

NS XPLOER SOFTWARE: v1.1 (PSS0058-01) SOFTWARE UPDATE NOTIFICATION

Introduction

This document details the release of software PSS0058: v1.1 of the NanoSight NS XPLOER software for the NanoSight Pro system. Installation instructions are provided.

Installation

It is assumed that you have authority to install or update software within your facility. It is also assumed that you have Administrator rights for the system upon which the software is installed, as this is a requirement of the installation process. If you do not have this authority, please consult with your I.T. support department before proceeding.

Compatibility

The NS XPLOER software is compatible with the NanoSight Pro instrument and Windows 10® 64-bit or Windows 11® 64-bit only.



NanoSight Instruments LM10, NS300, NS500 and operating systems Windows XP®, Windows Vista®, Windows 7® and Windows 8® are not supported.

Recommended System Requirements

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

Processor Type	12 th Gen+ Intel Core i7™ Processor (12 cores/2.1GHz/25MB Cache) or equivalent
Memory	16 GB RAM
Hard Disk Storage	1TB Solid State Drive (SATA or NVMe)
Display Resolution	1920 x 1080 full HD screen resolution running in 16-bit color mode
Display Size	15" minimum recommended
Connectivity	3x free USB ports (at least one USB 3.0) An internet connection is desirable
Operating System	Windows 10® 64-bit - minimum release 20H1 Windows 11® 64-bit

Table 1: Recommended system requirements

Supported operating systems

NS XPLOER software is compatible with all versions of Windows 10® and Windows 11®. Only 64-bit versions are supported.

Windows XP®, Windows Vista®, and Windows 7® and Windows 8® are not supported.

Supported Languages

- English

Installation Instructions

Before use, the PC operating system must be configured. Please see **Appendix 1** for further information.

The software suite is available on the instrument or as a web download. The downloaded extractor contains the NS XPLOER Setup and License Manager Setup files. License Manager is a prerequisite of NS XPLOER.

Locating the software on the instrument

The software suite is provided on a permanent internal USB by default.

To locate the software installer, open File Explorer in Windows and navigate to the drive labelled 'NS XPLOER'

Installation

Double click on the NS XPLOER install file. A Windows® User Account Control popup is displayed

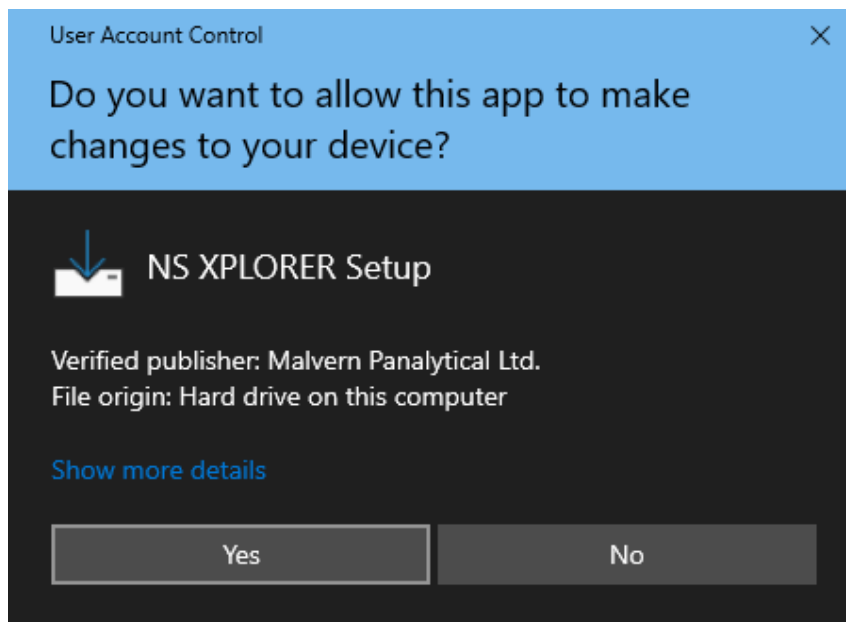


Figure 1: User Account Control

Select Yes button and the NS XPLOER wizard opens

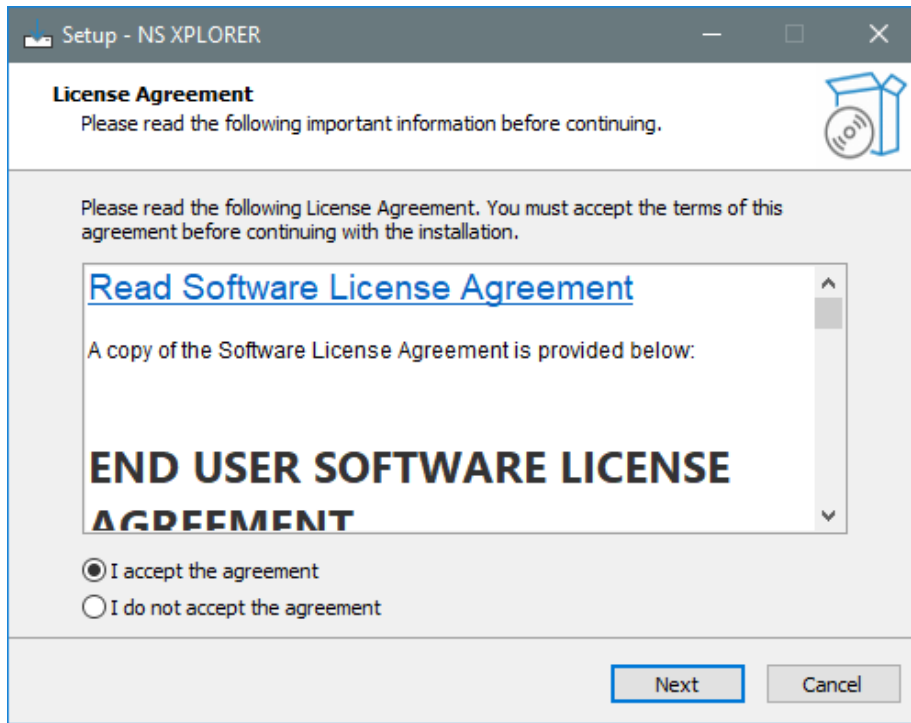


Figure 2: License agreement

Select the box next to “I accept the terms in the License Agreement” then select Next
Choose to have desktop shortcut or not and select Next

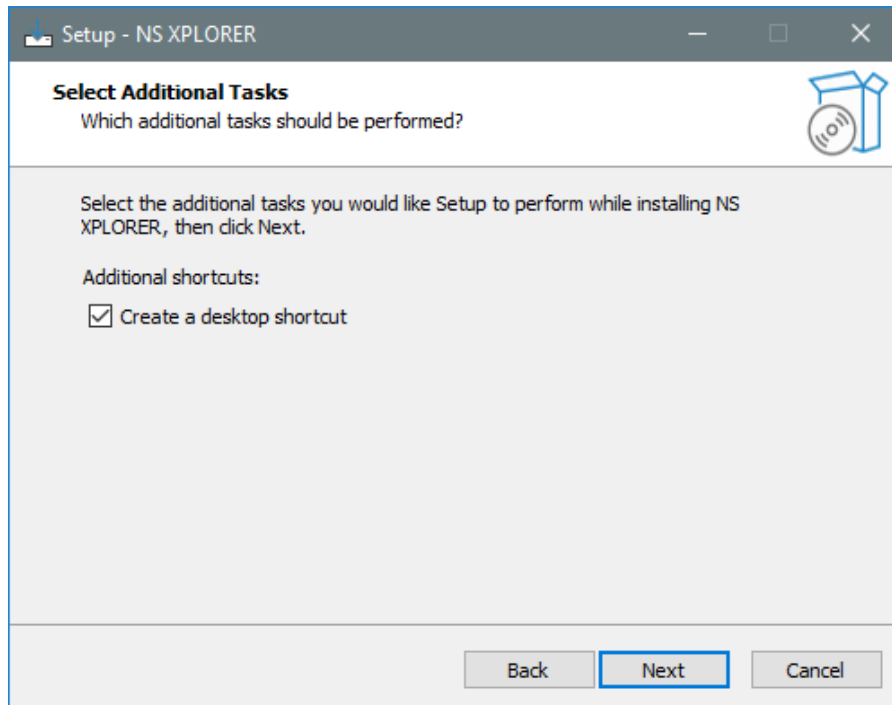


Figure 3: Create desktop shortcut

Choose the appropriate tick boxes for Smart Instrument and then select Next.
More information on Smart Manager and Smart Instrument can be found on Malvern Panalytical [website](#).

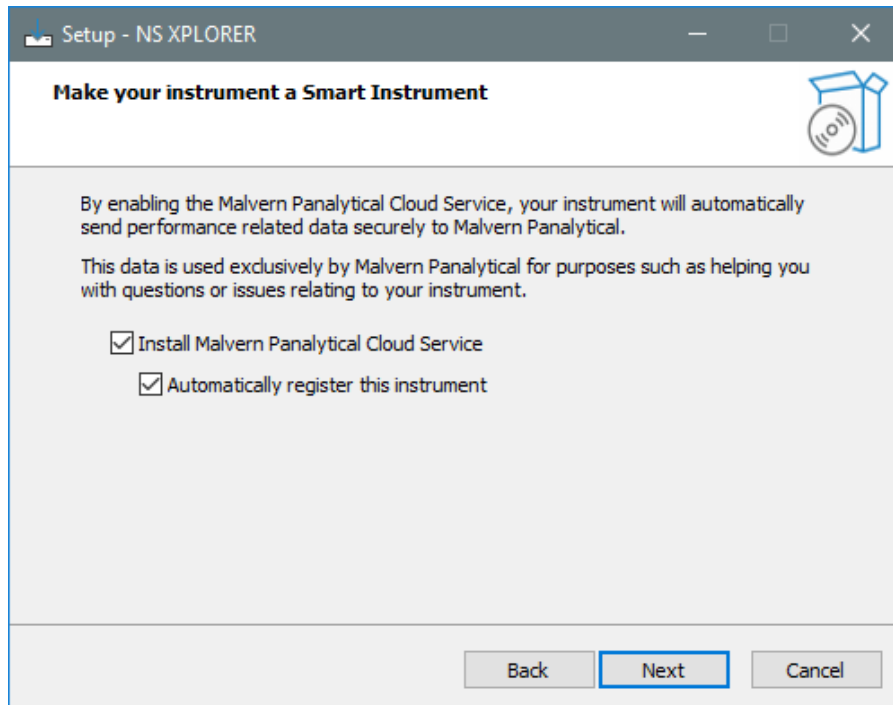


Figure 4: Install Malvern Panalytical Cloud Service

Click the install button

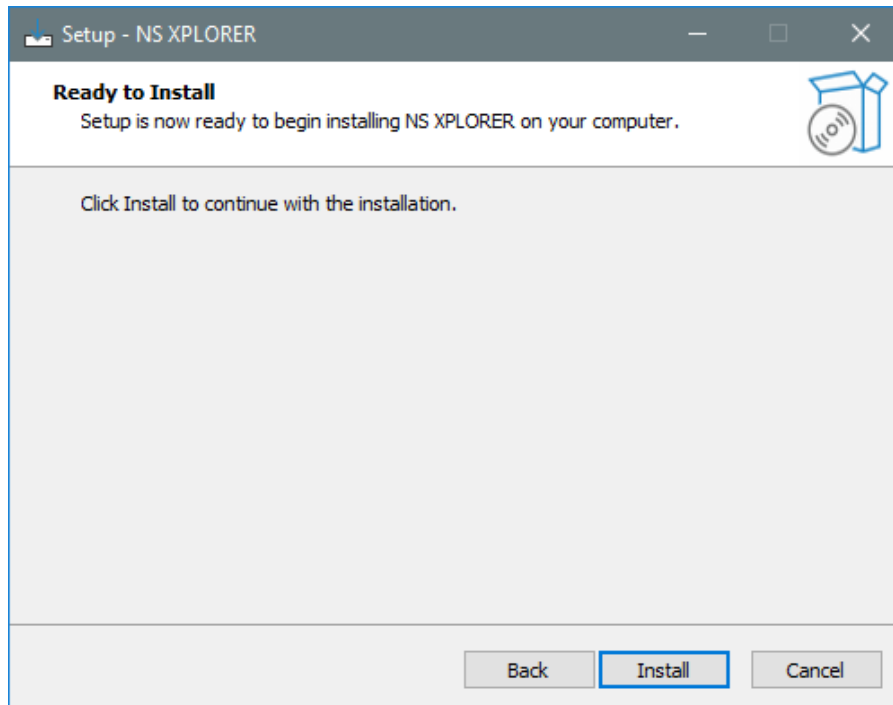


Figure 5: Ready to Install

Installation will begin

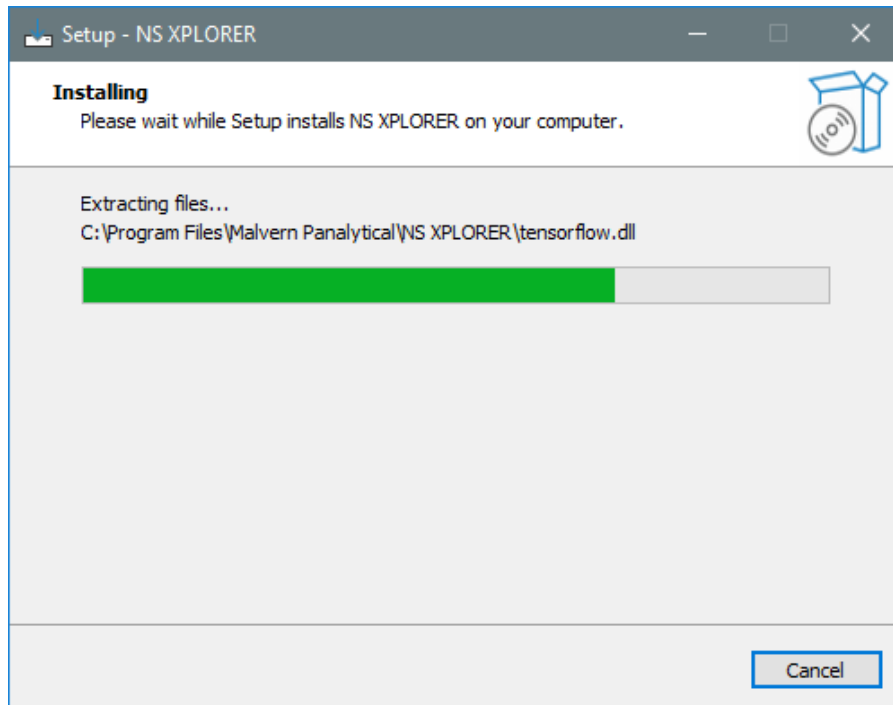


Figure 6: Installing

Select Finish and wait for your PC to Restart.

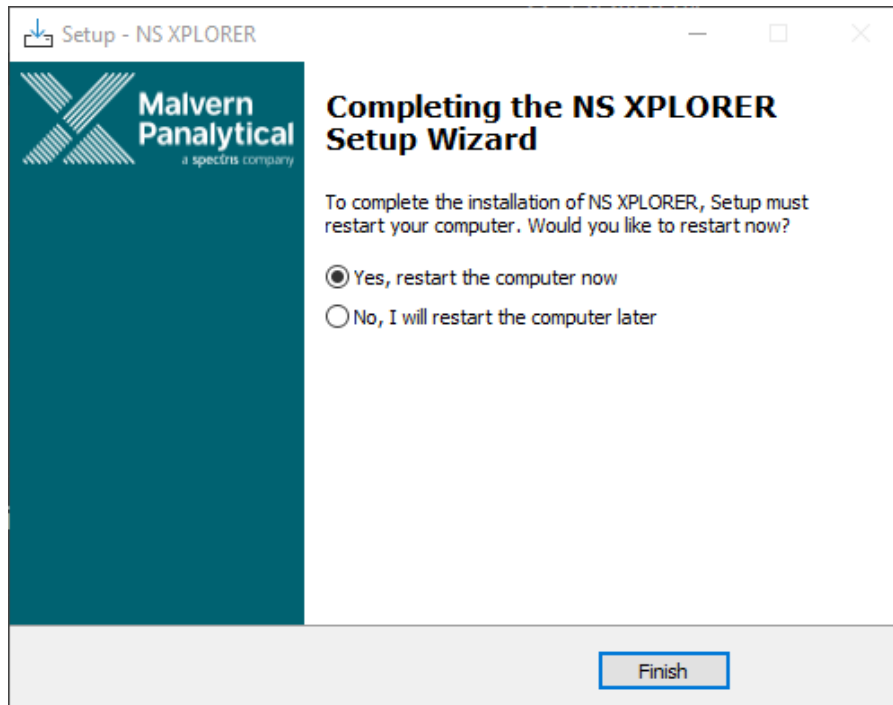


Figure 7: Completing setup

Connecting the NanoSight Pro to a PC

Connect the instrument and syringe pump to any free USB port.

Connect the camera to a free USB 3.0 port.

Note:



Once the software has been installed, connect the instrument to the PC and switch on the instrument before opening the software for the first time.

NS XPLORER software can be opened via double clicking the shortcut on the desktop.



Figure 8: NS XPLORER icon

NS XPLORER launches into the Home Screen and Hardware is detected.

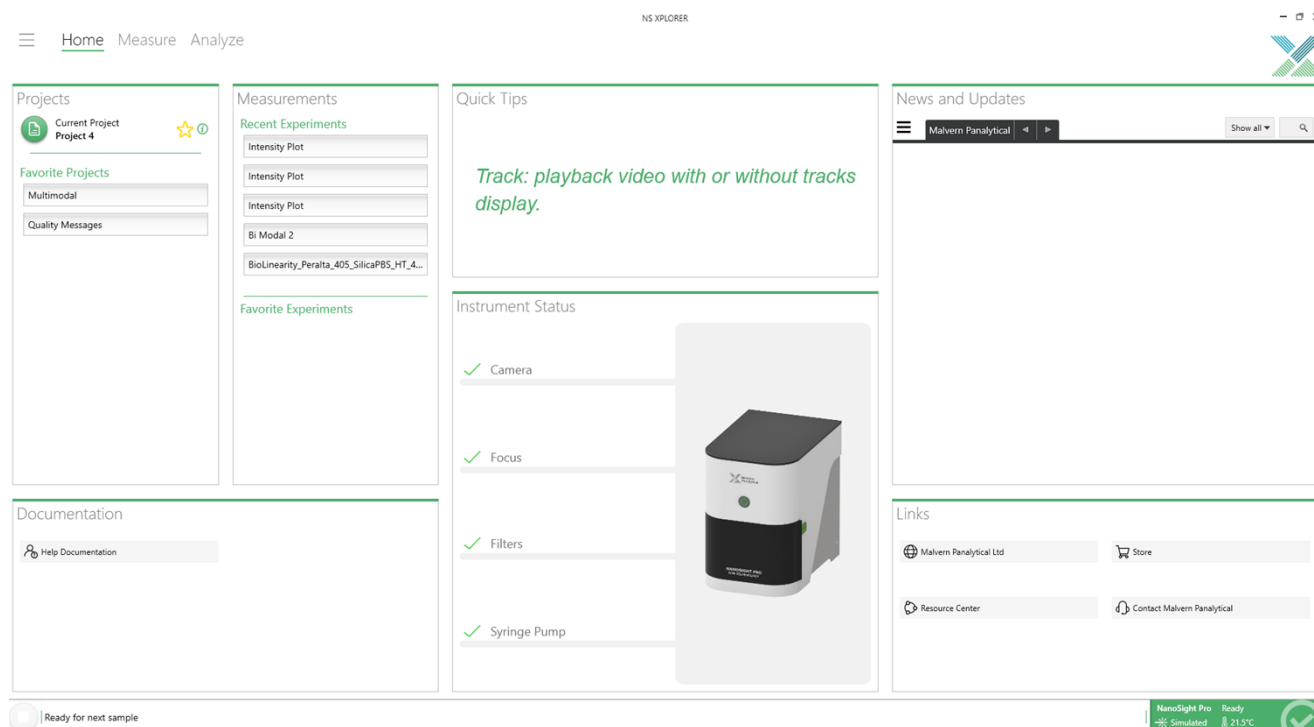


Figure 9: NS XPLORER home screen

A successful connection is indicated with an icon in the corner of the software. See Figure 10.



Figure 10: Instrument connected icon

Windows® settings configuration

For best performance it is recommended that the following changes to Windows® settings are made:

In Control Panel-> Device Manager:

- Expand Universal Serial Bus Controllers

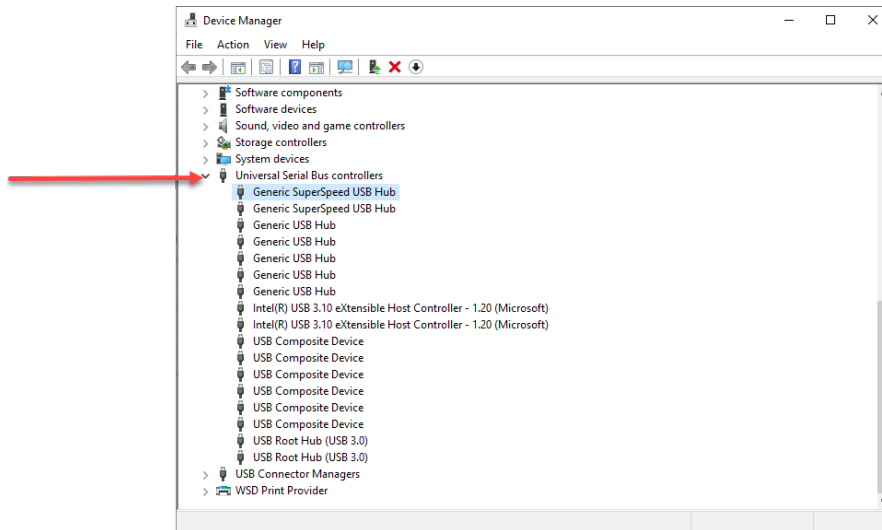


Figure 11: Device Manager

- Right-click "Generic USB Hub", click Properties

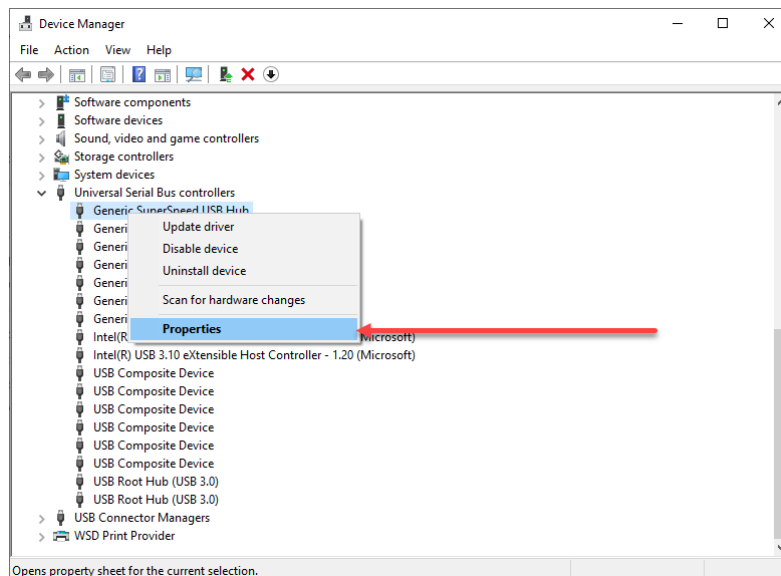


Figure 12: Device Manager Properties

- Click the Power Management tab and uncheck "Allow the computer to turn off this device to save power"

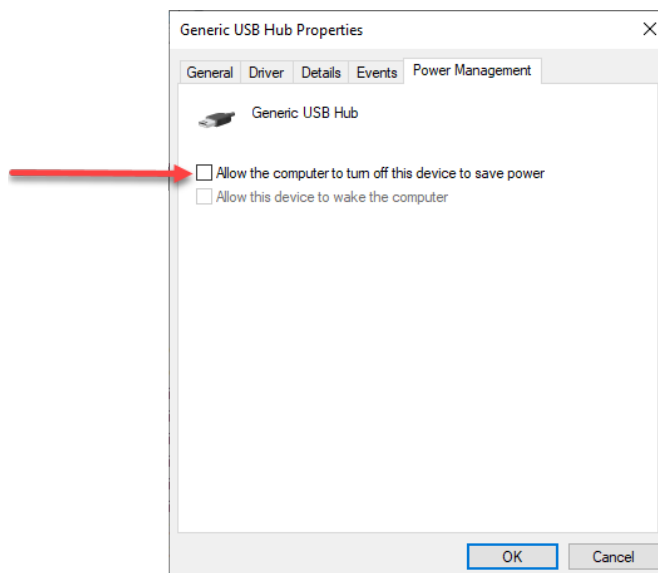


Figure 13: Device Manager Hub

- Repeat this step for all "Generic SuperSpeed USB Hub", "Generic USB Hub", "Intel® eXtensible Host Controller" and "USB Root Hub" devices.

Uninstall Procedure

The software can be uninstalled using the Programs section of the Windows® 'Control Panel'.

Important information when upgrading from v1.0

Default flow rate (Action required)

On the Measure page the default flow rate has been increased from 1.5 μ L/min to 3 μ L/min. When upgrading the software from v1.0, the value will not change automatically and will need to be changed manually.

We recommend changing the value to 3 μ L/min however you may choose to leave it at 1.5 μ L/min or set it to your own defined value.

1. Close any open measurements on the Measure page.
2. Open the v1.1 software and navigate to the Configuration page.

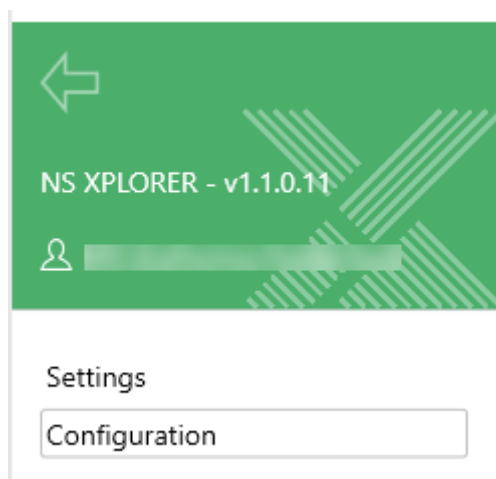


Figure 14 : Configuration

1. Change the default value for the syringe pump.



Figure 15 : Syringe pump default value

1. Click Save.
2. Default value is now updated.

Update default location for measurements from C:\ to D:\ and migrate existing data

Due to measurements quickly filling up the C:\, the default location for measurement data has changed to be located on the D:\

As a one-off process, when updating from v1.0 to v1.1 all measurement data currently on C:\ will be migrated to D:\Malvern Panalytical\NS XPLOER\Measurement Data\



Note:

This only applies to PC's supplied with the instrument, other PC's such as laptops are not affected.



Note:

This process can take some time depending on the number of measurements needing to be migrated. Please allow sufficient time to allow this to happen when upgrading as the software will not be accessible during this process.

Improvements

Measure page

- Increased timeout from 10s to 30s for the banner when using a manual setup and reduced height of banner
- Added labels to the preview overlay graph
- Set temperature in SOP based on dispersant used for custom dispersants
- Custom dispersant temperature automatically applied and improved workflow control.
- Added a popup when hard drive is full with action to abort measurement
- Advance flow workflow corrected for static measurements

SOP	Flow	Advance	Description
Scatter/Fluorescence	Static	Off	No flow or sample advance is applied
Scatter/Fluorescence	Static	Automatic/Manual	A static measurement that advances the flow before starting every individual capture
Scatter/Fluorescence	Flow	Automatic/Manual	Measurement uses a flow and advances the flow before starting the capture

Table 2: Static measurement workflow

- Advance sample equilibration time updates:
 - The preset value is increased from 3 to 8 seconds
 - the valid range is between [1, 20] seconds
 - the user can edit the value when manual mode of the advance sample is selected
- Neutral density filter option disabled unless available as part of system configuration

Analyze Page

General improvements

- Cannot collapse list while historical record is selected



Figure 16: Cannot collapse if historical record selected

- Update all the supported "Copy Data" formats to be consistent using comma delimited data.
- Display brightness no longer available for deleted video
- New combined export function introduced and available by right click on a measurement record. Zipped format contains CSV exported data and 10 sec compressed videos.

Updated Record information section with more relevant data

- Switches the order of Mode and Mean parameters
- Changes 'SPAN' to 'Span' (tooltip and parameters)
- Added mean standard deviation parameter
- Comment control improvements
 - Double click to edit instead of triple click
 - Automatic text wrapping
 - 2000-character limit
 - Fixed comment box not saving
- Changed 'Capture duration' label to 'Single capture duration' and added capture duration in frames alongside the seconds

Export and Import a measurement

- It is now possible to Export and Import a single measurement up to 50GB

Export and Import a project

- It is now possible to Export and Import a project up to 300GB



Note:

The maximum size for exporting a project is 300GB. If you try and export a larger project you will see a message to split the project for exporting.

Graphs

- Consistent concentration labelling using scientific notation applied

Tables and Reports

- Sample name added to statistics and fluorescence tables
- Fluorescence measurements - settings table summary includes fluorescence data
- Updated table parameter labels
 - Fluorescence table 'Sample' label changed to 'Type'
 - Settings table 'Sample name' changed to 'Sample'
 - Units added to Flow rate label

Settings Table ▾	
Sample	
Diluent	
Dilution factor	
Viscosity [cP]	
Sample temperature [°C]	
Capture date	
Capture duration [seconds]	
Capture duration [frames]	
Number of captures	
Laser wavelength [nm]	
Filter	
Flow rate [μL/min]	
Distribution type	
Instrument serial number	

Table - Fluorescence Measu		
Type	Mode [nm]	M
Scatter	102.5	

Figure 17: Updated table labels

- Tables updated with more relevant defaults and made consistent with report defaults. The following tables were updated to show more relevant default information:
 - Fluorescence, Statistics, Compare, Settings

Other

- Removed the restore all defaults button in the user settings
- Fluorescence csv export combined to include both fluorescence and scatter files rather than individually
- License Manager version updated in the software installer
- Malvern Panalytical Cloud Service version updated in the software installer
- Default measurement location changed to D:\ instead of C:\
- User defined paths for the measurement data location available in Settings page
- 'Quick Tips' updated
- A default flow rate parameter added in the configuration page allowing users to define their own default flow rate.

Known Issues

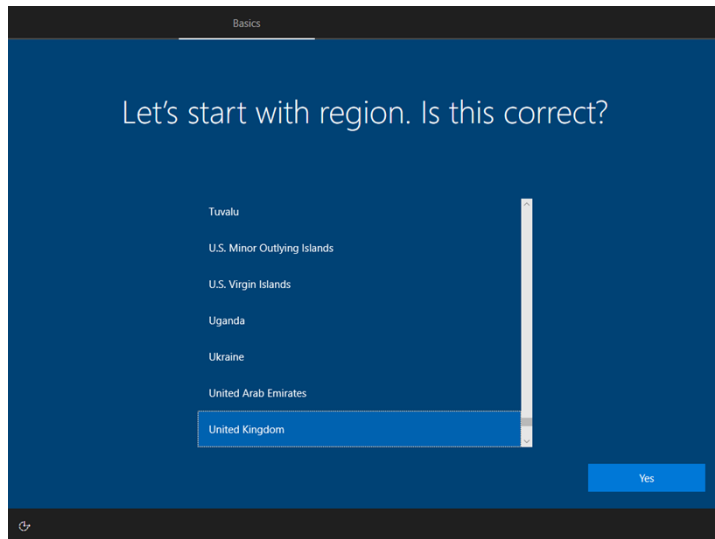
The following software bugs have been discovered within the software and will be investigated as part of a future release. Please follow the suggested work-around.

Reference	Severity	Issue	Workaround
185478	3 - Medium	Parts of the page cut off when increase Windows zoom level	Reduce Windows zoom level below 125%
187444	3 - Medium	Parts of the software can be 'clipped' by the taskbar	None
197437	3 - Medium	Video tab scrolls down/ up when you control focus using mouse wheel	Use the scroll bar instead of the mouse
101823	4 - Low	'Burger menu' expansion can be slow/jittery in fullscreen	None
107699	4 - Low	Save buffer overflow does not terminate capture	Retry measurement
189210	4 - Low	Possible lag when adding and dragging using lines to Raw data	None
205997	4 - Low	Some dialog boxes will appear on 2nd monitor	None
206749	4 - Low	Missing option in "News and Updates" Drop-Down List	None

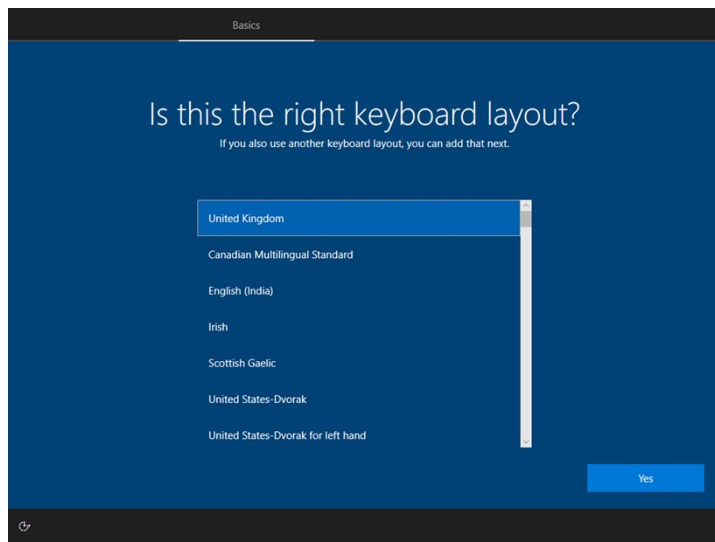
Table 3: Known issues in NS XPLOER v1.1 software.

Appendix 1 – Windows® Installation Instructions

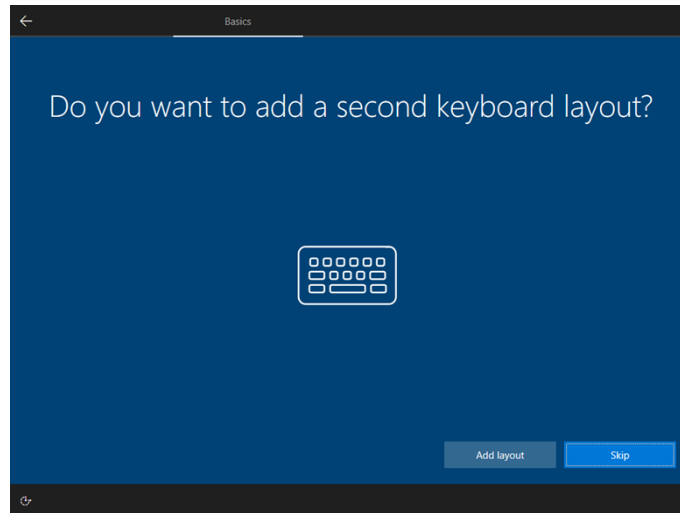
1. Select your region and click **“Yes”** to continue



2. Select your keyboard layout and click "Yes" to continue



3. Add a second keyboard layout if required, otherwise click **"Skip"** to continue

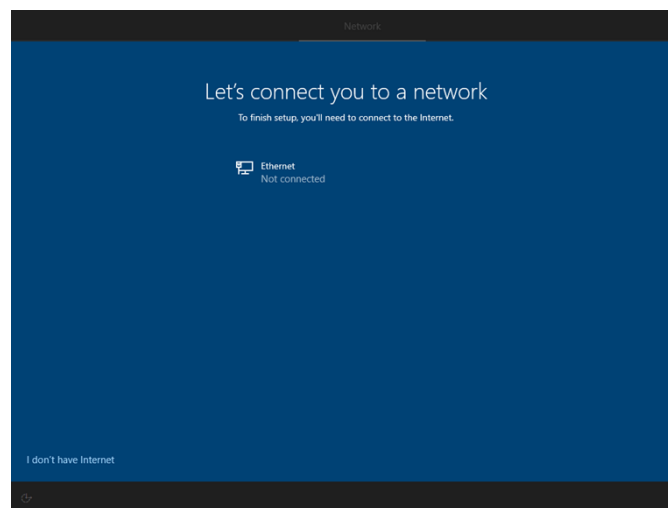


4. Unless you have a Microsoft™ account and are willing to login, it is suggested that you click **"I don't have Internet"** to continue.

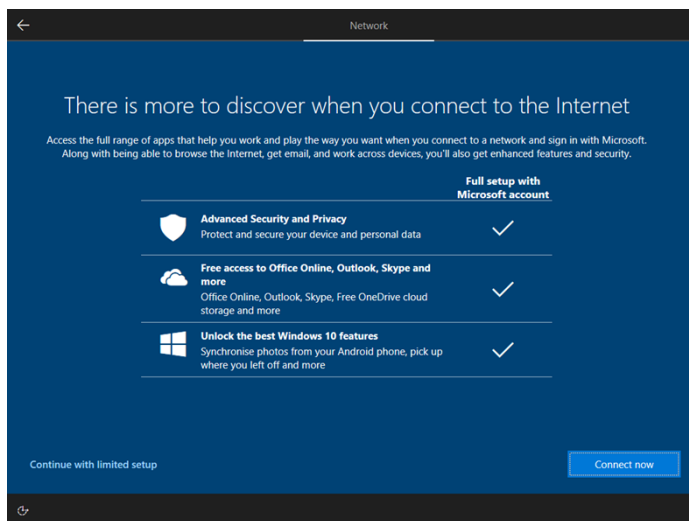


Note:

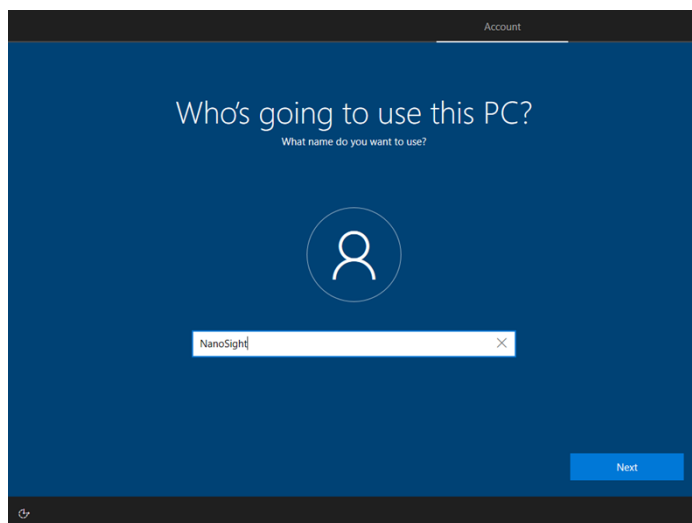
This does not stop you from connecting the PC to the internet (later on), it is only for the purposes of generating a local account as opposed to logging in via a Microsoft™ account.



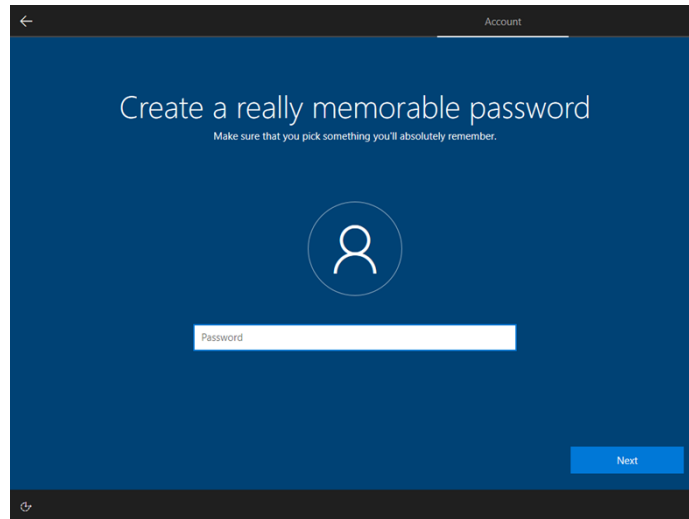
5. Click "Continue with limited setup"



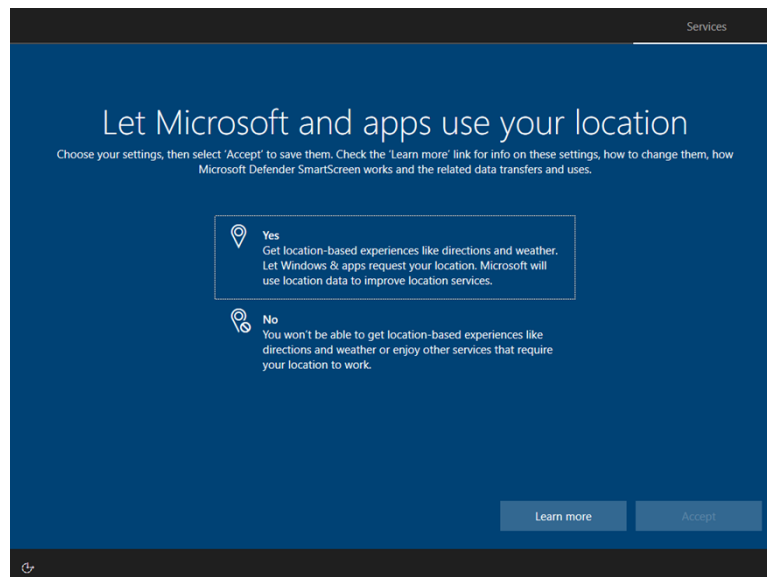
6. Enter your preferred username and click Next to continue



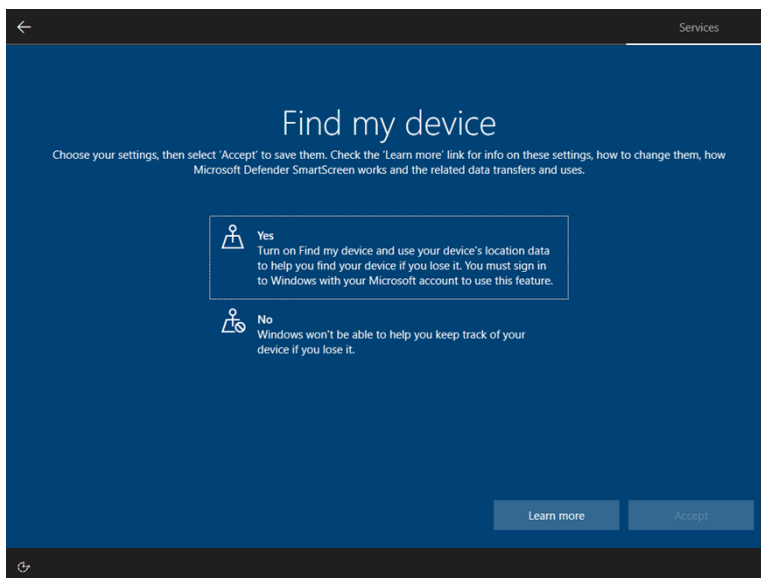
7. Choose a password or leave it blank, and click Next to continue



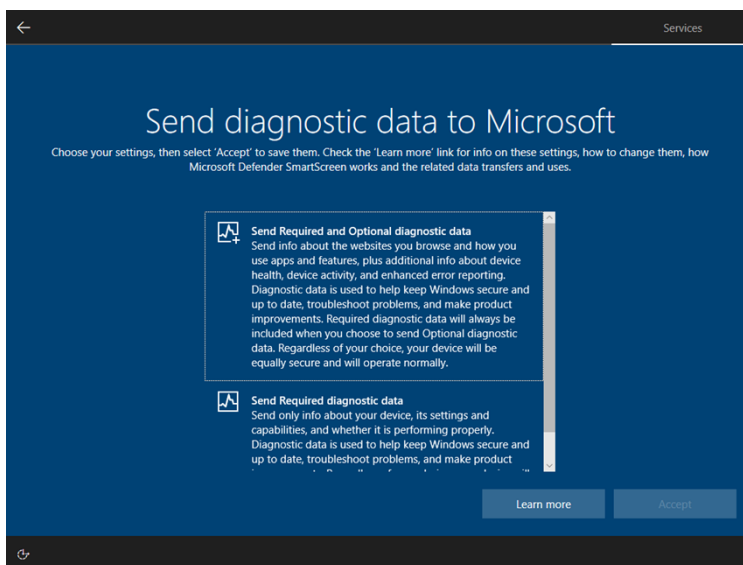
8. Decide whether to allow Microsoft™ to use your location. Click **“Accept”** to continue



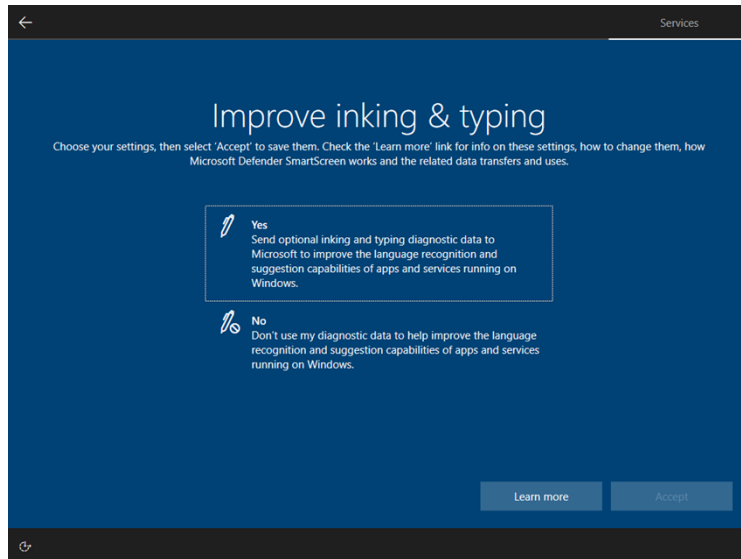
9. Choose yes or no for Find my device, click **“Accept”** to continue



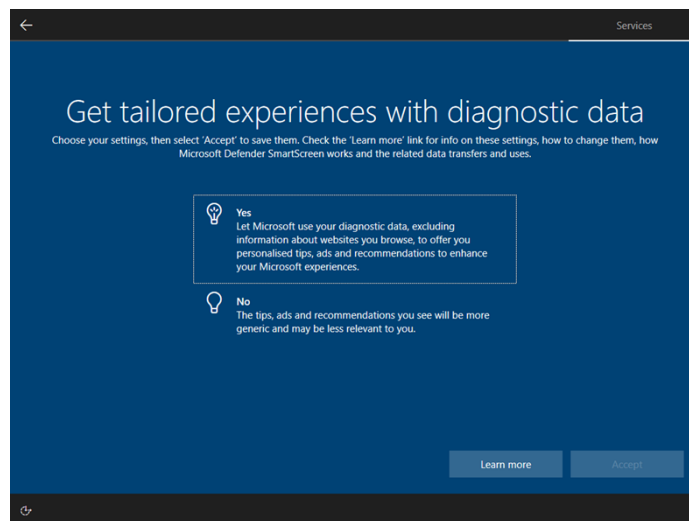
10. Choose the level of diagnostic data to send to Microsoft™. Click **“Accept”** to continue



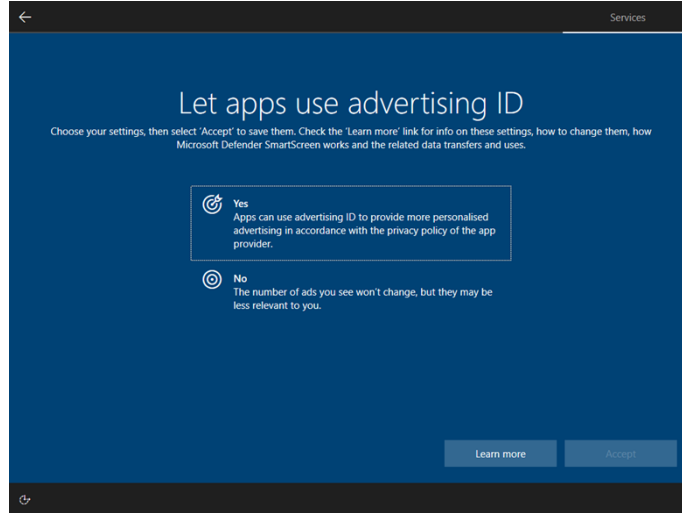
11. Select yes or no for inking and typing, click **“Accept”** to continue



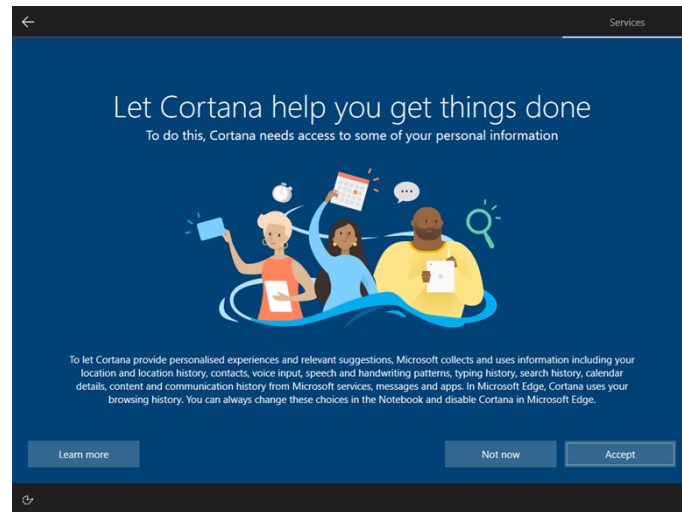
12. Choose whether to accept targeted advertising, click **“Accept”** to continue



13. Select yes or no for advertising ID, click **“Accept”** to continue



14. Setup Cortana™ if required by clicking **“Accept”**. Otherwise click **“Not now”** to finish





Groewood Road, Malvern,
Worcestershire, WR14 1XZ,
United Kingdom

Tel: +44 1684 892456
Fax: +44 1684 892789

Lelyweg 1,
7602 EA Almelo,
The Netherlands

Tel: +31 546 534 444
Fax: +31 546 534 598

www.malvernpanalytical.com

Disclaimer: Although diligent care has been used to ensure that the information in this material is accurate, nothing herein can be construed to imply any representation or warranty as to the accuracy, correctness or completeness of this information and we shall not be liable for errors contained herein or for damages in connection with the use of this material. Malvern Panalytical reserves the right to change the content in this material at any time without notice.

Copyright: © 2024 Malvern Panalytical. This publication or any portion thereof may not be copied or transmitted without our express written permission.