



ENTIS R130.1 *Software Change Notice*

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Revision History

Revision	Date	Description
01	September 2019	ENTIS R101.1 Release
02	December 2019	ENTIS R110.1 Release
03	June 2020	ENTIS R120.1 Release
04	September 2020	ENTIS R121.1 Release
05	November 2020	ENTIS R121.2 Release
06	December 2022	ENTIS R130.1 Release

Notices and Trademarks

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1. Introduction

1.1. About this Document

This document contains the release notes for ENTIS R130.1

1.2. Limitations

ENTIS has the following constraints:

- ENTIS R130.1 supports a maximum number of 8 CIU 888 with a maximum number of 400 Tanks.
- ENTIS cannot be connected to the older CIU 880.
because ENTIS uses OPCUA TCP/IP for communications, and Ethernet is not supported by this older version of the CIU.
- ENTIS R130.1 only supports CIU888 R210.1 due to the changed communication method from Modbus to OPCUA.

1.3. Technical Assistance

For all technical-related questions, please contact the **Honeywell Technical Assistance Centre**

Phone: +31 (0)15 2701 100

E-mail: HFS-TAC-SUPPORT@honeywell.com

2. Contents of Release

2.1. Software Deliverables

The table below lists the ENTIS deliverables

Component	Model Number
ENTIS Installer	EN-R130SW
ENTIS Quick Start Guide	ETDOC-X612-en-R130.1
ENTIS Installation and Configuration Guide	ETDOC-X613-en-R130.1
ENTIS User's Guide	ETDOC-X615-en-R130.1
ENTIS Software Change Notice (SCN)	ETDOC-X616-en-R130.1
ENTIS Technical Specification	ETDOC-X618-en-R130.1

2.2. Hardware Deliverables

ENTIS does deliver hardware, but the ENTIS Technical Specification (ETDOC-X618-en-R130.1) provides information on the recommended hardware specifications to run ENTIS.

3. Getting Started

It is strongly recommended that all customers contact the Honeywell Technical Assistance Centre prior to conducting a process migration.

4. ENTIS R130.1

ENTIS's unique, flexible system architecture ensures robust operation as a Windows 10 Enterprise 2016 LTSB Version 1607 application. ENTIS integrates with the dedicated Communication Interface Unit, CIU 888 via OPCUA. The CIU 888 retrieves and processes data from field devices and systems, constantly scanning, calculating and monitoring. Reliable data is continuously provided to a wide range of applications to support operators with dedicated tasks in ENTIS. This allows users to operate the tank farm safely and efficiently.

A variety of displays are available for inventory management, including but not limited to bar graphs, tabular data, iconized tanks, and a whole range of optional modules such as trending, report printing, and a what if...tank calculator. ENTIS screens are displayed in the Experion station environment.

4.1. New Features

- Advanced Movement
 - Advanced Configuration
 - Allows 1-to-Many and Many-to-1 transfers
 - Transfers to and from objects: Pipe, Train, Truck and Ship
 - Configuration Report
 - Main screen to control and visualize all movements (Planned, Active and Closed)
 - Movement End Report
 - Intuitive and instructional UI
- Unplanned Flow alarms on Volume, Weight and Mass
- Support CIU888 product configurations
- Multiscreen support with Experion SafeView
- Export data to CSV format
- Scheduled Report printing
- Context menus for simple gauge commands and Movement actions

4.2. Changes to Existing Functionality

- Product Level terminology change
 - "Product Level" is now a corrected value from the CIU based on the measured Gauge Level. This is synonymous with clnnage (corrected Innage) and is always an innage value.
 - "Gauge Level" is newly termed as the measured level (uncorrected) coming from the gauge on a tank. This can be Ullage or Innage.
 - "Gauge 2 Level" is the measured level from the secondary gauge on the tank. It replaces the ProductLevel2 data.

- Updated UI for new CIU888 calculation methods and additional data from OPCUA tank record
- Updated WhatIf calculator interface
- Group view with multiple entity selection
- Updated Report templates
- Product color selectable between custom color or moving direction

4.3. Retired Features

- Some Product Manual Overwrite features no longer possible due to new Product database configuration

4.4. SCADA Point updates

ENTIS R130.1 has the following changes/updates to SCADA point configurations in Experion.

R121 Scada point	R130.1 Scada Point	Change
TCAL	TCAL	no change
AALF	AALF	no change
AALB	AALB	no change
DAL	DAL	no change
MovingStatus	MovingStatus	no change
	EXT	new
GAL	GAL	no change
	PCAL	new
cDobs	Dobs	name change
cProductLevel	ProductLevel	name change
	GaugeLevel	new
ProductLevel2	Gauge2Level	name change
cProductTemp	ProductTemp	name change
cVapRoomPress	VapRoomPress	name change
cVapRoomTemp	VapRoomTemp	name change
cWaterLevel	WaterLevel	name change
cWaterVol	WaterVol	name change
cProductDRef	ProductDRef	name change
FlowTOV	FlowTOV	no change
GOV	GOV	no change
GSV	GSV	no change
MassLiq	NSM	name change
TGSV	TGSV	no change
TotalMass	TNSM	name change
UFLAL	UFLAL	no change
UFVAL	UFVAL	no change
	UFMAL	new
PAT1	PAT1	no change
PAT2	PAT2	no change
PAT3	PAT3	no change
PAT4	PAT4	no change

R121 Scada point	R130.1 Scada Point	Change
MovementStartLevel	MovementStartLevel	no change
PlannedVolume	PlannedVolume	no change
TargetLevel	TargetLevel	no change
TransferredVolume	TransferredVolume	no change
VolumeLeft	VolumeLeft	no change
PlannedQuantity	PlannedQuantity	no change
QuantityTransferred	QuantityTransferred	no change
QuantityLeft	QuantityLeft	no change
MovementStatus	MovementStatus	no change
TargetDirection	TargetDirection	no change
	TimeToTarget	new
Common.Alarms		removed
Common.Tank_AALB	Common.Tank_AALB	no change
Common.Tank_AALF	Common.Tank_AALF	no change
Common.Tank_DAL	Common.Tank_DAL	no change
Common.AvailableRoom	Common AvailableRoom	no change
Common.AvailableRoomStatus	Common AvailableRoomStatus	no change
Common.AvailableGOV	Common.AvailableGOV	no change
Common.AvailableGOVStatus	Common.AvailableGOVStatus	no change
Common.BackgroundTimeStamp	Common.BackgroundTimeStamp	no change
Common.cAmbientTemperature	Common.AmbientTemperature	name change
Common.cAmbientTemperatureStatus	Common.cAmbientTemperatureStatus	name change
Common.cCTL	Common.CTL	name change
Common.cCTLStatus	Common.CTLStatus	name change
Common.CIUPGeneralConfigurationCRC		removed
Common.CIUPlusTankID	Common.CIUPlusTankID	no change

R121 Scada point	R130.1 Scada Point	Change
Common.CombinedVolumeCorrections	Common.VolumeCorrections	name change
Common.CommAndConfStatus		removed
	Common.Concentration	new
	Common.ConcentrationStatus	new
Common.CTSH	Common.CTSH	no change
Common.CTSHStatus	Common.CTSHStatus	no change
Common.DisplacerPosition	Common.DisplacerPosition	no change
Common.DisplacerPositionStatus	Common.DisplacerPositionStatus	no change
Common.DynamicTankStatus	Common.TankStatus	name change
Common.FlowStatus	Common.FlowDirection	name change
Common.ForegroundTimestamp	Common.ForegroundTimestamp	no change
	Common.GaugeStatus	new
	Common.Gauge2Status	new
	Common.GRH	new
	Common.GRHStatus	new
	Common.GSM	new
	Common.GSMStatus	new
	Common.GSW	new
	Common.GSWStatus	new
	Common.HydroMeterCorr	new
	Common.HydroMeterCorrStatus	new
	Common.Innage	new
	Common.InnageStatus	new
Common.LiqInVap	Common.LiqInVap	no change
Common.LiqInVapStatus	Common.LiqInVapStatus	no change
Common.LiqVolRatio		removed

R121 Scada point	R130.1 Scada Point	Change
Common.MassAndVolumeCorrections		removed
Common.MassVap	Common.MassVap	no change
Common.MassVapStatus	Common.MassVapStatus	no change
Common.MolarWeight		removed
	Common.MassCalcType	new
Common.NSV	Common.NSV	no change
Common.NSVStatus	Common.NSVStatus	no change
Common.ProductName	Common.ProductName	no change
Common.ProductTC	Common.ProductTC	no change
Common.ProductTCStatus	Common.ProductTCStatus	no change
Common.SedAndWater	Common.SedAndWater	no change
Common.SedAndWaterStatus	Common.SedAndWaterStatus	no change
	Common.SedAndWaterVol	new
	Common.SedAndWaterVolStatus	new
	Common.Ullage	new
	Common.UllageStatus	new
Common.Tank_CAL	Common.Tank_CAL	no change
Common.ENTISTANKCONTROLLER_CCAL	Common.ENTISTANKCONTROLLER_CCAL	no change
Common.Tank_TCAL	Common.Tank_TCAL	no change
	Common.Tank_PCAL	new
Common.Tank_GAL	Common.Tank_GAL	no change
	Common Tank_EXT	new
Common.Tank_MovingStatus	Common.Tank_MovingStatus	no change
Common.TankConfigurationCRC		removed
	Common.TNSW	new
	Common.TNSWStatus	new
Common.TankName	Common.TankName	no change

R121 Scada point	R130.1 Scada Point	Change
Common.VerificationSignature		removed

4.5. Software/Hardware/Firmware Compatibility

ENTIS requires specific versions of Experion HS software and the CIU 888 firmware. The table below lists the correct versions.

Software Element Name (external)	Version	Type and Other Notes
Experion HS	R511.1	Experion HS R511.1
Experion HS R511.5 patch	R511.5 patch	Experion HS R511.5 patch. Install after main Experion HS R511 installed.
R511.5 HMIWeb Update 3	Experion HS R511.5 HMIWeb Update 3	Experion HS R511.5 patch (HMIWeb Update 3). Install after R511.5 patch is installed.
CIU 888	R210.1	ENTIS communicates with the CIU 888 over the OPCUA protocol. The CIU 888 R210.1 release contains updates that are required by ENTIS.

4.6. Installation and Migration

ENTIS only supports off-line migration. The migration steps are described in the Installation and Configuration Guide [ETDOC-X613-en-R130.1](#). This guide provides a detailed description of how to install ENTIS, and how to migrate the CIU 888 database to an ENTIS database.

The following steps are required to install and configure ENTIS:

1. Setup the ENTIS PC as recommended in the ENTIS Specification document ([ETDOC-X618-en-R130.1](#))
2. Install the ENTIS prerequisites:
 - Windows 10 LTSC
 - Install Windows 10 LTSC
 - Experion HS R511.5
 - Install Experion HS R511.1
 - Install Experion HS R511.5 patch
 - Install Experion HS R511.5 HMIWeb Update 3
3. Install ENTIS R130.1

- If a previous version of ENTIS is already installed, uninstall it first and then install ENTIS R130.1
- Refer to the 'Uninstall Instructions' in this document

4. Configure ENTIS

- The CIU 888 configuration databases .mdb will be used as input for the ENTIS configuration.
- The Entis database files are generated by the ENTIS Configuration Tool.
- The .mdb files will be uploaded in the ENTIS Configuration Tool.
- The Configuration tool will migrate the data to a set of ENTIS database files.
- The Configuration tool will also generate the required equipment and point files for Experion HS.
- Refer to the ENTIS Installation and Configuration Guide (ETDOC-X613-en-R130.1) for instructions on how to migrate CIU 888 configuration databases to an Entis database using the Configuration Tool.

5. Enable Secure OPCUA communication to CIU888

- The CIU 888 communicates to ENTIS via secured OPCUA. This takes place using selfsigned certificate handshaking.
- Ensure that once the CIU888 is connected to the ENTIS server **after** the databases are migrated to ENTIS, that the certificates are manually trusted by and Admin user:
 - Copy/paste the certifacte from each CIU to the ENTIS trusted folder
 - For each CIU via web interface, trust the ENTIS Client certificate
 - For more detailed steps see the ENTIS Installation and Configuration Guide (ETDOC-X613-en-R130.1).

Note: If upgrading from previous version of ENTIS and current Experion SCADA point configurations exist:

- When migrating points with the same names (same CIU names, same Tank names), the existing points in Experion will be deleted and replaced (all extra configuration will be lost)
- When migrating points with different names, new points will be added to the Experion databases.
- Thus, the old points should be removed using Experion Configuration Builder application, see Chapter 10 of ETDOC-X613-en-R130.1.
- Take care to follow the instructions in ENTIS Installation and Configuration Guide (ETDOC-X613-en-R130.1) for migration (Chapter 4)

4.7. Uninstall Instructions

ENTIS can be uninstalled via the Windows "Programs and Features" menu:

1. Go to the Windows "Control Panel"

2. Select “**Programs and Features**”
3. Select ENTIS in the “**Programs and Features**”
4. Click on the right mouse button and select “**Uninstall**”
5. After confirming the uninstall action, ENTIS will be uninstalled

4.8. Known issues

Based on information and data available to us to date, this section describes current identified issues related to this release.

	Description	Workaround	ID(s)
1	The UAC prompt may not come to the forefront when the installer is launched, giving the appearance that the installer is hanging.	After the install is launched, the dialog can be brought to the front by selecting it from the task bar.	RNEWENTIS-3777
2	Entis Tank Trend can not be printed whereas trend created by operator can be printed as pdf	Trends that need to be printed will have to be manually created using the Experion Trends configuration menu. Pre-configured trends shipped with ENTIS cannot be printed at this time, but can be exported to excel by clicking the trend window, Ctrl+C, paste using Ctrl+V in Excel or text file.	1-DTCXSEH
3	ENTIS config. tool - Creation of Experion points overwrites all existing config	Before creating and exporting Experion Points with the ENTIS Configuration tool, SCADA Point Settings (Alarms and setpoints) should be Exported using the QuickBuilder/Configuration Studio application. These can later be used to update the points again. Refer to the Experion Configuration Studio manual.	1-DLBNKIZ
4	ENTIS Configuration Tool UI blanks if clicked away during Config tool loading	Avoid clicking away from the Configuration Tool window until it is loaded and showing the Upload Files button. If this issue has occurred, close and relaunch the Configuration tool application.	RNEWENTIS-7013
5	Displacer commands can cause L/LL Alarms in Experion	If not possible to ignore L/LL Alarms during execution of Locktest, it will be required to manually temporarily deactivate and L/LL alarms during this time.	RNEWENTIS-7099
6	Group details column width not loaded when using Experion Toolbar to navigate pages	Use ENTIS side menu bar to navigate.	RNEWENTIS-7089
7	Delta parameters are not available in csv export file	No known workaround	RNEWENTIS-7080

	Description	Workaround	ID(s)
8	Sometimes it is observed that an error event Honeywell.Enraf.Entis.Auditing.Interop.exe logged in Windows even log	No operational impact. No workaround needed.	RNEWENTIS-7036
9	Auto report cleanup is not executing at exactly 12AM when system time was changed without restart	After system time update, restart ENTIS services or retstart the PC.	RNEWENTIS-6903
10	In Movement configuration screen for object types other than Tank, planned volume can represent level and mass as well	No fucntional impact, no workaround needed.	RNEWENTIS-7100

4.9. Legal Metrology (LM) Modules

The ENTIS components/modules listed below are LM approved.

Component	Version
Honeywell.Enraf.Entis.LM.Sealing.Service.exe	1.0.8350.0
Honeywell.Enraf.Entis.LM.Reporting.Service.exe	1.0.8350.0
Honeywell.Enraf.Entis.LM.Scanner.Startup.exe	1.0.8350.0
Honeywell.Enraf.Entis.LM.Command.Startup.exe	1.0.8350.0
Honeywell.Enraf.Entis.LM.HMI.Service.exe	1.0.8350.0
Honeywell.Enraf.Entis.LM.Sealing.exe	1.0.8350.0
Honeywell.Enraf.Entis.LM.ReportingReprint.exe	1.0.8350.0

4.10. Security-Related Issues

There are no security related issues.

4.11. Embedded Software Components

In addition to the table below, a list of third party software components, and their associated license details, are included in a *ThirdPartyNotices.txt* file that is installed by ENTIS.

Component	Version
Microsoft .Net Framework	4.8
Microsoft .Net Core	3.1