# TMS320DM365 DVSDK 4\_02\_00\_06 Release Notes

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# Digital Video Software Development Kit (DVSDK) 4\_02\_00\_06 for the TMS320DM365

Mar 24 2011

This is a Generally Available (GA) release of the DaVinci Software Development Kit (DVSDK) 4\_02\_00\_06 for the TMS320DM365 platform. This DVSDK Software release gives developers the ability to evaluate the hardware and software capabilities of the TMS320DM365 platform. Developers will be able to evaluate the ARM Linux programming environment and easily utilize the hardware support for the powerful multimedia codecs.

This document is divided into the following sections:

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## **Documentation**

• Latest up to the minute information and updates may be found on the <u>Texas Instruments Embedded</u> Processors Wiki.

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- The *Quick Start Guide* contains information on how to set up your board for an out of box demo showcase as well as for software development. It is located in the *docs/* folder in the DVSDK along with other documentation.
- The *Software Developer's Guide* contains information on how to start developing software on the TMS320DM365 board and is located in the *docs/* folder in the DVSDK installation along with other documentation.

#### **Content Overview**

The TMS320DM365 Linux DVSDK includes the following components:

- Platform Support Package
  - ♦ Linux kernel 2.6.32.17
  - ♦ Boot loaders (u-boot, UBL) and their flashing utilities
- Multimedia Package
  - ♦ Multimedia Framework Product (MFP)
    - ♦ Codec Engine Framework
    - ♦ Framework Components
    - ♦ Linux Utils (CMEM)
    - ♦ XDAIS (eXpress DSP Algorithm Interoperability Standard)
  - ◆ Davinci Multimedia Application Interface (DMAI)
  - ♦ H/W accelerated codecs
    - ♦ Encoders: H.264, MPEG-4, JPEG, AAC, G711, MPEG-2
    - ♦ Decoders: H.264, MPEG-4, MPEG-2, AAC. JPEG, G711, VC1
  - ♦ H/W accelerated Gstreamer TI plugin
- Graphics Package
  - ♦ Qt/Webkit application framework

## **What's New**

The following high-level features are new from the previous SDKs:

- The DVSDK demos have been updated to provide better performance. They now use closed-loop decoding for faster processing. **Note**: using closed-loop decoding means only video streams produced by TI encoders (ti.sdo.codecs.h264enc and ti.sdo.codecs.mpeg4enc) can be decoded. GStreamer on the other hand continues to use the universal codecs.
- H264 encoder has been updated to a newer revision with better performance.
- Updated PSP and many other components. See software manifest for new component version numbers, and refer to each component's release notes for what's been changed.

## Installation and Usage

The *Software Developer's Guide* contains information on how to start developing software on the TMS320DM365 device and is located in the *docs/* folder in the DVSDK installation along with other documentation.

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# **Host Support**

This release only supports <u>Ubuntu 10.04 LTS 32-bit</u> as your development host.

# **Dependencies**

The DVSDK requires the CodeSourcery toolchain, a link is provided on the DVSDK 4.xx Release Page or provided with a CD in your kit.

QualiTI tool requires the Code Generation Tools XML Output Perl Utility Scripts (CG XML) that is not included in the DVSDK. The CG XML component is available here

# **Device Support**

This DVSDK supports the TMS320DM365 EVM

Note that only silicon revision 1.2 or above is supported.

#### **Validation Information**

This release has been tested with TMX silicon revision 1.2 on EVM base board revision E.

# **Upgrade and Compatibility Information**

There are no known upgrade or compatibility issues with DVSDK 3.10 or DVSDK 4.x.

## **Known Issues and Limitations**

#### **Known Issues**

- SDOCM00075208 In the DVSDK decode demo, after multiple play and pause, G711 speech decodes rapidly and reaches the end of file prematurely when video playback is enabled.
- SDOCM00074628 DM365: (Encode demo) First frame of encoded stream is corrupted.
- SDOCM00074625 Encoded content has a black strip on top (component input). This is visible on the preview as well.
- SDOCM00074604 DM365: (Encode demo) Encoded contents have a black strip on left side (composite input).
- SDOCM00074518 Distortion is heard in the decode demo during audio (aac) decode after pause and play.
- SDOCM00074485 Audio decode operation finishes slightly before the end of the stream.
- SDOCM00072912 Left side crop observed while playing back a stream using GStreamer pipeline or DVSDK demos.
- SDOCM00075223 Gstreamer H264 encode with preview is jerky.
- SDOCM00074857 In EncodeDecode demo, white lines are seen at the top edge of image.
- SDOCM00073168 Installer deletes the entire contents of the install folder when installation is cancelled.

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More details on the known issues can be found on the <u>DSP Tools and Software Bug Search page</u>. You must be a registered user on my.ti.com before you request a new account for the SDOWP database.

# Versioning

This is a Generally Available (GA) release (DVSDK 4\_02\_00\_06) for TMS320DM365.

# **Technical Support and Product Updates**

- Latest up to the minute information and updates may be found on the <u>Texas Instruments Embedded</u> <u>Processors Wiki</u>.
- The <u>Embedded Software Linux forum</u> is a forum for discussing the Linux DVSDK development. New versions of the DVSDK are also announced here.
- The <u>DVSDK download page</u> is a top level page for finding the latest DVSDK releases for all TI platforms.