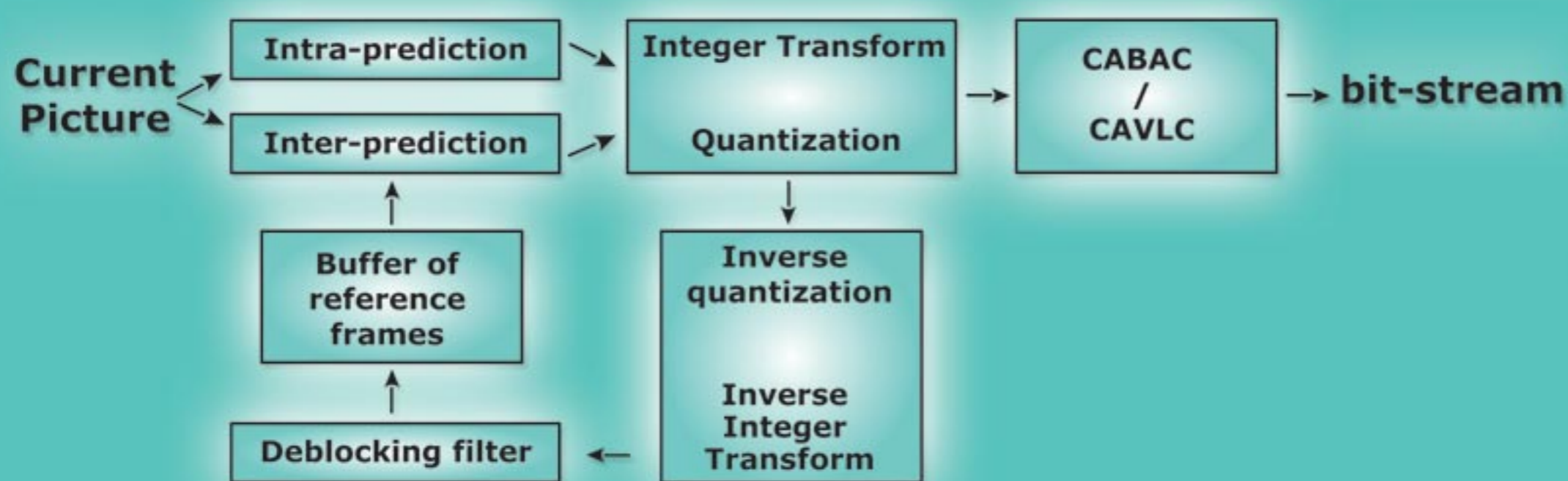


H.264

MPEG-4 Advanced Video Coding Decoder



Best quality
Lowest bitrate

FEATURES

- ISO 14496-10
- Main Profile
- Baseline Profile

PLATFORMS

- PC
- Embedded (C64x, DM642)

PROJECT SUPPORT

- Application engineer assistance
- Training
- Customized Hardware / Software support







Boasting high quality for low bitrate, H.264 / MPEG-4 part 10 overcomes the limitation of bandwidth while addressing the needs for high quality video. ATEME offers H.264 decoder for the PC and the embedded worlds.

Our engineering services can adapt our off-the-shelf or build them from the ground up to fit your specific design requirements.



Performances

Following Benchmarks were achieved with a preliminary version of the decoder.

Stream	Platform	125 kbps	500 kbps	1000 kbps
	x86	684 fps 4.4 % CPU	463 fps 6.5 % CPU	343 fps 8.7 % CPU
	x86	663 fps 4.5 % CPU	385 fps 7.8 % CPU	293 fps 10.2 % CPU
	x86	449 fps 6.7 % CPU	294 fps 10.2 % CPU	225 fps 13.3 % CPU
	x86	485 fps 6.2 % CPU	306 fps 9.8 % CPU	239 fps 12.6 % CPU

Benchmarks conditions:

- Platforms:
x86 (P4 @ 3 GHz)
- Stream characteristics:
All kind of Macroblocks partitions, CABAC, B frames, 5 references, Deblocking loop filter, ...
- 352x288 resolution
- 25 fps

We are constantly improving the H.264 decoder. For updated benchmarks, contact us at: products@ateme.com

KEY FEATURES

- TMS320C64xx
- TMS320DM642
- x86
- Quality
- Flexibility/Upgradability
- CIF, 2CIF, Half D1, D1 for PAL/NTSC

APPLICATIONS

- Broadcast Media
- Video-conference
- Video Juke-box
- Digital Media Storage
- Digital Cinema



Target

- DSP C64x , DM642 (Texas Instruments)
- x86 platform (OS: Linux and Windows)

Standard

- ISO 14496-10 / H.264

Input

- NAL (Network Abstraction Layer)

Output

- YUV 4:2:0 in frame format

Footprint

(given in kB for CIF resolution)

	Program	Const	Data
C64x/DM642	356	7	1724
x86	233	7	1876

Hardware Specifications

- No specific constraints needed on hardware design

Profiles

- Main Profile (Level 1.x, 2.x, 3.x)
- Baseline Profile (Level 1.x, 2.x, 3.x)

More informations on the H.264 profiles can be found on the *Multimedia Compression Guide*

Multimedia Compression Guide

The purpose of the Multimedia Compression guide is to provide people interested in multimedia technologies a technical overview to fulfill the first steps of a new project. All of the technical guides from ATEME can be downloaded free of charge at:

<http://extranet.ateme.com>

Related Products

Software

- Audio codec (MP3 / AAC)
- RTP/RTSP client/server library
- MPEG-4 codec
- H.263 codec
- MPEG-2 codec
- Mp4 file system library

Hardware

- Imaging & Digital Evaluation kits: IEKC64x, DMEK642
- Thunder Multimedia Entertainment Reference Design

Emulation

- aDICE710



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