

TMS320DM365 DVSDK 4.00 Release Notes



Digital Video Software Development Kit (DVSDK) 4_00_00_22 for the TMS320DM365

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This is a Generally Available (GA) release of the DaVinci Software Development Kit (DVSDK) 4.00 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.

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Documentation

- Latest up to the minute information and updates may be found on the [Texas Instruments Embedded Processors Wiki](#).

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- The *Quick Start Guide* contains information on how to set up your EVM 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 EVM 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
 - ◆ 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:

- GStreamer is updated and integrated in the kit as opposed to being a separate download.
- Qt/Embedded is integrated in the kit for GUI support.
- The Matrix application launcher is provided as part of the kit.
- All software packages, excluding the CodeSourcery GCC toolchain, are integrated in one unified installer.
- The Getting Started Guide has been expanded upon and is now called the Software Developers Guide.
- The DVSDK demos are updated with the following new features:
 - ◆ Audio encode/decode support
 - ◆ Replacement of the remote-control-based demo interface with a mouse-based QT interface
- The H264 "Platinum" codecs are included in the kit.
- Utility for creating bootable SD cards is provided.
- GStreamer includes support for 720P MP4 file playback.

Installation and Usage

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

Host Support

This release only supports [Ubuntu 10.04 LTS 32-bit](#) as your development host.

Dependencies

The DVSDK requires the CodeSourcery toolchain, a link is provided on the DVSDK 4.00 Release Page or provided with a CD in your EVM 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.

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.
- SDOCM00074903 - DVSDK demos arm load is going beyond 100% while encoding for codecs H264 and Mpeg4.
- SDOCM00074628 - DM365: (Encode demo) First frame of encoded stream is corrupted.

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- 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.

More details on the known issues can be found on the [DSP Tools and Software Bug Search page](#). You must be a registered user on my.ti.com before you request a new account for the SDOWP database.

Versioning

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Technical Support and Product Updates

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