

# Main [OB1]

## Main Properties

### General

Name	Main	Number	1	Type	OB
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Language	LAD	Numbering	Manual		
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### Information

Title	SP9-7	Author		Comment	
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Family		Version	0.1	User-defined ID	
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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		

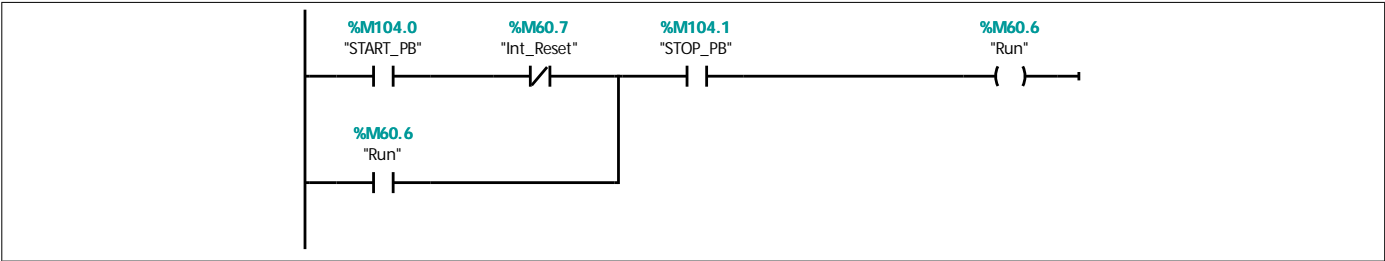
## Network 1: SP9-7

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SP9-7 Part Oiler with shift register-based sequence.

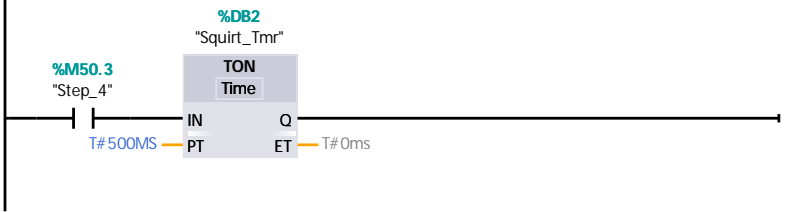


## Network 2: Start/stop/pause. Start prevented if reset in progress.

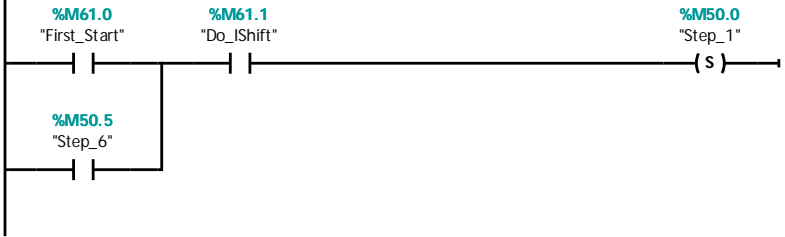


## Network 3: First Start - run and no step-in-progress bit set





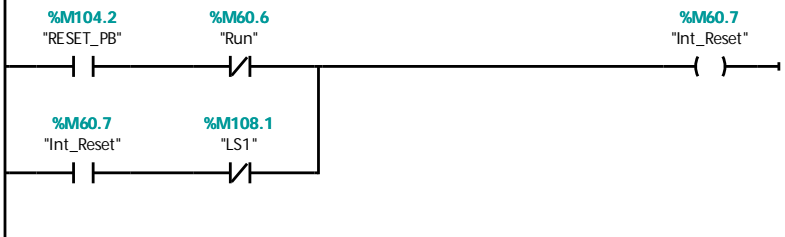
**Network 7: Bit shifted into register. First start and last step are only "1" shifted in**



**Network 8:**



**Network 9: Start/stop for reset operation. Reset pb starts, reset step 4 stops it.**

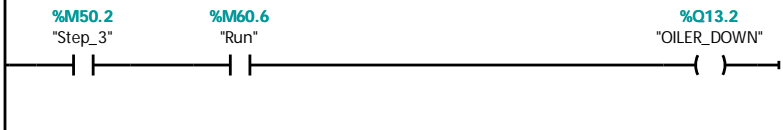


**Network 10: On to move up hook to engage platform in station**

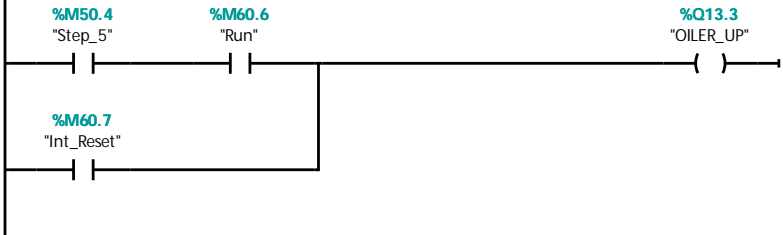
Physical Outputs



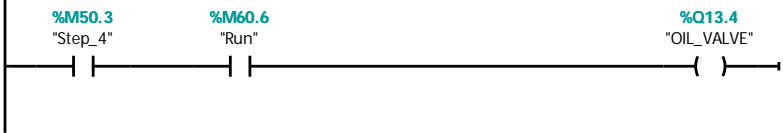
Network 11: On to lower oiler tip



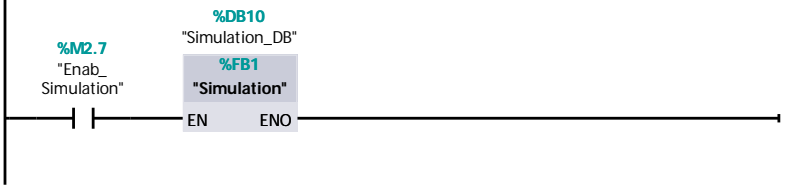
Network 12: On to raise oiler tip



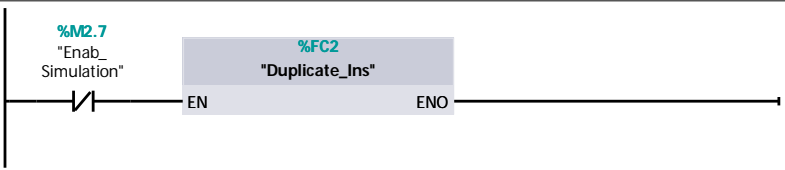
Network 13: On to open valve and squirt oil



Network 14: Simulation



**Network 15: Copy real inputs to input image if not simulating**



Totally Integrated Automation Portal		
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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:

MOVE

EN

ENO

%IW4

"Tag\_1"

IN

OUT1

%MW104

"Tag\_2"

MOVE

EN

ENO

%IW8

"Tag\_3"

IN

OUT1

%MW108

"Tag\_4"

# Simulation [FB1]

## Simulation Properties

### General

Name	Simulation	Number	1	Type	FB
Language	LAD	Numbering	Automatic		

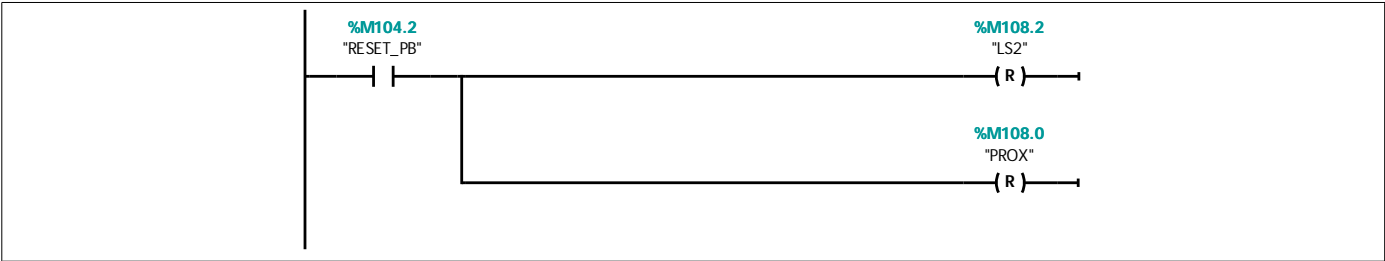
### Information

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			

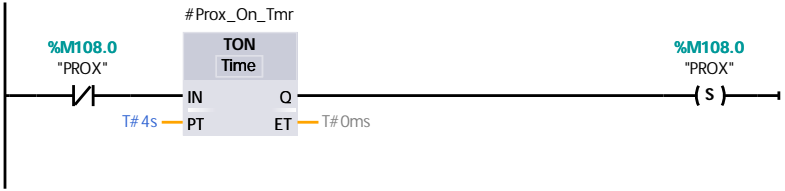
## Network 1: Limit switch, on (closed) when oiler tip is in lowered position

On reset, reset PROX and LS2

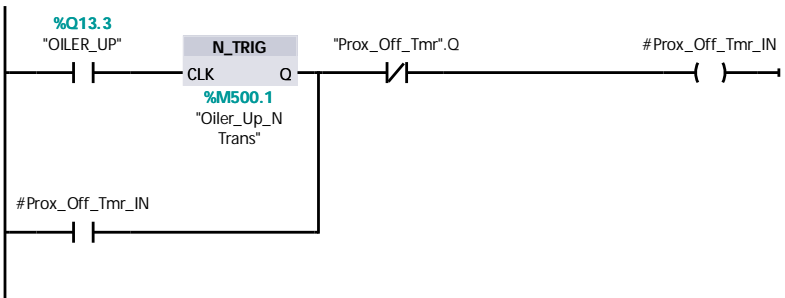


## Network 2: Proximity sensor, on when platform is in station

PROX simulation: Set when PROX off and for 4 secs.  
Reset 3 secs after OILER\_UP transitions off



**Network 3:**

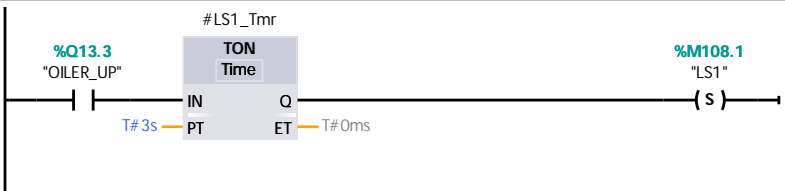


**Network 4: Proximity sensor, on when platform is in station**

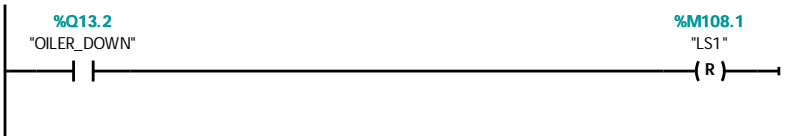


**Network 5: Limit switch, on (closed) when oiler tip is in raised position**

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

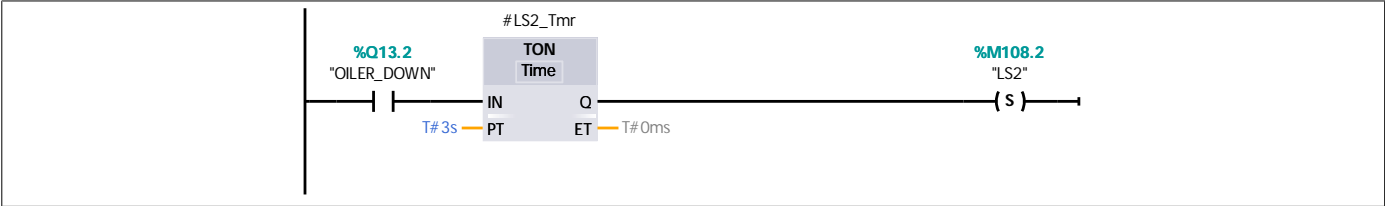


**Network 6: Limit switch, on (closed) when oiler tip is in raised position**





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

