

Cameron Mackintosh Archive, 2017

Case Study: Digitisation and storage of our video collection

Why we were doing it

The Cameron Mackintosh Archive has some 1900 video recordings, which are in outdated formats such as Beta, VHS, NTSC, U-Matic. There was an urgent need to digitise these because:

- Many of the tapes are an unstable format that will deteriorate to such an extent that the footage will be lost
- The equipment needed to play these formats is becoming increasingly hard to find
- The footage needs to be in a format that is quickly and readily accessible for use when required by Cameron Mackintosh, marketing and other departments and by the offices in New York and Sydney as well as by outside TV companies
- It is a valuable archival record of Cameron Mackintosh's shows that will become an increasingly important documentary and research source about his role in twentieth century musical theatre history

What we did

The collection

The carrier formats to be digitised were varied but consist mostly of magnetic tape, of which VHS is the most common:

VHS: 379	Beta: 197
1" C Reel : 6	Ampex Cartridge: 7
16mm Reel: 5	U-Matic: 33
35mm Reel: 13	DVCam: 87
HDCam: 4	

The majority of these videos had been watched and the contents logged in Excel spreadsheets to item level, so in the main the descriptive metadata required for each video already existed. In some instances material was viewed at the BFI to supplement, clarify or create new catalogue records. The spreadsheet catalogues are arranged by show; each spreadsheet was reviewed to select items for digitising. Preservation and access needs drove the prioritisation of material, and where multiple copies of one item existed the original or best quality format was chosen. Approximately 33% of the collection was selected for digitisation and a small number of low-priority materials were transferred to DVD in-house.

Digitisation

We visited other archives that had recently undertaken digitisation projects and gathered information about digitisation companies as well as archival standards for the management of digital material. Many useful case studies, advice and other resources were found via Digital Preservation Coalition and The National Archives. We arranged face-to-face

meetings and site visits with a shortlist of recommended digitisation companies who had experience working with archives.

Our shortlist included: Max Communications, GreatBear Analogue and Digital Media, Stanley's, PearlScan and National Motor Museum Beaulieu.

Our technical requirements were:

- Capture each tape 1:1 into an uncompressed AVI file format for preservation
- Transcode to Pro Res HQ Pal 'broadcast' format
- Transcode to H264 Mp4 'viewing' format

These formats were chosen in discussion with the digitisation companies whilst also bearing in mind the type of files and software our colleagues and partners use for video editing.

Storage and access

The CML servers were reaching overload and the IT department did not have the resources to deal with the management of the large digital video files that would be created. There was also a desire to start using an electronic cataloguing system to replace existing excel spreadsheets. Therefore our initial research into digitisation was tied into looking at digital preservation solutions and catalogues including end-to-end proprietary packages and open-source options. Systems we looked into included: Arkivum, Preservica, Goobi, ArchivesSpace, AtoM, Archivematica and Soutron.

We visited clients of these systems including HSBC Archives, Lloyds Bank Archives, BT Archives Norfolk Record Office and the Wellcome Library, attended user group meetings and had face-to-face meetings with reps from each system to discuss our requirements and see demonstrations.

Our priority was to make the material accessible for internal use; however we wanted to keep the option open to share our catalogue with the wider public in future.

Solution

Max Communication offered to provide us with a hosted storage and catalogue service using Amazon Glacier cloud storage and AtoM. This was a suitable solution for us as it relieved pressure on our IT resources whilst ensuring our data is secure and accessible.

Due to time pressure and based on their areas of specialist expertise we decided to spread the digitisation work amongst three companies; Max Communication to digitise VHS, GreatBear to digitise all other magnetic tape formats and Beaulieu to digitise film materials. Max offered to work as 'gatekeeper' of the materials and ingest all digital files and associated metadata from other companies into the cloud storage from temporary hard drives. We devised a consistent technical metadata spreadsheet to supply to each company to ensure the workflow was as smooth as possible. Max are also importing all of our existing descriptive metadata (for the entire archive) from excel spreadsheets into AtoM. They are hosting, maintaining and backing up the system for us on a contract, which will be reviewed on a yearly basis.

The workflow is as follows:

1. Max import our descriptive metadata into AtoM
2. Digital files and associated metadata are sent to us from GreatBear and Beaulieu via a temporary hard drive
3. We quality check the files and track them in a spreadsheet before sending them to Max Communication
4. Max ingest all files (including the files they have also digitised) into cloud storage
5. Max upload 'viewing' copies of videos to associated catalogue records on AtoM

What's next?

The initial 'set-up' of the hosted service is due to be completed by the end of August 2017.

The following tasks are either ongoing or yet to be completed:

- Ongoing work with Max's metadata expert to cleanse our existing catalogues and adapt as necessary in order to import into AtoM
- Continuing work with Max to customise the user end of AtoM and establish user rights and access permissions before going 'live'
- Retrospective import of born digital and digitised material from shared drives/hard drives into the cloud and attach viewing files to AtoM records
- Digitisation of cassette tapes – we have hundreds of cassette tapes, the plan is to digitise these and make them available as we have done with the videos in this project

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