ASIC/2 Firmware Release Note

APPLIES TO   ASIC/2-7540, ASIC/2-8540

LAST REVISED   2008-01-31

ASIC/2-7540 FW754a2.3 (2008-01-29)
ASIC/2-8540 FW854a2.3 (2008-01-29)

- New features have been added to Object 35, Encode.
- Encode Type 0, FIFO is unchanged
- Encode Type 1, Load Balance keeps track of run time for each stage.
- Encode Type 2, Rotate allows rotation of the order of outputs based on the value returned by a Rotate Handle.

WHAT HAS CHANGED

Encode Type 0, FIFO, may be used as a First-In First-Out, FIFO, encoder, for example to provide the control of up to 16 stages of output based on up to 16 stage requests where only a maximum number of outputs may be on at any one time. It may also be used to encode individual bits, for example the current status of the binary outputs into a single word of data.

Encode Type 1, Load Balance, may be used to even out the run times of multiple stages by keeping track of the ON times for each stage. Load Balance can accumulate run times up to 65535 in seconds, or in minutes. If any stage timer rolls over, then all timers are reset to zero.

Encode Type 2, Rotate, may be used to even out the run times of multiple stages by rotate the stages. The stages can be rotate with increasing number, or reversed, based on the value read by the Rotate Handle.

The Expert a2-ENC. pvs, a2_ENC.tcl, Encode.sym, Encode.bmp, and ASIC2.mdb files have been updated to support the new features. The Encode object definition, 35-ENC.pdf has been revised to describe the new features.

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STEPS TO COMPLETE UPGRADE

Download and update FW754a2.3 (or FW854a2.3) from the integrator center, and update the controller using FlashDev.

Download and update the Expert a2-ENC.pvs, a2_ENC.tcl, Encode.sym, Encode.bmp, and ASIC2.mdb files.

Download the new documentation.

If you are using the ETH-8540 for Ethernet connection to the ASIC/2-8540, you will also need to upgrade to the latest ETH-8540 image file.

ASIC/2-7540 FW754a2.2 (2007-06-08)
ASIC/2-8540 FW854a2.2 (2007-06-08)

- Fixes problem in sending or receiving Remote Point messages or receiving Notify messages that infrequently caused errors in Calculated Point or other objects. Also fixes problem with download errors when loading new configuration.
- Fixes 17-MGR Manager Function Average Word value when Average Word value is greater than 65535. Now computes average correctly and displays number of values used.
- Fixes problem with Notify Log. Self Posts would overwrite System Bus posts.

WHAT HAS CHANGED

Customers have reported infrequent but random errors in Calculated Point and other objects. For example: The Calculated Point would give an erroneous result for one calculation time. The Encode object would show and incorrect Stage Status Value for one second. These problems only occurred in the presence of Remote Point traffic. Customers have also reported download errors when loading a new configuration. We have identified an underlying problem with Remote Point and Notify communications and have fixed it.

Special Note: If you are using Remote Point or Notify messages on system bus we recommend upgrading to FW754a2.2 or FW854a2.2 or later.

Note: If you choose not to upgrade firmware, the download error work-around is to load the configuration a second time.

Two other minor bugs with Poll Manager and Notify Log have also been corrected. No new features or parameters have been added.

STEPS TO COMPLETE UPGRADE

Download and update FW754a2.2 (or FW854a2.2) from the integrator center, and update the controller using FlashDev. If you are upgrading from FW754a1.5 (or FW854a1.5) or later you do not need to reload the application files. You should also update to the latest asic2.mdb.

ASIC/2-7540 FW754a2.1 (2007-03-23)
ASIC/2-8540 FW854a2.1 (2007-03-26)

- Adds Decimal Fraction value to Function Float-to-Integer calculation

WHAT HAS CHANGED

By customer request we have added the decimal fraction value to the Function object, 32-bit floating point to integer conversion. The Decimal Fraction is displayed in units of 0.0001.

STEPS TO COMPLETE UPGRADE

Download and update FW754a2.1 (or FW854a2.1) from the integrator center, and update the controller using FlashDev. Update to the latest asic2.mdb file and add the Decimal Fraction parameter to the Function object Float-to-Integer screen.

ASIC/2-7540 FW754a2.0 (2007-02-08)
ASIC/2-8540 FW854a2.0 (2007-02-08)

- Fixes an intermittent issue of controller reset associated with system to local bus pass-thru.

- Updates ASIC/2-7540 Power-up Health Test sequence of lights.

- Fixes calculation overflow for PWM, Modulated, and Tristate Outputs.

- Boiler OAT Reset now works for negative Outside Air Temperatures.

- Fixes DAK Parameter 2_Byte download to Logic object.

- Adds 7540 USB/Ethernet support for USB200M Version 2.
    USB Ethernet Device = 1. Hawking HUF11 & HUF20, LinkSYS USB100M
    USB Ethernet Device = 2. LinkSYS USB200M Version 2

Reset Bug Fix

WHAT HAS CHANGED

- A subtle bug has been fixed which caused the controller to occasionally reset when using both system to local bus pass-thru and Remote Points.

Several customers reported problems that were traced back to the controller resetting when there was a lot of communication traffic. The controller would spontaneously reset, zeroing data, turning lights and equipment off until the sequence restarted. The reset was triggered by the presence of response messages being passed back from the local bus to the system bus and remote point or other traffic on the system bus. It has been present in all versions of ASIC/2-7540 and ASIC/2-8540 controllers.

Special Note: If you are doing pass-thru from system to local bus we firmly recommend upgrading to FW754a2.0 or FW854a2.0 or later.

STEPS TO COMPLETE UPGRADE

Download and update FW754a2.0 (or FW854a2.0) from the integrator center, and update the controller using FlashDev.

If you are upgrading from FW754a1.5 (or FW854a1.5) or later you do not need to reload the application files. If you are updating earlier firmware you must reload the application file after upgrade.