Software Update Notification

Revised: 2 March 2005

Product	PartNo.-Version
RTSizer Application	PSW0060 / 7.11

Software release summary

- Maintenance upgrade with additional engineering features

SCR = Software Change Request
DCO = Design Change Order
SUN = Software Update Notification

0   Contents

1   Introduction

This document details the release of the RTSizer version 7.11 component of the Insitec software suite. The software is tested and supported on the following Microsoft Operating Systems:

- Windows 2000 (service pack 4 or later - preferred platform) – Fully tested
- Windows NT 4.0 (service pack 6a) – Basic operations tested
- Windows XP Professional (service pack 1) - Basic operations tested

RTSizer version 7.11 is the application software of the Insitec instrument and works with the Insitec 2000 and Insitec 2004 platforms.

The software is distributed on one CD-ROM.

This update notification captures changes that have been introduced since the release of RTSizer v7.10. Please see the Software Update Notifications for RTSizer v7.00 and RTSizer v7.10, which are also included with the RTSizer v7.11 package

Any feedback should be reported to Malvern Instruments via email to helpdesk@malvern.co.uk or by telephoning the Helpdesk directly on +44 (0)1684-891800. Please have the serial number of your Insitec system and the software version to hand when contacting the helpdesk.

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2 Instrument compatibility

RTSizer version 7.11 software is NOT compatible with RTSizer version 5.x and below, nor any instrument built on the Insitec/Spraytec-97 platform.

3 Functional Features

3.1 Additions.

- Engineering features not available to customers

3.2 Requested Changes and Fixes via Software Change Request.

SCR Number	Improvement or Fix	Description
4701	Improvement	Enhanced detector support

3.3 Deletions

None.

3.4 Known Issues

3.4.1 Restart after configuration change

If the configuration is changed from the system parameter window then it may be necessary to close and re-start RTSizer before the changes take effect.

3.4.2 Saving particle size history files

It is not advisable to save data directly to a network drive as network traffic may delay file writes causing measurements to be suspended. If the measurement period is longer than one measurement per second then it should be safe to save on a network drive. The network drive and path should be mapped to a drive letter because some of the functions expect a drive letter not a UNC path (i.e \\computer\share).

Note that the RTSizerX commands that have a PSH filename as a parameter assume the file is in the default data directory (e.g. C:\Program Files\Malvern Instruments\RTSizer\Data)

3.4.3 Fast measurement

Measurements made with a 0.25 millisecond update rate may very occasionally have records with a 'Zero scan count' error. Using a fast PC with no other running programs seems to reduce the problem. If you need to transfer data using RTSizer7X use the 'async' commands to read PSH data after the measurement has been completed.

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3.4.4 Running RTSizer on laptop computers

Experience at Malvern Instruments has shown that running RTSizer on laptop computers may cause reliability problems in communications between the computer and the optical head. If you get problems of random disconnection and connection messages in the RTSizer message window try disabling the power saving features on the laptop computer. If this does not work we have found that using a USB to serial converter in place of a direct serial connection often solves the problem.

3.4.5 Windows Security Issues

The RTSizer software must be installed by a user who is a member of the Windows Administrators group but any user should be able to run the RTSizer software

If Windows is using the NTFS file system then certain folders may need to be un-protected for writing. To un-protect a file or folder do the following:

1. Select the file or folder in Explorer, right-click and choose Properties from the context menu.
2. Select the security tab in the properties dialog box. Click 'Add' to add a user or group.
3. Select the user or group just added in the list of names and ensure the 'Allow-Modify' permission is checked.

The following files and folders are either in the Windows or Program Files folders, which are normally protected from non-administrators.

File or folder	Permission required
WINNT\RTSizer_2000.ini *file*	read+write access for all users: window sizes and last file used stored here.
RTSizer\Data *folder*	read+write access for all users: default location for data files
RTSizer\Data\Security.cfg *file*	write access for security administrator only: security data
RTSizer\Setup *folder*	read+write access for all users: configuration data
RTSizer\Program *folder*	read access for all users: program files
RTSizer\Program\DefaultPrinter.rtp *file*	write access required if printer settings changed
RTSizer\Configuration *folder*	read access for all users except if new imaging and matrix files need to be generated – these should be done by the administrator.
RTSizer\Backup *folder*	write access only if data files are modified with ER/ES support enabled
RTSizer\Audit Trails *folder*	read+write access for all users: audit trail files with ER/ES support
RTSizer\Acrobat Results *folder*	read+write access for all users: PDF files saved with ER/ES support enabled

3.4.6 Language Switcher and Windows Locale

RTSizer contains internally localised user interfaces for English, French, German, Spanish and Japanese languages. The choice of language displayed is normally selected automatically by Windows but it is possible to select an alternate user interface language using the 'Language Switcher' program. It is not possible to change to Japanese language display using Language Switcher but it is possible to display an English interface on Japanese Windows.

The Language Switcher program will only change the language settings of RTSizer if the Windows locale settings are not set to the selected language.

For example if the PC is running English-language Windows 2000 and you want to run RTSizer with a French-language user interface then the Windows locale setting (Start->Control Panel->Regional Options->General) must NOT be "French (France)"

3.4.7 Process Controller support

Please contact Malvern Instruments if you need to use an existing Insitec process controller card.

3.4.8 Printing to Adobe Acrobat Version 6.0

RTSizer only supports Adobe Acrobat v6.0 for automatic printing of PDF reports as part of 21 CFR part 11 support for electronic records

3.4.9 Optimum Screen Display

RTSizer has been optimised to look best with a screen resolution of 1024 x 768 with 16, or higher, bits of colour and with Windows normal small fonts.

3.4.10 Printing with HP Deskjet 5550

When printing a particle size history (PSH) chart it has been found that Windows 2000 or Windows XP will lock-up if a HP 5550 printer is used (that currently supplied by Malvern Instruments). The current solution is to add a generic Deskjet printer driver. Choose Start->Settings->Printers->Add Printer. Choose to add the printer manually and when Windows presents you with a list of manufacturers and model types choose HP and Deskjet. More than one printer driver can use the same port and physical printer. Choose the HP 5550 printer for all prints except the PSH chart, when the generic driver should be selected.

3.4.11 Internet Explorer and Windows NT

If RTSizer v7.11 is to be installed on Windows NT v4.0 please install version 5.5, or later, of Microsoft Internet Explorer first. Note that Intellution iFix also requires Internet Explorer and is included on the Insitec software suite CD.

4 Distribution Media

RTSizer 7.11 (Part Number PSW0060 / 7.11) and associated files are distributed on one CD-ROM

5 Installing the Software

The user must have administrator privileges to install the software. The software will only install on Windows 2000 (service pack 2 or later), Windows NT 4.0 (service pack 6 or later) or Windows XP, Windows 2000 is the recommended platform. The software is distributed on one CD-ROM. Read the file 'CONTENTS.TXT' on the CD for more information.

The capability to do measurements at four per second requires a high-specification computer. For this application a 1.8GHz Pentium 4 processor with at least 128MB of memory is recommended. A 400MHz processor is adequate for 1 measurement per second. The displays are optimised for a 1024x768 resolution screen. The PC should have at least 100MB of free disk space.
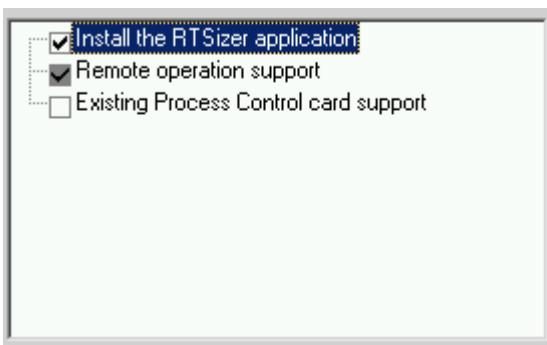
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This version of the RTSizer software may be used with Malvern Link v1.31, and later, and will be included on future versions of the Insitec software suite CD.

The CD should auto-start. If it does not, use Explorer to start the application SETUP.EXE in the root folder of the CD. If required follow the instructions to install Intellution iFix. Click the button to install the RTSizer software.

If RTSizer v6.0 is installed you will be asked to uninstall it first. RTSizer v7.11 will use any shortcuts and configurations from RTSizer v6.0.

RTSizer v7.11 will upgrade v7.10 – it need not be uninstalled first.

The setup program will ask you the options you want to install, as shown below:

If the Insitec instrument is connected to the PC you are installing the software on then check the 'Install the RTSizer application' option. If the instrument is attached to another PC on the network (and RTSizer is installed on that PC) and you are going to install Malvern Link on this PC then clear the 'Install the RTSizer application' option and check the 'Remote operation support' option.

If you are upgrading an existing installation of EPCS 97 and RTSizer 5.x where the Process Control card option is already installed then also check the 'Existing Process Control card support' option. Please get advise from Malvern on using this option. Note that new installations should use the facilites of Malvern Link to output 4-20mA values.

With Windows NT the install program will need to re-boot your PC up to two times. If the setup program does not automatically re-start use Explorer to run the SETUP.EXE program in the root folder of the CD.

The last page of the setup program gives you the option of starting RTSizer to make an instrument configuration. If you do not choose this option you can make a configuration by choosing Start->Programs->Malvern Instruments->RTSizer->Configuration Manager. In the Configuration Manager main window type in a configuration name, a description, your company name and then choose the serial communications port for the instrument. You can also choose if you want the login dialog box to appear every time RTSizer is started. Click OK, the main RTSizer window will open and attempt to connect to the instrument.

The configuration manager will create a shortcut on your desktop, which you can then use to start RTSizer.

6   Directory Structure

The default directory structure is installed under %WINDISK%\Program Files as follows:
\Malvern Instruments\RTSizer\

Acrobat Results	<-PDF files for ER/ES support
Audit Trails	<-Audit trail files
Backup	<-Files copied here before being edited

```
Configuration
        Detector                <-detector specification
        Feed                    <-feed specifications
        Imaging properties      <-generated imaging files
        Instrument              <-instrument specifications
        Lens                    <-lens specifications
        Purge                   <-purge specifications
        Scattering matricies    <-generated scattering files

Data                            <-measurement data files
Program                         <-program files
Setup                           <-user configurations
```

On the CD but not installed are various documents and brochures describing the product

7   What new features are present and how do I use them?

There are no new features accessible by customers.