ViatorCheck Software

User Manual

Manual



Your automation, our passion.

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Worldwide

Pepperl+Fuchs Group Lilienthalstr. 200 68307 Mannheim Germany Phone: +49 621 776 - 0 E-mail: info@de.pepperl-fuchs.com **North American Headquarters** Pepperl+Fuchs Inc. 1600 Enterprise Parkway Twinsburg, Ohio 44087 USA Phone: +1 330 425-3555 E-mail: sales@us.pepperl-fuchs.com **Asia Headquarters** Pepperl+Fuchs Pte. Ltd. P+F Building 18 Ayer Rajah Crescent Singapore 139942 Phone: +65 6779-9091 E-mail: sales@sg.pepperl-fuchs.com https://www.pepperl-fuchs.com

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1 Overview

ViatorCheck is a diagnostic software utility that can be used with the entire family of Viator interfaces. **ViatorCheck** provides a simple way to test HART connections between a PC with a Viator interface and a field device. **ViatorCheck** also gives you the ability to configure the Viator Bluetooth® interface.



2 Installing ViatorCheck

2.1 System Requirements for Use with Windows®

Following operating systems are supported:

• Microsoft® Windows® 7 / 8 / 10 / 11

Microsoft® .NET Framework 3.5 is needed to install the program.

2.2 Installing ViatorCheck



Note

Install utilities and drivers before plugging in the Viator.



Note

Use an administrator login to install ViatorCheck.



Installation

- 1. To download the ViatorCheck installation file, visit www.pepperl-fuchs.com.
- 2. Enter your Viator's type code (HM-PF-USB-010031, HM-PF-USB-PWRX-010031P or HM-PF-RS232-010001) into the keyword search box at the upper-right corner of the Pepperl+Fuchs homepage. Press **Enter**.
- 3. Select the appropriate product page from the search results.
- 4. Download the installer from your Viator's product page under the "software" tab.
- Open the ViatorCheck folder and double click the setup.exe file to start the installation process.
- 6. The preliminary screen will appear. Click Next >

Welcome to the VIATOR Setup Wizard Image: Computer program is protected by copyright law and international treaties. WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.	VIATOR –	-		×
The installer will guide you through the steps required to install VIATOR on your computer. WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.	Welcome to the VIATOR Setup Wizard			Ę
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.	The installer will guide you through the steps required to install VIATOR on your	r compul	uter.	
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.				
	WARNING: This computer program is protected by copyright law and internation Unauthorized duplication or distribution of this program, or any portion of it, may r or criminal penalties, and will be prosecuted to the maximum extent possible und	nal treal result in der the l	aties. n seve law.	ere civil

Figure 2.1

7. The next screen will display the end-user license agreement.



Figure 2.2

8. The next window will allow you to select the folder where you would like to install the utility file.

竭 VIATOR	-		×
Select Installation Folder			
The installer will install VIATOR to the following folder.			
To install in this folder, click "Next". To install to a different folder, enter it l	below or cl	ick "Br	owse".
Eolder:			
C:\Program Files (x86)\P+F\VIATOR\		Bīomse	e
	<u>D</u>	isk Co	st
Install VIATOR for yourself, or for anyone who uses this computer:			
○ <u>E</u> veryone			
● Just <u>m</u> e			
< Back Next	>	Ca	incel

Figure 2.3



9. After selecting the installation folder, you will be prompted to start the installation. To confirm installation, click Next >



Figure 2.4

10. The utility will now begin to install.

⊮ VIATOR —		×
Installing VIATOR		
VIATOR is being installed.		
Please wait		
< <u>Back</u>	Ca	Cancel

Figure 2.5

11. The installation is now complete. To exit, click Close

l VIATOR	-		×
Installation Complete			
VIATOR has been successfully installed.			
Click "Close" to exit.			
Please use Windows Update to check for any critical updates to the .NET Fr	ramewo	k.	
< <u>B</u> ack Close		Car	ncel

Figure 2.6

2.3 Removing ViatorCheck

As part of uninstalling ViatorCheck, com0com will be removed by its uninstaller. Click **Next** to continue through the prompts and remove all components of com0com.



F

3 Using ViatorCheck

To begin running ViatorCheck, select Start > Programs > P+F - ViatorCheck.

Note

If your Viator Bluetooth® interface is not connecting, try powering off the Viator interface and powering it back on.

The ViatorCheck application is divided into 5 sections:

VIATORCheck for P+F	– 🗆 X
File • Help •	
Active Com Ports Win Com Port Description HART Com Port Tag Device Type	
COM138 Communications Serial Port	
Disable Port Mapping Update Port List Show All Ports Show BT Start Port Wizard	Check All HART Devices
HART and Modem Information Primary Variable Readings	
Port HART HART Application Com Port Available Com Ports Map COM1 COM2 COM3 (in use) COM5 (in use) COM6 (in use) COM8 (in use) COM9 (in use) COM9 (in use)	Read Primary Variable
Found 1 COM Ports 5	

- 1. Active COM Ports List
- 2. HART Devices List
- 3. HART, Port Mapping, and BT Modem Information
- 4. Primary Variable Readings
- 5. Viator Status Message Line

3.1 Active COM Ports List

The Active COM ports list displays all of the active COM ports on the system, along with some descriptive information about what type of COM port it is (such as USB or Bluetooth) and the HART COM port it is set to. For Bluetooth® COM ports, the Bluetooth® device name will also be displayed if it can be determined. The default list shows only COM1-4, Viator USB modems, and all Viator Bluetooth® modems.

Vin Com Po	rt	Description	HART	Com Port	
COM1	Communica	ations Serial P	ort		
COM4	MACTekVi	ator9B9B	CON	/16	
		anninc	Lindata	PostList	
🗆 Disat	ile Port Ma	appinç	Update	Fort List]



3.1.1 Update Port List

The options **Show All Ports** and **Show BT** allow display of all ports with or without BT ports. Setting **Show All Ports** will automatically select **Show BT ports** and un-checking **Show BT with Show All Ports** checked will only show the serial and USB ports. Pressing **Update Port List** will scan for any new modems and will update the list based on the port selection checked.

3.1.2 Selecting a Port

Clicking on a COM port will select it, and it will attempt to open. If a previous COM port was already opened by ViatorCheck, that one will now be closed. If the COM port cannot be opened, an error message is displayed:

Unable to open COM1. Please verify that the device is working and that no other application is using COM1	
ОК	

Figure 3.3

Once a COM port is selected and opened, the "HART Device List" and the "HART and Modem Information" areas become available.

3.1.3 HART COM Port

Upon starting, ViatorCheck scans for Viator Bluetooth® modems. If any are detected, it maps the actual modem port to an available HART COM port. Use the HART COM port when specifying the port to a HART application. If the port mapping is not required, then select Disable Port Mapping before exiting the program to inhibit the Viator Serial Port Communication Filter (VSPCF) program from starting and mapping the ports. The Viator Bluetooth® modem ports should be mapped to allow better performance. This is critical for some HART applications to work with the Bluetooth® modem.

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3.1.4 Port Wizard



Procedure

1. The Port Wizard is a step-by-step procedure for creating a mapped port. Click on **Start Port Wizard** below **Update Port List** to go through a series of windows that explain the steps and set up the mapping. The first screen shown below allows the mapping to be disabled completely. To continue with the wizard, click **Proceed**.

🖶 StartWizard	
BT Modem Port Assignm Power on BT Modem	ent Wizard
This is a step by step procedure to setup on your BT Modem and press Proceed to not want to map any modems through VS Disable Port Mapping below and press Pr	a BT Modem. Turn continue. If you do PCF check the roceed.
Disable Port Mapping	9
Proceed	Cancel

Figure 3.4

2. The next screen allows the selection of the Bluetooth® modem to set up. If the Bluetooth® modem does not appear in the list, check **Show all BT Devices** to rescan. The modem may also need to have the power cycled in order to appear. After selecting the modem port, the **Identify Modem** button can be used if the modem is not easily detected among other modems. A long steady blink every second will help identify the modem selected.

🛃 StartWizard	
BT Modem Port As Select BT	signment Wizard
The following modems were found. S setup and press Proceed. If the serie with the one on the front of your BT I Modem on the port selected the LED flash once a second to help identify t BT Modem, check the Show all BT I cycle power on the modem.	Select the BT Modem you wish to al number is listed you can match it Modem label. If there is a BT on the face of the modem should he modem. If you don't see your Devices to re-scan all BT Ports or
BT Devices	
COM4 MACTekViator9B9B	Proceed
Identify Modem	Show all BT Devices
ielect a BT Device	

Figure 3.5



3. After the HART Bluetooth® modem has been selected, the next step is to select a port to map the modem to. This is the actual port that a HART application uses to communicate through the modem. Select a port that your application can recognize. If the port is shown as "(in use)," do not choose it unless you are absolutely sure that you do not have any device on that port. If another BT modem or piece of equipment has reserved that port, it will not be possible to enable mapping for it.

Start₩izard BT Modem Port	Assignment Wiza	rd	
Assign HAR	Application Port		
To best utilize the BT Modem se application. A VSPCF process v reducing the delays possible with already a mapping for this device	lect a port to use with your HAI vill manage the port and assist i n Bluetooth communications. If a that port will be highlighted.	RT n there is	
Available Com Po	its		
COM1 (in use)	<u>^</u>	10	
COM2	Proce	ed	
COM3 (in use)			
COM4 (in use)			
COM5 (in use)		1	
COM6	Land	cel	
COM7	1000		
COW8			
WARNING: If the Port name is I another communication port or n and another port will need to be exiting VIATORCheckBT.	being used by another device (odem) then the port mapping v picked. This will only be detec	such as vill fail ted after	

Figure 3.6

4. The final screen allows the mapping selections to be confirmed. The actual mapping will not occur until ViatorCheck is closed and VSPCF is run on that port.







3.2 HART Devices List

The HART device list displays all of the detected HART devices after a check has been performed. There are two types of checks that can be performed: **Check HART Device 0** and **Check All HART Devices**.



Figure 3.8

- Check HART Device 0 checks for and displays a HART device existing on polling address 0 only.
- Check All HART Devices checks for and displays all HART devices existing on polling addresses 0 to 15.

When the check is complete, the first entry in the list will be selected and additional HART information will be retrieved from that device and displayed in the HART and modem information area.

If more than one device is detected, the active device can be selected by clicking on the entry in the list. When a new device is selected, additional HART information will be retrieved from that device and displayed in the HART and modem information area. After a HART device is checked, the HART Information tab displays information about the active device, such as the manufacturer ID, device ID, and the tag name.



3.3 HART Device/Modem Information

The HART and Bluetooth® information area tabs display additional information about the active HART device. The tab for Bluetooth® information will only be shown if a Viator Bluetooth® modem is selected.

The port information tab allows the port mapping to be enabled or disabled for the selected device and the selection of a port from the available COM Ports to be mapped for the HART application COM port. When enabled, the mapping is shown in "Active Com Ports." If a port is shown as "(in use)," this means that a device has been previously located at this port. If you believe that this is no longer true and want to re-use one of the lower ports for applications that may only be able to work with ports COM1-8, then double-clicking on the port will switch its status to free. You can then assign a mapping to that port by selecting it and pressing **Apply**.

Port	HART Bluetooth		
HAR	T® Application Com F	ort	
	Available Com Ports	Мар	
	DM1 (in use) DM2 DM3 (in use) DM4	☑ On	
	JM5 (mapped) DM6 DM7		
CC)M8 🕑	Apply	

Figure 3.9

When a Bluetooth® modem is selected, the Bluetooth® tab will show the basic settings screen for the Viator interface. This screen shows the current firmware revision and a battery gauge for the Viator interface.

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Port HAR Status Adv	T Bluetooth			
Hirmware				
version.	MACTER DI VU.15			
Date:	Jun 19 2007 12:01:07			
Battery				
Empty		Full		

Figure 3.10

Clicking on the Advanced Button will bring up advanced settings that can be used with the Viator Bluetooth® HART interface.



Note

Inactivity time is defined as the amount of time since the last HART message was received or transmitted.

Port HART Blueto	ooth	
Status Advanced		
Time to Sleep Time to Power Off	0 minutes 0 minutes Apply	3
Squawk Mode	Factory Defaults	er Cff



Time to Sleep: Amount of inactivity time (in minutes) after which the Viator interface will disconnect and enter a sleep mode (this helps to conserve battery life). When in sleep mode, connection can be reestablished from the PC to the Viator interface. If this setting is set to 0, the feature is disabled. To change this setting, enter in the new value and click Apply.

Time to Power Off: Amount of inactivity time (in minutes) after which the Viator interface will completely power off. Once the Viator is powered off, the power button must be pushed to turn it back on. If this setting is set to zero, the feature is disabled. To change this setting, enter in the new value and click Apply.

Squawk Mode: Set to On to enable Squawk Mode; Off will disable Squawk Mode. Squawk Mode is a way to identify a Viator interface and, when enabled, it will display a unique LED blink pattern. This is useful when multiple Viator interfaces are being used.

Factory Defaults: This button resets the Viator interface back to the factory default settings. Resetting to factory defaults will also initialize a number of settings with the Bluetooth® connection and takes 20 to 30 seconds to complete. While in progress, the LED on the Viator interface will blink on and off slowly until complete. This will cause the COM port to close.

The following prompt will be displayed when this item is selected:

Restore Factory Defaults.	
Resetting the modern will take about 30 seconds to complete. The VIATOR Modern settings will return to their factory defaults, and the current settings will be lost. Are you sure you want to reset the modern?	
Yes No	

Figure 3.12

Power Off: Clicking this button will turn off the Viator interface and cause the COM port to close. Once the Viator is powered off, the power button must be pushed to turn it back on.

The following prompt will be displayed when this item is selected:

Power (Dff 🛛 🖉 🖉
1	Turning the VIATOR Modem power off will require that the, modem will need to be manually turned back on again and will require physical access to the modem. Are you sure you want to turn the modem power off?
	Yes No

3.4 HART Device Primary Variable Readings

After a HART device has been selected in the HART Device List, the primary variable for the active device can be read. In the lower right part of this area, the HART primary variable limits are displayed for the active device.

adings Read Primary Variable	
PV Limits	
Units Pa	
Upper 98066.5	
Lower -98066.5 Min Span 980.6649	
	Adings Read Primary Variable PV Limits Units Pa Upper 98066.5 Lower .98066.5 Min Span 980.6649

Figure 3.14

Read Primary Variable: Clicking this button will read the primary variable every 1 to 2 seconds from the active HART device and display it in the window. Once pressed, the button will change to say Cancel, which can be clicked to cancel the reading of the primary variable.



4.628121 Pa	Cancel
2 490070 Do	
J.420070 Fa	
7.521943 Pa	
3.303048 Pa	
6.072149 Pa	
4.901521 Pa	
4.93524 Pa	
4.820329 Pa	
3.735094 Pa	
4.840789 Pa	
4.839998 Pa	
4.973079 Pa	PV Limits
	Units Pa
	Upper 98066.5
	Lower .99066 5
	Min C === 990 CC49



3.5 Status Message Line

This line will display status information for the current operation, such as opening a COM port or reading the primary variable.



3.6 Exiting ViatorCheck

When exiting **ViatorCheck**, any ports shown as mapped in the active COM ports window will get mapped if Disable Port Mapping is not checked. This mapping will cause the program VSPCF to be started for each mapped port. When active, the VSPCF program will appear in the Sys Tray. Each time ViatorCheck is started, the mapping for these ports will be discontinued until after ViatorCheck is exited. Each individual port has the ability to be mapped or not, and all mappings can be disabled by selecting Disable Port Mapping in the active COM ports window.

If mapping is enabled, the COM port mapping window will be displayed. This shows which port a HART application should use (HART COM Port) and which modem it is associated with (Win Com Port). If there are other ports that may have been mapped previously that are no longer needed, they can be selected and deleted. If any ports conflict, it will be shown here and the conflicting port can be deleted. After clicking **Exit** on this screen, the ports will be set up and VSPCF will be run for each port in the list.

The following parts have been mapped
Please use the HART® Com Fort instead of the Win Com Port.
COM2 instead of COM7 Delete Entry Print Exil



Your automation, our passion.

Explosion Protection

- Intrinsic Safety Barriers
- Signal Conditioners
- FieldConnex[®] Fieldbus
- Remote I/O Systems
- Electrical Ex Equipment
- Purge and Pressurization
- Industrial HMI
- Mobile Computing and Communications
- HART Interface Solutions
- Surge Protection
- Wireless Solutions
- Level Measurement

Industrial Sensors

- Proximity Sensors
- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- Fieldbus Modules
- AS-Interface
- Identification Systems
- Displays and Signal Processing
- Connectivity

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