



Petabyte-Scale Data Management for Petabyte-Scale Computing

The petabyte-scale computing made possible by today's supercomputers creates petabyte-scale data management challenges for scientists, researchers and storage administrators. Atempo Digital Archive protects and preserves research data throughout scientific workflows, and optimizes capacity as storage demands increase. Whether you're managing an international supercomputer facility or a university research group, Atempo Digital Archive scales to fit your performance and capacity needs. With Atempo, your research data will be protected and remain accessible—not only during analysis, but also perpetually in a long-term archive.

Preserving All Research Data, from Raw Data Sets to Published Results

Atempo Digital Archive protects and preserves research data from the moment it is acquired until decades later, when the data, analysis and results may be needed again for new research. Atempo Digital Archive can be configured to detect newly ingested data and immediately archive it to protect from accidental loss. On archive, all metadata related to the data set is indexed, so researchers can search for data based on more than a file name or location. Moving completed projects off of file servers immediately not only saves valuable storage space, it also prevents file system performance degradation. Atempo Digital Archive offers a drag-and-drop interface that makes it easy to archive or retrieve groups of files to and from the archive's hierarchy in one step.

Maximizing High-Performance Storage

With scientists using higher resolution imagery and increased sample rates, storage systems are filling to capacity more quickly than ever. By migrating files between tiers of storage, Atempo Digital Archive can match the data's access needs to the appropriate

storage tier. Atempo Digital Archive allows you to safely clear out the high-performance storage knowing that you can quickly and easily retrieve data from the archive when it's needed again. Flexible archive and retrieval mechanisms allow archive access from any device in the network—to and from virtually any storage system, any workstation or any archive media.

Highly Scalable for Data-Intensive Research

What's sufficient today may not be for next year's broad-based research initiatives. Atempo Digital Archive has proven scalability to petabytes of data, so it can effectively manage the massive data sets generated by applications like particle physics, genomics and climate modeling. Atempo Digital Archive can be configured with dedicated data movers that operate at tens-of-terabytes-per-day rates, keeping workstations and file servers out of the data path so researchers are not slowed down even as capacities climb. Atempo Digital Archive also offers a single-instance storage capability that stores a file once, regardless of how many references of it have been archived.

Key Features and Benefits

Atempo Digital Archive (ADA) is an open archive software solution with automatic, end-user, and workflow-triggered archiving. Atempo Digital Archive migrates content from primary storage to near-line and deep archives, whether digital tape, disk or cloud storage. Unlike HSM-only solutions, Atempo Digital Archive provides rich search and retrieval capabilities—from a drag-and-drop UI to stub files to metadata search.

User Initiated Archive

ADA provides a simple drag-and-drop interface so your users can archive and retrieve projects without assistance from an administrator. Based on permissions, users can archive files into personal or project-based directories, and retrieve projects archived by others to their local work area—not just to the original project location.

Automatic Archive

Atempo Digital Archive offers a built-in HSM functionality that automatically migrates files based on policies you set up specifically for your workflow. The migration criteria can be configured to consider file location, file type, creation date, last access date and more.

Open, Flexible Solution

Atempo Digital Archive has the ability to archive from a broad range of file systems and storage devices. It also uses the non-proprietary TAR format to write to tape, making the archive open and readable without proprietary software. Multiple archive and retrieve options, coupled with a flexible archive structure and access controls, make it the solution of choice for a wide range of environments.

High Performance Workflows

To prevent performance bottlenecks, ADA can be configured with dedicated data movers. These data movers keep workstations and central file servers out of the data path so users are not slowed down, even as capacities climb past the petabyte level. The access to archived media can also be virtualized for load-balancing and fail-over. Full fiber channel configurations are supported and single instance storage eliminates archiving redundant files.

XML Ingest

Atempo Digital Archive provides an advanced archiving method that enables users to archive files from nearly any application or digital asset management tool able to generate an XML file. This functionality can take the generated XML file, extract the necessary information and metadata and run the archive which offers unlimited archiving possibilities.

Support of Video File Formats

ADA offers dedicated support for MXF and DPX file formats. These formats are used for exchanging metadata linked to audio and visual content and are becoming industry standards. In addition, ADA enables the restoration of the full or only a selected portion of an archived MXF file. This key functionality saves time when only part of an asset is needed.

Compatibility

End-user Interface Operating Systems: Microsoft® Windows®, Mac OS®, Java® for UNIX and Linux® Platforms

ADA Server Operating Systems: Microsoft Windows, Mac OS, Linux, UNIX

Application Plug-ins: Apple File Cut Server, Apple Final Cut Pro, Avid® Interplay®

Shared File Systems: Apple Xsan, Quantum StorNext, Sun Lustre, Tiger Technology metaSAN

Platforms Supported as Primary Storage: Microsoft Windows, Mac OS, Linux, UNIX, NAS, EMC® Celerra® unified storage systems, NetApp® FAS series filers, Avid Unity MediaNetwork, Avid ISIS® 5000 & 7000, BlueArc Mercury, BlueArc Titan

Archive Devices & Media Supported: Disk, tape, WORM. HDS HCP, EMC® Centera®, Dell® DX6000. Cloud storage: Nirvanix™ SDN, EMC® Atmos™, Permabit® Cloud Storage. Permabit Enterprise Archive™.

Refer to the Atempo Compatibility Guide for the current list of supported systems.



About Atempo

Atempo enables organizations to protect, manage, archive, and recover digital information simply and effectively, across any infrastructure, on any platform, over any period of time. Atempo's portfolio of integrated software solutions simplifies the management of data throughout its entire lifecycle. Atempo serves thousands of customers around the world through a sales and support network of over 200 resellers and partners.

Learn more at www.atempo.com