

# SOFTWARE UPDATE NOTIFICATION

## MORPHOLOGI SOFTWARE v8.11: PSS0025-25



PARTICLE SIZE



PARTICLE SHAPE



CHEMICAL IDENTIFICATION

### Introduction

This document details the release of software PSS0025-25: the Morphologi software Suite including version 8.11 software for the Morphologi G3 instrument family. It covers software issues fixed and new features introduced. It covers software issues fixed and new features introduced. This information is required to perform a risk analysis to determine if the software should be installed. In this risk analysis the benefits of the new features provided and resolved software issues must be weighed against the risk of new issues that may be introduced to vital areas of the software or possible changes to the results of future analysis. 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.

### Recommended System Requirements

The minimum requirements for running this software are highlighted in table 1 below. Although the software can run using Windows XP™ Professional and Windows 7™ (64-bit), it has been fully tested under Windows 7™ (32-bit). Windows 7 (32-bit) is therefore the preferred operating system.

*Note:* Power saving and USB selective suspend should be disabled, see Appendices A and B To ensure that the software can operate correctly during long measurements

*Note:* Some 3rd party software or OS patches may prevent the Morphologi software from running correctly. It is not possible to test for compatibility with all windows programs.

### Supported Languages

The Morphologi software suite is available as an English language application.

Table 1: Recommended system requirements for the Morphologi software.

Feature	Specification
<b>Processor Type</b>	Intel Core i7 3770 Processor,
<b>Memory</b>	4GB
<b>Hard Disk Storage</b>	1Tb HDD,
<b>Additional Storage Media</b>	DVD +/-R/RW drive
<b>Display</b>	1 x 22" Widescreen Flat Panel Monitor for software 1 x 22" widescreen Flat Panel Monitor for live video feed
<b>Connectivity</b>	1 high speed USB port (not USB 3.0/Superspeed) 1 Firewire (IEEE1394) port  <i>Note: PCs using a Morphologi G3-ID instrument will require an extra USB port (not USB 3.0/Superspeed), and an extra RS232 port.</i>
<b>Operating System</b>	Windows 7 (32 bit and 64 bit) Windows XP™ (32-bit)

## Installation Instructions

The software is supplied on a CD-ROM that will automatically start the installation process when inserted into the drive. If your system does not support this feature run the \Morphologi\setup.exe program from the root directory of your CD drive.

## Upgrading an Existing Installation

Always uninstall any existing version of the Morphologi software before installing any other.

*Note :* Upgrading an existing installation to this version of the Morphologi software may require the camera driver to be upgraded for older Morphologi G3 systems .To upgrade the camera driver once the Morphologi software has been upgraded, ensure that the camera is attached to the PC then open the windows device manager and uninstall the Baumer camera driver. Then, scan for hardware changes and direct windows to the drivers\camera folder inside the Morphologi installation folder when prompted for a driver. For details see Malvern technical note "Updating the camera driver on a Morphologi instrument" (MRK1516) available from Malvern helpdesk or your local Malvern representative.

*Note:* Upgrading an existing installation to use a 64-bit operating system may require a firmware upgrade for the camera on the instrument. Please contact your local Malvern representative for more information.

## Uninstall Procedure

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

*Note:* uninstalling previous versions of the software will remove all the standard Malvern reports, even if they have been edited. Best practice is to avoid overwriting standard Malvern reports when creating new reports.

## Backward Compatibility

This version is back compatible with all prior versions of the Morphologi software.

Morphologi G3, G3SE, G3-ID and G3SE-ID instruments are fully supported. This release supports the introduction of the Sample Entrainment Spool disperser which is included with the Morphologi G3SE and G3SE-ID instruments, and as such is not backward compatible with the Sample Cartridge disperser supplied with Morphologi G3S and G3S-ID instruments. To upgrade to the latest hardware specification please contact your local Malvern representative.

There is no support for the predecessor PVS 830 instrument with this release.

*Note:* existing systems must not be upgraded from version 5.xx until a Malvern representative has visited to perform an 'instrument characterization' process.

## New Features

This version of the Morphologi software suite has been developed to support the introduction of the Sample Entrainment Spool disperser, which is included with the Morphologi G3SE and G3SE-ID instruments. No other new features have been introduced.

## Fixed issues

The main issues fixed in this version of the software are:

Reference(s)	Issue	Comment
<b>30960</b>	Instrument type incorrectly identified when operating the software on a French language operating system.	Fixed
<b>31048</b>	Incorrect targeting of particles for chemical ID measurement is observed for particles greater than 30 µm in size.	Fixed

## 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.

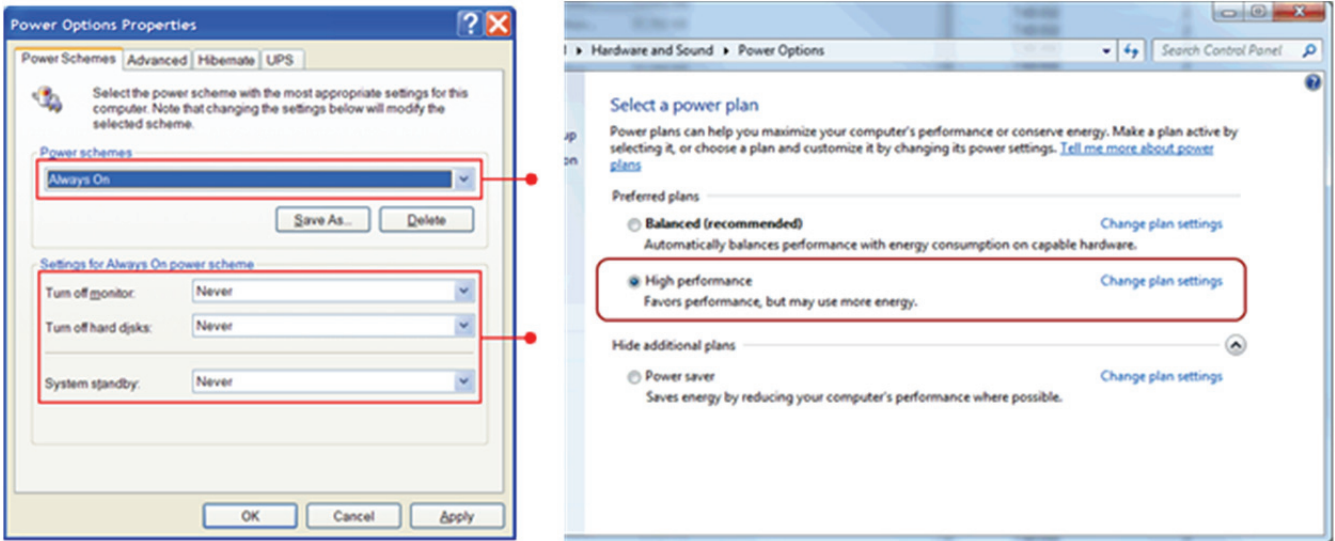
Issue	Work around	Comment
If an SOP is extracted from a measurement, the SOP editor is not connected to the instrument. In this situation, if the "Grab New Image.." button is pressed on the threshold page, the manual microscope is opened but no connection occurs to the instrument, preventing an image from being acquired.	Everything works as expected if the SOP is saved and then opened for editing from the main software window.	Issue has been logged as bug #31151
Stop on particle limit does not work with multiple optics. The measurement does not stop on particle limit, whether the limit is reached on the first or subsequent optics scans.	We do not recommend applying particle count limit when using multiple optics, as this can cause sample biasing.	Issue has been logged as bug #30871
If a measurement is stopped and a new measurement is started from the open live display window, the 2nd measurement will not complete if it is set up to use a different slot in the slide holder.	Better to always close the live display window and start a new measurement from a new live display window.	Issue has been logged as bug #30871
The Bright Field (BF) or Dark Field (DF) setting is not automatically controlled during SOP threshold image acquisition	Ensure that instrument is in the right BF/DF condition prior to editing the SOP.	Issue has been logged as bug #29158
1-Click measurements with merged slide results will not do a Chemical ID measurement.	We do not recommend merging slides on ID measurements. Instead, it is better to measure separately then combine the measurements afterwards.	Issue has been logged as bug #28786

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<p>If a wet cell is fitted in the instrument, and an SDU dispersion is attempted, the software will not recognize that an unsuitable plate type is fitted, and will continue with the dispersion process. This may damage the wet cell windows.</p>	<p>None. Users are advised to ensure that a wet cell is not fitted before carrying out a dry powder dispersion.</p>	<p>Issue has been logged as bug #31285</p>
<p>When reanalyzing a record with a large amount of spectra, the software can crash if the reanalyzed record is viewed immediately after it is created.</p>	<p>None. However, the measurement data is saved correctly. If users experience poor software performance following a reanalysis, we would recommend restarting the software.</p>	<p>Issue has been logged as bug #31286</p>
<p>When the file permissions for the Morphologi documents library are set up to deny deletion of files or folders, it is not possible to create new files.</p>	<p>None</p>	<p>Issue has been logged as bug #31287</p>
<p>Slow stage on start-up after unexpected power down of the instrument</p>	<p>Wait for the stage to initialize. This may take 10 minutes or more depending on the stage position when it was powered down.</p>	<p>Issue has been logged as bug #25263</p>
<p>Automated ID measurements do not work with manual illumination settings</p>	<p>Use automatic illumination settings in ID measurements.</p>	<p>Issue has been logged as bug #29999</p>
<p>Some Morphologi G2 instruments can lose the position of the optical turret when switching optics.</p>	<p>Restart the measurement. Note that this does not affect Morphologi G3 or Morphologi G3-ID instruments.</p>	<p>-</p>
<p>Stopping a merge measurement while measuring with the first optic only aborts the measurement with the current optic. The system then goes on to measure with the next optic.</p>	<p>Stop the measurement for each optic in the merge measurement process.</p>	<p>SCR5901</p>
<p>If the computer goes into standby mode after a period of inactivity the measurement can hang. Since measurements of large areas can take some time this is a likely event.</p>	<p>The power saving options of the computer using the instructions in Appendix A: Disabling power saving. USB suspend must also be disabled on the PC. See Appendix B: Disabling USB selective suspend.</p>	<p>-</p>
<p>Installation of software for remote PC support and desktop sharing can interfere with the live display on the second monitor and cause the software to crash during measurement.</p>	<p>None.</p>	<p>-</p>
<p>Backup of data to external devices like external hard drives or network servers during measurement can slow down the measurement or cause the software to crash.</p>	<p>Automatic backups should be scheduled at times when the instrument is not in use.</p>	<p>-</p>

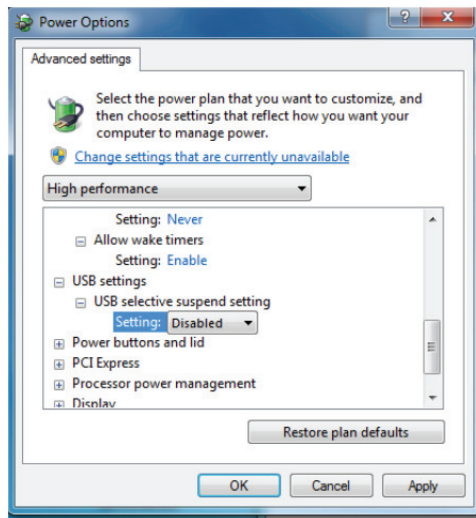
## Appendix A: Disabling power saving

To disable the power saving options of the computer use the Power Options available in Control Panel. Modify the default settings to those highlighted below for your OS: Windows XP (left), Windows 7 (right).



## Appendix B: Disabling USB selective suspend

From the power options dialog shown in Appendix A, select Change plan settings and set USB selective suspend setting to Disabled.



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