

## Caution

TDAS Control is constantly being updated and improved. The result is that features and functions change from version to version. *If you are upgrading from an older version of software, please allow time in your testing schedule to learn the new software and test its features within your environment.*

## Version 7 Requirements

To fully utilize all features of this version, the following firmware versions are required:

- G5:
  - 01U2 or later
- TOM:
  - 01C6 or later
- SIM:
  - 0.7E4 or later

## Version 7 Limitations

1. Discovery mode should always be set to Disable when using a MID or SMD
2. Discovery mode should always be set to Enable when using a Smart Battery
3. The EEPROM Manager does not properly support WorldSID devices. You may read WorldSID EID EEPROMs using the Read button next to the EID field on the SIF window.

## Version 7.1.2b Fixes and Changes – 2 October 2013

1. Fixed a bug introduced in 7.1.1i that would cause the squib fire test to fail with a download error in some cases.
2. Fixed a bug introduced in 7.1.1i that would cause the data collection to take much longer than needed
3. Added a squib resistance check to the Utility menu
4. Added a new INI option "Force Old Test Trigger" which defaults to 0 (use new test trigger). A value of 1 uses old test trigger and a value of 2 forces the digital outputs to be configured (see below).
5. When performing a test trigger, digital outputs are now configured. Requires "Force Old Test Trigger" be set to 2.

## Version 7.1.1g – 7.1.1q – Various internal releases

### Version 7.1.1g Fixes and Changes – 5 April 2013

1. Minor update to Microsys export

### Version 7.1.1f – Never released

### Version 7.1.1e – Never released

### Version 7.1.1d Fixes and Changes – 12 March 2013

1. Corrected a problem with the handling of IRTRACC channels when set for average over time zeroing, but insufficient pre-trigger data was available.
2. Added a warning when a TSF calls for less pre-trigger data than the average over time window

## **Version 7.1.1c Fixes and Changes – 9 February 2013**

1. Corrected ISO MME Export which would skip prompting for TCF in most cases
2. For GM DAT, added automatic export of filtered and unfiltered MME.
3. Corrected error checking for post test excitations that is triggered when using serial communications.

## **Version 7.1.1b Fixes and Changes – 9 January 2013**

1. Added missing sign on Surefire export

## **Version 7.1.1 Fixes and Changes – 6 January 2013**

2. In GM mode, corrected handling of level trigger parameters from TCF.
3. In GM mode, corrected handling of ISF import. When test description was maximum length, the total number of channels would be mis-read.
4. ISO channel list had inadvertently removed spaces between the channel description and channel number (SMVIC & GWM Baoding)
5. I/O mode now correctly supports multiple Fieldpoint modules.
6. In some recent versions of TDC, sensor IDs on channels 17-32 of a G5 would also appear on the digital input channels
7. Sensor IDs that are found, but do not have sensors assigned are now displayed in the sensor ID result screen (Cranfield)
8. When using a SMD or MID, the option to maintain sequential channel numbering did not work.
9. The View TSF, the channel numbering was incorrect (GM DAT)
10. When using a SMD or MID with a calculated channel, the selection for input channel was not being retained.
11. IRTRACC functionality is no longer triggered by the work IRTRACC in the channel description. The only way to obtain IRTRACC features is to set the channel type to IRTRACC.
12. Improved error message when a TOM boot fails.
13. Auto range for some calculated channels was not working correctly.
14. Added a Min/Max report similar to TDAS 1
15. Added a Microsys Export (BE Aerospace)

## **Version 7.1.0c Fixes and Changes – 17 September 2012**

1. Corrected GM ISF validation process so that the TDAS I/O module will work correctly in GM mode.
2. Fixed GM-mode TDAS I/O progress bar

## **Version 7.1.0b Fixes and Changes – 23 August 2012**

3. External shunt channels no longer always indicate post-cal failure.

## **Version 7.1.0a Fixes and Changes – 24 April 2012**

1. Added quick-restart feature to realtime oscscope.
2. Fixed various typos & UI glitches.

## **Version 7.1.0 Fixes and Changes – 3 April 2012**

1. Attempting to download from still-recording G5 will now block with a warning.
2. Improved smart battery handling of communication errors (no longer causing false low battery errors).
3. Added trigger short checking before G5 hardware trigger tests and before squib check.

4. Fixed rare scientific notation bug in RDF export (affected cal point 2).
5. SIF shunt resistor value now reads from/writes to DTS Sensor Database.
6. Data viewer window now properly color coded to match currently selected channel.
7. IRTRACC-type sensors now zero-able in realtime mode .
8. Calculated channels now respect "x axis max" range adjustment in data viewer.
9. Data viewer now attaches user comment edits to the current channel (and not always data channel 1).
10. TLF editor now properly implements 0mV/pre-data/average-over-time zeroing, inversion and initial EU offset handling.
11. Improved sensor group editor UI experience.
12. Improved pre-test sensor check UI experience.
13. Added per-sensor max range override option to sensor group editor.
14. Enabled level trigger with TOM TSF creation.
15. Filter selection no longer overridden by read mode settings.
16. Initial EU setting disabled for IRTRACCs.
17. Auto-assignment for digital channels no longer erroneously assigns 900+ data channel numbers.
18. Switch to mV in realtime mode on inverted IRTRACC channels now loads the proper y-axis numbering.
19. "equals 0mV" channels no longer manually zero-able in realtime mode.
20. Removed automatic 10% headroom from realtime mode.
21. Added TOM boot failure indication protection.
22. Inoperative TOM test fire result graph buttons (5,9,13,17 & 21) now working.
23. Module firmware memory check re-enabled.
24. 1 megabyte lab pro module no longer fails module firmware memory check.
25. ISO code and pre/post-trigger times now populated correctly during Wincarat import.
26. 8-slot analog rack channels no longer erroneously showing up as digital channels.
27. iDummy sensor table is now updated with changed SIF information in a timely manner.
28. Data-channel only G5 tests now download as they should.
29. Missing IDs during realtime no longer result in cryptic pop-ups.
30. Discrepancy between TOM channels listed by data channel and by module/channel in View TSF has been resolved.
31. Replace DAS function in TSF editor no longer fails when trying to replace a G5 with configured digital channels.
32. Shuffling of data channel numbers when saving TSF no longer causes the wrong channels to get assigned as inputs to the wrong calculated channels.
33. Failed calibration now results in improved warnings to the user.
34. Test control dialog shortened slightly to better accommodate systems with low vertical resolution.
35. Excel export for TOM-only tests now produce fully-populated time columns.
36. Now issuing final warning to users trying to proceed to data collection after encountering pre-test calibration failures.
37. Now preventing user from entering effectively-zero sensitivity values in TSF/TLF editor.
38. Recently added digital data channel numbers no longer get erroneously recycled.
39. Software triggers are now always sent to 1<sup>st</sup> G5 in a mixed PRO/G5 test system (ensures software trigger propagation).
40. Improved various error messages; fixed typos.
41. Calibration improvements for A2LA.

## Version 7.0.7a Fixes and Changes – 12 October 2011

1. Added support for ISF-configuration of IRTRACC devices.

## Version 7.0.7 Fixes and Changes – 30 September 2011

1. Ascii/Excel export no longer shorting dataset by 1 point.
2. Accumulating floating-point rounding error in time column now suppressed.

3. "next"/"prev" SIF editor buttons no longer skip to the wrong rack after manual bridge resistance check + ethernet discovery.
4. Some calculated channel "helpful comments" now more helpful.
5. Doc stat test failure message now instructs users on recovery.
6. User is now explicitly warned and given a chance to abort data collection with a popup if the setup did not pass calibration.

## **Version 7.0.6j7 Fixes and Changes – 26 August 2011**

3. Channels will now only be treated as IRTRACC sensors if either their SIFs designate them as IRTRACCs and/or they have a sensor serial number that contains the string "IRTRACC".
4. Bookkeeping on realtime IRTRACC zeroing is now per-module.
5. Channel bridge resistance check dialog now always defaults active dropdown item to currently selected rack.

## **Version 7.0.6j6 Fixes and Changes – 12 August 2011**

1. Removed Fieldpoint version key check.
2. Removed re-initialization of IRTRACC zero during realtime next/prev channel.

## **Version 7.0.6j5 Fixes and Changes – 7 July 2011**

1. Download now includes previously-missing point at the of the collection.
2. Fieldpoint now supports 4.1 and 6.0.7 versions.
3. Rack replacement now properly marks the module type of the new equipment.

## **Version 7.0.6j4 Fixes and Changes – 7 July 2011**

1. IRTRACC in now software zeroable in realtime.
2. IRTRACC sensitivity/exponent edit controls now disabled in READ ALL.

## **Version 7.0.6j3 Fixes and Changes – 30 June 2011**

1. Fixed erroneous data collection abort in tests containing double-byte PRO SIMs configured with certain unlucky sampling rate/number-of-channel combinations.

## **Version 7.0.6j2 Fixes and Changes – 28 June 2011**

1. Legacy ASCII export now exports all digital channels correctly.

## **Version 7.0.6j1 Fixes and Changes – 27 June 2011**

1. Meter mode realtime logging now time/date-stamping with 1s granularity.

## **Version 7.0.6j Fixes and Changes – 10 June 2011**

1. Added realtime logging for meter model.
2. Added realtime enable/disable to ini.
3. Added bridge resistance cap to SIF editor.
4. ISO channel file numbering now conforms to .CHN order.
5. ASCII/Excel export of tests with multiple digital channels now display all channels properly.
6. Now skipping 5% of full range check on digital channels when autoscaling in the viewer.
7. Added maximum bridge resistance check to TSF read.
8. Now copying over IRTRACC settings during rack replacement.
9. Added "continue" button and SDR checks for test IDs containing invalid characters.

10. If excitation is off for calibration, we now display red box/"OFF" instead of "0.0".
11. Calculated channels now can be configured to provide "description" or "comment" in diadem header fields 200 & 201. Selecting autoheader option will generate headers exactly like they were before the change.
12. Now only inverting EU/CNT scale factor (and not mV/CNT) when changing invert setting on channel using "Modify TLF".
13. Initial EU is now reflected in realtime mode.
14. DIAdem header line 241 now formatted in scientific notation.

## **Version 7.0.6i Fixes and Changes – 24 March 2011**

2. Fixed broken n>1-channel serial download.

## **Version 7.0.6h Fixes and Changes – 14 March 2011**

1. Corrected detection of sensor type IR for IRTRACCs for GM.
2. Replaced hard-coded minimum bridge resistance values with unified internal value (100  $\Omega$ ).
3. Added 0 $\Omega$  bridge resistance protection to sensor editor.
4. Fixed potential memory corruption problem related to internal DIM mis-indexing.

## **Version 7.0.6g Fixes and Changes – 21 January 2011**

1. Post-test excitation voltage check now only compares voltage magnitudes.

## **Version 7.0.6f Fixes and Changes – 27 October 2010**

1. GM ISF logic now keys off of DAS Setup Method code when deciding whether or not to treat a channel as an IRTRACC. (Was checking the first two characters of the transducer ID before.)

## **Version 7.0.6e Fixes and Changes – 26 October 2010**

1. Fixed typo in ISO export field label.

## **Version 7.0.6 Fixes and Changes – 28 July 2010**

6. Support added for digital channels 17-32 added to MDX response utility.
7. Changed the Cal Station to send both the single byte trigger sequence and the double byte trigger sequence for compatibility with both 07E4 and 07E7+ firmware.
8. Fixed various label misalignments.
9. Improved network connection retry dialog; should now present a better error message + give the user the option to terminate the software if it appears more than once.
10. TOM calibration now warns the user if the Module Template info file does not exist.
11. Implemented fast arm for TDAS PRO.
12. When in realtime, changing the range and then returning to realtime now triggers channel re-setup.
13. Added support for Excel 2007.
14. When using a DIM in channel 16, the channel count is no longer short in view TSF (and elsewhere).
15. Removed lock-out feature on offset limits for IRTRACC.
16. Terminal mode crash-on-mouseover problem has been resolved.
17. Flashwrite expected time-to-completion is now calculated based on firmware version (and should be improved).
18. Corrected calculation of calibration progress for newer G5 firmware.
19. The measure bridge resistance feature now works for all configured channels of all PRO modules in the test.

20. Added post-test excitation voltage test.
21. Removed misleading "post diag" faux LED indicator for G5s in the data viewer.
22. Software now always provides valid default value when user tries to exceed available memory by editing post trigger time.
23. Message box messages are now timestamped in the log file.
24. Potential channel saturation now flagged when data exceeds 90% full digital range.
25. Support for Volvo iWall and Millbrook databases now coexists.
26. GM-DAT: Change EU for TOM channels from "Volts" and "Amps" to "V" and "A".
27. Check resistance button on SIF editor no longer writes values into undefined Sensor\_ExtVolt locations.
28. ISO MME export format always now always puts "obstacle"-type objects (barriers, poles, load cell grids) in the 2<sup>nd</sup> object position.
29. The TLF can no longer be saved during realtime.
30. If the TOM's default zeroing window of -20ms to -10ms is not available, then data is now zeroed from the pre-cal zero value.

## Version 7.0.5a Fixes and Changes – 25 November 2009

1. Added ISO export MME/channel file header changes requested by GM-DAT.
2. Data viewer "value" display now goes to 4 decimal places instead of just 2.

## Version 7.0.5 Fixes and Changes – 21 October 2009

1. Date representation in SIF-to-DTS Sensor Database export no longer contains CSV-corrupting comma.
2. GM-DAT export now leaves the module column blank and numbers G5 channels from 1-32.
3. ISO export now uses a "Test object number" that is a 1-indexed integer that uniquely counts out each object in the test according to the relative order of the test object numbers of the first characters of the associated ISO code for each object. It is NO LONGER the first character of the object's ISO code itself.
4. GM-DAT export no longer displays sensor serial numbers with fragments of the associated SIF's relative path.
5. The CFC field has been added to the ISO export.
6. The location field has been added to the ISO export.
7. For GM-DAT, ISO export now exports both filtered and unfiltered data simultaneously.
8. Changed AA filter rate in TDAS.INI now propagated to the hardware when express setup is in effect.
9. UVA-specific export has been added.
10. When using the sensor detail window to add a SIF, the Select Sensor button is now enabled.

## Version 7.0.4 Fixes and Changes – 27 July 2009

1. When selecting the IRTRACC sensor type, the filter selection is no longer forced to CFC600.
2. ISO MME improvements
  - a. Customer test number is now populated with the TDAS test ID.
  - b. Channel files now include Dimension and Axis fields derived from the ISO code
  - c. Channel files now include a proper test object number entry derived from the ISO code.
  - d. The user is once again prompted for filtered vs unfiltered data.
3. When importing a test from Wincarat, previously the read out pre and post trigger times were used. This has been corrected to use the actual test times.
4. In certain configurations when creating a test that exceeds available memory, TDAS Control would adjust the test length. However, when using the TSF the length would be adjusted again which would corrupt the test length.
5. For certain customers when viewing a TSF the channel number column is presented as 1-32 instead of bank/channel.

6. When using recorder mode with a mixed TDAS PRO/TDAS G5 system, and no event is recorded, TDAS Control now handles the download correctly.

### **Version 7.0.3 Fixes and Changes – 29 June 2009**

1. Fixed problem when viewing an IDY file that would cause incorrect sensor information to be displayed when double clicking on a channel.

### **Version 7.0.2 Fixes and Changes – 15 June 2009**

1. In some configurations the TOM squib load window would disappear and the test would be aborted. This has been corrected.

### **Version 7.0.1 Fixes and Changes – 28 May 2009**

1. Corrected a problem in the TSF editor when removing a rack or G5 and then adding a new rack or G5. Previously the old channels would reappear on the new rack or G5.

### **Version 7.0 Fixes and Changes – 22 May 2009**

1. Installer now includes .NET redistributable.
2. TSF header columns have had their proper tabbings restored.
3. Smart Battery charge remaining changes: updated percentage to 25% intervals; added requirement for n stable samples at new interval before transition is displayed; max time display pegs at "3:00+".
4. Sensor group editor now includes information for all fields available in SIF when sensor is first added.
5. Data plot autorange is now being reassessed when units are changed.
6. Clicking on empty vehicle location now brings up IDY file selection dialog.
7. The first column in realtime log files is now a time column.
8. Realtime log files now stored in ../Data/<<SIF Name>>
9. Activating digital channels from the "enabled" column now enables channel with default values.
10. Editor now complains if you try to "Ok" with digital channels numbered 900 and above.
11. SMD aggregate sample rate warning is more verbose.
12. Now only one back button on the Sensor Change Dialog.
13. Changes to level trigger settings will cause unsaved test warning on test close (bug 2480).
14. Channel on cable ID panel no longer improperly incremented when cable ID is not the first EEPROM returned by IDX ALL (bug 3014).
15. Added proper "enable" handling to WC database import.
16. Added user-interactive excitation voltage adjustment to WC database import.
17. Replaced COM port button selectors with more generic (and extensible) dropdown list (bug 3141).
18. App name and version name now on main window title bar (bug 2126).
19. Fixed IDY inversion misparse. (YES,NO and commas – appears that it should've been fixed in the last version but it doesn't seem to have been.)
20. Now trimming sensor axis/measurement type when re-writing EEPROM.
21. Replaced WMF files with Bmp due to unknown exception problem in PlotBitmap.
22. Added SID-IIS and BIO-RID dummy types.
23. Added if/else protection so CFC/Frequency converted values won't get "double"-converted (bug 3128).
24. Added the new GM Holden import as a superset of AAU import.
25. Open Wincarat-imported TSF for viewing after export.
26. Moved initial main window maximize to point after window is first displayed to remedy "stuck minimized" misbehavior.
27. Tweaked logic in SetupControlsVisible to add the "0" tab even when it is unused and for new tests.

28. Added DTS\_TDAS\_DBG.exe to the list of acceptable .EXE file names to not be treated as a custom EXE.
29. Updated filter value display on data viewer to use BuildfilterString.
30. Removed "on startup" and "advanced" discovery options from INI and configuration options dropdown (bug 2319).
31. Options/MAXCOM control is now never made visible.
32. Corrected handling of FilterChannel when CutoffFrequency is not 0.
33. Corrected format specifier in ReadTSF when reading the filter value.
34. Added sample rate v. number of active module channel test to test setup editor check-on-save validation.
35. Added graphic for MSB.
36. Added call to DetermineMaxRange in ViewTSF\_MillbrookInsertSensorChan to ensure correct CAC is displayed.
37. Corrected handling of TOM and digital channels in view TSF tool.
38. Added TOM squib and digital channels to View TSF/TLF
39. ISO code in SIF edit screen is now grayed out when editing TSF under READ ALL (bug 2459).
40. Test description is now checked for forbidden filename characters prior to TSF save.
41. Changes to level trigger settings will cause unsaved test warning on test close (bug 2480).
42. Changed NewTestSetup corresponding to the changes in SetupControlsVisible.
43. Added check to abort test if all sensors are removed during sensor check/edit.
44. Now deleting pre\_test\_data.dat after copy to test folder (bug 3191).
45. Now using "index" instead of "result" as starting index of parse string. (tdas\_utility.c)
46. Disabled SIM memory test. (tdas\_ZeroCal.c)
47. Corrected a problem that occurs when using the Oscop button from the sensor window in a TSF when the sample rate or test time were not valid
48. Corrected a problem when using an iDummy and a PRO rack in the same test during sensor ID scan.
49. Removed iDummy Quick Start Guide menu option
50. Improved the ability to tolerate intermittent communication from a Smart Battery
51. Test Object number field in ISO MME export is not being populated with the correct value.
52. Meter mode channel selector does not display configured digital channels.
53. INI-configurable warning now in place to caution user that entering realtime will erase undownloaded data.
54. When replacing equipment, ISO codes are no longer blanked.
55. ROI specification UI added for IIHS export.
56. Placed iDummies' ISO code vehicle positions are no longer off by +1 after placement.