ROHDE&SCHWARZ

Test and Measurement

TS-EMF
SYSTEM SOFTWARE RFEX

Release Notes for
Service Pack 7 for Version 4.10

Dear TS-EMF Users

We have released Service Pack 7 for version 4.10 of TS-EMF System Software RFEX. The purpose of these release notes is to inform you about the new features included in this version.

Service Pack 7 comprises all changes of the Service Packs 1-3 and 5-6. Only Service Pack 4 remains independent. Service Pack 7 can be downloaded free of charge from our homepage by customers already working with RFEX. The existing hardlocks remain valid.

General Information on Service Packs

Please be aware, that R&S RFEX Service Packs do not automatically install the update files. Service Packs are made up of a password-protected file. This has to be unzipped to a temporary folder, and the extracted files have to be copied manually to the RFEX installation folder (see the Info.txt file included in the Service Pack for details). It is of high importance to read the information files and to closely follow the instructions. The password to unzip the Service Pack file can be obtained from your Rohde & Schwarz representative or from the Customer Support Centre. Registered customers automatically receive the password via e-mail.

The R&S TS-EMF and R&S RFEX manuals are updated with new R&S RFEX versions only, not with the Service Packs. The next full release of the RFEX software is foreseen for October 2008.

Update of V4.10 Installations

Please note that this Service Pack is compatible exclusively with RFEX V4.10, and may not be applied to prior versions. However, Service Pack 7 will bring your RFEX to the latest Status (excluding SP4), irrespective of the previously installed Service Packs. As previously issued Release Notes will no longer be available on our home page, this Document will give an overview over the features of previously released Service Packs for RFEX 4.10.

Service Pack 7 consists of a zip file including the executable files to be updated. Just unzip the service pack file to a temporary folder and copy all extracted files to subfolder \Application of your RFEX installation. Overwrite the existing files when asked to do so.

In addition, SP7 contains a folder /UsbIOdriver. For older system installations, it may be necessary to update the driver which controls the USB Converter Box (TSEMF-CV)

Important Note:

After copying the files, you have to run SP7_Registration.bat which has also been copied to the folder //RFEX/Application (by double-click on the file).

Release Information

For the release of Service Pack 7, several dlls and the RFEX main program have been updated to version 4.1.0.7. The table below shows the versions of the dlls.

Name of S/W component	Version	Date
RFEX.exe	4.1.0.7	26.06.2008 09:22
Acc.dll	4.1.0.7	03.04.2008 16:05
Analyzer.dll	4.1.0.7	17.09.2008 15:23
Config.dll	4.1.0.5	30.07.2007 14:41
Data.dll	4.1.0.7	23.05.2008 14:50
Evaluation.dll	4.1.0.5	30.07.2007 14:03
Measure.dll	4.1.0.5	30.07.2007 12:53
UmtsOption7.dll	1.0.0.1	07.11.2007 10:39
Umts.dll	4.1.0.6	07.11.2007 10:20

Known Issues FSH remote control

When the FSH is remotely operated, the remote control message on the screen hides the lower part of the display so that the frequency information cannot be read. That deficiency will be corrected in the next FSH firmware issue (following 13.01).

Details on Service Pack 7

The following problems are fixed through SP7:

- When the current packet name was longer than 20 characters, the bargraph for live value display would not show any data. This has been corrected.

- In some cases, opening a table after completing a measurement could lead RFEX to crash and the table contents to disappear. This has been corrected.

Improvements of SP7:

- The module used for the USB-GPIB Converter Box (TSEMF-CV) is no longer available on the market. The box had to be replaced by a USB Converter Cable. The switching of the tri-axis sensor can now directly be controlled from an USB port via this cable, thus providing a handy solution. The Converter Cable is also available as a spare part. Service Pack 7 is required to control this new hardware. Nevertheless, SP7 also supports the USB Converter Box.
- The analyzers ETL and FSV are now supported. Furthermore, the ZVL with spectrum analysis option ZVL-K1 can be used with the RFEX.

Details on Service Pack 6 (included in SP7)

The following problems are fixed through SP6:

- Switching of a modified isotropic antenna with the USB-converter box (TSEMF-CV) does not longer produce an error message
- During Peak/Average measurement with the TSMU, an error during UMTS-decoding in ultra fast mode (decoding in 2 steps) could occur. For high signal levels, the calculation of the average value could be wrong. The error was eliminated.
- If used with the FSH18, for some packets the RFEX did not complete the treshold calibration routine. The routine was modified.

Improvements of SP6:

- UMTS decoding with TSMQ and TSML-W is now supported. However, the TSML-W does not support the decoding in ultra-fast-mode (2 steps). A maximum of 6 Channel can be measured at a time. i.e. the channel list in the UMTS-packet must not contain more than 6 entries.

Details on Service Pack 5 (included in SP7)

The following problems are fixed through SP5:

- When measuring with high resolution (8001 trace points) and short sweep times, the first sweep after starting a measurement could show an unrealistically high value.
- In channel power measurements with high resolution (8001 trace points) and a short dwell time (100 ms) used as analyzer sweep time, signals could be assigned to the wrong channel of the frequency list.
- Result accumulation in measurements with UMTS decoding was wrong if identical scrambling codes were found at different frequencies. As a consequence, peak/average and long-term results could be erroneous.

Improvements of SP5:

- The 1.5 MHz bandwidth channel filter has been added to the list of available resolution bandwidths. Application: DAB signals

- The data transfer speed for reading results via the GPIB Interface could be increased. This speeds up the measurement rate for measurements based on sweeps.

- Legend numbers of Y axis in the spectrum graph are now displayed in decimal format to be consistent with all other graphs.
- The order of the results in measurements with UMTS decoding has been changed to be the same as with standard test: average results first, peak results afterwards.
- Additional ports up to COM8: are now supported for all devices with serial interface.
- File selection dialogs and packet configuration dialogs have been reworked in order to make selection boxes showing file names longer, so that files with similar names can better be distinguished.
- The hint for repeating the threshold calibration now only appears if a threshold table is selected. There is no need for doing such a calibration if the threshold is chosen to be relative to the maximum level or to the limit.
- A current version of the driver for the USB-to-serial converter box for switching the TS-EMF field probe is available in the \UsbIODriver of the Service Pack. For activating it, please start the Windows Hardware Manager (Control Panel >>System >> Device Manager), expand the USB device tree, look for the device named "USB Serial Converter", open its Properties and Update the Driver. This update is only optional, just to keep track with the current driver version supplied by the manufacturer.

Relation with other Service Packs
The R&S RFEX 4.10 can be updated to SP6 independent of previously installed Service Packs. Service Pack 4 is independent and not included in Service Pack 6. However, if Service Pack 2 had not previously been installed, Service Pack 6 (which includes SP2) is a pre-requisite for installation of Service Pack 4.

Details on Service Pack 4

Important Note:

Service Pack 4 is only necessary for customers performing measurements with a R&S TSMU, TSMQ or TSML-W. All other customers can ignore this Service Pack!

Service Pack 4 supports the new R&S TSMU firmware generation 11.xx. Only users having this new firmware version on their R&S TSMU need to install the Service Pack. Customers using the R&S TSMU with firmware older than 11.xx can ignore this Service Pack and in particular must not install the new firewire driver!
Detailed information about applicability and installation of Service Pack can be found in file InfoSP4.txt included in the Service Pack.

Relation with other Service Packs
If an installation of Service Pack 4 is required for a system, which has already been upgraded to Service Pack 7 before, Service Pack 7 needs to be re-installed after the SP4-files have been copied to the Applications folder.

Features of previous Service Packs

Service Pack 3 (included in SP7)

Improved recognition of the tri-axis isotropic sensor when used with the FSH. The FSH is set to the mode “Accessory: None” to avoid problems when switching the axes. Strongly recommended for customers using the FSH.

Important Note:

Customer should be aware, that correct recognition / switching of the antenna is only possible, if the Antenna correction factors of the antenna in use are imported from the corresponding hardlock via the RFEX menu ***File → Antenna → Copy from hardlock***.

Service Pack 2 (included in SP7)

There have been a number of important improvements and corrections implemented with Service Pack 2.

Fixed problems in Service Pack 2

- Data accumulation and compression has been corrected when using the TS-EMF 3-axis probe with the option "Switch axes individually" activated in the Hardware Configuration.
- Remote control of spectrum analyzer FSU (all models) has been corrected (set correct number of sweep points).
- Cable attenuation was not taken into account in real-time bargraph for measurements with UMTS decoding.
- Second part of the Overview sheet of the new extended report could be overwritten by the first part's graphic when measuring with a big number of packets.
- Reference level of FSHx is now correctly limited to 126 dBuV/m.
- GPIB read error with command "SYST:DISP:UPD OFF;*OPC?" appearing sporadically with FSL does not occur anymore.

Improvements in Service Pack 2

- Frequency values in all reports now have a common format with 4 digits after the period (100 Hz resolution).
- Delay before starting a peak/average measurement is programmable now.
- FSHx video bandwidth can now be set.
- Number of pixels on analyzer display can now be switched between high resolution (8001, FSU: 5001) and standard resolution (501, FSU: 625).
- Bandwidth for peak reduction in sweep with peak search mode has been extended to 50 MHz.
- UMTS decoding with TSMU ultra-fast-mode (2 steps): Additional button for switching to the next scrambling code without having to wait for the peak/average cycle to complete.
- UMTS decoding with TSMU: Warning if overload (level higher than -20 dBm).
- UMTS decoding: Report lines are sorted by frequency now.
- General rework of UMTS decoding allows to measure in frequency lists with entries at which no CPICH can be decoded. Added a selection in Options dialog for measuring with short time periods (fast peak value update, but unreliable average values) or not (reliable averaging, but slower value update). See the Release Notes for more details.
- Hardware Configuration editor: FSL has been added explicitly to list of supported spectrum analyzers.

Fixed problems and improvements in Service Pack 1 (included in SP7)

- Export to Excel in RFEX V4.10 worked only for Excel XP. In Service Pack 1 it works for Excel 2000 as well.
- When switching the TS-EMF probe from the FSHx spectrum analyzer, the check for the probe being connected depends on the model and the serial number as read from the probe calibration file "Probe X". Model and serial number identification is now consistent with all delivered probes.
- A long-term measurement could stop at 24:00 o'clock. This has been corrected.
- Pre-amplifier setting was not saved correctly when using FSHx without TS-EMF probe.

Download link

http://www2.rohde-schwarz.com/en/products/test_and_measurement/product_categories/emc_test_systems/EMF/TS-EMF-|-Software-|-24-|-1053.html

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