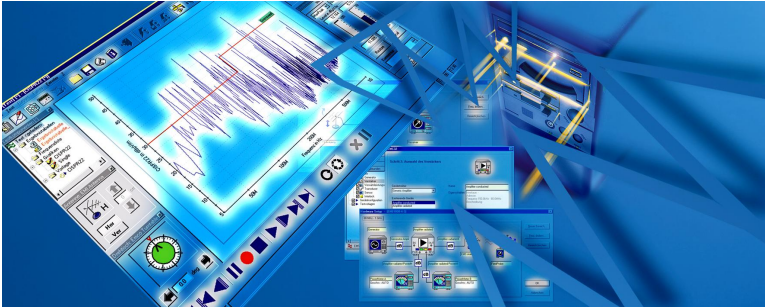




**ROHDE&SCHWARZ**

Test and Measurement  
Division



## *Installation Guide*

# EMC32

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# Installing EMC32

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## INTRODUCTION

This document will guide you through the installation process of EMC32. You will find the necessary instructions for installation, update, the configuration of the software, the start of the program and tips on installation troubleshooting. If you need further assistance for solving problems during the installation please contact the Rohde & Schwarz Hotline:

**Phone:** +49 1805 124242  
**Fax:** +49 1805 13777  
**E-mail:** CustomerSupport@rsd.rohde-schwarz.com

## Registration of your License

Before you start using EMC32 you should register your license at Rohde & Schwarz. You will benefit from the registration by receiving support from our hotline and information about news and updates of EMC32.

EMC32 may be registered by using the help menu option? ® **EMC32 on the Web** ® **Register Now**. To register in this manner, your computer must be connected to the Internet.

Alternatively the registration form can be opened via the Autostart program of the EMC32-CD clicking on the menu button **Registration**.

You will find your **Product ID** either in the **Info to EMC32** dialog which you can open via the help menu or in the welcome dialog which is shown during the start of EMC32. For the correct display of your Product ID you must start EMC32 with an iKey connected.

## Installing EMC32

### System Requirements

Before installing EMC32 you should check that your computer fulfills the following minimum system requirements:

- Operating System
  - Windows XP (recommended)
  - or Windows 2000 (recommended)
  - or Windows NT 4.0 with Service Pack 5.0 or higher
- Administrator Access Privileges
- Microsoft Internet Explorer 5.0 or higher (is enclosed in Windows 2000/XP)
- PC with Pentium processor (at least 450 MHz)
- 64 MB RAM (Windows NT4.0), 128 MB RAM (Windows 2000), 256 MB RAM (Windows XP)
- 200 MB free hard disk space
- Super VGA monitor, screen resolution of at least 1024 x 768 Pixels, 65536 colors (higher resolution recommended)
- USB interface integrated on the motherboard (not required for the demo mode; USB interface plug in cards are not supported for Windows NT4.0).
- IEEE bus interface card from National Instruments with IEEE488 driver at least with version 1.70 for the corresponding operating system (not necessary for demo mode)(compatible cards of other manufactures are not supported)

If one of the listed above minimum requirements cannot be fulfilled, then software performance cannot be guaranteed.

## Data Security and User Administration

For ensuring the data security of the EMC software the file protection functions of the operating systems listed under requirements above have to be used. User administration features inside EMC32 are not designed to ensure data security and can therefore only be used to prevent 'Standard Users' from modifying essential settings inside the EMC32.



**Note:**

System Administrators are strongly recommended to read the PDF document '**Data Security and User Administration**' in the *Documentation* folder on the CD, before starting the installation process.

## Simplified User Administration

In case the EMC-System is only operated by few users of comparable knowledge level, it may not be required to use file security features of the operating system. Here the user has to decide, if a user log-in and user list is required and if test data of different users shall be kept in different directories.

Details on the required settings are described in the Chapter '**Data Security and User Administration**' of the EMC32 online help.

## Software Installation



**Note:**

If any variant of EMC32 (e.g. EMC32-L) is already installed, then first you have to uninstall that one!

Please also refer to the chapters "Updating EMC32" and "Uninstalling EMC32".

### EMC32 Installation

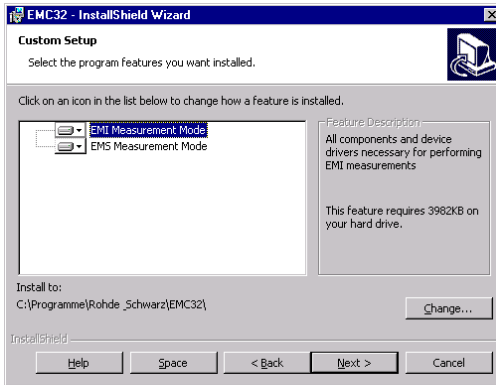
All necessary information for the installation and the installation process of EMC32 are provided by the **Autostart** program on the EMC32 CD-ROM. Just follow the few easy steps described below and you will have the software installed on your computer, ready to use.

**Start of the Installation:**

1. Close all running programs.
2. Insert the **EMC32-CD** into your CD-ROM drive. If Autorun is enabled on your system, the installation starts automatically and you can skip steps 3 and 4.
3. From the **Start** menu, select **Run**.
4. Type **D:\HTMLVIEW.EXE** (substitute the correct letter of your CD-ROM drive for **D:**).
5. Click on the **Install EMC32 Software** button and follow the instructions on the screen.

The installation program prompts you to select the measurement modes which you want to install.

- **EMI:** The option for Interference Tests will be installed.
- **EMS:** The option for Susceptibility Tests will be installed.



Selection of the Measurement Modes and Install Path in the Setup Program

6. Alternatively the installation process may be started directly via the command **D:\SETUP.EXE** (substitute the correct letter of your CD-ROM drive for **D:**).



**Note:**

The installation service **Windows Installer** from Microsoft is used for the installation of EMC32. It is available in the basic installation of the operating system Windows 2000/XP, and may be installed under Windows NT 4.0 . If the Windows Installer is not already installed, it will be installed automatically before EMC32 installation is started. In this case the setup program will perform a re-start of the computer and will resume the installation process afterwards.

Please note that for each measurement mode an iKey must be available. Otherwise the software can only be operated in demo mode, which means that no devices are addressed and measurements are only performed in simulation. For demonstration purposes you can use this feature of the software. It is recommend that customers who want to use only one measurement mode should not install the other mode.

Multiple installation of the application on the computer is not possible! If you want to separate EMI and EMS measurements completely, you must follow the instructions in the Online Help, chapter **User Administration – Different User Profiles**.



## Network Installation Tips

Typically the installation of the EMC32 application software should be done in the Programs folder of your local hard disk. But it is possible to place the measurement results, configuration data and correction tables on a network server. Hereby it should be guaranteed that an appropriate network speed is available other performance problems in EMC32 may appear.

Hence you should first install EMC32 on your local hard disk as described above (administrator rights will be required). After this step you can move the paths of the EMC32 folders onto the network server. For more details about this item please refer to the chapter **OPTIONS – Directory Structure** in the **EMC32 Online Help**.

It is required that you have read / write access on the corresponding network drive.

If you are not sure about any of the options, have your system administrator help you with installing EMC32.

## Tips for Data Backup

It is strongly recommended to save your configuration, system calibration and measurement data either for backup or for archiving them on a network server. This operation can be performed using the Windows File Explorer. The following directories should be saved completely:

..\Programme\Rohde-Schwarz\EMC32\Execute\Configuration\

..\Programme\Rohde-Schwarz\EMC32\System\

..\Programme\Rohde-Schwarz\EMC32\Tests\



### **Attention:**

You can archive (or move) either individual files or complete tests out of these directories. These files and tests will no longer be accessible by EMC32. Moving of important calibration or configuration files may also prevent other tests from being opened or started. For detailed information on the file structure of EMC32 refer to the appropriate section of the EMC32 online help.

## **iKey Software Protection**

EMC32 is copy protected by a hardware key **iKey** that contains the license information. Before running EMC32 with devices, the iKey driver must be installed and the iKey itself connected to the PC.

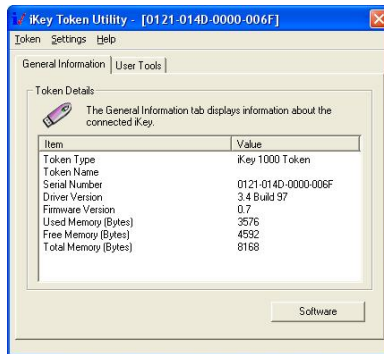
The installation of the iKey software is started via the button “Install iKey Driver” from the installation page of the Autostart program.

Alternatively you may run the setup program **IKKEYALL.EXE** which is located on the EMC32 CD in the folder “\I\_Key”.

Follow the instructions in the setup program. You may need to restart your computer or connect the iKey to a free USB port of your PC during the installation.

### **You can check the correct functionality of the iKey as follows:**

After restarting the computer a utility program appears in the task list called **iKey Token Utility** with which you can check whether the iKey can be detected by the driver. By double clicking on that icon the program is started and the following dialog appears on the screen. If the serial number of the iKey is displayed here, the iKey has been detected correctly.



*iKey Token Utility Program Dialog*



**Note:**

Make sure that the USB interface is activated in the BIOS settings of your computer.

## Starting the program

Once the installation of EMC32 is finished, an EMC32 icon is displayed on your desktop. Simply double-click it to run the program. You may also start the program from the **Start** button on your Windows desktop.

**To launch the program using the Start button:**

1. Click the **Start** button on your desktop.
2. Select **Programs – Rohde & Schwarz – EMC32 – EMC32**.

**Selection of the User Interface Language:**

The user interface language of the EMC32 can be changed in the EMC32 via the dialog **Extras @ Language...** The new language will be activated after a re-start of EMC32.

## EMC32 Configuration

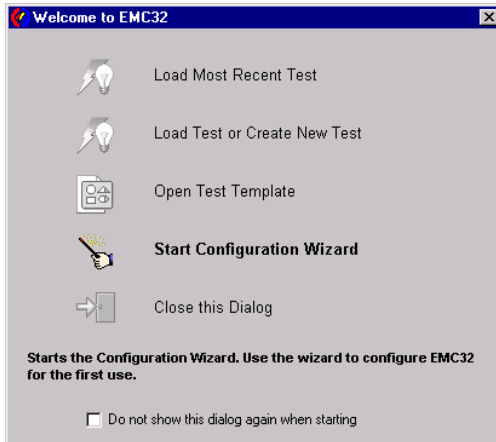
Before running a measurement with EMC32 the software must be adapted to your system, i.e. you must tell the application which measurement devices are available, through which interfaces these devices may be addressed, how the devices are connected with each other and how a test using this devices should be performed.

A **Configuration Wizard** is available in EMC32 which determines the measurement categories and the measurement instruments available in the system through user queries. Using this information the configuration wizard creates a standard configuration for your system. Correction tables and test templates will also be copied into the appropriate directories. After this step EMC32 is ready to run the first **demo measurement**.

**Before the first start of a real EUT measurement the appropriate calibration data for the antennas/transducers and the signal paths have to be entered or calibrated (for more information on this subject refer to the chapter “system calibration” in the online help).**

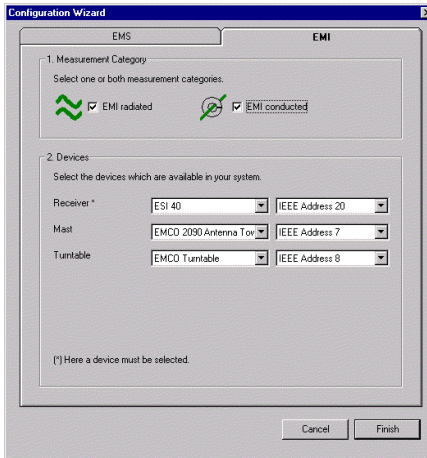
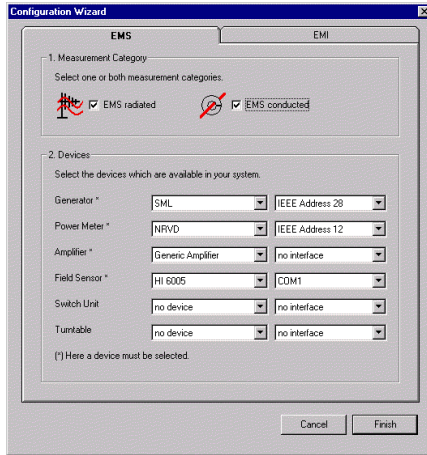
To run the Configuration Wizard perform the following steps:

1. Run EMC32 as described in the previous chapter.
2. If the start dialog is activated you will find a symbol there to start the configuration wizard.



### Start Dialog of EMC32

3. You may also start the wizard via the menu entry: **Extras – Wizards – Configuration Wizard.**
4. The following dialog will appear which contains a tab for EMI and/or EMS, depending on the installed measurement modes.
5. In the first step, select the measurement category: radiated and/or conducted.
6. In the next step you select the device type which is available in your system for each device class, and set the appropriate interface or interface address.
7. After you have completed all your inputs, you may start the configuration process by clicking the button **Finish.**



Dialog of the Configuration Wizard (EMI and EMS tab index)



**Tip:**

The EMC32 software is now ready for the first start of a demo measurement. Before the first EUT measurement can be performed, a calibration of the signal paths and the input of the antenna and transducer calibration data may be required.

## Updating EMC32

*For updating the software please note the following hints:*

If you update the software, the EMC32 system data and test results will not be deleted – the update only replaces the program files (and uninstallation is not required). Nevertheless, for the safety of your data we recommend making a backup of all test and calibration data stored in the EMC32 directory. You should create a copy of the directories **SYSTEM**, **TESTS** and **CONFIGURATION** in another location on your hard disk (for instance the **My Documents** folder) or on the network before you start the re-installation of EMC32.

**For updating EMC32, perform the following steps (provided that you have not received other instructions together with the update):**

1. Close all running programs.
2. Insert the **EMC32-CD** into your CD-ROM drive. If Autorun is enabled on your system, the installation starts automatically and you can skip steps 3 and 4.
3. From the **Start** menu, select **Run**.
4. Type **D:\HTMLVIEW.EXE** (substitute the correct letter of your CD-ROM drive for **D:** ).
5. Click on the **Update EMC32 Software** button and follow the instructions on the screen. In the case you want to install a measurement mode which has not been installed previously activate this measurement mode in the appropriate dialog of the setup program (refer to chapter installation of EMC32).
6. Do **not** run the configuration wizard after a successful update.
7. An uninstallation and re-installation of the iKey software is not required.

## Uninstalling EMC32


To uninstall EMC32 perform the following steps:

1. From the **Start** menu, select **Settings – Control Panel**.
2. Double-click on **Add/Remove Programs (Software)**.
3. Click the **Install/Uninstall** tab.
4. From the list of programs that you can remove, select **Rohde & Schwarz EMC32**.
5. Click **Add/Remove**.
6. In the opened Windows Installer Dialog select **Remove** and confirm that you want to remove the EMC32 application (follow the instructions when it asks you to insert the EMC32 installation CD-ROM, or press the Cancel button).

The uninstall program removes all program files, folders and registry entries which have been installed during the setup process.

7. When the files have been removed, the uninstall program indicates that the process is complete. Click on the **OK** button.
8. Delete the Rohde-Schwarz folder in the Windows Program Files folder using the Windows File Explorer.

To uninstall iKey software perform the following steps:

1. Exit first the program **iKey Token Utility** if this is active in the task bar.  

2. From the **Start** menu, select **Settings – Control Panel**.
3. Double-click on **Add/Remove Programs (Software)**.
4. Click the **Install/Uninstall** tab.
5. Remove the iKey from the USB port.
6. From the list of programs that you can remove, select **Rainbow iKey Components**. Click **Add/Remove**.
7. From the list of programs that you can remove, select **Rainbow iKey Driver**. Click **Add/Remove**.

## Troubleshooting

Occasionally, users encounter problems during installation. Here are some troubleshooting tips you can use that may resolve the problem. If you have any further questions, read the Readme file or contact the Rohde & Schwarz Support.

- Before installation, shut down any running programs, including virus-checking programs. Usually, virus-checking software has little or no impact on the installation process; however, if you are running such software and encounter difficulties with your EMC32 installation, turning off the virus-checking programs and then re-installing often solves the problem.
- If you receive a message during the installation process that a DLL of Windows is used and therefore cannot be updated quit this message with OK and the installation process will be continued. Usually this has no further influence on a successful installation of EMC32.
- Delete any files in your temporary folder. (This folder is determined by the TEMP environment variable. Usually it is located in **C:\TEMP** or **C:\WINDOWS\TEMP**.)
- Run a disk scanning utility. Hard drive errors can cause problems with the installation process. (Some Microsoft Windows systems contain a utility named ScanDisk you can use. If you have questions about disk scanning utilities, see your system administrator.)
- Copy the EMC32 setup CD to your hard drive, then run SETUP.EXE from your hard drive.
- Check to make sure there was enough free disk space on your hard drive. (The setup process should notify you if there is not enough free disk space prior to installation.)
- If the setup program indicates that the Microsoft Internet Explorer 5.0, required for the operation of EMC32, is not installed on your computer (applies to Windows NT 4.0 only), then you can install it from the EMC32 CD-ROM from the folder **IE501**. Select the same language as your operating system. For further information on the installation of the Internet Explorer refer to the Readme file in the Explorer folder.
- Always use in the Regional Options tab-index for Numbers and Currency the Decimal symbol “.” instead of “,”. Do not use the digit grouping symbol “,” (use space character instead).



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