

ETAS INCA V7.5.3

Release Notes

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1. Introduction

Dear customer, in this file you will find the latest information about the ETAS INCA V7.5.

Important Note:

IT IS NECESSARY TO UPDATE ALL FIRMWARE WITH THE RECOMMENDED HARDWARE SERVICE PACK (HSP) V14.y BEFORE USING INCA V7.5 WITH HARDWARE

With each new ETAS INCA and ETAS INCA Service Pack, a higher HSP version must be used to update the hardware. Operation of hardware with a previous firmware version may result in erroneous operation.

Starting with INCA V7.4 SP2, the HSP is included in the INCA Service Pack. The latest recommended HSP version is also available on the ETAS Download Page.

1.1. Definitions and Abbreviations

Term/Abbreviation	Definition
CDM	Calibration Data Manager
EE	INCA Experimental Environment
EHI	ETAS Help Desk International
FW	Firmware
LiMa	ETAS License Manager
HSP	Hardware Service Pack
HF	Hotfix
HW	Hardware
MDA	INCA Measure and Data Analysis
MIP	MATLAB Integration Package
MR	Multi-Recorders
OHI	Open Hardware Integration
OS	Operating System
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: www.etas.com/kir
PR	Problem Report
SP	Service Pack
SP z	Service Pack version z; z corresponds to the refresh version of INCA (refer also to V x.y.z below)
SW	Software
VSD	Variable Selection Dialog
V x.y.z	Version; x: major version; y: minor version; z: refresh version
WB (or NetWB)	Walkback, INCA system error

1.2. References

None

1.3. 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.

1.4. User Documentation

The INCA user documentation is available in PDF format on the DVD, the ETAS INCA Service Pack ZIP file (if downloaded from the ETAS Download Page), or in the installation folder on the PC.

It can be called up from INCA via the menu item ? → **Manuals and Tutorial** or via the Windows start – menu: → **Program** → **ETAS INCA 7.5** → **Manuals and Tutorial**.

2. Product Definition

2.1. Functions at a glance

New functionality of INCA V7.5 is listed in the overview `INCA-V7.5-Whats-new.PDF`.

You find the overview `INCA-V7.5-Whats-new.PDF` on the installation DVD or ZIP in the folder `\Documentation\WhatsNew` or in the installation folder on the PC.

2.2. General Description

2.2.1. 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.

Sending CAN messages influences the behavior of the CAN bus network and the systems connected to it. 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 CAN message sending activities.

Calibrate measurement (Write to RAM) 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 calibrate measurements activities.

Important: The ETAS Safety Advice is available for several languages. Please read it carefully. The ETAS Safety Advice is displayed during start of INCA (Disclaimer) and it is also available in `ETAS_Safety_Advice.pdf` in the folder `\Documentation\ReleaseNotes\` of the installation package (ZIP file or DVD) or after installation of the INCA Service Pack in **Program-Menu -> ETAS -> INCA 7.5 ServicePack** in the folder `\ReleaseNotes`.

2.2.2. Known Issues Reports

If a technical problem occurs, ETAS creates a Known Issue Report (KIR) and publishes it online. The report contains information about the technical impact and the status of the solution. Therefore, you must check the KIR applicable to this ETAS product version and follow the corresponding instructions before using the product.

The Known Issue Report (KIR) can be found here: <http://www.etas.com/kir>

2.2.3. System Prerequisites

The system must meet the following minimum prerequisites:

Required Hardware	2 GHz Processor 2 GB RAM DVD-ROM drive (for installation) Network adapter Graphics with a resolution of at least 1024 x 768, 256 MB RAM, 16bit color and DirectX 9
Required Operating System	Windows® 10 64 bit (version 1803 or higher) *) Windows® 10 64 bit Enterprise (LTSC 2016 or higher) *) Windows® 11 64 bit *) Windows® Server 2016 and 2019 64 bit *) (English, French, Japanese, Chinese and German OS version supported) *) Starting from INCA V7.3 only 64-bit operating systems are supported. Note: The support of Windows® Vista was discontinued with INCA V7.2 SP5, the support of Windows® 7 was discontinued with INCA V7.2 SP16, the support of Windows® 8 was discontinued with INCA V7.3 SP0, and the support of Windows® 8.1 was discontinued with INCA V7.5 SP0. (Refer also to <code>INCA-V7.5-Whats-new.pdf</code>)
Required Free Disk Space	5 GB (not including the size for user data; minimum required, but not recommended)

The recommended system prerequisites are:

Required Hardware	3 GHz Quad-Core Processor or equivalent 16 GB RAM DVD-ROM drive (for installation) Network adapter Graphics with a resolution of at least 1280 x 1024, 1GB RAM, 32bit color and DirectX 9
Required Operating System	Windows® 10 64 bit (English, French, Japanese, Chinese and German OS version supported)
Required Free Disk Space	>10 GB
Performance Recommendation	Investigation on performance showed: <ul style="list-style-type: none"> – More Memory improves execution time of repetitive operations – SSD hard disks improve the file access times

2.2.4. Software Prerequisites

Important notes:

- In order to use INCA the user needs read and write access to the registry path `HKEY_LOCAL_MACHINE\Software\ETAS` (for more details about privileges, please refer to the `INCA_V7.5_Install_Guide_xx.pdf` chapter "Privileges").
- Hyperthreading is supported.
- Multiple monitors may be used.

2.2.5. Restrictions

WINDOWS® XP, WINDOWS® 95, WINDOWS® NT, WINDOWS® 98SE, WINDOWS® 2000, Windows® Vista, Windows® 7, Windows® 8 and Windows® 8.1 are not supported.

INCA does no longer support PCMCIA adapters used in a Desktop PC for connecting ETAS hardware.

When using triggers to start or stop a recording, the recording duration has to be at least 3 seconds. In case of a shorter recording duration INCA might not be able to record all events. A period of at least one second is required after a pause event, before the start trigger condition may trigger again.

Otherwise INCA does not recognize the pause and does not include an appropriate pause comment into the recorded data file. This may lead to unexpected display results in the MDA.

Since V6.2.0 INCA allows parsing A2L files containing 2-byte characters.

However the following restrictions apply:

- 2-byte strings are not always displayed correctly
- copy and compare of 2-byte strings is only possible if source and destination have the same encoding

MDA/INCA - Calculated Signals:

- It is recommended to use '.' as decimal symbol for defining calculated signals
- Using library functions in formulas might causes some differences in the number of samples
- Measure time as input signal does not work correctly (INCA issue only)
- Dependency view is not able to show more the 5 levels of a cascade
- Using different rasters as bases for calculated signals might cause wrong results

CDF V2.0

- Rescale axis of Vector CDF files are rejected by INCA 6.2 (and subsequent)
The reason is that Vector writes rescale axis in CDF V2.0 in a different way than INCA.

Write to RAM

- When using CSE for Write to RAM, values in scenarios can be edited only in PHYS representation.

ETAS INCA V7.5 introduces a new version of the Target Server component.

For this reason, products that use an older version of the Target Server cannot be used for online operation in parallel with INCA V7.5.

For instance, if INCA V7.5 is used to measure and calibrate an ECU, the Experiment Environment that is not released for operation with INCA 7.5 cannot access the corresponding prototyping hardware during bypass operation at the same time.

For these use cases, use either the recommended former INCA version or the version of the Experiment Environment, LABCAR-OPERATOR, or INTECRIO that is compatible with INCA V7.5.

2.2.6. Miscellaneous

Problems may arise with new scan engines of virus scan tools. To ensure the highest data security for data in the INCA database, the database is directly saved after every data change or access. This leads to a high number of read/write cycles, and this might initiate the scan engine of the virus scan tools to check the differences if the option 'scan all files' is set. This leads to a delay working with INCA. We recommend excluding all files of the INCA database from scanning.

Whenever uninstalling INCA, the included INCA uninstall program should be used. This ensures that all add-ons and other products installed with INCA are also uninstalled (except ETASData and ETAS License Manager). Never delete files or folders manually. To upgrade or downgrade INCA and its related products and add-ons, it is recommended to use the INCA Service Pack.

INCA differentiates between online (=visualization) and offline (=recording) data. However, online data may not be complete in high "system load situations". Offline data is being buffered internally and ensured to have no gaps in the recorded data file.

The INCA-MIP add-on (MATLAB Integration Package) uses by default the online data because data is always available for all devices at all times. For switching to offline data, an API command is available.

For Rapid prototyping purposes, the ES4xx module chain can be connected directly to the ES910. For measurement with INCA the ES4xx module chain shall be connected directly to the measurement setup (i.e. ES600)

The documentation provided in the PDF format can be viewed and printed using the Adobe Acrobat Reader, which is available free of charge at <https://www.adobe.com>

The latest version of the INCA manuals in PDF format is part of each INCA Service Pack and installed onto the computer.

2.3. Delivery

The ETAS INCA software is delivered with an installation routine in a ZIP-file or on a DVD including the INCA software, documentation, tools, utilities, and further information. All software documentation is available in the Portable Document Format (PDF), which requires Adobe® Reader®.

The Hardware Service Pack (HSP) installation must also to be installed and used to update the hardware.

Refer to the `INCA_V7.5_ServicePack_Release_Notes.pdf` for more information.

2.3.1. Used 3rd Party Software

The 3rd Party Open-Source software used by INCA, its add-ons and components is listed in the documentation in the folder `\Documentation\OpenSourceSoftware`.

The Open-Source Software Attribution documentation (PDF) of INCA covers INCA but also almost all the INCA add-ons and components shipped with the INCA Service Pack.

For all other products and components check the separate Open-Source Software Attribution documentation within this folder.

The documentation of hardware related Open-Source Software Attributions are shipped with HSP (Hardware Service Pack) and can be found within the corresponding folder there.

For 3rd Party software, such as .NET installation or redistributable please refer to the document titled `INCA-V7.5-SPz-Whats-new.pdf`.

2.4. Installation

Please refer to the document titled `INCA_V7.5_Install_Guide_Language.pdf` located in the `\Documentation\Manuals\` folder of the installation package (ZIP file or DVD).

2.4.1. Installation Hints

Before updating with the INCA Service Pack, shut down all ETAS software. Failure to do so may result in an incomplete installation or issues with the final installation.

It is recommended to use the Setup_ServicePack.exe to install, update, or downgrade to a previous version of the INCA Service Pack. In this case manual uninstallation is not needed.

Licenses should not be installed or uninstalled while licensed software is running. It is recommended to shut down the product and managing licenses before proceeding.

After installation, it is recommended to reboot the computer system.

Refer to the `INCA_V7.5_ServicePack_Release_Notes.pdf` for more information.

A detailed description of the installation of the INCA Service Pack is available in the `INCA_V7.5_Install_Guide_Language.pdf` located in the `\Documentation\Manuals\` folder of the installation package (ZIP file or DVD) or after installation of the INCA Service Pack in

Program-Menu -> ETAS -> INCA 7.5 ServicePack in the `\Manuals` folder.

2.4.2. Firmware – Hardware Service Pack (HSP)

Important Note:

IT IS NECESSARY TO UPDATE ALL FIRMWARE WITH THE RECOMMENDED HARDWARE SERVICE PACK (HSP) V14.y BEFORE USING INCA V7.5 WITH HARDWARE

With each new ETAS INCA Service Pack, a higher HSP version must be used to update the hardware.

Operation of hardware with a previous firmware version may result in erroneous operation.

Starting with INCA V7.4 SP2, the HSP is included in the INCA Service Pack, and the corresponding version is listed in `INCA_V7.5_ServicePack_Release_Notes.pdf`.

The latest recommended HSP version is also available on the ETAS download page.

2.5. INCA Supported Hardware

Starting with INCA V7.3, the INCA base installation supports now more hardware by default, eliminating the need for corresponding INCA Add-ons.

2.5.1. ES4xx (Daisy-Chain) and ES6xx Support

INCA supports the following Daisy Chain modules. No further Add-on installation is required:

The following (Daisy-Chain) devices are supported:

- Voltage measurement instruments: ES410, ES411, ES413 and ES415
- Thermo measurement instruments: ES420 and ES421
- Lambda measurement instruments: ES430, ES432, ES630, ES631, ES635 and ES636
- Pulse signal measurement instruments: ES441
- Multi-IO Module: ES930

The following ES6xx devices are supported:

- Voltage measurement instruments: ES610 and ES611
- Thermo measurement instruments: ES620
- Voltage and Thermo measurement instruments: ES650

2.5.2. ES1xx, ES5xx, ES8xx and ES9xx Support

INCA supports the following modules. No further Add-on installation is required:

	CAN	CAN FD	CAN XL	LIN	FLX	ETH ⁽¹⁾	ETK	FETK
ES132	X	X						
ES134				X				
ES160						(2)		
ES162						(2)		
ES165						(2)		
ES511.1	X			X				
ES512.1	X				X			
ES523.1	X	X						
ES570						X		
ES581.4	X							
ES582.1/2	X	X						
ES583.1					X			
ES584.1/2	X	X		X				
ES592.1	X			X			X	
ES593.1-D	X						X	
ES595.1	X			X	X		X	
ES882	X	X		X		(2)		
ES882.2	X	X	X	X		(2)		
ES886	X	X		X		X		
ES886.2	X	X	X	X		X		
ES891	X	X		X	X			X
ES891.2	X	X	X	X	X			X
ES892	X	X		X				X
ES892.2	X	X	X	X				X
ES910.3-A	X			X			X	
ES910.2	X			X			X	
ES910.2-B	X			X			X	
AS951.1-A	X			X			X	
ES920.1					X			
ES921.1	X							

ES922.1	X	X						
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(1) Automotive Ethernet

(2) Automotive Ethernet media converter

2.5.2.1. ES92x piggy support in ES91x modules:

	ES920.1	ES921.1	ES922.1
ES910.3-A	X	X	X
ES910.2	X	X	
ES910.2-B	X	X	
AS951.1-A		X	

2.5.3. Third-Party Hardware Support

NCA supports several third-party bus interface devices. The required Add-on is included in the INCA Service Pack. To enable the operation of these devices with ETAS software, licenses can be purchased from ETAS. Please contact your ETAS sales representative for more information.

The following third-party hardware is supported in INCA:

	CAN	CAN FD	LIN	FLX	ETH
vCAN	X	X			
VX1132	X	X			
VX1135	X	X		X	
VX1161.41A	X	X			
VX1161.41B	X	X		X	
VN1610	X	X			
VN1611	X	X	X		
VN1630(A)	X	X	X		
VN1640(A)	X	X	X		
VN1670	X	X	X		
VN5240					X
VN5430					X
VN5610(A)	X	X			X
VN5611					X
VN5612					X
VN5620	X	X			X
VN5640(A)	X	X			X
VN5650	X	X			X
VN7600	X			X	
VN7610	X	X		X	
VN7640	X	X	X	X	

VN8910(A)					
VN8911					
VN8914					
VN8950 ⁽²⁾	X		X		
VN8970 ⁽²⁾	X	X	X	X	
VN8972 ⁽²⁾	X	X	X	X	

(1) Automotive Ethernet

(2) piggies for VN89xx(A)

2.6. Add-ons and CAN FD Support

The corresponding Add-ons are required to support LIN Monitoring, FlexRay Monitoring, and XCP on FlexRay (MC).

Uses cases supported on CAN FD bus:

- CAN FD Monitoring
- UDS on CAN FD (ISO14229 on ISO15765-2 from 2013-10-22)
- UDS on CAN FD flashing with INCA-ProF
- XCP on CAN FD
- XCP Flash on CAN FD
- CAN FD Frames sending with ProF

2.7. Licensing

INCA, MDA and some INCA Add-ons are protected via electronic licensing. During installation, you can select MDA and the INCA Add-ons by using the INCA Service Pack Installer. To use the products, you must install a license file through the ETAS License Manager. The license manager opens during installation. It can also be started later as an external program located in the ETAS program folder in the Start menu.

To obtain the license, the software Activation ID is required, which is received during the order process. Alternatively, the tool coordinator may provide it.

Please refer to the document titled `INCA_V7.5_Install_Guide_Language.pdf` located in the `\Documentation\Manuals\` folder of the installation package (ZIP file or DVD).

3. Changes

This chapter describes the changes made to the ETAS INCA V7.5 compared to previous versions.

3.1. What's New

For information on the latest updates, please refer to the `INCA-V7.5-Whats-new.pdf` file located in

the root folder of the DVD or ZIP-file.

3.2. Compatibility to Earlier Releases

INCA V7.5 introduces new functionality and is compatible with previous versions. It can be installed alongside INCA V7.4.

Furthermore, the INCA V7 32-bit database will be automatically converted to an INCA V7 x64-bit database.

However, INCA V7.2 cannot use the database of INCA V7.3 or higher because of the switch to a 64-bit database. It is possible to exchange projects and experiments using the export and import option. However, it is no longer recommended to use the 32-bit version of INCA due to its limitations.

Limitation: The new functionality introduced with INCA V7.5 is not available in previous INCA versions.

In summary,

- it is possible to exchange export files or databases with other versions of INCA.
- Migration to INCA V7.5 is easy, safe, and fast.
- Projects created in former INCA V7.2 can be reused thanks to automatic database conversion and the export/import functionality.
- Additionally, databases created with INCA V7.3 and higher can be directly used.
- INCA can be used in distributed development projects thanks to its upward and downward compatibility.

3.2.1. Known Issues Reports

If a technical problem occurs, ETAS creates a Known Issue Report (KIR) and publishes it online. The report contains information about the technical impact and the status of the solution. Therefore, you must check the KIR applicable to this ETAS product version and follow the corresponding instructions before using the product.

The Known Issue Report (KIR) can be found here: <http://www.etas.com/kir>

3.3. Known Issues

This section describes the general set of known problems of the released version of the ETAS INCA V7.5.

Solved known issues are also listed in the corresponding section of the version history below.

For details and known issues of the included ETAS products and add-ons, please refer to the corresponding Release Notes.

3.3.1. Software related Items

Problem Number	Title						
EHI #720329	<p>ProF: Message "StorePermanentlyToTarget failed" if PROF configuration is installed on D: Drive and NtfsDisable8dot3NameCreation Reg Key is set to "2"</p> <p>INCA supports 8dot3, but only if it is enabled for all volumes used by INCA and the ProF configurations. Mixed volume configurations for the INCA installation and the ProF configuration, for example, one volume with enabled 8dot3 and one without, are not supported. On systems with mixed volume configurations (i.e. setting 2: 8dot3 name creation on a per volume basis), 8dot3 will only be supported when INCA installation and ProF configuration are stored on the same volume, e.g. both on C:\.</p> <p>Therefore, only the following 8dot3 settings are allowed for installing and using ProF configurations:</p> <table border="1"> <tbody> <tr> <td>0</td> <td>8dot3 enabled for all volumes on the system -> INCA installation and ProF configurations are allowed on any volume</td> </tr> <tr> <td>1</td> <td>8dot3 disabled for all volumes on the system -> INCA installation and ProF configurations are allowed on any volume</td> </tr> <tr> <td>2</td> <td>8dot3 name creation on a per volume basis -> INCA installation and ProF configuration must be on the same volume, e.g. both on C:\</td> </tr> </tbody> </table>	0	8dot3 enabled for all volumes on the system -> INCA installation and ProF configurations are allowed on any volume	1	8dot3 disabled for all volumes on the system -> INCA installation and ProF configurations are allowed on any volume	2	8dot3 name creation on a per volume basis -> INCA installation and ProF configuration must be on the same volume, e.g. both on C:\
0	8dot3 enabled for all volumes on the system -> INCA installation and ProF configurations are allowed on any volume						
1	8dot3 disabled for all volumes on the system -> INCA installation and ProF configurations are allowed on any volume						
2	8dot3 name creation on a per volume basis -> INCA installation and ProF configuration must be on the same volume, e.g. both on C:\						
EHI #637804	<p>The ProF script is aborted due to an incorrect parameter call of a DLL file. A warning is displayed during the ProF Flow Control: "A 32 bit DLL is called by a 64 bit process."</p> <p>The problem occurs if a 32 bit customer DLL is part of the ProF configuration and the 32 bit customer DLL is included in the [ChangePath] section of the INSTALL.INI file in the ProF configuration.</p> <p>The root cause of the problem is the entry in the [ChangePath] section in the INSTALL.INI file. During the ProF configuration installation, the 64 bit INCA V7.3 performs a change path instruction on the 32 bit customer DLL and stores the DLL as modified in a 64 bit utility into the target folder of the ProF configuration. The 32 bit DLL changed by the 64 bit utility in INCA V7.3 is corrupted and not operational in both, INCA V7.3 and V7.2 versions.</p> <p>This is an inconsistency in the ProF configuration when intended to be used in a 64 bit INCA version and has to be adapted on customer side.</p> <p>Workaround without changes in the ProF configuration:</p> <p>Remove the ProF configuration installed with the 64 bit INCA version and reinstall it with a 32 bit INCA (V7.2.17 or lower).</p> <p>Subsequently the ProF configuration works as expected in both INCA 32/64 bit versions.</p> <p>Workaround with changes in the ProF configuration:</p> <p>The 32 bit customer DLL entry in the [ChangePath] section in the INSTALL.INI file has to be removed.</p> <p>Subsequently the adapted ProF configuration installed in INCA V7.3 works in both, INCA 32-/64 bit versions.</p>						
#745421	<p>Uninstalling INCA V7.4.x or the INCA-ODX addon V7.4.x after uninstalling INCA V7.5.x or the INCA-ODX addon V7.5.x will fail.</p> <p>To avoid this issue, make sure to start INCA V7.4.x at least once before uninstalling it or the INCA-ODX addon V7.4.x.</p>						

	<p>If the uninstallation has already started once, use this workaround: Reinstall the INCA-ODX Addon V7.4.x in repair mode before uninstalling INCA V7.4.x or the INCA-ODX Addon V7.4.x.</p>																
EHI #514755	<p>If the computer freezes during recording, it may be due to an outdated network card driver. Please update to the latest version.</p>																
EHI NA	<p>Installation: When one of the required packages of redistributables or .NET are not installed (or up to date) before the installation of the INCA Service Pack, a reboot might be necessary. It is not recommended to suppress the reboot in such case – as following installation might be not complete or get corrupted. To avoid this, install the needed packages in advance.</p>																
EHI NA	<p>INCA V7.3/V7.4/7.5 64 bit COM-API</p> <ul style="list-style-type: none"> - Clients which are compiled for .NET x86 (32bit) are not supported - It is necessary that .NET clients are compiled for x64. 																
EHI #645006	<p>Multi-Dimensional Measurements - ASAP2 LAYOUT: INCA interprets MATRIX_DIM measurement arrays as COLUMN_DIR if LAYOUT keyword is not defined. This might lead to wrong interpretation and wrong measure data.</p> <p>The ASAP2 V1.6 (2009) specification introduced the optional LAYOUT to offer the possibility to describe the different behavior. As default, when LAYOUT is missing, the ASAP2 spec V1.6 introduced as default ROW_DIR.</p> <p>INCA supported 2-dimensional measurement arrays already long before ASAP2 introduced LAYOUT. INCA uses as default COLUMN_DIR.</p> <p>As result, INCA indexes the measurement arrays column wise instead of row wise.</p> <p>INCA will change its default for measurement arrays without LAYOUT from COLUMN_DIR to ROW_DIR beginning with INCA V7.3.3.</p> <p>Solution with INCA V7.3.3 and higher:</p> <p>As there are already A2L files in the field that describe 2-dimensional measurement arrays without LAYOUT with ASAP2 VERSION up to 1.6 INCA will change the default dependent on the ASAP2 VERSION stated in the A2L file.</p> <p>For A2L files with ASAP2 VERSION < 1.7 INCA will keep COLUMN_DIR as default! For A2L files with ASAP2 VERSION >= 1.7 INCA will use ROW_DIR as default!</p> <p>If the ASAP2 measurement description contains the LAYOUT info INCA respects the given memory orientation.</p> <p>If LAYOUT is missing INCA interprets multi-dimensional measurement arrays by default dependent on INCA version and ASAP2 version:</p> <table border="1"> <thead> <tr> <th>INCA \ ASAP2</th> <th>V1.5</th> <th>V1.6.1</th> <th>V1.7</th> </tr> </thead> <tbody> <tr> <td>V7.2.x</td> <td>COLUMN_DIR</td> <td>COLUMN_DIR</td> <td>COLUMN_DIR</td> </tr> <tr> <td>V7.3.2</td> <td>COLUMN_DIR</td> <td>COLUMN_DIR</td> <td>COLUMN_DIR</td> </tr> <tr> <td>V7.3.3 ff.</td> <td>COLUMN_DIR</td> <td>COLUMN_DIR</td> <td>ROW_DIR</td> </tr> </tbody> </table> <p>Recommendation:</p> <p>The creators of A2L files shall use always the optional ASAP2 keyword LAYOUT to describe the orientation exactly.</p>	INCA \ ASAP2	V1.5	V1.6.1	V1.7	V7.2.x	COLUMN_DIR	COLUMN_DIR	COLUMN_DIR	V7.3.2	COLUMN_DIR	COLUMN_DIR	COLUMN_DIR	V7.3.3 ff.	COLUMN_DIR	COLUMN_DIR	ROW_DIR
INCA \ ASAP2	V1.5	V1.6.1	V1.7														
V7.2.x	COLUMN_DIR	COLUMN_DIR	COLUMN_DIR														
V7.3.2	COLUMN_DIR	COLUMN_DIR	COLUMN_DIR														
V7.3.3 ff.	COLUMN_DIR	COLUMN_DIR	ROW_DIR														
EHI #NA	<p>J2534 support with INCA V7.3 and V7.4.</p> <p>Usage of 3rd party hardware via J2534 (PassThru):</p> <p>INCA 7.3 and higher as 64-bit application uses 64 bit drivers provided by other vendors to access their hardware.</p>																

It was found that existing drivers from other vendors are using a byte alignment that does not match the J2534 specification (J2534_1_2004 spec (section 9.2.2 Attaching to the DII From an Application)).

In 32-bit applications this did not play a role but needs to be considered in 64-bit applications.

ETAS implemented its J2534 functionality from INCA using this non-standard-conform byte alignment by default to support existing drivers from other vendors.

In case you find your 3rd party hardware device using J2534 not working together with INCA, please ask the ETAS MCD support for assistance or the standard-conforming version.

Tested with Vector VN7610.

With INCA V7.3.2 and higher it is now possible to switch to the standard-conform variant (in case, ask also here your ETAS MCD support for assistance).

EHI #NA	<p>Known issue with 64Bit Integer Support</p> <p>IF calibration is done in the INCA experiment or CDM</p> <p>AND a parameter of type 64Bit Integer is used</p> <p>AND the parameter holds a value that needs more than 52 bits for representation</p> <p>AND the user changes the values</p> <p>AND uses afterwards 'undo'</p> <p>THEN INCA does the 'undo' with the physical representation of the former value. The result is a 'casted' value that has less precision as the original former value.</p>
EHI #NA	<p>XETK & ETK Tools: TC27xED_A microcontroller no longer supported with XETK.</p> <p>Micro Controller Support: Removed support of TC27xED_A of XETK in HSP V13.0.0, INCA V7.4.0 and ETK Tools V4.3.0.</p> <p>In order to support the TC27xED_A, install and use INCA V7.3.7 and ETK Tool V4.2.7.</p>
EHI #745421	<p>Uninstalling INCA V7.4.x or the INCA-ODX addon V7.4.x after uninstalling INCA V7.5.x or the INCA-ODX addon V7.5.x will fail.</p> <p>To avoid this issue, make sure to start INCA V7.4.x at least once before uninstalling it or the INCA-ODX addon V7.4.x.</p> <p>If the uninstallation has already started once, use this workaround: Reinstall the INCA-ODX Addon V7.4.x in repair mode before uninstalling INCA V7.4.x or the INCA-ODX Addon V7.4.x.</p>

3.3.2. Hardware related Items

Problem Number	Title
EHI #731074	<p>#731074 Vector VN1670 - device cannot be initialized and related</p> <p>#724382 Error when measuring with INCA LIN using VN1670 Host</p>

If a VN1670 is in use and the device can be found, but it is not working properly (channels cannot be initialized or timestamps are wrong), it is recommended to perform a factory reset on the device.

Note: Due to missing APIs, there is currently no way for INCA to detect a critical configuration of the device

4. Version History, Refresh and Hotfix Information

This chapter describes changes with respect to the previous version of the INCA including version history in reverse order.

4.1. INCA V7.5.3

4.1.1. Recommended Installation

- It is recommended to use the `Setup_ServicePack.exe` to install, update, or downgrade to a previous version of INCA and the INCA Service Pack. In this case manual uninstallation is not needed.
- After the installation of the INCA Service Pack a reboot of the computer system is recommended. This is also true for hotfix installations.

4.1.2. New Features and Enhancements

- Performance improvements save up to 30 % time when starting INCA
- See `INCA-V7.5-SP3-Whats-new.pdf` for all the latest news on the current INCA version.

4.1.3. Known Issue of INCA V7.5.3 and Important Hints

- EHI # 778207: ES132 + J1939-22 (CAN FD) cannot be initialized

4.1.4. Bug Fixes and Improvements

- Notes:
 - Some issues can be resolved using the corresponding INCA Add-Ons, which are included in the INCA Service Pack or solved in combination with the current HSP.
 - The EHI calls are listed in ascending order.

Ticket Number	Title
711364	INCA-FLOW: Download reference & working page does not work for E-Target (ES910 simulation controller). Note: Solved with INCA V7.5.3
718542	[WBID306560295] UndefinedObject does not understand icon

724031	INCA COM API - Array without underscore - Measurement is not found if A2L file contains array plus cell description
729574	[WBID1228204794] MCSFileASAP2DataElementManager does not understand determineByteSizeForNode: (Note: solved with INCA V7.5 SP1)
731310	CDM: The statusbar is not updated after deleting a variable
731972	API: SetRecordingRepetitionNumber() method always brings false
732148	[NetWBID1364170689] System.InvalidOperationException: Element 'Variable Name' with ID 'ID Number' not found in input XML for VSD
733553	[WBID2449623900] + [WBID3006903233] receiver must be a boolean
741177	When after some Drag&Drop actions between BIT and Measure Window, Visualization is started and VSD is opened, INCA may crash with [NetWBID1364170689] System.InvalidOperationException:
745162	[WBID3916806827] MCSOnlineExperimentFrameWindow does not understand widget (While Hotkey Assignment is open, Copy/Move Variable to Window caused tool crash)
758467	Recommended changes to EIP documentation in regard to ASAM-3MC Interface
762402	Variable was not added to Experiment, inspite of enough space in raster
764821	ProF does not work with spaces in the path (Network Drive / One Drive)
765376	[WBID2146559811] EtasFullReconfigRAMV3CalibrationMethodWrapper does not understand isPureDataElementManager
766171	ES910 MCE is not starting Measure after changing Experiment
766345	[WBID35174330] nil is not a valid key for AbtHighCapacityLookupTable
766642	[WBID2146559811] EtasFullDynEmuRAMV1CalibrationMethodWrapper does not understand isPureDataElementManager
766880	The proper hint is missing in HWC if the seleted project cannot be used since it does not support CAN FD
768014	Repeated occurrence of the error "Recording group "Recording group of INCA_XETK": Recording could not be started!" in ECU Test
768041	When adding A2L file in Database INCA crashes with [WBID3081584020] (ExCPMStackOverflow) A stack overflow has occurred.
768228	Copying Measure Windows in "3 Experiment Elements" from one experiment to another has errors on the recorder mapping
768796	[NetWBID1099276099] System.Runtime.InteropServices.COMException: The server threw an exception. (Exception from HRESULT: 0x80010105 (RPC_E_SERVERFAULT))
768915	CDM - Multi Column View - text from dataset in the Table Widget is shown outside from the CDM window
769209	FETK-S1.1B: INCA stops measurement due to failed to allocate output table memory
769894	User option "General - Add-on activation - eCDM active" included hint to the license needed, though eCDM AddOn is license-free
771315	INCA crashes if IPETRONIK device gets renamed
771729	If experiment contains arrays then after renaming device the raster gets corrupted
771903	Opening the experiment leads to INCA crash with [NetWBID2075006241] System.Data.StrongTypingException: The value for column 'Name' in table 'Recorder' is DBNull.
773138	Memory Page Management Window loses focus after executing Download for E-Target Device
773233	INCA target server crashes when measuring more than 65000 signals
773406	INCA crash after Experiment is only opened and closed several times with NetWBID201570140] System.AggregateException: One or more errors occurred
773539	When opening Experiment, INCA crash is observed with [NetWBID1819605799] System.AggregateException: One or more errors occurred.
774160	Indicator that AUTOSAR has to be reparsed is missing, if signal type settings in user options were changed
774216	CDM - Variable list scrolling up when <Ctrl> is in use to select multiple variables.
774441	Reproducible Walkback [WBID3187352318] UndefinedObject does not understand <' after adding X/Y axis point
774598	[WBID3405970542] Primitive failed in: OSHwnd>>#sendMessageW:message:wParam:IParam: due to Invalid reference in argument 1
776513	E94 checksum and download failing

4.2. INCA V7.5.2

4.2.1. Recommended Installation

- It is recommended to use the `Setup_ServicePack.exe` to install, update, or downgrade to a previous version of INCA and the INCA Service Pack. In this case manual uninstallation is not needed.
- After the installation of the INCA Service Pack a reboot of the computer system is recommended. This is also true for hotfix installations.

4.2.2. New Features and Enhancements

- Performance improvements save up to 30 % time when starting INCA
- See `INCA-V7.5-SP2-Whats-new.pdf` for all the latest news on the current INCA version.

4.2.3. Known Issue of INCA V7.5.2 and Important Hints

- NA

4.2.4. Known Issues Solved with INCA V7.5.2 and Important Hints

- N/A

4.2.5. Bug Fixes and Improvements

- Notes:
 - Some issues can be resolved using the corresponding INCA Add-Ons, which are included in the INCA Service Pack or solved in combination with the current HSP.
 - The EHI calls are listed in ascending order.

Ticket Number	Title
632302	Performance CDM: Time taken for CDM actions like Compare all, List all and Copy increased in INCA V7.3 compared to V7.2
688245	CDM : After copy of complete dataset and following view change in user options, the new variables will not be shown in the viewer
699183	ASAP3: When the ASAP3 script ends with exit, changes to the path of the background recorder are reset
702645	[WBID4195639978] EtasTwoDValuesAccess does not understand signalGroup
714433	Values from Conversion Tables are not displayed in Oscilloscopes
716415	HWC/EE: Multiple dialog boxes during Autosar file reparsing cause confusion

716793	EE: Possible that depending on setting from User Option Calibration Recording already added Calibration Label is in Default Recorder or not
718865	[NetWBID3150320979] System.IO.PathTooLongException: The specified path, file name, or both are too long. The fully qualified file name must be less than 260 characters, and the directory name must be less than 248 characters.
721392	Improvement of Error Message Description in case of HW search in INCA if HSP Tool is running in parallel
721886	XETK parameters in HWC with zoom level 200% are shown with same row high and thus become not readable
722196	[WBID857913555] IDispatch call returned an exception. ErrorCode: 0x80004005 Source: <unknown>
726908	API: overwriteFlag parameter in API command ImportItemsFromFile does not work
732313	Recording cannot be started with provided experiment
737089	Performance Improvement of Time measured to open Variable Selection Dialog in Multi ECU Use Case
742802	Memory Page Management: "Confirm - Reinitialization Behavior" Dialog has misleading description for "Current" and "All" Options
749882	Max count of labels in Variable Selection Dialog is not considered at drag and drop action in the same VSD session
750043	iLinkRT: Timeout occurs with RT_GET_AVAILABLE_MEASUREMENTS Command for FETK-T1 Device
750712	Performance Improvement: dependent parameters are recalculated at first initialisation and later only in case if the adjusted calibration label has dependents or virtuals.
751146	INCA Experiment: Adding new signals to Oscilloscope changes the Selection of Cursor Tooltips
754077	a1l_XETK.dll crashes at Experiment opening or Variable Selection Dialog hangs if 0us is set as raster definition in a2l file
757089	Possible that after pasting from Clipboard to Experiment calibration values are not correct
757236	Unit from Calculated Signal is not shown in Axes area from Oscilloscope
758585	Working with Context Menu on graphic of combined editor in VUI window causes crash with [WBID1021685633] MCSExperimentDummyWidget does not understand allChildren
759609	INCA sporadically hangs when trying to toggle between Working and Reference Pages when Experiment and CDM are open together
760377	INCA sporadically crashes when working with J1939 device in HWC (assign, unassign project, close, open, etc.) with [NetWBID3716018613] Etas.HWCConfiguration.Framework.ConfigException: No schema set for data model with name: J1939MessagesDataModel
760442	After recorder import: Recorder cannot be started
760459	If ECU project contains Virtual_Dummy and Virtual_NotInEcu variables, IC2 Flashing crashes with [WBID2668088218] (ExCPMStackOverflow) A stack overflow has occurred.
761030	Search For Hardware for 1:N system/device mappings does not automatically match system/device with correct serial number
761419	VSD: WB when selecting multiple empty layers [NetWBID1014316838] System.ArgumentException: An item with the same key has already been added.
761546	[WBID2480536044] UndefinedObject does not understand sampleRate
761847	CDM: when dataset with dependent parameter calculation errors is copied, the error dialog does not popup
761860	INCA Crash at Experiment Opening with [WBID306560295] UndefinedObject does not understand isTargetOnWorkPage
761996	INCA-FLX-Trace: Measurement gaps due to performance problems with high data rates on multiple devices
762514	ManageRecorders: [NetWBID1151817400] System.Runtime.InteropServices.ExternalException: Requested Clipboard operation did not succeed [Sporadic]
762534	Checksum error with XETKS30 above a certain temperature
762538	Sporadic crash at recording start if Experiment contains Oscilloscopes with [NetWBID2625222421] Object reference not set to an instance of an object
762732	Same label is handled in Calibration Window differently as in Scalar Table Editor

762844	Adding / Removing labels to / from Key Variable List sporadically leads to an exception -> [WBID752228176] [WBID4209404465] UndefinedObject does not understand experimentOrderIn:
763279	Experiment refresh after change of the dataset in Hardware Configuration sporadically leads to an error in Oscilloscope
763656	KVL: Special variable with "[" can not be added to KVL (e.g. xxxx_YZ5[0])
763950	Initial calibration of a variable contained in a non-emulated section, e.g. curve/map takes up to 3 seconds
764120	At Recording Start INCA crashes with [NetWBID254781267] A Task's exception(s) were not observed either by Waiting on the Task or accessing its Exception property.
764235	INCA COM API - Measurement without address is selectable
764240	Experiment: when Recording is waiting for trigger to start and calibration variables are added, the Recorder configuration is changed unexpectedly
764470	When cleaning up the current database, INCA crashes with [WBID2770526384] UndefinedObject does not understand displayFileOrder, [WBID1074470117] UndefinedObject does not understand addFromList
765052	QM-BASIC: UTF-8 Encoding for PACO format was added
765167	INCA API - GetState API for getting the CHECKSUMS in Memory page management for PoolRAM returns wrong values
765200	CDM: Possible getting ([WBID742606611] UndefinedObject does not understand convertFor:) when type in not allowed number in Context Menu Prompter
765301	Reset to reference page value is not working when invoked from CDM
765511	Creation of calculated signal causes crash with [WBID2361523647] UndefinedObject does not understand shortNameDevice
765789	MCE: Replace System in HW Configuration works even if a device is already assigned to a iLinkRT, and shall not be moved
765810	The output value of the bit mask value compared in CDM does not match the A2L definition
766074	[WBID48156958] UndefinedObject does not understand hasDefaultRecording
766219	HW Configuration Window: opening a workspace twice after network name assignment causes removal of network name for ES570.1/ES886.2 Ethernet nodes
766235	[WBID2074904807] UndefinedObject does not understand verifyTargetStaticFuture:baseAddress:size:workingBaseChecksum:targetChecksum:controlFlow:
766548	Experiment: changing between Layers leads to crash with [WBID3405970542] Primitive failed in: OSHwnd>>#sendMessageW:message:wParam:IParam: due to Invalid reference in argument 1
766651	XCT converts wrong calibration handle when fixed configuration is used after DISTAB XCP or conversion to XCP over edit button
767070	[WBID2217039684] UndefinedObject does not understand subtractFrom:
767162	API: INCA crash at UpdateViewsForExperimentElements() with [WBID3545101713] EtasAPIError does not understand dataElement -> UpdateViewsForExperimentElements (aAllMeasureElements)
767228	If experiment contains arrays, then after device renaming the raster gets corrupted
767440	[WBID4195639978] UndefinedObject does not understand sampleRate
767561	CDM: crash at selection of an array cell in inline editor with [WBID3479342977] UndefinedObject does not understand menuOptimizeColumnSize
767599	ASAP3: If Boolean parameter is set to True, Command 14 GET PARAMETER FROM AP-S returns -1
767601	[WBID227485691] Primitive failed in: OSHwnd>>#sendMessageW:message:wParam:IParam: due to Invalid reference in argument 1
767643	[WBID3656793052] UndefinedObject does not understand getWindowText:cbMax:
767770	INCA crashes after pressing CTRL+SHIFT+V on empty experiment with [WBID683977731] UndefinedObject does not understand device
767831	[WBID343996091] UndefinedObject does not understand subStrings
768056	CDM: Copy Action from DCM into dataset is not possible for VTAB variables including true/false text values as those are interpreted as 1/0
768907	INCA API - GetState Method for getting the checksum in memory page management for PoolRAM returns wrong values for PoolRam ECU

768928	Adding Ethernet Monitoring file to project causes [WBID2627158349] receiver must be a Boolean
769094	FETK-T4.0B with SR6P7 µC: Implausible trace-based measured values.
769209	FETK-S1.1B: INCA stops measurement due to failed to allocate output table memory
769275	ES134: No Devices are shown in INCA Search for Hardware when ES134 is connected.
770535	ES582.1 doesn't show status LED for CAN2, when channel 2 is in use. Instead, status LED for CAN1 is displayed. Note: Solved with HSP V14.1.1 and V14.2.0
771542	INCA Touch License is not obtained if Feature V2.1 is in use, but INCA Touch V7.5 is installed

4.3. INCA V7.5.1 HF1

4.3.1. Recommended Installation

- It is recommended to use the `Setup_ServicePack.exe` to install, update, or downgrade to a previous version of INCA and the INCA Service Pack. In this case manual uninstallation is not needed.
- After the installation of the INCA Service Pack a reboot of the computer system is recommended. This is also true for hotfix installations.

4.3.2. New Features and Enhancements

- See `INCA-V7.5-SP1-Whats-new.pdf` for all the latest news on the current INCA version.

4.3.3. Known Issue of INCA V7.5.1 HF1 and Important Hints

- See INCA V7.5.1

4.3.4. Known Issues Solved with INCA V7.5.1 HF1 and Important Hints

- See next section.

4.3.5. Bug Fixes and Improvements

Problem Number	Title
766548	Experiment: changing between Layers leads to crash with [WBID3405970542] Primitive failed in: <code>OSHwnd>>#sendMessageW:message:wParam:lParam:</code> due to Invalid reference in argument 1
767599	ASAP3: If Boolean parameter is set to True, Command 14 GET PARAMETER FROM AP-S returns -1
768056	CDM: Copy Action from DCM into dataset is not possible for VTAB variables including true/false text values as those are interpreted as 1/0
769094	FETK-T4.0B with SR6P7 µC: Implausible trace-based measured values. Note: Also solved with ETK Tools V4.4.1 Build 100 (or higher).
769275	ES134: No Devices are shown in INCA Search for Hardware when ES134 is connected.

771542	INCA Touch License is not obtained if Feature V2.1 is in use, but INCA Touch V7.5 is installed
770535	ES582.1 doesn't show status LED for CAN2, when channel 2 is in use. Instead, status LED for CAN1 is displayed. Note: Solved with HSP V14.1.1 and V14.2.0

4.4. INCA V7.5.1

4.4.1. Recommended Installation

- It is recommended to use the `Setup_ServicePack.exe` to install, update, or downgrade to a previous version of INCA and the INCA Service Pack. In this case manual uninstallation is not needed.
- After the installation of the INCA Service Pack a reboot of the computer system is recommended. This is also true for hotfix installations.

4.4.2. New Features and Enhancements

- See `INCA-V7.5-SP1-Whats-new.pdf` for all the latest news on the current INCA version.

4.4.3. Known Issue of INCA V7.5.1 and Important Hints

- NA

4.4.4. Known Issues Solved with INCA V7.5.1 and Important Hints

- #760489 INCA.ini includes path to MDA.exe
This could be exploited to add another executable to the ini file and call it.
Fixed:
Added new option to write only x.y version of used MDA to ini file.
The new entry is called "UsedMDAversion", the old entry is kept in sync to support old INCA versions.

Corresponding section in the ini file:

```

; Deprecated with INCA >= 7.5.1! Selection of the MDA version to be used.
MDApath=C:\Program Files\ETAS\MDA8.5\mda.exe
...
; Selection of the MDA version to be used.
UsedMDAversion=8.5

```

- #756855 When switching to another EE from an opened EE, any calculated signals can be removed from the EE.
IF
you change the experiment view from within the experiment
AND
the new experiment view contains calculated signals

THEN

INCA displays a warning and removes the calculated signals.

IF

the experiment view is then saved

THEN

the calculated signals in the experiment view will be lost.

Workaround: To avoid this, close the experiment, exchange the experiment view in the corresponding workspace and reopen it.

- #762366 FETK-T4.0B with SR6P7 µC: Implausible trace-based measured values with INCA and HSP.

The ST microcontroller (STM SR6X7 and STM SR6P7) sporadically provides invalid data via the trace interface, which is captured by the FETK-T4.0B and sent to the measurement system. The customer receives this erroneous data and may continue to work with this erroneous data.

As a workaround, the trace data messages are scanned, and the erroneous data packets are identified based on packet type and decoded data. This identified erroneous data is dropped and not forwarded to the customer's measurement system.

This detection may very sporadically result in false positives, discarding valid measurement data.

Note: Solved with HSP V14.1.0

4.4.5. Bug Fixes and Improvements

- Notes:
 - Some issues can be resolved using the corresponding INCA Add-Ons, which are included in the INCA Service Pack or solved in combination with the current HSP.
 - The EHI calls are listed in ascending order.

Problem Number	Title
549446	MCE-CCP-IlinkRT : Import of CCP workspace from INCA 32-bit leads to device configuration error
583241	VSD: The predefined raster is not reflected in the Measure Array Selection window
649935	INCA after loading DCM [WBID1552179795] IDispatch call returned an exception. ErrorCode: 0x80131509 Source: Etas.EE.EmuRamSegmentCalculator. It is forbidden to update the existing data segments if there are emulated variables
652588	Calculated Signals: Field description not completely shown (field too narrow) in German language
672218	[NetWBID2227095070] System.IndexOutOfRangeException: Index 1 does not have a value.
699631	[WBID3451232150] UndefinedObject does not understand lastOrNil
703962	[WBID1753979938] UndefinedObject does not understand setForeground:
707048	HWC: During download WP the setting "Confirm page switch = No" might be ignored when ECU is on reference page.
709583	INCA Monitor error messages from TgtSvr when calling the menu "?->LOG Files->Zip".
711533	Experiment Environment: it is possible that change of Type is not remembered for Bit Calculated Signals
712500	API: FETK communication window pops up and blocks API operation.
712547	Different HW device naming in HWC at Search for OBD ECUs
713973	VSD: If multiraster activated already filled raster can be selected
714041	Lab-File Dialog does not preserve the path and file version between VSD and EE Menu
714450	[WBID2091792690] UndefinedObject does not understand splitPath

715641	If HWC window is started from Experiment, and the ECU project change was done and HWC window was immediately closed without waiting for action end, INCA may crash with [WBID2082451973] UndefinedObject does not understand updateForHWChanges:
717015	ASAP3: Command "COPY BINARY FILE" does not work if there is no code in the hex file
718118	If processing dialog for device initialization is too long, it is partly located outside of the visible screen range
721771	If VSD is opened from CDM and Labfile in format 1.3 is used, the content of Labfile is not shown in VSD
722972	Icons missing in menus
723691	CDM: Maps and Curves might be not copied
724451	ODX-LINK: If an error occurs while saving an ODX snapshot, the error message will not be displayed in INCA monitor but will be written in log files.
724459	HWC: Functionality of UI elements in HWC can be executed with spacebar even if they are not displayed anymore (no longer in focus)
724487	Variable Selection Dialog: removing signals with "Record Only" flag from the existing variable configuration takes long time
725742	MPM: After flashing the focus is jumping between MPM and the progress bar which slows down the reinitialization until the user clicks on the progress bar
726399	Icon size for button "Experiment without full HW access" is changed after device initialization
728288	MPM Device initialization should be performed only once
729238	Extended Logging Dialog: Link opens wrong Help Chapter / Help Dialog Title incorrect
730240	[WBID4195639978] UndefinedObject does not understand inactivesWithWindowID:pathLabel:
735079	DB Import: [WBID3582508379] Array's should not implement this method
736378	Online Help Link to Extended Logging Article is broken
736608	After Project Working Data Change in HW Configuration (FETK), #MeasureCal Signals are set to inactive in the Experiment
738007	[WBID3182525405] (ExCLDTKeyNotFound) Key not found.
740695	MPM shouldn't auto close when an action is canceled
740699	After Memory Page Management Dialog is opened for grouped devices and HW initialisation is performed, the view is updated only for one device till MPM dialog is closed
741077	INCA freezes with Walkback "UndefinedObject does not understand dataElement" during calibration of cdfx data exchange file in CDM
741839	After variables preselection for Battery cell imbalance instrument, Recorder Manager Window is opened and closed, causing INCA crash with [NetWBID2227095070] [NetWBID364591279] System.IndexOutOfRangeException: Index 0 does not have a value
742289	INCA-VoiceRecorder - Time setting of triggered recording not correct
742727	Images added to UI Developer are rescaled and no longer readable
743941	EE Manage Calculated Signal: [WBID2514990202] EtasOscilloscopeDataChannel does not understand updateUnit
744330	Double checksum calculation at pageswitch (Single pointer calibration method with XCP)
745226	SFH : Sets the device status wrongly to "connected" (green) in the HWC
745468	Slow page switch of multiple grouped ECU projects (Single pointer calibration method with XCP)
745608	GETK-MC: Wrong calibration values on "download" and subsequent "lock"
746480	Missing Values in drop down menu of Scenario Editor
746984	[WBID1810002110] EtasExperimentEnvironmentWidget does not understand classList
748962	INCA Experiment - Size of an error dialog window in case of pre-selected variable no longer found is not changeable
749105	Time Raster from lab file for Matrix and array are not overtaken when Time Raster differs from Default Raster

749358	If too many labels are transferred per drag and drop between two Oscilloscopes in Display Configuration Tab, the Variable Selection Dialog Window hangs
749608	SOME/IP: Wrong COMPU-METHODs for signals of serialized PDUs of ARXML files
749787	After labfile is loaded to VSD and experiment is closed and reopened, INCA crashed with [NetWBID1360599828] System.InvalidOperationException: Cannot access another ValueHolder in an event handler
751062	User Options: Disabled or uninstall FLX AddOn: Open HWC with FLX/XCPSimTime device results with lonely system
751427	API: automated script stops at SendManualStartTrigger() with an Target Server error "deserialization of base config >DeviceConfig VirtualTriggerDevice-DeviceConfig failed, XML fragment is empty"
751530	ProF settings and ProF configurations dialog windows are blurred at zooming in
752465	CAN-Trace device looks initialized even if selected hardware settings are not supported
752509	Float values in exponential notation are not used to initialize a virtual characteristic
752683	When a variable with same name exists in ECU Device and RamCal Device, Customer Instrument Widget sporadically changes its type (between calibration and measurement widget)
752871	INCA-ODX: Initialize the HW causes [WBID2072008424] EtasEthSystem does not understand createCANBaudRateRequestForRate
753335	After activating eCDM in user options without restart menu item Edit->Enterprise CDM is missing
753372	Opening HWC with deactivated LIN leads to corrupted configuration
753374	Opening HWC with deactivated FLX leads to corrupted configuration
753444	Calibration Scenario Editor - walkback after trying to add corrupt calibration scenario (CDFX) file
753996	ETAS Hardware cannot be found with INCA, after the PC was hibernating
754033	ASAP3 Error: Unable to add the following value(s) because all raster tables are full: [60826]
754230	Folder path description where "Inca*.dll" and "Inca*.mexw64" files is missing on INCA-MIP User Guide
754345	After Upload via Memory Page Management Dialog, if the Page Switch Dialog is declined then the Page Switch Dialog appears once again
754403	Opening the help via F1 doesn't work for ODX widgets until focus is switched forth and back
754747	Virtual Maps with formula are not updated if inputs change
754958	Entering the alias name does not work on any ES610 / ES620 / ES650 devices
755565	Calibration time of a group map is slow depending on map representation (Table / 2D / 3D)
755568	Variables in NOT_IN_ECU cannot be changed online with FlashRangeSpecificEmuRAM
755869	Sometimes not correct float values with Hex representation are pasted in Scalar Table Editor
755945	When copying one column of values to the Combined Editor, if there is a blank space, it will be mistakenly recognized as containing the values in order from the top
756009	MPM: [WBID2452289833] (ExAssertionFailure) An exception has occurred: Assertion failed
756389	ES820: Recording job stopped with Target Server errors and server will not restart. Note: Shipped with ES820
756818	Removing labels from Inca Touch during Visualisation is running leads to endless loop
756844	Removing Inca Touch Window during Visualisation removes the Window before the message box occurs
756855	When switching to another EE from an opened EE, any calculated signals can be removed from the EE.
756874	Copy variables to INCA TOUCH Instrument leads to unproportional INCA TOUCH widget when screen resolution is greater than 100 percent
757096	Sometimes wrong values are pasted into double clicked cell in Combined Editor

757113	Virtual Characteristics and Dependent Characteristics have different result for the same formula with the same input labels
757115	The imported LAB file disappears from the sources tree in variable selection dialog after Experiment reopening
757149	Flashport for UDSONCAN and KWPCAN is not taken over correctly in HW configuration
757241	NOT_IN_ECU calibration parameter does not take over other value rather than upper limit
757273	ASAP3: After adjusting a value of depended characteristic, the experiment is blocked by permanently operated window "create tree structure for dependent parameters".
757441	INCA crashes during automated API test with [WBID3031840748] UndefinedObject does not understand sendMessage:wParam:lParam:
757862	During automatic COM-API testrun default recorder fails to start causing testrun to stop
757999	ServicePackInstaller: Sporadic installations exceptions.
758489	If Measure data is recorded from ES410 module with activated Digital Filter Setting, it starts with negative time stamp
758559	When in a2l the Virtual or Depending Characteristics Formula is defined with or without brackets (X and (X)), different results may be observed
758560	Deleted calculated signal is not removed from INCA TOUCH window which leads to walkback after measurement start with [NetWBID809614039] Etas.EE.Instrumentation.InstrumentException:
758885	After Page Switching is performed several times in a row, virtual calibrations on working page are reset to reference page values
758886	Open EE with custom INCA instrument with calibrations and DynEMU wrapper: IsEditable Property and EditableChangedEvent from SignalValueAccesses are not updated or triggered after first start of the experiment
759507	Virtual Characteristic starting on Address 0 is not updated
759705	INCA does not show overlap warning at reading in the a2l file, which includes NOT_IN_ECU virtual characteristics with overlapping addresses
760240	After selection of specific variable INCA crashes with [WBID3863020836] Primitive failed in: Object>>#at: due to Index out of range in argument 1
760286	[WBID3847694341]UndefinedObject does not understand x
760411	In case of errors, FETK Initialisation routine returns numerical error codes only, corresponding text messages are missing
760489	INCA.ini includes path to MDA.exe. For details, refer to the "solved known issues" section.
760842	COM - API: [WBID2976003944] UndefinedObject does not understand do:
761763	INCA crash after deleting one of the Ethernet node of ES8xx in HWC and consequent initialization of another Ethernet node
762047	iLinkRT V3.0 - MCE Measurement does not work for measure labels from different devices if they have same name
762218	Firmware Update: Devices not displayed correctly in message "Drivers installation for the following devices are outdated"
762262	When Closing ASAP3 window, calibration variables are deleted from Default Recorder
762366	FETK-T4.0B with SR6P7 µC: Implausible trace-based measured values with INCA and HSP. Note: Solution shipped with HSP V14.1.0
762493	Walkback on "Open Experiment": [WBID158031107] UndefinedObject does not understand <
762722	Device names are missing in Database View of Experiment for labels in Calibration Scenario Editor
762880	Experiment Database View swaps the calibration and measurement elements assignment for labels in VUI windows
762916	CSE: [WBID1155092667] MCSDSMErrorGeneration does not understand dependentRepresentation occurred when calibrated a scenario with (corrupted) virtuals
764199	ETK Tools: Exception Handling in Python Console does not work

4.5. INCA V7.5.0

4.5.1. Recommended Installation

- It is recommended to use the `Setup_ServicePack.exe` to install, update, or downgrade to a previous version of INCA and the INCA Service Pack. In this case manual uninstallation is not needed.
- After the installation of the INCA Service Pack a reboot of the computer system is recommended. This is also true for hotfix installations.

4.5.2. New Features and Enhancements

- See `INCA-V7.5-SP0-Whats-new.pdf` for all the latest news on the current INCA version.
- Performance Enhancement:
 - #698252 Parallel HW Init performance improved
 - #733976 INCA Experiment "Read all Calibrations" from File is very slow
 - #753652 Open EE performance improved by approximately 33% when using workspaces with legacy ETKs

4.5.3. Known Issue of INCA V7.5.0 and Important Hints

- #756855 When switching to another EE from an opened EE, any calculated signals can be removed from the EE.
 - IF
you change the experiment view from within the experiment
AND
the new experiment view contains calculated signals
THEN
INCA displays a warning and removes the calculated signals.
 - IF
the experiment view is then saved
THEN
the calculated signals in the experiment view will be lost.
Workaround: To avoid this, close the experiment, exchange the experiment view in the corresponding workspace and reopen it.
- #745421 Uninstalling INCA V7.4.x or the INCA-ODX addon V7.4.x after uninstalling INCA V7.5.x or the INCA-ODX addon V7.5.x will fail.
 - To avoid this issue, make sure to start INCA V7.4.x at least once before uninstalling it or the INCA-ODX addon V7.4.x.
 - If the uninstallation has already started once, use this workaround:
Reinstall the INCA-ODX Addon V7.4.x in repair mode before uninstalling INCA V7.4.x or the INCA-ODX Addon V7.4.x.

4.5.4. Known Issues Solved with INCA V7.5.0 and Important Hints

- #747559 ETK Tools: Problem while launching ETK-Configuration Tool.
Support for classic ETKs older than ETK-S20 is removed in ETK-Tools version 4.4 and later. To support old classic ETKs, install ETK-Tools version 4.3.7 or earlier.
- #734702 INCA-ODX: Positive PID Request and engine RPM available, but the values are not shown in the experiment
and
#746762 INCA-ODX: Cannot measure PID variables when using OBDonCAN
ODX-LINK measurement (e.g. measurement of OBD PID signals) does not work, if Softing DTS 8.09 is installed on the PC (e.g. used by INCA 7.2.x ODX-Addon).
Workaround: Uninstall Softing DTS 8.09 and reinstall the INCA ODX-AddOn

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4.5.5. Bug Fixes and Improvements

- Notes:
 - Some issues can be resolved using the corresponding INCA Add-Ons, which are included in the INCA Service Pack or solved in combination with the current HSP.
 - The EHI calls are listed in ascending order.

Problem Number	Title
625061	[NetWBID3716018613] Etas.HWConfiguration.Framework.ConfigException: No schema set for data model with name: J1939MessagesDataModel
628411	No possible to initialise the HW with differen SN when CAN-Output set at HWC
629398	INCA-CAN-Trace: Channels of deleted Device are not deleted
630340	When adding a new CAN Monitoring Object on the hardware page, a CAN DBC file selection dialog appears. Before pressing the "Add" button, a target folder must be selected, even though the folder appears to be pre-selected in the dialog.
653795	[WBID3873537233] Problem handling undefined objects in DB(e.g. DBError does not understand isSGOHIContainer)
671407	HWC: If CAN Configuration dialog is closed with NO this leads to invalid CAN Configuration
672289	F3 Reinit in the Experiment might lead to [NetWBID3819614492] System.Runtime.InteropServices.COMException: Ausnahmefehler des Servers. (Ausnahme von HRESULT: 0x80010105 (RPC_E_SERVERFAULT))
679535	[NetWBID556698742] System.InvalidOperationException: Element 'DewDet_S1B1_I.egyThd_M\XETK:1' with ID ID681524899 not found in input XML for VSD
698252	Parallel HW Init performance improved
699815	Restart of DoIP measurement fails if the EE is reopened from the HWC after parameter change in HWC
705407	[WBID2412416422] EtasWorkingState does not understand buttonStrings
706613	API: Second call of ResetValueToRP gives an incorrect return value "API-Error 54: "action failed""
709429	Editing "User Options -> Experiment -> Measure -> Measure file base name (Preset)" after selection via single click caused [WBID555574661] UndefinedObject does not understand contents. Note: No issue is selected via double click.
715636	Change of variable from CHAR to MEAS not recognized properly by INCA
717946	EE: Close All does not close all widgets in EE

719208	[WBID638856137] EtasWorkingState does not understand buttonStrings
721867	Text block in VUI repositioned unexpectedly
722977	Dialog "Select project..": Menu Edit and View are general menus, but are only working for project. Should be related to currently used context.
723305	The 'Copy' menu item or hotkeys do not copy the label values to the clipboard on the Display Configuration tab
724648	MDA: EE: Possible that INCA and MDA uses different values as Result from Calc Signal
726790	Walkback if hardware is initialized many times after another (stress test): [WBID22948649] (ExAssertionFailure) An exception has occurred: Assertion failed
727092	Failed Connection to a single device blocks processing of parallel initialization
728160	EE: Could not match Dialog does not appear for CHARACTERISTICS selected only in (default) recorder (not in EE)
729684	Low Contrast Ratio in Trigger Editor / Recorder Manager Dialog
729841	[WBID63179895] OrderedCollection does not understand includesKey
730086	HWC: Device state is not maintained while opening HWC again.
730766	API: ResetValueToRP does not work with group curve axis.
731310	CDM: The statusbar is not updated after deleting a variable
731339	EE: Oscilloscope within VUI not working
732337	EE: Possible that INCA is hanging when try to open About Box in VSD
733976	INCA Experiment "Read all Calibrations" from File is very slow
734137	MDF Array Index without Underline: "[NetWBID2319331352] System.InvalidOperationException: Variable 'M_MATRIX.DIM22[0][0][0]\ETK-Testdevice:2' not found in device 'ETK-Testdevice:2'" when added special variables and reopened VSD again
734702	INCA-ODX: Positive PID Request and engine RPM available, but the values are not shown in the experiment
734935	Pressing F3 having grouped devices using Scalar Table Editor results in walkback [WBID2196958495] (ExCLDTKeyNotFound) Key not found.
735718	Battery Imbalance Table (BIT): Possible to copy or move duplicate labels to BIT widget in EE
735802	EE: Possible that Platform Osci is created with several instances from the same label
736950	After a Crash my DB is damaged and cannot be used and DB open crashes again: [WBID4195639978] UndefinedObject does not understand createCalculatedSignalGroup:
736964	INCA-CAN-Trace: CAN-Trace BLF file written incorrectly
737261	Battery Imbalance Table: If calculated signals are deleted and Experiment is reopened without saving, the signals are lost
737525	EE: Device is already in present after device name changing and 2 times HW init in HWC EE
737594	[WBID707015418] (ExAssertionFailure) An exception has occurred: Assertion failed
738652	EE: "[WBID970990069] UndefinedObject does not understand access" when change device name in HWC EE and open close calculated signal editor
739543	[NetWBID2075006241] System.Data.StrongTypingException: The value for column 'Name' in table 'Recorder' is DBNull.
739704	iLinkRT V3 - duplicated DAQ numbers when multiple devices are used
739864	Upload from XCP: [WBID2452289833] (ExAssertionFailure) An exception has occurred: Assertion failed
740007	GETK-MC-App: INCA API method "GetSystemDescription" is extended with the object for the GETK-MC system
740026	CDM compare with vector value block (TEXT)
740230	ARXML SomeIP CONSUMED-SERVICE-INSTANCE is not visible in the VSD. Recommendation: Check if the "missing" signals are in the ARXML file.
740601	[WBID306560295] UndefinedObject does not understand height
740660	INCA V7.4.7: VB Script (COM-API) GetDeviceDescription("CAN-Monitoring") fails due to change (was wrongly changed to "CAN Monitoring" - without "-")

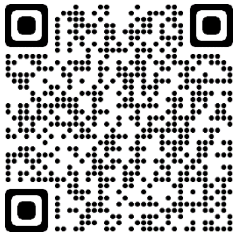
740670	CDM: true/false representation does not work for arrays
742694	On two-byte operating systems, INCA cannot be used after opening online help with the F1 key.
742759	MPM: After flashing a device in EE initialization method "Current" reinitialize all sibling devices
743317	XETK disconnection leads to OMD reconfiguration when bypass is active
743637	EE: [WBID1894921870] True does not understand actionSelector after reset value to reference page with mstest
744064	SOME/IP-MC : ES886.2 - Reconnect fails (also for XCP)
744098	ASAM-2MC Editor contains wrongly "OFF_LINE_DATA" as keyword and creates wrong entry in the A2L - but should be "OFFLINE_DATA"
744157	IP-Manager: IP conflict after automatic IP reassignment
744238	[WBID1362343877] unsupported type / Opening html file in multi-byte path caused system down
744241	EE:Possible to get "[WBID4140564527] EtasCEECustomerWidget class does not understand getCEEType" when delete a calc signal
744653	FETK-T4_Unplausible values for measurement. Note: Solved with INCA V7.4 SP7.1 (HSP V13.7.1) and INCA V7.5 SP0 (HSP V14.0.0)
744963	CDM: When open EE via CDM possible that Monitor Log get filled each second with same entry during the EE is open
744964	Parser does not understand MEMORY_SEGMENT key word "NOT_IN_ECU"
745001	API ResetValueToRP does not work for Curve Axis
745472	Components Menu disappearing when VUI is in use at INCA Experiment
745876	MPM: Unkown checksum is shown as equal checksum in the device list
745883	A2L-File: /include does not work if include A2L created in UTF-8-BOM
746752	MPM: Behavior in case of failed ACC wrong. MPM shall be opened with action "flash".
746762	INCA-ODX: Cannot measure PID variables when using OBDonCAN
746789	INCA Checksum Calculation is not shown in MPM after flashing
747069	MPM: Flash Programming not initially selected when opening MPM with FETK failing ACC
747198	MPM checksum display wrong after reopening MPM
747303	MEMORY_SEGMENT of type DATA NOT_IN_ECU blocks usage of ETK
747405	Virtual Parameters with Formula may not be calculated if used more than once
747559	ETK Tools: Problem while launching ETK-Configuration Tool. Support for classic ETKs older than ETK-S20 is removed in ETK-Tools version 4.4 and later. To support old classic ETKs, install ETK-Tools version 4.3.7 or earlier.
747936	CAL-Wakeup behaviour of INCA differs between INCA versions (INCA7.3.5 - INCA7.4.x).
747944	Copying and pasting multiple calibration values from Excel or a text editor is now blocked. A message will be displayed indicating that INCA only supports copying one value at a time.
747945	When copying and pasting multiple calibration values from a text editor or Excel spreadsheet, the data representation was changed
748334	INCA-ODX: Walkback when initializing UDS device with TPBlob parameters from ODX project if no A2L file is assigned to the UDS device: [WBID1455865447] EtasDiagnosticServiceOnCANDevice does not understand asPSZ
748517	No data in customer instruments that use dynamic variable references. Also affects the INCA add-ons Touch and RDE.
748535	iLinkRT V3: Get option on the HWC doesn't work
749047	Scalar table editor in hex mode switches to physical mode when inserted number is not explicitly specified as hexadecimal
749608	SOME/IP: Wrong COMPU-METHODs for signals of serialized PDUs of ARXML files
749769	CDM: "[WBID1738638892] ASAP2CharacteristicBlob does not understand ySize" can occur when connect to asap2 project and select a dataset
750168	EE: Multi selected paste works in Calibration different when done vie Hotkey or Context Menu

750810	INCA-TOUCH comes with red x when map is not available after a2I replace
750916	INCA Initialize Hardware error with pop-up that mentions MCE Connections cannot be removed with PUMA
751682	EE_Calculated Signals: Possible that calc signals are not shown in osci after changing 2 times a calc signal
751898	[WBID3421345940] EtasGroupArrayAccess does not understand registerCEEOnly
753652	Open EE performance improved by approximately 33% when using workspaces with legacy ETKs
753868	[WBID2770526384] UndefinedObject does not understand displayFileOrder / Performance Issue with Key Variable List
754535	[WBID1477195478] EtasGroupArrayAccess does not understand registerCEEOnly. Note: Solved with INCA V7.4 SP7.1.
754594	[NetWBID2498683093] System.NullReferenceException: Object reference not set to an instance of an object
755478	CDM Copy Dataset leads to [WBID4103211128] Primitive failed in: Object>>#basicAt: due to Index out of range in argument 1
756195	IPETRONIK: Adding another IPETRONIK device leads to changing the CAN controller settings

5. Contact Information

5.1. Technical Support

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: www.etas.com/hotlines



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

5.2. ETAS Headquarters

ETAS GmbH

Borsigstraße 24

70469 Stuttgart

Germany

Phone: +49 711 3423-0

Fax: +49 711 3423-2106

Internet: www.etas.com