## SignalVu-PC Quick Start

This document describes how to install the SignalVu-PC base software, connect to an instrument with SignalVu-PC, activate SignalVu-PC optional applications, and provides a brief introduction to the application. For full operating information on SignalVu-PC, access the SignalVu-PC help in the application software under Help > User Manual.

- **Supported analyzers** SignalVu-PC can be used as a stand alone software application on a PC and also with the following Tektronix spectrum analyzers. This application requires a PC with a minimum set of requirements (described below).
  - RSA306
  - RSA306B
  - RSA306B-SMA
  - RSA503A, RSA507A
  - RSA603A, RSA607A
  - RSA7100A

PC requirements for SignalVu-PC is installed must meet the following minimum requirements:

- One of the following Windows operating systems:
  - Windows 10 (64-bit) (See page 3, *Windows 10 activation*.)
  - Windows 8/8.1 (64-bit)
  - = Windows 7 (64-bit) with Service Pack 1
- 20 GB free space on the C: drive
- 4 GB RAM

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PC requirements for SignalVu-PC when connecting to a Tektronix Spectrum Analyzer **Supported analyzers.** The following Tektronix USB Spectrum Analyzers require a PC with the listed minimum requirements to obtain full performance.

- RSA306
- RSA306B
- RSA306B-SMA
- RSA503A, RSA507A
- RSA603A, RSA607A

**NOTE.** The RSA7100A comes with the CTRL7100A PC preconfigured and has different requirements than those noted below.

**Minimum requirements.** The following minimum PC requirements must be met to obtain full performance with SignalVu-PC with the above listed USB analyzers.

- USB 3.0 port
- Windows 7 or 8/8.1 operating system or Windows 10 (64-bit) operating system
- Intel Core i7 4th generation processor or greater

Processors of lower performance can be used, with reduced real time performance. This means that the minimum signal duration for 100% probability of intercept will increase and the performance of AM/FM demodulation and listening will be degraded.

- 8 GB RAM
- Drive capable of sustained write rates of 300 MB/sec to support streaming data

If streaming data is not needed, drives with slower write rates will work.

20 GB free space on the C: drive

**Connect feature** SignalVU-PC automatically connects to a Tektronix spectrum analyzer if one is detected via the USB port (or the PCIe port for the RSA7100A) and if no other devices are currently connected to SignalVu-PC). No user action is required. The Connect feature also allows connection to an MDO4000B/C series oscilloscope when Option CON is installed.

Refer to the *Connectivity* section about connecting to an MDO4000B/C series oscilloscope. The Connectivity section also provides instructions to manually connect to a Tektronix spectrum analyzer.

The SignalVu-PC application Help file (Help > User Manual) also contains this information.

**TekVISA** Tektronix Virtual Instrument Software Architecture (TekVISA) is a Tektronix VISA solution. It is a collection of software and documentation that allows for remote control of instruments regardless of instrument brand and physical connection. TekVISA includes a VISA driver, VISA libraries, documentation, USB Device Driver, VXI-11 server, and connection management/debug software.

When you install the SignalVu-PC software, you will have the option to install TekVISA. You should only use the version of TekVISA supplied with the SignalVu-PC software.

If you have an older version of TekVISA already installed, you need to uninstall that version before installing the most recent version.

**NOTE.** If you want to control SignalVu-PC from another PC by using a programmatic interface, you must use TekVISA. TekVISA is also required for a LAN connection to a supported instrument.

*TekVISA* is not required for a USB connection to a Tektronix USB spectrum analyzer with SignalVu-PC.

Windows 10 activation The version of Microsoft Windows 10 that ships with the CTRL7100A/RSA7100A is shipped in Deferred Activation mode. Microsoft has a default activation method that requires a connection to the Internet. If you do not have a connection, you can activate Windows 10 by phone or you can continue to operate in Deferred Activation mode.

First time activation. You can activate Windows 10 two ways.

- 1. Connect to the Internet. Windows will automatically activate. You can also go to System Properties to connect and activate.
- 2. Call Microsoft and speak with a representative to activate Windows 10. Contact information and a unique activation code (installation ID) will appear in a pop up window.

Activation with removable drives. If an SSD/HD is removed from one controller and inserted into another controller, then the activation process will need to run again. If controller 2 is not connected to the Internet, the activation will fail and an Activate Windows watermark will display on the screen. To activate Windows and remove the watermark, you must connect to the Internet or call Microsoft.

## Installing SignalVu-PC

SignalVu-PC can be downloaded from the web. It is also provided with each Tektronix USB spectrum analyzer (on a USB memory device that ships with each instrument) and preinstalled on the CTRL7100A for the RSA7100.

- 1. If you downloaded SignalVu-PC from the web:
  - a. Unzip the archive on the PC where SignalVu-PC will be installed.
  - **b.** Use Windows Explorer to navigate to the folder you extracted from the archive.
  - c. Double-click Setup.exe to start the software installation.
- 2. If you are installing from the USB Flash drive provided with an instrument:
  - a. Insert the Flash drive on the PC where SignalVu-PC will be installed.
  - **b.** Use Windows Explorer to navigate to the SignalVu-PC folder and open the Win64 folder on the flash drive.
  - c. Double-click Setup.exe to start the software installation.
- **3.** Follow the software installation steps.
  - a. Installation start up. Click Next to continue.



**b.** Software installation is ready to begin. Click Install to begin.

SignalVu-PC - InstallShield Wizard	
Ready to Install the Program The wizard is ready to begin inst	slaton.
	Click Install to begin the installation. If you want to review or change any of your installation settings, dick Back. Click Cancel to exit the wizard.
InstallShield	< Back Install Cancel

**c.** Depending on your PC's security settings, you may see this Windows Security dialog box. Click Install to continue with the USB device software installation.

Windows Security	
Would you like to install this device software	?
Name: Tektronix Universal Serial Bus controlle Ø Publisher: Tektronix, Incorporated	
Always trust software from "Tektronix, Incorporated".	Install Don't Install
You should only install driver software from publisher <u>device software is safe to install?</u>	rs you trust. <u>How can I decide which</u>

**d.** Install the TekVISA software. Ensure the box is checked and click Finish to complete the installation.

**NOTE.** If you want to control SignalVu-PC from another PC by using a programmatic interface, you must use TekVISA. TekVISA is also required for a LAN connection to a supported instrument.

TekVISA is optimized for SignalVu-PC, especially for instrument searching, and is the recommended VISA application. If you want to use another VISA application, such as NIVISA, uncheck the TekVISA box to bypass the installation.

*TekVISA is not required for a USB connection to a Tektronix USB spectrum analyzer with SignalVu-PC.* 



e. If TekVISA was installed, a restart of the PC is required before using the software.



**4.** If you've purchased optional applications for SignalVu-PC, you'll need to activate them by installing a purchased license. Read *SignalVu-PC optional application licenses* for more information. (See page 7.).

## SignalVu-PC optional application licenses

The SignalVu-PC product software is made up of the base software and any additionally purchased applications software (licensed optional software). The base software provides access to the standard SignalVu-PC applications. It is available for download, free of charge, from the Tektronix Web site at www.Tek.com\downloads. Once you have the base version, you can purchase licenses for optional SignalVu-PC applications or choose to activate 30-day free trials of those applications.

- **License types** Tektronix is working to make it easier for you to manage the options you purchase for SignalVu-PC by implementing a licensing scheme to host your purchased licenses and allow you to manage your licenses yourself. As a result, there are two types of licenses: License Keys (legacy) and License Files (new).
  - License Keys: Prior to December 4, 2015, optional applications were activated with license keys. This is referred to as the legacy licensing method. Any license keys already purchased are still valid. To install a license key, read *SignalVu-PC license keys (legacy)*. (See page 13.).
  - License Files: Beginning December 4, 2015, optional applications are activated with license files. To install a license file, read *SignalVu-PC license files* (See page 8.).

## SignalVu-PC license files

SignalVu-PC optional applications (purchased after December 4, 2015) are controlled via license files, rather than the previous method of installing license keys.

SignalVu-PC licenses can be associated with and stored on either your PC or any RSA300 series, RSA500 series, RSA600 series, and RSA7100A spectrum analyzers. Two types of licenses (Node-locked and Floating) are available, and there are three methods to purchase them, (1) as an option to your hardware, or separately as a (2) Node-locked or (3) Floating license. Licenses are managed using the Tektronix Asset Management System (AMS) on Tek.com. If your licenses are purchased as an option to your instrument, use of the Tektronix AMS is not required for you to use them. Just connect the instrument to your PC with SignalVu-PC, and the licenses will be recognized automatically.

A licensing scheme is used to host your license files. If they are not already installed on your instrument or PC, you can access and manage your licenses from the Tektronix Product License Web page: http://www.tek.com/products/product-license. The Product License page provides the following:

- Inventory of all the licenses in your company account
- Ability to check out a license
- Ability to check in a license
- Ability to move a floating licenses

**NOTE.** If you purchased licenses as options to the RSA7100A, these licenses are pre-installed on the instrument. No activation or installation is required.

How to purchase application licenses and RSA300 series, RSA500 series, RSA600 series, and RSA7100A spectrum analyzers. Licenses can be purchased as an option to your hardware, or separately as a Node-locked or a Floating license.

Contact your local Tektronix Account Manager to purchase a license. If your purchased license is not ordered as an option to your instrument, you will receive an email with a list of the applications purchased and the URL to the Tektronix Product License Web page, where you will create an account and can then manage your licenses using the Tektronix Asset Management System (AMS): http://www.tek.com/products/product-license.

AMS provides an inventory of the license(s) in your account. It enables you to check out or check in a license and view the history of licenses.

License type	Description
Node locked license (NL) purchased as an option to your instrument	This license is initially assigned to a specific host id, which can be either a PC or an instrument. It can be reassociated to either a PC or another spectrum analyzer two times using Tek AMS.
	When associated with an instrument, this license is factory-installed on that instrument at the time of manufacture. It will be recognized by any PC operating with SignalVu-PC when the instrument is connected. However, the licensed application is deactivated from the PC if the licensed instrument is disconnected.
	This is the most common form of licensing, as it simplifies management of your applications.
Node locked license (NL) purchased separately	This license is initially assigned to a specific host id, which can be either a PC or an instrument. It can be reassociated to either a PC or instrument two times using Tek AMS.
	This license is delivered via email and is associated with either your PC or with an instrument when you install the license.
	This license should be purchased when you want your license to stay on your PC, or if you have an existing USB instrument on which you would like to install a license.
Floating license (FL) purchased separately	This license can be moved between different host ids, which can be either PCs or instruments. It can be reassociated to different PCs or instruments an unlimited number of times using Tek AMS.
	This license is delivered via email and is associated with either your PC or with an instrument when you install the license.
	This is the most flexible license and is recommended in applications where the license needs to be moved frequently.

Optional applications are enabled by one of the following license types.

To view a list of currently installed application licenses (options) in your SignalVu-PC product, select **Tools** > **Licenses** > **Manage** from the SignalVu-PC main toolbar.

Refer to the following sections for information about *How to install a license* (See page 10.) and *How to return a license* (See page 12.).

**Available application options.** A list of currently available application options is in the *SignalVu-PC ordering information* section. (See page 25.)

**How to install a license** Before installing an application license, you must first have purchased one and downloaded the license to your product or a portable memory device. The following instructions include information about how to download and purchase licenses.

**NOTE.** If you purchased licenses as options to the RSA7100A, these licenses are pre-installed on the instrument. No activation or installation is required.

This computer RSA306 - B011564	Install a license Host: This computer Host ID: SVP-VBCEPTP478K4V	
	Installed Licenses License Description ENG-DEVL-SVPC ENGINEERING LICENSE - SVPC - ENGIN	Type Expiration EERING DEV Fixed 5/19/2018 11:01:35 Af
		Uninstall selected license

1. Select Tools > Licenses > Manage to open the Manage Licenses window.

- 2. Select **This computer** or other license host from the list on the left side of the window. Notice that the Host ID field will populate with the ID for the selected host. Currently installed licenses associated with that host will also appear in the bottom right panel of the window under Installed Licenses.
- **3.** If you already have a license file (\*.lic) downloaded, click the **Install new license** button and navigate to the license you want to install, and then click **Open**. The license will install and appear in the Installed Licenses list. This task is now complete.

- **4.** If the license you want to install is in your TekAMS system account, do the following:
  - **a.** Select the host on which you want to install the license from the **Select license host** list. For example, if you want to install the license on the computer, select **This computer**. Notice that the Host ID field on the right will populate with the ID for the selected host.
  - **b.** Click 🗈 to copy the host ID.
  - **c.** Navigate to the TekAMS system, log in, and enter the host ID in the appropriate field. The Tek AMS system can be accessed from a link on this page http://www.Tek.com/products/product-license.
  - d. Follow the instructions online to download the desired license file (\*.lic).
  - e. Once the license is downloaded, perform step 3 above.
- 5. If you do not have a license yet, do the following:
  - **a.** Using an Ethernet connection, navigate to www.Tek.com/products and find your product.
  - **b.** Click on the Additional Options tab. This tab lists all available software license options.
  - **c.** Find the option you want, then click on the related link to download a free trail version.
  - **d.** Click on the related link to request a quote.
  - e. After your purchase is complete, you will receive instructions for creating a TekAMS account to access and manage your licenses. Once your account is set up, perform step 4 above.

How to return a license

You can return (uninstall) a license from a particular product as follows:

- 1. Select Tools > Licenses > Manage to open the Manage Licenses window.
- 2. In the Manage Licenses window, select the license you want to return.

Manage Licenses				×
This computer	Install a license			
RSA306 - 8011564	Host II	t: This computer D: SVP-VBCEPTP478K4V Install new license		
	Installed Licenses			
	License	Description	Туре	Expiration
	ENG-DEVL-SVPC	ENGINEERING LICENSE - SVPC - ENGINEERING DEV	Fixed	5/19/2018 11:01:35 AM
			Uni	nstall selected license
See <u>How to install product software</u> i	in the Help for assist	ance with installing or uninstalling licenses (or legacy	/ option ke	ys). Close

3. Click Uninstall selected license. The following window will appear.

Uninstall License				
Are you certain you wish to uninstall the selected license?				
The year changes to uninstall provide the path and file pares to cave the evit license file				
You will need this file to reinstall, provide the path and the name to save the exit uterse file. You will need this file to reinstall the module. Go to Tektronix Asset Management System (http://www.tek.com/products/product-license) to checkin the saved exit license file. Refer to the help for detailed instruction.				
Click Yes to Uninstall, or click No to cancel.				
Yes No				

- **4.** Click **Yes** to uninstall the license. You will then be prompted to save an exit license file. This is the file you will check into (return to) your TekAMS account.
- 5. Save the exit license file to the desired location.
- 6. Click Close.
- 7. Navigate to your TekAMS account and check in the saved exit license file.

How to move a license to a different host You can return a purchased license and then reassign it to a different host, as indicated below. See the SignalVu-PC ordering information section for a list of available application licenses.

- Node locked license (NL): This license type can be reassigned no more than two times. This allows you to reassign the license in the case of an upgrade to a new Windows platform, for example.
- Floating license (FL): This license type can be reassigned an unlimited number of times.

When assigning a floating license, you need to specify the host id and the duration the feature is to be enabled on the host. After the license expires, the feature is automatically disabled on that host and the license in then available to be assigned to a different host.

Free trial license (FT): This license type expires after 30 days.

## SignalVu-PC license keys (legacy)

This section only applies to SignalVu-PC installations that used license keys to activate optional applications.

Activating SignalVu-PC options in evaluation mode

If you don't have a license for one (or any) SignalVu-PC options, you can activate each option in evaluation mode for a period of 30 days. No Internet access is required for activation of evaluation licenses.

**NOTE.** Each option has its own evaluation period.

To activate an option in evaluation mode:

- 1. Launch SignalVu-PC.
- 2. Go to Tools > Licenses > Legacy > Manage, displaying the Manage Legacy License dialog.

3. Select the option you want to evaluate, the select Start 30-day evaluation.

SignalVu Education (SignalVu-PCEDII)	
Signalvu Education (Signalvu + CEDO)	
Current Status:	
Not enabled	
Start 30-day evaluation	
Deactivate Licence	

The Current Status box will change to display the number of days remaining for evaluation. Repeat this procedure for each of the SignalVu-PC options you wish to evaluate.

Activating SignalVu-PC options Activating SignalVu-PC options requires internet access. However, you can activate SignalVu-PC on a PC that does not have internet access by using a second PC that does have internet access to contact the license server and use it to download a license file. The license file can then be transferred to the PC on which SignalVu-PC is to be activated. In order to use any options you have purchased for SignalVu-PC, you must activate each option individually one of the following two ways:

Activate with Internet access. To activate an option:

- 1. Launch SignalVu-PC.
- 2. Go to Tools > Licenses > Legacy > Activate..., displaying the Activate Legacy License dialog.

3. In the dialog, select Auto.

Activate Legacy License	X
Auto (recommended)	
Enter Activation Key	
Requires an Internet connection	
O Manual	
Host ID	
874d44e	
1. Copy the Host ID shown above and enter it in the Activation Assistant	
2. Copy the generated license file into the directory shown below.	
3. Restart the application	
C:\ProgramData\Tektronix\RSA\SignalVu-PC\License	
OK Cancel	

- **4.** In the **Enter Activation Key** text box, enter the option activation key provided when you purchased the option.
- 5. Click **OK** in the License Activation window.

SignalVu-PC will contact the license server and install a license file provided by the license server.

**6.** Repeat the steps above to activate each option, using the activation key specific to each option.

Activating without Internet access. To activate SignalVu-PC options on a PC without internet access, you need use the Offline Activation Tool. The tool is provided with SignalVu-PC as a separate installation file.

To activate SignalVu-PC options using a second PC to access the Internet:

- 1. Launch SignalVu-PC.
- 2. Go to Tools > Licenses > Legacy > Activate..., displaying the Activate Legacy License dialog.

3. In the Activate Legacy License window, select Manual.

Activate Legacy License	×
O Auto (recommended)	
Enter Activation Key	
Requires an Internet connection	
() Manual	
Host ID	
874d44e	
1. Copy the Host ID shown above and enter it in the Activation Assistant	
2. Copy the generated license file into the directory shown below.	
3. Restart the application	
C:\ProgramData\Tektronix\RSA\SignalVu-PC\License	
OK Cancel	

- **4.** Write down the **Host ID** shown. Click **Cancel** to close the Activate Legacy License window.
- 5. Install the Activation Assistant software on a PC that has internet access.

The Activation Assistant software is located at:

- If you installed SignalVu-PC from a DVD or USB flash drive, navigate to the device, open the Offline Activation Tool folder, and run the Setup file located there.
- If you downloaded SignalVu-PC from the Web, navigate to the location you extracted the installation files. Open the Offline Activation Tool folder and run the Setup file located there.
- 6. Launch the Activation Assistant application and follow the instructions to generate a license file. Repeat this step for each option that you have purchased. You will also need the option activation key you received.

Activation keys are specific to each option, therefore you must acquire a license file for each option purchased.

7. Copy the license file (or files) to the following location the PC on which SignalVu-PC is to be activated:

#### C:\ProgramData\Tektronix\RSA\SignalVu-PC\License

**8.** Restart SignalVu-PC.

This completes the activation process for SignalVu-PC options.

# Moving SignalVu-PC to a different PC

SignalVu-PC options are licensed for use on a single PC. However, you can move SignalVu-PC and its options from one PC to another PC by deactivating each option on the current installation and reactivating them on another PC.

**NOTE.** Each activated SignalVu-PC option needs to be deactivated.

To deactivate SignalVu-PC options:

- 1. Launch SignalVu-PC and select Tools > Licenses > Legacy > Manage... from the menu bar.
- 2. Use the drop-down list under Option to select one of the SignalVu-PC options that is activated on the PC. For example: **OFDM Measurements** (SignalVu-PC SVO).

**NOTE.** If your SignalVu-PC installation has options installed, be sure to deactivate all options.

**3.** Starting with each installed option, click **Deactivate License**. Continue selecting options and clicking Deactivate License until all the SignalVu-PC options have been deactivated.

SignalVu-PC options are now deactivated. You can now install SignalVu-PC on another PC and activate the options in the new installation.

## **Getting Started with SignalVu-PC**

**SignalVu-PC displays** The SignalVu-PC Vector Signal Analysis software enables a desktop PC to perform vector-signal analysis on waveforms acquired by Tektronix oscilloscopes and Real-Time Signal Analyzers. Capture the waveform once on an oscilloscope or real-time signal analyzer and make repeated measurements on the PC without recapturing the waveform. SignalVu-PC utilizes the same analysis capabilities found in the RSA6000 Series and RSA5000 Series Real-Time Analyzers.

**NOTE.** For complete operating instructions, refer to the SignalVu-PC instrument Help accessed by selecting Help > User manual.



#### The following figure shows the spectrum display.



#### This figure shows the spectrogram, time overview, and spectrum displays.

#### This figure shows the various toolbar display controls.



## Connectivity

You can connect to the following instruments with your PC (with SignalVu-PC installed):

- RSA503A and RSA507A Spectrum Analyzers via USB 3.0
- RSA603A and RSA607A Spectrum Analyzers via USB 3.0
- RSA306B and RSA306B-SMA Spectrum Analyzers via USB 3.0
- RSA306 Spectrum Analyzer via USB 3.0
- RSA7100A Spectrum Analyzer via PCIe (SignalVu-PC comes installed on the CTRL7100A that ships with the RSA7100A)
- MDO4000B/C Series instrument via USB, wireless, or LAN (Option CON for SignalVu-PC required)

**NOTE.** Only one instrument at a time can be connected to SignalVu-PC.

Connecting a Tektronix Spectrum Analyzer to a PC Establishing a connection to a Tektronix Spectrum Analyzer instrument is as simple as connecting the cable from the PC to the instrument.

**USB connection.** For a USB analyzer, you can connect the USB cable either before or after starting the SignalVu-PC application. During the connection process, SignalVu-PC indicates that it is finding and connecting to the instrument. Please wait for the connection process to complete before using the software.

**NOTE.** Your PC may notify you that it has found a new USB device and has loaded the device drivers. If you see these notifications, wait until the drivers are loaded before continuing.

**PCle connection.** For a RSA7100A analyzer, connect the PCIe cable from the CTRL7100A controller (PC) to the instrument before powering on the PC. Both the analyzer and the SignalVu-PC application will start when the CTRL7100A is powered on. Please wait for the application to launch and the convertor fans to reduce speed before using the software.

The SignalVu-PC application always monitors the ports. Anytime a Tektronix Spectrum Analyzer is discovered, a connection is immediately established causing the Connect status indicator to turn green ( $\checkmark$ ). Disconnecting the instrument from the PC also disconnects the SignalVu-PC application, causing the Connect status indicator to turn red ( $\checkmark$ ).

If the SignalVu-PC application is already connected to another instrument (either USB, PCIe, or network), an automated connection will not take place. In this situation, you have to do the following:

- 1. Select **Disconnect From Instrument** to end the existing connection.
- **2.** Select **Connect To Instrument**. You should see the connected analyzer in the instrument list.
- **3.** Select the instrument.

**NOTE.** The SignalVu-PC software version must be at or above the version provided with the Tektronix Spectrum Analyzer. The latest version of software is available from the Tektronix web site www.Tek.com/downloads.

4. A Connect Status dialog box will appear to confirm the instrument is connected and SignalVu-PC can receive live data from the instrument.

**NOTE.** You can quickly verify connection status by looking at the **Connected** indicator square. It is green ( $\checkmark$ ) when an instrument is connected. It is red ( $\checkmark$ ) when it is not. You can also view the name of the instrument that is connected by hovering the pointer over the  $\checkmark$ .

5. When you want to connect to a different instrument, select **Disconnect From Instrument** to end the current connection.

Connecting to an MDO4000B/C Series instrument

**NOTE.** You can watch a video tutorial about using Connect (with Option CON enabled) to connect to an MDO4000B/C Series instrument and about WLAN Presets at www.youtube.com/user/tektronix. For more information about the Tektronix YouTube channel, click on the Help menu in the SignalVu-PC application, select User Manual, and search for YouTube.

**USB connection.** To establish a connection using USB, perform the following procedures in the order given.

- 1. Check that the MDO4000B/C is on.
- **2.** Connect a USB cable to the MDO.
- 3. Connect the other end of that USB cable to the PC.

**NOTE.** Your PC may notify you that it has found a new USB device and has loaded the device drivers. If you see these notifications, wait until the drivers are loaded before continuing.

- 4. Double click the SignalVu-PC icon on the Desktop to start the application.
- 5. Click Connect on the menu bar to view the drop down menu.
- **6.** Select **Connect To Instrument**. You should see the USB connected MDO in the Connect To Instrument list.

**NOTE.** If the PC is currently connected by LAN or USB to another MDO4000B/C, that connection will also show in the Connect To Instrument list. You must select **Disconnect From Instrument** to end that connection before connecting to the newly found instrument.

- 7. If you do not see the USB MDO, click **Search for Instrument**. TekVISA is now searching for instruments. A notification will briefly appear stating that the instrument was found. Check that the newly found instrument now appears in the **Connect To Instrument** list.
- 8. Select the instrument.
- **9.** A Connect Status dialog box will appear to confirm the instrument is connected and SignalVu-PC can receive live data from the instrument.

**NOTE.** You can quickly verify connection status by looking at the **Connected** indicator square at the bottom of the screen. It is green  $(\checkmark)$  when an instrument is connected. It is red  $(\checkmark)$  when it is not. You can also view the name of the instrument that is connected by hovering the pointer over the  $\checkmark$ .

**10.** Use SignalVu-PC to configure the MDO. Frequency, Amplitude, Span, Bandwidth, and Time Scaling parameters for the RF channels can only be changed using SignalVu-PC.

**NOTE.** Press F1 on your keyboard to open the SignalVu-PC help for information about configuring and using the application. You can also click on Help > User Manual in the SignalVu-PC menu bar to open the help.

11. When you are ready to connect to a different instrument, select **Disconnect From Instrument** to first end the current connection.

**NOTE.** For more search options using TekVISA, go to the Visa Resource Manager (double click in the applications tray).

**LAN or wireless connection.** To establish a connection using a LAN or wireless connection, perform the following procedures in the order given.

- 1. Check that the PC has a working LAN or wireless network connection.
- 2. Use an Ethernet cable to connect the MDO to the network.
- **3.** Check that the MDO is on and wait for the IP Address to display on the screen. Write down the IP address to help you identify the MDO in the SignalVu-PC application.
- 4. Double click the SignalVu-PC icon on the Desktop to start the application.
- 5. Click **Connect** on the menu bar to view the drop down menu.
- 6. Select Search For Instrument. TekVISA is now searching for instruments.
- 7. A notification will briefly appear stating that the instrument was found. Check that the newly found instrument now appears in the **Connect To Instrument** list and then click on the instrument name to connect.

**NOTE.** If the PC is currently connected by LAN/wireless or USB to another MDO4000B/C, that connection will also show in the Connect To Instrument list. You must select **Disconnect From Instrument** to end that connection before connecting to the newly found instrument.

- 8. If you do not see the LAN address of the MDO, click **Manually Search for** LAN Instrument. You will then need to enter the IP address of the MDO into the IP Address dialog box and click **Connect**.
- **9.** A Connect Status dialog box will appear to confirm the instrument is connected and SignalVu-PC can receive live data from the instrument.

**NOTE.** You can quickly verify connection status by looking at the **Connected** indicator square at the bottom of the screen. It is green ( $\checkmark$ ) when an instrument is connected. It is red ( $\checkmark$ ) when it is not. You can also view the name of the instrument that is connected by hovering the pointer over the  $\checkmark$ .

**10.** Use SignalVu-PC to configure the MDO. Frequency, Amplitude, Span, Bandwidth, and Time Scaling parameters for the RF channels can only be changed using SignalVu-PC.

**NOTE.** Press F1 on your keyboard to open the SignalVu-PC help for information about configuring and using the application. You can also click on Help > User Manual in the SignalVu-PC menu bar to open the help.

11. When you are ready to connect to a different instrument, select **Disconnect From Instrument** to first end the current connection.

**NOTE.** For more search options using TekVISA, go to the Visa Resource Manager (double click in the Windows applications tray).

## SignalVu-PC ordering information

The following table shows available optional applications and the license type associated with that application option. See the How to purchase application licenses section for information about license types and how to activate one.

Application description	Application (option)	License type
AM/FM/PM/Direct Audio Analysis	SVANL-SVPC	Node Locked
	SVAFL-SVPC	Floating
Settling Time (frequency and phase) measurements	SVTNL-SVPC	Node Locked
	SVTFL-SVPC	Floating
General Purpose Modulation Analysis to work with analyzer of acquisition bandwidth ≤	SVMNL-SVPC	Node Locked
40 MHz and MDO	SVMFL-SVPC	Floating
General Purpose Modulation Analysis to work with analyzer of any acquisition bandwidth	SVMHNL-SVPC	Node Locked
	SVMHFL-SVPC	Floating
800 MHz acquisition bandwidth (for frequencies > 3.6 GHz	B800NL-SVPC	Node Locked
(RSA7100A only)	B800FL-SVPC	Floating
Pulse Analysis to work with analyzer of acquisition bandwidth $\leq$ 40 MHz and MDO	SVPNL-SVPC	Node Locked
	SVPFL-SVPC	Floating
Pulse Analysis to work with analyzer of any acquisition bandwidth	SVPHNL-SVPC	Node Locked
	SVPHFL-SVPC	Floating
Advanced triggers (Frequency Mask, Density) for the RSA7100A	TRIGHNL-SVPC	Node Locked
(RSA7100A only)	TRIGHFL-SVPC	Floating
EMI Pre-compliance and Troubleshooting	EMCVUNL-SVPC	Node Locked
	EMCVUFL-SVPC	Floating
Flexible OFDM Analysis	SVONL-SVPC	Node Locked
	SVOFL-SVPC	Floating
WLAN 802.11a/b/g/j/p measurements	SV23NL-SVPC	Node Locked
	SV23FL-SVPC	Floating
WLAN 802.11n measurements	SV24NL-SVPC	Node Locked
(Requires SV23NL-SVPC or SV23FL-SVPC)	SV24FL-SVPC	Floating
WLAN 802.11ac measurement to work with analyzer of acquisition bandwidth $\leq$ 40 MHz	SV25NL-SVPC	Node Locked
and MDO	SV25FL-SVPC	Floating
(Requires SV23NL-SVPC or SV23FL-SVPC and SV24NL-SVPC or SV24FL-SVPC)		
WLAN 802.11ac measurement to work with analyzer of any acquisition bandwidth and	SV25HNL-SVPC	Node Locked
MDU (Requires SV/23NL SV/PC or SV/23EL SV/PC and SV/24NL SV/PC or SV/24EL SV/PC)	SV25HFL-SVPC	Floating
APCO P25 measurements	SV26NL-SVPC	Node Locked
	SV26FL-SVPC	Floating

Application description	Application (option)	License type
Bluetooth measurements <sup>1</sup>	SV27NL-SVPC	Node Locked
	SV27FL-SVPC	Floating
Bluetooth 5 measurements 1	SV31NL-SVPC	Node Locked
(Requires SV27NL-SVPC or SV27FL-SVPC)	SV31FL-SVPC	Floating
Mapping	MAPNL-SVPC	Node Locked
	MAPFL-SVPC	Floating
SignalVu-PC connection to the MDO4000B/C series oscilloscopes	CONNL-SVPC	Node Locked
	CONFL-SVPC	Floating
WLAN 802.11a/b/g/j/p/n/ac and option to connect to MDO4000B/C. Works with analyzer	SV2CNL-SVPC	Node Locked
of analyzer of acquisition bandwidth $\leq$ 40 MHz and MDO.	SV2CFL-SVPC	Floating
(This option bundles the following: SV23NL-SVPC or SV23FL-SVPC, SV24NL-SVPC or SV24FL-SVPC, SV25NL-SVPC or SV25FL-SVPC, and CONNL-SVPC or CONFL-SVPC)		
WLAN 802.11a/b/g/j/p/n/ac and option to connect to MDO4000B/C. Works with analyzer	SV2CHNL-SVPC	Node Locked
of any acquisition bandwidth.	SV2CHFL-SVPC	Floating
(This option bundles the following: SV23NL-SVPC or SV23FL-SVPC, SV24NL-SVPC or SV24FL-SVPC, SV25HNL-SVPC or SV25HFL-SVPC, and CONNL-SVPC or CONFL-SVPC)		
LTE Downlink RF measurements <sup>2</sup>	SV28NL-SVPC	Node Locked
	SV28FL-SVPC	Floating
WiGig 802.11ad measurements (only for offline analysis)	SV30NL-SVPC	Node Locked
	SV30FL-SVPC	Floating
EMI CISPR detectors	SVQPNL-SVPC	Node Locked
	SVQPFL-SVPC	Floating
Signal survey and classification	SV54NL-SVPC	Node Locked
	SV54FL-SVPC	Floating
Playback of recorded files	SV56NL-SVPC	Node Locked
(RSA500A series and RSA600A series only)	SV56FL-SVPC	Floating
Streaming data to RAID and 40 GbE output for streaming IQ data	STREAMNL-SVPC	Node Locked
(RSA7100A only)	STREAMFL-SVPC	Floating
Streaming IQ data to a custom API application (RSA7100A only)	CUSTOM-APINL -SVPC	Node Locked
	CUSTOM-APIFL -SVPC	Floating
Return loss, VSWR, cable loss, and distance to fault	SV60NL-SVPC	Node Locked
(RSA500A series and RSA600A series only)	SV60FL-SVPC	Floating
Education-only version of all modules for SignalVu-PC	EDUFL-SVPC	Floating

1 Bluetooth is a registered trademark of Bluetooth SIG, Inc.

2 LTE is a trademark of ETSI.

### Features by spectrum analyzer

The following table lists a subset of features that may or may not be available for your analyzer when connected to SignalVu-PC. An " $\sqrt{}$ " means the feature is available with the specified product. Some of these features require specific options be installed. You can view a list of options for SignalVu-PC above.

			RSA600	
Feature	RSA300 Series	RSA500 Series	Series	RSA7100A
Audio demodulation (listening)		$\checkmark$		
DPX Spectrogram (DPXogram)		$\checkmark$		
Fast Frame				
Frequency Mask Trigger				
DPX Density Trigger				
Internal GPS		$\checkmark$		
Playback of recorded files (Option SV56-SVPC)	$\checkmark$	$\checkmark$		
Playback of recorded files (DataVu-PC)	$\checkmark$	$\checkmark$		
Tracking generator and return loss, VSWR, cable loss, and distance to fault (Option 04 with SV60-SVPC)		$\checkmark$	$\checkmark$	

### **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Keithley Instruments, Inc.:

SV27NL-SVPC SV31NL-SVPC