

Release Note

EMC32

Version 6.30

1 Scope

This document gives an overview of the additional features and fixed problems that are implemented with version 6.30:

- EMC32-E+
- EMC32-S
- EMC32-K1,K2,K3,K4,K6,K7
- IMS OS Software (Note: requires EMC32-U6 for EMC32-S)
- EMC32-E, EMC32-A, EMC32-C (Note: requires EMC32-U6 for EMC32-S)

Subject to change

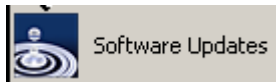
2 Installation/Update

2.1 Update

The setup program of EMC32 has been improved to detect installed EMC32 options of previous versions. Thus uninstalling of your current installation (version ≥ 5.20) is not necessary. Your installation settings for paths and EMC32 options are kept.

2.2 Software Update Manager

The setup program for EMC32 V6.30 installs now additionally a software update manager which will inform you about available EMC32 updates. Therefore the update manager will weekly connect to the R&S webpage (polling time period can be changed in the Software Updates dialog of the Windows control panel) to look for new updates.



For further information refer to the EMC32 installation guide.

3 EMC32 Main Program

3.1 Extensions / Improvements

- **File Handling:**

- Files and Tests which are deleted from the EMC32 Explorer will now be moved to the Windows Recycle Bin. Internal files are still being deleted immediately.

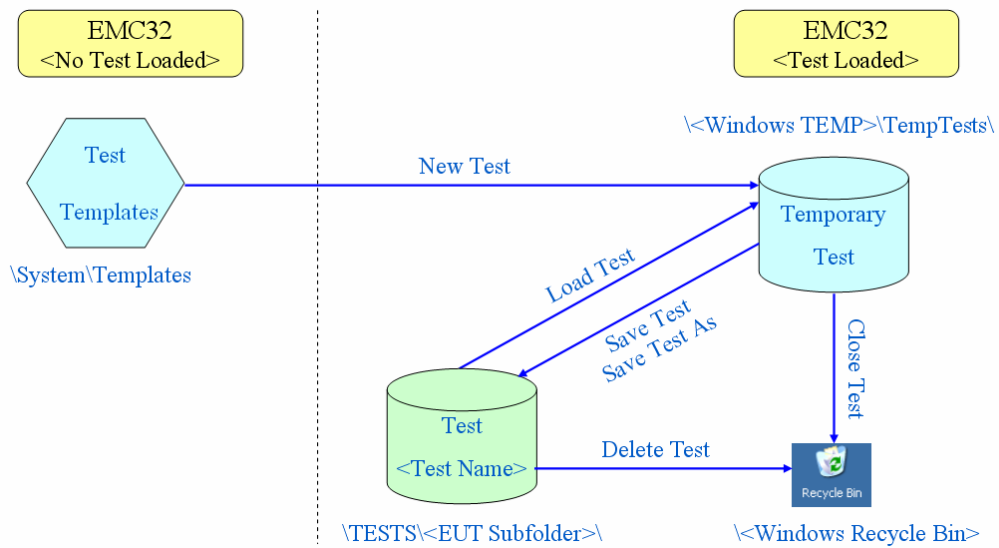


Figure 1: Test lifecycle flow in EMC32 V6.30

- **Graphics Options:**

- A new option allows now to define the size of WMF graphics files which are generated inside an EMS/EMI test (note that the graphics size shown by MS Word when importing the graphics may differ slightly from the settings here).
- Improved selection of the dimension for the Y axis scaling of EUT Monitoring graphics.

- **File/Test Options:**

- The new option "Save Test automatically when Measurement is stopped" will save the current test automatically from the temporary test folder to the final test folder in the TESTS subfolder structure. This feature adapts the EMC32 test lifecycle behavior to the EMC32 predecessor EMS-K1 and helps the users during the migration phase.

4 EMI Section

4.1 Extensions / Improvements

- **EMI Scan/Sweep/Single Measurements:**
 - Non-dB level units (e.g. μA or mW) are now possible. Corresponding transducer corrections will be properly handled when doing measurements.
- **EMI Test Analysis:**
 - Non-dB level units (e.g. μA or mW) are now possible. Corresponding limits will be properly handled when using evaluation functions.
- **EMI Auto Test:**
 - The template editor now shows selected items in a tool tip, so that you get a fast overview of the settings without the need to open each sub-dialog.
 - The EMI Auto Tests 'Field Strength' and 'EN55025 Automotive' (radiated) now optionally provide separate preview result curves from the antenna polarizations

4.2 Fixed Problems

- **EMI Test Analysis:**
 - For the EMI analysis functions there were partly wrong names for the evaluation methods.
- **EMI Auto Test:**
 - When opening an EMI Auto Test template for 'MIL STD 461 C', then entering the dialog for the 'Data Reduction' parameters caused an error.
 - Starting of an EMI Auto Test failed when selecting the template either via the toolbar or via 'Test open/new ...'.
 - When updating from version < V6.20, then the trace colours for the EMI auto test traces were not set reasonably.
 - Opening of a report setup from a loaded EMI Auto Test could fail.
 - During data reduction an error could occur if the preview measurements were done with single detector but the final measurements with double detector.
 - For the interactive data reduction no target file was available if the automatic data reduction didn't find any results.
 - For the EMI Auto Test 'Field Strength' the optional azimuth offset (of the antenna tower) was not active during adjustment measurements.
 - A proportional zoom width could lead to the programming of unrounded frequencies which in turn caused an error (frequencies must always be rounded to full Hz values).
 - The EMI Auto Test 'EN55025 Automotive' did not support the 2nd zoom.

5 EMS Section

This chapter lists the extension integrated for EMC32-S and the appropriate measurement extensions.

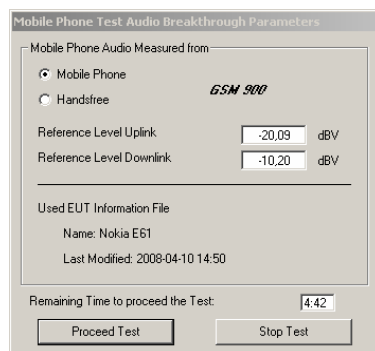
5.1 Extensions / Improvements

- **EUT Monitoring:**

- The EUT Monitoring template allows now to define an EUT Information template which will be used as the default template in the Test New dialog.
- In the Actions tab of an EUT Monitoring channel the following two action execution nodes have been added:
 - * Action on Trigger
 - * Action on Go

- **EMC32-K2 Mobile Phone Tests:**

- *EUT Information Template:*
The EUT Information template for mobile phones allows now to link the audio calibration parameters of one band to a reference band. For example the values for the GSM1800 band may be linked to the GSM900 band. In this case calibrating the GSM900 band values will also update the values for the GSM1800 band.
- *EUT Monitoring Template:*
The EUT Monitoring template now contains additional options for running mobile phone tests:
 - * The 'Show Audio Breakthrough Parameters on Test Start' option allows show a dialog with the audio calibration parameters used for the current test every time a measurement is started. Here the operator can modify the offset values and also change the DL mode if required.



- * The 'Synchronize ABT Parameters on Test Start' option provides a function which will copy on every measurement start the audio calibration offset values from the global EUT Information file (referenced here) into the local EUT Information file of this test.

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- **Audio Breakthrough Calibration:**
The audio breakthrough calibration function has been extended with the following functions:

- * An overview table shows the calibration results of the previous and the current measurement.

- * The calibration results can now be stored directly into an appropriate EUT Information file.

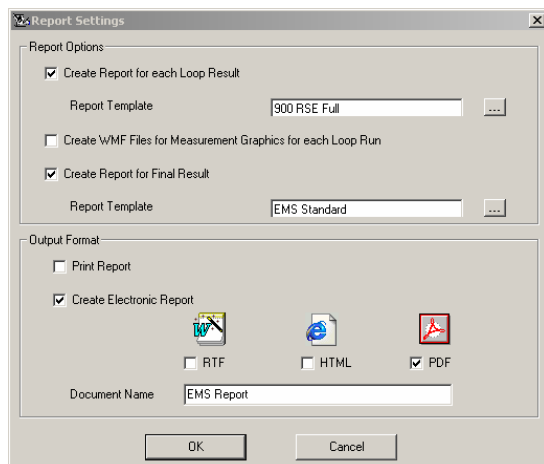
Calibration Parameter	Current	Previous	Delta	Unit	Measurement Time
Artificial Mouth: Acoustic Calibrator 0 dBPa	---	0,860	---	V	04-10-2008 / 14:49:18
Artificial Mouth: Generator Level for -5 dBPa	---	2,530	---	V	04-10-2008 / 14:49:30
Uplink Reference Value	99,913	99,913	0,000	dBµV	05-14-2008 / 21:46:29
Mobile Downlink Reference Value	---	109,542	---	dBµV	05-02-2008 / 15:36:52
Mobile Speaker Audio Level	---	96,902	---	dBµV	05-02-2008 / 15:36:54
Handsfree Speaker Audio Level	---	98,890	---	dBµV	05-02-2008 / 15:36:56
Difference between Mobile and Handsfree Speaker	---	1,988	---	dB	05-02-2008 / 15:36:56
Handsfree Downlink Reference Value	---	111,530	---	dBµV	05-02-2008 / 15:36:56

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- **EMC32-K4 EMS Auto Test:**

- **Report Settings:**

In the EMS Auto Test template Report Settings it is now supported to use different report templates for the loop report as well as for the final report. Additionally a new option allows generating WMF graphics files similar to the result table files in the Loop Results subfolder for each loop cycle.



- **Level Tab supported:**

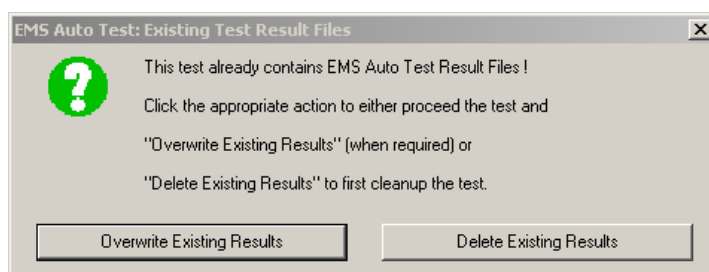
When creating a New Test from an EMS Auto Test template the level tab as known from EMS Scan templates is now supported (Note: when using different templates in EMS Auto Test subranges this feature is not available).

- **Excluding Test Loop Positions:**

Via the popup menu of the EMS Auto Test control a new feature is now available to exclude single loop steps (for example turntable positions or antenna polarization) from the measurement sequence.

- **Working with Existing Test Result Files:**

The dialog for continuing an EMS Auto Test with existing test result files has been modified to make the function more clearer. The operator has the option either to continue and overwrite existing test results (if required by the application) or to first delete all existing result files and continue the test as a new test (loop positions will be reset too).



6 Device Drivers

6.1 Extensions / Improvements

- **R&S EMI Receivers:**
 - Continuous measurements will be re-activated when changing to local mode.
- **R&S ESU:**
 - Input selection settings defined for the ESIB in the EMI templates will now be compatibly handled by the ESU driver.
- **R&S FSL:**
 - New driver for the new spectrum analyzer FSL 18.
- **Interlock**
 - Support for the OSP switch unit with OSP-B103 and OSP-B104 module for interlock monitoring.
- **R&S CBT**
 - An additional selection box allowing the selection of data packet type has been implemented.

6.2 Fixed Problems

- **R&S ESS:**
 - A scan with >1 subranges could fail if repeated again.
- **R&S ESAI/ESBI/ESMI:**
 - Double detector was not possible with single measurements.
- **R&S ESxS:**
 - Any 10/100 Hz frequency raster restrictions have been removed. Frequencies will always be rounded in the instrument.
- **DEISEL HD100:**
 - The controller requires a minimum delay of 100 ms between commands.
- **NRVD:**
 - The dual channel measurement mode is now correctly activated and deactivated.
- **NRP:**
 - Fix problem with NRP-Z51 and measurements below 10 MHz.
- **SMA/SMB/SMF100:**
 - The problem with the error message “Pep value greater than level boundaries!” is now fixed.
For the SMB100A at least the firmware release V2.05.47.26 is required.
- **TDK PP02 Field Probe positioning device:**
 - The TDK field probe positioning device is now supported.