

How to use R&S®UPV Audio Analyzer drivers Driver Documentation

Products:

- | R&S®UPV Audio Analyzer
- | R&S®UPZ Audio Switcher

How to use LabVIEW, LabWindows/CVI
and VXPlug&Play drivers for VEE, C++,
C#, Visual Basic, Visual Basic.NET etc.

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1 LabVIEW

1.1 Getting Started

In order to use this driver as a standard LabVIEW driver, please copy the contents of `~\XI\pnp\GWinNt\rsupv` directory into your LabVIEW directory (`~\LabVIEW\instr.lib\rsupv\`).

The driver will then be directly accessible from the LabVIEW Instrument Driver function palette menu..

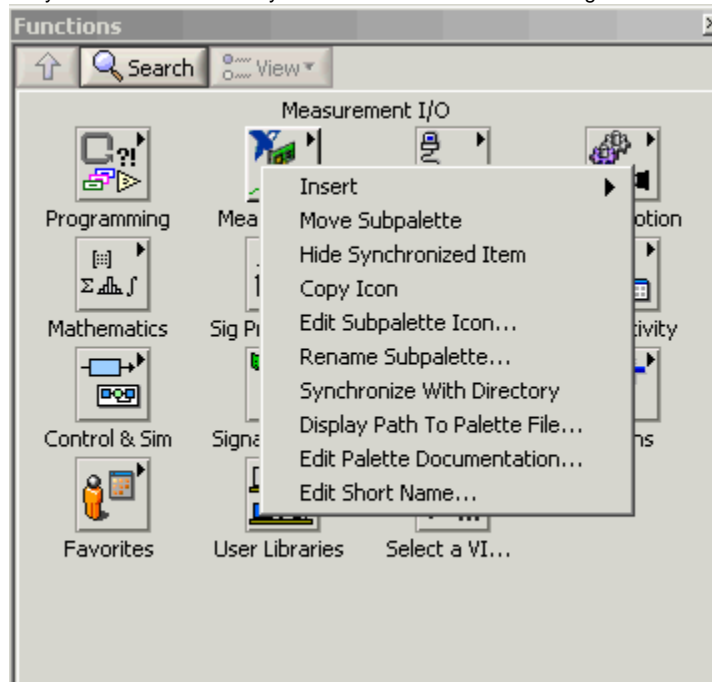
1.2 LabVIEW settings

For best results please turn off 'Synchronize with directory' feature on Instrument Drivers palette before installing any Rohde & Schwarz LabVIEW driver. If this feature is turned on, it overwrites driver's palette files with its own.

1.2.1 LabVIEW 8 and later

Turn off "Synchronize with directory" feature :

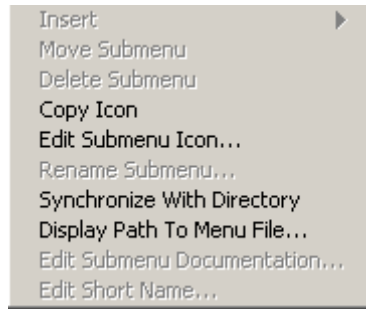
Tools => Advanced => Edit palette set. Then find "Instrument I/O" palette, right click on it and clear checkbox besides Synchronize with directory in context menu. Save the changes.



1.2.2 LabVIEW 7

Turn off “Synchronize with directory” feature :

Tools->Advanced->Edit palette views. Then find “Instrument I/O” palette => Instr Drivers right click on it and clear checkbox besides Synchronize with directory in context menu. Save the changes.



1.3 Additional Help

In addition, the instrument driver documentation is included in compressed HTML format (Windows CHM help file) stored together with the LabVIEW driver sources.

Each VI's help is linked to the section in the "CHM" file that describes all the features of the VI.

An additional help topic can be accessed directly by pressing "Click here for more help" in the Context Help

1.4 LabVIEW 7.1 driver

Please use the LabVIEW 7 driver.

1.5 LabVIEW 8.2 and LabVIEW 8.5 driver

Please use the LabVIEW 8 driver.

2 LabWindows/CVI

2.1 CVI Version

Use National Instruments LabWindows/CVI 5.5 or later.

2.2 Additional Help

The LabWindows/CVI instrument driver consists of a ZIP archive containing the driver sources. In addition, the instrument driver documentation is also included in compressed HTML format (Windows CHM help file) and stored together with the driver sources.

3 VXIplug&play Instrument Driver for VEE, C++, C#, Visual Basic, Visual Basic .NET etc.

3.1 C#

A wrapper is necessary to enable a direct access to the driver DLL.

The rsupv.cs wrapper for C# is automatically installed in the ~\VXIPIP\WinNT\include directory.

3.2 Visual Basic .NET

A wrapper is necessary to enable a direct access to the driver DLL.

The rsupv.vb wrapper for .NET is automatically installed in the ~\VXIIPnp\WinNT\include directory.

See the Visual Basic .NET examples.

3.3 Microsoft Visual Basic 6.0 (or higher)

Refer to the Microsoft Visual BASIC manual for information on calling DLLs.

The BASIC include files are rsupv.bas and rsupv_2.bas , which are contained in the directory ~\vxipnp\winnt\include. The ~ refers to the directory in the VXIPNP variable.

By default this is set to C:\. You may also need to include the visa.bas file that comes with your VISA DLL.

3.4 VEE Version

Use VEE 6 or later.

3.5 Additional Help

In addition, the instrument driver documentation is also included in compressed HTML format (Windows CHM help file) and stored together with the driver sources in the ~\VXIIPnp\WinNT\rsupv directory.

3.6 Additional Information

For more information regarding the VXIPnP instrument drivers, please read the readme.txt file that comes with each driver.

4 Linux

Drivers for Linux are available - Please contact Rohde & Schwarz Customer Support Center

5 Supported Interfaces

- IEEE 488.2 (IEC-625, GPIB)
- VXI-11
- USB

6 Remote control via LAN

6.1 Instrument Name and IP Address

In order to connect the instrument using VXI-11 use the instrument name or the IP address.

6.1.1 Default Name of the Instrument

The R&S UPV is preconfigured for networks using DHCP (dynamic host configuration protocol). In these networks, an available IP address is automatically assigned to the R&S UPV. In this case the UPV is identified via an unambiguous computer name in the network.

As **default** the name is composed of:

RSUPV Serial number (on the rear panel of the instrument)

Example: RSUPV100110

6.1.2 To find the instrument name and IP address with a keyboard connected to the instrument

Instrument name: Start => Settings =>Control Panel => System => Computer Name

IP Address: Start => Settings =>Network Connections => Local Area Connection => Support

6.1.3 To find the IP Address without a Keyboard connected to the instrument

If you need the IP-Address of the instrument send a "ping" command in the command prompt window.

Example

Ping RSUPV100110

If you do not know the name, connect a keyboard and use the procedure above.

6.2 VXI-11 Support

Use the instrument name or the IP address as **resourceName** in the `rsupv_init` function.

Example TCPIP::RSUPV100110::INSTR
 TCPIP::192.168.1.33::INSTR

About Rohde & Schwarz

Rohde & Schwarz is an independent group of companies specializing in electronics. It is a leading supplier of solutions in the fields of test and measurement, broadcasting, radiomonitoring and radiolocation, as well as secure communications. Established 75 years ago, Rohde & Schwarz has a global presence and a dedicated service network in over 70 countries. Company headquarters are in Munich, Germany.

Regional contact

Europe, Africa, Middle East

+49 1805 12 42 42* or +49 89 4129 137 74

customersupport@rohde-schwarz.com

North America

1-888-TEST-RSA (1-888-837-8772)

customer.support@rsa.rohde-schwarz.com

Latin America

+1-410-910-7988

customersupport.la@rohde-schwarz.com

Asia/Pacific

+65 65 13 04 88

customersupport.asia@rohde-schwarz.com

Certified Quality System
ISO 9001
DQS REG. NO 1954 QM

Certified Environmental System
ISO 14001
DQS REG. NO 1954 UM

Rohde & Schwarz GmbH & Co. KG

Mühlendorfstraße 15 | D - 81671 München

Phone + 49 89 4129 - 0 | Fax + 49 89 4129 - 13777

www.rohde-schwarz.com