

# How to use R&S®SFE Broadcast Tester and R&S®SFE100 Test Transmitter drivers Driver Documentation

- | R&S®SFE Broadcast Tester
- | R&S®SFE100 Test Transmitter

How to use LabVIEW, LabWindows/CVI  
and VXPlug&Play drivers for VEE, C++,  
C#, Visual Basic, Visual Basic.NET etc.

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# 1 LabVIEW

## 1.1 Getting Started

Unpack content of archive into LabVIEW root folder (i.e. \Program Files\LabVIEW 8.0). The driver will then be directly accessible from LabVIEW Instrument Driver function palette menu.

Attribute Browser Express VI is accessible from Express VI User Libraries palette menu.

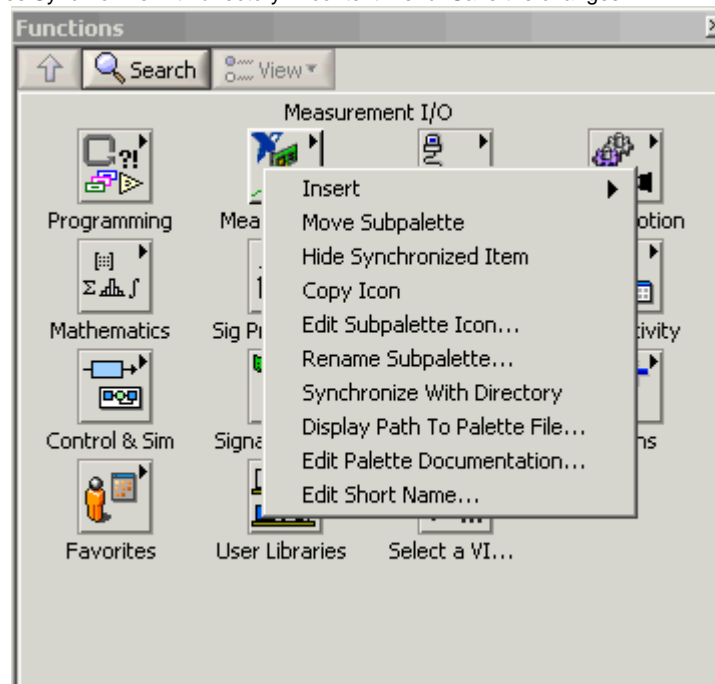
## 1.2 LabVIEW settings

For best results please turn off 'Synchronize with directory' feature on Instrument Drivers palette before installing any Rohde & Schwarz LabVIEW driver. If this feature is turned on, it overwrites driver's palette files with its own.

### 1.2.1 LabVIEW 8 and later

Turn off "Synchronize with directory" feature :

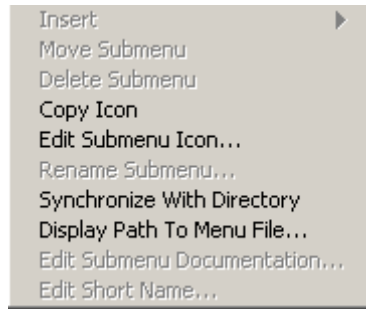
Tools => Advanced => Edit palette set. Then find "Instrument I/O" palette, right click on it and clear checkbox besides Synchronize with directory in context menu. Save the changes.



## 1.2.2 LabVIEW 7

Turn off “Synchronize with directory” feature :

Tools->Advanced->Edit palette views. Then find “Instrument I/O” palette => Instr Drivers right click on it and clear checkbox besides Synchronize with directory in context menu. Save the changes.



## 1.3 Additional Help

In addition, the instrument driver documentation is included in compressed HTML format (Windows CHM help file) stored together with the LabVIEW driver sources.

Each VI's help is linked to the section in the "CHM" file that describes all the features of the VI.

An additional help topic can be accessed directly by pressing "Click here for more help" in the Context Help

## 1.4 LabVIEW 7.1 driver

Please use the LabVIEW 7 driver.

## 1.5 LabVIEW 8.2 and LabVIEW 8.5 driver

Please use the LabVIEW 8 driver.

## 2 LabWindows/CVI

### 2.1 CVI Version

Use National Instruments LabWindows/CVI 5.5 or later.

- rsidr\_core.c
- rsidr\_core.h
- rssfe\_attributes.c
- rssfe\_attributes.h
- rssfe\_utility.c
- rssfe\_utility.h

### 2.2 How to use

Add also following files to your project:

### 2.3 Additional Help

The LabWindows/CVI instrument driver consists of a ZIP archive containing the driver sources. In addition, the instrument driver documentation is also included in compressed HTML format (Windows CHM help file) and stored together with the driver sources.

## 3 VXIplug&play Instrument Driver for VEE, C++, C#, Visual Basic, Visual Basic .NET etc.

### 3.1 C#

A wrapper is necessary to enable a direct access to the driver DLL.

The rssfe.cs wrapper for C# is automatically installed in the ~VXIIPnP\WinNT\include directory.

### 3.2 Visual Basic .NET

A wrapper is necessary to enable a direct access to the driver DLL.

The rssfe.vb wrapper for .NET is automatically installed in the ~VXIIPnp\WinNT\include directory.

See the Visual Basic .NET examples.

### 3.3 VEE Version

Use VEE 6 or later.

### 3.4 Additional Help

In addition, the instrument driver documentation is also included in compressed HTML format (Windows CHM help file) and stored together with the driver sources in the ~VXIIPnp\WinNT\rssfe directory.

### 3.5 Additional Information

For more information regarding the VXIIPnP instrument drivers, please read the readme.txt file that comes with each driver.

## 4 Linux

Drivers for Linux are available - Please contact Rohde & Schwarz Customer Support Center

## 5 Remote control via LAN

### 5.1 Instrument Name and IP Address

In order to connect the instrument using LAN/VXI-11 use the Instrument Name or the IP Address.

The R&S SFE is preconfigured for networks using DHCP (Dynamic Host Configuration Protocol). In these networks, an available IP address is automatically assigned to the R&S SFE. In this case the SFE is identified via an unambiguous computer name in the network.

### 5.2 To find the Instrument Name and IP Address on the Instrument

Manually: Press SETUP=> SETUP=> COMMUNICATION

SETUP MENU	COMMUNICATION	
SELECTION		
FAVORITES	SET DEFAULT COMPUTER NAME	
SETUP	FULL COMPUTER NAME	RSSFE-100103
INFO FIRMWARE	ADDRESS TYPE	DHCP_ON
INFO HARDWARE	TCP/IP ADDRESS	010.113.010.114
SOFTWARE OPTIONS	SUBNET MASK	255.255.000.000
HARDWARE OPTIONS	GATEWAY	010.113.000.001
ADJUSTMENT	APPLY	
HARDWARE SETTINGS	BACK	
COMMUNICATION		
SERVICE		

### 5.3 Initialize

Use the Instrument Name or the IP Address as resourceName in the rssfes\_init function.

Example:

If the Instrument Name is RSSFE-100103 the resourceName is TCP/IP::RSSFE-100103::INSTR

If the IP Address is 010.113.10.114 the resourceName is TCP/IP:: 010.113.10.114::INSTR



### **About Rohde & Schwarz**

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