



# *TA Instruments New Features in MCDSCRun™ Software*

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## **Notice**

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## **Software Upgrade Access**

The individual instrument software described in this manual is shipped with all appropriate shipments of Nano ITC, Nano DSC and MCDSC 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

Please click the [TA Manual Supplement](#) link to access the following important information supplemental to this Getting Started Guide:

- TA Instruments Trademarks
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- Other Trademarks
- TA Instruments End-User License Agreement
- TA Instruments Offices

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## **New Features in MCDSCRun v3.4.0**

### *Bug Fixes*

- Added Windows 10 device drivers (required by Anniversary Edition and beyond).
- Guardian notifications are now stored in a location that is not specific to any single user.
- Only one instance of MCDSCRun at a time can be started.
- Fixed a bug that allowed a user to overwrite a data file when Guardian is enabled.

## **New Features in MCDSCRun v3.3**

### *New Features and Functionality*

- Added instrument serial number to main window, next to firmware version.
- Added Guardian feature, an implementation of 21 CFR Part 11.

### *Bug Fixes*

- Fixed an issue with setting access rights for standard users to the TA Instruments program data folder.

## **New Features in MCDSCRun v3.2.0**

### *Bug Fixes*

- Fixed an issue where a scan slows down at the end of the scan when cell offsets are negative. At very slow scan rates, it was possible that the scan would not complete.
- Changed graph lines to thin and solid, except for comparison lines in the calibration wizard.
- Changed “Average over data interval” setting to “Extrapolate over data interval.” The heat rate, temperature, and pressure are all extrapolated by a 1st order least squares fit.
- Updated code for setting user access rights to settings and default methods path.
- Signed device drivers for Windows 7, 8.1, and 10 for both 32- and 64-bit versions. (No drivers in NanoAnalyze.)

## New Features in MCDSCRun v3.1

### *New Features and Functionality*

- User interface has been updated to match the other Nano Series software.
- Added individual temperature corrections for each sample cell in the **Settings** tab.
- Added automated sapphire calibration wizard.

## New Features in MCDSCRun v3.0.0

### *New Features and Functionality*

- This version of MCDSCRun software is for use with the model 600000 MCDSC. The model 4100 MCDSC is not supported.
- Critical instrument settings are now password-protected.
- The collection software has been updated to better handle disconnecting and reconnecting USB. This includes the "Online" LED in the software turning on and off. If USB is disconnected for more than 30 seconds, all instrument control is stopped and any running experiment is stopped. MCDSCRun version 3.0 (and above) includes this update.
- When opening MCDSC data files (created using MCDSCRun version 2.9.21 or greater) into NanoAnalyze and the mass is greater than zero, the Mass MHC field is automatically populated and the Mass option button is automatically selected. The tooltip text for the NanoAnalyze data tree also displays mass for MCDSC data.
- Added a wizard for running automated sapphire calibrations.
- Added a calibration file manager that introduces Save, Load, and Edit capabilities.
- Other minor fixes and enhancements.

## New Features in MCDSCRun v2.9.21

### *New Features and Functionality*

- This version of MCDSCRun software is for use with the model 4100 MCDSC.
- When opening MCDSC data files (created using MCDSCRun version 2.9.21 or greater) into NanoAnalyze and the mass is greater than zero, the Mass MHC field is automatically populated and the Mass option button is automatically selected. The tooltip text for the NanoAnalyze data tree also displays mass for MCDSC data.

## **New Features in MCDSCRun v2.9.18**

### *New Features and Functionality*

- Added sample mass option and description fields for each cell.
- Universal Analysis format has been changed.
  - The heat flow signal has been changed to mW.
  - If a mass other than 0 is specified by the user, a normalized heat flow column is added in terms of mW/g.
  - Added more information to method segments such as scan rate and lower and upper temperatures.
- Changes in the internal formatting of the data files require that NanoAnalyze must be updated to version 2.3.6 or later.

## **New Features in MCDSCRun v2.9.13**

### *New Features and Functionality*

Universal Analysis format data files now incorporate units of mW/g rather than  $\mu$ W.

## **New Features in MCDSCRun v2.9.10**

### *Recent Bug Fixes*

- Fixed issue with adding a series of experiment steps.
- Fixed an issue with adding an isothermal experiment step.
- Other minor fixes and enhancements.

## New Features in MCDSCRun v2.9.4

### *New Features and Functionality*

- Added thermal safety feature that shuts down the instrument if the external water bath fails.
- Changed a setting in the instrument that optimizes the available cooling power in scans that go below ambient temperature.
- Compatible with Microsoft Windows 7 32-bit and 64-bit.

## New Features in MCDSCRun v2.9.2

### *New Features and Functionality*

- Added support for the new Multi-Channel DSC instrument version
- Added the **Load Defaults** option for instrument settings

## New Features in MCDSCRun v2.7.0

### *New Features and Functionality*

Implemented maximum upper temperature limit of 150°C.

## New Features in MCDSCRun v2.6.9

### *New Features and Functionality*

Improved data collection.



## New Features in MCDSCRun v2.6.2

### *New Features and Functionality*

Changed pressure units from **psi** to **atm**.

## New Features in MCDSCRun v2.6.1

The TA Instruments MCDSCRun v2.6.1 software for the MC DSC was updated to provide increased program stability and accessibility.

### *New Features and Functionality*

Removed the option to use hardware idle control.

## New Features in MCDSCRun v2.6

The TA Instruments MCDSCRun v2.6 software for the MC DSC was updated to provide increased program stability and accessibility.



**NOTE:** If running a beta version of MCDSCRun, select the **Start** menu > **Settings** > **Control Panel** > **Add or Remove Programs**, and remove the software from your system before installing a new version. If you are unsure of whether or not you are running a beta version of MCDSCRun, remove the software. After removing the software, proceed with the instructions in the *MCDSCRun Getting Started Guide*.

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### *Recent Bug Fixes*

Corrected an issue where some multi-core computers do not correctly handle the high-precision timer.

## New Features in MCDSCRun v2.5.0

The TA Instruments MCDSCRun v2.5.0 software for the MC DSC was updated to provide increased program stability and accessibility.

### *Recent Bug Fixes*

- Fixed inability to handle language setting with a dialect.
- Restrictions on non-administrator use of software have been repaired.
- Application settings moved to **Common Application Data** folder.

## New Features in MCDSCRun v2.4.0

The TA Instruments MCDSCRun v2.4.0 software for the MC DSC was updated to provide data file compatibility for both the new NanoAnalyze v1.1.0 and Universal Analysis 2000 data analysis software packages. This feature, combined with the sensitivity and baseline stability of the MC DSC, further enhances the instrument's control and data collection software flexibility.

### *Features and Functionality*

- Software is compatible with all MC DSC instruments.
- Data acquired in the MC DSC can be saved in a file format compatible with TA Instrument's Universal Analysis 2000 data analysis software package.
- Data acquired in the MC DSC can be saved in a file format compatible with TA Instrument's NanoAnalyze v1.1.0 data analysis software package.

### *Recent Bug Fixes*

- Added support for languages that uses the comma symbol as a decimal point.

# TA Instruments Offices

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