



Introduction:

ModbusTCPTest is an invaluable software testing tool that you may use to validate communications between your PC and a Watlow EZ-ZONE® family controller.

In the basic form, you will use this tool to either read or write to Modbus registers with in a controller equipped with the Modbus TCP protocol.

Each Modbus register in the controller contains 16-bits of information called one word. All 16-bit words are stored in unsigned integer format. Any information that pertains to precision data is stored in two consecutive Modbus registers such as 360 and 361 which together form a location to store a closed loop set point. Since each register is 16-bits wide, two registers will form 32-bits of information using two words.

Some information is encoded in 32-bit IEEE-754 floating point format. In this way, the controller can display process or temperatures to a precision of 0.001 units or degrees. Every piece of information in the controller is referenced by a Modbus register or address location starting at an even number. You will never write to an odd numbered Modbus address (using relative addressing, see more detail below).

Protocol Background Information:

Gould Modicon, now called AEG Schneider, created the protocol referred to as "Modbus" and used it in process control systems. Modbus provides the advantage of being extremely reliable in exchanging information, a highly desirable feature for industrial data communications. This protocol works on the principle of packet exchanges. The packet contains the address of the controller to receive the information, a command field that says what is to be done with the information, and several fields of data. Reading from these registers retrieves all information in the controller. Each of these registers' address is listed in the user's manual (Operations, Setup, Profiling, & Factory Pages). You will need this list to determine where the data is located. The last item sent in the packet is a field to ensure the data is received intact. This is called a cyclical redundancy check-sum (CRC). This program creates the required packet for you and sends it to the controller. A packet response from the controller is automatically decoded and checked for accuracy.

Many parameter values within the controller are four bytes in length and require two Modbus registers. By default, the low register address contains the two lower bytes and the high register address contains the two higher bytes. If it makes your programming easier you may reverse this Modbus default where the low register address contains the two higher bytes and the high register address contains the two lower bytes. This program will let you select the word order to match the controllers' setting.

Modbus RTU is typically deployed over serial connections where Modbus TCP is deployed over the Ethernet physical layer. If it is desired to acquire more information on Modbus RTU or Modbus TCP protocols refer to <http://www.modbus.org> for the detailed specification. Modbus TCP utilizes port 502 on your PC. Therefore if you have problems connecting with this program, ensure that port 502 is not blocked for establishing Ethernet communications.

Lastly, Modbus register addressing is sometimes referenced by a relative address or an absolute address. This program and the user's manual use the relative addressing concept. If your program or PLC uses absolute addressing, either add 40,001 or 400,001 to the listed relative address. Your PLC must use the 400,001 method to access register addresses higher than absolute address 49,998. The maximum relative address that may be specified is 65,565 or absolute address 465,566. Although this may be confusing, the details are not important to make this work. Mainly, you must know how to enter the correct register address for the program or PLC being used. Again, this program uses relative addressing which we list in the user's manual for every parameter.



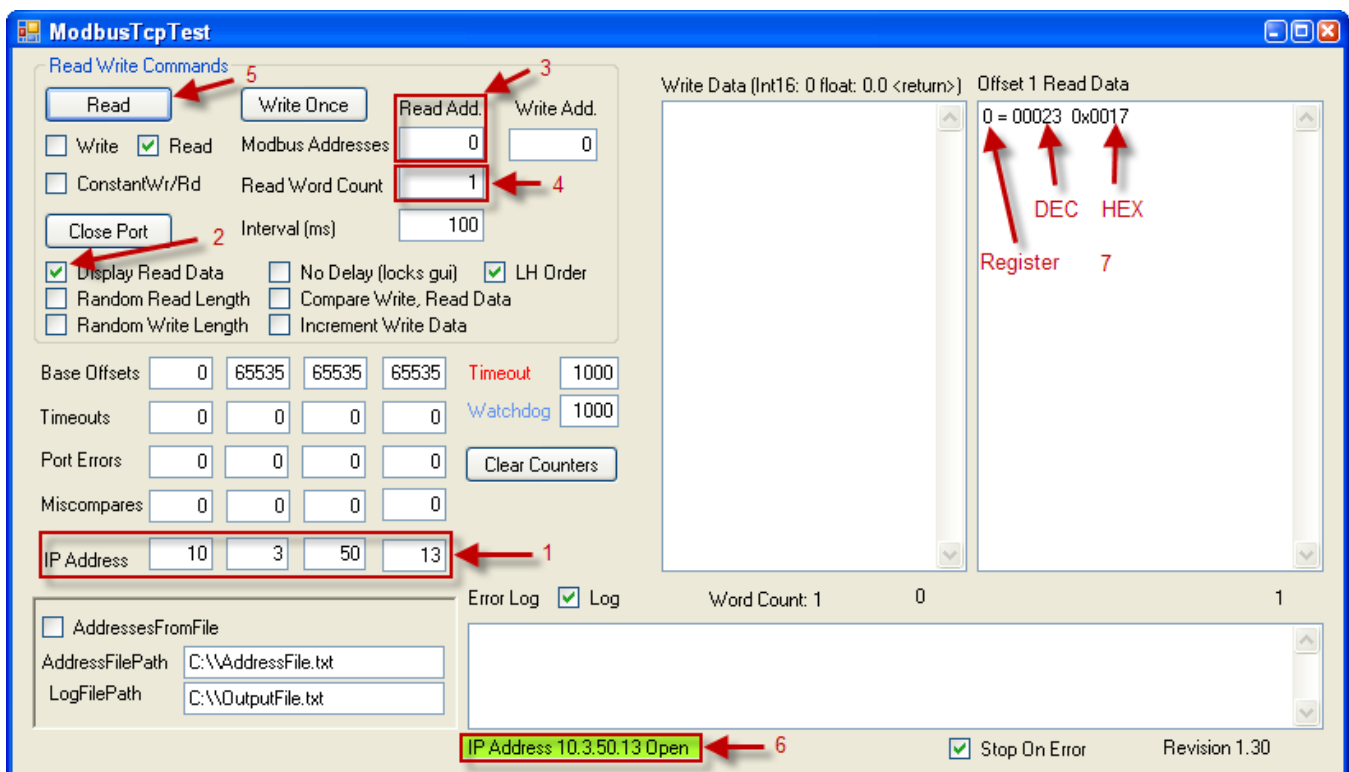
To see a white paper called Sample EZ-ZONE PM 32-bit Modbus packet refer to
<http://www.watlow.com/literature/prodtechinfo/files/controllers/sample%20ez-zone%20pm%2032-bit%20modbus%20packet.pdf>



Using the program:

Example 1: To read a 16-bit value (1 register or word).

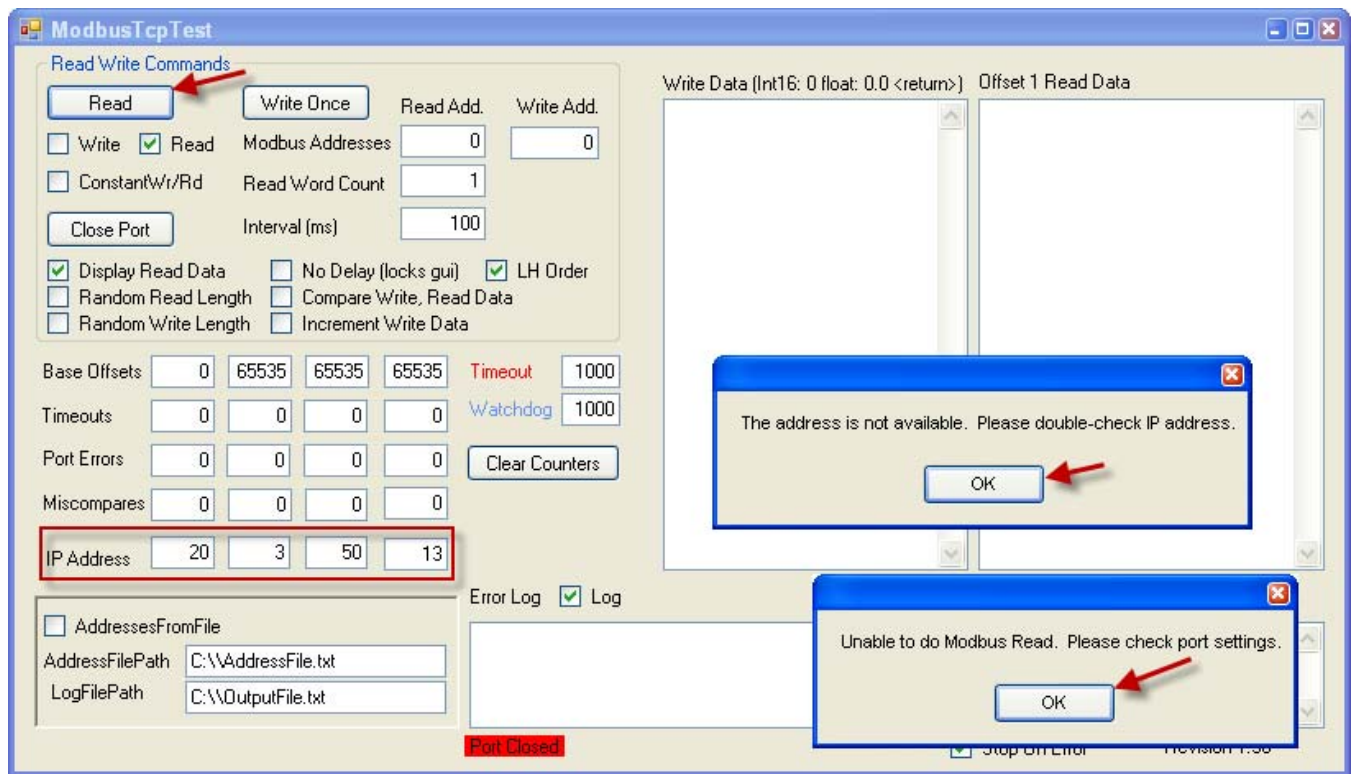
1. Enter IP address of controller
2. Check 'Display Read Data'
3. Enter Modbus register to read in controller using relative addressing. The user's manual show relative addresses for all parameters. Register 0 is the hardware ID of EZ-ZONE® products.
4. Enter 'Read Word Count' (1 = 16 bits)
5. Click 'Read' button
6. If valid port was entered, display will show 'IP Address x.x.x.x Open'
7. Value read from register is displayed in decimal and hexadecimal formats.





Using ModbusTCPTest

If IP Address is not valid, you will receive error messages.





Using ModbusTCPTest

If there is a TCP Port Error, the Port Error will increment the counter and an Error Log will be displayed.

The screenshot shows the ModbusTcpTest application window. The 'Read Write Commands' section on the left has 'Read' selected. The 'Port Errors' counter is highlighted with a red box and shows the value '2'. The 'Error Log' section at the bottom right is also highlighted with a red box and contains the following text:

```
System.ObjectDisposedException: Cannot access a disposed object.  
Object name: 'System.Net.Sockets.TcpClient'.  
at System.Net.Sockets.TcpClient.GetStream()  
at Modbus.IO.TcpClientAdapter.Write(Byte[] buffer, Int32 offset, Int32 size)
```

Other visible details include the 'Base Offsets' section with values 0, 65535, 65535, 65535, and a 'Timeout' of 1000. The 'IP Address' is set to 20.3.50.13. The 'Error Log' checkbox is checked, and the 'Stop On Error' checkbox is also checked. The status bar at the bottom indicates 'Port Closed' and 'Revision 1.29'.



Example 2: To read a 32-bit value (2 registers or words).

1. Enter IP address of controller.
2. Check 'Display Read Data'
3. Enter Modbus register to read in controller using relative addressing. The user's manual show relative addresses for all parameters. Registers 360 & 361 is the analog input 1 process value of EZ-ZONE® RMC product.
4. Enter 'Read Word Count' (2 = 32 bits)
5. Check the word order for 32-bit values. The default setting in the controller is Low word – High word order.
6. Check only 'Read' box and Click 'Read' button
7. If valid port was entered, display will show 'IP Address x.x.x.x Open'
8. Values read from register are displayed in decimal and hexadecimal formats. The converted 32-bit floating point value is displayed in degrees Fahrenheit by default.

The screenshot shows the ModbusTcpTest application window. The interface includes a 'Read/Write Commands' section on the left with buttons for 'Read' (highlighted with red arrow 6), 'Write Once', 'ConstantWr/Rd', and 'Close Port'. Below these are checkboxes for 'Display Read Data' (checked, with red arrow 2), 'Random Read Length', 'Random Write Length', 'No Delay (locks gui)', 'Compare Write, Read Data', and 'Increment Write Data'. The 'Read Add.' field is set to 360 (red arrow 3) and 'Read Word Count' is set to 2 (red arrow 4). The 'Interval (ms)' is set to 100 (red arrow 5). The 'IP Address' field is set to 10.3.50.13 (red arrow 1). The 'Base Offsets' are set to 0, 65535, 65535, 65535. The 'Timeout' is set to 1000 and 'Watchdog' is set to 1000. The 'Error Log' is checked (red arrow 7). The 'Write Data' section shows 'Write Data (Int16: 0 float: 0.0 <return>)' and 'Offset 1 Read Data' with values 360 = 03800 0x0ED8 and 361 = 17692 0x451C. The 'Offset 1 Read Data' section also displays the value 2496.928 (red arrow 8). The status bar at the bottom shows 'IP Address 10.3.50.13 Open' (red arrow 7) and 'Stop On Error' (checked) and 'Revision 1.30'.



Example 3: To write a 16-bit value (1 register or word).

1. Enter IP address of controller
2. Enter Modbus register to read in controller using relative addressing. The user's manual show relative addresses for all parameters. Register 2220 is the control mode 1 value of EZ-ZONE[®] RMC product.
3. Enter data value to write. 62 = Off, 10 = Auto and 54 = Manual. After entering integer value in this field, be sure to hit the 'Enter key'
4. Check only 'Write' box and Click 'Write' button or Click the 'Write Once' button
5. Word Count indicates number of words written
6. If valid port was entered, display will show 'IP Address x.x.x.x Open'

The screenshot shows the ModbusTcpTest application window. Red arrows and numbers 1 through 6 point to specific UI elements corresponding to the steps in the example:

- 1. Points to the IP Address input field, which contains the values 10, 3, 50, and 13.
- 2. Points to the Write Add. input field, which contains the value 2220.
- 3. Points to the Write Data (Int16: 0 float: 0.0 <return>) text box, which contains the value 62.
- 4. Points to the Write button in the Read/Write Commands section.
- 5. Points to the Word Count: 1 display.
- 6. Points to the status bar at the bottom, which displays "IP Address 10.3.50.13 Open".

Other visible UI elements include the Read/Write Commands section with checkboxes for Write, Read, and ConstantWr/Rd; Modbus Addresses (0) and Read Word Count (2); Interval (ms) (100); Base Offsets (0, 65535, 65535, 65535); Timeout (1000); Watchdog (1000); Port Errors (0, 0, 0, 0); Miscompares (0, 0, 0, 0); Error Log (checked); Log; AddressFilePath (C:\AddressFile.txt); LogFilePath (C:\OutputFile.txt); Stop On Error (checked); and Revision 1.30.



Example 4: To validate previous write of a 16-bit value (1 register or word).

1. Enter IP address of controller if not already done
2. Check 'Display Read Data' if not already checked
3. Enter Modbus register to read in controller using relative addressing. The user's manual show relative addresses for all parameters. Register 2220 is Control Mode 1 of EZ-ZONE® RMC products.
4. Enter 'Read Word Count' (1 = 16 bits)
5. Check only 'Read' box and Click 'Read' button
6. If valid port was entered, display will show 'IP Address x.x.x.x Open' if not already opened
7. Values read from register are displayed in decimal and hexadecimal formats.

The screenshot shows the ModbusTcpTest application window. Red arrows and numbers 1 through 7 point to specific UI elements:

- 1: Points to the IP Address input field, which contains the value 10.3.50.13.
- 2: Points to the 'Display Read Data' checkbox, which is checked.
- 3: Points to the 'Read Add.' input field, which contains the value 2220.
- 4: Points to the 'Read Word Count' input field, which contains the value 1.
- 5: Points to the 'Read' button in the 'Read/Write Commands' section.
- 6: Points to the status bar at the bottom, which displays 'IP Address 10.3.50.13 Open'.
- 7: Points to the 'Offset 1 Read Data' display area, which shows the value 2220 = 00062 0x003E.

The interface includes various configuration options such as 'Write Once', 'Modbus Addresses', 'Interval (ms)', 'Base Offsets', 'Timeouts', 'Port Errors', 'Miscompares', 'AddressesFromFile', 'AddressFilePath', and 'LogFilePath'. It also features a 'Write Data' section and an 'Error Log' section.



Example 5: To write a 32-bit value (2 registers or words).

1. Enter IP address of controller
2. Enter Modbus first register to write in controller using relative addressing. The user's manual show relative addresses for all parameters. Registers 2500 & 2501 is the closed loop set point 1 value of EZ-ZONE® RMC product.
3. Match the word order for 32-bit values. The default setting in the controller is LH Order.
4. Enter data value to write. For 32-bit floating point values, enter the decimal point followed by the precision required then hit enter key.
5. Check only 'Write' box and Click 'Write' button or Click the 'Write Once' button
6. Word Count indicates number of words written
7. Port is indicated as 'IP Address x.x.x.x Open' when write is initiated unless port was already opened.

Tip: The word count for write data is displayed below the write data text box if the user wants to validate the number of words actually written.



Using ModbusTCPTest

Use the 'Read' button to read registers one time or repeatedly. Port is automatically opened when selected. Register entered is read and displayed in panel to right. User may read 1 to 125 registers with one read command by entering the number of registers to read in the 'Read Word Count' box. The check box for 'ConstantWr/Rd' will repeatedly gather data at Interval in milliseconds selected. Read data is displayed in decimal and hexadecimal format. When pairs of registers are read, the 32-bit floating point value is interpreted and displayed. EZ-ZONE products always start at even numbers like 2, 360 or 2200. Use 'Stop' button to terminate Constant Write/Read commands.



Using ModbusTCPTest

The check box for 'Display Read Data' determines if data is returned to the panel on right. Typically, this is always selected.

ModbusTcpTest

Read Write Commands

Read Add. Write Add.

☐ Write ☒ Read Modbus Addresses

☐ ConstantWr/Rd Read Word Count

Interval (ms)

☒ Display Read Data ☐ No Delay (locks gui) ☒ LH Order

☐ Random Read Length ☐ Compare Write, Read Data

☐ Random Write Length ☐ Increment Write Data

Base Offsets Timeout

Timeouts Watchdog

Port Errors

Miscompares

IP Address

☐ AddressesFromFile

AddressFilePath

LogFilePath

Write Data (Int16: 0 float: 0.0 <return>)

Offset 1 Read Data

360 = 13587 0x3513

361 = 17243 0x4358 219.2073

Error Log ☒ Log

IP Address 10.3.50.13 Open

☒ Stop On Error

Revision 1.30



Use the 'Write Once' button with the 'Write Data' pane to right. Write Data will be written one time starting at register address entered in 'Write Add.' box. It is suggested that a read command follows to validate correct writes. The program uses the multi-write function code 0x10. If you wish to write multiple 'Write Address' registers with 'Write Data' values, enter each data value followed by an 'Enter key' on a separate line in the 'Write Data' panel. Each 'Write Data' value will be written to incremental Modbus registers starting at entered register 'Write Add.'

The screenshot shows the ModbusTcpTest application window. On the left, the 'Read/Write Commands' section has the 'Write Once' button highlighted with a red arrow. Below it, the 'Write Add.' field is set to '2220'. The 'Write Data' pane on the right contains the value '62'. At the bottom, the 'Word Count' is displayed as '1'. The status bar at the very bottom indicates 'IP Address 10.3.50.13 Open' and 'Stop On Error' is checked.

Tip: Floating point values must be entered with a decimal and integer values are entered with no decimal in the 'Write Data' pane. Each data value must be followed by a carriage return. The Word Count: indicated the number of words written. A word is 16-bits. Be sure to write the correct data type to the appropriate registers.



Using ModbusTCPTest

The check box 'Increment Write Data' is for product testing purposes only and should be avoided. This will increment the 'Write Data' value written to a register automatically from 0 to 255 with each execution of the write command.

ModbusTcpTest

Read Write Commands

Read Add. Write Add.

☐ Write ☒ Read Modbus Addresses

☐ ConstantWr/Rd Read Word Count

Interval (ms)

☒ Display Read Data ☐ No Delay (locks gui) ☒ LH Order

☐ Random Read Length ☐ Compare Write, Read Data

☐ Random Write Length ☒ **Increment Write Data**

Base Offsets

Timeouts Watchdog

Port Errors

Miscompares

IP Address

☐ AddressesFromFile

AddressFilePath

LogFilePath

Write Data (Int16: 0 float: 0.0 <return>) Offset 1 Read Data

Error Log ☒ Log Word Count: 1 1 2

IP Address 10.3.50.13 Open ☒ Stop On Error Revision 1.30

Tip: The increment write data function starts at the write value entered, and adds between 0 and 255 to each word transmitted. So if you send 1 word, it will write values of 1,2,3,4,5.



Using ModbusTCPTest

The check box 'Compare Write, Read Data' feature is intended to be used when both the 'Write' and 'Read' check boxes are enabled. The 'Modbus Addresses' registers for 'Read Add.' and 'Write Add.' must be the same. The 'Read Word Count' must be correct for the data type. The program will initiate a write and then a read to validate that the values match. If the values do not match, the 'Miscompares' error counter will increment.

ModbusTcpTest

Read/Write Commands

WriteRead (selected)

☒ Write ☒ Read

☐ ConstantWr/Rd

☐ Close Port

☒ Display Read Data ☐ No Delay (locks gui) ☒ LH Order

☐ Random Read Length ☒ Compare Write, Read Data

☐ Random Write Length ☐ Increment Write Data

Base Offsets: 0 65535 65535 65535 Timeout: 1000

Timeouts: 0 0 0 0 Watchdog: 1000

Port Errors: 0 0 0 0 Clear Counters

Miscompares: 0 0 0 0

IP Address: 10 3 50 13

☐ AddressesFromFile

AddressFilePath: C:\AddressFile.txt

LogFilePath: C:\OutputFile.txt

Write Once: []

Modbus Addresses: Read Add. 2220 Write Add. 2220

Read Word Count: 1

Interval (ms): 100

Write Data (Int16: 0 float: 0.0 <return>): 62

Offset 1 Read Data: 2220 = 00062 0x003E

Word Count: 1 4 5

Error Log: ☒ Log

IP Address 10.3.50.13 Open

☒ Stop On Error

Revision 1.30



Using ModbusTCPTest

The check boxes 'Random Read Length' and 'Random Write Length' are for product testing purposes only and should be avoided. This feature will randomize the quantity of read or write registers in conjunction with 'ConstantWr/Rd'.

The screenshot shows the ModbusTcpTest application window. The 'Read/Write Commands' section on the left contains several controls: a 'WriteRead' button, 'Write Once' and 'Read Add.' buttons, 'Modbus Addresses' set to 2220, 'Write Add.' set to 2220, 'Read Word Count' set to 1, and 'Interval (ms)' set to 100. Checkboxes for 'Write', 'Read', 'ConstantWr/Rd', 'Random Read Length', and 'Random Write Length' are all checked. Other options like 'Display Read Data', 'No Delay (locks gui)', 'LH Order', 'Compare Write, Read Data', and 'Increment Write Data' are unchecked. Below these are fields for 'Base Offsets' (0, 65535, 65535, 65535), 'Timeout' (1000), 'Watchdog' (1000), 'Port Errors' (0, 0, 0, 0), 'Miscompares' (0, 0, 0, 0), and 'IP Address' (10, 3, 50, 13). At the bottom left, there are fields for 'AddressFilePath' (C:\AddressFile.txt) and 'LogFilePath' (C:\OutputFile.txt). The right side of the window features two large text areas for 'Write Data (Int16: 0 float: 0.0 <return>)' and 'Offset 1 Read Data'. Below these are 'Word Count' indicators for 1, 25, and 30. The status bar at the bottom shows 'IP Address 10.3.50.13 Open', a 'Stop On Error' checkbox, and 'Revision 1.30'.



Using ModbusTCPTest

The check box for 'Log Errors' enables any errors to be logged in 'Error Log' panel.

ModbusTcpTest

Read Write Commands

Read Add. Write Add.

☐ Write ☒ Read Modbus Addresses

☐ ConstantWr/Rd Read Word Count

Interval (ms)

☒ Display Read Data ☐ No Delay (locks gui) ☒ LH Order

☐ Random Read Length ☐ Compare Write, Read Data

☐ Random Write Length ☐ Increment Write Data

Base Offsets Timeout

Timeouts Watchdog

Port Errors

Miscompares

IP Address

☐ AddressesFromFile

AddressFilePath

LogFilePath

Error Log ☒ Log

Write Data (Int16: 0 float: 0.0 <return>) Offset 1 Read Data

25 30

Pops up a message box when an exception occurs.

IP Address 10.3.50.13 Open ☒ Stop On Error Revision 1.30



The 'Base Offsets' boxes allow up to 4 controllers to be accessed via a Gateway. The program will read from each controller in round robin sequence unless the 'Base Offsets' field is 65535. The 'Base Offsets' must match the Local Remote Gateway Offset for each controller in the RUI/Gateway or Access Module.

ModbusTcpTest

Read/Write Commands

Read Add. Write Add.

☐ Write ☒ Read Modbus Addresses

☐ ConstantWr/Rd Read Word Count

Interval (ms)

☒ Display Read Data ☐ No Delay (locks gui) ☒ LH Order

☐ Random Read Length ☐ Compare Write, Read Data

☐ Random Write Length ☐ Increment Write Data

Base Offsets Timeout

Timeouts

Port Errors

Miscompares

IP Address

☐ AddressesFromFile

AddressFilePath

LogFilePath

Error Log ☒ Log

Write Data (Int16: 0 float: 0.0 <return>)

Offset 1 Read Data

IP Address 10.3.50.13 Open

☒ Stop On Error Revision 1.30

Tip: The rotating function on the 4 offsets will round robin until it hits a 65535, so if you put a 65535 in the third field, it will not check the fourth, etc...



The check box 'AddressesFromFile' feature will read file 'AddressFilePath' to determine which registers to read from controller and write values read to file "LogFilePath". This feature allows a given set of registers to be read and the results written to a file for comparisons. This happens once when the read button is clicked. This is not meant to be a data log file and does not use time/date stamping.

ModbusTcpTest

Read/Write Commands

Read Write Once Read Add. Write Add.

☐ Write ☒ Read Modbus Addresses 0 0

☐ ConstantWr/Rd Read Word Count 1

Close Port Interval (ms) 100

☒ Display Read Data ☐ No Delay (locks gui) ☒ LH Order

☐ Random Read Length ☐ Compare Write, Read Data

☐ Random Write Length ☐ Increment Write Data

Base Offsets 0 65535 65535 65535 Timeout 1000

Timeouts 0 0 0 0 Watchdog 1000

Port Errors 0 0 0 0 Clear Counters

Miscompares 0 0 0 0

IP Address 10 3 50 13

☒ **!AddressesFromFile!**

AddressFilePath C:\AddressFile.txt

LogFilePath C:\OutputFile.txt

Write Data (Int16: 0 float: 0.0 <return>) Offset 1 Read Data

Error Log ☒ Log

IP Address 10.3.50.13 Open ☒ Stop On Error Revision 1.30

Tip: You can use the 'AddressFromFile' function as a data logger if you want to repeat reads of a single or multiple addresses. You just need to create a large file with the addresses repeated for the number of times you want to read the address, or addresses.



Using ModbusTCPTest

The field 'Timeout' specifies in milliseconds the wait for a response time before a communications error is generated. The timeout field monitors all comms activity including TCP connect, and other comms and application overhead. Typical values are between 1000 to 5000 milliseconds. Enter higher numbers if occasional errors are generated.

ModbusTcpTest

Read/Write Commands

Read Add. Write Add.

☐ Write ☒ Read Modbus Addresses

☐ ConstantWr/Rd Read Word Count

Interval (ms)

☒ Display Read Data ☐ No Delay (locks gui) ☒ LH Order

☐ Random Read Length ☐ Compare Write, Read Data

☐ Random Write Length ☐ Increment Write Data

Base Offsets **Timeout**

Timeouts Watchdog

Port Errors

Miscompares

IP Address

☐ AddressesFromFile

AddressFilePath

LogFilePath

Write Data (Int16: 0 float: 0.0 <return>) Offset 1 Read Data

Error Log ☒ Log

IP Address 10.3.50.13 Open ☒ Stop On Error Revision 1.30



Using ModbusTCPTest

The field 'Watchdog' specifies the number of milliseconds to wait for a response before a communications error is generated. The Watchdog only times the actual Modbus Read/Write command. The watchdog can be lowered to find maximum transaction times on the read or write commands. This would be useful for large systems where many Standard Bus slave devices are present on the RUI/Gateway or Access Module to determine the transaction times. Typical values are between 1000 to 5000 milliseconds. Enter higher numbers if occasional errors are generated. This number should be equal or less than the 'Timeout' value.

ModbusTcpTest

Read/Write Commands

Read Add. Write Add.

☐ Write ☒ Read Modbus Addresses

☐ ConstantWr/Rd Read Word Count

Interval (ms)

☒ Display Read Data ☐ No Delay (locks gui) ☒ LH Order

☐ Random Read Length ☐ Compare Write, Read Data

☐ Random Write Length ☐ Increment Write Data

Base Offsets Timeout

Timeouts **Watchdog**

Port Errors Modbus write / read timeout setting, in milliseconds.

Miscompares

IP Address

☐ AddressesFromFile

AddressFilePath

LogFilePath

Error Log ☒ Log

IP Address 10.3.50.13 Open ☒ Stop On Error Revision 1.30



Using ModbusTCPTest

The button 'Clear Counters' resets the error counts accumulated to left. Also, the Error Log panel will be cleared.

ModbusTcpTest

Read Write Commands

Read Add. Write Add.

☐ Write ☒ Read Modbus Addresses

☐ ConstantWr/Rd Read Word Count

Interval (ms)

☒ Display Read Data ☐ No Delay (locks gui) ☒ LH Order

☐ Random Read Length ☐ Compare Write, Read Data

☐ Random Write Length ☐ Increment Write Data

Base Offsets Timeout

Timeouts Watchdog

Port Errors

Miscompares

IP Address

☐ AddressesFromFile

AddressFilePath

LogFilePath

Write Data (Int16: 0 float: 0.0 <return>) Offset 1 Read Data

Error Log ☒ Log

IP Address 10.3.50.13 Open ☒ Stop On Error Revision 1.30



Using ModbusTCPTest

The check box 'No Delay (locks gui)' is for testing purposes only and should be avoided. When used with 'ConstantWr/Rd', this feature maximizes the speed of read/writes to stress the communications capabilities of the controller. The ModbusTCPTest program must be terminated via Windows Task Manager.

ModbusTcpTest

Read/Write Commands

☒ Write ☒ Read ☒ ConstantWr/Rd

☒ Display Read Data ☒ No Delay (locks gui) ☒ LH Order

☐ Random Read Length ☐ Compare Write, Read Data

☐ Random Write Length ☐ Increment Write Data

Base Offsets

Timeouts

Port Errors

Miscompares

IP Address

☐ AddressesFromFile

AddressFilePath

LogFilePath

Error Log ☒ Log

Write Data (Int16: 0 float: 0.0 <return>) Offset 1 Read Data

25 31

IP Address 10.3.50.13 Open ☒ Stop On Error Revision 1.30