

Totally Integrated Automation Portal

Main [OB1]

Main Properties

General

Name	Main	Number	1	Type	OB
Language	LAD	Numbering	Manual		

Information

Title	SP9-1	Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Temp		
OB1_EV_CLASS	Byte	
OB1_SCAN_1	Byte	
OB1_PRIORITY	Byte	
OB1_OB_NUMBR	Byte	
OB1_RESERVED_1	Byte	
OB1_RESERVED_2	Byte	
OB1_PREV_CYCLE	Int	
OB1_MIN_CYCLE	Int	
OB1_MAX_CYCLE	Int	
OB1_DATE_TIME	Date_And_Time	
Constant		

Network 1: SP9-1

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SP9-1 Oiler Station Control with move-based sequencer

Additional internal memory:
Tag Address
Run %M0.0 BOOL On while station running
Int_Reset %M0.1 BOOL Internal reset
Step_Num %MD62 DINT Sequence step number
Engage_Tmr %DB2 IEC_TIMER Times engage of part
Squirt_Tmr %DB6 IEC_TIMER Times oil squirt

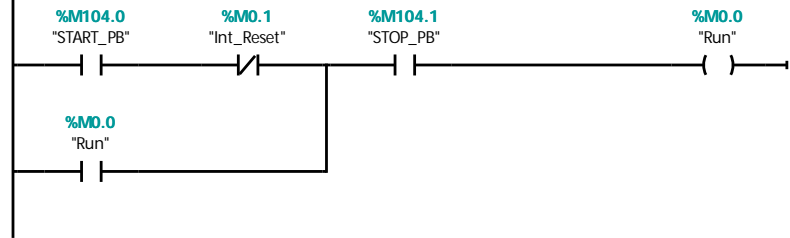
%M1.0

"Dummy"

%M1.0

"Dummy"

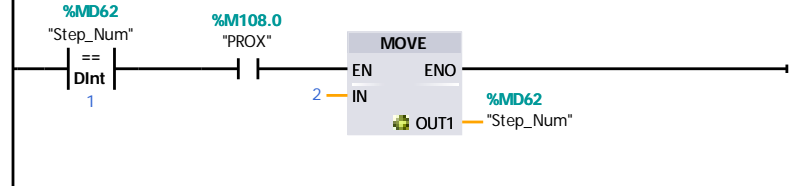
Network 2: Start/stop/pause. Start prevented if reset in progress.



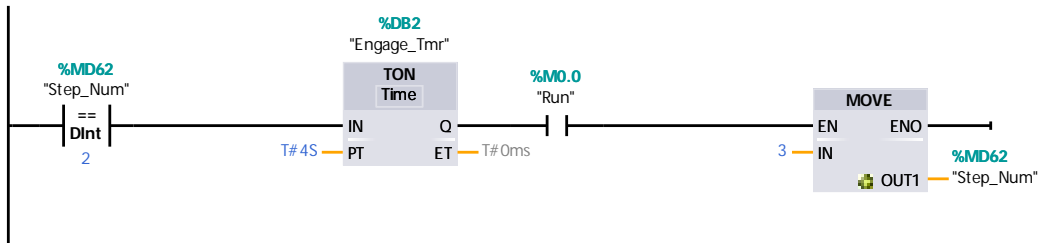
Network 3: First Start - transition out of initial step to step 1.



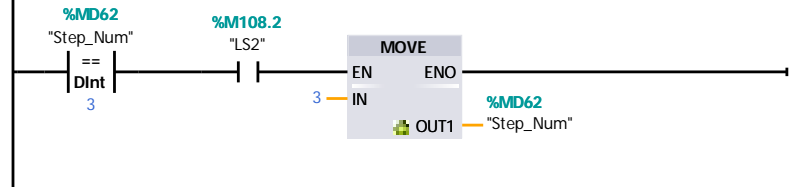
Network 4: Step 1 - Wait for part.



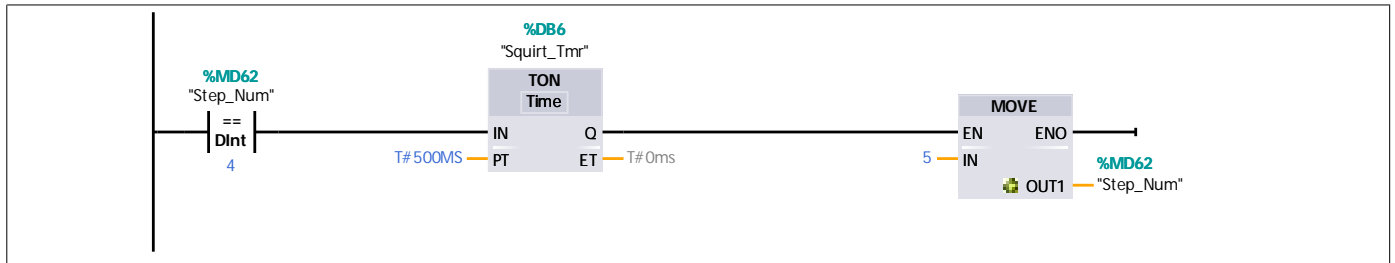
Network 5: Step 2 - Wait for engage



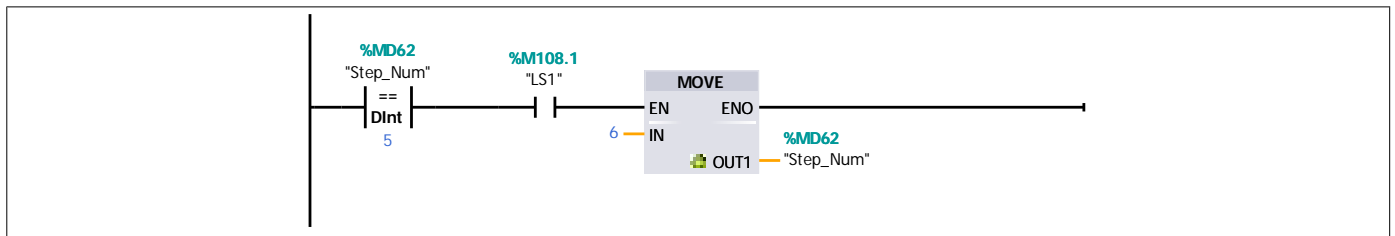
Network 6: Step 3 - Lower oiler



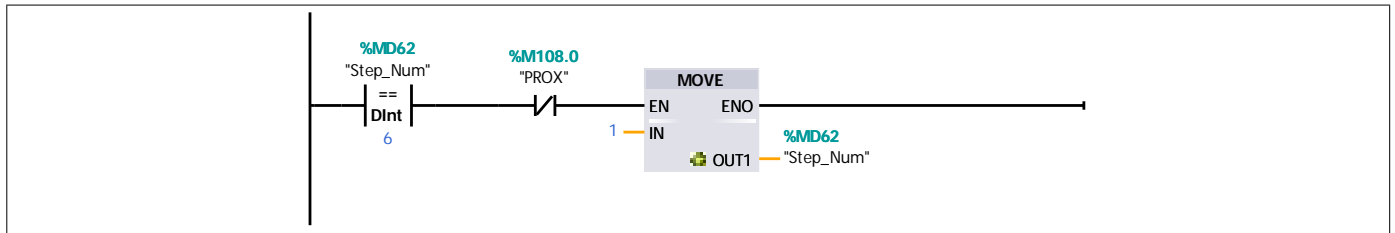
Network 7: Step 4 - Squirt Oil



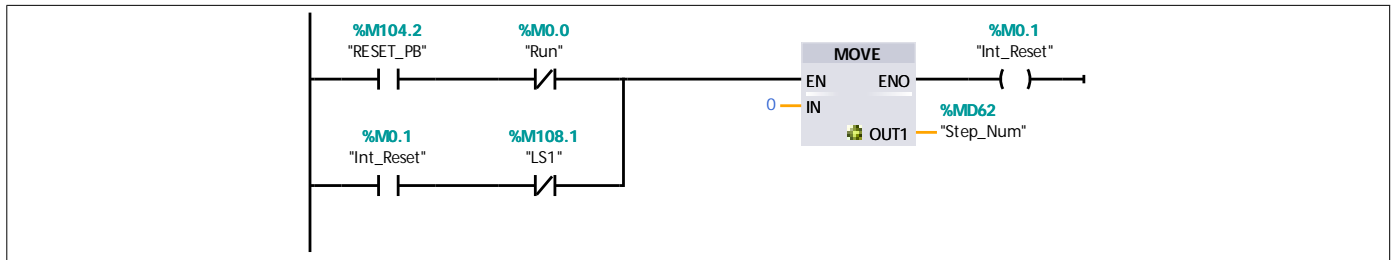
Network 8: Step 5 - Raise oiler



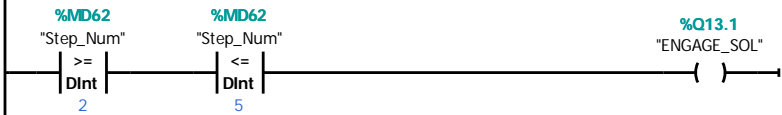
Network 9: Step 6 - Part leaves



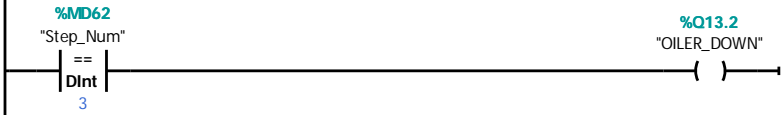
Network 10: Start/stop for reset operation. One step, no need for counter se



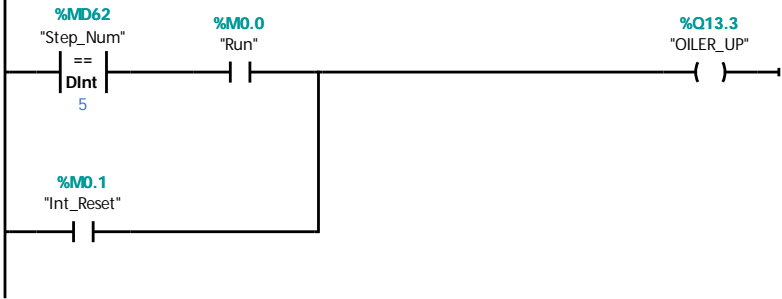
Network 11: On to move up hook to engage platform in station



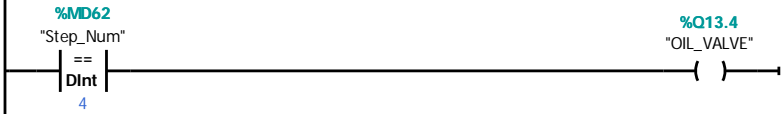
Network 12: On to lower oiler tip



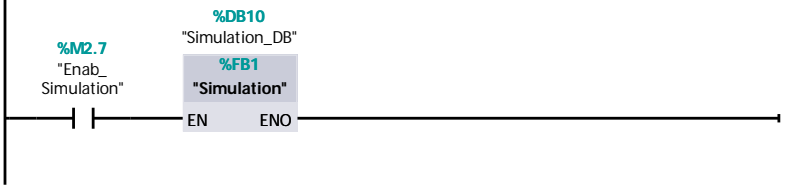
Network 13: On to raise oiler tip



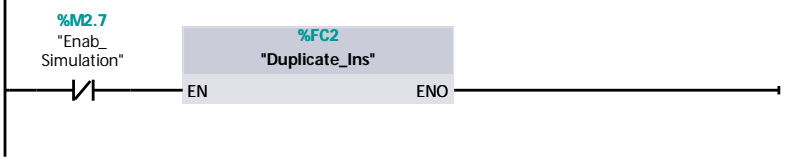
Network 14: On to open valve and squirt oil



Network 15: Simulation



Network 16: Copy real inputs to input image if not simulating



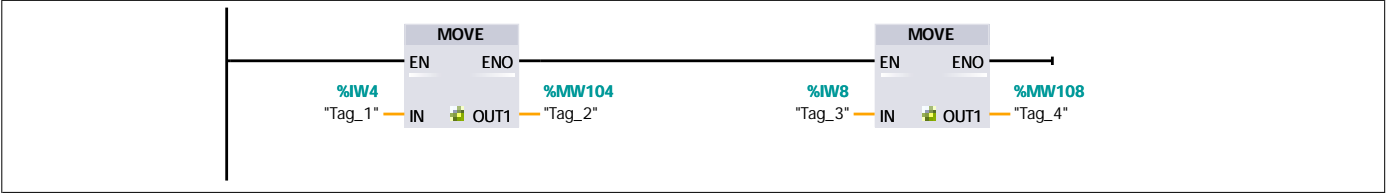
Duplicate_Ins [FC2]

Duplicate_Ins Properties

General					
Name	Duplicate_Ins	Number	2	Type	FC
Language	LAD	Numbering	Manual		
Information					
Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
Input		
Output		
InOut		
Temp		
Constant		
▼ Return		
Duplicate_Ins	Void	

Network 1:



Simulation [FB1]

Simulation Properties

General

Name	Simulation	Number	1	Type	FB
Language	LAD	Numbering	Automatic		

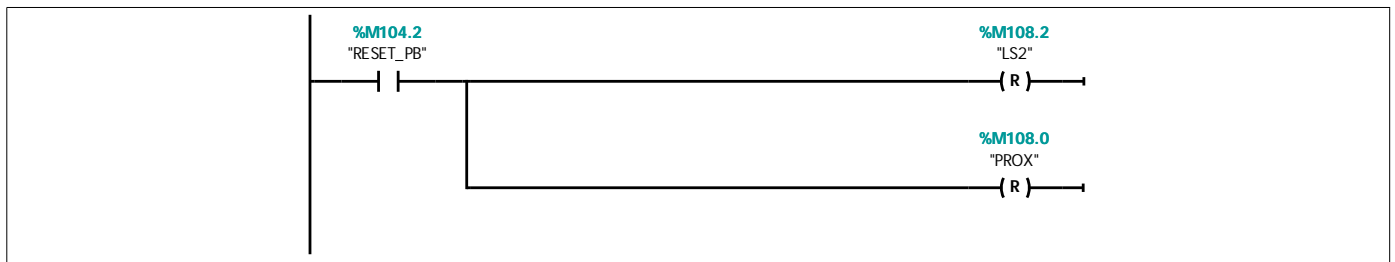
Information

Title		Author		Comment	Copyright (c) 2011-2023 Dogwood Valley Press, LLC ----- SIMULATION LOGIC
Family		Version	0.1	User-defined ID	

Name	Data type	Default value	Retain
Input			
Output			
InOut			
▼ Static			
Prox_On_Tmr	IEC_TIMER		Non-retain
Prox_Off_Tmr	IEC_TIMER		Non-retain
Prox_Off_Tmr_IN	Bool	false	Non-retain
LS2_Tmr	IEC_TIMER		Non-retain
LS1_Tmr	IEC_TIMER		Non-retain
Temp			
Constant			

Network 1: Limit switch, on (closed) when oiler tip is in lowered position

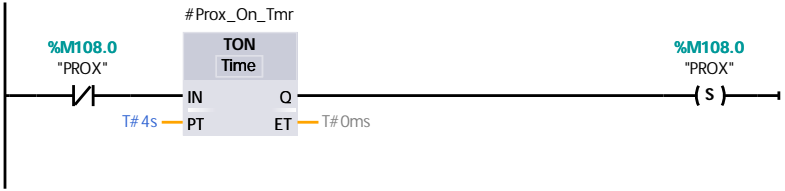
On reset, reset PROX and LS2



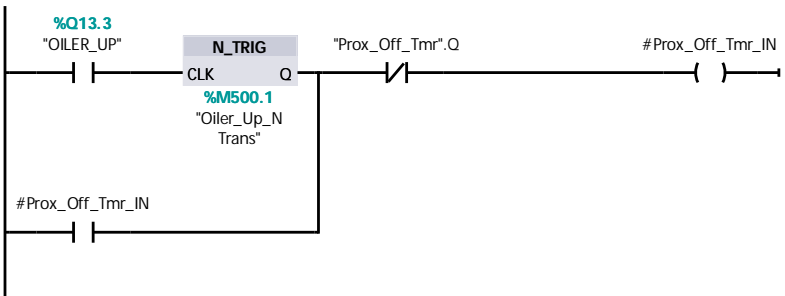
Network 2: Proximity sensor, on when platform is in station

PROX simulation: Set when PROX off and for 4 secs.

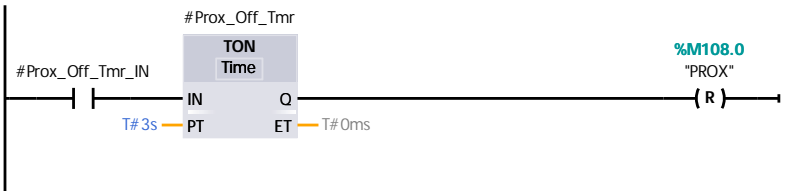
Reset 3 secs after OILER_UP transitions off



Network 3:

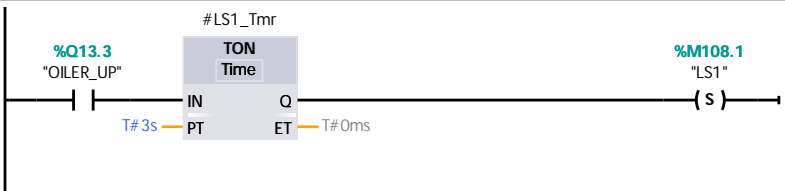


Network 4: Proximity sensor, on when platform is in station

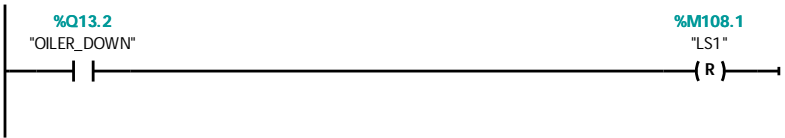


Network 5: Limit switch, on (closed) when oiler tip is in raised position

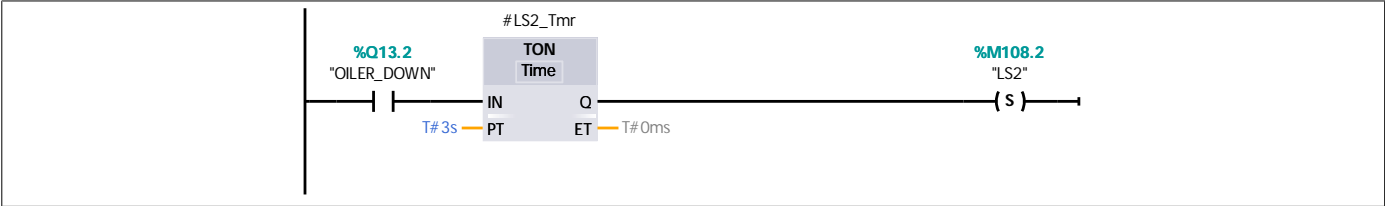
LS1 and LS2 simulation: Set LS1 when OILER_UP on for 3 sec. Reset when OILER_DOWN
Set LS2 when OILER_DOWN on for 3 sec. Reset when OILER_UP



Network 6: Limit switch, on (closed) when oiler tip is in raised position



Network 7: Proximity sensor, on when 40-foot rail piece in feeder area



Network 8: Limit switch, on (closed) when oiler tip is in lowered position

