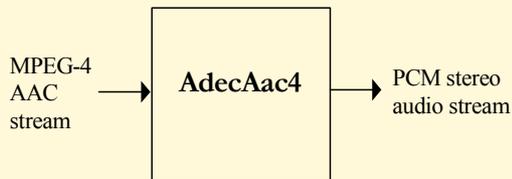The AdecAac4 component decodes bitstreams encoded in 'MPEG4-AAC' format. The decoder is optimized to handle bitstreams on the 32-bit TriMedia processors.

AdecAac4

MPEG-4 AAC stream → **AdecAac4** → PCM stereo audio stream

Description

The AdecAac4 component is designed for use in systems that decode Mpeg4 AAC format audio streams . MPEG-4 AAC streams are described by ISO/IEC JTC 1/SC 29/WG 11 N2503-Sub4 and ISO/IEC 14496-4, International Standards, at bit rates ranging from 16kb/s to 288kb/s for mono and 32kb/s to 288kb/s for stereo. The decoder matches the MPEG-4 High Quality Audio profile base layer.

AdecAac4 accepts as input MPEG-4 AAC audio elementary streams. It always outputs stereo PCM audio samples. (if the source is mono, both left and right channel contain the same samples) The library is optimized for the TriMedia processors.

Applications

- MPEG-4 Player
- Internet/Multimedia system

Documentation

Detailed documentation of the AdecAac4 component is available (Specifications, Architecture Implementation, Test Reports).

Features

- DVP compliant
- Fully compliant with the MPEG-4 AAC audio standards ISO 14496-4
- Optimized for the TriMedia processors

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AdecAac4

Technical Information

Memory Usage

static

data size	text size	total code size
63559	106837	170396

Dynamic

allocated memory	peak allocation	stack size	stack load	total size
146336	158624	51231	12336	197567

Note that additional memory is required for buffering of input and output data. The amount is highly application dependent. See ipbrief_exolMpeg4.doc for typical values.

Processor Load (MIPS)

Minimum CPU load	3.47 (mono, 22.05khz)
Maximum CPU load	21.47 (Stereo, 48kHz)
Average CPU load	9.07

All the measurements have been done with:

Description of the Trimedia board:

Type	kenobi
CPU	TM1300
CPU clock	166.67 Mhz
Memory	32 MB SDRAM
SDRAM/CPU clock ratio	1:1

Configuration of the host PC:

Type	NA
CPU	Pentium II
CPU clock	NA
Memory	NA
OS	Windows NT 4.0 SP5

Other Information

Supported Processors	TM1300, pnx8500, pnx8525
Version number	2.4
Build with Compiler Version	V5.6.8 of tcs2.20090Solaris

Related TSSA Software Components

AdecCelp4

Example Programs

This library is shipped with an example program that demonstrates the use of the component.
The main use is in the exolMpeg4 application. See exolMpeg4 Application Readme for details.

Release Date: August 2003

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