



AES

SWISS SECTION NEWSLETTER

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INFORMATION ON NEXT MEETING

DSD vs PCM - Principles and comparison

Wednesday, 10th of March 2004, 17h00 - 19h00, at Hochschule der Künste Bern
(HKB), 13d011, Papiermühlestrasse 13d, 3000 Bern

SPEAKERS:

Claude Cellier, Merging Technologies	Principles and characteristics DSD/PCM
John Goldstraw, Metropolis, London	Working in both formats

ORGANIZERS:

Roger Scherrer, J+C Intersonic AG
Attila Karamustafaoglu, Swiss AES Section

LANGUAGE: English

Until just recently everything was clear, we had good old analogue as well as digital. But now there seems to be a war going on between known digital (PCM) and new digital (DSD). The goal of this seminar is to stand back and objectively see what both technologies/formats really are.

Claude Cellier, President of Merging Technologies, will give us the theoretical background on both formats. We will find that both have their pros and cons.

John Goldstraw, Head of Technical Development, gives us an inside view into the production side of things. What is important when working in those formats and what differences exist between them.

Additionally to the AES event there will be listening sessions throughout the day where everybody can try to hear a difference between DSD and several PCM converters. Do the theoretical pros and cons really count or is it only an academical thing?

Please contact Roger Scherrer (ros@jcentersonic.com) for subscription for the listening sessions during the day.

Subscription for the meeting in the evening can be made as usual at the Swiss AES Section website (www.swissaes.org) or with the aid of the enclosed subscription card. As usual, there will be a dinner after the meeting.

REPORT ON PREVIOUS MEETING

SIRANAU Project

Thursday, 12th of February 2004, at the Radio Suisse Romande, Lausanne

SPEAKERS: Jean-Pierre Molliet, RSR
Gérard Saudan, RSR
Ralf Dahler, RSR

REPORTER: Patrick Boehm, TSR

LANGUAGE: French

About 50 participants gathered at the Swiss Radio RSR in Lausanne to attend the meeting about the Digital Audio Archiving project called SIRANAU. After the presentations the participants were invited to visit the RSR computation centre. The meeting ended with an aperitif on the RSR premises, followed by the usual optional dinner in a restaurant nearby.

Radio Integrated System for Digital Audio Archiving (RSR document)

In 2001, the French-speaking Swiss national radio RSR decided to acquire a specific system dedicated to the storage and control of its audio and multimedia productions.

Between 1993 and 2000, traditional means of production were gradually replaced with digital production tools. The sounds are stored in computer servers for each radio station (including the information one), and can be listened to, edited and broadcast from workstations. The archiving of these productions is carried out today manually using recordable CD or MOD discs. These solutions are slow and not very reliable. A rationalisation of the production line goes through the introduction of tools dedicated to long term storage and through the re-use of audio contents without physical back-up manipulation.

This is indeed the aim of the project SIRANAU, which has been developed since the end of 2001. Its main functionalities can be summarised as follows:

- Loading from production systems of the digital audio or multimedia files (with metadata) destined for archiving
- Control of archiving workflow (identification, candidates' acceptance or refusal, information supplement, archiving transfer) with the option of content consulting: sound, picture, etc.
- Detailed archiving of all sort of accepted files (spoken word or musical sound, sound effects, picture, video, text)
- Document search, through a whole range of detailed criteria over the entire set of stored files, as well as in the physical back-up already available (import of content of the old database Basis). SIRANAU must be the unique source for every document search.
- Consultation of digital files in low resolution from any of the RSR workstations
- Control of audio files reloading destined to be re-used in production systems.

As regards audio production, SIRANAU will be able to store about 4500 hours of sound every year. The "source" files coming from production systems, at 256 kbit/s, are linked to a XML metadata file. They are stored as they are to be directly re-used, and saved in RealAudio format (for pre-listening) and in linear BWF format (for secured long term storage). A format for Internet distribution (such as MP3) could be added later.

The technical solution is based on the following elements:

- Various Compaq servers under Windows 2000 Server
- Range of EMC2 Clariion hard discs (1 TB in first step)
- Infinistore storage robot from Grau, with Sony AIT2 tapes (10 TB in first step)
- Oracle database
- Thesaurus Rex 2 documentary application from Question d'Image
- Interface modules with production systems developed by Dalet
- Client systems developed by Cap Gemini Ernst & Young on the workstations dedicated to professional users (researchers)
- Web search and consultation interface for all RSR staff

The network infrastructure is the heart of a storage area network (SAN), which could be extended later with the aim of storing various production systems.

The main integration of the SIRANAU system has been entrusted to the society Cap Gemini Ernst & Young, who had already done such a study on database system architecture.

In a later step, SIRANAU will completely replace the current Basis documentary databases. It will become the search and central control tool for every content on physical as well as digital back-ups. It will be also able to open up to Internet, in order to issue digital documents selectively, either for free in low resolution or for a fee in higher resolution. A preferential access to partner institutions interested in the conservation of broadcasting heritage is also planned.

In addition to its role of multimedia and sound contents rational management, SIRANAU will be able to create a real tool of Asset management, notably by including all the data about the rights related to them.

Finally, as a tool of digital conservation, SIRANAU will be able to receive the audio documents issued from the digitization of the very rich Radio archives. This operation is already undertaken with the support of MEMORIAV (association for the conservation of the Swiss broadcasting heritage). It will contribute in guaranteeing content conservation - now dependent on deteriorating back-up media - and shed new light on irreplaceable documents.