

Dolby Digital Plus Pro

The Ultimate Audio Experience

Powerful encoder and decoder libraries for creating and processing AC-3 and E-AC-3 audio streams with up to 7.1 discrete channels, incl. transcoding functionality.



The Dolby® Digital Plus Pro SDK Packages support Dolby's surround sound technology that delivers high-quality digital audio for up to 7.1 discrete channels. This standard is also known as E-AC-3. Dolby Digital Plus Pro is the sound for DVD's successor Blu-ray Disc. Moreover, it supports the new interactive formats BD-Live and BonusView, where additional content is streamed to you Blu-ray Disc device while watching content from an inserted disc, such as trailers, background comments, interactive games or other exclusive features. It offers a significant better quality in comparison to a similar bitrate when using other Dolby Digital technologies. It is the upcoming standard for broadcasted HDTV channels, IPTV solutions, A/V system support etc. It will be one of the major standards for satellite, cable and broadcast content delivery in the near future. Besides EAC-3, the encoder and decoder are able to create and process AC-3 audio.

Although Dolby Digital Plus Pro is a relatively new standard, the underlying base is the ATSC A52 Revision B specification. It is backward compliant to other Dolby Digital decoders.

The Dolby Digital Plus Pro SDK comes with the Dolby transcoding functionality that allows users to transcode E-AC-3 and AC-3 audio to any other supported Dolby audio format (AC-3 or E-AC-3), and keep the metadata that is available in the stream. User still have the opportunity to access the PCM data directly.

The Dolby Digital Plus Pro SDK features the renowned Evolution Framework and Intelligent Loudness Correction to fulfill Dolby's requirements for proper metadata processing.

MAINCONCEPT DOLBY DIGITAL PLUS PRO SDK PACKAGES

DOLBY DIGITAL PLUS PRO ENCODER SDK

Dolby Digital Plus Pro Encoder with AC-3 and E-AC-3 support.

DOLBY DIGITAL PLUS PRO DECODER SDK

Dolby Digital Plus Pro Decoder with AC-3 and E-AC-3 support.

MainConcept Dolby Digital Technology Comparison:

	Dolby Digital Consumer	Dolby Digital Plus Pro
Dolby Format	AC-3	AC-3 & E-AC-3
Output bitrates	64 to 640 kbit	32 kbit to 6 Mbit
Sample rates (Hz)	48000	32000, 44100 or 48000
Channels	5.1	7.1
Discrete channel support	No	Yes
Core Plus extension	No	Yes
Metadata support	No	Yes
Usage areas	DVD, IPTV, HDTV channels, etc.	Blu-ray, Bonus View, BD-Live, IPTV, HDTV channels, Apple HLS, MPEG-DASH, etc.
Encoder control	Basic	Full control
Algorithm complexity (CPU, MIPS, Memory) requirements	Low/Medium	High
Advanced volume control leveling	No	Yes
Flexibility and control of Bandwidth	Limited	Wider range
Flexibility and control of Audio reproduction	No	Yes

Please note that you have to be a Dolby® licensee, i.e. you have to be registered at Dolby, in order to evaluate the MainConcept Dolby® Digital Consumer SDK. Otherwise, we cannot provide you with an SDK for evaluation.

FEATURES

- Encodes PCM audio streams to E-AC-3 and AC-3 audio streams.
- Supports output bit rates from 0.032 to 6.144 Mbit/s.
- Support for 32000, 44100 or 48000 Hz sample rate.
- Supports up to eight audio channels.
- Dolby-to-Dolby transcoding functionality correctly linking together Dolby decoding and encoding components.
- Preserve metadata and allow access to PCM data in transcoding process.
- Offers transient pre-noise processing.
- Includes enhanced channel coupling.
- Support for adaptive hybrid transform processing.
- Supported by HDMI™ for high-definition audio and video transmission.
- Support for Dolby's Evolution Framework and Intelligent Loudness Correction for proper metadata authoring and processing.

COMPONENTS

DOLBY DIGITAL PLUS PRO ENCODER SDK

Dolby Digital Plus Pro Encoder

DOLBY DIGITAL PLUS PRO DECODER SDK

Dolby Digital Plus Pro Decoder

TECH SPECS

- **Microsoft® Windows 7, Windows 8, Windows 10 (64-bit)**
- **Apple macOS 10.6 or newer, (64-bit)**
- **Linux Ubuntu 14.04 LTS and CentOS 7.2 or newer (64-bit)**

For Windows, macOS and Linux, the Dolby Digital Plus Pro SDK (Software Development Kit) consists of a Low Level API (in the C programming language) as well as DirectShow filters for decoding and encoding Dolby Digital (AC-3) streams as well as Dolby Digital Plus E-AC-3). The decoder filter can be used by any DirectShow® application (e.g. Windows® Media Player).

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