R&S®RTO6
Release Notes

Firmware Version 5.0.1.0

These Release Notes are for following models of R&S®RTO6:
R&S® RTO6, order no. 1802.0001K04

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 software makes use of several valuable open source software packages. For information, see the "Open Source Acknowledgment" provided with the product.

The following abbreviations are used throughout this document: R&S®RTO6 is abbreviated as R&SRTO6

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Contents

1 Information on the current version and history

1.1 Version

New functionality

Version	Functions
5.0.1.0	Full HW support of RTO6

Modified functionality

Version	Functions

Improvements

Version	Improvements

Known issues

Version	Known Issues

2 Modifications to the documentation

The current documentation is up-to-date.

Date	Release Notes Revision	Changes
23.06.2021	5.0.1.0	Initial version for RTO6

3 Firmware update

Firmware updates for the R&S RTO6 are available as a single download from the Rohde&Schwarz web page http://www.rohde-schwarz.com.

The installation file for R&S RTO6 is named "**Setup_Rtx_V5.0.1.0_x64.exe**".

After the update to this firmware version, the instrument will start with preset instrument settings. To check the installed firmware version select "Setup" from the "File" menu and switch to the system tab. The firmware version is shown in the upper left corner of this dialog.

3.1 Preparing the Installation

There are several ways how to update the device after downloading the firmware installation file.

Using a memory stick:

1. Copy the file(s) to a directory of the memory stick and insert the memory stick into one of the USB sockets of the instrument.

Using the remote desktop and copying the installation files to a directory of the instrument:

2. Connect the instrument to your LAN

3. Start the remote desktop on your PC (C:\winnt\system32\mstsc.exe)

4. Enter the TCP/IP address of the instrument that you want to update. Ensure that the "local resources" > "drives" option is selected and press the "Connect" button

5. Login to the instrument (user name: "instrument" and password "894129" by default)

6. Copy the firmware installation file from your PC to a new folder on the instrument

7. You can now access this directory with the installation file from the instrument firmware

Using a network drive:

8. Connect your instrument to your LAN, and establish a connection to one of your servers (ask your local IT administrator for support)

9. Copy the firmware installation file from your PC to a directory on this server

10. You can now access the directory with the installation file from the instrument firmware

3.2   Performing the Firmware Update on the Instrument

The firmware update process is performed with the following steps:

11.   Switch the instrument on and wait until the Oscilloscope has resumed operation

12.   Ensure that the acquisition mode is not running. If the RUN CONT or the RUN Nx SINGLE key is shining green, press this key to stop the acquisition

13.   Press the SETUP key or select "Setup" from the "File" menu at the bottom of the screen

14.   Select the "System" tab

15.   The selected dialog box contains a box with the title "Select setup for firmware update". Press the Button "Open" within this box. A file selection dialog appears

16.   Change the path to the drive and directory which you prepared in the step 3.1 (USB stick directory, remote PC directory or directory on a server) and close the dialog with the "Select" button

17.   The installation starts and a new dialog box appears. Press the "Next" button to navigate to the selection of the firmware packages. By default all applications should be installed

18.   Press the "Install" button to start the firmware update:
The installation continues and the firmware is stopped. After a few minutes the system restarts automatically.
Depending on the previously installed firmware version, a reconfiguration of the hardware may be required during the first start of the firmware. In this case, a message box is displayed and the update of the FPGA starts automatically. **Do not switch off the instrument during this update!** After the update of the FPGA the instrument performs another instrument restart automatically.
If a special FPGA update is required the instrument must execute a cold boot. In such a case, a message appears on the screen asking to switch off the instrument. Press the "Ok" button and wait until the instrument is completely switched off. As a final step switch on the instrument. The instrument resumes operation.

19.   After the firmware update a self alignment is recommended. Select "Self alignment" from the "File" menu. Select "Start Alignment" to start the self alignment procedure.
A message box appears to indicate the running alignment procedure. Wait until this message box disappears. This will take several minutes.

Now the instrument is ready for operation.

3.3   Performing the Firmware Update without a running oscilloscope application

If a firmware update shall be executed without running firmware, the windows explorer can be started. Change the path to the drive and directory prepared in step 3.1. Make a double click on this file and proceed with step 7 to update the instrument firmware.

3.4 Firmware downgrade

A firmware downgrade is handled like a normal firmware installation.

3.5 Installing Firmware Options

The firmware update includes all currently available firmware options. No additional installation is required. A firmware update has no side effects to firmware options already installed.

The instructions in this chapter are only needed, if a firmware option is purchased and needs to be enabled on the instrument.

Enabling Options by Entering Option Key Codes

To activate firmware options, enter a license key for validation. The license key is in the device certificate or delivered as a part of the software package. The process is performed in the following steps:

20. Press the SETUP key. A dialog box appears. Select the "SW options" tab. The selected tab contains a box with the title "Install a new option". There are two ways to install a firmware option:

    a) If a file including the option key is provided, select "Open" in the box with the title "Install from file". Navigate to the directory containing the option key file. Choose the file and click "Select"
    b) If an option key number is provided double click on the data entry filed with the title "Enter new option key". A key pad appears. Enter the option key number and press the "Enter" button.

21. After successful validation the message "option key valid" is displayed. If the validation failed, the firmware option is not installed.

22. If more than one firmware option shall be installed, step 1 and 2 needs to be repeated several times.

Reboot the device or restart the firmware.

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:

Bild 4-1: QR code to the Rohde & Schwarz support page