Software Update Notification

Product	**PartNo.-Issue**
Software suite	PSS0012-04

Product	**PartNo./Version**
Zetasizer Nano series	PSW0085/3.30
Firmware	PFW0044/1.10

Software update summary

Main features
Addition of size Vs. pH for titration measurements
Temperature trends now possible down as well as up
Record view can now be accessed during a measurement
New low-volume cell type added ZEN2112
New quartz flow cell type added ZEN0023
Tutorials also available stand-alone

Contents

1. Overview

This document is the software release note for Zetasizer Nano series software P/N PSW0085 on software suite PSS0012-04 in accordance with DCO 4003.
This software supports the use of the MPT-2 autotitrator with The Zetasizer Nano series systems that measure zeta potential. Currently the only titrations possible are that of zeta potential and size as a function of pH

1.1   Main feature comments

Addition of size Vs pH for titration measurements
This new function is added to the available options for the titration type in the SOP. In version 3.30 it is not possible to measure size and zeta potential at every pH point. Size Vs. pH and zeta potential Vs. pH have to be run as separate titrations.

SCR2829
It is now possible to specify that a temperature trend can finish at a lower temperature than the starting temperature. All equilibration features remain the same during the procedure. It is recommended that an equilibration time of 4 minutes is used to ensure the sample temperature in the cuvette is equilibrated to within 0.1 degrees of the measured temperature. This recommended equilibration time to reach this precision is independent of the actual change in temperature.

SCR2810
It is now possible to access the measurement records and display reports during a measurement

SCR3665
The ZEN2112 12 microlitre low-volume cell has been added to the options of cells for size measurement

The ZEN0023 quartz flow cell has been introduced to support the size Vs pH titration. The DTS1060 Disposable Zeta cell can also be used for size measurements, however the quartz cell will often give better performance due to its higher optical quality.

Tutorials
In addition to accessing the tutorials via the application 'Help' menu, the tutorials can be run separately. The tutorials are stored in the \Tutorials folder and can be run by double clicking on the Zetasizer-home.chm file in the folder. The tutorial set can be moved around by copying the whole Tutorials folder to the required location. Note that you must have Macromedia Flash^{TM} installed to run the tutorials.

2. Compatibility

Version 3.30 software is compatible with all hardware variants of the Zetasizer Nano series.
NOTE: Windows NT and Windows XP 'Home' version are not supported

3. Minimum Computer Requirements

Pentium PC 233MHz, 128Mbyte RAM, 80Mbyte free hard disk space, 1024 x 768 screen resolution, CD-ROM drive, 3.5" disk drive, 1 free USB port, Windows 2000 Pro (SP4 or higher) or 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.

4. Recommended Computer Requirements

Pentium P4 PC 2GHz, 128Mbyte RAM, 40Gbyte hard disk drive, 1024 x 768 screen resolution, CD-ROM drive, 3.5" disk drive, USB port, Windows 2000 Pro (SP4) operating system

5. Functional Features

5.1 Additions

SCR	Description
3665	Add new cell type - ZEN2112.
N/a	A new dip cell SOP has been added for running standard measurements after cleaning the electrodes and inserting a new sample at room temperature. A 7 minute delay for equilibration is imposed before the measurement starts. The SOP is named … **dip cell zeta standard after cleaning 7 min delay.sop** An otherwise identical SOP, but with no delay, is also provided … **Dip cell standard.sop**

5.2 Deletions

None

5.3 Changes

SCR	Description
2810	It is now possible to review the molecular weight measurement results at the end of a measurement so that if necessary concentrations can be repeated
2829	It is now possible to specify a temperature trend from a higher to a lower temperature.
2942	Result records can be viewed while the live display is active during a measurement.
3142	The dummy data used in report designer includes data for all measurement types.
3171	The time trend plot is now available as seconds/minutes/hours.
3317	Axis labels on some plots have been changed so they are not too crowded.
3546	MPT-2 Manual control: The default pump and stir settings have been increased
3620	The start of the measurement process has been optimized to minimize the measurement time
3637	MPT2: The method of reaching the start pH value has been improved to minimize the time taken.
3634	A selection has been added to specify that a sample filter has been fitted. Selecting this option disables the pump reverse to stop particles on the filter being dislodged back into the sample.

5.4 Bug Fixes

SCR	Description
3266	Problems printing the molecular weight report have been fixed
3275	Copying grouped measurements no longer breaks the grouping.
3578	Members of the 'User' administrative group can run the application on Windows XP Pro and Windows 2000 Pro.

SCR	Description
3595	Units now correct the on the zeta potential graph.
3597	The sample database now works with foreign language operating systems
3615	The analysis limits are now implemented correctly.

5.5   Compatibility

5.5.1   Operating system

Version 3.30 is only compatible with Windows 2000 Pro (Sp4 or later) and Windows XP Pro (Sp1a or later)
Windows 2000 Pro is the preferred option as the complete alpha test has been performed on this operating system.

5.5.2   Data

Version 3.30 will read data from all versions from 3.xx. It will not read data from Version 1.00 or V1.10 software.

5.6   Known Issues and comments

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

SCR	Description
2653	It is possible to set the warning and action limits wrong way round
2735	Dragging records onto the desktop fails
2991	It is not possible to average results
3131	User reports will not print unless they are added to the current workspace
3152	Graph x-axis settings are not retained the first time you open the properties dialog
3163	The active record in a multiple selection is always the record with the highest record number
3165	It is not possible to paste a table as an image into other applications
3337	The attenuation selection during a zeta measurement only averages over a short time
3347	Legacy analysis for size analysis not available
3352	Configuration of software is not saved upon exit
3725	Software may crash with a memory access violation error when opening the manual measurement settings dialog. Measurement data and measurement settings are not lost. Frequency of occurrence is about 1 in 50.

6. Installation

6.1   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.
Note: If the system has a previous version of 3.xx installed, then this must be uninstalled before version 3.30 is installed as it cannot be co-resident. Version 1.10 (HPPS) can be left on the system and version 3.30 installed
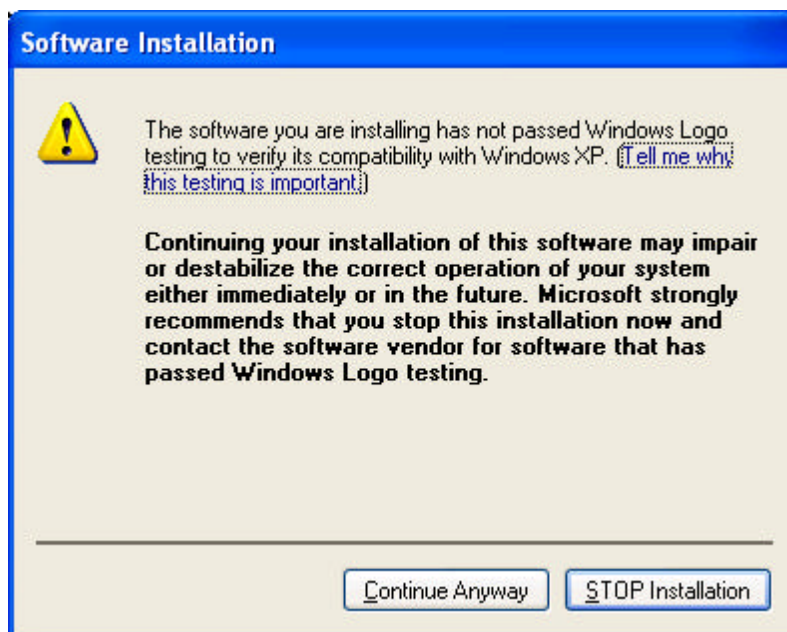**Note:** On the instrument selection screen, the type of instrument, laser wavelength and scattering angle must be specified. Text information is supplied on this screen to help with your selections.
Note: For DTS Series software, Windows 2000 ™ Pro and Windows XP ™ Pro will not allow an installation 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.

6.2 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.
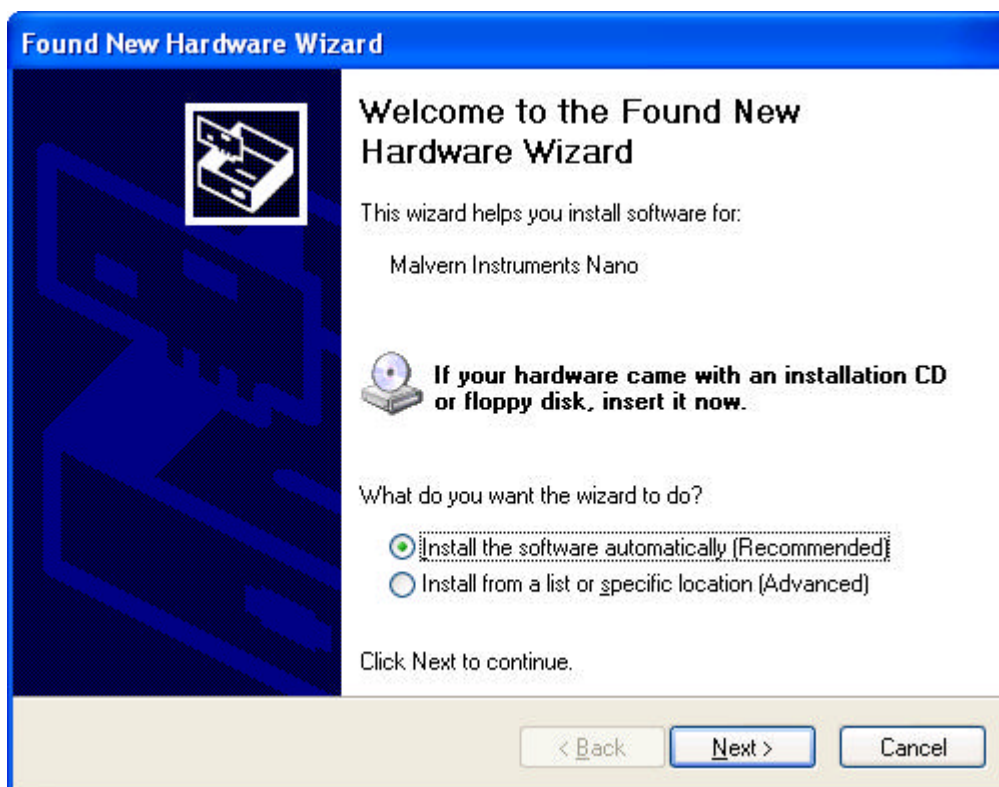

6.3 USB Driver Installation

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.

6.3.1 Windows 2000 Pro

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

6.3.2 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.

6.4   Uninstall Procedure

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

7. Operational Notes for New Features

7.1   Product format

The customer will receive one CD-ROM containing the software suite. The disk is labelled PSS0012, Issue 04

8. Customer deliverables

8.1   Application Software Suite

The software is contained on one CD-ROM. The installed software requires about 80Mbytes of hard disk space.

Operators guide in Adobe Acrobat PDF format on CD.