OVERVIEW OF THE FULL ADVANTAGE AD PRODUCT RANGE

An overview of the Advantage Audio Description / Video Description product range and typical workflow.

Audio Description (also known as Video Description or VI) is an additional audio commentary that is available alongside normal TV program sound. It is used to describe key elements of activity such as action, body language, facial expressions, costume or scenery. It is provided primarily for the benefit of blind and visually impaired people.

Audio Description (AD) was first used in the USA with analogue television transmissions in the 1980's.

AD was included as one of the ancillary-service requirements of the 1996 UK Broadcasting Act for Digital Terrestrial Television (DTT).

Starfish engineers began developing AD technology in 1999 and since that time Starfish AD products have evolved through collaboration with users. Today, Starfish offers a complete product range that can build a complete file-based AD workflow.

The basic requirements of an AD system are:

Authoring – an offline process to create a script, and then record an AD commentary with appropriate fade information and timecode reference. This set of information is stored in an industry-standard interchange file format.

Broadcasting – audio file processing and real-time delivery of the AD signal as part of a broadcast channel output.

Audio Description is typically delivered in either of two forms:

An alternative programme audio track that is user-selectable and has already been pre-mixed with normal programme audio.

A mono AD audio track and an associated 'control track' that is used to create the final listener audio via user-adjustable controls in a TV receiver or set-top box (Receiver Mix).

Authoring

Starfish developed the Advantage Authoring workstation software specifically for this application and to create a set of industry standard AD files. This authoring process involves the user scripting and then recording segments of commentary at appropriate times in the programme.

Advantage Authoring software supports video files in most common browse formats including Windows Media, MPEG-1, MPEG-2 and H264. It creates an Extended Subtitle Exchange Format (ESEF) and DFXP file that contains the script of each spoken segment of AD, with a timecode, and a reference to the separate WAV file for each segment.

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File Compilation

Depending on the type of AD deliverable required, Starfish offers an Advantage Compiler application to process an ESEF and WAV file set to create one or more of the formats below:

Pre-Mix – accepts a WAV file of the original programme audio, and an ESEF file with its associated set of AD WAV files. Using the timecode reference and dip & fade information in the ESEF file, it creates a pre-mixed audio WAV file consisting of dipped program sound with the AD descriptions added.

DTT – processes an ESEF file and its associated WAV files to create an output file that contains a mono commentary WAV on the left channel, and a matching 'control track' (warble track) on the right channel of a stereo pair.

Mono – processes an ESEF file and its associated WAV files to create an output file that contains a mono AD commentary WAV, with either 48 kHz or 44.1 kHz sampling rates.

For existing AD files recorded on an audio archive system, Starfish offers the DTT DeCompiler – a software application that processes DTT input audio from a real-time source (such as a DAT tape) and produces an ESEF file and the corresponding set of WAV files.

File Conversion

The Advantage File Converter provides a number of audio file conversion utilities including Cinema release 24 FPS to Video 30 (or 25) FPS, 44.1 kHz to 48 kHz sample rate and 16 bit to 24 bit resolution. It can operate on an ESEF file with associated WAV file set, or on stand-alone WAV files.

File QC

An ESEF file Quality Checking application that can run as a standalone service, or is incorporated into an Output Compiler, to verify files before processing.

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