

MPEG-2 Software Video Codec

www.streaming-networks.com

Optimized for Philips Nexperia™ media processors (with TriMedia VLIW processor core)



ISO compliant

Strict adherence to ISO standard

High Quality

Near broadcast Quality Bitrates upto 6 Mbps and frame rates upto 60 frames

Optimized

Fully optimized core for high performance

OVERVIEW

The fully ISO-compliant Streaming Networks MPEG-2 software video codec brings professional-level video encoding and decoding to embedded systems that require a low memory footprint.

Optimized for use with the Philips Nexperia family of media processors (with TriMedia VLIW processor cores), the software codec is flexible, scalable, cost-effective, and easy-to-use.

FUNCTIONALITY

The codec supports bit rates ranging from 1.5 to 8 Mbps and includes options for generating full-resolution, high-quality video streams. The codec can be used with a variety of image sizes and types, ranging from one-half D1 (352x480) to full D1 (704x480).

Frame rates are specific to individual applications and are influenced by factors such as image size, image quality and available bandwidth, but the codec typically delivers an interlaced frame rate of 60 fields per second.

HIGH-VIDEO QUALITY

The encoder function delivers quality that rivals hardware solutions. It uses state-of-the-art motion estimation algorithms and adaptive rate control, and supports constant and variable bit rates (VBR). For VBR operation, both the average and the peak bit rates can be specified – the encoder adjusts the quantizer automatically.

RELIABILITY

A well-documented, easy-to-use application programming interface (API) is included with the codec. The API lets developers control library behavior and provides all the functionality for frame capture, encode/decode, and display. It also supports pre-processing filters such as median filters, low-pass filters, and de-interlacing filters.

KEY FEATURES

- Fully ISO-compliant MPEG-2 software video codec for
 - Embedded systems with low memory footprint
 - Philips Nexperia family of media processors (with TriMedia VLIW processor cores).
- High-quality output bitstreams
 - Fully compliant with MPEG-2 (IS/IEC 13818-2), MP@ML
- Range of bit rates
 - 1.5 to 8 Mbps\
 - VBR/CBR encoding
- Range of image sizes and types
 - Up to 704x480 lines selectable in height and width in steps of 16
 - One-half D1 (352x480)
 - Two-thirds D1 (480x480)
 - VGA (640x480)
 - D1 (704x480)
- Fast frame rates
 - Progressive: 30 frames per second

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