

May 2009 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: v02.09.0504

Overview of changes:

This firmware update includes two new drivers and a number of smaller changes to various drivers. Also, this firmware provides support for new features in the R9120-5 ModHopper including options that should be set on all R9120-5 devices at the same time.

New Drivers:

- Added driver support for the Obvius A8332-8F2D flex io module.
- Added device driver for the Power Logic PM750
- Added driver support for the Veris E30B and E30C BCM devices.
- Added driver support for extended features in the R9120-5 ModHopper.
- Added device driver for the PV Powered Inverter (30kW, 50kW, 100kW)
- Updated ID string table to understand new H704 100A meter.

Other Firmware Changes:

- Added boot option to create an empty curvescale directory if one does not already exist.
- Added boot option to do a better check for flash-disk-full condition.
- Changed tidylogs app to print errors on stdout and not stderr. This will allow error messages to be handled with the same stream of messages as the progress report and notes. This is to allow senddata to log all output (in debug mode) and not just non-error messages.
- Set low disk space threshold a little lower to 94%.
- Fixed tidylogs to handle flash disk with too many files on it. This corrects a problem with the ARM platform which inode free count is broken on jffs2 flash disks. Updated tidylogs with better disk full testing function as well.
- Fix for problem downloading log files in windows vista. This should allow MSIE to print a save-as dialog box rather than trying to open it in excel.
- Added GSM modem option for the -F4 (quadband) modems to allow the user to select US or European frequency bands. Default to US if not set.
- Added some information about T-Mobile APN settings to the GPRS help file.
- Fixed typo in pid filename for senddata for http/push uploads.
- Added code to send sensor serial number with the sensor data/config upload as a separate form variable.
- Updated device type numbers to match filenames for sensor template files.
- Added checkbox to enable/disable sensor network logging.
- Turned off debugging messages for the E30 drivers.



- Changed 4-20mA sensor reading to mark data point invalid when a broken wire alarm (less than 4mA) is present.
- Added HEX16 format support to the data point baseclass. This allows 16bit values to be printed in 0xFFFF format to allow log file and xml print function to provide hex format numbers used in bitmap data points. Note: servers receiving data from AcquiSuite systems should be able to handle data values in the csv log files that start with 0x to indicate hex format.
- Added a new tool to print the ModHopper alarm status history in a separate app. The old code to do this was not used since the background data gather feature was added and has been removed from the driver.
- Fixed some images that did not have proper transparency background set. Verified index pallet (not rgb) was used for icons. This should address a cosmetic issue in the device list where icons did not draw properly in the tree display menu.
- Added device status icon column to the Modbus device list page. Icons are switched in and out by javascript when the page is updated and "status" values are displayed. Images currently show 20%, 40%, 60%, 80% packet success rate.
- Added feature to devicelist xml report the quality of the device communications by calculating the number of sent and received packets to it.
- Added a library function to read Modbus registers and convert the values into other data format such as text strings. Used for information pages in several new drivers
- Updated Modbus/TCP send/receive core procedures to fix timeout handler. Now, timeout will be noticed regardless of when the Modbus/TCP gateway sends one byte at a time with long pauses in between.
- Added Modbus packet processing library directory. This source lib contains functions that process and report on the direction and purpose of Modbus packets. These functions were copied from the ModHopper codebase.
- Updated modbuscpd to take advantage of some of the new modbuspkt.c/h library functions to generate exception packets. Added test to see if packets received are from other masters (known queries) and report as such. Removed error that reported crc data as potentially multiple master problems.
- Updated library with device failure message from current Modbus/TCP spec. (was invalid response length from 1999 tcp spec) Updated exception response for 485port write errors to return Modbus tcp gateway error. Updated Modbus exception response for addresses that don't match, return mismatch rather than multiple-master error code.
- Added firmware version reporting in the pm800 driver.
- Added menu option to log all/consumption/none to the PM800 driver.
- Fixed bug in 3ph common current register number for the PM800 driver. Old version showed invalid value for this data point.
- Added support for "lock preferences" register in R9120 ModHopper devices with firmware v2.06 and later. Once set, the register may only be unlocked a query on the RS485 port to prevent remote changes.
- Added feature to suppress R9120 route table gather on driver startup to speed up the boot process.
- Added a number of ModHopper advanced page items to show new features in the new -5 ModHopper and 2.05 firmware for all ModHopper models, including RF Channel override, Serial port configuration (N81), and software/hardware RF channel selection.
- Added a ModHopper group configuration page to allow security key, RF speed, and Soft-RF Channel to be set on multiple R9120 devices at the same time. Group configuration tool also schedules a reboot on all R9120 devices, and will show a report of devices that have settings changed.

