

Release Notes

ASCET-RP 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.

[HSP_UG_EN]

Hardware Service Pack V13.3 User's Guide

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 *distribution* is always a General emphasis and new terms are set in italics.
one-dimensional table of sample points.

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-RP (Rapid Prototyping) enables ASCET models to run on ETAS' Rapid Prototyping hardware for external bypass applications.

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.

During the ASCET-RP release-tests, the following compilers have been used for prototyping targets:

- MinGW GNU C Compiler V11.3.0
- QNX Compiler for PowerPC V6.5
- Hardware Service Pack (HSP) V13.3.0

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-RP V6.4.7 is based on INTECRIO 5.0.3 and therefore does not support the ES1130, ES1135 and RTPProPC targets any more.

3.3. New ASCET-RP V6.4.7 features

INTECRIO V5.0.3 can read ARXML files for the hardware configuration. To support this ASCET-RP V6.4.7 can import ARXML files as Hardware Description files now.

3.4. New ASCET-RP V6.4.5 features

ASCET-RP is now capable to be installed in a read-only directory like “C:\Program Files (x86)”. However, existing projects may fail to build successfully. In this case, please open the project properties, select the node “OS Configuration” and select the entry “Set to System Default” on the option “Configuration Tool Options”.

ASCET-RP supports SCOOP-IX 1.5 with Default Raster (V6.4.5) and Array Message Flattening (V6.4.3).

3.5. New ASCET-RP V6.4.1 features

ASCET-RP V6.4.1 supports the following new features:

- Support External bypass with FETK/ES89x hardware

3.6. New ASCET-RP V6.4 features

ASCET-RP V6.4 supports the following new features:

- SBB 2.1 for XETK (DISTAB17)
- Error handling of hooked service points similar to classical service points
- Seed&Key on XCPonCAN

3.7. New ASCET-RP V6.2 hardware configuration capabilities

ASCET-RP V6.2 supports the following new features:

- Daisychain modules, especially also ES930.1, can now be used with RTPRO-PC
- ETK bypass with the DISTAB17 communication method is now supported.
- For FlexRay configuration, the FIBEX V3.1 configuration file format can now be imported. In addition, FlexRay configurations with PDUs can now be used.

3.8. New ASCET-RP V6.1.3 features: RTPRO-PC support and service based bypass V3

ASCET-RP V6.1.3 supports ETAS RTPRO-PC the new ETAS product for real time prototyping on off-the-shelf personal computers. Besides, the new version of service based bypass (“SBB V3”) is supported.

For further details about the new features of ASCET V6.4 please refer to the What's New slideset and the respective manuals.

3.9. Changes when using ENUMs

For ASCET-RP projects using ENUMs, the project option "generate define Directives for Enum Values" must be set. This is due to different ENUM handling introduced by AUTOSAR support.

3.10. Fixed Problems

3.10.1. Problems solved in ASCET-RP V6.4.7

Solved 680383: **ASCET-RP uses outdated icons for INCA objects in the Transfer to INCA dialog.**

3.10.2. Problems solved in ASCET-RP V6.4.6

This section describes the most important changes in ASCET-RP V6.4.6:

Solved 650485: **Wrong calculated ECU memory address for selected elements of a 2D or 3D matrix for ETK and XCP bypass**

Signal Selection Dialog for ETK or XCP bypass: The memory location of selected elements of 2D or 3D matrices was calculated wrong in most cases. Signal data was not read/written from/to the ECU memory locations of the selected elements.

Solved 669047: **Model terminates unexpectedly during execution of model on the ES830**

3.10.3. Problems solved in ASCET-RP V6.4.5

This section describes the most important changes in ASCET-RP V6.4.5:

Solved 592963: **Focus remains on expired scoop ix**

If a project has been successfully transferred to INTECRIO, and the storage location is changed on a subsequent transfer, the INTECRIO workspace still uses the old transfer.

3.10.4. Problems solved in ASCET-RP V6.4.4

This section describes the most important changes in ASCET-RP V6.4.4:

Solved 605179: **Error in online experiment using arrays with data logger**

3.10.5. Problems solved in ASCET-RP V6.4.3

This section describes the most important changes in ASCET-RP V6.4.3:

Solved 582485: Bypass Timeout for XETKs using HSP 11.7.0

If HSP 11.7.0 is used on the supported RP Hardware together with an XETK Bypass it could happen, that a sent command from the XETK was not recognized by the RealtimelIO Driver running on the RP Hardware. In consequence, a timeout was forced which resulted in an interruption of the HW connection. This HF fixes the used RealtimelIO Drivers.

Solved 575491: Port Names containing "." or "[" are not fully supported by scripting

The `GetByName()` scripting function returned NULL if port name contained "." or "[".
This HF solves that problem.

Solved 580718: Improved L1 message buffer for E-Target communication of large arrays

Large arrays in the software module (Simulink and ASCET) could not be exchanged between the Experiment and the Target as the used L1 Protocol didn't provide a buffer (32kb) which could handle these large arrays.

This HF increases the buffer size dynamically up to 8MB.

Solved 580722: XCPplus A2L files cannot be imported for XCPonCAN

Having several `transport_layers` defined in one single A2L file is used in the INCA surrounding (Measurement & Calibration) since longtime. Unfortunately, INTECRIO cannot handle these files as the used keyword `XCPplus` is not supported by INTECRIO, which thus blocks the reuse of such A2L files. This HF introduces the support of the `XCPplus` keyword and allows the selection of the right `transport_layer`.

Solved 581526: Persistent Logging not available for RTPRO-PC

Model termination and L1 error occur For the RTPRO-PC target the persistent logging feature was not available which could cause a direct model termination after start. This HF introduces that feature also for the mentioned target.

Solved 576444: ES910 model reset on StopOS

Under some circumstances it could happen, that a Bypass-Driver class variable had not been initialized which led to a model crash on the RP target

Solved 557427: Wrong error message if ES910 ETH master & slave are configured in different subnets

3.10.6. Problems solved in ASCET-RP V6.4.2

This section describes the most important changes in ASCET-RP V6.4.2.

Solved PR 546585 Restart strategy of ETK Bypass system with ES910 after communication interrupt

IF ETK Bypass on ES910 is used with INTECRIO V4.6 SP1 HF1, then the restart strategy of an ES910 after a failed write back of signal values to the ECU is different than expected.

Formerly ETK-bypass went into emergency stop in case of write back error, which can be caused by either a reset, a wire interruption between ES910 and ECU or others. This stopped bypass and ensured defined system behavior. With the affected versions, this emergency stop is prevented for 300ms.

Solved PR 552373 [ASCET-MD] ERROR(): Could not copy file "D:\ETAS\ASCET6.4\CGen\etasActivateTasklsr.h" during Build for ES910

During build for ES910 the following error message occurs: `ERROR(): Could not copy file "D:\ETAS\ASCET6.4\CGen\etasActivateTasklsr.h"`. The file is missing in CGEN folder.

Solved PR 555989: ETK Bypass: Incorrect Memory Blocks written when block greater than 512 bytes

If a project has one Service Point whose ID is greater than 512, `SrvResPtId` table will be incorrectly written, and the bypass on this SP will not work. The problem affects only ETK + ES910, XETK + FETK are not affected.

3.10.7. Problems solved in ASCET-RP V6.4.1

This section describes the most important changes in ASCET-RP V6.4.1.

Solved PR 517299 Control byte not reset to 0 before flashing ES910

When flashing an ES910, a control byte which should be set back to 0 isn't set back. This byte is used by customer SW to determine whether the ES910 is in a working state. As long as it is not 0, it means the ES910 is working. The customer SW thinks the ES910 is in a working state and the bypass fails.

Solved PR 526272 Baud rate is accidentally changed

Baud rate is accidentally changed from 500.000 to 1.000.000 when copying CAN I/O node for ES1000->ES1135->ES1222->CAN_IO.

Solved PR 533472 Missing static ISR for ES910

The interrupt service routine (ISR) for task activation shall be added to the OS configuration of the ES910, similar to the RTProPC

Solved PR 520533 Flash ASCET model to ES1135 ROM failed.

After flashing the ES1135, a VME SysReset should be performed. This is the way INCA flashes this device. But not ASCET. Additionally to this bug the IP-Manager will not be released after doing a hardware search

Solved PR 516735 Model crash caused by spurious interrupts on VME backplane of ES1000

The RTIO interrupts of all VME slave cards are provided to the ES1135 on a common VME interrupt line (Level 5). When an interrupt is pending, the ES1135 branches in the RTIO interrupt handler. There a VME vector fetch cycle is performed to determine the triggering VME slave card. In some cases, this vector fetch cycle causes a Machine Check Exception on the PowerPC if a slave card does not respond within the VME Bus timeout. This exception leads in an endless loop and thus to a crash of the model.

Solved PR 516757 Model crash caused by persisting VME Interrupt of ES1222

On the ES1222, a DAMC (Measurement Controller) transfers the incoming CAN messages into the DPR towards the VME bus and generates an Interrupt towards the ES1135. Triggered by the interrupt the ES1222 RTIO driver provides the model with these messages. Because of certain race conditions, the interrupt stays active, although the concerned CAN messages have been processed already. The system is not able to leave this state and it crashes.

Solved PR 519264 Incorrect change of application data on Experimental Target

INCA based experiments¹ use inconsistent data
WHEN code is generated by ASCET for an experimental target
AND the model contains one or more non-scalar elements (maps, curves, arrays, matrices)
AND a reference is generated by ASCET for those elements (implicit, explicit)
AND the reference is ordered before the referenced element in the class structure of the generated code

¹ i.e. ASCET V4.x experiment (2GEE), INCA, INTECRIO (via INCA-EIP only), LabCar Operator V1.x/V2.x

The procedure for "Upload Data"² fails for the referenced element. The data set of the experiment may include different data compared to the data running on the target hardware.

Solved PR 530592 [ASCET-RP/ ES1222] Spontaneous interruption of CAN receipt on ES1222

During runtime of a complex customer model from ASCET V6.2.1 on ES1135 the CAN receipt interrupts for several seconds (up to 90). In this case, a complete port of ES1222 is affected.

3.10.8. Problems solved in ASCET-RP V6.4.0

This section describes the most important changes in ASCET-RP V6.4.0.

Solved PR 464139: [ES910] Flashed ASCET-RP model on ES910.3 does not start SBBv3 after wake up

The bypass activation after start from flash is not working properly in some special cases.

3.10.9. Problems solved in ASCET-RP V6.3.0

This section describes the most important changes in ASCET-RP V6.3.0.

Solved PR 343635: ASCET-RP HWC : Configuration Cannot be Save or Exported.

The problem is related to a windows mechanism for signing the hwx file that stores some data at a user-specific folder. After IT migration probably the local folder has changed for the same user, but the windows mechanism is still trying to access the old one.

The bugfix might not help if an INTECRIO/ASCET-RP/RLINK/VLINK without the fix has already been used for a different user name.

In these cases, the machine key store at ""C:\Documents and Settings\All Users\Application Data\Microsoft\Crypto\RSA\MachineKeys"" has to be deleted by an administrator.

Solved PR 364268: ASCET 6.1.3: write-protected project for RTProPC cannot be generated

For a write-protected project (including components which are also write-protected (i.e. all components are under version control), the code generation for RTPRO-PC aborts with an error message.

Solved PR 402296: The checksum and alive counter feature is not supported with ASCET-RP.

If the user imports a Fibex file that contains checksum and alive counter configuration, he will have to manually change the signal parameter "signal purpose" to "Normal Payload". Otherwise, he will not be able to build the configuration.

Solved PR 436890, 432906: If more than 1 ES1232 board exists in an ES1000 system and different ETK+ECU types are used, the bypass start fails. No bypass online operation is possible.

Now arbitrary ETK+ECU combinations for parallel operation are supported again for ES1000 systems.

Solved PR 425297: Logging functions asdWriteUserDebug and asdWriteUserError may get out of synchronization

The logging functions asdWriteUserDebug and asdWriteUserError, which are synchronized between OS tasks via mutex, may be blocked endlessly.

The probability of the issue increases with the number of logging commands.

² = part of initialization procedure of the experiment in ASCET and INCA

3.10.10. Problems Solved in ASCET-RP V6.2.1

This section describes the most important changes in ASCET-RP V6.2.1.

Solved PR 364267, 383360: For a write protected project using RTPRO-PC, the build process failed.

This is now solved.

3.10.11. Problems Solved in ASCET-RP V6.2.0

This section describes the most important changes in ASCET-RP V6.2.0.

Solved PR 310806: "replace" command does not work on hardware configuration modules

If the user has created a dedicated sequence of processes for the hardware configuration, this sequence is not preserved during replacement of the module.

Recommendation: rearrange the processes manually after replacing the module.

Solved PR 323350, 341959: System requires unique ISR names within a complete hardware configuration module

When using the new hardware configurator, the ISR names used in the different hardware systems had all to be different. ASCET-RP wrongly checked the uniqueness of names over the complete hardware configuration module instead of only the active hardware system.

Solved PR 339887: Empty list of project files triggered unnecessary repeated code generation

IF the XML based storage format was used (workspace / *.amd export)

AND a project had no project files assigned for the current target

AND the empty project files tab in the project editor were selected

THEN ASCET treated the project as changed by the user in some cases although there are no changes in the project.

Solved PR 299906 (79090): Hardware access could be blocked by firewalls

Access to ETAS hardware or RTPRO-PC could be blocked by firewalls (also, e.g., as they are included in RAS client setups).

Solved PR 308711: Project transfer to INCA V7.1.0 did not work

ASCET versions earlier than V6.1.3 do not recognize INCA V7.1 during project transfer.

Recommendation: Import prototyping projects from these older versions into INCA V7.1.0 manually.

Solved PR 324377: For RTPRO-PC, the generated A2L file contained wrong byte order information

Byte order "MSB first" was used in the A2L file instead of "MSB last" in the A2L file generated by ASCET-RP

Solved PR 329884: ActivateTaskWithId() cannot be invoked outside RTA-OSEK.

When invoking OSEK tasks from outside OSEK, e.g. from QNX, the `ActivateTaskWithId()` function cannot be used.

The new function `etasActivateTaskWithIdViaIsr()` has been implemented for this purpose. This function can be used only if a static ISR function (for IRQ Vector 216) is supplied by the OS configuration in ASCET-RP.

Solved PR 352024: ASCET crashed if the OS configuration was changed while the hardware configuration was open

E.g. changing a task type from "alarm" to "software" caused ASCET to crash, if the hardware configurator was open at the same time.

Solved PR 332522: Walkback when pressing "Browse ... " in project transfer to INCA

In the project transfer to INCA, the walkback "OSSafearray does not understand parray" occurred when the user pressed the "Browse" button.

3.10.12. Problems Solved in ASCET-RP V6.1.3

This section describes the most important changes in ASCET-RP V6.1.3.

Solved PR 97150 Automatic Message mapping in hardware configurator fails for ES1303

During automatic mapping, all ES1303 signals are mapped to only two software messages "in" and "out".

Recommendation: Do manual mapping.

Solved PR 98341 Build process for ES910 fails once in a while

Due to a compiler error, the build process for ES910 fails sometimes.

Recommendation: Try it again.

Solved PR 309277 (2011403747): ASCET EE logged wrong time stamps in MDF

Timestamps were inaccurate in MDF files logged with the ASCET experiment environment.

Solved PR 309106 (2011402521): Build process failed after deleting tasks from the OS configuration in ASCET-RP V6.1.2

The ASCET-RP build process relies on consecutively numbered tasks. With ASCET-RP V6.1.2, task numbers were not consecutive anymore after deleting tasks.

Solved PR 309221 (2011403408): Project size for ES910 was limited by linker

The project size for ES910 projects was limited by the size of the linker's command line argument. If the list of file names for the linker was too long, the message "Die eingegebene Zeile ist zu lang" was shown.

Solved PR 308171, 308505 (100318, 100924): Projects cannot be built due to non-consecutive task numbers in ASCET-RP V6.1.2

Under certain conditions, the task number sequences generated by ASCET-RP V6.1.2 contained gaps. This prevented from building the corresponding projects.

Solved PR 2002446 For bypass signals, ASCET-RP disregards value limits defined in A2L

Different from INTECRIO, ASCET-RP did not regard the value limits defined in the A2L file.

When using the new hardware configurator, the values of the hardware signals are now limited to their defined value ranges.

When using the legacy RTIO editor, unlimited values are used like in previous versions of ASCET-RP.

3.10.13. Problems solved in ASCET-RP V6.1.2

This section describes the most important changes in ASCET-RP V6.1.2.

Solved PR 99102

During data logging, some time stamps were not logged correctly

Time stamps of value changes could be wrong.

Solved PR 2002399

A2L parser did not use '[' and ']' characters in formula names correctly

If COMPU_METHOD names in A2L files contain square brackets, the corresponding formulas were not imported correctly. Signals referring to these formulas could not be used for bypass operation.

Solved PR 2002427

Projects containing hardware configuration could not be used in INTECRIO

If a project contained a hardware configuration created by the new hardware configurator, this project could not be used for integration in INTECRIO.

Solved PR 2011400850

Prototyping system sends too many and wrong CAN frames

If a model uses multiple CAN send messages scheduled by different tasks with different priorities, ES910 may send old CAN send messages again in one burst under very rare timing conditions.

3.10.14. Problems solved in ASCET-RP V6.1.1

This section describes the most important changes in ASCET-RP V6.1.1.

Solved PR 97521 Creation of enum type model messages failed in hardware configurator

Creating new software messages of enum type in the new hardware configurator caused a system error.

Solved PR 95331 Exist tasks were delayed up to 100 ms

Switching to the "inactive" application mode could be delayed up to 100 ms, thus also delaying corresponding exit tasks.

Solved PR 2010403679 Changed behavior for creating model messages from hardware signals

Software messages created from hardware signals automatically by the new hardware configurator, will have model types according to the following rules:

- Messages of "log" model type are created from hardware signals implemented as Boolean types.
- If the formula is "identity":
 - Messages of "sdisc" model type are created from hardware signals implemented as sint.
 - Messages of "udisc" model type are created from hardware signals implemented as uint.
 - Messages of "cont" model type are created from hardware signals implemented as float.
- If the formula is not "identity"
 - Messages of "cont" model type are created from the corresponding hardware signals, irrespective of their implementation types.

3.10.15. Problems solved in ASCET-RP V6.1.0

This section describes the most important problems solved in ASCET-RP V6.1.0.

Solved PR 70790: General Protection Fault with external C code and GCC V3.4.4

The linker delivered with ASCET-RP could not handle missing symbols correctly.

Solved PR 81506: Bit Values were not selectable as Bypass Output Values

With Bypass setting "All Values" instead of "Bypass Only", Bit Values were not selectable as Bypass Output Values.

Solved PR 82129: ASCET failed to retrieve INCA version after closing INCA

After opening the INCA transfer dialog, pressing the database selection button, waiting for INCA to appear and closing INCA again, ASCET informed you that INCA could not be found.

Solved PR 83053: Sporadic deadlocks in INCA project transfer

The INCA project transfer was sometimes locked.

Solved PR 84754: Code generation without "Use OID for..." did not work in INTECRIO

Code could not be integrated by INTECRIO, if OID generation is disabled.

Solved PR 86867 No model back animation was possible for ES910.3

ES910.3 was not found by ASCET-RP

Solved PR 2008402995 ES1330 counter modes confused

The names for the high time measurement and period measurement hardware signals are mixed up in the old RTIO Editor. "High Time Measurement" mode measures the period, "Period Measurement" measures pulse high time. This problem does not exist in the new hardware configurator.

Solved PR 2008406084: Preparing ETK bypass label list needed a lot of time

Displaying the bypass label list was very slow with the old RTIO editor. This is faster with the new hardware configurator.

Solved PR 2009404790: ASCET transfer to INTECRIO/LABCAR: OIL file was not updated correctly

After renaming a module, clean all and touch recursive had to be executed manually before the project transfer. Otherwise, the OIL file was not correct.

3.10.16. Problems solved in ASCET-RP V6.0.1

This section describes most of the previously known problems solved in ASCET-RP V6.0.1.

Solved PR 74677: Calibration editor calculated wrong values

During modification of parameters or variables, wrong values were used when entering a value greater than the maximum allowed value of a parameter or variable.

Solved PR 82034: "Delete" button in RTIO editor was deactivated incorrectly

Under certain circumstances, the delete button was inactive.

Solved PR 82890: Errors in INTECRIO-EE with A2L created by ASCET (slash in name)

Under certain conditions, ASCET generated slashes into A2L names, which cannot be handled by INTECRIO.

Solved PR 83352 IP-Manager did not work correctly under MS-VISTA

Using the IP-Manager via the ASCET Network Manager in combination with INCA 6.2.0 did not work under certain circumstances (see MS-VISTA section of this document).

PR 2008403470: "Resolve globals" executed for write protected project

"Resolve globals" could be used to change a write protected project.

3.10.17. Problems solved in ASCET-RP V6.0.0

This section describes most of the previously known problems solved in ASCET-RP V6.0.0.

Solved PR 68101: Task selection for INTECRIO Back Animation

If an experiment environment saved for target ES1130 or ES1135 is to be opened with the target "Prototyping", no task exists and all measurement variables are removed from the EE because no

acquisition task can be selected. However, acquisition tasks are not really needed because the data is acquired asynchronously by polling.

Solved PR 70770: DCM V1.x import for table does not work

DCM import for Table in syntax "without Sampling Points" resp. DCM V1.x does not work. The extended V1.x format and DCM V2.x are working.

Solved PR 75528: INCA Transfer dialog: All browse buttons initially enabled

If no database is selected in the INCA transfer dialog, but e.g. the workspace browse button is pressed, INCA starts without a selection dialog. The customer shall be supported by use of the dialog. E.g. only controls are enabled, which can/shall be filled/used.

Solved PR 81018: INCA Transfer from ASCET crashes

When transferring ASCET models to INCA-EIP the selection of the workspace crashes during selection of a DB folder.

Solved PR 2007400172: SCOOP-IX: No update of model view, if option changed

There is no update of the model view, if the model transfer option "Ignore internally connected Messages" was changed.

Solved PR 2007400609: System Error at import of ASAM-2MC file

Importing an ASAM-2MC file including a SOURCE definition of the IF_DATA ETK section without a QP_BLOB results in a system error (WB).

Solved PR 2007401591: Missing warning or error for invalid DCM data

Missing warning or error for invalid DCM data. Example:

Load DCM with parameter: k=0.x9

No error or warning in monitor window

Result: k=0

Solved PR 2008402269: Update fails after reinitialization

Update dependent parameters does not work correctly after performing the command "Reinitialize (Both)"

Additionally a large number of system errors has been fixed.

3.11. 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>

3.12. Known Issues

This section describes the set of known problems of the released version of ASCET-RP V6.4.7.

Hardware initialization

For proper operation of the experimental target, it is mandatory to have the correct hardware initialization on the simulation node (ES1130, ES1135). The simulation nodes are VME-Bus boards which are operated as slave devices. For these intelligent boards it is mandatory to initialize the VME-Bus interface to the system controller in the right way.

To guarantee the correct initialization, we recommend to flash a dummy ASCET project (e.g. empty or a simple adder) built with the latest ASCET version onto the simulation node. Please use e.g. the Component / Flash Target command in the ASCET project. To do this for the ES113x simulation node, the PC has to be connected directly to the ES113x.

Interrupt handling in ERCOSEK Stop mode

After the first start of an interrupt task, which is defined in the ASCET OS, it is executed in the application mode 'inactive' (ERCOSEK Stop), too.

Optional FIBEX parameters are required by ASCET

To import a FIBEX file into ASCET-RP, the following parameters must be provided although the standard lists them as optional:

- NETWORK-MANAGEMENT-VECTOR-LENGTH
- SAMPLE-CLOCK-PERIOD
- BIT
- EXTERN-OFFSET-CORRECTION
- EXTERN-RATE-CORRECTION
- SAMPLES-PER-MICROTICK

Known PR 51277: High interrupt load seemingly caused by ES1223

A high interrupt load seems to be caused by an ES1223 board. Further tests revealed that the high interrupt load occurs immediately after Start ERCOS is pressed in the attached project/experiment even if the ES1223 is the only card in the system (besides ES1120 and ES1130).

Known PR 62308: Data Logger loses buffer content

Due to limited buffer size, content may get lost when the buffer of the data logger overflows.

Recommendation: With ASCET-RP V6.1, an API function is available, which allows the model to read the buffer fill level. Please contact ETAS if required.

Known PR 74310: Valid local license not found if LAN connection is deactivated

Current laptops prepare a feature to deactivate the Ethernet adapter if the cable is not plugged in. As a result, the request for the license fails. This effects valid local licenses as well as borrowed licenses. Such features have to be switched off. Usually they are located at the power or network management.

Known PR 82797: Distab12 Word Mode only allows using about half the bypass buffer

DAT_MOD = 2 (Word Mode) is not supported, please use DAT_MOD = 1 (Byte Mode) instead.

Known PR 304052 (90522): Time monitoring and receive indicator are not supported for HW devices

With the new hardware configurator, the hardware signals for time monitoring ("groupName_dT") and for indication of received messages ("groupName_Rec") are not supported.

Known PR 90865: Converted A2L files cause validator errors

When converting ETK bypass projects from the old RTIO editor to the new hardware configurator, the corresponding A2L files are converted as well. When reading the converted files with the new hardware configurator, validation errors may occur, e.g.:

```
ERROR(HWC0xC07E0301): Identifier for tagging optional parameter or block ending symbol ('/end' or '{}') expected
```

These messages are harmless, though.

Known PR 90911: Receive CAN Frame in Exit Task doesn't work

With the old "RTIO editor", receive can frames cannot be automatically assigned to exit tasks.
Recommendation: Assign the signal group to the exit task manually after RTIO code generation.

Known PR 91490: Direct transfer of an ES910 project to INCA-EIP V6.2.1 and lower is not possible

For INCA-EIP V6.2.1 and lower, ES910 projects could not be transferred directly. Manual import into INCA is possible, though.

Known PR 94916 (305804): Wrong minimal task period (50µs) shown for ES910

The actual minimal task period on the ES910 is 100 µs. The OS editor shows 50µs as the minimal allowed period, though.

Recommendation: Do not use task periods smaller than 100 µs.

Known PR 97300: During ASCET back animation through INTECRIO, dependent parameters can only be updated through the toolbar button

Updating dependent parameters through the corresponding menu item is disabled.

Recommendation: Use the toolbar button instead.

Known PR 98310, 2010405599: When using the new hardware configurator, exported hardware signals cannot be measured.

Messages exported by the hardware configuration (using the new hardware configurator), are not listed in the A2L file created by ASCET-RP. As a consequence, they cannot be measured during the experiment.

Recommendation: Use imported messages in the hardware configuration module and corresponding exported messages in the software modules or in the project.

Known PR 99399: "ERROR(HWC0xC0560004): Error while logging" occurs.

Due to an internal error, this message may occur with the new hardware configurator.

Recommendation: Close and reopen the hardware configurator.

Known PR 2002215: Double-byte characters in path names and file names are not supported

With the new hardware configurator, double-byte characters cannot be used in path and file names

Known PR 2002455: Module named "ES910" is not allowed

A compilation error occurs, if this reserved name is used in a project.

Recommendation: Please consider the list of reserved keywords in the online help.

Known PR 2002470: ASCET-RP cannot handle multiple init tasks

Especially when using the hardware configurator, setups can be created using multiple init tasks. This is not supported by code generation, though. In this case, the error message "ERROR(HWC0xC0552005): Creation of OIL model failed. The OIL file may be incomplete" and consecutive messages are shown.

Recommendation: Assign all initialization processes to one task.

Known PR 2008402797: CAN group renaming impossible if "receive debug signals" are active

CAN groups cannot be renamed, if "Generate Receive Debug Signals" is activated.

Recommendation: Deactivate (and later reactivate) debug signal generation. Note that you have to reassign their mappings again when they are reactivated.

Known PR 2008405686: Wrong 5-parameter and Moebius formula representation in SCOOP-IX

While these formula types are ignored and replaced with an identity conversion during code generation, they are represented wrongly in SCOOP-IX.

Recommendation: do not use these formula types. They are unsupported by code generation anyway.

Known PR 245495 (95373): Dependencies between ES910 ETK bypass and INCA M/C, if both use the same measurement rasters

If a measurement raster is used by both the ES910 bypass and INCA measurement, the system behaves as follows:


- If INCA measurement was started before the bypass, and the user tries to start bypass operation, the bypass cannot be started.
- If the bypass was started before measurement with INCA V7.0 or an older version, and the user starts measurement with INCA, INCA allocates the raster for measurement and shows a corresponding warning. Although the raster is not available for bypass operation anymore, the prototyping system does not show a corresponding error message. Only when the bypass operation is stopped, an error message is shown indicating that the measurement raster was lost.
- The same holds true if the user enables the option “steal measurement rasters” in INCA V7.1.

Recommendation: Make sure to use measurement rasters either for measurement with INCA or for bypass, but not both.

Known PR 286585: Hardware signal groups cannot be renamed when "Generate Receive Debug Signals" is activated

When the code generation option "Generate Receive Debug Signals" is activated, hardware signal groups cannot be renamed.

Recommendation: Disable the option "Generate Receive Debug Signals" before renaming the signal groups.

 NOTE
When re-activating the option "Generate Receive Debug Signals", the debug signals currently <i>need to be connected manually</i> again.

Known PR 287655: Enabled task monitoring may cause build errors

The task names generated for task monitoring automatically may cause name conflicts and, as a consequence, build errors.

Recommendation: Disable task monitoring for RP (and also for the offline experiment, if applicable) in this case.

Known PR 304260 (90957): Mapping of hardware receive signals to enum typed messages is not supported

Recommendation: Map the hardware signal to an integer typed message and assign its value to the enum.

Known PR 305290 (93298): Co-operative tasks may interrupt each other

For ES910 and RTPRO-PC, co-operative tasks may interrupt each other. This may lead to slightly different timing behavior between prototyping experiments and the final ECU setup. The data consistency on message level is ensured, however.

Recommendation: none.

Known PR 305786 (94860): Unexpected behavior of project transfer to INTECRIO

The project transfer settings suggest that a system project can be created automatically. This is not the case, however.

Recommendation: Create the system project manually before the transfer.

Known PR 310832: "Resulting Period" is not updated correctly during changes in OS-Editor

When the user changes periods or delays in the OS editor, the “resulting period” and “resulting delay” entries are not updated before the next build procedure. This is a problem of representation without functional impact.

Recommendation: Build the project, then check the values.

Known PR 311594 (2011405440): One software task can be triggered by one event only

Contrary to the legacy RTIO editor, the new hardware configurator only allows one event per software task.

Recommendation: Create a second software task triggered by a second event and use the `ActivateTask()` OSEK API command to trigger the first task.

Known PR 312200: Restrictions in service based bypass setup

When using the latest generation of service based bypass ("SBB V3") with ASCET-RP, certain restrictions apply. In particular, to make the bypass work reliably, the OS configuration must be created in a way that tasks using the same hardware trigger resource cannot interrupt each other. Contrary to INTECRIO, ASCET-RP does not provide an automated OS configuration.

Recommendation: In doubt, please contact ETAS for support.

Known PR 314213: Loopback adapters from INTECRIO-VP installation impact ASCET-RP usage

ASCET-RP tries to connect to the VP Loopback adapters, if they are active.

Recommendation: Deactivate the loopback adapters during RP usage.

Known PR 314333: Flashing the E-target fails if the EE is opened and closed before

Recommendation: Flash the E-target without opening the ASCET experiment environment before.

Known PR 323270 (2011406697): Task Periods <100µs are not supported with RTPRO-PC

When using RTPRO-PC, tasks that have periods <100µs are not executed periodically but only once.

Recommendation: none.

Known PR 323309 (2011406733): Hierarchical names are missing for global characteristics

For global characteristics, which are embedded in modules or classes, the hierarchy information (model path information) is not generated in a2l description file. Only the primitive name is created.

Recommendation: Make the characteristic local, if necessary.

Known PR 325005, 326653: Error message "error: conflicting types for <message name>" when building an ES910 project

In certain constellations, especially when using classes as method arguments, this message can occur due to header file optimizations specific for ES910.

Recommendations:

- Use a record instead of a class as method argument
- or set the option "Header Structure" in the project properties from "Project" to "Component".

Known PR 329733: Automatic hardware signal mapping creates inconvenient directions for CAN hardware signal messages

When messages are automatically created from hardware configurations, their direction depends on the direction of the corresponding hardware signal. This is inconvenient for the subsequent automatic signal mapping, if the same message name appears in the hardware configuration with two different directions. For the unidirectional CAN messages, the following error message occurs in this case:

```
ERROR(HWC0xC07D0121): Unable to create message 'CAN_Signal'.
```

Recommendation: After automatic creation of the messages, switch them to "send/receive" manually. Then do automatic signal mapping.

Known PR 330413: 1D table MEASUREMENTs are not supported in INCA-EIP

1D tables are not supported by the ASAM 2MC 1.4 Standard as ASCET-RP creates it. They are represented as scalars.

Recommendation: INCA has no chance to find out whether this is a scalar or array or curve or map. So it should only be used for scalars.

Known PR 341728: Fatal L1 Server Error When Reconnecting an Experiment to a Configuration With Daisy Chain

If a daisy chain, e.g. containing an ES930, is connected to an ES910, its IP address needs to be defined in the configuration of the Ethernet Controller node in the hardware configuration.

If this IP address conflicts with the address range used in the ETAS IP manager on the host PC, a fatal L1 server error occurs on the PC, when you start the experiment, close it, and then try to reconnect it to the running prototyping target again.

Example:

For a prototyping device with the IP Address 192.168.40.242, a start address of 192.168.40.10 and a stop address of 192.168.40.227 are selected in the IP manager. In this case, the Ethernet Controller in the hardware configuration should be in the range above 192.168.40.227, but unequal to 192.168.40.242.

Recommendation:

For the Ethernet Controller, choose an IP address, which is outside the range used by the IP manager and unequal to the address of the prototyping device itself.

Known PR 351054: Build fails for hardware configurations from ASCET-RP V6.1.3 containing Daisychain setups

The build of projects containing ES4xx/ES6xx/ES930 created with ASCET 6.1.3 or earlier will fail.

Recommendation: To resolve the error, proceed as follows:

- A. Open the hardware configuration
- B. Make a small modification (e.g. by adding a comment to a parameter)
- C. Save the hardware configuration

Afterwards, the build will succeed.

Known PR 357962: Hardware tree view is not updated correctly on Windows 7 without admin rights

For Windows 7 users without administrator rights, the hardware tree view is not updated immediately during hardware system changes.

Recommendation: Save the hardware configuration to update the tree view.

Known PR 358405: Invalid non-volatile RAM contents may be applied to experiment

In very rare cases, outdated or invalid content of the non-volatile RAM memory may be applied to an executable prototype although it was not meant to be used with this prototype. The reason is that a 32 bit CRC checksum mechanism is used to determine whether the content of the non-volatile memory is valid for a specific model. As a consequence, at a probability of $1/2^{32}$, non-volatile memory content is recognized as valid although it does not fit the model.

Recommendation: none.

Known PR 416532: INTECRIO 4.4.1: ASCET Transfer to INTECRIO leads sometimes to INTECRIO crash

Recommendation: Either deactivate "Open last workspace automatically" or leave INTECRIO open in the background during the ASCET INTECRIO transfer.

Known PR 571801: RTIO Driver locks when starting Bypass for BigEndian FETKs

The affected ETK device is dmETK-S21.

ASCET-RP 6.4.3 provides the right RTIO driver, however the firmware supporting this must be at least HSP 11.5.1.

4. Hints

4.1. Release Notes

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

4.2. ETK Bypass

Some ETKs support to locate the bypass display table (DISTAB) in the RAM memory. These are ETK11, ETKP3.0, ETKP4.0, ETKP7.0, ETKP9.0, ETKP20.0, ETKT1.1, ETKT2.0 and ETKV1.0 in combination with ES1232. INCA V6.0 and HSP V6.0 or newer is required to initialize the ETK to use DISTAB in RAM.

DISTAB 16 is supported in the DISTAB 13 compatibility mode only. Assigning an ASAM-2MC file including DISTAB 16 in the hardware configuration will result in switching automatically to DISTAB 13 and showing a warning in the monitor window.

4.3. Handling of ASAM-MCD-2MC Files when Converting Projects to New Hardware Configurator

See the ASCET RP User Guide for important hints on the migration to ASCET-RP V6.1, especially when using the new hardware configurator.

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.etas.com/en/contact.php

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