

R&S®TSMAX

Autonomous Mobile Network Scanner Release Notes



4900800502
Version 14

ROHDE & SCHWARZ
Make ideas real



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1 Information on the current version and history



Variants: R&S TSMA, R&S TSMA6, R&S TSMA6B

All described procedures in these release notes are valid for these variants. In this case, the general term “TSMaX” is used. For different procedures, the specific variant is mentioned explicitly.

1.1 Version 04.03.00.12

New features

Version	Contents
04.03.00.12	web-GUI: WLAN settings configurable (band, mode)
04.03.00.12	web-GUI: shows installed TSMx Windows driver update
04.03.00.12	Utilities: Windows driver update (includes driver for GNSS receiver LS2303x-UDG) and security package for R&S TSMa6 and R&S TSMa6B <ul style="list-style-type: none"> • https://www.rohde-schwarz.com/firmware/tsma6/ • https://www.rohde-schwarz.com/firmware/tsma6b/
04.03.00.12	Utilities: TSMa6B Image Stick v01.00 (https://www.rohde-schwarz.com/software/tsma6b/)

Improvements

Version	Contents
04.03.00.12	Selected "Mode of operation" (SmartONE Standard/Expert/QualiPoc) will be reselected after R&S SmartONE setup is finished
04.03.00.12	Execution of the R&S TSMaX-SmartONE-Setup from version 22.0 is limited to R&S TSMa6 and R&S TSMa6B platforms
04.03.00.12	web-GUI: NESTOR mode with selectable "Autostart"
04.03.00.12	Extended entries in firmware log file (C:\ProgramData\Rohde-Schwarz\TSMa*.log)
04.03.00.12	Updated online help (v10 with R&S TSMa6B, v03 with R&S TSMa6B)

Solved Problems

Version	Contents
04.03.00.12	R&S NESTOR probe mode does not work via TSMa WLAN AP (RTC 917243)
04.03.00.12	Power off in scanner mode
04.03.00.12	Memory leak in firmware service
04.03.00.12	R&S TSMa6x device state indication via "Mode" LED
04.03.00.12	The R&S TSMa6x battery pack LEDs are sometimes on after power down

Known issues

n.a

1.2 Version 04.02.02.02

New features

n.a

Improvements

Version	Contents
04.02.02.02	Update online help TSMA6, TSMA6B
04.02.02.02	User/factory restore with the option to delete the data partition D: /
04.02.02.02	Password confirmation required when changing WLAN key and Windows user password
04.02.02.02	TSMaX EDGE browser version is displayed in the web-GUI
04.02.02.02	SmartONE setup runs independent of PC Mode
TSMaX-EDGE-Setup	
04.02.02.01	Installs EDGE browser as default
04.02.02.01	EDGE version 93.01.961.38

Solved problems

Version	Contents
04.02.02.02	Limitation of displayed license keys in the web-GUI
04.02.02.02	Restart of "SmartONE" mode in the web-GUI via "Submit" button after application was closed
04.02.02.02	Rear panel LED indication aligned with firmware update status
04.02.02.02	Updated driver signature for PSoC MCU driver
04.02.02.02	Restart after HW watchdog assert
04.02.02.02	Commanding SmartONE Expert mode "IP-Controlled" in the web-GUI

Known issues

n.a

1.3 Version 04.01.00.04

New features

Version	Contents
04.01.00.04	New measurement mode "Smart Monitor"
TSMaX-EDGE-Setup	
04.01.00.05	Dedicated TSMa6/B setup for Microsoft EDGE browser

Improvements

Version	Contents
04.01.00.04	Improved synchronization between "SmartBenchmark" / "ROMES" launcher and measurement mode selection in the TSMaX web-GUI
04.01.00.04	"Flow Control" for TSMa6B scanner LAN ports disabled to achieve maximum data throughput
04.01.00.04	OSA document update to v03
04.01.00.04	Show paired Bluetooth devices in the web-GUI

Solved problems

Version	Contents
04.01.00.04	Web-GUI upload / download folder mix-up
04.01.00.04	Missing RemoteViCom.apk in download folder
04.01.00.04	Sporadic IP address mix-up of internal and external scanner port
04.01.00.04	Interface-DLL does not report controller and RF board temperature

Known issues

n.a

1.4 Version 04.00.14.05

New features

Version	Contents
04.00.14.05	TSMa6B support

Improvements

Version	Contents
04.00.14.05	Microcontroller flash with device restart
04.00.14.05	More detailed error log file
04.00.14.05	TSMa6 online help updated to v08
04.00.14.05	Disclaimer added

Solved problems

Version	Contents
04.00.14.05	Bugfix HW watchdog/freezing (Defect 800077)
04.00.14.05	Bugfix TSMa recovery (Defect 822641)
04.00.14.05	Bugfix IP address conflict (Defect 836789)
04.00.14.05	Bugfix Hang-up with locked scanner access (Defect 768170)
04.00.14.05	Bugfix Power management topics (Defect 783225)
04.00.14.05	Bugfix LAN adapter settings (Defect 783230)
04.00.14.05	Scanner database update (available options TSMa6-K50, TSMa6-K51 were not displayed) (Defect 797434, CTS Ticket 797028)

Known issues

n.a

1.5 Version 04.00.09.04**New features**

Version	Contents
04.00.09.04	Web-GUI & firmware integration of "Smart Benchmark" / "ROMES Expert" mode (679652)
04.00.09.04	TSMaX firmware migration as a 64-bit process (652378)

Improvements

Version	Contents
04.00.09.04	Update R&S SmartCard Service to v1.3.7.0 (710446)
04.00.09.04	Update R&S LicenseServer to v1.19.2 (763346)
04.00.09.04	Glitch detection for remote shut-down command (735495)

Version	Contents
04.00.09.04	TSMA6 Online Help updated to v07 (689654)
04.00.09.04	R&S TSME Device Manager utility removed from firmware setup – a dedicated setup is available from R&S internet (https://www.rohde-schwarz.com/software/tsma/) (699751)
04.00.09.04	Firmware data log file (783261)
04.00.09.04	Improved scanner access method and application launch during start-up (783238)
04.00.09.04	Virtual Memory enabled per default (660418)

Solved problems

Version	Contents
04.00.09.04	User-specific WLAN client IP address settings are set to default after restart (677841)
04.00.09.04	Boot problems with connected WiBu USB dongle (767411)
04.00.09.04	LAN adapter settings sometimes mixed or have wrong IP address after power-up - especially for the external UsbToLAN adapters TSPC-U2L / TSPC-U2L2 (783230)

Known issues

n.a

1.6 Version 03.07.03.02

New features

Version	Contents
03.07.03.02	Change password feature added to web-GUI (647173)

Improvements

Version	Contents
03.07.03.02	Restart via web-GUI triggers a power cycle on the output ports AUX 1/2 of the Battery Pack Unit (632077)
03.07.03.02	Low battery power off is triggered with at least one battery falling below 5 % charge. (650756)
03.07.03.02	File upload size increased to 2 GB via web-GUI (667793)
03.07.03.02	Update Online Help v6 (663713)
03.07.03.02	Update .NET Framework v4.8 (644116)

Solved problems

Version	Contents
03.07.03.02	NESTOR license keys not detected after device startup (651490)
03.07.03.02	Blocked Remote Desktop access in ROMES / NESTOR mode (652421)
03.07.03.02	WLAN access point blocked when mobile phone OnePlus 7 is connected (653070)
03.07.03.02	Stability / USB enumeration issues of Mainboard controller (PSoC) (672447)

Known issues

n.a

1.7 Version 03.06.02.01

New features

n.a

Improvements

Version	Contents
03.06.02.01	TSMA – LAN port driver update (394933)

Solved problems

Version	Contents
03.06.02.01	Firmware flash procedure for micro-controller is sometimes started (577735)
03.06.02.01	TSMA6-BP (battery pack unit) - auxiliary power out is not switched off after power down (626415)
03.06.02.01	TSMA6 - sporadically powers on when battery pack unit is connected with DC power (649082)
03.06.02.01	WLAN off/on cycle via rear panel slider does not start access point again (613383)
03.06.02.01	TSMA - reduced fan speed due to wrong temperature read out (638228)

Known issues

n.a

1.8 Version 03.05.01.05

New features

Version	Contents
03.05.01.05	web-GUI: added TSME30DC info tab (522546)
03.05.01.05	web-GUI: NESTOR licenses are displayed and can be installed (489866)

Improvements

Version	Contents
03.05.01.05	Updated TSME Tools v1.6.0.2
03.05.01.05	Updated TSMA6 Online Help v04

Solved problems

Version	Contents
03.05.01.05	web-GUI: file transfer / set default file path does not work (590601)
03.05.01.05	web-GUI: LAN port IP address configuration was sometimes not stored in LAN adapter settings (589168)
03.05.01.05	TSMA - missing shutdown indication via "Mode" LED (596839)
03.05.01.05	TSMA - scanner only mode not possible (596839)

Known issues

n.a

1.9 Version 03.04.01.04

New features

Version	Contents
03.04.01.04	Support of connected R&S TSME6 in Auto-IP mode when SCAN port is configured to receive IP address automatically (576003)
03.04.01.04	Battery info of the Freerider 3 / 4 environment in the web-GUI and Windows tray icon (511743)
03.04.01.04	Support for NESTOR license key management (installation & query) in the web-GUI for R&S TSMA6 (SD Card) (489866)

Improvements

Version	Contents
03.04.01.04	Extended Device Footprint info including installed Windows patches / C:\ProgramData\Rohde-Schwarz\TSMa\SoftwareData.xml (514184)
03.04.01.04	Default power setting – “Auto Power On” (575793)

Solved problems

Version	Contents
03.04.01.04	Wrong IP address for the WLAN access point in the web-GUI (571706)
03.04.01.04	Scanner access error during power-on / selftest is not indicated via “Mode” LED (535474)
03.04.01.04	Web-GUI displays invalid IP addresses when LAN cable is removed (580280)
03.04.01.04	LAN port IP settings in the web-GUI are sometimes not displayed correctly when configuration was changed (573505)

Known issues

n.a

1.10 Version 03.03.01.03**New features**

n.a.

Improvements

Version	Contents
03.03.01.03	Generate Software Device Footprint (514184)
03.03.01.03	Enables 802.11n/ac mode (530267)
03.03.01.03	Update TSMa6 Online Help v03 (561965)

Solved problems

Version	Contents
03.03.01.03	Sporadic auto-power on when switched off and powered from TSMaX-BP (543921)
03.03.01.03	Power On / Selftest ‘Mode’ LED indication (532166)
03.03.01.03	User IP settings of LAN adapters are kept after firmware setup (571744)
03.03.01.03	Local installation fails on TSMa (583467)

Version	Contents
03.03.01.03	Web-GUI shows ghost LAN adapter USB LAN 3 on TSMA (547615)
03.03.01.03	Wrong LAN adapter names on web-GUI overview page (554227)

Known issues

n.a

1.11 Version 03.01.01.04

New features

Version	Contents
03.01.01.04	WLAN switch disables WLAN & Bluetooth module (519103)
03.01.01.04	Extended selftest and selftest result file (542753)

Improvements

Version	Contents
03.01.01.04	Extended LAN configuration features in the web-GUI – “SCAN” port set to receive IP address automatically (295872)
03.01.01.04	Updated Online Help (560374)
03.01.01.04	Updated TsmeTools v1.6.0.0 (560374)

Solved problems

Version	Contents
03.01.01.04	Auto Power Off / delay time overwritten (538845)
03.01.01.04	Power on fails when battery pack is reconnected after previous power off (542695)
03.01.01.04	Wrong registry key for ROMES remote control (556449)

Known issues

Version	Contents
03.01.01.04	Sporadic power on cycles when switched off and “Auto Power On” is enabled in power settings (557375)

1.12 Version 03.00.11.00

New features

Version	Contents
03.00.11.00	R&S TSMA supported / one common firmware R&S TSMA / R&S TSMA6 (431129)
03.00.11.00	ROMES support (from v18.3)
03.00.11.00	QualipocProbe support (from v18.3)

Improvements

Version	Contents
03.00.11.00	OSA document update, OSA V2.0 (491523)

Solved problems

Version	Contents
03.00.11.00	WLAN AP not ended if activated for remote firmware installation via WLAN (528763)
03.00.11.00	Failed microcontroller flash – hang up in boot loader mode – missing PSoC device in Windows Device Manager – TSMaX could not be switched off via "Pwr" button (477236)
03.00.11.00	Restore indication via LED now with correct color (491624)
03.00.11.00	Failed selftest / scanner interface blocked when WLAN switch is in "Off" position (519096)
03.00.11.00	Blocked scanner interface is detected (494456)
03.00.11.00	HW watchdog assert triggers restart and not a shut-down (499006)
03.00.11.00	Remote ViCom server could not start due to missing VS17 redistributable / solved with Remote ViCom setup v16.25(47662)

Known issues

Version	Contents
03.00.11.00	NESTOR licenses could not be installed and verified in the web-GUI (489866)
03.00.11.00	rViCom ≤ v16.25 / rViCom server could not be accessed via WLAN connection (476632)
03.00.11.00	R&S TSMA6: A firmware upgrade from version 02.22.00.03 is not possible via WLAN. Choose a different way for upgrade (local, USB stick, reps. remote installation via LAN) (528763)
03.00.11.00	TSMA6 cannot be switched on (autopower on enabled) when a battery pack unit is connected, which has previously been shut down (542695)

1.13 Version 03.00.10.02

New features

Version	Contents
03.00.10.02	R&S TSMA supported / one common firmware R&S TSMA / R&S TSMA6 (431129)
03.00.10.02	ROMES support (from v18.3)
03.00.10.02	QualipocProbe support (from v18.3)

Improvements

Version	Contents
03.00.10.02	OSA document update, OSA V2.0 (491523)

Solved problems

Version	Contents
03.00.10.02	WLAN AP not ended if activated for remote firmware installation via WLAN (528763)
03.00.10.02	Restore indication via LED now with correct color (491624)
03.00.10.02	Failed selftest / scanner interface blocked when WLAN switch is in "Off" position (519096)
03.00.10.02	Blocked scanner interface is detected (494456)
03.00.10.02	HW watchdog assert triggers restart and not a shut-down (499006)
03.00.10.02	Remote ViCom server could not start due to missing VS17 redistrib / solved with Remote ViCom setup v16.25(47662)

Known issues

Version	Contents
03.00.10.02	NESTOR licenses could not be installed and verified in the web-GUI (489866)
03.00.10.02	rViCom ≤ v16.25 / rViCom server could not be accessed via WLAN connection (476632)
03.00.10.02	R&S TSMA6: A firmware upgrade from version 02.22.00.03 is not possible via WLAN. Choose a different way for upgrade (local, USB stick, reps. remote installation via LAN)

1.14 Version 02.22.03.00 (initial version)

New features

Version	Contents
02.22.03.00	Initial R&S TSMA6 release
02.22.03.00	Support of R&S NESTOR starting from version v2.7.0
02.22.03.00	Support of R&S ViCom starting from version v16.20
02.22.03.00	User-specific configuration of WLAN SSID & key via web-GUI
02.22.03.00	Revised R&S TSMA Web-GUI

Improvements

n.a.

Solved problems

n.a.

Known issues

Version	Contents
02.22.03.00	Firmware set up not applicable for R&S TSMA
02.22.03.00	rViCom Server – WLAN connection not supported yet
02.22.03.00	R&S NESTOR options cannot be installed and read-out via the web-GUI
02.22.03.00	The restore procedure is indicated by green blinking MODE LED (not blue).

2 Firmware update

After a firmware update, the following tools may still need to be updated.

- TSME tools
- Microsoft EDGE browser

2.1 Preparing installation

Firmware update packages for the R&S TSMAX can be downloaded from the Rohde & Schwarz web page <https://www.rohde-schwarz.com/us/firmware/tsmx/>.

The firmware setup file can be found under the title **R&S®TSMAX Firmware** **ww.xx.yy.zz**.

There are several ways how to upgrade R&S TSMAX firmware / software. Select the preferred way.



ONLY FOR R&S TSMA: Connection between scanner unit and internal PC unit



- 1 = SCAN Link connector (CPU port)
- 2 = SCAN Link connector (Scanner Port)
- 3 = SCAN Link interconnection cable

Connect the SCAN ports of scanner and PC unit of the R&S TSMA. Use only the LAN interconnection cable (R&S No. 5016.1890.00) for connecting the SCAN ports.

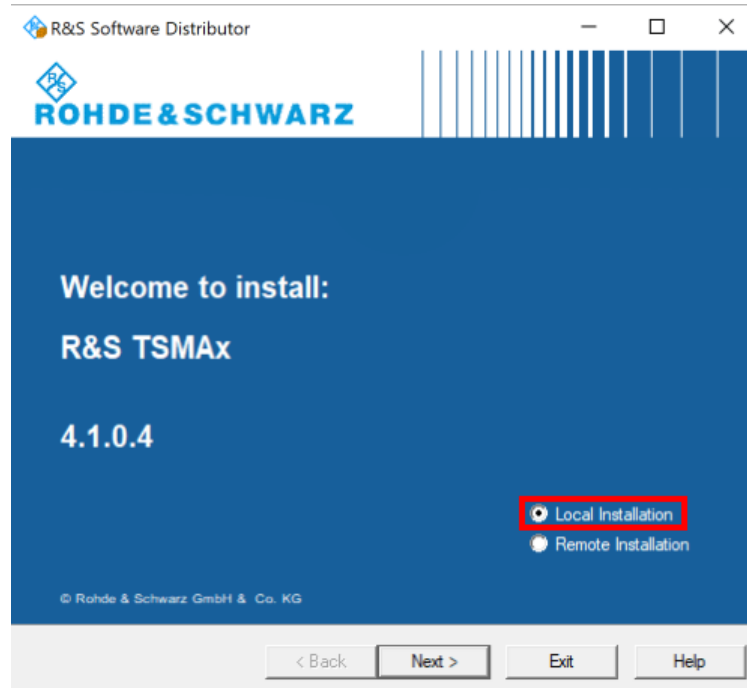
2.2 Executing setup

2.2.1 Local execution of the setup file

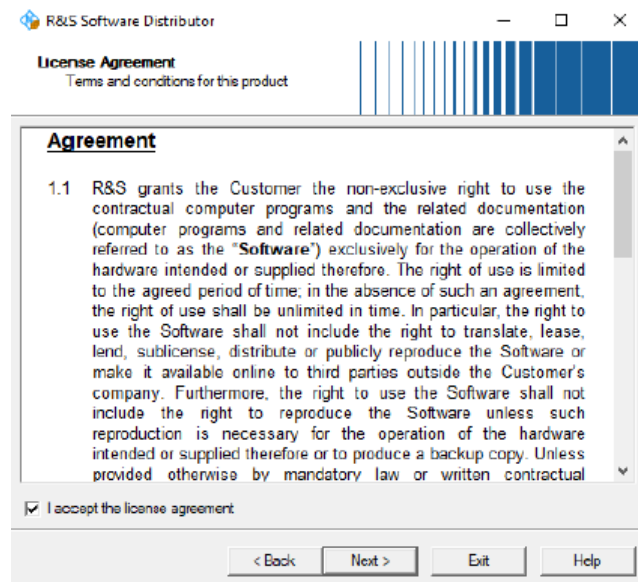
The local setup is executed from a remote PC and useful, if you have the device at your own workplace. Mouse, monitor and keyboard must be connected to the device directly. A LAN or WLAN connection must be established between the R&S TSMAX and the remote PC.

1. Connect mouse and keyboard to USB ports and a monitor to the HDMI port. The setup file must be available on the R&S TSMAX or on a USB stick.
2. Switch on the R&S TSMAX via the power button.
3. Copy the setup file for firmware/software/EDGE/TsmeTools (.zip or .exe) into a temporary directory on the R&S TSMAX.
4. Check that the R&S TSMAX is in "PC Mode", see [Chapter 2.4, "Checking mode of operation"](#), on page 31.

5. Open the Windows Explorer and execute the setup file TSMaX-Setup-<Version>.exe.
6. The "R&S Software Distributor" window comes up. Select "Local Installation" and press "Next".

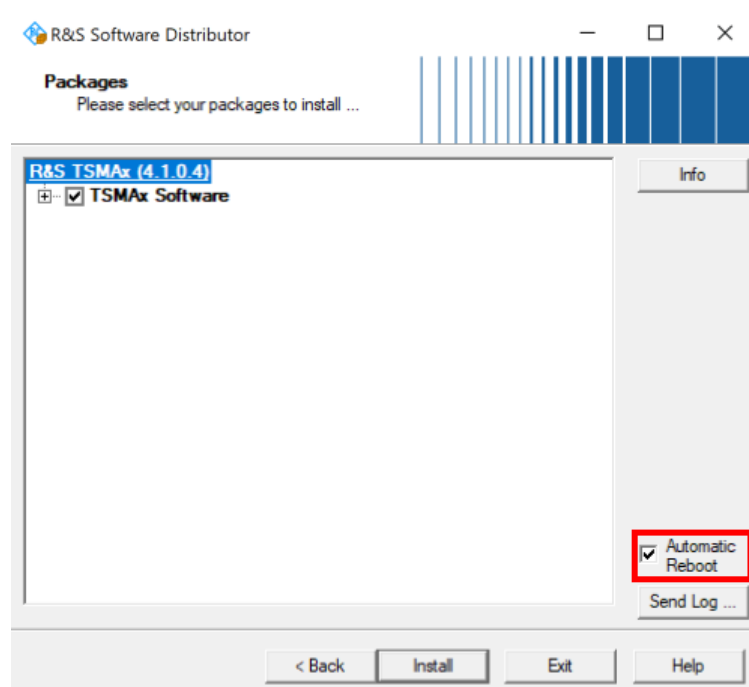


7. In the License Agreement window, check "I accept the license agreement".

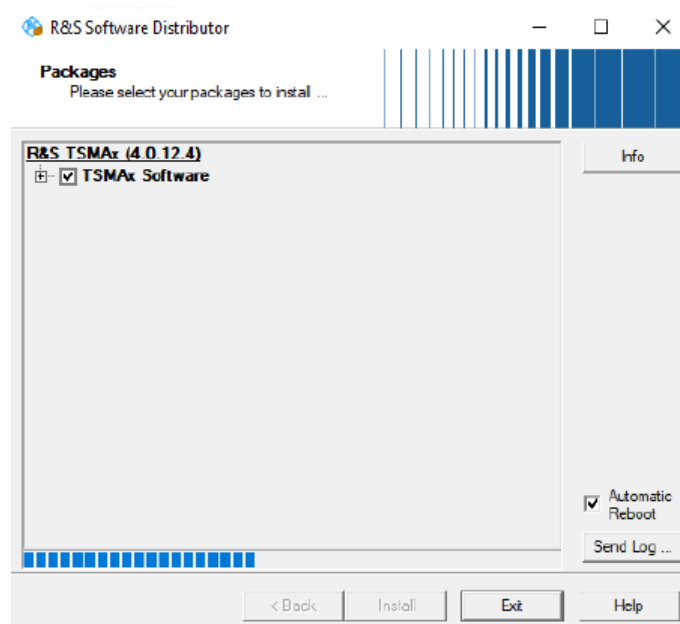


8. Click "Next>".
9. The package dialog lists all the available packages in the setup. Normally, this dialog can be skipped without any changes.

Select "Automatic Reboot".

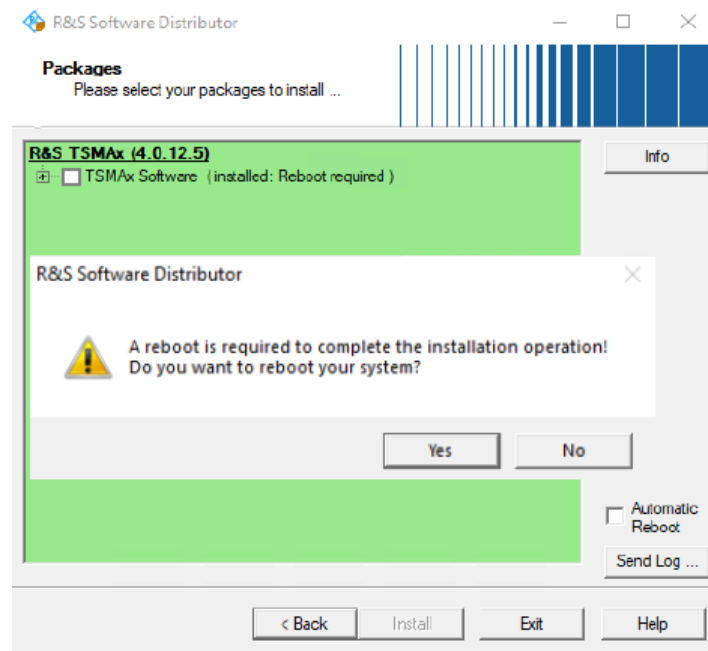


10. Press "Install" to start setup.
The progress bar indicates the installation process.



Note: Do not switch off or unplug from power while running firmware/software update.

11. The device will automatically reboot after the installation is complete.
If the automatic reboot is not activated, reboot the device manually.



12. If the firmware package contains a new mainboard firmware, a separate flash routine is started in a post process, see [Chapter 2.2.4, "Firmware updated - mainboard flash"](#), on page 29.
13. Reload the web GUI and verify the displayed firmware/software version in the "Overview" menu. The installed version needs to be indicated
14. The firmware update is completed successfully and the device is ready for operation when:
 - **TSMAX6/TSMAX6B**: Mode LED = green resp. blue (depends on the state of the WLAN access point)
 - **TSMAX**: WLAN On = amber, WLAN Off = green
15. To configure the required measurement mode, see [Chapter 2.4, "Checking mode of operation"](#), on page 31.

2.2.2 Remote execution of the setup file

The remote setup is the preferred way, if the device is not accessible on site or if multiple TSMAX devices are to be updated simultaneously.

1. Copy the setup file (firmware `TSMAX-Setup-<Version>.exe` or software) into a temporary directory on the remote PC.
2. Establish a LAN respectively WLAN connection between the remote PC and the R&S TSMAX. Make sure the R&S TSMAX is switched on and the "Mode of Operation" is "PC Mode", see [Chapter 2.4, "Checking mode of operation"](#), on page 31.

a) **Using LAN connection**

- Connect the LAN port (R&S TSMaX) with the host PC LAN port.
TSMa: The LAN port is marked with "LAN".
TSMa6/TSMa6B: The LAN port is marked with the LAN symbol.



The default IP setting of this port is "DHCP client". For details on how to configure the remote PC, contact your network administrator.

b) **Using WLAN connection**

- For R&S TSMa6/TSMa6B, the WLAN/Bluetooth switch must be "On".
- On the remote PC, search for the TSMaX WLAN and connect to the network. You find the parameters for the TSMaX WLAN access on a label at the bottom of the device.

WLAN SSID:

– **TSMa**

TSMa-<xxxxxx> with xxxxxx as individual serial number

– **TSMa6**

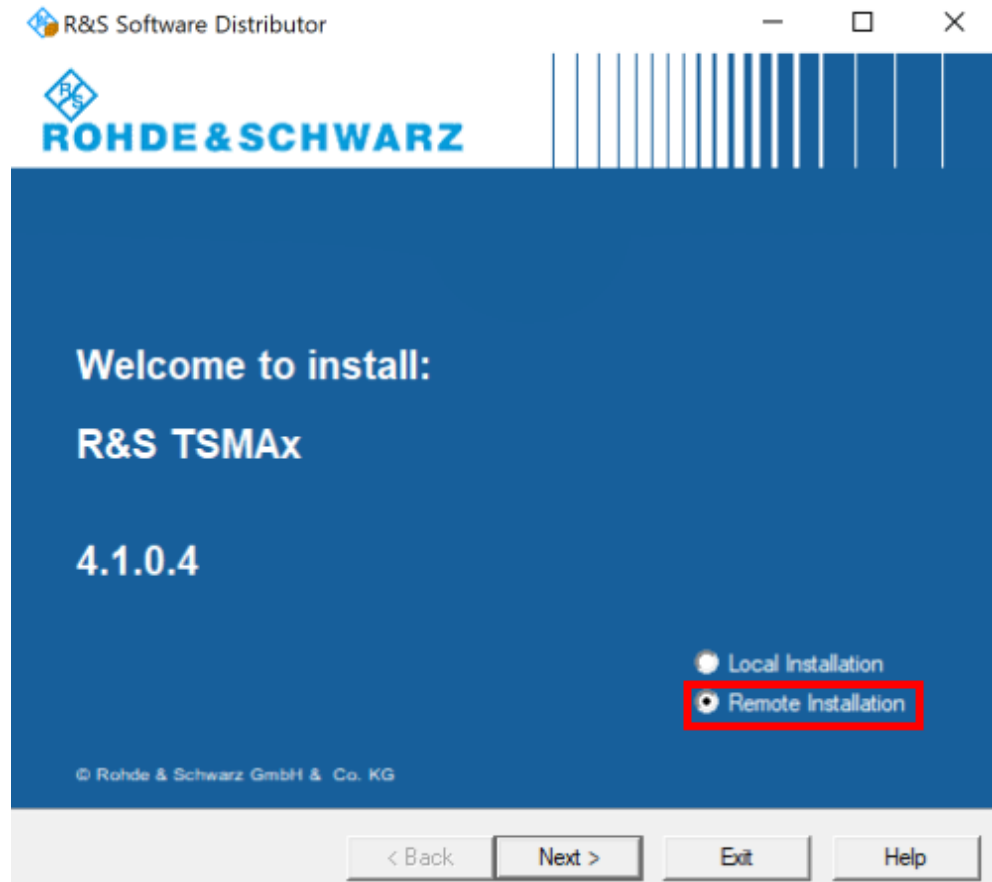
TSMa6-<xxxxxx> with xxxxxx as individual serial number

– **TSMa6B**

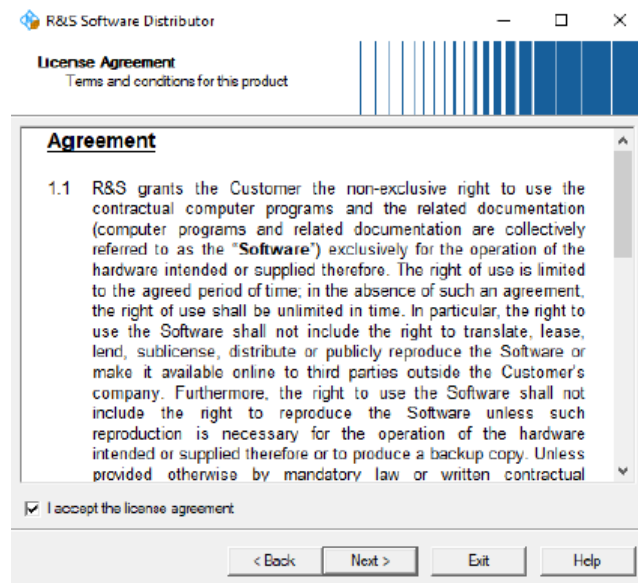
TSMa6B-<xxxxxx> with xxxxxx as individual serial number

WLAN key: *instrument* (default)

3. Execute the firmware/software setup file on the connected remote PC. The "R&S Software Distributor" dialog box is coming up

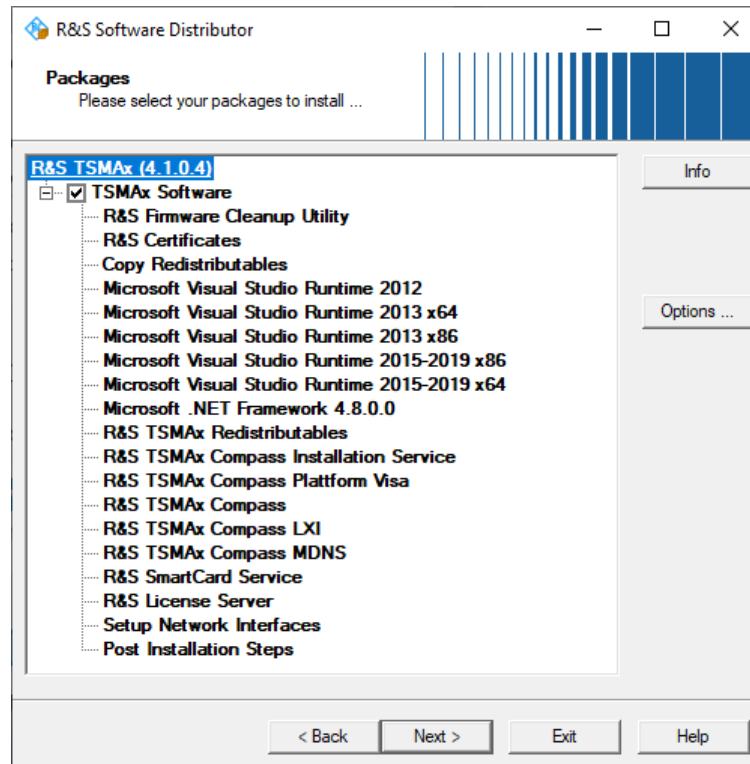


4. Select "Remote Installation" and click "Next>".
5. In the License Agreement window, check "I accept the license agreement".



6. Select "Next>".

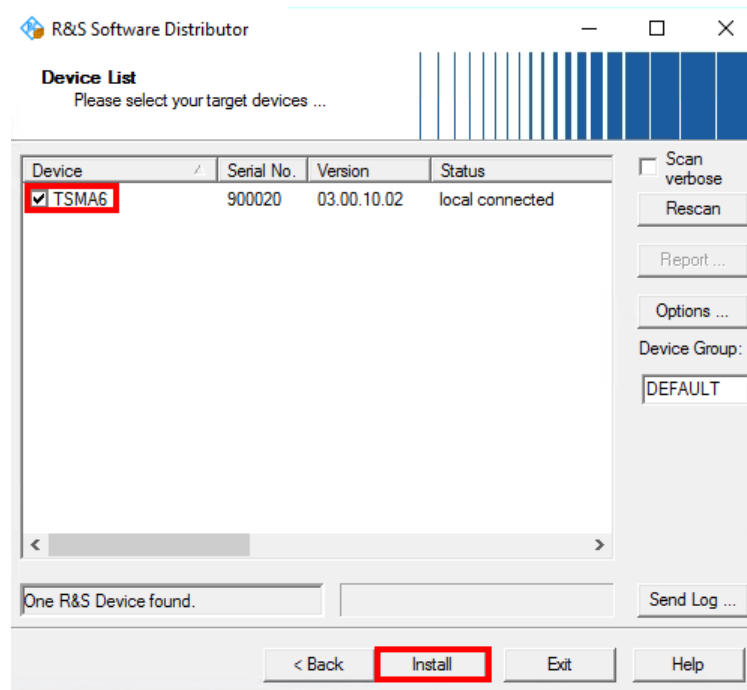
- The package dialog list all the available packages to install.



All packages, which you need to install are already pre-selected.

- Click "Next>".
- After a while, all R&S TSMaX devices in the network are listed in the "Device List" dialog.

Devices are only listed, if the device is in "PC Mode" (see [Chapter 2.4, "Checking mode of operation"](#), on page 31). Tick one or more devices to update. If the column "Serial No." is not filled, move the mouse pointer over the listed items to get related device information.



- Click "Install".

Note: Do not switch off or unplug from power while running firmware/software update.

- The state of the installation process is displayed in the "Status" column. The process is finished when the status indicates "Ready, see report for details!".

Note: If you are connected via WLAN, a reconnect to the TSMaX WLAN access point may be necessary as the TSMaX reboots after the firmware/software update.

- Press "Exit" to end the setup program on the remote PC.

- Only** for firmware update.

If the firmware package contains a new mainboard firmware, a separate flash routine is started in a post process, see [Chapter 2.2.4, "Firmware updated - mainboard flash"](#), on page 29.

Note: If you are connected via WLAN, a reconnect to the TSMaX WLAN access point may be necessary as the TSMaX reboots after the mainboard flash.

- Reload the R&S TSMaX web GUI (see [Chapter 2.3, "Calling R&S TSMaX web-GUI"](#), on page 30) and verify the installed firmware /software version in the "Overview".

The screenshot shows the R&S TSMAX web-GUI interface. The left sidebar contains navigation options: Home, Configuration (System, Connectivity), File Transfer, Options, Update, Backup, Restart, Help, and OSA. The main content area is titled 'Overview' and includes tabs for Overview, IP Settings, and HW Info. The 'FW/SW Version' section is highlighted with a red box and contains the following data:

FW/SW Version	
HW	5.00
Image	1.2 / 1.2
Firmware	03.00.10.02
ViCom	16.25.0.743
ROMES	18.3.0.347

Other sections visible include:

- Device Info:** Type: TSMAX6, Material No.: 4900.8005.02, Serial No.: 900020, Computer Name: TSMAX6-900020, Mode of Operation: PC Mode, Bluetooth/WLAN: BT: On / WLAN: On / AP: On.
- Battery Info:** Battery 1: 96 %, Battery 2: 99 %, Battery Life Time: Ext. DC, Mainboard Temperature: 41 °C.
- Status:** No error.

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- The firmware/software update is completed successfully and the device is ready for operation when the firmware / software is listed correctly in the "Overview" page of the TSMAX web-GUI.
- To configure the required measurement mode, see [Chapter 2.4, "Checking mode of operation"](#), on page 31.

2.2.3 Installation using a USB stick

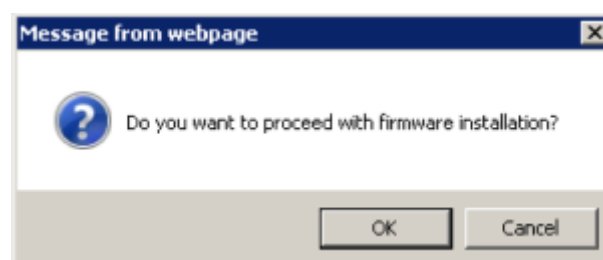
The setup is initiated via the web GUI of the R&S TSMAX. In this case, the setup file must be available in the root directory of a USB stick, which is connected to the R&S TSMAX. To initiate the setup, usually a tablet or handheld device is used, which is connected via LAN or WLAN with the R&S TSMAX

- Connect mouse, keyboard to the USB ports and a monitor.
- Switch on the R&S TSMAX via power button.

3. Copy the setup file onto the root directory of a USB memory stick.
 - a) For firmware installation: Copy the firmware setup file
`TSMAX-Setup-<Version>.exe`.
 - b) For software installation: Copy the corresponding software setup file.
4. Open the R&S TSMAX web GUI (see [Chapter 2.3, "Calling R&S TSMAX web-GUI"](#), on page 30).
5. Make sure, that the "Mode of Operation" is "PC Mode". Otherwise switch the device to "PC Mode" (see [Chapter 2.4, "Checking mode of operation"](#), on page 31).
6. In the R&S TSMAX web GUI, navigate to the menu "Update".
7. Select the appropriate setup file from one of the combo boxes.
 - Firmware: "Select Firmware Setup File"
 - Software/Tools: Select the corresponding software box.
8. Press "Update Firmware/Software" next to the select box.
The "Update" buttons are only active, if a valid setup file is available on the USB stick and the device is in "PC Mode".



9. A confirmation dialog appears. Confirm with "OK" to start the update.



10. The firmware/software installation starts. The status text in the web GUI displays "Installation in progress..."



TSMa: The STATE LED starts blinking blue.

TSMa6/TSMa6B: The Mode LED starts blinking blue.

Note: Do not switch off or unplug from power while running firmware/software update.

11. When the installation of all firmware/software packages has finished, the R&S TSMaX reboots.

The Mode LED changes to blinking green (selftest).

Note: If you are connected via WLAN, a reconnect to the TSMaX WLAN access point may be necessary.

12. Open the web GUI. After a while, the status text in the web GUI changes to `No error`.

The reboot is finished when the Mode LED changes into steady blue (WLAN AP On) or green (WLAN AP Off) color.

13. **Only** for firmware installation.

If the firmware package contains a new mainboard firmware, a separate flash routine is started in a post process, see [Chapter 2.2.4, "Firmware updated - mainboard flash"](#), on page 29.

Note: If you are connected via WLAN, a reconnect to the TSMaX WLAN access point may be necessary as the TSMaX reboots after the mainboard flash.

14. Reload the R&S TSMaX web GUI (see [Chapter 2.3, "Calling R&S TSMaX web-GUI"](#), on page 30) and verify the installed firmware /software version in the "Overview".

The screenshot displays the R&S TSMAX web interface. On the left is a navigation menu with options like Home, Configuration, System, Connectivity, File Transfer, Options, Update, Backup, Restart, Help, and OSA. The main content area shows the 'Overview' page for a TSMAX6 device. It includes tabs for Overview, IP Settings, and HW Info. The 'Device Info' section lists: Type (TSMAX6), Material No. (4900.8005.02), Serial No. (900020), Computer Name (TSMAX6-900020), Mode of Operation (PC Mode), and Bluetooth/WLAN (BT: On / WLAN: On / AP: On). The 'FW/SW Version' section, highlighted with a red box, lists: HW (5.00), Image (1.2 / 1.2), Firmware (03.00.10.02), ViCom (16.25.0.743), and ROMES (18.3.0.347). Below this is the 'Battery Info' section showing Battery 1 (96%), Battery 2 (99%), Battery Life Time (Ext. DC), and Mainboard Temperature (41 °C). At the bottom, a 'Status' section indicates 'No error' and a copyright notice for 2019 R&S ROHDE&SCHWARZ.

15. The device is ready for operation when the firmware/software is listed correctly and the TSMAX is in the "Ready" state.

TSMAX6/TSMAX6B: Mode LED = green resp. blue (depends on the state of the WLAN access point)

TSMAX: STATE LED = amber resp. green (depends on the state of the WLAN access point)

16. To configure the required measurement mode, see [Chapter 2.4, "Checking mode of operation"](#), on page 31.

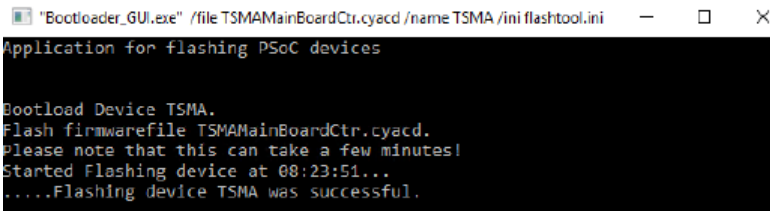
2.2.4 Firmware updated - mainboard flash

The following steps are only performed, if the firmware package contains a newer mainboard firmware.

1. About one minute after the operating system is up again, the flash of the mainboard firmware starts.

The following dialog appears on the R&S TSMAX device:

NOTE: The dialog is only visible for local installation procedure.



```

"Bootloader_GUI.exe" /file TSMAMainBoardCtr.cyacd /name TSMAX /ini flashtool.ini
Application for flashing PSoC devices

Bootload Device TSMAX.
Flash firmwarefile TSMAMainBoardCtr.cyacd.
Please note that this can take a few minutes!
Started Flashing device at 08:23:51...
....Flashing device TSMAX was successful.
  
```

The mainboard flash is indicated via rear panel LEDs like following:

- **TSMAX6/TSMAX6B**
 - Meas LED = green / red
 - Mode LED = green / blue
- **TSMAX**
 - PWR LED = blue
 - STATE LED = white

The internal fans are switched to full speed.

2. After the flash of the mainboard firmware, the device reboots.
3. Proceed with the selected firmware/software update procedure as described in the chapters [Chapter 2.2.1, "Local execution of the setup file"](#), on page 17, [Chapter 2.2.2, "Remote execution of the setup file"](#), on page 20 and [Chapter 2.2.3, "Installation using a USB stick"](#), on page 25.

2.3 Calling R&S TSMAX web-GUI

The R&S TSMAX web-GUI has to be loaded prior to executing firmware / software setup.

- Remote from a WLAN connected device
Start the web browser and enter the following URL:
 - **TSMAX:** `http://192.168.1.10`
 - **TSMAX6/TSMAX6B:** `http://192.168.137.1`
- Remote from a LAN connected device
Enter the URL `http://TSMAX-xxxxxxx.local` into the browser.
TSMAX-xxxxxxx = R&S TSMAX host name
This information can be found on a label at the bottom.
- Local
Open the web browser (Microsoft EDGE or Internet Explorer). The web GUI starts automatically. If not, enter the URL `http://localhost` into the browser.

2.4 Checking mode of operation



To execute the setup on the R&S TSMAX, make sure that the mode of operation is **not** in one of the following modes.

- "rVicom server"
- "NESTOR"

1. The mode of operation is displayed in the "Overview" page. If the mode is already "PC Mode", you can skip this section.

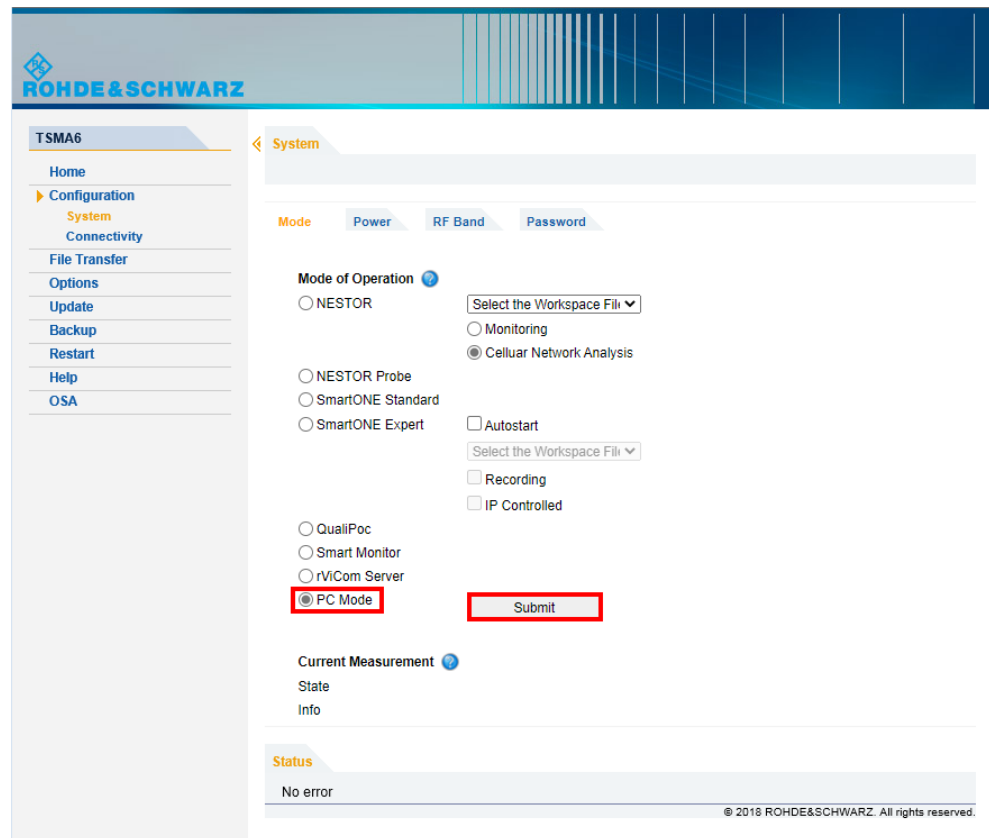
The screenshot shows the R&S TSMAX web interface. The left sidebar contains navigation options: Home, Configuration (System, Connectivity), File Transfer, Options, Update, Backup, Restart, Help, and OSA. The main content area is titled 'Overview' and includes tabs for Overview, IP Settings, and HW Info. The 'Device Info' section lists various parameters, with 'Mode of Operation' highlighted in red and set to 'PC Mode'. Other sections include Bluetooth/WLAN status, FW/SW Version, and Battery Info.

Device Info	
Type	TSMAX6B
Material No.	4900.8005k20
Serial No.	101025
Computer Name	TSMAX6B-101025
Mode of Operation	PC Mode
Bluetooth/WLAN	BT: On / WLAN: On / AP: On
FW/SW Version	
HW	1.00
Image	1.2 / 1.1
Firmware	4.2.0.0
ViCom	20.3.0.2138
NESTOR	21.2.0.19518
ROMES	21.2.0.774
EDGE	4.2.0.0
Microsoft Edge	93.0.961.38
TSME Device Manager	1.7.4.1
SmartONE	21.2.42
Battery Info	
Battery 1	not used
Battery 2	not used
Battery Life Time	
Mainboard Temperature	39 °C

Status: No error

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2. If "rVicom server" or "NESTOR" mode is activated, navigate to "Configuration" > "System" > "Mode", select the "PC Mode" and press the "Submit" button.



3. Reload the web GUI after changing the mode, and ensure that the "Mode of Operation" is "PC Mode".

3 R&S TSME Tools installation

The R&S TSME Tools are used for diagnostics and maintenance purposes of the TSMAX devices. It is recommended to always install the latest version on the devices.



For the R&S TSME Tools installation on the TSMAX devices, use only the R&S Distributor version TSMAX-TsmeTools-<version>.exe.

Example: TSMAX-TsmeTools-v1.7.4.1.exe (current version).

3.1 Preparation

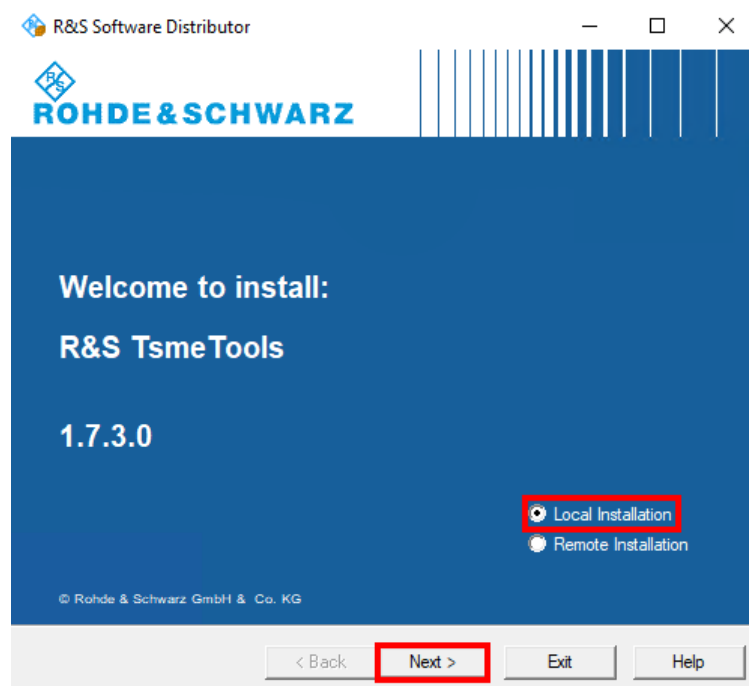
1. Download the R&S TSME Tools setup file TSMAX-TsmeTools-<version>.exe from the following source.
 - **TSMAX:** <https://www.rohde-schwarz.com/software/tsma/>

- **TSMA6/TSMA6B:** <https://www.rohde-schwarz.com/software/tsma6/>
2. Choose the way of installation and follow the instructions how to update the R&S TSME Tools.

3.2 R&S TSME Tools local installation

Follow the general instructions in [Chapter 2.2.1, "Local execution of the setup file"](#), on page 17, [step 1](#) to [step 4](#).

1. Open the Windows Explorer and execute the setup file
TSMaX-TsmeTools-<version>.exe.
2. The "R&S Software Distributor" window comes up. Select "Local Installation" and press "Next".



3. All subsequent steps are similar to local firmware installation, see [Chapter 2.2.1, "Local execution of the setup file"](#), on page 17, [step 7](#) and following.

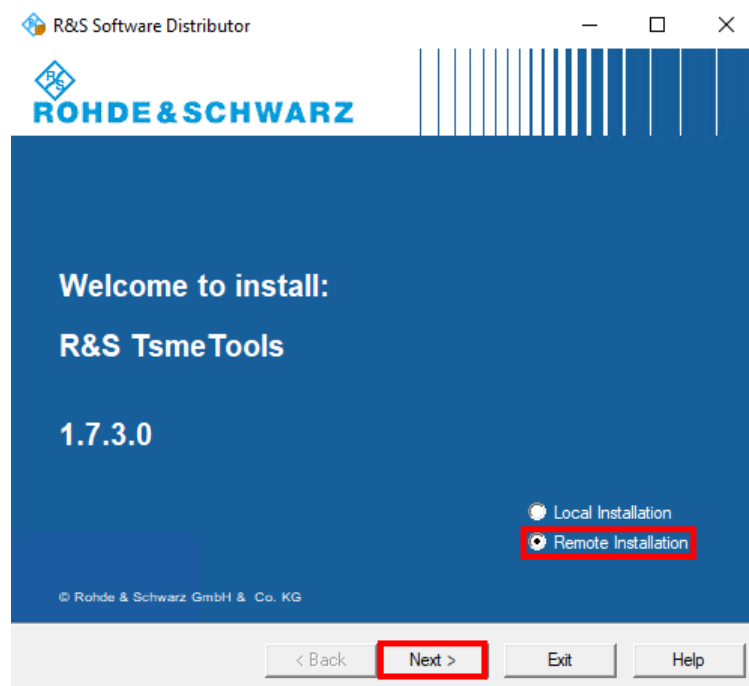


Do not switch off or unplug from power while running firmware/software update.

3.3 R&S TSME Tools remote installation

Follow the general instructions in [Chapter 2.2.2, "Remote execution of the setup file"](#), on page 20, [step 1](#) to [step 2](#).

1. Execute the setup file `TSMaX-TsmeTools-<version>.exe` on the remote PC.
2. The "R&S Software Distributor" comes up. Select "Remote Installation" and press "Next >".



3. All subsequent steps are similar to remote firmware installation, see [Chapter 2.2.2, "Remote execution of the setup file"](#), on page 20, [step 4](#) and following.

3.4 R&S TSME Tools installation using a USB stick

Follow the general instructions in [Chapter 2.2.3, "Installation using a USB stick"](#), on page 25, [step 1](#) to [step 6](#).

1. Select the appropriate R&S TSME Tools setup file `TSMaX-TsmeTools-<version>.exe` and press the button next to the select box.

The screenshot shows the R&S TSMaX web interface. On the left is a navigation menu with options: Home, Configuration (System, Connectivity), File Transfer, Options, Update (highlighted), Backup, Restart, Help, and OSA. The main content area is titled 'Update' and contains several sections for selecting setup files:

- Select Firmware Setup File: E:\TSMa-Setup-V03.00.10.02 - Copy.e. [Update Firmware]
- Select NESTOR Setup File: E:\TSMaX-NESTOR-Setup-21.1.0-Built [Update NESTOR]
- Select ROMES Setup File: E:\TSMa-ROMES-Setup-19-3SP3.exe [Update ROMES]
- Select SmartONE Setup File: E:\SmartONE-21.0.59-Setup.exe [Update SmartONE]
- Select Vicom Setup File: E:\TSMa-rViCom-Setup-1575.exe [Update Vicom]
- Select EDGE and TsmTools Setup File: E:\TSMaX-TsmTools-v1.7.0.2.exe [Update Setup]

The 'Update Setup' button for the EDGE and TsmTools section is highlighted with a red box. At the bottom of the interface, a status bar displays 'No error'.

- The following steps are similar to the installation using a USB stick, see [Chapter 2.2.3, "Installation using a USB stick"](#), on page 25, [step 9](#) and following.

4 Microsoft EDGE browser installation

Starting with firmware version 4.1.0.4 there is also a Microsoft EDGE browser installation available for R&S TSMa6/TSMa6B (**not** usable for R&S TSMa).

The Microsoft EDGE browser replaces the former used Internet Explorer for the TSMaX web-GUI as the Internet Explorer is no longer supported by Microsoft. It also brings a better compatibility with the web-based tools R&S SmartBenchmarker and R&S SmartAnalytics as the Internet Explorer is incompatible with these products.



For the Microsoft EDGE browser installation on the R&S TSMa6/TSMa6B use the dedicated TSMaX EDGE setup. TSMaX-EDGE-Setup-<version>.zip.

Example: TSMaX-EDGE-Setup-V4.1.0.5.zip (current version).

This setup is **only** for R&S TSMa6 and TSMa6B. (**Not suitable for R&S TSMa.**)

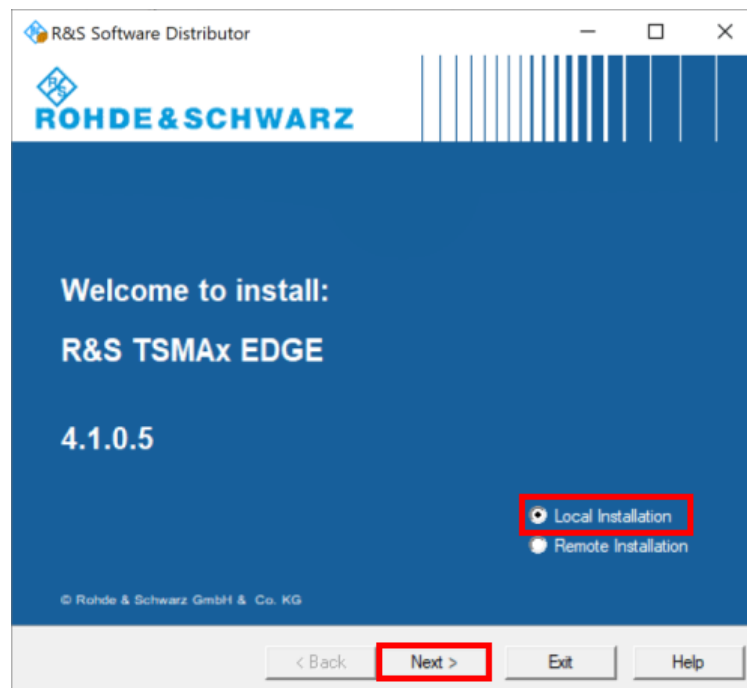
4.1 Preparation

1. Download the Microsoft EDGE browser setup file
TSMaX-EDGE-Setup-<version>.zip from <https://www.rohde-schwarz.com/software/tsma6b/>.
2. Choose the way of installation and follow the instructions how to update the browser.

4.2 Microsoft EDGE browser local installation

Follow the general instructions in [Chapter 2.2.1, "Local execution of the setup file"](#), on page 17, [step 1](#) to [step 4](#).

1. Open the Windows Explorer and execute the setup file
TSMaX-EDGE-Setup-<version>.exe.
2. The "R&S Software Distributor" window comes up. Select "Local Installation" and press "Next".



3. All subsequent steps are similar to local firmware installation, see [Chapter 2.2.1, "Local execution of the setup file"](#), on page 17, [step 7](#) and following.

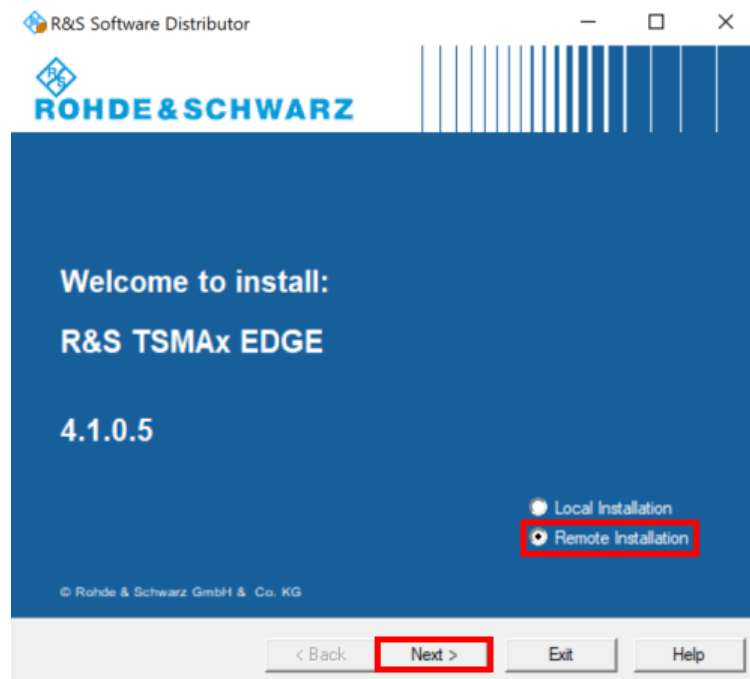


Do not switch off or unplug from power while running firmware/software update.

4.3 Microsoft EDGE browser remote installation

Follow the general instructions in [Chapter 2.2.2, "Remote execution of the setup file"](#), on page 20, [step 1](#) to [step 2](#).

1. Execute the setup file `TSMaX-EDGE-Setup-<version>.exe` on the remote PC.
2. The "R&S Software Distributor" comes up. Select "Remote Installation" and press "Next >".

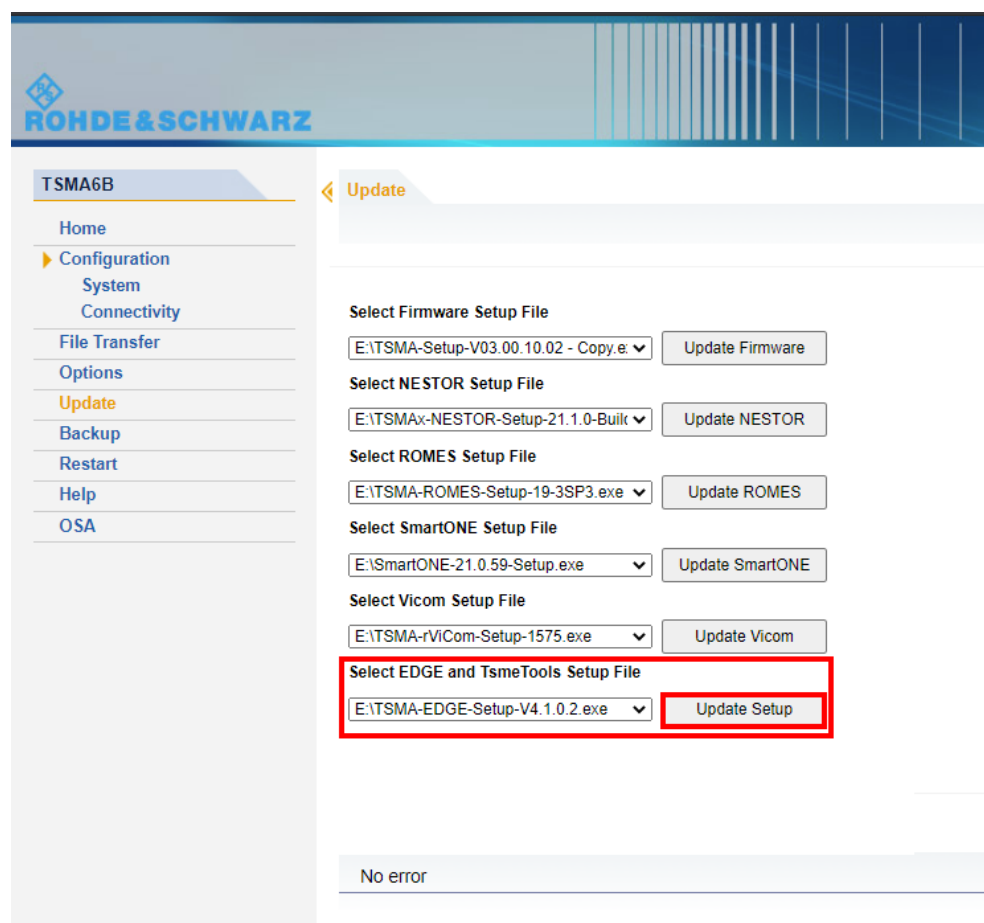


3. All subsequent steps are similar to remote firmware installation, see [Chapter 2.2.2, "Remote execution of the setup file"](#), on page 20, [step 4](#) and following.

4.4 Microsoft EDGE browser installation using a USB stick

Follow the general instructions in [Chapter 2.2.3, "Installation using a USB stick"](#), on page 25, [step 1](#) to [step 6](#).

1. Select the appropriate Microsoft EDGE setup file `TSMaX-EDGE-Setup-<Version>.exe` and press the button next to the select box.



- The following steps are similar to the installation using a USB stick, see [Chapter 2.2.3, "Installation using a USB stick"](#), on page 25, [step 9](#) and following.

5 Software installation



Make sure, that the latest firmware is installed on the device before you start with the installation of software packages.



For software installations (NESTOR, SmartOne, ViCom), use only the TSMAX-specific setup files (TSMAX-<AppName>-|<version>-setup.exe).

5.1 Remote ViCom server software

The Remote ViCom server (rViCom) is an additional software package for the R&S TSMAX.



An upgrade of the Remote ViCom package is only recommended when operating the R&S TSMAX in "rViCom Server" mode.

The update of the Remote ViCom package installation could be neglected for other modes of operation (NESTOR, ROMES, QualiPoc).



The installed version of the Remote ViCom server on the R&S TSMAX needs to match with the applied version of rViCom client API on the remote Android device.

In cases of a client / server mismatch, there are the following possibilities:

- Downgrade the rViCom server version on the R&S TSMAX to match with the applied rViCom client version on the Android device.
- Upgrade the rViCom client version on the connected tablet / smartphone to comply with the installed rViCom server version on the R&S TSMAX.

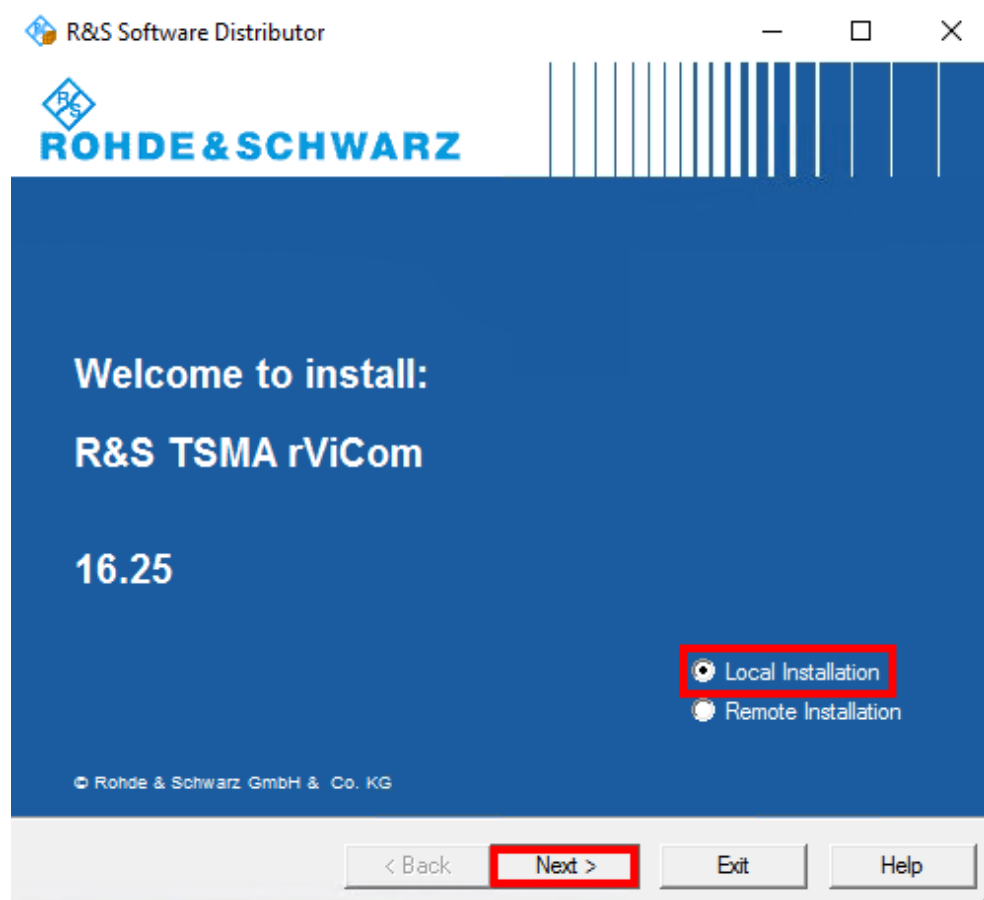
5.1.1 Preparation

1. To get the setup file `TSMAX-rViCom-Setup-<Version>.exe`, contact the R&S customer support.
2. Choose the way of installation and follow the instructions how to prepare.

5.1.2 ViCom server local installation

Follow the general instructions in [Chapter 2.2.1, "Local execution of the setup file"](#), on page 17, [step 1](#) to [step 4](#).

1. Open the Windows Explorer and execute the setup file `TSMAX-rViCom-Setup-<Version>.exe`.
2. The "R&S Software Distributor" window comes up. Select "Local Installation" and press "Next".



3. All subsequent steps are similar to local firmware installation, see [Chapter 2.2.1](#), "Local execution of the setup file", on page 17, [step 7](#) and following.

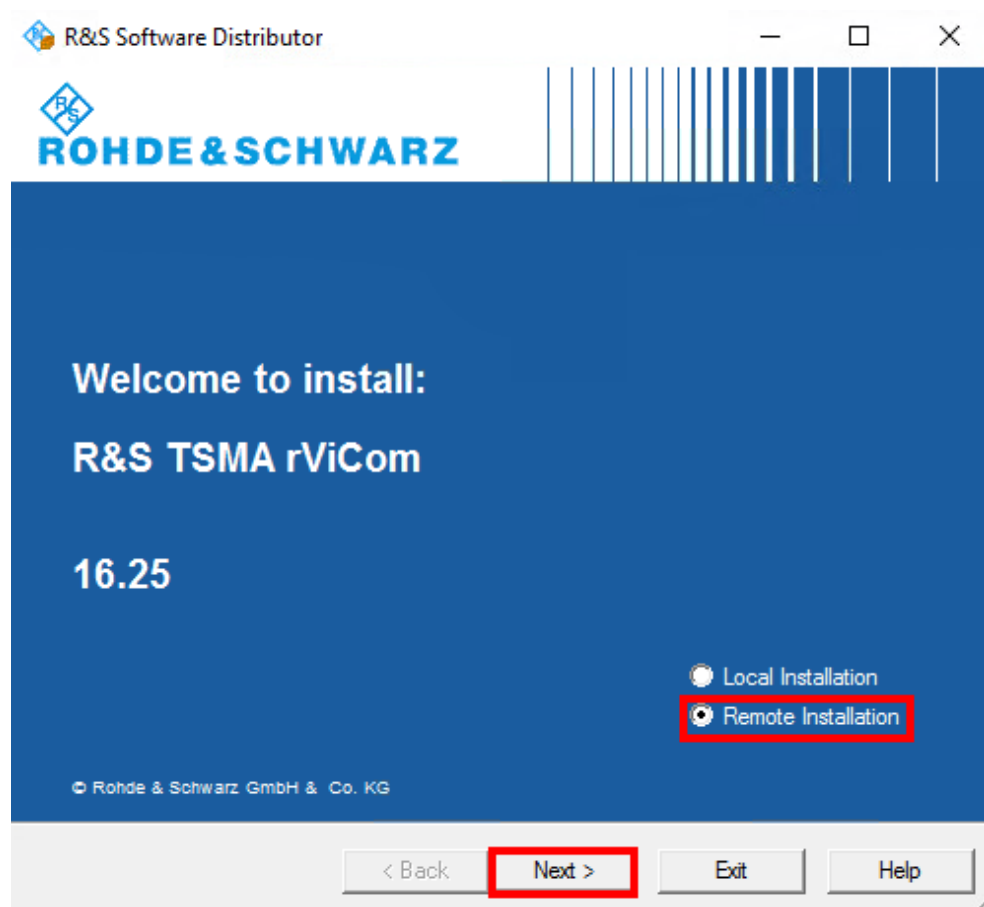


Do not switch off or unplug from power while running firmware/software update.

5.1.3 ViCom server remote installation

Follow the general instructions in [Chapter 2.2.2](#), "Remote execution of the setup file", on page 20, [step 1](#) to [step 2](#).

1. Execute the setup file `TSMaX-rViCom-Setup-<Version>.exe` on the remote PC.
2. The "R&S Software Distributor" comes up. Select "Remote Installation" and press "Next >".

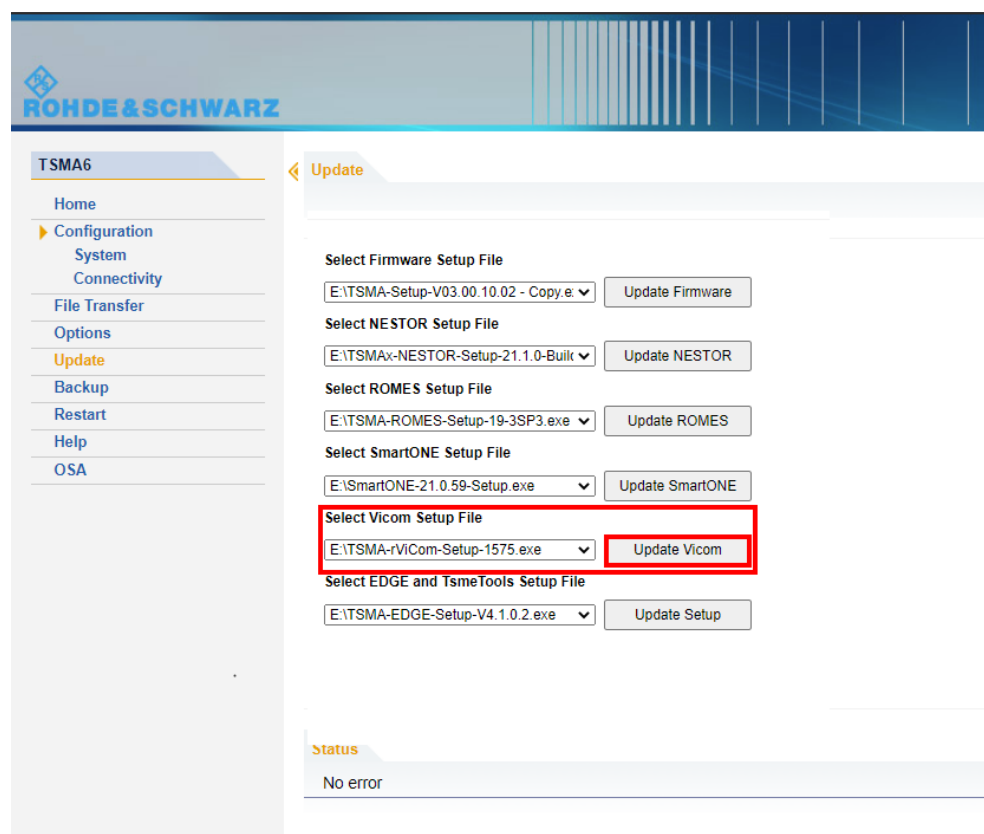


3. All subsequent steps are similar to remote firmware installation, see [Chapter 2.2.2](#), "Remote execution of the setup file", on page 20, [step 4](#) and following.

5.1.4 ViCom server installation using a USB stick

Follow the general instructions in [Chapter 2.2.3](#), "Installation using a USB stick", on page 25, [step 1](#) to [step 6](#).

1. Select the appropriate setup file `TSMaX-rViCom-Setup-<Version>.exe` and press the button next to the select box.
 - Firmware version 01.xx.yy.zz: "Execute Setup"
 - Firmware version from 02.xx.yy.zz: "Update Vicom"



2. The following steps are similar to the installation using a USB stick, see [Chapter 2.2.3, "Installation using a USB stick"](#), on page 25, [step 8](#) to [step 11](#).

5.2 R&S NESTOR software



Only execute the dedicated NESTOR setup for R&S TSMaX. The setup file is named TSMaX_NESTOR_Setup-<Version>.exe.

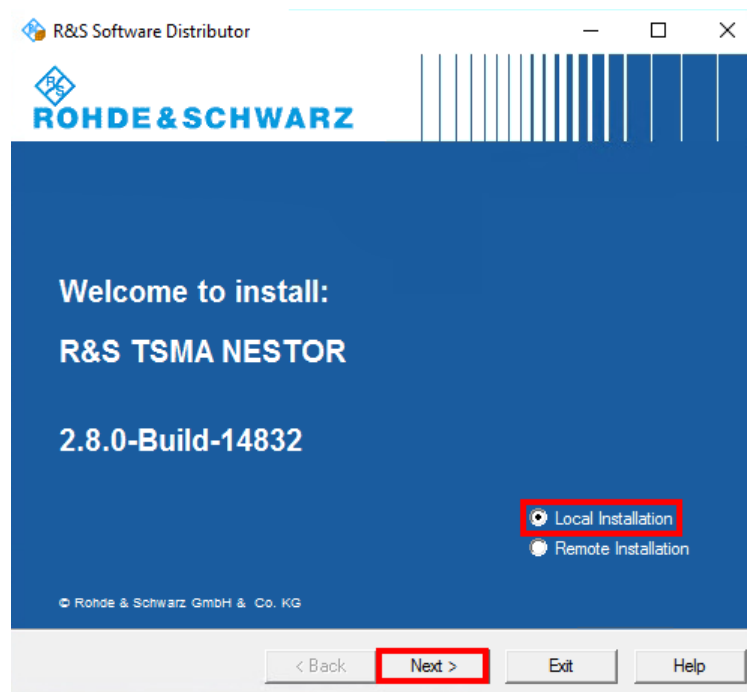
5.2.1 Preparation

1. Download the software setup file TSMaX_NESTOR_Setup-<Version>.exe from the Rohde & Schwarz FTP server respectively NESTOR CD-ROM.
2. Choose the way of installation and follow the instructions how to prepare.

5.2.2 NESTOR local installation

Follow the general instructions in [Chapter 2.2.1, "Local execution of the setup file"](#), on page 17, [step 1](#) to [step 4](#).

1. Open the Windows Explorer and execute the NESTOR setup file TSMaX_NESTOR_Setup-<Version>.exe.
2. The "R&S Software Distributor" comes up. Select "Local Installation" and press "Next".



3. All subsequent steps are similar to local firmware installation, see [Chapter 2.2.1, "Local execution of the setup file"](#), on page 17, [step 7](#) and following.

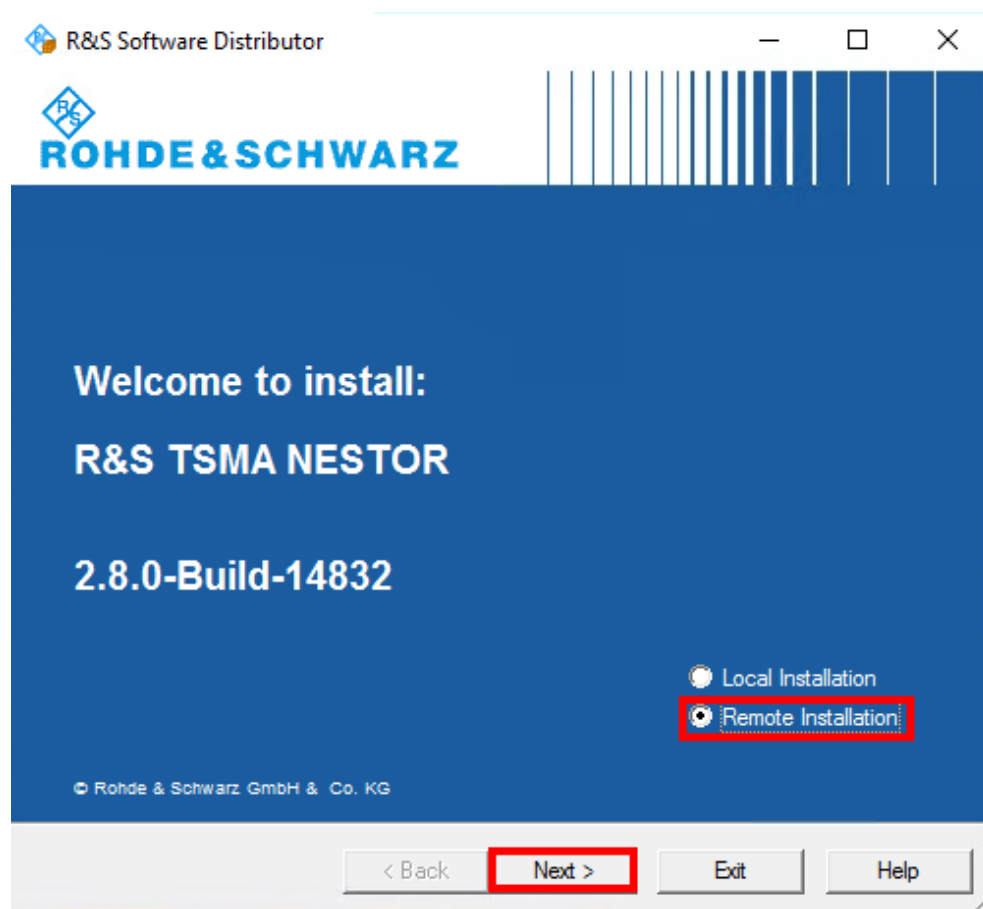


Do not switch off or unplug from power while running firmware/software update.

5.2.3 NESTOR remote installation

Follow the general instructions in [Chapter 2.2.2, "Remote execution of the setup file"](#), on page 20, [step 1](#) to [step 2](#).

1. Execute the setup file TSMaX_NESTOR_Setup-<Version>.exe on the remote PC.
2. The "R&S Software Distributor" comes up. Select "Remote Installation" and press "Next >".

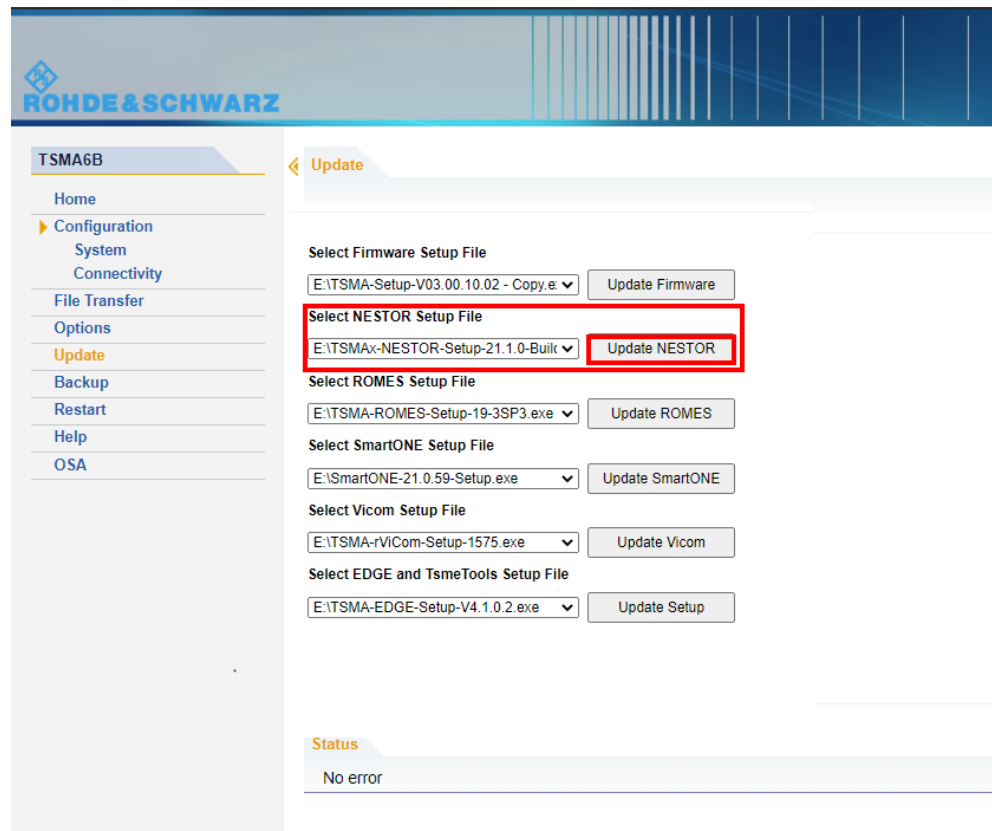


3. All subsequent steps are similar to remote firmware installation, see [Chapter 2.2.2, "Remote execution of the setup file"](#), on page 20, [step 4](#) and following.

5.2.4 NESTOR installation using a USB stick

Follow the general instructions in [Chapter 2.2.3, "Installation using a USB stick"](#), on page 25, [step 1](#) to [step 6](#).

1. Select the appropriate NESTOR setup file `TSMaX_NESTOR_Setup-<Version>.exe` and press the button next to the select box.



- The following steps are similar to the installation using a USB stick, see [Chapter 2.2.3, "Installation using a USB stick"](#), on page 25, [step 8](#) to [step 11](#).

5.3 R&S SmartONE setup (SmartBenchmarker, ROMES, QualiPoc)



It is recommended to install and use the Microsoft EDGE™ browser with R&S SmartONE.



The setup file is named `TSMaX-SmartONE_x.y.z.exe` (example: `TSMaX-SmartONE_20.3.35.exe`).

The R&S SmartONE installation contains the following applications.

- R&S SmartBenchmarker
- R&S ROMES
- R&S QualiPoc
- R&S SmartMonitor

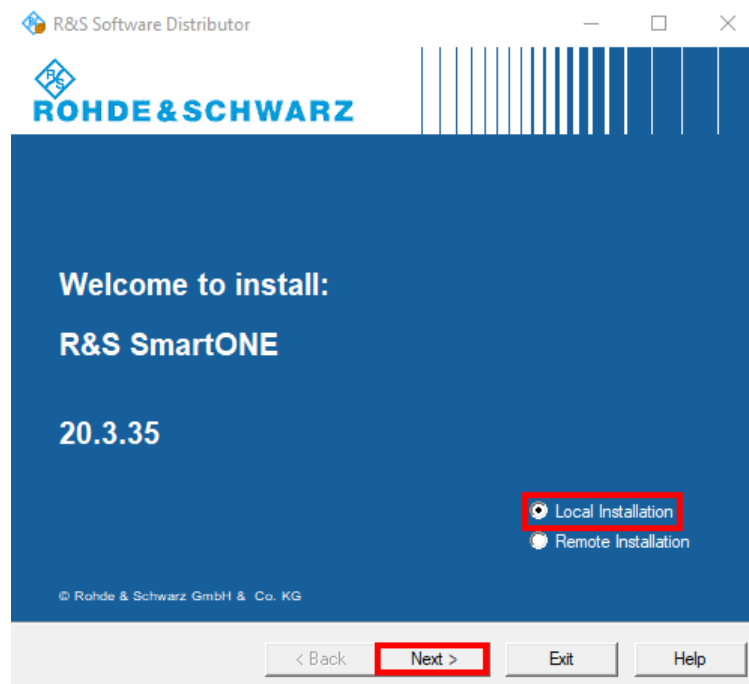
5.3.1 Preparation

1. Download the SmartONE setup file `TSMaX-SmartONE_x.y.z.exe` from the Rohde & Schwarz FTP server respectively SmartONE CD-ROM.
2. Choose the way of installation and follow the instructions how to prepare.

5.3.2 SmartONE local installation

Follow the general instructions in [Chapter 2.2.1, "Local execution of the setup file"](#), on page 17, [step 1](#) to [step 4](#).

1. Open the Windows Explorer and execute the SmartONE setup file `TSMaX-SmartONE_x.y.z.exe`.
2. The "R&S Software Distributor" comes up. Select "Local Installation" and press "Next".



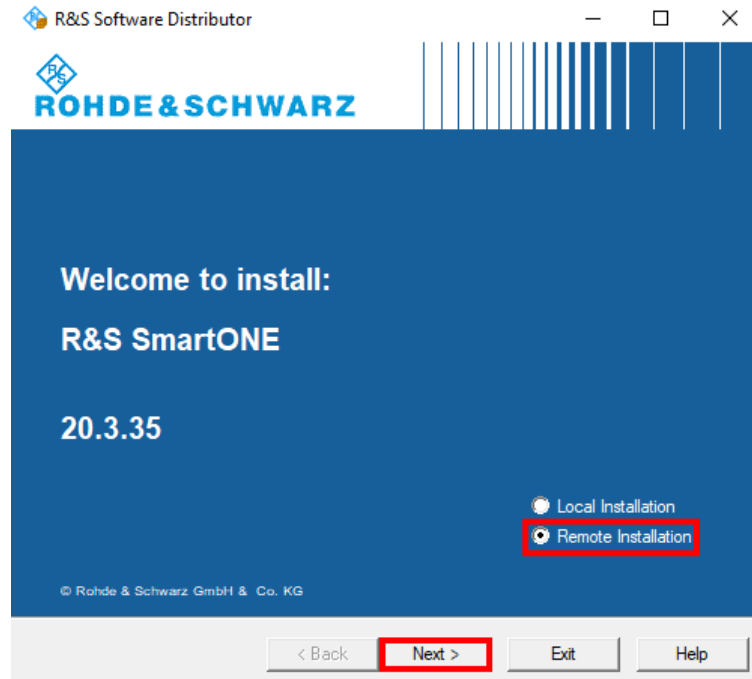
3. All subsequent steps are similar to local firmware installation, see [Chapter 2.2.1, "Local execution of the setup file"](#), on page 17, [step 7](#) and following.

5.3.3 SmartONE remote installation

Follow the general instructions in [Chapter 2.2.2, "Remote execution of the setup file"](#), on page 20, [step 1](#) to [step 2](#).

R&S SmartONE setup (SmartBenchmarker, ROMES, QualiPoc)

1. Execute the SmartONE setup file `TSMaX-SmartONE_x.y.z.exe` on the remote PC.
2. The "R&S Software Distributor" comes up. Select "Remote Installation" and press "Next >".

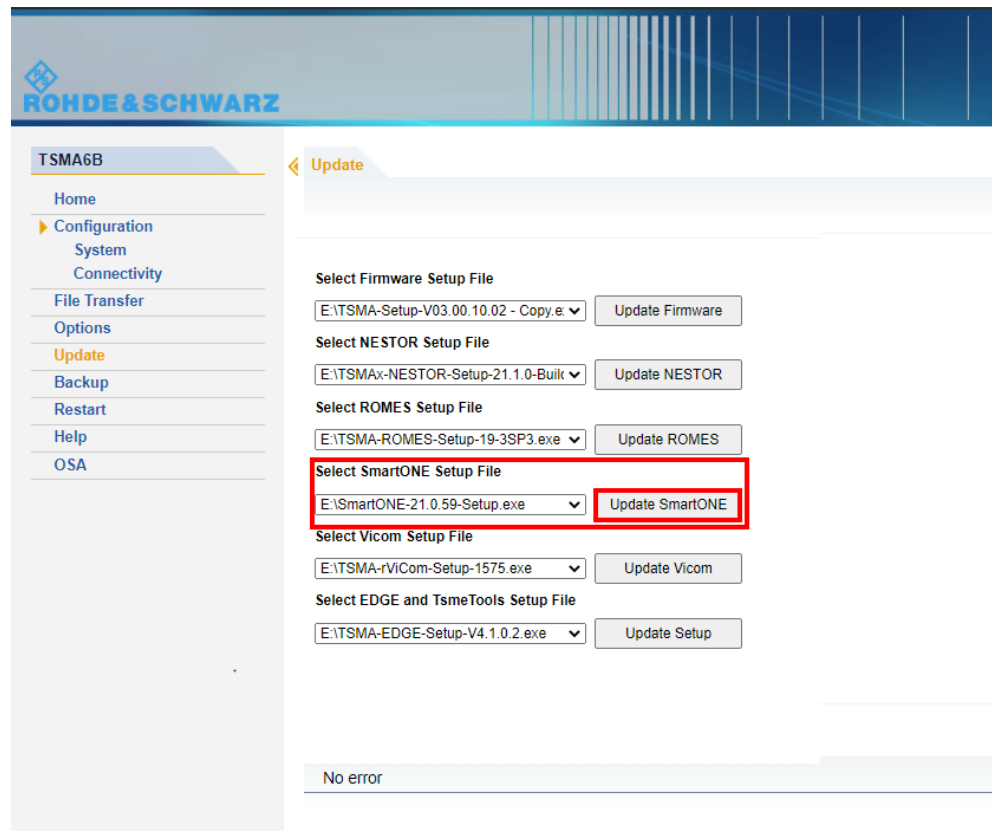


3. All subsequent steps are similar to remote firmware installation, see [Chapter 2.2.2, "Remote execution of the setup file"](#), on page 20, [step 4](#) and following.

5.3.4 SmartONE installation using a USB stick

Follow the general instructions in [Chapter 2.2.3, "Installation using a USB stick"](#), on page 25, [step 1](#) to [step 6](#).

1. Select the appropriate SmartONE setup file `TSMaX-SmartONE_x.y.z.exe` and press the button next to the select box.
 - Firmware version 01.xx.yy.zz: "Execute Setup"
 - Firmware version from 02.xx.yy.zz: "Update SmartONE"



2. The following steps are similar to the installation using a USB stick, see [Chapter 2.2.3, "Installation using a USB stick"](#), on page 25, [step 8](#) to [step 11](#).

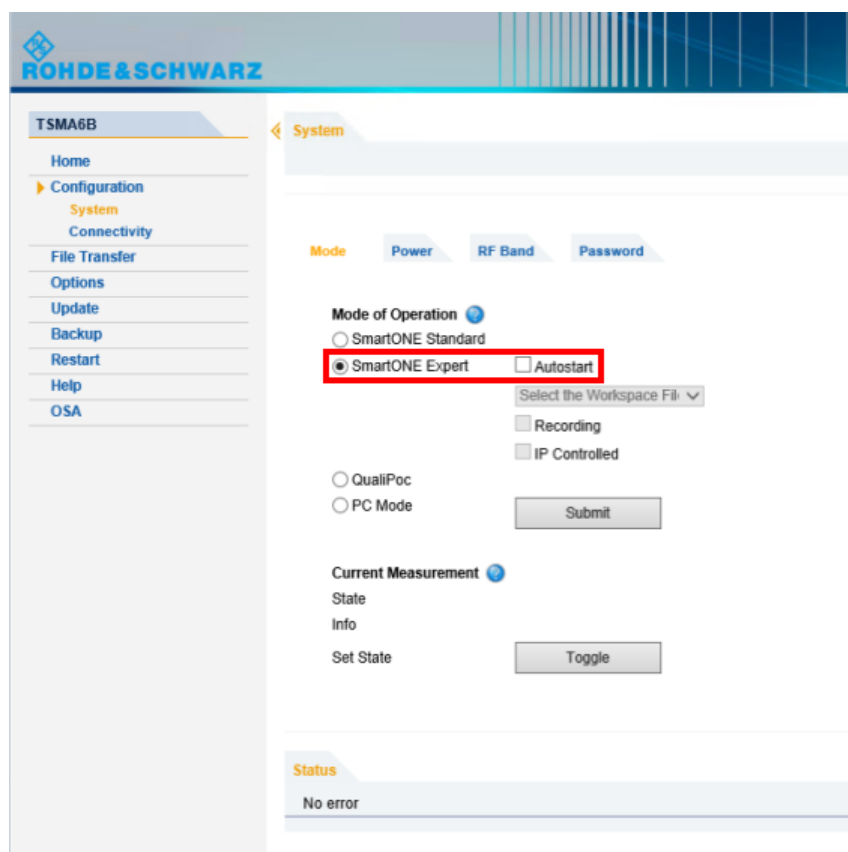
5.3.5 Initial software start / measurement mode selection

After the successful installation of R&S SmartONE, the device is always in the mode "QualiPoc".

Initial starting of SmartONE Expert (R&S ROMES)

1. Install the option key.
2. If used, connect the hardlock to a USB port.
3. Start the web GUI.
4. Navigate to "Configuration" > "System" > "Mode".
5. As "Mode of Operation", select "SmartONE Expert".

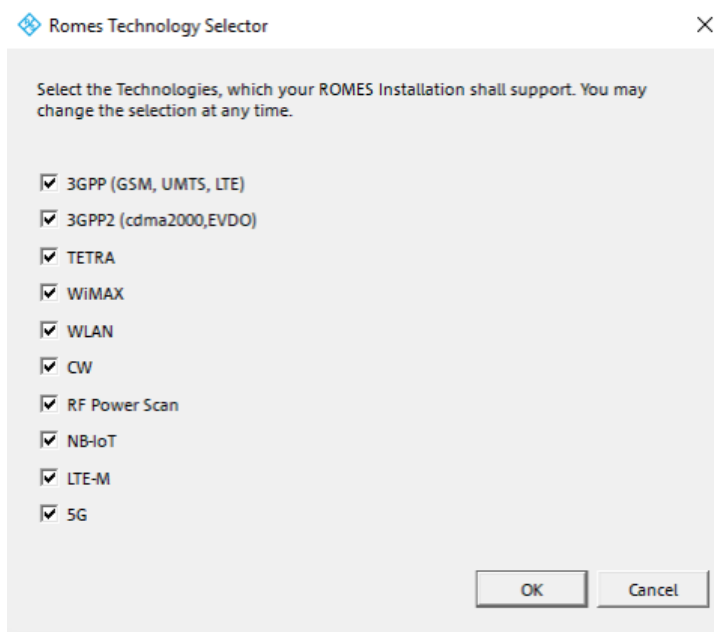
Make sure, that "Autostart" is deselected and no workspace is selected.



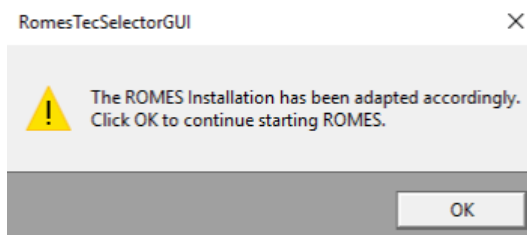
6. Press "Submit".

After starting R&S ROMES, configure the following settings.

1. In the "Romes Technology Selector", select the technologies to be supported by your ROMES installation.

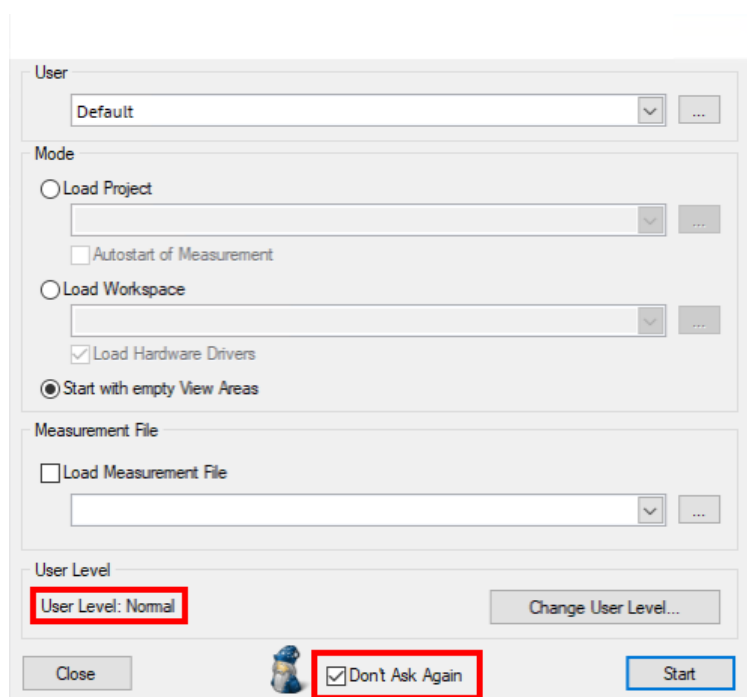


2. Press "OK".
3. In the "ROMESTecSelectorGUI" window, press "OK".

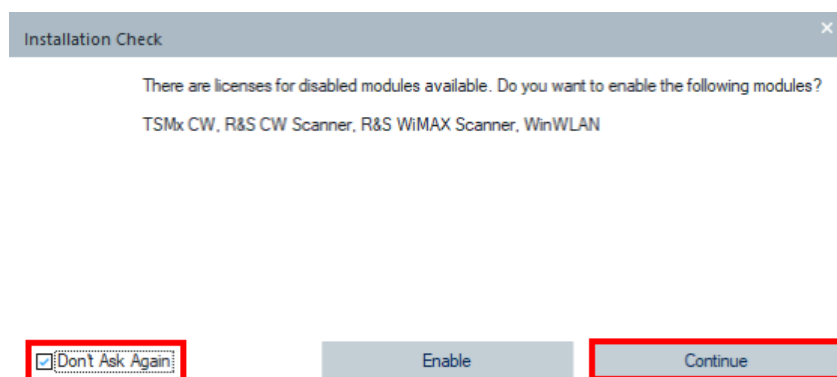


The current installation is adapted according to your selection and the ROMES start process continues.

4. In the "User" window, check that the "User Level" is "Normal".
5. Select "Don't Ask again".



6. In the "Installation Check", select "Don't Ask again" and press "Continue".



Initial starting of SmartONE Standard (R&S SmartBenchmarker)

1. Start the web GUI.
2. Navigate to "Configuration" > "System" > "Mode".
3. As "Mode of Operation", select "SmartONE Standard".

For further details about using R&S SmartBenchmarker, refer to *SmartBenchmarker - Manual*.

6 Contacting 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:



Figure 6-1: QR code to the Rohde & Schwarz support page