

Industrial communication solutions for Windows

XMODEM Driver Manual

Hayes Compatible Modem Dialer Driver

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XMODEM technical specifications

General information

The XMODEM driver allows you establish a communication through a telephone line by using a modem connected to a serial COM port in your PC.

The driver can dial a phone number and then release the COM port so it can be used by another driver call that needs to communicate with a remote device.

The driver provides also a command to hang-up the modem after the phone line is no longer used.

Important note:

When using this driver with a real modem, 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.

A minimum of 5000 ms in the CommTimeout property is also recommended.

Command list

Dial Phone Number

Description of this command:

Dials a specified phone number using tones or pulses.

Methods used to run this command:

Digital Output (WriteBooleanValues)

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

0

Meaning of the DriverP4 parameter:

0 for tones, 1 for pulses.

Meaning of the DriverP5 parameter:

Dialing timeout in seconds (60 seconds is assumed if left empty).

Meaning of the DriverP6 parameter:

Phone number (can include ',' to indicate extra inter-digit delays).

Meaning of the DriverP7 parameter:

Optional initialization string to be sent before the dialing command. (AT[initializationstring]DT phonenumber) If left empty, defaults to 'V1', thus sending the following command: 'ATV1DT phonenumber'.

Hang Up

Description of this command:

Hang ups an open communication.

Methods used to run this command:

Digital Output (WriteBooleanValues)

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

1

Send Generic Text Telegram

Description of this command:

Sends a generic text telegram. Special non-ASCII characters can be added with the '|' (=or) symbol, followed by two hexadecimal uppercase digits indicating the char hex code (Example: 'AT|0D|0A').

Methods used to run this command:

Analog Input (ReadNumericValues)

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Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

0

Meaning of the DriverP3 parameter:

Expected reply telegram size (if DriverP8 is not empty, this parameter is ignored).

- If reply size is set to 0, the driver will not wait for a reply and it will return as soon as the TX telegram has been transmitted.
- If reply size is higher than 0, the driver will listen until this number of characters is received after transmission (only if DriverP8 is empty).

Meaning of the DriverP4 parameter:

Number of times that the sequence in DriverP8 must be received before returning (default = 1).

Use a value higher than 1 when you expect to receive multiple lines, for example.

Meaning of the DriverP5 parameter:

Number of additional chars to be received after the termination condition was reached (default = 0). Use this parameter to continue listening for some more bytes after the indicated footer was received.

Meaning of the DriverP6 parameter:

Telegram to be sent:

- If not empty, the given telegram is transmitted.
- If empty, the driver enters in listening mode until it timeouts.

Meaning of the DriverP7 parameter:

Expected reply starting condition (up to 3 chars header):

- If empty, no specific header in reply is expected. The driver will start collecting any incoming characters received until the termination condition is reached.
- If not empty, the driver will consider valid only telegrams that start with the given header.

Meaning of the DriverP8 parameter:

Expected reply termination condition (up to 3 chars footer):

- If empty, no specific footer in reply is expected. The driver will return any incoming characters received until DriverP1 bytes are received.
- If not empty, the driver immediately returns as soon as the given footer is received (plus any additional characters indicated in DriverP5).

Values that are returned:

Value in PointValue (0) = Reply length in bytes

Text in PointText (0) = Reply telegram

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
[1010] DRIVER (Internal): Error calculating elapsed milliseconds
[1201] DRIVER (System): Error closing %s
[1202] DRIVER (System): Error creating %s
[1208] DRIVER (System): Error seeking end of %s
[1210] DRIVER (System): Error writing to %s
[1214] DRIVER (System): Error deleting %s
[1300] PROTOCOL (Timeout): No answer
[1332] PROTOCOL (Remote): Invalid date received
[1333] PROTOCOL (Remote): Couldn't decode received date
[1334] PROTOCOL (Remote): Invalid time received
[1338] PROTOCOL (Remote): Couldn't decode reference date
[2001] CONFIG (DataType): Analog outputs are not supported by this driver
[2002] CONFIG (DataType): Digital inputs are not supported by this driver
[3001] CONFIG (P0): Invalid command
[3002] CONFIG (P0): Invalid command (0 or 1 only)
[5007] CONFIG (P4): Invalid dialing mode (0 or 1)
[5503] CONFIG (P5): Invalid dialing timeout (1-180)
[6004] CONFIG (P6): Dial number not specified

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Supported devices

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

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