

Intel® Stress Bitstreams for VP9 FC1

Release Notes

(Version 1.1)

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Overview

The **Intel® Stress Bitstreams for VP9** are designed to ensure decoder compliance with VP9 format. Streams cover Feature Set1 (FC1) of VP9 format for 8-bit depth 4:2:0.

Features

The **Intel® Stress Bitstreams for VP9** includes three sets: INTRA, INTER and EXTRA. INTRA and INTER sets are designed for validation of the features related to intra and inter prediction correspondingly, and EXTRA set contains streams covering other HEVC format features not directly related to intra or inter prediction.

There are three types of streams: Syntax, Stress and Smaller. Syntax streams are designed to test a certain subset of features. Stress streams include all the features covered by the bucket. A Smaller stream is similar to a Stress stream of INTER bucket, the major purpose is to test the decoder's ability to handle very small resolutions. The only exception for Syntax streams is stream dedicated to tile testing, which in addition has 16384×240 version to test vertical tiles of maximum width.

Reference libvpx decoder with all SIMD optimizations disabled.

Changes History

Version 1.1

- New approach to frame resolution randomization to satisfy new restriction on reference frame size introduced by commit g9f37d14 in libvpx repo. Previously it was allowed to pick any references as last, golded and alt-ref frame, if they are not used for actual inter prediction. Now decoder checks

ref-frame size prior to superblock decoding, so encoder have to pick frame resolution giving at list one valid reference in existing ref-frame pool. Parfile settings for frame size randomization also changed.

- Change of probability model used for intra-only frame handing according to commit 7c43fb6 in libvpx repo. This commit makes reference decoder incompatible with older bitstreams containing intra-only frames and vice versa, new bitstreams are incompatible with old decoders.

All bitstreams utilizing frame scaling or intra-only frames have changed

System Requirements

Hardware

- Bitstreams: no limitations.
- Reference Decoder: IA32, Intel® 64 Architecture processors.

Software

- Bitstreams: no limitations.
- Reference Decoder: Microsoft* Windows* 7, Microsoft Windows 8, Microsoft Windows 8.1, Microsoft Windows Server 2012 or Microsoft Windows Server 2012 R2 for 64-bit architecture, Ubuntu* 12.04 LTS for 64-bit architecture (currently 12.04.3) or SUSE* Linux* Enterprise Server 11 for 64-bit architecture, OS X 10.9 (currently 10.9.3)

Package Contents

Note: <install-folder> - folder where **Intel® Stress BitStreams 1.0** is installed.

<install-folder>\BitStreams for VP9 FC1\	Contains Intel® Stress BitStreams for VP9 Release Notes (this file), End User License Agreement (EULA), spreadsheet with detailed description of every bitstream, history document for each bitstream and Getting started document.
<install-folder>\BitStreams for VP9 FC1\decoder	Contains VP9 Decoder (Reference) for Windows*, Linux* and OS X* and readme file.
<install-folder>\BitStreams for VP9 FC1\streams	Contains compliance VP9 8 bit depth 4:2:0 bitstreams , their MD5 check sums and MD5 check sums for decoding results of each encoded file.

Installation

- Extract files from archive to the target hard drive.

Known Limitations

- No Limitations

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LICENSE: libvpx: VP8/VP9 Codec SDK

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