Moving the past
to the future

For Österreichischer Rundfunk (ORF),
the Austrian national public service broadcaster,
it was time to end the costly and unproductive
cycle of continual media format migrations.

Like every established public service broadcaster, ORF are the guardians of a unique and valuable
repository of national importance. With their DiMi – Digital Migration – project, ORF sought to
establish a process which would both end the cycle of costly media format transfer and make
these precious resources readily available for future program makers and audiences.

ORF

AtoS

> "The ORF archive documents over six decades of Austrian contemporary history - in all aspects of economic, political, cultural, sporting and everyday life."

Mag. Herbert Hayduck
ORF Head of Documentation and Archives

Background

The ORF multimedia archive contains well over one million hours of video content. Around 30% of this was stored in IMX or digi-beta formats. The background story will be familiar to any well-established media company. Since the 1960s, ORF has been continually transferring content from outdated media formats while adding up to 50 hours of new material every day.

This continually growing archive presents clear operational challenges. Both in Vienna and in regional facilities, the archive occupies significant space. In addition, as tape formats become superannuated, ORF is left needing to maintain recording and playback devices beyond their useful life, incurring additional wasted expense.

But perhaps most importantly, browsing archive content is near-impossible for program makers, which means that most assets lie unused. And when material is requested, the physical process of locating, dispatching and eventually returning the asset is time-consuming, expensive and places valuable content stored on fragile media at risk.

Time to change

ORF decided that it was time to break this cycle. It was time to turn the physical tape archive into a file-based resource; to reduce archive space dramatically; and to make access to archive material for program makers direct and affordable.

They identified an initial tranche of 300,000 hours of content - or 600,000 individual tapes - for transfer to file format. It would then be possible for the new file formats to be made directly accessible via the existing ORF content management systems.

Most tapes, once transferred and quality-checked, could then be disposed of, thereby continually reducing the physical volume requirements of the traditional archive space. This important initiative became the DiMi – or Digital Migration – project.

Partnership and approach

To implement DiMi, it was important for ORF to identify a partner who could be relied on to deliver this significant workload, on time, on budget and to the required quality. It would also be necessary to ensure that the partner could undertake the task without interrupting the day-to-day workload of the established archive. As an existing IT service provider to ORF, Atos had already established a reputation for precision, reliability and adaptability. Atos responded to the ORF open public tender for the archival project, and won the bid on both approach and price.

Taking into consideration the importance of working closely with the existing archive team over an extended period, ORF required Atos to establish a dedicated DiMi team and workshop in Vienna. This resource would then perform to clearly-defined throughput schedules and costs. Offshoring was never an option for this initiative: the team would need, for example, to be able to recognize famous Austrian names and faces. But even if offshore had been a viable alternative, the in-country Atos team were still able to deliver at keenly competitive prices.

The team would meet an agreed average throughput of 82.5 hours-a-day, 365 days a year, and deliver to an agreed standard cost per-minute. Demonstrable quality was a key condition for the project, and for this reason, Atos decided against a purely robotic transfer mechanism. By mixing automation with staffed quality control, Atos has been able to deliver an exceptionally consistent level of output quality.

This quality has not only been appreciated by ORF. The many other German language media companies using the ORF archive find it more agile and responsive than ever before. Other media companies have also stated that DiMi outperforms systems currently used in other German language stations.

Both ORF and third-party users are impressed not just by the quality of the new file-based archive content, but also by the efficiency of all associated processes.

Essential agility

The volume of material in scope for the DiMi project is massive, and the delivery schedule is long and incessant – this is a ten-year project. The Atos team and process were set up from the start to deliver with industrial regularity. But it must achieve this while also offering a remarkable degree of agility. If, for example, a tranche of material becomes an unscheduled priority, then it must be possible to re-arrange job queuing at short notice. To achieve this degree of flexibility demands not only that the 10/15-strong team can be quickly augmented, but that all team members understand not just the techniques required, but also the ORF business objectives and priorities. Running a bank of 16 VTRs, the normal five-day working week runs quality control from 08.30 to 18.00 with continual ingestion between 07.00 and 22.00.

About ORF

- Austria's public service broadcast organization since 1955
- Headquartered in Vienna, with full network of regional studios
- Spans TV, radio and online services, with 4 TV and 12 radio channels
- Commands up to 35% of TV and 70% radio market share
- Competition from 100+ media channels

Logs and surprises

Digitization of the individual tape logs is an essential part of the process. These logs form the basis for the classification needed for ORF to exploit their content management systems for subsequent search and retrieval. DiMi takes full advantage of the VidiCert automated quality management tooling. Vidicert was evaluated by ORF prior to preparing the specification and was then named as an option during RFP. DiMi is the first instance of VidiCert being used in an ORF production environment.

The actual process of logging reveals happy surprises too. Content, for example, which has been transferred in the distant past from early film or audio stock, can be revealed in this latest wave of transfer to file formats. This rare footage of the Vienna State Ball is just one example of the hidden jewels revealed during the DiMi project.

Status and strategic aspiration

ORF and Atos are now in the second year of this ten-year project. To date, the team has transformed some 40 thousand hours of the archive's 300 thousand hours of tape archive to the new and sustainable file formats. Atos is right on schedule with this significant workload. The content transferred is already benefiting both program makers and social and scientific historians and academics, from whom this material was previously all but hidden.

At the same time, the project is reducing the load on existing archival requirement and ensuring that current standards become a sustainable platform for future use. But perhaps even more importantly, DiMi is contributing to the online future of ORF. As non-linear programing gains in popularity, for both program makers and viewers alike, easy access to content search and display becomes a routine expectation.

"The seamless integration of all process steps in the workflow is a prerequisite for continuous output, which we achieve regularly and reliably. The Digital Migration project is a strategic investment for future ORF programs and for Austria's cultural memory."

Mag. Herbert Hayduck
ORF Head of Documentation and Archives

Workflow and technical resources

Studio to decide placement according to layout.

The DiMi workflow

Atos DiMi workshop profile:

- 16 VTRs running in parallel
- 8 workstations (ingest and VTR control using NOA FrameLector)
- 3 servers for MXF rendering using NOA MediaButler server for MXF standard check
- 4 servers for automated content QC using VidiCert Analyser
- 5 workstations for manual content QC using VidiCert Summary
- 1 server for MAM synchronizing and data an Atos customized software
- 1 database and workflow management server using the NOA JobDB workflow management tools
- 10 Gbit/s server network
- 1 Gbit/s client network

About Atos

Atos is a global leader in digital transformation with approximately 100,000 employees in 72 countries and annual revenue of around € 12 billion. European number one in Big Data, Cybersecurity, High Performance Computing and Digital Workplace, the Group provides Cloud services, Infrastructure & Data Management, Business & Platform solutions, as well as transactional services through Worldline, the European leader in the payment industry. With its cutting-edge technologies, digital expertise and industry knowledge, Atos supports the digital transformation of its clients across various business sectors: Defense, Financial Services, Health, Manufacturing, Media, Energy & Utilities, Public sector, Retail, Telecommunications and Transportation. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos Consulting, Atos Worldgrid, Bull, Canopy, Unify and Worldline. Atos SE (Societas Europaea) is listed on the CAC40 Paris stock index.

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