

# Using the WT5000/WT1800(E)/WT1600/WT3000(E)/WT500/WT300(E)series Sample Program

Microsoft Visual Basic 6.0, Microsoft Visual C++ 6.0,  
VisualStudio2005/2008/2010/2013/2015/2017/2019

(Microsoft Visual Basic.Net, Microsoft Visual C++, Microsoft Visual C#)

\*WT1600 does not support Visual Basic.Net and Visual C# and Visual Studio 2017.

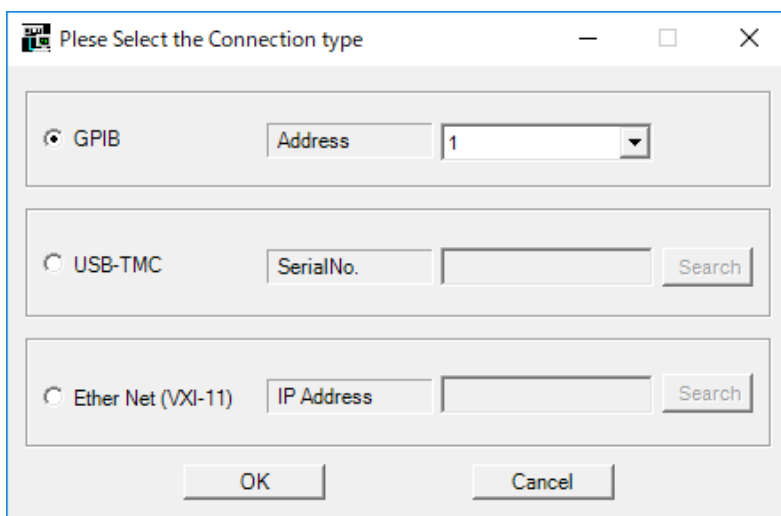
\*WT5000 supports only Visual Studio 2010/2013/2015/2017/2019

\*Visual Studio 2019 only supports WT5000.

## Operating procedure

1. Install any one of the below program on the PC.
  - Microsoft Visual C++ 6.0 (hereinafter VC) or
  - Microsoft Visual Basic 6.0 (hereinafter VB) or
  - Microsoft VisualStudio (hereinafter VS).
2. Download a sample program from our Web site and decompress/unzip it.
3. Double-click the dsw, vbp or sln file for VC, VB or VS respectively to start the software.
4. The program starts with a ! for VC or a right - pointed triangle for VB/VS displaying the window shown in figure 1.

<Figure 1: Example of WT5000, WT1800(E), WT500 and WT300(E) series >



WT5000, WT1800(E), WT500 and WT300(E) series have below functions.

The connection information file is available at the start. This will provide the details of communication setting screen with respect to each setting status. If this file is not available then the item will not be set.

When connection information file is created and updated after the communication is successfully established with the instrument, press the OK button.

In addition, the button to the right of the USBTMC and EtherNet - VXI11 not only checks if the instrument is connected physically to the PC but also determines if the instrument is supported by the sample program and the result is displayed on the settings of the input unit.

If there are multiple instruments, set the input selection to combo box and select from the results list.

<Figure2 Example of WT3000(E) Set up Menu>

The screenshot shows a dialog box titled "Please Select the Connection type". It contains four radio buttons for selecting a connection method: GPIB (selected), Ether Net, USB, and RS232. Each method has associated input fields: GPIB has an "Address" dropdown set to "1"; Ether Net has "IP Address", "Username" (set to "anonymous"), and "Password" fields; USB has an "Address" dropdown set to "1"; RS232 has "Port" (set to "COM1"), "Baud Rate" (set to "1200"), "Format" (set to "8-NO-1"), "Handshake" (set to "CTS-RTS"), and "Terminator" (set to "LF") fields. "OK" and "Cancel" buttons are at the bottom.

\*This program uses the TMCTL proprietary communication library supplied by Yokogawa Test & Measurement Corporation. Download TMCTL from below website and read the "tmctl read me" file.

<https://tmi.yokogawa.com/library/search/#?s=d&t=6>

Enter the settings for the connection interface and communication conditions, and then click **OK**.

- WT1600 is not supported for USB communication.
- WT5000, WT1800(E) and WT500 are not supported for RS232 communication.

### **GP-IB connection**

Input the GP - IB address of the WT unit to be connected (1 to 30).

\*National Instruments GP - IB card is required.

### **Network connection**

Input the IP address of the WT unit to be connected.

The initial condition is, user name: anonymous, no password.

\*Please set IP address for the WT5000/WT1800(E)/WT500/WT300(E).

### **RS232 connection**

Input the Port, Baud rate, Format, Handshake and Terminator of the WT unit to be connected.

### **USB connection**

Input the USB ID number of the WT unit to be connected (0 to 127).

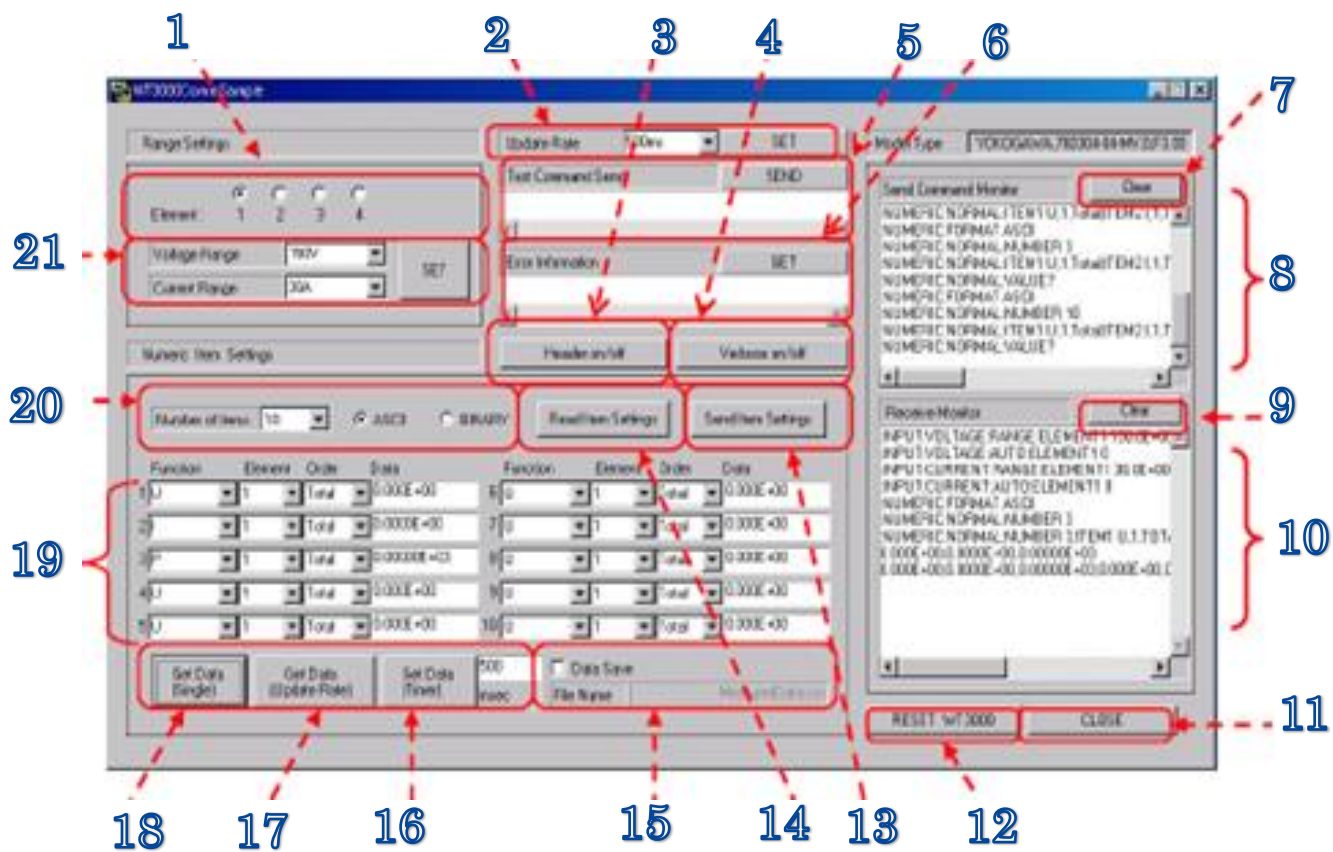
For WT5000, WT1800(E), WT500 and WT300(E), please fill in the serial number.

Also, the USB driver (YTUSB, YKMUSB) is required for the connection.

\*This program uses the USB driver (YTUSB, YKMUSB) supplied by Yokogawa Test & Measurement Corporation which can be downloaded.

<https://tmi.yokogawa.com/library/search/#?s=d&t=6>

<Figure 3 Example of WT3000(E) Sample Program menu>



Ref No	Description
1	Select the element for the range setting.
2	Set the data update rate and press SET.
3	Turn headers ON and OFF.
4	Turn abbreviations of sent commands ON and OFF.
5	Command line to enter parameters such as scaling that are not available on the setting screen. Click SEND to send the data after entering the command.
6	Setting errors and other information.
7	To clear the contents of the command line.
8	To monitor sent commands. For example, when setting the voltage and current the actual sent commands are displayed allowing to confirm and to refer.
9	To clear the contents of the command line.
10	To monitor the received commands. Displays the data and other items that the WT instrument returns in response to inquiry commands.
11	To close the program screen.
12	To reset the settings on the WT instrument.
13	To send the items displayed on the screen to the WT instrument.
14	To load the set items.
15	To save data using the input file name.
16	To continuously receive data using the input file name.
17	To continuously receive measured data at each data update rate.
18	To receive the measured data once.
19	To set the functions, elements and orders for loading measured data.
20	To select the number of data to acquire. Up to 10 items can be measured using this sample software. The format of the acquired measured data can be switch (ASCII/BINARY).
21	Set the voltage range and press SET. Also, for current, set the direct input range or external input range and press SET.