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future
- with you and for you!

DIGITAL RADIO

Multi-Realtime Audio Coding Software



ISO/MPEG Layer II reference encoding and decoding software on Intel® Pentium® CPUs, and Motorola® 5630x DSPs – one of the world's fastest encoder

ISO/MPEG Layer II is a worldwide standardised coding system for audio applications. It is widely used in professional audio applications.

Our library - one of the world's fastest - contains the renowned and internationally reputed IRT audio encoding algorithm, and, therefore, is predestined for use in the area of digitization and archiving. It encodes, decodes and/or transcodes your audio data in multiple real-time on your Intel® Pentium® (compatible) CPU (CPU for real-time: ≥ 100 MHz), or Motorola® 5630x DSP (DSP for real-time: ≥ 50 MHz). Further implementations on request.

The library performs the calculations from memory to memory (only RAM; no audio data I/O by the software itself) – any audio data I/O is covered by your application programme.

We deliver the codec as a static (*.lib), or dynamic (*.dll) library. It can easily be integrated into your products.

Reference quality

IRT's codec emerged as best implementation of MPEG 1 Layer II in the frame of international tests at CCIR and ISO. It is the MPEG 1 Layer II encoder with reference quality since now more than 15 years.

Key features

- Meets or exceeds MPEG 1 Layer II standard (ISO/IEC 11172-3)
- Supports Lower Sampling Frequency (LSF) according to MPEG 2 Layer II standard (ISO/IEC 13818-3)
- Supports all common PCM data formats
- ISO/IEC data rates:
MPEG 1: from 32 to 384 kBits/s
MPEG 2: from 8 to 160 kBits/s

- All operation modes: single channel, stereo, joint stereo, and dual channel
- Encoder: Encoding algorithm applies IRT's internationally reputed psycho-acoustic model
- Decoder: according to above mentioned standards (compliant with encoder)
- Transcoder: optimised transcoding from any MPEG Layer II to any other MPEG Layer II format
- Translator: converts any commonly used PCM data format (8, 16, 24 bit quantisation; sample rate, operation mode) to any other such format

Supported sampling frequencies

- All ISO/IEC sampling frequencies: 48 kHz, 44.1 kHz and 32 kHz
- ISO/IEC-MPEG 2 Lower Sampling Frequencies: 24 kHz, 22.05 kHz, 16 kHz
- Ultrahigh sampling frequencies: 96 and 192 kHz
- Sampling rate conversion: Additionally supported: 12 kHz, 11.025 kHz, and 8 kHz

Multi-track mixer

The optional mixer software complies with the same ISO/IEC specifications as IRT's MPEG codec software, incl. the lower sampling frequency (LSF). The

mixer supports all four possible transformations: linear to linear, linear to MPEG Layer II, MPEG Layer II to linear, and MPEG Layer II to MPEG Layer II.

You can mix any amount of audio input tracks with any format (PCM or MPEG Layer II). In this context be it said that the mixer performs no sample rate conversions.

During the mixing process a delay compensation is performed to mix all input signals in the correct time line (MPEG Layer II channel vs. PCM channel delayed).

The amplification and the panorama values of each input and output audio channel can be changed on the fly. During the mixing process it is possible to retrieve for each frame and channel information on the signal level.

The real-time mixing of, for example, four input audio tracks requires approx. 166 MHz processing power.

Further Information

Please contact us for further details, or with regard to your special requirements on the codec.

We are looking forward to your enquiry.



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