
RTA-OS SA80R/GHS

Release Note - Version 2.0.0 (04-06-2019)

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Safety Notice

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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 SA80R/GHS port plug-in that customizes the RTA-OS development tools for the Magna Uhnder SA80NFE20T Cortex-R5 with the GHS compiler. It supplements the more general information you can find in the *Release Note*.

1.1 **Version Information**

This is Version 2.0.0 of the RTA-OS SA80R/GHS plug-in.

1.2 **Installation**

The installation process is covered in detail in the *SA80RGHS 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 2.0.0

Additional Features

The following features have been added to this release:

- First Full Release.
- MISRA compliance to conform to the MISRA2012 standard.

Modified Features

The following features have been modified in this release:

- Default `Os_Cbk_GetAbortStack()`.

Removed Features

No features have been removed from this release.

3.2 Version 1.99.1 (Preview Release)

Additional Features

The following features have been added to this release:

- Second Early Access release.

Modified Features

The following features have been modified in this release:

- Support for ORTI now requires RTA-OS tools v5.5.0 or later.

Removed Features

The following features have been removed from this release:

- Support for RTA-OS tools v5.4 and older.
- Support for the `block_default_interrupt` target option.
- Support for the `InterruptPriorityRange` target option.

3.3 Version 1.99.0 (Preview Release)

Additional Features

The following features have been added to this release:

- Initial Early Access release.
- Support for BCC tasks.
- Support for ECC tasks.
- Support for Cat1 interrupts
- Support for Cat2 interrupts
- Support for untrusted code
- Support for memory protection.
- Support for timing protection.
- Support for aligning stack to memory protection regions.
- Support for HelloWorld, CliveDevices, and PizzaPronto sample applications.
- Support for AUTOSAR ISR source API functions (i.e. ClearPendingInterrupt(), DisableInterruptSource() and EnableInterruptSource()).
- Macros to enable, disable and clear GIC interrupts without corrupting the priority.
- Macros to enable and disable all GIC interrupts on a CPU without corrupting the priority.
- FPU support.
- Target option to control the Floating-Point mode used by the compiler.
- Target option to control the Floating-Point registers saved and restored by RTA-OS on ISR or task preemption.
- Tests to alert user if they use interrupts or exceptions that are required by RTA-OS.
- Support for Green Hills Software Compiler v2018.1.4.

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.

No EHI calls have been fixed in this release.

5 Limitations

5.1 Installer

There are the following limitations for the installer:

Limitation	None.
Workaround	None.

5.2 SA80RGHS DLL

There are the following limitations for this tool:

Limitation This version of RTA-OS has been designed to run on a single core of the dual-core ARM Cortex-R5F CPU. This core is referred to as SCP1 in the documentation. It does not currently support SCP0 or dual-core mode.

Workaround None.

Limitation Due to a hardware limitation fast interrupt requests (FIQs) do not work reliably and they are not currently supported by this version of RTA-OS. Handlers for FIQs can still be defined and they will still appear in the interrupt vector table. However, the F-bit (bit 6) of the Current Program Status Register (CPSR) is set at all times in order to prevent the CPU from responding to any fast interrupt requests that are made.

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 Section 6.2.2).

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.uk@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
- Your .xml, .arxml, .rtaos and/or .stc files
- The command line which caused the error
- The version of the ETAS tools you are using
- The version of the compiler tool chain you are using
- The error message you received (if any)
- 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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