



**ROHDE & SCHWARZ**

Test and Measurement Division

# **FSH4View**

Software for FSH4 Spectrum Analyzers

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# Chapter 1

## Installing FSH4View

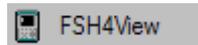
### *Installing the FSH4View Software*

The software offers you simple mouse-controlled tools to work with your Spectrum Analyzer.

The setup program installs the software on PC's running Windows. To install the software, insert the CD ROM into the CD ROM drive and choose **Setup.exe**.

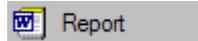
The setup program starts up and prompts you for information to complete the installation.

### *Running the FSH4View Software*



FSH4View

Choose from **Start – All Programs - FSH4View - FSH4View** to run the FSH4View software.



Report

Choose from **Start - Programs - FSH4View – Report** to create a test report in Word.

### *Connecting the Spectrum Analyzer*

The program communicates with your spectrum analyzer via USB or Ethernet (LAN).

During startup (except for the first time), the program automatically tries to make a connection with the instrument according to the last valid connection.

If automatic connection is not successful, the dialog box shown below appears, allowing you to make a connection.



- 1 Select **LAN** as instrument connection to the PC.  
The Dataset tab is used to view datasets on the PC.



- 2 Click **Add** to define and add a new LAN configuration to the list.  
Click **Edit** to edit a LAN configuration from the list.  
Click **Remove** to delete a LAN configuration from the list.
- 3 Click **Connect** to establish a connection with the instrument.

## Direct Connection via LAN

- Connect the R&S FSH directly to the PC with the LAN cable supplied. The R&S FSH LAN interface is situated on the left side underneath a protective cap.

DHCP is switched on by default on the R&S FSH. DHCP on the R&S FSH must be switched off for a direct connection.

- Press the SETUP key.
- Press the INSTRUMENT SETUP soft key.

The R&S FSH opens a list with the general settings.

- Select the DHCP MODE menu item below the heading LAN PORT with the rotary knob or the cursor keys (up or down) and confirm with ENTER.
- A selection list opens. Select OFF with the rotary knob or the cursor keys (up or down) and confirm with the ENTER key. DHCP is now deactivated.

LAN Port	
MAC Address	00-11-43-48-72-91
DHCP	off
IP Address	172.76.68.24
Subnet Mask	255.255.255.0

To make the connection, the IP address of the PC used and that of the R&S FSH must be identical, apart from the digits following the last dot. This means that the digits following the last dot must be different.

Example:

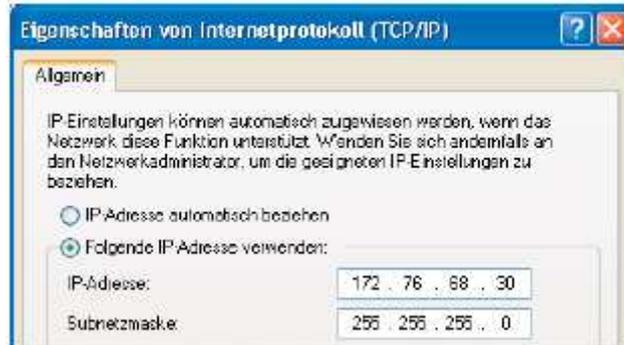
PC IP address: 172.76.68.30

R&S FSH IP address: 172.76.68.24

LAN Port	
MAC Address	00-11-43-48-72-91
DHCP	off
IP Address	172.76.68.24
Subnet Mask	255.255.255.0

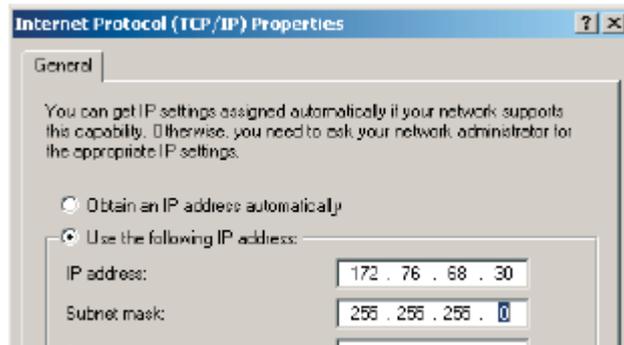
- Select the IP ADDRESS menu item from the list under the heading LAN PORT with the rotary knob or the cursor keys (up or down) and confirm with ENTER. An input field opens.

- Enter the IP address of the PC (e.g. 172.76.68.24) with the numeric keys and confirm with ENTER.



The PC's and the R&S FSH's subnet mask must also match in order to make a connection.

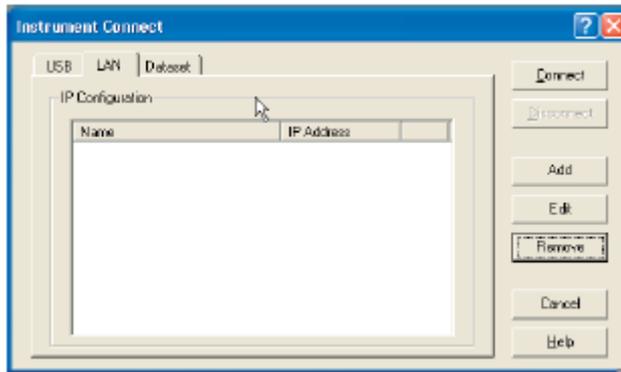
LAN Port	
MAC Address	00-11-43-48-72-91
DHCP	off
IP Address	172.76.68.24
Subnet Mask	255.255.255.0



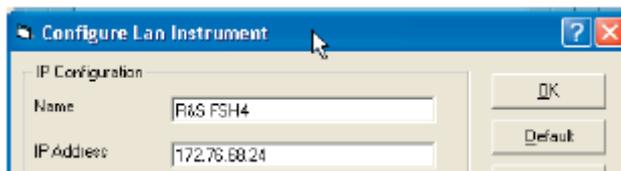
- Select the SUBNET MASK menu item from the list below the heading LAN PORT with the rotary knob or the cursor keys (up or down) and confirm with ENTER. An input field opens.
- Enter the subnet mask used on the PC, e.g. 255.255.255.0 with the numeric keys and confirm with ENTER.

R&S FSH4View software configuration:

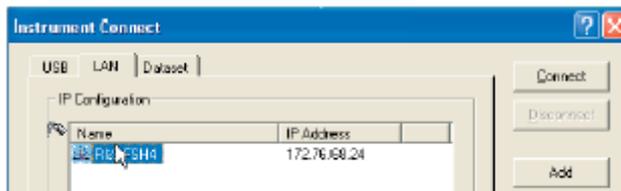
- Start the R&S FSH4View software on the PC.
- Select the **LAN** tab in the open input dialog.
- Then create a new network connection with **Add**.



- Enter the name for the new network connection in the open window, e.g. R&S FSH4.
- Enter the IP address set for the R&S FSH in the IP Address input field, in this case 172.76.68.24, and confirm with **OK**.



The connection is now configured and appears in the IP CONFIGURATION window.



- Select the new connection name “R&S FSH4” and make the connection to the R&S FSH with **Connect**.

### Connection via an Existing LAN Network

The R&S FSH's IP address can be automatically drawn from the DHCP server, or a fixed address can be defined manually. With manual allocation, a fixed IP address and subnet mask must be assigned to the R&S FSH as described in the chapter on direct LAN connection. The R&S FSH4View software must then be configured as described with the assigned IP address.

*Please contact your IT system manager to obtain a free IP address.*

In networks with a DHCP server, the Dynamic Host Configuration Protocol (DHCP) permits automatic allocation of the network configuration to the R&S FSH connected via LAN cable. For this purpose, DHCP must be active on the R&S FSH.

DHCP is switched on by default on the R&S FSH. If the setting has been altered, proceed as follows:

- Press the SETUP key.
- Press the INSTRUMENT SETUP softkey.

The R&S FSH opens a list with the general settings.

LAN Port	
MAC Address	00.11.43.40.72.91
DHCP	on
IP Address	10.114.10.83
Subnet Mask	255.255.255.0

- Select the DHCP MODE menu item below the heading LAN PORT with the rotary knob or the cursor keys (  or  ) and confirm with ENTER.
- A selection list opens. Select ON with the rotary knob or the cursor keys (up or down) and confirm with the ENTER key. DHCP is now active.

The R&S FSH is now allocated an IP address and the subnet mask by the DHCP server. This can take several seconds. The values then appear under IP ADDRESS and SUBNET MASK under the LAN PORT heading.

In this example:

IP address: 10.114.10.83  
Subnet mask: 255.255.255.0

The R&S FSH4View software must then be configured as described in the chapter on direct LAN connection.

The IP address and subnet mask assigned by the DHCP server must then be used to create a new LAN connection.

## Direct Connection via USB

- Switch on the R&S FSH.
- Connect the R&S FSH directly to the PC with the USB cable supplied. The R&S FSH USB interface is situated on the left side under a protective cap.

When connected for the first time, the wizard for finding new hardware appears on the PC screen.



- Select “Install the software automatically (Recommended)” and confirm by clicking **Next**.

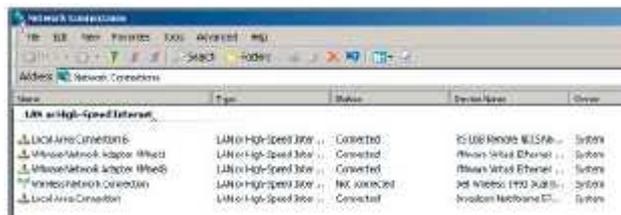
*The R&S FSH4View software must be installed on the PC. Only then can the hardware wizard find the necessary drivers for the USB connection.*

After a few seconds, the wizard reports that the software for the new hardware has been installed.



- Finish the installation by clicking **Finish**.

A new LAN connection appears in the network connections overview with the device name “RS USB Remote NDIS Network Device”.

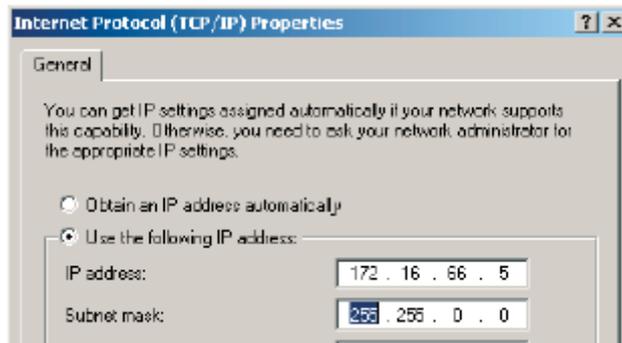


The PC must be assigned a fixed IP address and a subnet mask manually for this LAN connection.

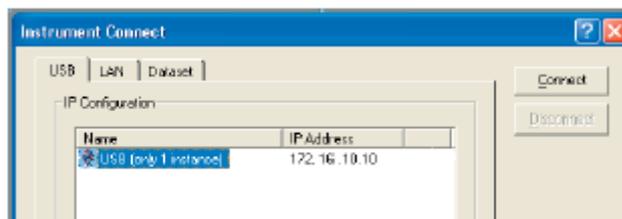
The R&S FSH uses a fixed IP address for the USB connection: 172.16.10.10. The subnet mask is 255.255.0.0.

The subnet mask must match for both the PC and the R&S FSH. The last two numbers in the PC's IP address must be different from the last two numbers in the above IP address.

For example, the PC's IP address could look like this: 172.16.66.5. The first two numbers are fixed.



- Start the R&S FSH4View software on the PC.
- Select the **USB** tab in the open input window.
- The USB connection is preconfigured and cannot be modified. The USB connection is made via a predefined IP address.



- Select the R&S FSH4 connection and make the connection to the R&S FSH by clicking **Connect**.