

PrestoSpace - Audio Restoration Subsystem

based on Cube-Tec technology

PrestoSpace

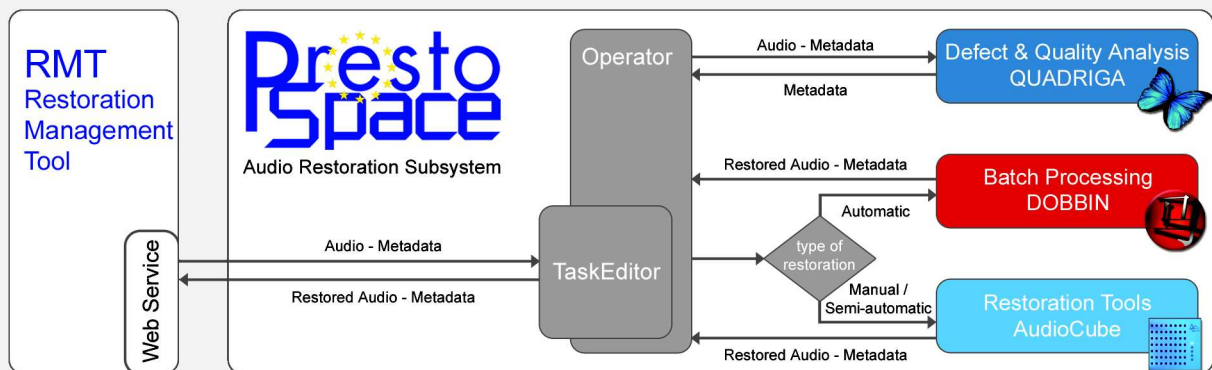
PrestoSpace is a European IST research project in the 6th frame program. The project leaders are INA, BBC & RAI.

The PrestoSpace project has been promoting the concept of a 'Preservation Factories' as a better way to preserve Europe's audiovisual heritage. Cube-Tec was chosen as the Project Leader for the PrestoSpace Audio Restoration Subsystem and as the main Research & Development partner for Audio Restoration.

The aim of PrestoSpace is to push the limits of the current technology beyond the state of the art, bringing together industry, research institutes and stakeholders at European level to provide products and services for bringing effective automated preservation and access to Europe's diverse audiovisual collections.

Project was started in Feb 2004, the project ends at Jan 2008. The project is financed by European Union with 9 Million Euro.

PRESTOSPACE



Audio Restoration Workflow

- Automatic receipt of the actual list of files selected in RMT for sound restoration.
- Automatic execution of Defect & Quality Analysis with QUADRIGA's Audiofile-Inspector technology
- Decision on the adequate audio restoration workflow by the operator
- Fully automatic, semi-automatic or manual restoration of the soundfile until the operator is satisfied with the result
- Return of the restored soundfile together with the metadata to the RMT for storage and access.

Defect & Quality Analysis

The PrestoSpace Audio Defect & Quality Analysis is based on QUADRIGA's Audiofile-Inspector technology. It is designed for automated monitoring and logging of digitised audio files. It automatically creates technical parameters of archival significance.

Automated detection of

- Audio drop outs
- Clipping
- Clicks
- Hum
- Signal to noise ratio
- Azimuth
- Phase
- Analog distortion

PrestoSpace stands for "Preservation towards storage and access. Standardised Practices for Audiovisual Contents in Europe".



PrestoSpace - Audio Restoration Subsystem

based on Cube-Tec technology

DOBBIN

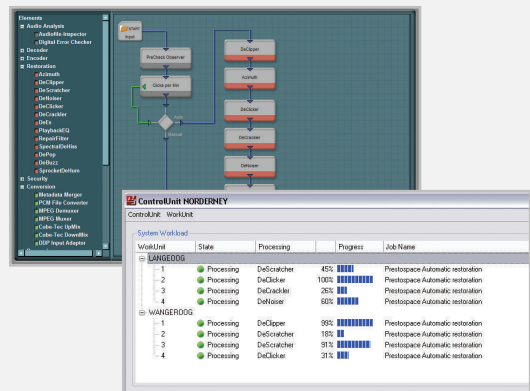
DOBBIN is a distributed, fully scalable, high-availability audio-processing and rendering engine, created to fully automate file management, rights management and media processing functions for large on-line collections. DOBBIN will supervise parallel automated batch-processes based on media availability, conditional branching using internal or external criteria, database integration and more.



Processing/supervision functions include audio file integrity, normalization, sample-rate conversion, format conversion, encoding / transcoding, watermarking and other sophisticated signal processing functions.

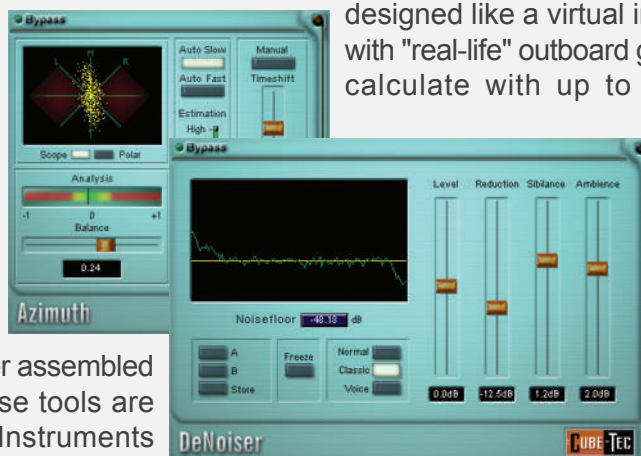
Automatic Restoration

- Intelligent, automated Analysis and Restoration
- Dynamic self adaptive workflow
- Conditional branching
- Supervision of parallel automated batch processes
- Distributed, fully scalable hardware and software system
- Multiple complex rendering jobs at the same time
- High-availability audio rendering engine
- High speed restoration



Manual & Semi-Automatic Audio Restoration

The PrestoSpace sound restoration workstation is based on Cube-Tec's famous AudioCube system, which is used by the world's most respected restoration engineers. The AudioCube is a multi-channel, 192 kHz / 32 bit integrated audio workstation, offering the most comprehensive selection of professional audio production tools ever assembled in a single platform. These tools are called Virtual Precision Instruments (VPI's) and define the state of the art in sound restoration.



Offering the highest level of accuracy in digital signal-processing, the VPI user-interface is designed like a virtual instrument, associated with "real-life" outboard gear. All VPI's internally calculate with up to 64-bit floating-point resolution. Many of them include innovative features and capabilities not found elsewhere, and all VPI's utilize special algorithms to provide varying degrees of adaptive signal processing.