

Software Update Notification



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Product	PartNo.-Issue
Software suite	PSS0012-16

Product	PartNo./Version
Zetasizer Nano series	PSW0085/5.03
Firmware	PFW0044/1.33

Manuals	PartNo./Version
Zetasizer Nano series	MAN0317/3.10
MPT-2	MAN0318/3.00

Software update summary

Main features Version 5.03
Maintenance release to correct errors in calculation of the zeta potential for samples with conductivity between 2.5mS/cm and 5mS/cm

NOTES

Version 5.03 is not compatible with the HPPS

Install the software with the Zetasizer Nano switched off or not connected.

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1. Overview

This document is the software release note for Zetasizer Nano series software P/N PSW0085 for software suite PSS0012-16 in accordance with ECN10117

This is a maintenance update of version 5.02 to cure reported problems with measurement over specific conductivity ranges.

Using the automatic setting for the voltage with samples with conductivities between 2.5mS/cm and 5mS/cm can give incorrectly calculated zeta potential results. Version 5.03 addresses just this issue. No other changes have been made.

1.1 Main feature comments

None, maintenance issue only

2. Compatibility

2.1 Optics unit

Version 5.03 software is compatible with all hardware variants of the Zetasizer Nano series. It is not compatible with the HPPS.

2.2 Data

Version 5.03 will read data from all versions from 3.xx and 4.xx. It will not read data from Version 1.00 or Version 1.10 software. If data taken with a previous version is edited, even if only the sample name is changed, the result can change due to small changes designed to improve the analysis.

2.3 Computer

2.3.1 Operating system

Version 5.03 is compatible with Windows 2000 SP4 and higher, and Windows XP Pro. It has been fully tested with SP2, and partially tested with SP1. When using Windows 2000, before starting the installation process, the 'Windows Installer Update' must be selected as suggested during the installation process.

NOTE: Windows XP 'Home' versions are not supported

2.3.2 Minimum Computer Requirements

Pentium PC 233MHz, 128MByte RAM, 80MByte free hard disk space, 1024 x 768 screen resolution, CD-ROM drive, 1 free USB port, Windows XP Pro (SP1a or later) operating system.

The software and system can be used with a laptop computer with a free USB port. The PC must meet the minimum requirements of the operating system software.

2.3.3 Recommended Computer Requirements

Pentium P4 PC 2.6GHz, 512MByte RAM, 40GByte hard disk drive, 1024 x 768 screen resolution, CD-ROM drive, USB port, Windows XP Pro (SP1a or later) operating system.

The software and system can be used with a laptop computer with a free USB port.

3. Installation

3.1 Software installation for Windows XP Pro and Windows 2000

Note: The software must be installed with the Zetasizer Nano switched off or not connected.

The software suite comes on an auto-loading CD-ROM. Inserting the drive into a system configured to Auto-run a CD will run the installation program automatically. If your system does not support this feature run the **setup.bat** program from the root directory of your CD drive.

All DTS version 3.xx, 4.xx, and 5.xx software must be uninstalled before 5.03 is installed.

3.2 USB driver installation

Note: Driver installation on Windows XP™ Pro will fail if the user does not have administrator access. This is in line with Microsoft's Logo policy and is standard practice.

3.2.1 Windows XP Pro

With the software installed the instrument should be connected via the USB port. This will result in the found new hardware dialogue appearing:



This should be left with the default selection of 'Install the software automatically' and the 'Next' button should be selected so that file transfer begins. During file transfer a similar warning dialogue as appeared in the previous section may be displayed. Once again the 'Continue Anyway' button should be pressed so that file transfer completes. Once file transfer has completed the 'Finish' button should be pressed to complete the installation.

Windows XP Pro may give a warning during the installation:



This warning can safely be ignored as the software installation has been tested on Windows XP. If this warning is encountered the button, 'Continue Anyway' should be pressed.

3.3 Uninstall procedure

The software can be uninstalled using the standard Add/Remove feature in the Windows 'Control panel'

3.4 Software change requests implemented in Version 5.03 / 5.01 from 5.00

3.4.1 Additions

None

3.4.2 Deletions

None

3.4.3 Changes

None

3.4.4 Bug Fixes

SCR	Description
6777	Correct voltage is now used when sample conductivity is between 2.5mS/cm and 5mS/cm

3.5 Known issues and comments

3.5.1 USB Detection

USB detection occurs automatically on new computers. On older computers the instrument is not always detected automatically and the instrument icon in the bottom right-hand corner of the status bar will remain greyed-out. This is fixed by closing the application, restarting the computer and restarting the software.

3.5.2 Samples database update

The samples database was updated after version 3.32 for the dispersants 'Water' and 'Ethylene glycol'. The update will occur when the new software is installed and will lead to changes in the measurement results.

3.5.3 Missing parameters in user reports

The parameter dictionary has been updated for this version of the software and some of the parameters have changed. For reports that the user may have created containing the affected parameters, the parameters will become undefined. This can be seen when a report is opened and the parameter displays the text 'No parameter has been selected' or if the nothing is shown next to the text label (i.e. the value appears blank). To fix this problem for each parameter carry out the following steps:-

- 1) Double-click on the affected parameter to bring up it's property dialogue.
- 2) Click the 'Select' button to display the 'Select a parameter' dialogue.
- 3) Select the relevant parameter.

N.B. Remember to correct the affected parameters on both the screen and page layout views of the report.

3.5.4 Results

The analysis algorithms for the calculation of size, zeta potential and molecular weight, including data filtering, are being continually improved. The effect of this is that if data taken from a previous version of software is edited, the result may change, even if only the sample name is edited.

This is because the algorithms themselves are not stored with the record.

This does not apply to parameters stored with the record such as the viscosity, and refractive index etc. as the same parameters are always used in the recalculation of the edited result.

This does not of course change the result of the stored record, as after editing a new record is created. To tell if a record is the original or has been edited, the parameter 'Is edited' can be added to a report or the record view. This can be found in the measurement audit information section of the parameters list. It will display 'False' if the record has not been edited.

3.5.5 Software closes when opening the DTS Options window.

If a measurement file (.DTS) has not yet been opened, selecting Tools->Options from the menu will cause the software to close. This is a known problem that will be fixed in the next release of software. To avoid the problem simply make sure at least one measurement file (.DTS) has been opened before using the Tools->Options menu item. You can also avoid the problem by leaving at least one measurement file open when closing the DTS software as this will cause the DTS software to reopen the file automatically when you next start the software.

4. Customer deliverables

4.1 Application Software Suite

The software is contained on one CD-ROM. The disk is labelled PSS0012/16

The installed software requires about 80Mbytes of hard disk space.

4.1.1 Disk contents

- Operating software including updated help files for all new features
- Zetasizer Nano series manual, Issue 3.10
- Multimedia presentation of new features
- MPT-2 manual, version 3.00
- Firmware version 1.33
- USB drivers for the Zetasizer Nano
- Software Update Notifications for changes from previous software version
- Adobe Acrobat reader
- Selection of application notes
- Selection of technical notes
- Frequently asked questions database
- Product brochures
- Installation test macro