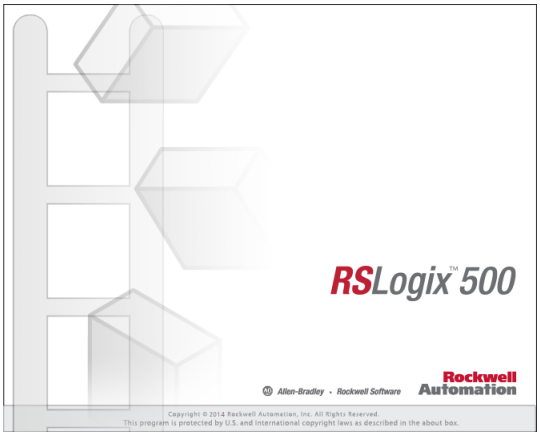
RSLogix 500 Project Report



Processor Information

Processor Type: 1747-L531E,F 5/03 CPU - 8K Mem. OS302 Series C FRN 10 and later

Processor Name: UNTITLED

Total Memory Used: 66 Instruction Words Used - 40 Data Table Words Used

Total Memory Left: 4030 Instruction Words Left

Program Files: 3

Data Files: 9

Program ID: 5e55

I/O Configuration

0	1747-L531E,F	5/03 CPU - 8K Mem. OS302 Series C FRN
1	1746-IO12DC	6-Input 24 VDC, 6-Output (RLY)
2	1746-IO12DC	6-Input 24 VDC, 6-Output (RLY)
3	1746-NIO4V	Analog 2 Ch In/2 Ch Voltage Out

Channel Configuration

GENERAL
   Channel 1 Write Protected: No
   Channel 1 Edit Resource/Owner Timeout(x1 sec): 60
   Channel 1 Passthru Link ID(dec): 2

   Channel 0 Write Protected: No
   Channel 0 Edit Resource/Owner Timeout(x1 sec): 60
   Channel 0 Passthru Link ID(dec): 1
   Channel 0 Current Mode: System
   Channel 0 Mode Change Enabled: No
   Channel 0 Mode Change Attention Character: \1b
   Channel 0 Mode Change System Character: S
   Channel 0 Mode Change User Character: U

CHANNEL 1 (SYSTEM) - Driver: DH485
   Node : 1 (decimal)
   Baud: 19200
   Token Hold Factor: 1
   Max Node Address: 31

CHANNEL 0 (SYSTEM) - Driver: DF1 Full Duplex
   Source ID: 9 (decimal)
   Baud: 19200
   Parity: NONE
   Stop Bits: 1
   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 0 (USER) - Driver: ASCII
   Baud: 19200
   Parity: NONE
   Stop Bits: 1
   Data Bits: 8
   Control Line : No Handshaking
   Delete mode: Ignore
   Echo: No
   XON/XOFF: No
   Termination Character 1: \d
   Termination Character 2: \ff
   Append Character 1: \d
   Append Character 2: \a

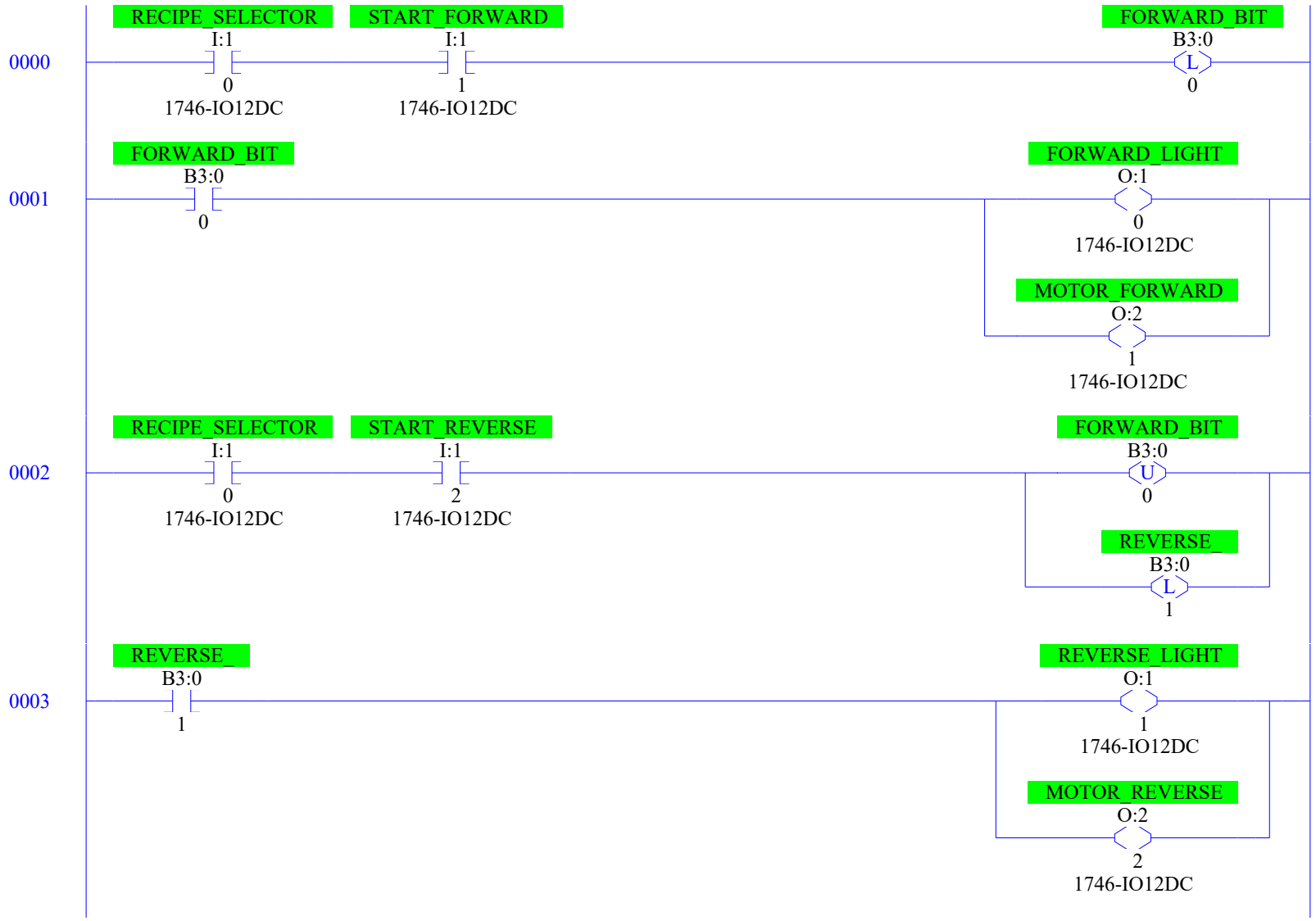
Program File List

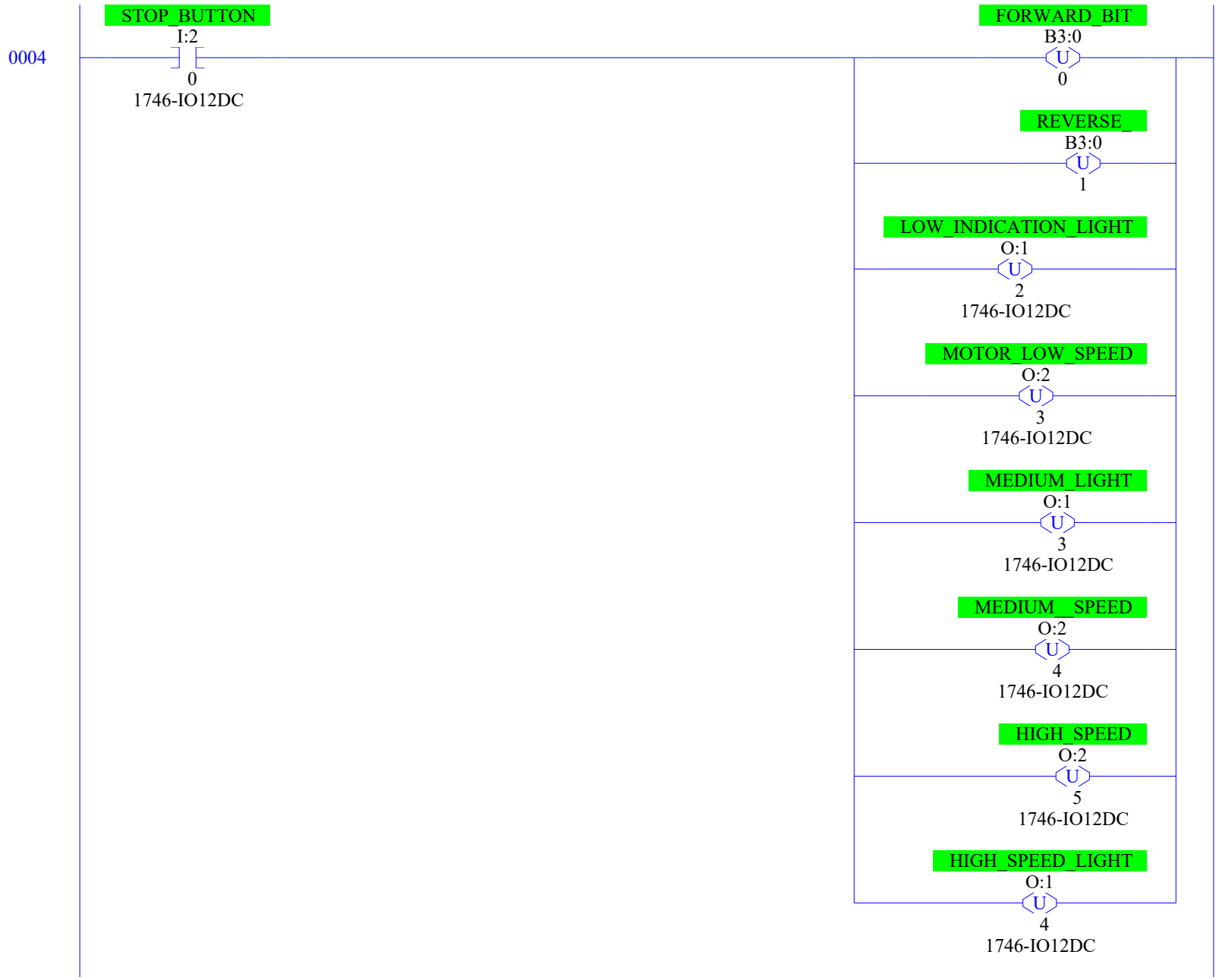
Name	Number	Type	Rungs	Debug	Bytes
[SYSTEM]	0	SYS	0	No	0
	1	SYS	0	No	0
	2	LADDER	10	No	437

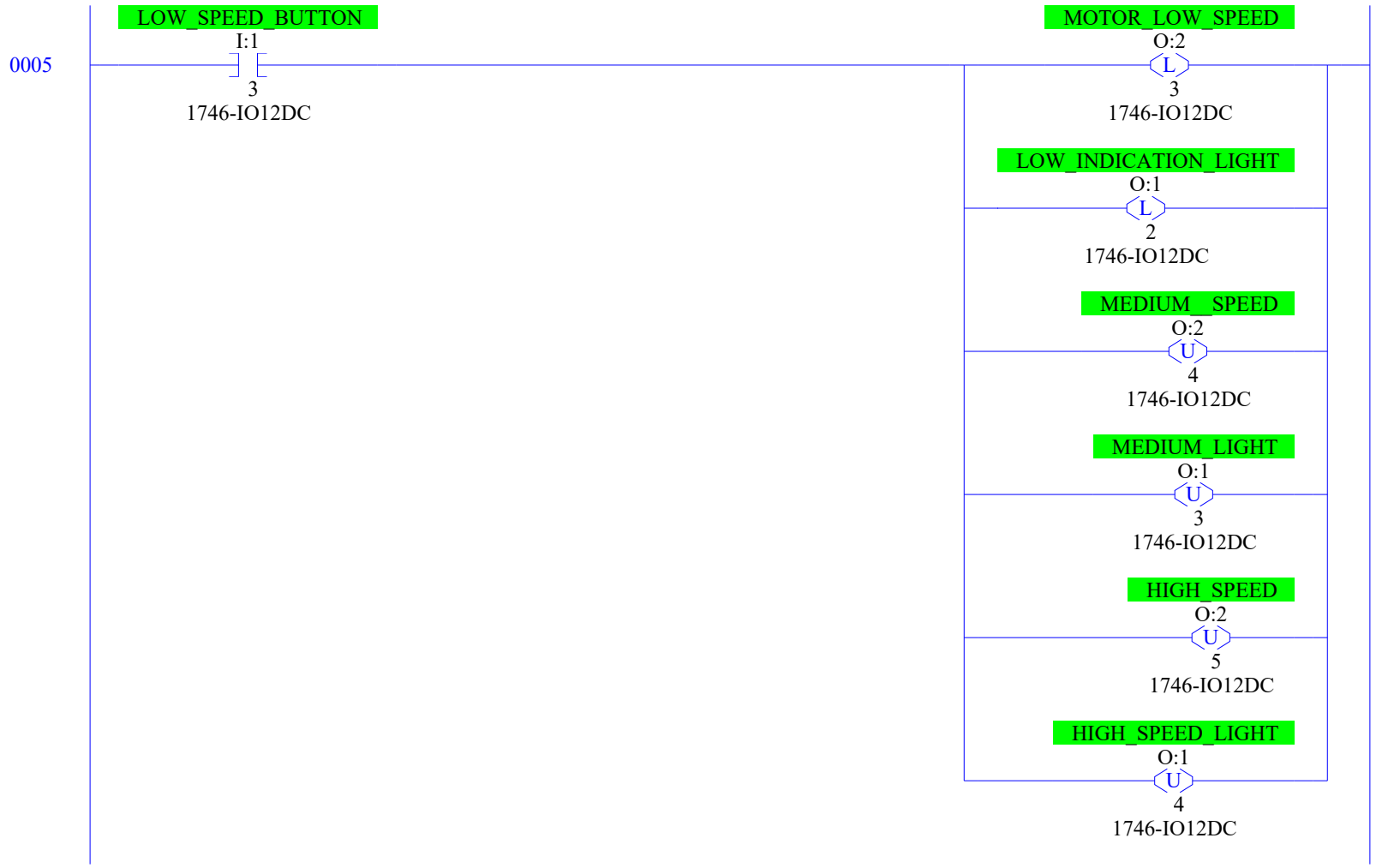
Data File List

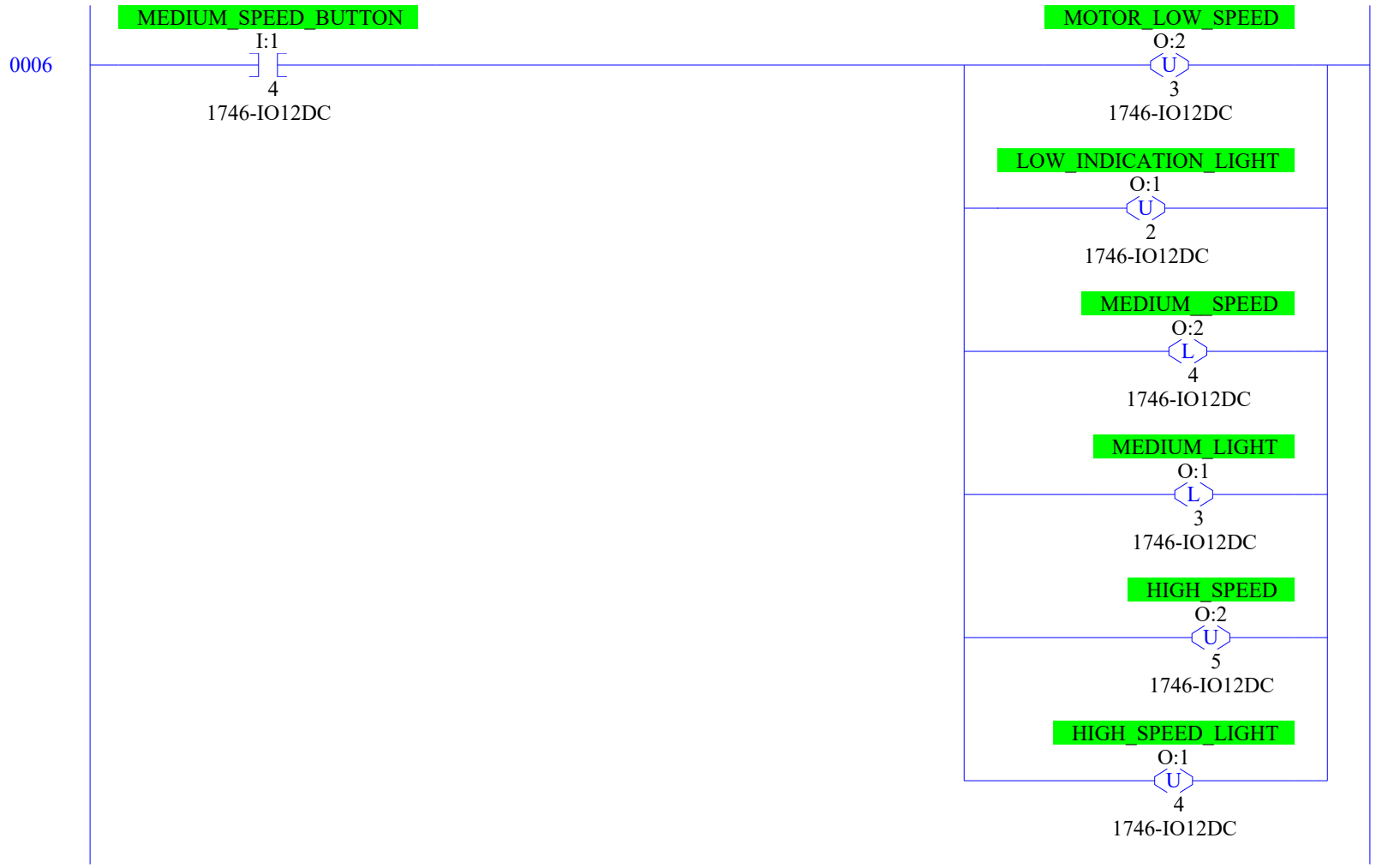
Name	Number	Type	Scope	Debug	Words	Elements	Last
OUTPUT	0	O	Global	No	12	4	O:3
INPUT	1	I	Global	No	12	4	I:3
STATUS	2	S	Global	No	0	83	S:82
BINARY	3	B	Global	No	1	1	B3:0
TIMER	4	T	Global	No	6	2	T4:1
COUNTER	5	C	Global	No	3	1	C5:0
CONTROL	6	R	Global	No	3	1	R6:0
INTEGER	7	N	Global	No	1	1	N7:0
FLOAT	8	F	Global	No	2	1	F8:0

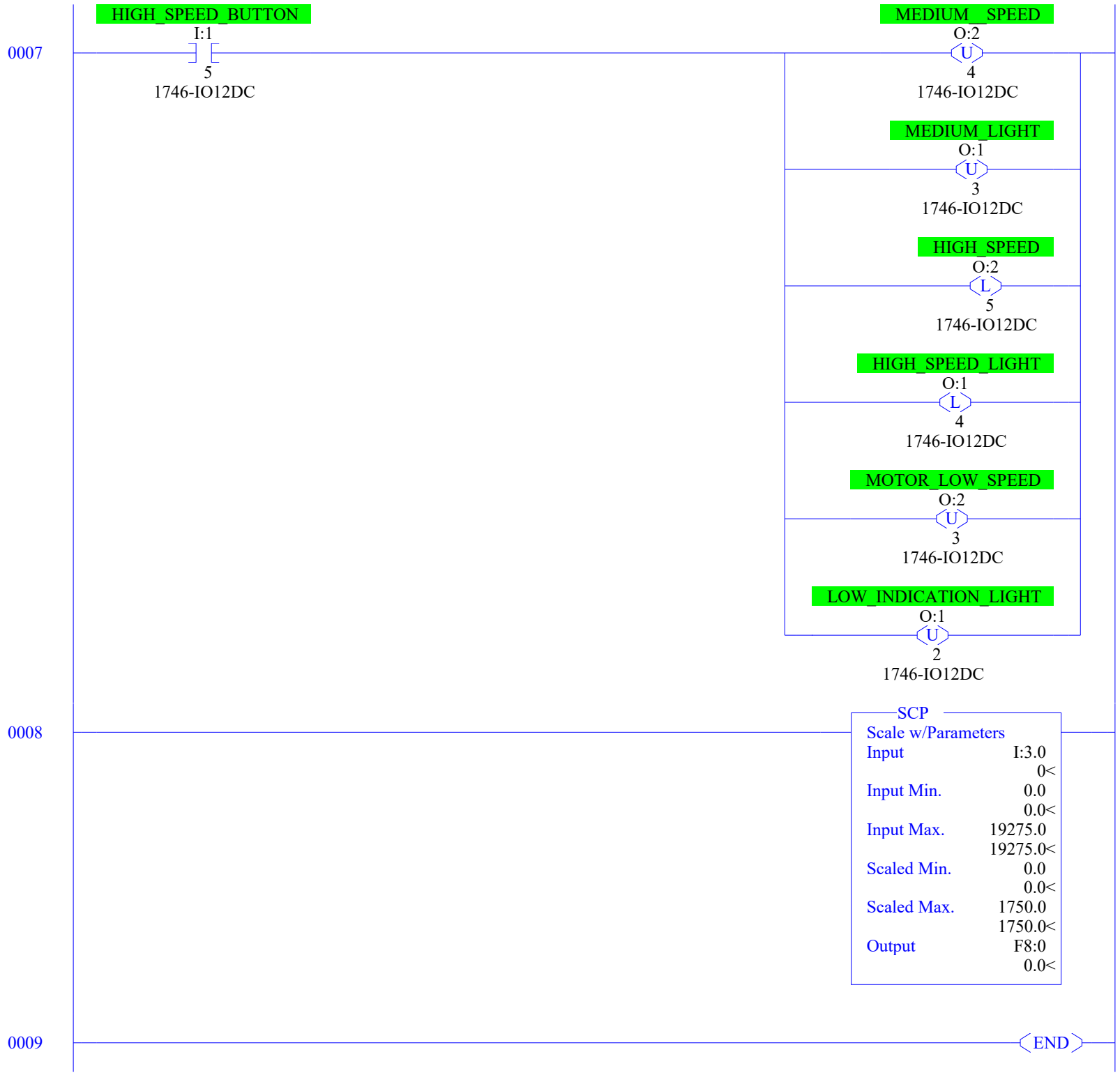
LAD 2 - --- Total Rungs in File = 10




0004
STOP_BUTTON
I:2
0
1746-IO12DC
FORWARD_BIT
B3:0
U
0
REVERSE_
B3:0
U
1
LOW_INDICATION_LIGHT
O:1
U
2
1746-IO12DC
MOTOR_LOW_SPEED
O:2
U
3
1746-IO12DC
MEDIUM_LIGHT
O:1
U
3
1746-IO12DC
MEDIUM__SPEED
O:2
U
4
1746-IO12DC
HIGH_SPEED
O:2
U
5
1746-IO12DC
HIGH_SPEED_LIGHT
O:1
U
4
1746-IO12DC


0005
LOW_SPEED_BUTTON
I:1
3
1746-IO12DC
MOTOR_LOW_SPEED
O:2
L
3
1746-IO12DC
LOW_INDICATION_LIGHT
O:1
L
2
1746-IO12DC
MEDIUM__SPEED
O:2
U
4
1746-IO12DC
MEDIUM_LIGHT
O:1
U
3
1746-IO12DC
HIGH_SPEED
O:2
U
5
1746-IO12DC
HIGH_SPEED_LIGHT
O:1
U
4
1746-IO12DC


0006
MEDIUM_SPEED_BUTTON
I:1
4
1746-IO12DC
MOTOR_LOW_SPEED
O:2
U
3
1746-IO12DC
LOW_INDICATION_LIGHT
O:1
U
2
1746-IO12DC
MEDIUM__SPEED
O:2
L
4
1746-IO12DC
MEDIUM_LIGHT
O:1
L
3
1746-IO12DC
HIGH_SPEED
O:2
U
5
1746-IO12DC
HIGH_SPEED_LIGHT
O:1
U
4
1746-IO12DC


0007
HIGH_SPEED_BUTTON
I:1
5
1746-IO12DC
MEDIUM__SPEED
O:2
U
4
1746-IO12DC
MEDIUM_LIGHT
O:1
U
3
1746-IO12DC
HIGH_SPEED
O:2
L
5
1746-IO12DC
HIGH_SPEED_LIGHT
O:1
L
4
1746-IO12DC
MOTOR_LOW_SPEED
O:2
U
3
1746-IO12DC
LOW_INDICATION_LIGHT
O:1
U
2
1746-IO12DC
0008
SCP
Scale w/Parameters
Input I:3.0
0<
Input Min. 0.0
0.0<
Input Max. 19275.0
19275.0<
Scaled Min. 0.0
0.0<
Scaled Max. 1750.0
1750.0<
Output F8:0
0.0<
0009
END

Data File O0 (bin) -- OUTPUT

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
O:1.0											0	0	0	0	0	0	1746-IO12DC - 6-Input 24 VDC, 6-Output (RLY)
O:2.0											0	0	0	0	0	0	1746-IO12DC - 6-Input 24 VDC, 6-Output (RLY)
O:3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1746-NIO4V - Analog 2 Ch In/2 Ch Voltage Out
O:3.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1746-NIO4V - Analog 2 Ch In/2 Ch Voltage Out

Data File I1 (bin) -- INPUT

Offset	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
I:1.0											0	0	0	0	0	0	1746-IO12DC - 6-Input 24 VDC, 6-Output (RLY)
I:2.0											0	0	0	0	0	0	1746-IO12DC - 6-Input 24 VDC, 6-Output (RLY)
I:3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1746-NIO4V - Analog 2 Ch In/2 Ch Voltage Out
I:3.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1746-NIO4V - Analog 2 Ch In/2 Ch Voltage Out

Data File S2 (hex) -- STATUS

Main

```
First Pass S:1/15 = No                                              DD / MM / YYYY
Index Register S:24 = 0                                 Date S:39-37 = 4 / 1 / 2000
Free Running Clock S:4 = 0000-0000-0000-0000
Index Across Data Files S:2/3 = No                                  HH : MM : SS
CIF Addressing Mode S:2/8 = 0                           Time S:40-42 = 10 : 53 : 57
Online Edits S:33/11 - S:33/12 = No online edits exist
```

Proc

```
OS Catalog Number S:57 = 302          User Program Type S:63 = 1
OS Series S:58 = C                    User Program Functionality Index S:64 = 125
OS FRS S:59 = 10                      User RAM Size S:66 = 8
Processor Catalog Number S:60 = 531   OS Memory Size S:66 = 480
Processor Series S:61 = E
Processor FRN S:62 = 8
```

Scan Times

```
Maximum (x10 ms) S:22 = 0
Average (x10 ms) S:23 = 0
Current (x10 ms) S:3 (low byte) = 0
Watchdog (x10 ms) S:3 (high byte) = 10
Last 1ms Scan Time S:35 = 0
Scan Toggle Bit S:33/9 = 0
Time Base Selection S:33/13 = 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
```

IO

```
I/O Interrupt Executing S:32 = 0            Interrrupt Latency Control S:33/8 = 0
                                            Event Interrupt 10 uS Time Stamp S:44 = 0

I/O Slot Enables: S:11 _S:12
0                10              20              30
11111111       11111111       11111111       11111111

I/O Slot Interrupt Enables: S:27 _S:28
0                10              20              30
11111111       11111111       11111111       11111111

I/O Slot Interrupt Pending: S:25 _S:26
0                10              20              30
00000000       00000000       00000000       00000000
```

Chan 0

```
Processor Mode S:1/0- S:1/4 = Program Mode
Channel Mode S:33/3 = 1                    DTR Control Bit S:33/14 = 0
Comms Active S:33/4 = 0                    DTR Force Bit S:33/15 = 0
Incoming Cmd Pending S:33/0 = 0            Outgoing Msg Cmd Pending S:33/2 = 0
Msg Reply Pending S:33/1 = 0               Comms Servicing Sel S:33/5 = 0
DH485 Pass-Thru Disabled Bit S:34/0 = 0    Msg Servicing Sel S:33/6 = 0
DF1 Pass-Thru Enable Bit S:34/5 = 0        Modem Lost S:5/14 = 0
```

Chan 1

```
Processor Mode S:1/0- S:1/4 = Program Mode
Node Address S:15 (low byte) = 1              Outgoing Msg Cmd Pending S:2/7 = 0
Baud Rate S:15 (high byte) = 19200            Comms Servicing Sel S:2/15 = 1
Comms Active S:1/7 = 0                        Msg Servicing Sel S:33/7 = 0
Incoming Cmd Pending S:2/5 = 0
Msg Reply Pending S:2/6 = 0

Active Nodes: S:9 _S:10

0              10             20             30
01000000       00000000       00000000       00000000
```

Debug

```
Suspend Code S:7 = 0                          Test Single Step Breakpoint
Suspend File S:8 = 0                          Rung # S:18 = 0
Compiled For Single Step S:2/4 = Yes          File # S:19 = 0

Fault/Powerdown                               Test Single Step
Fault/Powerdown (Rung #) S:20 = 0             Rung # S:16 = 0
(File #) S:21 = 0                             File # S:17 = 0
```

Errors

```
Fault Override At Power Up S:1/8 = 0          ASCII String Manipulation error S:5/15 = 0
Startup Protection Fault S:1/9 = 0            Fault Routine S:29 = 0
Major Error Halt S:1/13 = 0                   Major Error S:6 = 0h
Overflow Trap S:5/0 = 0
Control Register Error S:5/2 = 0              Error Description:
Major Error Executing User Fault Rtn. S:5/3 = 0
M0/M1 Referenced On Disabled Slot S:5/4 = 0
Battery Low S:5/11 = 0
Fault/Powerdown (Rung #) S:20 = 0
(File #) S:21 = 0
```

STI

```
Setpoint (x10ms) S:30 = 0                     Resolution Select Bit S:2/10 = 0
File Number S:31 = 0                          Executing Bit S:2/2 = 0
10 uS Time Stamp S:43 = 0                     Overflow Bit S:5/10 = 0
Pending Bit S:2/0 = 0                         Lost S:36/9 = 0
Enable Bit S:2/1 = 1                          Interrrupt Latency Control S:33/8 = 0
```

DII

```
Preset S:50 = 0                               File Number S:46 = 0
Accumulator S:52 = 0                          Slot Number S:47 = 0
Pending Bit S:2/11 = 0                        Bit Mask S:48 = 0h
Enable Bit S:2/12 = 1                         Compare Value S:49 = 0h
Executing Bit S:2/13 = 0                      Return Mask S:51 = 0h
Reconfiguration Bit S:33/10 = 0               Last Scan Time (x1 ms) S:55 = 0
Overflow Bit S:5/12 = 0                       Max Observed Scan Time (x1 ms) S:56 = 0
Lost S:36/8 = 0                               Interrrupt Latency Control S:33/8 = 0
10 uS Time Stamp S:45 = 0
```

Protection

```
Deny Future Access S:1/14 = No
```

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
Load Memory Module and RUN 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 = No
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	1.0 sec	20	0		
T4:1	0	0	0	1.0 sec	10	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									

Data File F8 -- FLOAT

Offset	0	1	2	3	4
F8:0	0				

Address (Symbol) = Value [Description]

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
B3:0						
B3:0/0	FORWARD_BIT	Global				
B3:0/1	REVERSE_	Global				
B3:1	REVERSE_BIT	Global				
I:1/0	RECIPE_SELECTOR	Global				
I:1/1	START_FORWARD	Global				
I:1/2	START_REVERSE	Global				
I:1/3	LOW_SPEED_BUTTON	Global				
I:1/4	MEDIUM_SPEED_BUTTON	Global				
I:1/5	HIGH_SPEED_BUTTON	Global				
I:2/0	STOP_BUTTON	Global				
I:3.0	SPEED_SENSOR	Global				
O:1/0	FORWARD_LIGHT	Global				
O:1/1	REVERSE_LIGHT	Global				
O:1/2	LOW_INDICATION_LIGHT	Global				
O:1/3	MEDIUM_LIGHT	Global				
O:1/4	HIGH_SPEED_LIGHT	Global				
O:2/1	MOTOR_FORWARD	Global				
O:2/2	MOTOR_REVERSE	Global				
O:2/3	MOTOR_LOW_SPEED	Global				
O:2/4	MEDIUM__SPEED	Global				
O:2/5	HIGH_SPEED	Global				
O:3						
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	ABV
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			
T4:0/DN						

Instruction Comment Database

Address	Instruction	Description

Symbol Group Database

Group_Name	Description