SIMPLWINDOWS NAME: Radionics D9000/D7000 Security System

CATEGORY: Security System

VERSION: 1.0

SUMMARY: Control arming/disarming, as well as point status/control and relay status/control

GENERAL NOTES: This module will control a Radionics D9000/D7000 Security System. The Crestron system will be connected to a Radionics SDIS module which will be connected to the actual security panel.

Most features which the Radionics system supports have been included in this module. These features include:

1. Arming and disarming any or all areas.
2. Relay status and control for 128 relays
3. Point status and control for 248 points
4. Panel status

Before using any functions on the module you should pulse the START-COMM input. This will cause the Radionics to send out a status update to the Crestron system every second, and it will allow the Crestron commands to be passed to the Radionics system. When finished, pulsing the STOP-COMM input will turn off the status updates.

When sending commands (arming, relay control, etc.) you should wait at least 1 second between consecutive commands. The alarm system will ignore commands sent more frequently.

The same set of 248 outputs are used to indicate the state of 6 different types of point statuses. For basic use, only the POINT-STATUS input would be used. In this case, a 1 could be placed on the POINT-STATUS input and 0's on the following 5 inputs. If it is desired to monitor the other parameters, all six inputs could be connected to buttons. Note that even though the Crestron system can monitor unacknowledged points, we cannot acknowledge them. They must be acknowledged from a Radionics keypad.

As this module has outputs for each point (248) and each relay (128) the large number of signals used up for unneeded functions may not be desirable. However, for this module, it is all right to define the unused POINT-*-FAULTED and RELAY-*-ON outputs with 0. This does not apply to any other output of this or any other module.

CRESTRON HARDWARE: CNXCOM,
ST-COM

SETUP OF CRESTRON HARDWARE: Baud Rate - 9600
Parity - None
Data Bits - 8
Stop Bits - 1

VENDOR FIRMWARE: U4 V5.22 or later

VENDOR SETUP:

A Radionics SDIS module will provide the connection between the Radionics alarm panel and the Crestron system. The SDIS module tested at Crestron had prom version 1.07 installed.

The system tested at Crestron was a Radionics D9412 with a SDIS module as well as a D1255 panel.

All three jumpers on the SDIS module were on.

CABLE NUMBER: CNSP-124

CONTROL:

START-COMM	D	Pulse to start communicating with the Radionics. This will cause the Radionics to send a status message every second, and will allow the Crestron system to send commands to the Radionics
STOP-COMM	D	Pulse to stop communicating with the Radionics. This will turn off the status updates every second, and will prevent some commands from being sent from the Crestron system to the Radionics system
AREA-1-8	D	Pulse to select which single area the arm/disarm commands will act upon
ALL-AREAS	D	Pulse to select all areas in the system to be acted upon by the arm/disarm commands
DISARM	D	Pulse to disarm whichever area(s) were selected
MASTER-ARM-DELAY	D	Pulse to activate master arm delay on whichever area(s) were selected
MASTER-ARM-INSTANT	D	Pulse to activate master arm instant on whichever area(s) were selected
PERIMETER-DELAY	D	Pulse to activate perimeter delay on whichever area(s) were selected
PERIMETER-INSTANT	D	Pulse to activate perimeter instant on whichever area(s) were selected
RELAY-NUMBER	A	Analog signal indicating which relay it desired to turn on or off. Could be driven with a #PAD symbol to allow access to all relays, or with an INIT symbol to allow access to certain relays
RELAY-ON	D	Turn the relay specified by RELAY-NUMBER on
RELAY-OFF	D	Turn the relay specified by RELAY-NUMBER off
RELAY-TOGGLE	D	Toggle the state of the relay specified by RELAY-NUMBER
POINT-STATUS	D	Pulse to have the point status reflected at the POINT-*-FAULTED outputs. This will indicate which points are open
UNACK-ALARM-STAT	D	Pulse to have the unacknowledged alarm point status reflected at the POINT-*-FAULTED outputs. This will indicate which alarm points were faulted and not acknowledged. They must be acknowledged from a Radionics panel, not the Crestron system
UNACK-SUP-POINT	D	Pulse to have the unacknowledged supervised point status reflected at the POINT-*-FAULTED outputs. This will indicate which supervised points were faulted and not acknowledged. They must be acknowledged from a Radionics panel, not the Crestron system
FORCED-POINT	D	Pulse to have the currently forced points reflected at the POINT-*-FAULTED outputs
UNACK-TROUBLE-POINT	D	Pulse to have the unacknowledged trouble point status reflected at the POINT-*-FAULTED outputs. This will indicate which trouble points were faulted and not acknowledged. They must be acknowledged

		from a Radionics panel, not the Crestron system
BYPASSED-POINT	D	Pulse to have the currently bypassed points reflected at the POINT-*-FAULTED outputs
POINT-NUMBER	A	Analog signal indicating which point is is desired to bypass/unbypass. Typically driven by an INIT or #PAD symbol
BYPASS-POINT	D	Pulse to bypass the point indicated by the POINT-NUMBER input
UNBYPASS-POINT	D	Pulse to unbypass the point indicated by the POINT-NUMBER input
RADIONICS-RX$	S	Serial data signal to be routed to a 2-way RS232 port

FEEDBACK:

AREA-*-STATUS$	S	Serial signal containing the status of the appropriate area. Should be routed to the Serial portion of a touchpanel definition
POINT-STATUS-FB	D	Indicates that the point status is being monitored
UNACK-ALARM-STAT-FB	D	Indicates that the unacknowledged alarm points are being monitored
UNACK-SUP-POINT-FB	D	Indicates that the unacknowledged supervised points are being monitored
FORCED-POINT-FB	D	Indicates that the forced points are being monitored
UNACK-TROUBLE-POINT-FB	D	Indicates that the unacknowledged trouble points are being monitored
BYPASSED-POINT-FB	D	Indicates that the bypassed points are being monitored
POINT-*-FB	D	Indicates if the appropriate point is in the active (faulted) state. Can be defined as 0
RELAY-*-ON	D	Indicates if the appropriate relay is in the on state. Can be defined as 0
PANEL-STATUS-MSG-1	D	High if the panel is reporting The internal event log threshold has been reached
PANEL-STATUS-MSG-2	D	High if the panel is reporting The internal event log has wrapped
PANEL-STATUS-MSG-3	D	High if the panel is reporting The point bus has failed since it has last been reported
PANEL-STATUS-MSG-4	D	High if the panel is reporting Valid local address
PANEL-STATUS-MSG-5	D	High if the panel is reporting RF Receiver trouble
PANEL-STATUS-MSG-6	D	High if the panel is reporting Failed to call RAM
PANEL-STATUS-MSG-7	D	High if the panel is reporting User code tamper
PANEL-STATUS-MSG-8	D	High if the panel is reporting SDI device has failed
PANEL-STATUS-MSG-9	D	High if the panel is reporting Receiver communication has failed
PANEL-STATUS-MSG-10	D	High if the panel is reporting Reserved
PANEL-STATUS-MSG11	D	High if the panel is reporting AC has failed
PANEL-STATUS-MSG-12	D	High if the panel is reporting battery was missing

PANEL-STATUS-MSG-13	D	High if the panel is reporting Battery was low
PANEL-STATUS-MSG-14	D	High if the panel is reporting Parameter checksum failed
PANEL-STATUS-MSG-15	D	High if the panel is reporting Phone line failed
PANEL-STATUS-MSG-16	D	High if the panel is reporting Extra RF point
RADIONICS-TX$	S	Serial data signal to be routed to a 2-way RS232 port

OPS USED FOR TESTING:	3.18.06M, 5.01.29x
COMPILER USED FOR TESTING:	SimplWindows Version 1.21.04
SAMPLE PROGRAM:	RAD-TSTA
REVISION HISTORY:	RADION-A - Original RADION-B - Add additional point status displays RADION-C - Increase time to wait (from 3t to 10T) before determining that a complete string has been received. Also increase the size of the SQUE from 100 to 150.