Industrial communication solutions for Windows

XWITNET Driver Manual

WIT-NET TRSII v4.7 Protocol Driver

Contents

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Industrial communication drivers.

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XWITNET technical specifications

General information

The XWITNET driver implements a limited set of commands using the WIT-NET TRSII v4.7 protocol.
If you cannot communicate or if you are using RS-485 to connect to the device, you should set the RTS signal during the communication. This can be done by setting the RTSEnable argument when calling the read and write methods. If you still cannot communicate, check that your RS-485 cables are not inverted.

Command list

Send Initialization Sequence

Description of this command:
Sends an ESCAPE sequence to gain device's attention.
Methods used to run this command:
Digital Output
Number of points accepted by this command:
1
Meaning of the DriverP0 parameter:
0
Meaning of the DriverP1 parameter:
Encript/decript message (0=No, 1=Yes)
Meaning of the DriverP6 parameter:
Initialization sequence. If left empty, the following sequence is assumed by default: 'W06'.
Important note:the indicated sequence is always sent after a 'ESC' character.

Request Access to device

Description of this command:
Requests access to the device by sending a password with the ACCESS command.
Methods used to run this command:
Analog Input
Number of points accepted by this command:
1
Meaning of the DriverP0 parameter:
5
Meaning of the DriverP1 parameter:
Encript/decript message (0=No, 1=Yes)
Meaning of the DriverP6 parameter:
Password
Values that are returned:
Value in PointValue (0) = Status code
0 = Password is good
132 = Access denied

Read System Identification

Description of this command:
Reads information about the system identification, the system version and the system type. System identification is returned as 15 separate chars, each as one PointValue containing the char ASCII code. If the identification string is shorter than 15 chars, remaining PointValues are padded with SPACEs. The system version is returned as 3 separate chars. The system type is returned as 2 separate chars.
Possible types are:
10 = MONET II

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12 = BIMONET
20 = FORCE 100
24 = FORCE X
25 = FORCE BI-MODEM
26 = FORCE MINI
27 = FORCE PLUS
28 = FORCE ECO 2A = CLIP
29 = CLIP NANO
30 = MODEM RTC
31 = MODEM BUS LS
32 = MODEM RADIO
33 = MODEM LS It is up to the application to join each individual chars to create the resulting string.

Methods used to run this command:
Analog Input
Number of points accepted by this command:
20
Meaning of the DriverP0 parameter:
0
Meaning of the DriverP1 parameter:
Encript/decript message (0=No, 1=Yes)
Values that are returned:
Value in PointValue (0-14) = Identification string (15 chars)
Value in PointValue (15-17) = Version string (3 chars)
Value in PointValue (18-19) = Type string (2 bytes)

Read System Vars

Description of this command:
Reads a consecutive group of variables, starting at a given VAR address (type and number).
Methods used to run this command:
Analog Input
Number of points accepted by this command:
1-250
Meaning of the DriverP0 parameter:
1
Meaning of the DriverP1 parameter:
Encript/decript message (0=No, 1=Yes)
Meaning of the DriverP6 parameter:
Type and number of first variable. Possible types for FORCE are (x is the variable number): ETx = T.O.R. input STx = T.O.R. output EAx = Analog input SAx = Analog output VXx = Virtual variable VEx = Extension variable TB = Battery test TS = Sector test Possible types for CLIP are (y is the chart number and x is the variable number): DIy.x = T.O.R. input DOy.x = T.O.R. output AIx = Analog input AOx = Analog output Bx, Wx, Fx = Internal variables Br, Wr, Fr = Resource variables TBat = Battery test TSup = Sector test
Values that are returned:
Value in PointValue (0) = Value for first VAR requested
Value in PointValue (1) = Value for second VAR requested .
Value in PointValue (DriverNumPoints-1) = Value for last VAR requested

Read System Trace

Description of this command:
Reads a trace of up to 991 samples preceded by 9 values with information about the trace type, status, date and time.
Important note:Since this command brings a long reply, be sure to
set a long CommTimeout to permit the arrival of the full message.
Methods used to run this command:
Analog Input
Number of points accepted by this command:
9-1000
Meaning of the DriverP0 parameter:
2

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Meaning of the DriverP1 parameter:
Encript/decript message (0=No, 1=Yes)
Meaning of the DriverP2 parameter:
Number of trace to read (1-80).
Meaning of the DriverP6 parameter:
Optional additional info to be included in the message sent. Examples:
- Use '20060131220030' to indicate that only samples registered after 22:00:30 of 31-01-2006 must be read.
- Use '53' to indicate that only the most recent 53 samples must be read.

Values that are returned:
Value in PointValue (0) = Type of trace:
1 = T.O.R. trace
2 = Analog trace
Value in PointValue (1) = Trace status
65 = Stopped
77 = Running
Value in PointValue (2) = Interval between samples in seconds
Value in PointValue (3) = Most recent sample day
Value in PointValue (4) = Most recent sample month
Value in PointValue (5) = Most recent sample year
Value in PointValue (6) = Most recent sample hour
Value in PointValue (7) = Most recent sample minutes
Value in PointValue (8) = Most recent sample seconds
Value in PointValue (9) = Value for first sample in trace
Value in PointValue (10) = Value for second sample in trace .
Value in PointValue (DriverNumPoints-1) = Value for last sample in trace

Read System Date

Description of this command:
Reads system current date.
Methods used to run this command:
Analog Input
Number of points accepted by this command:
3
Meaning of the DriverP0 parameter:
3
Meaning of the DriverP1 parameter:
Encript/decript message (0=No, 1=Yes)
Values that are returned:
Value in PointValue (0) = System day
Value in PointValue (1) = System month
Value in PointValue (2) = System year

Read System Time

Description of this command:
Reads system current time.
Methods used to run this command:
Analog Input
Number of points accepted by this command:
3
Meaning of the DriverP0 parameter:
4
Meaning of the DriverP1 parameter:
Encript/decript message (0=No, 1=Yes)
Values that are returned:
Value in PointValue (0) = System hour
Value in PointValue (1) = System minutes
Value in PointValue (2) = System seconds

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Write System Vars

Description of this command:
Writes a consecutive group of variables, starting at a given VAR address (type and number). Values are sent as floats with the selected number of decimals.
Methods used to run this command:
Analog Output
Number of points accepted by this command:
1-250
Meaning of the DriverP0 parameter:
1
Meaning of the DriverP1 parameter:
Encript/decript message (0=No, 1=Yes)
Meaning of the DriverP2 parameter:
Number of decimals (0-3)
Meaning of the DriverP6 parameter:
Type and number of first variable. Possible types for FORCE are (x is the variable number): ETx = T.O.R. input STx = T.O.R. output EAx = Analog input SAx = Analog output VXx = Virtual variable VEx = Extension variable TB = Battery test TS = Sector test Possible types for CLIP are (y is the chart number and x is the variable number): DIy.x = T.O.R. input DOy.x = T.O.R. output AIx = Analog input AOx = Analog output Bx, Wx, Fx = Internal variables Br, Wr, Fr = Resource variables TBat = Battery test TSup = Sector test
Values that are sent:
Value in PointValue (0) = Value for first VAR writen
Value in PointValue (1) = Value for second VAR writen .
Value in PointValue (DriverNumPoints-1) = Value for last VAR writen

Error messages

The following list shows the possible error messages that can be returned by the driver during a failed communication in the 'Status' property.

[1005] DRIVER (Internal): Invalid driver stage
[1300] PROTOCOL (Timeout): No answer
[2122] CONFIG (NumValues): Invalid number of values (must be 3)
[2175] CONFIG (NumValues): Too many values (max=1)
[2203] CONFIG (NumValues): Too many values (max=250)
[2247] CONFIG (NumValues): Too many values requested (max=1000)
[2288] CONFIG (NumValues): Invalid number of values (must be 20)
[3001] CONFIG (P0): Invalid command
[3590] CONFIG (P1): Invalid mode
[4138] CONFIG (P2): Invalid trace number (1-80)
[4139] CONFIG (P2): Invalid number of decimals (0-3)
[6037] CONFIG (P6): Invalid variable
[6038] CONFIG (P6): Password not supplied

Supported devices

This driver can communicate with these devices, but is not necessarily limited to this list:

CLIP Systems
FORCE Systems
MONET Systems

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