LabVIEW driver history for the R&S® HMC8012 Digital Multimeter

HMC8012

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Contents

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
HMC8012	1.400	

2 Revision History

2.1 Version 1.7.0 / 04 – 2024

* Driver core 7.10.0

* New:
- Fetch Second Function Measurement.vi
- OPC Sync Write Enable.vi
- OPC Sync Query Enable.vi
- OPC Sync Query Mechanism.vi

* Deleted:
- Read Instr Data.vi
- Set Attribute ViSession.vi
- Get Attribute ViSession.vi
- Check Attribute ViInt32.vi
- Check Attribute ViReal64.vi
- Check Attribute ViString.vi
- Check Attribute ViBoolean.vi
- Check Attribute ViSession.vi

2.2 Version 1.5.0 / 06 – 2019

* Driver core 6.50.0
* Included automatic repetition of a measurement when the instrument returns an invalid measured value, e.g. during changing the range in auto range mode.
   Affected functions:
    - Measure.vi
    - Fetch Measurement.vi
    - Read Measurement.vi

2.3 Version 1.4.0 / 06 – 2017

* New
  - Exchanged Driver Core 6.7.1 that supports Simulation mode and Logging
  - ADC Rate.vi
  - Beeper Measurement State.vi

- Threshold Measurement.vi
- Temperature Measurement.vi
- Data Logging.vi
- Configure Data Logging.vi
- Set Data Logging File Name.vi
- Read Logging File Data.vi
- Delete Logging File Data.vi
- Get Number Of Logging Values.vi
- Write Command with OPC sync.vi
- Query with OPC sync.vi
- Write Command.vi

* Modified:
- Measure.vi
- Read Measurement.vi
- Active Math Operation.vi
- Measurement Function.vi
- Set Range.vi
- Configure.vi

2.4 Version 1.3.0 / 03 – 2017

- Exchanged Driver Core 6.4.0 that supports Simulation and Logging mode
- All VISA resource name inputs are mandatory
- Changed Palette Icons, corrected Palettes
- Cleaned up all the Front Panels and Block Diagrams

2.5 Version 1.2.0 / 05 – 2016

* New
- Clear Status.vi
- ID Query Response.vi
- Process All Previous Commands.vi
- Query OPC.vi

* New attributes:
- Process All Previous Commands (HMDMM_ATTR_PROCESS_ALL_PREVIOUS_COMMANDS)
- Logging (HMDMM_ATTR_LOGGING)

* Modified attributes:
- Hardcopy Format (HMDMM_ATTR_HARDCOPY_FORMAT) - Added *WAI to SCPI command
- Hardcopy Size X (HMDMM_ATTR_HARDCOPY_SIZE_X) - Added *WAI to SCPI command
- Hardcopy Size Y (HMDMM_ATTR_HARDCOPY_SIZE_Y) - Added *WAI to SCPI command
- ID Query Response (HMDMM_ATTR_ID_QUERY_RESPONSE) - Added empty callbacks and default value

* Modified Range Tables:
- HmDmm_rngTemperatureSensorType.HMDMM_VAL_SENSOR_PT100 -
                                Description changed ("Pt 100", "")
- HmDmm_rngTemperatureSensorType.HMDMM_VAL_SENSOR_PT500 -
                                Description changed ("Pt 500", "")
- HmDmm_rngTemperatureSensorType.HMDMM_VAL_SENSOR_PT1000 -
                                Description changed ("Pt 1000", "")

2.6   Version 1.1.0 / 03 – 2016

* Modified:
  - USB-VCP and USB-TMC support added
  - Cosmetic changes in documentation

2.7   Version 1.0.0 / 07 – 2013

* 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 7.2.2 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\hmdmm-lv2015-1.6.0`
   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.

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