
RTA-OS TDA4VM-R5-TI

Release Note - Version 5.0.3 (23-08-2022)

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1 Introduction

RTA-OS is an AUTOSAR compliant Operating System and associated tooling. This document provides release information for the RTA-OS TDA4VM-R5-TI port plug-in that customizes the RTA-OS development tools for the Texas Instruments TDA4VM with the TI ARM C/C++ compiler. It supplements the more general information you can find in the *Release Note*.

1.1 Version Information

This is Version 5.0.3 of the RTA-OS TDA4VM-R5-TI plug-in.

1.2 Installation

The installation process is covered in detail in the *TDA4VM-R5-TI Port Guide*.

2 **Open EHI Calls**

Open issues are referred to by their call number in the ETAS Helpdesk International (EHI) system.

No EHI calls are open.

3 Change History

3.1 Version 5.0.3

Additional Features

No features have been added to this release.

Modified Features

The following features have been modified in this release:

- Release version

Removed Features

No features have been removed from this release.

3.2 Version 5.0.2 (Preview Release)

Additional Features

The following features have been added to this release:

- Target option 'Support InterruptSource APIs' is added to enable support for the AUTOSAR APIs EnableInterruptSource, DisableInterruptSource and ClearPendingInterrupt. This is optional because there is a small run-time overhead when supporting this. Manipulation of the enable/disable and pending bits operates on the VIM, not the source peripheral.

Modified Features

The following features have been modified in this release:

- OS_MAIN has been updated to call Os_AwaitStartup for multi-core parts even when operating in a single core mode. This is to ensure that unconfigured cores do not wrongly enter the main code.

Removed Features

No features have been removed from this release.

3.3 Version 5.0.1

Additional Features

The following features have been added to this release:

- Fixed EHI 681455 and 683414

Modified Features

No features have been modified in this release.

Removed Features

No features have been removed from this release.

3.4 Version 5.0.0

Additional Features

The following features have been added to this release:

- Added multi core variants (2 and 4 core). These have separate VIM vectors per core. The MAILBOX peripheral is used to implement cross-core interrupts. The SPINLOCK peripheral is used to implement spinlocks.
- Added target option 'SPINLOCK slot' that can be used to specify which SPINLOCK slot to use when cross-core. Defaults to 0.
- Added target option 'MAILBOX cluster' that can be used to specify which MAILBOX cluster to use when cross-core. Defaults to 0 or 1.
- Added target option 'CrossCore VIM Channel' that can be used to specify which VIM channel to use for cross-core interrupts. Defaults to 255.

Modified Features

No features have been modified in this release.

Removed Features

No features have been removed from this release.

3.5 Version 2.0.0

Additional Features

The following features have been added to this release:

- Fully tested on all TDA4VM cores.
- Added DRA821 variants as aliases to TDA4VM equivalents.
- Added DRA829 variants as aliases to TDA4VM equivalents.

Modified Features

No features have been modified in this release.

Removed Features

No features have been removed from this release.

3.6 Version 1.99.0 (Preview Release)

Additional Features

The following features have been added to this release:

- First early preview. Not fully tested. Floating point not supported. Protection of untrusted stacks not supported. Target Samples incomplete.
- Supports (only) TI v20.2.5.LTS Compiler support.
- Supports all 4 Main domain R5F cores as single-core independent processors.
- Tested (only) on the TDA4VM_R5FSS0_CORE0 core.
- Each core supports 512 VIM input sources.

Modified Features

No features have been modified in this release.

Removed Features

No features have been removed from this release.

4 Fixed EHI Calls

Bugs that have been fixed are referred to by their call number in the ETAS Helpdesk International (EHI) system.

4.1 Version 5.0.1

EHI 681455

Status: Fixed

Title: Compile fail in TerminateTask (no os_current_core) without ORTI.

Description: There can be a compilation failure in Terminate-Task.c for multicore variants saying that the variable os_current_core is unknown when ORTI is disabled.

EHI 683414

Status: Fixed

Title: The global MAILBOX peripheral was being reset, affecting other CPUs

Description: The OS no longer resets the MAILBOX in the Os_InitializeVectorTable function.

5 Limitations

5.1 Installer

There are the following limitations for the installer:

Limitation	None.
Workaround	None.

5.2 TDA4VM-R5-TI DLL

There are the following limitations for this tool:

Limitation	None.
Workaround	None.

6 Contacting ETAS

6.1 Technical Support

Technical support is available to all users with a valid support contract. If you do not have a valid support contract, please contact your regional sales office (see below).

The best way to get technical support is by email. Any problems or questions about the use of the product should be sent to:

`rta.hotline@etas.com`

If you prefer to discuss your problem with the technical support team, you call the support hotline on:

+44 (0)1904 562624.

The hotline is available during normal office hours (0900-1730 GMT/BST).

In either case, it is helpful if you can provide technical support with the following information:

- Your support contract number
- The version of the ETAS tools you are using
- The version of the compiler tool chain you are using
- The command line (or reproduction of steps) that result in an error message
- The error messages or return codes you received (if any)
- Your `.xml`, `.arxml` and `.rtaos` files
- The file `Diagnostic.dmp` if it was generated

6.2 General Enquiries

6.2.1 ETAS Global Headquarters

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6.2.2 ETAS Local Sales & Support Offices

Contact details for your local sales office and local technical support team (where available) can be found on the ETAS web site:

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