

Front Porch Digital
DIVAsolo™



FRONT PORCH DIGITAL

The past, present and future of media

Front Porch Digital Solutions

The Challenge of VideoTape Migration to Digital Files

As forward-thinking content owners, broadcasters and media operations move to file based infrastructures, they all face the challenge of converting their vast videotape archives into digital formats. For most, the time and costs to digitize content have been significant barriers to migration efforts. Those who attempt manual migration projects quickly find that this approach is too slow and too expensive to sustain. Even teams working in shifts around the clock may take years to complete the task. In the meantime, valuable historical, cultural and creative programming remains at risk as the videotape archive inevitably deteriorates.

Automation is the only answer, and Front Porch Digital provides it: DIVAsolo

VideoTape Migration and Digital Preservation

The DIVAsolo solution from Front Porch Digital uniquely combines the necessary building blocks to enable accelerated and cost efficient migration of the largest video archives in the world. DIVAsolo offers a direct migration path from legacy videotape to protected high density data tape. DIVAsolo includes the following:

- DIVArchive™: The global market leader in content storage management for the broadcast and media industries. Installed at more than 280 facilities in over 55 countries around the world, this best of breed application is unmatched in functionality, reliability and scalability.
- SAMMA Solo™: The world's first semi-automated videotape migration appliance, which enables high volume encoding and metadata collection in an efficient and cost effective way.
- DIVAdirector™: Search, view and manage archived content from any desktop through this intuitive media asset management application.

By combining these best of breed technologies along with all the necessary server and storage hardware, Front Porch Digital empowers content owners to begin the move to a highly scalable, dynamic and protected asset infrastructure and permanently remove the burden of videotape archive access and preservation.

The Choice of Encode Formats Made Easy

The many decades-old problem of videotape deterioration can be overcome once the migration step is embraced and content moved to a file based form. As was the case with selecting the correct videotape format in the past, content owners are faced with a similar choice regarding what encoding format to select. DIVAsolo helps make this decision simple by offering the flexibility of choice including formats for different applications.

Format choices are broad, ranging from uncompressed, through lossless JPEG2000 compressed for archive, to MPEG-2, DV for editing, WM9 and H264 proxy viewing. Because the DIVAsolo system can simultaneously generate these multiple essence formats in real-time, tremendous time savings are achieved by migrating multiple formats at the same time.

Migration, Movement and Management of Valuable Assets

As a videotape is loaded into any VTR connected to the system, the DIVAsolo solution automatically cues the tape and performs a sequence of automated steps to migrate the content:

- Video/audio content is ingested into multiple file based formats simultaneously in real-time with source timecode preserved
- Metadata detailing the health and quality of the videotape is captured for later reference
- Alarms are raised if any problems are encountered during the ingest process relating to video/audio levels, tape dropouts, RF levels, etc. and can be used to halt the ingest process if desired
- High resolution content is automatically moved to nearline spinning disk and then to high density LTO data tapes within an automated robotic system
- Low resolution proxy versions of the content are moved along with the metadata to the web based, media asset management system for desktop access
- Once complete, the next videotape can be immediately loaded and the process repeats

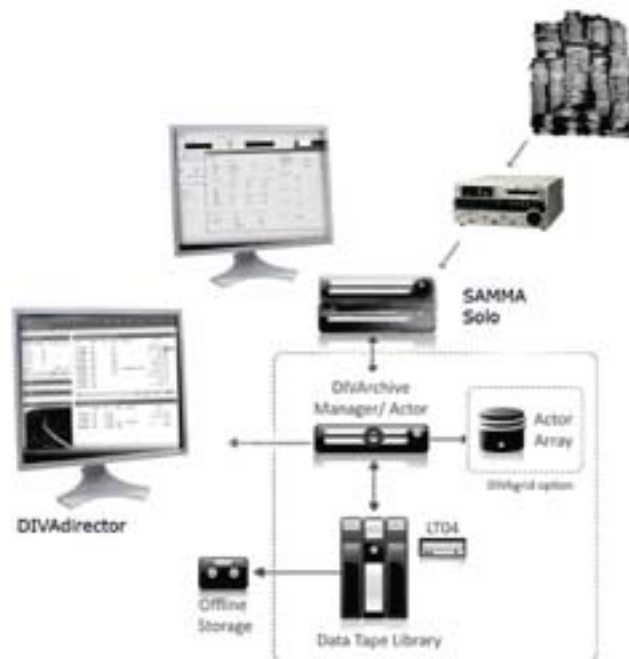


Figure 1

The Value of File Based Content Storage Management

DIVAsolo leverages the power of DIVArchive content storage management (CSM) system to provide seamless and limitless storage and protection of these encoded assets – now and in the future. The solution combines RAID protected spinning disk and a generous amount of LTO based data tape storage in a robotic library. Also part of the solution is a near infinite amount of “offline” storage allowing full data tapes to be placed on a tape shelf while their content is still actively tracked by the system.

With little or no human intervention required, DIVAsolo guarantees migration to newer data tape formats at rates many times faster than real-time. You no longer need to concern yourself with the shelf life of old media or its quality degradation as content can simply be migrated to newer technologies as the need arises.

Accessibility – The Key to the Solution

DIVAsolo leverages the power of our media asset management system – DIVAdirector – to enable users to access years of legacy content previously housed on dusty videotape shelves directly from their desktop computers.



Figure 2

This browser-based solution is fully integrated with DIVArchive, and grants unprecedented access to previously inaccessible videotape content directly through the desktop from data tape or disk-based archives. With frame accurate, low resolution proxy browsing and a fully definable metadata model your users can easily search, browse and generate shot lists of migrated content and perform timecode based partial restores for these segments for repurposing leveraging the underlying power of DIVArchive. These high resolution segments can be restored directly to any supported editing platform for editing or directly out to another device for playout or reuse.

DIVAsolo Solution Components

Solo System

The Solo multi-encode platform includes many key features and offers significant benefit over manual or home grown solutions:

- Versatile multi-encoding solution for the migration (ingest) of videotape based content
- Can handle tapes in any original format (1", U-Matic, Betacam, VHS, etc.)
- An intuitive system allowing simple load, cue and press go operations
- A single pass on the source video tape can create a preservation (master) copy in uncompressed or lossless compressed format, a working (mezzanine) copy at medium compression plus a number of frame accurate low resolution proxy copies for browsing
- Low resolution versions can include watermarks if desired
- Encoder supports many formats including uncompressed, JPEG2000, MPEG-2, DV, Flash, MPEG-1, Windows Media with AVI, Quicktime or MXF wrappers
- Automatic monitoring of the ingest process, detection of source material issues (prolonged black, videotape drop outs, etc.) on a frame by frame basis
- Generation of a continuous metadata report on tape encoding conditions as the migration is progressing

DIVArchive System

The DIVAsolo system includes all of the core features of the DIVArchive CSM solution and comes bundled with the following advanced features:

- Monitoring of up to four Solo encode platforms for automatic archive of all generated essence formats
- Unlimited media externalization support for near infinite data tape storage capacities
- Import/Export support to allow movement of data tapes between DIVArchive systems regardless of their location
- Storage Plan Manager (SPM) for automatic content replication and content lifecycle policies
- Support for timecode based partial restore for one essence format (Uncompressed, JPEG2000, MPEG-2 or DV)
- Full nearline, archive and offline storage support
- Oracle database for robust asset tracking
- Interface for up to four Solo multi-encode platforms
- VACP control for automation system interface
- DIVArchive API for MAM (or other) system control
- Object Transfer Utility for manual drag and drop archive and restore operations
- SNMP support for automated facility wide monitoring

DIVAdirector System

The DIVAdirector web based media asset management system provides the following advanced features:

- Interface through Internet Explorer
- Five floating user licenses (expandable to 50)
- User definable metadata model
- Powerful search tools
- Frame accurate low resolution proxy browsing
- Shot list creation with Avid/FCP support
- Shot list based partial restore on the associated high resolution content for simple repurposing
- Built in security and user access control
- Shot list, query and workbin collaboration
- Automatic Solo metadata import
- Direct import of user generated metadata
- Automatic keyframe generation and thumbnail support
- Direct metadata import from external systems (optional)

DIVAsolo™ Hardware Included in Bundle System Solo Multi Encoder Platform

- Analysis Engine to generate technical metadata
- 4RU Solo Multi Encoder Server
- JPEG2000- Hardware Encoder Board
- Multi-Resolution Encoder Board
- VTR RS422 Control
- 1TB of Cache Storage
- Analog and digital input support

DIVArchive/DIVAdirector Server

- Single 2RU Dual Quad Core Server
- Mirrored System Disks
- 3TB of RAID5 based nearline disk storage
- Dual GBE interfaces
- Redundant Power Supplies

Data Tape Robotic System

- 24 Slot Library (19TB Capacity)
- Single LTO4 Data Tape Drive
- SCSI Direct Connect to Host Server
- Single Import/Export Slot for Media Externalization

Support and Warranty

- One Year Hardware Support Included
- One Year Software Support Included

DIVAsolo Optional Components

Additional Solo Engines

Up to four Solo multi-encoder platforms can be added to a single DIVAsolo package solution allowing for significant increase in migration performance.

Onsite Installation and Training

Front Porch Digital can offer onsite installation, commissioning and training services as required. The DIVAsolo™ bundle is intended for easy installation and configuration can be handled by remote connection if onsite support is not required.

Automatic Analysis of Past and Future Performance

DIVAsolo presents your system administrator with information regarding the performance history of all drives and media as well as a forecast of their future performance. Reports can be generated relieving the administrator of the painstaking and manual analysis of the storage system.

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