INCA V7.4-SP7 – What's New

Changes / Extensions done in this Service Pack

ETAS

INCA V7.4-SP7 – What's New
Overview

1. **Product information (Use cases, Sample applications, Customer value)**
   – Performance
   – **Functionality**
   – Standards
   – Usability
   – HW support
   – Add-ons

2. **INCA Product Family**

3. **Phase out information**

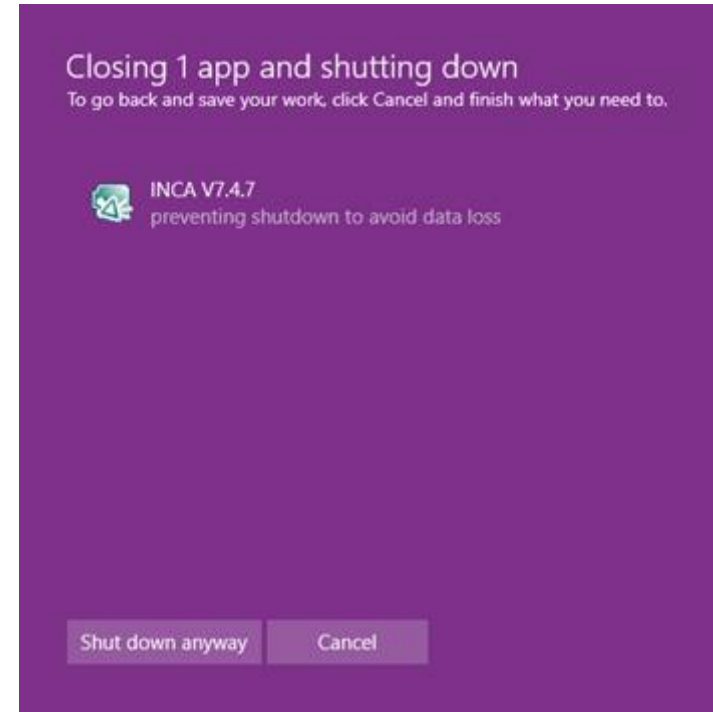4. **General Notes**

INCA V7.4-SP7 – What's New

Functionality

INCA – Stop Windows shut down

If the user signs out in windows or triggers shutdown, INCA will give an Information, that it is still running

Cancelling the shut down gives a chance to
- Continue a running measuring
- Save changes

Closing 1 app and shutting down
To go back and save your work, click Cancel and finish what you need to.

INCA V7.4.7
preventing shutdown to avoid data loss

Shut down anyway   Cancel

INCA V7.4-SP7 – What's New

Functionality

EE – Battery cell imbalance graph evaluation table instrument

Easy overview of
- Range of voltage or temperatures in cells
- Imbalance of cells
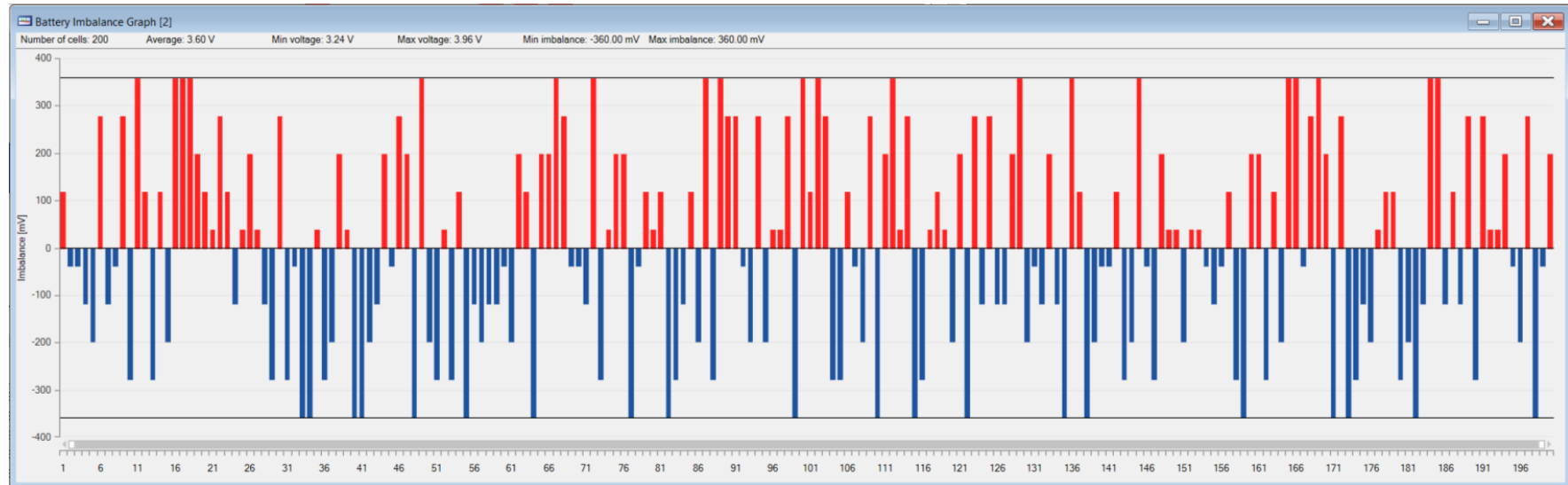
Functionality

VSD - Improved display of measure array selection states

The main view in the variable selection dialog shows
- ☐ No cell selected
- ◼ Some cells selected
- ☑ All cells selected
- By clicking directly in the main all cells will be selected

The measure array selection view shows the detailed selection

Main view

Measure Array Selection view

INCA V7.4-SP7 – What's New

Functionality

Export for DAQ based measurement configuration
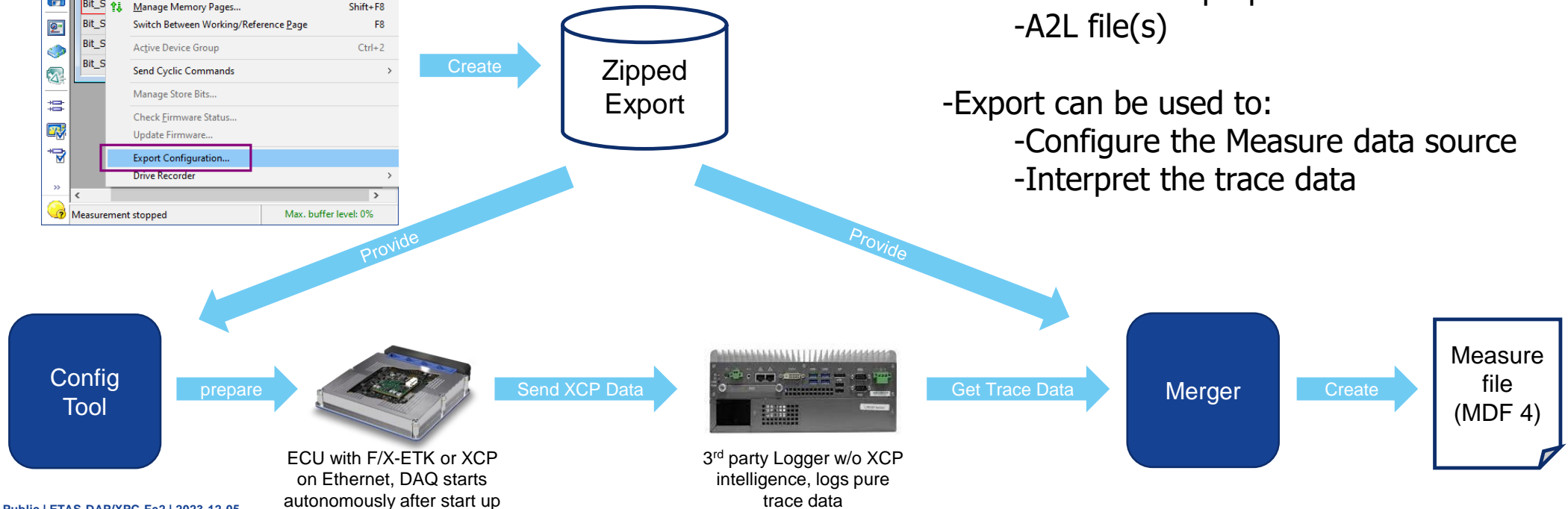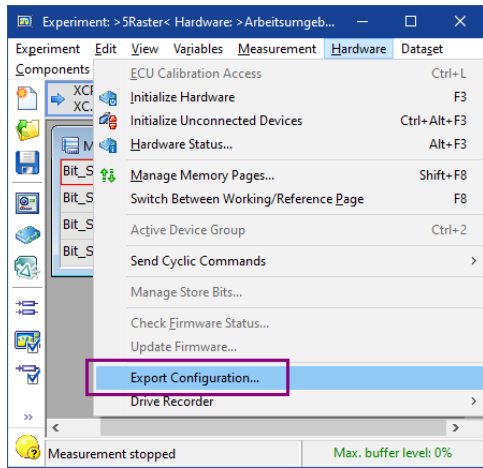
-Export contains:
- -Measure Configuration as JSON
- -XCP session properties as JSON
- -A2L file(s)

-Export can be used to:
- -Configure the Measure data source
- -Interpret the trace data

INCA V7.4-SP7 – What's New

Functionality

AUTOSAR + **CiA**

CAN XL support

CAN XL in a nutshell

1. Increased maximum Payload Length

CAN	8
CAN FD	64
CAN XL	2048

2. Increased maximum Data Speed

CAN	1000000
CAN FD	5000000
CAN FD SIC	8000000
CAN XL	8000000
CAN XL fast (available in future)	12500000
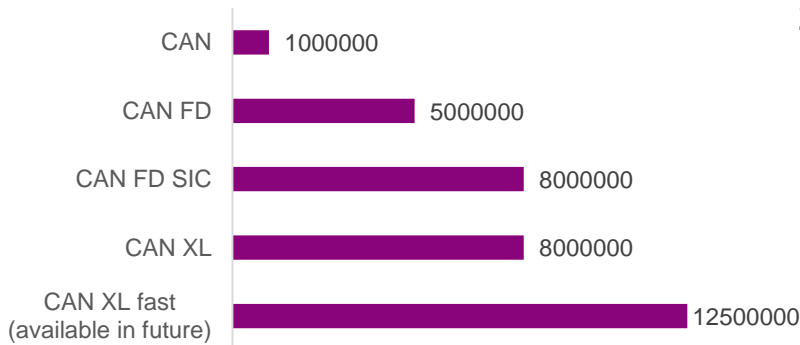
Required components

1. AUTOSAR file with CAN XL description
   – appearance as cluster of type CANXL
   – Minimum version R 22-11

   CAN XL
   └─ CANXL_SupportInINCA.arxml
      └─ CANXL_Cluster
   └─ Workspace <active>
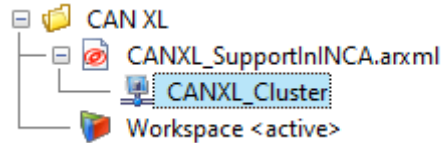
2. ES8xx.2 as CAN XL capable hardware

Additional

1. Reworked and new structured UI
2. All parameters accessible in API
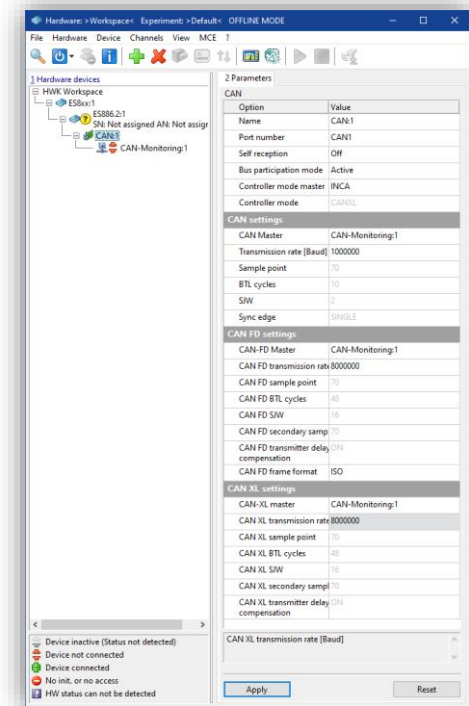
INCA V7.4-SP7 – What's New

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INCA V7.4-SP7 – What's New

Add-ons

ODX – Updated OBDonCAN and OBDonUDS ODX projects supporting SAEJ1979-DA 2022-03

OBDonCAN:
- New mode 1 and mode 2 PIDs `$C6-$CD` and changes to PIDs `$1C,$73,$A3` and `$AC`
- New mode 9 InfoTypes `$2A,$80-$84` and changes to `$0A` and `$74`

OBDonUDS:
- New Service `$22` PIDs `$F4C6-$F4CD,$F502-$F505` and changes to `$F41C,$F473,$F4A3` and `$F4AC`
- New Service `$22` InfoTypes `$F82A,$F880-$F884` and changes to `$F80A` and `$F874`

All new PID and InfoType response parameters are available as measurement signals in the Variable Selection Dialog for polling measurement and recording with INCA

The OBD Window displays all new and changed data when using it with the new ODX projects

The new ODX projects get installed with the INCA-ODX Addon into ETASData\ODX7.4\Projects:
- OBDonCAN_ETAS_SAEJ1979_2022-03.pdx
- OBDonUDS_ETAS_SAEJ1979-2_2022-03.pdx

To use the new functionality the new ODX projects have to be imported into INCA and assigned to a Workspace with an OBDonCAN or OBDonUDS device.

Add-ons

INCA Service Pack Installer – AddOn CAN-Trace added

If there are issues on the bus, monitoring dedicated signals on a bus is often not sufficient to find the cause.

It's often needed to have a trace of the complete bus communication to be able to analyze also signals that were not explicitly monitored.

INCA V7.4-SP7 – What's New

Add-ons

SOME/IP Service Discovery for Measurement

INCA goes **AUTOSAR Adaptive**!

- SOME/IP-MC device and corresponding AUTOSAR cluster type
- INCA is actively communicating with ECU using **SOME/IP Service Discovery**
- Support of AUTOSAR adaptive description files R22-11 as well as AUTOSAR classic files
- Available as Add-On "INCA-SOMEIP-MC" (INCA Add-On for Measurement and Calibration via SOME/IP)
- Separate license needed

ES886.2, local NIC or Vector Ethernet Network

SOME/IP

SOME/IP SD

| Adaptive Application | Adaptive Application | Adaptive Application | Adaptive Application |

User Applications

SOME/IP	DDS	IPC	ara::com	ara::log	ara::com	ara::exec
			ara::time	ara::...	
			ara::per		

AUTOSAR Runtime for Adaptive Applications (ARA)

(Virtual) Machine / Container / Hardware
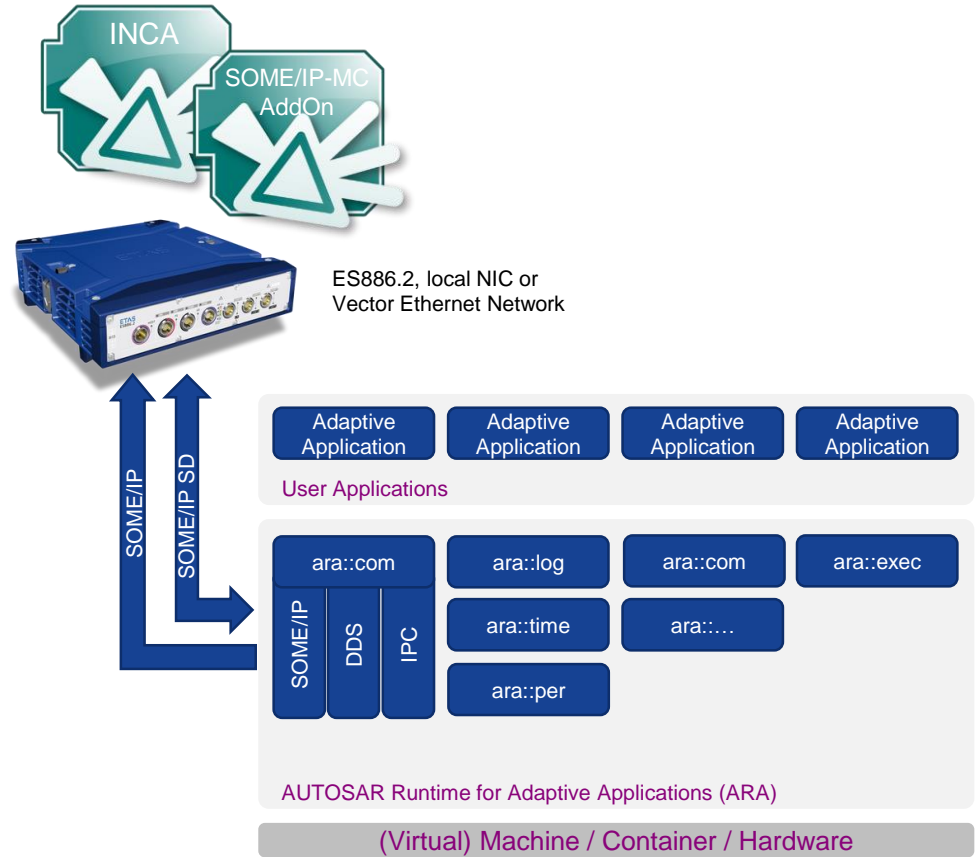
INCA V7.4-SP7 – What's New

MATLAB – Support of MATLAB 2023B

– INCA-SIP & INCA-MIP

INCA V7.4-SP7 – What's New

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4. **General Notes**

INCA V7.4-SP7 – What's New

INCA Product Family

ETAS License Manager – Announcement of License Server Update

The following information is relevant for customers using floating or user based licenses.
Machine based licenses are not affected.

– The components used for the ETAS License Server for FlexNet Publisher (FNP) licenses will be upgraded to FNP V11.19.4.1
– This version supports Windows Server 2022 and Windows 11
– Contains important bug fixes and addresses known security vulnerabilities

ETAS products released after end of march 2024 require the new ETAS License Server
The software package can be found on ETAS download center

Please plan to update the ETAS License Server!

INCA V7.4-SP7 – What's New

INCA Product Family

ETAS License Manager - Migration Wizard for New License Technology

ETAS switched from FlexNet Publisher (FNP) to FlexNet Embedded (FNE) license technology.

The first step was done by introducing the new technology for **machine based** licenses:

– INCA 7.3 accepts both FNE licenses and FNP licenses.
– INCA 7.4 will accept FNE licenses only

To assist you with this, ETAS License Manager offers a wizard which migrates your machine based FNP licenses to FNE licenses.
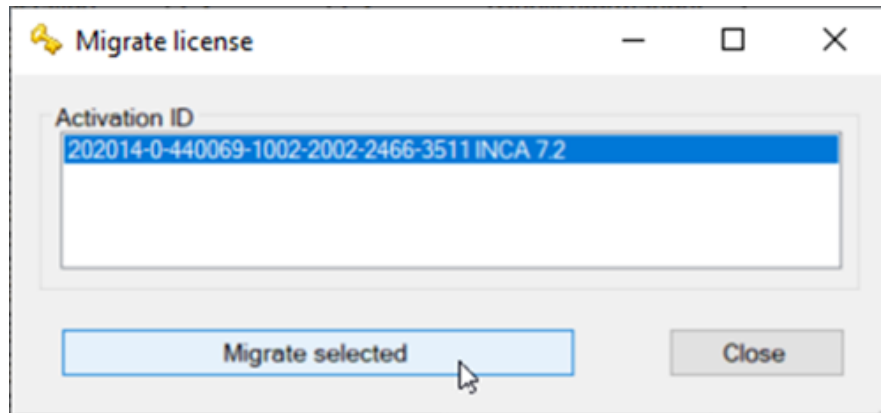
Note:

* ETAS License Manager > 1.8.2 and a valid service contract are required
* New bought machine based INCA licenses are automatically based on FlexNet Embedded.
* User based or Floating licenses are still based on FlexNet Publisher. Further information on introducing FNE for these will follow.

For details please see Time Line and further info in ETAS License Management FAQ

INCA V7.4-SP7 – What's New

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4. **General Notes**

Announcement concerning "ETK Data Freeze" Feature

– INCA offered in the MPM (Memory Page Manager) the possibility to do a data freeze. Data freeze did a flashing of the WP (Working Page) to the RP (Reference Page) without the need to start a Prof script.

With INCA V7.4 SP6 this feature is no longer available!

Replaced by ….

Announcement concerning "HW Enable Bits"

- The ETAS enable bits functionality for Supported Vector hardware will be phased out
- QA5 Sales stop since Q1/2022
- QA6 Service stop is planned for Q1/2025

For already supported Vector devices and all newly integrated Vector devices INCA supports now a SW license (Machine-Based, User-Based and Floating)!

All Vector devices with active Enable Bit will be supported by INCA at least till QA6 of the hardware.

- INCA checks for the enable bit first
- If no enable bit is available INCA will check for the SW license

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4. **General Notes**

General Data Protection Regulation

Compliance to General Data Protection Regulation

Please note that personal data is processed when using INCA. As the controller, the purchaser undertakes to ensure the legal conformity of these processing activities in accordance with Art. 4 No. 7 of the General Data Protection Regulation (GDPR).
As the manufacturer, ETAS GmbH is not liable for any mishandling of this data.

Data categories
Please note that INCA particularly records the following personal data (categories), and/or data (categories) that can be traced back to a specific individual, for the purposes of assisting with troubleshooting
– Communication data: IP address, date and time
– User data: The user's Windows UserID

Further information to this topic is available in the INCA installation handbook and the INCA online help.

INCA Training

Seminars offered at ETAS Locations Worldwide or at Customer Site

Deep skills and sound knowledge are essential prerequisites for handling software tools of ever-rising complexity. Our trainers are highly experienced engineers in the field of engineering and support, who relish sharing knowledge on ETAS products and development processes. Target groups for the trainings are beginners, advanced users and those who wish to expand their existing knowledge.

INCA – Calibration (3 days)
– Practical operation of the software and the knowledge of the INCA fundamentals
– Get to know the advantages and disadvantages of various calibration concepts

INCA - Advanced Calibration Techniques (2 days)
– Advanced functionalities in INCA, Tips & Tricks. INCA experience is required
– Workshop part, bring in your own problem statement

INCA - FLOW Coaching
– Using your own calibration tasks to see the benefits of INCA-Flow in your daily work

Some ETAS local offices have their own training programs which are specialized for the local needs. Please contact our local office of your area for the details: https://www.etas.com/en/trainings.php

INCA V7.4-SP7 – What's New

Virtual Machines

Usage of virtual PC Machines

The usage of INCA on a virtual machine (VM) is restricted and not recommended:

– The VM needs sufficient working memory (RAM), otherwise the performance of INCA goes down

– Access to sufficient graphic card memory (Direct X) is necessary, otherwise the oscilloscope representation of measurement signal is not possible

– Access to hardware interfaces Ethernet, USB, PCMCIA, … is necessary, otherwise INCA cannot use the connected hardware

– Measure samples may be lost and the accuracy of time stamps is not guaranteed as the higher task priority for hardware access (Target Server) is not given

– ETAS does no special tests concerning VM machines

ETAS recommends to use real PC hardware.

INCA V7.4-SP7 – What's New

System Requirements

Minimum System Requirements
– 2 GHz Processor, 2 GB RAM, and DVD-ROM drive *)
– Graphics: at least 1024x768, 256MB RAM, 16bit color and DirectX 9

Recommended System Requirements
– 3 GHz Quad-Core Processor, 16 GB RAM, and DVD-ROM drive *)
– Graphics: at least 1280x1024, 1GB RAM, 32bit color and DirectX 9
– Windows 10 64Bit
– Investigation on performance showed
  – More Memory improves execution time of repetitive operations
  – SSD Hard disks improve the file access times

Supported OS
– Windows 8.1 64Bit
– Windows 10 64Bit (version 1803 or higher)
– Windows 10 64Bit Enterprise (LTSC 2016 or higher)
– Windows 11 64Bit
– Windows Server 2016 64Bit / 2019 64Bit / 2022 64Bit

*) Needed for installation via DVD only
Not necessary when installing via network

INCA V7.4-SP7 – What's New

General Notes

Additionally Installed Components	INCA V7.3	INCA V7.4
.Net-Runtime-Environment	V4.8[1]	V4.8[1]
VCxRedist (Vcredist_x86 / Vcredist_x64)	VC9+VC10+VC14	VC9+VC10+VC14
JAVA SDK Version j2sdk1.4.2_11	X[2]	X[2]
Perl V5.30.0	X	X
ETAS Certificate	X	X
Direct X	V9 (or higher)	V9 (or higher)
ETASShared	13	14
Windows 8.1 64Bit	X[3] [5]	X[3] [5]
Windows 10 64Bit	X[3]	X[3]
Windows 11 64Bit	-	X
Windows Server 2016 64Bit / 2019 64Bit	X[4]	X
Windows Server 2022 64Bit	-	X[6]

[1] This component is installed only when no or an older version is installed. If a newer version is already installed, it will not be touched. This is checked by a Microsoft installation routine.
[2] This component is installed only with ODX LINK
[3] For hardware driver support see release notes
[4] Starts with INCA V7.3 SP4; INCA FLOW, INCA RDE is not released for Windows Server
[5] .NET V4.8 needed (available from Microsoft Support .NET V4.8)
[6] Beginning with INCA V7.4 SP2

Thank you

ETAS