Crestron SRM 66 DSC Demo Program

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Mike Slattery
Rane Corporation

This program demonstrates the ability for a Crestron CNMSX system to control an SRM 66 in DSC mode. From this program all inputs and output levels are controlled including Memory recalls. The SRM 66 is controlled using RS-485. Although Crestron supports RS-485, during testing it was noticed that RS-485 caused problems with the control system during up/down level control. This problem is associated with the control system not detecting a button release. Until this problem is resolved by Crestron, it is recommended to use the Rane DSC 1 RS-232 to RS-485 converter and operate the Crestron Com Port in RS-232 mode.

Starting operation of this program begins with the system initialization (S-3 : Analog Initialize). From S-3 the SRM66 Output and Memory modules are initialized. Both of these modules are generic, meaning that there is only one module and how you configure it in your program determines which output or memory you are working with. Pressing the System On button (Rane Logo page) sets SysOn high which initializes all Rane modules and starts S-5 : Delay. S-5 performs three delays:

1. InitMem (Initialize Memory 1 - Recall Memory 1)
2. InitLev (Initialize Levels - Get all parameters from the SRM 66 (S-4 : Rane SRM66 Out 1))
3. InitGrps (Initialize Groups - Get all Group levels from the SRM 66 (S-22 : Rane SRM66 Group Levels))

S-4 : Rane SRM66 Processor
This module is used to improve the programming of all the other SRM66 modules by accepting standard SRM 66 commands and placing the command along with its length into a Queue. Before transmitting data to the SRM 66, the control system must first wait for the SRM 66 to transmit a hex FC. When data is requested from the SRM 66 (Request Parameters, Request Group Levels and Request Opstat), the command is placed in front of the data and the data is sent out SRM_DATA$ to the other modules.

To make your life even easier during operation, this module will report error conditions at the Viewport. If there is an error due to invalid data or loss of communication with the Rane device, you will be able to view the error. Another feature this module offers is a SYS_RDY output flag (System Ready). If there is an error condition, this output goes low causing all other Rane modules to stop.

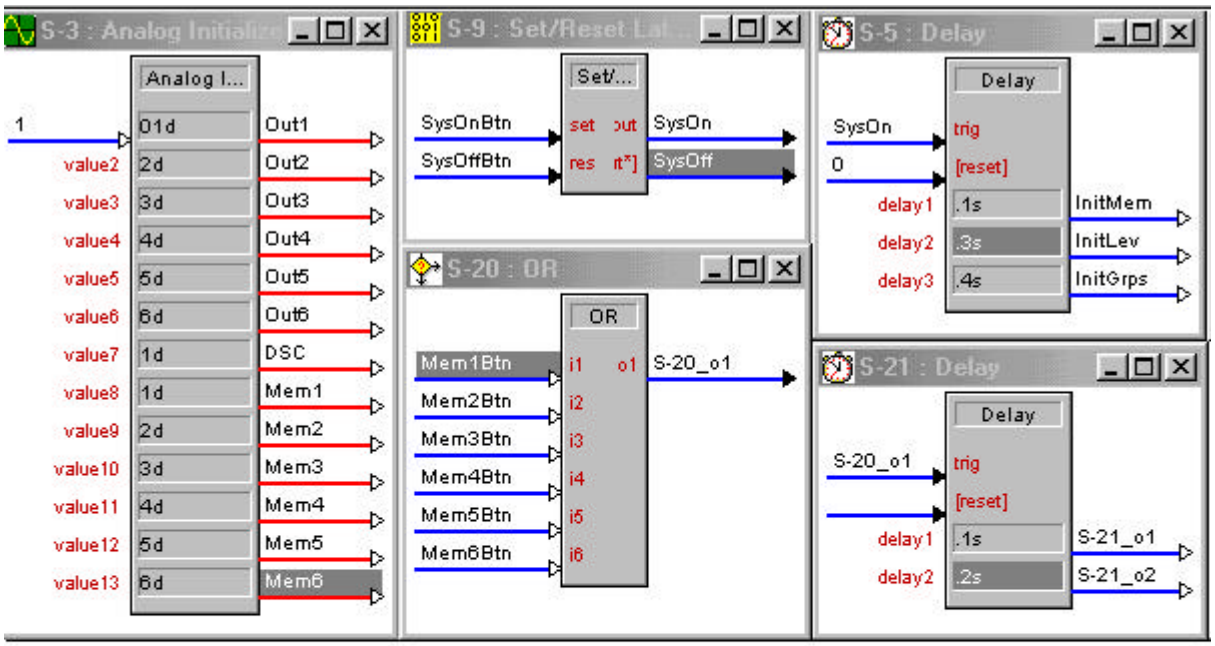
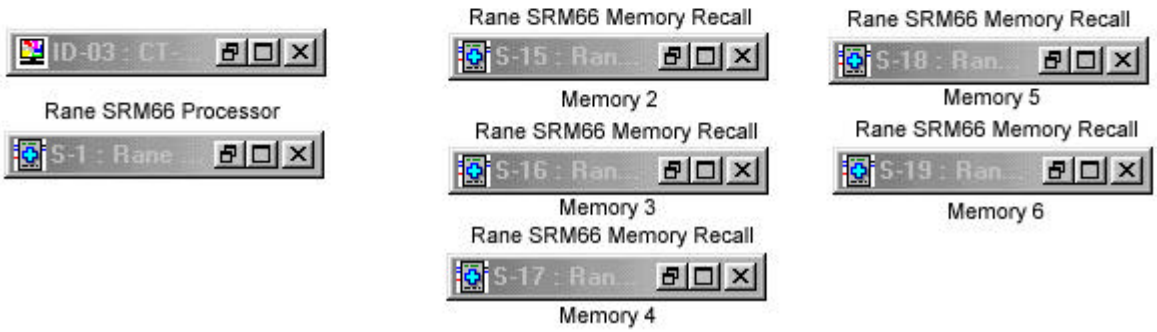
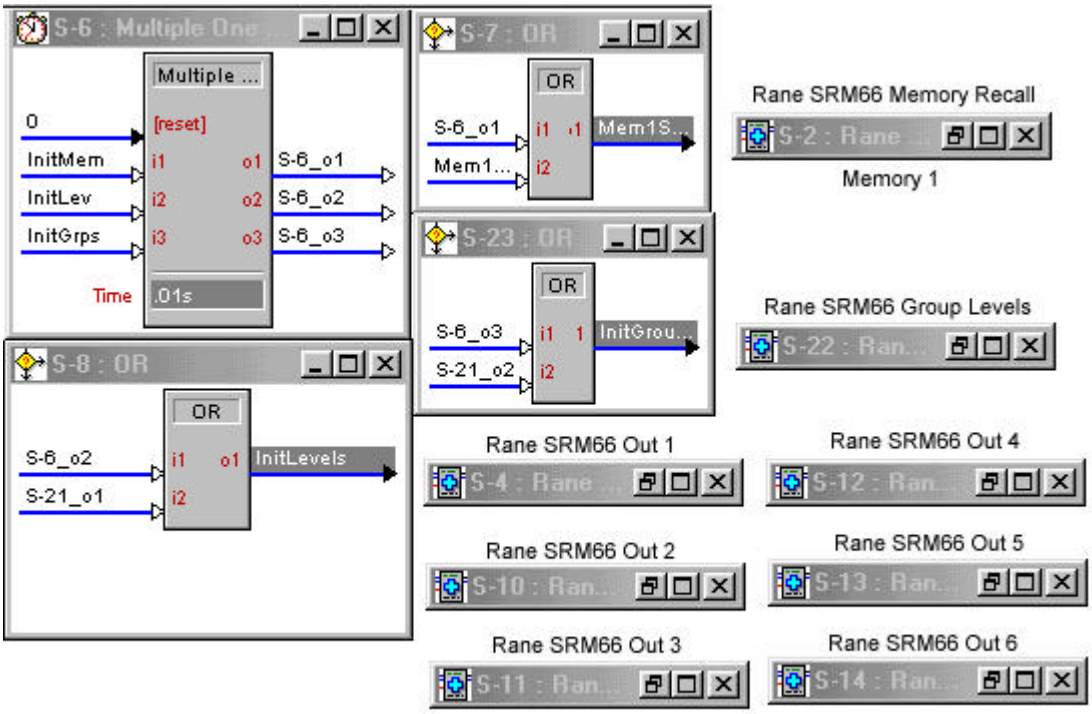
S-4, S-10 – S-14 : Rane SRM66 Out (1 through 6)
This is a generic module and is configurable to operate a single SRM 66 output in DSC mode. System initialization determines which output this module controls. All of the SRM 66 matrix input and output levels for a single output are controlled by this module. Up to six of these modules can be used with a single SRM 66.
This module allows for:

- Up/Down level control for all inputs.
- A Mute toggle function for all inputs.
- Up/Down level control for its output.
- A Mute toggle function for its output.
- All level controls can be set by Up/Down buttons, by dragging the bar graph of a touchpanel or by an initialization from the program.
- A level feedback to the touchpanel for a bar graph level indicator.
- A level initialization which retrives all of the parameter information from the SRM 66. *Note – Use only one module to retrive this data.*

S-22 : Rane SRM66 Group Levels
This module controls all Group levels. The SRM 66 allows for multiple outputs to be assigned to a Group. This allows for one level to control multiple outputs.
This module allows for:

- Up/Down level control for all inputs.
- A Mute toggle function for all inputs.
- Up/Down level control for its output.
- A Mute toggle function for its output.
- All level controls can be set by Up/Down buttons, by dragging the bar graph of a touchpanel or by an initialization from the program.
- A level feedback to the touchpanel for a bar graph level indicator.
- A group initialization which retrives all of the Group level information from the SRM 66.

S-2, S-15-S-19 : Rane SRM66 Memory Recall
This is a generic module and is configurable during system initialization to recall a memory in DSC or Slave mode. For this application each module is initialized for DSC operation. Up to 24 of these modules can be used to control a single SRM 66.
This module allows for:

- **DSC** or Slave type operation.
- Memory Number
- Memory button

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