GE
Grid Solutions

UR Family

Version 8.2x

Release Notes

Overview

This document contains the release notes for firmware versions 8.20, 8.21, 8.22, and 8.24 and software versions 8.20, 8.21, 8.22, 8.23, and 8.24 of the GE Universal Relay (UR) family of products.

Applicable to products: B30, B90, C30, C60, C70, C95, D30, D60, F35, F60, G30, G60, L30, L60, L90, M60, N60, T35, T60

Date of release 8.20: 10 March 2021

Date of release 8.21: 18 March 2021

Date of release 8.22: 19 November 2021

Date of release 8.24: 04 March 2022

In the following descriptions, a category letter is placed to the left of the title. See the table at the end of this document for descriptions of the categories.

Major firmware releases can introduce new protection and control elements that can affect the device's Modbus memory map. Check the summary of released features to find out if it applies to a particular release.

Highlights 8.20

- **New** — Added Sensitive Bus Differential element for B90
- **New** — Changed B90 to support Breaker Failure and Bus Replica Isolator elements when in "Protection" mode
- Added power metering for all sources in B30 with IY software option
- Enhanced Thermal Overload Protection element
- Improved Autoreclose element
- Improved Synchrocheck element

Highlights 8.21

- **New** — Added support in the firmware for copper SFP in the Process Bus Module
- Changed firmware to reject IEC 61850 GOOSE messages with quality flag set to "questionable"

- Improved security in IOC elements
- Improved security in differential elements

Highlights 8.22

- Fixed defaulting of the settings in relays using IEC61850 E3-2.0 when upgrading from v8.20 to version 8.21

Highlights 8.24

New — Added support for enumeration values in IEC61850 GOOSE publishing and subscription by the main CPU and the process bus module

Firmware

Firmware 8.20

- Bus Differential Systems – B30, B90
    - Added Sensitive Bus Differential element to B90
    - Changed B90 to support Breaker Failure and Bus Replica Isolator Monitoring elements in "Protection" mode
    - Added power metering for all sources in B30 with IY software option
    - Corrected direction detection in Bus Differential element in B30 with Process Bus Module
    - Corrected calculation of current sequence components in B30 with Process Bus Module for sources 7 and up when using phase rotation ACB
    - Corrected B90 to not run the CT Trouble element for zones 2 to 6 when in "Logic" mode
    - Corrected firmware to prevent unexpected restart of B90 without DSP modules
- Transformer Protection Systems – T35, T60
    - Increased the number of Thermal Overload Protection elements from 2 to 4 in T35, T60
- Common Protection and Control Elements
    - Added single-pole Autoreclose master follower sequence
    - Updated Synchrocheck element to allow synchro-close command at smaller angle difference than regular synchrocheck command
    - Corrected usage of the magnitude correction factor for V2 in the Synchrocheck element
    - Enhanced Thermal Overload Protection element
    - Corrected firmware to prevent a reset of settings to factory default after reboot when using a specific configuration
    - Added support for sensitive ground current element in relays with Process Bus Module
    - Corrected firmware to allow use of control pushbuttons in FlexLogic
- Communications
    - Corrected IEC 61850 buffered reports to send first buffered event after connection loss
    - Corrected default value of IEC 61850 GFPhpIHMI.InRef1.setSrcRef data attribute in the ICD file
    - Corrected value of IEC 61850 zeroDb data attribute in transformer Interturn Fault Detection (TrItfPTOC) data objects DifARaw and DifAComp

Bus Differential Systems – B30, B90

N   Added Sensitive Bus Differential element to B90

Products: B90

Impacted firmware: Not applicable

Corrected firmware: 8.20

Workaround: None

Description: The new release adds a Sensitive Bus Differential element to detect and isolate single-phase to ground faults in impedance grounded systems, or high impedance faults in solidly grounded systems. The new element uses the same main differential zone and inputs, but has its own settings, allowing a user to enable, block, and supervise this element independently from the main differential element.

GE tracking number: 820-6

E   Changed B90 to support Breaker Failure and Bus Replica Isolator Monitoring elements in "Protection" mode

Products: B90

Impacted firmware: All to 8.10

Corrected firmware: 8.20

Workaround: None

Description: In previous versions, the Bus Replica Isolator Monitoring and Breaker Failure elements are functional when the **B90 Function** setting is set to "Logic" mode.

In the new release, the Bus Replica Isolator Monitoring and single-phase Breaker Failure elements are functional when the **B90 Function** setting is configured either as "Protection" or "Logic." The B90 bus differential and breaker failure system now can be achieved with a three-relay solution.

GE tracking number: 820-5

N   Added power metering for all sources in B30 with IY software option

Products: B30 with IY software option

Impacted firmware: 7.90 to 7.91, 8.00 to 8.04, 8.10

Corrected firmware: 8.20

Workaround: None

Description: In previous versions, a B30 relay with IY software option (requires Process Bus Module) does not have the capability for power metering for extended sources 7 and up.

In the new release, a B30 with IY software option has power metering available for all platform and extended sources.

GE tracking number: 820-8

H   Corrected direction detection in Bus Differential element in B30 with Process Bus Module

Products: B30 with a Process Bus Module (order code 85, 86, 87)

Impacted firmware: 8.10

Corrected firmware: 8.20

Workaround: None

Description: The direction detection in the Bus Differential element can be incorrect during internal faults, which can cause the element to pick up but not assert the operate operand due to incorrect operation of the directional element.

The new release corrects the issue.

GE tracking number: 820-10

M   Corrected calculation of current sequence components in B30 with Process Bus Module for sources 7 and up when using phase rotation ACB

Products: B30 with a Process Bus Module (order code 85, 86, 87)

Impacted firmware: 8.10

Corrected firmware: 8.20

Workaround: Avoid using elements using the positive and negative current sequence components for sources 7 and up

Description: For source 7 and up, the positive and negative current sequence components are calculated incorrectly when using phase rotation ACB.

The new release corrects the issue.

GE tracking number: 820-15

P   Corrected B90 to not run the CT Trouble element for zones 2 to 6 when in "Logic" mode

Products: B90

Impacted firmware: All to 8.10

Corrected firmware: 8.20

Workaround: None

Description: The CT Trouble feature is available only when the **B90 Function** setting is set to "Protection." In previous versions, for zones 2 to 6, the CT Trouble element is available also when the setting is set to "Logic."

The new release corrects the issue.

GE tracking number: 820-16

B   **Corrected firmware to prevent unexpected restart of B90 without DSP modules**

Products: B90 without digital signal processor (DSP) modules

Impacted firmware: 7.90 to 7.91, 8.00 to 8.04, 8.10

Corrected firmware: 8.20

Workaround: Do not change the **IED Mode** setting while the relay is in service

Description: A B90 that does not include any DSP modules can experience unexpected restart when the **IED Mode** setting is changed to "Test."

The new release corrects the issue.

GE tracking number: 820-9

Transformer Protection Systems – T35, T60

E   **Increased the number of Thermal Overload Protection elements from 2 to 4 in T35, T60**

Products: T35, T60

Impacted firmware: All to 8.10

Corrected firmware: 8.20

Workaround: None

Description: The number of Thermal Overload Protection elements increases from two to four.

GE tracking number: 820-3

Common Protection and Control Elements

E   **Added single-pole Autoreclose master follower sequence**

Products: C60, C95, D60, L60, L90

Impacted firmware: All to 8.10

Corrected firmware: 8.20

Workaround: None

Description: In previous versions, the reclose breaker sequence can be either 1-2 or 2-1 in dual breaker applications, without the ability to change breaker sequence.

The new release adds the ability to change sequence dynamically due to substation re-configuration, specifically by adding a change breaker sequence setting (**AR CHNG BKR SEQNCE**) and adding an "1-2/2-1" option to the **AR BKR SEQUENCE** setting.

GE tracking number: 820-1

E   **Updated Synchrocheck element to allow synchro-close command at smaller angle difference than regular synchrocheck command**

Products: B30, C60, C95, D30, D60, F60, G30, G60, L30, L60, L90 N60, T60

Impacted firmware: All to 8.10

Corrected firmware: 8.20

Workaround: None

Description: The new release adds a new S-CLS ANG setting to allow issue of a synchro-close command at smaller angle difference than per MAX ANGLE DIFF used for the regular synchrocheck command. This allows issuing a synchro-close command, when voltages angle difference is very small, even close to 0 degrees and using prediction based on the breaker close time.

GE tracking number: 820-2

M   Corrected usage of the magnitude correction factor for V2 in the Synchrocheck element

Products: B30, C60, C95, D30, D60, F60, G30, G60, L30, L60, L90, N60, T60

Impacted firmware: 7.40 to 8.10

Corrected firmware: 8.20

Workaround: None

Description: In previous versions, in the Synchrocheck element, the magnitude correction factor per the **SYNCHK1 V2 MAG CORR FACTOR** setting for V2 is applied to both the calculation of the delta voltage per the **SYNCHK1 MAX VOLT DIFF** setting and to the calculation of the minimum/maximum V2 voltage condition.

The new release corrects the issue. The magnitude correction factor for V2 is applied only to the calculation of the delta voltage.

GE tracking number: 820-13

E   Enhanced Thermal Overload Protection element

Products: B30, C60, C70, C95, D30, D60, F35, F60, G30, G60, L30, L60, L90, N60, T35, T60

Impacted firmware: All to 8.10

Corrected firmware: 8.20

Workaround: None

Description: The new release adds a **Thermal Protection Mode** setting that allows selection of either 3-Phase mode or 1-Phase mode element operation. In 3-Phase mode, the element calculates thermal energy from the A, B, and C currents, while in 1-Phase mode it calculates thermal energy from the IG current of the assigned source. Additionally, a new **Thermal Protection Alarm Level** setting can be used to generate a warning when thermal energy is increasing and approaching trip level.

GE tracking number: 820-4

U   Corrected firmware to prevent a reset of settings to factory default after reboot when using a specific configuration

Products: All

Impacted firmware: 7.90 to 7.91, 8.00 to 8.04, 8.10

Corrected firmware: 8.20

Workaround: Avoid configuring the **TEST-BLK MODE INPUT** setting to a FlexLogic operand that changes state when powering down the relay

Description: The **TEST-BLK MODE INPUT** setting selects a FlexLogic operand that can put the UR into Test Mode. In previous versions, if the FlexLogic operand assigned to the setting changes state when powering down the relay, upon power-up the relay resets all settings to factory default.

The new release corrects the issue.

GE tracking number: 820-17

E   Added support for sensitive ground current element in relays with Process Bus Module

Products: All with a Process Bus Module (order code 85, 86, 87)

Impacted firmware: 7.80 to 7.82, 7.90 to 7.91, 8.00 to 8.04, 8.10

Corrected firmware: 8.20

Workaround: None

Description: In previous versions, relays supporting the Process Bus Module do not support sensitive ground current elements.

In the new release, the Ground Instantaneous Overcurrent and Ground Time Overcurrent elements have been enhanced to support extended sensitivity starting from a pickup value of 0.005 pu.

GE tracking number: 820-7

U   Corrected firmware to allow use of control pushbuttons in FlexLogic

Products: All except B90

Impacted firmware: 7.90 to 7.91, 8.00 to 8.04, 8.10

Corrected firmware: 8.20

Workaround: None

Description: In the new release, control pushbuttons can be used in FlexLogic.

GE tracking number: 820-18

Communications

C   Corrected IEC 61850 buffered reports to send first buffered event after connection loss

Products: All with an IEC 61850 software option

Impacted firmware: All to 8.10

Corrected firmware: 8.20

Workaround: None

Description: In certain scenarios and depending on the IEC 68150 client, after a connection loss the first buffered event is not sent out by the relay.

The new release corrects the issue.

GE tracking number: 820-14

C   Corrected default value of IEC 61850 GFPhpIHMI.InRef1.setSrcRef data attribute in the ICD file

Products: All with an IEC 61850 software option and graphical front panel

Impacted firmware: 8.10

Corrected firmware: 8.20

Workaround: None

Description: In previous versions, the default value of the IEC 61850 GFPhpIHMI.InRef1.setSrcRef data attribute (DA) in the ICD file is @Master/LLN0.Off.stVal, which is incorrect. That is, it is off.

The new release corrects the default value to @Master/LLN0.On.stVal.

GE tracking number: 820-11

C   Corrected value of IEC 61850 zeroDb data attribute in transformer Interturn Fault Detection (TrItfPTOC) data objects DifARaw and DifAComp

Products: T35, T60, with an IEC 61850 software option

Impacted firmware: 8.10

Corrected firmware: 8.20

Workaround: None

Description: The value of the IEC 61850 zeroDb data attribute in the transformer Interturn Fault Detection element (TrItfPTOC) objects DifARaw and DifAComp is incorrectly set to 4 instead of 0.

The new release corrects the issue.

GE tracking number: 820-12

Firmware 8.21

- Line Protection Systems – D60, L60, L90
    - Corrected current metering in L60
    - Corrected firmware to activate Subcycle Distance in the ground distance elements, when the ground CT is not configured in the distance source
- Common Platform Functions
    - Improved security in IOC elements
    - Improved security in differential elements
    - Corrected potential discrepancy in the list of target messages when viewed from different Modbus clients
    - Changed Breaker element control logic to use the "Breaker Open Seal-In" timer setting for IEC 61850 BkrCSWI.OpOpn.general
    - Re-introduced phasor plot to Graphical Front Panel source phasor page
    - Updated Graphical Front Panel bootloader 1.03 to support application that includes the phasor plot in the source phasor page
    - Corrected firmware to exclude PB SETTING ERROR event when performing a firmware upgrade on a relay with a Process Bus Module
- Communications
    - Corrected reading of role-based password statuses in relays with CyberSentry
    - Added support in the firmware for copper SFP in the Process Bus Module
    - Corrected potential failure to synchronize to SNTP server when duplicate frames are present in the network
    - Changed firmware to automatically reset the AUTHENTICATION FAIL operand
    - Changed firmware to reject IEC 61850 GOOSE messages with the validity quality bit flag set to "questionable"
    - Corrected firmware to correctly handle IEC 61850 subscription if the dataset entry index and the number after the DO name "Indxxx" are identical
    - Corrected firmware to allow unused SV streams to be configured in the settings file
    - Corrected firmware to accept IEC 61850 CID file sent over local communication port when Lock Settings is enabled and Bypass Access is set to "Local"

Line Protection Systems – D60, L60, L90

E   Corrected current metering in L60
Products: L60
Impacted firmware: 8.10, 8.20
Corrected firmware: 8.21
Workaround: None
Description: In the impacted firmware, the metering of ground and sequence components currents is not functional. Phase RMS and phasor values are not affected.
The new release corrects the issue.
GE tracking number: 821-1

P   Corrected firmware to activate Subcycle Distance in the ground distance elements, when the ground CT is not configured in the distance source
Products: D60, L90, with a Subcycle Distance software option

Impacted firmware: 8.00 to 8.20

Corrected firmware: 8.21

Workaround: None

Description: If the ground CT bank is not configured in the distance source, Subcycle Distance is not activated in the ground distance elements. Regular Ground Distance elements remain active and operational.

The new release corrects the issue. Subcycle Distance is activated even when ground CT is not configured in the distance source.

GE tracking number: 821-4

Common Platform Functions

F   Improved security in IOC elements

Products: All except B90, C30, T35

Impacted firmware: All to 6.06, 7.00 to 7.27, 7.30 to 8.20

Corrected firmware: 6.07, 7.28, 8.21

Workaround: None

Description: In previous releases, in a very rare case of bit flip in the DSP memory or current drop, Phase, Neutral, and Negative-sequence IOC can inadvertently misoperate before a self-test error is detected.

In the new releases, a new trip security element is added to supervise IOC operation to confirm independently from IOC itself that the operate quantity follows the "system fault" signature. This element monitors phasors and raw samples in each phase and, based on the changes of these quantities, validates the fault presence. The element does not have any settings and can be disabled during testing if needed, using the Test Mode Function.

GE tracking number: 728-10

F   Improved security in differential elements

Products: B30, B90, G30, G60, M60, T35, T60

Impacted firmware: All to 6.06, 7.00 to 7.27, 7.30 to 8.20

Corrected firmware: 6.07, 7.28, 8.21

Workaround: None

Description: In previous releases, in a very rare case of bit flip in the DSP memory or current drop, the differential element can inadvertently misoperate before a self-test error is detected.

In the new releases, a new trip security element is added to supervise differential element operation to confirm independently from the differential element itself that the operate quantity follows the "system fault" signature. This element monitors phasors in each phase and each source and, based on the changes of these quantities, validates the fault presence. The element does not have any settings and can be disabled during testing if needed, using the Test Mode Function.

GE tracking number: 728-11

D   Corrected potential discrepancy in the list of target messages when viewed from different Modbus clients

Products: All

Impacted firmware: All to 8.20

Corrected firmware: 8.21

Workaround: When viewing a list of targets for a relay, use only one instance of the EnerVista UR Setup software and disconnect any other instances

Description: The list of target messages of a specific relay can differ when viewed simultaneously from multiple computers running EnerVista UR Setup. This issue also can be observed between the target

messages listed by a Graphical Front Panel and the EnerVista UR Setup software.

The new release corrects the issue.

GE tracking number: 821-6

D **Re-introduced phasor plot to Graphical Front Panel source phasor page**

Products: All with Graphical Front Panel except C30

Impacted firmware: 7.61 to 7.66, 7.72, 7.73, 7.82, 7.90, 7.91, 8.00 to 8.04, 8.10, 8.20

Corrected firmware: 8.21

Workaround: None

Description: The Graphical Front Panel (GFP) displays a phasor page for each configured AC source. In some of the previous firmware versions, the GFP source phasor page does not include the phasor plot, but displays only the table with the numerical values of all currents, voltages, and symmetrical components of the respective AC source.

In the new release, the phasor plot is re-introduced on the GFP source phasor page.

GE tracking number: 774-1

G **Updated Graphical Front Panel bootloader 1.03 to support application that includes the phasor plot in the source phasor page**

Products: All with Graphical Front Panel

Impacted firmware: bootloader 1.00 to 1.02, UR 7.6 to 8.20

Corrected firmware: Graphical Front Panel bootloader 1.03, 8.21

Workaround: Not applicable

Description: The Graphical Front Panel bootloader has been modified to support the new GFP application version 8.21. The new GFP bootloader revision is 1.03. The new firmware includes the GFP application version 8.21 and bootloader 1.03; no separate action is required.

GE tracking number: 774-2

R **Corrected firmware to exclude PB SETTING ERROR event when performing a firmware upgrade on a relay with a Process Bus Module**

Products: All with a Process Bus Module (order code 85, 86, 87)

Impacted firmware: 8.10, 8.20

Corrected firmware: 8.21

Workaround: None

Description: In previous versions, a firmware upgrade performed on a relay with a Process Bus Module can cause the relay to record the PB SETTING ERROR event.

The new release corrects the issue. The event is not recorded.

GE tracking number: 821-11

Communications

C **Corrected reading of role-based password statuses in relays with CyberSentry**

Products: All with a CyberSentry software option

Impacted firmware: 7.90, 7.91, 8.00 to 8.04, 8.10, 8.20

Corrected firmware: 8.21

Workaround: None

Description: The statuses of role-based passwords in the Modbus registers reflect whether the passwords match the role-based passwords stored in the relay (1 if a password entry matches the password setting, 0 otherwise).

In previous versions, the readings always return 0.

The new release corrects the issue.
GE tracking number: 821-2

C   Added support in the firmware for copper SFP in the Process Bus Module
Products: All with a Process Bus Module (order code 85, 86, 87)
Impacted firmware: 7.80 to 8.20
Corrected firmware: 8.21
Workaround: Not applicable
Description: Previous releases support use of a fiber-based small form-factor pluggable (SFP) port that connects to the back of a Process Bus Module.
The new release adds support in the firmware for use of a copper SFP port with the Process Bus Module. Ensure that the port is set to "Auto Negotiate." The copper SFP supports 100 Mbps ad 1 Gbps in this mode. If the connected device has a fixed port speed or if its auto-negotiate is disabled, the copper SFP communicates only with devices that use 1 Gbps. Ordering a relay with a Process Bus Module with copper SFP requires use of order code MOD025.
GE tracking number: 821-3

C   Corrected potential failure to synchronize to SNTP server when duplicate frames are present in the network
Products: All using Simple Network Time Protocol (SNTP)
Impacted firmware: All to 6.06, 7.00 to 7.27, 7.30 to 7.81, 7.90, 7.91, 8.00, 8.01, 8.10, 8.20
Corrected firmware: 6.07, 7.28, 7.82, 8.02 to 8.04, 8.21
Workaround: None
Description: In previous versions, if duplicate frames are present in the network the relay can fail to synchronize correctly to the SNTP server.
The new releases correct the issue.
GE tracking number: 802-17

G   Changed firmware to automatically reset the AUTHENTICATION FAIL operand
Products: All with a CyberSentry software option
Impacted firmware: 7.00 to 7.27, 7.30 to 8.10, 8.20
Corrected firmware: 7.28, 8.21
Workaround: None
Description: In relays with CyberSentry, if the number of failed authentication attempts for a role reaches the threshold set by the **Session Lockout** setting, the relay asserts the AUTHENTICATION FAIL operand and blocks further login attempts for a period equal to the **Session Lockout Period** setting.
In previous versions, this operand remains asserted and can be cleared only by issuing the "Clear Security Data" command, which also clears the UNAUTH FW ATTEMPT and UNAUTH SETTING WRITE operands.
In the new releases, the firmware automatically resets the AUTHENTICATION FAIL operand when the **Session Lockout Period** is inactive for any role.
GE tracking number: 728-12

P   Changed Breaker element control logic to use the "Breaker Open Seal-In" timer setting for IEC 61850 BkrCSWI.OpOpn.general
Products: All with Breaker control
Impacted firmware: All to 8.20
Corrected firmware: 8.21
Workaround: None
Description: In previous versions, when activated, the duration of IEC 61850 BkrCSWI.OpOpn.general was one protection pass.

In the new release, the control logic of the Breaker element is modified to use the "Breaker Open Seal-In" timer setting for IEC 61850 BkrCSWI.OpOpn.general.
GE tracking number: 821-5

C   **Changed firmware to reject IEC 61850 GOOSE messages with the validity quality bit flag set to "questionable"**
Products: All with an IEC 61850 software option
Impacted firmware: All to 8.20
Corrected firmware: 8.21
Workaround: None
Description: In previous versions, the relay accepts IEC 61850 GOOSE messages with the validity attribute of quality set to "questionable." This applied to both main CPU and Process Bus Module RxGOOSE packets.
In the new release, for both the main CPU and Process Bus Module, the relay does not accept IEC 61850 RxGOOSE messages when the validity attribute of the quality is set to "questionable," and it uses the default value instead.
GE tracking number: 821-7

C   **Corrected firmware to correctly handle IEC 61850 subscription if the dataset entry index and the number after the DO name "Indxxx" are identical**
Products: All with an IEC 61850 software option
Impacted firmware: 7.80 to 8.20
Corrected firmware: 8.21
Workaround: None
Description: The IEC 61850 GOOSE subscription fails if the dataset entry index and the number after the DO name "Indxxx" are identical.
The new release corrects the issue.
GE tracking number: 821-8

C   **Corrected firmware to allow unused SV streams to be configured in the settings file**
Products: All with a Process Bus Module (order code 85, 86, 87)
Impacted firmware: 7.80 to 8.20
Corrected firmware: 8.21
Workaround: None
Description: The relay does not correctly process a CID file that includes an SV stream unused in any of the source banks. The CID file is accepted, but the Process Bus Module is not configured correctly.
The new release corrects the issue. Configured SV streams can be in the settings file and be unused.
GE tracking number: 821-9

C   **Corrected firmware to accept IEC 61850 CID file sent over local communication port when Lock Settings is enabled and Bypass Access is set to "Local"**
Products: All with a CyberSentry software option
Impacted firmware: 7.70 to 8.20
Corrected firmware: 8.21
Workaround: None
Description: In previous versions, in a relay with CyberSentry, when **LOCK SETTINGS** is enabled and the **BYPASS ACCESS** setting is "Local," the relay rejects a CID file sent over a local communications port (RS232, RS485, USB). In versions below 8.10, **LOCK SETTINGS** functionality is part of the **LOCK RELAY** setting.
The new release corrects the issue.
GE tracking number: 821-10

Firmware 8.22

- Common Platform Functions
  - Fixed defaulting of the settings in relays using IEC61850 E3-2.0 when upgrading from v8.20 to version 8.21
  - Added the minus sign to the numeric keypad on the GFP
  - Corrected the reset delay of the neutral over voltage element
- Bus Differential System – B30
  - Corrected unexpected restart in B30 relay with HardFiber

Common Platform Functions

C **Fixed defaulting of the settings in relays using IEC61850 E3-2.0 when upgrading from v8.20 to version 8.21**

Products: All with IEC61950 software option using E3-2.0 IEC61850 CID files.

Impacted firmware: 8.21

Corrected firmware: 8.22

Workaround: None

Description: In v821, a valid IEC61850 CID file using the E3-2.0 implementation model for GOOSE configuration may be incorrectly considered as invalid. If a relay configured with such a CID file is upgraded from firmware version 8.20 to 8.21, the CID file will be deleted, and the settings will be reset to factory defaults. This issue is not present in CID files using the G2 implementation model for GOOSE.

GE tracking number: 822-1

D **Added the minus sign to the numeric keypad on the GFP**

Products: Platform with GFP

Impacted firmware: 8.21

Corrected firmware: 8.22

Workaround: Negative settings can be configured from EnerVista Setup for UR

Description: In version 8.21, the minus sign is missing from the numeric keypad of the Graphical Front Panel (GFP).

GE tracking number: 822-2

P **Corrected the reset delay of the neutral over voltage element**

Products: All relays with neutral OV: B30, C60, C70, C95, D30, D60, F35, F60, G30, G60, L30, L60, L90, M60, T60.

Impacted firmware: All

Corrected firmware: 8.22

Workaround: None

Description: In previous versions, the reset delay of the neutral over-voltage element did not reset based on the equation of the specified curve, but according to the duration of the **RESET DELAY** setting.

In version 8.22, if the **CURVE** setting is set to Definite Time, the element resets when the applied voltage goes below the dropout voltage for the duration of the selected **RESET DELAY** setting. If the **CURVE** setting is set to one of the FlexCurves, the element resets based on the curve equation.

GE tracking number: 822-3

P   **Corrected to retain In-zone TRANSFORMER LOCATION setting after reboot**

Products: L90 and L30 with process bus and "In-zone transformer" software option

Impacted firmware: 5.90 and higher

Corrected firmware: 8.22

Workaround: None

Description: In previous versions, the **TRANSFORMER LOCATION** setting configuration value of "Local-Tap" at **System Setup > 87L Power System > In-Zone Transformer** is changed to "Rem1-Tap" on power cycle. In version 8.22, this issue is corrected to retain the setting change.

GE tracking number: 822-5

R   **Corrected firmware to allow M2M role to retrieve all logs from UR relay**

Products: All with CyberSentry software option

Impacted firmware: 8.10 and higher

Corrected firmware: 8.22

Workaround: None

Description: In previous versions, the "M2M" role could not retrieve Security_Events.csv, Setting_Changes.log or Factory_Event.log files from the UR relay. In version 8.22, this issue is corrected to allow the "M2M" role to retrieve all logs.

GE tracking number: 822-6

Bus Differential System – B30

B   **Corrected unexpected restart in B30 relay with HardFiber**

Products: B30 with HardFiber

Impacted firmware: 8.21

Corrected firmware: 8.22

Workaround: None

Description: In v821, enabling the bus differential element in a B30 relay with HardFiber may cause an unexpected restart.

GE tracking number: 822-4

Firmware 8.24

Communication

C Added support for enumeration values in IEC168590 GOOSE publishing and subscription by the main CPU and the process bus module

Products: All with IEC61850 software option

Impacted firmware: All

Corrected firmware: 8.24

Workaround: None

Description: In previous versions, the UR relay did not support enumeration values in IEC61850 GOOSE subscription and publishing.

In version 8.24, both the main CPU and the process bus module support enumeration value in IEC61850 GOOSE subscription and publishing.

GE tracking number: 823-1

Common Protection and Control Elements

U Corrected resetting of all the settings to factory defaults on a minor version firmware upgrade of version 8.2x

Products: All

Impacted firmware: 8.21, 8.22

Corrected firmware: 8.24

Workaround: Reloading the same 8.2x settings file to the relay running v821 or v822 fully restores all functionality.

Description: Generally, UR relays will not reset all their settings to factory defaults after a minor firmware upgrade, i.e., when only the last digit of the firmware version changes.

However, a firmware upgrade from version 820 to version 821 or to version 822 will cause the relay to default all its settings. Reloading the same 8.2x settings to the relay will fully restore functionality and the relay will retain its settings after that.

In version 8.24, this issue is fixed. After upgrading from version 820/821/822 to version 8.24 the relay will keep all its settings intact without requiring to reload the settings.

GE tracking number: 823-3

Software

Software 8.20

Made subnetwork names 3 and 5 configurable when PRP redundancy is selected

Workaround: None

Description: The following changes are implemented.

When **Settings > Communication > Network Port 2 > PRT2 Redundancy** is PRP, the Subnetwork name 3 is configurable.

When **Settings > Process Bus Module > General > Network Config** is PRP, the Subnetwork name 5 is configurable.

The configurable names are retained in the CID files of the devices.

Prior to the change, the Subnetwork 3 and 5 names were that of Subnetwork 2 and 4 respectively and not configurable.

Removed display of B90 Breaker Failure Current Supervision settings when B90 is set to "Logic" mode

Workaround: None

Description: The Current Supervision settings for B90 are no longer visible when the **B90 Function** setting is set to "Logic".

Changed minimum pickup level for Ground IOC/TOC to 0.005 pu for Process Bus Module

Workaround: None

Description: The lower pickup level for Ground Instantaneous Overcurrent and Ground Time Overcurrent is now 0.005 pu for relays with a Process Bus Module.

Changed Import Settings function to use grey highlight color for missing settings

Workaround: None

Description: Missing settings now are highlighted in grey in the Import Settings function. For example, settings for import missing from the target device are highlighted in both the import and target settings panels in the import comparison window.

Corrected the range of year in the Set Date and Time command from EnerVista UR Setup software

Workaround: None

Description: The year range in the Set Date and Time command is increased from 2038 to 2106.

Corrected single-line diagrams to load correctly using "Restore" function

Workaround: None

Description: Clicking on a single-line diagram (SLD) grid area while performing "Restore" loads SLD page 5 on the current working page and the other pages are not restored.

The new release corrects this issue.

Corrected screen header names on B30 with cybersecurity software option with Process Bus Module and roles other than Administrator

Workaround: None

Description: The settings sub-section header names of the some windows do have a button look with a cybersecurity software option on a B30 differential relay with Process Bus Module and roles other than Administrator.

The following screens are corrected:
Current Elements
Voltage Elements
Bay Configuration
Bus Replica
Bus Differential
Breaker Status

Enabled button in Merge window when file path is edited manually

Workaround: None

Description: Under Offline > Merge SCL Files, the Merge button can remain deactivated when manually editing file names without using the browse button.

The new release corrects the issue. When file names are edited, the Merge button is active. When IED names of both files are not the same, the Merge button is inactive.

Corrected values of some settings when merged using Merge tool

Workaround: None

Description: Corrected the values in a merged output file for the following settings:

Settings > System Setup > Switches > Switch Local

Settings > System Setup > Breakers > Breaker Pushbutton Control

Settings > System Setup > Breakers > Breaker Racked In

Settings > Product Setup > User Programmable LEDs > User Programmable LEDs

Corrected offline-generated IID file showing "eGE:SvStream="9-2LE" instead of "eGE:SvStream"IEC61869"

Workaround: None

Description: When creating an offline device with order code B30-VIN-HEH-H86-P6S-W77, version 7.90, the software incorrectly generates the "eGE:SvStream="9-2LE"" datatype attribute, instead of "eGE:SvStream"IEC61869".

The new release corrects the issue.

Removed unsupported versions listed in Create New Device window for B30 with Process Bus Module

Workaround: None

Description: A B30 with Process Bus Module applies to version 7.80 and higher, but when creating a new device in the Offline window area, the Version list in the Create New Device window also lists versions 7.70 and below.

The new release corrects the issue.

Corrected extra characters shown in SCL viewer

Workaround: None

Description: Extra characters are shown in the SCL viewer when a CID file is opened after the GE Private tag <Private type="GE_Digital_Energy_UR LN_UUID">. These extra characters are in the viewer only and not in the actual file.

The new release corrects the issue.

Corrected a new device being added to both targeted site and devices site

Workaround: None

Description: When using the Add a Site function in the Offline window, the new device appears in both the expected selected site and the unexpected Devices site list.

The new release corrects the issue.

Resolved firmware update issue when putting device in Flash mode

Workaround: None

Description: When updating between firmware versions 7.28 and 7.27, the update fails and displays the message "Problems Putting device in Flash Mode."

The new release corrects the issue.

Corrected data item reset during file conversion if logical node name in SCL file has been modified

Workaround: None

Description: A data item in a TxGOOSE dataset resets to default "End of list" during file conversion from 8.03 to 8.20 when the attributes belongs to a logical node with modified prefix or instance number.

The new release corrects the issue.

Corrected logical device deletion if it only contains a single logical node during file conversion

Workaround: None

Description: A logical device is deleted if it only contains a single LN (not LLN0 or LPHD) during file conversion.

The new release corrects the issue. The logical device is not deleted if it contains a LN other than LLN0 or LPHD.

Fixed print/export of features for MSOD

Workaround: None

Description: Disabled MSOD feature settings are printed/exported when using "include only Enabled Features Print/Export."

The new release corrects the issue.

Corrected unresponsive software when dealing with device files on a network

Workaround: None

Description: When writing an offline device saved on a network drive to an online device, the EnerVista software is unresponsive.

The new release corrects the issue.

Corrected import/export to recognize Direct I/Os 97 to 265 when Data Rate setting is "213 kbps"

Workaround: None

Description: When the **Settings > Product Setup > Direct I/O > Direct I/O Data Rate** is set to "213 kbps" and using the Import Settings feature in the Offline window, the direct input/outputs 97 to 265 are not recognized in the import window.

The new release corrects the issue.

Eliminated duplicate check boxes for IEC 61850 TxGOOSE port assignment

Workaround: None

Description: In the **IEC 61850 > GOOSE > TxGOOSE > TxGOOSE PB PORT ASSIGNMENT** settings, two full or partial check boxes are observed instead of one.

The new release corrects the issue.

Corrected defaulting of IEC 61850 settings from offline file when uninstalling and reinstalling 8.10 software

Workaround: Close and reopen the version 8.10 software

Description: Offline IEC 61850 settings show as defaulted after uninstalling the version 8.10 software, then reinstalling it. The IEC 61850 settings in the corresponding CID file of the device are fine and retain the actual configuration. The issue is with values shown on the screen.

The new release corrects the issue.

Corrected B90 online-to-offline comparison differences

Workaround: None

Description: Writing a B90 offline file to an online device and comparing both files, there are multiple network settings related to Port2 / Port3 and IEC 61850 GOOSE publishing dataset settings differences, which are not correct.

The new release corrects the issue.

Corrected B90 upgrade process for Russian Windows 7 and 10 OS

Workaround: None

Description: On a computer with a Russian Windows 7 or 10 operating system (OS), the EnerVista software stops working while upgrading firmware for a B90, then the relay restarts.

The new release corrects the issue.

Corrected display of active setting group for B90 bus metering

Workaround: None

Description: B90 Bus Differential metering works for Group 1, but not correctly for Groups 2 to 6. For example, when the Active Setting Group is 3, the values for Group 2 are returned.

The new release corrects the issue. The values on the B90 metering screen update correctly as per the active setting group.

Corrected C60 8.10 file conversion issue with IEC 61850 settings/datasets being defaulted

Workaround: None

Description: When converting a C60 file to a C60 file in version 8.10, after settings conversion, the EnerVista software does not report anything about changing IEC 61850 settings, but many IEC 61850 dataset data attributes are set to "End of List" in the new CID file.

The new release corrects the issue.

Addressed export/import memory leak

Workaround: None

Description: The new release addresses a memory leak during import of IEC 61850 logical devices when logical device configuration is changed from default.

Fixed issue where some IEC 61850 dataset data attributes changed after converting file from CyberSentry to non-CyberSentry

Workaround: None

Description: After converting a settings file in the Offline window from CyberSentry to one without CyberSentry, some IEC 61850 dataset data attributes defaulted.

The new release corrects the issue.

Corrected writing of deadbands from offline to online file in B30 with Process Bus Module

Workaround: None

Description: When changing deadband settings of Source 9 or 10 in an online IEC 61850 software window, then overwriting these settings using an Offline window file, differences incorrectly appear when comparing the two files.

The new release corrects the issue.

Corrected import/export issue for R-GOOSE configuration

Workaround: None

Description: When the destination MAC is 00-00-00-00-00-00 when importing a configuration file with R-GOOSE, the "Comparison Report" or "Target Device Report" of import/export incorrectly prompts "Some

imported values are not valid for target device. Please check the error list."
The new release corrects the issue.

Corrected defaulting of some IEC 61850 configuration when software is upgraded to version 8.10

Workaround: Close and reopen the version 8.10 software

Description: After upgrading the EnerVista software from version 7.90 to 8.10, IEC 61850 configuration is missing from the offline file. It appears after software restart.

The new release corrects the issue.

Corrected IEC 61850 error in generated CID file after file conversion

Workaround: None

Description: Upgrading to a newer version of EnerVista UR Setup software and then converting a setting file defaults the GOOSE subscription information. This file is rejected by the UR, stating that the publisher references are incomplete.

The new release corrects the issue and the settings are accepted.

Corrected software issue when device is added using "Add Device from File" in a certain scenario

Workaround: Ensure that the filenames (CID, ICD, URS, and IID) inside a device folder are not edited manually to be different from that of the folder

Description: With preference "Use device folders" enabled, a device is created for every device with the same name as the CID, URS, ICD files. When a user manually changes the CID filename inside a device folder and adds it to the environment, the software stops.

The new release corrects the issue.

Improved update of Logic Designer information for XML import without FlexLogic Equation Editor screen

Workaround: None

Description: Using the Import Settings feature, if a device has FlexLogic equation information in the Logic Designer and imports an XML file without a FlexLogic Equation Editor screen, the original Logic Designer information is removed from the URS file that was created for the target device.

The new release retains the information.

Corrected Turkish Windows 10 operating system event records

Workaround: None

Description: For Turkish online event records on Windows 10, the delta time field shows invalid information and there is an image/layout/spacing issue.

The new release corrects the issues.

Made label designer consistent with B30 bay operand names

Workaround: Manually enter Bay labels and numbers in the Front Panel Label Designer

Description: For a B30 relay with firmware 7.9x or 8.x, there is a discrepancy between B30 operand names (mapped to LEDs) and tags imported to the front panel label designer. Bay numbers are not populated automatically in the Front Panel Label Designer. For example, PH IOC1 OP Bay 1 is populated as PHASE IOC1 Op. The user must manually enter Bay labels and numbers in the Front Panel Label Designer.

The new release corrects the issue.

Improved import/export by installing .NET Framework on Windows 7 computers

Workaround: Install .NET Framework 4.6.1

Description: Windows 7 machines display the error message, "Cannot load setting import library" as soon as the Import Settings window opens.

The new release installs .NET Framework 4.6.1.

Corrected empty Repair Report log while adding a standalone URS file

Workaround: None

Description: While adding corrupt .urs files, the software gives a Repair URS file message and generates a Repair Report log that is stored in the device folder. However, the generated repair report log is empty.

The new release corrects the issue. Empty repair report files are removed.

Corrected CID import from device folder to add under New Site instead of default site

Workaround: None

Description: In the Offline window area, right-click NewGOOSESite and "Add a Site". Then right-click the site and "Import device from SCD." A CID file import from a device folder to the new site is not added under New Site. It is added instead under the default site.

The new release corrects the issue.

Corrected import/export whereby B90 Direct I/O Data Rate value displays incorrectly as 1

Workaround: None

Description: When creating an export XML file from a B90 offline device, the **Settings > Product Setup > Direct I/O > Direct I/O Data Rate** was configured as "128kbps." When importing the XML file to the target device using the Import Settings feature, both the target and import device display an incorrect value of "1."

The new release corrects the issue.

Added rules for import/export of unsupported B90 Data Rate values

Workaround: Ensure that the Direct I/O Data Rate is supported by the target device when importing

Description: Using the Import Settings feature, when importing the Direct I/O Data Rate for a B90 device, the software does not show an error message for unsupported data rates by target device.

The new release corrects the issue.

Corrected handling of unsupported GOOSE members from Boolean Inputs / DPS / Analog Inputs windows

Workaround: None

Description: Unsupported structured GOOSE members are not deleted from the IEC 61850 > GOOSE > RxGOOSE > RxGOOSE Boolean Inputs / DPS / Analog Inputs windows when importing a G2 type CID file with structured GOOSE into an E3 type environment. The software displays an alert message for structured GOOSE, to import them as default and the corresponding RX GOOSE members default, but the corresponding inputs in the Boolean Inputs / DPS / Analog Inputs windows still remain.

The new release corrects the issue. Unsupported RxGOOSE members are removed.

Corrected drag-and-drop behavior of files to sites

Workaround: Select the target site before dragging-and-dropping the file

Description: After creating new sites in the Offline window area, dragging-and-dropping a URS or CID file from the computer into a specific site creates a new device folder under the default site instead of the specific site. It works if the target site is selected.

The new release corrects the issue.

Corrected conversion of CT Fail Block setting and reporting

Workaround: None

Description: In a version 5.70 or 6.00 file, the CT Fail Block setting is configured with the "PHASE OV1 DPO B" operand. After converting to another version, the CT Fail instance 1 block setting is empty. The conversion report also does not show any information about this empty value.

The new release corrects the issue. The settings map correctly.

Corrected conversion of B90 Direct Output operands and reporting

Workaround: None

Description: For a version 5.70 or 6.00 file, many of the **Settings > Inputs/Outputs > Direct Outputs > Direct Out Operand** settings are empty after converting to another version. The conversion report also does not show any information about this empty value.

The new release corrects the issue. The settings map correctly.

Corrected conversion of TT3DataSet settings

Workaround: None

Description: When converting a version 7.80 offline device in version 8.10 software, specifically by changing the order code software option V03 to V04, the TT3DataSet settings are empty.

The new release corrects the issue. The settings map correctly.

Corrected handling of CID and IID files with unchecked "Preserve the Original File at its Current Location"

Workaround: None

Description: In **File > Preferences**, with both "Use device folders" and "Prompt for confirmation of a device folder creation and location" check boxes enabled, use the Add Device from File option to add a CID or IID file. A message displays for folder selection and includes a "Preserve the Original file at its Current Location" check box. Selecting a CID or IID file on the desktop and with the check box disabled, the device is created on the drive but the file is not deleted from the desktop.

The new release corrects the issue.

Corrected handling of CID file when adding device from it

Workaround: None

Description: With the "Use device folders" check box disabled under File > Preferences, adding a device from file and selecting a CID file, the device is added but the original CID file is removed. Making a a small Modbus change and initiating "Update SCL files" creates a CID file. This issue is seen when changing between "Use device folders" and "do not use device folders."

The new release corrects the issue.

Corrected handling of CID and ICD files when upgrading from version 8.10 on Windows Server 2016

Workaround: None

Description: On a computer with Windows Server 2016, with the "Use device folders" check box disabled under **File > Preferences**, upgrade the EnerVista software from version 8.10. A message asks "Do you want to create device folders for all your pre-existing offline devices?" After clicking "Yes," a message in the status bar displays "Error creating offline device." CID and ICD files are deleted, while a URS file remains.

The new release corrects the issue. The "Do you want to create device folders for all your pre-existing offline devices?" message displays only when the "Use device folders" check box is enabled. CID and ICD files remain.

Prevented IEC 61850 settings from being replicated in new device in specific scenario

Workaround: None

Description: After adding an offline device with Public and Private settings configured, rename the device. Add a different product offline with the same name, such as T60 with file name B30. Open the IEC 61850 settings for the new device. The result is that the IEC 61850 settings are not at factory default but instead reflect the IEC 61850 settings of the earlier device.

The new release corrects the issue. The new device has the factory default IEC 61850 values.

Corrected update of RxGOOSE MODE when a GoCB is re-assigned

Workaround: None

Description: When a RxGOOSE MODE is changed in the RxGOOSE Messages window, it is not updated in the Add IED window. Similarly, when it is changed in the Add IED window, it is not updated in RxGOOSE messages RxGOOSE MODE.

The new release corrects the issue.

Corrected single-line diagram statuses to update after file conversion from 8.00

Workaround: None

Description: Single-line diagram statuses do not update on the Graphical Front Panel after converting a file from version 8.00 to 8.10, then sending it to a version 8.10 relay.

The new release corrects the issue.

Corrected CID validation failure when importing an IID file

Workaround: None

Description: While trying to add an IID file standalone to the Offline window area, there is a CID validation failed error. It succeeds when the IID file is instead in a device folder.

The new release corrects the issue.

Software 8.21

Corrected saving of online IEC 61850 deadband configuration

Workaround: None

Description: After setting up a new device in the Online window area, changes to deadbands in the IEC 61850 window may not be saved correctly to the relay.

In the new release, in the Device Setup window when the reading order code, the software deletes the cached memory map for the device when the map is obsolete.

Corrected display of Hybrid POTT operands in a 7.70 device shown as blank in versions 8.10 and 8.20

Workaround: None

Description: Five Hybrid Permissive Overreach Transfer Trip (POTT) operands (HYBRID POTT OP, HYBRID POTT TX1, 2, 3, 4) configured in version 7.70 software for Direct Outputs display as blank when the same 7.70 device is opened in version 8.10 or 8.20 software.

The new release corrects the issue by adding version 7.70 as a valid version for these five operands for all languages.

Corrected odd behavior of metering and annunciator metering actual values

Workaround: None

Description: When using version 8.20 software to configure a 7.70 device with some actual values in the graphical front panel (Annunciator or Metering Editor), the Metering Actuals and Annunciator Actuals screens do not display the configured values correctly.

The new release corrects the issue.

Corrected FlexLogic equations after successive compilations with alternating preferences in Logic Designer

Workaround: None

Description: For some Logic Designer diagrams in Engineer, compiling them first with preference **File > Preferences > Logic Designer > Compiler > Optimize Compiled Output** disabled, then enabling, and multiple opening and closing of the window and recompiling results in corrupted FlexLogic equations. The issue is visible in the FlexLogic Equation Editor window.

The new release adds an Optimization check box in the Compile tab of Logic Designer. For earlier versions, the issue is corrected as long as users follow the instructions that display when opening Logic Designer diagrams last compiled with an unknown value of the Optimize Compiled Output preference.

Software 8.22

Added a Yes/No selection box to the installer for USB driver installation on Windows 10

Workaround: None

Description: This release adds a Yes/No selection box during installation of the EnerVista UR Setup software on a Windows 10 computer, to allow users to choose between installing/not installing the USB diver. The normal procedure is to install the USB driver. The selection box was present for a Windows 7 computer, but did not display on a Windows 10 computer.

Disallowed use of Administrator and Supervisor user names for server authentication with RADIUS

Workaround: None

Description: The user names Administrator and Supervisor are built-in roles in the relay. They are now allowed for server authentication. If one of these names is entered, upon clicking the **Connect** button, the relay does not proceed and displays an error message.

Implemented more intuitive lock relay settings when using CyberSentry

Workaround: None

Description: When a user changes the **BYPASS ACCESS** setting to other than "Disabled," the software displays a message that **LOCK SETTINGS** is ignored.

When **LOCK SETTINGS** is configured to "Enabled," all other settings in the Supervisory window cannot be edited. Any setting changes on other Modbus screens and IEC 61850 screens cannot be saved to the relay.

Corrected breaker MNL Open Operands to write to device

Workaround: None

Description: The configured Breaker MNL operands are not written to the device, when writing an offline device to the online device. These operands are the BREAKER %d MNL OPEN and BREAKER %d MNL CLS operands.

The new release corrects the issue. Regenerate the CID file.

Corrected CID validation failure for ThrFltGAPC and ThrFltRDRE logical nodes

Workaround: None

Description: EnerVista UR Setup software version 8.10 and 8.21 give a CID validation failure for the ThrFltGAPC and ThrFltRDRE logical nodes.

The new release corrects the issue.

Corrected conversion of Modbus address stored in "User-definable displays"

Workaround: None

Description: From version 8.10 to 8.20, the Modbus addresses stored in "User-definable displays" are not converted correctly.

The new release corrects the issue.

Corrected printing of settings file with % configured in Annunciator

Workaround: None

Description: The EnerVista UR Setup software stops working when printing a settings file with % configured in the Annunciator.

The new release corrects the issue.

Corrected filtering of FlexAnalog operand groups in FlexElements window

Workaround: None

Description: The **Settings > FlexLogic > FlexElements** window does not group operands properly. For example, open the FlexElements window in the software, double-click the InputPlus or InputMinus field, enter the Source x current family, and check the operands listed in the drop-down filter. All operands display, showing voltages, currents, power, and so on. They are not filtered by current.

The new release corrects the issue. The operands related to current display, for example, while others are suppressed.

Corrected issue with loading settings file to the relay

Workaround: None

Description: The new release corrects an issue with loading a settings file to the relay when using EnerVista UR Setup version 8.21.

Corrected autopopulation of Logic Designer when dragging online settings to an offline file

Workaround: None

Description: When dragging settings from the Online window to the Offline window, an autopopulation of the design document occurs in the Logic Designer.

The new release corrects the issue.

Fixed IEC 61850 IED import refresh function

Workaround: None

Description: After adding new Dataset members in a transmission (Tx) relay, the receive (Rx) relay has issues with the Refresh IED function. The Refresh IED button is located in IEC 61850 window under the RxGOOSE Input tab. The issue is that after adding new Dataset members in a transmission (Tx) relay, the receive (Rx) relay has issues to refresh the subscribed data attribute index when clicking the Refresh IED button in the IEC 61850 panel.

The new release corrects the issue.

Corrected active/inactive fields in Supervisory window after logging in

Workaround: None

Description: With CyberSentry, when using **Settings > Product Setup > Security > Supervisory**, after saving a **DEVICE AUTHENTICATION** setting change, re-opening the window and logging in as Administrator or Supervisor, the **LOCK SETTINGS** field is inactive incorrectly, while the **RESET KEY ACCESS** field is active incorrectly.

The new release corrects the issue.

Corrected Logic Designer diagram compilation

Workaround: None

Description: When copying part of a logic diagram from one device to another device with a different order code, subsequent compilation can result in errors and/or data inconsistencies.

The new release corrects the issue.

Corrected deletion of device folder when a *.auto file exists

Workaround: None

Description: After right-clicking a device in the Offline window are and selecting the Remove Device From List option, the device folder remains with a *.auto file inside it.

The new release corrects the issue.

Increased the length of an offline device Description field

Workaround: None

Description: The new release increase the length of the Description field input from35 to 100 characters in the Edit Device Properties window in the Offline window area.

Corrected defaulting of some FlexLogic operands when switching languages in Logic Designer

Workaround: None

Description: When switching between English mode and French mode, some FlexLogic operands in their Logic Designer documents are defaulted, incorrectly.

The new release corrects the issue.

Corrected Logic Designer diagram after conversion

Workaround: None

Description: Compilation errors or data discrepancies result after conversion of a diagram in the Logic Designer. Specifically, after converting a device to version 8.2x and possibly a different order code, then compiling the converted device's Logic Designer diagram, FlexLogic operands can change values between versions and data inconsistencies can appear when comparing the converted device to the original device.

The new release corrects the issue.

Corrected settings upload to an online C60 device

Workaround: None

Description: After performing an "Add Device to Offline Window" operation from an IEC 61850 Edition 1 device, configured InRef/SetSrcRef, SetSrcCB values are not mapped to internal references. InRef/SetSrcCB values are not cleared when doing an "Update SCL files" operation on the added offline file. Then, the settings fail to upload to the online device due to invalid InRef/SetSrcCB configurations in the file.

The new release corrects the issue.

Corrected software when saving FlexLogic Timer settings when Logic Monitor window open

Workaround: None

Description: If trying to save changes to FlexLogic Timer settings when a Logic Monitor window is open, the EnerVista UR Setup software stops working.

The new release corrects the issue.

Corrected editing of the network port 3 GOOSE ENABLED setting for versions 7.1x and 7.2x

Workaround: None

Description: The network port 3 **GOOSE ENABLED** setting is read-only and cannot be changed. This field is found under **Settings > Product Setup > Communications > Network > Network Port 3 > GOOSE Enabled** in firmware versions 7.1x and 7.2x. On the front panel, the setting is **PRT3 GOOSE ENABLED**.

The new release corrects the issue, allowing editing.

Corrected User-Definable Displays after converting a version 6.00 file and writing it to the relay

Workaround: None

Description: After converting a version 6.00 file to version 8.20 and writing it to the relay, User-Definable Displays show "~" instead of setting values.

The new release corrects the issue.

Re-established communication with relay after login and Bypass Access/Lock Settings changes

Workaround: None

Description: When using CyberSentry, with the **BYPASS ACCESS** setting disabled and **LOCK SETTINGS** enabled, clicking the **Connect** icon does not connect the software to the relay. The **Connect** icon is located on the right side of the tool bar in the software, beside the **Turn on ALL Communications** icon.

The new release corrects the issue.

Corrected EGD screens to display correctly for paged Modbus values and all values in firmware 7.8x and earlier

Workaround: None

Description: In firmware version 7.91 and up, the relay uses a paged system to read/write Modbus addresses, for example adding the 0x40000 or 0x30000. If a customer uses this six digit decimal equivalent, the **Settings > Product Setup > Communications > EGD Protocol** windows do not work and the wrong decimal is sent to the relay.

The new release corrects the issue.

Changed pushbutton control with Bypass Access setting when using CyberSentry

Workaround: None

Description: The new release allows control using the EnerVista software over an Ethernet port when the **BYPASS ACCESS** setting is "Local" or "Pushbutton" only with CyberSentry authentication.

The new release corrects the issue.

Software 8.23

Cyber Sentry relay rejected the FlexLogic Operand – 'UNAUTH FW ATTEMPT'

Workaround: None

Description: The "FlexLogic Token Error - UNAUTH FW ATTEMP" issue occurred when L90 FW820 downloaded file was reinserted using URPC V821 UR Engineer Logic Designer, then uploaded back to the Cyber Sentry relay.

The new release corrects the issue.

Pilot Scheme double operands were shown for D60 version 5.84

Workaround: None

Description: Double operands for DUTT Trip, PUTT Trip, POTT Trip, Hybrid POTT Trip and DIR Block Trip, were shown for D60 version 5.84.

The new release corrects the issue.

No settings are shown in a B30 CT Trouble screen?

Workaround: None

Description: The CT Trouble screen for a B30 device version 8.20 or higher is empty.

The new release corrects the issue.

Double operands found for M60 version 5.84

Workaround: None

Description: UR Setup showed double FlexLogic operands for M60 version 5.84.

The new release corrects the issue.

UR Setup displayed extra FlexLogic operands for D30

Workaround: None

Description: D30 Process bus has 2 Sources but UR Setup displays all Sr3-Sr6 Operands extra.

The new release corrects the issue.

Label Prefix is missing for Breaker and Switch Elements

Workaround: None

Description: On Breakers or Switches Screen, Label is missing, e.g., for Function it should be Switch 1 or Switch 2 or so on.

The new release corrects the issue.

EFP 1 to 9 flex Operands are not converted correctly when converting from version 7.8x and earlier to 8.2x

Workaround: None

Description: For B90 relay, EFP 1 to 9 flex Operands are not converted Correctly when converting from version 7.8x and earlier to version 8.2x.

The new release corrects the issue.

"Parameter is Incorrect" error message occurred when attempting to Export Device Information

Workaround: None

Description: The error, "Parameter is Incorrect" was seen when attempting to "Export Device Information".

The new release corrects the issue.

EFP Operands were seen extra

Workaround: None

Description: EFP DPO operands are extra when compared with firmware.

The new release corrects the issue.

XFMR Diff double operands shown

Workaround: None

Description: Double FlexLogic operands were displayed for XFMR Diff (Percent Diff)

The new release corrects the issue.

Settings discrepancies when comparing the devices between on-line and off-line

Workaround: None

Description: The result of the two devices comparison showed a lot of differences when comparing the devices between on-line and off-line windows.

The new release corrects the issue.

Failed to upload C60 settings to online device

Workaround: None

Description: Using UR Setup version 8.22, when loading the offline setting file to online Device, relay rejects the file with error.

The new release corrects the issue.

Dataset configuration lost, after importing E3 file

Workaround: None

Description: After an E3 offline file was imported, IEC61850 dataset configuration was missing.

The new release corrects the issue.

Enable ctrl from GFP operand should be filtered for non GFP device

Workaround: None

Description: For a non GFP device, " ENABLE CTRL FROM GFP" operand was shown, it should be removed.

The new release corrects the issue.

RemDPS XX Flex operands turns to "OFF" when converting a version 7.10/7.20/7.30 settings file to version 8.23

Workaround: None

Description: After converting a version 710 settings file with RemDPS XX flex operands configured to version 8.23, noticed that the flex operands are being turned to "OFF".

The new release corrects the issue.

"Remote Device OFF" operand turns to OFF instead of "RXGOOSE OFFLINE", when converting version 7.1x/7.2x/7.3x to version 8.23

Workaround: None

Description: Conversion of versions 7.1x/7.2x/7.3x to version 8.23: "Remote Device OFF" operand is not converting and mapping correctly. "Remote Device OFF" Operand is not getting mapped to "RXGOOSE Offline" operand when converting versions 7.1x/7.2x/7.3x to version 8.23. It turns "OFF".

The new release corrects the issue.

Logic Designer issues - logic corruption observed

Workaround: None

Description: On Logic Designer, logic corruption was observed.

The new release corrects the issue.

Software 8.24

Enum and more data types are supported in GOOSE subscription and publishing

Workaround: None

Description: Enum, INT8U, INT16U, INT32U, and INT32 data types are supported in GOOSE subscription through RxGOOSE Analog Input for G2 configuration type.

In the new release an enum type is supported in Process Bus Module GOOSE publishing for G2 configuration type.

Note: This new feature is only supported by UR firmware version 8.23.

UR firmware upgrade often fails with -4000 error code

Workaround: None

Description: UR firmware upgrading often fails with -4000 error code, especially with USB connection.

In the new release there is an improved error handling and retrying mechanism during file transfer between UR Setup and UR relay.

GGIO4.AnIn configured deadband settings not saved to online relay

Workaround: None

Description: The deadband settings configured in an online relay for GGIO4 Analog Inputs are not retained in the relay after they are saved.

In the new release the GGIO4 Analog inputs deadband settings can be saved to online relay.

Upgrade

Compatibility

The current firmware runs on the T, U, V, and W CPU modules. View the order code to determine the CPU module in the relay. For example, in C60-V03-HPH-H6H, the relay has a V CPU module.

The graphical front panel requires a T, U, V, or W CPU module that has two connector slots on the front of the module. One connector allows a basic or enhanced front panel to be connected, and the other connector allows a graphical front panel.

The current firmware release is not compatible with previous UR CPU hardware (CPU types A, B, D, E, G, H, J, K, N, and S).

The current firmware release requires EnerVista UR Setup software version 8.0x or higher. GE suggests use of the latest available version of the software.

Upgrade

When upgrading both EnerVista software and UR firmware, upgrade the software first. Upgrade of the software takes about five minutes, and upgrade of firmware takes about 25 minutes. They can be done over an Ethernet connection. The USB port cannot be used for the upgrade.

When upgrading on a computer with Windows Server 2012, its Release 2 needs the KB2919355 update first. Follow the instructions described in the link, which works in Internet Explorer, not Chrome.

https://www.microsoft.com/en-US/download/details.aspx?id=42334

Any DSP manufactured between 1 January 2013 and 1 December 2015 with versions 7.27, 7.28, or 7.60 and up must be sent back to the factory for updates before updating the firmware.

To upgrade the software:

1. If a beta version of the EnerVista UR Setup software is installed, uninstall it, for example using the Windows Control Panel.

2. Download the new software from
http://www.gegridsolutions.com/app/ViewFiles.aspx?prod=urfamily&type=7
The software is a .exe file.

3. Install the new software by (double-)clicking the file.

4. Refresh the order code in EnerVista under the **Device Setup** button.

To upgrade the firmware:

1. Download the firmware from http://www.gegridsolutions.com/app/ViewFiles.aspx?prod=urfamily&type=7
The firmware is a .SFD file.

2. Under **Settings > Product Setup > Security > Access Supervision** or **Settings > Product Setup > Security > Supervisory**, the **Lock Firmware** setting needs to be disabled.

3. In the EnerVista software, navigate to **Maintenance > Update Firmware** and select the .SFD file.
For any issues, see a UR instruction manual.
When the upgrade finishes, the relay restarts.

4. Reconnect the EnerVista software to the relay, and refresh the order code in EnerVista under the **Device Setup** button.

5. Convert any existing settings file, then load the converted settings to the relay. See the instruction manual for information.

6. Set the device to "Programmed" under **Settings > Product Setup > Installation** to put it into service.

7. If you changed the **Lock Firmware** setting, reset it.

Categories

This document uses the following categories to classify changes.

Revision categories

Code	Category	Description
A	Hardware change	This change may require hardware to be updated and/or replaced
N	New feature	A separate feature added to the relay. Changes to existing features even if they significantly expand the functionality are not in this category.
G	Change	A neutral change that does not add new value and is not correcting any known problem
E	Enhancement	Modification of an existing feature bringing extra value to the application
D	Changed, incomplete, or false faceplate indications	Changes to, or problems with text messages, LEDs, and user pushbuttons
R	Changed, incomplete, or false relay records	Changes to, or problems with relay records (oscillography, demand, fault reports, and so on)
C	Protocols and communications	Changes to, or problems with protocols or communication features
M	Metering	Metering out of specification or other metering problems
P	Protection out of specification	Protection operates correctly but does not meet published specifications (example: delayed trip)
U	Unavailability of protection	Protection not available in a self-demonstrating way so that corrective actions can be taken immediately
H	Hidden failure to trip	Protection does not operate when appropriate
F	False trip	Protection operates when it is not appropriate
B	Unexpected restart	Relay restarts unexpectedly

For further assistance

For product support, contact the information and call center as follows:
> GE Grid Solutions
> 650 Markland Street
> Markham, Ontario
> Canada L6C 0M1
> Worldwide telephone: +1 905 927 7070
> Europe/Middle East/Africa telephone: +34 94 485 88 54
> North America toll-free: 1 800 547 8629
> Fax: +1 905 927 5098
> Worldwide e-mail: multilin.tech@ge.com
> Europe e-mail: multilin.tech.euro@ge.com
> Website: http://www.gegridsolutions.com/multilin/