

# How to use the Rohde & Schwarz LabVIEW Instrument Drivers Driver Documentation

Getting started guide for Rohde & Schwarz attribute based LabVIEW instrument drivers.

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# 1 LabVIEW

## 1.1 Getting Started

The LabVIEW drivers can be downloaded from the Rohde & Schwarz download area of the website:

<http://www.rohde-schwarz.com/drivers>

In order to use this driver as a LabVIEW instrument driver please copy the contents of ZIP archive *rs<Driver>\_lv<Version>\_<Revision>.zip* into your LabVIEW instrument library directory (e.g. *C:\Program Files\National Instruments\LabVIEW<Version>\*). After restarting your LabVIEW development environment the driver will then be directly accessible from the Instrument Driver function palette menu.

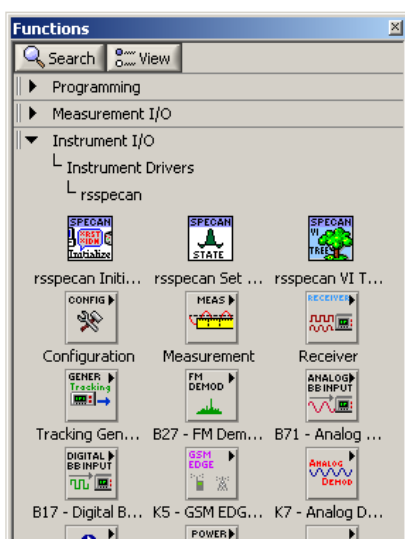


Figure 1: Path to LabVIEW instrument driver in the function palette of the Block Diagram

## 1.2 How to use the Attribute Based Instrument Driver

How to use attributes is described here: [1MA170: Introduction to Attribute Based Instrument Drivers](#).

## 1.3 LabVIEW Settings

For optimal usage 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.

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 and save the changes.

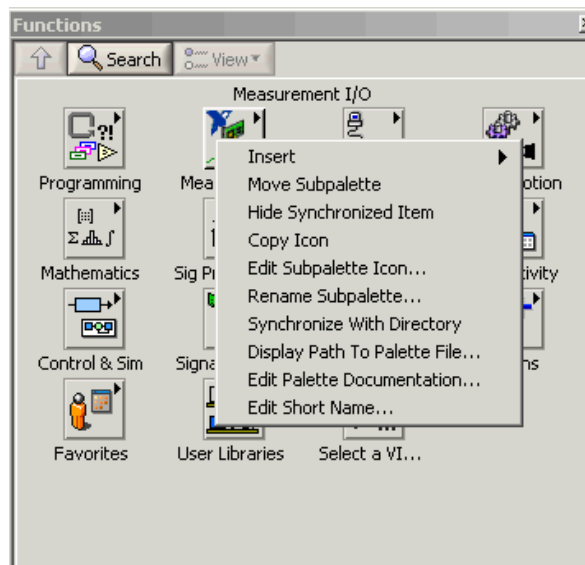


Figure 2: Turn off "*Synchronize with directory*" feature in LabVIEW

## 1.4 Additional Help

In addition the instrument driver documentation is included in compressed the HTML format (CHM help file) and stored together with the LabVIEW driver sources. Each VIs help is linked to the section in the help 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 of LabVIEW.

## 1.5 LabVIEW 2009 and higher

Please use the LabVIEW 2009 driver.

## 2 Linux Instrument Drivers

Due to the fact that Linux is becoming more and more popular as a desktop operating system, Rohde & Schwarz supports instrument drivers for Linux distributions.

This section gives a brief overview of how to get started with Rohde & Schwarz instruments drivers on a Linux operating system.

### 2.1 Supported Distributions

Rohde & Schwarz instrument drivers are based on the VISA standard and are compatible with the ANSI-C99 standard<sup>1</sup>. National Instruments VISA installation package, which is crucial for using Rohde & Schwarz instrument drivers, is currently (07/2010, NI-VISA 4.5.1) supporting<sup>2</sup> the following distributions:

- Red Hat Enterprise Linux WS 4
- Red Hat Enterprise Linux Desktop + Workstation 5
- Mandriva Linux 2008
- Mandriva Linux 2009
- openSUSE 10.3
- openSUSE 11.0

Rohde & Schwarz supports these distributions as well.

### 2.2 How to View Compressed HTML Help Files (chm)

On Linux operating systems many viewers for compressed HTML help files are available, for instance:

**KDE desktop environment:**

In the KDE environment the *kchmviewer*<sup>3</sup> is available.

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<sup>1</sup> For further information please visit <http://www.open-std.org/JTC1/SC22/WG14/www/docs/n1256.pdf>

<sup>2</sup> For latest updates please visit <http://www.ni.com/visa/>

<sup>3</sup> Available under <http://www.kchmviewer.net/>

## 2.3 How to Install Rohde & Schwarz Instrument Drivers

### Getting started with LabVIEW:

#### Prerequisites

- National Instruments LabVIEW for GNU/Linux

#### Install procedure

-The rssipecan driver includes LabVIEW files for use in LabVIEW. By default, these files should be located in the '/usr/local/vxipnp/GLinux/rssipecan' directory.

```
gzip -cd rssipecan-linux-lv7-<VERSION>.tar.gz | tar xvf # unpack the sources into  
default directory  
cd rssipecan # change to the top level directory
```

#### IMPORTANT:

If you want to use this driver as a standard LabVIEW driver, please copy manually content of this directory into your LabVIEW directory ('~\LabVIEW\instr.lib\rssipecan\' and '~\LabVIEW\user.lib\\_express\').

## 3 Mac OS X Instrument Drivers

Due to the fact that Mac OS X is becoming more and more popular as an operating system, Rohde & Schwarz supports instrument drivers for this platform.

This section gives a brief overview of how to get started with Rohde & Schwarz instruments drivers on a Mac OS X operating system.

Currently the Mac OS X Snow Leopard (10.6.x) and later versions are supported. National Instruments VISA installation package, which is crucial for using Rohde & Schwarz instrument drivers.

### 3.1 How to View Compressed HTML Help Files (chm)

On Mac OS X operating systems several viewers for compressed HTML help files are available, for instance *Chmox*<sup>4</sup>.

### 3.2 How to Install Rohde & Schwarz Instrument Drivers

**Getting started with LabVIEW:**

For native LabVIEW drivers, you only need to download the *rs<Driver>-osx-iv-<Version>.zip* file.

Please extract the *zip* file and follow the instructions given in the *README* file.

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<sup>4</sup> Available under <http://chmox.sourceforge.net/>

## 4 Related Documents

- Application Note 1MA170: Introduction to Attribute Based Instrument Drivers <http://www.rohde-schwarz.com/appnote/1MA170.html>
- Application Note 1MA153: Development Hints and Best Practices for Using Instrument Drivers <http://www.rohde-schwarz.com/appnote/1MA153.html>



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- Continuous improvement in environmental sustainability
- ISO 14001-certified environmental management system



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