Software Update Notification

Product	PartNo.-Issue
Software suite	PSS0012-11

Product	PartNo./Version
Zetasizer Nano series	PSW0085/4.20
Firmware	PFW0044/1.31

Manuals	PartNo./Version
Zetasizer Nano series	MAN0317/2.20
MPT-2	MAN0318/2.10
HPPS	MAN0314/2.00

Software update summary

Main features
Addition of new cell type, clear capillary cell DTS1060c

Contents

1. Overview

This document is the software release note for Zetasizer Nano series software P/N PSW0085 on software suite PSS0012-11 in accordance with DCO4174

1.1 Main feature comments

1.1.1 New capillary cell type

This new release contains an addition cell type DTS1060c, a disposable capillary cell. It can be distinguished from the existing green capillary cell as it is constructed entirely from transparent polycarbonate plastic.
The two cells are slightly different in construction, and to ensure measured values are correct, the correct cell must be selected when setting up a measurement either in manual mode, or when using an SOP.

2. Compatibility

2.1 Optics unit

Version 4.20 software is compatible with all hardware variants of the Zetasizer Nano series and the HPPS.

2.2 Data

Version 4.20 will read data from all versions from 3.xx and 4.xx. It will not read data from Version 1.00 or V1.10 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 4.20 is only compatible with Windows 2000 Pro (Sp4 or later) and Windows XP Pro (Sp1a or later)
Windows XP Pro is the preferred option as the complete alpha test has been performed on this operating system.

NOTE: Windows NT and Windows XP 'Home' version are not supported

2.3.2 Minimum Computer Requirements

Pentium PC 233MHz, 128MByte RAM, 20MByte free hard disk space, 1024 x 768 screen resolution, CD-ROM drive, 1 free USB port, Windows 2000 Pro (SP4 or higher) or Windows XP Pro (SP1a or later) operating system.
Use with the HPPS requires one free PCI slot

The software and system can be used with a laptop computer with a free USB port.
Use of a laptop with the HPPS requires a free type 2 PCMCIA slot and a special PCMCIA card. Please contact Malvern Helpdesk for details.
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.
Use of a laptop with the HPPS requires a free type 2 PCMCIA slot and a special PCMCIA card. Please contact Malvern Helpdesk for details.

3. Functional Features, changes in Version 4.20 from 4.10

3.1   Additions

SCR	Description
5585	Support for the new clear moulded capillary cell – DTS1060C

3.2   Deletions

None

3.3   Changes

None

3.4   Bug Fixes

SCR	Description
5558	Recalculation of Zeta results gives consistent mobility and zeta spectra.
5308	The result average function in Zeta mode gives correct results

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   Manual measurement settings

Installing version 4.20 software will cause the manual measurements settings to revert to their default values. After installation any changes are preserved between settings.

3.5.3   Application error when editing the analysis limits of existing zeta measurement records

Editing the zeta potential range of an existing record may cause an error, and the software will have to be shut down. This editing is mostly required when measuring samples in low dielectric constant media, or when using very low voltages.
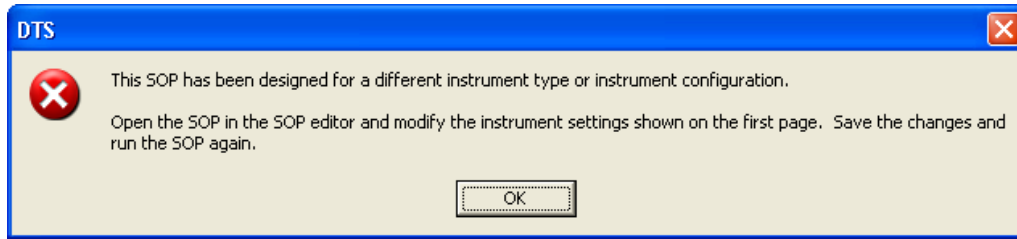
A suitable range should be set before the measurement. For a sample in a dispersant with a very low dielectric constant such as hexane, the zeta potential range in the results calculation page, under the advanced button should be set to -500mV to 500mV

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3.5.4   Latest firmware required when running SOPs created with version 4.20 software

This is a problem for existing users if an SOP is created with version 4.20 software without having the instrument connected on start-up (so the firmware is not updated). If the instrument is then connected (without restarting the application) and an attempt made to run the SOP then it will fail with the error message shown below:-

The fix for this problem is to restart the application with the instrument connected.

3.5.5   The following SCRs detail issues that currently exist within the software.

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SCR	Description
2364	Export Data dialog does not remember the last destination filename and path that was used.
2650	Unexpected filling using the Filled Graph option
2653	Can set the warning and action limits wrong way round
2657	Melting point SOP dialogs should display a warning with fixed temperature dispersant
2735	Dragging records onto desktop fails
2746	Tables have insufficient numerical precision
2855	Clicking on a measurement or report file from the "Start->Documents" toolbar fails to open
2881	It should not be possible to delete a security group if there are users in it.
2882	Deleting a group should be audited
2883	It is currently possible to add a user without specifying any group.
3005	Melting Point - automatic run duration may not be suitable choice
3066	Graphs - The statistics graph does not correctly support the Weight transformation
3130	No warning message when running a zeta, molecular weight or melting point SOP on a HPPS.
3131	User reports will not print unless they are added to the current workspace.
3151	Zooming in on a graph does not refresh the tick labels.
3186	21 CFR - Can create a group with the same name as an existing group.
3411	Dielectric constant value should change with temperature.
3491	If the software can not access the registry it gives a run-time error
3714	Record browsing in print preview does not work
4067	User ->New User menu does not force values in password and password confirmation boxes.
4123	Not possible to change the name of a Workspace
4143	Protein Utilities: Pasting a graph into Wordpad changes the graticle line style
4169	Audit trail does not record the copying of records
4237	Research Software:Edit Result, no explanation on coated sphere
4286	Number of runs still tries to limit the measurement to 6 hours, instead of allowing 10,800
4345	Record appears selected when it isn't
4405	Add ability to use own larger beaker
4407	Allow increment and points option in dilution titration
4414	Zeta edit result not possible for monomodal measurement data

SCR	Description
4427	Problems with default printer can cause the application to crash
4446	Printing the record view exhibits different behaviour than printing a report
4488	Cannot batch print to pdf
4539	Size measurement optimisation routine should follow temp equilibration
4553	Add temperature coefficients
4610	Current Record selection is deselected if a new report is added
4616	Cannot view a read-only audit trail file.
4617	Software freezes when attempting to open a none audit trail file in the audit trail viewer

4. Installation

4.1   Installation Procedure for Windows 2000 Pro

You must uninstall the previous version before installing the new version. See the 'Uninstall procedure' below.

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.exe** program from the root directory of your CD drive.

4.1.1   Record view headings

The new record view unit headings will not be displayed unless the existing workspaces are deleted. The current headings are stored in a file automatically named as the user currently logged on to the computer with a '.wrkspace extension'. e.g. JOHN SMITH.wrkspace
To access the new headings this file must be deleted or renamed after the uninstallation procedure.
After uninstalling the software navigate to the 'C:\Program Files\Malvern Instruments\DTS' directory. This will contain the user workspace. This can either be deleted, in which case a new user workspace will automatically be created during the installation process, or it can be renamed to allow its use later. Note only the '.wrkspace' extension can be used. During the installation a new workspace will automatically be created, and the new record headings will then be displayed.

4.1.2   Example data

The examples data file has been updated.
To access the new examples file the old file must be deleted or renamed after the uninstallation procedure and before the new software version is installed.
After uninstalling the software navigate to the 'C:\Program Files\Malvern Instruments\DTS\Measurement Data' directory. This will contain the example results.dts file. This can either be deleted, or it can be renamed to allow its use later. Note the '.dts' extension must be used to enable access to a file from within the application. During the installation the new example results will be installed.
The example data is most conveniently viewed in the summary workspace as all the reports to view the data are available in this workspace.

Note: If the system has a previous version of 3.xx or 4.xx installed, then this must be uninstalled before version 4.20 is installed as it cannot be co-resident. Version 1.10 (HPPS) can be left on the system and version 4.20 installed
Note: On the instrument selection screen, the type of instrument, laser wavelength and scattering angle must be specified. Text information is supplied on this screen to help with your selections.
Note: For DTS Series software, Windows 2000 ™ Pro and Windows XP ™ Pro will not allow an installation if the user does not have administrator access. This is in line with Microsoft's Logo policy and is standard practice.
Note: Windows 2000™ Pro systems require service pack 4 or later in order to install the software.

4.2   Installation Procedure for Windows XP Pro

Windows XP may give the following warning during the installation. This warning can safely be ignored by clicking 'Continue anyway' as the software installation has been tested on Windows XP.

4.3   USB Driver Installation

Note: Driver installation on Windows 2000 ™ Pro and 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.

4.3.1   Windows 2000

With the software installed the instrument should be connected via the USB port. The drivers should now be installed automatically without any user input.

4.3.2   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 pressed so that file transfer begins. During file transfer a similar warning dialogue as appeared in section 6.2 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.

4.4   Uninstall Procedure

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

5. Customer deliverables

5.1   Application Software Suite

The software is contained on one CD-ROM. The disk is labelled PSS0012/11

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

5.1.1   Disk contents

- Operating software including update help files for all new features plus tutorials

- Zetasizer Nano series operators guide, Issue 2.20

- MPT-2 Operators guide, version 2.10

- HPPS Operators guide, Version 2.0 (Covers up to version 3.00 software. Later features are covered in the help files)

- Firmware version 1.31

- USB drivers for the Zetasizer Nano

- Hardware drivers for the HPPS, for both desktop and laptop operation

- Software Update Notifications for all versions of software from version 3.00 to present

- Adobe Acrobat reader