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Title :	Release-Notes			



Product :	XETK-S23.0			
Title :	Release Notes			
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Created:	Name M. Higgins	Department ETAS-DAP/XPC-Ply	Signature M. Higgins	Date 2023-09-15
Released:	Name T. Collins	Department ETAS-DAP/XPC-Ply	Signature T. Collins	Date 2023-09-15
C h a n g e s				
Revision	Description	Date	Name	Signature
01	Initial Version, HSP13.3.0 and HW state E014/02	2022-12-13	M. Higgins	M. Higgins
02	Updated HDC/Firmware with HSP13.4, added known issues	2023-03-28	M. Higgins	M. Higgins
03	Updated HDC/Firmware with HSP13.6	2023-09-15	M. Higgins	M. Higgins

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1 General Information

1.1 Safety Notice

Calibration activities influence the behavior of the ECU and the systems controlled by the ECU. This may result in unexpected behavior of the vehicle and thus can lead to safety critical situations. Only well-trained personnel should be allowed to perform calibration activities.

1.2 System Requirements

The following minimum system prerequisites must be met:

Required Hardware

- Intel Core-i7, 4. Generation (or higher), Quad Core
- Min. 16 GB RAM
- DVD-ROM drive (for installation)
- PCIe network adapter with Intel Chipset (no USB)
- Graphics with a resolution of at least 1024x768, 256MB RAM, 16bit color and DirectX 9

Required Operating System

- Windows® Vista SP1 (32bit) or higher,
- Windows® 7 SP1 (32 or 64bit*) or higher.
- Windows 8 (32 / 64 bit*)

*) INCA uses the 32bit compatibility mode on a 64-bit operating system.

Required Free Disk Space

- 250 MB (not including the size for application data)

The following system prerequisites are recommended:

Recommended Hardware

- Intel Core-i7, 4. Generation, Quad Core or equivalent
- 16 GB RAM
- DVD-ROM drive (for installation)
- PCIe network adapter with Intel Chipset
- Graphics with a resolution of at least 1280 x 1024, 1GB RAM, 32bit color and DirectX 9

Recommended Operating System

- Windows® 7 SP1 64bit (INCA uses the 32bit compatibility mode on a 64-bit operating system)

Recommended Free Disk Space

- >500 MB

1.3 Restrictions

WINDOWS® 95b, WINDOWS® NT, WINDOWS® 2000, WINDOWS® 98SE, and WINDOWS® XP are not supported

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1.4 Miscellaneous

To ensure the highest data throughput from the XETK device up to the PC system the following recommendations should be considered:

- Set power save mode to the highest level
- Disable virus scan
- Use network adapter for ETAS application only
- Update network adapter drivers

2 Version Syntax and Tool-Chain Information

2.1 Version-Syntax of the XETK-S23.0

The XETK-S23.0 hardware version information is located on the product sticker and can be read out of the XETK using the firmware update tool HSP or XETK Configuration Tool.

Hardware State Syntax: **abbb/cc**

Description (modification details refer chapter 5)

a	PCB Version (A=V1.0, B=V1.1, C=V1.2, ...)
bbb	PCB Hardware State (010, 011, 012, ...)
cc	PCB Population Variant (00, 01, 02, ...)

The XETK-S23.0 Firmware version information can be read out of the XETK using the firmware update tool HSP or XETK Configuration Tool. It is not printed onto a XETK sticker.

Firmware-Version Syntax: **aaa.bbb.ccccc**

Description (modification details refer chapter 5)

aaa	Major Release (0...255)
bbb	Minor Release (0...255)
cccc	Revision/Patch (0...65535)

Firmware Packages:

HDC Work	aaa.bbb.ccccc
Firmware Work	aaa.bbb.ccccc
HDC Rescue	aaa.bbb.ccccc
Firmware Rescue	aaa.bbb.ccccc
CPLD	aaa.bbb.ccccc

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2.2 Version information of the tool-chain components

To get this XETK running with the other components of the tool-chain please make sure that the version mentioned below or a newer one is used. If your software-, firmware- or hardware version is older, please update it.

If you have any problems to get this XETK running, please contact our local customer support or sales representative.

Updates or refreshes can be downloaded from the ETAS homepage:

<http://de.etasgroup.com>

<http://en.etasgroup.com>

2.3 Software and microcontroller support

The table reflects the initial versions which can be used with the XETK-S23.0A and the listed microcontroller.

Microcontroller	HSP	INCA	ETK Tools	ASCET-RP	INTECRIO
F28004x_Rev1	V13.3.0	V7.4.3	V4.3.3	V6.4	V4.6
F2838x_Rev1	V13.3.0	V7.4.3	V4.3.3	V6.4	V4.6

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3 What's New - Release Notes

This chapter lists the main improvements compared to a previous shipped ETK product. Additionally, a detailed list of already known issues can be found here.

3.1 New or Enhanced Functions

3.1.1 In HSP 13.6.0, INCA 7.4.6

Issue Identifier	Description
Feature: ETKUS-2734	Add improvements to the IRQ error handling to ensure the error messages shown in INCA match the actual HDC behavior. Using older HDC and/or INCA versions could result in an incorrect error message description being shown in INCA.

3.1.2 In HSP 13.4.0, INCA 7.4.4

Issue Identifier	Description
Feature: ETKPRG-1432	Add support for FSI CRC computation/check and the user defined ERROR frame. When using HSP13.4 or newer, it is required to additionally use INCA7.4.4 or newer. Using older INCA versions will result in incompatibilities and errors when using FSI.

3.1.3 In HSP 13.3.0

Issue Identifier	Description
Feature: ETKPRG-1191	Initial release of XETK-S23.0A.

3.2 Known issues

3.2.1 In HSP 13.3, INCA 7.4.3 and higher

Issue Identifier	Description
n/a	The XETK-S23 does not support the following features: <ul style="list-style-type: none"> - Brain Dead Flashing (BDF) - Memory access to CPU2 memory map - Memory access to M4 memory map - Hardware Debugger Arbitration - Software (XCP) Debugger Arbitration

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4 Product Variants

The XETK-S23 can be purchased in only one variant, XETK-S23.0A. For complete details refer to the user guide.

The XETK-S23.0A provides a JTAG and FSI interface to connect to the TI C2000 family of microcontrollers. The FSI interface offers a higher measurement throughput rate; however, the interface is only available on specific microcontrollers.

5 Hardware Modifications

5.1 General remarks to this chapter

Hardware issues or obsolete parts can make it necessary to modify the population of the XETK. The first released version, available modifications, and current version are listed below. For the version syntax please refer to chapter 2.1.

5.2 First delivered version

The hardware state **E014/02** is the first delivered version.

5.3 Current delivery condition

The hardware state **E014/02** is delivered with all new shipments.

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6 Firmware Modifications

6.1 General remarks to this chapter

The programmable logic code within the XETK-S23.0 is stored onto programmable logic devices (FPGA, Firmware). The first released version and current version are listed below. For the version syntax please refer to chapter 2.1.

6.2 First delivered version

FPGA Work	1.13.1
Firmware Work	1.3.23
FPGA Rescue	1.5.4
Firmware Rescue	1.1.23
CPLD	1.0.7

6.3 Current delivery condition

The following firmware versions will be programmed into all XETK-S23.0 shipments:

FPGA Work	1.15.18
Firmware Work	1.5.58
FPGA Rescue	1.5.4
Firmware Rescue	1.1.23
CPLD	1.0.7

In case of any problems, the above-mentioned components can be programmed to the XETK by using **HSP V13.6.0**. This HSP version is similar to the currently delivered XETK products. Newer HSP versions could contain bug fixes and / or new features.

Attention: For updating the XETK with a later version by using the HSP Firmware update tool, all XETK - packages will be updated one after another and this will last a few minutes. Update of FPGA(rescue), Firmware(rescue), and CPLD are **not** done in a failsafe manner.

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7 Abbreviations

ASCET-RP	Rapid Prototyping Software of ETAS
XETK	Product (emulator test probe)
firmware	Software running on the XETK hardware; may be updated for new features or bug fixes
FPGA	F ield P rogrammable G ate A rray; interface component to the application hardware
Hot-fix	Software bug-fix for a refresh version
HSP	H ardware S ervice P ack; ETAS product which includes the firmware for the complete ETAS hardware, shipped together with INCA but also available as standalone product, download at ETAS homepage possible
INCA	Measurement and Calibration Software of ETAS
INTECRIO	Rapid Prototyping Software of ETAS
MC	M easurement & C alibration
PCB	P rinted C ircuit B oard
RP	R apid P rototyping
SBB	S ervice B ased B ypass
tool-chain	MC hardware (e.g. ES690) and software (e.g. INCA)
XETK Configuration Tool	Configuration Software, in order to configure a (X)ETK / FETK