# TelNET – how to use it in application software

This application note describes how to implement TelNET protocol used in MEATEST instruments into your own applications.

## Description

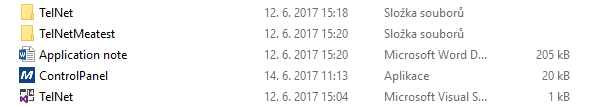


Figure 1 Root directory

In root directory you can find ControlPanel.exe file. This is executable application of control panel. In TelNet directory you can find source code for ControlPanel, editable with MS VisualStudio. In TelNetMeatest directory you can find source code for dll library, also editable with MS VisualStudio.

ControlPanel uses TelNetMeatest.dll library with following methods:

* **connect()** establishes connection with instrument over LAN-TelNet interface.
* **send(xxx)** sends **xxx** text string including terminal characters to the instrument.
* **read()** reads feedback from the instrument.
* **disconnect()** terminates connection between PC and instrument.

## How to use the library

TelNetMeatest.dll Library uses simple implementation of TCP/IP protocol. You can connect either via router with DHCP server service (recommended) or directly.

### 2.1 Connecting via DHCP

All you have to set in DHCP mode is HOST NAME argument, which has to be the same in both PC and the instrument. You can either change it in the instrument: Menu->Interface->Lan Settings->Host Name (“M160” by default), for ControlPanel is HOST NAME under label Instrument name (Alias) like in figure 2:

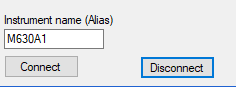


Figure 2 Alias

### 2.2 Direct connection

If you don’t have any router with DHCP service at your disposal, you can connect directly with LAN cable. To do this, set your PC network settings as follows:

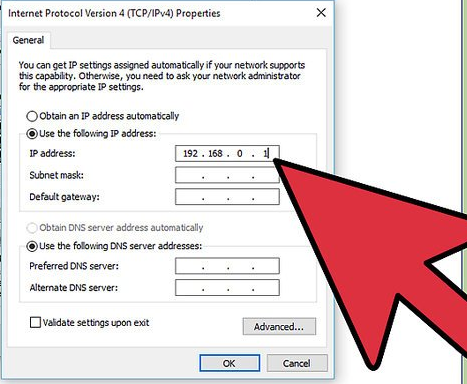


Figure 3 Internet connection properties

Select IP address from the same subnet as the instrument and enter the same Subnet mask and Default gateway as in the instrument. You can use these for instance:

* IP address PC: 192.168.1.1, IP address Instrument: 192.168.1.2
* Subnet mask both: 255.255.255.0
* Default gateway both: 192.168.1.1

Finally disable DHCP in the instrument (and double check IP, gateway and mask).

### 2.4 Demo application

Once connection settings have been set up, you can run the demo application (ControlPanel.exe). First click the “Connect” button which invokes **connect()** method. Message like “Welcome to M160 device” in lower textbox indicates successful connection with the device. If you don’t get such message after pressing “Connect” button, check your connection settings in PC again.

To send command to the instrument you can either:

1. Click on frequently used commands in upper textbox and confirm with “Send” button.
2. Write command by yourself into central textbox and confirm with “Send” button.

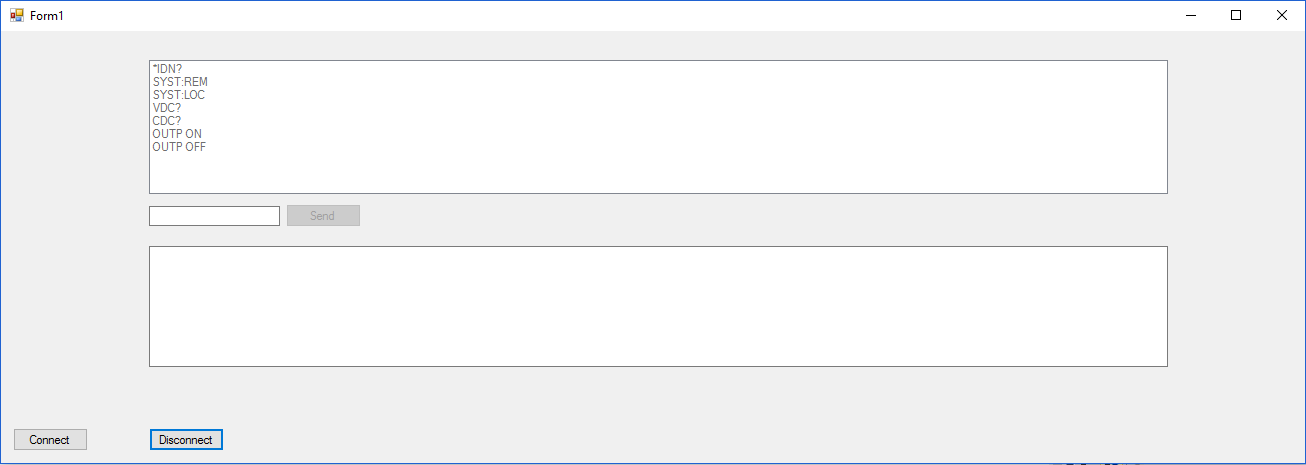


Figure 4 Control panel

Responses from the instrument will appear automatically. Finnish your session before closing ControlPanel.exe using “Disconnect” button.