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Software Update Notification Malvern Link II v3.48.1

Date

31 March 2023

Unrestricted Document



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| Subject | | Software Update Notification - Malvern Link II v3.48.1 | | | |
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1. Update Summary

This release, v3.48, updates the compatibility of Malvern Link II to the Mastersizer software Version 3.88 for use with the Mastersizer Auto-Lab.

Whilst functionality should be maintained with Insitec RTSizer and other Automated Mastersizer platforms it is recommended to use Malvern Link II v3.47 until full testing of these platforms is completed.

2. Software Product Overview

Malvern Panalytical manufactures analyser instruments used for particle-size measurement. The Analyzer instrument is used to monitor and optimize a manufacturing process. Malvern Link II software will provide a single uniform platform for automating the process line interface, analyser instruments and additional hardware.

- 1. Malvern Link II product suite has five product editions:
- 2. Malvern Link II Essential
- 3. Malvern Link II Lite
- (simple version for reporting analyser data only)
- 4. Malvern Link II OEM (version for controlling analyser only)
- 5. Malvern Link II Pro (includes remote reporting and control)
- Malvern Link II Ultra (includes remote reporting/control and 21 CFR Part 11 compliance – compatible with Insitec Only)

Note: When you install the Malvern Link II product first time it will install the Malvern Link II version. To update the application version from basic to Pro or Ultra version you must use the License Manager.

2.1. Malvern Link II Edition matrix

| Features | Essential | Lite | OEM | Pro | Ultra |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Automation Cabinet OPC Server | ~ | ~ | ~ | ~ | ~ |
| Device Configuration | \checkmark | × | × | \checkmark | \checkmark |
| Mimic Designer | \checkmark | × | × | \checkmark | \checkmark |
| Analyser Interface | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark |
| Document Portfolio | \checkmark | × | × | \checkmark | \checkmark |
| SOP Studio | \checkmark | × | \checkmark | \checkmark | \checkmark |
| Alarm E-Mail notification | \checkmark | × | \checkmark | \checkmark | \checkmark |
| User Security Management | \checkmark | × | × | \checkmark | \checkmark |
| Modbus OPC Server | × | \checkmark | \checkmark | \checkmark | \checkmark |
| Malvern Link II OPC Server | × | \checkmark | \checkmark | \checkmark | \checkmark |
| Remote Control | × | × | \checkmark | \checkmark | \checkmark |
| Data export (Fieldbus, Wired IO, OPC) | × | \checkmark | \checkmark | \checkmark | \checkmark |
| LIMS Integration | × | × | \checkmark | \checkmark | \checkmark |
| SOP versioning | × | × | × | × | \checkmark |
| Changes tracking | × | × | × | × | \checkmark |
| Advanced Security | × | × | × | × | \checkmark |

3. 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



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installation process. If you do not have this authority, please consult with your I.T. support department before proceeding.

3.1. Instrument compatibility

The Malvern Link II v3.48 software is compatible with:

- Mastersizer 3000 when coupled with the Mastersizer Auto-Lab
- For the following instrumentation Malvern Link II v3.47 is advised
 - the following model of Insitec
 - o ITB5xxx and ITT5xxx : Insitec 2000 model
 - IDC5xxx : Insitec 2004 model
 - o ITX5xxx : Insitec X model
 - ILC5xxx : Insitec Liquid
 - the Mastersizer 2000
 - the Mastersizer 3000 Automated
 - the Zetasizer family:
 - Zetasizer Nano range
 - o APS

3.2. Mastersizer software compatibility

The compatible version of Mastersizer software for this release of Malvern Link II software is version 3.88.

3.3. Recommended System Requirements

The recommended requirements for running this software are highlighted in the table below:

Feature Specification Intel Core i7 Processor (8th Generation or higher) Processor Type Memory 16GB Hard Disk Storage 250 GB SSD **Display Resolution** 1024 x 768 Connectivity 1 USB 2.0 or USB 3.0 port **Operating System** Windows 10 Enterprise (64 bit - Pro and Enterprise) Power settings High performance

3.4. Windows Security Policy

The user must have the Administrator rights in order to install Malvern Link II software

3.5. Prerequisites

The Malvern Link II automation software requires that the following already be installed on the PC, in addition to the Operating System requirements:

| Softwar | e | Description | |
|---------|---|---|--|
| 1. | Microsoft .NET Framework 3.5 and 4.x | Microsoft .Net core components | |
| 2. | OPC Core Components Redistributable (x86) 101.2 | OPC foundation redistributable components | |
| 3. | RTSizer Software (version 7.40 minimum) | Insitec Software (if applicable) | |
| 4. | Mastersizer 2000 Software | Mastersizer 2000 software (if applicable) | |
| 5. | Mastersizer 3000 Software (version 3.72) | Mastersizer 3000 software (if applicable) | |
| 6. | Zetasizer Software | Zetasizer software (if applicable) | |

The Microsoft .NET Framework 4.0 should be activated in windows, before the installation is done. The computer needs to be connected to the internet or have access to the appropriate Windows installation media. The Microsoft .NET Framework 4.0 can be activated by following the steps below:



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| Open the open the open the open the open set of the open | ne windows Control Panel | | |
| Click or | n Programs | | |
| Click or | n Turn Windows Feature on or off | | |
| . . | | | |

- Select .NET Framework 3.5 and .NET Framework 4.x (ASP.NET 4.x), where x is a number 0 or higher depending on the Windows version and the update state of the computer.
- Click on the OK button

3.6. Installing the software

The Malvern Link II software can be installed by running the executable "setup.exe" in the root of the installation medium. If prompted to install prerequired software components, install these components first. Malvern Link II installation will resume after all required software is installed.

3.7. Upgrading previous versions of Malvern Link II

You must uninstall any previous version before installing Malvern Link II. Please backup the existing configuration first, using the Malvern Link Backup Tool.

3.8. Installation Steps

This section describes the installation steps of Malvern Link II product.

1. Double click the Malvern Link II setup. The setup will start and the following window is displayed.



2. Click Next. The License Agreement window is displayed.



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| Setup | × |
|---------|---|
| Lio | ense Agreement Please read the following important information before continuing. |
| | Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation. |
| | Malvern Instruments Limited ("Malvern") |
| | Software Licence Agreement |
| | THE COPYRIGHT AND OTHER INTELLECTUAL PROPERTY RIGHTS IN THIS SOFTWARE AND ITS ASSOCIATED DOCUMENTATION ARE OWNED BY MALVERN AND/OR MALVERN'S LICENSORS. PLEASE READ THE TERMS OF THIS SOFTWARE LICENCE AGREEMENT ("LICENCE") WHICH IS EITHER |
| Malvern | I accept the agreement I do not accept the agreement Instruments Ltd. |
| <u></u> | malvern.com < Back Next > Cancel |

3. select I accept the agreement and click Next. The Mail Server window is displayed.

| Setup | × |
|--|--------|
| Mail Server Enter Mail ID and Mail Server Name | S. |
| Please specify email Id (Example : abc@malvern.com) and Mail Server name. Email Id: | |
| Mail Server: 127.0.0.1 | |
| | |
| | |
| Malvern Instruments Ltd, | Cancel |

- The E-mail address is used for identifying further Malvern Link II alarms.
- The Mail server should be the local E-mail server e.g. mail.server.com or 172.154.1.1
- 4. Type the e-mail Id and mail server name in the **Email Id** and **Mail Server** fields and click **Next**. The **Select Destination Location** is displayed with the default location of the installation directory.



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the software, possible changes to the results of future analysis or validation of a qualified system.

| Setup |
|--|
| Select Destination Location Where should Malvern Link II be installed? |
| Setup will install Malvern Link II into the following folder. |
| To continue, click Next. If you would like to select a different folder, click Browse. C:\Program Files\Malvern Instruments\Malvern Link II Browse |
| At least 76.9 MB of free disk space is required. |
| Malvern Instruments Ltd. Www.malvern.com Cancel |

5. Default installation location is displayed, to change the installation location click Browse and select the required location where the Malvern Link II product shall be installed and click Next. The Select Personal Data Location window is displayed with the default locations of Malvern Link II data and configuration files.

| Setup 🗾 |
|---|
| Select Personal Data Location Where should personal data and configuration files be stored? |
| Personal data and configuration files will be stored in the following folder. To continue, dick Next. If you would like to select a different folder, dick Browse. |
| Data location C:\Users\Public\Documents\Malvern Instruments\Malvern Link II Browse |
| Configuration location |
| C:\ProgramData\Malvern Instruments\Malvern Link II Browse |
| |
| |
| |
| Malvern Instruments Ltd, |
| www.malvern.com < <u>B</u> ack Next > Cancel |

6. Default installation configuration files location and default data location are displayed, to change the locations click Browse and select the required location where the Malvern Link II data and configuration files shall be installed and click Next. The Select Start Menu Folder window is displayed with the default location of Malvern Link II shortcuts. Installation location for data files must be in Shared Folders to enable non-Administrator user access.



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| Setup |
|--|
| Select Start Menu Folder Where should Setup place the program's shortcuts? |
| Setup will create the program's shortcuts in the following Start Menu folder. |
| To continue, click Next. If you would like to select a different folder, click Browse. |
| Malvern Instruments Walvern Link II. Browse |
| |
| |
| |
| |
| Malvern Instruments Ltd. ———————————————————————————————————— |
| www.malvern.com < <u>B</u> ack Next > Cancel |

 Click Browse to select the required location where Malvern Link II shortcuts should be placed and click Next. The Ready to Install window is displayed with the summary of destination location and the start menu folder location.

| Setup | x |
|---|---|
| Installing Please wait while Setup installs Malvern Link II on your computer. | þ |
| Extracting files C:\Program Files\Malvern Instruments\Malvern Link II\bin\ExternalLibraries\OTBu.dll | |
| | |
| | |
| Malvern Instruments Ltd | |
| www.malvern.com | |

8. Click Install. Malvern Link II installation starts, and the installing window is displayed.

Note: If default process definitions exist in the configuration folder, the setup shall display a message **Default Process Definitions already exist. Do you want to overwrite?** Click "Yes" if you want to overwrite the existing configurations. Before copying the files, the setup will perform a Windows Registry Cleaning.



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9. After successful installation, the Completing the Malvern Link II Setup Wizard window is displayed.



10. Click Finish.

4. Post-Installation

This section describes the procedure to be executed after installing the Malvern Link II product.

4.1. Select language

This section describes the language selection of Malvern Link II.

1. Go to Start->All Programs->Malvern Instruments->Malvern Link II->Language Selector. The application will start and the following window is displayed.

| Language Selector |
|---|
| Please select a language |
| German English (United Kingdom) English (United States) Spanish French Japanese Portuguese Chinese |
| Ok |

2. Select the required language and click OK.



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4.2. Registration

The section describes the registration process from Malvern Link II version to Malvern Link II Pro version or Malvern Link II Ultra version.

1. Go to Start->All Programs->Malvern Instruments->Malvern Link II->License Manager.

| 🌮 Setup - License Manager | | |
|---------------------------|---|--|
| | Welcome to the License Manager Setup Wizard | |
| | This will install License Manager v1.0 on your computer. | |
| | It is recommended that you close all other applications before continuing. | |
| | Click Next to continue, or Cancel to exit Setup. | |
| www.malvern.com | Next > Cancel | |

2. Click on Next.

| 🌮 Setup - License Manager | | - • × |
|---|---------------|--------|
| Malvern Link Edition | | Ŕ |
| Select the Malvern Link Edition : | | |
| Malvern Link II Essential Malvern Link II Lite | | |
| Malvern Link II O.E.M. Malvern Link II Pro | | |
| 🔘 Malvern Link II Ultra | | |
| | | |
| | | |
| www.malvern.com | < Back Next > | Cancel |

3. Select the Malvern Link II edition and click on Next.

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| 🌮 Setup - License Manager | - • × |
|--|--------|
| Malvern Link II Registration Key | Ser . |
| Product Key: C8E9F4BD 1E0F4B 1BBE6ADCA 5826B9503 License Key: { enter the registration key provided by Malvern Instruments here | 3 |
| | |
| www.malvern.com | Cancel |

4. Type the registration key of the selected **Product Key** in the **Registration Key** field and click **Next**.



5. A message is displayed after registration is successful or not.

4.3. Uninstall Procedure

The software may be uninstalled using the standard Add/Remove Programs feature within the Windows control panel.



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4.4. Malvern Link II Directory Structure

This section describes the Malvern Link II default directory locations after installation. Malvern Link II is installed in the following three directories:

- 1. **Installation Directory**: Contains all assemblies and executables of Malvern Link II. The installation setup of Malvern Link II provides the facility to select the installation directory. The default location of the installation directory is given below:
 - {Program Files (x86)}Malvern Instruments\ Malvern Link II
- 2. **Configuration Directory**: Contains the configuration files of the process definitions. Malvern Link II installation also provides few default process definitions in the setup. The default location of the configuration directory is given below:
 - {ProgramData}\Malvern Instruments\Malvern Link II\Configuration
- 3. **Data Directory**: Contains the process definition data saved at run time in Malvern Link II application. This directory contains the measurement data, batch details and logging details. The default location of the data directory is given below:
 - {All Users}\Documents\Malvern Instruments\Malvern Link II\Data



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5. Change log

The following changes have been made for this release:

| Improvement | MLII-308 | The Mastersizer 3000 automation interface has been updated based on WCF. |
|-------------|----------|--|
| Bug fix | MLII-344 | More robust reporting to Excel. Should this mention the fact that it reports crashes? |
| Improvement | MLII-348 | MLII has been adapted to support Mastersizer Auto-lab. This release waits for the framework to close before shutting down the MLII software. |
| Ed Known | laavaa | 3 |

5.1. 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 for each issue when operating the software.

MLII-361 Users who use data export through the MS3000 SOP currently will not be able to auto export data out of the Auto-Lab software. The work around for this will be to manually export data on completion of measurement run.

MLII-365 In MS3000 v3.85+ the preclean sequence introduced causes the MLII SOP to become out of sync, when running a MLII SOP with MS3000 (wet) SOP with MS3000 v3.85+. To prevent this a 5 to 20 second delay should be added in the Malvern Link II SOP then add the "Mastersizer 3000 Continue Measurement" action step. When starting the measurement manually, the "Continue" button, located on the dashboard, should be pressed a few seconds after the measurement has started.

MLII-366 Users are not able to use the automatic print or report function through the MS3000 SOP. The work around for this will be to manually send the data to print or report.

MLII- 370 Users should not run Mastersizer SOPs that have greater than 5 minutes cleaning or greater than 5 minutes of measurement.

5.2. Discovery of issues

If you find an issue with this software, please report it to Malvern instruments via your local representative or directly to the UK helpdesk.