OptiInstrument 3.1 Release Notes

IMPORTANT

- Before installing OptiInstrument, make sure that **NI-VISA.NET Runtime** is installed on the system. When installing the NI-VISA, select the NI-VISA.NET Runtime option.
- Users can install NI-VISA from the following link https://www.ni.com/en-ca/support/downloads/drivers/download.ni-visa.html#346210.

  Note: The NI-VISA is a large package, it may take long time to download/install.

Installation Notes:

- When starting the installation process of OptiInstrument software, the popup message shown in Fig.1 offers the user a choice to quit the installation process if the NI-VISA.NET Runtime package is not installed on the same computer or continue the installation if the package is installed. However, the error message shown in Fig. 2 appears when users launch OptiInstrument application while **NI-VISA package is not installed**. Users need to install NI-VISA Runtime package, then ==run the batch file reactivate_x64.bat as an administrator== to allow launching OptiInstrument software. The file is located at the following location:

  C:\Program Files\Optiwave Software\OptiInstrument 3\bin

- OptiInstrument 3.1 includes an option to install OptiInstrument samples either during installation or **at** any other time. The **default** installation location **of** the samples**'** folder is **C:\Users\User Name\Documents\OptiInstrument 3.1 Release**
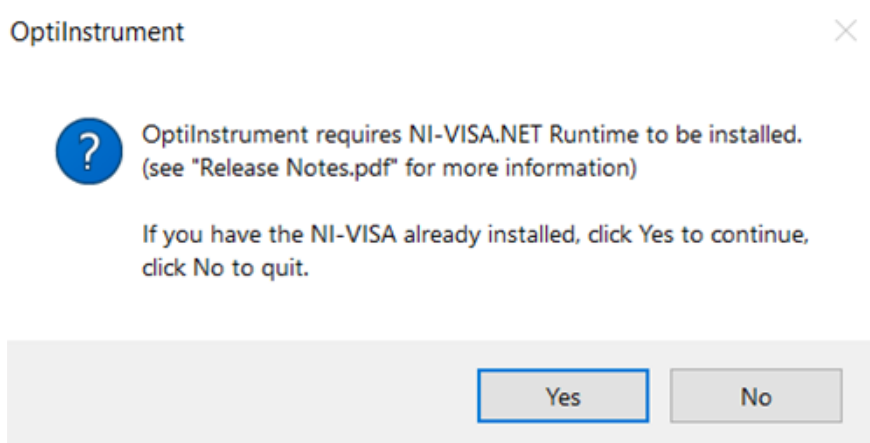

Fig. 1 OptiInstrument installation popup message

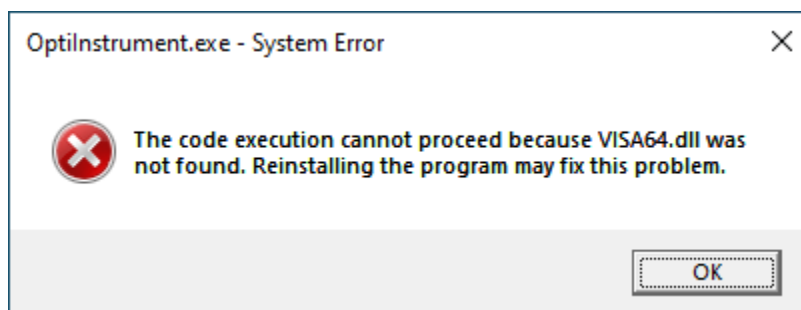Fig. 2 OptiInstrument installation error message when NI-VISA Runtime is not preinstalled

Minimum Hardware and Software Requirements

- OptiInstrument requires the following minimum/recommended system configuration:

- <u>Minimum PC configuration</u>: PC with Pentium processor (E6, G Series) or equivalent.

- 8GB RAM.
- OptiInstrument requires the following third-party software packages to be installed:
- NI-VISA (NI-VISA.NET Runtime).

- <u>Recommended PC configuration</u>: PC with a clock speed > 2 GHz with 2-4 cores (e.g. Intel i3, i5, i7) and 16GB RAM or more.

- <u>Operating Systems</u>: Microsoft Windows 8.1/10 (**64-bit only!**)

- **Microsoft is shelving Windows 7;** we will not support Windows 7 starting this release. However, the software might run under Windows 7, but we do not guarantee it and we will not be able to provide technical support for bugs/crashes.

- 2 GB free hard disk space.

- 1280 x 1024 graphic resolution

Application Execution

- **Administrators:** when installing OptiInstrument for users with Restricted User Profile, install the sample files in a folder where these users have Read/Write access. By default, the sample files are installed in the current user's Document folder. OptiInstrument requires the read/write file access and will not work with read-only files.

- For the OptiInstrument Help feature to function properly, Adobe Acrobat Reader must be installed. To get the latest version please visit the Adobe website at http://www.adobe.com/.

- Some computers are configured in power saving mode to go to Hibernation or Sleep mode when they are not in use. It is recommended to disable this feature, especially when running unattended lengthy simulations. Typically, after the

simulation is complete, the computer idles and eventually goes to Hibernation. This causes the licensing platform drivers to invalidate the license. When the computer wakes up and resume its execution, OptiInstrument software will issue a message that the license is not available and terminate, losing the simulation results in the process. Please disable the computer hibernation feature to avoid this problem.

OptiInstrument Software Release Overview

The updated user-friendly graphical user interface (GUI) of **OptiInstrument 3.1** Software is shown in Fig. 3. New icons have been added to the GUI to enable new capabilities of the software as well as some of the icons have been removed. A list is shown below.

Icons Removed/Added:

1. The ![icon] button in the Display Window

2. The ![icon] button in the Display Window is replaced with the icon ![icon] that is called **Units/Labels Control**. The new button allows users to change the labels and units of captured multi-waveforms.

3. The button ![icon] is replaced with the button ![icon] that is used to switch between short and long description of the SCPI commands in the list.

   The icons ![icon] and ![icon] are disabled by default unless a waveform is captured, then they become active to control.
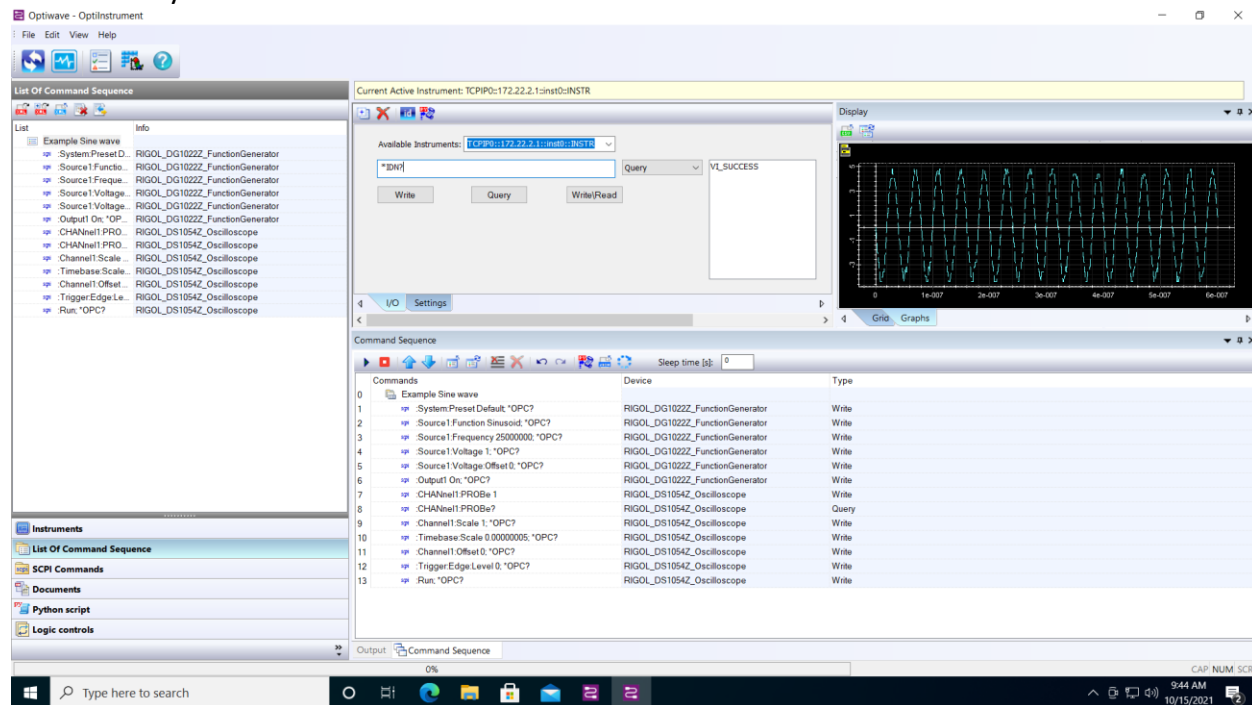

Fig. 3 OptiInstrument GUI

New icons have been added to the GUI to enable new capabilities of the software. A **Replace Resource Name** icon is added to allow users to modify the instruments' resource name in a sequence loaded from the Example Library based on their actual available resource. Thus, the replacement of the resource name enables executing the same SCPI command sequence used in the example. The newly added **Update Grid** icon is used to update the columns' title and units of the captured data of the instruments in the grid and graph display tabs of OptiInstrument software GUI.

OptiInstrument 3.1 New Examples

OptiInstrument 3.1 Software has many examples that are created using commercial instruments from Rigol and EXFO. The examples are organized in subdirectories for each vendor. Each example has a readme file that describes the setup and the instrument(s) and/or card(s) used in the example as well as the result file(s). The sequence of SCPI commands of each example is saved in an XML file that can be loaded into **List of Command Sequence** pane of OptiInstrument software GUI.

Newly Added Directories and Examples

1. **Python API Directory**
    a. **EXFO Subdirectory**
        i.   General Subdirectory contains Python files required to run the newly added Python API.
        ii. Graphing Subdirectory
            1. APICFP4_Longterm_Sensitivity_Test.py
            2. APICFP4_Transceiver_Sensitivity_Setup-II.py
            3. APICFP4_Transceiver_Sensitivity_Setup-III.py
            4. APIEXFOGraphCFP4_II_CFP4_III_plotly.py
            5. APIEXFOGraphingOSAMatplotlib.py
            6. APIEXFOGraphOSAPlotlyLine.py
            7. APIEXFOGraphOSAPlotlyScatter.py
            8. APIEXFOOTDR.py
        iii. XML Subdirectory
            1. CFP4 Longterm Sensitivity Test.xml
            2. CFP4 Transceiver Sensitivity Setup-II.xml
            3. CFP4 Transceiver Sensitivity Setup-III.xml
            4. OSA_SCPI_sequence.xml
            5. OTDR_SCPI_sequence.xml
    b. **Rigol Subdirectory**
        i.   General Subdirectory contains Python files required to run the newly added Python API.
        ii. Graphing Subdirectory
            1. APIGraphAMPlotlyLine.py
            2. APIGraphArbitraryPlotlyLine.py