

GESTRA Steam Systems

OR 52-7 Loader



Installation & Operating Instructions 818796-00

Data Export Program for the Oil & Turbidity Detector
OR 52-7

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Important Notes

Usage for the intended purpose

The OR 52-7 Loader is a program for exporting data from the oil and turbidity detector OR 52-7 (15 ppm bilge alarm). The program enables the export of the operating data stored on the OR 52-7 via the IXXAT USB –to-CAN compact adaptor so that the data can be converted to CSV format or viewed in an Excel spreadsheet.

Explanatory Notes

Scope of supply

- 1 USB-to-CAN adaptor
- 1 Service cable
- 1 Installation CD

System Requirements

OR 52-7 Loader

Hardware:

- 1 GHz IBM compatible PC,
- 500 MB RAM
- 1 free USB interface

Software:

- Windows 2000, Windows XP, Windows 2003 (currently not supported on Windows Vista)
- Excel 2000 (e. g. as part of the Office Package)

Installation

Setup program

The setup program on the CD contains the following software components:

- OR 52-7 Loader
- OR 52-7 Excel add-in
- IXXAT driver for the USB-to-CAN compact interface between the USB port of your system and the CAN interface of the 15 ppm bilge alarm service interface
- System updates issued by Microsoft (Installer 3.0, Framework 2.0)
- Installation & operating instructions



Note

The IXXAT driver V2.16, the diagnosis program Minimon and the CAN-to-USB compact adaptor are products of the company Automation GmbH (www.ixxat.de).

Preparation



Attention

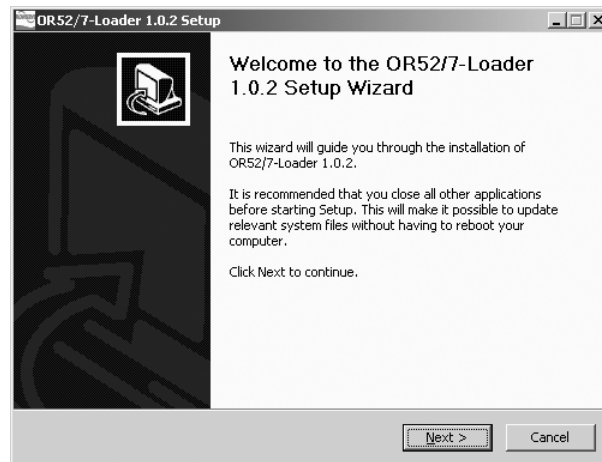
Before starting the setup program make sure that the IXXAT USB-to-CAN compact adaptor is **not** connected to the USB port of your computer as otherwise the installation of the IXXAT driver would not be successful.

Note that also an earlier version of the IXXAT driver that is installed on your computer than the one supplied (version 2.16) will lead to a faulty installation. The old version must therefore be de-installed before installing the new driver version.

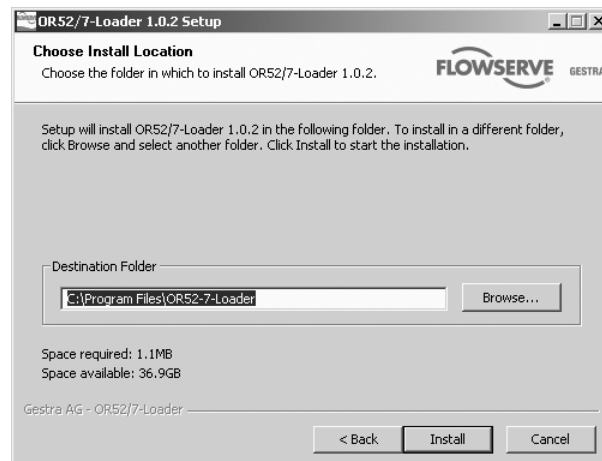
Starting the installation

Now start the setup process. If your user account does not have the necessary rights you will be prompted to carry out the program with administrator rights.

After a successful setup start, the following window will appear:



Press button "Next". The dialog box with the destination folder directory appears.

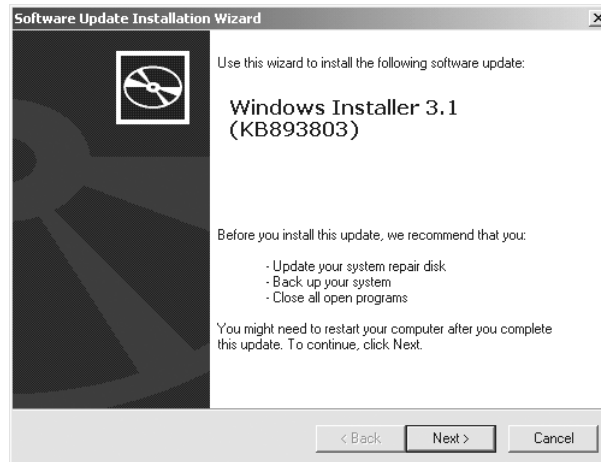


Press button "Install" to install the software in the indicated directory.

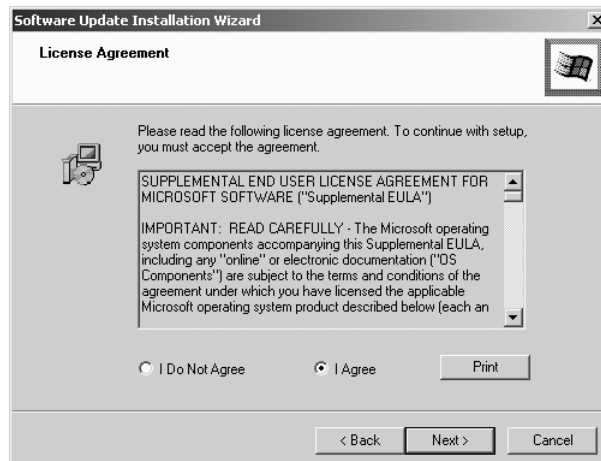
If Windows Installer 3.1 or the DotNet Framework are not on your computer they will be automatically installed.

Starting the installation – continued –

Optional installation of Windows Installer 3.1:

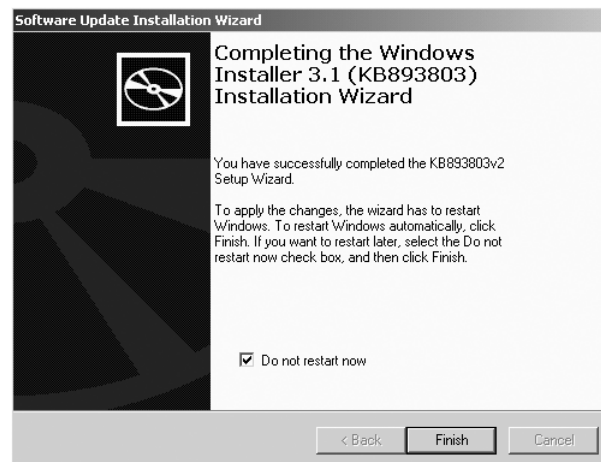


Press now button “Next”.



Select the “I Agree” option and press button “Next”.

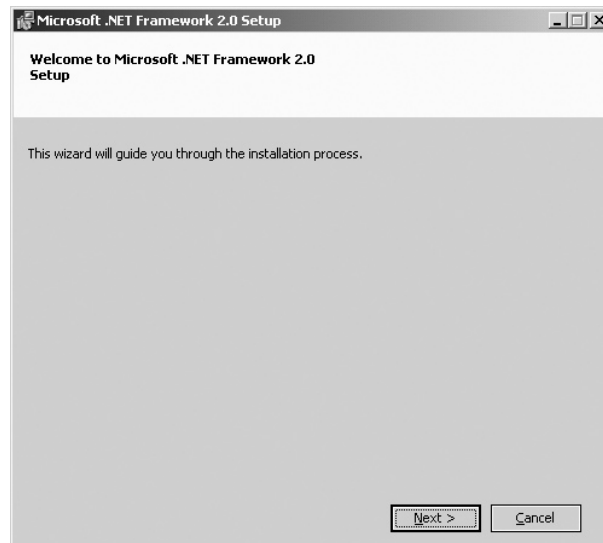
The installation routine will be started.



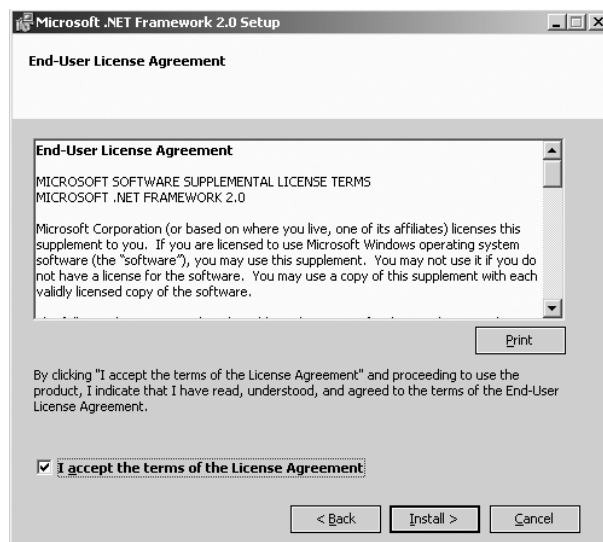
Attention

Select the “Do not restart now” check box before clicking on the button “Finish” to finish the installation of Windows Installer 3.1.

Optional installation of the DotNet Framework:



Press button “Next”.



Select the “I accept the terms of the License Agreement” check box and press button “Install” to continue the installation.

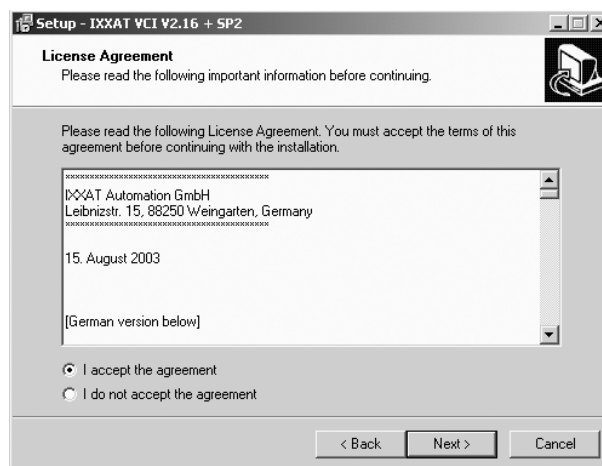
The installation can take a few minutes.

Starting the installation – continued –

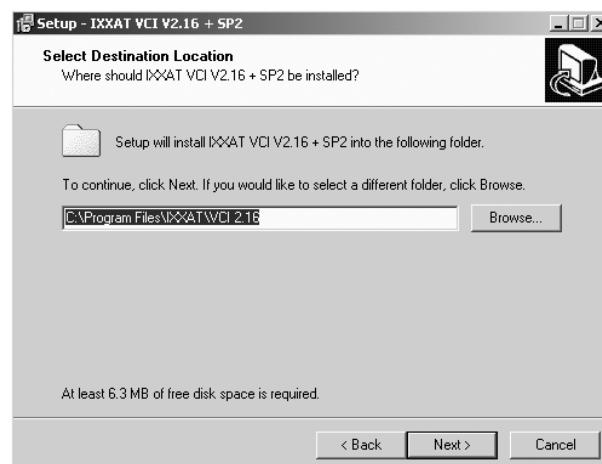
Then the IXXAT driver will be installed and set up. The IXXAT VCI start window appears.



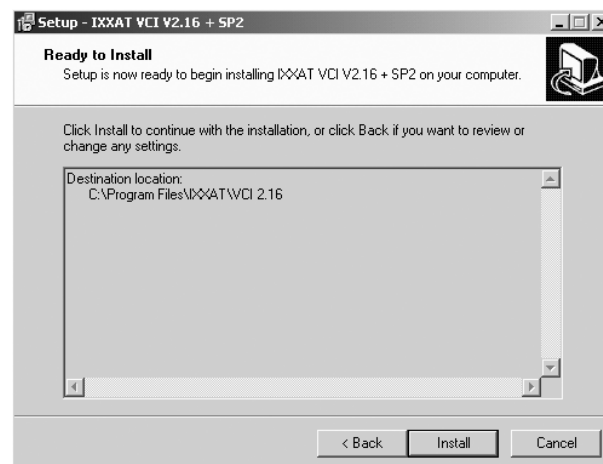
Press button “Next”.



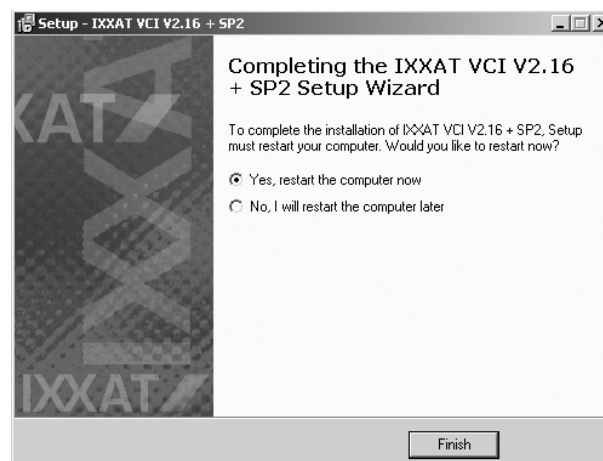
Select the “I accept the Agreement” check box and press button “Next” to continue the installation.



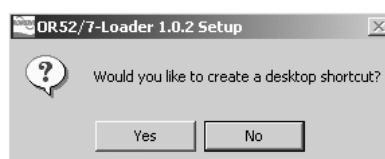
Press button “Next” to install the IXXAT driver in the indicated directory.



Press button "Install".



Once the driver is installed you will be asked to restart your computer. Select the "No, I will restart the computer later" check box because the computer will be restarted after the installation of the OR 52-7.



Starting the installation – continued –

You are then asked if you would like to create a desktop shortcut. Then the installation is completed and you are asked to restart your computer.



Select the "Reboot now" check box and press button "Finish" to finish the installation.

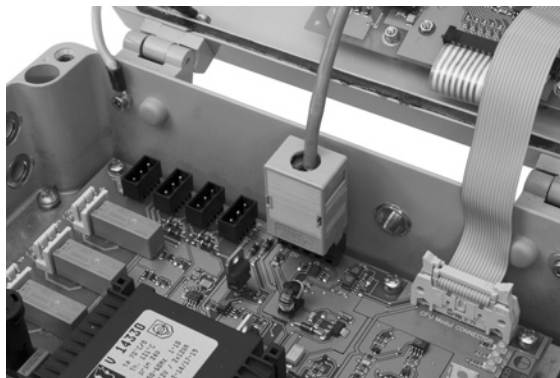
Electrical Connection

OR 52-7 Loader



After the computer has been restarted connect the measuring transducer ORT 7 to the computer.

1. Undo the cover screws of the measuring transducer ORT 7 and open the housing cover.
2. Plug the service cable into the service interface of the measuring transducer.



The 5-pole connector of the OR 52-7 service interface is located above the 0/4 – 20 mA connection on the base board.

3. Connect the service cable with the USB-to-CAN adaptor and plug the USB connector into the hub of your computer.



Windows will now recognize the IXXAT USB-to-CAN compact adaptor as new hardware component.

Starting the Program

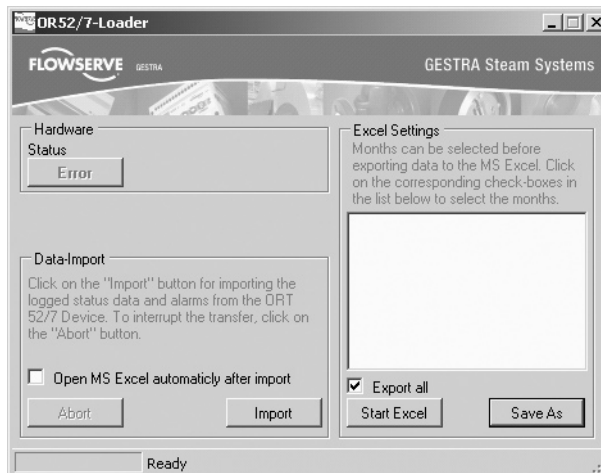
OR 52-7 Loader

You can call up the OR 52-7 Loader either by clicking on “Start” – “Program Menu” or – if selected during installation – by clicking on the new desktop icon. If the installation has been successful and the communication driver of the program has been initialised you can start importing data by clicking on the button “Import” in the field Data Import.

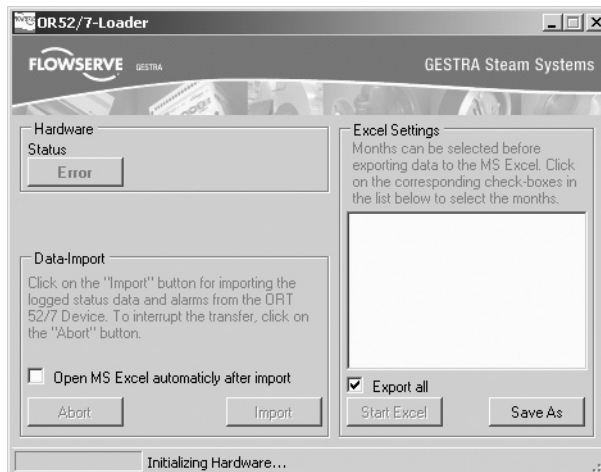


Attention

The connection to the OR 52-7 15 ppm bilge alarm must not be interrupted under any circumstances during the import process. An interruption could result in a program crash.



If the button “Import” is grayed out and therefore unavailable, the installation may have been faulty or the wiring between the individual components is incorrect. If no communication is possible between the computer and the oil & turbidity detector the error button will be red.

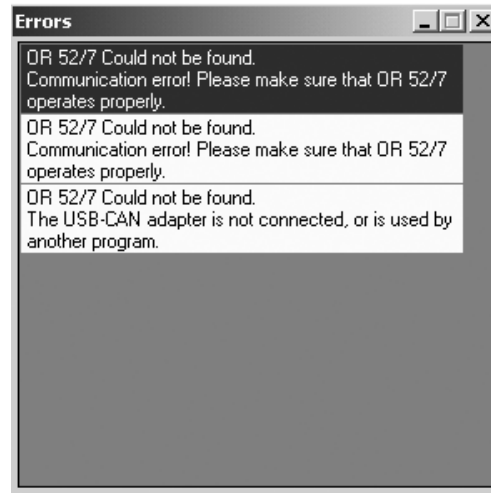


Starting the Program – continued –



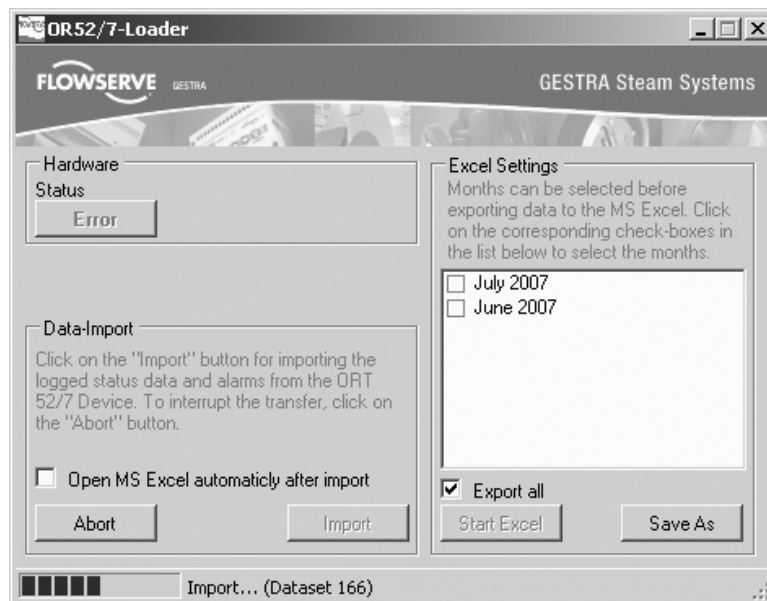
Attention – continued –

Click on the button “Error” to view a list indicating the possible sources of error. To remedy the fault refer to section “Malfunctions”.



Data Import

Depending on your system the data import can take more than 15 minutes.



To further automate the process select the “Open MS Excel automatically after import” check box. After the import of all data records MS Excel will then start automatically. The import can be stopped any time by clicking on the “Abort” button. In this case only the imported data records can be used. The progress bar in the status bar shows the progress of the import task.

The OR 52-7 Loader lists in the field “Excel Setting” all months that have been imported. Here you can select individual months, then press the “Start Excel” button and only these months will then be shown in Excel. All months are marked by default. Apart from the display in Excel you can also write all downloaded data records in a CSV file by clicking on the “Save As” button. As a result the data records can be evaluated later on by Excel – even if this program is installed on another computer.



Attention

The service interface is only suitable for temporary operation. It is absolutely necessary to monitor the equipment when using this interface (exporting the stored data).

Microsoft Excel Add-In

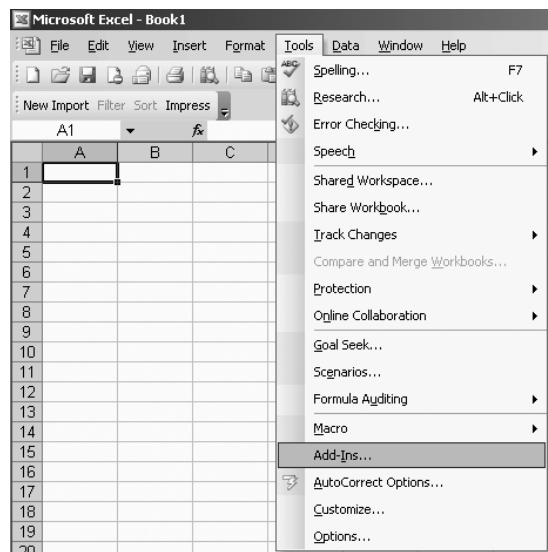
OR 52-7 Loader

Since many people use Microsoft Excel, an Excel add-in enables the user-friendly display of the stored operating data of the oil & turbidity detector OR 52-7 (15 ppm bilge alarm). In order to import the raw data of the oil & turbidity detector directly the OR 52-7 Loader program is required. Note that it is also possible to import, sort and filter data that have already been imported afterwards in MS Excel by using the OR 52-7 add-in – either in the form of an Excel spreadsheet or als CSV file generated by the OR 52-7 Loader.

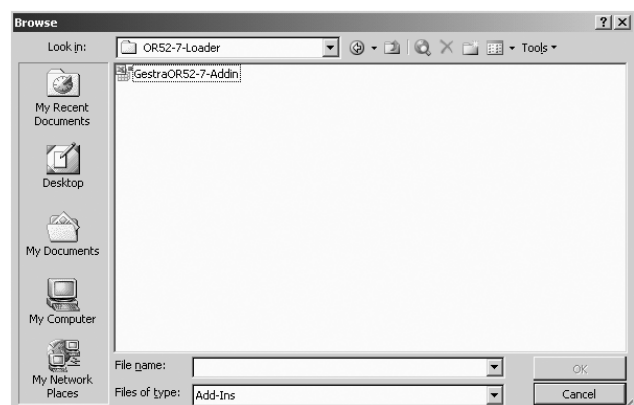
Installation

The Excel add-in is automatically installed during the OR 52-7 Loader setup routine, provided that MS Excel has been installed on your computer. You can also install the add-in manually on another computer. That way it is possible to edit and filter OR 52-7 files without using the OR 52-7 Loader.

Installing the add-in: Start MS Excel and click on the menu “Tools”.



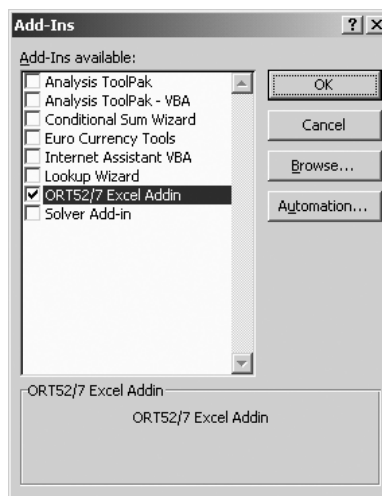
Select the menu item “Add-ins” in the menu “Tools”.



Microsoft Excel Add-In – continued –

Installation – continued –

Click on the “Browse” button in the following window. In the next window select the desired drive and file “GestraOR52-7-Addin.xla” in the directory.



In the Add-Ins window click on “OK” to confirm your input. The add-in is now installed.

De-installation

Start MS Excel and click on “Tools” and then on “Add-Ins”.

Deactivate the check box “ORT52/7 Excel Addin” in the “Add-Ins available” box and click on “OK” to confirm.

A message box will then inform you about the deactivation and prompts you to confirm.

Add-In Function

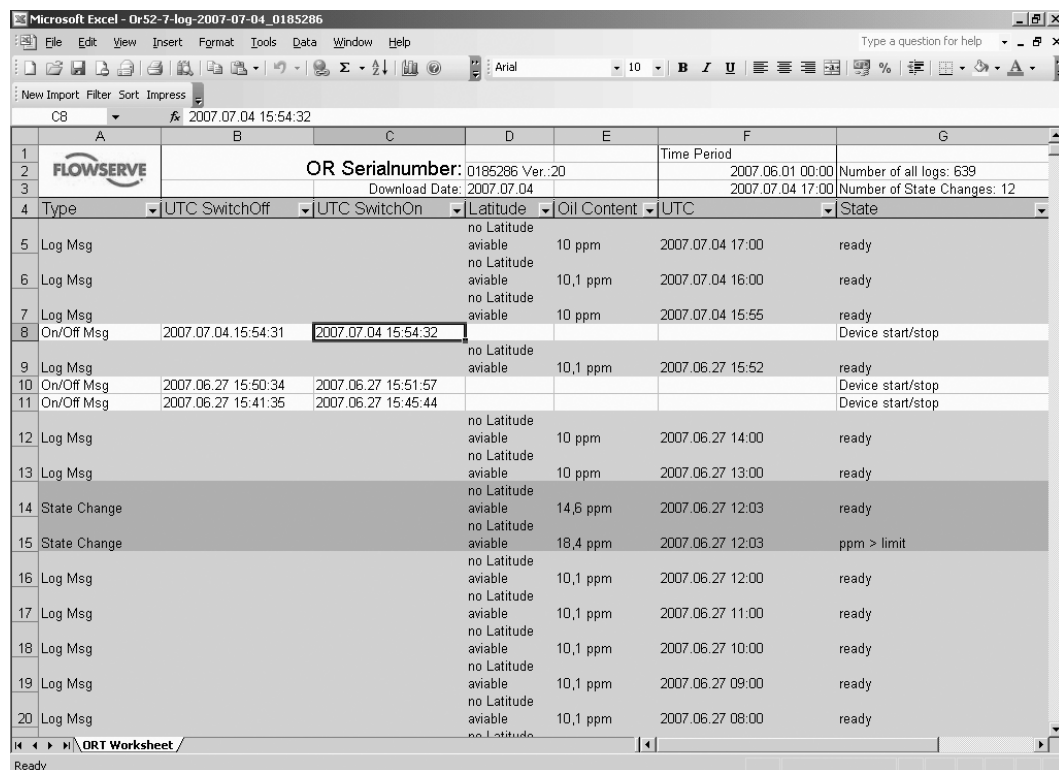
OR 52-7 Loader

The OR 52-7 Excel add-in is only available for those Windows users who have the software installed in their local directory. Each time these users start MS Excel the OR 52-7 Excel Add-in and the associated tools are shown in the symbol bar.

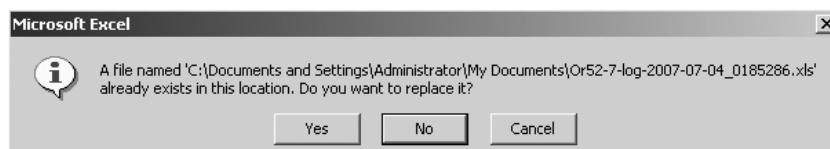


You can move or hide this bar. If no OR 52-7 relevant data are stored in Excel the “Sort” and “Filter” tools are deactivated. Only the menu items “Impress” (for viewing project information) and “Import” (for starting a new import process) are available.

OR 52-7 data are usually directly loaded from the OR 52-7 Loader and shown in Excel. However, it is also possible to import CSV files that have already been generated by the OR 52-7 Loader or to open Excel spreadsheets that have been saved by the OR 52-7 add-in. You can make a backup of the data stored on your PC for later evaluation. Note that the loading process – depending on your system – can take more than 15 minutes if a large file with several thousand data records is opened in MS Excel.

A screenshot of the Microsoft Excel application window titled 'Microsoft Excel - Or52-7-log-2007-07-04_0185286'. The spreadsheet displays data from an OR 52-7 log file. The first row (row 1) contains the 'FLOWERVE' logo. Row 2 shows 'OR Serialnumber: 0185286 Ver.: 20'. Row 3 shows 'Download Date: 2007.07.04'. Row 4 shows 'Time Period: 2007.06.01 00:00' and 'Number of all logs: 639'. Row 5 shows '2007.07.04 17:00' and 'Number of State Changes: 12'. Row 6 shows 'Type' and 'UTC SwitchOff' and 'UTC SwitchOn' and 'Latitude' and 'Oil Content' and 'UTC' and 'State'. Row 7 shows 'Log Msg' and 'no Latitude' and '10 ppm' and '2007.07.04 17:00' and 'ready'. Row 8 shows 'Log Msg' and 'no Latitude' and '10,1 ppm' and '2007.07.04 16:00' and 'ready'. Row 9 shows 'Log Msg' and 'no Latitude' and '10 ppm' and '2007.07.04 15:55' and 'ready'. Row 10 shows 'On/Off Msg' and '2007.07.04 15:54:31' and '2007.07.04 15:54:32' and 'no Latitude' and '10,1 ppm' and '2007.06.27 15:52' and 'ready'. Row 11 shows 'On/Off Msg' and '2007.06.27 15:50:34' and '2007.06.27 15:51:57' and 'no Latitude' and '10,1 ppm' and '2007.06.27 15:45:44' and 'ready'. Row 12 shows 'On/Off Msg' and '2007.06.27 15:41:35' and '2007.06.27 15:45:44' and 'no Latitude' and '10,1 ppm' and '2007.06.27 15:45:44' and 'ready'. Row 13 shows 'Log Msg' and 'no Latitude' and '10 ppm' and '2007.06.27 14:00' and 'ready'. Row 14 shows 'Log Msg' and 'no Latitude' and '10 ppm' and '2007.06.27 13:00' and 'ready'. Row 15 shows 'State Change' and 'no Latitude' and '14,6 ppm' and '2007.06.27 12:03' and 'ready'. Row 16 shows 'State Change' and 'no Latitude' and '18,4 ppm' and '2007.06.27 12:03' and 'ppm > limit'. Row 17 shows 'Log Msg' and 'no Latitude' and '10,1 ppm' and '2007.06.27 12:00' and 'ready'. Row 18 shows 'Log Msg' and 'no Latitude' and '10,1 ppm' and '2007.06.27 11:00' and 'ready'. Row 19 shows 'Log Msg' and 'no Latitude' and '10,1 ppm' and '2007.06.27 10:00' and 'ready'. Row 20 shows 'Log Msg' and 'no Latitude' and '10,1 ppm' and '2007.06.27 09:00' and 'ready'. Row 21 shows 'Log Msg' and 'no Latitude' and '10,1 ppm' and '2007.06.27 08:00' and 'ready'. The status bar at the bottom shows 'Ready'.

Once the download is finished all imported data records will be shown and saved. The name of the file consists of “ORT52-7-log-” followed by the date of the download and the OR 52-7 serial number of the flash card installed in the equipment. By default these files are stored on the hard disk in the directory My Documents. If a file with the same name exists in the mentioned location a dialog will appear to notify the user and ask if the existing file shall be replaced.




If you select the option “No” or “Cancel” the current data records of the MS Excel spreadsheet will be saved under the data name “Gestra_OR52_7_Template1.xls”. Note that if a file with this name exists it is replaced without prompting the user. It is therefore essential to select a different file name if you want to use different data records with the same equipment serial number on the same day.

Add-In Function – continued –

OR 52-7 Loader – continued –

The header of the spreadsheet specifies the serial number of the flash memory card installed in the OR 52/7 and its software version.

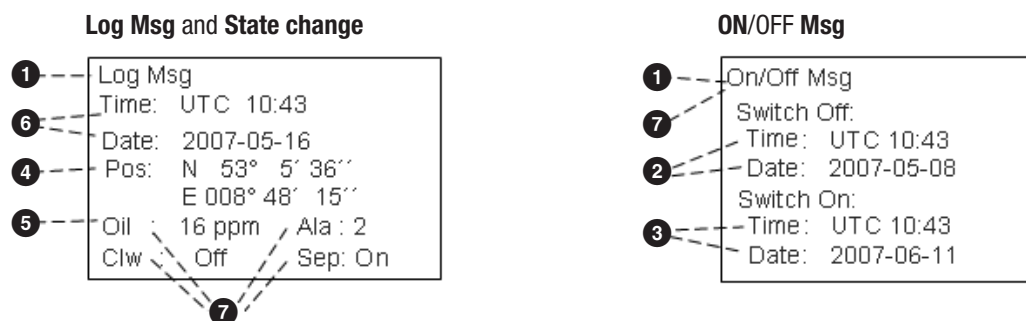
	A	B	C	D	E	F	G
1		OR Serialnumber: 0195296 Ver.:20			Time Period		
2		Download Date: 2007.07.04			2007.06.01 00:00		
3					2007.07.04 17:00		
4	Type	UTC SwitchOff	UTC SwitchOn	Latitude	Oil Content	UTC	State

In addition, the OR 52-7 shows the date of the data transfer to the PC (download date), the interval between the data storage (time period) and the number of all data records and of all messages regarding the activation of the alarm mode. The column headers in the bottom line structure the downloaded data and can also be used for filtering the data by clicking on them and selecting a certain content so as to specify criteria for the termbase search. An active filter is indicated by a blue arrow.

Specification of the data records

The OR 52-7 Excel add-in lists the data contents shown on the LCD display of the OR 52-7.

Comparison of the data fields and the information given in them between the LCD display of the OR 52-7 in enquiry mode and the OR 52-7 Excel add-in.



The numbers correspond to the information taken from the Excel spreadsheet columns with the same numbers.

1	2	3	4	5	6	7
Type	UTC SwitchOff	UTC SwitchOn	Latitude	Oil Content	UTC	State
Monitor Downtime	2007.04.17 13:03:08	2007.05.09 10:07:24				Device start/stop
State Change			53° 5' 36''	9,8 ppm	2007.04.17 13:01	ClearWater
State Change			8° 48' 15''	10 ppm	2007.04.17 13:01	ready
State Change			53° 5' 36''	10,8 ppm	2007.04.17 13:01	ClearWater
Status-Log			8° 48' 15''	8,2 ppm	2007.04.17 13:01	
Monitor Downtime	2007.04.17 13:00:40	2007.04.17 13:00:41				Device start/stop
State Change			53° 5' 36''	9,8 ppm	2007.04.17 12:48	ready
State Change			8° 48' 15''	18,3 ppm	2007.04.17 12:46	ppm > limit
State Change			53° 5' 36''	18,2 ppm	2007.04.17 12:46	ready
State Change			8° 48' 15''	0 ppm	2007.04.17 12:39	e1 Light Ctrl OV
State Change			53° 5' 36''			

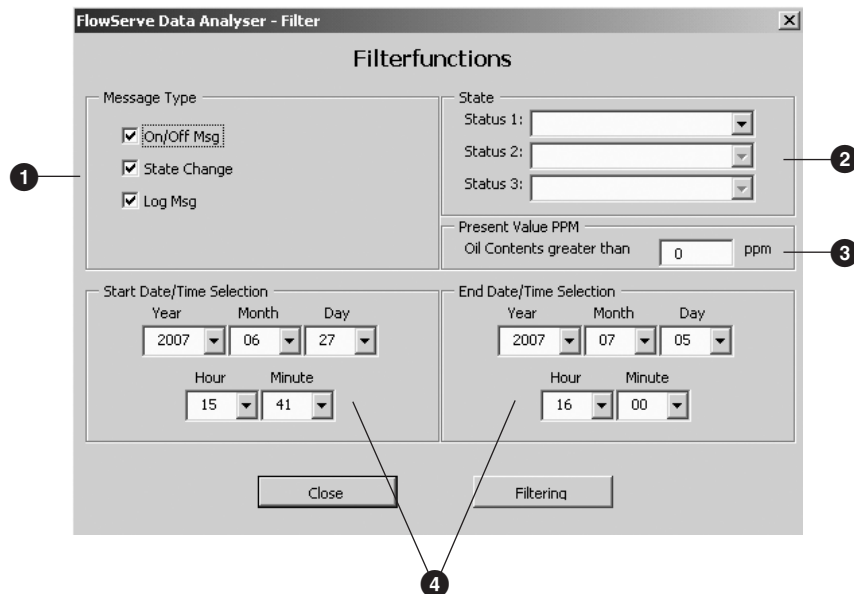
For more information refer to the installation and operating instructions of the OR 52-7.

New import

You can save downloaded data on the hard disk (see “Save As” button in the OR52-7 Loader Manual). These data are in the CSV format and can be imported subsequently by using the Excel add-in. By default these data will be stored in the directory “My Documents” of the current Windows user. The Excel add-in function “New Import” can be used for this purpose but note that only data in the CSV format can be imported that have been generated by the OR 52-7 Loader.

Filtering

A filter sets up a screening process that displays some entries and hides others. Press button “Filter”. The dialog box “Filter Functions” appears in the OR 52/7 add-in window.



Filters can be set up and applied to the following columns in MS Excel:

Type	UTC SwitchOff	UTC SwitchOn	Latitude	Oil Content	UTC	State
Log Msg			no Latitude available	10 ppm	2007.07.05 16:00	ready
Log Msg			no Latitude available	10,1 ppm	2007.07.05 15:00	ready

Filtering by message type

There are three filter options: “On/Off Msg”, “State Change” and “Log Msg”.

All message types are selected by default. To remove an item that you do not want to view deactivate it in the box “Message Type”.

Filtering by the contents of the column “State Log”

The state logs provide a more refined breakdown:

Here you can specify up to 3 state logs in the drop-down list boxes that will then appear in the filtered view of the file.

Add-In Function – continued –

Filtering – continued –

Filtering by specific ppm lower limit

Present Value PPM
Oil Contents greater than ppm

Enter a ppm value in the dialog box “Present Value PPM” to filter all the messages that exceed the specified value.

Filtering by time interval

Start Date/Time Selection End Date/Time Selection

Start Date/Time Selection				End Date/Time Selection					
Year	Month	Day	Hour	Minute	Year	Month	Day	Hour	Minute
2007	06	27	15	41	2007	07	05	16	00

You can set a time interval in the two dialog boxes “Start Date / Time Selection” and “End Date / Time Selection”. If the message type “On/Off Msg” has been selected only the start date is of relevance. When the filter is set up for the first time for an OR 52-7 file, the start date indicates the time when the first message was indicated and the end date specifies the time of the download.

Multiple filter functions can also be combined. As a result only the data records that fulfil all of the specified criteria will be displayed. If no data record meets the filter criteria nothing can be viewed, unless the options in the dialog box “State” have been selected. Since the status messages “Clear Water”, “ppm > limit”, “Separator”, “e1 Light Ctrl OV” and “e2 no light received” can only occur with the status messages of the type “State Change”, they can only be combined with that type. The filter criteria (apart from the time interval setting) remain only active as long as the current data spreadsheet is used.

Sorting

FlowServe Data Analyser - Sort

Ascending Sort Descending Sort

First Order: ☐

Second Order: ☐

Third Order: ☐

Oil Content

Close Sort

In each of the three drop-down list boxes you can specify a column, the contents of which will be sorted alphabetically/numerically.

New Import: Filter Sort Impress						
B11						
	A	B	C	D	E	F
1	OR Serialnumber: 0185286 Ver.:20			Time Period		
2	Download Date: 2007.07.05			2007.06.27 15:41:35		Number of all logs: 32
3				2007.07.05 16:00		Number of State Changes: 0
4	Type	UTC SwitchOff	UTC SwitchOn	Latitude	Oil Content	UTC
5	Log Msg	no Latitude available		10 ppm	2007.07.05 16:00	ready
6	Log Msg	no Latitude available		10,1 ppm	2007.07.05 15:00	ready

The default sort order is Ascending. To change the sort order click “Descending Sort”. If you want to sort by message type and time information indicated in the columns UTC SwitchOn (for On/Off Msg) or UTC (for all other message types) click on the sort key “Time”.

Impress

Additional information is given on our technical support and questions regarding the product and available upgrades.

Saving

Choose the MS Excel save command to save any changes you have made. By default all imported data will be saved. When saving a file containing data records that are hidden because they do not meet the criteria of the applied filter(s), only the data records that meet the criteria will be displayed when the document is opened again. Provided that the OR 52-7 add-in is installed, all data records can be viewed once the filter is removed.

The file name consists of “Ort52-7-log”, followed by the date of the download and the OR 52/7 serial number.



Attention

Note that any existing file with the name “Gestra_OR52_7_Template1.xls” will be overwritten. If you do not want to overwrite the existing file use the command “Save AS” and enter a different file name.

Opening an OR52-7-log-[...].xls document

To open the document click on the Excel command “Open file”. The spreadsheet shows only those data records that meet the filter criteria you specified when saving the data. To view all data records deactivate the filter(s).

Minimum requirements for the add-in

MS Excel 2000, best resolution below 1024 x 786 or higher

Troubleshooting

OR 52-7 Loader

Should malfunctions occur please check the individual components of the data transfer.

Checking the connection to the oil & turbidity detector OR 52-7

An error message appears below the error button of the OR 52-7 Loader if a connection to the oil and turbidity detector OR 52-7 cannot be established. To eliminate the fault you have to restart the OR 52-7 Loader.

To check that the USB-to-CAN adapter (IXXAT) interface works correctly use the installed Minimon32 Tool.

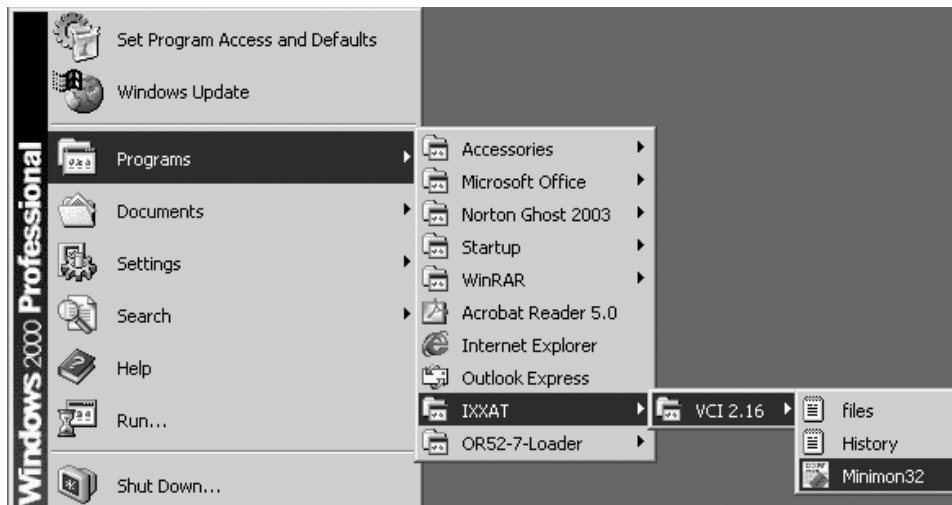
Error messages

Error code	Possible cause	Remedy
VCI_SelectHardware failed	The IXXAT interface cannot be found.	Proceed as described in the section "Checking USB-to-CAN adapter".
VCI2_PrepareBoard failed	Another program is using the IXXAT interface.	Exit the other program.
OR 52-7 Could not be found	The oil & turbidity detector OR 52-7 cannot be found. The CAN LED flashes briefly red.	Make sure that the cables between the IXXAT interface and the oil & turbidity detector OR 52-7 are installed correctly. If necessary interrupt the power supply of the measuring transducer ORT 7.

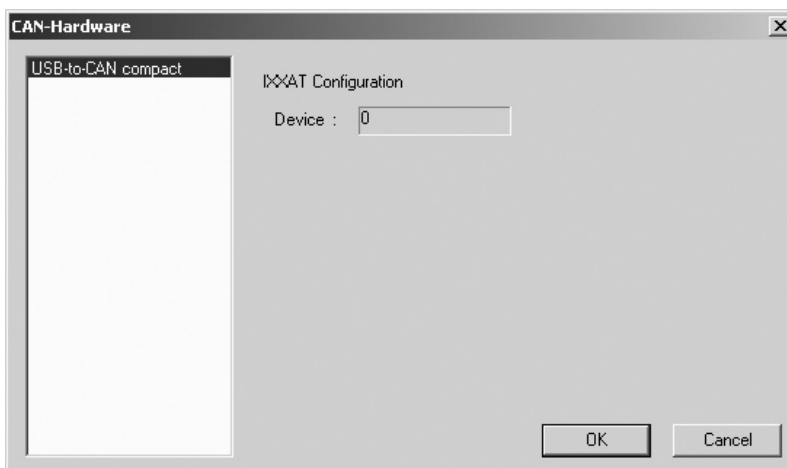
It may happen that the OR 52-7 bilge meter does not respond any more if a cable connection is interrupted while data are being transferred. In this case you have to restart the equipment.

Checking USB-to-CAN adapter

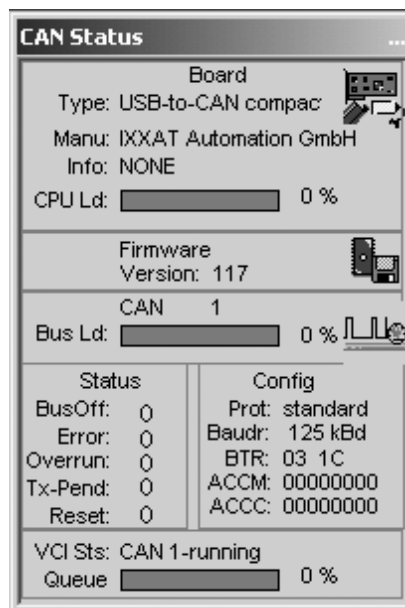
First make sure that the USB-to-CAN interface is connected correctly and the supplied driver has been successfully installed. The LED at the USB side of the interface must be illuminated green. To check the correct functioning of the interface use the tool “Minimon32” (go to Start -> Programs -> IXXAT -> VCI 2.16) that is supplied with the IXXAT driver.



After the program has been started select the board (IXXAT interface) in question.

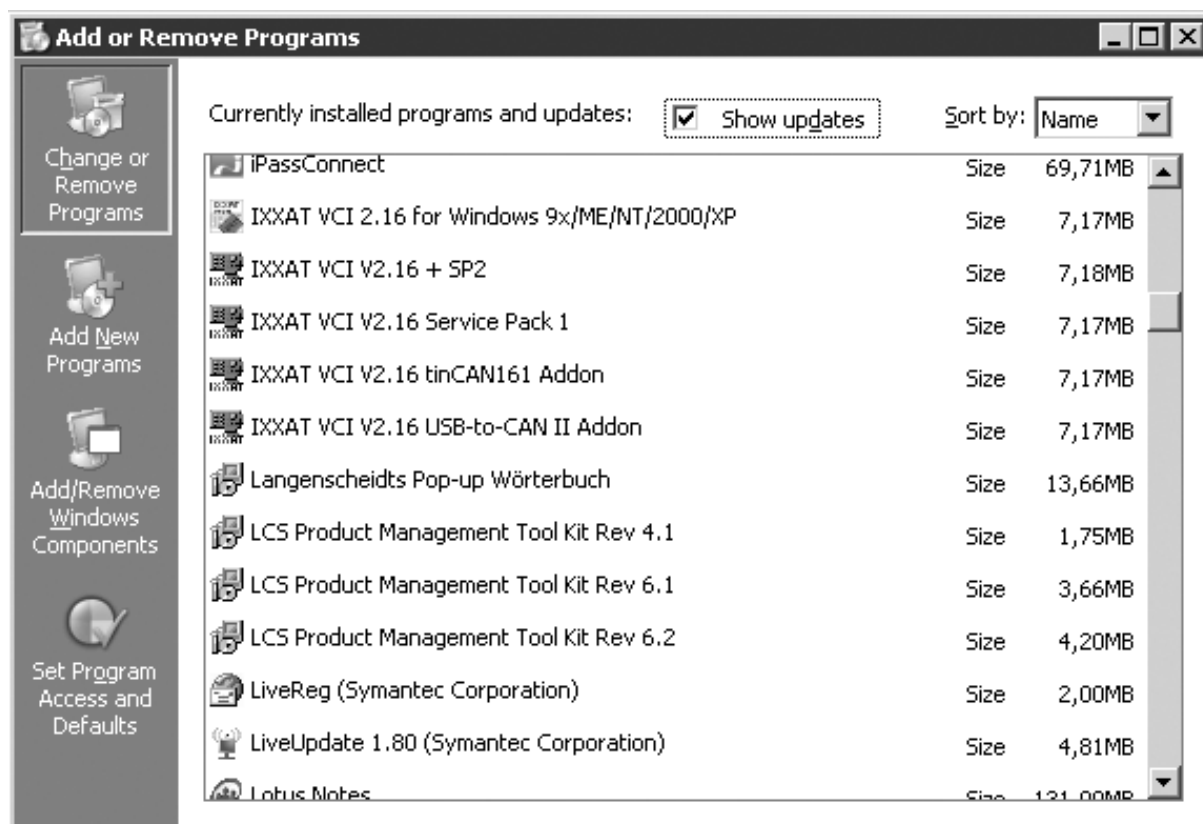


Confirm your input. The USB interface will now be tested. If the transfer test was successful it will be indicated in the CAN Status window.



If an item in the Status window is marked red press button Start/Stop twice to restart the program. If the malfunction continues restart your computer and repeat the test procedure.

If it is not possible to establish a troublefree connection it is reasonable to conclude that the IXXAT interface or the USB hub of your computer is defective or that the driver has not be installed correctly. In this case click on Control Panel -> Software and uninstall the driver components. Note that this is only possible if you have administrator's rights.



Before re-installing the IXXAT interface unplug the USB connector from the computer and restart the computer.

Incorrect formatting and presentation of the data in MS Excel

If MS Excel has been started via the OR 52-7 Loader user interface and the data are presented in Excel in an illegible format, the OR 52-7 Excel add-in had been deactivated. To correct the problem proceed as described in the section “Add-in”.



GESTRA AG

Münchener Straße 77
28215 Bremen
Germany

Telefon	+49 421 3503-0
Telefax	+49 421 3503-393
E-Mail	info@de.gestra.com
Web	www.gestra.de

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