5.2.3.1 Remote Control over GPIB

The program example in this section is written in VISUAL BASIC. A condition for programming in VISUAL BASIC is that the modules NIGLOBAL (`Niglobal.bas`) and VBIB32 (`Vbib_32.bas`) are added to the projects.

Drivers for instrument, e.g. IVI-COM and LabVIEW drivers, are available in the download area of the product website (http://www.rohde-schwarz.com/en/products/test_and_measurement/product_categories/signal_generation/).

Starting a remote control session over GPIB

As a prerequisite, the GPIB address of the instrument, which is factory-set to 28, must not have been changed.

1. Connect instrument and controller using GPIB cable and switch them on.
2. Execute following commands on the controller:
   a) Open port to the instrument
   ```
   CALL IBFIND("DEV1", generator%)
   ```
   b) Inform controller about instrument address
   ```
   CALL IBPAD(generator%, 28)
   ```
   c) Reset instrument
   ```
   CALL IBWRT(generator%, "*RST;*CLS")
   ```
   d) Set instrument to new address
   ```
   CALL IBWRT(generator%, "SYST:COMM:GPIB:ADDR 18")
   ```
   e) Inform controller about new address
   ```
   CALL IBPAD(generator%, 18)
   ```
   The GPIB address of the instrument is changed.
3. To return to manual operation sent `CALL IBLOC (generator%)` or press the [LOCAL] key at the front panel.

5.2.3.2 Remote Control over LAN using VXI-11 Protocol

In this example, the I/O software library R&S VISA from Rohde & Schwarz is used to set up a LAN remote control link and remotely control the R&S SMB. R&S VISA is running on a controller PC with Windows operating system. When the connection is set up you can send commands to the instrument, and receive the responses.

The remote control connection requires a VISA installation but no additional hardware on the controller PC. The LAN I/O channel is selected at initialization time using the VISA resource string (also referred to as "address string"). A VISA alias (short name) is used to replace the complete resource string. The host address is either the R&S SMB's hostname or IP address. See also Chapter 5.1.3, "LAN Interface", on page 242.