

XEXEMYS Driver Manual

Exemys SSE232 Serial/Ethernet Converter I/O Driver



SSE232-ST Standard



CPKSoft Engineering Process Monitoring and Industrial Automation Software

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1. Introduction

CPKSoft Engineering assumes no responsibility for any errors that may appear in this document. If you have any suggestions for improvements or amendments or have found errors in this publication, please notify us.

This driver is included with all unlimited licenses of TAS-HMITalk. It is not sold separately. It requires the TAS-HMITalk ActiveX to work, therefore it cannot be used as a stand-alone driver.

If you use this driver in your applications, you need to include the xexemys.tlk in the set of files that you distribute. This file must be located in the same folder where the hmitalk.ocx file is registered in order to be found by the activex when the applications are executed.

The source-code for the xexemys.tlk driver is available in plain-C language for additional USD 199 if you own a license of TAS-HMITalk 8.04 or higher.

Refer to the following link to visit the xexemys driver page at CPKSoft Engineering website: <http://www.cpksoft.com/tabid/55/ProductID/35/PageIndex/1/Default.aspx>.

Visit this link if you want to see a complete list of drivers that are currently available for TAS-HMITak: <http://www.cpksoft.com/Drivers/tabid/55/Default.aspx>.

Also, refer to this link if you are interested in purchasing a license of the most recent version of TAS-HMITalk: <http://www.cpksoft.com/Products/tabid/54/Default.aspx>.

We welcome your comments about this document. You can reach us by e-mail at [contact @ cpksoft.com](mailto:contact@cpksoft.com).

2. Driver details

2.1. Driver overview

The XEXEMYS driver allows you to configure, supervise and control the RS-232/422/485 to Ethernet converters from Exemys using a TCP/IP link.

Configuration commands must be sent to the Remote Configuration Console port (998 by default for this converter).

Supervision and Control commands must be sent to the I/O Control port (999 by default for this converter).

2.2. Supported devices

This driver can communicate with these devices, but is not necessarily limited to this list:
EXEMYS SSE232 Serial/Ethernet Converters

3. Command list

3.1. Configuration Commands

3.1.1. Set Password

Description of this command:

Changes the password for remote configuration. If a password not null is set, all future configuration commands will have to provide this password. The password must not have more than 10 characters.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

0

Meaning of the DriverP6 parameter:

New password. Leave empty for null password.

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

3.1.2. Enable Web Configuration

Description of this command:

Enables or disables configuration through web page.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

1

Meaning of the DriverP1 parameter:

0 to disable, 1 to enable.

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

3.1.3. Reset to Manufacturer's Configuration**Description of this command:**

Resets the converter to its original manufacturer's configuration.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

2

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

Important note:

This command must be executed twice to actually reset the converter.

3.1.4. Reset Converter**Description of this command:**

Resets the converter, closing all active connections and returning it to its initial status.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

3

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

Important note:

This command must be executed twice to actually reset the converter.

3.1.5. Set COM Baud Rate**Description of this command:**

Sets the baud rate parameter of the selected COM port in the converter.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

4

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP2 parameter:

Baud Rate (300, 600, 1200, 2400, 4800, 9600, 19200, 28800, 33600, 38400 and 57600).

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

3.1.6. Set COM Parity**Description of this command:**

Sets the parity to be used by the selected COM port in the converter.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

5

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP2 parameter:

Parity:

0 = NONE

1 = EVEN

2 = ODD

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

3.1.7. Set COM DataBits**Description of this command:**

Sets the number of data bits of the selected COM port in the converter.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

6

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP2 parameter:

Data bits (7 or 8).

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

3.1.8. Set COM Flow Control**Description of this command:**

Sets the flow control mode of the selected COM port in the converter.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

7

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP2 parameter:

Flow Control mode:

0 = RS-232 without flow control

1 = RS-232 with flow control

2 = RS-485 (only SSE232-1C43)

3 = RS-422 (only SSE232-1C43)

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

3.1.9. Set COM Window of Time**Description of this command:**

Sets the window of time for the selected COM port in the converter.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

8

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP2 parameter:

Window of time in ms (0 to 2000).

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

3.1.10. Set COM End Character

Description of this command:

Sets the end character for the selected COM port in the converter.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

9

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP2 parameter:

ASCII code for end character (0 to 255), or use -1 for NONE.

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

3.1.11. Set Automatic Reset

Description of this command:

Configures the automatic reset option for channels in server mode.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

10

Meaning of the DriverP1 parameter:

0 to disable, 1 to enable.

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

3.1.12. Set COM Mode

Description of this command:

Configures the COM mode as client or server.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

11

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP2 parameter:

0 for server, 1 for client.

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

3.1.13. Set Client Port

Description of this command:

Sets the port in which the client's connection is waited.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

12

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP2 parameter:

Client Port number (1-65535).

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

3.1.14. Set Inactivity Timeout**Description of this command:**

Sets the maximum time of inactivity allowed to the connection corresponding to the selected COM, after which the connection is terminated and the device returns to client waiting mode.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

13

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP2 parameter:

Maximum time, in minutes (0-10000).

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

3.1.15. Set Server IP**Description of this command:**

Sets the server IP address to which the selected COM will connect.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

14

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP6 parameter:

IP address (aaa.bbb.ccc.ddd).

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

3.1.16. Set Server Port

Description of this command:

Sets the server port to which the selected COM will connect.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

15

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Meaning of the DriverP2 parameter:

Server Port number (1-65535).

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

3.1.17. Set Protocol**Description of this command:**

Configures the network protocol (TCP/UDP) for all channels.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

16

Meaning of the DriverP1 parameter:

Protocol:

0 = TCP

1 = UDP

Meaning of the DriverP9 parameter:

Current password. Leave empty if password is null.

Values that are sent:

Value in PointValue (0) = Not used.

[Supervision and Control Commands]

3.2. Supervision and Control Commands

3.2.1. Read Connection Status**Description of this command:**

Reads the connection status (connected or disconnected) of the sockets of all the channels (COM) available according to the converter model.

Type of data handled by this command:

Digital Input

Number of points accepted by this command:

1-4

Meaning of the DriverP0 parameter:

20

Values that are returned:

Value in PointValue (0) = Status of first channel COM A (0 or 1).

Value in PointValue (1) = Status of second channel COM B, if available (0 or 1).

Value in PointValue (2) = Status of third channel COM C, if available (0 or 1).

Value in PointValue (3) = Status of fourth channel COM D, if available (0 or 1).

Important note:

0 = Disconnected

1 = Connected

3.2.2. Reset COM Channel

Description of this command:

Resets the socket of selected channel or COM. The channel must be available in the addressed converter model.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

20

Meaning of the DriverP1 parameter:

COM port:

0 = COM A

1 = COM B

2 = COM C

3 = COM D

Values that are sent:

Value in PointValue (0) = Not used.

3.2.3. Read All Input Status

Description of this command:

Reads the status (High or Low) of all the inputs available in the addressed converter model.

Type of data handled by this command:

Digital Input

Number of points accepted by this command:

1-8

Meaning of the DriverP0 parameter:

21

Values that are returned:

Value in PointValue (0) = Status of first input (0 or 1). . . .

Value in PointValue (N-1) = Status of last input (0 or 1).

Important note:

0 = Status is Low
1 = Status is High

3.2.4. Read Single Input Status**Description of this command:**

Reads the status (High or Low) of a specific input. The input must be available in the addressed converter model.

Type of data handled by this command:

Digital Input

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

22

Meaning of the DriverP1 parameter:

Index of input to be read (0-7).

Values that are returned:

Value in PointValue (0) = Status of input (0 or 1).

Important note:

0 = Status is Low
1 = Status is High

3.2.5. Set Output**Description of this command:**

Changes the status of the selected output. The output must be available in the addressed converter model.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

21

Meaning of the DriverP1 parameter:

Index of output to be set (0-7).

Values that are sent:

Value in PointValue (0) = New output status (0 or 1).

Important note:

0 = Status is Low

1 = Status is High

4. Appendices

4.1. Error messages

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

This list does not include some error messages that can be returned by the activex component while attempting to establish a connection.

- [1005] DRIVER (Internal): Invalid driver stage
- [1300] PROTOCOL (Timeout): No answer
- [2000] CONFIG (DataType): Analog inputs are not supported by this driver
- [2001] CONFIG (DataType): Analog outputs are not supported by this driver
- [2106] CONFIG (NumValues): Invalid number of channels (max=4)
- [2278] CONFIG (NumValues): Too many inputs requested
- [2279] CONFIG (NumValues): Only one input can be requested
- [3584] CONFIG (P1): Invalid setting
- [3585] CONFIG (P1): Invalid COM
- [3586] CONFIG (P1): Invalid input index
- [3587] CONFIG (P1): Invalid output index
- [4132] CONFIG (P2): Invalid setting
- [6008] CONFIG (P6): Invalid Address
- [7505] CONFIG (P9): Password not null is expected
- [8119] CONFIG (Remote): Error executing command

4.2. Keywords list

The following list shows a set of words directly related to this driver.

"Converter, Converters, Ethernet, EXEMYS, Serial, SSE232".