

DAMsmart CASE STUDY

About DAMsmart

DAMsmart is Australia's leading specialist audio visual (A/V) digitization agency, delivering services to digitize most video, film, and audio formats, and deliver virtually any digital file for both commercial and preservation purposes. The company works with a range of private- and public-sector clients on a variety of projects, from very small collections that require specialist knowledge to large, automated mass-migration projects. DAMsmart operates under the belief that the only way to preserve and monetize media, and to share its cultural significance, is to convert it to a digital format.

To that end, DAMsmart created the SMART digitization platform, a sophisticated, large-scale A/V digitization solution that is the largest of its kind in the Southern Hemisphere. With the SMART platform and its automated digitization tools, DAMsmart has overcome the massive inefficiencies associated with manual processes for video migration from tape to digital files. It can migrate content from a wide range of analog video, audio, and film carriers into an array of digital formats. Its custom workflow and production capacity gives it the unique ability to migrate large amounts of content quickly and efficiently. In fact, DAMsmart has the capacity to digitize more than 100,000 hours of video and film per year – more than 17 years of non-stop footage.

“ Front Porch Digital’s SAMMA products help us increase our productivity and satisfy a vast range of requirements from our discerning clientele. Our clients demand a wide array of file formats for all sorts of uses, such as archiving, production workflows in various operating systems, and consumer-level viewing. SAMMA solo makes it possible for us to meet those demands. And thanks to SAMMARobot, we can migrate large collections en masse with quality control and high-quality encoding. ”



—Ron Anderson, Managing Director of DAMsmart

An advocate of open standards and the use of JPEG 2000 for preservation, DAMsmart has achieved unparalleled success and global respect for its video and film migration solutions.

In addition to its digitization operation, DAMsmart offers hosted digital asset management (DAM), whereby customers can store digitized A/V archives on enterprise-grade, secure servers without worrying about hardware, climate control, and disaster recovery. Customers can easily access and manage their collections via the Web, and have full search, view, shotlist, transcode, output, and delivery functionality.

Media companies, governments, museums, galleries, libraries, and corporations choose DAMsmart for their most demanding archive migration projects when they need to protect their valuable media assets and want a professional, reliable, and economical service. DAMsmart counts among its clients: AusStage, Australian Institute of Sport, The National Science and Technology Centre, National Archives of Australia, National Archives of Singapore, National Film & Sound Archive, Prime Media, National Gallery of Australia, National Library of Australia, and Parliament of Australia's Department of Parliamentary Services.

Finally, DAMsmart serves as a distributor for Front Porch Digital's SAMMA line of products in Australia and New Zealand.

The Challenge

DAMsmart's migration operation is impressive. And it has to be. Its discerning clients expect superior-quality, multiformat digitization of entire archives – no matter how large – in record time. After all, the film or videotape is degrading with each passing minute, and once it's gone, it's gone.

To deliver the service that discriminating clients around the world have come to expect, DAMsmart operates a 24/7 digitization process in which automation handles the repetitive tasks, and seasoned industry professionals handle the subtleties. The result is an almost infinitely scalable operation with significantly reduced labor costs per unit of migration. All while maintaining expert signal analysis and control.

Because of the wide array of clients and source material, DAMsmart's SMART digitization platform regularly switches among virtually all video and film formats, including 8, super 8, 9.5, 16, and 35mm film; and Betacam, DVC PRO, U-Matic, VHS, D-2, 1- and 2-inch videotape. From there it must convert that source material to the full spectrum formats, including JPEG 2000, MPEG-2 4:2:2/4:2:0 1-50 Mbps, MPEG-4 Part 10/H.264, Windows Media®, Adobe® Flash®, and more. And it must be able to do it all on the fly, so that it can deliver on its promise to convert even the largest commercial archives quickly and efficiently.

With an operation this large, diverse, and demanding – and with so much history and potentially money-making content at stake – DAMsmart needed to incorporate a fast, reliable, high-performance video migration system into its existing workflows that could withstand the demands of its 24/7 operation. And because DAMsmart switches among so many profiles during migration, the system had to be capable of migrating and encoding content into the various file formats that clients request for a range of uses, such as archiving and production workflows in various operating systems, as well as formats for viewing at the consumer level.

The Solution

Front Porch Digital's SAMMA film and videotape migration platform was the ideal system for the job, and DAMsmart's team of highly experienced A/V technicians configured the SAMMA products to integrate seamlessly into the existing workflow. SAMMASolo is a single-stream migration solution that supports a wide variety of videotape formats on input, and then produces any of DAMsmart's three different digital output files simultaneously in real time. (SAMMA itself can deliver up to five.) The system offers integrated workflow solutions that digitize content and analyze the quality of the source tapes. SAMMARobot is an automated high-throughput migration system that provides up to 1,000 hours per week of videotape content conversion. The SAMMARobot can be loaded with batches of between 48 and 80 videotapes, depending on format, and can migrate up to seven tapes simultaneously, each with its own settings for error detection and multiple digital file outputs.



In addition, SAMMA provided the encoding power DAMsmart needed via Digital Rapids encoding cards and software. Front Porch Digital integrated the Digital Rapids solutions into SAMMASolo because Digital Rapids had a more comprehensive SDK, and its codec support was the widest by far. By leveraging this integration of Front Porch Digital's SAMMASolo migration platform and Digital Rapids encoding solutions, DAMsmart gets the benefit of the most useful codecs and wrapper formats, including Adobe Flash, Apple® QuickTime®, Windows Media, MPEG-4, MPEG-2, IMX, and MXF.

Now DAMsmart runs 16 SAMMASolo systems, seven of which run continuously using SAMMARobot configured to encode from Betacam SX tapes to the IEC DV format in an MXF wrapper.

There are also nine standalone, semi-automated SAMMASolo systems configured to encode in the varying formats requested by DAMsmart's clients, such as lossless JPEG 2000 in MXF for the National Library of Australia, or DV25 in MXF for Prime Television Australia. Video streams are constantly monitored and checked through the SAMMASolo software, multiviewer screens, and DAMsmart's in-house file quality checks.

Files are written to uncompressed TAR on LTO4, transferred to NAS for delivery to the customer, or hosted in DAMsmart's digital archive.

Advantages/Benefits

Front Porch Digital's SAMMASolo migration system, with its integrated Digital Rapids encoder, makes it possible for DAMsmart to migrate large collections with the quality control, uniformity, high-quality encoding, and wide range of video inputs and output formats that its top-tier clients demand.

SAMMASolo integrated easily and seamlessly into the workflow on DAMsmart's SMART platform, and it enables DAMsmart to keep the migration and encoding part of the process running smoothly, reliably, and efficiently even in the demanding environment of a 24/7 operation.

SAMMA's metadata-recording capabilities could help DAMsmart attract new customers. SAMMA's metadata output has a wealth of technical information that is recorded as a matter of course, which means DAMsmart can offer a rich set of metadata as part of its service package. That offering is an attractive selling point for preservation organizations, museums, and others that rely on historical data to track content.



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