AIATSIS archival with multiple Bluefish444 IngeSTore products

The **Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS)**, is an independent Australian Government statutory authority. Their vision is a world in which Aboriginal and Torres Strait Islander knowledge and cultures are recognised, respected, celebrated, and valued. AIATSIS are Australia's only national institution focused exclusively on the diverse history, cultures, and heritage of Aboriginal and Torres Strait Islander Australia.

AIATSIS cares for a growing collection of more than 1 million items encompassing films, photographs, audio recordings, art, and objects, printed and other resource materials. The Institute is responsible for conducting research to the highest ethical standards, directly benefiting the communities we work with.

The Institute's partnerships span the globe, including government, academic, corporate, cultural and community sectors. AIATSIS' unique and dynamic convergence of knowledge, resources, and expertise enable them to tell the nation's story and enhance the lives of all Australians.

In 2001, AIATSIS launched a Pilot Digitisation Program. Since then, the Institute has continued to prioritise the digitisation of the collection. One program priority is to digitise and preserve the audio-visual collection currently on endangered magnetic tape formats by the 2025 deadline set by UNESCO.
Tom Eccles is an archivist with AIATSIS. In the mid-1980s he worked for Colour Film laboratory in Sydney and relocated to Canberra in the late 1980s to work at the National Film and Sound Archives in the Film Preservation laboratory.

In 2001, the initial digitisation set-up at AIATSIS was extremely basic, however following an extensive procurement process, a broadcast quality video and telecine studio was established to digitise the extensive and significant audio-visual collection. The AIATSIS vaults now contain over 28 analogue and digital video formats with a growing collection of 35mm, 16mm and 8mm film.

Today, the AIATSIS digital and analogue video assets are digitised using Bluefish444's IngeSTore software package as a portable workstation and rack-mount video server. The mobile workstation was first purchased in 2019 to digitise video for the First Nations Media Unit based in Alice Springs.

The IngeSTore portable workstation can simultaneously capture via RS422 from 4 VTR and digitise the files to multiple archival formats directly to 8 TB of internal SSD storage. When digitising from analogue video sources, AIATSIS used the Bluefish444 ANA140 mini converter for its highest quality format conversion between analogue A/V to Digital A/V. The portable IngeSTore workstation has provided all the video digitisation conducted by the Collection Care, Preservation and Digitisation (CCPD) team at AIATSIS, encoding uncompressed video to JPEG2000 (J2K) Lossless codec files in MXF from over 12,000 hours of video assets.

In 2020, AIATSIS requested Bluefish444 repurpose two Dell R440 Servers into IngeSTore rack mount servers. To this end, Bluefish444 fitted two 4K Neutrons, IngeSTore software with the J2K license, upgraded the system Memory and installed an NVIDIA Quadro GPU. Bluefish444 also performed quality assurance testing and delivered the two Dell Servers to AIATSIS as plug and play units with six simultaneous channels of VTR digitisation capacity.

Tom Eccles, AIATSIS Team Leader for Moving Image, extensively uses the optional IngeSTore Net Access web client software in the video laboratory. Net Access can be run on any local or private networkconnected device to control multi-channel IngeSTore archives remotely. Net Access supports every feature in IngeSTore except an alternative UI and runs as a web client instead of a desktop application.

The use of Net Access is an ideal workflow for dealing with sensitive gender-specific content as the ingest archive can be monitored from another networked location, and the main viewing screen in the video room can be turned off. AIATSIS finds the Net Access GUI is less flexible and sophisticated than the IngeSTore desktop software, but overall, Net Access has been very straightforward to set up and start encoding. Furthermore, AIATSIS has been able to provide valuable real-world feedback to Tom Lithgow, the Bluefish444 Product Manager for IngeSTore feature roadmap planning.

Tom Eccles, AIATSIS Team Leader – Moving Image says;

"The Bluefish support team has been excellent. Problems are dealt with in a timely manner. The team is efficient, and the advice is clear and easy to follow. Overall, we have been extremely satisfied with our relationship with Bluefish444."

"We trialled the IngeSTore portable workstation in 2019 for use in remote locations and to provide a backup to our aging video ingest system. The flexibility of the portable workstation impressed the AIATSIS team as it allowed us to keep digitising the collection during months of building renovations when the main lab was closed."

AIATSIS initially found that the version of JPEG2000 provided by IngeSTore needed to be compatible with the existing library of digitised preservation files. The team at Bluefish444 were notified, and working closely with AIATSIS over several months, managed to upgrade the CODEC license to be compatible with the existing library of J2K files. This level of support has been maintained throughout the relationship with the Bluefish444 team. Any problems have been addressed and a solution has been found quickly.

The team at AIATSIS acknowledge that the IngeSTore UI could have more features and be laid out differently. All feedback received from AIATSIS has been taken on board by Bluefish444 and developed as part of the IngeSTore 1.2 update due in Q1 2023.

In June 2022, AIATSIS purchased a proprietary Bluefish444 four-channel IngeSTore Server and another ANA140 analogue to mini digital converter taking AIATSIS's investment in IngeSTore for archival to 14 simultaneous channels and 3 ANA140 mini converters since 2019.

Tom Eccles, AIATSIS Team Leader – Moving Image, says about the future of video archives: *" We expect analogue SD video to become more difficult to support over the next five years. Parts are difficult or impossible to find along with the disappearance of experienced engineers to service the older players."*

"We expect an increase in digital video tapes simultaneously, but we feel confident that Bluefish444 IngeSTore will allow us to keep ingesting archival videos up to 2K resolution. We hope to take more advantage of the multi stream feature as we move into ingesting digital Betacam."