

VISA Interface in CALIBER Program

The VISA interface (Virtual Instrument Software Architecture) in Caliber program enables connection and communication of instruments supporting this standard. It proceeds independently of buses by means of which the computer communicates with instruments (GPIB, RS232, LAN, USB). It is the only interface in the Caliber program which allows to communicate by means of the USB bus.

The Caliber program distinguishes following interface types:

GPIB	}	- Remote control
RS232		
VISA		
Camera		
Manually		

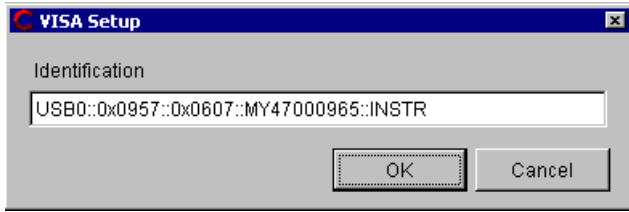
These interfaces are specified in an instrument card. All communication by means of different buses is completely the same and difference is in way of adjustment only. Because of it is usual to write down in the instrument card all the macros common for all the buses (called "Remote control" in the program). Only one macro type which must be written down separately is the "Open/Close" instrument macro. There is also setting of basic communication parameters at this macro type. It is an address at the GPIB interface, a port number at RS232, speed of communication, etc. Only an identification string is necessary for unambiguous identification at the VISA interface. All other communication parameters are controlled by the VISA protocol.

For communication by means of the VISA interface are necessary following items:

- an instrument
- an instrument driver supporting the VISA standard
- VISA driver, it can be used the NI-VISA controller of National Instruments Company, which is a part of complete NI488.2 packet, there is also an independent version of this driver available.
- an instrument card of the Caliber programs containing VISA setup

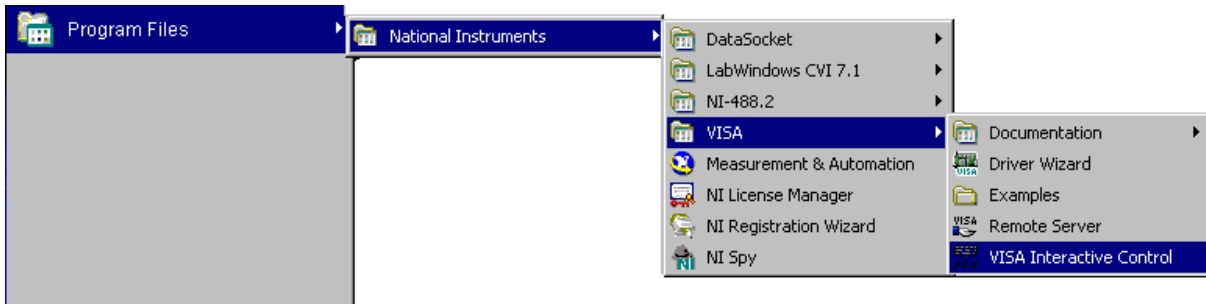
VISA Setup in CALIBER Program

It is necessary either to create or to copy from GPIB or RS232 the Open/Close macro. In addition to, the "VISA Setup" is to be perform for this macro, which consists in enter of an identification string only.

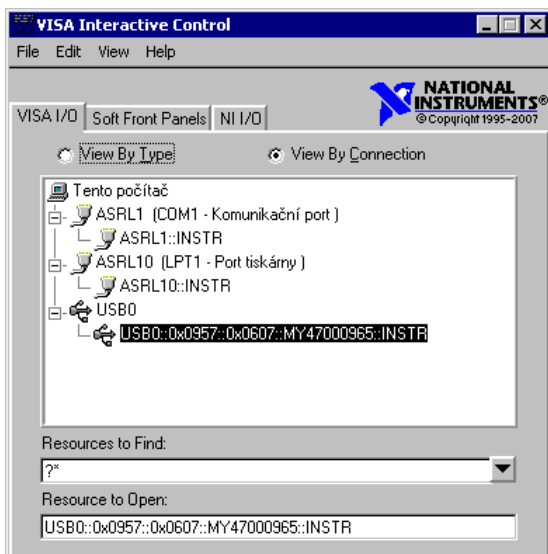


Obtaining the VISA Identification String

The identification string can be read out direct from the instrument menu. But it can also be obtained by means of the VISA Interactive Control program of National Instruments Company, which is installed with the VISA driver together. Eventually other programs can be used as well, e.g. the Agilent IO Libraries Suite program.



After program start the following panel shall be displayed:



All the connected instruments and their identification string are shown in this panel. In the picture you can see the HP34410 instrument connected to the USB bus.

USB0::0x0957::0x0607::MY47000965::INSTR