

MPEG-2 Main Profile Encoder/Decoder

High quality, high speed, low power consumption

Powered by original computing algorithm "DMNA" based on mathematical methods

1 Abstract

- Techno Mathematical has developed a software encoder/decoder that complies with MPEG-2 Video (ISO/IEC 13818-2).
- By incorporating the proprietary computer algorithm "DMNA" it achieves high-speed processing with lower power consumption compared to general free software such as libavcodec's MPEG-2 Video.
- Efficient parallel processing delivers superior throughput for environments requiring real-time playback and low latency processing.
- Even at higher speeds, it maintains high image quality without compromising clarity or detail, providing stable video quality.
- MPEG-2 Video can be used in a wide range of applications, including digital broadcasting, digital video cameras, and HD network distribution systems.
- It also supports high-definition video such as Full HD, and **simultaneously delivers stable, high-quality image, high-speed processing, and low power consumption.**

MPEG-2

2 Features

- Equipped with proprietary computer algorithm "DMNA"

It significantly reduces the computational load, achieving both high-speed processing and low power consumption.

- High-speed encoding

It is not affected by the number of B frames and achieves stable, high-speed processing under various encoding conditions, making it ideal for real-time applications.

- Maintaining high image quality

Despite its high-speed processing, it provides stable image quality without compromising image clarity or detail.

- High-Speed Decoding

Efficient parallel processing enables real-time playback and low latency processing.

- Flexible implementation

Its unique, simple C API makes it easy to incorporate into a variety of systems.

3 Specification

Supported standards	MPEG-2 Video (ISO/IEC 13818-2) compliant
Profile/Level	Main Profile/High Level
Image format	YCbCr420 (8bits) Planar format
Stream format	ES (Elementary Stream)

CONTACT

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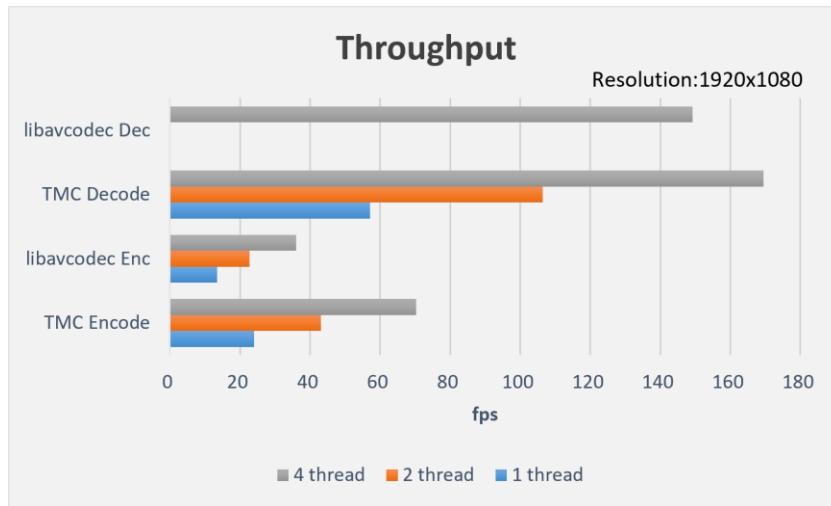
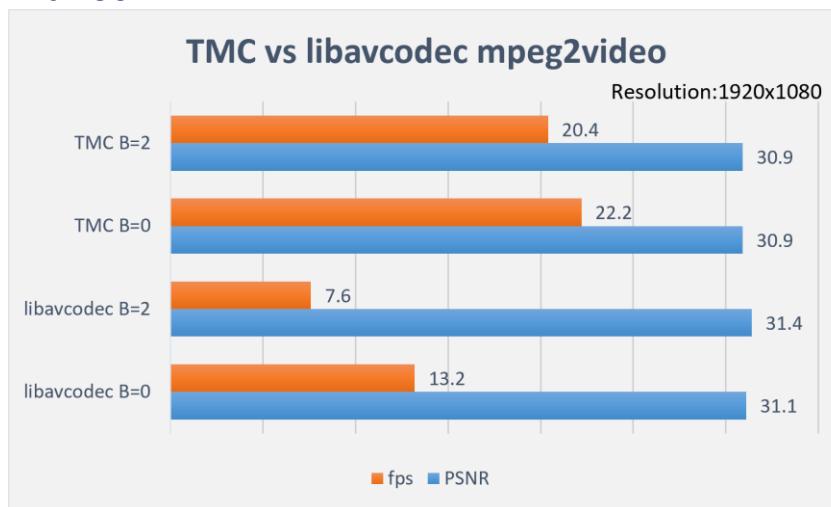
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Resolution	Up to 1920x1088
Supported CPU	ARM Cortex-A (32/64 bit)
Number of threads	1 to number of CPU cores
OS	Linux
API format	C API (proprietary)

4 Performance



- Compared to Libavcodec Mpeg-2 Video, **it is approximately 40% faster without B frames (B=0) and approximately 60% faster with B frames (B=2)**.
- The increase in processing load due to the number of B frames is small**, enabling stable, high-speed encoding.
- Excellent parallel processing performance **provides high throughput**.

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