

September 2010 AcquiSuite Firmware changes.

Firmware updates for the A8812 have a number of substantial changes. Users should be aware of these changes and how these may impact any custom applications that may have been developed. Although great care has been taken to maintain the previous feature set, users should test the firmware update prior to deploying this firmware on production equipment.

The firmware update will be provided at no cost.

Firmware release for A8812, A8810: v02.10.1011

Overview of changes:

This firmware update includes a number of minor changes as well as several new drivers.

New Drivers

- Added modbus driver for the Veris E31A, E31B, E31C, E50C
- Added upload protocol module to support FTP Push for CSV log files.

Other Firmware Changes:

- Fixed an issue with the alarm LED that only effects A8812 units on the Obvius test/calibration system. This is the only change between v02.10.0930 and v02.10.1011. Revised changelog rather than create a new one for this one change.
- Fixed a scheduler bug in the beta release that caused daily uploads to be processed every log cycle. This was introduced in the latest change and exists only in the 2.10.0908 beta release.
- Added a warning in the A8332 and onboard io driver advanced page to show alert message for io input mode auto shutdown. This feature is soon to be incorporated into the A8332 and onboard io.
- Modified shared memory file handle allocation procedure that caused hwclock to fail when run from a cgi script.
- Added advanced option in system/processes diagnostics page.
- Added feature to the onboard io and A8332 advanced config page to warn when inputs are over 22mA.
- Added new id string for "Badger Meter, Model 340 BN/MB". No driver changes however.
- Added feature to allow data point name editing in the point list (configure) display webpage.
- Fixed power factor per channel in the E31 driver
- Added in the Veris E31 A, B and C id strings to the driver detection process, and id strings for E31 Schneider and Square-D brands as well. Changed probe to handle Veris E31 ID string change, new firmware handles both versions of the ID string.
- Modem manager tool is now able to detect non-populated modem faster by checking the serial control lines.
- Fixed several issues in tidylogs that caused log files with file names that were slightly incorrect to be generated on rare occasions.
- Added ability for modem manager tool to operate on USB for A8810 platform.
- Modified watchdog handler for A8810 platform.
- Modified watchdog handler to monitor flash chip memory.
- When terminating senddata, now terminates all child processes such as uploaders or tidylogs.
- Modified logger process priority to be lower than system/OS tasks.
- Added a temperature monitor process. This will monitor the pcb temperature and shut down some subsystems such as the LCD backlight when the temperature is high, to reduce power consumption and heat generation.
- Updated firmware to handle the MAC address on the A8810 platform.



- Modified tidyconf to add test for the secondary DNS server IP 216.99.200.241 that will be going away. Update to 8.8.8.8 google DNS
- Fixed point count error in the H8436 driver reported in the configuration file for the meter.
- Added better modbus packet receive timeout handling to assist with os kernel 2.6.28.10.
- Corrected names of 3 %THD points to: "Amps {A,B,C}, %THD" for the Shark 100/200 driver. These points were incorrectly named "Volts {A-B,B-C,C-A}, %THD".
- Modified ini load procedure to trim leading and trailing white space off ini parameter values. If CR characters are found, the dirty flag will be set so that applications will know to write out the file. Note: non-CR white space will be deleted but the dirty flag will not be set, so applications will only write out the sanitized file when some other change to the file is required. This will clean up configuration files that are uploaded into the AcquiSuite using the wrong transfer mode (ASCII/BINARY) with FTP.
- Corrected error msg text: "A CGI program timeout ..." --> "A CGI program timeout ..."
- Modified senddata process, if next upload time is in the past, schedule for one log cycle, not one day in the future.
- Display time (seconds) required for each channel's upload on Log File Data > Status page. - Consolidated setting channel status line and channel status summary in senddata.log
- Added feature to print last/next upload status file in log file status page.
- Removed low alarm field from A89DC-08 alarm age data point. This data point only increments, so no need for a low alarm.
- Modified watchdog procedure to handle situation where all configured devices are attached via ModbusTCP. New procedure properly handles this and does not watchdog reset the system after 20 minutes.
- Updated new Obvius street address in footer of all UI pages.
- Modified ppp shutdown procedure to give time for the connection to shutdown before it terminates the connection.
- Added option to export log files with single or double quote marks in csv files. Double quote marks are default to accommodate Microsoft Excel.
- Modified export file generation procedure to optimize comma/tab export generation, cleaned up column name generation, trap missing file errors.
- Modified export file generation program to allow use by both the UI/Web interface and by FTP uploader.
- Fixed a timeout problem in the upload connection test.
- Modified timeout setting for rdate time sync protocol.
- Modified upload scheduler to use a granular sleep procedure for daily uploads to provide better randomization for the 1 hour upload window, if selected.
- Modified upload scheduler to check the next upload time with the current time to prevent the system from sleeping too long when the system time is changed beyond the target upload time.
- Consolidated some CGI/UI authentication code.
- Send data process: Prefixed status messages which occur as part of uploading process with 'Preparing to upload -- ', e.g., 'Preparing to upload -- Running tidylogs to compress data files.' 'Preparing to upload -- Dialing modem connection.' (added this one, to match shutdown msg). Added status about 'Sending alarm emails.' since that may take a long time.
- Add mechanism to allow AcquiSuite modules which run setuid
- Added a feature to enable/disable pause before data log cycle in modbusloggerd. (loggerconfig.ini param) This is required to update XML data prior to the top of the minute, and used by the speedlog module software.
- Added watchdogmgr utility, to allow starting /dev/watchdog from rc.sysinit at boot until modbustcpd takes over.
- Increased maximum length to 256 from 128 characters of: Uploader input fields (URL, Password, Option1, Option2), and ASMODULE display-name length.
- Increased maximum length of upload passwords from 30 to 60.

