

Allegro streams

H.264/MPEG-4 AVC COMPLIANCE TEST SUITES

Allegro streams aim to intensively test H.264 decoder implementations.

It is absolutely crucial to validate your H.264 decoder carefully before production, because of its higher complexity compared to MPEG-2.

Allegro offers several test suites. Each test suite targets a specific profile/level combination.



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Allegro has been chosen by the leading companies of the Digital Video industry.

Allegro has developed its own H.264 encoder which is dedicated to generate test bitstreams. Allegro's encoder doesn't focus on compression ratios, it concentrates on high configurability instead. All encoding parameters (picture type, slice type, loop filter parameters, slice reordering, MMCO, macroblock type, quantization parameter, motion vector, prediction direction, intra prediction direction, constrained intra prediction, direct mode type,...) can be controlled at a macroblock granularity.

By using its own encoder Allegro has generated:

- Syntax bitstreams which test all compression tools intensively.
- Stress bitstreams which activate the H.264 theoretical performance worst cases.

They can be delivered in several "system formats":

- NAL units
- Byte stream NAL
- MPEG Transport (13818-1)

Type	Resolution	Number of streams
H.264 Baseline profile Level2	352x288@30 fps	56
H.264 Baseline profile Level3	720x480@30 fps, 720x576@25 fps	84
H.264 Baseline profile Level3.1	1280x720@30 fps	56
H.264 Main profile Level3	720x480@30 fps, 720x576@25 fps	310
H.264 Main profile Level4	1920x1080@30 fps, 1280x720@60 fps	266
H.264 Main profile Level4.1	1920x1080@30 fps, 1280x720@60 fps	266
H.264 High profile Level3	720x480@30 fps, 720x576@25 fps	378
H.264 High profile Level4	1920x1080@30 fps, 1280x720@60 fps	326
H.264 High profile Level4.1	1920x1080@30 fps, 1280x720@60 fps	326

All our bitstreams have been created by and are owned by Allegro.

Major features of Allegro's bitstreams:

Short video sequences

- These sequences have a duration of 15 to 30 seconds. They have been optimized to simplify problem detection.
- Each sequence focuses on a specific video feature which allows fast and simple analysis of potential problems.

Auto test

Every decoded picture can be associated with a signature which can be compared with a reference signature to simplify automatic test methodology.

Debug capabilities

Allegro's bitstreams reduce debug time, which is vital for the success of any commercial product. Allegro has introduced two innovative techniques: Quick restart and Quick debug. Both techniques reduce debug time radically.



Allegro is a leading provider of video compression solutions, including industry standard H.264/MPEG-4 AVC Compliance Test Suites, Real-time audio/video Encoders for Broadcast applications and Technical Trainings. More information on Allegro can be found at <http://www.allegrodvt.com>



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