

DResearch Codecs

Overview

Available from:



Photo: Mike Overstreet

The use of images and video data spreads continuously, especially in the field of mobile and land-line-based telecommunication, demanding efficient video and still image codecs which compress the original data lossy or lossless. This are the requirements for a fast and efficient data transmission .

The video and still image codecs from DResearch, based on the most modern algorithms, were developed and optimized for different applications and platforms.

The codecs are easy to integrate into application developments and therefore contribute to the optimal operation of your video solution.

	H.263+	Wavelet Lib	JPEG2000TM	MJPEG	Speedwave	MPEG-4
<i>Coding</i>	Codec	Codec	Codec	Codec	Codec	Decoder
Still image coding		X	X	X	X	
Video coding	X	X	(X)	(X)	(X)	x
Standard						
ITU	H.263	-	Part of T.800	T.81	-	
ISO		-	Part of IS 15444	IS 10918-1	-	Part of IS 14496-2
image format						
QCIF	X	X	X	X	X	X
CIF	X	X	X	X	X	X
Field	X	X	X	X	X	X
4QCIF	X	X	X	X	X	X
User-defined	4x4 to 2048x1152		64x64 to 2048xany	1x1 to 65535x65535	64x64 to 65536x65536	4x4 to 2048x1152
Color scale						
Grayscale			X	X	X	X
YUV420	X	X	X	X	X	X
YUV422			X		X	
Speed (Images/s)						
with 143 MHz TriMedia	30 CIF	9-19 CIF	3-20 CIF	10-71 CIF	20-80 CIF	30-95 CIF
with Pentium III/500	120 CIF	11-23 CIF			>100 CIF	>60 CIF
Compression						
DCT-based	X			X		X
Wavelet-based		X	X		X	
Platform						
Win32 (x86)	X	X	(X)	(X)	X	X
Linux (x86)	X					
WinCE (ARM)	X					
TriMedia TM-1X00	X	X	X	X	X	X
TSSA	X		X	X		

Note: Wavelet, JPEG2000, and Speedwave libraries are special order items from MDS, please contact MDS for assistance.

Video Codecs

H.263+

The DResearch H.263+ codec is based on the improved and extended standard ITU H.263. The codec H.263 supports, in contrast with H.261, more image formats which further increase the field of applications from industrial use to security-relevant applications.

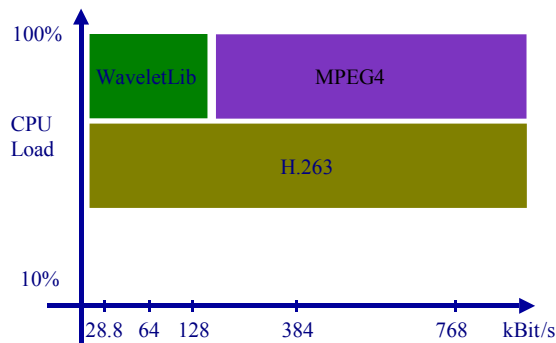
Wavelet Lib

The DResearch Wavelet Lib is a very powerful library for the compression and decompression of single images and video streams in small (9600bit/s) and middle (128kbit/s) bandwidths. The method makes it possible to give exactly, for each image, the length of the coded bit stream.

MPEG-4 Visual Decoder

The DResearch MPEG-4 Codec is a highly optimized library for compressing and decompressing video streams in real time. Due to the typical MPEG-4 tool concept, the codec can be tailored to specific requirements thus covering a wide range of possible applications.

DResearch Video Encoder



Still Image Codecs

JPEG2000TM

DResearch JPEG2000 TM is a software library especially developed and optimized for TriMedia. The JPEG2000 standard is, like the well-known JPEG standard, a pure still image compression, but is based on the wavelet transformation. It provides a better compression quality than the one offered by the usual JPEG standard.

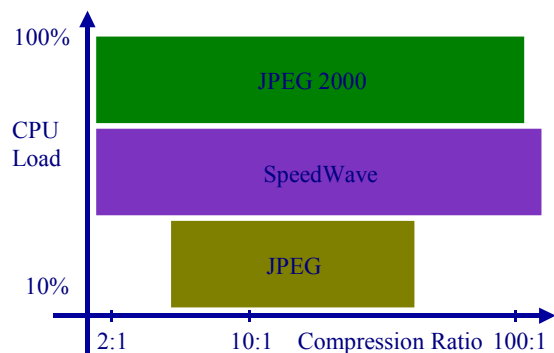
MJPEG

DResearch MJPEG is a software library especially developed and optimized for TriMedia, based on the ITU-Recommendation T.81. This library is appropriate for the processing of video streams or single images.

SpeedWave

SpeedWave is an innovative software library for the compression and decompression of single images or video images, with a very high speed.

DResearch Still Image Encoder



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