



Products: Rohde&Schwarz Smart Instruments™ Family300 (SM300, FS300, FS315, AM300, UP3x0)

# Rohde&Schwarz Smart Instruments™ Family300 Update Manager Users Manual



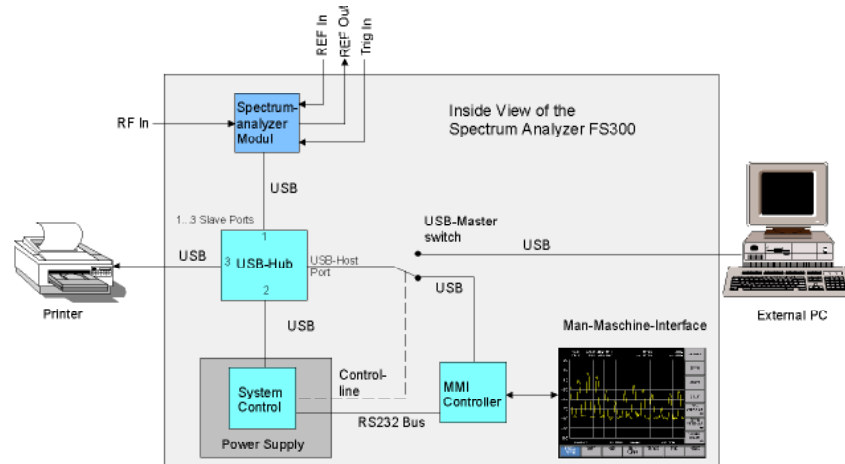
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# General Information

## Introduction

### System overview

The instruments of the series 300 consist of three modules which are to be updated with different firmware. The following picture shows the components of the system (e.g. FS300):



The following firmware components of the system can be updated:

MMI firmware

Instrument specific module firmware, e.g. spectrum analyzer

Power supply firmware

Each firmware component has its individual version number. The three firmware components compose a firmware update release. Firmware releases will be supplied in a complete installation package including all three firmware components. Individual update of single components is not supported.

The firmware update of the components is started from an external Windows PC that is connected via USB to the series 300 instrument. The

update of the firmware components will be carried out in several steps. During the update the instrument is switched off and on automatically for several times. Depending on the instrument type the update will last approx. 20 min (see release notes)

For the update it is of high importance that no interrupts from outside, e.g. power breakdowns, occur. Because the update requires a complicated interplay of different systems and components it might happen that the update process fails in rare instances. Starting the update a second time will fix the problem in most cases.

### **Smart Instruments Update Manager**

The firmware components of the series 300 instruments will be updated using the Smart Instruments update manager (abbr. SIUM). The update manager runs under Windows XP and controls all update steps. User intervention is reduced to a minimum.

The firmware update manager and the update software for a specific firmware release are bundled to one firmware package and cannot be separated.

After a successful firmware update the user can decide to completely remove the update manager from the PC or to leave the software on the PC for further updates using the same release.

### **Update steps**

The firmware update is done in three steps:

Installing the Smart Instruments update manager on a PC

Connecting the instrument to the PC and installing the device drivers

Starting the firmware update

### **Installation file**

The name "SetupSIUM\_xx3xx\_y.y.exe" of the setup file for the installation of the update manager depends on the instruments type and release number. The placeholders xx300 and y.y are standing for:

xx3xx: supported instrument type, e.g. FS300, FS315, AM300, SM300, UP300, UP350

y.y: release of the update package, e.g. 2.1

The installation of the update manager can be started from any directory.

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## **System Requirements**

### **System requirements**

The Smart Instruments update manager runs under the Windows™ XP operating system.

### **Contact**

If you have any questions about the firmware update, please contact the Rohde&Schwarz Support Center.

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## **R&S Support Center**

### **Customer center**

**support USA & Canada**

Monday to Friday (except US-state holidays)

8:00 AM - 8:00 PM Eastern Standard Time (EST)

USA: 888-test-rsa (888-837-8772) (opt 2)  
From outside USA: +1 410 910 7800 (opt 2)  
Fax: 410 910 7801  
E-Mail: Customer.Support@rsa.rohde-schwarz.com

#### Other parts of the World

Monday to Friday (except German-state holidays)

08:00 - 17:00 Central European Time (CET)

Europe: +49 (0) 180 512 42 42  
From outside Europe: +49 89 4129 13776  
Fax: +49 (0) 89 41 29 637 78  
E-Mail: CustomerSupport@rohde-schwarz.com

# Install / Uninstall the Update Manager

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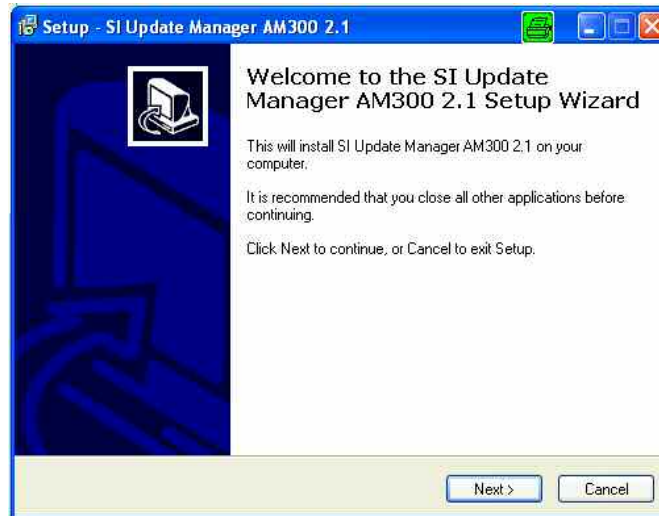
## Install Software

**Installing the update manager** Execute the installation package of the update manager e.g. "SetupSIUM\_AM300\_2\_1.exe". The installation process will guide you through the installation step by step. After the installation the update manager starts automatically (not for the UP300/UP350) to detect any connected instrument which can be updated with the firmware release.

UP300/UP350:

After the installation, it is necessary to start the update manager manually, see "Start Firmware Update"

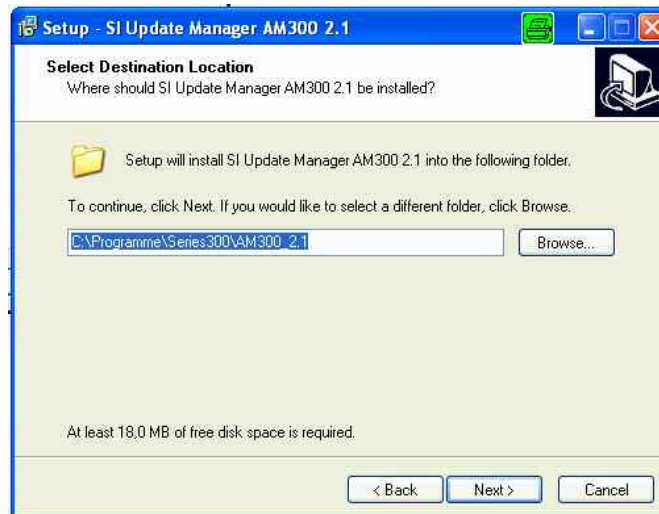
**Start installation**



Close all other applications on your PC and click Next to continue.

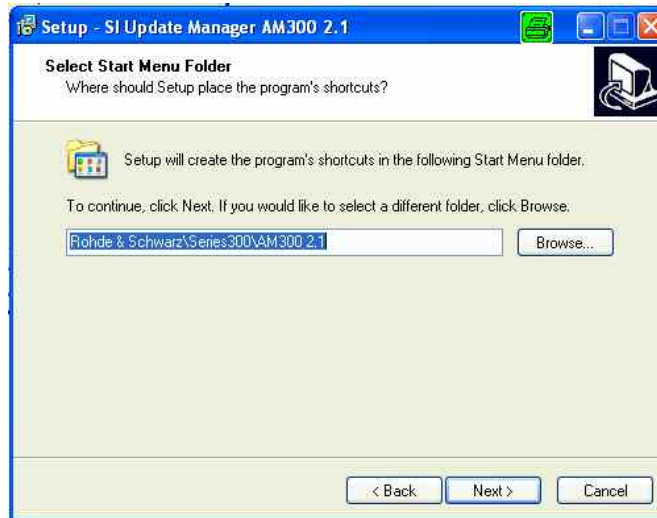
**Select  
directory**

**installation**



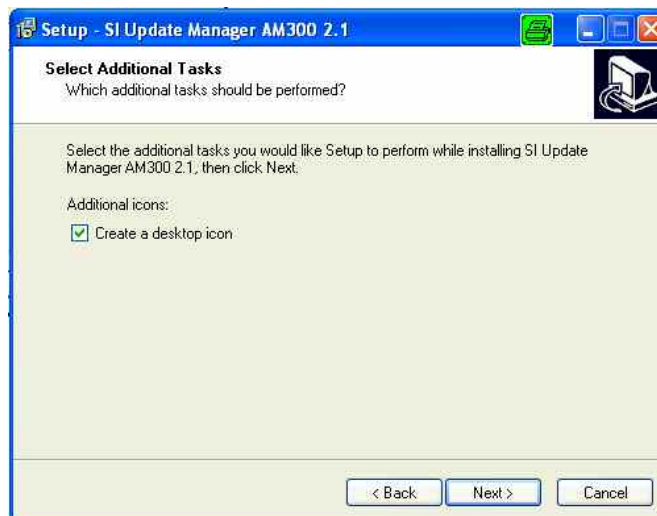
To continue click Next. If you would like to select a different installation folder, click Browse.

**Select menu folder**



To continue click Next. If you would like to select a different start menu folder, click Browse.

### Create desktop icon



Select the additional task if you would like to create a desktop icon on your PC, then click Next.

## Uninstall Software

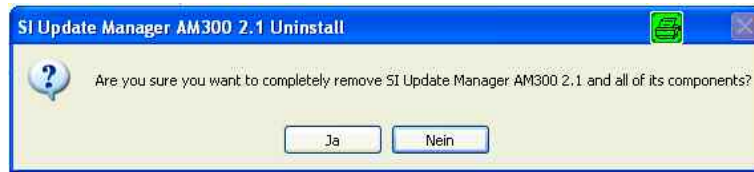
### Uninstall manager

**update** In the Windows start-up directory click on (example for AM300):

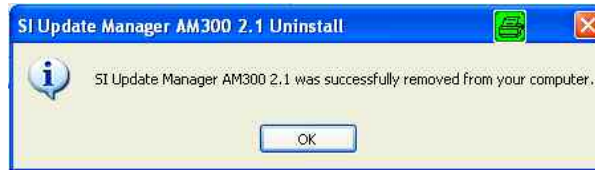
**Start\Programs\Rohde & Schwarz\Series300\AM300\_2.1\SI Uninstall AM300\_2.1**



If you want to uninstall the update manager please click on Yes.



The update manager has been removed successfully from your computer. Click OK to close the window.



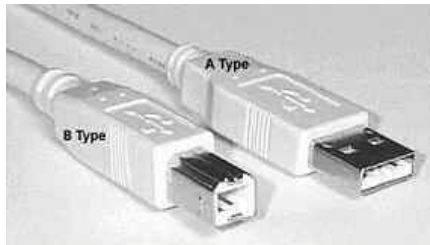
# Installing the Device Drivers

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## Installing Steps for Windows XP

### Connecting series 300 instrument to the PC

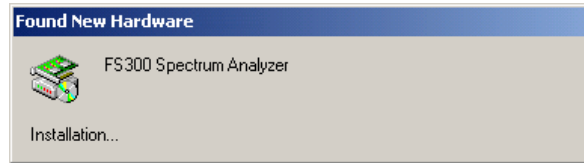
The series 300 instrument is connected to the PC via the USB interface. The connection cable has two plug types. Plug A is connected to the computer (↗ computer manual) and plug B is connected to the instrument (↗ R&S xx300 manual, Chapter 2.2 Rear View).



The series 300 USB drivers will be installed from the update manager installation.

1. Switch on the instrument and the PC.
2. Connect the instrument to the PC with the USB cable. The PC (Windows™) recognizes the instrument when it is connected and reports new hardware. This message appears only when a series 300 instrument is installed for the first time





If the series 300 instrument is not automatically recognized, check that the USB master switch of the device is at **AUTO** (↗ R&S xx300 manual, Configuring the Instrument Interfaces).

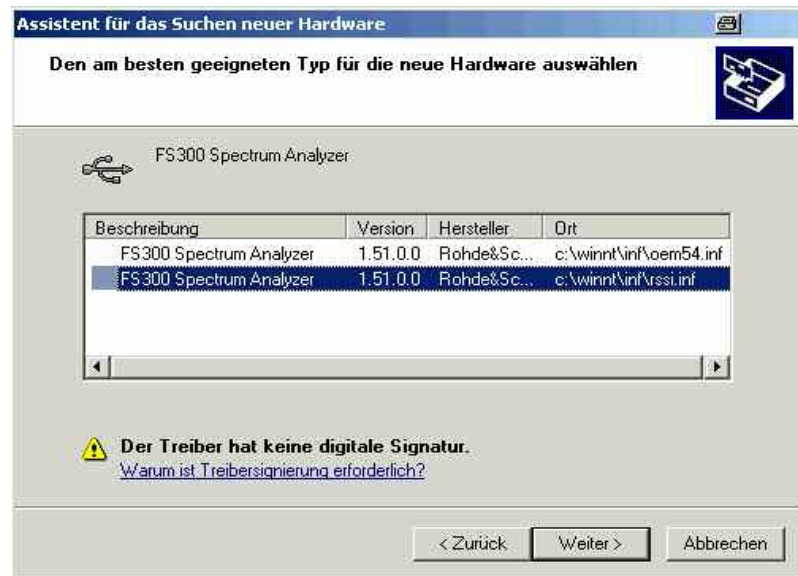
### Installing drivers

device

3. Select **Install the software automatically** and click **<Next>** to continue the installation.

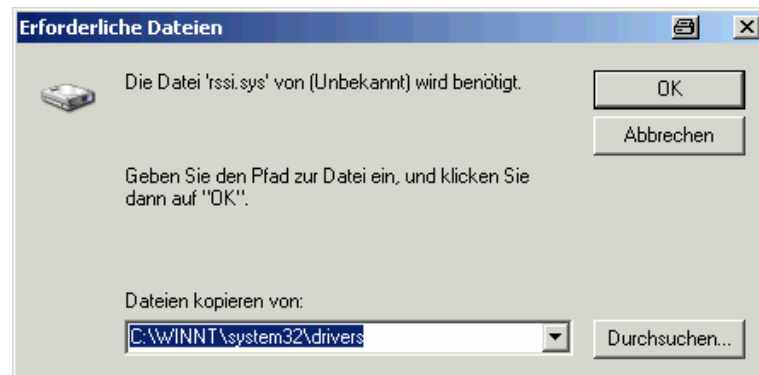


4. If a driver for the R&S FS300 has been installed on your system previously, the Windows Hardware Wizard may give you a selection of already installed drivers: Please select "rsssi.inf" and click **<Next>** to continue the installation.



This might occur, if you have installed different driver versions, used different installation sources or installed also the VXI PnP drivers on your system.

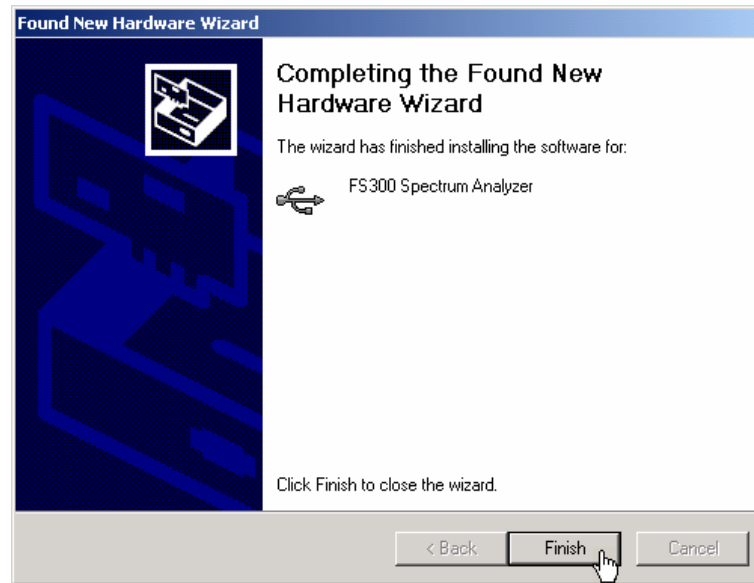
5. Click **<OK>** to continue the installation.



Depending on the history of your driver installations, the installation procedure may vary in some steps. If your system is not able to locate the driver files, please select them manually. The driver files will be installed from the Smart Instruments update software to the following directories:

- rssi.inf (c:\winnt\inf\)
- rssi.sys (c:\winnt\system32\drivers)

6. Click **<Finish>** to successfully complete the installation.

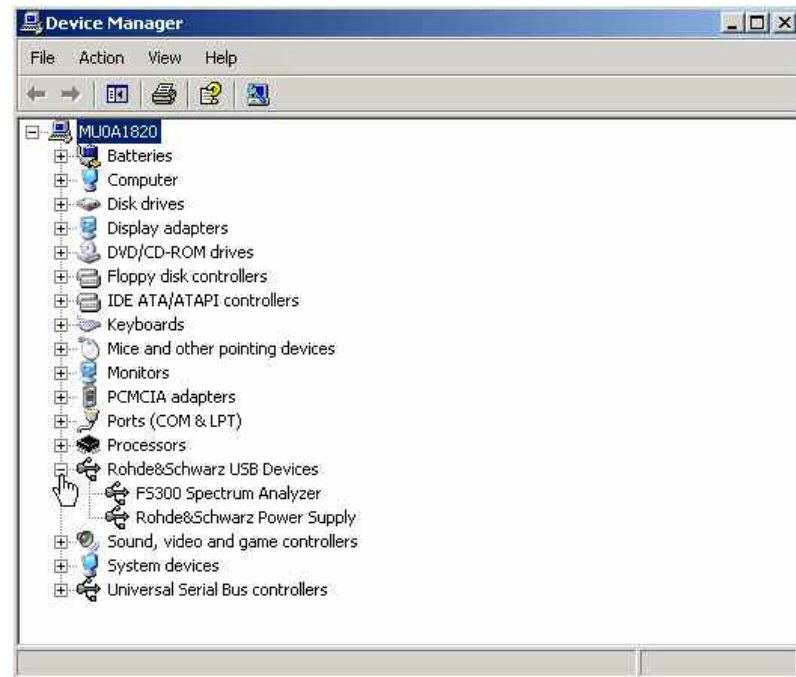


This is followed by the installation of the device driver for the **Rohde & Schwarz Power Supply**. Windows generally "remembers" all the necessary information when installing the series 300 device and installs the Rohde & Schwarz Power Supply without a query. However, depending on the system, the installation assistant might be activated.



In this case, repeat instructions 3. to 7. to complete the installation successfully.

The drivers are now correctly installed and this can be checked using the Windows device manager.



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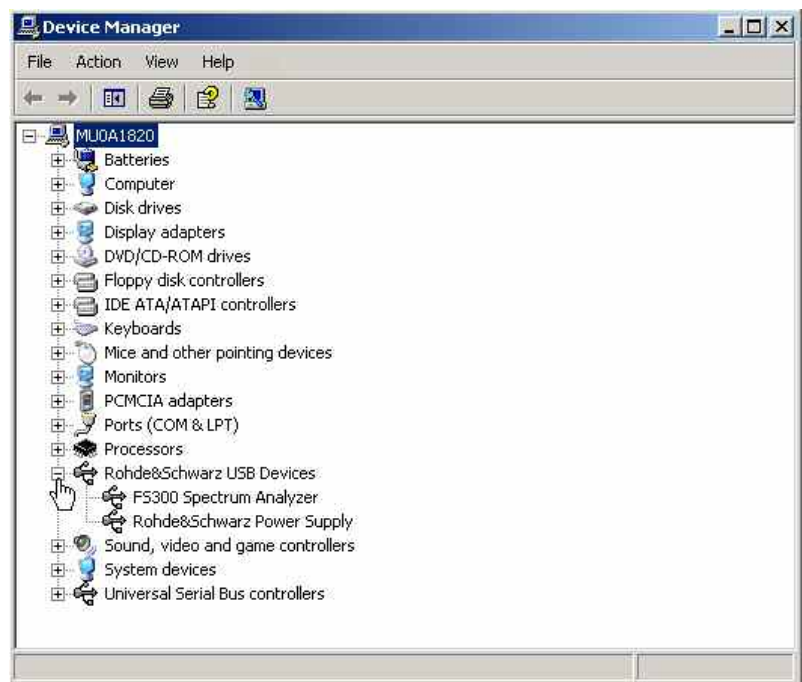
# Windows device manager

## Application

The correct driver installation and recognition of a Rohde&Schwarz USB device can be checked using the Windows device manager.

1. Connect the Smart Instrument device to the USB port of your PC.
2. In the Windows **Start Menu** select **Settings System control**.
3. Double-click on **System** in the System Control window.
4. In the system property window select **Hardware** and then **Device Manager**.

If the drivers are correctly installed and a Smart Instrument device is recognized on the USB the Windows device manager will show two entries under Rohde&Schwarz USB devices:



# Firmware Update

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## Update Information



Caution

Do not switch off the device while the system is being updated if there is no prompt from the Smart Instruments Update Manager application.

### **Driver installation:**

It might be necessary to install the USB driver (rssi.sys) again during the update process. This must be done during a time interval of approx. 1 minute, otherwise the update of the power supply module will fail and the complete update needs to be restarted again.

### **USB 2.0 support:**

During the firmware update with the “Smart Instruments Update Manager”, the USB 2.0 support of the PC will be disabled. Please make sure, that there are no other USB devices connected, which might lose data during disabling of the USB (e.g. USB harddisk, USB stick).

### **Power down mode**

It is important that the screen saver and power down mode on your PC is deactivated during the update.

### **Remote control:**

Pressing the SYS key or unplugging the USB cable during a firmware update is running will interrupt the update process and may leave the instrument in an undefined state.

### **Notebook docking stations:**

It is not recommended to use notebook docking stations with the “Smart Instruments Update Manager”.

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## Start Firmware Update

The Smart Instruments update manager will be accessible within the Windows start menu or with a link on the desktop, if this option was selected during the installation.

Please read carefully the update information before the firmware update is started.

**Starting the Update Manager** In the Windows start-up directory click on (example AM300):

**Start\Programs\Rohde & Schwarz\Series300\AM300\_2.1\  
SI Uninstall AM300\_2.1**



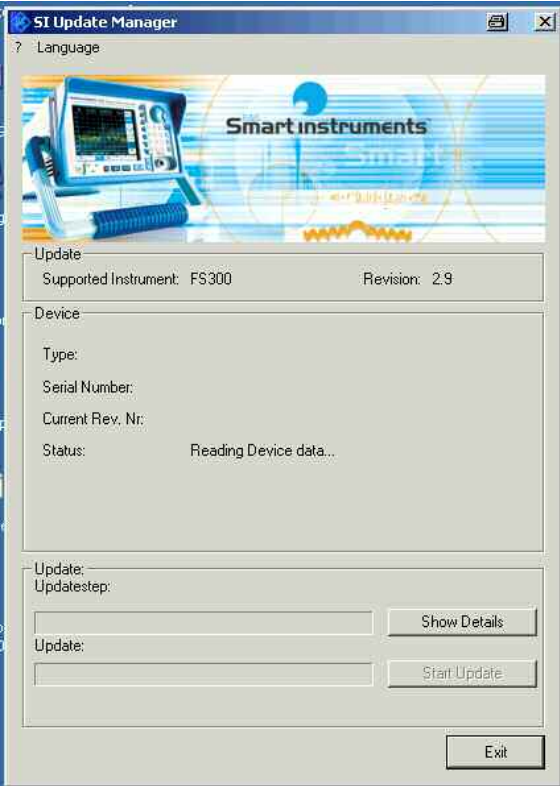
**Update  
Interface**

**Manager**

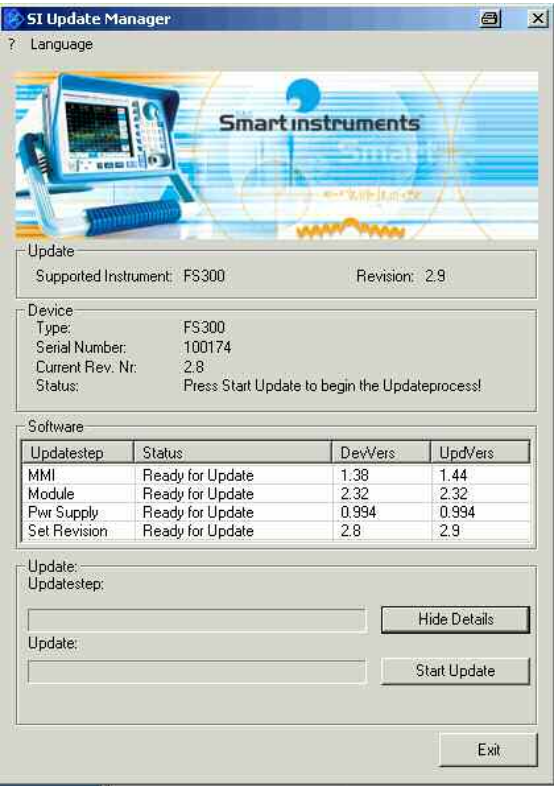


The Smart Instruments Update Manager will read the status of the installed firmware of all modules.

**Show / Hide details**




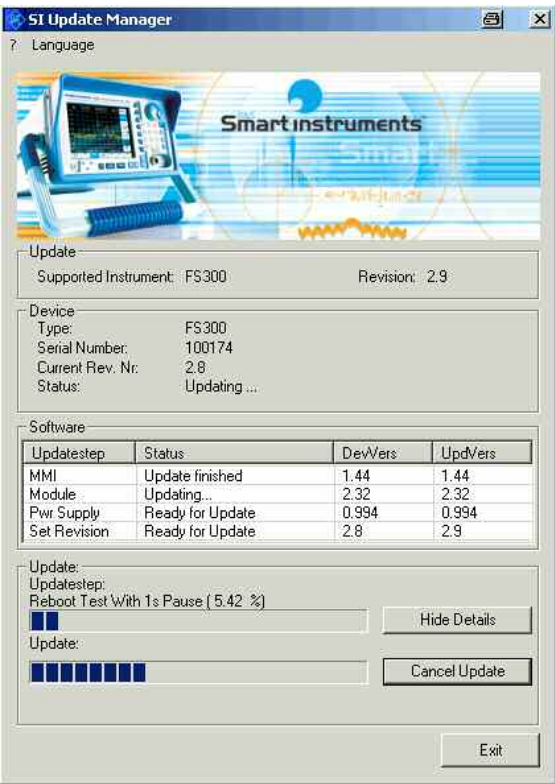
By pressing the “Show Details” button all installed firmware versions of the instrument will be shown.





**Running update**

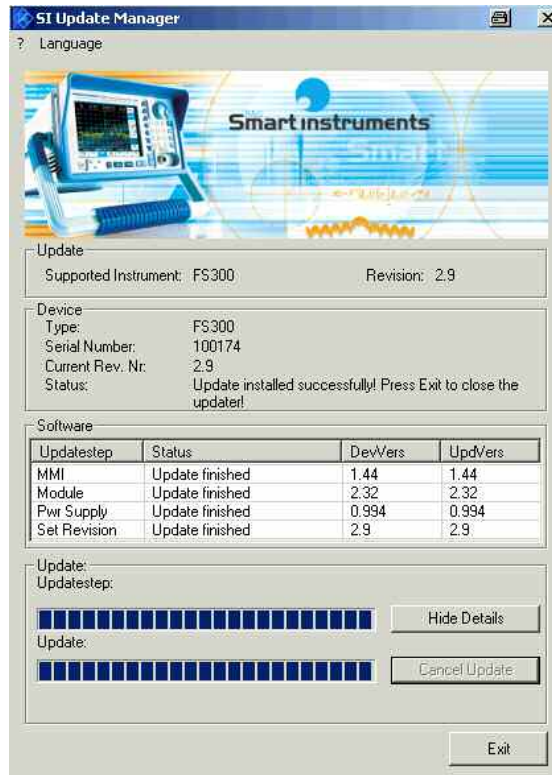
The update process will be started by pressing the  button.



During the update the Smart Instruments Update Manager will always display the actual steps and results of the firmware update.

**Update Successful**

The update status on the Update Manager shows that the update has been installed successfully on the instrument.



**Messages after the Update** After switching on the instrument for the first time after a successful firmware update, the following system message might occur once:

SYSTEM-MESSAGES: dd/mm/yy hh:mm PS ERROR 0x6011: Parameter 0x000000C0 and 0x00

MMI Error windows (red popup): PS 0x6011

This error message indicates that there was an update of the power supply unit with a new firmware version.

In this case the unit needs to be switched off and on again. This system message does not appear again during further power-on cycles.

# Messages and FAQs

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## Error Messages / Warnings

Error / Warning message	Action / Reason
Update file invalid: Please reinstall the application	Update files are missing or have been modified. Please reinstall the Smart Instruments update software on your PC.
No USB port found!	Please check the USB port of your PC.
No R&S Smart Instruments device driver found!	Please check the USB driver installation.
No supported Smart Instruments device found: Please connect instrument to USB port!	Please check if R&S USB devices are displayed in the Windows device manager.
More than one Smart Instruments device found: Please connect only one instrument for the update!	The firmware update is only possible if only one Smart Instrument is connected to your PC. Disconnect all devices except the instruments which should be updated.
Wrong device type connected. The firmware update is only possible with the supported type.	Please check if the update package is valid for your instrument.
Communication failure: Please check the USB connection	<ul style="list-style-type: none"><li>- USB cable too long?--&gt; use shorter cable</li><li>- Cable defect? → replace cable</li><li>- One or more USB hubs are in between the Smart Instruments device and the PC: USB load too high? → connect device directly to the USB port of the PC.</li></ul>
Update not possible: Installed release not supported by the update software.	Check release notes for valid update combinations
Update not possible: The serial number of the connected device is	Check release notes for valid serial

not supported.	numbers.
The update process was not successful: Please restart the application to finish the update.	Reboot instrument and start update again. If the update fails again please contact the R&S support center.
After switching on the instrument for the first time after a successful firmware update, the following system message might occur once: SYSTEM-MESSAGES: dd/mm/yy hh:mm PS ERROR 0x6011: Parameter 0x000000C0 and 0x00 MMI Error windows (red popup): PS 0x6011	This error message indicates that there was an update of the power supply unit with a new firmware version. In this case the unit needs to be switched off and on again. This system message does not appear again during further power-on cycles.

## FAQs

FAQ	Action / Reason
It is a known problem that USB devices like the Smart Instruments are sometimes not recognized if they are connected to a Laptop via a docking station.	The correct enumeration of the Smart Instruments device on the USB bus can be checked in the Windows device manager. If there is no or only one entry for Rohde&Schwarz devices try to use your Laptop for the update outside the docking station.
The mouse doesn't work anymore after the update.	Depending on the system it might happen that the mouse is blocked after USB 2.0 support has been reactivated. Please reboot your PC.
The driver installation failed.	Please check if you have administrator rights on your PC.