

PROJECT 4 - MULTI-POSITION SERVO APPLICATION.RSS

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Processor Information

Processor Type: Bul.1763 MicroLogix 1100 Series B

Processor Name: TEMPLATE

Total Memory Used: *

Total Memory Left: *

Program Files: 9

Data Files: 11

Program ID: 0

I/O Configuration

Bul.1763	MicroLogix 1100 Series	В

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):
  Msg Reply Timeout (x mS): 3000
  Inactivity Timeout (x Min): 30
  Bootp Enable: Yes
  Dhcp Enable No
  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	Туре	Rungs	Debug	Bytes	
[SYSTEM]	0	SYS	0	No	0	
	1	SYS	0	No	0	
MAIN	2	LADDER	7	No	57	
IO	23	LADDER	9	No	131	
STATE CTR	24	LADDER	16	No	438	
CONTROL	25	LADDER	4	No	225	
CAM POS	26	LADDER	6	No	183	
STR MGR	27	LADDER	15	No	479	
INIT	255	LADDER	2	No	25	

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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	В	Global	No	4	4	B3:3
TIMER	4	T	Global	No	15	5	T4:4
COUNTER	5	C	Global	No	3	1	C5:0
CONTROL	6	R	Global	No	3	1	R6:0
INTEGER	7	N	Global	No	101	101	N7:100
FLOAT	8	F	Global	No	2	1	F8:0
MC POS	9	ST	Global	No	420	10	ST9:9
MC STATE	11	ST	Global	No	420	10	ST11:9

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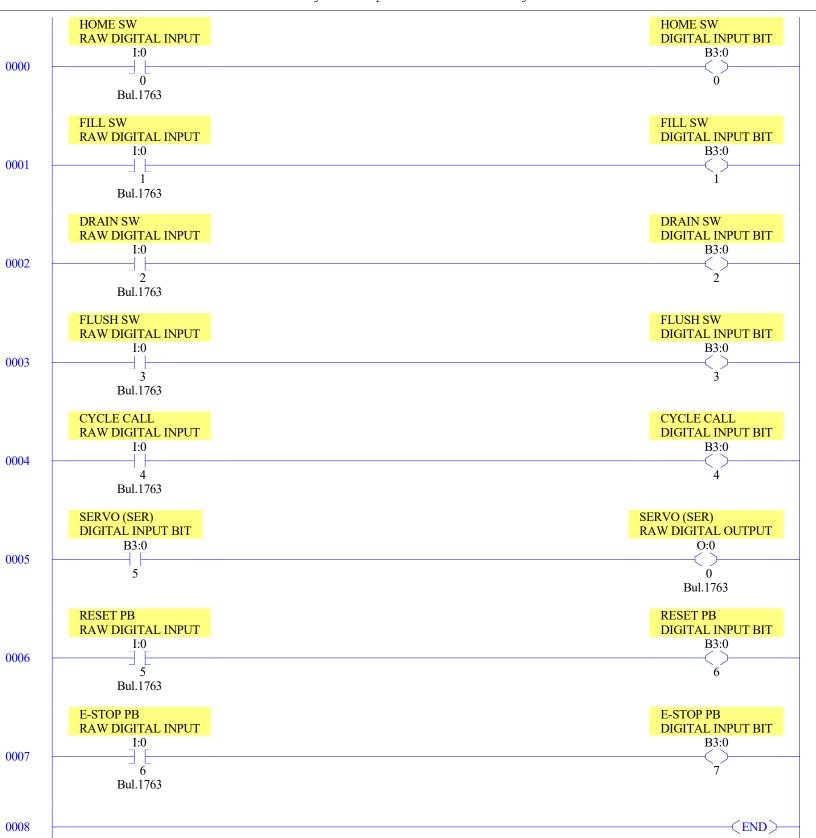
Ladder Table of Contents

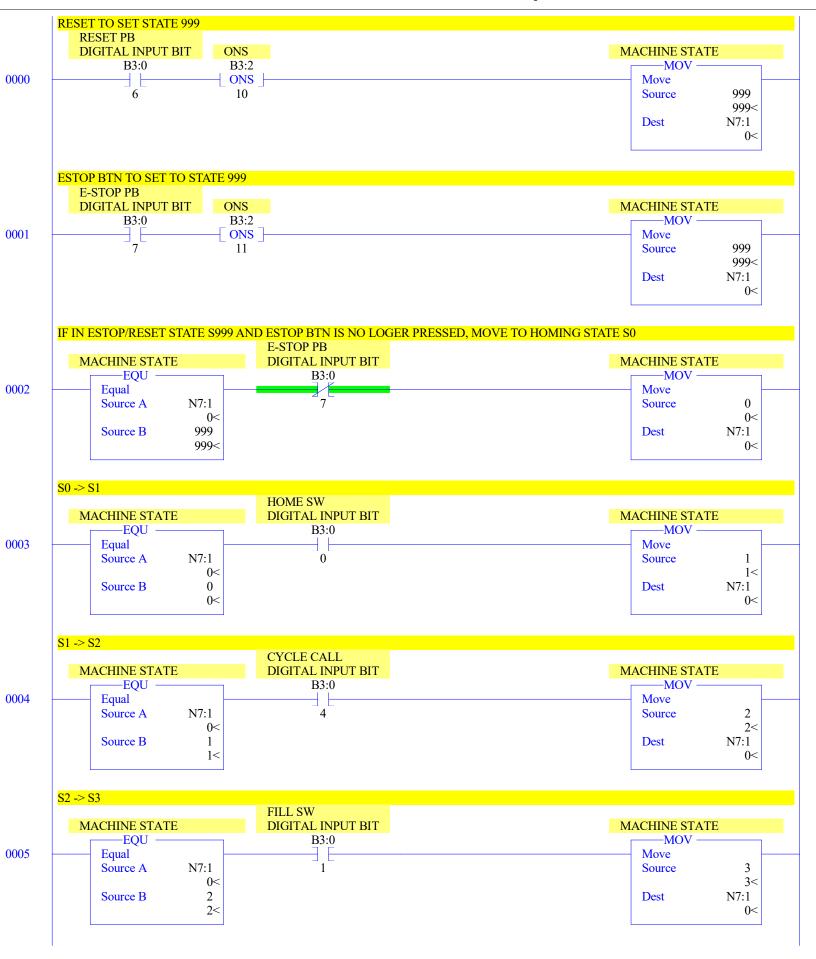
File	Rung	Page Title	Page
2	0	MULTI POSITION SERVO APPLICATION	9
27	0	CAM POSITIONS	18
27	5	MACHINE STATES	19

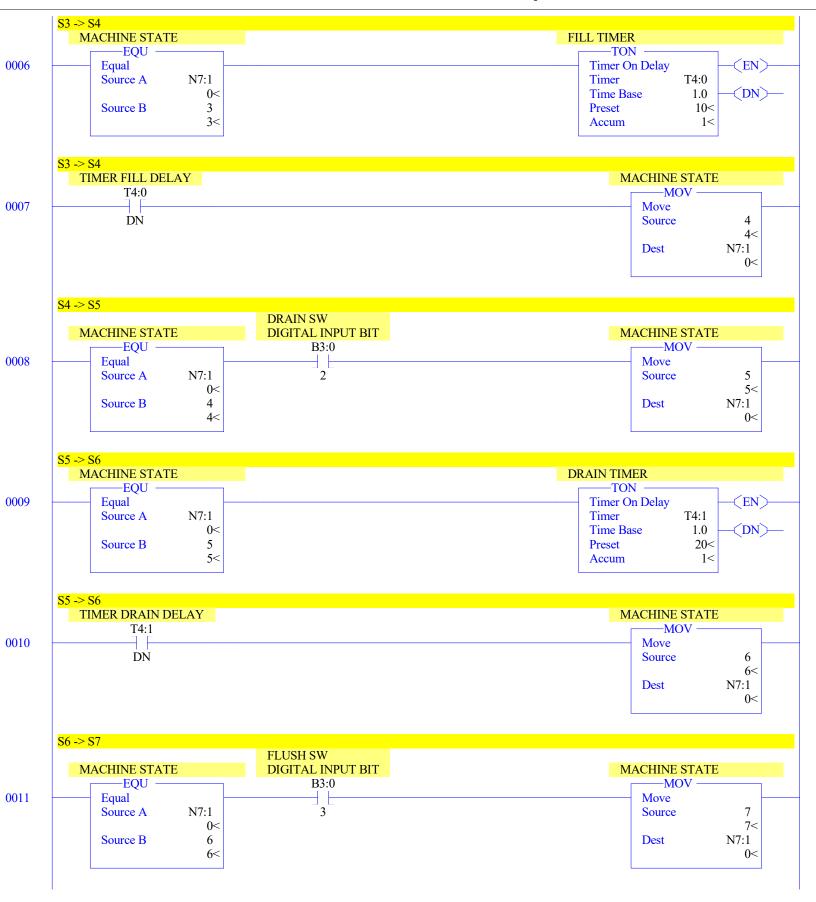
LAD 2 - MAIN --- Total Rungs in File = 7

	INIT
	JSR —
	Jump To Subroutine
	SBR File Number U:255
CONTROLS THE PROGRAM INPUTS AND OUTPUTS	
CONTROLS THE PROGRAM IN CISTARD OCT CIS	IO
	JSR —
	Jump To Subroutine
	SBR File Number U:23
CONTROLS HOW STATES WORK WITH THE MACHINE	
CONTROLS HOW STATES WORK WITH THE MACHINE	STATE CONTROL
	JSR —
	Jump To Subroutine
	SBR File Number U:2
JSES THE MACHINE STATE INFORMATION TO DETERMINE A	ACTIVATION OF THE CAM SERVO MOTOR MACH CONTROLS
	JSR —
	Jump To Subroutine
	SBR File Number U:2
	SERVING THE RESERVE
DETERMINES THE CURRENT POSITION OF THE CAM (DIFFER	
	CAM POSITIONS
	JSR —
	Jump To Subroutine
	SBR File Number U:2
ALLOWS STRING FILES TO OUTPUT THE MACHINE STATE AN	
	STRING MANAGER JSR
	Jump To Subroutine
	SBR File Number U:2'

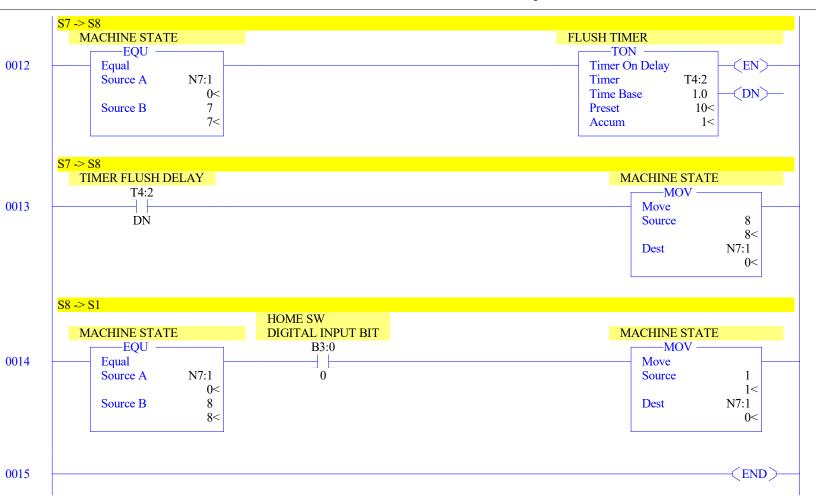
0006



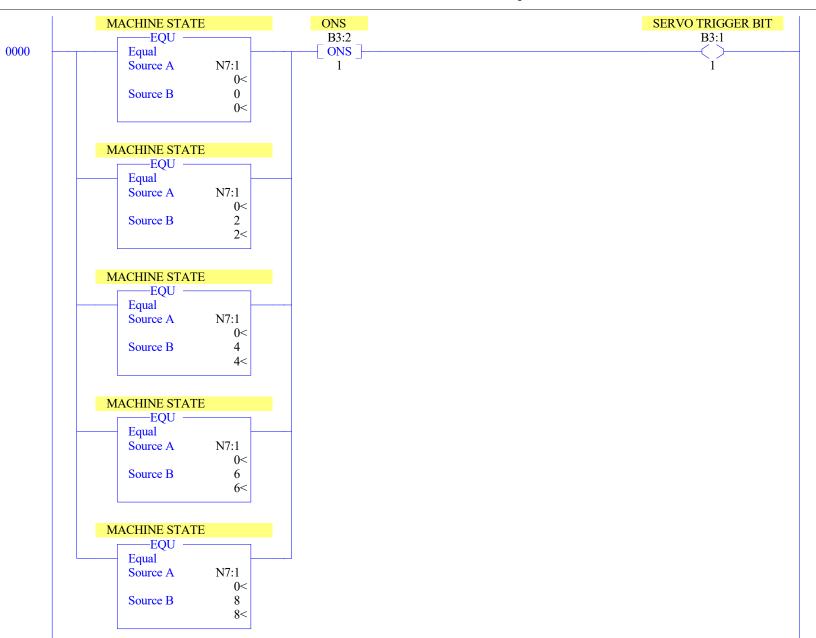




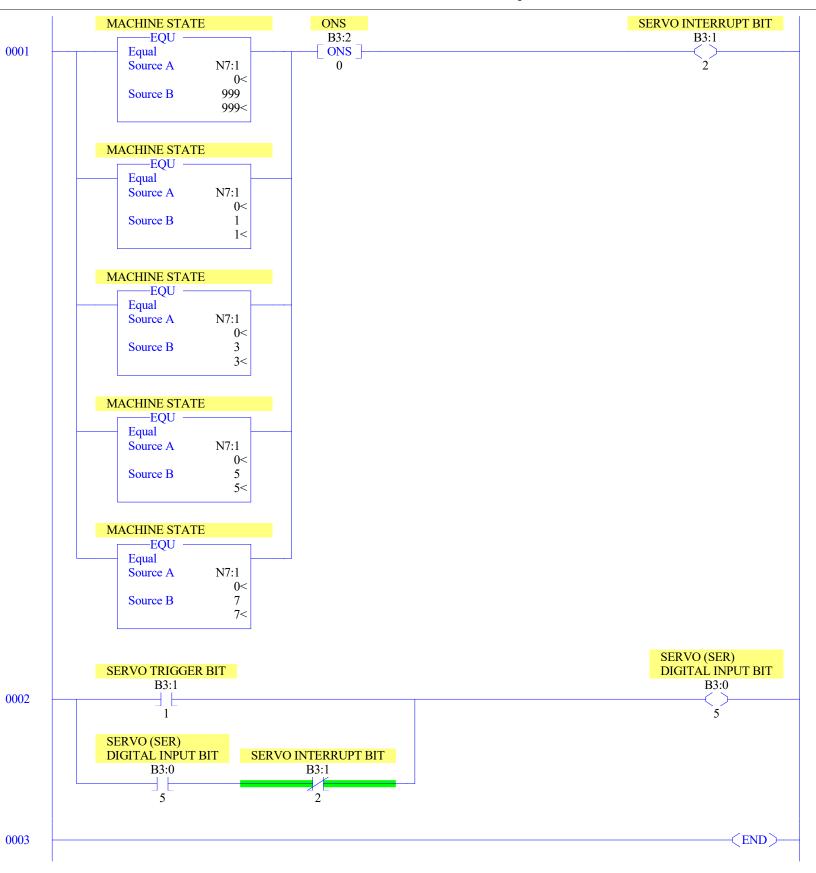
LAD 24 - STATE CTR - SYSTEM MODE --- Total Rungs in File = 16



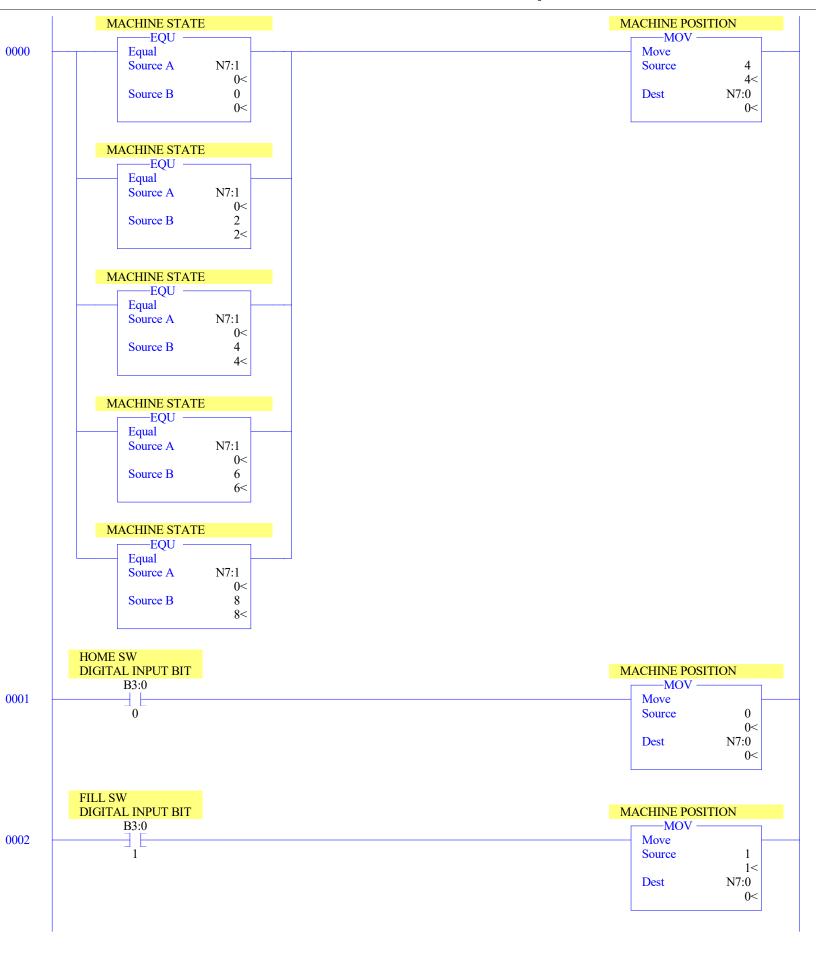
LAD 25 - CONTROL - CONTROLS --- Total Rungs in File = 4



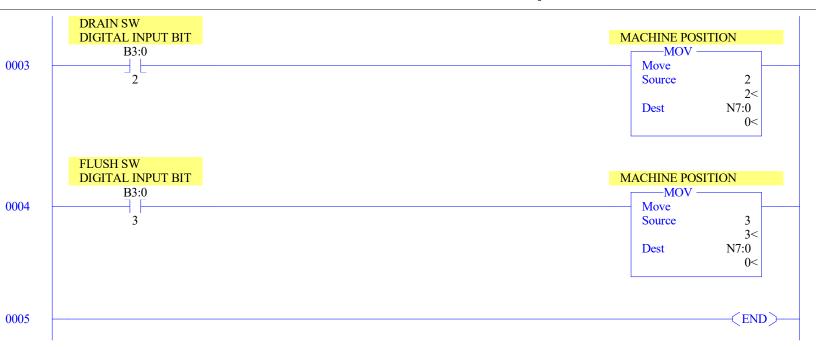
LAD 25 - CONTROL - CONTROLS --- Total Rungs in File = 4



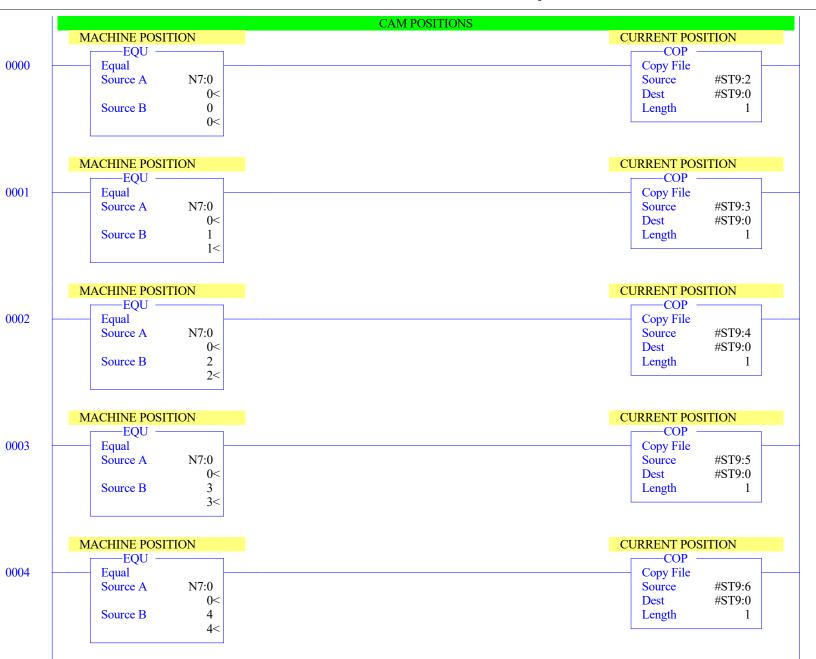
LAD 26 - CAM POS - CAM POSITIONS --- Total Rungs in File = 6



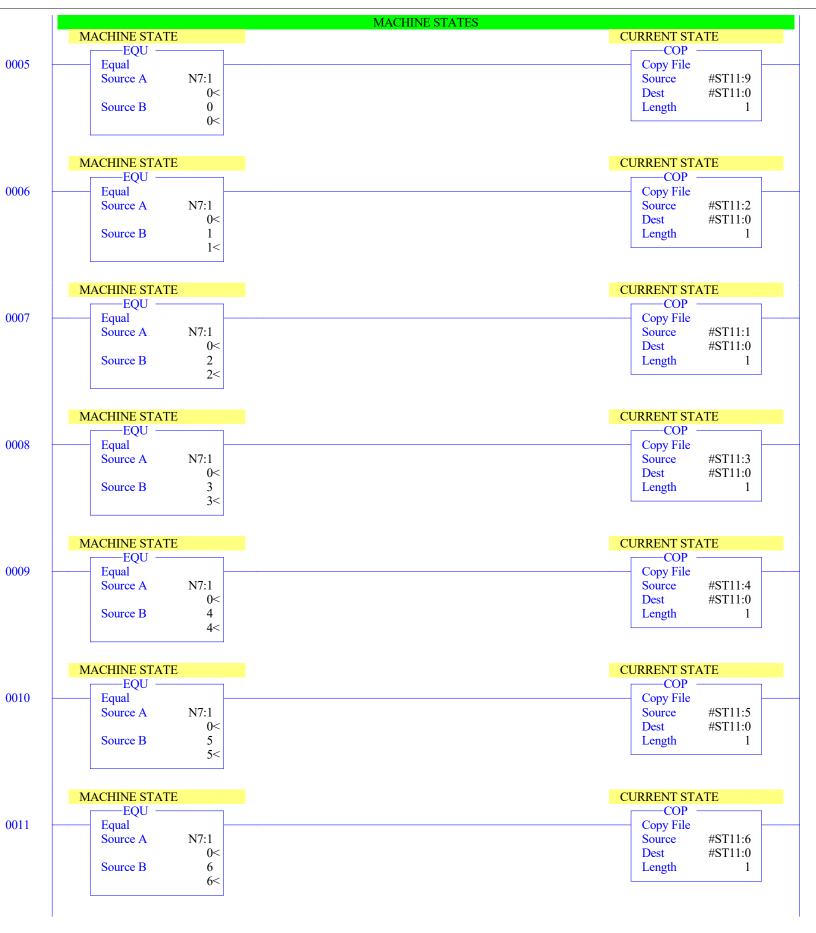
LAD 26 - CAM POS - CAM POSITIONS --- Total Rungs in File = 6



LAD 27 - STR MGR - STRING MANAGER --- Total Rungs in File = 15



LAD 27 - STR MGR - STRING MANAGER --- Total Rungs in File = 15



LAD 27 - STR MGR - STRING MANAGER --- Total Rungs in File = 15



LAD 255 - INIT - INITIALIZE --- Total Rungs in File = 2



Data File OO (bin) -- OUTPUT

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

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0		
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B-Analog
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bul.1763	MicroLogix 1100 Series B-Analog
	0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0	0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0	0 0	0 0	0 0	0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Data File S2 (hex) -- STATUS

```
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
```

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Load Memory Module Always S:1/11 = 0

Program Compare S:2/9 = 0

On Power up Go To Run (Mode Behavior) S:1/12 = 0

Data File Overwrite Protection Lost S:36/10 = 0

Data File S2 (hex) -- STATUS

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 = 0Password Mismatch S:5/9 = 0Load Memory Module On Memory Error S:1/10 = 0Load Memory Module Always S:1/11 = 0On Power up Go To Run (Mode Behavior) S:1/12 = 0Program Compare S:2/9 = 0Data 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	
в3:0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
B3:1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
B3:2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
в3:3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Data File T4 -- TIMER

Offset	EN	ТТ	DN	BASE	PRE	ACC	(Symbol) Description
T4:0				1.0 sec	10	_	
T4:1	0	0	Ü	1.0 sec	20	1	DRAIN TIMER
T4:2	0	0	0	1.0 sec	10	1	FLUSH TIMER
T4:3	0	0	0	.01 sec	0	0	
T4:4	0	0	0	.01 sec	0	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

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Data File N7 (dec) -- INTEGER

Offset	0	1	2	3	4	5	6	7	8	9
N7:0	Ω	Ο	Ο	Ω	Ω	Ο	Ω	Ο	0	Ω
N7:10	0	0	0	0	0	0	0	0	0	0
N7:20	0	0	0	0	0	0	0	0	0	0
N7:30	0	0	0	0	0	0	0	0	0	0
N7:40	0	0	0	0	0	0	0	0	0	0
N7:50	0	0	0	0	0	0	0	0	0	0
N7:60	0	0	0	0	0	0	0	0	0	0
N7:70	0	0	0	0	0	0	0	0	0	0
N7:80	0	0	0	0	0	0	0	0	0	0
N7:90	0	0	0	0	0	0	0	0	0	0
N7:100	0									

Data File F8 -- FLOAT

Offset 0 1 2 3 4

F8:0 0

Data File ST9 -- MC POS -- MACHINE STATE INFORMATION

Offset	LEN	String Text	(Symbol)	Description	
ST9:0	0				CURRENT
ST9:1	16	ERROR STATE	4 (-1)		ERROR S
ST9:2	8	HOME (0)			HOME (0
ST9:3	8	FILL (1)			FILL (1
ST9:4	9	DRAIN (2)			DRAIN (
ST9:5		FLUSH (3)			FLUSH (
ST9:6		TRAVELING ((4)		TRAVELI
ST9:7	0	•	,		NULL ST
ST9:8	0				
ST9:9	0				

Data File ST11 -- MC STATE -- MACH STATE DECODER

EN String Text (Symbol) Description	
0	CURRENT
19 TRAVEL (HOME->FILL)	TRAVEL
4 HOME	HOME
4 FILL	FILL
19 TRAVEL(FILL->DRAIN)	TRAVEL (
5 DRAIN	DRAIN
20 TRAVEL(DRAIN->FLUSH)	TRAVEL (
5 FLUSH	FLUSH
19 TRAVEL(FLUSH->HOME)	TRAVEL (
24 HOMING SEOUENCE (TRAVEL)	
1	4 HOME 4 FILL 19 TRAVEL(FILL->DRAIN) 5 DRAIN 20 TRAVEL(DRAIN->FLUSH) 5 FLUSH