

# R&S®NRPV

## Virtual Power Meter

### Release Notes

### Application Version 3.2

© 2011-2017 Rohde & Schwarz GmbH & Co. KG

81671 Munich, Germany

Subject to change – Data without tolerance limits is not binding.

R&S® is a registered trademark of Rohde & Schwarz GmbH & Co. KG.

Trade names are trademarks of the owners.

The following abbreviations are used throughout this document:

R&S®NRPV is abbreviated as R&S NRPV.



**ROHDE & SCHWARZ**

Test and Measurement

Release Notes

# Table of Contents

<b>1</b>	<b>Information on the Current Version and History .....</b>	<b>3</b>
1.1	Version 3.2 .....	3
1.2	Version 2.5 .....	4
1.3	Version 2.1 .....	4
1.4	Version 1.8.1 .....	4
1.5	Version 1.8.0 .....	5
1.6	Version 1.6.5 .....	5
1.7	Version 1.6.2 .....	5
1.8	Version 1.6.0 .....	6
1.9	Version 1.4.0 .....	6
1.10	Version 1.2.0 .....	7
<b>2</b>	<b>Software Installation and Update.....</b>	<b>8</b>
2.1	Installation .....	8
<b>3</b>	<b>Open Source Acknowledgement .....</b>	<b>9</b>
<b>4</b>	<b>Customer Support .....</b>	<b>11</b>

# 1 Information on the Current Version and History

## General information

This document describes the installation procedure for the R&S®NRPV Virtual Power Meter Software. It furthermore describes the differences between the several software versions. The most current version of the application can be obtained from [www.rohde-schwarz.com](http://www.rohde-schwarz.com).

## 1.1 Version 3.2

Released: September 2017

### Changes

- Added support for new NRPxxS[N], NRPxxT[N] and NRPxxA[N] series power sensors. Communication with these sensors is via VISA only
- Added VISA Sensor Configuration dialog
- Since VISA environment does not provide a hot-plug system, connecting and disconnecting of VISA sensors during active measurements is not supported anymore. USB hot-plugging is still supported for NRP Legacy sensors, as long as no VISA sensor is configured for use. If at least 1 VISA sensor is configured, any running measurement is stopped in case of a plug or unplug event of **any** sensor
- Implemented “Find USB Sensors” for sensors under VISA communication
- Added “Sensor is in use” notification when trying to initialize a sensor which is already opened in another application

### Fixes

- Fixed Timeslot measurement mode with VISA sensors
- Fixed “sensor name not being assigned” in numerical measurement window
- Smoothing is selectable now for sensors which provide that feature
- Fixed crash when unplugging a legacy sensor while 4 measurement windows were open
- Fixed trigger setting dialog for VISA sensors. Trigger level for VISA sensors are adjustable now during an active measurement
- Fixed S-Parameter handling
- Fixed layout of various settings dialogs
- Fixed display unit ‘Δ%’

## 1.2 Version 2.5

Released: November 2016

### Maintenance Release

#### Fixes

- Fixed window update/refresh issues
- Fixed issue when double-clicking vertical splitter-bar to hide/show right function panel
- Fixed issues with window resize
- Fixed problem that Splash screen won't disappear
- Fixed losing 'View' information after click on [Apply] button when defining Math channels in Numerical Measurement modes
- Fixed program crash when un-plugging a sensor directly before closing the NRPV application
- Fixed broken up/down spin-buttons for Average Count settings in measurement configuration dialogs

## 1.3 Version 2.1

Released: August 2016

### Changes

- Ported application to Unicode environment, using a current compiler (VS2015)
- Fixed font-rendering in numerical measurement panels
- Fixed display of measurement results directly after program start. When unit Watt was selected the program used to display the absolute power value instead of signed power value

## 1.4 Version 1.8.1

Released: January 2016

### Changes

- Fixed infinite recursion when setting the upper limit of an offset-table as actual measurement frequency
- Digitally signed installer

## 1.5 Version 1.8.0

Released: June 2015

### Changes

- Fixed handling of file change notification reload mechanism
- Fixed issue of changes in offset-files are not recognized after loading
- Fixed issue of unsent parameter to sensor when changing trigger from auto to normal
- Added 'Save Data' function in Trace context-menu to save data to CSV files
- Enhanced 'Task-file-was-modified' recognition
- Increasing resolution of recording data depending on selected resolution unit
- New Trigger Master/Slave dialog and handling
- Deactivated Trigger Master Submenu
- Considering Fence on/off switch when setting timeslot fence timing parameters
- Supporting new NRPxxS[N] series power sensors

## 1.6 Version 1.6.5

Released: July 2014

### Changes

- Refrain from sending commands to sensors which do not support them
- Considering Fence on/off setting in Timeslot mode

## 1.7 Version 1.6.2

Released: August 2013

### Changes

- Added 'Save Data' function in Trace measurement for exporting Trace data to CSV files
- Added an entry in the 'File' menu to open NRPV data folder in an explorer window
- Added possibility to enlarge result fields of Trace Markers (also known as 'zoomed out result display' [see NRPV user-manual chapter 5.1.1.1])

**Known issues**

- Display unit '%' should read 'Δ%'

## 1.8 Version 1.6.0

Released: June 2013

**Changes**

- Added data recorder for numerical measurements
- Marker capable of searching -3 dB point also in linear (Watt) scaling
- Fixed scaling/auto-scaling in linear and logarithmic trace display
- Fixed missing storage of certain settings in taskfiles (MaxHold in Trace mode; DisplayUnit in ContAV mode)
- Corrections in documentation/user manual

**Known issues**

- Display unit '%' should read 'Δ%'

## 1.9 Version 1.4.0

Released: May 2012

**Changes**

- Fixed display of Statistics graph ('0.0' values have been shown incorrectly)
- While writing an NRPZ-K1 license into a sensor a busy window is displayed to prevent the user from disconnecting the sensor before the write operation is finished
- Licensing dialog sometimes displayed an old device ID for activation of an unregistered license for a given sensor. This has been fixed.
- Entering temporary activation key gives a grace period of 2 hours for unlicensed sensors (instead of formerly 1 hour)
- Handling of Triggered/Trigger Waiting symbols in single-triggered Trace mode fixed
- Fixed Averaging Off state for sensors which support Realtime-mode
- Installer now also creates an uninstall option in NRPV program group

- Fixed 'Next Peak' calculation in Trace mode
- Added 'Print' functions to all measurement modes
- Added 'Copy To Clipboard' functions to all measurement modes
- Fixed installer's splash screen position
- Added a check to the installer whether the NRP-Toolkit driver package has already been installed

**Known issues**

- Display unit '%' should read 'Δ%'

## 1.10 Version 1.2.0

Released: April 2011

**Initial Release****Known issues**

- Occasionally the drawing of a new trace result is delayed by up to 0.1 second
- While processing NRPZ-K1 license for a sensor no hourglass is shown
- System shutdown closes all measurement windows before taskfile becomes saved

## 2 Software Installation and Update

This section describes the installation of the NRPV software on a Microsoft® Windows based PC. Additionally, the section contains information on the software packages, prerequisites and uninstalling.

### Prerequisites

- It is recommended that you use the latest version of the NRPV software, provided at the R&S website <http://www.rohde-schwarz.com>
- Close all running applications before installing
- The driver-suite for R&S® NRP-Zxx series and R&S® NRPxxS[N] series of USB power sensors needs to be installed for being able to communicate with the power sensors. This package is called NRP-Toolkit. It can be installed before or after the installation of the NRPV software. NRP-Toolkit can be obtained from the R&S website [http://www.rohde-schwarz.com/en/software/nrp\\_s\\_sn/](http://www.rohde-schwarz.com/en/software/nrp_s_sn/)

### 2.1 Installation



NRPV requires at least 50 MB of free disk space.

1. Download or copy the latest version of NRPV setup program from the R&S website <http://www.rohde-schwarz.com>. At the time of this writing, version 2.5.0 was current.
2. Execute `NRPV_SetupV3.2.0.exe`, and follow the instructions of the setup wizard.

During installation, the setup program:

- installs the "Microsoft VC Runtime libraries", which may take some time
- provides selection of the destination directories for the NRPV application files and user manual
- checks whether a reasonably new NRP-Toolkit is installed on the PC and informs the user if an action is required to update or install the NRP-Toolkit

#### 2.1.1 Uninstalling NRPV

Uninstall a version of NRPV with the aid of the PC's control panel:

1. "Start > Settings > Control Panel" in the windows task bar and then open the "Add or Remove Programs" dialog.
2. Select NRPV **Virtual Power Meter V2.x.y** and uninstall the program with "Remove" (x.y represents the version/subversion).



## 3 Open Source Acknowledgement

This software makes use of valuable open source software packages:

TinyXML	<a href="http://sourceforge.net/projects/tinyxml/">http://sourceforge.net/projects/tinyxml/</a>	Zlib License
wxWidgets	<a href="http://www.wxwidgets.org">http://www.wxwidgets.org</a>	wxWindows Library Licence v. 3.1
wxSheet	<a href="http://wxcode.sourceforge.net/showcomp.php?name=wxSheet">http://wxcode.sourceforge.net/showcomp.php?name=wxSheet</a>	wxWindows Library Licence v. 3.1
zlib	<a href="http://www.zlib.net/">http://www.zlib.net/</a>	Zlib License
OpenSSL	<a href="http://www.openssl.org/">http://www.openssl.org/</a>	

The OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>) includes cryptographic software written by Eric Young (eay@cryptsoft.com) and software written by Tim Hudson (tjh@cryptsoft.com).

LINUX® is a trademark of Linus Torvalds.

Rohde & Schwarz would like to thank the open source community for their valuable contribution.

```
zlib.h -- interface of the 'zlib' general purpose compression
library version 1.2.5, April 19th, 2010
```

Copyright (C) 1995-2010 Jean-loup Gailly and Mark Adler

This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.
2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
3. This notice may not be removed or altered from any source distribution.

Jean-loup Gailly  
Mark Adler

wxWindows Library Licence, Version 3.1  
=====

Copyright (C) 1998-2005 Julian Smart, Robert Roebing et al

Everyone is permitted to copy and distribute verbatim copies of this licence document, but changing it is not allowed.

WXWINDOWS LIBRARY LICENCE  
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Library General Public Licence as published by the Free Software Foundation; either version 2 of the Licence, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Library General Public Licence for more details.

You should have received a copy of the GNU Library General Public Licence along with this software, usually in a file named COPYING.LIB. If not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA.

EXCEPTION NOTICE

1. As a special exception, the copyright holders of this library give permission for additional uses of the text contained in this release of the library as licenced under the wxWindows Library Licence, applying either version 3.1 of the Licence, or (at your option) any later version of the Licence as published by the copyright holders of version 3.1 of the Licence document.
2. The exception is that you may use, copy, link, modify and distribute under your own terms, binary object code versions of works based on the Library.
3. If you copy code from files distributed under the terms of the GNU General Public Licence or the GNU Library General Public Licence into a copy of this library, as this licence permits, the exception does not apply to the code that you add in this way. To avoid misleading anyone as to the status of such modified files, you must delete this exception notice from such code and/or adjust the licensing conditions notice accordingly.
4. If you write modifications of your own for this library, it is your choice whether to permit this exception to apply to your modifications. If you do not wish that, you must delete the exception notice from such code and/or adjust the licensing conditions notice accordingly.

## 4 Customer Support

### Technical support – where and when you need it

For quick, expert help with any Rohde & Schwarz equipment, contact one of our Customer Support Centers. A team of highly qualified engineers provides telephone support and will work with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz equipment.

### Up-to-date information and upgrades

To keep your instrument up-to-date and to be informed about new application notes related to your instrument, please send an e-mail to the Customer Support Center stating your instrument and your wish.

We will take care that you will get the right information.

#### Customer Support Europe, Africa, Middle East

Tel. +49 89 4129 12345  
[customersupport@rohde-schwarz.com](mailto:customersupport@rohde-schwarz.com)

#### Customer Support North America

Tel. 1-888-TEST-RSA (1-888-837-8772)  
[customer.support@rsa.rohde-schwarz.com](mailto:customer.support@rsa.rohde-schwarz.com)

#### Customer Support Latin America

Tel. +1-410-910-7988  
[customersupport.la@rohde-schwarz.com](mailto:customersupport.la@rohde-schwarz.com)

#### Customer Support Asia/Pacific

Tel. +65 65 13 04 88  
[customersupport.asia@rohde-schwarz.com](mailto:customersupport.asia@rohde-schwarz.com)