The library SysLibCom.lib

This library supports the serial communication with a target system. If the target system provides the functionality, then the following library functions can be used to open or close a serial port and to read or write data via this port. (The execution is synchronous.):

- SysComOpen

- SysComSetSettings

- SysComClose

- SysComRead

- SysComWrite

SysComOpen

This functions serves to open a serial port.

The function returns a handle for the port, which can be passed on when calling other functions of the library. If the port cannot be opened, 0xFFFFFFFF will be returned as handle.

Input Variable	Data Type	Description
Port	PORTS;	specifies the port which should be opened (COM1,..); Port number see below: Enumeration PORTS

SysComSetSettings

This function serves to set values like baudrate, stopbits, parity, function-timout, buffer-size and scan-time for a serial port. The parameter value is of type POINTER TO COMSETTINGS; the structure COMSETTINGS is used.

As soon as the parameters could be set successfully, TRUE will be returned, otherwise FALSE.

Input Variable	Data Type	Description
ComSettings	POINTER TO COMSETTINGS;	Pointer to the structure COMSETTINGS; you can make use of the operator **ADR** (see below, example)

The structure COMSETTINGS, which is also part of the library, is defined as follows:

TYPE COMSETTINGS :
STRUCT

Port:PORTS;	Port number, see below: Enumeration PORTS
dwBaudRate:DWORD;	4800, 9600, 19200, 38400, 57600, 115200
byStopBits:BYTE;	0 = ONESTOPBIT, 1=ONE5STOPBITS, 2=TWOSTOPBITS
byParity:BYTE;	0 = NOPARITY, 1 = ODDPARITY, 2 = EVENPARITY
dwTimeout:DWORD;	Timeout of the interface in ms, Default = 0

dwBufferSize:DWORD;	Buffer size of the internal device buffer, Default = 0
dwScan:DWORD;	Polling time of the serial interface; should be set to 0

END_STRUCT
END_TYPE

Enumeration PORTS:

TYPE PORTS : (COM1:=1, COM2, COM3, COM4, COM5, COM6, COM7, COM8);
END_TYPE

SysComClose

This function of type BOOL closes the COM port. For that purpose the port handle, which has been got by SysComOpen, must be given as input parameter. The return value will be TRUE after a successful operation, otherwise FALSE

Input Variable	Data Type	Description
DwHandle	DWORD	Port handle which has been got by SysComOpen

SysComWrite

This function of type DWORD writes the data to that port which is defined by the handle got by SysComOpen. Besides the handle also the address from which the data should be taken, the number of data which should be written and the timeout of the function must be passed on.

The function will return the number of actually written bytes.

Input Variable	Data type	Description
dwHandle	DWORD	Handle of the port, acquired by SysOpenCom
dwBufferAddress	DWORD	Address from which the data should be taken and written to the port; you can use the **ADR** operator to get this address
dwBytesToWrite	DWORD	Number of bytes, which should be written
dwTimeout	DWORD	Time in [ms], after which the function will return at the latest

SysComRead

This function of type DWORD reads the data of COM-PORT. The input parameters are the port handle got by SysComOpen, the number of expected bytes and the timeout of the function. Besides that the address to which the read data should be copied, will be passed on.

The function will return the number of actually read bytes.

Input Variable	Data Type	Description
dwHandle	DWORD	the port handle which has been acquired by SysOpenCom
dwBufferAddress	DWORD	address, to which the read bytes should be copied after having been read from the port; (you can make use of the operator ADR to get this address)
dwBytesToRead	DWORD	Number of bytes, which should be read
dwTimeout	DWORD	Time in [ms], after that the function returns at the latest