

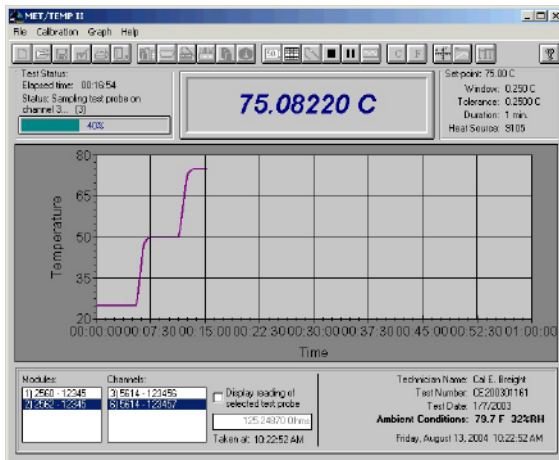
20 reasons you need MET/TEMP II Temperature Calibration Software

Application Note

Calibrating sensors manually is expensive and time consuming. It takes roughly four hours to calibrate a sensor at three points, then another hour on top of that for paperwork to document the temperature data and to create the certificate. There is a better way—with MET/TEMP II software, simply place your test sensors in a heat source, connect them to a readout, enter your setup information, and start the test. Sometime later, print out the reports, sign them, and ship the sensors back to your customer. Your customers will love the fast turnaround. Here are 20 reasons why you want to choose MET/TEMP II for temperature calibration.

1. Fully automated calibrations

MET/TEMP II can fully automate batch calibrations of platinum resistance thermometer (PRT), thermistor and thermocouple sensors to free up your time for more important tasks.



2. Semi-automated calibrations

If your calibrations cannot be fully automated, they can at least be semi-automated. Let MET/TEMP II assist you in calibrating your liquid-in-glass (LIG), bi-metallic, and other types of sensors that are connected to non-interfaced digital or analog readout devices.

3. Comparison calibrations

You can calibrate your secondary standard sensors against a reference sensor or against calibrated heat sources.

4. Fixed-point calibrations

Do you need a higher level of accuracy than a comparison calibration can give you? MET/TEMP II can also calibrate your secondary standard or primary standard sensors using fixed-point cells.

5. Mixed comparison and fixed-point calibrations

If you prefer, MET/TEMP II allows you to combine comparison measurements with measurements in fixed-point cells during the same calibration. You can do a triple-point of water measurement before and/or after your comparison points.

6. Heat source calibrations

Would you like to be able to calibrate your heat sources also? MET/TEMP II can perform heat source calibrations on a number of supported dry-well calibrators.

7. Supports a variety of test equipment

You can perform calibrations using a variety of digital thermometer readouts, from handheld meters to high-precision bench-top models, and an assortment of heat sources including dry-wells, Metrology Wells, micro baths, baths and furnaces.

8. Automatically logs ambient conditions

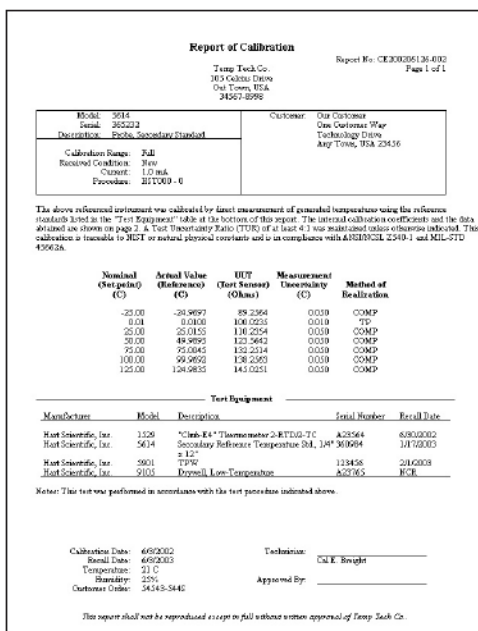
MET/TEMP II can be configured to log ambient temperature and humidity automatically during a calibration, using the Model 1620A "DewK" Thermo-Hygrometer.

9. Includes asset management

MET/TEMP II maintains all test equipment information and calibration status in a database, as well as all unit under test (UUT) sensor information including customer names and address, which are used when printing reports.

10. ANSI/NCSL Z540-1 compliant report of calibration

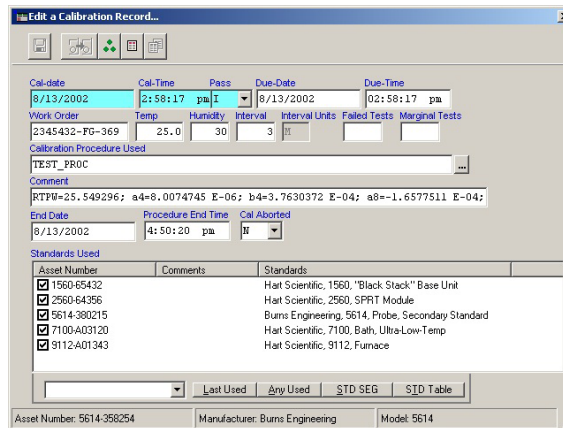
Do your customers require compliance to the ANSI/NCSL Z540-1 standard? MET/TEMP II produces reports of calibration compliant to this standard.



11. Interfaces with MET/TRACK® asset management software

For labs that are already using MET/CAL® Plus Calibration Management Software, MET/TEMP II can optionally interface with MET/TRACK software to ensure all test equipment is in calibration. MET/TEMP II synchronizes its own database with the information in the MET/TRACK database. Sensor and heat source

calibration results can also be saved directly to the MET/TRACK database when a calibration is complete, thereby creating new calibration records.



12. Characterize multiple sensor types

MET/TEMP II includes the Coefficients and Tables utility, which provides sensor characterization features for PRT, thermistor and thermocouple sensors using the data acquired by MET/TEMP II during a calibration.

13. Support for many PRT and thermistor characterization types

The Coefficients and Tables utility supports characterizing PRT sensors using ITS-90, IPTS-68, Callendar-Van Dusen and Polynomial solutions and thermistor sensors using polynomial solutions, including Steinhart-Hart.

14. Support for many standard thermocouple types

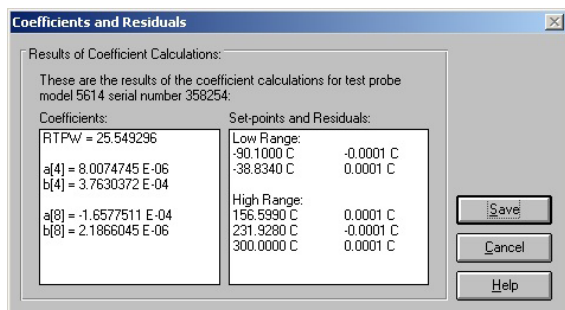
The Coefficients and Tables utility supports characterizing thermocouple sensors using polynomial solutions for many common thermocouple types, including B, E, J, K, N, R, S, T and AuPt.

15. Flexible and easy to configure

MET/TEMP II includes a wide variety of user-selectable settings that affect how a calibration is performed, how the software behaves during the configuration process, fonts and styles used on the reports, a company logo to print on the reports, and many other settings. These settings allow the technician to configure MET/TEMP II to his/her liking and to best suit the needs of the calibrations being performed.

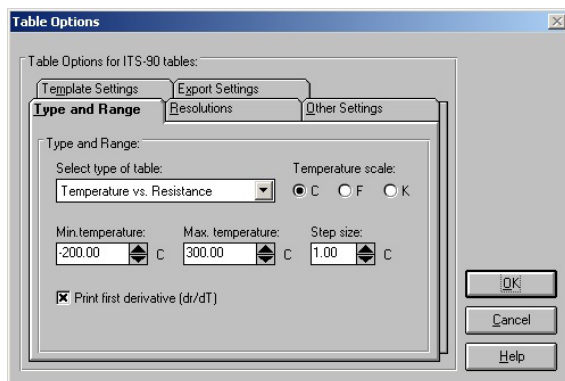
16. Data quality check

Are you concerned about the quality of the data acquired from a questionable sensor? The Coefficients and Tables utility calculates residuals at each set-point to give you an indication of the quality of the data used to characterize the sensor.



17. Interpolation tables

After you have characterized a sensor, you can generate temperature vs. resistance, temperature vs. ratio or temperature vs. voltage interpolation tables using the calculated characterization coefficients. Interpolation tables can be printed as part of the report of calibration, or exported to a delimited ASCII text file for importing into other analysis software.



18. Export calibration data

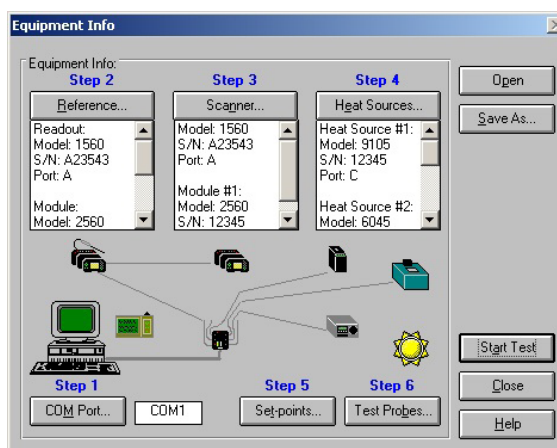
The Coefficients and Tables utility also provides a fully customizable process for exporting calibration data to a delimited ASCII text file.

19. Low-cost off-the-shelf temperature calibration solution

MET/TEMP II provides a low cost off-the-shelf solution for performing automated or semi-automated temperature calibrations for a variety of sensor types and heat sources.

20. Best of all, it's easy to use

The best thing about MET/TEMP II is that it is intuitive and simple! Use the built-in step-by-step guide to set up and configure test equipment, set-point schedules and UUTs for calibration. Save your setup details to configuration files for quick access for future calibrations. Generate characterization coefficients and interpolation tables, and print reports with a few clicks of the mouse.



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