

LabWindows/CVI, VXIplug driver history for the R&S® RTH Handheld Digital Oscilloscope Driver Documentation

Products:

| R&S®RTH



Driver history for LabWindows/CVI and
VXIplug&play Instrument Driver for
C/C++, VEE, MATLAB®, etc.

Table of Contents

1	Supported Instruments.....	3
2	Getting Started	4
2.1	LabWindows/CVI driver	4
2.2	VXIplug&play driver in C/C++, LabWindows/CVI	4
2.3	VXIplug&play driver in MATLAB.....	5
2.4	Linux and Mac OS	5
2.5	Additional Help	5
3	LabWindows/CVI and VXIplug&play driver history	6

1 Supported Instruments

In the following table, the supported R&S instruments and firmware versions are listed:

Which instruments are supported?		
Current revision of instrument driver supports these instruments and firmware versions:		
Instrument	Supported Firmware	Remarks
RTH	1.80	

2 Getting Started

2.1 LabWindows/CVI driver

The Rohde & Schwarz **rsrth** Instrument driver can be used in LabWindows/CVI 6 and later. In order to be able to compile an application it is required to add following files to your LabWindows/CVI project:

- *rsrth.c + rsrth.h*
- *rsrth_attributes.c + rsrth_attributes.h*
- *rsrth_utility.c + rsrth_utility.h*
- *rsidr_core.c + rsidr_core.h*
- *rsrth_callbacks.c*
- *rsrth.fp + rsrth.sub*

2.2 VXIplug&play driver in C/C++, LabWindows/CVI

In this case, the compiled source code from LabWindows/CVI driver is used. The compiled ANSI-C libraries exist for Windows XP and newer, 32-bit / 64-bit.

Add the following files to your 32-bit target project:

- C:\Program Files (x86)\IVI Foundation\VISA\WinNT\include\rsrth.h
- C:\Program Files (x86)\IVI Foundation\VISA\WinNT\lib\msc\rsrth.lib (static)
- C:\Program Files (x86)\IVI Foundation\VISA\WinNT\Bin\rsrth_32.dll (dynamic)

In CVI only:

- C:\Program Files (x86)\IVI Foundation\VISA\WinNT\rsrth\rsrth.fp
- C:\Program Files (x86)\IVI Foundation\VISA\WinNT\rsrth\rsrth.sub

Add the following files to your 64-bit target project:

- C:\Program Files\IVI Foundation\VISA\Win64\Include\rsrth.h
- C:\Program Files\IVI Foundation\VISA\Win64\Lib_x64\msc\rsrth64.lib (static)
- C:\Program Files\IVI Foundation\VISA\Win64\Bin\rsrth_64.dll (dynamic)

In CVI only:

- C:\Program Files\IVI Foundation\VISA\Win64\rsrth\rsrth.fp
- C:\Program Files\IVI Foundation\VISA\Win64\rsrth\rsrth.sub

2.3 VXIplug&play driver in MATLAB

MATLAB instrument driver **rsrth.mdd** can be found in:

32-bit driver

C:\Program Files (x86)\IVI Foundation\VISA\WinNT\rsrth\rsrth.mdd

64-bit driver

C:\Program Files\IVI Foundation\VISA\Win64\rsrth\rsrth.mdd

For detailed description on how to use the driver in MATLAB please refer to the Application Note [1MA171 - How to use R&S instrument in MATLAB](#)

2.4 Linux and Mac OS

To be able to use Rohde & Schwarz **rsrth** Instrument driver in Linux or Mac OSX, the functioning VISA is required. Then, the process is the same as using LabWindows/CVI driver.

2.5 Additional Help

The LabWindows/CVI and VXIplug&play instrument driver contains in addition the instrument driver documentation in compressed HTML format (Windows CHM help file **rsrth_vxi.chm**) and stored together with the driver sources or in the following folder:

32-bit driver

C:\Program Files (x86)\IVI Foundation\VISA\WinNT\rsrth\rsrth_vxi.chm

64-bit driver

C:\Program Files\IVI Foundation\VISA\Win64\rsrth\rsrth_vxi.chm

3 LabWindows/CVI and VXIplug&play driver history

rsrth Instrument Driver		
Driver history		
Revision	Date	Note
1.80.0	09/2021	<p>* Update for RTH FW 1.80</p> <p>* New Core 4.2.0. The core is incompatible with the Cores 3.x. If you work with drivers that use both core 4.x and 3.x, please contact our customer support, we will update your Core 3.x drivers to the newest version.</p> <p>* New:</p> <ul style="list-style-type: none"> - rsrth_ConfigurePreselectedRecordLength - rsrth_ConfigureWaveformUpdate - rsrth_ConfigureProbeSettings - rsrth_ConfigurePolarityInversion - rsrth_ConfigureCANTriggerFDBits - rsrth_ConfigureCANTriggerByteOffset - rsrth_ConfigureCANTriggerStuffCountError - rsrth_ConfigureSENTTriggerType - rsrth_ConfigureSENTTriggerData - rsrth_ConfigureSENTTriggerID - rsrth_ConfigureSENTTriggerStatus - rsrth_ConfigureSENTTriggerErrorConditions - rsrth_ConfigureHardcopyInverse - rsrth_ConfigureAutoSystemErrQuery - rsrth_ConfigureMultiThreadLocking - rsrth_ConfigureAttributeDataTypeMismatchReporting - rsrth_ConfigureAppPath - rsrth_ConfigureAppPersistence <p>* Deleted:</p> <ul style="list-style-type: none"> - rsrth_CheckAttributeXXX - rsrth_SetAttributeViSession - rsrth_GetAttributeViSession - rsrth_ReadInstrData - rsrth_SetAttributeRawString - use rsrth_SetAttributeViString - rsrth_GetAttributeRawString - use rsrth_GetAttributeViString
1.0.0	05/2017	* Initial Release for the RTH firmware 1.60

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 more than 80 years ago, Rohde & Schwarz has a global presence and a dedicated service network in over 70 countries. Company headquarters are in Munich, Germany.

Environmental commitment

- Energy-efficient products
- Continuous improvement in environmental sustainability
- ISO 14001-certified environmental management system



Regional contact

Europe, Africa, Middle East

+49 89 4129 12345

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

R&S® is a registered trademark of Rohde & Schwarz GmbH & Co. KG; Trade names are trademarks of the owners.

Rohde & Schwarz GmbH & Co. KG

Mühlendorfstraße 15 | D - 81671 München

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

www.rohde-schwarz.com