

Release Notes

ASCET-SE V6.4.7

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1. Introduction

1.1. Definitions and Abbreviations

See this section in the ASCET V6.4.7 Release Notes.

1.2. References

See this section in the ASCET V6.4.7 Release Notes.

1.3. Conventions

The following typographical conventions are used in this document:

<code>OCI_CANTxMessage msg0 = 0;</code>	Code snippets are presented on a gray background and in the Courier font. Meaning and usage of each command are explained by means of comments. The comments are enclosed by the usual syntax for comments.
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.

NOTE

Important hint for the user.

1.4. User Documentation

The set of ASCET manuals (see section 1.2) can be found on the DVD installation medium.

2. Product Definition

2.1. Functions at a glance

ASCET-SE (Software Engineering) enables ASCET to work with various micro controller targets can be installed on it independently.

2.2. General Description

2.2.1. Safety Notice

See this section in the ASCET V6.4.7 Release Notes.

2.2.2. System Prerequisites

See this section in the ASCET V6.4.7 Release Notes.

2.2.3. Software Prerequisites

See this section in the ASCET V6.4.7 Release Notes.

2.2.4. Access Rights

2.2.4.1. Administrator Rights

Administrator rights are:

- Mandatory for installation
- Optional for normal operation

2.2.4.2. Registry Access

ASCET places data in the Windows registry and requires read/write access to the following locations:

- HKEY_LOCAL_MACHINE\Software\ETAS
- HKEY_LOCAL_MACHINE\SOFTWARE\Classes\CLSID\{57C37195-98DD-43E8-BFF0-5015215B15FA}
- HKEY_LOCAL_MACHINE\SOFTWARE\Classes\AppID\{53C745C7-78D9-415f-8215-D1E8B652E5CF}
- HKEY_LOCAL_MACHINE\SOFTWARE\ETAS

- HKEY_LOCAL_MACHINE\SOFTWARE\ETAS\ASCET
- HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\
- HKEY_CLASSES_ROOT\Ascet.Ascet
- HKEY_CLASSES_ROOT\Ascet.Ascet.6
- HKEY_CLASSES_ROOT\Ascet.Ascet.6.4
- HKEY_CLASSES_ROOT\Ascet.Ascet.6.4.7
- HKEY_CLASSES_ROOT\CLSID\{A19A0268-9053-4ae8-BE50-C807A11245E2}
- HKEY_CLASSES_ROOT\AscetServer.AscetServer
- HKEY_CLASSES_ROOT\AscetServer.AscetServer.6
- HKEY_CLASSES_ROOT\AscetServer.AscetServer.6.4
- HKEY_CLASSES_ROOT\AscetServer.AscetServer.6.4.7
- HKEY_CLASSES_ROOT\CLSID\{63C4AEF3-B847-4b01-B25D-319D0CF1C698}
- HKEY_CLASSES_ROOT\.six
- HKEY_CLASSES_ROOT\SCOOP-IX_file
- HKEY_CLASSES_ROOT\SCOOP-IX_file\DefaultIcon
- HKEY_CLASSES_ROOT\SCOOP-IX_file\shell
- HKEY_CLASSES_ROOT\SCOOP-IX_file\shell\Open in Browser\command
- HKEY_CLASSES_ROOT\ascet
- HKEY_CLASSES_ROOT\ascet\shell\open\command
- HKEY_CLASSES_ROOT\asd
- HKEY_CLASSES_ROOT\asd\shell\open\command
- HKEY_CURRENT_USER\Software\ETAS
- HKEY_CURRENT_USER\Software\ETAS\ASCET

2.2.4.3. File System Access

ASCET requires access to the following file-system locations:

Folder	Default(s)	Installation	Use
<installation folder>	C:\ETAS\ASCETx.y	RW	RW
	C:\ETAS\LogFiles	RW	RW
	C:\ProgramData\ETAS\ETASManuals\	RW	R
	C:\ETASData\ASCETx.y	RW	RW
C:\Program Files\ Common Files\ETAS		RW	RW
C:\Windows\System32		RW	RW
%ProgramData%\ETAS		RW	RW
%AppData%\Local\Temp		RW	RW
%AppData%\Roaming\ETAS		RW	RW
C:\Temp		RW	RW

2.2.5. Release Test Configuration

See this section in the ASCET V6.4.7 Release Notes.

2.2.6. Supported Target Devices

The table below lists which targets are supported and the compiler and RTA-OSEK target versions with which code generation has been tested.

i NOTE
<p>ETAS has developed and tested ASCET-SE V6.4.7 using the compiler and RTA-OSEK versions indicated in the following table. ETAS highly recommends that you use the same tools in your toolchain.</p> <p>If you use different tools, then you may need to introduce additional verification measures in your development process to ensure that your system behaves correctly.</p>

Microcontroller	Compiler	RTA-OSEK
ANSI-C (Generic)	MinGW GCC V11.3.0	N/A
Freescale HC(S)12	Freescale/Metrowerks Compiler for HC(S)12 V5.0.30 (also used with CodeWarrior IDE V4.5)	RTA-OSEK for Freescale HC12/HCS12 with support of Metrowerks compiler v5.0.0
Freescale HCS12X	Freescale/Metrowerks Compiler for HC(S)12 V5.0.30 (also used with CodeWarrior IDE V4.5)	RTA-OSEK for Freescale Star12X with support of Metrowerks compiler v5.0.2
	Cosmic compiler V4.7.11	RTA-OSEK for Freescale Star12X with support of Cosmic compiler v5.0.1
Freescale MPC55xx	Wind River V5.5.1	RTA-OSEK for Freescale MPC55xx with support of Wind River compiler v5.0.1
Freescale MPC56x	Wind River V5.6.0	RTA-OSEK for Freescale MPC56x with support of WindRiver compiler v5.0.0
Fujitsu-16LX/16FX	Softune V3.0 L15 - compiler	RTA-OSEK for Fujitsu F2MC16LX with Softune Compiler v5.0.1
Infineon C16x (ST10)	Tasking VX v2.2r1 Build 088 for C16x	RTA-OSEK for Infineon C166 with support of Tasking VX compiler v5.0.1

	Tasking Classic V7.5r1 for C16x	RTA-OSEK for Infineon C166/C166V2 with support of Tasking compiler v4.0.0
Infineon XC16x/XC2000 Family	Tasking VX v2.2r1 Build 088 for C16x	RTA-OSEK for Infineon XC2000/XC166V2 with support of Tasking-VX v2.3r2 compiler v5.0.1
Infineon TC17x6	Tasking VX v2.2r3 Build 020 for TriCore	RTA-OSEK for Infineon TriCore 17x6 with support of Tasking compiler v5.0.2
NEC V850e	Green Hills V4.2.3b	RTA-OSEK for NEC V850E with support of Green Hills compiler v5.0.0
Renesas SH2-A	Renesas 9.01.01.000	RTA-OSEK for Renesas SH2-A with support of SHC compiler v5.0.0
Texas Instruments TMS470	TI TMS470 C/C++ Compiler V4.4.1	RTA-OSEK for Texas Instruments TMS470R1x and TI compiler v5.0.0

2.3. Delivery

See this section in the ASCET V6.4.7 Release Notes.

2.3.1. Used 3rd Party Software

See this section in the ASCET V6.4.7 Release Notes.

2.4. Installation

See this section in the ASCET V6.4.7 Release Notes.

2.5. Licensing

See this section in the ASCET V6.4.7 Release Notes.

3. Changes

This chapter describes changes with respect to the previous versions.

3.1. What's New

No new capabilities in this release.

3.2. Compatibility to Earlier Releases

ASCET-SE V6.4.7 is functionally backward compatible with previous versions. For further details please read the ASCET V6.4.7 Release Notes.

If SCOOP-IX files are generated with generator "Object Based Controller Physical", these files do not contain information about the implementation anymore (because the implementation is ignored for this generator).

For classes implemented as service-routines, the function prototypes are now generated by ASCET. This facilitates the static analysis if the implementation in hand-written C code conforms to the representation in the ASCET model.

3.3. Fixed Problems

The following problems were fixed in ASCET-SE V6.4.7.

ID	Title
672235	<p>Temporary variable used without initialization ASCET generates wrong code WHEN a code generator is used which takes the implementation specification into account (i.e. non-physical) AND the code generation option "Generate Float Limiter on Assignment" has been activated AND the code generation option "Common Subexpression elimination" has been activated AND an assignment to float typed element (requiring the limiter generation) is used multiple times within a MULTIPLEX expression ASCET generates a SWITCH statement (from the MULTIPLEX expression) which contains the usage of temporary variables in CASE statements without initialization.</p>
688594	<p>ASCET generates wrong typedefs for data elements in AUTOSAR interfaces. ASCET does not consider the name template for complex data elements (arrays and matrices) which are members of AUTOSAR interfaces correctly.</p>

3.4. 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>

3.5. Known Issues

At the time of release, there are no problems known for ASCET-SE V6.4.7.

4. Hints

NOTE

Bitlength

For **16 bit µC** targets it is necessary to keep the **maximum bitlength** configuration for **16 bit** as well, because most compiler will expect **16 bit** arithmetic regarding overflow handling, otherwise an undefined behavior of the compiled code may occur.

NOTE

Code Generation

It is recommended to perform a **clean code generation directory** before doing a complete project build. Otherwise ASCET may not consistently consider all changed options during make.

4.1. Release Notes

These release notes are copied to the `ETASManuals\ASCET V6.4` folder during installation and can be opened from there.

5. Contact, Support and Problem Reporting

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

ETAS subsidiaries www.etas.com/en/contact.php

ETAS technical support www.etas.com/en/hotlines.php