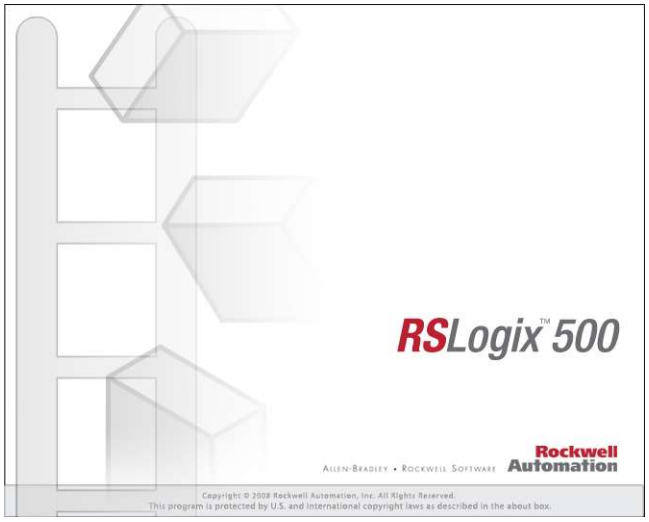
RSLogix Micro Project Report



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: 9868

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

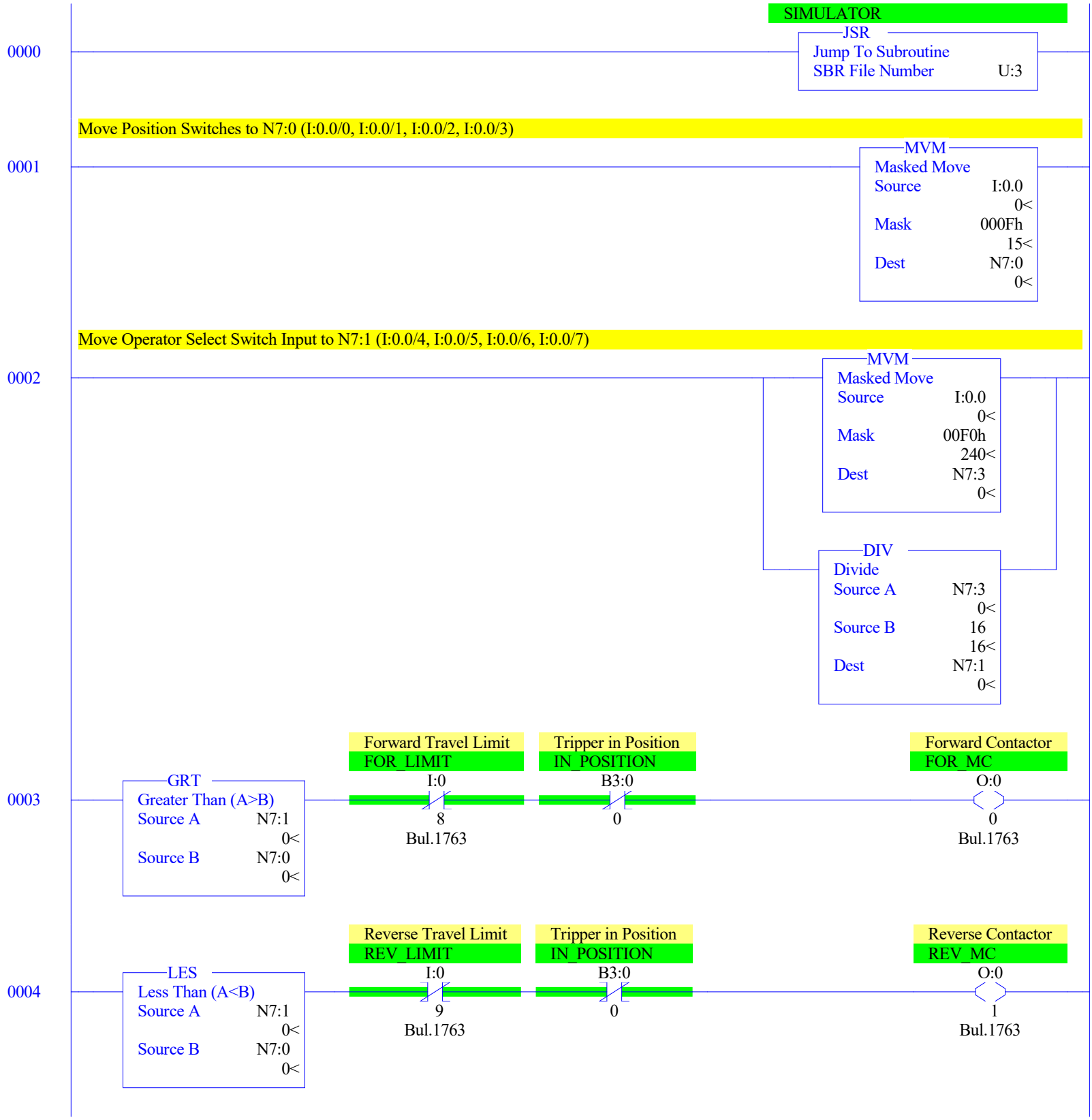
   Hardware Address: 00:00:00:00:00:00
   IP Address: 0.0.0.0
   Subnet Mask: 0.0.0.0
   Gateway Address: 0.0.0.0
   Msg Connection Timeout (x 1mS): 15000
   Msg Reply Timeout (x mS): 3000
   Inactivity Timeout (x Min): 30
   Bootp Enable: No
   Dhcp Enable Yes
   SNMP Enable: No
   HTTP Enable: Yes
  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

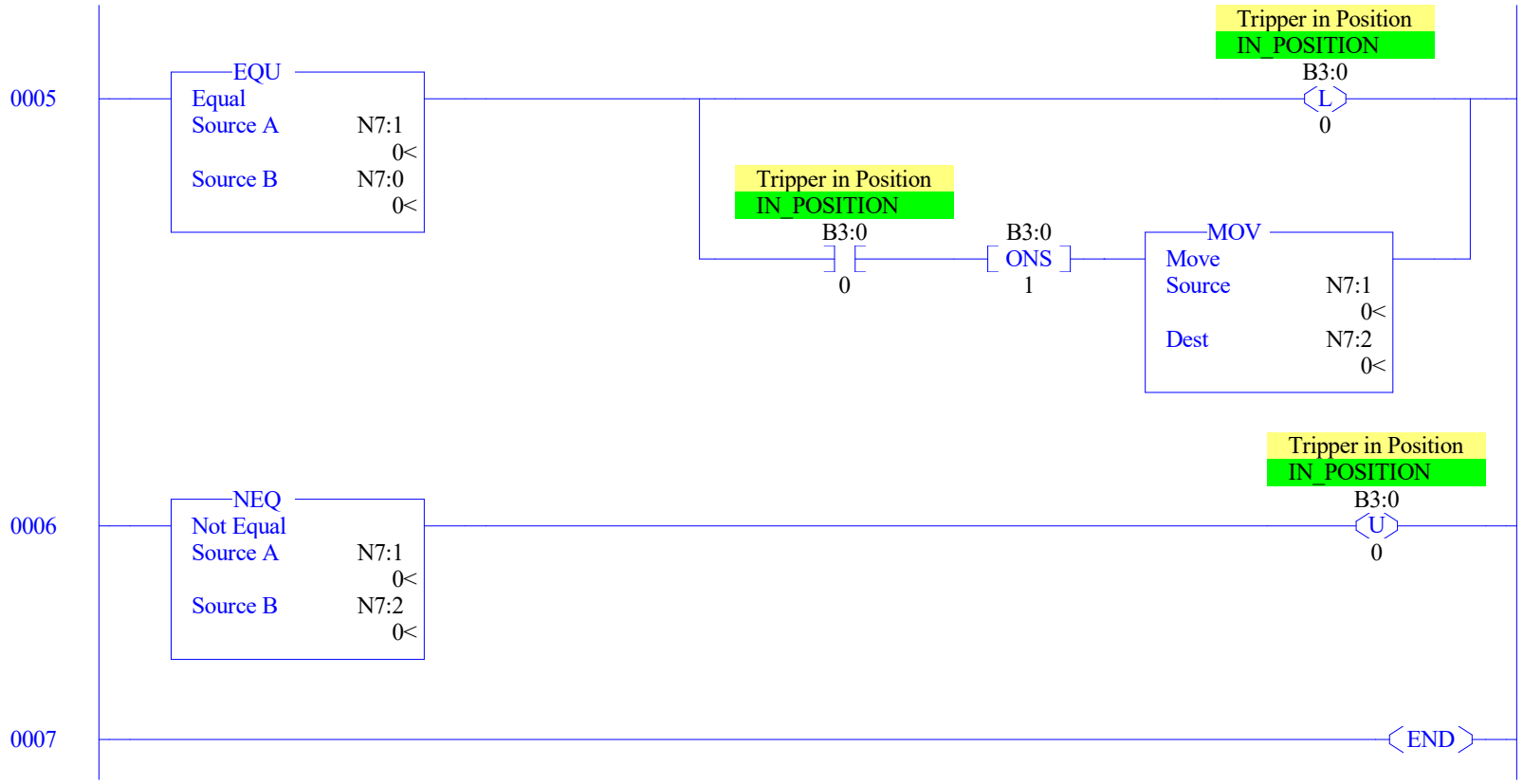
Program File List

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


SIMULATOR
0000
JSR
Jump To Subroutine
SBR File Number U:3
Move Position Switches to N7:0 (I:0.0/0, I:0.0/1, I:0.0/2, I:0.0/3)
0001
MVM
Masked Move
Source I:0.0
0<
Mask 000Fh
15<
Dest N7:0
0<
Move Operator Select Switch Input to N7:1 (I:0.0/4, I:0.0/5, I:0.0/6, I:0.0/7)
0002
MVM
Masked Move
Source I:0.0
0<
Mask 00F0h
240<
Dest N7:3
0<
DIV
Divide
Source A N7:3
0<
Source B 16
16<
Dest N7:1
0<
0003
GRT
Greater Than (A>B)
Source A N7:1
0<
Source B N7:0
0<
Forward Travel Limit
FOR_LIMIT
I:0
8
Bul.1763
Tripper in Position
IN_POSITION
B3:0
0
Forward Contactor
FOR_MC
O:0
0
Bul.1763
0004
LES
Less Than (A<B)
Source A N7:1
0<
Source B N7:0
0<
Reverse Travel Limit
REV_LIMIT
I:0
9
Bul.1763
Tripper in Position
IN_POSITION
B3:0
0
Reverse Contactor
REV_MC
O:0
1
Bul.1763


0005
EQU
Equal
Source A N7:1
0
Source B N7:0
0
Tripper in Position
IN_POSITION
B3:0
0
B3:0
ONS
1
MOV
Move
Source N7:1
0
Dest N7:2
0
Tripper in Position
IN_POSITION
B3:0
L
0
0006
NEQ
Not Equal
Source A N7:1
0
Source B N7:2
0
Tripper in Position
IN_POSITION
B3:0
U
0
0007
END

Initialize selector switch and position to station 1

0000

First Pass
S:1
15

SELECT_STATION_1TO4
MOV
Move
Source 1
1<
Dest N100:1
1<

POSITION_7TO33
MUL
Multiply
Source A N100:1
1<
Source B 8
8<
Dest N100:0
8<

T4:0
RES

One-second timer to limit cart movement speed

0001

T4:0
DN

TON
Timer On Delay
Timer T4:0
Time Base 0.01
Preset 100<
Accum 0<
EN
DN

If timer expired and and cart is not at relevant over-travel limit a motor coil is energized, then move cart

0002

T4:0
DN

POSITION_7TO33
LES
Less Than (A<B)
Source A N100:0
8<
Source B 33
33<

Forward Contactor
FOR_MC
O:0
0
Bul.1763

POSITION_7TO33
ADD
Add
Source A N100:0
8<
Source B 1
1<
Dest N100:0
8<

Reverse Contactor
REV_MC
O:0
1
Bul.1763

POSITION_7TO33
GRT
Greater Than (A>B)
Source A N100:0
8<
Source B 7
7<

POSITION_7TO33
SUB
Subtract
Source A N100:0
8<
Source B 1
1<
Dest N100:0
8<

Bracket simulated selector switch value to 1 to 4

0003

SELECT_STATION_1TO4

GRT
Greater Than (A>B)
Source A N100:1
1<
Source B 4
4<

SELECT_STATION_1TO4

MOV
Move
Source 4
4<
Dest N100:1
1<

SELECT_STATION_1TO4

LES
Less Than (A<B)
Source A N100:1
1<
Source B 1
1<

SELECT_STATION_1TO4

MOV
Move
Source 1
1<
Dest N100:1
1<

Extract fractional position (lower three bits of POSITION to POSITION_MOD8
Extract Station position (next higher three bits) to POSITION_DIV8

0004

POSITION_MOD8

AND
Bitwise AND
Source A N100:0
0008h<
Source B 7
7<
Dest N100:3
0000h<

POSITION_DIV8

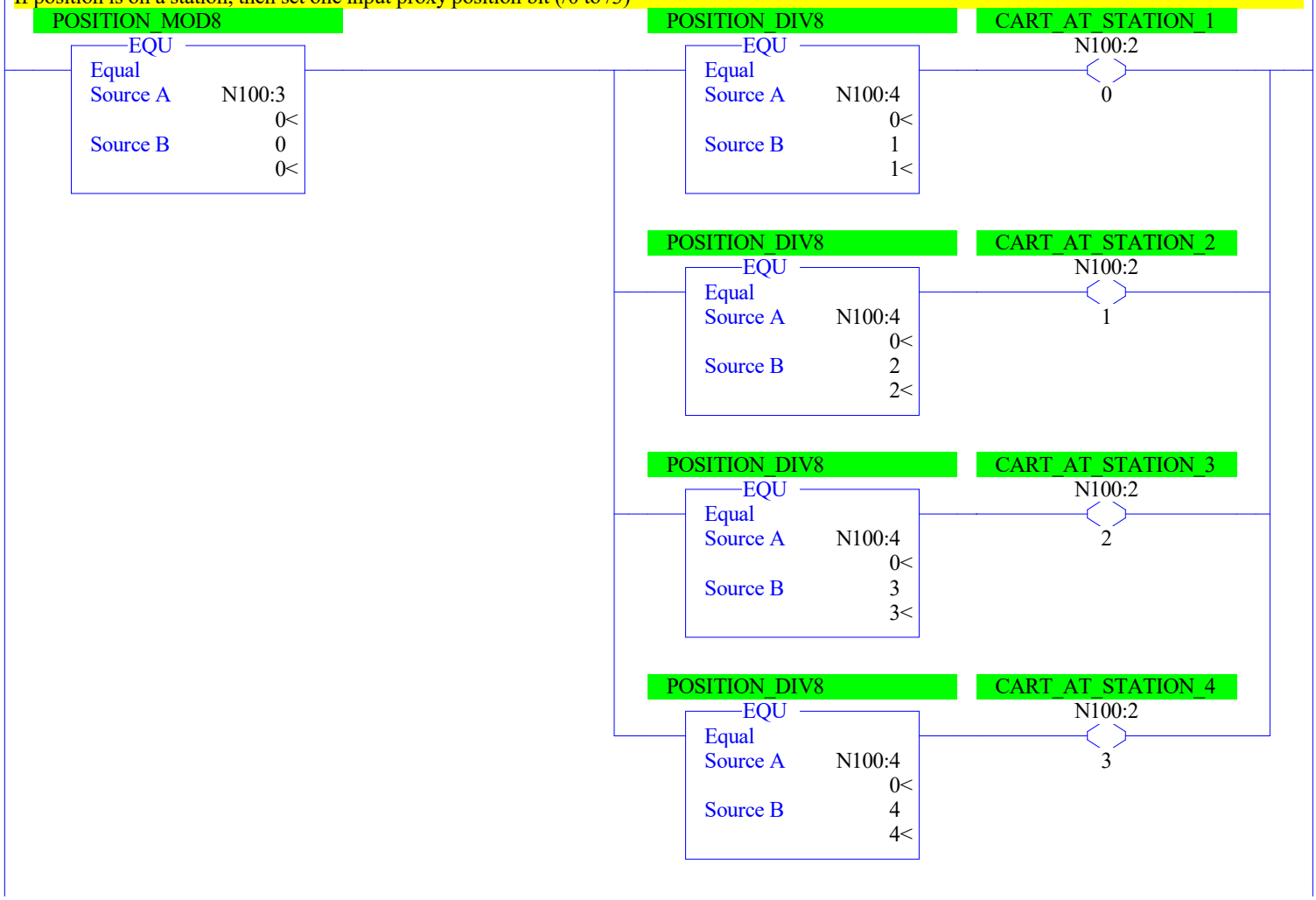
SUB
Subtract
Source A N100:0
8<
Source B N100:3
0<
Dest N100:4
0<

POSITION_DIV8

DIV
Divide
Source A N100:4
0<
Source B 8
8<
Dest N100:4
0<

If position is on a station, then set one input proxy position bit (/0 to /3)

0005



Set one input proxy selector bit

0006

SELECT_STATION_1TO4
EQU
Equal
Source A N100:1
1<
Source B 1
1<
SELECTED_STATION_1
N100:2
4

SELECT_STATION_1TO4
EQU
Equal
Source A N100:1
1<
Source B 2
2<
SELECTED_STATION_2
N100:2
5

SELECT_STATION_1TO4
EQU
Equal
Source A N100:1
1<
Source B 3
3<
SELECTED_STATION_3
N100:2
6

SELECT_STATION_1TO4
EQU
Equal
Source A N100:1
1<
Source B 4
4<
SELECTED_STATION_4
N100:2
7

Set over-travel bits

0007

POSITION_7TO33
GRT
Greater Than (A>B)
Source A N100:0
8<
Source B 32
32<
TRAVEL_PAST_STATION4
N100:2
8

0008

POSITION_7TO33
LES
Less Than (A<B)
Source A N100:0
8<
Source B 8
8<
TRAVEL_PAST_STATION1
N100:2
9

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

CPW
Copy Word
Source #N100:2
Dest #I:0.0
Length 1

0010

END

Data File O0 (bin) -- OUTPUT

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

Data File I1 (bin) -- INPUT

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

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

Chan 0

Processor Mode S:1/0- S:1/4 = Remote Program Mode
Node Address S:15 (low byte) = 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
Outgoing Msg Cmd Pending S:33/2 = 0

Debug

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

Errors

Fault Override At Power Up S:1/8 = 0
Startup Protection Fault S:1/9 = 0
Major Error Halt S:1/13 = 0
Overflow Trap S:5/0 = 0
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
Fault Routine S:29 = 0
Major Error S:6 = 0h
Error Description:

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

Data File B3 (bin) -- BINARY

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	

Data File T4 -- TIMER

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

Data File C5 -- COUNTER

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

Data File R6 -- CONTROL

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						

Data File F8 -- FLOAT

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	8	1	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	Tripper 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			

Instruction Comment Database

Address	Instruction	Description

Symbol Group Database

Group_Name Description