SIMPLWINDOWS NAME:	Carrier Comfort Zone II
CATEGORY:	HVAC
VERSION:	1.0
SUMMARY:	For control of a Carrier Comfort Zone II HVAC System
GENERAL NOTES:	This module allows control of all the standard functions of a Carrier Comfort Zone II HVAC system. This module uses Simpl+ and can therefore only be used with a generation CNX control system.

It allows control/monitoring of the following global functions:

Mode Of Operation - Heat/Cool/Auto/Off/Emergency
Outside Temperature Monitor
Humidify Monitor/Setpoint Adjust/Mode
Dehumidify Setpoint Adjust/Mode
Fan On/Auto

It also allows the following to be adjusted individually for each of the eight available zones:

Adjust/Monitor Heat Setpoint
Adjust/Monitor Cool Setpoint
Monitor Current Temperature
Activate/Deactivate Hold function

This module will automatically poll the Carrier system for the current status of the above parameters. This polling will occur once every 63 seconds as per Carriers recommendations. Polling will be enabled as long as the POLL-ENABLE input is held high. When this input is low, no polling will occur.

This module has parameter fields for the maximum setpoint temperature (MAX-TEMP+1) and the minimum setpoint temperature (MIN-TEMP). The maximum temperature must have 1 added to it. So for a maximum temperature of 90, enter 91D. For a minimum temperature of 40, enter 40d.

Note that before activating any functions on the module, the POLL-ENABLE input should be raised to the high level. This will cause an initial poll, and will initialize the module with the correct information to send back to the Carrier. The information received back from the poll is used in the subsequent transmission of commands to the Carrier.

CRESTRON HARDWARE REQUIRED:	CNMSX, CNXCOM-2 with 1.11 firmware, ST-COM with 1.53 firmware
SETUP OF CRESTRON HARDWARE:	RS485 Baud Rate - 9600 Parity - None Data Bits - 8 Stop Bits - 1
VENDOR FIRMWARE:	None
VENDOR SETUP:	Use RS485 terminals for connection to Crestron
CABLE NUMBER:	

Crestron	to	Carrier
9 pin D	to	Terminals
1	to	RS-
4	to	RS+

5		to	VG
6		to	RS+
9		to	RS-

CONTROL:

MODE-*	D	Selects any of the five available modes. These modes apply to all zones, there are not individual mode controls per zone. True feedback will be reflected at the corresponding -FB outputs
FAN-ON/AUTO	D	Puts the fan into always on or auto mode. True feedback will be provided at the corresponding -FB outputs
HUMIDITY-MODE-*	D	Selects the various humidity modes. True feedback will be reflected at the corresponding -FB outputs.
HUMIDIFY-UP/DOWN	D	Adjusts the Humidify setpoint up or down. True feedback is provided at the HUMIDIFY-SETPOINT output
DE-HUMIDIFY-MODE-*	D	Selects the various dehumidify modes. True feedback will be reflected at the corresponding -FB outputs
DE-HUMIDIFY-UP/DOWN	D	Adjusts the Dehumidify setpoint up or down. True feedback is provided at the DE-HUMIDIFY-SETPOINT output
ZONE-*-HEAT-UP	D	Adjusts the heating setpoint up
ZONE-*-HEAT-DOWN	D	Adjusts the heating setpoint down
ZONE-*-COOL-UP	D	Adjusts the cooling setpoint up
ZONE-*-COOL-DOWN	D	Adjusts the cooling setpoint down
ZONE-*-HOLD-ON/OFF/TOG	D	Turns hold mode on or off. If hold mode is on, any new setpoints entered via Crestron will be held regardless of the program schedule, until hold mode is turned off
POLL-ENABLE	D	When high, enables polling of the Carrier. Polling will occur once every 63 seconds when enabled.
CARRIER-RX$	S	Serial signal to be routed from a 2-way RS485 port
MIN-TEMP	P	Specifies the minimum setpoint temperature that Crestron will allow to be entered. For 40, enter 40d
MAX-TEMP+1	P	Specifies the maximum setpoint temperature that Crestron will allow to be entered. You must enter the maximum value + 1. So for 90, enter 91d

FEEDBACK:

MODE-*-FB	D	True feedback indicating the current operating mode
FAN-ON/AUTO-FB	D	True feedback indicating the current fan operating mode.
HUMIDITY-MODE-*-FB	D	True feedback indicating the current state of humidity
DE-HUMIDIFY-MODE-*-FB	D	D True feedback indicating the current state of dehumidify

CURRENT-HUMIDITY	A	True feedback indicating the current relative humidity. Should be routed to a digital gauge on a touchpanel.
HUMIDITY-SETPOINT	A	True feedback indicating the current humidity setpoint. Should be routed to a digital gauge on a touchpanel.
DE-HUMIDIFY-SETPOINT	A	A True feedback indicating the current dehumidify setpoint. Should be routed to a digital gauge on a touchpanel.
OUTDOOR-TEMPERATURE	A	A True feedback indicating the current outdoor temperature. Should be routed to a digital gauge on a touchpanel.
ZONE-*-TEMPERATURE	A	True feedback indicating the current temperatures in each zone. Should be routed to a digital gauge on a touchpanel.
ZONE-*-HEAT-SETPOINT	A	A True feedback indicating the current heating setpoints for each zone. Should be routed to a digital gauge on a touchpanel.
ZONE-*-COOL-SETPOINT	A	True feedback indicating the current cooling setpoints for each zone. Should be routed to a digital gauge on a touchpanel.
ZONE-*-HOLD-ON/OFF-FB	D	D True feedback indicating the Hold state of each zone
CARRIER-TX$	S	Serial signal to be routed to a 2-way RS-485 port.

OPS USED FOR TESTING:	5.11.52x
COMPILER USED FOR TESTING:	SimplWindows Version 1.40.07
SAMPLE PROGRAM:	Carrier Comfort Zone II Demo Program
REVISION HISTORY:	None