DRIVING **EMBEDDED EXCELLENCE**

ETAS

ES830.1

HSP V11.15.0
Release Notes

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- Introduction

o **Definitions and Abbreviations**

Term/Abbreviation	Definition
EHI	**E**TAS **H**elp Desk **I**nternational
HW	Hardware
KIR	**K**nown **I**ssue **R**eport – 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: http://www.etas.com/kir
PR	Problem Report
SW	Software
CDM	Calibration Data Manager
VSD	Variable Selection Dialog
EE	INCA Experimental Environment , Common EE
LiMa	ETAS License Manager
HF	Hotfix
SP	Service Pack
MDA	INCA Measure and Data Analyzer
MR	Multi-Recorders
OHI	Open Hardware Integration
OS	Operating System
RP	Rapid Prototyping

o **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 setup.exe`	Text in drop-down lists on the screen, program code, as well as path- and file names are shown in the Courier font.
A *distribution* is always a one-dimensional table of sample points.	General emphasis and new terms are set in italics.

o **User Documentation**

The ES800 user's documentation can be downloaded from the ETAS web site.

https://www.etas.com/download-center-files/products_ES800/ES800_System_UG_R14_DE.pdf

https://www.etas.com/download-center-files/ products_ES800/ES800_System_UG_R14_EN.pdf

The ES800 user's documentation in PDF format can be found on the DVD.

- Product Definition

o **Functions at a glance**

Stackable High-Performance Rapid Prototyping Module of the ES8xx product family for challenging bypass applications.

Together with the ES8xx interface modules and the XETK/FETK ECU access, large and processing intensive bypass applications with high real-time requirements and low latencies can be realized.

The ES830.1 has 2 Gigabit Ethernet ports (HOST, GE) and 4 USB interfaces (currently without functionality). Status signal and external trigger lines can be connected to the module via a 25-pin Micro DSUB plug.

o **General Description**

▪ **System Prerequisites**

The ES830 Rapid Prototyping System runs in a stack with the power Module ES801 and an interface Module ES891/ES892 or ES882/ES886. The correct stack order and firmware versions needs to be considered.

▪ **Software Prerequisites**

The configuration of the ES830 Rapid Prototyping System is done using ETAS INTECRIO V4.7.2. INTECRIO V4.7.2 can be obtained from your ETAS sales contact person.

To run and control Rapid Prototyping experiments ETAS INCA and INCA-EIP AddOn version 7.2 Sp11 or higher is required.

To use an ES8xx Interface Module together with an ES830 in a stack the HSP update tool 11.15.0 or higher first needs to be installed. Then the ES8xx and the ES830 can be updated together in a stack. A standalone HSP update on ES886/ES882 module is mandatory before using it in a stack with ES830.

The HSP can be obtained from the ETAS download center https://www.etas.com/de/portfolio/download_center.php.

▪ **Use Case Restrictions**

- Several stack setups are supported: One ES830 module must be positioned below the ES8xx Interface Modules module.

- 2 Module Stack support

ES891/ES892/ES882/ES886

ES830

- 3 Module Stack support

ES891/ES892/ES882/ES886

ES891/ES892/ES882/ES886

ES830

In a 3 Modules Stack the Interface Module positioned directly on the ES830 can be used for RP. E.g. the LIN/CAN/Flexray as Bus I/O, ETK interfaces for bypassing.
The Module on the top only supports the Measurement and Calibration use case.

- Up to three ECU access interfaces are supported for bypassing in parallel. This can be a combination out of ETKS20/21 in FETK mode, FETK, XETK, BR-XETK, XCPonCAN(FD), XCPon Ethernet.
- For the access interfaces ETKS20/21 in FETK mode and FETK only the two ports of the ES891/ES892 on top of ES830 can be used for bypassing.
- A parallel use case of MC and RP is not supported for LIN and for Flexray
- USB devices are not supported
- External interface modules connected to the ES891/ES892 or ES830 are not supported (e.g. ES595)
- No hardware time synchronization between model and ECU values is supported (values are time stamped only in INCA with 1ms precision)
- Operation temperature range is -40 ° C to 70 ° C
- Parallel Rapid Prototyping and ECU flashing is not supported.

WARNING!

Undefined system behavior or data loss possible with parallel Rapid Prototyping and ECU flashing!

*Parallel Rapid Prototyping and ECU flashing on the same CAN port can lead to undefined system behavior and data loss in Rapid Proto-typing communication. For parallel Rapid Prototyping and ECU flash-ing with CAN-I/O or XCP it is therefore essential to use **different** CAN connections of the ES8xx modules!*

- **Hints**

- The boot process of the system takes about 17 seconds after power on or wake up from standby.
- If another module in the stack (ES891/ES892/ES882/ES886) is waken up, the whole stack including ES830 wakes up.
- The Gigabit Ethernet (Host) interface is activated only in an ES800 module stack in the bottommost module. All other Host interfaces of the module stack can neither send nor

receive Ethernet signals and are deactivated.

- Performing 'Search for Hardware' via HSP Update Tool is a prerequisite for initial use of the WEB GUI.
- The booting process of the stack system must be accomplished upon performing 'Search for Hardware' via HSP Update Tool.
- If the ES830 does not wakeup from HOST using laptop. Wait 20 s after the ES830 is in standby mode, then connect the HOST cable.

o Delivery

The module is delivered with a DVD including documentation and further information. All software documentation is available in the Portable Document Format (PDF), which requires Adobe® Reader®.

The DVD contains the following items:

Directory	Meaning / Explanation
./Documentation	User's Guides, Hints, Safety Advices Customer Information

o Installation

▪ Installation Hints

To use an ES891/ES892/ES882/ES886 together with an ES830 in a stack the HSP update tool 11.15.0 or higher first needs to be installed. Then the ES891/ES892/ES882/ES886 and the ES830 can be updated with the HSP Version together in a stack.

A down date to HSP older than 11.11.0 is only possible for the ES891/ES892 device, not for the ES830 device. The down date is not possible in a stack with ES830 and ES891/ES892.

- New Features

Support of Bypassing using XCPonCAN, XCP on CAN-FD, XCPonEthernet

Bypass over XCP Protocol version 1.5 is now supported for CAN (FD) and Ethernet.

For XCP on Ethernet there are several possibilities to perform ECU connection.

- On the GE Port of the ES830 Module
- On the GE Port of the ES891/ES892/ES882/ES886
- On the FE Port of the ES891/ES892/ES882/ES886

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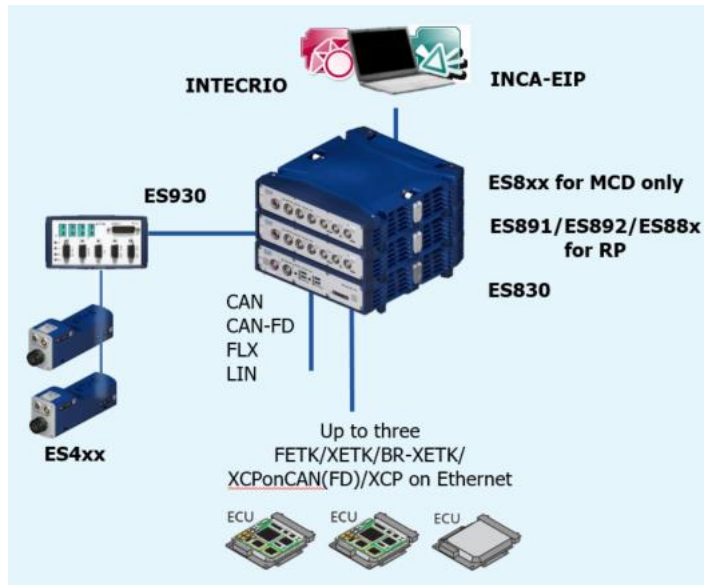
LIN support

In combination with ES891/ES892/ES882/ES886 the LIN interface is supported as I/O to be used in the RP Model. The parallel use case RP parallel with MC is not supported.

For RP use case one LIN Master or one LIN Slave is supported. It is configurable by SW in INTECRIO if the interface shall act either as LIN Master or as LIN Slave.

It is configurable in the WEB GUI of the ES891/ES892/ES882/ES886 whether a Master Resistor is connected. It also can be configured in the WEB GUI if the LIN Port has an external power supply or not.

CAN send and self-reception on the same port

If a CAN Frame ID is sent on a physical CAN port, it can be Self-received on the same physical CAN Port.

Use Case: Send a CAN Frame with ID xy from the RP Model and Monitor the same CAN Frame on the same CAN Port with INCA.

Support of Flexray as I/O for the bypass Model in parallel with INCA Monitoring

In combination with ES891/ES892/ES882/ES886 the Flexray frames can be received and sent within the Bypass Model running on the ES830. In parallel the Flexray port can be used with INCA Monitoring.

Indication of incorrect stacking order

A feedback in the WEB GUI of ES830 is given to the user if the stacking of the ES8xx Modules is incorrect. If stacking order is incorrect, a red signal is shown in the WEB GUI. The correct stacking order is indicated to the user by numbers on the devices.
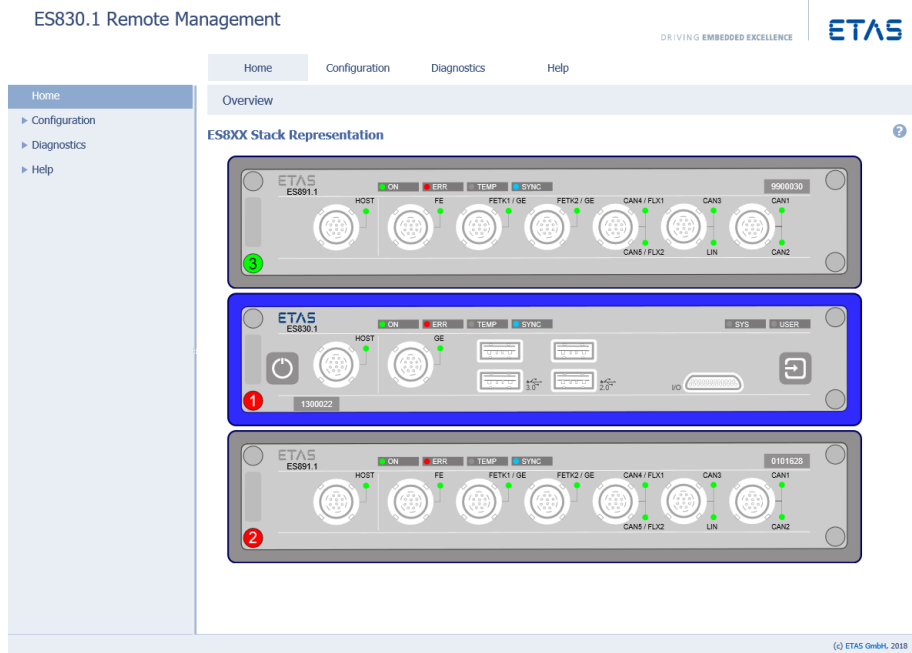
Optimization of Bypass initialization phase with FETK

The initialization of the Bypass communication via FETK is now done to 90% before startup handshake with the ECU. Following the starting sequence below, will result in a fast and stable Bypass start.

1. Power on of the ES8xx Stack
2. Wait for 17s until stack is powered up
3. Power on or reset of the ECU

o   **Fixed Issues**

Double pressing the power button will trigger the shutdown/reboot procedure. This is indicated by active error LEDs of all devices for half a second. Further presses on the power button during this period may lead in rare cases to an error state (all devices having the error LEDs on and are not accessible). (#616862)

Note: A Power cycle (switch off/on power supply) will bring the stack in normal state.

Double pressing the power button will trigger the shutdown/reboot procedure. The stack is shutting down and restarts immediately if a wake up condition is active. Further presses on the power button while stack is restarting will lead in rare cases to a not operational state of the system. Only the ES830 will show an active error LED and will reboot after about 2 min. (#616862)

Note: A Power cycle (switch off/on power supply) will bring the stack in normal state.

Double pressing the power button will trigger the shutdown/reboot procedure. The stack is shutting down and should restart immediately if there is an active wakeup condition (e.g.

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plugged host cable and active connection to PC). In rare cases the restart of the stack may be delayed up to 1 minute. (#615179)

o   **Known Issues**

Communication Error between Host and ES830 when StopOS is clicked while X/FETK is disconnected or powered off. (#600627)

Workaround: Wait 3 minutes (time out) until the System restores communication.

Error E_OS_LIMIT can appear in the log Files when reloading the ES8xx WEB GUI during model execution. Task activation time is exceeded. (#611162)

Workaround: Avoid reloading the WEB GUI during model execution on the ES830.

Web GUI reaction to slow after default factory settings reset. (#616728)

Workaround: Wait some seconds after default factory reset and restart, before searching the Hardware in HSP or WEB GUI.

Backward compatibility for RP models created with INTECRIO V4.7.0 (#626736)

Since HSP 11.14.0 RP Models, that were created with ITECRIO V4.7.0 (or earlier) do not run anymore on an ES830 based on HSP 11.14.0 or newer.

Workaround: Update the INTECRIO Version to V4.7.1 or higher.

Contact, Support and Problem Reporting

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

ETAS subsidiaries	WWW:	www.etas.com/en/contact.php
ETAS technical support	WWW:	www.etas.com/en/hotlines.php