

LabVIEW driver history for the R&S® Power Supplies NGL / NGM / NGP / NGU

R&S®NGL



R&S®NGP



R&S®NGM



R&S®NGU



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1 Supported Instruments

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

| Which instruments are supported? | | |
|----------------------------------|--------------------|---------|
| Instrument | Supported Firmware | Remarks |
| NGL20x | 3.060 | |
| NGM20x | 3.060 | |
| NGP8xx | 2.025 | |
| NGUx01 | 4.000 | |

2 Revision history

2.1 Version 1.4.0 / 07 – 2023

- * Update for NGL, NGM firmware version 3.060
- * Update for NGU firmware version 4.0
- * Update for NGP firmware version 2.025
- * New core 7.6.0
- * New:
 - Read Voltage Current Pair.vi
 - Configure Voltage Range.vi
 - Configure Current Range.vi
 - Configure Output Reduced Slew Rate Enabled.vi
 - Configure Output Capacitance Mode.vi
 - Configure Current Autorange Minimum.vi
 - Configure Current Autorange Over Approach.vi
 - Configure Current Autorange Thresholds.vi
 - Reset Voltage Tripped State.vi
 - Query Voltage Tripped State.vi
 - Configure Modulation Enabled.vi
 - Read Log Data.vi
 - Configure Fast Log Sample Time.vi
 - Configure Fast Log External File Settings.vi
 - Configure Arbitrary Trigger Group Channel.vi
 - Configure Arbitrary Trigger Point Channel.vi
 - Configure Arbitrary Priority Mode.vi
 - Read Arbitrary CPM Data.vi
 - Write Arbitrary CPM Data.vi
 - Read Arbitrary VPM Data.vi
 - Write Arbitrary VPM Data.vi
 - Clear Arbitrary Sequence.vi
 - Discard LAN Settings.vi
 - Reset LAN Settings.vi
 - Configure LAN Hostname.vi
 - Query LAN MAC Address.vi
 - Query LAN Edited Mode.vi
 - Query WLAN IP Address.vi

- Configure VNC Settings.vi
- Configure Sound Complete Beep Enabled.vi
- Get Sound Complete Beep.vi
- Configure Sound Warning Beep Enabled.vi
- Get Sound Warning Beep.vi
- Configure Sound Output Beep Enabled.vi
- Save System Settings File.vi
- Restart Instrument.vi
- Query System Uptime.vi
- Instrument Options.vi
- Has Option Installed.vi

* Updated:

- RSNGX_ATTR_SELECT_CHANNEL - command changes INSTRument[:SElect]
- Configure Output Remote Sense Detection.vi - Detection control updated
- Query Output Remote Sense Detection.vi - Detection control updated
- Transfer Arbitrary Sequence Table.vi - Changed to event, API changed
- Configure Digital IO Trigger Line Mode.vi - Mode parameter updated
- Configure Digital IO Trigger Line Channel.vi - 'None' value added
- Configure LAN Network Settings.vi - Added NGL, NGM, NGU support
- Apply LAN Network Settings.vi - Added NGL, NGM, NGU support
- Configure WLAN Network Settings.vi - IP address removed, attribute is read only now

2.2 Version 1.3.2 / 05 – 2021

* Removed range checking for Voltage, Current, Impedance and Duration parameters

* Updated:

- Configure Voltage Level.vi - Voltage level range removed
- Configure Voltage Safety Limit.vi - Level range removed
- Configure Current Level.vi - Removed range for level
- Configure Current Safety Limit.vi - Removed range for limits
- Configure Resistance.vi - Removed range for level
- Configure Output Impedance.vi - removed range impedance
- Configure OVP.vi - Level removed range
- Configure OPP.vi - Removed range for level
- Configure Ramp.vi - Duration range removed
- Configure Logging.vi - Removed Duration range

2.3 Version 1.3.0 / 03 - 2021

* Added support for new instrument NGU

* Update for firmware version 3.0

* New core 6.72.0

* All Front Panels reworked to Silver-style controls

* New:

- Configure Voltage Current Negative.vi
- Configure Voltage Negative.vi
- Configure Source Priority Mode.vi
- Configure Number Of Power Line Cycles.vi
- Configure Modulation Gain.vi
- Query Measurement Data DVM.vi
- Configure Energy Counter Unit.vi
- Query Measurement Statistics Data All.vi

- Configure Fast Log Target.vi
- Configure Arbitrary Control.vi
- Configure Digital IO Fault Signal.vi
- Configure Digital IO Output Signal.vi
- Configure Battery Simulator Limits.vi
- Configure Battery Model Limits.vi
- Configure Interface USB Class.vi

* Updated:

- Configure Fast Log Settings.vi - sample rate
- Configure Digital IO Fault.vi - source mode
- Configure Trigger Settings.vi - Output channel

2.4 Version 1.2.0 / 03 – 2020

* Added support for new instrument NGP800

* Using driver core 6.60.0.110

* Added support for Tracking, Block, Analog Input, Adjustment, Digital Trigger IO, Communications, Sound

* New:

- Configure Output Remote Sense Detection.vi
- Query Output Remote Sense Detection.vi
- Reset OCP.vi
- Configure OCP Fuse.vi
- Configure OCP Fuse Initial Delay.vi
- Configure OCP Fuse Linking.vi
- Query OCP Linked Fuses List.vi
- Query OCP Fuse Tripped.vi
- Reset OCP Fuse.vi
- Reset Protection Tripped State.vi
- Configure Log Location.vi
- Configure System Touch Enabled.vi
- Configure Sound Beeper Settings.vi
- Get Sound Beep.vi

* Updated:

- Query Measurement Statistics Data.vi - Help updated

2.5 Version 1.1.0 / 07 – 2019

* Update for firmware version 2.0

* Added support for Fast Log, Digital I/O and Battery Simulator subsystems.

* New:

- Configure Output Mode.vi
- Configure Output Trigger Settings.vi
- Configure DVM Measurement Settings.vi
- Query Measurement Statistics Data.vi
- Reset Measurement Statistics.vi
- Query Measurement Count.vi
- Configure Trigger Settings.vi
- Configure Trigger DIO Pin.vi
- Query OCP Linking.vi

* Modified:

- Configure Fuse.vi - Replaced with Configure OCP.vi

- Configure Fuse Initial Delay.vi - Replaced with Configure OCP Initial Delay.vi
- Configure Fuse Linking.vi - Replaced with Configure OCP Linking.vi
- Query Fuse Tripped.vi - Replaced with Query OCP Tripped.vi
- Configure Arbitrary.vi - Endpoint removed
- * Deleted:
 - Configure OVP Mode.vi
 - Configure Channel Logging Enabled.vi
 - Configure Image Format.vi

2.6 Version 1.0.0 / 02 - 2019

* Initial release

3 Installation of the LabVIEW driver

Before you start the installer, close your LabVIEW application.

3.1 Installation on a Windows machine

The driver is distributed as WinZip self-extracting executable file. Installer supported operation systems: Win7, Win8, Win10.

Preconditions:

- LabVIEW 2015 or newer installed
- Any VISA installed – R&S VISA 5.12.3 or newer / NI VISA 18.0 or newer

When you start the driver WinZip installer, it performs the following steps:

1. Unpacking of the driver's **instr.lib** and **user.lib** directories content as well as the **Installer.vi** into a temporary folder: `C:\temp\rsngx-1v2015-1.4.0`
The driver is compiled in LabVIEW 2015 64-bit. From there you can copy it to another location or run the **Installer.vi** manually later. The content of the temporary folder is not deleted after the installation is finished. Starting the same installation again will overwrite all the data in that temporary folder.
2. After unpacking, the **Installer.vi** automatically starts in the **last opened version of LabVIEW**. In case you have more than one version of LabVIEW installed on your machine, make sure that the last opened LabVIEW version is the one in which you want to install the driver. If that is not the case, cancel the installation, open and close your desired LabVIEW version and run the installer again. You can have the driver installed parallel for more LabVIEW versions by repeating the installation process for each desired version.
3. On the installer options page you can change the location of the **instr.lib** part of the driver. **user.lib** part must be placed in the default location, otherwise the Express VI configuration will not properly function.
Hitting **Next** button will first delete the old driver (if it existed), copy the new driver and mass-compile it.
4. If you have an older rsidr_toolbox, the installer updates it to the last version.
5. The LabVIEW is closed and after starting it again, the driver is ready for use.

3.2 Installation on a non-Windows machine

In case you would like to install the driver on a non-Windows machine, use a Windows machine to start the driver's WinZip self-extracting executable file. **This machine does not need to have LabVIEW installed.**

After the **Step 1** (see the chapter 2.1), copy the content of the temporary folder to your target machine and start the **Installer.vi** manually.

From that point onwards, the installation process is the same as described in Steps 2, 3, 4 and 5.

4 Customer support

Technical support – where and when you need it

For quick, expert help with any Rohde & Schwarz product, contact our customer support center. A team of highly qualified engineers provides support and works with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz products.

Contact information

Contact our customer support center at www.rohde-schwarz.com/support or follow this QR code:

