DIGITAL PICTURES

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> **- Nic Smith, Technical Director, Digital Pictures**

For over 35 years, Digital Pictures has been Australia's premier film and television post production specialist providing post production, 3D stereoscopy, digital media, and delivery services to the Australian and international screen industry.
Digital Pictures has partnered with Australian and international clients to deliver a range of premium post production services on the following projects: James Cameron's DEEPSEA CHALLENGE from Great Wight Expedition Films, Killer Elite from Open Road Films, Don't Be Afraid of the Dark from Miramax Films, Sanctum 3D from Universal Pictures, The Pacific from HBO, Tomorrow When the War Began from Paramount Pictures, Ghost Rider from Sony Pictures Entertainment, Snowtown from Warp Films Australia, and Where the Wild Things Are from Warner Bros. Pictures.

THE CHALLENGE

The company's existing post production workflow involved time-consuming manual processes with high stock media and SAN storage costs. Requirements for an LTO archive and retrieval solution included the ability to quickly backup data, transcode to dailies, and view everything right out of a camera negative, while protecting clients' digital assets.

It was also important to find a solution for the RANGER Data Cart, a streamlined content management system designed to handle the data demands of a production in a mobile or remote location. Digital Pictures required a cost-effective, high-performance LTO LTFS workflow solution to increase efficiencies in their file-based pipeline that would help the company:

- Decrease time spent in post ingesting and digitizing film and tapes to DPX, and manually performing lengthy conform processes
- Reduce costs for stock media, SAN storage, and nearline disks used to house high-resolution files for the purpose of conforming for VFX and color grading
- Minimize form factor and maximize performance since they often deploy in the field with very little rack equipment
- Ensure format flexibility to manage multiple camera formats and editorial applications
- Tailor a solution, with support for unique and challenging client productions

Digital Pictures built a customized RANGER data cart for James Cameron's DEEPSEA CHALLENGE project, a historic solo dive to the deepest place on earth, the Mariana Trench, in the western Pacific Ocean. It was critical that the archive systems on the data cart be extremely reliable, as they would reside on a ship in the middle of the Pacific Ocean for approximately three months. "This was a very challenging and complicated project because it was a multi-camera shoot with every kind of file format you can think of." said Nic Smith, technical director for Digital Pictures.

THE SOLUTION

Since it supports the most popular camera formats and editorial applications for clients, Digital Pictures selected DNAevolution™ as their in-house and mobile LTO LTFS workflow solution. DNAevolution met the rigid performance requirements and was the only solution with the ability to conform directly from LTO tape. To meet the size and field deployment requirements, StorageDNA delivered a software-only solution that was installed on a Mac Pro® and connected directly to HP LTO drives.

By empowering the RANGER Data Cart with DNAevolution, Digital Pictures gives clients a fast file-based pipeline, combining dailies and post. The customized mobile cart for the James Cameron DEEPSEA CHALLENGE project included two DNAevolution systems running in parallel, each with dual HP LTO-5 drives, allowing the production team to run four archives simultaneously.

THE RESULT

"The DNAevolution LTO LTFS archive workflow has allowed us to save tremendous time and costs for our clients and our entire digital process has been transformed," continued Smith. "The personalized support from the StorageDNA team has been outstanding."

With DNAevolution, Digital Pictures has the capability to protect clients' digital assets and easily find and restore media when needed for a project. For the DEEPSEA CHALLENGE production, they were able to process massive amounts of data at accelerated speeds; archiving at over 500 MB per second. "DNAevolution allowed us to handle all of the camera formats, and conform all of the different kinds of media directly from LTO tape which was a huge time saver," said Smith.

"I feed DNAevolution the editorial timelines and it finds the appropriate high-res content and conforms it automatically" explained George Awburn, online editor, Digital Pictures. "Since we have invested in an autoloader, DNAevolution controls a robot to load the appropriate LTO, and restores the right content eliminating a long painstaking, manual process."

Cost savings

- Reduces SAN storage and nearline disk costs - full sequences are conformed directly from LTO tapes
- DNAevolution allows LTO tape to function as low-cost nearline storage
- Much less expensive than traditional tape formats; LTO tape saves clients 45% compared to the cost of 40 minute SR Tape (LTO contains approximately 900 minutes of ProRes 422 HQ at 25fps)

TV Series (ProRes)

Production Series 2:
72 LTO tapes used
RANGER Data Cart running
DNA Evolution (2 copies)

LTO cost savings on Series 2: USD $107,000

Time and labor savings

- Eliminates the need to ingest and accelerates the conform process
- Increases offload speeds by three times, (compared to other archiving systems used), by performing a parallel archive and checksum verification at the same time

"The DNAevolution systems were extremely reliable which was critical for the DEEPSEA CHALLENGE," concluded Smith. "We didn't have a single issue and never had to use the redundancy program written for us by the StorageDNA team."