

File Name : Software Update Notification for Malvern Link 1.35.doc

Product	PartNoIssue		
Malvern Link Application	PSW0066 / 1.35		

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



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1 Introduction

This is the version 1.35 of Malvern Link. Malvern Link is the automation software for the Insitec System. Before installing Malvern Link the following software must be installed on your computer

- CPS0018 : IFix (Scada Package)
- PSW0066 : RTSizer software

The software is tested and supported on the following Microsoft Operating Systems:

• Windows XP (professional sp2 or higher) -> preferred platform

2 Minimum Computer requirements

Minimum requirement

- Pentium III 1GHz (or higher) processor
- Minimum 256 MB RAM
- 10 GB hard drive disk space
- CD-ROM drive
- Parallel port
- SVGA or higher colour monitor (1020*768 / 65535)
- 1 USB port
- 2 serial ports (some devices require an extra serial port)



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3 Instrument compatibility

This software is compatible with the RTSizer v5.31 and higher.

4 Changes made via SCR. (1.35)

SCR#	Description	Comments
4724	The liquid mimic should have an option to be compatible with the Wet Ring version #2	Implemented
4924	Add a new option for the Iteca screw sampler	Implemented
4925	The Auto-background option is disabled if the scheduler is running	Fixed
4926	The setup of the trend-chart is not saved when you close Malvern Link	Fixed
4927	When we are changing of product , Malvern Link should close the current RTSizer PSH file before opening the new one	Fixed
4930	Problem when a background error occurs during a valves sequence	Fixed
4931	The Emergency Stop doesn't stop the scheduler . The valve sequencer is OFF, the measurement is stopped, but the sequencer is still running	Fixed
4932	The Emergency Stop sequence (assigned to a product) is not saved when Malvern Link is closed	Fixed
4933	Restricted access for the operator level	Implemented
4934	The report designer doesn't print the correct Notes / Material and Lot Number	Implemented
4935	Different report for different product	Implemented
4936	Stopping the measurement if the time of measurement is > 5 minutes	Implemented
4946	It should be possible to Disable or Enable the manual sampler option according to a digital input signal	Implemented

Known Bugs 5

There are no known serious bugs at the time of this release. If you suspect that you have discovered a bug, you should report this to Malvern Instruments detailing all aspects of the symptoms.

6 **Known Issues**

6.1 Drivers

If you are using drivers do not install two drivers using the same serial port. It could be source of several error messages.

6.2 IFix and Windows XP

Depending of the level of Windows XP upgrade you may have to install the USB key driver before installing iFix.

The driver is located on the CD in the folder \TOOLS\Fix USB Key Driver.



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7 Distribution Media

Malvern Link Version 1.35 software is contained on a single self-installing CD-ROM. Any fault during the installation process will be detected and the user is notified. The Installation process has been tested in all the supported configurations of operating system.

8 Install Procedure

8.1 Before installing iFix

To avoid any issue with the iFix installation it's highly recommended to install the USB key driver first. The driver on the cd in the following folder:

\TOOLS\IFix USB Key Driver

8.2 General instruction

You will find the details of the installation instruction on the CD-ROM in the following file: \Technical Doc\ TNML-General Setup Instructions (GM – 20APR2005).pdf.

8.3 Data Backup

All data is the user responsibility and it is good practice to back it up on a daily basis. It is also a good practice to backup all data before installing new application software.

8.4 Installation start-up

The software suite comes on auto-loading CD-ROM. Inserting the drive into a system configured to Auto-run a CD will run the installation program automatically. If your system does not support this feature run the **\setup.exe** program from the root directory of your CD drive.

Malvern Link software is an automation software based on iFix SCADA Software from GE Fanuc . It controls RTSizer and valve controller (Siemens S7-224 or Wago modules 750-XXX) .

It's not a standalone software and needs the installation of

- RTSizer (PSW0066)
 - iFix (CPS0018)

• iFix to run correctly.

8.5 New installation

You must install the software in the following order :

- 1) iFIX
- 2) Rtsizer Software
- 3) Malvern Link

iFix is protected by an Hardware key or dongle . It exists 2 types of dongles :

- Parallel dongle
- USB port



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Before installing iFix it's better to first install the USB dobgle Driver HASP_USER_SETUP

A dongle is compatible with one specific version of iFix. Before installing iFix you have to verify the compatibility.

Concerning the USB dongle install iFix first and ignore the message the error messages before connecting the dongle .

8.6 Update of Malvern Link Software

8.6.1 Update a Malvern Link version 1.0

- 1. Save the Malvern Link Configuration.
- 2. Uninstall Malvern Link Version 1.0.
- 3. Uninstall the old version of RTSizer Software.
- 4. Install RTSizer software version 7.xx.
- 5. Install The new version of Malvern Link (v 1.35)
- 6. Launch the program Start / Programs / Malvern Instruments / Malvern Link / Upgrade 1.0 Configuration.
- 7. Select the configuration to upgrade.
- 8. Start Malvern Link and load the correct configuration. If you are using the Local / Remote option you must changed it manually.

8.6.2 Update a Malvern Link version 1.1x or 1.2x

- 1. Save the Malvern Link Configuration.
- 2. Uninstall Malvern Link Version 1.1x or 1.2x
- 3. Uninstall the old version of RTSizer Software.
- 4. Install RTSizer software version 7.xx.
- 5. Install The new version of Malvern Link (v 1.35)
- 6. Start Malvern Link and Load the correct configuration.

Note :

It's not necessary to uninstall iFIX to update Malvern Link software.

If you have to reinstall iFix you have to first uninstall the software.

Check if the iFIX dongle is compatible with the version of iFIX you want to install.

9 Uninstall Procedure

To uninstall the software use the menu

- Start
- ✓ Setting
 - Control Panel
 - ✓ Add/Remove Program

And select the programs you want to remove.



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10 What new features are present and how do I use them

10.1 At-Line Measurement

10.1.1 Valves sequences

It's now possible to decide if the valve sequences assigned to the at-line measurement will be dependent of the product or will be always the same independently of the selected product.

It allows printing different report for different product

10.1.2 Timeout

It's now possible to setup a timeout on the at-line measurement. If the measurement time exceeds the timeout, it will be stopped automatically.

10.1.3 Product Code

A new tag has been added allowing the selection of a product according to a code.

10.1.4 Configuration window

☐ Viewunused tags only	□ At-Ine feeder	linked to the product or
Cylinder	Sequences	not
Vbrator	Start V Stop	
ACK Sample Input	Produc	
Hemote Scirit Up	Hoduci code	To select the tag reading the product code
T Start measurement first	Timeout 5 Min Error Reporting	
o set a maximum		



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10.2 Liquid

The interface has been simplified and allows handling two samplers





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10.3 Cement Sampler

A new option has been added allowing the control of a specific cement sampler . The Specific cement sampler is based on the following components

- 1 or 2 Auger
- 0 or 1 Rotary Air Lock
- 0 or 1 Return Screw

The cement sampler is a separate application which used directly the iFix tag database and not the Malvern Link tags.

^D arameters	
lag Auto	WAG0_DI_17
lag Manu	WAGO_DI_18
lag Light Auto	WAG0_D0_02
lag Light Manu	WAG0_D0_05
Fag Start Screw	WAG0_D0_01
lag Speed	WAG0_A0_01
l ag error	WAG0_DI_10
Tag ICV Switch	WAG0_DI_19
lag Manu Start	WAG0_DI_23
lag Manu Stop	WAG0_DI_21
lag Hammer	BURKERT_07
Hammer Time On (sec)	10
Hammer Time Ofl (Min)	1
lag Rotation	WAG0_DI_28
Rotaton Timeout(sec)	20
Tag Valve Solenoid	
Fag Valve Closed	
Tag Valve Opened	
/alve Timeout(sec)	10
Delay Opening RAL (sec)	3
Delay Starting Return(sec)	0
Delay Opening RAL (sec) Delay Starting Return(sec)	3 0





10.4 Piston Sampler and screw sampler

A new tag has been added allowing stopping the sampling according to an external stimuli. Now the samplers are not resetting the number of sample until the container is removed.

Batch printing

From the Result window it's now possible to print any report of any batch.

Product :	D	efault		Number of n	neasuremen	ds :		_			
Batch number :								100		(-Report.tmp)	
Start time: End time	16/12/3 16/12/3	2005 15:01:11 2005 15:02:06		F Histo C Aver	vical			-	Print X Close	A Zoom •	
Report	Sample			C Real	Time			. II.		-	
Title	Average	St. Dev Min	Time of	f min	Max	Time of max				(ALCONT)	
Dv(10.) · (µm)	3.66	.17	2.81 14/12/	200515:01:40	4.15	14/12/2905	15:01:49		1087		
De(50.) · (µm)	11.	.14	10.71 14/12	2006 15:02:02	11.35	14/12/2905	15:01:24		ET		
Dv(90.) · (µm)	18.54	.52	17.15 14/12	2006 15:01:40	20.07	14/12/2905	15:01:21		State of the state		
Transmission - (%) 07.55		06.53 14/12	20061502:06	00.42	14/12/2005	1203154				
											brene
•	« «	betch Y2000-1	50 - Year 2 V30	•••	>	м	>				
Fit:				2	į	Export					

11 Tips and tricks

11.1 Insitec laser permanently on

It's possible to disabled force the Insitec Laser to never stop. It allows avoiding the stabilisation period but it's going to reduce the life time of the laser

To enable the option you have to create the following file:

C\Dynamics\WalvernLink_1-30\Pic\ForceLaserOn.cfg

To disable the option you only have to delete or rename the file.

The content of the file is not important. Malvern Link test if the file is existing or not to enable the option.

11.2 Restricted operator level

It's possible to disable the Buttons RTSizer, Alarms and Help for a simple operator:

To enable the option you have to create the following file:



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C\Dynamics\MalvernLink_1-30\Pic\RestrictedAccess.cfg

To disable the option you only have to delete or rename the file.

The content of the file is not important. Malvern Link test if the file is existing or not to enable the option.

11.3 Alarms Delay

During the Malvern Link start-up you can add a delay before displaying the first alarm.

Open the file **C:\Dynamics\MalvernLink_1-30\Pic\MalvernLink.ini** and change the following section: [CONFIG]

AlarmTimeOut = 0.5

The value is a period in minutes

11.4 Change the sequencer speed

You can change the clock of the sequencer (1000 ms by default)

Create a file called *C:\Dynamics\MalvernLink_1-30\Pic\Status_Picture_CFR.tmr* with the following contents:

[TIMER] INTERVAL=1000

Interval is the clock in milliseconds.

Restart MalvernLink to see the changes (or Insitec 1997 the file to create is C:\Dynamics\MalvernLink_1-30\Pic\Status_Picture_NOCFR.tmr)

11.5 Valve sequencer - Window message

You can disable the window message of the valve sequencer

Create a file called *C:\Dynamics\MalvernLink_1-30\Pic\Status_Picture_CFR.tmr* with the following contents:

[MESSAGE] ShowWindowMessage = 0 (1=enabled / 0=disabled)

Restart MalvernLink to see the changes (or Insitec 1997 the file to create is C:\Dynamics\MalvernLink_1-30\Pic\Status_Picture_NOCFR.tmr)

11.6 Controller – Timeout error message

If the valve sequencer is blocked in one step you will get an error message after a timeout period. If the timeout expires the controller return to the sleep step and raises an error.

By default the period is 60 minutes. If you want to change it, open the file **C:\Dynamics\MalvernLink_1-30\Pic\MalvernLink.ini** and change the following section:

[CONFIG]

ControllerTimeOut = 60



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11.7 Log files

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By-clicking on *View / Log files*, it's possible to display the contains of the log files. Malvern Link Creates 4 categories of log files:

- Valves sequencer Logs the steps of the valves sequencer
- Controller Logs the actions of the main controller
- Scheduler Logs the steps of the scheduler
- Security
 Logs the security actions

The text files are located in the folder *C:\Dynamics\MalvernLink_1-30\Pic\LogFiles*. Malvern Link creates 1 folder per year / 1 folder per month / 1 log file per day :







11.8 Shortcut on the desktop

It's now possible to get more than one Malvern Link shortcut on the desktop. A shortcut will be linked to a specific Malvern Link configuration or will allow to the user to select one configuration in the list.

D Right click on the Malvern Link shortcut and click on properties:

Malvern Link Right Click	Malvern Link Properties General Shortcut Secur Malvern Link Malvern Link Malvern Link Target type: Add the character "/" following by the name of the configuration or "/Select" if you want to select the configuration manually. If you add "/s" Malvern link is going to start in simulation
	Target location: MalvernLink_1-1
	Iarget: MalvernLink_1.1\MalvernLink.exe /MyConfig
	Image: Image
	Shorteut keur None
	Bury Marriel under
	Comment:
	<u>Find Target</u> <u>Change Icon</u>
	OK Cancel Apply



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11.9 Liquid or Dry selection

It's now possible to select a Liquid or a Dry mimic

- Close Malvern Link
- Click on Start / Programs / Malvern Instruments / Malvern Link / RTSizer Configuration

RTSizer Configuration	
Insitec Version RTSizer version 5 (Insitec 1997) G RTSizer version 7 (Insitec 2000) Simulation Simulation	ter
Software Location	Check the box to start a Liquid session. If not
Login RTSizer User name Ma Password CLique	in Dry mode

The difference concerns mainly the mimic and some specific options (Auger, Venturi, Diluter, Ultrasound, ...) Otherwise Malvern Link are exactly the same for the both mode.





11.10 New RTSizer windows size

The RTSizer windows fit correctly in

The RTSizer software fits in the Malvern Link mimic. In operator Level the menu are hidden.



It's possible to change the size of RTSizer by changing the value in the file: *C:\Dynamics\MalvernLink_1-30\Pic\Dynamise.cfg*

[0] $\dot{X}\dot{1} = 0$ Y1 = 0 X2 = 730 Y2 = 683 OFFSET X = -4 $OFFSET_Y = -70$ $HIDE_X = 0$ $HIDE_Y = -47$ [1] X1 = 0Y1 = 0X2 = 730 Y2 = 683 $OFFSET_X = -4$ $OFFSET_Y = -43$ $HIDE_X = 0$ $HIDE_Y = -20$

0 for 0perator / 1 for new group / 2 for Spervisor / 3 for Egineering

If you have any problem you can start the following program to restore the size:

C:\Dynamics\MalvernLink_1-30\Pic\RTSizer Full Screen

Deleting the file disables this feature.



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11.11 Customizing the View menu

Create or open the files

C:\Dynamics\MalvernLink_1-30\Pic\Menu_View.cfg :

The following example adds a button to called "MyButton" displaying a mimic called "MyPicture.grf" accessible from the operator level (Level 0)

// // The section [Menu_View] conta // when the user press on View m	ins the name of the picture launched enu .
// By default the name of the pictu	re is Menu_view
<pre>// The name picture of the menu v //</pre>	riew are:
// - Standard : // - 1 additional button : : // - 2 additional button : : // - 3 additional button : : // - 4 additional button : :	Menu_View Menu_View_01 Menu_View_02 Menu_View_03 Menu_View_04
// // The section [1],[2],[3] and [4] co // individual additional button	ntain the configuration of each
// - Caption : de	efines the caption of the button displayed in the menu view
// - Picture : de	efines the picture started when the user press on the additionnal button
// - Group // // // // //	: defines minimum group allow using the additionnal button - 0 : Operator - 1 : Configurable User - 2 : Supervisor - 3 : Engineering

Picture = Menu_View_01

[1] Caption Picture Group	Ē	MyButton MyPicture 0
[2] Caption Picture Group	= = =	Picture2 2
[3]		

....



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11.12 Production Tracker Mimic

The following mimic :

C:\Dynamics\WalvernLink_1-30\Pic\Production.grf

has been designed to follow a batch production . You can access to the mimic by using the customer mimic option or the method described previously ($\S11.09$)

The purpose of the mimic is to get an overview of a batch production. It could be helpful in a liquid application.

Basically a production is defined as a serial of Malvern Link batches. The mimic allows getting the averaging of many Malvern Link batches.



The mimic displays the results of the

- Previous batch
- Current batch
- Current Production (averaging of batches



11.12.2 Change the alarm limits



Changing the limits refreshes automatically the mimic cursors.



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11.12.3 Start a new production now

		Insites file name		
		Instactile name 2005-05-17-00FALKT		
Production		Defaul path C//PROGRAM FILIS/MALVERN	INSTRUMENTS (RTSEZER (DATA),	
- Budut				
Default	-	C Exting File		
Insitec fie name		Based on product name		
C:/PROGRAM FELTIMALVIEN INSTRUMENTS/RTSIZTE/DATA/Dwfwite- 2005-05-17		P Ne Name Change		
		/F bely	C Monthly	
P Auto		C Veelty	C Yearly	
✓ X			1	×

The option Auto will create automatically an Insitec file by using the date of the current day. If it's not selected you can click on the button and force a file name.

11.12.4 Change the production starting date

	-			-	
69	13/04/2005	•	×	10:56:39	- 12
	31 0	0		201	

Change the date and time according to your batch starting point.

11.12.5 **Get historical results**

From	12/07/2004 •	*	16:59:41
То	12/04/2005 •	a (16:59:43

Change the date and time according to averaging results you want to check.