Honeywell

ControlEdge PLC

ControlEdge RTU

Release 174.1

ControlEdge Builder Software Change Notice

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CONTENTS

ABOUT THIS DOCUMENT

This Software Change Notice contains information for all the users of ControlEdge™ Builder Release 174.1. This SCN must be read prior to installing and managing the system. The document describes the new features and enhancements introduced with the Release 174.1. Additionally, it contains resolved PARs, known issues, special considerations, and last minute documentation updates.

> **ATTENTION:** ControlEdge Builder Release 174.1 Software Change Notice reflects only Product Anomaly Reports (PARs) with priority severity position 2.2 and above. The PARs positioned at 2.3 and below are not included in this Software Change Notice.

Revision history

Version	Date	Description
A	December 2022	Initial release of the document.

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INTRODUCTION

ControlEdge Builder is an integrated configuration tool to design, configure, program and maintain the ControlEdge controllers and I/O when running the eCLR (IEC 61131-3) execution environment.

For a complete list of new features and enhancements in Release 174.1, New Features and Enhancements

Check for updates on the Honeywell Process Solutions website

The Honeywell Process Solutions website, https://process.honeywell.com contains the most up-to-date software updates, documentation, and recommended anti-virus updates. You can find the latest version of this SCN on Honeywell Process Solutions website.

To access the Honeywell Process Solutions website:

1. In a web browser, type the following URL.
   https://process.honeywell.com.

2. Click **Sign In** in the top-right corner of the page. Sign in options appears.

3. If you are a new user, create a new account at this website. Click **Create an Account**, and follow the on-screen instructions.

4. If you are an existing user, Click **SIGN IN TO MYHPS** and type your **user name** and **password**, and click **SIGN IN**.

   After successful sign in, your account name appears in the top-right of the page.

To download documents, security updates, or anti-virus notifications

1. In the **Search** box, enter the name of the required document, security update, or antivirus notification. For example, to download an SCN, enter **ControlEdge Builder Software Change Notice** in the **Search** box.

2. In the left pane, use the **Search Result Filters** to further filter the document, security update, or antivirus notification. For example, if you are locating a Software Change Notice.

   a. Under **DOCUMENT TYPE**, click **Software Change Notice**.

   b. Under **PRODUCT**, click the required product release.

   c. Under **RELEASE DATE RANGE**, click the required release date range.

3. Click the document, security update, or antivirus notification link to open it.

Who must read this document?

The information in this SCN is useful if you are planning to install, upgrade or configure ControlEdge Builder and products. Use this document to understand the overall product, release interoperabilities, system dependencies, problem resolutions, known issues, and special considerations. This SCN must be readily available for reference at any stage of using ControlEdge Builder.

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CONTENTS OF THIS RELEASE

In this section:

Contents of software media kit

The ControlEdge Builder Release 174.1 Media Kit contains the following:

Description of Media Item	Model/Part Number	Media Version
ControlEdge Builder Media Kit, including firmware, ControlEdge Builder Release 174.1 application and the documentation set	• SP-EMD174/51157293 (physical media kit) • SP-EMD174-ESD (online download)	Release 174.1

Contents of firmware package

The latest firmwares are listed as follows:

Description of Firmware Item	Model Number	Version Number
ControlEdge 2020 Non-redundant Control Processor Module	SC-UCMX02	174.1.21.0
ControlEdge 2020 Redundant Control Processor Module	SC-UCNN11	174.1.21.0
ControlEdge 2020 Mixed Input/Output Module	SC-UMIX01	174.1.21.0
ControlEdge 900 Control Processor Module	900CP1-0200	174.1.21.0
ControlEdge 900 Expansion Processor Module	900SP1-0200	174.1.21.0
ControlEdge 900 Universal Input/Output Module	900U01-0100	174.1.21.0
Communication Interface Module, 2 ports RS485/RS232	900ES1-0100	151.1.19.0
FTE with ControlEdge 900 Control Processor Module	900CP1-0200	170.1.21.0-FTE

Contents of documentation set

ControlEdge Builder, the related ControlEdge controller and I/O user documentation is available on the Honeywell Process Solutions website (https://process.honeywell.com) and the ControlEdge Builder software media kit. The Honeywell Process Solutions website contains the latest user documentation. To ensure that you are accessing the latest documentation, use the Honeywell Process Solutions website.

The following table lists the related user documentation.

Document Name	Document ID
ControlEdge Builder User's Guide	RTDOC-X283-en-174A
ControlEdge 2020 Platform Hardware Planning and Installation Guide	HWDOC-X284-en-G
ControlEdge 900 Platform Hardware Planning and Installation Guide	HWDOC-X430-en-S
ControlEdge Builder Software Installation User's Guide	RTDOC-X285-en-174A
ControlEdge Builder Software Change Notice	RTDOC-X166-en-1741A
ControlEdge PLC and ControlEdge RTU Network and Security Planning Guide	RTDOC-XX75-en-174A
ControlEdge Builder Protocol Configuration Reference Guide	RTDOC-X288-en-174A
ControlEdge Builder Function and Function Block Configuration Reference	RTDOC-X286-en-174A
ControlEdge PLC and ControlEdge RTU Getting started	RTDOC-X287-en-174A
ControlEdge EtherNet/IP User's Guide	RTDOC-X548-en-174A
ControlEdge RTU DNP3 Device Profile	RTDOC-X346-en-E
ControlEdge RTU and PLC DNP3 Master Device Profile	RTDOC-X735-en-B

Document Name	Document ID
Enhanced Logic Manager Module with ControlEdge PLC User's Guide	TNDOC-X573-en-690.1E
ControlEdge Bulk Configuration User's Guide	RTDOC-X648-en-174A
ControlEdge RTU Electronic Flow Measurement User's Guide	RTDOC-X547-en-174A
ControlEdge RTU Plunger Lift Application User's Guide	RTDOC-X761-en-174A
ControlEdge PLC Profinet User's Guide	RTDOC-X722-en-174A
Firmware Manager User's Guide	EPDOC-X470-en-143A
Wireless Device Manager User's Guide	OWDOC-X254-en-323
ControlEdge Remote Termination Panel (RTP) For Redundant Universal Input/Output	51-52-33-170

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GETTING STARTED

It is recommended that you read the following documentation before you start:

- *ControlEdge Builder Software Change Notice* (this document): provides:

  - Information about important functions in the release.

  - Information on the known issues and current release software components version.

  - Special considerations for installation and last-minute documentation updates.

- *ControlEdge Builder Software Installation User's Guide*: provides instructions for installing ControlEdge Builder software.

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SUPPORTED SOFTWARE/HARDWARE/FIRMWARE

Controller Hardware & Firmware compatibility

Table 5-1: ControlEdge 2020 Controller compatibility

Controller Hardware	Run Firmware R110~R140	Run Firmware R150~151	Run Firmware R160+
SC-UCMX01	Yes	Yes	No
SC-UCMX02	No	No	Yes
SC-UCNN11	No	Yes	Yes

Table 5-2: ControlEdge 900 Controller compatibility

Controller Hardware	Run Firmware R130+
900CP1-0200	Yes

ControlEdge Builder & Firmware compatibility

- Without opening a project, ControlEdge Builder can connect to the controller with lower firmware versions.

- With a project opened, ControlEdge Builder can only connect to the controller whose firmware version is as same as the project firmware version.

ControlEdge Builder & Project compatibility

Table 5-3: ControlEdge Builder & Project compatibility for ControlEdge 2020 Controller

ControlEdge Builder release	Create a new project for SC-UCMX01	Modify and Maintain SC-UCMX01 with an existing project	Create a new project for SC-UCMX02	Modify and Maintain SC-UCMX02 with an existing project	Create a new project for SC-UCNN11	Modify and Maintain SC-UCNN11 with an existing project
R110~R140	Yes[1]	Yes	No	No	No	No
R150~R151	Yes[1]	Yes	No	No	Yes[1]	Yes
R160~R161	No	No	Yes[1]	Yes	Yes[1]	Yes
R170+	Yes[2]	Yes	Yes[1]	Yes	Yes[1]	Yes

Note 1: The project firmware version will be the same as the release of ControlEdge Builder.

Note 2: ControlEdge Builder R170+ can only create R151 new projects for SC-UCMX01.

Table 5-4: ControlEdge Builder & Project compatibility for ControlEdge 900 Controller

ControlEdge Builder release	Create a new project for 900CP1-0200	Modify and Maintain 900CP1-0200 with an existing project
R130+	Yes[1]	Yes

Note 1: The project firmware version will be the same as the release of ControlEdge Builder.

NEW FEATURES AND ENHANCEMENTS

In this section:

Support for ControlEdge PLC Release 174.1

As part of ControlEdge PLC, ControlEdge Builder Release 174.1 supports the ControlEdge 900 controller and I/O when running the eCLR (IEC 61131-3) execution environment.

Honeywell's advanced Programmable Logic Controller (PLC) technology improves control performance while offering greater flexibility and lower costs. The ControlEdge PLC improves integration with Experion®, HMIs and third-party devices, and reduces configuration efforts by utilizing the industry-accepted IEC 61131-3 programming languages, as well as remote configuration and firmware updates.

Key highlights of ControlEdge PLC Release 174.1:

- Added ML I/O Modules

  - Supports DHCP, ML I/O adapters will receive IP addresses from PLC downlinks.

  - Supports Hot Swap, ML200 allows online module replacement.

  - Added ML I/O diagnostics in builder.

- Added MQTT Protocol

  - Supports store and forward function.

  - Provides support for DNS and multi-gateway routing (static routing) for broker URL addresses.

- Added DNS Support & Multi-Gateway

  - Multiple gateways can be set for ETH1 and ETH2.

- Added HART protocol on Redundant UIO.

- Supports IEC60870-5-104 protocol

- Added Datalog functions

  - The variables can be configured to be stored on flash inside the PLC or external SD card, then uploaded to a CSV file.

Support for ControlEdge RTU Release 174.1

As part of ControlEdge RTU, ControlEdge Builder Release 174.1 supports the ControlEdge 2020 controller and expansion I/O when running the eCLR (IEC 61131-3) execution environment.

Key highlight of ControlEdge RTU Release 174.1:

- Added Bulk Downloading function

  - Configuration, export and import configuration file, and reporting status.

  - Supported controllers – SC-UCMX01, SC-UCMX02, SC-UCNN11.

- Added DNP3 Support in simulator

- Added IEC60870 support in Simulator.

- Added MQTT Store and forward.

- Added new function blocks in HWFBLib

  - HWSIMLOOP – Simulate Loop

  - HWSIMPI – Simulate Pulse Input

  - HWRANDOM – Generate random number

  - HWSIGGEN – Signal generate

  - HWDATETIMESYNC – Date Time Synchronization

  - HWSPRAMP – Generate Ramping setpoint

SYSTEM REQUIREMENT

This section contains hardware and software requirements to install ControlEdge Builder.

In this section:

Hardware Requirements

Item	Specification
Processor	Minimum: Pentium or compatible 2 GHz Recommended: Intel® Core™ i5 or equivalent better
System RAM	Minimum: 1 GB Recommended: 4 GB
Hard disk	5 GB free memory space
DVD-ROM drive	Required
Graphic Card	DirectX9 compatible graphic adapter
Display color settings	True color (32 bit)
RS232 interface	Optional
Resolution	Recommended: 1280x800 or above Optimal: 1920x1080, 1366x768, 1280x1024 and 1280x800

Software Requirements

Item	Specification
Installation Media	ControlEdge Builder Media Kit
Operation system	Windows 10 32-bit or 64-bit (Support Secure Communication) Windows Server 2016 Standard Edition 64-bit
Certified antivirus software	McAfee AV + Virus Scan Engine + patch (8.7i + Engine 5400 + Patch3)

ATTENTION: If ControlEdge Builder does not display correctly on your computer, try upgrading the computer's graphic driver to the latest version available.

CHAPTER

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PROBLEMS RESOLVED

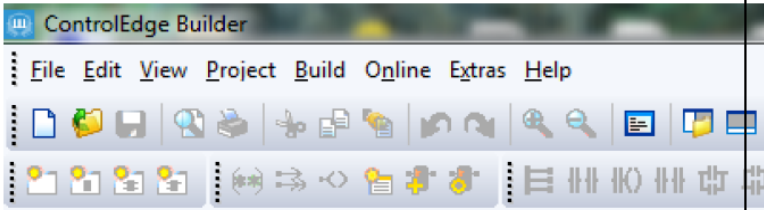This chapter provides the details of resolved PARs.

In this section:

Controller and I/O

PAR	Description	Apply to
1-9S0WI9P	Description: It takes 30 seconds to one minute for an expansion I/O module to be online after inserting the same expansion I/O into the same IOTA unde power.	ControlEdge RTU
1-9TO5SXX	Description: Occasionally, after rebooting a redundant controller, CPU free drops from a higher value to a lower value, e.g. from 70% to 30%, and the lower value cannot be recovered to the previous higher value.	ControlEdge RTU
1-BU7HDCL	Description: When the enabled poll classes configuration on the DNP3 master side are not the same as that on ControlEdge Builder, redundant controller will drop-synch periodically.	ControlEdge PLC and ControlEdge RTU
1-DJFGLFR	Description: Occasionally, after a cold reboot through ControlEdge Builder, the redundant controller doesn't start up as expected.	ControlEdge RTU
1-D9CUUZR	Description: After downloading a project to the controller whose CPU free is very low (eg. less than 50%), sometimes, it's observed CPU free drops nearly 30% and all SCADA communication stops.	ControlEdge RTU
1-DL0F1B5	Description: DNP3 integrating deadband for Analog Output points doesn't work as intended.	ControlEdge RTU
1-E3BPTHR	Description: For ControlEdge RTU in simulation mode, if function blocks from API library are configured, compiled, downloaded and if we do cold start the controller, timeout happens.	ControlEdge RTU
1-E6HES39	Description: In Station Totalizer the next Hour/Daily QTR has the start time as the switchover time instead of the Start of the hour during firmware upgrade.	ControlEdge RTU
1-E3PE8X9,1-E3PK7I9	Description: Occasionally AGA_V2 and AGA_V3 libraries usage in simulator, leads to timeout.	ControlEdge RTU
1-E57GZ81	**Description**: For MasterLogic 200 I/O modules, "hotswap" function enabled, when one module remove from the rack, there is no explicit message showing the exact module removed. However, the	ControlEdge PLC

PAR	Description	Apply to
	other I/O modules will be unaffected and continue to function.	
1-E6FLCAH	**Description**: For ML50 and ML200 I/O module, if configured its IP Address with DHCP mode, after controller switchover, there is loss of control about 1.5 second.	ControlEdge PLC
1-53CZ8J9	**Description**: In a multi-FDAP deployment topology, wireless field devices may not form redundant connectivity for ISA100 communication.	ControlEdge RTU

Configuration Tools

PAR	Description	Apply to
1-BF3CE0V	EFM:Gas meters(GrossMethod),Compenatitionpagethere is not option for user to chnge Units&values.	ControlEdge RTU
1-3YZSRB9	Description: A project created by using the "New Project" button will be saved to the default path: <INSTALL DIRECTORY>\ProgramData\Honeywell\ControlEdge Builder\5_50_397\ and will be named "UNTITLED". 	ControlEdge PLC and ControlEdge RTU
1-CCH6OLT	Description: Downloading a project to a controller simulator fails if EFM is configured in the project.	ControlEdge RTU
1-D1AZ6FL	Description: For redundant controller, pin values of meter runs are not assgined to the correct POU under below circumstances: 1. Create a meter run with ID 10, 11 or 12 with specific meter type. 2. Create a same type meter run with ID 1, either manually	ControlEdge RTU

PAR	Description	Apply to
	or duplication of existing meter run. Pin values of meter run ID 1 will be assigned to meter run ID 10, 11 OR 12. Values of meter run ID 1 will be lost.	

Communication

PAR	Description	Apply to
1-78YYC01	Description: Occasionally, there will be a slight spike in a value of DNP3 History Backfill after ControlEdge 2020 Controller CPMs switchover.	ControlEdge RTU
1-8VE5VR5	Description: Occasionally, Wireless devices and FDAPs lose connection after network device rebooted in redundant RTU system, because the wireless XML database is corrupted when MAC address of the primary CPM is overwritten by the second CPM.	ControlEdge RTU
1-C0U72Q9	Description: After rebooting the computer with FDM installed, occasionally, the device parameters cannot be updated on FDM.	ControlEdge RTU

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KNOWN ISSUES

Based on information and data available to up to date, this section describes some currently identified issues related to this release.

To see an up-to-date list of known issues, check that you have the latest version of the Software Change Notice (SCN), available from https://process.honeywell.com. To access the latest version of the SCN, Check for updates on the Honeywell Process Solutions website
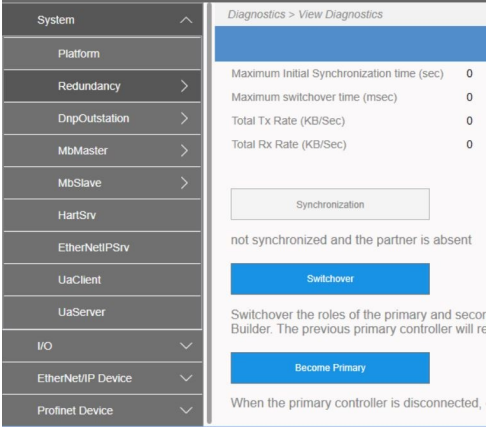
In this section:

Controller and I/O
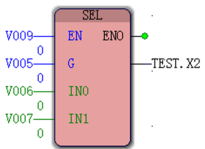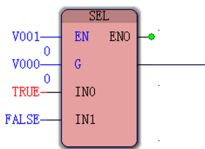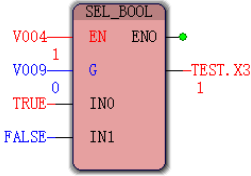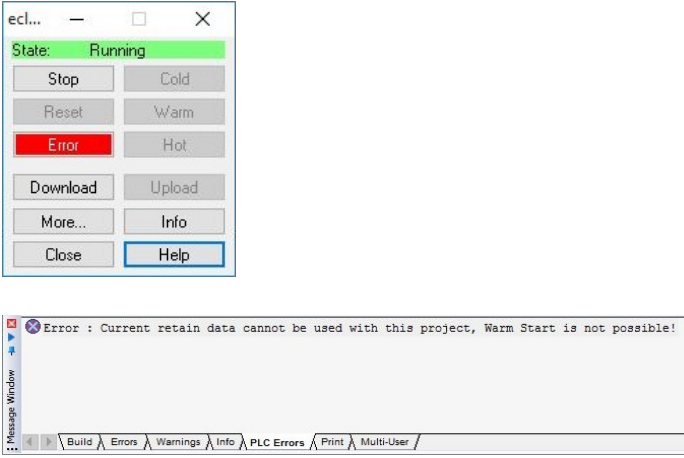
PAR	Description	Apply to
1-3OFI99Z	**Description**: Data logging will be suspended for approximately 30 seconds when the project is downloaded to the controller, causing data log records to be lost during this period of time. **Recovery**: None. **Workaround**: None.	ControlEdge RTU
1-53CZ8J9	**Description**: In a multi-FDAP deployment topology, wireless field devices may not form redundant connectivity for ISA100 communication. **Recovery**: Perform a warm restart of all FDAPs. **Workaround**: In a multi-FDAP deployment topology, deploy all FDAPs at the beginning of the topology's setup.	ControlEdge RTU
1-5GJ8T7H	**Description**: SNTP poll interval should not be more than 9 hours when there is wireless I/O configuration. **Recovery**: None. **Workaround** The recommended poll interval is from 6 (approx. 1 minute) to 15 (approx. 9 hours) when there is wireless I/O configuration.	ControlEdge RTU
1-64ORXD3	**Description**: When a redundant controller is synchronized, it's not allowed to force or overwrite a variable through ControlEdge Builder. **Recovery**: None. **Workaround**: Perform the following actions: 1. Before forcing or overwriting a variable on a redundant controller, break controller synchronization. From ControlEdge Builder, select **View Diagnostics** > **System** > **Redundancy**, and click **Disable Synchronization**. To confirm the controller is un-synchronized,	ControlEdge PLC

PAR	Description	Apply to
	expand the **Redundancy** tab, and click **Local Status** to check **Redundancy.RdnSyncState** is **not synchronized...**. 2. Use ControlEdge Builder to force or overwrite required variables. 3. Re-enable controller synchronization. From ControlEdge Builder, select **View Diagnostics** > **System** > **Redundancy**, and click **Enable Synchronization**. To confirm the controller is synchronized successfully, expand the **Redundancy** tab, click **Local Status** to check **Redundancy.RdnSyncState** is **synchronized**. For more information, see the 'Forcing and Overwriting Variables' chapter of the latest version of the ControlEdge Builder User Guide, which is available from honeywellprocess.com.	
1-64415ZM	**Description**: Plug out a controller with redundant configuration and then plug it in any non-redundant chassis, incorrect role "Secondary" will be assigned. **Recovery**: 1. Do "Become primary" operation to the controller in "View System Diagnostic" page.	ControlEdge PLC

PAR	Description	Apply to
	  2. Re-download configuration to the controller. **Workaround**: None.	
1-69BGFLD	**Description**:The control execution starts before the I/O data communication has been initialized and established during CPM power up which will result in unexpected logic output. **Recovery**: None. **Workaround**: Use input channel status variable (.STS) in control logic.	ControlEdge PLC
1-7K3LZZF	**Description**:The behavior of output channel is not specific after factory reset, they will be in either failsafe state or de-energized state **Recovery**: All IOMs will go to un-configured state by power cycling the whole system. **Workaround**: None.	ControlEdge PLC
1-8U6OWV5	**Description**: After disable sync and perform factory reset on a primary CPM, the secondary CPM is factory reset too. **Recovery**: Download the project configuration to the controller again. **Workaround**: **1.** Remove the secondary CPM.	ControlEdge PLC

PAR	Description	Apply to
	2. Factory reset the primary CPM. In any case you need to go back the previous configuration, remove the primary CPM and insert the secondary CPM, select **Become primary** for the secondary CPM.	
1-987BETD	**Description**: If a controller is running with "SEL" function block in use with the following two conditions, it will be stuck with 0% CPU free. ControlEdge Builder is no responding and eCLR is timeout. **1.** "EN" is set to "TRUE". **2.** WORD or DWORD data type is used for output .B1/B2, or .X1/X2... **Recovery**: There are two options to recover this issue. • For ControlEdge PLC. Manually stop the controller using the mode switch, set "EN" to "False", and then download a project to overwrite the current project. • For ControlEdge RTU. Power cycle the controller, set "EN" to "False", and then download a project to overwrite the current project. **Workaround**: Use "SEL_*" function blocks instead of the "SEL" function block. Here is an example for using SEL_BOOL function block.	ControlEdge PLC and ControlEdge RTU

PAR	Description	Apply to
1-AKZIH2J	**Description**: Occasionally, when you download a project online to a controller, you will encounter the situation that the program of a non-redundant controller with I/O modules and data log configured will be stopped. **Recovery**: Power cycle the controller. **Workaround**: None	ControlEdge PLC and ControlEdge RTU
1-AUD7BUZ	**Description**: After users select retain property of variables and download the project, an error that "Warm start is not possible" displays in message window when you do switchover. However, the controller can still perform warm start. The error message is invalid. **Recovery**: None **Workaround**: None	ControlEdge RTU
RELMMTOCE-63	**Description**: An error that says "WARNING: LC CHECKSUM MISMATCH" appears on the LM Detail Status Display. You can safely ignore this error.	ControlEdge PLC

PAR	Description	Apply to
	Recovery: None **Workaround**: None	
RELMMTOCE-65	**Description**: While the ELMM node pair shows a status of OK/NOSYNC on the Native Window UCN Status Display, if a power failure/trip occurs, then on power recovery, if the secondary controller boots up before the primary one, ELMM node pair show a status of OFFNET/BADVALUE on the Native Window. Note that OK/NOSYNC means there is no database or status synchronization between the primary and secondary controllers. This issue only occurs if there is a power failure/trip during the secondary controller startup before the synchronization is successful. If the power failure occurs when the secondary controller is synched to the primary one, the order of CPM boot up does not impact the modules. **Recovery**: Controllers can be recovered in two ways as listed: 1. Go to ControlEdge Builder and connect to the secondary controller. Click **View Diagnostic** > **System** > **Redundancy** > **Become Primary**. After the new secondary controller reboots, the ELMM node pair status shows OK/BACKUP on the Native Window UCN Status Display. Or, 2. Power off both CPMs. Power on and start up the CPM in rack slot A before powering on the other CPM. CPM in slot A must be set with the odd numbered device index. **Workaround**: None	ControlEdge PLC
RELMMTOCE-142	**Description**: From ControlEdge Builder, the synchronization of the controller is stuck at 94%. Also, sometimes, the ELMM on Native Window	ControlEdge PLC

PAR	Description	Apply to
	shows a status of NOSYNCH even though ControlEdge Builder says they are synchronized. **Recovery**: Force a synchronization: 1. Navigate to the Native Window's UCN Status display and select the primary Logic Manager (LM). 2. Select **RUN STATES** > **STARTUP** and then press **ENTER**. ControlEdge Builder will now show 100% SYNCH status. ELMM will also show SYNCH state. **Workaround**: No known workarounds exist. However, if the above recovery fails, then power recycle the secondary controller.	
RELMMTOCE-72	**Description**: ELMM with a duplicate device index shows OFFNET on the Native Window. When you set the device index of an ELMM's CPM which is the same as another FTE node in the network, ELMM goes OFFNET. Also, the FTE, Heartbeat Node Status, $FTESTS1, and $FTESTS2 displays do not show the presence of a duplicate device index in the network. **Recovery**: Check if the newly set Device Index for ELMM lists on the FTE Status schematics on Native Window ($FTESTS1/$FTESTS2) or auto detects on ControlEdge Builder. If they do not list, check the FTE Heartbeat Monitor display on Experion to identify if the device index is already assigned. If it is assigned, then assign a new unique device index for ELMM modules and reboot. **Workaround**: Use EUCN Configuration Data Checklist for assigning the device index for the FTE nodes to avoid duplicates. For more information, see "Appendix A EUCN Configuration Data Checklist" in *Enhanced Logic Manager Module with ControlEdge PLC User's Guide*.	ControlEdge PLC

PAR	Description	Apply to
1-BUO8RK2 1-BU7HDCL	**Description**: When the enabled poll classes configuration on the DNP3 master side are not the same as that on ControlEdge Builder, redundant controller will drop-synch periodically. **Recovery**: Change the poll classes configuration on DNP3 master side to be the same on ControlEdge Builder. **Workaround**: Enable poll classes configuration on DNP3 master side as that on ControlEdge Builder.	ControlEdge PLC and ControlEdge RTU
1-BPG119X	**Description**: The "Pulse" function does not work for DNP3 DO. **Recovery**: None **Workaround**: None	ControlEdge PLC and ControlEdge RTU
1-BOAOJ3F	**Description**: Occasionally, firmware upgrade fails for a new non-redundant controller with wireless devices due to "out of memory". **Recovery**: Reboot the controller and upgrade firmware again. **Workaround**: None	ControlEdge RTU
1-BOMVPTT	**Description**: Project download fails due to "506 errors". **Recovery**: Download the project again. **Workaround**: None	ControlEdge PLC
1-BY59A7P	**Description**: Occasionally, it is unable to download project after changing task period to a slower time or changing task name to the previous name of another task. **Recovery**: Download the project again. **Workaround**: When changing task names, avoid making the new name of one task (which is being renamed) to be the same as the old name of another task (which is being renamed at the same	ControlEdge PLC

PAR	Description	Apply to
	time). Otherwise, there is a possibility that download will fail.	
1-BY9Y4WJ 1-BRX7QKR	**Description**: Controller memory free is continuously decreased with IPsec configured, which is caused by: • IPsec policy rule is configured incorrectly; or, • Network connection is broken. **Recovery**: 1. Correct the IPsec policy rule configuration, or recover the network connection. 2. Restart the controller. **Workaround**: Configure IPsec policy rule correctly, and ensure the network connection works well before controller running.	ControlEdge PLC and ControlEdge RTU
1-CFOKL9F	**Description**: When there are wireless devices connected on a redundant controller, occasionally, the redundant controller cannot get synchronized after power cycle due to "Inhibit sync reason 236" on the secondary CPM. **Recovery**: Remove and re-insert the secondary CPM. **Workaround**: None	ControlEdge RTU
1-CZU10L7	**Description**: All Average Last Day & Last Hour pin values reset to zero during second switchover/OPM switchover. **Recovery**: None **Workaround**: All the average value for last day and last hour values are available in QTR record stored in ControlEdge 2020 controller as part of hourly and daily records. This records are retrieved by SCADA at period intervals.	ControlEdge RTU

PAR	Description	Apply to
1-DO2060P	**Description**: For EFM Liquid meter runs, TH & TD status is not correct after warm start/warm reboot. **Recovery**: None **Workaround**: Status this hour (status TH) and Status this day (status TD) can be monitored as point in SCADA. It is recommended to refer to SCADA trend for these variables, if they are lost during warm start/warm reboot.	ControlEdge RTU
1-CYFYRRR	**Description**: For ST103A POU, Modbus master input parameters are not taking the initial value in the migrated project from R151.1. **Recovery**: None **Workaround**: Disable the retain property for Start_Address, Length and Mode variables in ST103A POU.	ControlEdge RTU
1-DG5EYBX	**Description**: When users configure IPsec on FTE controllers, SNTP ports (55601, 55602, 80, 123) need to add manually. **Recovery**: None **Workaround**: Configure IPsec with Non-FTE firmware and then upgrade to FTE firmware.	ControlEdge PLC
1-DHSRQ73	**Description**: After rebooting the ControlEdge 900 controller from ControlEdge Builder, the primary controller does not boot up. **Recovery**: Perform a power reboot of ControlEdge 900 controller. **Workaround**: None	ControlEdge PLC
1-DJ8BUU5	**Description**: Failed to transfer firmware file to a running controller due to "out of memory" . **Recovery**: For redundant controllers, perform controller switchover twice from ControlEdge Builder and transfer the firmware file again.	ControlEdge RTU

PAR	Description	Apply to
	Workaround: Check free memory in system diagnostic page and ensure it's no less than 30% before transferring firmware files.	
1-D9ZIK97	**Description**: If the protocol "Expansion I/O" is not bound to ETH3 in a previous project download, even though binding this protocol "Expansion I/O" to ETH3 before a next project download, the full functionality of I/O ring won't be whole started immediately after next project download. And in some worst case, all IOM may be in offline due to link switchover of I/O ring not happened as expected. **Recovery**: Ensure the protocol "Expansion I/O" is bound to ETH3, compile the project and download the same project to the controller twice. **Workaround**: Every time before downloading project to a controller with IOM connected, ensure the protocol "Expansion I/O" is bound to ETH3.	ControlEdge RTU
1-EM829KV	**Description**: When use BL20 series as remote I/O, if some modules in one rack are pull out because of errors or special issues, the LED of 'IOs' on adapter will indicate error as RED, the remain modules can work well. During this time, if the connection between CPM and adapter is broken, or the redundant CPMs happen to switchover, the remain modules may disconnect and reconnect at a random time(several seconds or minutes). **Recovery**: None **Workaround**: None	ControlEdge PLC
1-ESUEXMG	**Description**: When use Redundant PLC, may the primary CPM and the secondary CPM cannot be synchronized automatically on first download showing the Error code (89). **Recovery**: None **Workaround**: Try to download once again or synchronize manually from builder Diagnostics page.	ControlEdge PLC

PAR	Description	Apply to
1-ETP5NDH	**Description**: It will get 'Device load failed' or devices disconnect and reconnect frequently in the FDM when using FDM to read/write the parameters of HART devices through PLC, simultaneously enabled the FBs to do the same thing in PLC. **Recovery**: None **Workaround**: Disable the HART FBs, or set a delay time to enable FBs to send the request in PLC.	ControlEdge PLC
1-EQ8KUWP	**Description**: To save project into PLC/RTU after modifying protocol configurations, project must be compiled before proceeding for "Save & Download" option. **Recovery**: None **Workaround**: None	ControlEdge PLC and ControlEdge RTU

Configuration Tools

PAR	Description	Apply to
1-8RJ8M2F	**Description**: After bulk upgrade EPMs in an Ring I/O topology, one or more EPMs may fail to upgrade. **Recovery**: Select failed EPMs and upgrade again. **Workaround**: None.	ControlEdge PLC
1-8IIZWOL	**Description**: Occasionally, after bulk upgrade UIO modules, several modules may fail to upgrade. **Recovery**: Select failed UIO modules and upgrade again. **Workaround**: None.	ControlEdge PLC
1-8OJX56L	**Description**: During CPM firmware upgrade, the connection dialog appears, but you cannot re-connect to CPM.	ControlEdge PLC

PAR	Description	Apply to
	Recovery: Wait for longer and re-connect again. **Workaround**: None.	
1-8I9RY69	**Description**: Channel exception error is reported while downloading a project. **Recovery**: Download the project again. **Workaround**: None.	ControlEdge PLC
1-84SGH5X	**Description**: Occasionally, copy a project from a machine to another machine with different operation system, after compiling the project, the error "SCG can not be started" appears. **Recovery**: None. **Workaround**: Export the configuration from the original project, create a new project on the target machine and import the configuration to the new project.	ControlEdge PLC and ControlEdge RTU
1-A3B58O5	**Description**: When the functionality "Logic Analyzer" is used on a very large project, such as this project is with 30 expansion I/O modules, it is unable to stop this functionality or download the project. **Recovery**: None **Workaround**: None	ControlEdge RTU
1-BN3DJQL	**Description**: Occasionally, when downloading the same project with mapping table modified, it takes more than 10 minutes to download. **Recovery**: None **Workaround**: None	ControlEdge PLC
1-CFRQ31V	**Description**: When routers are used in the network connection, online controllers cannot be scanned through ControlEdge Builder or Firmware Manager or Bulk Configuration. **Recovery**: None	ControlEdge RTU

PAR	Description	Apply to
	Workaround: • For ControlEdge Builder, enter the IP address manually to connect to the controller. • For Firmware Manager: None • For Bulk Configuration: None	
1-CGJVWJ6	**Description**: Gas meter runs are not deleted from ControlEdge 2020 controller even after deleting and downloading from ControlEdge Builder. **Recovery**: Delete the POU for the deleted meter runs manually and rebuild the project, and then download it. **Workaround**: None	ControlEdge RTU
1-CICTL3M	**Description**: After editing ST103A port number on an existing configuration and save, new POUs are created. **Recovery**: Delete ST103A related POUs (ST103_<port number>, AI_V21_<port number>) manually. **Workaround**: None	ControlEdge RTU
1-DHSYMLB	**Description**: Personality of PLC-FTE CPM is shown as PLC, not PLC-FTE on main window of Firmware Manager tool. **Recovery**: None **Workaround**: Select this CPM and authenticate, and then the Personality of the CPM will be shown as PLC-FTE correctly.	ControlEdge PLC
1-D0F10EX	**Description**: It is very slow to open a GSDML file in PROINET configuration page from ControlEdge Builder. **Recovery**: None	ControlEdge PLC

PAR	Description	Apply to
	Workaround: None	
1-DJ7H19Z	**Description**: The PROINET configuration tool can not restore the deleted devices even though the deletion operation is not saved. **Recovery**: None **Workaround**: None	ControlEdge PLC
1-EQ8KUW1	**Description** : Only 5 Masters, non-redundant or redundant, are supported across both ETH1 and ETH2 communication ports for IEC 60870-5-104 Outstation functionality in the controllers, however, ControlEdge Builder will allow up to 10 to be configured. If more than 5 are configured, a project download will fail. **Recovery** : From ControlEdge Builder, reduce the number of configured IEC60870 Masters to 5 or less across both ETH1 and ETH2 for the project, then download to the controller. **Workaround** : None	ControlEdge PLC and ControlEdge RTU
1-EPW1VJC	**Description** : In ControlEdge Builder, IEC60870 Diagnostics always show 5 Masters irrespective of configured number of masters. **Recovery** : None **Workaround** : The order of the masters displayed on the diagnostics page is the same as the order of the masters configured on the configuration page.	ControlEdge PLC and ControlEdge RTU
1-EJI7O7J	**Description** : A dead band setting of 'Integrating' is not functional for IEC-60870 Analog Input points. Data will update without applying a dead band. **Recovery** : From ControlEdge Builder, SCADA Mapping, reconfigure IEC60870 Analog Input point dead bands, then download to the controller. **Workaround** : Use a dead band setting of	ControlEdge PLC and ControlEdge RTU

PAR	Description	Apply to
	'Percentage' or 'Absolute'.	
1-ETX6P6X	**Description** : On-process firmware upgrade from R172 to R174 fails when Plunger Lift application is configured for redundant controller. **Recovery** : None **Workaround** : Users must follow the "Upgrading firmware for a redundant controller" section of chapter 20 in "ControlEdge Builder User's Guide" to upgrade the redundant controller off-process firmware from R172 to R174 if the Plunger Lift application is configured.	ControlEdge RTU

Communication

PAR	Description	Apply to
1-39XQX06	**Description**: Diagnostic parameters of type "string", such as Uptime, Current local time, STN Name, cannot be read via Modbus or DNP3. **Recovery**: None. **Workaround**: Modbus and DNP3 do not support type "string". These parameters can be observed through "view diagnostic" page in ControlEdge Builder.	ControlEdge RTU
1-8IMWW09	**Description**: PLC CDA points communicated with C300 holds data for 4 to 5 secs during the switchover. Meanwhile, the Push function block from Experion reports that data storing fails. **Recovery**: None. **Workaround**: None.	ControlEdge PLC
1-8VE5VR5	**Description**: Occasionally, Wireless devices and FDAPs lose connection after network device rebooted in redundant RTU system, because the wireless XML database is corrupted when MAC address of the primary CPM is overwritten by the second CPM.	ControlEdge RTU

| PAR	Description	Apply to
	Recovery: Restore the wireless commissioning backup if there is the backup. If not, make the wireless commissioning backup after the issue occurs and send it to Honeywell Global TAC for support. **Workaround**: None.	
1-A7SJ737	**Description**: When the controller start up was configured as **Stopped**, after you reboot and cold start the controller, OPC UA Server will start after 5 seconds. **Recovery**: None. **Workaround**: None	ControlEdge PLC
1-A8P5HT7	**Description**: After cold starting a controller for multiple times, the controller will drop sync and OPC UA communication will stop. **Recovery**: Cold start the controller again. **Workaround**: Stop the controller and cold start it again.	ControlEdge PLC
1-AN2T7VS	**Description**: If there are 10 OPC UA clients and 10 OPC UA servers configured in one project, the redundant controller will drop sync and sync again continuously. **Recovery**: Redundant controller will sync again after dropping sync. **Workaround**: None	ControlEdge PLC
1-A9W5OSD 1-AMKYUWA 1-9IRMLSG	**Description**: Occasionally, when downloading a project, you will encounter the following situations: • (1-A9W5OSD) All the data to SCADA stops refreshing for at most 30 seconds because Modbus communication stops. After that, Modbus communication will be recovered automatically. • (1-AMKYUWA) All the data to SCADA stops refreshing for at most 2 minutes because DNP3 communication stops. After that, DNP3 communication will be recovered automatically. • (1-9IRMLSG) The User Defined protocol communication stops refreshing data for 30 seconds. After that, the communication will be	ControlEdge RTU

PAR	Description	Apply to
	recovered automatically. **Recovery**: None **Workaround**: None	
1-AIISL21	**Description**: Occasionally, when a non-redundant controller acts as a Modbus Master and communicates with a redundant controller which acts as a Modbus Slave via RS485, and if the baud rate is lower than 2400, Modbus communication cannot be recovered after plugging out and plugging in the communication cable from RS485 port. **Recovery**: None **Workaround**: None	ControlEdge RTU
1-BMK2LP5	**Description**: The ELEPIU MUX Functional Block Request PIN does not get updated when the communication is healthy, whereas, when the communication is unhealthy, then the Req and Err PINs get updated. This issue is observed in both Redundant and Non-Redundant ControlEdge 2020 controllers. **Recovery**: None **Workaround**:You can view the Overall Modbus communication statistics in the **View Diagnostics** page > **System** > **MbMaster** > **Channel: RS485**.	ELEPIU ControlEdge Builder
1-BAK00P1 1-B6AZNRT	**Description**: After downloading a project online, only one DNP3 channel link is shown as OK on Experion. **Recovery**: Disable the failed Link, and then enable it again on Experion. **Workaround**: None	ControlEdge PLC and ControlEdge RTU
1-CIAUNWB	**Description**: When routers are used in the network connection, the network communication cannot be secured through IPsec. **Recovery**: None **Workaround**: Instead of IPsec, set up VPN on the router	ControlEdge RTU

PAR	Description	Apply to
	side to secure the communication.	
1-BAL2BGZ	**Description**: When the Modbus communication is through serial, and a wrong length configured on one Modbus Master function block, all the Modbus Master function blocks on the same serial link stop communication. **Recovery**: Correct the length configuration on each Modbus Master function block. **Workaround**: Ensure the right length is configured on each Modbus Master function block.	ControlEdge RTU
1-DTGUXRD	**Description**: When WirelessHART devices are configured as Routers, in the cases of power cycling ControlEdge 2020 controller or FDAP, the WirelessHART Routers and WirelessHART devices under them may go into a routing loop and not able to come back to the system permanently. **Recovery**: Warm restart FDAP. If it does not work, force rejoin or warm restart these devices through Emerson 475 communicator. **Workaround**: None	ControlEdge RTU
1-ELFYF25	**Description**: After enabling Daylight Saving configuration with Clock Synch via IEC60870-5-104, the controller is advancing one hour after Master forwarded one hour from the current time. **Recovery**: From ControlEdge Builder, edit the time source configuration for the project, then download to the controller. **Workaround**: For regions that support daylight saving, it is not recommended to use IEC60870 protocol as a time source. SNTP or DNP3 are alternative time sources.	ControlEdge PLC and ControlEdge RTU

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SPECIAL CONSIDERATIONS

Avoiding Divide by Zero Error in the Program

Abstract: In an IEC –61131-3 programming environment like ControlEdge Builder, it is possible to configure a program that is prone to have divide by zero errors. If this occurs at runtime, the controller will stop executing the program. To view the error, connect ControlEdge Builder to the controller and open the Project Control Dialog in the IEC Programming workspace. The error button will be red. On clicking it, an error, "Runtime exception! Division by zero" is shown in the "PLC Errors" tab of the message window.
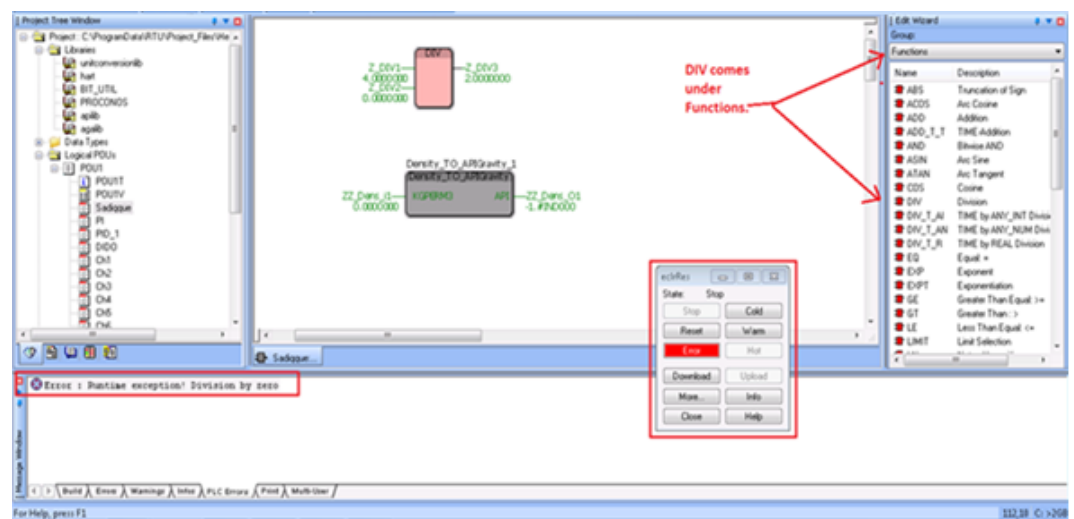
Consequences: If the divide by zero situation occurs in a running program, the controller will stop executing. All output channels will go to the failsafe state as configured in the program. The likelihood of this occurring is dependent on the programming and if the divisor/s in question are ever likely to return exactly zero.

Recovery: Cold reboot the controller. This can be performed from the builder or by removing and restoring power to the controller.

Workaround: When using a divide function in the IEC61131-3 program, ensure appropriate error checks are included to avoid the divide by zero situation from occurring.

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DOCUMENTATION UPDATES

See the R174 manuals for more information. For documents list see Documentations set.

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