Keysight N1918A Power Analysis Manager

Installation Guide

KEYSIGHT TECHNOLOGIES

NOTICE: This document contains references to Agilent Technologies. Agilent's former Test and Measurement business has become Keysight Technologies. For more information, go to **www.keysight.com.**

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Introduction

The Keysight N1918A Power Analysis Manager is a suite of application software that comprises basic and advanced versions targeted to extend the capability of the Keysight P-Series power meters, EPM-Series power meters, and USB power sensors. The basic Power Panel provides a simple graphical user interface (GUI) that offers the fundamental features of the Power Analysis Manager. The advanced Power Analyzer is a paid version that offers the complete features and capabilities of the Power Analysis Manager for more complex data analysis.

The Power Analysis Manager is compatible with the following instruments. See Table 1 for the instrument firmware compatibility details.

- U2000 Series USB Power Sensors
- U2020 X-Series USB Peak and Average Power Sensors
- U8480 Series USB Thermocouple Power Sensors
- N1911A Single-Channel and N1912A Dual-Channel P-Series Power Meters
- N1913A Single-Channel and N1914A Dual-Channel EPM-Series Power Meters
- N8262A P-Series Modular Power Meters

Table 1 Instrument firmware compatibility[1]

Instrument	Firmware version
U2000 Series USB power sensors	A1.02.00 and above
U2020 X-Series USB peak and average power sensors	A.01.00 and above
U8480 Series USB Thermocouple power sensors	A.01.00 and above
N1911A/N1912A P-Series power meters	A.03.02 and above
N1913A/N1914A EPM-Series power meters	A.01.04 and above
N8262A P-Series modular power meters	A.02.01 and above

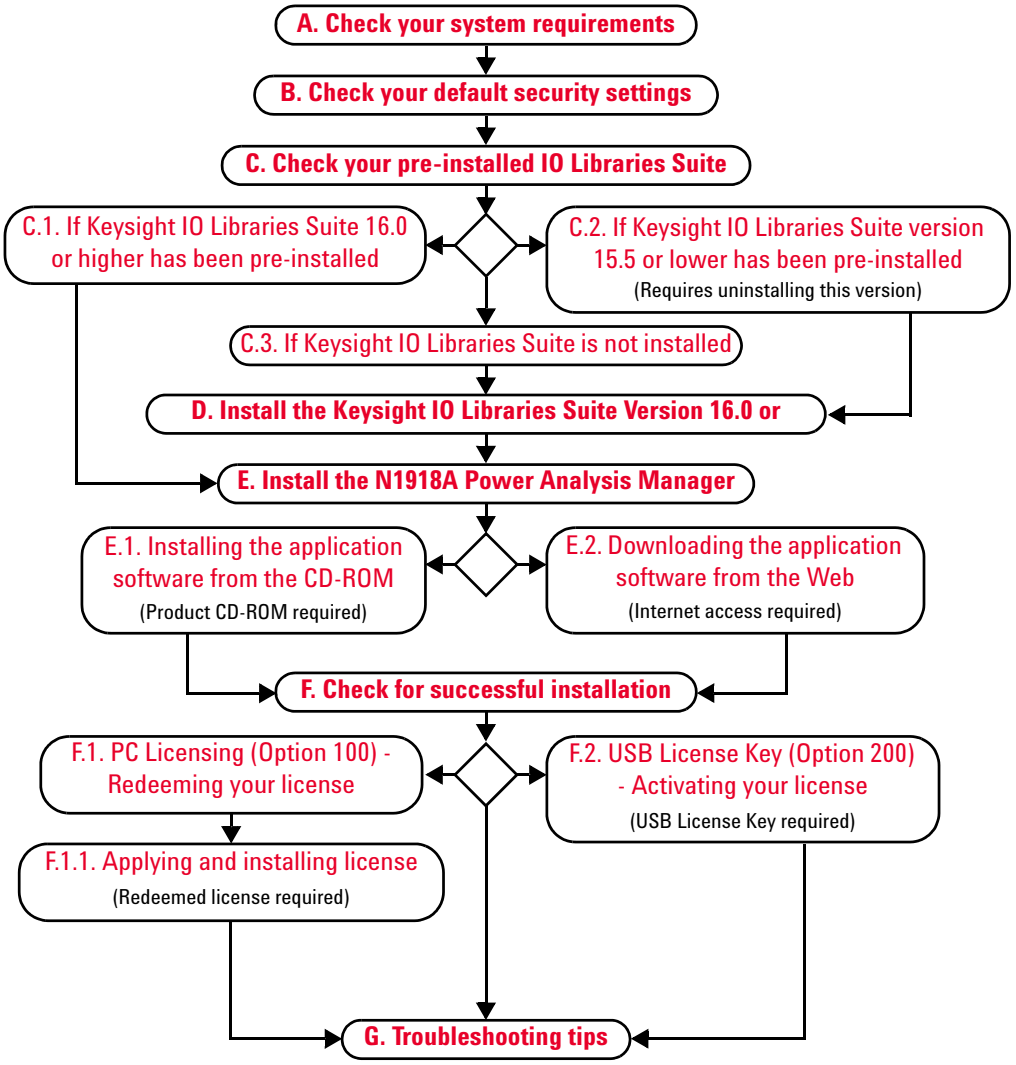
[1] For more information, refer to the N1918A Software Revision History on the Keysight web site.

This installation guide provides detailed information on how to get started with the Power Analysis Manager.

NOTE

- Make sure the connected instrument is using a compatible firmware version to enjoy the full features of the Power Analysis Manager.
- Go to www.keysight.com/find/pm_firmware to download the latest firmware version.
- To perform a firmware upgrade, see the respective instrument product Web site for more details.
- If an error occurs during or after the software installation, refer to the help file located in the Power Panel or Power Analyzer software for more details on how to resolve it.

Step-by-Step Installation Procedure



A. Check your system requirements

Before installing the N1918A Power Analysis Manager, ensure that your PC meets the following minimum system requirements for installing and using the application software.

Processor **Desktop PC:** 1.3 GHz Pentium IV or higher recommended
Laptop PC: 900 MHz Pentium M or higher recommended

Operating System Windows 8 32-bit and 64-bit, Windows 7 32-bit and 64-bit, Windows Vista 32-bit and 64-bit, and Windows XP Professional 32-bit Service Pack 2 or later

Monitor 800 × 600 screen resolution (1280 × 1024 recommended)

Browser Microsoft Internet Explorer 5.1 or higher (6.0 recommended)

RAM 512 MB or higher (1.0 GB recommended)

Hard Disk 1.0 GB free disk space at runtime

Software Prerequisites Keysight IO Libraries Suite 16.0[1] or higher, Microsoft .NET Framework 3.5 Runtime version, and Microsoft Visual C++ 2008 Runtime Libraries

Others Installed interface connectors for following choice of instruments:

- USB for U2000 Series USB Power Sensors
- USB for U2020 X-Series USB Peak and Average Power Sensors
- USB for U8480 Series USB Thermocouple Power Sensors
- LAN for N8262A P-Series Modular Power Meters
- USB/LAN/GPIB for N1911A/N1912A P-Series Power Meters
- USB/LAN/GPIB for N1913A/N1914A EPM-Series Power Meters

[1] For Windows 8, Keysight IO Libraries Suite 16.3.17218 or higher.

NOTE

- The software prerequisites stated above are bundled with the N1918A Power Analysis Manager application software installer except for the Keysight IO Libraries Suite.
- If you do not have any of the above utilities installed in your PC, launching the Power Analysis Manager software installation, as instructed in **E. Install the N1918A Power Analysis Manager**, will prompt for the installation of these tools.

B. Check your default security settings

For security purpose, Windows provides predefined user groups that grant the permissions and rights to perform various tasks on your computer.

Prior to installing the Power Analysis, ensure that you have sufficient permission to perform the installations on your PC. Thus, you are required to be a member of the Administrator group.

Follow the step-by-step instructions below to verify the group you belong to.

1 Go to **Start > Control Panel** and double-click **User Accounts**. The User Accounts dialog box will appear as shown in Figure 1.

Figure 1 User Accounts dialog box

2 In the Users for this computer panel, look for your user name and check the group. Ensure that the group property is *Administrators*.

NOTE If the group property is other than Administrators, contact your system administrator for assistance on the permission to perform the installations.

C. Check your pre-installed IO Libraries Suite

1 To check the version of your pre-installed IO Libraries Suite, right-click the IO Control icon on your taskbar notification area and select **About Keysight IO Control** as shown in Figure 2.

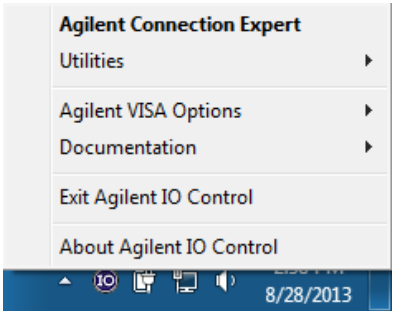


Figure 2 About Keysight IO Control

2 The Keysight IO Control window will appear, and the version of installed IO Libraries Suite will be displayed.

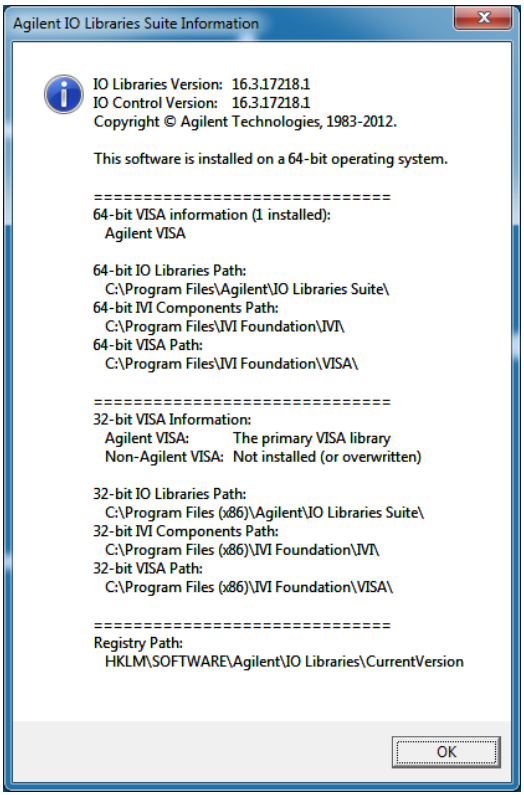


Figure 3 Keysight IO Libraries Suite Information

C.1. If Keysight IO Libraries Suite 16.0 or higher has been pre-installed

If you have the IO Libraries Suite 16.0 pre-installed on your PC, proceed to **E. Install the N1918A Power Analysis Manager**.

C.2. If Keysight IO Libraries Suite version 15.5 or lower has been pre-installed

(Requires uninstalling Keysight IO Libraries Suite 15.5)

1 To uninstall, go to **Start > Control Panel > Add or Remove Programs** and select Keysight IO Libraries Suite 15.5 or lower version.

2 Click **Change/Remove**, and select **Remove** when the instructions on the screen prompt to proceed uninstalling the IO Libraries Suite version 15.5 or lower from your PC.

3 To install version 16.0 or higher, go to **D. Install the Keysight IO Libraries Suite Version 16.0 or higher**.

C.3. If Keysight IO Libraries Suite is not installed

If you do not have IO Libraries Suite installed on your PC, go to **D. Install the Keysight IO Libraries Suite Version 16.0 or higher**.

D. Install the Keysight IO Libraries Suite Version 16.0 or higher

Ensure that you do not have any USB instrument connected to your PC during the installation of the Keysight IO Libraries Suite.

NOTE

- The Keysight IO Libraries Suite is available in the *Keysight Automation-Ready CD-ROM* that comes with the standard purchase of any of the instruments that are compatible with the N1918A Power Analysis Manager.
- If you do not have the *Keysight Automation-Ready CD-ROM* or you wish to install a higher version of the IO Libraries Suite, go to **http://www.keysight.com/find/iolib** to obtain the latest version on the Keysight IO Libraries Suite.

1 Disconnect any instrument that is connected to your PC, and close all other applications on your PC.

2 Insert the *Keysight Automation- Ready CD- ROM* into your CD-ROM drive, and follow the instructions on you screen.

3 If the installation does not start automatically, go to **Start > Run** (on the Windows start menu) and type `<drive>:\autorun\auto.exe`, where `drive` is your CD-ROM drive.

4 If you obtain the Keysight IO Libraries Suite from the Web, save the self-extracting file (.exe) to any location on your hard disk.

5 Double-click the installation file to launch the installation.

6 Follow the instructions on your screen to proceed.

7 After the installation is completed, you will see the Keysight IO Control icon on your Windows taskbar notification area as shown in Figure 4.

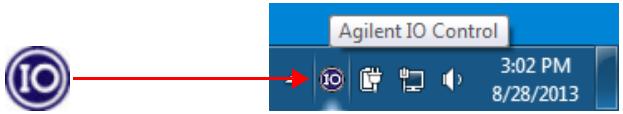


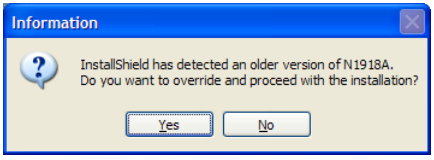
Figure 4 Keysight IO Control icon

NOTE For detailed installation instructions, refer to the *Keysight IO Libraries Suite Getting Started Guide* at http://www.keysight.com/find/iolib.

E. Install the N1918A Power Analysis Manager

There are two options you may choose from to install the N1918A Power Analysis Manager. You may choose to install from the provided *Keysight N1918A Power Analysis Manager CD- ROM* or obtain the application software from Keysight's Web site to install the application software.

NOTE Upon installation of the new version N1918A Power Analysis Manager, the older version will be uninstalled and replaced automatically. Before proceeding to this step, a pop-up message will appear as below. Click **Yes** to proceed.

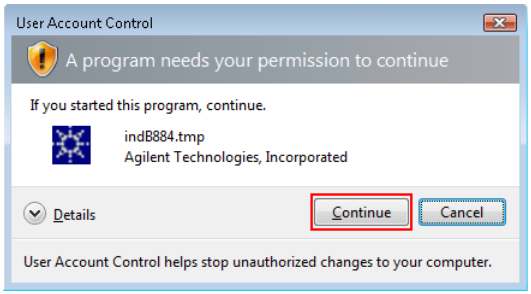


E.1. Installing the application software from the CD-ROM

1. Disconnect any instrument that is connected to your PC, and close all other applications on your PC.
2. Insert the *N1918A Power Analysis Manager CD- ROM* into your CD- ROM drive. The N1918A Power Analysis Manager Installation Menu will launch automatically.
3. If the menu does not launch automatically, go to **Start > Run** and type `<drive>:\index.exe`, where `drive` is your CD-ROM drive.

NOTE

Prior to the installation of the N1918A Power Analysis Manager in Windows Vista or higher, a pop-up message will appear as below. Click **Continue** to proceed.



4 Click **Power Analysis Manager** on the N1918A Power Analysis Manager Installation Menu, as shown below, to proceed.

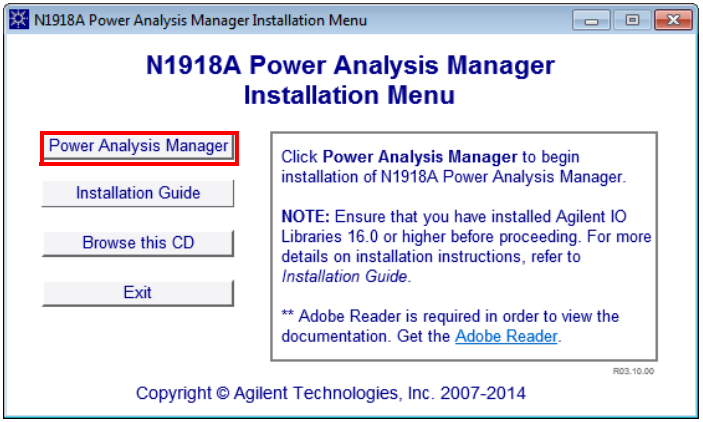


Figure 5 N1918A Power Analysis Manager Installation Menu

5 The installation menu now indicates two options you may choose from to install the license required to activate the Power Analyzer, as shown in Figure 6.

- Option 100 - Installs Power Panel and Power Analyzer with PC Licensing
- Option 200 - Installs Power Panel and Power Analyzer with USB License Key

You may choose either options if you only want to install the Power Panel. Click one of the licensing options (**Option 100** or **Option 200**) to begin the installation.

NOTE

Conversion from Option 100 to Option 200 can be done automatically through the installer. However, conversion from Option 200 to Option 100 requires you to manually reinstall a fresh Power Analysis Manager.

To remove the Power Analysis Manager manually from your PC, go to **Start > Control Panel > Add or Remove Programs**. In the list of currently installed programs, search for the Keysight N1918A Power Analysis Manager and click **Remove**. The InstallShield Wizard dialog box will appear and prompt you to confirm the removal of the application. Click **Yes** to proceed. Follow the instructions on the screen to complete the removal process.

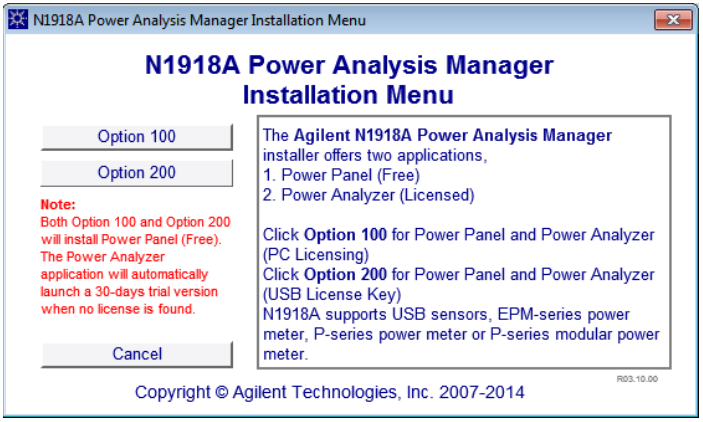


Figure 6 Option 100 and Option 200 in the Installation Menu

6 If any software prerequisites as stated in **A. Check your system requirements** are not installed on your PC or the version does not comply, InstallShield will prompt for the installation of the prerequisites.

7 Click **OK** to begin the installation of the software prerequisites.

8 Once the installations are completed or if there are no missing utilities in your PC, the installation of the Power Analysis Manager will proceed as normal.

9 The Keysight N1918A Power Analysis Manager InstallShield Wizard dialog will appear. Click **Next** to begin.

10 Read the License Agreement, and select **Agree** to proceed. Click **Next** to proceed.

11 The Setup Type dialog box appears, as shown in Figure 7. Select **Basic**, **Advanced**, or **Custom**. The *Basic* setup installs the Power Panel while the *Advanced* setup installs all program features including the Power Analyzer and Power Panel.

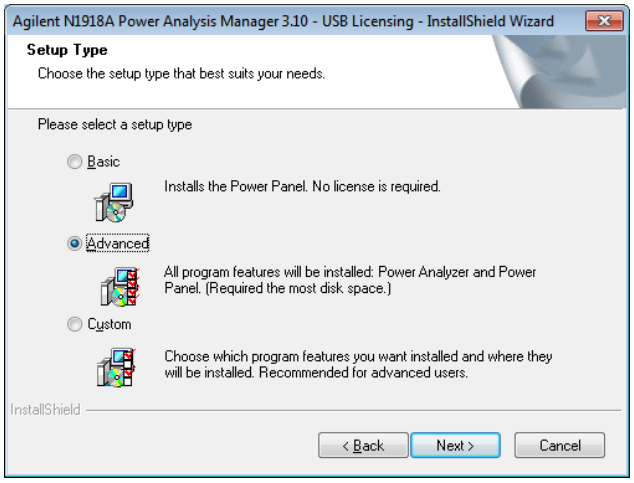


Figure 7 Select the N1918A setup types

12 Advanced users may select the **Custom** option to customize the program features and specify the location to be installed. Click **Next** to proceed.

13 Click **Install** to confirm your choice and begin the installation of the Power Analysis Manager.

14 Click **Finish** when the installation has completed.

15 After the installation has completed, proceed to **F. Check for successful installation**.

E.2. Downloading the application software from the Web

1 Go to **http://www.keysight.com/find/N1918A**, and download the Keysight N1918A Power Analysis Manager installer.

2 Save the N1918A Power Analysis Manager installation file to any location on your hard disk.

3 Disconnect any instrument that is connected to your PC, and close all other applications on your PC.

4 Double-click the installation file to begin the installation.

5 If any software prerequisites as stated in **A. Check your system requirements** are not installed on your PC or the version does not comply, InstallShield will prompt for the installation of the prerequisites.

6 Once the installations are completed or if there are no missing utilities in your PC, the installation of the Power Analysis Manager will proceed as normal.

7 The Keysight N1918A Power Analysis Manager InstallShield Wizard dialog will appear. Click **Next** to begin.

8 Read the License Agreement, and select **I accept the terms of the license agreement** to proceed. Click **Next** to proceed.

9 The Setup Type dialog box appears, as shown in Figure 7. Select **Basic**, **Advanced**, or **Custom**. The *Basic* setup installs the Power Panel while the *Advanced* setup installs all program features including the Power Analyzer and Power Panel.

10 Advanced users may select the **Custom** option to customize the program features and specify the location to be installed. Click **Next** to proceed.

11 Click **Install** to confirm your choice and begin installation of the Power Analysis Manager.

12 Click **Finish** when the installation has completed.

13 After the installation has completed, proceed to **F. Check for successful installation**.

F. Check for successful installation

1 Go to **Start > Control Panel**, and double-click **Add or Remove Programs**.

2 A list of currently installed programs in your PC will be shown.

3 Check the list and locate the installed N1918A Power Analysis Manager as shown in Figure 8.

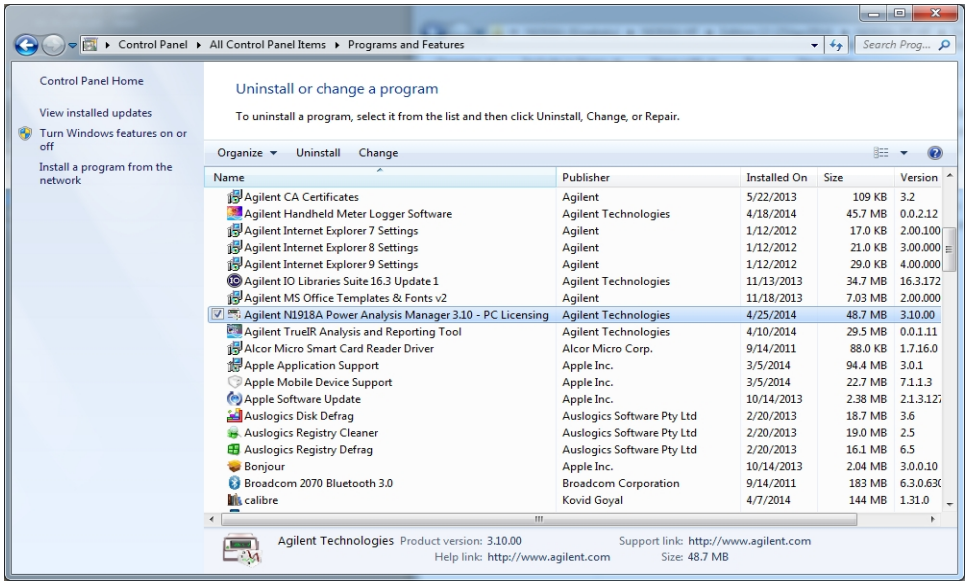


Figure 8 Installed Keysight N1918A Power Analysis Manager

4 Before proceeding, you may also check the list for installed software prerequisites as stated in **A. Check your system requirements**.

5 Once checking is done, proceed to run your installed Keysight N1918A Power Analysis Manager.

NOTE

To use the Power Analyzer's full features and capabilities, a license activation is required. There are two available options to activate the license.

- PC Licensing (Option 100). If you have chosen Option 100 in the Installation Menu, proceed to reading F.1. PC Licensing (Option 100) - Redeeming your license.
- If you have chosen USB License Key (Option 200), proceed to reading F.2. USB License Key (Option 200) - Activating your license.

F.1. PC Licensing (Option 100) - Redeeming your license

NOTE For U2020 X-Series USB peak and average power sensors, you are not required to redeem the license as the Power Analyzer is automatically activated when the USB power sensor is connected.

To use the Power Analyzer's full features and capabilities, you are required to redeem and activate the Power Analyzer by applying the license purchased.

The license redemption procedure is as follows.

1. Go to **https://asl.software.keysight.com/license/login.asp**. Click **Click here to start software license redemption** to start the license redemption.
2. The Keysight Software Licensing Step 1 -- Login window appears. Type your Keysight Order number and Keysight Certificate number. You can find both numbers in the Keysight N1918A Power Analysis Manager software entitlement certificate.

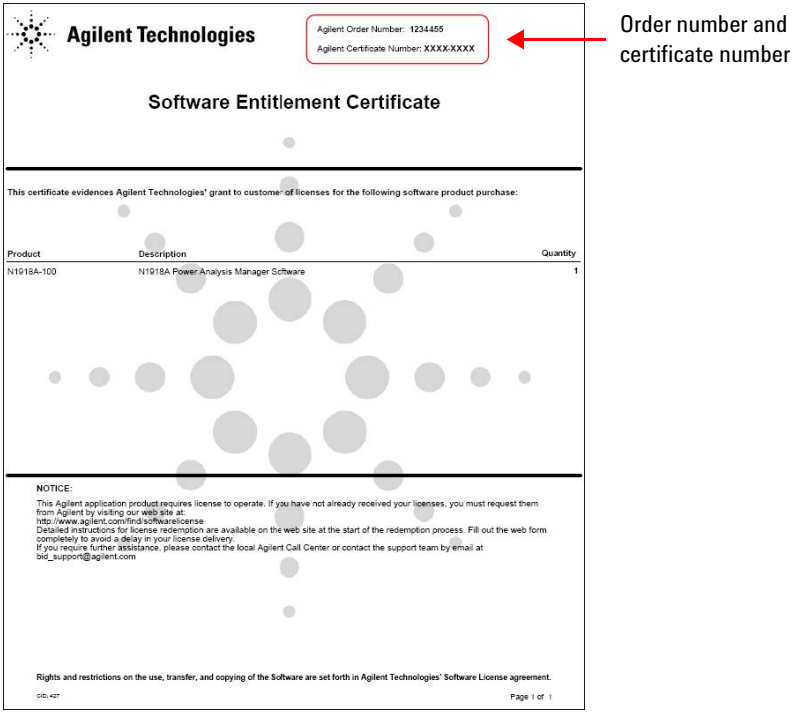


Figure 9 Sample of the software entitlement certificate

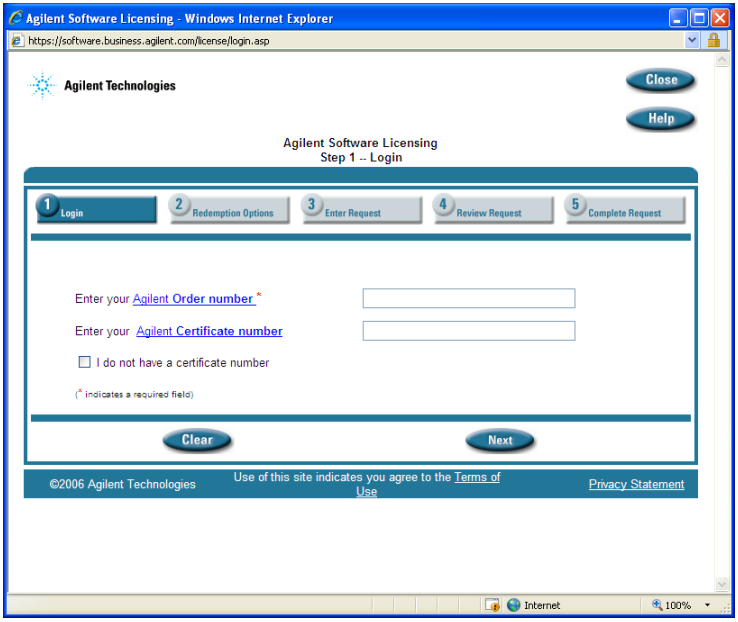


Figure 10 Step 1 -- Login window

3 Click **Next** to proceed to Step 2 -- Redemption Options. This window shows the number of license(s) ordered and the available license(s).

Figure 11 Step 2 -- Redemption Options window

4 Select **One or more products on a single instrument or host computer**.

5 Click **Next** to proceed to Step 3 -- Request License(s).

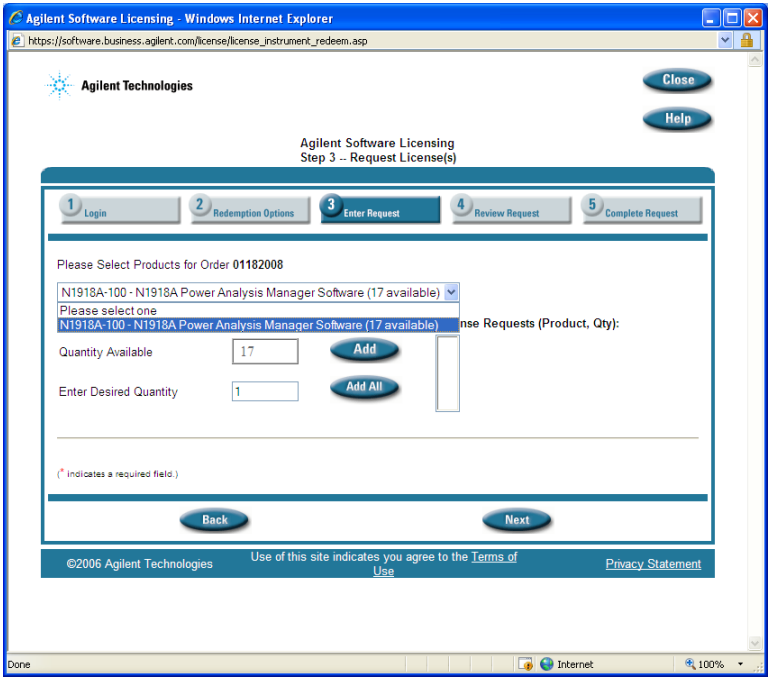


Figure 12 Step 3 -- Request License(s) window

NOTE You may check your license(s) redemption history by clicking **View Previously Issued Licenses For This Order**.

6 Select **N1918A-100-N1918A Power Analysis Manager Software** from the drop-down list. The Enter Desired Quantity value is set to 1 by default. Click **Add**.

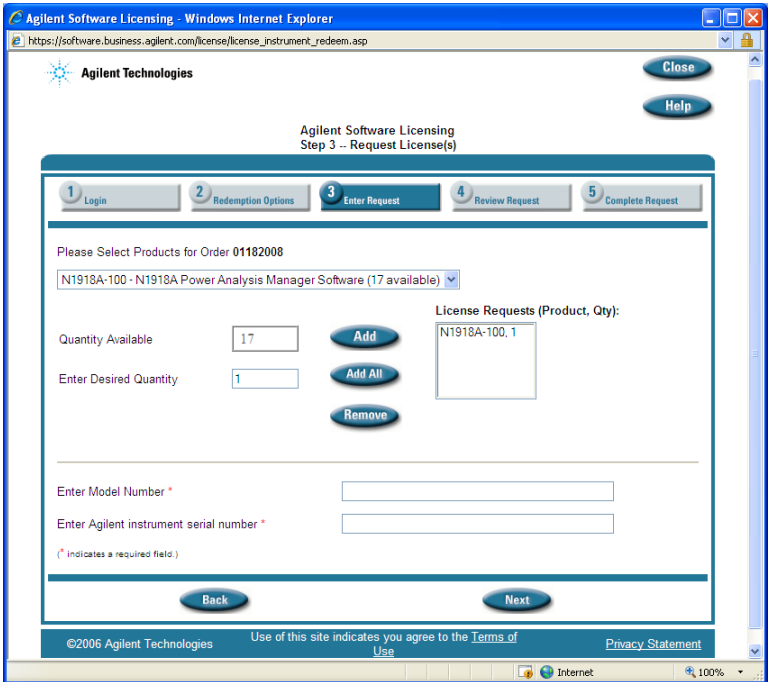


Figure 13 Step 3 window expanded when **Add** is clicked

7 Type the model number in the Enter Model Number text box and the serial number in the Enter Keysight instrument serial number text box.

NOTE

- You are required to use the same model number and serial number specified in the License dialog box during the software installation. Refer to Figure 17.
- Do not use the power sensor's, power meter's, or your PC's serial number.

8 Click **Next** to proceed to Step 4 -- Review Request.

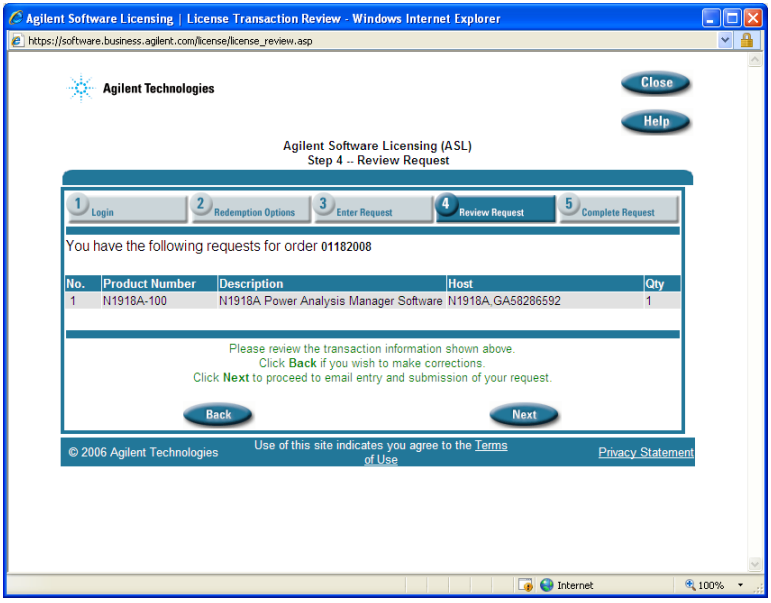


Figure 14 Step 4 -- Review Request window

9 Confirm the host ID and the redeemed quantity. Click **Next** to proceed to Step 5 -- Execute Transaction.

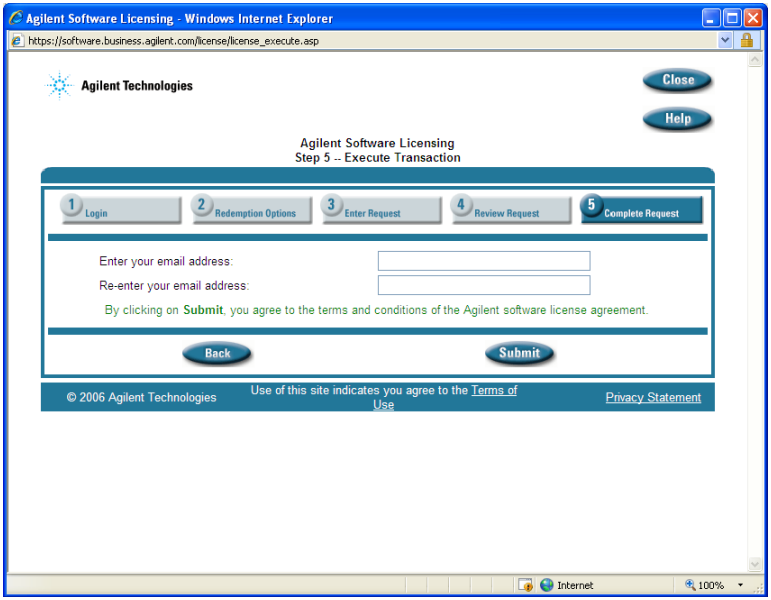


Figure 15 Step 5 -- Execute Transaction window

10 Type your e-mail address in the Enter your email address text box. The license will be sent to the e-mail address specified. Reconfirm your e-mail address by typing it again in the Re-enter your email address text box.

11 Click **Submit** to complete your redemption. The license will be sent to you shortly.

F.1.1. Applying and installing license

NOTE The Power Analyzer application will automatically launch a 30 days trial version of the Power Analyzer when there is no matching license found.

Ensure that you have redeemed your licence before proceeding.

1. Once the license redemption has been successfully made, an e-mail will be sent to you with an enclosed exclusive license.
2. Save the obtained license to any location of your hard disk.
3. Go to **Start > All Programs > Keysight N1918A Power Analysis Manager [version]**[1], and select **Power Analyzer [version]**[1] to launch the application software.
4. The Keysight N1918A Power Analysis Manager (Trial Version) window will appear as shown in Figure 16.

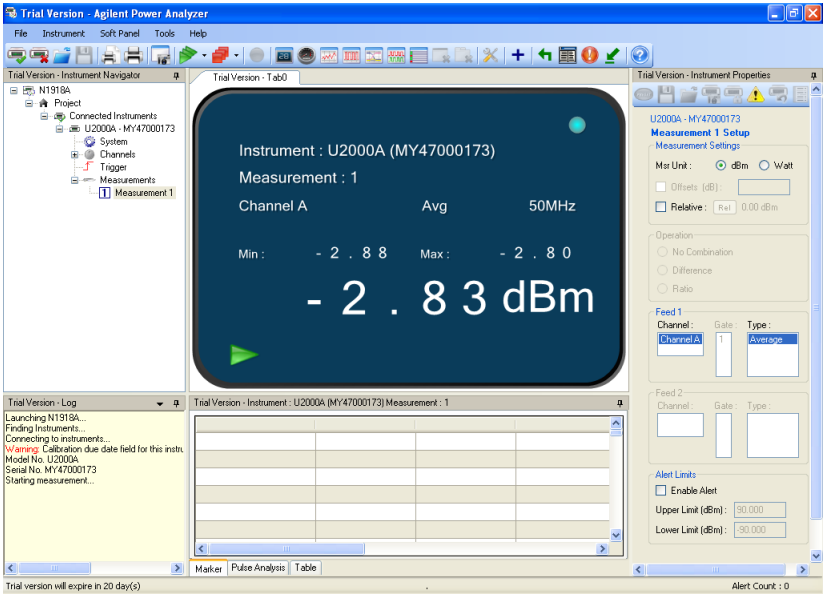


Figure 16 Trial version of Power Analyzer

[1] [version] depicts the latest version number for the Keysight N1918A Power Analysis Manager.

5 Go to **Help > License**, and the License dialog box will appear as shown in Figure 17.

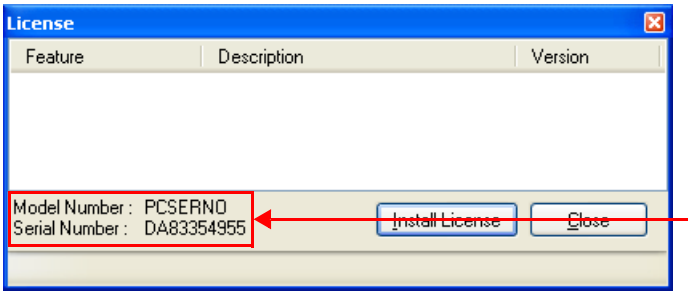


Figure 17 License dialog box without any license installed

NOTE

- You are required to use the same Model Number and Serial Number specified in the License dialog box during the license redemption. Refer to step 7 in F.1. PC Licensing (Option 100) - Redeeming your license.
- For Windows 7 and Windows Vista, the N1918A Power Analysis Manager will need to be run in the Administrator mode to retrieve the license serial number.

6 If your trial period has expired, a message box will prompt you to install the license. Click **Yes** to open the License dialog box.

7 Click **Install License**, and browse for your saved license.

8 Click **OK** to proceed.

9 Once the license has been successfully installed, click **Close**.

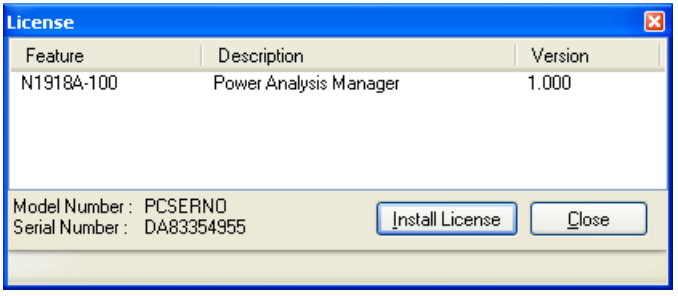


Figure 18 License successfully installed

10 Restart the application software for the settings to take effect if you are using the trial version.

11 Once done, your Power Analyzer is ready for use.

F.2. USB License Key (Option 200) - Activating your license

NOTE The Power Analyzer application will automatically launch a 30 days trial version of the Power Analyzer when USB License Key is not found or invalid.

Ensure that you have a USB License Key with you before proceeding.

1 Plug the USB License Key into the PC, as shown in Figure 19.

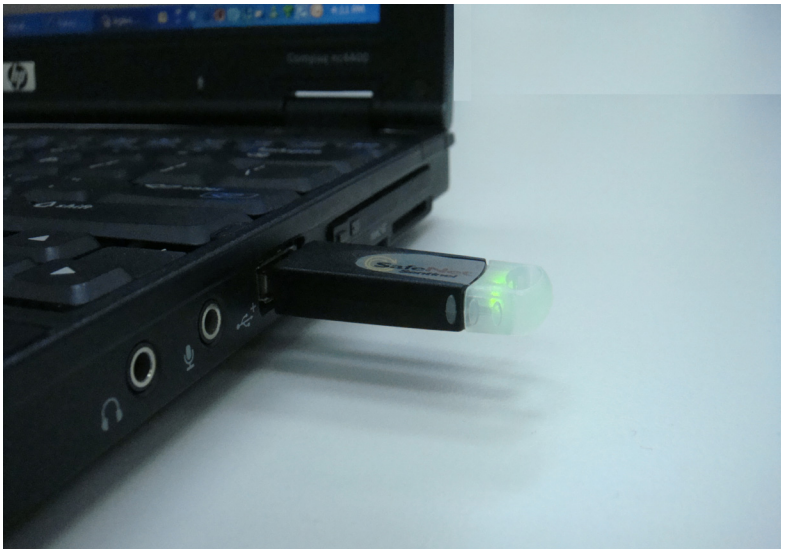


Figure 19 PC with a USB License Key plugged in

2 Ensure that the LED on the USB License Key is green, which indicates that the driver has been properly installed.

3 Go to **Start > All Programs > Keysight N1918A Power Analysis Manager [version]**[1], and select **Power Analyzer [version]**[1] to launch the application software.

4 Your Power Analyzer is now ready for use.

[1] [version] depicts the latest version number for the Keysight N1918A Power Analysis Manager.

G. Troubleshooting tips

The troubleshooting tips for some of the general licensing issues of the N1918A Power Analysis Manager Software are listed in Table 2.

Table 2 Troubleshooting tips

General licensing issue	Troubleshooting tip
License installation failed. License is not found or license does not match even though the Host ID and Hardware remain unchanged.	Refer to G.1. Troubleshooting tip 1, G.2. Troubleshooting tip 2, and G.3. Troubleshooting tip 3.
The N1918A Power Analysis Manager Software remains as a trial version after the license is installed.	Refer to G.2. Troubleshooting tip 2.
The Host ID is modified without any changes to the PC hardware. For example, error 1105 and error 1003.	Refer to G.2. Troubleshooting tip 2.
Non-English version of the Windows XP is installed in the PC.	Refer to G.4. Troubleshooting tip 4.
License redemption failed due to incorrect Host ID, Certificate Number, or Order Number during the license installation process.	Contact your nearest Keysight Service Center to regenerate a new license key.
N1918A USB dongle key is not detected in Windows 7 64-bit OS.	Refer to G.5. Troubleshooting tip 5.
An error message appears on start-up, “Application error: please make sure all prerequisite software are installed.”.	Refer to G.6. Troubleshooting tip 6.

G.1. Troubleshooting tip 1

1. Uninstall the N1918A Power Analysis Manager Software.
2. Restart the PC.
3. Reinstall the N1918A Power Analysis Manager Software.
4. Launch the software, and install the license.
5. The N1918A Power Analysis Manager Software license should be recognized now.

G.2. Troubleshooting tip 2

1 Close the N1918A Power Analysis Manager Software.

2 Go to **Start > Control Panel > Administrative > Services**.

3 Select **Keysight License Service**, and click **Restart** as shown in Figure 20.

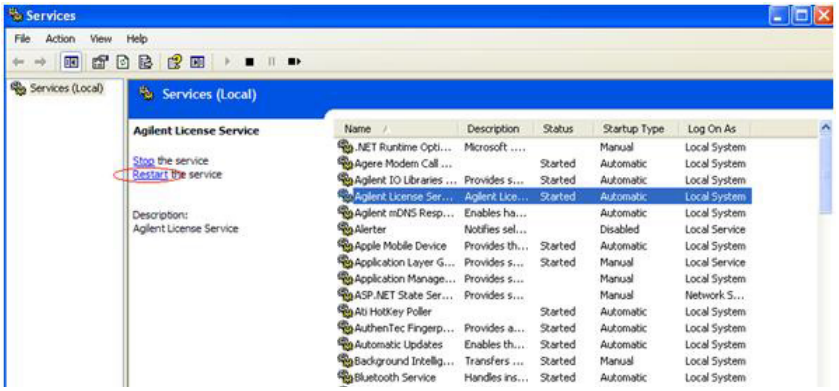


Figure 20 Services

4 Launch the N1918A Power Analysis Manager Software.

5 The N1918A Power Analysis Manager Software license should be recognized now.

G.3. Troubleshooting tip 3

1 Go to **Start > All Programs > Accessories > System Tools > System Restore**.

2 In the System Restore, select **Restore my computer to an earlier time**, and click **Next >**.

3 Select a date before the N1918A Power Analysis Manager Software is installed.

4 Click **Next >** to perform system restore to an earlier date.

NOTE After performing the System Restore, the Windows system will be recovered to the previous condition before the N1918A Power Analysis Manager Software is installed. All the programs installed after the installation of the N1918A Power Analysis Manager Software will need to be reinstalled.

CAUTION Backup your data before performing the System Restore to avoid any potential data lost during the System Restore process.

5 Go to **Start > Control Panel > Add or Remove Programs** to uninstall the N1918A Power Analysis Manager Software as shown in Figure 21.

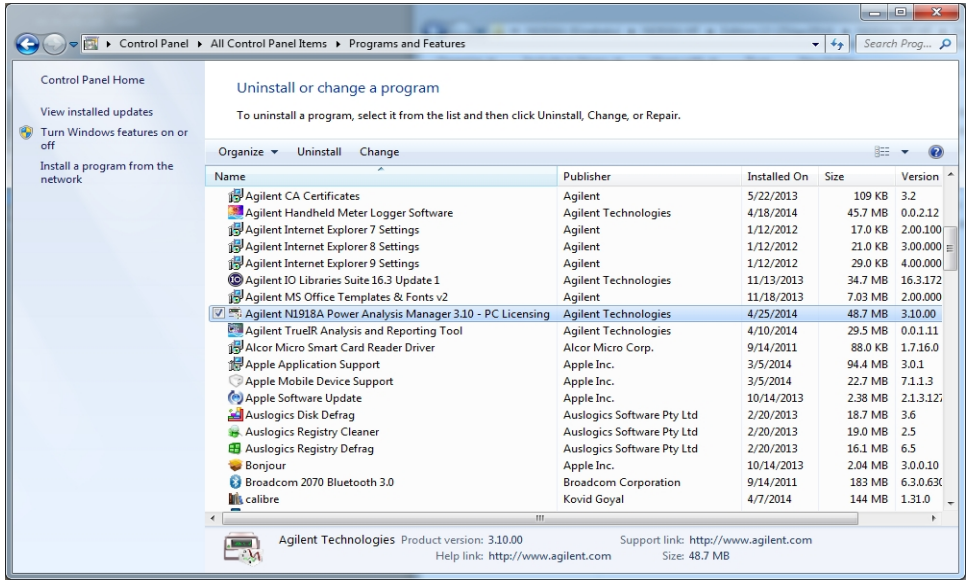


Figure 21 Add or Remove Programs

6 Reinstall the N1918A Power Analysis Manager Software.

7 Launch the software, and install the license.

G.4. Troubleshooting tip 4

1 Go to **Start > Control Panel > Administrative Tools > Computer Management > Local Users and Groups > Users**.

2 Select **Action**, and click New User... as shown in Figure 22 to create a new user account named “Everyone” in English.

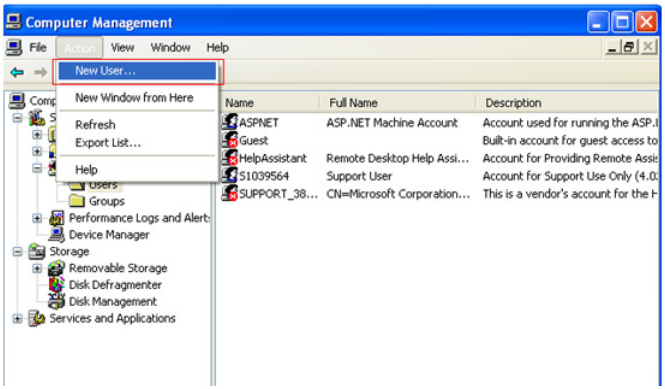


Figure 22 New user

3 Create a new folder named “licensing” in this directory: C:\Program Files\Keysight\licensing.

4 Save the license file in the licensing folder created in Step 3.

G.5. Troubleshooting tip 5

1 Log in to the Windows operating system as Administrator or any account with admin rights.

2 Unplug all connected USB devices.

3 Download the Sentinel Protection Installer 7.6.1 from this link: http://www.cadpipe.com/downloads/misc/SentinelProtectionInstaller7.6.1.zip

4 Launch the Sentinel Protection Installer 7.6.1, and select **Custom**.

5 Select only **USB System Driver** to install as shown in Figure 23.

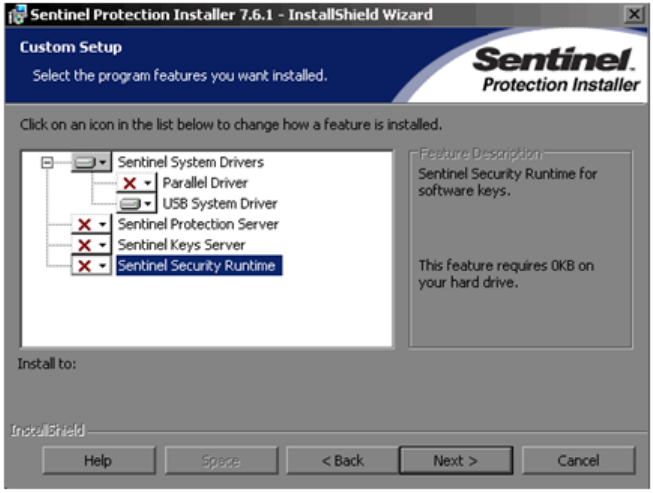


Figure 23 USB System Driver

6 Once the installation is completed, plug in the N1918A USB dongle key.

G.6. Troubleshooting tip 6

1 Go to **Start > Control Panel > Add or Remove Programs**.

2 Verify that the compatible version of Microsoft .NET Framework is installed.

3 Verify that the compatible version of Keysight IO Libraries Suite is installed.

4 Verify that the compatible version of Microsoft Visual C++ runtime libraries is installed.

5 If any of the programs are not installed in the compatible versions, uninstall the programs and install the compatible versions.

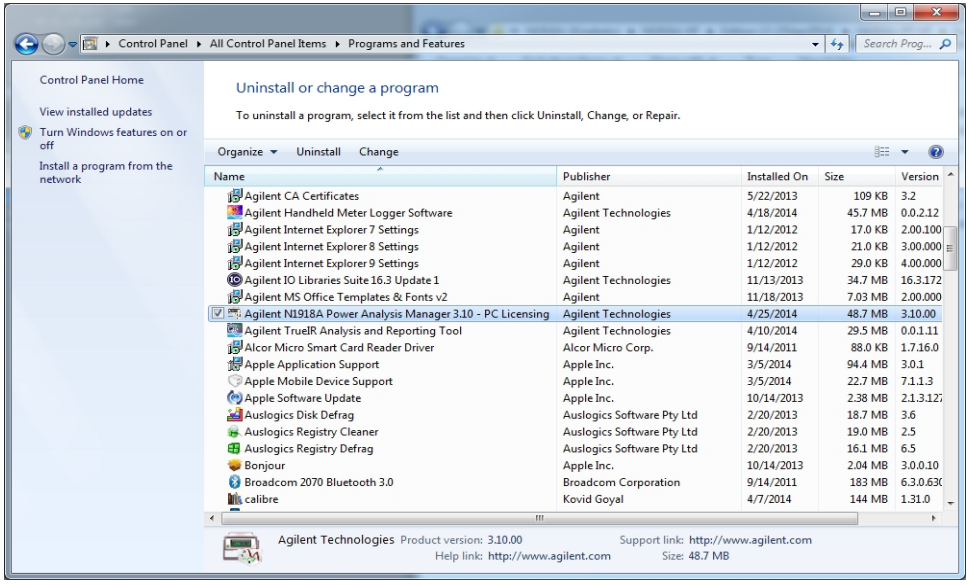


Figure 24 Add or Remove Programs

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Contact us

To obtain service, warranty, or technical support assistance, contact us at the following phone numbers:

United States:
(tel) 800 829 4444 (fax) 800 829 4433
Canada:
(tel) 877 894 4414 (fax) 800 746 4866
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(tel) 800 810 0189 (fax) 800 820 2816
Europe:
(tel) 31 20 547 2111
Japan:
(tel) (81) 426 56 7832 (fax) (81) 426 56 7840
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(tel) (305) 269 7500
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Or visit the Keysight World Wide Web at:
www.keysight.com/find/assist

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