TA Instruments
New Features in
TAM Air Assistant™
and TAM Assistant™ Software

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Software Upgrade Access

The individual instrument software described in this manual is shipped with all appropriate shipments of TAM instruments. For all previous versions of the software provided with these instruments, upgrades are available via on-line downloads from the TA Instruments website. Contact TA Instruments customer service or your TA Instruments account manager for details.

Important: TA Instruments Manual Supplement

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What's New for TAM Assistant v2.0.146

New Features

- Added option to generate standard info on reports

- Added creation date to summary section of reports

- Added ambient temperature signal to overview page so that it can be accessed by Standard user

Bug Fixes

- Fixed heat capacity validation report to generate Excel® file

- Fixed STANAG report to show correct max heat flow

- Fixed STANAG watchdog so that emergency cooling would not execute if user removed samples from calorimeters

- Removed Gain Validation experiment and analyzer from TAM Assistant

- Fixed index out of bounds exception when getting properties on a 6-pack containing a dummy calorimeter

- Fixed bug that was preventing the temperature from showing up in the calibration data

- Fixed bug in TAM Air that was using a zero-based index rather than a one-based index

- Updated PICO drivers to the latest

- Service state tracker for security service should report "uninitialized" state when initial users/groups have not been assigned.

- Implemented results database re-indexer

- Decreased client side UserManager caching time-outs to make sure that more recent information is presented

- Fixed issue with long delays when logging in to active directory

- Fixed issue with SolCal experiment not properly calculating Q which was showing a zero value

- Fixed issue with SolCal advanced settings showing up when a normal user is running under security

What's New for TAM Assistant v2.0.136

Bug Fixes

- Fixed runaway watchdog, which was triggering prematurely.

- Fixed firmware updater to update multiple devices when more than one is plugged into the same host computer.

- Fixed new SolCal to allow experiments to be created by the standard user when security is enabled.

- Reduced the USB communications workload on the TAM Air instrument.

What's New for TAM Assistant v2.0.130

Bug Fixes

- Added new TAM Air firmware that will help mitigate USB dropouts.

- Added capability to STANAG wizard to notify and allow the user to remove samples when joule threshold is met without having to end the experiment.

- Updated stability monitor criteria so that non-isothermal experiments can start the isothermal temperature step more easily.

- Added functionality to prevent bath disturbance from occurring if the software is shutdown and then restarted again.

- Fixed bug with overfill pump not shutting down when the software was stopped.

- Completed backup/restore functionality for security settings.

- Fixed bug in titration experiments that was preventing time markers from showing up as well as entries in the dispense table.

- Fixed bug with time markers not showing the correct time when using relative time.

- Fixed bug to prevent users from adding the local host to managed connections.

- Fixed bug that was causing a hang when adding/removing additional signals to experiments.

What's New for TAM Assistant v2.0.123

New Features

- Added heatflow to SolCal analysis

Bug Fixes

- SolCal now properly disconnects when physically disconnected

- SolCal R1 and R2 values, as well as vessel values, now show up in the device information of an experiment

- Fixed offset on SolCal

- Added 'Save As' capability for results files that have been changed so that the original results file will be preserved. If security is enabled, then a modified results file cannot be added to the database as a new file but it can be added to the file system or it will be revisioned if saved as the same file to the database.

- Steady state calibration for TAM III nano calorimeters is now disabled. Only pulse calibrations are allowed.

- SolCal decay curve fixed when coming down in temperature

- Firmware changed to automatically reset the USB connection when a disconnect occurs

- Can now support multiple TAM IV accessory boxes

- Removed memory leaks from polling mechanisms

- Fixed power LEDs on accessory devices (green when connected, red when disconnected, and yellow when connecting)

- Fixed unhandled exception when using multiple channels of the Voltage I/O card within an experiment

- Added warnings for calibrations that are out of spec

- Forcing a firmware update on startup after doing a fresh install

- Updated TAM Air PICO drivers to the most current

- Firmware out-of-date message will now appear in status bar of TAM Assistant when a device is detected with older firmware

- Fixed TAM IV standard deviation temperature watchdog

- Updated firmware for TAM Air to provide more reliable connectivity

What's New for TAM Assistant v2.0.106

New Features

- Added support for new Solution Calorimeter (SolCal) accessory boards.

Bug Fixes

- Changed the drive frequency of the temperature control to improve reliability.

- Firmware modification to prevent NaN from showing up in calorimeter data signals.

- Fixed issue with Legacy SolCal not properly disconnecting when turning off the power or setting port to None.

- Now storing TAM Air and accessory settings in the flash.

What's New for TAM Assistant v2.0.88

New Features

- Added the ability to complete peak analysis when not connected to security server.

- Added UI improvements including a default tab page selection, form size, and scroll bar.

- TAM Assistant Server now includes a virtual service account.

- Moved the setup and initialization function from the EnterpriseManager to TAMAssistantServerSetup.

- Support for the Solution Calorimeter card in the TAM III accessory box.

Bug Fixes

- Enabled log files to be generated correctly.

- Removed security exception issue upon startup and shutdown if a user was not logged into the security server.

- Removed error message that occurs when operating the instrument without the security server running, even if the server is installed.

- Suppressed the message, "You need to restart the program for the security changes to take effect" when cancelling an operation.

What's New for TAM Assistant v2.0.65

New Features

- TAM Assistant software supports the TAM IV, TAM III, and TAM Air calorimeter systems.

- Added support for Legacy Solution Calorimeter (SolCal).

- Added 21 CFR Part 11 support for TAM III and TAM IV.

Bug Fixes

- General Performance Test (GPT) report now shows the calorimeter serial number instead of the board serial number.

- Macrocalorimeter on the TAM III is now getting the proper power applied during a gain calibration.

- Fixed issue with TAM IV baseline offsets not being zeroed out during an ampoule experiment.

- Fixed memory leak that was causing TAM Assistant to fail when performing long experiments.

What's New for TAM Assistant v2.0.32

New Features

- TAM Assistant software supports the TAM IV, TAM III, and TAM Air calorimeter systems.

- Added support for Legacy Solution Calorimeter (SolCal).

- Added 21 CFR Part 11 support for TAM III.

Bug Fixes

- General Performance Test (GPT) report now shows the calorimeter serial number instead of the board serial number.

- Macrocalorimeter on the TAM III is now getting the proper power applied during a gain calibration.

- Fixed issue with TAM IV baseline offsets not being zeroed out during an ampoule experiment.

- Fixed memory leak that was causing TAM Assistant to fail when performing long experiments.

What's New for TAM Assistant v1.4.2.38

Bug Fixes

- Fixed bug with GPT throwing exception when calibrating a nano calorimeter.

- Fixed bug with flow controllers hanging up when not calibrated.

What's New for TAM Assistant v1.4.2.34 (for the TAM IV)

Bug Fixes

- Dynamic calibration now calibrates properly.

- Gas flow RH mixture now properly follows RH profile during experiments.

- Gas flow feedback now works properly (gas flow will need to be recalibrated).

- Titration experiments fixed (injection table was not being populated and injection events were missing from the experiment).

- Updated thermostat firmware to improve coarse heater control.

What's New for TAM Assistant v1.4.2.15 (for the TAM IV)

Bug Fixes

- Fixed high CPU usage problem.

- Fixed valve issue where valve was not opening all the way at low temperatures.

- Fixed bath calibration bug with the offset not being applied properly right after calibration.

- Fixed firmware updater bug that was preventing accessory devices from updating properly.

- Fixed LEDs on gas flow controller cards not lighting up when measured RH is within 3% of target RH.

- Fixed issue with signed drivers showing up as unsigned (note: requires latest Windows Updates or installation will fail)

What's New for TAM Assistant v1.4.2.10 (for the TAM IV)

Bug Fixes

- Fixed high CPU usage problem.
- Fixed valve issue where valve was not opening to 100% while moving down to very low temperatures.
- Fixed bath calibration bug with the offset not being applied properly after calibration.

What's New for TAM Assistant v1.4.1.18 (for the TAM IV)

Bug Fixes

- Ligand analysis reports now showing proper graph.
- Fixed calorimeter dataset error in STANAG experiment wizard.
- Peristaltic pump manual control page is now available in standard user mode.
- Fixed the Ligand Binding Analysis report where the graphs were not being displayed correctly.
- Added emergency cooling for STANAG experiments to prevent samples from becoming volatile.
- Added a wizard to assist the user in updating firmware.
- Fixed bug with the TAMAssistantServer service hanging on shutdown.
- Fixed titration wizard which would not allow users to configure data reduction at the end of an experiment.
- Automatically collect ambient air temperature during experiment.
- Fixed bug with reports where removing integral plots was causing the software to crash.
- Fixed titration to prevent users from programming volume injections larger than what the syringe could hold. Maximum injection speed is set to 1μL/sec.
- Fixed RH Perfusion to prevent users from entering values greater than 100%.
- Fixed the Pass/Fail criteria for the General Performance Test of the Macrocalorimeter.

What's New for TAM Assistant 1.4.1.11 (for the TAM IV)

New Features

- Added full support for Voltage IO accessory cards.

- Added independent manual control for peristaltic pumps.

Bug Fixes

- Improved the stability of the gas heater accessory for the MRS.

- Fixed a bug in which settings were not retained for the gas heater control when the software was restarted.

- Accessory devices are suppressed from turning on before the user has a chance to interact with them.

What's New for TAM Assistant v1.4.1.8

New Features

- Added pressure sensor support for the 4 mL Nanocalorimeter and 20 mL Microcalorimeter

Bug Fixes

- Changed thermostat stability criteria from single value to an algorithm that adjusts to the operating temperature.

- Relaxed the acceptable standard deviation threshold when doing a temperature dynamics calibration on the Minicalorimeters.

What's New for TAM Assistant v1.4.1

Bug Fixes

- When coming down from high temperature, the bath valve was not governing the cooler casing temperature. This was causing it to get too hot, which could potentially damage peltier modules over time.

What's New for TAM Assistant v1.4.0

New Features

- This version adds compatibility with the concurrently released TAM IV and TAM IV Accessory Interface. The TAM III remains fully supported.

What's New for TAM Assistant v1.3.0.153

Bug Fixes

- Fixed bug where the Heater Bias setting was being ignored.

- Increased the gain calibration settling time for the 4ml minicalorimeter by 20 minutes.

- Increased the temperature dynamics calibration settling time between pulses by 10 minutes.

- Cosmetic change to the Ligand Binding reporting axis to show "heat / injection" rather than "heat / volume"

What's New for TAM Air Assistant v1.3.0.151

New Features

- Added support for the new TAM Air 3 channel calorimeter block.

What's New for TAM Assistant v1.3.0.151

New Features

- Added support for the high capacity overflow pump.

Bug Fixes

- Fixed bug where the offset was not set to zero after running a gain calibration for the 20 mL minicalorimeters.

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