

SIMPLWINDOWS NAME:	Modbus Processor
CATEGORY:	HVAC
VERSION:	1.0
SUMMARY:	Processes all commands sent to/received from a Modbus system
GENERAL NOTES:	<p>Modbus is a generic communications protocol. It allows a group of addressable "points" to be accessed by the Crestron system. There are digital points, which have two states - on and off. There are also analog points, which allow 16 bit numbers to be accessed. Some points are read only, while others are read/write.</p> <p>Modbus supports two different command formats - RTU and ASCII. This module uses the RTU format. You must be sure that the Modbus device is also set for RTU mode.</p> <p>Modbus does not specify a communications medium or format, so for information on baud rate, parity, etc., as well as cabling information, you must consult the documentation that comes with the Modbus system. The Modbus device that was tested at Crestron was an Automated Logic Portal, and all connection information below is for that device only.</p> <p>This module works in conjunction with the other Crestron Modules for the Modbus system. It takes commands which the other modules generate, formats them according to Modbus RTU guidelines, queues them up, and sends them out twice per second. It will queue up to 100 commands. It also takes information received from the Modbus system, checks to be sure that the checksum is correct, does some formatting, and sends them to the other Crestron modules. You must use this module to process all information sent to/received from the Modbus system.</p> <p>It is recommended to route the outputs of the other Crestron Modbus Modules through a Serial Concatenation symbol, and connecting the output of the Serial Concatenation symbol to the input of the Modbus Processor module. This way, if more than one command is generated in a single logic wave, both commands should be processed correctly. See the demo program available on the Crestron FTP site for an example of this implementation.</p>
CRESTRON HARDWARE REQUIRED:	CNMSX, CNXCOM, ST-COM
SETUP OF CRESTRON HARDWARE:	<p>The port should be set as follows:</p> <p>Baud Rate - 9600 Parity - None Data Bits - 8 Stop Bits - 1</p>
VENDOR FIRMWARE:	None
VENDOR SETUP:	The Automated logic system must be in RTU mode. Use the Diagnostic Port connector for communications.
CABLE DIAGRAM:	CNSP-124

CONTROL:

TO-MODBUS-PROCESSOR\$	S	Serial signal routed from the other Modbus modules
MODBUS-RX\$	S	Serial signal routed from the com port connected to the Modbus system

FEEDBACK:

ON-FB	S	Serial signal routed to the com port connected to the Modbus system
TO-MODBUS-PROCESSOR\$	S	Serial signal to be routed to the other Modbus modules

OPS USED FOR TESTING:	5.12.01x
COMPILER USED FOR TESTING:	SimplWindows Version 1.51.08
SAMPLE PROGRAM:	Modbus Demo Program
REVISION HISTORY:	None