

RSLogix Micro Project Report



Processor Information

Processor Type: Bul.1763 MicroLogix 1100 Series B

Processor Name: UNTITLED

Total Memory Used: 345 Instruction Words Used - 96 Data Table Words Used

Total Memory Left: 6311 Instruction Words Left

Program Files: 4

Data Files: 10

Program ID: b11c

I/O Configuration

| | | |
|---|----------|--------------------------|
| 0 | Bul.1763 | MicroLogix 1100 Series B |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

Channel Configuration

CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex

CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Edit Resource/Owner Timeout: 60
CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Passthru Link ID: 1
CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Write Protected: No
CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Comms Servicing Selection: Yes
CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex Message Servicing Selection: Yes
CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex 1st AWA Append Character: \d
CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex 2nd AWA Append Character: \a

Source ID: 1 (decimal)
Baud: 19200
Parity: NONE
Control Line : No Handshaking
Error Detection: CRC
Embedded Responses: Auto Detect
Duplicate Packet Detect: Yes
ACK Timeout(x20 ms): 50
NAK Retries: 3
ENQ Retries: 3

CHANNEL 1 (SYSTEM) - Driver: Ethernet

CHANNEL 1 (SYSTEM) - Driver: Ethernet Edit Resource/Owner Timeout: 60
CHANNEL 1 (SYSTEM) - Driver: Ethernet Passthru Link ID: 1
CHANNEL 1 (SYSTEM) - Driver: Ethernet Write Protected: No
CHANNEL 1 (SYSTEM) - Driver: Ethernet Comms Servicing Selection: Yes
CHANNEL 1 (SYSTEM) - Driver: Ethernet Message Servicing Selection: Yes

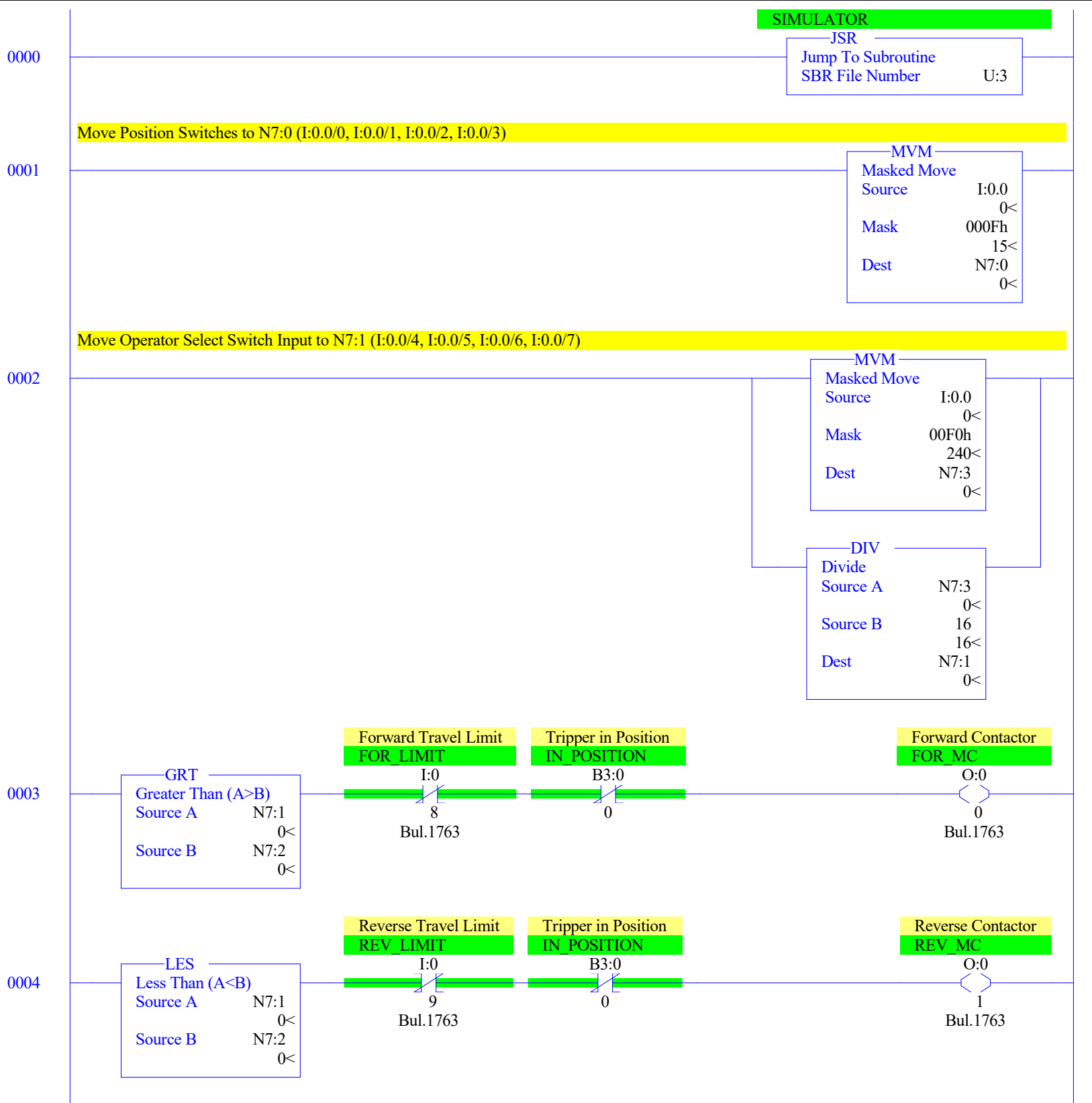
Hardware Address: 00:00:00:00:00:00
IP Address: 0.0.0.0
Subnet Mask: 0.0.0.0
Gateway Address: 0.0.0.0
Msg Connection Timeout (x 1mS): 15000
Msg Reply Timeout (x mS): 3000
Inactivity Timeout (x Min): 30
Bootp Enable: No
Dhcp Enable: Yes
SNMP Enable: No
HTTP Enable: Yes
Auto Negotiate Enable: Yes
Port Speed Enable: 10/100 Mbps Full Duplex/Half Duplex
Contact:
Location:

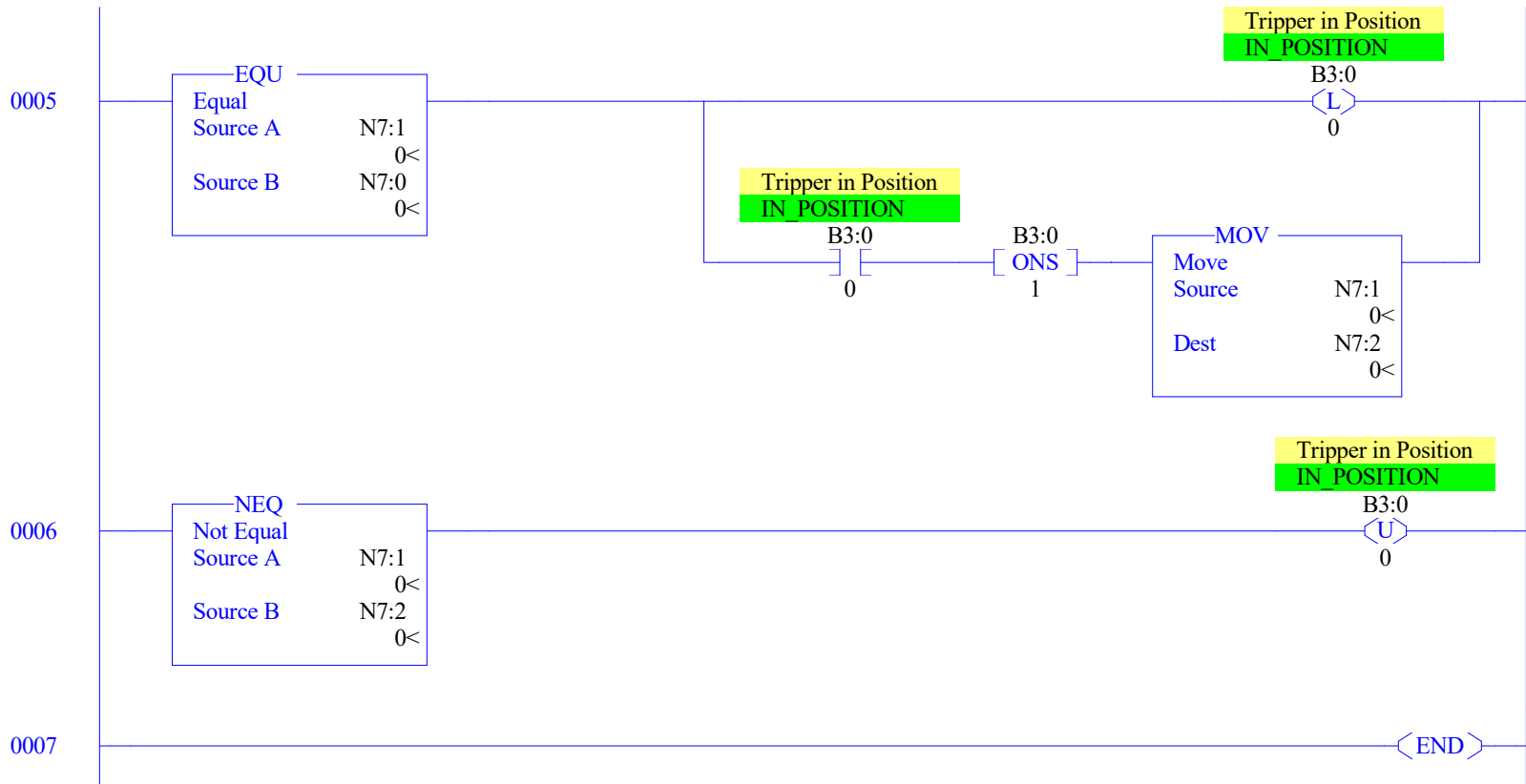
Program File List

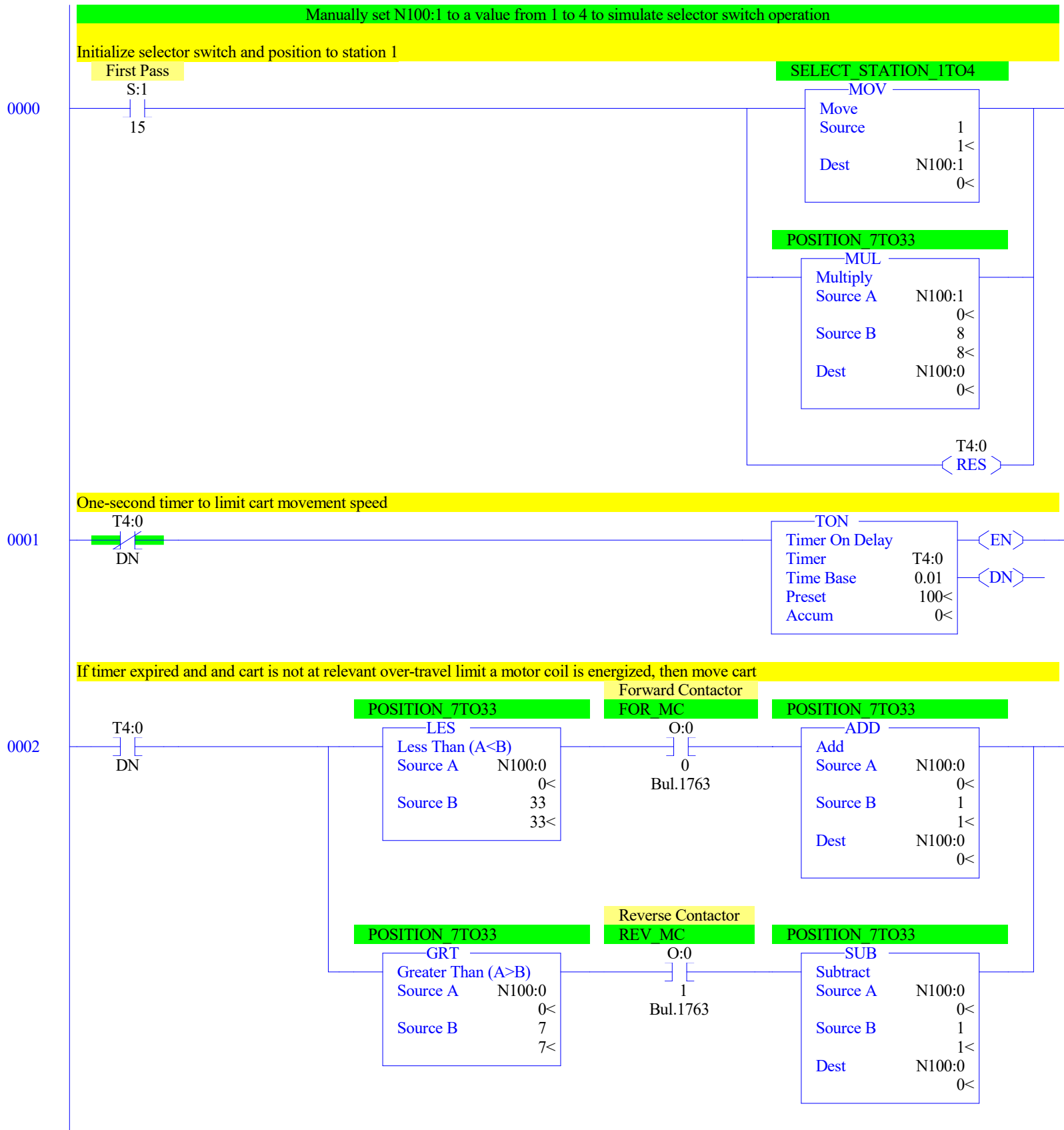
| Name | Number | Type | Rungs | Debug | Bytes |
|-----------|--------|--------|-------|-------|-------|
| [SYSTEM] | 0 | SYS | 0 | No | 0 |
| | 1 | SYS | 0 | No | 0 |
| | 2 | LADDER | 8 | No | 228 |
| SIMULATOR | 3 | LADDER | 11 | No | 557 |

Data File List

| Name | Number | Type | Scope | Debug | Words | Elements | Last |
|------------|--------|------|--------|-------|-------|----------|---------|
| OUTPUT | 0 | O | Global | No | 12 | 4 | O:3 |
| INPUT | 1 | I | Global | No | 18 | 6 | I:5 |
| STATUS | 2 | S | Global | No | 0 | 66 | S:65 |
| BINARY | 3 | B | Global | No | 1 | 1 | B3:0 |
| TIMER | 4 | T | Global | No | 3 | 1 | T4:0 |
| COUNTER | 5 | C | Global | No | 3 | 1 | C5:0 |
| CONTROL | 6 | R | Global | No | 3 | 1 | R6:0 |
| INTEGER | 7 | N | Global | No | 4 | 4 | N7:3 |
| FLOAT | 8 | F | Global | No | 2 | 1 | F8:0 |
| SIMUL_INTS | 100 | N | Global | No | 50 | 50 | N100:49 |





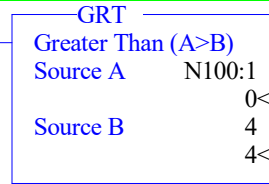


Bracket simulated selector switch (SELECT_STATION_ITO4 = N100:1) value to 1 to 4

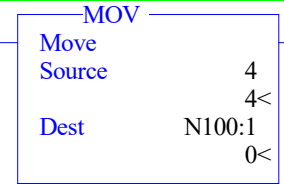
N.B. Manually set N100:1 to a value from 1 to 4, inclusive, to simulate an operator changing the selector switch to direct the main program to move the cart.

0003

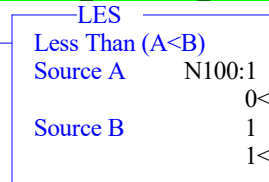
SELECT STATION_ITO4



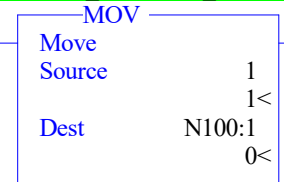
SELECT STATION_ITO4



SELECT STATION_ITO4



SELECT STATION_ITO4

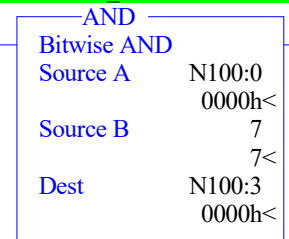


Extract fractional position (lower three bits of POSITION to POSITION_MOD8

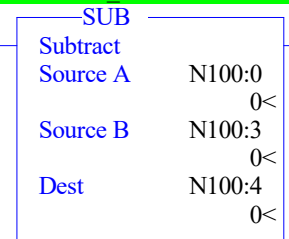
Extract Station position (next higher three bits) to POSITION_DIV8

0004

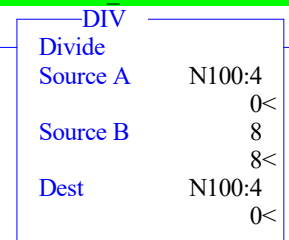
POSITION_MOD8

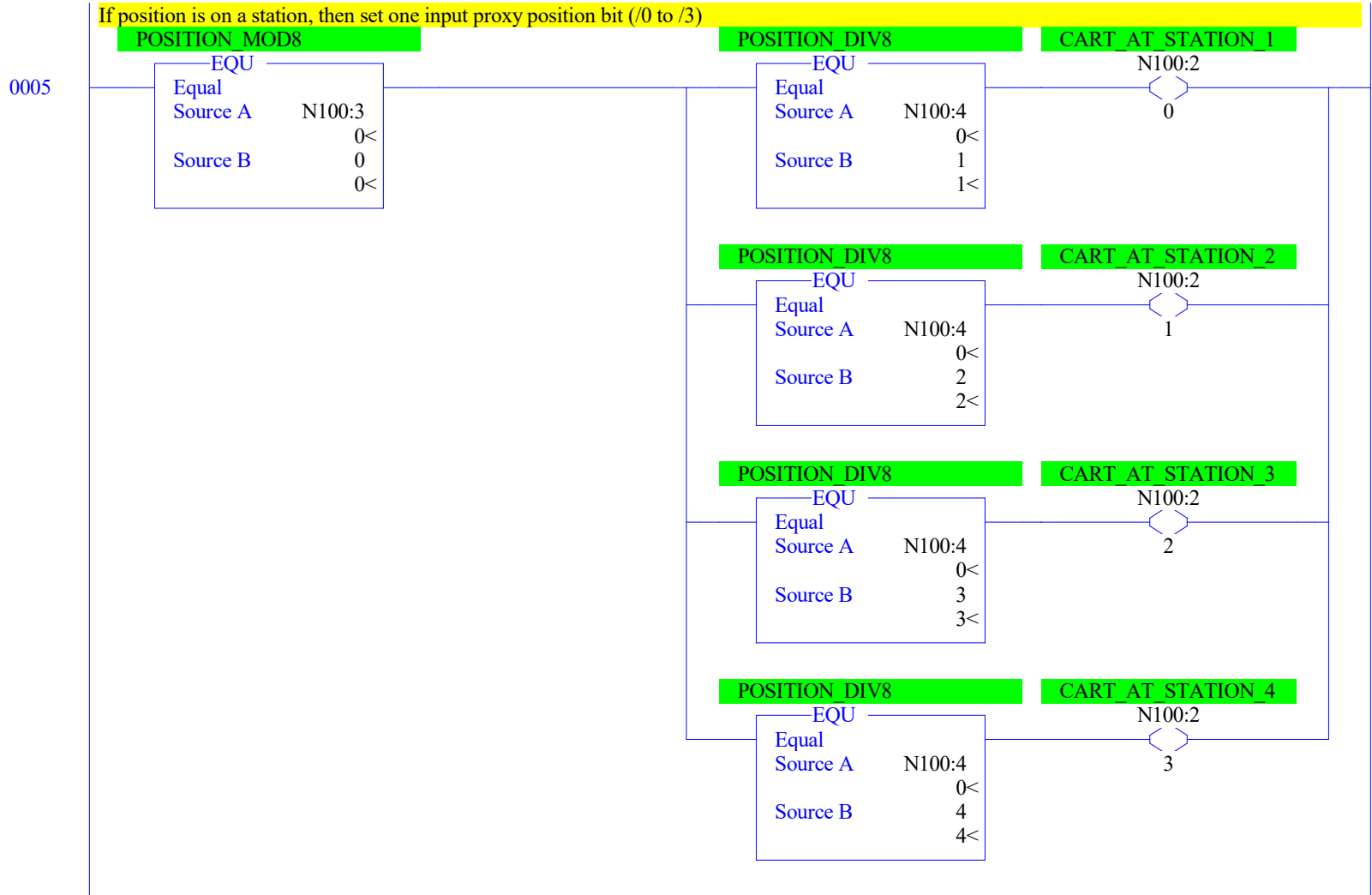


POSITION_DIV8



POSITION_DIV8

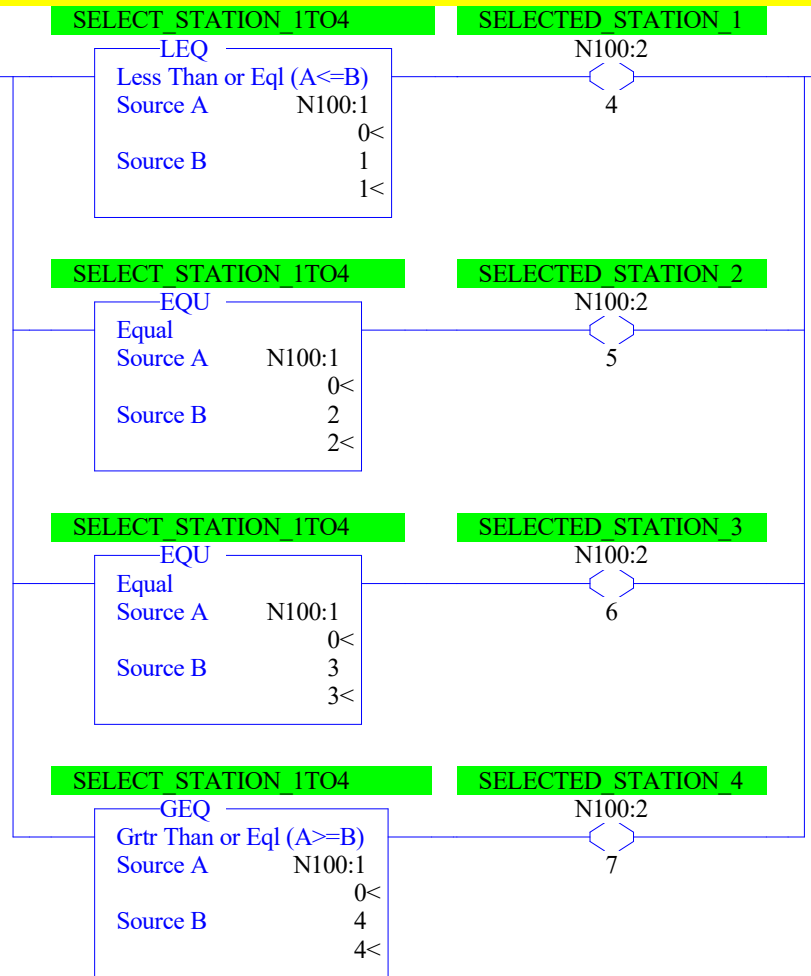




Set one input proxy selector bit

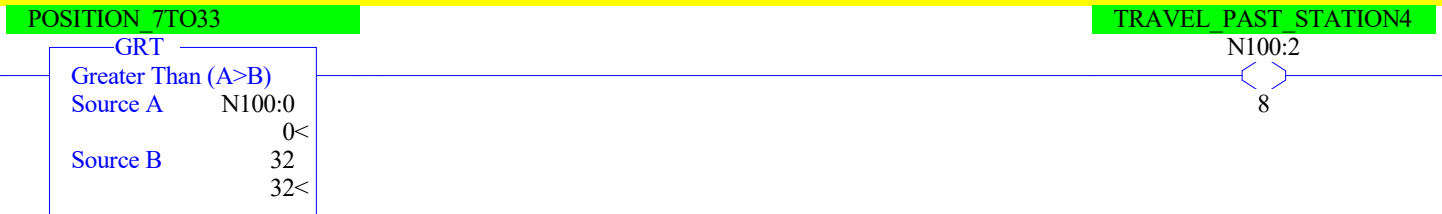
N.B. Manually set N100:1 to a value from 1 to 4, inclusive, to simulate an operator changing the selector switch to direct the main program to move the cart.

0006

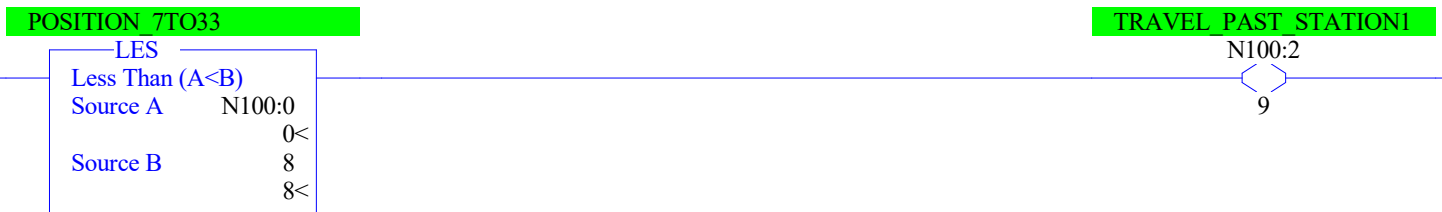


Set over-travel bits

0007



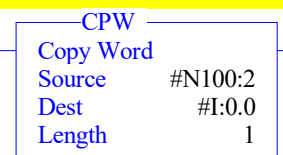
0008



Copy bits to discrete input word, overriding what is already there

N.B. this will not work in CompactLogix and ControlLogix, because inputs are asynchronous

0009



0010

⟨END⟩

| Offset | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | | | |
|--------|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|----------|------------|------|----------|
| O:0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bul.1763 | MicroLogix | 1100 | Series B |
| O:0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bul.1763 | MicroLogix | 1100 | Series B |
| O:0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bul.1763 | MicroLogix | 1100 | Series B |
| O:0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bul.1763 | MicroLogix | 1100 | Series B |

| Offset | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | | | | |
|--------|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|----------|------------|------|-----------------|
| I:0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bul.1763 | MicroLogix | 1100 | Series B |
| I:0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bul.1763 | MicroLogix | 1100 | Series B |
| I:0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bul.1763 | MicroLogix | 1100 | Series B |
| I:0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bul.1763 | MicroLogix | 1100 | Series B |
| I:0.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bul.1763 | MicroLogix | 1100 | Series B-Analog |
| I:0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bul.1763 | MicroLogix | 1100 | Series B-Analog |

Main

Processor Mode S:1/0 - S:1/4 = Remote Program Mode
On Power up Go To Run (Mode Behavior) S:1/12 = 0
First Pass S:1/15 = No
Free Running Clock S:4 = 0000-0000-0000-0000

Proc

OS Catalog Number S:57 = 1100 User Program Type S:63 = 8001h
OS Series S:58 = A Compiler Revision Number S:64 =
OS FRS S:59 =
Processor Catalog Number S:60 =
Processor Series S:61 = A
Processor FRN S:62 =

Scan Times

Maximum (x10 ms) S:22 = 0
Watchdog (x10 ms) S:3 (high byte) = 10
Last 100 uSec Scan Time S:35 = 0
Scan Toggle Bit S:33/9 = 0

Math

Math Overflow Selected S:2/14 = 0 Math Register (lo word) S:13 = 0
Overflow Trap S:5/0 = 0 Math Register (high word) S:14-S:13 = 0
Carry S:0/0 = 0 Math Register (32 Bit) S:14-S:13 = 0
Overflow S:0/1 = 0
Zero Bit S:0/2 = 0
Sign Bit S:0/3 = 0

Chan 0

Processor Mode S:1/0- S:1/4 = Remote Program Mode
Node Address S:15 (low byte) = 0 Outgoing Msg Cmd Pending S:33/2 = 0
Baud Rate S:15 (high byte) = ?
Channel Mode S:33/3 = 0
Comms Active S:33/4 = 0
Incoming Cmd Pending S:33/0 = 0
Msg Reply Pending S:33/1 = 0

Debug

Suspend Code S:7 = 0
Suspend File S:8 = 0

Errors

Fault Override At Power Up S:1/8 = 0 Fault Routine S:29 = 0
Startup Protection Fault S:1/9 = 0 Major Error S:6 = 0h
Major Error Halt S:1/13 = 0
Overflow Trap S:5/0 = 0 Error Description:
Control Register Error S:5/2 = 0
Major Error Executing User Fault Rtn. S:5/3 = 0
Battery Low S:5/11 = 0
Input Filter Selection Modified S:5/13 = 0
ASCII String Manipulation error S:5/15 = 0

Protection

Deny Future Access S:1/14 = No
Data File Overwrite Protection Lost S:36/10 = False

Mem Module

Memory Module Loaded On Boot S:5/8 = 0
Password Mismatch S:5/9 = 0
Load Memory Module On Memory Error S:1/10 = 0
Load Memory Module Always S:1/11 = 0
On Power up Go To Run (Mode Behavior) S:1/12 = 0
Program Compare S:2/9 = 0
Data File Overwrite Protection Lost S:36/10 = 0

Forces

Forces Enabled S:1/5 = Yes
Forces Installed S:1/6 = No

| Offset | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | (Symbol) | Description |
|--------|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|----------|-------------|
| B3:0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

| Offset | EN | TT | DN | BASE | PRE | ACC | (Symbol) | Description |
|--------|----|----|----|---------|-----|-----|----------|-------------|
| T4:0 | 0 | 0 | 0 | .01 sec | 100 | 0 | | |

| Offset | CU | CD | DN | OV | UN | UA | PRE | ACC | (Symbol) | Description |
|--------|----|----|----|----|----|----|-----|-----|----------|-------------|
| C5:0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

| Offset | EN | EU | DN | EM | ER | UL | IN | FD | LEN | POS | (Symbol) | Description |
|--------|----|----|----|----|----|----|----|----|-----|-----|----------|-------------|
| R6:0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

```
Data File N7 (dec)  --  INTEGER
```

| | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|
| Offset | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| N7:0 | 0 | 0 | 0 | 0 | | | | | | |

| | | | | | |
|--------|---|---|---|---|---|
| Offset | 0 | 1 | 2 | 3 | 4 |
| F8:0 | 0 | | | | |

Data File N100 (dec) -- SIMUL_INTS

| Offset | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------|---|---|---|---|---|---|---|---|---|---|
| N100:0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| N100:10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| N100:20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| N100:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| N100:40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Address/Symbol Database

| Address | Symbol | Scope | Description | Sym Group | Dev. Code |
|-----------------|----------------------|--------|--|-----------|-----------|
| B3:0/0 | IN_POSITION | Global | Trippler in Position | | |
| I:0/8 | FOR_LIMIT | Global | Forward Travel Limit | | |
| I:0/9 | REV_LIMIT | Global | Reverse Travel Limit | | |
| I:0.4 | | | | | |
| N100:0 | POSITION_7TO33 | Global | | | |
| N100:1 | SELECT_STATION_1TO4 | Global | | | |
| N100:2 | INPUT_PROXY | Global | | | |
| N100:2/0 | CART_AT_STATION_1 | Global | | | |
| N100:2/1 | CART_AT_STATION_2 | Global | | | |
| N100:2/2 | CART_AT_STATION_3 | Global | | | |
| N100:2/3 | CART_AT_STATION_4 | Global | | | |
| N100:2/4 | SELECTED_STATION_1 | Global | | | |
| N100:2/5 | SELECTED_STATION_2 | Global | | | |
| N100:2/6 | SELECTED_STATION_3 | Global | | | |
| N100:2/7 | SELECTED_STATION_4 | Global | | | |
| N100:2/8 | TRAVEL_PAST_STATION4 | Global | | | |
| N100:2/9 | TRAVEL_PAST_STATION1 | Global | | | |
| N100:2/[N100:4] | | | | | |
| N100:3 | POSITION_MOD8 | Global | | | |
| N100:4 | POSITION_DIV8 | Global | | | |
| O:0/0 | FOR_MC | Global | Forward Contactor | | |
| O:0/1 | REV_MC | Global | Reverse Contactor | | |
| S:0 | | | Arithmetic Flags | | |
| S:0/0 | | | Processor Arithmetic Carry Flag | | |
| S:0/1 | | | Processor Arithmetic Underflow/ Overflow Flag | | |
| S:0/2 | | | Processor Arithmetic Zero Flag | | |
| S:0/3 | | | Processor Arithmetic Sign Flag | | |
| S:1 | | | Processor Mode Status/ Control | | |
| S:1/0 | | | Processor Mode Bit 0 | | |
| S:1/1 | | | Processor Mode Bit 1 | | |
| S:1/2 | | | Processor Mode Bit 2 | | |
| S:1/3 | | | Processor Mode Bit 3 | | |
| S:1/4 | | | Processor Mode Bit 4 | | |
| S:1/5 | | | Forces Enabled | | |
| S:1/6 | | | Forces Present | | |
| S:1/7 | | | Comms Active | | |
| S:1/8 | | | Fault Override at Powerup | | |
| S:1/9 | | | Startup Protection Fault | | |
| S:1/10 | | | Load Memory Module on Memory Error | | |
| S:1/11 | | | Load Memory Module Always | | |
| S:1/12 | | | Load Memory Module and RUN | | |
| S:1/13 | | | Major Error Halted | | |
| S:1/14 | | | Access Denied | | |
| S:1/15 | | | First Pass | | |
| S:2/0 | | | STI Pending | | |
| S:2/1 | | | STI Enabled | | |
| S:2/2 | | | STI Executing | | |
| S:2/3 | | | Index Addressing File Range | | |
| S:2/4 | | | Saved with Debug Single Step | | |
| S:2/5 | | | DH-485 Incoming Command Pending | | |
| S:2/6 | | | DH-485 Message Reply Pending | | |
| S:2/7 | | | DH-485 Outgoing Message Command Pending | | |
| S:2/15 | | | Comms Servicing Selection | | |
| S:3 | | | Current Scan Time/ Watchdog Scan Time | | |
| S:4 | | | Time Base | | |
| S:5/0 | | | Overflow Trap | | |
| S:5/2 | | | Control Register Error | | |
| S:5/3 | | | Major Err Detected Executing UserFault Routine | | |
| S:5/4 | | | M0-M1 Referenced on Disabled Slot | | |
| S:5/8 | | | Memory Module Boot | | |
| S:5/9 | | | Memory Module Password Mismatch | | |
| S:5/10 | | | STI Overflow | | |
| S:5/11 | | | Battery Low | | |
| S:6 | | | Major Error Fault Code | | |
| S:7 | | | Suspend Code | | |
| S:8 | | | Suspend File | | |
| S:9 | | | Active Nodes | | |
| S:10 | | | Active Nodes | | |
| S:11 | | | I/O Slot Enables | | |
| S:12 | | | I/O Slot Enables | | |
| S:13 | | | Math Register | | |
| S:14 | | | Math Register | | |
| S:15 | | | Node Address/ Baud Rate | | |
| S:16 | | | Debug Single Step Rung | | |
| S:17 | | | Debug Single Step File | | |
| S:18 | | | Debug Single Step Breakpoint Rung | | |
| S:19 | | | Debug Single Step Breakpoint File | | |
| S:20 | | | Debug Fault/ Powerdown Rung | | |
| S:21 | | | Debug Fault/ Powerdown File | | |
| S:22 | | | Maximum Observed Scan Time | | |
| S:23 | | | Average Scan Time | | |
| S:24 | | | Index Register | | |
| S:25 | | | I/O Interrupt Pending | | |
| S:26 | | | I/O Interrupt Pending | | |

Address/Symbol Database

| Address | Symbol | Scope | Description | Sym Group | Dev. Code |
|---------|-----------|--------|--|-----------|-----------|
| S:27 | | | I/O Interrupt Enabled | | |
| S:28 | | | I/O Interrupt Enabled | | |
| S:29 | | | User Fault Routine File Number | | |
| S:30 | | | STI Setpoint | | |
| S:31 | | | STI File Number | | |
| S:32 | | | I/O Interrupt Executing | | |
| S:33 | | | Extended Proc Status Control Word | | |
| S:33/0 | | | Incoming Command Pending | | |
| S:33/1 | | | Message Reply Pending | | |
| S:33/2 | | | Outgoing Message Command Pending | | |
| S:33/3 | | | Selection Status User/DF1 | | |
| S:33/4 | | | Communicat Active | | |
| S:33/5 | | | Communicat Servicing Selection | | |
| S:33/6 | | | Message Servicing Selection Channel 0 | | |
| S:33/7 | | | Message Servicing Selection Channel 1 | | |
| S:33/8 | | | Interrupt Latency Control Flag | | |
| S:33/9 | | | Scan Toggle Flag | | |
| S:33/10 | | | Discrete Input Interrupt Reconfigur Flag | | |
| S:33/11 | | | Online Edit Status | | |
| S:33/12 | | | Online Edit Status | | |
| S:33/13 | | | Scan Time Timebase Selection | | |
| S:33/14 | | | DTR Control Bit | | |
| S:33/15 | | | DTR Force Bit | | |
| S:34 | | | Pass-thru Disabled | | |
| S:34/0 | | | Pass-Thru Disabled Flag | | |
| S:34/1 | | | DH+ Active Node Table Enable Flag | | |
| S:34/2 | | | Floating Point Math Flag Disable,Fl | | |
| S:35 | | | Last 1 ms Scan Time | | |
| S:36 | | | Extended Minor Error Bits | | |
| S:36/8 | | | DII Lost | | |
| S:36/9 | | | STI Lost | | |
| S:36/10 | | | Memory Module Data File Overwrite Protection | | |
| S:37 | | | Clock Calendar Year | | |
| S:38 | | | Clock Calendar Month | | |
| S:39 | | | Clock Calendar Day | | |
| S:40 | | | Clock Calendar Hours | | |
| S:41 | | | Clock Calendar Minutes | | |
| S:42 | | | Clock Calendar Seconds | | |
| S:43 | | | STI Interrupt Time | | |
| S:44 | | | I/O Event Interrupt Time | | |
| S:45 | | | DII Interrupt Time | | |
| S:46 | | | Discrete Input Interrupt- File Number | | |
| S:47 | | | Discrete Input Interrupt- Slot Number | | |
| S:48 | | | Discrete Input Interrupt- Bit Mask | | |
| S:49 | | | Discrete Input Interrupt- Compare Value | | |
| S:50 | | | Processor Catalog Number | | |
| S:51 | | | Discrete Input Interrupt- Return Number | | |
| S:52 | | | Discrete Input Interrupt- Accumulat | | |
| S:53 | | | Reserved/ Clock Calendar Day of the Week | | |
| S:55 | | | Last DII Scan Time | | |
| S:56 | | | Maximum Observed DII Scan Time | | |
| S:57 | | | Operating System Catalog Number | | |
| S:58 | | | Operating System Series | | |
| S:59 | | | Operating System FRN | | |
| S:61 | | | Processor Series | | |
| S:62 | | | Processor Revision | | |
| S:63 | | | User Program Type | | |
| S:64 | | | User Program Functional Index | | |
| S:65 | | | User RAM Size | | |
| S:66 | | | Flash EEPROM Size | | |
| S:67 | | | Channel 0 Active Nodes | | |
| S:68 | | | Channel 0 Active Nodes | | |
| S:69 | | | Channel 0 Active Nodes | | |
| S:70 | | | Channel 0 Active Nodes | | |
| S:71 | | | Channel 0 Active Nodes | | |
| S:72 | | | Channel 0 Active Nodes | | |
| S:73 | | | Channel 0 Active Nodes | | |
| S:74 | | | Channel 0 Active Nodes | | |
| S:75 | | | Channel 0 Active Nodes | | |
| S:76 | | | Channel 0 Active Nodes | | |
| S:77 | | | Channel 0 Active Nodes | | |
| S:78 | | | Channel 0 Active Nodes | | |
| S:79 | | | Channel 0 Active Nodes | | |
| S:80 | | | Channel 0 Active Nodes | | |
| S:81 | | | Channel 0 Active Nodes | | |
| S:82 | | | Channel 0 Active Nodes | | |
| S:83 | | | DH+ Active Nodes | | |
| S:84 | | | DH+ Active Nodes | | |
| S:85 | | | DH+ Active Nodes | | |
| S:86 | | | DH+ Active Nodes | | |
| U:3 | SIMULATOR | Global | DH+ Active Nodes | | |

| Address | Instruction | Description |
|---------|-------------|-------------|
|---------|-------------|-------------|

| Group_Name | Description |
|------------|-------------|
|------------|-------------|