

# Software Installation Guide on Windows 10

## FCTester

This guide provides procedures for installing FCTester in Windows 10. Be sure to follow the instructions provided in this installation guide.

### NOTE

- The installation instructions provided in the user's manual (IB008703) included in the CD-ROM came with the product and those provided in the user's manual (IB008704) available from the Kikusui website are not applicable to the cases where software programs are installed in Windows 10.
- For information on the product other than installation procedures, refer to FCTester User's Manual (IB008704) available from the Kikusui website.

You can download this installation guide from the Kikusui website (<https://www.kikusui.co.jp/en/download/>).

### ■ Trademarks

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### ■ Notations used in this guide

- "PC" in this guide is a generic term for personal computers and workstations.
- The following markings are used in this guide.

**NOTE** Indicates information that you should know.

### ■ Copyrights

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## Safety precautions

Before using FCTester, carefully the following manuals describing the hardware. Be sure to connect and handle the device properly. Improper connections or handling may lead to serious accidents, injury, and fire.

- Fuel Cell Impedance Measurement System KFM2150SYSTEM
- FC Scanner KFM2151 (when using the scanner)

## System requirements

- Core i5 or higher
- Windows 10 (64 bit or 32 bit)
- 8 GB RAM<sup>1</sup> (Minimum)
- 20 GB or more of free hard-disk space
- A display that supports 1024 x 768 or higher resolution (96 DPI)
- CD-ROM drive
- Mouse
- VISA library
- RS232C, USB, LAN, or GPIB<sup>2</sup> (depending on the interface that you want to use)

1. If you want to use the software continuously over an extended period, expanding the RAM to 16 GB is recommended.
2. GPIB interface by National Instruments, Keysight Technologies, or Contec (32 bit only)

## About Windows updates

Unlike the older versions of Windows, Windows 10 is provided as Windows as a Service (WaaS) in order to continuously update the OS. It is said that updating privileges would be lost unless it is used in an Internet connected environment and Windows Update is periodically executed (currently 18 months).

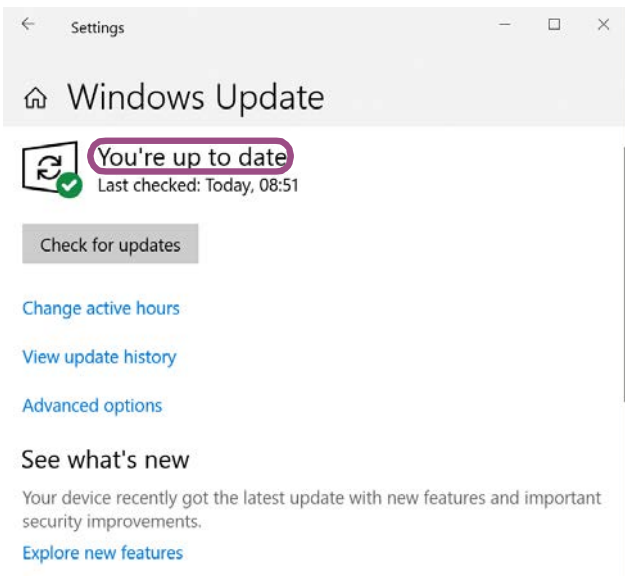
If you want to stably run a sequence using Wavy over an extended period, you need to be careful about the auto update function of Window 10.

Familiarize yourself with the matter explained below, and construct the most stable OS environment possible before running a sequence.

### Running Windows Update

Run Windows Update to update the OS to the latest condition (in which "You're up to date" is shown).

When the downloading of the update file is complete, Windows will be in an installation-wait state or restart-wait state after installation. If you run a sequence in this state, Windows may restart automatically even when the PC is not connected to the Internet. Be sure to select Install Now or Restart Now to complete the installation of the update program.



### Windows Update settings

With the default Windows Update settings, when connected to the Internet, Windows 10 automatically runs Windows Update and restarts the PC using the update program. If Wavy is running, Windows will automatically restart while a sequence is running, and this will result in the loss of monitored data.

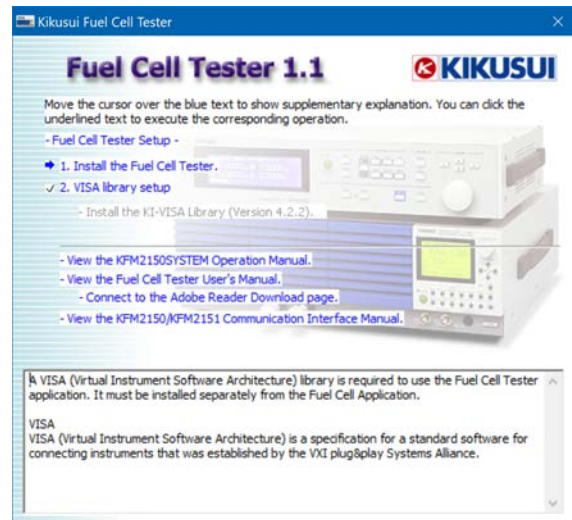
When executing a long-term sequence using Wavy, we recommend that, in the Windows Update settings, you postpone the update program installation until an appropriate time.

## File structure of CD-ROM

The CD-ROM coming with the product includes the following software programs and manuals:

- Demo
- KI-VISA [Cannot be used. This is an older version.](#)
- Tools [PLZ\\_Detach software application](#)
- User's Manual [Related manuals](#)
- WindowsInstaller3\_1
- AutoRun.exe [Starting installation launcher](#)
- Autorun.inf
- FuelCellTester.msi
- FuelCellTesterJ.msi
- setup.exe [Starting FCTester in English Ver.](#)
- setupJ.exe [Starting installer for FCTester in Japanese Ver.](#)

- When you run AutoRun.exe, the installation launcher appears.



When the installation launcher is used, the version of FCTester to be installed is automatically determined according to the OS installed on your PC.

- OS in Japanese version -> FCTester in Japanese version
- OS in other language version -> FCTester in English version

# Installation procedures

An administrator account is required for the following installation.

## FCTester

You can install FCTestester by following the steps below. Alternatively, you can install FCTestester by directly starting the installer. In that case, make sure of the language of FCTestester you are going to install.

### 1 Run AutoRun.exe included in the CD-ROM.

The installation launcher appears.

### 2 Click Install Fuel Cell Tester.

A setup wizard appears.



Follow the instructions until the installation is complete.

## VISA library

To use FCTestester, VISA library needs to be installed on your PC.

VISA (Virtual Instrument Software Architecture) library is a standard specification for measurement instrument connection software, which was developed by VXiplug&play Systems Alliance.

A KIKUSUI original KI-VISA is available that supports IVI VISA specifications 5.0.

- KI-VISA Ver 5.5 or later

### NOTE

The version of KI-VISA included in the CD-ROM does not support Windows 10.

- If you want to use KI-VISA, download the latest version (5.5 or later) from the Kikusui website (<https://www.kikusui.co.jp/en/download/>).
- If KI-VISA installed on your PC is earlier than Ver. 5.5, you need to download the latest version from this site.

The following other VISA libraries can also be used. Confirm the license terms of each VISA library before installation.

- NI-VISA by National Instruments (Ver.19.0 or later)
- Keysight VISA by Keysight Technologies (Keysight IO Libraries Suite 2019 or later)

### NOTE

Only KI-VISA supports GPIB in FCTestester. If NI-VISA or Keysight VISA is already installed on your PC and GPIB is not used, you do not need to install KI-VISA.

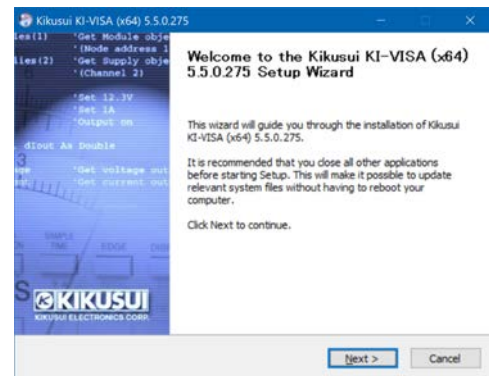
## ■ Installing KI-VISA

### 1 Download the version 5.5 or later through our website (<https://www.kikusui.co.jp/en/download/>).

Download (x64) for 64-bit OS or download (x86) for 32-bit OS.

### 2 Double-click the downloaded kivisa\_5\_5\_x.exe to run it.

The VISA library installation initiates. In case that a VISA library has already been installed, the VISA library and its version are displayed. Do not install multiple VISA libraries on a single PC.

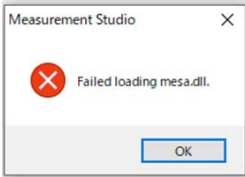
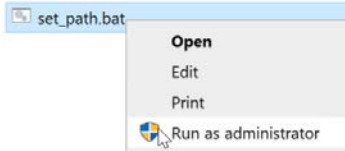
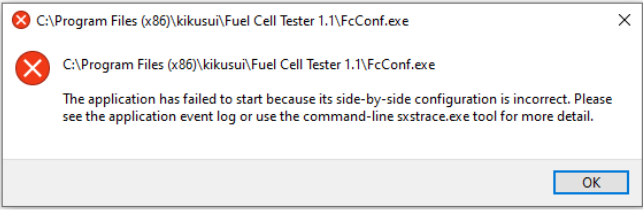


Follow the instructions until the installation is complete.

# Troubleshooting after installation

If your FCTester is used for the first time, you may be unable to use it as it is, depending on the operating environment of your PC.

Possible symptoms and remedies to be taken in such a case are provided below. If any of the following remedies does not solve the problem, or if none of the items listed here match your situation, contact your Kikusui agent or distributor.

Symptom	Remedy
<ul style="list-style-type: none"><li>An error message appears when you attempt to start FCT-ester Executive.</li></ul> 	<ol style="list-style-type: none"><li>Click OK to close the message.</li><li>Download set_path.zip from the Kikusui website (<a href="https://www.kikusui.co.jp/en/download/">https://www.kikusui.co.jp/en/download/</a>).</li><li>Unzip the ZIP file.</li><li>Right-click the file name (set_path.bat), and select Run as administrator.</li></ol> 
<ul style="list-style-type: none"><li>An error message appears when you attempt to start FCT-ester Configuration Tool.</li></ul> 	<ol style="list-style-type: none"><li>Click OK to close the message.</li><li>Download vcredist_x86.exe from either of the following URLs:<ul style="list-style-type: none"><li><a href="https://www.microsoft.com/ja-JP/download/details.aspx?id=29">https://www.microsoft.com/ja-JP/download/details.aspx?id=29</a></li><li><a href="https://www.microsoft.com/en-US/download/details.aspx?id=29">https://www.microsoft.com/en-US/download/details.aspx?id=29</a></li></ul></li><li>Run vcredist_x86.exe.</li><li>Reboot the PC.</li></ol>
<ul style="list-style-type: none"><li>Communication with GPIB failed (the VISA library uses NI-VISA or Keysight VISA).</li></ul>	<p>Only KI-VISA supports GPIB in FCTester. Take either of the following remedies:</p> <ul style="list-style-type: none"><li>Use the RS232C or USB interface.</li><li>Uninstall the VISA library installed on your PC, and then install KI-VISA (Ver. 5.5 or later).</li></ul>

## NOTE

When you double-click the file name, you are assumed to run the program as a standard user and cannot correct the problem.

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