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cs3dm6467 Codec Server 1.00.00.01 Release Notes

July 09, 2010

Summary:

NAME	cs3dm6467
VERSION	1.00.00.01
PLATFORM(S) SUPPORTED	DM6467
USE CASE(S)	General purpose audio/video/speech/image encode/decode codec server with NON TSPA Codecs
SERVER PACKAGE	cs3dm6467_1_00_00_01
SERVER START ADDRESS	0x8BA00000
SERVER END ADDRESS	0x8FFFFFFF
TOTAL SERVER SIZE	70 Mbytes

The following release notes are applicable to the cs3dm6467 codec server.

The release notes are divided into the following sections:

License Information

Releases

Installation

Building the Codec Server

Upgrade and Compatibility Information

Device Support

Known Issues

Codec, Test Environment, Use Case Test Result Details

Technical Support and Contact Information

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LICENSE INFORMATION

- The codec server is meant for internal use only; the license is still "TBD". Please do not distribute the codec server externally.

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RELEASES

- The most recent release **1.00.00.01** provides the following codecs.
  The following codec algorithms are included.

Feature	Codec name	Supported Features✖	Version Integrated
Audio Decoding	Aachedec	High efficiency	1.30.01
Speech Decoding	g711dec	U-Law, A-Law	1.12.00
Speech Encoding	g711enc	U-Law, A-Law	1.12.00
Video Decoding	h2641080p60vdec	1080p60 h264 base profile video decoder with name change to support co-existence with 1080p h264 Main profile/high profile video decoder	1.20.00.14
Video Decoding	h264dec	1080p main profile/high profile h264 video decoder	1.10.04
Video Encoding	h264enc	720p h264 base profile video encoder	1.20.02
Video Decoding	mpeg2dec	1080p Main profile mpeg2 video decoder with de-blocking and de-ringing support	1.10.00.09
Video Encoding	h264fhdvenc	H264 1080p30 Base Profile Encoder	1.10.02.03
Video Encoding	mpeg4enc	Advanced Simple Profile mpeg4 encoder	1.00.00.05
Video Decoding	mpeg4dec	Advanced Simple Profile mpeg4 decoder	1.00.00.09
Image Encoder	jpegenc	JPEG Baseline Profile Encoder	2.00.01.00
Image Decoder	jpegdec	JPEG Progressive Support Decoder	2.00.01.01
Mp3 decoder	mp3dec	Mp3 decoding	1.31.01
AC3 decoder	dolbyac3	Dolby decoding	1.20.002
AAC HE Encoder	Aacheenc	AAC Encoder HE mode	1.20.005

✖ Please refer to the individual codec data sheets located under /codecs for more details (e.g., cs3dm6467_1_00_xx_xx\packages\ti\sdo\codecs\jpegdec\docs)

This codec server is built on top of cs2dm6467 for mp3dec, dolbyac3dec and aacheenc codecs. There is no performance evaluation done for these three codecs. The detailed performance results for other codecs can be located in the cs3dm6467_master_build_specification.xls[(Note1)] master build sheet. Please refer to "DSP Codec Server Performance Summary" section documented under the "cs3dm6467_data_sheet.htm [(Note1)]" data sheet for the codec server performance summary table.

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INSTALLATION

This codec server installation produces the following structure.

The directory structure is as follows:
Cs3dm6467_1_00_00_xx
        |----------- *packages*
        |----------- *cs3dm6467_release_notes.htm*
        |----------- *config.bld*
        |----------- *Makefile*
        |----------- *package.xdc*

packages directory is a place holder for the codecs, servers.
config.bld file specifies the compiler tools path and target platform**.**
Makefile is the 'make' utility file to build the codecs and server.

packages contains the following directory structure

ti

      |----------- sdo
          |----------- codecs
          |----------- server

codecs directory is the place holder for all the codecs that the codec server supports.
server contains the following directory structure

      |----------- cs
          |----------- bin
          |----------- docs

The *bin* directory gets populated with the codec server binary cs.x64P, when building the codec server. The released version already contains the pre-built DSP binary under this directory.
The *docs* directory contains the following files.

- o   cs3dm6467_software_license_agreement.txt   - license document for the codec server (TBD)
- o   logocorp.gif   - Texas Instruments Logo
- o   cs3dm6467_master_build_specification.xls   - Codec Server Master Build Sheet
- o   cs3dm6467_software_manifest.pdf   - Codec Server Software manifest document
- o   cs3dm6467_data_sheet.htm   - Data Sheet describing the link to the generated server data sheet and links to the codec documents.

The "cs" directory contains the following files.

- o   codec.cfg   - Codec Configuration files for the codec server
- o   server.cfg   - Codec Server Configuration files
- o   server.tcf   - Codec Server tconf script for the DSP binary
- o   main.c   - Codec Server source main file
- o   link.cmd   - Any additions to the linker command files should be placed here
- o   memmap.tci   - The codec server memory map
- o   package.bld   - RTSC package file
- o   package.xdc   - RTSC package file
- o   package.xs   - RTSC package file

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BUILDING THE CODEC SERVER

- Follow these steps to build the codec server.
  - o If the environment variables are defined using **..\Rules.make**
    1. goto cs3dm6467_1_00_xx directory
    2. type **make clean or gmake clean,** *to make sure any metadata and server executables are cleaned.*
    3. type **make or gmake** under the cs3dm6467_1_00_xx directory (make sure that the path includes the GNU make).
  - o If the environment variables are *not* defined using **..\Rules.make**
    1. Please make sure you set or export all the environment variables mentioned in the sample csRules.mak for Linux/Windows environment before executing step 2 mentioned as below.
    2. goto cs3dm6467_1_00_xx directory
    3. type **make clean or gmake clean,** *to make sure any metadata and server executables are cleaned*
    4. type **make or gmake** under the cs3dm6467_1_00_xx directory (make sure that the path includes the GNU make).

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UPGRADE AND COMPATIBILITY INFORMATION

This product's version follows a version format, M.m.p.b, where M is a single digit Major number, m is single digit minor number, p is a single digit patch number and b is the build number.

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DEVICE SUPPORT

This release supports the following device families:

- DM6467

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KNOWN ISSUES

Sl.No.	SDOCM ID	Description	Issues/Workaround
1	SDOCM00059735	The g711enc and g711dec RTSC packages share a common symbol (mentioned below). When a codec server is built with both the libraries, the below warning is seen. Warning 1 >> package/cfg/bin/cs_x64P.xdl, line 313: warning: multiple definitions of SECTION named '.const:_G711_TII_CODER_version'	This does not impact any functionality of G711. This can be safely ignored.
2	SDOCM00064706	Warnings while compiling Codecs (h264) fhd with hd due to duplicate section names or due to non–existent section in their lnk	This did not impact h264 encoder or decoder functionality. This is targeted to be fixed in next codec server releases.
4	SDOCM00071347	Dvtb jpeg decode, resolution=1280x720,scale_factor=4,output_chromaformat=rgb, generates degraded image.	No workaround identified. This same version of the codec has been deployed in older DVSDK releases (2.x) and there have not been any customer issues reported. This issue is tracked by the codec team and may be fixed in a future codec release.

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CODEC, TEST ENVIRONMENT AND USE CASE TEST RESULT DETAILS

Please refer to the excel sheet cs3dm6467_master_build_specification.xls[(Note1)] for versions of the list of multimedia codecs integrated in the codec server, test environment and the use cases for which the server is designed.
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TECHNICAL SUPPORT AND CONTACT INFORMATION

Send an e-mail to support@ti.com or contact local TI Field Application Engineer for any support on cs3dm6467.

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SPECIAL NOTES

Note1

The following links referred in this document will not function properly, when this document is **_not_** opened from the cs3dm6467_1_00_00_xx installation directory.

- *cs3dm6467_master_build_specification.xls*
- *cs3dm6467_data_sheet.htm*
- *License Agreement*
- *Top level "Texas Instruments logo" picture will not appear*

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