
ETAS RTA Lightweight Hypervisor for SPC58NH92GHS v1.1.0

Release Notes

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1 Introduction

1.1 Definitions and Abbreviations

Term/Abbreviation	Definition
EHI	ETAS Help Desk International
HW	Hardware
KIR	Known Issue Report – For severe Problem Reports which occur after a release, ETAS has introduced the Known Issue Report to inform affected customer immediately. The current Known Issues of former versions can be found on the ETAS website: http://www.etas.com/kir
PR	Problem Report
SW	Software
RTA-LWHVR	ETAS RTA Lightweight Hypervisor

1.2 Conventions

The following typographical conventions are used in this document:

Choose File → Open .	Menu commands are shown in boldface.
Click OK .	Buttons are shown in boldface.
Press <ENTER>.	Keyboard commands are shown in angled brackets.
The "Open File" dialog box is displayed.	Names of program windows, dialog boxes, fields, etc. are shown in quotation marks.
Select the file <code>setup.exe</code>	Text in drop-down lists on the screen, program code, as well as path- and file names are shown in the Courier font.
A <i>distribution</i> is always a one-dimensional table of sample points.	General emphasis and new terms are set in italics.

1.3 User Documentation

The ETAS RTA Lightweight Hypervisor user's documentation in PDF format can be found in the `Documentation` directory.

1.4 Pre-Release Notice

2 Product Definition

2.1 Functions at a glance

The ETAS RTA Lightweight Hypervisor provides spatial and temporal separation of virtual machines running on a microcontroller. Time-slicing is used to support multiple virtual machines running on a single microcontroller core.

2.2 Target Microcontroller

This is the ETAS RTA Lightweight Hypervisor for use on SPC58NH92 microcontrollers using the GreenHills MULTI Compiler 2015.1.6 for Embedded Power Architecture.

2.3 General Description

2.3.1 System Prerequisites

The following minimum system prerequisites have to be met to use the configuration generator tool:

Required Hardware	1,0 GHz PC 1 GB RAM DVD-ROM drive Network adapter Graphics with a resolution of at least 1024 x 768, 32 MB RAM
Required Operating System	Windows® 10 with latest updates.
Required Free Disk Space	500 MB (not including the size for application data)

The following system prerequisites are recommended:

Recommended Hardware	2.0 GHz Dual-Core PC or equivalent 2 GB RAM DVD-ROM drive Network adapter Graphics with a resolution of 1280 x 1024, 128 MB RAM
Recommended Operating System	Windows® 10 with latest updates.
Recommended Free Disk Space	>2.0 GB

2.3.2 Software Prerequisites

The configuration generator tool component requires the .NET Framework 3.5 Client Profile or compatible.

2.3.3 Release Test Configuration and Recommended Compiler Options

Testing of this port of the ETAS RTA Lightweight Hypervisor was carried out on the following hardware:

An SPC57xxMB EVB baseboard with a daughterboard containing an SPC58NH92 (cut2) processor.

Testing of this port of the ETAS RTA Lightweight Hypervisor was carried out using the following compiler toolchain:

GreenHills MULTI Compiler 2015.1.6 for Embedded Power Architecture
with the following compiler options:

`-cpu=ppc5746mz420`

- checksum
- delete
- dwarf2
- farcallpatch
- floatsingle
- g
- inline_prologue
- no_commons
- Ospeed
- Omax
- preprocess_assembly_files
- sda=0
- vle

ETAS recommends that this compiler toolchain version and these options be used when building the ETAS RTA Lightweight Hypervisor.

2.4 Installation

The contents of the ETAS RTA Lightweight Hypervisor distribution are as follows:

Hypervisor\
 This directory contains the source code for the embedded hypervisor.

Configuration Generator\
 This directory contains the configuration generator tool executable.

Documentation\
 This directory contains documentation.

There is no installation process beyond copying files to a Windows PC.

2.5 Licensing

There is no electronic licensing, however the product should be used in accordance with the purchased licensing conditions.

3 **Change History**

This chapter describes changes with respect to the previous versions of the ETAS RTA Lightweight Hypervisor for SPC58NH92GHS.

3.1 **Version 1.1.0**

3.1.1 **What's New**

Nothing. This is a product release of the v1.0.90 proof-of-concept.

3.1.2 **Compatibility to Earlier Releases**

No change since previous release.

3.1.3 **Fixed Problems**

None.

3.1.4 **Known Issues**

None.

3.1.5 **Hotfix Information**

There are currently no hotfixes.

3.2 **Version 1.0.90 (Proof-of-Concept)**

3.2.1 **What's New**

This is the first release.

3.2.2 **Compatibility to Earlier Releases**

This is the first release.

3.2.3 **Fixed Problems**

This is the first release.

3.2.4 **Known Issues**

None.

3.2.5 **Hotfix Information**

There are currently no hotfixes.

4 **Known Issue Reports**

If a product issue develops, ETAS will prepare a Known Issue Report (KIR) and post it on the internet. The report includes information regarding the technical impact and status of the solution. Therefore you must check the KIR applicable to this ETAS product version and follow the relevant instructions prior to operation of the product.

The Known Issue Report (KIR) can be found here:

<http://www.etas.com/kir>

5 **Contact, Support and Problem Reporting**

For details of your local sales office as well as your local technical support team and product hotlines, take a look at the ETAS website:

ETAS subsidiaries	WWW:	www.etas.com/en/contact.php
ETAS technical support	WWW:	www.etas.com/en/hotlines.php