



## SFE100 Software Installation V01.30

Your R&S SFE100 is delivered with the latest firmware version available. Firmware updates are provided via Rohde & Schwarz service centers or Sales Offices.

The installation of a new firmware version can be performed either via the USB or the LAN interface.

The downloaded update files have to be stored on the memory stick for an update via the USB interface or on a network directory for an update via the LAN interface (due to speed recommended).

The **appendix 1** of this document describes how to connect the R&S SFE100 to a network and how to access SFE100 drives.

The firmware update consists of two files. The version numbers in the file names vary with each update:

Firmware SFE100:	SFE_01.30.00.00(Release).msi Capricrn.dll
Batch File:	FinishSetup.bat

If Analog Realtime Modulation (ATV) is used with the SFE100 the following file is necessary too:

Video-Signals	AtvVideoBasic_01.82.00.00.msi
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The Update is performed on the Windows XP embedded operating system. Windows XP can only be accessed if a mouse and optional an external keyboard is connected.

## Firmware Installation

1. Switch on instrument.
2. Wait until the R&S SFE100 firmware has booted and the application has started.
3. Start Manual Remote Control of the instrument via Remote Desktop or VNC.
4. Access Windows XP embedded desktop.

Operation with mouse

Click the Close button of the R&S SFE100 Application. The Windows XP Embedded desktop is displayed.

5. Copy update files.  
Open folder with update files using the **Windows Explorer**.  
Delete all files in **D:\SFE100\Installations**.  
Copy update files to **D:\SFE100\Installations**.  
If available copy new AtvVideoBasic\_01.\*.msi to D:\SFE100\Installations.  
Change to D:\SFE100\Installations.
  
6. Install new firmware version.  
Execute SFE\_01.30.00.00(Release).msi.



Example

After the installation press the Finish button.

7. For Analog Realtime Modulations (ATV) only: Install new Video-Signals if available by executing AtvVideoBasic\_01.xx.xx.xx.msi



**Caution:**

*Never switch OFF the instrument after this point. The device must be switched OFF/ON after the update of the boot device only.*

8. Start FinishSetup.bat.  
The SFE100 will be rebooted and the new SFE100-FW will be started.



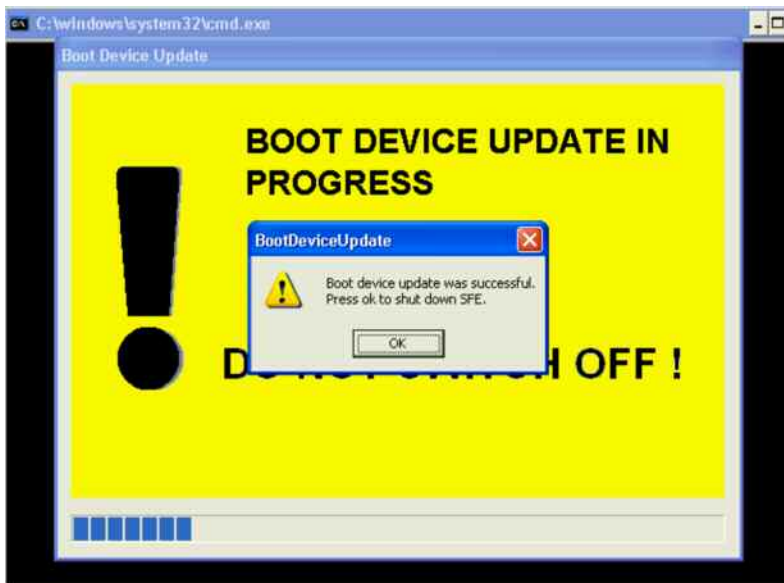
**Caution:**

*In case of reboots all connections via VNC or Remote Desktop are terminated and the front display will become active again when the SFE100FW is started. Start Manual Remote Control of the instrument via Remote Desktop or VNC again.*

The boot device in the SFE100 is checked and reprogrammed if necessary.  
The reprogramming of the boot device is indicated by the following message:



Activate the OK button after successful update:



If the boot device was reprogrammed, you have to proceed with step 9.

If the reprogramming was not necessary: With the first start of the SFE100-FW an "Adjustment All" is carried out automatically.

Wait until R&S SFE100 firmware is operational.

The SW-Installation is finished.

9. Finish the reprogramming of the boot device.

After pressing OK to shut down SFE100, switch OFF the SFE100 by the power switch and switch it ON again.

The SFE100-FW will be started.

With the first start of the SFE100-FW an "Adjustment All" is carried out automatically.  
Wait until R&S SFE100 firmware is operational.

## Install new SW options

- Select HARDKEY/SETUP via Remote Desktop or VNC and select **Software Options**. Chapter 4 of the operating manual describes how to install the options. You can activate the manual by pressing the HELP key on the instrument or the F1 key on the external keyboard.
- Restart the instrument.

# Appendix 1 : Connecting the instrument to a Network (LAN)

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*This Section is an extract of the instrument manual:*

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The instrument is equipped with a network connection and can be connected to an Ethernet LAN (Local Area Network).

## Connecting to the Network

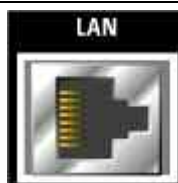


**Caution:**

*We recommend that you co-ordinate the connection of the instrument to the network with the network administrator. Any errors that occur during the connection process can affect the entire network.*

*The instrument should be switched off (standby mode) when you connect and disconnect the network cable. This is the only way to ensure that the network connection is reliably detected and any disruptions during the operation of the instrument are avoided.*

The instrument is connected to the LAN using a standard RJ-45 cable via the LAN interface on the rear of the instrument.



## Networks with DHCP

The instrument is preconfigured for networks using the dynamic host configuration protocol (DHCP). In such networks, the instrument is automatically assigned a free IP address. In this case, identification in the network is based on the use of a unique computer name.

Every instrument is assigned an individual computer name at the factory.

## Networks that assign fixed IP addresses

In networks that assign fixed IP addresses, it is usually the network administrator who handles this process. The fixed IP address must be entered under WindowsXP® **Start - Control Panel**.

### Point-to-point connections

To set up a single network (a LAN connection between the instrument and a single computer without integration into a larger network), an IP address needs to be assigned to the instrument and the computer. The IP addresses 192.168.xxx.yyy are available for use here. xxx and yyy can assume values of 1 to 254, and the value for the subnet mask is 255.255.255.0.

In this case, a standard RJ-45 cross-over cable is required for the connection.

## User parameters

For the R&S® SFE/SFE100, the standard user name is “**Instrument**”. The user name is used for auto login when the instrument is started up and for manual remote operation. The password is also “**Instrument**”. The network administrator must grant authorization to this user to determine what network directories and resources can be accessed by the R&S® SFE/SFE100.

## Preparations

The instrument is configured for network operation in the menus of the WindowsXP® embedded operating system. The operating system can be accessed only when an external keyboard is connected. We recommend using a mouse for more convenient operation. Power down the instrument prior to connecting the keyboard and mouse so that the operating system with properly recognize them.

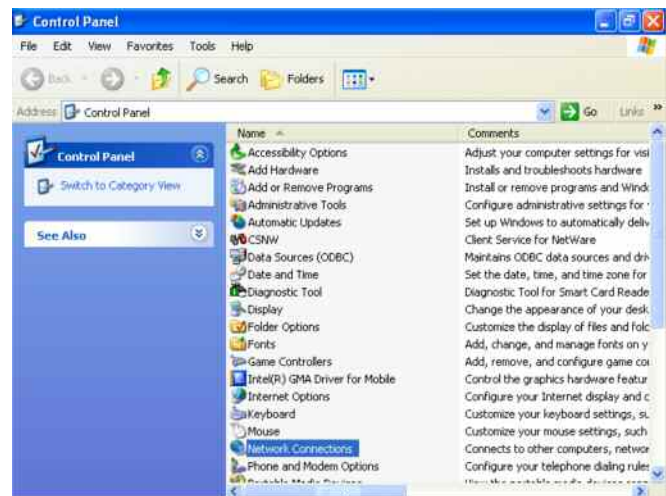
1. Switch off the instrument
2. Connect the external keyboard and mouse to the USB interface
3. Switch on the instrument

## Entering the IP address

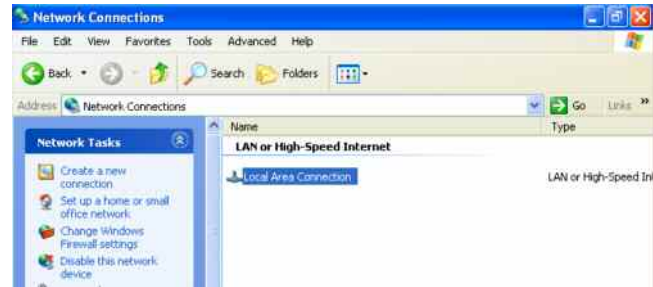
1. Press the **Windows** key on the external keyboard (next to the CTRL key) to call up the start menu.



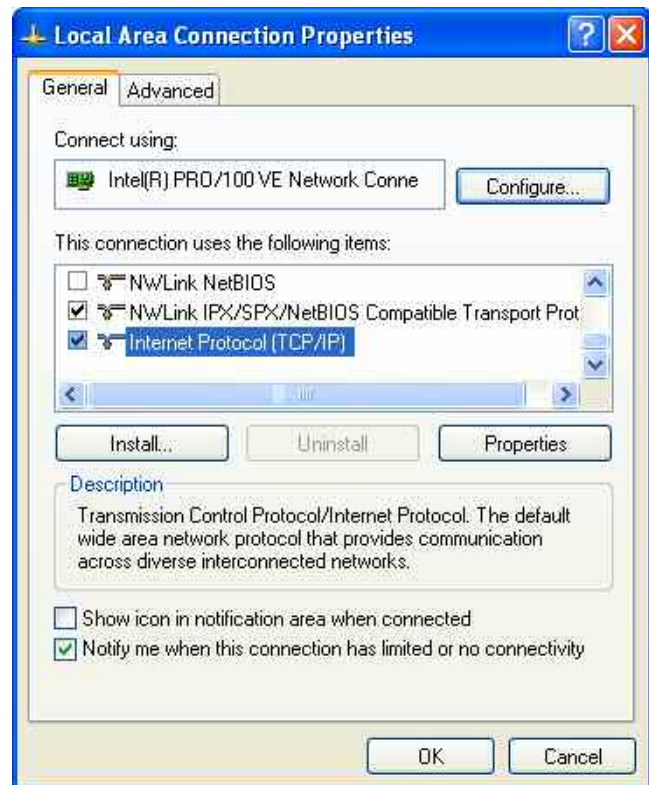
2. Click on **Control Panel** and then **Network**



3. In the **Network Connections** menu, click on **Local Area Connection** on the right.

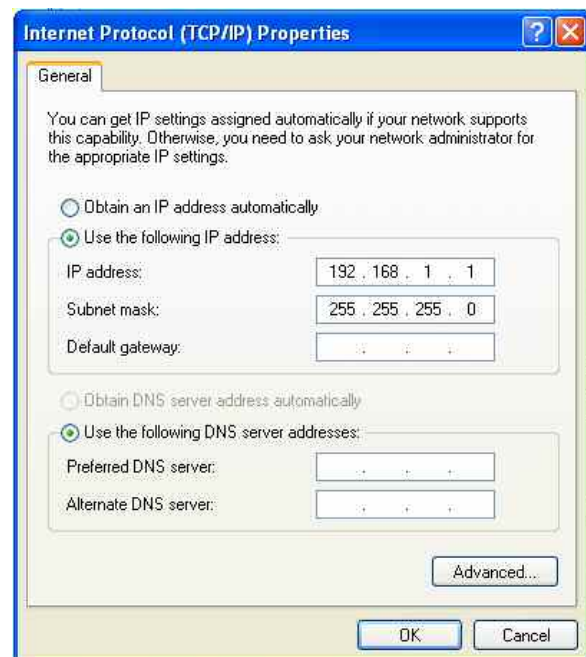


4. In the **General** tab activate Properties. In the field **This connection uses the following items:** mark the **Internet Protocol (TCP/IP)** item and then click on the **Properties** button.



5. In the **Internet Protocol (TCP/IP) Properties** menu, enter the IP address in the field **Use the following IP address** (you should ask your network administrator if you need more information). Finish by clicking on OK in all of the menus.

The default setting will be **Obtain an IP address automatically** (DHCP = Dynamic Host Configuration Protocol).



## Sharing and Accessing Instrument Drives

Access to instrument drives is managed using a system of access authorizations. Complete integration of the instrument into a larger network is complex due to the access authorizations involved and is normally performed by a network administrator.

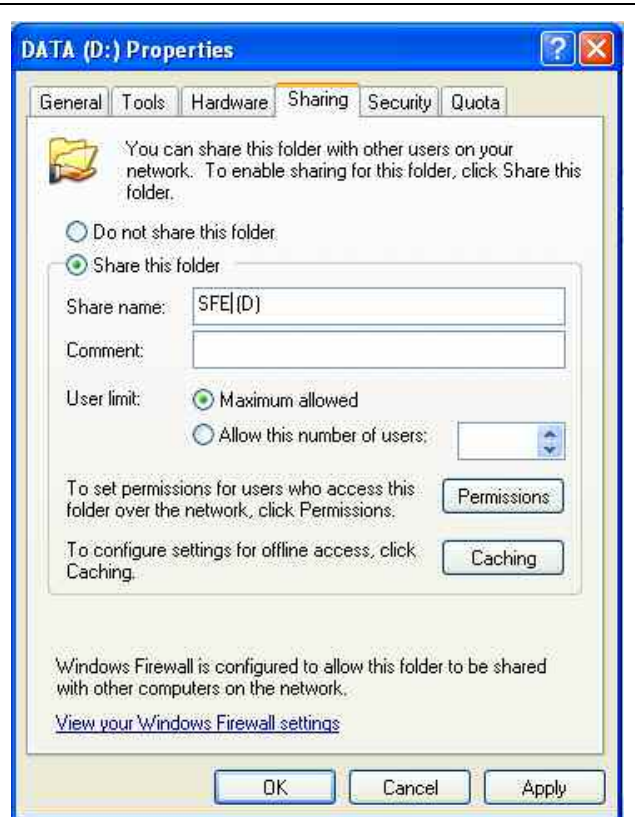
However, access to the instrument hard drives is relatively simple.

1. Select the directory D: on the instrument using Windows Explorer and use the right mouse button to call up the **Sharing and Security** menu.

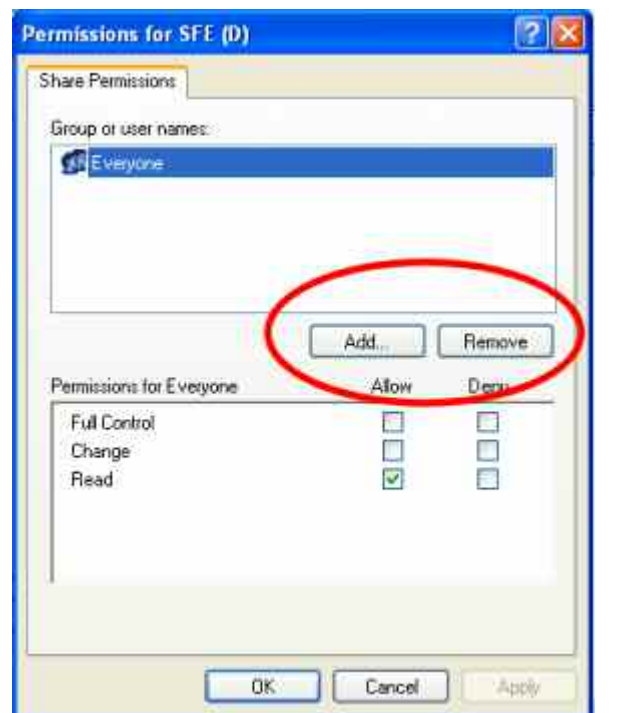




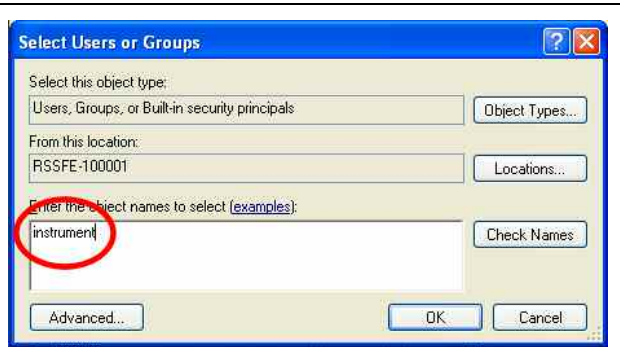
2. In the **Sharing** panel, activate the **Share this folder** checkbox.



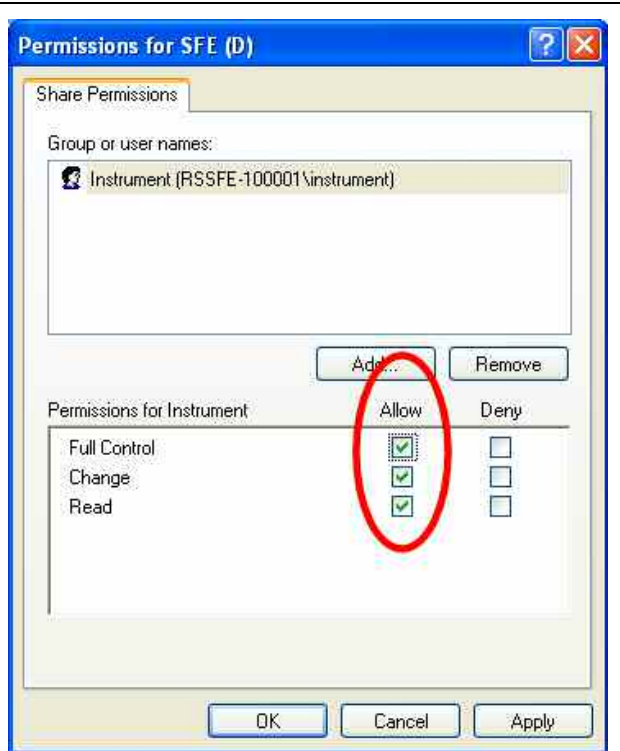
3. Select **Permissions** and remove user Everyone



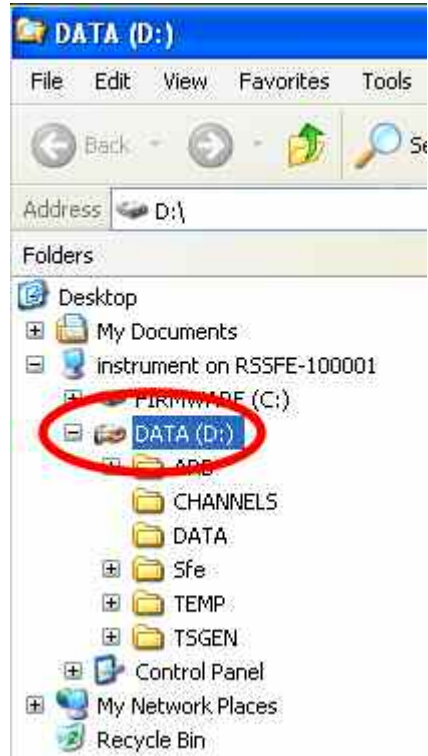
4. **Add** the user instrument.



5. **Allow** Full Control / Change and Read.



6. Shared Drives are marked now.



7. On your PC open the Windows Explorer and enter the IP-Address of the SFE/SFE100 in the form **\\xx.xx.xx.xx**

or the computer name

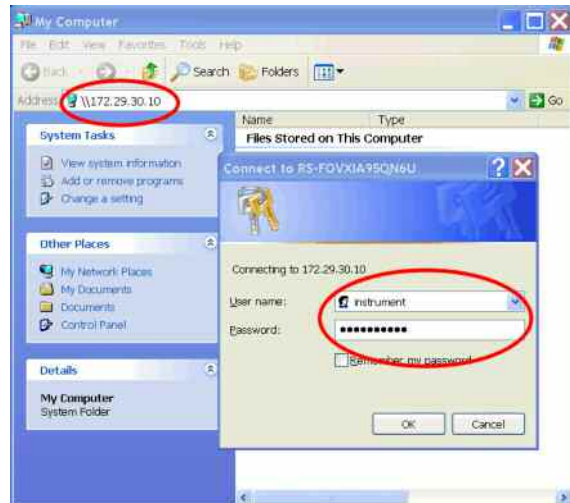
**\\rssfe-xxxxxx. or \\rssfe100-xxxxxx**

Enter

User name **instrument**

and

password **instrument**



8. The shared directories should appear, and you can copy the update files to **D:\SFE\installations.**