

# ZS XPLOER SOFTWARE: v2.2 (PSS0048-12) SOFTWARE UPDATE NOTIFICATION

## Introduction

This document details the release of **Zetasizer XPLOER software version 2.2 (PSS0048-12)** for the Zetasizer Advance range of instruments. Here forward referred to as ZS XPLOER.

This release supports the Zetasizer Advance range of instruments only (including Pro (ZSU5800) and Ultra (ZSU5700) models).

ZS XPLOER is not compatible with the Zetasizer Nano series of instruments (Nano S90, Nano ZS90, Nano S, Nano ZS, Nano ZSE, Nano ZSP, Zetasizer  $\mu$ V and Zetasizer APS) nor can it read the \*.dts file format from the Classic Zetasizer series software 8.01 or earlier. However, it is possible to have both the ZS XPLOER software and the Zetasizer software 7.02 or above installed on the same computer.

ZS Xplorer 2.2 offers additional renamable custom workspaces whilst also making it clearer which workspaces are default and a new manual pH measurement panel is available in the titrator tools page. The instrument communication has also been split out into a separate service which improves software stability. See the “New Features” section for more information.

For the latest version of this document please check our website at <https://www.malvernpanalytical.com/en/support/product-support/software/zetasizer-ultra-pro-zs-xplorer-software-update-v2-20>.

## 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 XPLOER 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:

Only Windows 10 64-bit Operating System is supported

Microsoft user accounts are not supported

If using Windows domain user accounts the user domain must match that of the PC where ZS Xplorer, and its components, are being installed

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

Regulated Environment customers upgrading to ZS Xplorer V2.2 will need to also upgrade to OmniTrail and OmniAccess V1.3.

In some cases, the installer will require the user to restart the PC, in this case it is required that the Administrator logs in to the PC for the first time, following the restart. Failure to do so may cause the software to crash. In this case reinstalling the software on the Administrator account will fix the issue.

## Recommended System Requirements

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

*Table 1 Recommended system requirements for ZS Explorer software.*

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 USB2.0 or higher ports
Operating System *	Windows 10 64 bit. * The ZS XPLOERER software is not compatible with 32-bit Operating Systems

## Supported operating systems

ZS XPLOERER is compatible with Windows 10 (tested on Windows 10 1909 version). Only 64-bit Professional versions are supported.

## Supported Languages

- English

## Installation Instructions

### Installation process

The software suite is available as a web download. The downloaded extractor contains the ZS XPLOERER Setup and License Manager Setup files. License Manager is a prerequisite of ZS XPLOERER, even if you are not using OMNITRUST regulated environment software suite.

When the extractor is run (see Figure 1) it will extract the required installers to a folder named 'MPIInstallers' in the location the extractor is run, and the folder and a readme with important information will be opened (see Figure 2).

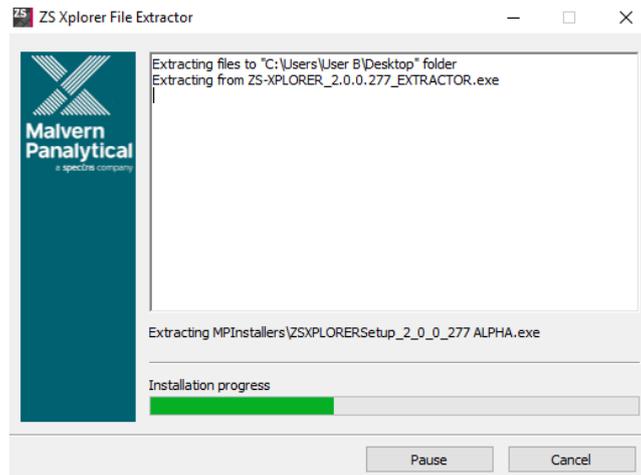


Figure 1 ZS Xplorer Self-Extracting Installation files

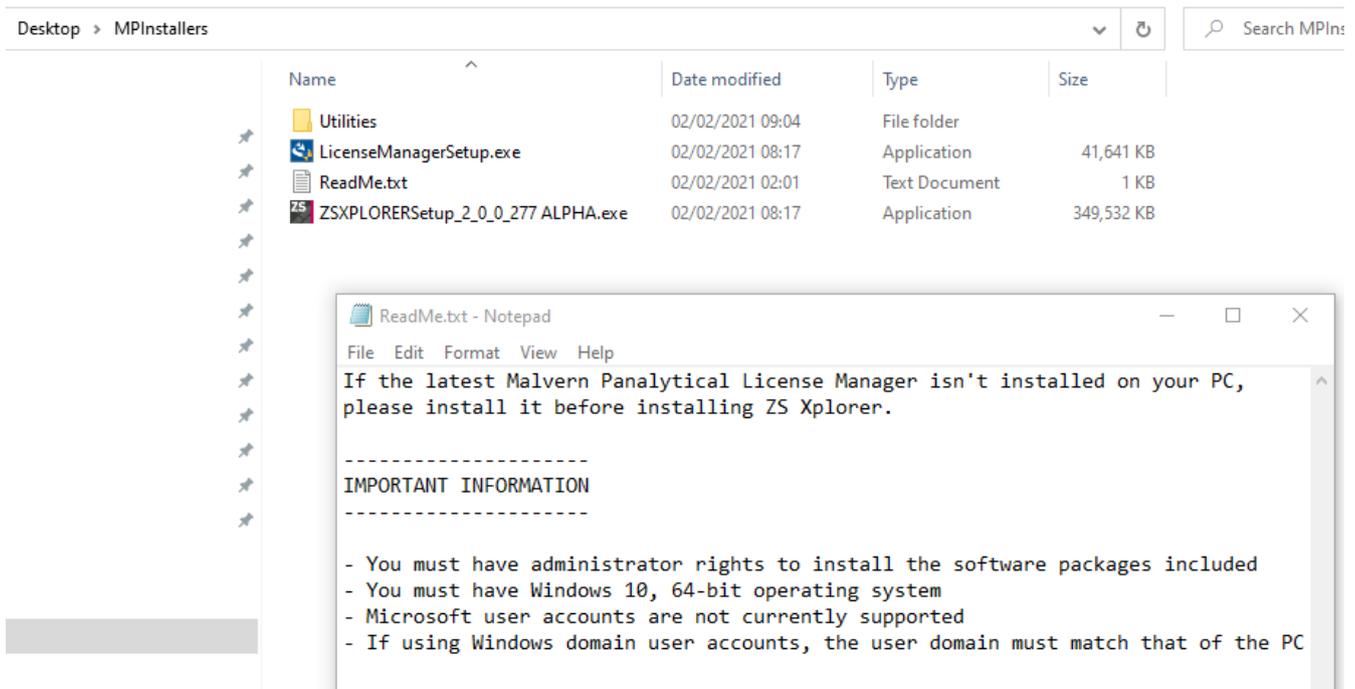


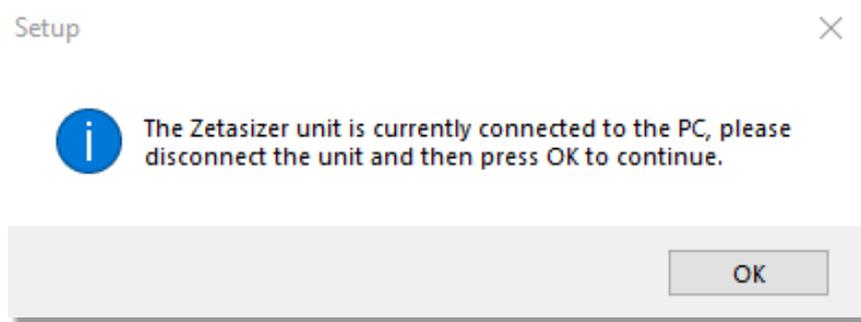
Figure 2 Extracted installation files and ReadMe file.

## License manager Installation

The Malvern Panalytical license manager component is a requirement for the ZS XPLORER software to run correctly and must be installed prior to the installation of ZS XPLORER. Please note that users upgrading from 2.00 or later are not required to re-install License Manager. Those upgrading from ZS Xplorer vers.1.50 or earlier must install License manager.

## ZS XPLOERER Installation

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



*Figure 3 "Disconnect Zetasizer Unit" message*

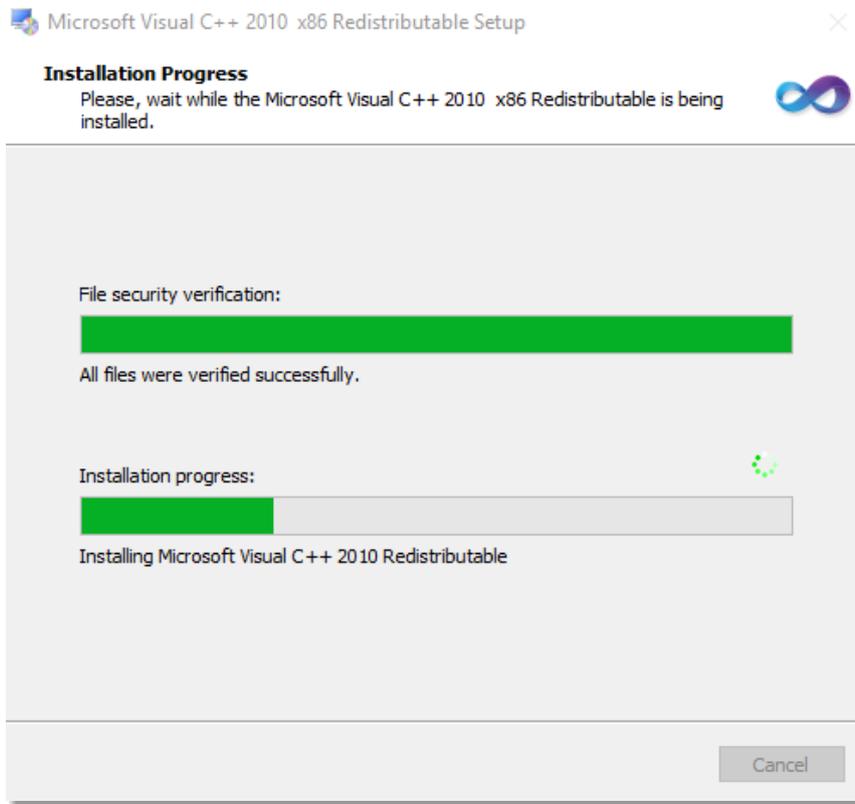


**Note:**

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

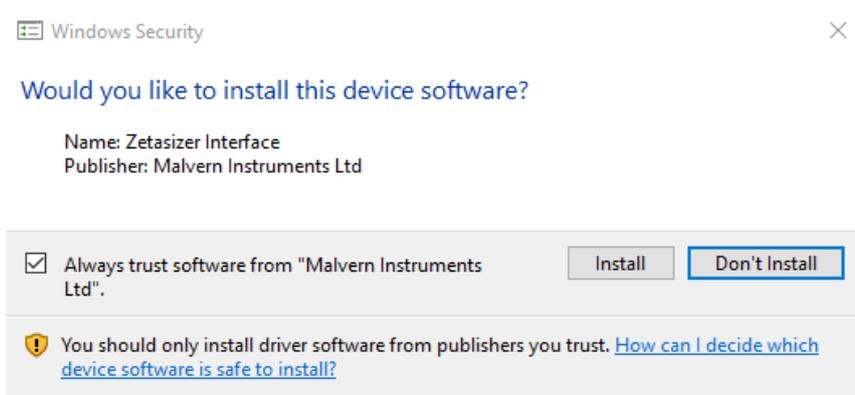
The Microsoft .Net Framework 4 (version 4.6.2 or greater) and the Microsoft Visual C++ Redistributable must be installed for the ZS XPLOERER software to run. This is installed during the ZS XPLOERER software installation progress and under certain circumstances can involve the computer needing to restart. 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, figure 4.



*Figure 4 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 5*.



*Figure 5 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 to the computer

When the software has been installed and the instrument has been connected via the USB port, and switched on, the ZS XPLOER software may need to upgrade the firmware on the Zetasizer, in which case the status icon on the lower right of the software screen will indicate such (see *Figure 6*).



*Figure 6 instrument firmware updating status icon*

Users should not disconnect or power off their PC or instrument during normal firmware updating. In some rare occasions the firmware may fail to update correctly, in such circumstances a notification will be displayed indicating the issue – please restart the instrument and software to reset and repeat the firmware upgrade process.

With the correct firmware version installed the Zetasizer will connect to the instrument. A successful connection is indicated with an icon in the corner of the software (see *Figure 7*) showing green and with a tick.



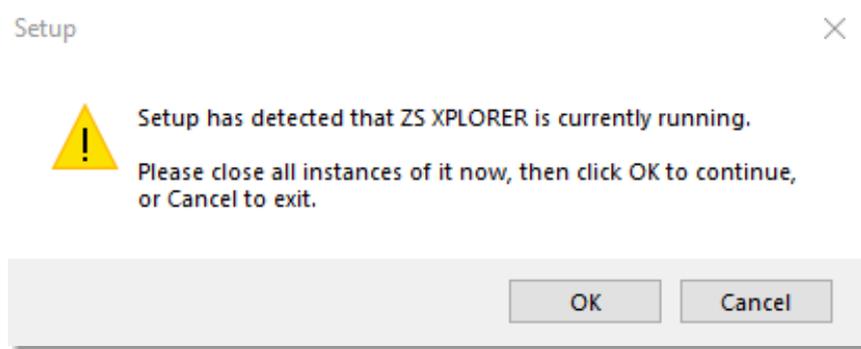
*Figure 7 Instrument connected icon*

## Uninstall Procedure

The software can be uninstalled using the standard Apps & Features panel in Windows Settings.

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

If the installer is run whilst the software is running, the window in *Figure 8* will display.

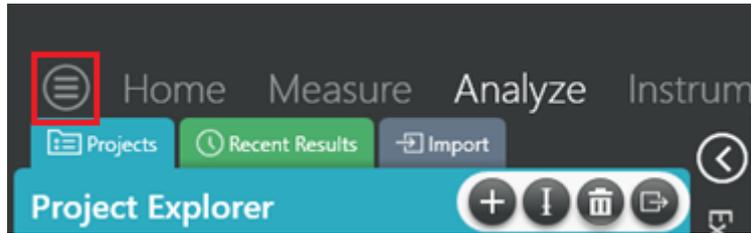


*Figure 8 Running installer with software open*

## Connecting the MPT-3 Titrator to the PC

Ensure the computer is turned on and connected to a Zetasizer Advance system.

Connect the MPT-3 Autotitrator to the computer using the USB cable provided, ensuring that it is turned on. Click on the settings button in the top left corner of the ZS XPLOER software. See *Figure 9*.



*Figure 9 Software options*

Click Options and navigate to the Titrator tab as seen in *Figure 10*.



### Options

Folders **Titrator**

#### Connection settings

*The titrator connection settings allow configuration of how the titrator connection is detected by the software.*

*Figure 10 Titrator options page*

On the COM Port drop down menu, select USB Serial Port (COMXX) as shown in figure 11. (Note that the COM port number and description may vary). If the titrator has been detected on this port, then a green tick will be visible See *Figure 11*.

Folders **Titrator\***

#### Connection settings

*The titrator connection settings allow configuration of how the titrator connection is detected by the software.*

COM Port: USB Serial Port (COM7)  **Titrator detected.**

*Figure 11 Titrator successfully detected*

If the titrator is not detected on the selected COM port, then a red exclamation icon will be displayed with a message. See *Figure 12*.

## Connection settings

The titrator connection settings allow configuration of how the titrator connection is detected by the software.

COM Port:  

Figure 12 Unable to detect titrator

Once the titrator has been detected, click to save the settings.

Once the settings are saved an icon and a saved message will appear next to the saved COM port as shown in Figure 13.

## Folders **Titrator**

### Connection settings

The titrator connection settings allow configuration of how the titrator connection is detected by the software.

COM Port:  

Figure 13 COM port saved

The titrator icon at the bottom right of the screen should turn green indicating that the titrator is successfully connected as shown in Figure 14.



Figure 14 Titrator successfully connected

## New Features

### Custom Workspaces

Two additional custom workspaces are available.

Changes to these workspaces are persisted between sessions.

Custom workspaces can be renamed.

Malvern default workspaces are now indicated with a Malvern logo.

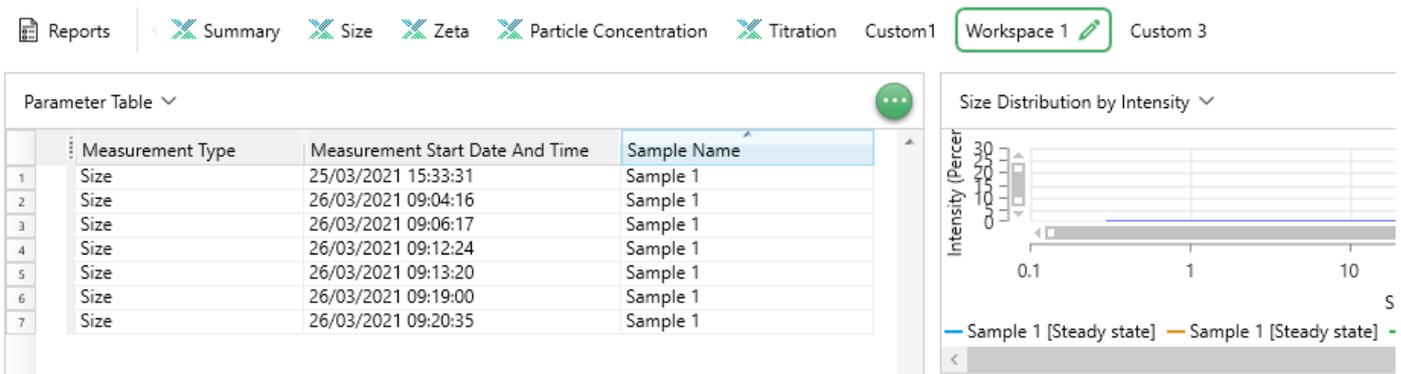


Figure 15 Additional renamable workspaces

### pH Reader - Manual pH measurements with MPT-3

Allows the pH of the current sample in the titrator to be measured and displayed.

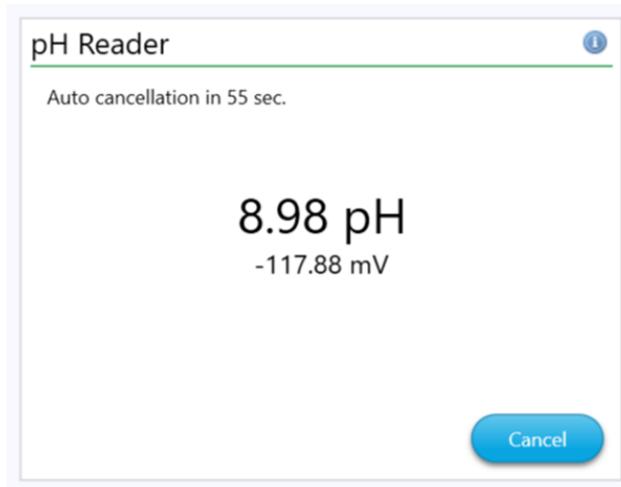


Figure 16 Manual pH reader

## Prevent multiple instances of a method being opened

Only one instance of a method can be opened. If the user opens a method that is already in the method list it will be selected instead of opening a new instance of that method.

## Peaks 'ordered by size' parameters

Size peak values have been added which have the peaks ordered by size rather than area.

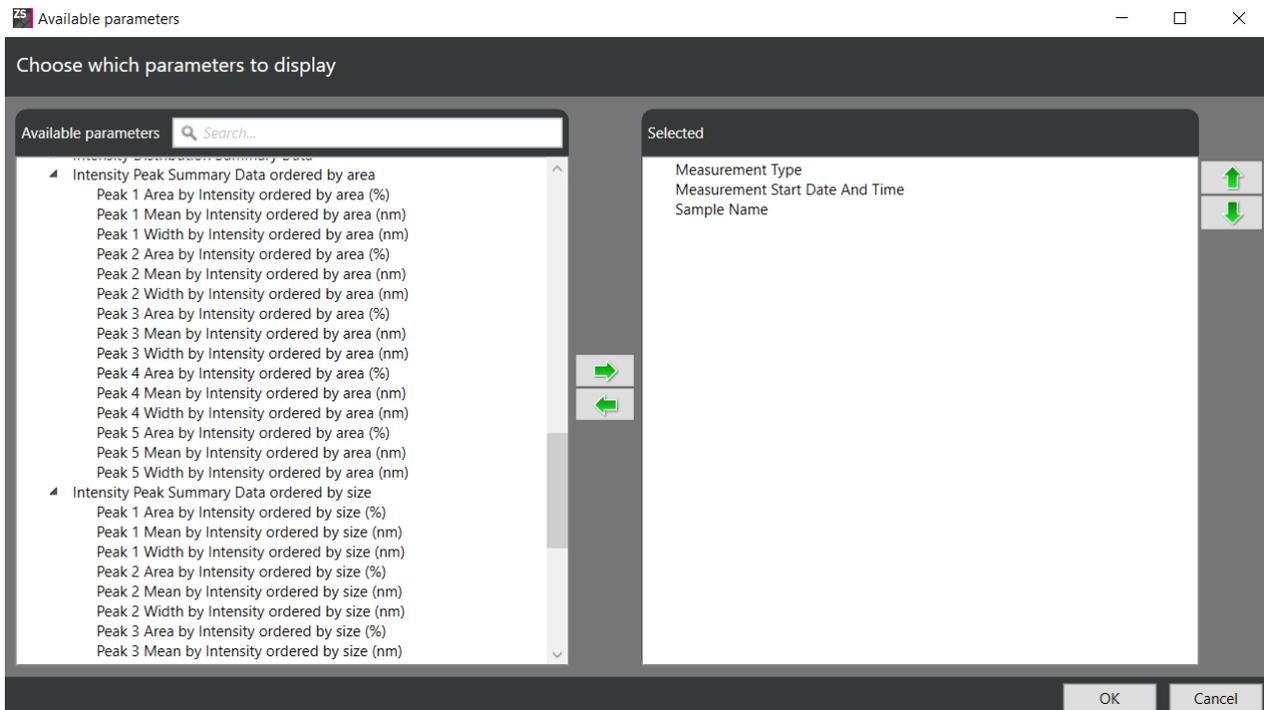


Figure 17 New size peaks ordered by size parameters

## Prerequisite component installer improvements

Provide information to the user if any of the prerequisite components fail to install and do not continue with the installation.

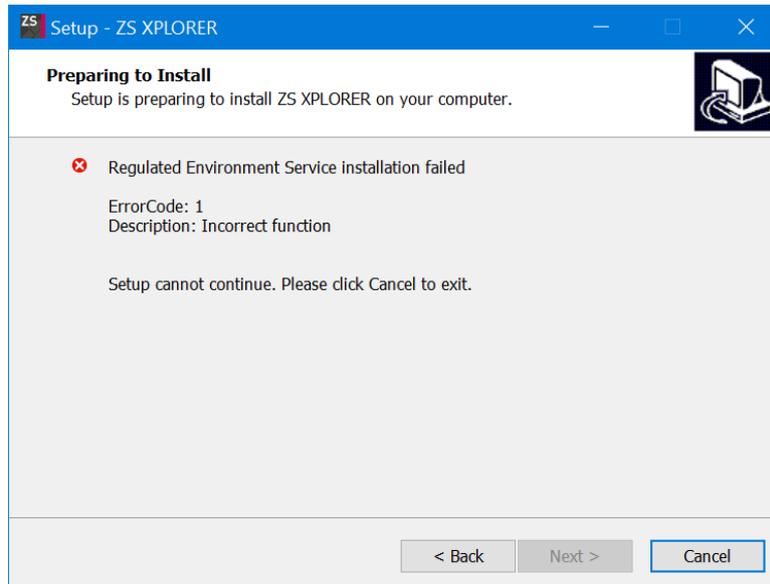


Figure 18 Installer prerequisites additional information

## Scattering Count Rate

Increased particle concentration dispersant scattering upper limit to 2000

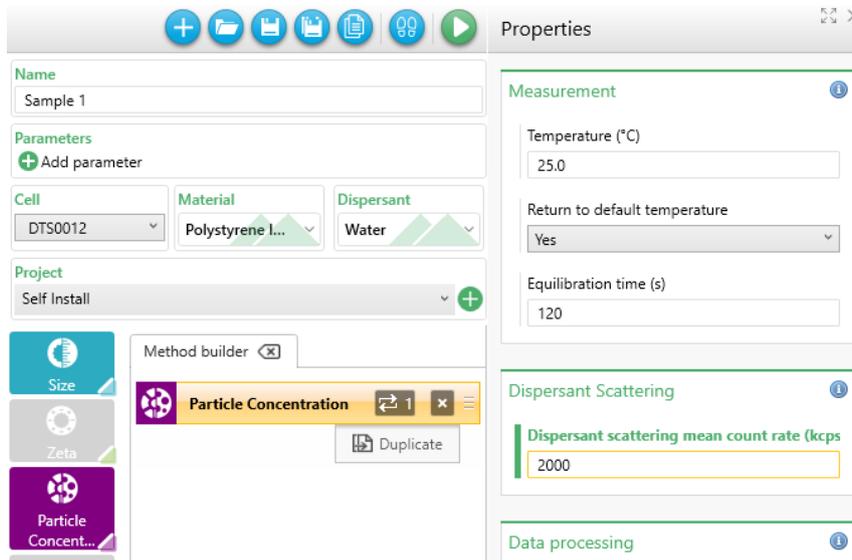


Figure 19 Updated scattering count rate

## Instrument Service

The instrument service has been split out of the ZS application and now runs as its own service. The service is installed as part of the ZS installer.

## GAMP 5 Software categorization

In its standard mode of operation, the Zetasizer Xplorer software provides users with a series of standard interfaces and functions that enable the software to be configured to meet specific user business requirements. These interfaces include the ability to define Standard Operating Procedures (SOPs) for sample measurement and create report definitions using pre-defined functions. If users apply these functions, then the software can be considered to be a Category 4 product.

## Security Advisories

The following section and table 2 details any security updates that have been addressed in this release, including fixes for identified vulnerabilities.



**Note:**

We always recommend updating to the latest software version which will provide you with new features, bugfixes and most importantly, security updates.



**Note:**

Other products may also be affected by any issue described here. We recommend you regularly check the Software Updates Notifications (SUNs) for all of your Malvern Panalytical products, and register on our website to receive updates.

*Table 2 Security updates*

Reference	Description	Recommendation
HEN-1042	Version 2.00 and earlier of the ZS XPLOER software contains a vulnerability which could allow an attacker to craft malicious measurement (.zmes) and schedule (.zskd) files. Loading one of these malicious files could result in arbitrary code execution. Version 2.10 introduces a fix to completely mitigate this vulnerability.	Upgrade to version 2.10 of the software. Never open files from an untrusted source, even if they appear to be non-executable.
HEN-572	Version 1.50 and earlier of the ZS XPLOER software contains a vulnerability in the reports feature which could allow an attacker to craft a malicious report file. Loading a malicious report file could result in arbitrary code execution. Version 2.00 introduces a fix to completely mitigate this vulnerability.	Upgrade to version 2.00 of the software. Never open files from an untrusted source, even if they appear to be non-executable.

## Changes and fixed issues

The main changes and issues fixed in this release of the software are listed in table 3.

*Table 3 changes and fixed issues in version 2.2 ZS Xplorer software*

Reference	Issue	Type
BLE-3201	No SAT entry when record(s) moved between locations (ZS project)	Story
BLE-3351	Fix crash moving records in Regulated Environment	Bug
BLE-3371	Update RegEnv 4.0.1773 in ZSX	Story
HEN-498	Increase upper limit for buffer counts in MADLS-Particle Concentration	Story
HEN-499	Low volume disposable capillary cell shows 2uL lower volume limit	Bug
HEN-935	Installer - Fail the ZS installation if RE fails to install	Story
HEN-978	Fix crash - Cannot find group id in repository	Bug
HEN-1149	Allow users to make manual pH measurements with MPT-3	Story
HEN-1194	Fix crash moving records from one project to another	Bug
HEN-1214	Add 3 custom workspaces	Story
HEN-1215	Highlight Malvern Panalytical Defined Workspaces	Story
HEN-1216	The custom workspaces can be renamed	Story
HEN-1217	Remove the Parameter table filter and ordering	Story
HEN-1270	Add new values for peaks ordered by size from smallest to largest	Story

## 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 they are provided.

*Table 4 Known issues in ZS Xplorer version 2.2.*

Reference	Severity	Issue	Workaround
HEN-1405	Normal	Software crashes after install if logged in user isn't admin and restart required	Reinstalling the software will resolve this issue.

	Normal	Regulated Environment customers upgrading to ZS Xplorer V2.2 will need to also upgrade to OmniTrail and OmniAccess V1.3.	Install Omnitrail V1.3 and OmniAccess V1.3 when using ZS Xplorer V2.2 in a regulated environment.
BLE-3398	Normal	Electronic record validation error event present in OmniTrail when selecting a running measurement	No workaround, but something for auditors to be aware of.
BLE-3400	Normal	When in a Regulated Environment if a user's full name cannot be retrieved (network connectivity issues) then they cannot sign for events.	Ensure connected to windows domain network.  Ensure full names are set on windows local accounts.
BLE-3379	Normal	ZS Xplorer not visible in OmniAccess when using central configuration if the following conditions are met:  ZS Xplorer is installed after previously setting up central configuration on a client and the client PC has not been restarted since the application was installed and if the application is not already installed elsewhere on the centrally managed network.	Restart the client PC after installing ZS Xplorer. Enable central management after already installing ZS Xplorer on a client.
BLE-3353	Normal	A client with ZS Xplorer V2.0 installed cannot sync entries to a central management server using V4.0 of the regulated environment (shipped with ZS Xplorer V2.2)	Install ZS Xplorer V2.1 or higher on client PC.
HEN-945	Normal	Edited records display the original record created date – this is a display issue and underlying data is correct	Changing projects or re-starting the software will cause the display to be refreshed and display correctly
HEN-386	Normal	Run button disabled when connecting an instrument during measurement creation	Disconnect and reconnect the instrument or add another measurement step
HEN-377	Normal	Software locks-up if you cancel a measurement during the enable for size step	None- force close the application

## 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.

Click the Windows Start Button.

Type Event Viewer and press enter.

Navigate to Applications and Service Logs/Zetasizer All Events.

The window will display the most recent errors that have occurred with the ZS XPLOER software.

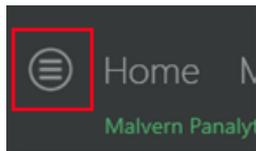
Error information can be selected and then exported with the Save selected Events button allowing this information to be passed to the Malvern Panalytical team for troubleshooting.

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

## Software version

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

Click on **Application Menu** button (*Figure 20*)



*Figure 20 Application Menu button*

Click on the **About** button

Read version number (Figure 21)

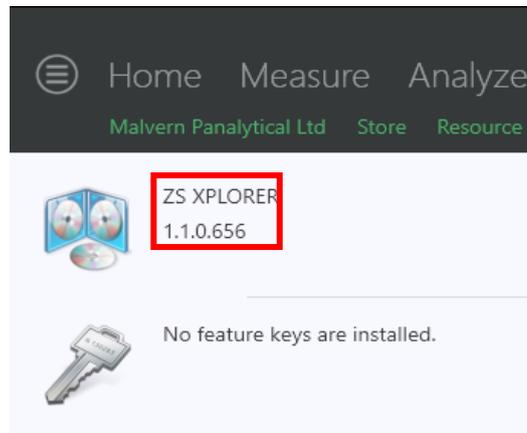


Figure 21 Software Version Number

## 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 22, and send the \*.zmes file to the Malvern Panalytical team for investigation.

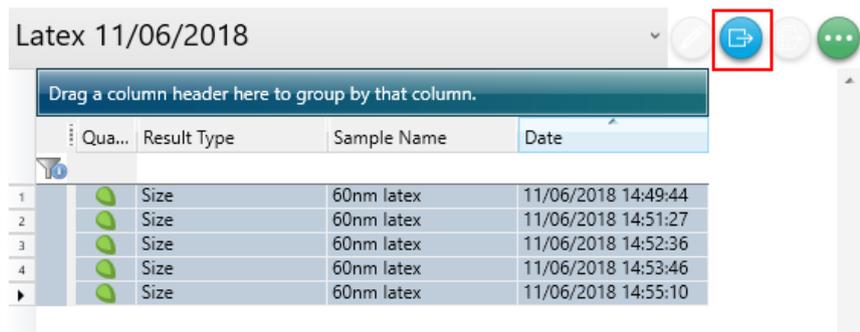


Figure 22 Exporting selected record

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