3-SDU Version 5.20 Release Notes

Content

1 Introduction

These release notes document the changes in 3-SDU version 5.20. Please read these release notes in their entirety before installing 3-SDU 5.20. For details on upgrading systems using the network download feature see "10 Installing and upgrading to 3-SDU 5.20" on page 20.

We may use "x" in a model number to indicate several generations of the product. For example, 3-CPUx represents the 3-CPU, 3-CPU1, and 3-CPU3.

1.1 New software versions

3-SDU 5.20 includes updated firmware for the products listed in Table 1.

Table 1: New software and microcode versions for 5.20

Description	Version
C-CPU microcode (for EST3X)	1.20
C-CPU boot loader microcode (for EST3X)	1.20
3-CPU microcode (for EST3)	5.20
3-SxDC1 microcode	5.20

1.2 Contacting Technical Support

Contact Technical Support if you encounter any difficulties during this installation. Please make sure you have diagnostic or log files ready before you contact us.

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8985 Town Center Parkway
Bradenton, FL 34202

Tel +1 800 655 4497
Fax +1 866 226 2126
est.techsupport@fs.utc.com
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2 Operating system compatibility

3-SDU 5.20 is compatible with the following versions of Microsoft Windows:

- Windows XP (32-bit), Service Pack 3
- Windows Vista (32-bit), Service Pack 1
- Windows 7 (32-bit)
- Windows 7 (64-bit)

Note: 3-SDU 5.20 must be “run as administrator,” and requires full elevated rights and privileges.

3 What's new in 3-SDU 5.20

New features and updates in this release include:

- Support for SIGA2-PHS detectors in additional EST3 marketplaces
- Support for SIGA2 CO detectors (COS, HCOS, PCOS and PHCOS) in additional EST3 marketplaces
- Support for DS and DH nonmapping detectors in additional EST3 marketplaces
- Support for DS and DH nonmapping detectors in the EST3X International marketplace
- Improved 3-CPU message handling to reduce network traffic
- Support for the Gateway III protocol for EST3X
- Interlockfeedback device type configuration for CT2 and MCT2 modules in the China marketplace
- R-Series annunciator password changes for EST3X
- Support for SIGA-HCOS detector rate-of-rise operation
- Calibrate Analog menu for the New Zealand marketplace
- Improved SIGA2-COS detector background reconcile
- Inhibit Normal LED Flash Bypass pseudo point message displays
- Translation updates
- Additional resolved 3-SDU issues

3.1 Support for SIGA2-PHS detectors in additional EST3 marketplaces

Support for SIGA2-PHS detectors has been added to the following EST3 marketplaces:

- Arabic Local
- Arabic Prop
- Asia Local
- Asia Prop
- Australian AS4228
- Australian AS7240
- China Local (3-LCDXL(C) only)
- China Prop (3-LCDXL(C) only)
- European
- Mid East Local
- Mid East Prop
- New Zealand
- Singapore

- International Local
- International Prop

Note: This includes the addition of the Sensor Bypass menu in the control panel Activate and Restore menus.

3.2 Support for SIGA2 CO detectors (COS, HCOS, PCOS and PHCOS) in additional EST3 marketplaces

Support for SIGA2-COS, -HCOS, -PCOS, and -PHCOS detectors have been added to the following EST3 marketplaces:

- Arabic Local
- Arabic Prop
- Asia Local
- Asia Prop
- Mid East Local
- Mid East Prop
- New Zealand
- Singapore
- International Local
- International Prop

Note: This includes the addition of the Gas Accel Response menu in the control panel Activate and Restore menus.

3.3 Support for DS and DH nonmapping detectors in additional EST3 marketplaces

Support for DS and DH nonmapping detectors has been added to the following EST3 marketplaces:

- Arabic Local
- Arabic Prop
- Asia Local
- Asia Prop
- Mid East Local
- Mid East Prop

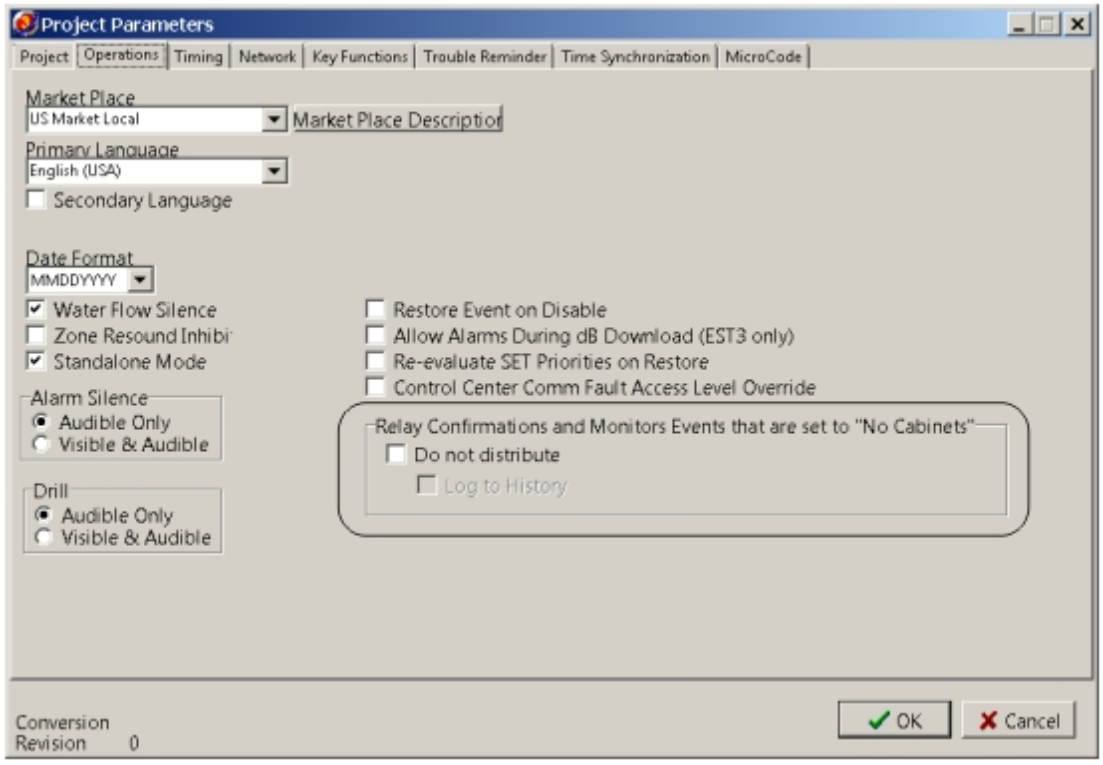
3.4 Support for DS and DH nonmapping detectors in the EST3X International marketplace

Support for DS and DH nonmapping detectors has been added to the EST3X for the International marketplace.

3.5 Improved 3-CPU message handling to reduce network traffic

3-CPU deviation V04.00.02 functionality has been incorporated into EST3 and EST3X to reduce the amount of network traffic by preventing unnecessary messages from being distributed. The functionality can be configured on the Project Parameters > Operations tab in the 3-SDU. Refer to the 3-SDU Help for details.

Figure 1: Configuring 3-CPU message handling to reduce network traffic



3.6 Support for the Gateway III protocol for EST3X

Support for the Gateway III protocol provides the EST3X panel with a direct connection to FireWorks (V1.71 or later), or to a field server bridge for communication with a building management system.

3.7 Interlockfeedback device type configuration for CT2 and MCT2 modules in the China marketplace

A CT2 or MCT2 dual input module can be configured as an Interlockfeedback device type, and then configured as an interlock output device.

3.8 R-Series annunciator password changes for EST3X

A password can be assigned for each R-Series annunciator connected to a cabinet in the network.

3.9 Support for SIGA-HCOS detector rate-of-rise operation

Rate-of-rise operation for a SIGA-HCOS detector can be configured in the 3-SDU. In the cabinet configuration for the detector personality code, you can select either “(65) ROR CO Active 3 - latching” or “(68) ROR CO Active 3 nonlatching.”

3.10 Calibrate Analog menu for the New Zealand marketplace

The Calibrate Analog menu will be available in the New Zealand marketplace when 3-EAxC microcode V4.01 is released.

3.11 Improved SIGA2-COS detector background reconcile

The panel’s background reconcile of SIGA2-COS detectors prevents the restoration of latched events.

3.12 Inhibit Normal LED Flash Bypass pseudo point message displays

The Inhibit Normal LED Flash Bypass pseudo point message that is generated when the user bypasses the Inhibit Normal LED device flash now displays.

3.13 Translation updates

The following control panel messages have been translated:

- The “Most Recent Event” message has been translated into French Canadian (QIT 46556169).
- All SIGA2 event messages (CO Alarm, CO Supervisory, and CO Monitor) have been translated into all languages for EST3 and KPDISP.
- The Inhibit Normal LED Flash Bypass pseudo point message has been translated into China Simplified, China Traditional, Korean, Arabic, and Hebrew.
- The Spanish translation for “Drill” has been changed to “Simulacro” on the EST3X Activate and Restore menus.

3.14 Additional resolved 3-SDU issues

- The R-Series Annunciators Report correctly displays on the LCD and printer output.
- Service group names are restricted to 20 characters.
- When exporting Gateway files to FireWorks, all LEDs can be exported by checking the new “Export the LEDs” check box on the Export Project for FireWorks dialog box.
- The default LCD for the China marketplace is 3-LCDXLC.

- For Microsoft Windows 7 operating systems, the time sync form displays correctly in different time zone regions.
- The user can select the 3-ASUFT rail type in the 3-SDU cabinet configuration for the Australian marketplace (AS7240).
- The 3-IDC8/4 only supports the following levels for the Australian marketplace (AS7240): Open Circuit Fault, Normal, and Alarm.
- The appearance and order of the following mapping data can be configured:
  - Actual and expected: device address, serial number, model, and base type
  - Expected: label text and device type
- For Signature device mapping, after accepting actual data or committing expected data, the current map position remains unchanged.
- The Rules > Compile function displays an error message when a wrong object label is detected.
- The auto CID for an R-Series annunciator generates only one pseudo point (Annunciator Communications).
- The Message Editor in the Object Configuration tables allows you to edit both 3-LCD and 3-LCDXL messages on systems that have both display sizes.
- In the object configuration form, pseudo points display the correct card number.
- Phone numbers 1 and 2 in the 3-MODCOM Receiver Properties settings accept the “*” (asterisk) character.
- The 3-SDU will display an error message when a user tries to import a project created in a future version of the 3-SDU (QIT 46576513).
- The 3-SDU import functionality does not automatically convert the “Security” device type to “Supervisory” for EST3 cabinets (QIT 46637566).
- The 3-SDU is updated to address an issue where accepting the actual device data for a SIGA-PHS that was configured as a SIGA2-PHS in split configuration mode (Photo is Alarmsmoke | Heat is Alarmheat) would cause a heat event to be incorrectly generated when the photo was activated.
- The Gateway/RDU Settings display correctly in the Cabinet Configuration > Ports tab when the Gateway Type III port is selected.
- The correct port configuration is sent to the control panel when the Gateway Type III port is selected (QIT 46551835).

4 Language support

The following tables detail the language support available in 3-SDU version 5.20.

Table 2: Language support on projects containing EST3 panels only

Language	US	Canada	Europe	Middle East	Australia AS4428	China	Singapore	Australia AS7240	New Zealand	Arabic	International	Asia
Arabic (United Arab Emirates)										X		
Chinese (Simplified PRC)						X						X
Chinese (Traditional Taiwan)												X
Dutch (Standard - Netherlands)			X									
English (Australia)					X				X			
English (Britain)			X					X				
English (USA)	X	X	X	X		X	X		X	X	X	X
Finnish (Finland)			X									
French (Canada)	X	X									X	
French (France)			X									
German (Standard - Germany)			X									
Hebrew (Israel)	X			X							X	
Italian (Italy)	X		X								X	
Korean (Extended Wansung - Korea)												X
Polish (Poland)			X									

Language	US	Canada	Europe	Middle East	Australia AS4428	China	Singapore	Australia AS7240	New Zealand	Arabic	International	Asia
Portuguese (Brazil)	X										X	
Portuguese (Standard - Portugal)			X									
Russian (Russia)	X		X								X	
Slovak (Slovakia)			X									
Spanish (Mexico)	X										X	
Spanish (Modern Sort - Spain)			X									
Turkish (Turkey)	X		X								X	

Table 3: Language support on projects containing EST3X panels only, or a combination of EST3X and EST3 panels

Language	US	Canada
English (USA)	X	X
French (Canada)	X	X
Portuguese (Brazil)	X	
Spanish (Mexico)	X	

Note: The KPDISP provides a single layout for use in the markets and languages served by the American, European, Middle East, and Australian marketplaces.

4.1 Bilingual language character sets (for EST3 panel only projects)

When selecting a primary and secondary language, both languages must be supported in the same font table.

Table 4: Bilingual character sets

EST3 code page	Bilingual language sets
1250 (Eastern Europe)	Croatian, Czech, English, Hungarian, Polish, Slovak
1251 (Cyrillic)	English, Russian
1252 (Western Europe)	Danish, Dutch, English, Finnish, French, German, Italian, Norwegian, Portuguese, Spanish, Swedish
1254 (Turkish)	English, Turkish
1255 (Hebrew)	English, Hebrew

Note: When using English as one of the languages in a code page, it must be set as the secondary language on the Configure Project > Operations tab. The exception to this is the Western Europe code page, where English can be set as the secondary or the primary language.

4.2 Printer code pages

The following table shows the DOS code page support required to allow you to print in the local language. Since not all of Windows characters are available on a DOS printer, some characters may not be supported.

Table 5: Printer code pages

EST3 code page	Printer code page
936 (Chinese Simplified)	Windows Code Page 936 (GB)
949 (Korean)	Windows Code Page 949 (Extended Wansung)
950 (Chinese Traditional)	Windows Code Page 950 (Big 5)
1250 (Eastern Europe)	DOS Code Page 852
1251 (Cyrillic)	DOS Code Page 866
1252 (Western Europe)	DOS Code Page 850
1254 (Turkish)	DOS Code Page 857
1255 (Hebrew)	DOS Code Page 862
1256 (Arabic UL)	DOS Code Page 864

5 Software versions and compatibility

5.1 LRM compatible versions

You must upgrade all applicable microcode versions to take full advantage of the new features offered in 3-SDU 5.20.

Table 6: 3-SDU 5.20 software compatibility

LRM	Oldest version [1]	Latest version	Medium	Part number
3-ASU	1.4	3.4	Web	3-SDU
3-AADC	1.4	3.41	Web	3-SDU
3-AADC1	1.4	3.71	Web	3-SDU
3-CPUx	3.05	5.20	Web	3-SDU
3-EASC/3-EADC	3.61	4.0	Web	3-SDU
3-FTCU	1.0	1.2	Chip	190156
3-FTCU	1.4	3.4	Chip	190254
3-IDC8/4	1.1	3.6	Chip	190159
3-LDSM	1.0	3.0	Chip	190153
3-MODCOM(P)	3.0	3.6	Web	3-SDU
3-OPS	1.0	3.0	Chip	190158
3-PPS	1.0	3.63	Chip	190157
3-BPS	1.0	3.63	Chip	190157
3-BBC	3.0	3.63	Chip	190157
3-RS485-A/B		1.5	PAL Chip	190271
3-RS485-R				
3-SSDC/3-SDDC	1.52	3.32	Web	3-SDU
3-SSDC1/3-SDDC1	1.52	5.20	Web	3-SDU
3-SAC	3.1	3.6	Web	3-SDU
3-ZA15	1.1 [2]	N/A	Chip	190151
	1.3	N/A	PAL Chip	190191
3-ZA20A	1.4	3.6	Chip	190252
	1.4	1.4	PAL Chip	190191
	1.0	1.0	PAL Chip	7400068
3-ZA20B	1.4	3.6	Chip	190252
	1.4	1.4	PAL Chip	190191
	1.0	1.0	PAL Chip	7400068

LRM	Oldest version [1]	Latest version	Medium	Part number
3-ZA30	1.1 [2]	N/A	Chip	190151
	1.3	N/A	PAL Chip	190191
3-ZA40A	1.4	3.6	Chip	190252
	1.4	1.4	PAL Chip	190191
	1.0	1.0	PAL Chip	7400068
3-ZA40B	1.4	3.6	Chip	190252
	1.4	1.4	PAL Chip	190191
	1.0	1.0	PAL Chip	7400068
3-ZA90	1.4	3.6	Chip	190252
	1.4	1.4	PAL Chip	190191
3-ZA95	1.4	3.6	Chip	190252
	1.0	1.0	PAL Chip	7400068
C-CPU	1.06	1.20	Web	3-SDU
CRC	1.3	1.7	Web	3-SDU
KPDISP	1.0	1.6	Web	3-SDU
CDR-3	2.0	3.5	Chip	190071
RLCD	2.0	2.03	Chip	RLCD
RLCD-C	2.0	2.03	Chip	RLCD-C
RLED	2.0	2.03	Chip	RLED
GCI	2.0	2.03	Chip	GCI

[1] Oldest version still compatible with the current version of 3-SDU.
[2] Version 1.12 required for stand-alone mode disabled feature. To obtain V1.12, request a deviation version for part number 190151 from Technical Support.

Notes

- All 3-CPUx panels in a network must use the same version of microcode. Networks with 3-CPU microcode version 3.0 or later can be upgraded with the 3-SDU by using the network download function. See “11 Upgrading microcode versions” on page 26.
- The 3-CPU3 is 100 percent backward compatible with, and can be installed on the same network as, 3-CPU1 and 3-CPU.
- 3-FTCU firmware comes in two noninterchangeable forms. Part 190254 cannot be used to update Part 190156, and vice versa.

5.2 3-SDU database compatibility

Use the 3-SDU 5.20 to generate databases for the LRMs listed in Table 7.

Table 7: LRM microcode supported by 3-SDU 5.20

LRM	3-SDU supported microcode versions
3-AADC	V1.4, V3.0, V3.1, V3.41
3-AADC1	V1.4, V3.0, V3.1, V3.41, V3.6, V3.7, V3.71
3-ASU	V1.4, V3.0, V3.1, V3.4
3-CPU	V3.05, V3.65, V3.75, V4.05, V5.02, V5.03 V5.20
3-EADC/EADC	V3.61, V4.0
3-MODCOM(P)	V3.0, V3.1, V3.11, V3.12, V3.6
3-SAC [1]	V3.1, V3.5, V3.6
3-SSDC/SDDC	V1.52, V2.1, V3.32
3-SSDC1/SDDC1	V1.52, V2.1, V3.32, V3.6, V3.7, V3.71, V3.75, V3.83, V4.0, V4.02, 4.05, V4.10 [2], V5.20
C-CPU	V1.06, V1.07, V1.10, V1.11, V1.20
CRC [3]	V1.3, V1.4, V1.5, V1.6, V1.7
KPDISP	V1.0, V1.1, V1.3, V1.4, V1.5, V1.6

[1] 3-SAC V3.4 is not supported
[2] For China and International marketplaces only
[3] CRC V1.2 is not supported

5.3 LRM and 3-CPU V5.20 microcode compatibility

The following table identifies the latest version of LRM microcode that is compatible with 3-CPUx V5.20 microcode. We recommend that you use the latest version of LRM microcode.

Table 8: LRM and 3-CPU V5.20 microcode compatibility

LRM	Microcode version
3-AADC	V3.41
3-AADC1	V3.71
3-ASU	V3.4
3-EASC	V4.0
3-EADC	V4.0
MODCOM(P)	V3.6
3-SAC	V3.6
3-SSDC/3-DSDC	V3.32

LRM	Microcode version
3-SDDC	V3.32
3-SSDC1/ 3-DSDC1	V4.02, V4.05, V4.10 [1], V5.20
3-SDDC1	V4.02, V4.05, V4.10 [1], V5.20
C-CPU	V1.06, V1.07, V1.10, V1.11, V1.20
CRC	V1.7
KPDISP	V1.6

[1] For China and International marketplaces only

6 Future 3-SDU software versions and compatibility

To prepare you for the gradual removal from support for older code bases the following EST3 firmware/microcode/databases will be supported in the next SDU release (V5.2 replacement). We recommended that you update projects to the latest code so you will not need to maintain a version of SDU that supports the older code. Support for running two SDU versions is currently supported.

Table 9: Future LRM and 3-SDU compatibility

LRM	Oldest version [1]	Latest version	Medium	Part number
3-ASU	3.1	3.4	Web	3-SDU
3-AADC	3.41	3.41	Web	3-SDU
3-AADC1	3.41	3.71	Web	3-SDU
3-CPUx	4.05	5.20	Web	3-SDU
3-EASC/3-EADC	4.0	4.0	Web	3-SDU
3-FTCU	1.0	1.2	Chip	190156
3-FTCU	1.4	3.4	Chip	190254
3-IDC8/4	1.1	3.6	Chip	190159
3-LDSM	1.0	3.0	Chip	190153
3-MODCOM(P)	3.6	3.6	Web	3-SDU
3-OPS	1.0	3.0	Chip	190158
3-PPS	1.0	3.63	Chip	190157
3-BPS	1.0	3.63	Chip	190157
3-BBC	3.0	3.63	Chip	190157
3-RS485-A/B		1.5	PAL Chip	190271
3-RS485-R				

LRM	Oldest version [1]	Latest version	Medium	Part number
3-SSDC/3-SDDC	3.32	3.32	Web	3-SDU
3-SSDC1/3-SDDC1	3.32	5.20	Web	3-SDU
3-SAC	3.6	3.6	Web	3-SDU
3-ZA15	1.1 [2]	N/A	Chip	190151
	1.3	N/A	PAL Chip	190191
3-ZA20A	1.4	3.6	Chip	190252
	1.4	1.4	PAL Chip	190191
	1.0	1.0	PAL Chip	7400068
3-ZA20B	1.4	3.6	Chip	190252
	1.4	1.4	PAL Chip	190191
	1.0	1.0	PAL Chip	7400068
3-ZA30	1.1 [2]	N/A	Chip	190151
	1.3	N/A	PAL Chip	190191
3-ZA40A	1.4	3.6	Chip	190252
	1.4	1.4	PAL Chip	190191
	1.0	1.0	PAL Chip	7400068
3-ZA40B	1.4	3.6	Chip	190252
	1.4	1.4	PAL Chip	190191
	1.0	1.0	PAL Chip	7400068
3-ZA90	1.4	3.6	Chip	190252
	1.4	1.4	PAL Chip	190191
3-ZA95	1.4	3.6	Chip	190252
	1.0	1.0	PAL Chip	7400068
C-CPU	1.06	1.20	Web	3-SDU
CRC	1.7	1.7	Web	3-SDU
KPDISP	1.6	1.6	Web	3-SDU
CDR-3	2.0	3.5	Chip	190071
RLCD	2.0	2.03	Chip	RLCD
RLCD-C	2.0	2.03	Chip	RLCD-C
RLED	2.0	2.03	Chip	RLED
GCI	2.0	2.03	Chip	GCI

[1] Oldest version still compatible with the current version of 3-SDU.
[2] Version 1.12 required for stand-alone mode disabled feature. To obtain V1.12, request a deviation version for part number 190151 from Technical Support.

Notes

- All 3-CPUx panels in a network must use the same version of microcode. Networks with 3-CPU microcode version 3.0 or later can be upgraded with the 3-SDU by using the network download function. See “11 Upgrading microcode versions” on page 26.
- The 3-CPU3 is 100 percent backward compatible with, and can be installed on the same network as, 3-CPU1 and 3-CPU.
- 3-FTCU firmware comes in two noninterchangeable forms. Part 190254 cannot be used to update Part 190156, and vice versa.

Use the 3-SDU 5.20 to generate databases for the LRMs listed in Table 10 below.

Table 10: LRM microcode supported by future 3-SDUs

LRM	3-SDU supported microcode versions
3-AADC	V3.41
3-AADC1	V3.41, V3.7, V3.71
3-ASU	V3.1, V3.4
3-CPU	V4.05, V5.02, V5.03 V5.20
3-EADC/EADC	V4.0
3-MODCOM(P)	V3.6
3-SAC	V3.6
3-SSDC/SDDC	V3.32
3-SSDC1/SDDC1	V3.32, V4.0, V4.02, 4.05, V5.20
C-CPU	V1.06, V1.07, V1.10, V1.11, V1.20
CRC	V1.7
KPDISP	V1.6

7 Microcode updates for 3-CPU V5.20

This microcode update:

- Improves the EST3 data network
- Corrects the acknowledgment of guard patrol events for proprietary marketplaces
- Incorporates improved 3-CPU message handling to reduce network traffic

7.1 EST3 data network improvements

Improvements to the detection of network overflow conditions in the EST3 data network reduce the occurrence of network overflow faults during heavy data network traffic.

7.2 Correct acknowledgment of guard patrol events for proprietary marketplaces

The 3-CPU prevents internal faults when acknowledging Guard Patrol events in proprietary marketplaces.

7.3 Improved 3-CPU message handling to reduce network traffic

3-CPU deviation V04.00.02 functionality has been incorporated and can be configured on the Project Parameters > Operations tab in the 3-SDU (see Figure 1 on page 5).

The new configuration settings are designed to reduce the amount of network traffic by preventing unnecessary messages from being distributed. Refer to the 3-SDU Help for details.

8 Microcode updates for C-CPU V1.20

This microcode update:

- Improves the EST3X data network
- Corrects acknowledgment of guard patrol events for proprietary marketplaces
- Supports the Gateway III protocol
- Provides internal loop controller updates
- Improves communication to R-Series annunciators, rail modules, and printers
- Provides a message routing configuration pre-check
- Improves the Instruction Text output
- Assigns specific Task IDs to supervision tasks
- Incorporates improved 3-CPU message handling to reduce network traffic
- Improves the boot up process

8.1 EST3X data network improvements

EST3X data network improvements include:

- Improved network related faults (i.e., network overflow and communication) during heavy network data traffic.
- Improved network communication at the 19.2K baud rate for networks that include EST3X and EST3 panels.

8.2 Correct acknowledgment of guard patrol events for proprietary marketplaces

The C-CPU prevents internal faults when acknowledging Guard Patrol events in proprietary marketplaces.

8.3 Support for the Gateway III protocol

The Gateway III protocol is supported on Port 1. This provides a direct connection from an EST3X panel to FireWorks (V1.71 or later), or to a field server bridge for communication with a building management system.

8.4 Internal loop controller updates

The following loop controller updates were made.

Support for DH and DS nonmapping devices: DS and DH nonmapping devices are supported for the International marketplace.

Startup improvements: Improvements to loop startup processing and loop messaging efficiency for select device types reduce the average startup time of loops; especially, loops that use SIGA2 or nonmapping devices.

Relay base supervision improvements: Newly modified algorithms provide more efficient and thorough supervision of system relay bases.

8.5 Improved communication to R-Series annunciators, rail modules, and printers

C-CPU V1.20 improves the robustness of communication to the R-Series annunciators, rail modules, and mainboard microprocessor, as well as printer communication.

8.6 Message routing configuration verification

C-CPU V1.20 checks the message routing configuration before sending restoral events to the printer.

8.7 Instruction Text improvements

Instruction Text improvements include:

- Corrupted characters in Instruction Text are prevented.
- All 2,000 characters of Instruction Text, when applicable, will be sent to the printer.

8.8 Specific Task ID assigned to supervision tasks

In the unlikely event of a watchdog supervision fault, Task IDs are assigned to individual supervision tasks so they can be specifically reported.

8.9 Improved 3-CPU message handling to reduce network traffic

3-CPU deviation V04.00.02 functionality has been incorporated and can be configured on the Project Parameters > Operations tab in the 3-SDU (see Figure 1 on page 5).

The new configuration settings are designed to reduce the amount of network traffic by preventing unnecessary messages from being distributed. Refer to the 3-SDU Help for details.

8.10 Improved boot up process

Boot loader code V1.20 improves the C-CPU application boot up time.

9 Microcode V5.20 updates for 3-DSDC1, 3-SSDC1, 3-SDDC1 loop controllers

This microcode update:

- Improves DH and DS nonmapping device functionality
- Improves the loop controller startup process
- Improves relay base supervision
- Corrects the handling of stand-alone operations
- Corrects the flash rate for first detector in alarm

9.1 DH and DS nonmapping device functional improvements

This microcode update corrects deficiencies and adds enhancements that enable the proper addition and substitution of nonmapping devices to a project. This includes adding the Inhibit Normal Flash status to the loop controller status for systems configured with the nonmapping devices.

9.2 Startup improvements

Improvements to loop startup processing and loop messaging efficiency for select device types reduce the average startup time of loops; especially, loops that use SIGA2 or nonmapping devices.

9.3 Relay base supervision improvements

Newly modified algorithms will provide more efficient and thorough supervision of system relay bases.

9.4 Correct handling of stand-alone operations

Alarm activations that occur in the first 18 seconds of stand-alone activity are processed.

9.5 Correct flash rate for first detector in alarm

The flash rate for the first device in alarm has been corrected in marketplaces that support LEDs that do not turn on steady.

10 Installing and upgrading to 3-SDU 5.20

10.1 Upgrading

You must uninstall previous versions of the 3-SDU before installing 3-SDU V5.20, either by using the shortcut in the Windows Start menu or by using the Control Panel. As a best practice, always export and save all projects to a backup location before uninstalling the 3-SDU.

Note: If previous 3-SDU versions are not uninstalled, you will be prompted during the new version installation to do so, or to choose a different directory for the new version.

The 3-SDU does not remove the Projects folder during the uninstall process; however, the location to which you install the new version affects the list of projects shown by 3-SDU V5.20.

The location of the installation affects your projects as follows:

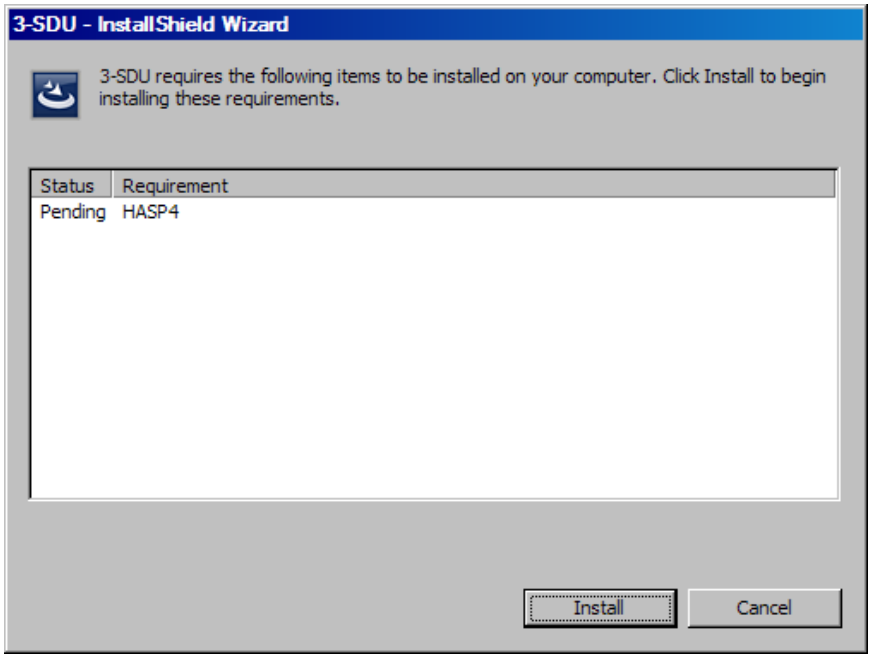
- If you are installing into the same directory as the previous installation, the 3-SDU does not overwrite the old Projects folder, so your existing projects remain intact. When you open an existing project, the 3-SDU converts that project's internal database format to work with 3-SDU V5.20.
- If you are installing into a different directory than the previous installation, the Projects folder will be empty. Your old projects still exist in the Projects folder of your previous installation directory, but are not accessible from the V5.20 installation of the 3-SDU. To correct this, after you have finished upgrading to 3-SDU V5.20, import your existing projects from your backup location.

10.2 Installation prerequisites

The only prerequisite for installing the 3-SDU is the HASP device driver. The HASP4 installs if you are running on a 32-bit system, while the Sentinel HASP installs if you are running on a 64-bit system.

To begin loading the requirements, double-click the 3-SDU setup.exe file. When the Requirements window appears (see Figure 2 on page 21), click the Install button, and then step through the HASP installation.

Figure 2: The Requirements window



The HASP requirement only appears during a first-time installation. Any subsequent installations of the 3-SDU application do not display the HASP requirement, because it has been installed previously.

The 3-SDU application begins installing immediately after the HASP is completely installed.

The HASP *does not* uninstall if you uninstall the 3-SDU. If you need to uninstall the HASP, use the Control Panel.

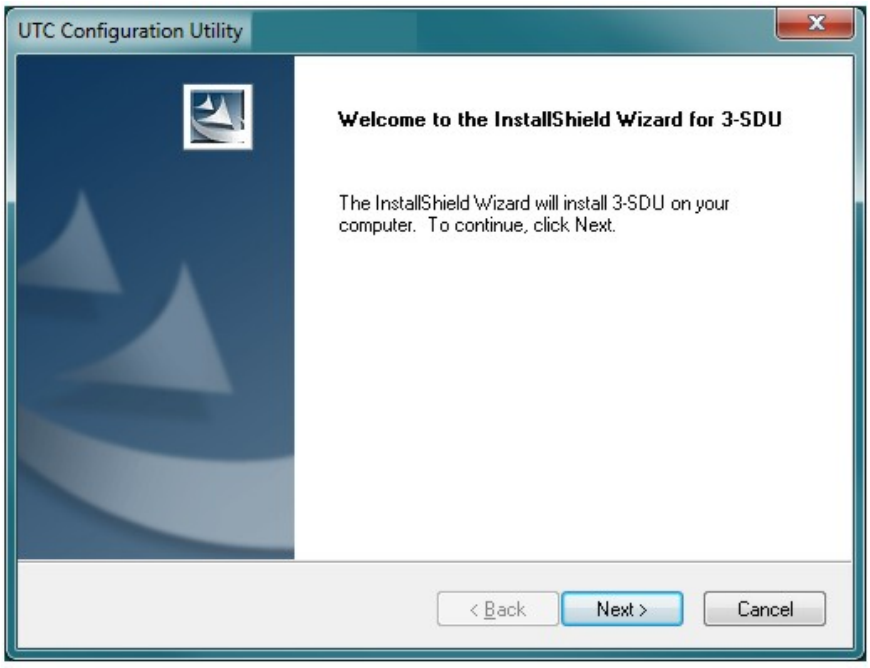
10.3 Installing the 3-SDU

The 3-SDU application begins installing immediately after the HASP requirement has installed completely.

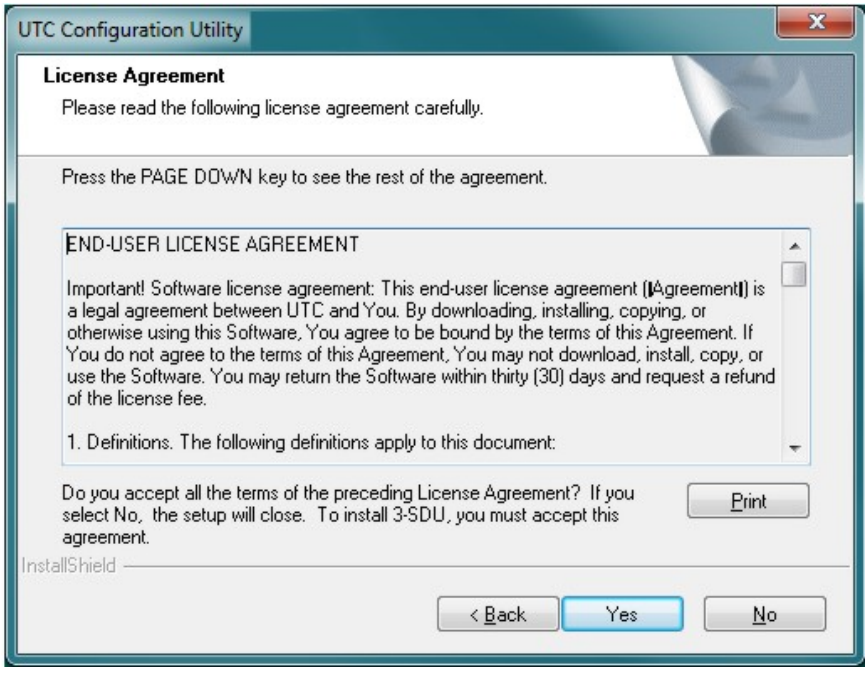
To install the 3-SDU:

1. Finish loading the HASP requirement, if you have not previously loaded it.

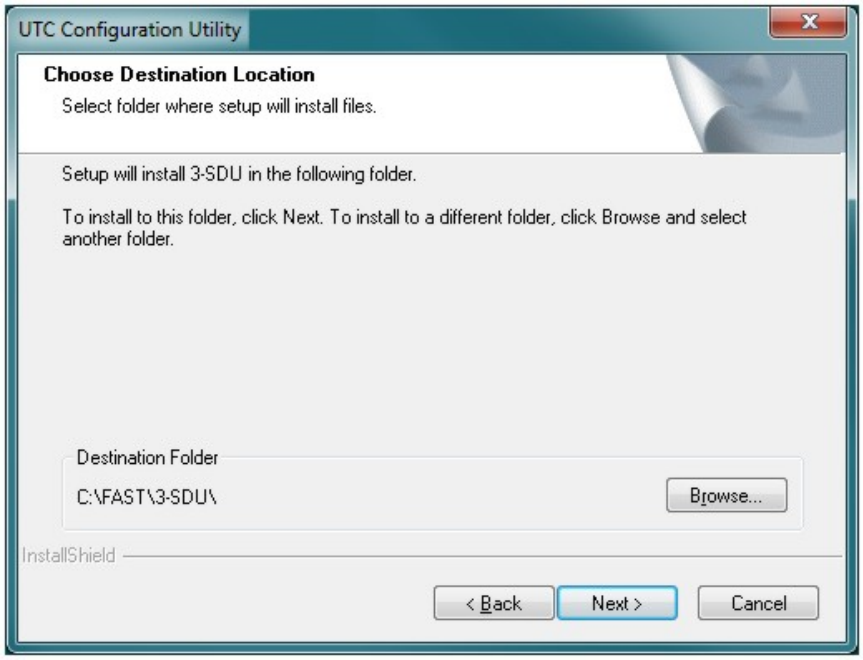
2. The 3-SDU installation wizard starts, and displays the welcome page. Click Next.



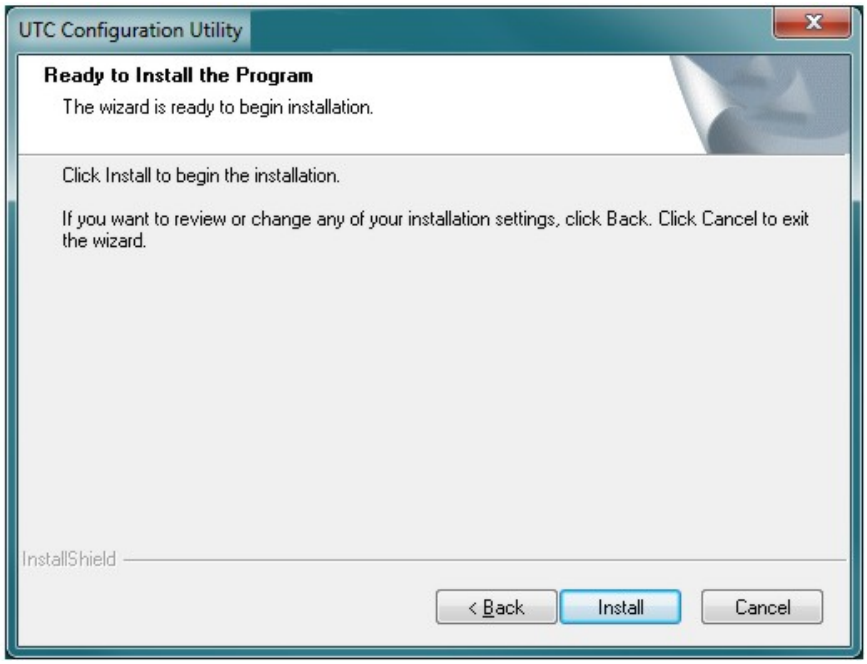
3. The License Agreement page appears. Click Yes to accept the license.



4. The Choose Destination Location page appears. Click Browse to select another folder or click Next to choose the default path C:\FAST\3-SDU\.



5. The Ready to Install page appears. Click Install to begin transferring files.

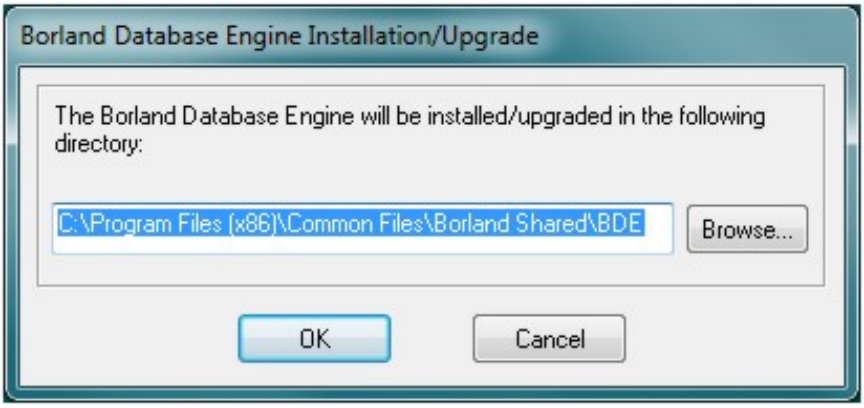


10.4 Installing the Borland Database Engine

The Borland Database Engine is installed as a part of the 3-SDU installation. You can click Browse to select another folder, or click OK to choose the default path C:\Program Files\Common Files\Borland Shared\BDE. While you can install the BDE in any location, we do not recommend changing the default path.

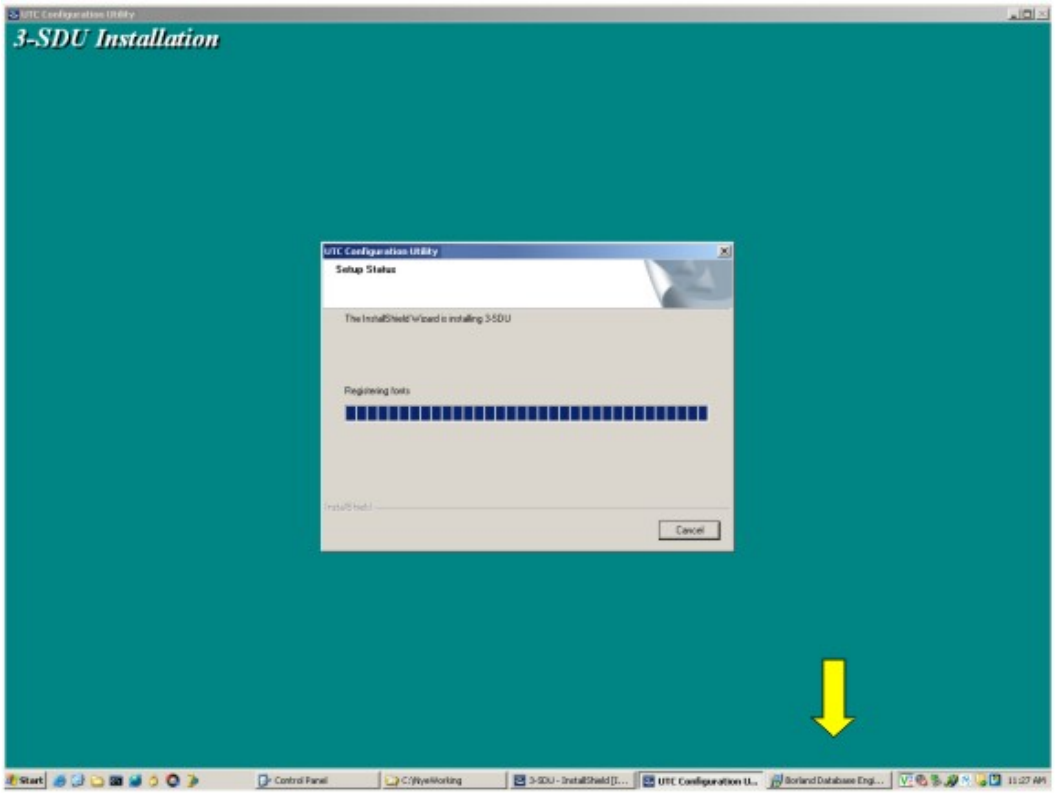
To install the Borland Database Engine:

1. Do *not* click the Cancel button, because any attempt to cancel the BDE installation generates an error.

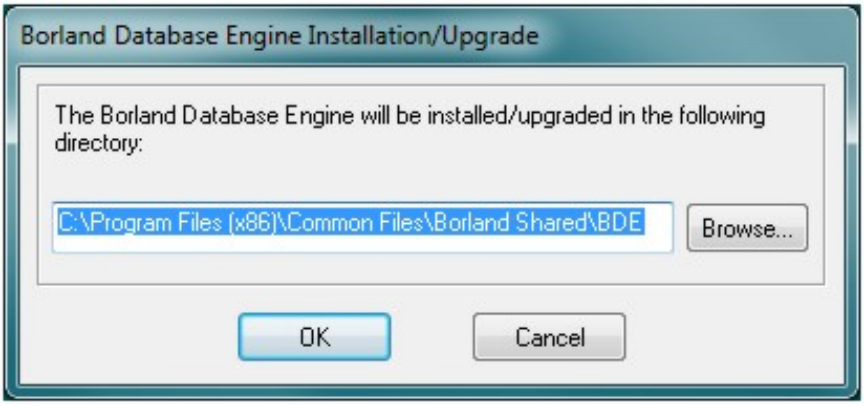


2. If the BDE is already installed in the default directory, it overwrites the previous installation. You can also install the BDE in multiple directories. Neither of these scenarios affects the operation of the 3-SDU application.
3. If you have another application window open while you are installing the 3-SDU, the BDE installation window goes behind other active windows. When this happens, the 3-SDU installation remains in a wait mode until you activate the BDE dialog box again. To do so, select the BDE task from the taskbar and continue the installation. The best practice is to close all applications and monitor the 3-SDU installation.

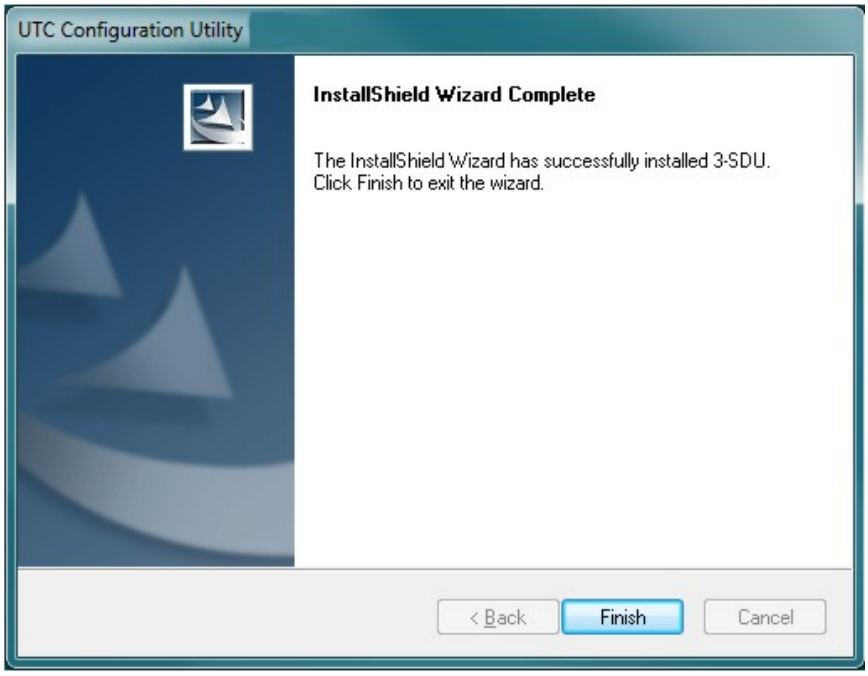
   Note: Increase the Zoom in this PDF if you want to see details in this screen shot.



4. Click on Borland Database Engine in the taskbar to activate it, and then click OK.



5. After the Borland Database Engine finishes installing, the Finish page appears. Click Finish to complete the 3-SDU installation.



11 Upgrading microcode versions

11.1 3-CPUx version 5.20

Project version numbers are embedded in each project file. Because the Save As command creates a new version number that is different than the embedded version, you must use the following procedure to install V5.20. Please follow these steps in the correct order to upgrade the hardware and software in your system.

Notes

- When adding an EST3X panel to an EST3 Network, upgrade your EST3 microcode to 5.20 *before* connecting EST3X nodes to the EST3 network.
- Do not mix different versions of 3-CPUx microcode on the same network. Upgrade an existing system by carefully following this procedure.

To upgrade V3.0 or later to V5.20:

1. Install 3-SDU version 5.20.
2. Click Project > Open and select your project from the Open Project dialog box. Click OK to open the project.

Note: When you open a project, the 3-SDU may give you a warning that states “Some or all of this project’s selected MicroCode versions do not exist or are incompatible with the Brand or Marketplace. Click OK to update to the latest versions or click Ignore and fix the problem manually.” If you click Ignore and do not select valid versions of microcode, errors can occur when configuring the LRMs. Therefore, if you click Ignore, also go to the Project Parameters > MicroCode tab and verify that the selected microcode versions are all supported; the 3-SDU highlights in red those versions that are no longer supported.

3. Click OK to upgrade the microcode of your project.
4. Save your project as a new version, using the Save As command on the File menu.
5. Click Rules > Compile to recompile your project.
6. Click Tools > DB Conversion > All Databases to create databases for the loop controllers and cabinets.
7. Click Project > Save to save the recompiled project.
8. Click Tools > Communications and select Network for the Download mode.
9. From the LRM Type Display Filter group, select 3-CPU. From the File Display Filter group, select three options, Boot loader code, Application code, and Database for each panel. (Do not select any other option.)
10. On Class B networks, connect the 3-SDU to the first CPU (sometimes called the service panel). On Class A networks you can connect the 3-SDU to any node on the network.
11. Click Download and Start to begin the network download.

11.2 Upgrading firmware on 3-DSDC(1)(C), 3-SDDC(1)(C), and 3-AADC(1) loop controllers

You must upgrade the 3-CPUxs before upgrading the loop controllers.

You can upgrade the loop controllers using network downloads.

If the bootstrap download fails, or if the steps are performed out of order, you must cycle the power on the panel and restart the upgrade by downloading the bootstrap code again.

You must complete each of the following steps in separate download sessions.

To upgrade the loop controllers:

1. Download the loop controller bootstrap to each LRM. (Download the bootstrap only; do not download the application code or database.)
2. From the LCD, issue a restart command for all panels.

3. Download the loop controller application code.
4. Download the loop controller databases.

11.3 Upgrading the 3-ASU

When upgrading the 3-ASU, we recommend that you do so in the following order:

1. Download the boot code.
2. Download the application code.
3. Download the database.

11.4 Upgrading the CRC

When upgrading the CRC/CRCXM, we recommend that you do so in the following order:

1. Download the 3-SDU application code.
2. Download the 3-SDU database.
3. Download the ACDB database (from the CRC Administration tab, select the Destination DB Init task).

Note: Upgrading the code to a CRC disables the access functionality for the door being controlled, until you use the ACDB to download its corresponding database.

11.5 Upgrading from C-CPU 1.0x to V1.20

Firmware V1.20 is not compatible with older databases (V1.0x firmware). The new application and *all* databases must be downloaded to *all* panels in the system. Do not mix different versions of C-CPU microcode on the same network; upgrade an existing system by carefully following these steps.

Steps to upgrade C-CPU 1.0x to V1.20:

1. Install 3-SDU V5.20.
2. Click File > Open and select your project from the Open Project dialog box. Click OK to open the project.
3. On the Project/Microcode tab, select the 1.20 version for C-CPU.
4. Save your project as a new version, using the Save As command on the File menu.
5. Click Rules > Compile to recompile your project.
6. Click Tools > DB Conversion > All Databases to create databases for the loop controllers and cabinets.
7. Click File > Save to save the recompiled project.

8. Click Tools > Communications and check Network for the download mode.
9. Select the CPU application code, bootstrap, C-CPU database, and internal loop controller database (slot 3) for each panel.
10. Connect your PC to any CPU node on the network.
11. Click Download and Start to begin the network download.
12. After the download finishes and the panels start up, the LCD shows the following internal fault:

    “xx000604Internal Fault,” where xx is the panel address

    Restart the network to restore the fault. From any panel in the network, select Program Menu > Restart and perform a restart of *all* panels.

11.6 Upgrading from C-CPU V1.1x to V1.20

Download the new database with the 3-SDU V5.20 to take advantage of new features.

Steps to upgrade C-CPU V1.1x to V1.20:

1. Install 3-SDU V5.20.
2. Click File > Open and select your project from the Open Project dialog box. Click OK to open the project.
3. On the Project/Microcode tab, select the 1.20 version for C-CPU.
4. Save your project as a new version, using the Save As command on the File menu.
5. Click Rules > Compile to recompile your project.
6. Click Tools > DB Conversion > All Databases to create databases for the loop controllers and cabinets.
7. Click File > Save to save the recompiled project.
8. Click Tools > Communications and check Network for the download mode.
9. Select the CPU Application code, bootstrap, C-CPU database, and the internal loop controller database (slot 3) for each panel.
10. Connect your PC to any CPU node on the network.
11. Click Download and Start to begin the network download.

11.7 Downgrading C-CPU from V1.20 to V1.0x

You may want to downgrade a C-CPU version from V1.20 to 1.0x in certain situations.

To downgrade the C-CPU version:

1. Install V5.20 of 3-SDU.
2. Click File > Open and select your project from the Open Project dialog box. Click OK to open the project.
3. On the Project/Microcode tab, select the 1.0x version for C-CPU.
4. Save your project as a new version, using the Save As command on the File menu.
5. Click Rules > Compile to recompile your project.
6. Click Tools > DB Conversion > All Databases to create databases for the loop controllers and cabinets.
7. Click File > Save to save the recompiled project.
8. Click Tools > Communications and check Network for the download mode.

   Select the C-CPU application code, the C-CPU database, and the internal loop controller database (slot 3) for each panel.
9. Connect your PC to any CPU node on the network.
10. Click Download and Start to begin the network download.

12 Important Information

When you open a 3-SDU project, you see a Warning message about missing or incompatible microcode versions. If you click OK, download the latest firmware and boot loader code before downloading the database. Without first downloading the application codes, the panel may lock up.

Figure 3: Missing or incompatible microcode versions warning

13 Reminder of NFPA 72 testing requirements

When changes are made to site-specific software, the following shall apply:

- All functions known to be affected by the change, or identified by a means that indicates changes, shall be tested 100 percent.
- In addition, 10 percent of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, also shall be tested and correct system operation shall be verified.
- A revised record of completion in accordance with NFPA standards shall be prepared to reflect these changes.
- Changes to all control units connected or controlled by the system executive software shall require a 10 percent functional test of the system, including a test of at least one device on each input and output circuit to verify critical system functions such as notification appliances, control functions, and off-premises reporting.

14 Known issues

The following known issues exist for 3-SDU version 5.20.

14.1 Windows Vista and Windows 7

Some features in the 3-SDU require you to run the program with higher privileges in the execution level scheme for Windows Vista or Windows 7. However, when you run at the higher privilege level, the User Account Control dialog box appears. See Figure 4 on page 32.

Figure 4: User Account Control

This appears because the 3-SDU is not currently certified with electronic signature verification software. Click Allow to run your 3-SDU with full functionality.

14.2 Changes before DB Conversion and download to the panel

Many changes, such as changing or deleting devices, DACT accounts, etc. that are used in a rule can cause serious panel operation problems if you download the database directly to the panel. Always compile the rules after you have made changes to objects, and before you run a DB Conversion and download the database to the panel.

14.3 Changes made after installation

If you copy files into the installation directories after the installation, or create files while running the 3-SDU, the system does not uninstall those files and the directory tree containing them during the uninstall process. This includes all project files (by design) and settings used relating to projects. We recommend exporting your project files to another location before uninstalling the 3-SDU.

14.4 QuickStart concurrent installation

If you install the 3-SDU 5.20 after installing the QuickStart QS-CU, the 3-SDU installation overwrites the C:\WINDOWS\system32\dunzip32.dll and C:\WINDOWS\system32\dzip32.dll files. The 3-SDU uses newer versions of these files that the QS-CU cannot use, so if this happens the import of QuickStart

projects into the QS-CU fails. QuickStart will be rebuilt to use the correct files in a future release. Either of the following workarounds will solve the issue:

- Before installing the 3-SDU 5.20, copy the C:\WINDOWS\system32\dunzip32.dll and C:\WINDOWS\system32\dzip32.dll from the Windows directory to the QuickStart directory.
- Manually delete C:\WINDOWS\system32\dunzip32.dll and C:\WINDOWS\system32\dzip32.dll, and reinstall QuickStart after installing the 3-SDU.

14.5 Fonts and resolution

You must run the 3-SDU on a computer with a resolution of 1024 x 768 or greater and use normal size fonts, that is, DPI setting: Normal size (96 DPI). If you use any other font setting the 3-SDU buttons may not be accessible.

14.6 Using time controls to disable zone groups

Members of a zone group are not disabled if the zone group is disabled via a time control. Do not use time controls to disable a zone group.

14.7 Time synchronization

3-CPU Version 03.10.00 has a known issue with the time synchronization command. If your system has Time Synchronization > System Time Source set to 3-LCD User Interface, then any communication with the 3-CPU causes the system to reboot. We recommend that when you use 3-SDU 5.20 you set Time Synchronization > System Time Source to Input Circuit.

14.8 Compatibility with FireWorks version 1.60.xx and earlier

Fire systems that include Support for SIGA2 with CO or SIGA2 with split sensing operation need to ensure that FireWorks software is updated to V1.70 or later for proper reporting of CO and split sensing.

14.9 R-Series remote annunciator group details

The following functions for R-Series remote annunciators are not enabled at this time:

- Matrix details
- Service group details

14.10 Failure to load CPU database causes download mode

An issue can occur when downloading C-CPU version 1.10 to an EST3X panel containing a database that was previously compiled or converted with C-CPU V1.0x.

When the database in the panel is not compatible with the C-CPU microcode version, the panel enters the download mode and displays the following messages on its LCD:

- Download Mode
- Failed to load CPU database
- Please download a new CPU database

When the EST3X panel is in this condition, the Ethernet connection *is no longer available* for the panel.

To get the panel out of download mode:

1. Select the appropriate microcode for the CPU.
2. Compile and convert the database.
3. Download the database to the CPU using an RS-232 or RJ-11 connection, or via another panel in the network.

If an EST3X panel that resides in a network combined with EST3 panels enters this state, all EST3X panels in that network generate an “XX000684Network Compatibility Fault.” The XX represents the address of the EST3X panel that generated the fault.

14.11 Saving 3-SDU reports to XLS format in Windows 7

When displaying a report in the 3-SDU, clicking the Save Report button at the top of the screen offers the ability to save the report data in several formats. Due to a conflict with Windows 7 and our third-party reporting tool, saving a report to XLS (Excel) format produces a corrupt XLS file that cannot be viewed. We recommend saving the report to CSV format and then opening the file in Excel.

14.12 Auto Generate Events CID option requires 3X panels only

When configuring a 3-MODCOM, the Auto Generate Events option (which creates CID events without the need to write rules) only functions for projects containing eight or fewer EST3X panels. Once you exceed eight EST3X panels or add an EST3 panel, you have to write rules for all CID events.

14.13 CDR-3 Bell Coder parity

When using the CDR-3 on an EST3X panel, set the CDR-3 to “no parity” if you need extended digit operation. See the *CDR-3 Bell Coder Installation Sheet* (P/N 3100023) for details on the switch options.

14.14 EST3 Instruction Text limitation

For an EST3 system, the last 32 characters of 2,000-character Instruction Text do *not* print. We recommend that you limit the maximum number of Instruction Text characters to 1,960.

14.15 Configuring nonlatching PCOS detector group names

Do *not* select “None” for the Group Name for a nonlatching PCOS detector configured as a “Supervisory” device type with a relay or sounder base, and assigned personality code (55) Photo nonlatching - CO latching or (56) Photo nonlatching - CO nonlatching (“Supervisory” device type). If None is selected, the detector may not activate the sounder base.

To configure a nonlatching PCOS detector:

1. Open the Signature Series Configuration dialog box and click the Loop Detectors tab.
2. In the detectors table, locate the PCOS, and then from the Group Name list do one of the following:
   - Select Individual_Control, and then select the appropriate Follow setting. Note: You may need to create a rule to control the base, depending on your application.

   — or —

   - Select a relay/sounder group (RSG).

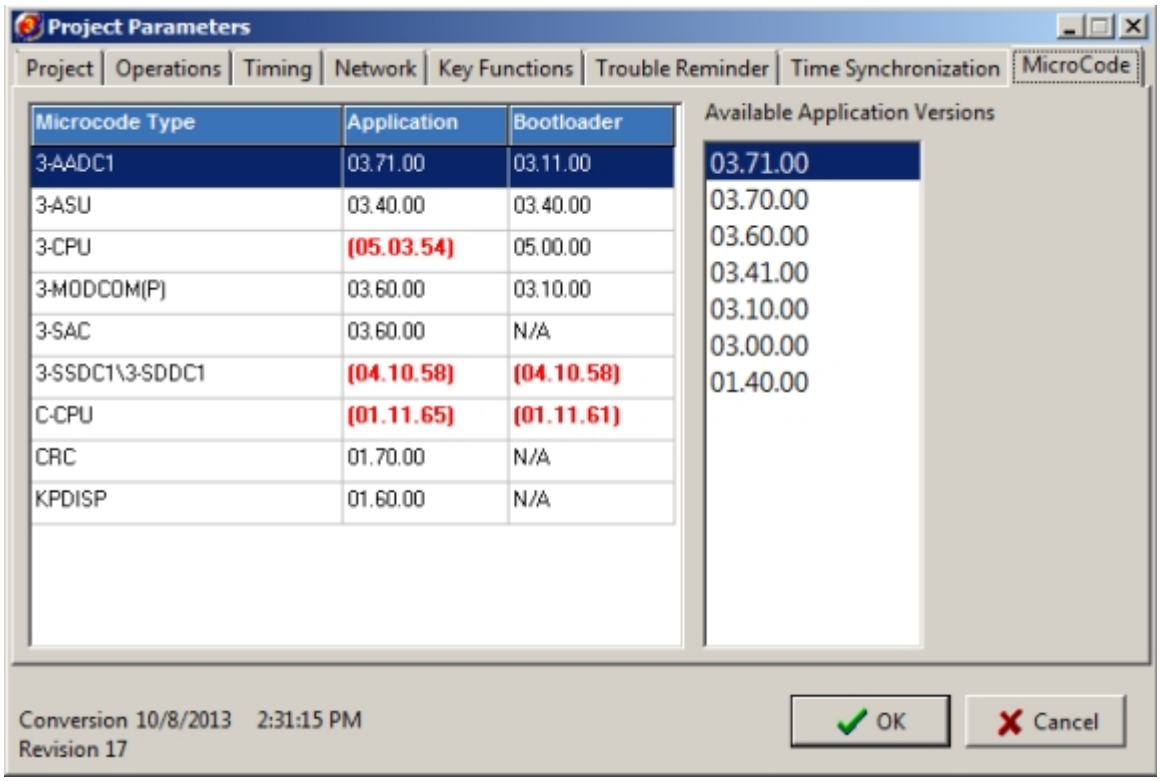
14.16 Manually updating 3-SSDC1 and 3-SDDC1 microcode

Manually updating the 3-SSDC1\3-SDDC1 Microcode Type in the MicroCode dialog box when the CPU microcode is unavailable may result in the deletion of loop controller devices from the project.

For example, in Figure 5 the red text in the MicroCode dialog box indicates that the 3-CPU, C-CPU, and 3-SSDC1\3-SDDC1 microcode versions are unavailable. If you update the 3-SSDC1\3-SDDC1 microcode before updating the 3-CPU and C-CPU microcode, configured loop controller devices may be deleted from the project.

Note: When updating the microcode, we recommend that you save the project as a new revision.

Figure 5: Unavailable microcode versions



To manually update 3-SSDC1 and 3-SDDC1 microcode:

1. Open the Project Parameter dialog box and click the MicroCode tab.
2. Select 3-CPU or C-CPU in the Microcode Type list, and then select the appropriate version in the Available Application Versions list. The text changes to black indicating the microcode is available.
3. After configuring the CPU microcodes, select 3-SSDC1\3-SDDC1 in the Microcode Type list, and then select the appropriate available application version.
4. In the Warning message dialog box, click Yes to change the application code.

14.17 Common supervisory contacts issue with SIGA2-PHS detectors

For a SIGA2-PHS detector, if you do not restore the photo sensor prior to bypassing the sensor, you may inadvertently latch the 3-CPU/C-CPU's common supervisory contacts and the first supervisory event, which will then require a panel restart to restore the state of the contact and first supervisory event.

For example, if you perform the following sequence, the inadvertent latch may occur.

1. Activate the photo sensor of a SIGA2 PHS detector configured as Photo is Supervisory | Heat is Alarmheat.

2. Activate the SensorBypassOn command for the detector.
3. Restore the photo sensor.
4. Activate the SensorBypassOff command to restore the detector's bypass condition.

To correct the issue, a restart of all panels is required to restore the common supervisory contact and the fire supervisory event.

Note: The SensorBypass command works only with the SIGA2-PHS detector; it does not function with the SIGA-PHS detector.