



CASE STUDY

Imperial War Museums digitally preserve the history of modern war indefinitely with Spectra Logic archive

“When we set out on our search to find a storage solution capable of preserving Imperial War Museums’ substantial digital archive, there were specific criteria on which we were not willing to compromise. Spectra met all of our requirements and then some, and now continues to deliver with StorCycle’s storage lifecycle management capabilities.”

Ian Crawford, Chief Information Officer, Imperial War Museums



Spectra StorCycle, BlackPearl and T950 tape library



About the UK Imperial War Museums

IWM (Imperial War Museums) tells the story of people who have lived, fought and died in conflicts involving Britain and the Commonwealth since the First World War. IWM’s five branches attract over 2.5 million visitors each year and house a collection of over 10 million objects. The branches are IWM London, which will open extensive new Second World War and The Holocaust Galleries in October 2021; IWM North, housed in an iconic award-winning building designed by Daniel Libeskind; IWM Duxford, a world renowned aviation museum and Britain’s best preserved wartime airfield; Churchill War Rooms, housed in Churchill’s secret headquarters below Whitehall; and the Second World War cruiser HMS Belfast.

The Challenge

IWM is home to hundreds of thousands of films, videotapes, audio recordings and photographs that must be preserved forever but won’t last on their original media. They currently store an archive of around 750,000 digital assets, which amass a total of 1.5PB as uncompressed files. Their digital asset collection includes 5,000 film and video scan masters – a continually growing collection which is scanned and digitized from donated VHS and Umatic tapes (nitrate and celluloid film) before it becomes unliabile and disintegrates. They also have a collection of 100,000 audio masters dating back to the 1930s, nearly 500,000 image masters and thousands of lower resolution versions (access versions for commercial and web use) of the above assets. New scans in their film collection generate an additional 10TB of data per month, and the videotape scanning project is expected to create another 900TB over four years.

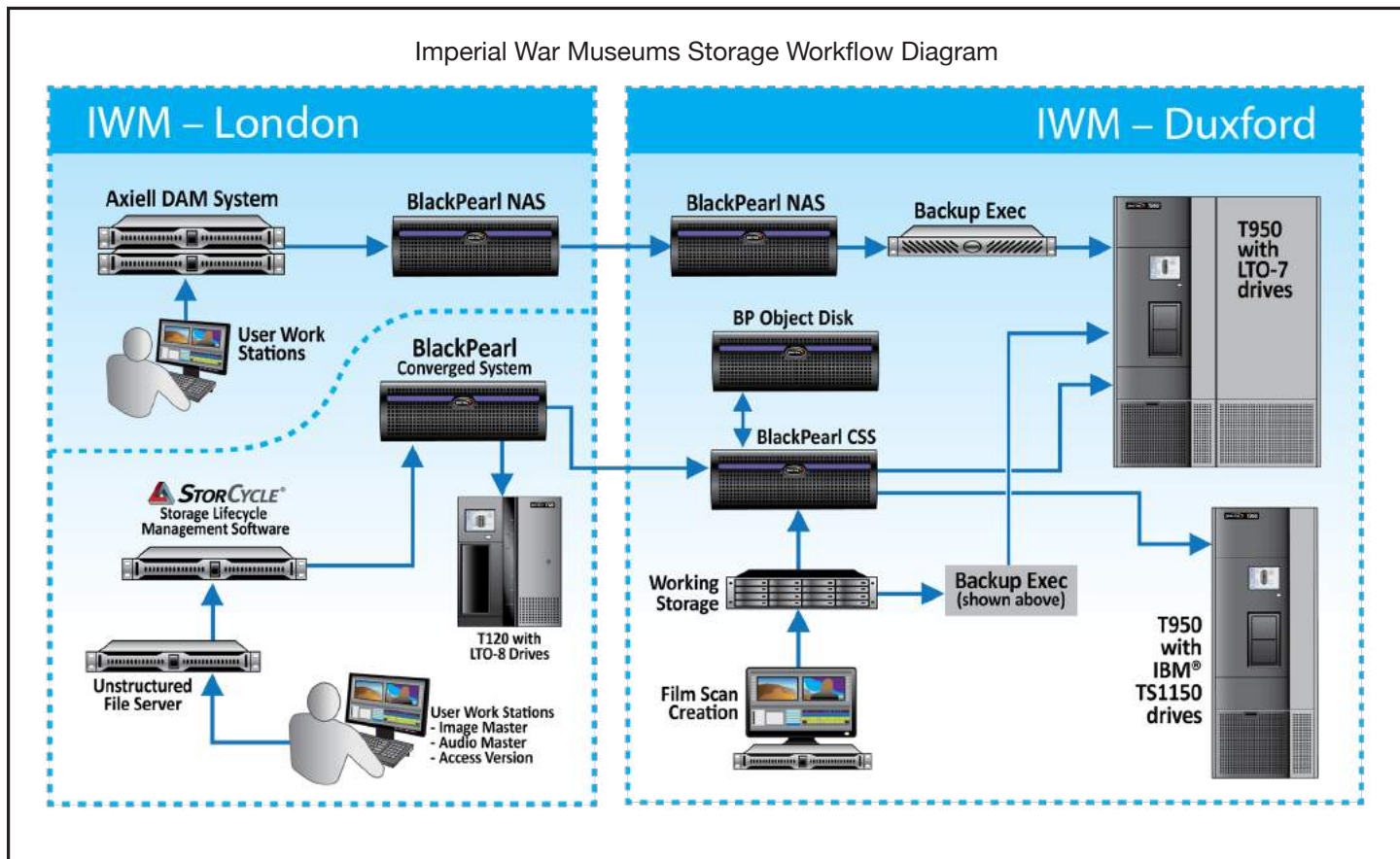
When it came to preserving their content, Imperial War Museums (IWM) had been facing issues regarding reliability, insufficient capacity and longevity of support with their previous storage solution. It was important that they find a solution that would not only satisfy their organization’s needs, but offer an investment that could be leveraged into the future as their archive and data storage needs grew.



A British munitions factory during World War I... from the IWM website.

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Imperial War Museums Storage Workflow Diagram



Environment Snapshot

- Spectra StorCycle® Storage Lifecycle Management Software
- Spectra BlackPearl® Converged Storage System
- Spectra BlackPearl® Object Storage Disk
- Spectra BlackPearl® NAS
- BlackPearl® Eon Browser
- Spectra® T950 with LTO-7tape drives
- Spectra® T950 with IBM® TS1150 tape drives
- Veritas BackupExec

The Solution

The IWM's current archive infrastructure consists of two Spectra T950 Tape Libraries, one with LTO-7 tape media and drives, and one with IBM® TS1150 tape media and drives, along with a Spectra

BlackPearlConverged Storage System, BlackPearl Object Storage Disk and BlackPearl NAS solution.

They run two primary workflows in this environment. The first are the master film scans, which comprise the bulk of their data (1.2PB). Master film scans are rarely accessed and stored on tape via Spectra's BlackPearl, a modern object storage solution that moves data into multiple storage targets based on pre-set policies and can replicate remotely or locally to other BlackPearl systems. Per IWM's policies, two copies of the scan data are stored, one to each tape library on different tape media. End users are able to search and retrieve this data using Spectra's Eon Browser software.

IWM's second workflow stores everything else on enterprise disk, their Spectra NAS. Audio masters, image masters and access versions are simply shared with users on

standard shared folders on the Spectra NAS. The NAS solution offers a very dense capability of drives so there's plenty of opportunity for expansion.

All of their files are backed up to tape. The primary backup uses the BlackPearl and Object Storage Disk to write data to both libraries at the same time. IWM also runs a secondary backup with BackupExec, which sends master film data to a partition in the LTO-7 library.

Recently, IWM decided to leverage their investment in the Spectra hardware that was in place for their digital asset archive to help their audiovisual and exhibitions departments offload primary storage. They deployed Spectra's StorCycle, a storage lifecycle management software that scans and identifies inactive data outside of the digital asset management applications and moves it to a Perpetual Tier of storage.

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StorCycle will scan these departments' primary storage for specific attributes, in this case identifying media file types older than two years and with more than 1GB in size. StorCycle then moves these files automatically to tape via BlackPearl, offloading primary storage and saving space and money.

Spectra's complete solution offers IWM the capacity, reliability and product longevity they sought for an extremely affordable price, and is backed by Spectra's efficient, award-winning support services.

Why Spectra?

- Reliability
- Ease of Use
- Exceptional Support
- Tape's Capacity and Scalability
- Product Longevity
- Effortless data migration, access and preservation with StorCycle
- Cost-effectiveness

Solution Recap

Spectra StorCycle Storage Lifecycle Management Software – StorCycle is a storage lifecycle management software that automatically identifies and moves inactive data from primary storage to a lower cost tier that includes cloud, object



“ Spectra's StorCycle storage lifecycle management software empowered us to move our data into reliable long-term storage, offloading our primary storage and preserving media files and unstructured data all with the push of a button. ”

Rob Tyler, IT Infrastructure Manager (DAMS), Imperial War Museums

storage disk, network-attached storage and object storage tape. Users can manually archive project-based directories and make additional copies for data protection. Providing seamless, familiar access and recovery of single files or entire projects, StorCycle enables organizations to manage, share and preserve their data for unparalleled long-term protection and access.

Spectra BlackPearl Converged Storage System – BlackPearl solves the problem of costly and complex approaches to digital preservation by combining multiple standard interfaces and storage targets into a simple and affordable solution designed for diverse workflows. It allows content to move seamlessly into online/nearline disk, tape, and private and public cloud storage in a way not previously possible. Designed for growth, the purpose-built system breaks away from traditional and legacy solutions that are based on licensing models, enabling

organizations to confidently store exabytes of digital assets forever for pennies per gigabyte.

Spectra Enterprise Tape Libraries –

Spectra enterprise tape libraries are designed for growth, as they accommodate the storage requirements of organizations in every state of their lifecycle. When data growth requires more slots than the library's current capacity, Spectra transfers the components of the existing library and puts them in a larger chassis. As data needs expand, all that changes is the outgrown frame.