

# ZETASIZER XPLORER SOFTWARE: v1.10 (PSS0048-02) SOFTWARE UPDATE NOTIFICATION

# Introduction

This document details the release of **Zetasizer XPLORER software version 1.10** (**PSS0048-02**) for the Zetasizer Ultra and Pro. Here forward it is referred to as ZS XPLORER. This release is the launch release for these instruments and is not compatible with the Classic Zetasizer series of instruments (Nano S90, Nano ZS90, Nano ZS, Nano ZSP, Zetasizer  $\mu$ V and Zetasizer APS) nor can it read the .dts file format from the Classic Zetasizer series software 7.13 or earlier. However, it is possible to have both the ZS XPLORER software and the Zetasizer software 7.13 installed on the same computer.

# Installation

It is assumed that you have authority to install or update software within your company's SOPs. If you do not have this authority please consult with your I.T. support department before proceeding.

It is assumed that you have Administrator rights for the computer. This is required by the installation process. For ZS XPLORER software, Windows 10 and later 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.

#### IMPORTANT:

Before installation of the software, the instrument should be switched off and disconnected.

#### **Recommended System Requirements**

The recommended computer system requirements for running this software are highlighted in table 1 below.

Feature	Specification			
Processor Type	4th Gen+ Intel Core i7 Processor (or equivalent)			
Memory	16 GB RAM			
Hard Disk Storage	1 TB free hard disk space,			
Display Resolution	1920 x 1080 full HD screen resolution			
Connectivity	2 free USB2 port			
Operating System *	Windows 10 64 bit.			
	* The ZS XPLORER software is not compatible with 32-bit Operating Systems			

Table 1: Recommended system requirements for the Zetasizer XPLORER software.





#### Supported Languages

• English

# **Installation Instructions**

#### Installation process

The software suite is available both as a web download and on an auto-loading CD-ROM. Inserting the CD 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 program from the root directory of your CD drive.

During the installation process, you will be prompted with the following message (Figure 1).



Figure 1: "Disconnect Zetasizer Unit" message

#### Note:

You must unplug the USB cable from the computer or Zetasizer and then press OK. If you press the OK button without performing these previous steps then the installation will not continue.

#### Microsoft .Net Framework and Microsoft C++ Redistributable

The Microsoft .Net Framework 4 (version 4.6.1 or greater) and the Microsoft Visual C++ Redistributable must be installed for the ZS XPLORER software to run. This is installed during the ZS XPLORER software installation progress and under certain circumstances can involve the computer needing to restart. Completion of this stage of the installation can take a few minutes, and can take over 10 minutes. Whilst these components are being installed a window such as below will be displayed:



-	Microsoft Visual C++ 2010 x86 Redistributable Setup	
	Installation Progress Please, wait while the Microsoft Visual C++ 2010 x86 Redistributable is being installed.	$\sim$
	File security verification:	
	All files were verified successfully.	
	Installation progress:	$\mathbf{O}$
	Installing Microsoft Visual C++ 2010 Redistributable	
		Cancel

Figure 2: Microsoft Visual C++ Redistributable Installation Window

#### **USB Driver Installation**

During the installation of the USB drivers you may be prompted several times with a message as shown in *Figure 3*.



Figure 3: Install USB window

This warning can safely be ignored as the software installation has been fully tested on Windows 10. Press **Install** to continue installation of the USB drivers.



### Connecting the Zetasizer Ultra/Pro to the computer

When the software has been installed and the instrument has been connected via the USB port, and switched on, the ZS XPLORER software should connect to the instrument. A successful connection is indicated with an icon in the corner of the software (see *Figure 4*).



Figure 4: Instrument connected icon

# **Uninstall Procedure**

The software can be uninstalled using the standard Add/Remove feature in from Windows.

### Running the installer with the ZS XPLORER software running

If the installer is run whilst the software is running, the window in *figure 5* will display.



Figure 5: Running installer with software open

### **New Features**

This is the second release of the ZS XPLORER software. Please refer to the software help system and user manuals for detailed information regarding the software's operation and the available functionality.

The new features and key user improvements in this software release are:

**Project Explorer** – on the Analyze tab, within the expanding Explorer panel, the Project Explorer can be found. From here, users can access and manage the Projects within which measurement results are stored. Users are able to edit project names, create new projects, export whole project contents to .zmes files for sharing, and delete projects from this pane. In addition, it is now possible to move measurement records from one project to another, by dragging the selected measurement onto the project name in the list shown in the Project Explorer.



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Cell positioning						3			Sample 1
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Convergence Check						5			Sample 1
Firmware v100						6			Sample 1
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More convergence che	cking					8			Sample 1
Sprint 11 Daily Build						9			Sample 1
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Version 2650						11			Sample 1
Version 2684						12			Sample 1
						4.2			Cample 1

Figure 5: Project Explorer pane

On all pages **an improved progress bar** is now available for all measurement types, see example in Figure 7. This allows the user to see which repeat the measurement is working on, as well as which scattering angle (if relevant) the measurement is using.

→	Measuring Size (1/3) - Back scatter	→	Collecting batch 2 data - run 2 of 5

Figure 6: Measurement progress bar

**Record selector's parameter selection** is now easier to find as the settings icon (green cog wheel) has been introduced in the project header, see figure 8. This is how the parameters are accessed for all parameter tables. The maximise icon, to the right of the settings icon in figure 8, expands the record selector so all selected parameters can be viewed without the need of scrolling or dragging the window.



Figure 7: Record Selector Header

Zooming out of graphs on the Analyze page, has been made easier by allowing this action to take place by double clicking on the graph.

Graph selection figures and descriptions have been updated to ensure navigation between them is easier.

# **Fixed issues**

This is the second release of the ZS XPLORER software, and in this release the following issues were fixed, see table.

Table 2: Fixed issues in Zetasizer XPLORER software.

Reference issue workaround
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94372

Zeta measurement occasionally fails with an error and as a result the schedule must be run again Restart the instrument and re-run the schedule.

### **Known Issues**

The following software bugs have been discovered within the software, and will be investigated as part of a future release. Please follow the suggested work-around where one is available.

Table 3: Known issues in Zetasizer XPLORER software.

Reference	lssue	Workaround			
91266	lssue saving methods and exporting data to directory without delete permissions	A method may be saved to a directory the user has delete permissions to and then copied to the intended directory.			
90194	Copying graph image does not show full legend	If many series are displayed on a graph, copying the graph to the clipboard will not copy the full legend details. Only the legend entries displayed on the screen will save.			
87339	Issues with non-Gregorian calendar systems	On a system where the ZS XPLORER software will be used, change the Windows Regional settings to a format with a Gregorian calendar system			
87782	Installer does not restart after using Windows Run as Administrator	Log in to Windows as the Administrator user used for the installation and the installation will continue.			
90580	Out of Memory error with large Zeta Potential measurements	Ensure that Zeta Potential measurements are carried out with Save Sub Run Data disabled as this significantly increases the size of the measurement data. Manipulating a smaller number of records at once or restarting the software can significantly reduce the occurrence of this issue. Using the zoom function on the charts can increase the chance of an out of memory error.			
81392	Zeta Count rate sometimes drops to 0 in live display graph at the end of a sub-run	This issue is a display artefact only and can be safely ignored.			
83074	Unable to launch software when another user has the software open	Close the ZS XPLORER software as all users before attempting to launch the ZS XPLORER software			
94344	Mastersizer 3000 driver can sometimes become uninstalled when installing Zetasizer XPLORER software	Reinstall the Mastersizer 3000 driver. Contact Malvern Panalytical for assistance with this.			



# **Error Reporting**

Should persistent problems occur contact the local Malvern Panalytical Helpdesk. To speed up response time include all the following.

- A full-screen screen shot of any error message and everything behind it.
- Full description of what was happening at time of issue and ideally leading up to it.
- Instrument serial number (*e.g. MAL1060289*), instrument serial number can be found inside the sample cell basin and on the instrument back panel.
- The software version, which can be found as described in a section below.
- The log information described below.
- And, if relevant and possible, export the relevant measurement data as described in the last section below.

### Extracting log information

If an error occurs, further information about the error can be found from the Windows Event Viewer.

- 1. Click the Windows Start Button.
- 2. Type Event Viewer and press enter.
- 3. Navigate to Applications and Service Logs/Zetasizer All Events.
- 4. The window will display the most recent errors that have occurred with the ZS XPLORER software.

Error information can be selected and then exported with the **Save selected Events** button allowing this information to be passed to the Malvern Panalytical team for troubleshooting.

The contents of the measurement log window are logged to file at Documents\Malvern Instruments\ZS XPLORER\logs

#### Software version

The Software Version is vital to determining the cause of problems. To retrieve the version number:

1. Click on Application Menu button (Figure 6)



Figure 6: Application Menu button

- 2. Click on the **About** button
- 3. Read version number (Figure 7)





Figure 7: Software Version Number

### Extracting measurement data to send

In situations where the errors appear to be related to a specific record or records, the affected records can be exported from the software by selecting them and pressing the export icon, see *figure 8*, and send the .zmes file to the Malvern Panalytical team for investigation.

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	Dra	*				
	i	Qua	Result Type	Sample Name	Date	
	70					
1			Size	60nm latex	11/06/2018 14:49:44	
2			Size	60nm latex	11/06/2018 14:51:27	
3			Size	60nm latex	11/06/2018 14:52:36	
4			Size	60nm latex	11/06/2018 14:53:46	
			Size	60nm latex	11/06/2018 14:55:10	

Figure 8: Exporting selected records



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