

January 2011 AcquiSuite Firmware changes.

Firmware updates for the A8810 and 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: v02.11.0128

Overview of changes:

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

New Drivers

- Continental Control Systems, Wattnode
- Dent, PowerScout 3
- Dent, PowerScout 18
- Elkor, Watts On
- Schneider Electric, E5600
- Veris, E51C

Major features

- Added the ability to connect a USB Multitech MTCBA-G-U-F4 GSM modem module.
- Upload data channel isolation to remove channel related data from upload channels 2,3 and 4
- Added a feature to provide the ability to disable Telnet
- Added a feature to provide the ability to disable FTP
- Added feature to provide a reminder on the footer of all pages when a system reboot is required.

Other Firmware Changes:

- Added a feature to automatically correct CR, LF and CRLF characters in files on startup. This will address configuration INI files that are uploaded via FTP in ascii mode.
- Added feature to delete data from uploader channels that have been disabled for at least 48 hours. This does not affect channels that are enabled but not able to upload data. Tidylogs deletes logs in disabled channels older than 48 hours. As a safety precaution, loggerconfig.ini must also be >= 48 hours old before anything is deleted.
- Created a status ui page under the system menu to display status of devices (currently USB devices).
- Added modem id string support for the new MT5692SMI on-board telephone modem module
- Added feature to read the TCP_MAXSEG function to calculate the optimal data payload size for uploading log data files to the target upload server.
- Added a feature to configure the MTU size for both PPP and Ethernet interfaces. (default 1500)
- Added a feature to gray out the static parameters in the ip configuration page when DHCP is selected.
- Added functions to monitor a log file for new lines. This module will now automatically detect when the log being monitored has been rotated.
- Added feature to send the os version strings with all firmware upgrade requests so that the server can be selective about what it sends back.



- Added low latency code into the 485 serial port handler.
- Increased the number of ppp.log sessions kept by logrotate from 4 to 8
- Added feature to system status page to print model, modem type, and AS serial number
- Updated library for better lock file handling.
- System update on startup to use the two new default DNS servers: old/deactivated primary servers are set to 67.51.237.194 (Obvius dns) and old/deactivated secondary servers are set to 8.8.8.8 (Google dns)
Note: old servers are: 198.107.56.37, 70.99.203.62, and 216.99.200.241
- Added new modem probe button, as well as feature to remember what modem the system was configured for. This will allow the AcquiSuite to preserve the modem configuration when the USB modem is unplugged and plugged back in.
- Log display page will handle more than 3 search parameters.
- Change statlog.c so a huge backlog of logfiles won't delay the display of Senddata and Channel status.
- Changed the wtmp log to keep 6 old log parts at 66k max. The old version kept 2 logs at 100k max.
- Log status page now prints files in groups by channels, and prints warnings related to each channel.
- Add Cancel buttons for consistency between pages (to Modbus > Setup, Modem > Dialout, Modem > Dialin).
- Updated ttystat.cgi page so it matches Network > Status page. Now it says "System is not currently connected via PPP" rather than giving the raw ifconfig error msg.
- Added "View Dialup Log" button to allow viewing of the log while connecting.
- "View Dialup Log" buttons on dialin.cgi and dialout.cgi pages now reuse the LogFile browser window. Previously, these buttons named their windows DialInLog and DialOutLog, which made sense when long ago when these buttons displayed /var/log/messages with different section= filters. Now, these buttons both open ppp.log. Seemed best to simplify the UI by minimizing # of windows, and reusing LogFile window avoids showing duplicate copies of ppp.log (one of which will be "staler" than the other).
- Combined the DialupStatus and DialinStatus browser windows into a single DialupStatus window. Previously, setup/dialin.c would create a DialinStatus window, other pages would create DialupStatus.
- Updated ID strings for E50C2, E50C3, E51C2, E51C3 based on information from Veris.
- Fixed a bug in the error reporting for DNS lookups used in data uploads, and upload tests. The old firmware would report "error 2, access denied" and should have reported "host not found."
- Fixed a problem that could cause a short packet of less than 5 bytes to make the RS485 port wait longer than the 5ms timeout for the next byte. Timeout would eventually occur at the query timeout (default 200ms).
- Fixed broken feature that allows setting the pulse input speed in the R9120.
- Widened the modem 5V and 3.3V tolerance to avoid spurious failures from ProbeModem().
- Procedure now uses pclose() instead of fclose() for handle opened with popen() in Modem manager application.
- Modified ini file write procedure to look for invalid system time and if found, update the ini file with the old timestamp plus 1 second.
- Fix for compatibility with IE to auto-refresh web pages: When using meta-refresh, must specify "url=..." ("url=" is not required for Firefox)
- Fixed potential deadlock when trying to acquire two locks: Once 1st is acquired, wait only a short time to get 2nd.
- Fixed a problem with the ppp local ip address defaulting to the ethernet ip address or ethernet gateway address under rare circumstances with a few RAS servers.
- Cleaned up LCD messaging on the AcquiSuite console by reinitializing the LCD module when switching between scripts and console application.
- Fix for established PPP dialin connection terminating incoming calls after 2 hours (7200 seconds).
- Fixed a page redirection/reload bug that caused some browsers complaining about "Resend Request"
- Fixed a rare problem that would prevent the use of the local IP address assigned by PPP on dialin.
- Connection Test now warns if PPP link is already up or modem is locked (didn't before).
- LCD Console now restores the LCD after it notices a USB hot-plug message has been written to it. Add simple coordination between lcdprint and uibconsole so that text displayed with lcdprint stays on lcd for 5 seconds before being overwritten by uibconsole, auto-updates.
- PPP / Multitech USB modem: Hide the Modem Diagnostics button during scan for modem.



- PPPDialoutNow now waits properly for zombie ppp-up.sh in all cases, although the only side effect of this problem was a warning in the ppp modem log.
- Fixed a problem with Modem lockfile that occasionally was created even though rungetty thinks the modem open failed. This would prevent dial-out while rungetty sleeps for a period of time before it would clear.
- Fixed a problem in the beta release that causes GSM modems with no sim card to show as "no-modem"
- Cleanup items for new SquareD E5600 driver.
- Cleanup items for new Dent PowerScout 3 driver related to setting the device id.
- Added HTML style sheet for consistent text on all pages. Updated main font to Lucida Console/Monaco for fixed-point font
- Lots of HTML code updates to the setup and config pages to remove extra tags, and promote overall good HTML tag use.
- Fixed typos, corrected capitalization in Connection Test messages:
- Print modem diagnostic messages so they print correctly.
- Fixed flex io and onboard io, advanced page to print input mode of auto-disabled with the warning in red.
- HTML on firmware upgrade now prints firmware crc check in green upon success.
- Change "View Dialup Log" button to display ppp.log, instead of section=ppp,diald,chat of /var/log/messages.
- Fixed indentation of lines output by logprintf() from statconNG.c
- Changed some PPP log messages. Proper capitalization.
- Put some common modem errors like NO CARRIER in bold in the log display so we can display the precise problem when it hits ppp.log, instead of reading through all of ppp.log to find the trouble.
- Display error msg in red/bold to match other err msgs.
- Don't display ttyS* info if BASEMODEL=A8810 Confusing.
- Prefixed errors and warnings with ERROR:, WARNING: so log.cgi and "Connection Test" can highlight them.
- Moved PPP/Dialup status buttons up from bottom of page, into Dialup Network section on the Network Status page. Otherwise these buttons usually scroll off bottom on the screen.
- Updated online help for Upload/Setup page to cover all current options, including multiple upload channels, and the new "upload channel isolation" feature.
- Cosmetic/Usability: - Renamed button from "View Dialup Log Summary" to "View Dialup Sessions" and Fixed this button so that it opens as a tab like other log windows, and change name of window from DialOutLog to LogFile. This causes the log.cgi window to be reused.
- Template editor: Removed ":" on header to match other pages.
- Removed duplicate text from dialup status page. Removed extra \n from pre-formatted text to even out spacing, and removed <p> tag around bottom-of-page buttons because it throws off spacing.
- Fixed problem where http proxy could get blanked out.
- Changed System Status page for more consistent look. Added better labeling for uptime.
- Removed <p> tag around bottom-of-page buttons on the os update page.
- Rename browser window to ProcView to match other windows.
- Updated copyright to 2011 on all pages. Fixed © and ® character entities to avoid 8-bit chars.
- Moved help-text nearer to associated option in network and modem config. Make pages consistent.
- Added stylesheet on all help files. This stylesheet sets the "AcquiSuite look". It is also used by AcquiSuite Modules.
- Changed the title of page from 'Modem Activity' --> 'Modem Status' to match TOC.
- Fixed duplicate <body> tag in toc.
- Added css id=toc for future use in styling toc.
- Set consistent line-height between pro and fixed-width text.
- Fixed a few bugs that were causing output of network status for the Ethernet port to be truncated.
- Removed references to some compiler directives in all the drivers that were obsolete.
- Added several library functions to match string against patterns and to match string against list of patterns.
- Commented-out the default "logprintf()" function -- library routines should pass in a logprintf_t callback.
- Use strcasematch() instead of fnmatch() with complicated pattern to match "error" and "warning" in log lines.



- Added syslog messages to show startup (version number) and shutdown due to sig handlers to the console app and senddata. This should help locate issues when either app terminates when it is not supposed to due to a HUP or other signal.
- Added SYSFS_DIR define = "/sys" --- the mount point of sysfs file system.
- Cleaned up some procedures in the modem handler that deal with process termination.

