

SIMPLWINDOWS NAME: Davis Weather Station
CATEGORY: Other
VERSION: 1.0
SUMMARY: Retrieves current atmospheric conditions for display on a Crestron system
GENERAL NOTES: This module will retrieve and display the following atmospheric data:

Outside Temperature
Inside Temperature
Outside Humidity
Inside Humidity
Wind Speed
Wind Direction
Barometric Pressure
Wind Chill Dew Point
High/Low Outside Temperatures
High Wind Speed

For each parameter, a serial and analog output is provided. Either format can be displayed on a touchpanel. It is recommended to use the serial format as these will include units and negative signs where applicable.

This module has a POLL-ENABLE input. This input must be high when it is desired to poll the weather station for information. While this input is held high, the weather station will be polled every 20 seconds.

This module has displays for high and low outside temperatures and high wind speed. These are high/low values as read and stored by the Crestron system. When it is desired to reset these values, you can pulse the RESET-HIGH-LOW input. This will set the high/low values to 0.

Note that this module uses Simpl+ and can therefore only be used in a Generation CNX type control system.

CRESTRON HARDWARE REQUIRED: CNXCOM-2, ST-COM

SETUP OF CRESTRON HARDWARE: Baud Rate - 2400
Parity - None
Data Bits - 8
Stop Bits - 1

VENDOR FIRMWARE: 1.18

VENDOR SETUP: You must use the Davis Weatherlink module to enable communications between the weather station and the Crestron system. Make sure that the switch on the Weatherlink is set to 2400 baud. Use the cable supplied with the Weatherlink module to connect to the Crestron com port.

CABLE NUMBER: None

CONTROL:

POLL-ENABLE	D	Description POLL-ENABLE D Enables polling of the weather station. While held high, the weather station will be polled every 20 seconds
--------------------	---	--

RESET-HIGH-LOW	D	Pulse to reset the high and low outside temperatures and high wind to zero.
DAVIS-RX\$	S	Serial signal to be routed from a 2-way RS232 port

FEEDBACK:

OUTSIDE-TEMP\$	S	Serial representation of the last outside temperature reading received
INSIDE-TEMP\$	S	Serial representation of the last inside temperature reading received
WIND-SPEED\$	S	Serial representation of the last wind speed received
WIND-DIRECTION\$	S	Serial representation of the last wind direction received, in abbreviated format.
BAROMETRIC-PRESSURE\$	S	Serial representation of the last barometric pressure received in xx.xx format
OUTSIDE-HUMIDITY\$	S	Serial representation of the last Outside Humidity reading received, displayed as a percent
INSIDE-HUMIDITY\$	S	Serial representation of the last inside Humidity reading received, displayed as a percent
WIND-CHILL\$	S	Serial representation of the last wind chill reading received
DEW-POINT\$	S	Serial representation of the last dew point received
HIGH-TEMP\$	S	Serial representation of the highest outside temperature received
LOW-TEMP\$	S	Serial representation of the lowest outside temperature received
HIGH-WIND\$	S	Serial representation of the highest wind speed received
OUTSIDE-TEMP-A	A	Analog representation of the outside temperature
OUTSIDE-TEMP-NEGATIVE	D	High if the outside temperature value is negative. Can be routed to a legend button to display a negative sign on a touchpanel
INSIDE-TEMP-A	A	Analog representation of the inside temperature
INSIDE-TEMP-NEGATIVE	A	High if the inside temperature value is negative. Can be routed to a legend button to display a negative sign on a touchpanel
WIND-SPEED-A	A	Analog representation of the wind speed
WIND-DIRECTION-A	A	Analog representation of the wind direction. Each number corresponds to a different direction
BAROMETRIC-PRESSURE-A	A	Analog representation of the barometric pressure. Display in a Digital Gauge object with a format of xx.xx on a touchpanel.
OUTSIDE-HUMIDITY-A	A	Analog representation of the outside humidity
INSIDE-HUMIDITY-A	A	Analog representation of the inside humidity
WIND-CHILL-A	A	Analog representation of the wind chill
WIND-CHILL-NEGATIVE	D	High if the wind chill value is negative. Can be routed to a legend button to display a negative sign on a touchpanel
DEW-POINT-A	A	Analog representation of the dew point
HIGH-TEMP-A	A	Analog representation of the highest temperature received

HIGH-TEMP-NEGATIVE	D	High if the high temperature value is negative. Can be routed to a legend button to display a negative sign on a touchpanel
LOW-TEMP-A	A	Analog representation of the lowest temperature received
LOW-TEMP-NEGATIVE	D	High if the low temperature value is negative. Can be routed to a legend button to display a negative sign on a touchpanel
HIGH-WIND-A	A	Analog representation of the highest wind speed received
DIRECTION-*	D	Digital signals indicating the current wind direction. Could be connected to a wind direction diagram on a touchpanel
DAVIS-TX\$	S	Serial signal to be routed to a 2-way RS232 port.

.UPZ FILE USED FOR TESTING: 5.11.59x.upz
COMPILER USED FOR TESTING: SimplWindows Version 1.51.06
SAMPLE PROGRAM: Davis Weather Station Demo
REVISION HISTORY: None