File Transfer between Analyzers FSE or ZVR and PC using MS-DOS Interlink

Application Note 1EZ34_0E

Products:

FSEA, FSEB, FSEM
ZVRL, ZVRE, ZVR

ROHDE&SCHWARZ

1.   INTRODUCTION

The spectrum and network analyzer families FSE and ZVR incorporate the operating system MS-DOS 6.22 in their computer function option (-B15). Part of this operating system are the computer link tools INTERSVR.EXE and INTERLNK.EXE. Using these two programs and a simple serial or parallel cable, files on the instrument harddisk can be accessed via additional virtual drives on the connected PC.

2.   HARDWARE CONFIGURATION

The instrument must be fitted with the computer function option.

You can find the cable interconnection for both serial and parallel cables in the notes section of the online help of `interlnk`.
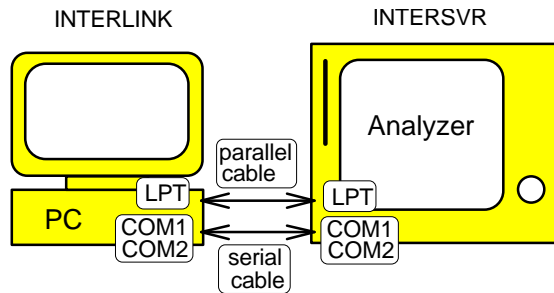

Fig. 1: Hardware configuration

Serial cable interconnection：
```
connector type                 connector type
9pin    25pin                  25pin    9pin
======  =======                =======  ======
Pin 5   Pin 7   <------>  Pin 7    Pin 5
        (GND    -         GND)
Pin 3   Pin 2   <------>  Pin 3    Pin 2
        (Send   -         Receive)
Pin 7   Pin 4   <------>  Pin 5    Pin 8
        (RTS    -         CTS)
Pin 6   Pin 6   <------>  Pin 20   Pin 4
        (DSR    -         DTR)
Pin 2   Pin 3   <------>  Pin 2    Pin 3
        (Receive -        Send)
Pin 8   Pin 5   <------>  Pin 4    Pin 7
        (CTS    -         RTS)
Pin 4   Pin 20  <------>  Pin 6    Pin 6
        (DTR    -         DSR)
```

Parallel cable interconnection：
```
connector type  connector type
25pin           25pin
======          ======
Pin 2   <---->   Pin 15
Pin 3   <---->   Pin 13
Pin 4   <---->   Pin 12
Pin 5   <---->   Pin 10
Pin 6   <---->   Pin 11
Pin 15  <---->   Pin 2
Pin 13  <---->   Pin 3
Pin 12  <---->   Pin 4

Pin 10  <---->   Pin 5
```

```
Pin 11  <---->   Pin 6
Pin 25  <---->   Pin 25 (GND-GND)
```

3.   SOFTWARE CONFIGURATION

When using a serial port for the transfer, this COM port must be made available for DOS in the general setup menu of the instrument.

Depending on the interface used one of the following lines must be added to the file `c:\autouser.bat` on the instrument:

`c:\dos\intersvr /COM:1 /X=A: /X=D:`

`c:\dos\intersvr /COM:2 /X=A: /X=D:`

`c:\dos\intersvr /LPT /X=A: /X=D:`

On the connected PC the following line must be added to the file `config.sys`:

`DEVICE=C:\DOS\INTERLNK.EXE`

For information on the parameters for the two programs refer to the MS-DOS online help.

After booting of the connected instrument, the host PC will install the instrument drive C: following the last harddisk or CD-ROM drive (eg D:, E: or F:). File access is now as usual on the virtual drive with the restrictions mentioned in the online help of the programs (no formatting, defragmentation, disk partitioning, etc).

Note that the direct PC connection of Windows95 does not work with interlink. PCs running Windows95 must add the driver `interlnk.exe` from MS-DOS 6.2 to the file `config.sys` in order to establish a connection to the instrument.

Windows NT does not support interlink connections at all.

Trademarks
MS-DOS, Windows, Windows95 and Windows NT are trademarks of Microsoft Corporation.

Johannes Ganzert, 1ES1
Rohde & Schwarz
25 April 1997