

BMDM Software Release Notes 5.82

[] = internal reference number

* = SQL Version

Version 5.82

- [2418] Improved the calculation for marking cells as out of range and enhanced the Intercell graph color code to display the out of range cells more accurately.

Version 5.81

- [2416] Added support for installation of USB drivers on Windows Vista and Windows 7.
- [2415] The last float value is recorded on the MPM discharge report.

Version 5.80

- [2405] Added new field for Test Current Shunt on ASCOM.
- [2406] Added Reports and Upgrade folder upon installation.
- [2407] Added support for displaying DCM firmware versions later than 4.00.
- [2412] Standardized characters on the pre-power checklist.
- [2413] Upgraded modem initialization for broader modem support.

Version 5.79

- [2403] Eliminated the necessity for the user to check the tabular report option prior to printing the discharge report.
- [2402] Alarm report printing errors have been addressed.
- [2400] Trending of float currents has been enhanced to be more accurate.
- [2395] Enhanced login screen for better performance.*
- [2394] DCM debug R-test now includes the last cell.
- [2391] Calibration constants are now verified for all strings.

Version 5.78

- [2374] ASCOMP report now shows float current for MPMs.
- [2373] Sorting on the Alarm name displays more accurately in the alarm window.
- [2370] The alarm detail now includes the intertier number.
- [2369] Multiple strings have been included in the reporting function, for MPM.
- [2367] Set default printer within the registry to fix "cannot draw canvas" error message when printer was not available.
- [1454] Fixed MPM intertier alarm creation.
- [2272] On check settings general tab, frequency now displays N/A.
- [2286] Added protection to stop endless resistance testing if wrong values are entered in battery setup.
- [2288] Added registry permissions for non-admin users.
- [2291] Added check for default printer on startup.
- [2294] Added more digits for float calibration.
- [2296] Improved uploading and updating calibration constants.*
- [2308] Added preventive maintenance report.
- [2313] Modem disconnection opens battery setup progress window so modem connection and battery setup can be recommenced.
- [2314] Enhanced timing in calibration to accommodate larger systems.
- [2325] Added date checking when saving base line cell voltage in ASCOMP.
- [2326] BMDM will change modem settings to be compatible if not set by default.
- [2336] Added 1X24X12 configuration.
- [2343] Added Check List to PM report.
- [2346] Added new feature to auto send emails with backup database.

- [2353] Improved new database creation to support PM reports.
- [2356] Added lower limit of 32 degrees to temperature thresholds.
- [2357] Calibration button on ASCOMP is always enabled.
- [2344] Improved timing when exiting from calibration.
- [2337] Added choices to check for load test mode or exit ASCOMP.
- [2357] Enabled calibration button when ADD value is within range.
- [2361] Added Multimeter, IR Temp Source, and Martel mV Source fields to ASCOMP.
- [2363] Added new "local" option on SQL Backup.*

Version 5.77

- [2246] Bar graph color will show proper threshold colors when stepping through historical datasets.
- [2241] In graph mode, when switching between multiple strings that have a different number of total cells, e.g. from 40 to 80 to 40, graph is now refreshed accordingly.
- [2240] Improved graph and report on screen previewing by using a temporary file to store the data. The software will not display the error message, "Cannot open clipboard."
- [2239] BMDM now applies violation threshold color when value is equal to the set value.
- [2238] Enabled Load button for diagnostics in MPMs.
- [2237] Improved graph scaling display when a resistance cell is too large and supersedes the graph on top by using the color maroon/dark red to indicate higher value.
- [2236] Alber's new logo added to the alarm reporting printout.
- [2234] Added display to show what dataset is used to apply the individual thresholds.
- [2233] Added display in ASCOMP to show the calculated current based on the shunt value.
- [2227] Added capability under diagnostics to detect if internal load bank is used on BDS series monitors.
- [2226] Improved Cell Resistance graph by using the average of the resistance values.
- [2222] Commissioning Reports can now be sent via email.
- [2218] Added new black color to bars to reflect when cells are negative.
- [2216] Individual resistance threshold settings are now permanently saved after clicking OK button.
- [2215] Improved individual resistance alarm thresholds to accommodate more than 100 cells.
- [2214] Added support for 16V batteries on Battery Setup.
- [2212] When default Battery Setup values are set in Celsius, then the values will reflect accordingly.
- [2211] Added Battery Setup, Diagnostics, and Calibration logging to the commissioning log file.
- [2210] Added more information about the battery to the commissioning report; Mfg. name, model number, install date, battery capacity, and avg Cell resistance.
- [2202] Added double checking when sending calibration factors.
- [2199] Perfected the XML code for the BMDM Java Applet; no typos.
- [2198] Trend screen now remembers previous trending settings.
- [2181] Alarm threshold values for individual resistance alarms reflect actual setting value.
- [2180] Removed global threshold line when using individual resistance thresholds since each has their own threshold line.
- [2179] Added ability to detect if DCM is running from the flash or prom.
- [2171] Improved the scaling on the Intercell resistance graph to a 20 ohms minimum.
- [2040] Added more explanatory text to the commissioning assistance pre-power check list.

Version 5.76

Bug Fixes

#	Information
[2170]	Diagnostics self test will display "n/a" for code space if controller 3.26 and DCM 3.27 or older are present.
[2169]	Step 2 under float current calibration text change in ASCOMP.
[2164]	BMDM now parses the java applet XML file for special characters.
[2161]	Changed default values for MPM discharge storage deviation under battery setup.
[2160]	Added average resistance test to battery setup.
[2159]	Improved diagnostics exit procedure.
[2158]	Extended intertier average test check box is now disabled under battery setup when intercells are present.
[2157]	Controller is sent all intercell settings.
[2155]	Total cell count value has been included in the ASCOM acceptance report.
[2151]	Saving changes in the string system information right after opening and viewing the ASCOM report now commits these changes to the database immediately.
[2150]	Cell memo notes can now be fully deleted.
[2148]	The ASCOM report now reflects if the CT polarity check is skipped and will display the word, "skipped."
[2147]	Increased "Save Baseline and Thresholds" window size within ASCOMP to accommodate the save button.
[2146]	ASCOM base data cell resistance window now shows the correct resistance average value.

Version 5.76

Bug Fixes CONTINUED

- | # | Information |
|--------|---|
| [2145] | The ASCOM report now indicates the location where the report is saved. |
| [2144] | ASCOM report shows individual intertier and cell resistance values on page 5. |
| [2143] | User is now able to see the entire Cell Resistance Thresholds values in ASCOMP under check settings. |
| [2142] | Individual Resistance Settings can be set and the cell number can be viewed fully when setting a cell to a different value. |
| [2137] | Disabled Remote the reporting option until Resistance Base data is sent in ASCOM. |
| [2136] | Added a black bar to indicate where intertiers are assigned. |
| [2126] | Individual intertier values are set correctly under battery setup. |
| [2034] | Improved diagnostics r-test in DCM to work when intercells are enabled. |

Version 5.75

Bug Fixes

- | | |
|--------|---|
| [2135] | Once a resistance test is completed and there is a cell with a really high cell resistance, the cell resistance threshold will be set to a high value, eliminating the 0 threshold setting. |
| [2128] | Cursor will turn to hourglass when saving the ASCOM Report. |
| [2127] | ASCOM will display hourglass cursor when sending serial numbers. |
| [2125] | Test current will no longer accidentally remain on while in ASCOMP or calibration. |
| [2123] | Serial numbers in ASCOM will no longer cause communication to stop. |
| [2122] | Added new resistance test algorithm that will compare each reading to a dynamic baseline and retest the cell resistance up to four times if outside a tolerance. |
| [2120] | Calibration constants can now be sent when less than .001. |

- [2119] Software enhancement, a specific DCM can be chosen in the Setup/Calibration window via arrow keys and this DCM # now coincides with the send button located at the bottom of the Setup/Calibration window.
- [2118] Float current is now calibrated by entering the millivolt value rather than the milliamp value.
- [2116] Once ASCOM is completed, the Continue Later button has been updated to state, Exit.
- [2115] Default Alarm Threshold count in Preferences is now set to 1.
- [2114] The location and battery name now appear on cell trending graph.
- [2113] Added an MPM-100 2X20X1 configuration support
- [2112] MPM ASCOM no longer displays post power check.
- [2111] When system is being calibrated or is in diagnostic mode, message windows will now alert users trying to access the monitor from other PC's.
- [2107] BMDM now polls for color changes to display contrast text in string status if the preference is checked and colors are chosen.
- [2106] ASCOM information is incorporated fully into the SQL database when it is created. (SQL)
- [2105] Actual millivolt level is now entered into ASCOMP instead of Milliamp value.
- [2103] Auto send time is now displayed in all modes on all computer types.
- [2102] Deleting a string now deletes all pertinent string information for the deleted string and no longer displays an error message.
- [2101] Added a new resistance average resistance test: extended.
- [2095] Improved performance of the CT polarity test.
- [2092] Text changes have been made in resistance test windows to better reflect Alarm Levels and Cell Resistance.
- [2091] Double-click functionality has been removed from save cell voltage in base data section of ASCOM.
- [2086] RTM serial and model number are no longer swapped.
- [2084] Extract all works even if Current Alarm window has been accessed. (SQL)
- [2083] Commissioning date and time have been added to ASCOM report.
- [2082] Day Interval in Test Parameters stays constant.
- [2079] Enhancement on sorting within the database; string names are now the second qualifier when sorting within the database, thus displaying string names in ascending order.
- [2078] Baseline average resistance test now displays in the parameters window within battery setup.
- [2077] ASCOM Intertier tolerance +/- value has been reduced to show more accurate tests.
- [2076] Intercell Values are saved with a minimum value of 4. Cells with a intertier will be set to 0.
- [2072] Calibration functionality has been enhanced to accommodate multi-stringed MPM systems.
- [2064] Warning messages have been added to verify string names/data for more accurate data/string display within the software.
- [2062] When DCM firmware upgrade cancelled the pass screen will no longer be displayed.
- [2060] ASCOM/Base Data – Cell R now saves the battery cell resistance thresholds chosen in the Save base line and send thresholds window. The original settings within battery setup are now overwritten.
- [2059] Controller serial number will always be written/read from string 1 of the controller and will be visible on all other strings.
- [2058] New scripts have been added to incorporate all 'user' tables and subsequent information for better accuracy.
- [2054] ASCOM resistance base data defaults to the last set of data obtained to be able to better observe thresholds.
- [2053] Intertier calibration Constant is now displayed correctly on Commissioning Report.
- [2052] Text changed for better accuracy within software when upgrading controller firmware, from

- "Upgrade Firmware," to "Upgrading Controller Firmware."
- [2050] Firmware and serial number information reflects on commissioning report.
- [2041] Corrected instructions on Float Current Calibration window.
- [2035] Cell detail date displays accurately in offline mode.
- [2033] ASCOM Report shows intercell values, thresholds and charts via enhanced base data window within commissioning report.
- [2031] Pre-power Check Form rich text error has been addressed by removing special characters.
- [2029] Once Voltage and Resistance Base Data has been captured, now displays verification on the Commissioning Report; commissioned/not commissioned.
- [2026] Added a field to the Self Test/Diagnostics window to show where the firmware is running.
- [2024] Under Check Settings, the intercell setting is transferred to the database during upload.
- [2023] Individual Cell Resistance Threshold is now enabled under Float Alarms under Battery Setup.
- [2019] SQL mode stays constant upon failure to connect at startup.
- [1998] Memo field is a different variable for more space for characters.
- [1955] Location and Battery Name were added to the top of the report within the Alarm View.

Version 5.74

Bug Fixes

- [2017] DCM Serial number now has ability to be changed.
- [2016] Added RTM serial number in commissioning report.
- [2003] Location now appears with string name for emailing capabilities.
- [2002] Added CT polarity check to load module dialog.
- [2001] BMDM will disable the day interval feature for controller versions lower than 3.16.
- [2000] Added intercell capability to the ASCOMP.
- [1999] When using the ASCOMP on databases that were created with software pre-ASCOMP, credit for the pre-power checks will be given.
- [1990] Changed text to "cells per string" field heading on system setup and battery setup.
- [1971] Added a print function to the historical events screen.
- [1970] Added location to string selection under historical events filter selection

Version 5.73.19

Bug Fixes

- [1982] All database fields i.e. location, battery, and customer are correctly displayed with a new empty database.
- [1981] Fixed battery setup from ASCOMP when you send battery setup from thresholds.
- [1976] Added global alarm reset to main status screen.
- [1975] DCM firmware version on self test is now displayed with the dot to indicate release version.
- [1974] DCM firmware now upgrades without errors; 5.73.16 contained errors on upgrade.
- [1973] Default sort on the historical events now shows most recent events at the top of the list.
- [1972] BMDM no longer keeps polling for check settings after it has been closed.
- [1969] The user will not be able to exit the screen until done polling when resetting alarms.
- [1968] Added message notifying that there are no new resistance readings.
- [1967] Added ability to send zeros on calibration screen.
- [1960] Added new configuration 1X86X1 for MPM.
- [1959] Added ripple frequency to check settings screen.
- [1951] Added date picker for all dates.

Version 5.73.16

Bug Fixes

- [1942] High string current alarm now shows on alarm screens.
- [1911] OV on BDS-40 is always configured to be enabled now. Previously it was possible to disable it.

Version 5.70

Bug Fixes

- [1864] When resistance readings are deleted, they no longer remain in the list.
- [1859] Added a date picker for all date entry fields.
- [1629] In Trend reports for V and R violations summary, the cell number is no longer off by +1.
- *[1598] When changing temp units to Celsius, the unit no longer is indicated as (F) on the float alarm tabs and calibration screen.
- [1815] When in User mode, users are no longer duplicated on login.
- [1776] SMTP settings are now global for all users. Now, when a different user logs in, the SMTP settings will not have to be reentered for that user.
- [1765] When manually saving a history record, it would force a -50ma value for the float current. The float current now displays the correct value.
- [1742] After deleting history or resistance records, the screens showing the records are now refreshed to show the deleted items.
- [1727] Limited the number of data points to 8000 points. This allows records to be viewed in discharge mode, so they can be deleted.
- [1723] MPM Check Settings with firmware 2.11 now works correctly.
- [1698] When an alarm occurs on the digital I/O's, the name programmed under Battery Setup shows up on the Current Alarm list.
- [1685] When Remote Reporting is disabled, Report Option now shows "N/A" in Check Settings dialog.
- [1620] If a DCM upgrade fails, the menu items Upgrade Firmware and Upgrade DCM Firmware are no longer disabled.
- [1603] Users can now change their password without having Admin rights.
- [1592] Calibration status is checked when connecting to a string from another computer. This grays out calibration on the computer and limits calibration to one computer.
- [1502] When in User's mode, the Login screen is no longer hidden in the background. The login screen is now drawn after the Status screen.

[1495] Program now checks to see if a temporary folder for database backup is present. If not, one is created.

Enhancements

[1877] Under Diagnostics, the warning message for clearing memory now reads, "All recorded battery data that is stored in hardware memory, including History, Resistance, Discharge and Alarm data, will be erased."

[1876] If Admin is selected under User Rights, the program automatically selects all items for access.

[1874] On the top of Trend screens that show the cell number, the title is "Cell # of "string name." Now displays "Cell # in string 'string name'."

[1873] Added some details on Battery Setup when using a BDS-40.

[1872] Changed title in Trend graph from "Discharge Current" to "String Current."

[1855] Suppressed message "No workstation assigned" when running as a service.

[1848] Added an "All Strings" selection for string selection for control outputs.

[1820] Added confirmation message when upgrading DCM or MPM firmware.

[1669] Added temperature reading to discharge reports and playback.

*[1301] BMDM now displays a warning message when sending calibration if any assigned parameters have a calibration constant of zero.

[1790] Intercells are disabled on the Calibration screen when not present in the system.

[1768] The user is now prompted to enter a password when upgrading firmware.

[1762] BMDM is only allowed to run one instance at a time.

[1731] Changed wording from "discharge current" to "string current" on the Location View screen.

[1724] Added check boxes for the DCM selection for Overall Volts, Float Current, and Discharge Current under battery setup.

[1738] Data extraction can now be set to a specific time of day rather than being fixed at midnight for the central PC or 10:00PM for a Local PC.

[1712] Added the ability to include cell memos on detail reports.

[1710] Added the database path to the title bar of the Status screen.

[1707] All columns are displayed by default on the Status screen for new installs.

[1701] Removed "Start at Cell#" and "Multiple String Setup" under System Setup and added "Start at String#".

[1680] Auto send time is checked by default for new strings.

[1664] Maximum value for intertier threshold is now 31999, not 32767.

[1663] Graph text for Location View and all reports has clearer text on the vertical axis of the graph.

[1650] Moved the default tab to the General tab when entering Battery Setup.

[1644] Reduced the number of bad data / communication time outs when connecting to a string.

[1638] When maximizing the Status or Location View windows, the window now covers the entire viewable portion of the screen. String status on the bottom of the screen is no longer clipped.

[1619] When the message "String needs to be set up" appears, the Check Settings screen no longer pops up.

[1618] For BDS-40 configurations, intercell selections under Battery Setup are no longer shown.

[1604] Login now shows the last user as the default login the next time someone logs in.

[1602] When selecting the resistance tab and no new data is available from the hardware, "Open the last dataset from the database" is displayed instead of the "No new resistance data is available" message.

[1601] For BDS-40 systems, the tabs under Battery Setup and Check Settings for digital inputs or control outputs are now hidden.

[1600] When connected to a BDS-40 in the Calibration screen, the Overall Voltage and Intercell Connection are now disabled.

[1573] On monitor connection type dialog under configuration station, text help fields are no longer editable.

Features

- [1871] Added high discharge current event for alarms.
- [1853] Added 1X23X2, 2X23X2, 3X23X2 and 4X23X2 configurations.
- [1851] Digital Output added for MPM.
- [1850] Added high discharge current alarm threshold.
- [1743] Status color threshold is now adjustable.
- *[1738] Data extraction is now time adjustable.
- [1812] Added 1x29x4v to MPM configurations.
- [1811] Added the ability to alternately view the Status screen by customer, location, battery, and string by pressing F3.
- [1804] Added a selection on the trend graph screens that activates a rolling average.
- [1802] Added the float current reading to the history record so it shows on the detail voltage report.
- [1737] Added the ability to set the resistance test and historical test to either an absolute date or an interval for both the MPM and BDS series monitors.
- [1704] Added a function under Memory diagnostics to clear configuration data. This is equivalent to cycling power while holding the Controller internal reset button.

- [1700] Added digital I/O alarm selection to reports.
- [1699] When defining names for the digital I/O's, they appear on the drop-down list for the Triggers selections for the Control outputs.
- [1670] Added a button to select the ripple frequency of the system.
- [1614] Pressing F5 key when in String View toggles the color of the cells that have memos.
- [1605] Administrator can force user to change password on next login.
- [1599] A new date picker has been added for installation date.
- [1597] Placed a "Lock Scale" button on the Trend graphs so the scaling of the graph can be locked to a min/max value.
- [1562] Implemented a new resistance trend alarm feature. A new input screen was added to battery setup / float alarms /cell resistance.

Released Version 5.60

Enhancements

- [1634] Added support for 1X36X1 and 2X36X1 configurations for MPM.

Released Version 5.59

Bug Fixes

- [1571] Historical alarms will show complete list. Previously, if start and end dates are corrupted, they would be excluded from the list.
- [1569] On discharge report, cell memos show for the cell selected only.
- [1567] Discharge view now saves report setup.
- [1563] Alber online has been added to Help drop down menu.
- [1553] When setting up a new database, the default setting for acknowledge mode is reset mode.
- [1551] The Check Settings now contains the alarm acknowledge mode.
- [1548] You can now right click on the string and have an option to connect to it.
- [1545] BDE configuration now has the right dll setup.
- [1531] Database range dialog now has a Cancel button.
- [1505] Default install date under System Setup is now today's date.
- [1498] Previously, password would become active if canceling out from the System Setup without a valid password entered.
- [1479] Fixed erroneous error message when screen updates.
- [1476] DCM numbers can now be higher than 2.54.

[1460] End of discharge values now has the correct value.

Released Version 5.58

Bug Fixes

- [1508] Extended intertier averaging to Battery Setup under Test Parameters.
- [1489] Discharge report string memo now shows for only the selected string.
- [1486] Discharges without data no longer cause error.
- [1485] Added time to the string in Cell Memo view.
- [1484] Wider status field on the bottom of the String Status screen.
- [1483] String memos now import from monitor.
- [1471] MPM now supports LGS.
- [1459] Intertier trend report now uses predefined thresholds for violation checking.
- [1458] Temperature trend report now uses predefined thresholds for temperature violations.
- [1457] Summary report temperature status now uses all temperature probes.
- [1456] Fixed alarm reporting. It now shows all temperature probes.
- [1455] String memos for all strings are no longer included on report when doing report on one string.
- [1428] "Total alarm number" under Current Alarms is now correct.

Released Version 5.53

Bug Fixes

- [1445] The last cell resistance in the resistance detail report no longer shows a low value.
- [1444] Can now load IDAPI service library: alias MPM3. Previously, the BDE had to be configured manually.
- [1443] No longer gets the list index out of bounds when doing a cell detail report.
- [1433] Network socket connection changed to three attempts to help eliminate network errors with the SNMP agent.
- [1430] All report setup options now have a "confirm to save" when changed.
- [1427] Polling Status on bottom of status screen (main window) now shows after manual connection if only one string is being polled.
- [1422] MPM temperature probes 2 to 8 can now be calibrated.

Released Version 5.45

Bug Fixes

- [1409] The intercell resistance bar graph number of cells is now correctly calculated and displayed. It was previously one count off.
- [1404] You can no longer activate the Send button under Battery Setup while connected offline. This is important when setting up sites offline.
- [1403] Discharge alarm events no longer continually get added to the historical alarm events if the alarm hasn't been cleared.
- [1402] The communication status at the bottom of the string status screen no longer constantly displays "rebooting firmware" after performing a firmware reboot on an MPM-100.
- [1400] The correct resistance readings now display when changing strings from the drop down list on the String Status screen. Previously, old string values remained if a new string was selected.

Released Version 5.42

Bug Fixes

- [1396] Alarm event for discharge had "Active" for its detail. The event now has "Discharge occurred" as its detail.
- [1381] Float current threshold is now correct for Check Setting uploads.
- [1042] Changes were made to the A/D Ref to make Temperature Calibration more linear.
- [1380] Wizard support was added to the program, and a Wizard menu item was added to the Setup menu.
- [1379] Changes were made to the A/D Ref to make Temperature Calibration more linear.

- [1378] Added new MPM configuration 1x9x12V.
- [1373] CPU no longer goes to 100% usage when the E-mail option is enabled. The E-mail thread was consuming all the processor's time.
- [1362] Cell voltages are polled when switching between strings in resistance test.
- [1360] Total cell count can be set to zero in Battery Setup.
- [1355] 'List Index out of Bounds' message appears when connecting to a string when there is a communication failure.
- [1349] After upgrading DCM firmware, the String View screen updates without reconnecting.
- [1348] Excessively large resistance values are excluded from the Summary report.
- [1344] The digital input NO and NC settings are no longer reversed between Battery Setup and Check Settings.
- [1341] The Cell Voltage graph in the Cell Detail report no longer shows a range for overall volts (OV) when in auto mode.
- [1331] Both Customer and Location can be selected for reporting destinations on the Reporting tab for fax and email.
- [1322] Cell voltages on the Summary report no longer have a negative sign.
- [1321] The last cell bar is no longer missing when viewing readings on an MPM 4X4X12V.
- [1320] After correcting BDS-40 voltage problems and clearing the connection warning message, the voltages update.
- [1319] Can exit while an automatic resistance test is in progress.
- [1318] Intertier resistance readings properly update when switching strings in String View.
- [1316] Auto summary report functions correctly..
- [1315] On the Cell Resistance Trend graph, values under Alarm Threshold display in green instead of blue.
- [1293] String View can be exited during a resistance test
- [1292] After clicking in Number of Strings on the Battery tab of System Setup, you can exit without entering a number.
- [1290] The float current reading no longer changes to an alarm color if the value is negative. This is a discharge condition, and it is normal for it to be high.
- [1275] The resistance test in the DCM shows intertier values.
- [1265] If there is a time but no date in the Alarm Events table, the program no longer locks up on boot.
- [1235] On Current History Alarms, End Time no longer changes to Reset Time.
- [1151] Historical alarm date filter fixed.

Enhancements

- [1369] BDS configuration 161 added in System Setup.
- [1352] Auto send time, selectable by string and hour offset, was added per string. Battery Setup / General has new fields added: Auto Send Time and Time Difference (hours).
- [1351] Added support for 1x38x1,2x38x1 for MPM.
- [1339] Added support for 1x56x2V in MPM.
- [1337] Invalid data alarm event limited to one event per day per string.
- [1334] Controller upgrade changed from file mapped to memory mapped.
- [1333] Support for LGS added.
- [1325] If communication is lost, readings clear from the screen.
- [1323] If an excessively large resistance reading exists, the message 'Too Large' appears, rather than displaying the large number.
- [1314] Cell Voltage and Resistance Trend graphs no longer open in full screen.
- [1276] Auto-generation of bds.xml file added. The file generates every time a database is opened or changes are made in System Setup or Battery Setup.
- [1087] Help file installed.

Released Version 5.22

Bug Fixes

- [1272] HHMMSS no longer lost on Summary Report Setup screen.
- [1271] Contact List Alarm Reporting no longer shows Location name as Contact name.
- [1252] Battery Setup now exits properly with 0 in the Peukert amp hours.
- [1241] System Setup no longer allows duplicate strings names.
- [1230] Displays warning level correctly for float current readings.
- [1229] Older discharge data is viewable.
- [1228] The scale is correct on the Voltage Trend.
- [1226] HHMMSS no longer lost on Summary Report Setup Screen.
- [1225] The string name appears on the Tech Summary report.
- [1224] New discharge times are editable on Technician Detail Summary Report Setup.
- [1223] The correct file extension appears on all report screens for archive saving.
- [1222] The names "String Name" and "Starting Date" that were gray on the Discharge Summary screen have been deleted. They were the wrong labels.
- [1213] For MPM digital input alarms, the alarm name matches the name entered in Battery Setup.
- [1212] In MPM Check Settings, clicking Upload no longer erases Digital Input names.
- [1210] Item names on the Reports Discharge screen match tabs on the Preview Report and All Discharges pages.
- [1209] The title bar on the View Load Tests screen no longer reads 'All Discharges.'
- [1208] After a BDS resistance test, the Date Tested is no longer missing from the bar graph screen.
- [1205] Selecting Reports-Generate-Yes no longer locks up the program if the pdf file is not found.
- [1201] Setting Cell # Label Start on the Battery tab of System Setup to the most negative cell no longer causes a divide by zero error during Check Settings.
- [1200] Modem hangup works correctly.
- [1193] Duplicate names on the Contact List page not allowed.
- [1189] The intertier alarm threshold for the MPM can be set.
- [1182] On Discharge replay, cells dropping below threshold correctly display in yellow.
- [1181] Intertier and temperature values are correct in Summary reports.
- [1180] Resistance bar graph values above 32000 no longer affect graph scaling. They will be cut off.
- [1179] After a Diagnostic resistance test in a single DCM, the screen displays the correct title instead of 'Diagnostics' when strings are switched.
- [1178] When the voltage or resistance screen opens with a blank display, yellow characters no longer appear on top of the low cell alarm line.
- [1177] Auto polling pauses during firmware upgrade to prevent lockup if an alarm event occurs.
- [1131] Intertiers on all DCMs no longer gray in the Calibration screen if there is no intertier on the first DCM of the string.
- [1126] The Intertier Trend graph no longer changes to log scale when the Y axis scale is increased.
- [1106] Must wait to switch strings until Diagnostics has sent the command to start scanning.
- [1104] The date no longer displays above the date selection window on the String Memo screen.
- [1057] The program no longer locks up when exiting Battery Setup offline.
- [1049] New report added for intercell readings in Report/Detail.
- [1046] Discharge Curve graph scaling is correct.
- [1043] Conflicting duplicate database names can no longer be created in System Setup if using defaults.
- [994] The end voltage displayed was not the actual end voltage of the cell during the discharge. Now, Cell Summary shows the lowest voltage, not the end voltage.
- [929] When a discharge current channel was not defined for an MPM and a discharge was played back, the elapsed time, discharge time, and OV did not display. Now, if no load current is present, the Summary graph shows OV.

Enhancements

- [1270] Can exit the Contact Info page without saving.
- [1267] Domain name added to email setup for cases when the From name is not the same as the domain name.
- [1254] When there is a DCM communications error, a warning message now indicates that settings are from the Controller.
- [1253] Bad cell connection now gives a string status of 'Bad Cell Connection' and a monitor status of 'Check Wiring' and warns that R-test, load diagnostics and test current calibration is disabled.
- [1240] The PCB Revision deleted from the MPM Self Test Diagnostics screen.
- [1238] After resetting the alarms, the Current Alarms screen immediately appears.
- [1195] Name on the Contact List can be assigned call priority by dragging the row indicator at the left of name to the position desired.
- [1083] OV is included in the Cell Detail report.
- [1082] Average Cell Resistance added to the Resistance Detail report. Average Cell Voltage added to the Cell Voltage Detail report.
- [1058] To ensure Discharge remote reporting is set, Critical level is also set.

Released Version 5.20

Bug Fixes

- [1194] After a Check Settings upload, the DCM arrow buttons function properly.
- [1124] After DCM firmware upgrade, cell voltages now update.
- [1092] Modem dial out and hangup problem fixed.
- [1079] Netmask field defaults to zeros instead of blank.
- [1074] Cell voltages update in Discharge view during a load test.
- [1070] The Delete key works in String Memo.
- [1069] When in System Setup and setting up multiple strings on a battery, the string number for the last string set up is correctly saved.
- [1067] The cell voltage bar graph alarm colors match the firmware hysteresis.
- [1063] The Calibration screen no longer closes until the calibration constants (K-factors) are sent.
- [1062] Service location displays "This string needs to be set up" if there are no names in the monitor.
- [1060] Check Settings window opens when service location is connected.
- [1059] Modem connect time increased from 30 to 90 seconds.
- [1056] Cell voltages update if the Discharge window is exited before getting all discharge data.
- [1054] The password is unique to the database. Previously, you could get around the password by starting a new database.
- [1050] The password for Check Settings is the System Setup password.
- [1045] The Discharge Curve timeline reflects the number of seconds, not data points.
- [1040] Cell Memos can be filtered by cell number in Trend reports.
- [961] Name error no longer occurs when connecting using a service location.
- [945] Added configuration 1X88X1V for MPM-100.
- [928] Alarm detail in events screen now updates.

Enhancements

- [1160] Contact and Contact List reporting added on a per string basis. Contacts and contact lists are global to the database. Contacts can be scheduled for reporting. The contact list has four modes: contact all, contact all available, contact first available, and alarm acknowledgement.
- [1159] Added Summary Detail and Executive Report generation. A Central computer generates a report for all strings at 3AM when enabled.
- [1137] A new message indicates Check Settings calibration constants are in the Controller when there is a DCM communication error.

- [1107] The minimum discharge current threshold is 1, not 0.
- [1103] The Discharge Duration field is hidden if not supported by the firmware.
- [1077] When sending the IP Address to an MPM, communication status no longer incorrectly indicates bad data or communication timeout.
- [1071] When connected to a BDS controller and saving a string memo, the message 'All string memo info in MPM will be overwritten' has been corrected.
- [1068] Voltages for 8 and 12 volt modules display to two digits only.
- [1065] 'Extract All Data' menu item added to the File menu in String View.
- [1359][1317][1291][1211][1190][1152][1269][1239][1237][1192][1191][1188]
[1184][1274][1266][1236][1234][1214][1158][1157][1144][1078] Internal memo.

Version 5.10b3

Bug Fixes

- No longer get Bad data communication status or communication timeout error when sending the IP address to an MPM.
- Cell voltages were not updating if the Discharge window was exited before getting all discharge data. Discharge data extraction now stops if exiting Discharge View screen. This allows cell voltages to update immediately.
- Password for Check Settings is now the System Setup password.
- Discharge Curve timeline now reflects discharge time, not data points.

Enhancements

- Net mask field no longer required for non-IP Address strings.
- For 8 and 12 voltage batteries, the voltage is now only displayed to two decimal places, not to millivolts.
- Wider hysteresis added for color thresholds on Cell Voltage bar graph.
- Service location now displays the message "This string needs to be set up" if there are no names in the monitor.
- Check Settings window now opens when connecting with a Service location.
- Cell Memos in Trend reports are now filtered by cell number.

Features

- Extract All Data menu item added to the File menu in Location view.

Version 5.10b2

Bug Fix

Random modem hangup problems have been addressed.

Version 5.10

Bug Fixes

When connected to a BDS controller and saving a string memo, the corrected message now appears, "All string memo info in BDS will be over written."

The string number on the String tab in Location Setup now is always saved.

Calibration constants would not send if the Send and Close buttons were clicked too soon. The screen now will not close until the calibration constants are sent.

Enhancements

Delete key now deletes a String Memo in Memo view.

Modem connect time increased from 30 seconds to 90 seconds.

Password is now disabled when opening a new database.

Version 5.00B26

Bug Fix

Cell Voltages now update in Discharge View during a load test.

Version 5.00B24

Bug Fixes

The calibration factor for test current was previously not sent or saved. MPM no longer displays a DCM communication error.

Version 5.00B23

Bug Fixes

Change connected Communication status from "hanged up" to "hung up."

DCM number did not advance on Float Alarm tab in Check Settings.

Location view didn't display logging discharge status when controller was retrieving data.

Features

Added the ability to remove cells from the cell list created using Click+Alt. You can now remove a cell not wanted in the watch list.

Added support for eight temperature calibration constants for new MPM firmware. The software now looks at the firmware version to determine if it has eight temperature constants.

Version 5.00B22

Bug Fixes

The History Alarm didn't show the end date/time if the alarm was not reset or latched. The date now shows for these alarms.

Log parameter for overall voltage for discharge was not sent during battery setup. The log for OV is now in hundreds of millivolts, not in millivolts.

If the last opened database was deleted or moved, the program would error out and wouldn't open another database.

The Discharge report showed power as a negative value.

The Discharge Report Summary section showed two OV@30. Changed the second OV@30 to ACV@30.

The Discharge Summary page showed the wrong temperature probe values. The temperature displayed "32" instead of the true temperature for a one probe system. In more than a one probe system, the last reading was always 32. This fix only works on discharges polled with this version. Discharges polled with previous versions will still show incorrect values.

When viewing Float Voltage History in Location View, current is no longer displayed.

Version 5.00B21c

Bug Fixes

When setting the BDS default values, the threshold levels for the alarms were not preset like in previous versions.

The BDS configuration number was off by 1 for new strings when selected in Location Setup. If Check Setting was done and uploaded, this would set the correct configuration number.

Calibrating new databases or calibrating new strings added to existing databases no longer overwrites calibration constants.

Version 5.00B21b

Bug Fixes

In Calibration, when calibrating cell voltage, the polling status display was one cell number off.

Calibration factors were updating before Enter was pressed. Calibration factors now are calculated after Enter is pressed.

The Save As command was corrupting the database if the name entered was the same as the open database. Save As no longer allows the currently open database name to be used.

Names 20 characters long caused an error message when connecting or polling. This no longer occurs.

The backup data base function was not working. When selecting File|Backup Database, it was creating an empty file.

Enhancements

On the Communications Setup window, Force All Strings to Direct Connection now filters strings by network or modem connection in the string selection box in System Setup View.

Features

Battery setup now shows a progression bar during download. If an error occurs, a message will be displayed.

Location View has two new buttons, Previous String and Next String, to change the currently connected string. Also, the Page Up and Page Down buttons now change the current string. The Enter key always goes to the next string.

Version 5.00B21a

Bug Fixes

The wrong threshold values were being used for display during discharge. During a discharge, the bar graph and parameter text colors now use values from the problem discharge thresholds.

The invalid network port error message appeared when saving the Link tab in System Status without an entry in the field. New strings now default the port number to 502.

When configuring for a network connection in System Setup, if there was no netmask, an error message displayed when attempting to save. Because the netmask is not always required, new strings now default to 255.255.255.0.

Now can change the password in the Controller in Battery Setup.

Features

Added the ability to enter a decimal value when calibrating intertier and intercell.

Could not get the voltage historical reading from the monitor while connected to a string. Added menu item Extract History under the File menu to retrieve historical voltage readings.

Enhancements

Communication time for direct connect and modem was changed from 3 seconds to 6 seconds to reduce time outs on Check Settings.

False Actual Reading and Measured Value were displayed in the Calibration screen (Test Current only).

When clicking in the Measured Value field for test current, a Measured Value of 30.8 amps was automatically entered. Test current is no longer calculated upon entering the field.

Check settings took 1.5 to 2 minutes to get data. Was displaying Comm Timeout 1 until data was retrieved. Changed Communication Time for direct connect and modem from 3 seconds to 6 seconds.

Increasing time value causes time outs on check setting to be lessened.

Version 5.00B21

Bug Fixes

When the DB range was set to the last time period, the start and end dates were set when this option was selected. After one month, the start and end dates didn't update, the last time period was off by one month, and the last month's data was not shown in reports.

After a resistance test was performed, the cell voltages would not update until you exited the string or switched strings and then reconnected.

Overall Voltage (OV) didn't show discharge alarm level colors in the discharge replay summary area.

When setting threshold levels to override the preset levels in the discharge view screen, the overall voltage field in the replay screen didn't alarm (change color) when below the threshold.

Extracting Discharge Data from a multi-string MPM was saving all data to string 1 on the MPM.

The Actual Name in the name error window was incorrect. The name displayed was the name from the database, not the hardware.

Discharge View Summary for cells did not show cells below threshold. If, in the report section, Auto Select was not set, the summary page did not show any cells.

Discharge replay option showed 3 digits instead of 4 for current. The component was set for 4 digits, including the sign character (-), causing -1600 amps to read -160 amps because the sign took one character.

Overall Voltage and Discharge Current stopped updating during a discharge. If a communication error occurred when polling OV/DC, the flag to update them got cleared and was never set again.

Features

All threshold violations now change background color instead of text to make the text easier to read.

Enhancements

Diagnostics load test step duration was too short. This didn't allow enough time to measure the reading.

Version 5.00B20b

Bug Fixes

When there was no intercell data present when generating a Summary report with Threshold Deviation enabled, a list index out of bounds exception error occurred if Intercells was enabled.

The Resistance Test in DCM was not sending the DCM number to the Controller; thus, the test was always being performed in DCM 1. GET was starting the test again. This was also causing the load module to pull in random relays.

Enhancement

Program would not run with Spanish OS. Program location now allows directory path to be stored at any location.

Version 5.00B2

Bug fixes:

The installation date under system setup will no longer return to an invalid date.

When viewing history records, the overall volts and discharge current will no longer update.

Corrected the value displayed on cells past cell 9 in discharge playback mode. Previously, when you clicked on a cell in the discharge replay, the field that displays the value is too small. You would have thousandths up to cell 9, hundredths from 10 to 99 and tenths from 100 and above.

Intertier threshold can not be set for intertiers above intertier 1.

On the summary report, thresholds in the deviation report no longer fail if intercells are enabled.

The alarm cell number in alarm detail listings for low cell voltage, high cell resistance and intercell will now report the correct cell number.

Version 5.00B19

Not released

Version 5.00B18

Bug fixes:

The "Hide Alarm Reporting Window" now correctly shows its setting. The check box was always showing it selected.

The selected cell under calibration is now correctly selecting the appropriate cell. Previously it was off by one.

When BDS defaults is selected under battery setup, the total Cell number was not shown.

When entering a field under calibration, the software would calculate the current value based on current K factor and A/D counts. This is now disabled.

Can now calibrate temperature. DCM number was not being sent to controller.

Enhancements

Added the open history button back to the location view screen.

Selecting tabular or graph preference is now saved to the registry so it will remember the settings.

Version 5.00B17

Bug fixes:

Changing the cell thresholds under the discharge playback will now take effect as soon as they are entered. Previously, you had to exit the screen and then re-enter before seeing the change.

Enhancements:

Added preference to disable the alarm reports pop up. This selection is located under the preference settings.

Version 5.00B16

New Features

The following features have been added for Polling:

- Extracts historic float data, resistance data, and discharge data on demand for the entire system or on a per-string basis.
- All remote sites connected via modem can be called on demand for present status and alarm events. Can be done for the entire system or on a per-connection basis.
- Polls all modem strings connected to the same modem with a single phone call.
- Can force all connections to a direct connect port. Useful when using a service or local computer on a temporary basis.
- A dial prefix can be assigned to the modem port. The prefix does not have to be embedded in the database.
- The port number assignment is increased to 16 for modem and direct connect.
- Can enable or disable polling on a per string basis. This avoids error messages when a system is known to be off-line.
- Communication setup is now stored in the registry, not in the database configuration file.
- Communication/ polling status area now gives more detailed information about names, connection status and errors.
- Can use two modems simultaneously. This allows polling and remote reporting.

The following features have been added for Reports:

- All report generator reports are accessible through the location view (string view) screen.
- All trend graphs can be printed.

The following features have been added for Alarms:

- All alarms that occurred are viewable in the Alarm Event screen.
- There are now separate alarm event screens for paging, faxing, and printing.

The following features have been added for the Database:

The database can be backed up on demand.

The following miscellaneous features have been added:

- Smarter graph and cell layout.
- Tab page view for location view (string view) screen.
- Improved discharge playback.
- The Windows short date format is used for all displayed dates.

Bug Fixes

- The program no longer locks up when polling under Windows NT and XP.

Version 4.11B8

- Added new configuration for MPM-100 - 1X54X2 .
- Improved float current resolution.
- Discharge multiplier will not affect float current reading now.

Version 4.11B4

New Features

- Added one 1X90X1 MPM-100 configuration for Nicad's.

Bug Fixes

- Corrected resistance test algorithm for systems reading 4V modules.
- Corrected functionality when using dual modems for dialing and answering monitor calls.

Version 4.10B1

New Features

- Now has multi-language support. Current languages supported are English, Spanish, Chinese and Korean.
- When entering system setup, a valid password must now be entered. The default password is alber. This password only stays active for five minutes.
- Now supports settings for Netmask and Gateway for network setup.
- Added ability to adjust the scaling for all the trend graphs.
- Added the ability to support float current readings on the BDS system. This does require the new version of the DCM hardware and an optional float current transducer.
- Added a feature to allow renumbering of cells in reverse order. This is used when cell 1 is the most negative instead of the most positive.
- Local computers can now be set to auto extract data. This will allow Local PC's to have the same data as the Central PC. This auto extraction will only take place once a day at 10:00 PM.
- Trending feature has been added for intertiers.
- Now supports all functions for intercell readings. This feature does require optional hardware.
- Added support for new MPM-100 hardware. This includes the following features and configurations:

Features:

- 4 additional intertiers. (8 total and may require optional hardware)
- 7 additional temperatures. (8 total and may require optional hardware)
- 4 float current channels.
- 40 additional cell inputs.

Configurations:

- 1X13X2
- 2X13X2
- 3X13X2
- 4X13X2
- 1X26X1
- 2X26X1
- 3X26X1
- 1X41X1
- 2X41X1
- 1X10X1
- 2X10X1
- 3X10X1

4X10X1
1X80X1
1X92X1
1X96X1
1X97X1
1X58X2
1X15X8
2X15X8
1X25X1
2X25X1
3X25X1
4X25X1
1X4X6
2X4X6
3X4X6
4X4X6
3X24X2
4X24X2
2X20X1
3X20X1
4X20X1
1X23X2
2X23X2
3X23X2
4X23X2

Enhancements

- When names do not match when connecting, the error message will have a button called Ignore. This allows the names to be changed by resending battery setup.
- No longer gets name errors when connecting to other strings using the select string button via the network.
- The current record on the Historical Events screen no longer changes during auto polling.
- Now displays the name of the filename when performing a firmware upgrade.
- The cell data pop-up box is now cleared when exiting the trend screen.
- Improved auto polling time for checking discharge data.
 - Duplicate discharge records no longer are created in database.
- The diagnostic or calibration screens are now disabled during a discharge or resistance test.
- If the page was unsuccessful after three attempts, a "page fail" status is displayed in Historical Events.
- Now supports an internal network card for BDS series monitors.
- The Alpha pager now reattempts up to three times if a paging error occurs.
- Extended the string name character count on the string status screen to match that under system setup.
- Now disables the start resistance test button while retrieving data.
- When adding new strings, the Historical log, Resistance test, Load test intervals and float alarms are now set to disabled as the default.
- A cancel button now exists when performing firmware upgrades.
- Added String ID, Customer name, Current string status and Monitor status to Alarm print out
- When performing a check settings upload, the Telco MUX enable/disable is now transferred to the database.

- When starting the software, the Access driver is automatically configured to IDDA3532.dll. If this was changed, the program restores it to the original setting when exiting the program.
- Changed the existing time-out of 60 seconds to 90 seconds on the PC modem. This helps with international connections which can take a long time.
- Added DCM comm error to the summary screen on the status screen.
- Increased the station phone number by one more character.
- Changed some of the firmware upgrade reboot messages to be more descriptive.
- Added String ID, Current string status and Monitor status to Alpha pager.
- When "Set BDS Defaults" is selected under battery setup, it now defines the discharge thresholds.
- All the cells and overall volts will not go to yellow when a discharge is in progress. When system is in discharge, the violation threshold to control the bar graph colors now follows the settings defined for the discharge thresholds.
- Under battery setup on the discharge tab, a disable button under the report options has been added. When selected, it stops the controller or MPM from calling out during a discharge event. Also, changed the name and function of the remote reporting selection at the top left section of the discharge tab. This is now an enable/disable function. This button now enables or disables the discharge logging function.

Bug Fixes

- Changing the total cell number under battery setup now changes the display to reflect the correct amount of cells.
- Corrected the min and max values on the discharge current curves. They were reversed.
- Corrected the OV@30 and ACV@30 readings on the discharge summary screen.
- Corrected miscellaneous faxing problems.
- The total number of alarms listed at the top of the current alarm screen is now correct. It was off by 1.
- The control outputs on the BDS controller no longer lose their setup. This occurred when battery setup was sent from any string other than string 1.
- Software no longer has to be restarted after changing preferences. This had to be done to have the column selection changes take effect under the Historical Events screen.
- When the monitor reports an alarm, it no longer enters the information to the wrong string in the historical events.
- On an MPM configuration 1X60X2, if you changed the total cell number to 59 under the battery setup, it would change back to 60 after changing the communication link. This no longer occurs.
- The cell voltages now continue to update after getting historical readings. Previously, the cell voltages would freeze and stop updating.
- When viewing historical resistance readings, the screen now properly updates when changing to another screen.
- Corrected miscellaneous typographical errors.
- If a Local computer is direct polling and set to numeric page, the PC no longer stops polling if the page is not successful.
- The numeric pager no longer operates in a continuous loop. Sometimes it will continue to hang-up and redial, then send another page.
- When receiving alarm calls for a warning, the cell numbers displayed in the alarm pop up dialog are now correct.
- Now sends a fax or a page when software is setup to auto extract data.
- The printer setup dialog no longer has the 10,000 page setting for page selection.

Version 3.30F11

Enhancements:

- Added the ability to add one more character in the station phone under System Setup.

Bug Fixes:

- Print button removed from the String View, Resistance, and Discharge View screens.
- When the program is closed and reopened, the value for high cell voltage warning now remains at the set value.

Version 3.30B11

New Features:

- If there are intertiers assigned and you view the intercell resistance readings, the intertier resistance bar graphs change to red based on the intercell resistance alarm threshold. Additionally, if an intertier is on the second row of readings, it will go up through the upper row of readings. When this happens, you can no longer click on the cell directly above the intertier.

Version 3.30B10

New Features:

- BDS-256 series now has a high cell voltage warning threshold under the Battery Setup. When this parameter is violated, it will turn the cell bar graph to blue.
- Software now supports one string of 20 NiCad cells for MPM-100 configurations.

Enhancements:

- If the database has a lot of discharge data for a specific string, it can take a long time to display the initial list of discharges when selecting the Discharge button. During this time, it appears the machine is locked up. This amount of time is dependent on how many and how long the discharges are, as well as the speed of the machine. This time delay also occurs when selecting another discharge from the list. This delay will no longer occur at these points. It will now delay during the processing of the data if entering the actual playback for a particular discharge. The speed of the machine can drastically enhance this time.
- The Setup Menu item on the String View screen is now only be enabled while connected to string 1 of the controller. When connected to strings 2 to 8 on the controller, this menu item is disabled.
- While auto polling and the modems are unable to handshake and establish a connection, the software now attempts a second time before logging a unknown/inactive status.
- On String View screen, if System Status is "Discharging," "Logging discharge data," or "R-test in Progress," buttons for Discharge View and Load Test View are disabled. Their menu items are also disabled
- On multiple alarm events on the same controller, the pop up alarm dialog now shows alarm events on second alarm event.
- In the Battery Setup | General tab, a selection to enable the use of a Telco multiplexer was added. This is only settable from string 1 on controllers. MPM does not require this feature because a DIP switch is used to identify it.
- If communications fails after three attempts during auto polling, a monitor status of Comm Error is logged to the Status screen and Historical Events screen.
- When connected to a BDS series controller, a second type of check settings was implemented for retrieving data from the controller for diagnostic purposes. This is accessed by holding the CTRL key while selecting Check Settings. The advantage of this is that data is not cleared out of the controller by DCM data. To use this function, you must first get controller data (CTRL+Check Settings) before selecting just Check Setting. This is only used for a diagnostic tool.
- The discharge status has changed for the Status screen. There is now a "discharging" status to indicate discharge in progress and a second status, "discharge occurred," to indicate a completion of a status. Both of these status conditions were also added to the Summary screen.

Bug Fixes:

- Discharge data no longer gets corrupted if extracting data during a discharge.

Version 3.20B42

New Features:

- Networking is now supported on TCP/IP networks. Monitors must have the optional network interface for this function to work.
- BDS series now supports monitoring of up to 16 digital dry contacts and can control up to 8 control outputs. These outputs can be configured to energize on any parameter alarm violation. The controller must have the optional Digital I/O board to take advantage of this new feature.
- BDS Series now has definable discharge thresholds for cell voltage, overall voltage, and maximum allowable time for discharge. If any of these thresholds are violated, the system can call and report to the central computer.

Enhancements:

- Some modem manufacturers do not work reliably. It appears modems with chip sets manufactured by Conexant do not work; however, modems with chip sets by 3Com work well. Our recommendation is to use a US Robotics modem manufactured by 3Com for best results.
- The data extraction algorithm has been changed in functionality. Before, it was possible to extract and clear data from the hardware without it actually being stored in the database. Data will not be cleared from hardware until it has successfully been stored to the database. Also, if communications is corrupted, multiple attempts of retrieving data will be tried before displaying the "Not responding" status.
- The String View screen title bar now displays the string, battery, and location name being viewed.
- The "Discharge in Progress" status now flashes during a discharge.
- The Normal/Test menu selection has been removed from the Setup menu on the String View screen on BDS configurations. The system will always operate in Normal mode, which allows data transfer from DCMs to the controller during a discharge. This reduces the overall data transfer time after a discharge.
- Now, when a computer is configured for a direct or a network connected Local or Central computer, all the reporting options function. For example, when the computer continuously polls the monitor and identifies a problem, the computer can automatically page, sound an alarm, and fax or print an alarm report.
- Software now qualifies the proper extension of the firmware upgrade file before performing the upgrade.
MPM-100 = filename.mp1
Controller = filename.ctl
DCM = filename.dcm
The file name includes the version number. For example, VER113.MPM is Version 1.13 for the MPM-100. At the time of software installation, the latest file also is loaded to a new subdirectory called "upgrade" under the c:\ProgramFiles\Alber\MPMManager directory. Future firmware releases will automatically extract this directory.
- You can now begin names with numbers for Location, Battery and String names.
- The String Status Summary display now has "Unknown" added.
- When setting up a new system, it is no longer necessary to disconnect the fiber optics before sending the battery setup. A separate command now treats Calibration and Battery Setup as two different things.
- On MPMs, you now can set the discharge alarm to a latch mode under Battery Setup. Previously, all discharge alarms were non-latching.
- The Alarm Detail on the Historical Events screen now updates with the alarm detail during auto polling. Previously, this only updated when a site called the computer.
- The Status screen now always shows the latest polled status. In earlier versions, it only indicated the last updated status after connecting manually.
- During auto polling, the software now shows an alarm pop up screen and reports the problem. Additionally, the system executes any of the reporting functions defined on the reporting tab under System Setup.

- The discharge status has changed for the Status screen. There is now a "discharging" status to indicate discharge in progress, and a "discharge occurred" to indicate the completion of a status. Both of these status conditions were also added to the Summary screen.
- The String Status on the main Status screen now indicates a DCM COMM error. This, however, will not be displayed in the Historical Events log in this release.
- Two column titles in the Discharge Summary listing were changed. The headings were changed from OV@30 to OV@30S and ACV@30 to Avg CV@30S to better describe the functions.
- The Auto Call Out and Report descriptions under the General, Float Alarm, and Discharge tabs were changed to Remote Reporting, since all these enables are for enabling call out and providing status to a remote computer, not local status.
- The IP address for network connections can now be sent to the MPM from Battery Setup. There is a new button on the General tab for MPM configurations. This feature can only be used with MPMs that have the embedded network interface. Units that use the external interface must still use hyper terminal.
- On the Status and Historical Events screens, the following status were added to the Monitor Status column.
 - Network error - Cannot find network node or initialization error.
 - Data corrupt - Identifies corrupted data within the monitor.
 - Modem error - Modem cannot be initialized.
 - No dial tone - No dial tone is detected when calling.
 - Modem Busy - Busy signal is detected when calling.
 - DCM Comm Error - Communication error between controller and DCMs.
- On the Historical Events screen, the following status were added to the Alarm Detail column.
 - Pager busy - Busy signal when paging.
 - Paging error - Connection failed or cannot initialize modem.
- The default sorting on the String Status screen is now set to the String ID column.
- The Alarm Detail is now displayed in the Historical Events log for a warning condition.
- A built in backup feature was added to help prevent short-term data loss. However, this should not replace periodic backups of the database that physically copy data from the hard drive. This new backup feature will not protect the database against catastrophic hardware failures.
- A backup of the current working database now is compressed to a WinZip compatible file at midnight of each day. This file is appended with the number 1 and the extension changed to zip. This continues for three days in a row, appending each backup with a different number - 1, 2, or 3. On the fourth day, the oldest backup is overwritten, starting with 1.
- On the first day of each month, another backup is created, with the number 0 appended to the file name. On the first of each month, this file is overwritten.
- Under the File menu, a menu selection called "Open Backup" was added to allow the backup files to be opened.
- If the Historical Events screen was maximized and you performed a print function from this screen, the computer appeared locked up. This was because the "Always on top" selection was made under the View menu. This caused the Historical screen to remain on top, but it was disabled because control was handed over to the report viewer. This menu selection has been removed, and now this screen minimizes before print preview displays.
- It is now possible to set the Discharge Trigger Mode to Current unless a current channel has been first assigned to a DCM.
- The Flash memory diagnostic in the MPM now allows selection of a file that was uploaded to Flash to be compared for integrity. This same diagnostic was also implemented in the BDS controller.
- When calibrating the system, you now must press the Enter key to calculate the calibration factor. Previously, a new calibration factor would calculate just by clicking in another measured value field, possibly sending false information to the DCMs.

- The cells displayed on the bar graph now take up the width of the screen, rather than leaving a blank area at the end of the bar graph area. This is only true for systems of fewer than 64 cells. For example, a 40 module system now occupies the entire display area and does not leave any blank area at the end.
- You now have the ability to define the control outputs to a specific string. Previously, they were always triggered from String 1 parameters.
- The string status "DCM Comm Error" is now highest priority.
- Resistance Test and Historical Readings can now be recorded many times in a single day on demand. When opening readings from the database, the time appears next to the date.
- Scaling on the resistance screen was changed to allow better presentation of the bar graphs. Previous versions had too fine resolution, indicating a huge disparity between readings. Now, the readings look more the same, unless one is actually bad.
- The program no longer copies the MPM-DB3.MDB database to the MPM3.MDB file to keep the database alias the same. It now automatically changes the alias name to any database file that is opened, and also remembers what database was last opened. This helps prevent overwriting databases when working with multiple databases.
- An empty database called "db320.bmd" was added under the database directory. This is used to create a new empty database by selecting File|New.
- On new installations of the software, a list of all standard configurations is now available from the Monitor Configuration drop down list on the String System Setup tab. This works in conjunction with a new "Set BDS Defaults Values" button on the Battery Setup | General tab on the String View screen. Selecting this button automatically defines the hardware parameters Cells, LS/D, R/LS, RLLS, SS#, and Cell Voltage on the Parameters tab, the Cell Voltage, Overall Voltage and Temperature Alarm values on the Float Alarms tab, and the Total Cell Number on the General tab to default values.
- While viewing bar graph data (voltages or resistances), you can now select multiple cells into one pop up box to view tabular data. This is particularly useful when performing scheduled discharges and you want to see the tabular data value of failing cells. This table can also be sorted to easily identify the worst cells. Cells are inserted to a pop up box by holding the ALT key while selecting cells with the mouse.
- Self-Test diagnostics for BDS series controllers now have a diagnostic for checking the modem to see if a dial tone is present.

Bug Fixes:

- The View|Trend|Current menu function now works while viewing internal resistance readings.
- It was possible to see an access violation while viewing, exiting or deleting records in the Historical Events screen. This has been corrected.
- In previous versions, when changing screens while viewing resistance measurements, the intertier values did not clear. If the new string you switched to did not measure intertiers, previous string values were still displayed.
- Previously, if the DCM address diagnostic was being used, it would not turn off when exiting. Diagnostics now properly exit from the DCM Comm Error tab.
- It was possible to get an access violation during completion of a system setup. Other functions are now disabled while in the Setup screens. This prevents illegally accessing multiple tables within the database.
- When viewing the cell voltages, occasionally the values did not get updated, and appeared locked up. This was most apparent after leaving Calibration or Diagnostics. Communication was fixed to eliminate missed commands. The system was being left in a stop scan mode under certain functions and would miss the command to release this mode.
- The ALT+C keystroke was defined for two functions under Diagnostics - Close and Alarm Contacts. The Alarm Contacts was changed to ALT+A.
- You can now get resistance readings from DCMs other than the first DCM when performing a diagnostic resistance test.

- In computers with NT operating systems, the alarm sound now shuts off after clearing the pop up alarm dialog.
- Computers with NT operating systems could not page successfully. This has been corrected.
- During auto polling, it was possible for an error message "Invalid Pointer" to appear and cause the polling sequence to stop. This has been corrected. One of the visible effects of this change is that the polling interval for direct polling is now 15 seconds instead of 10 seconds.
- When transferring data via the Upload command during initial setup of an MPM database, the Discharge Current Level and Log Current Value did not get transferred until the second attempt. This now happens on the first attempt.
- Previously, if report selection was made under the BDS Battery Setup, and maintenance selection was made, the report selection disappeared after exiting back to Battery Setup. This has been corrected.
- Cell Voltage Average is now displayed on the String View screen for MPM configurations.
- The menu items "Reboot Firmware" and Upgrade Firmware" no longer become inactive after a DCM firmware upgrade.