

Totally Integrated Automation Portal

Main_Program [OB1]

Main_Program Properties

General

| | | | | | |
|----------|--------------|-----------|--------|------|----|
| Name | Main_Program | 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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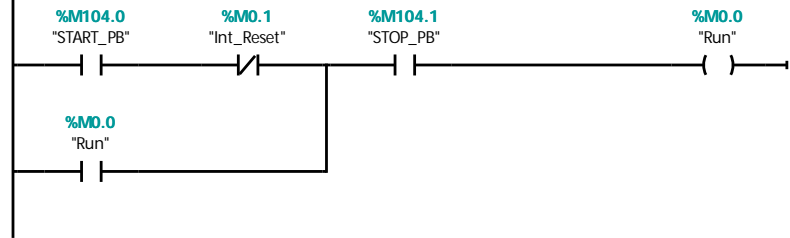
SP9-1 Oiler Station Control with move-based sequencer

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 TON_SFB Times engage of part
Squirt_Tmr %DB6 TON_SFB Times oil squirt

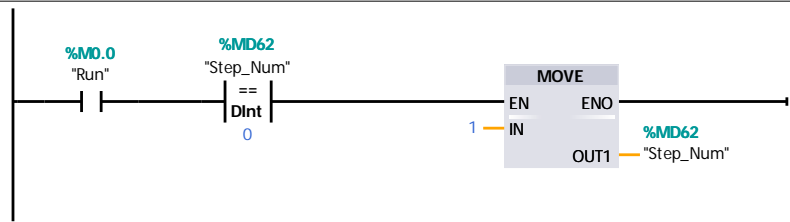
%M1.0
"Dummy"

%M1.0
"Dummy"

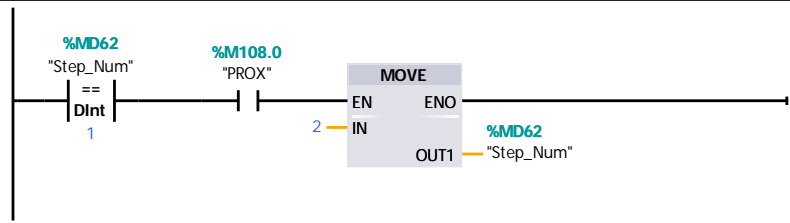
Network 2: Start/stop/pause. Start prevented if reset in progress.



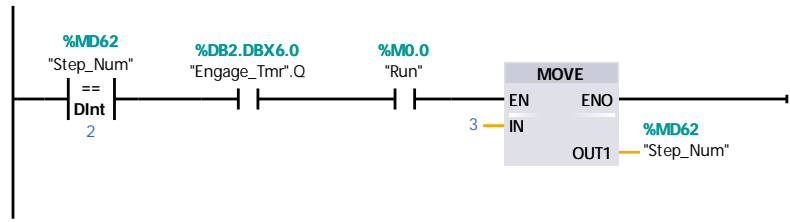
Network 3: First Start - transition out of initial step to step 1.



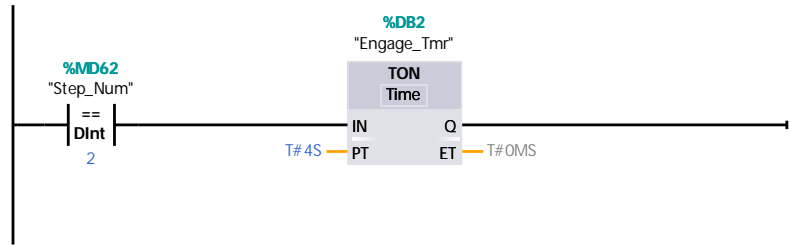
Network 4: Step 1 - Wait for part.



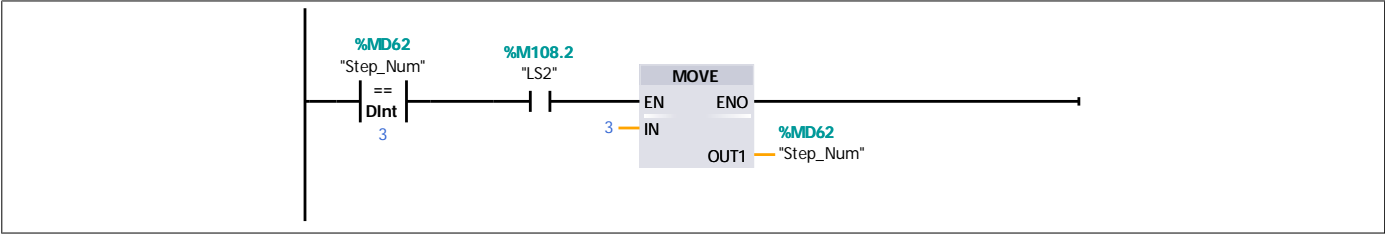
Network 5: Step 2 - Wait for engage



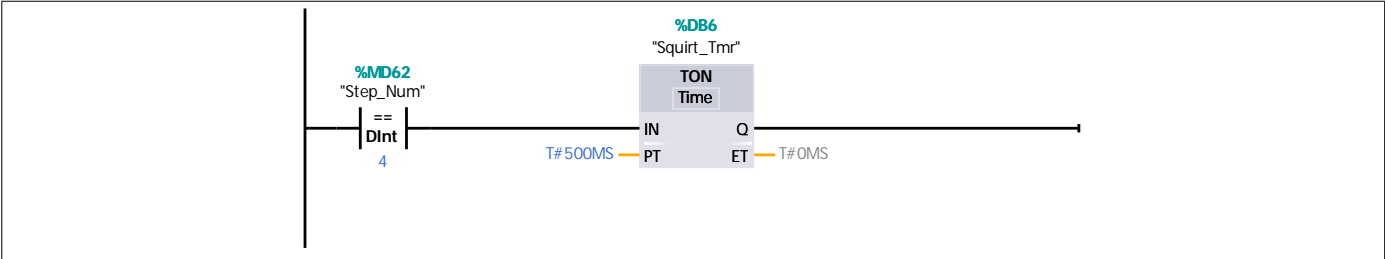
Network 6: Step 2 timer



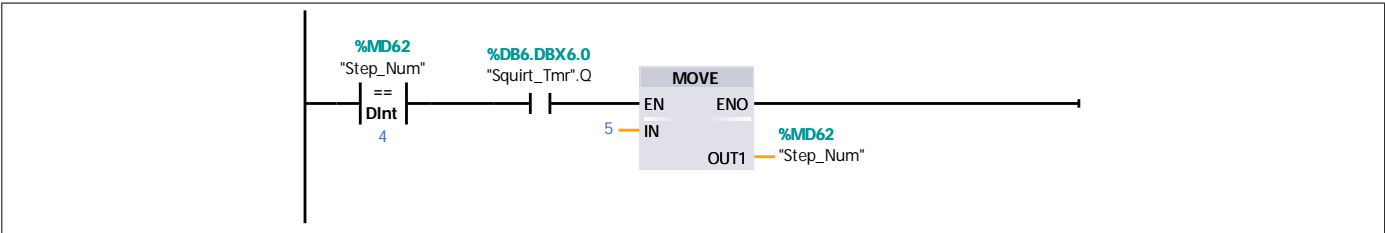
Network 7: Step 3 - Lower oiler



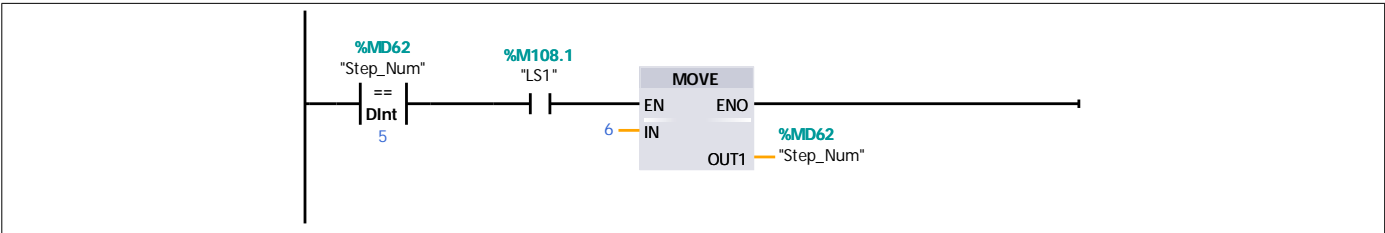
Network 8: Step 4 timer



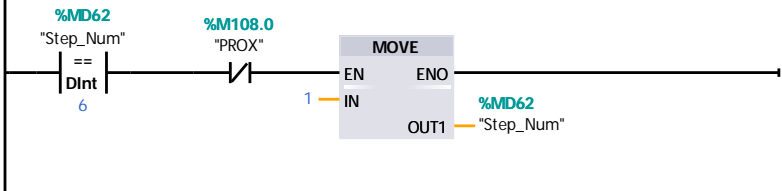
Network 9: Step 4 - Squirt Oil



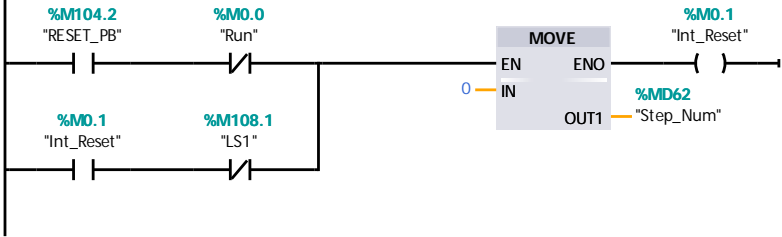
Network 10: Step 5 - Raise oiler



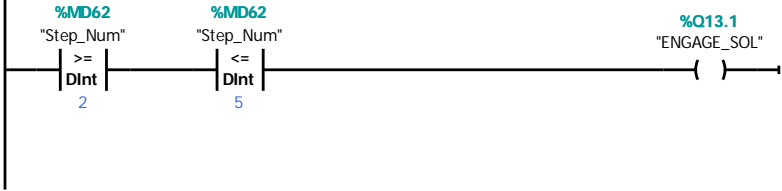
Network 11: Step 6 - Part leaves



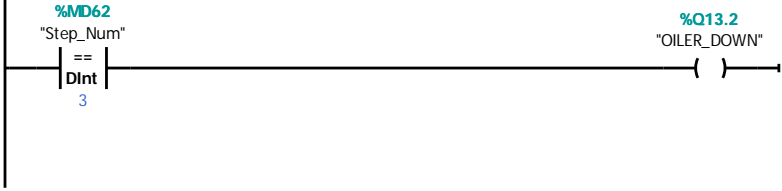
Network 12: Start/stop for reset operation. One step, no need for counter se



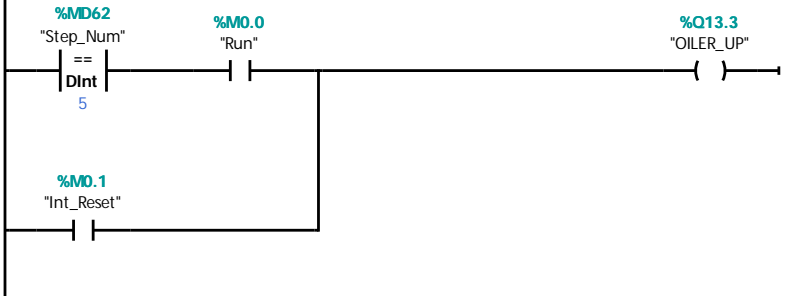
Network 13: On to move up hook to engage platform in station



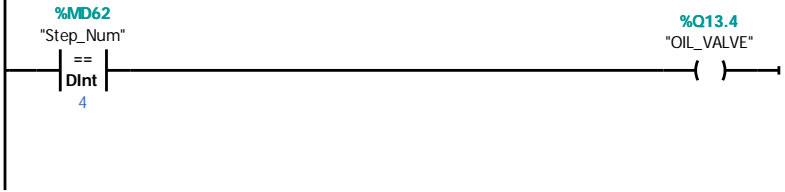
Network 14: On to lower oiler tip



Network 15: On to raise oiler tip



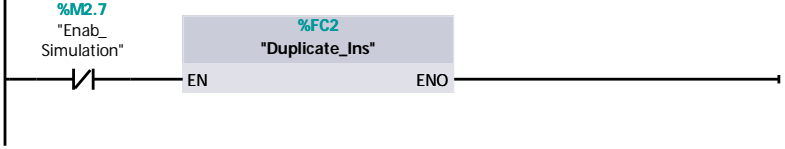
Network 16: On to open valve and squirt oil



Network 17: Simulation



Network 18: Copy real inputs to input image if not simulating



Duplicate_Ins [FC2]

Duplicate_Ins Properties

General

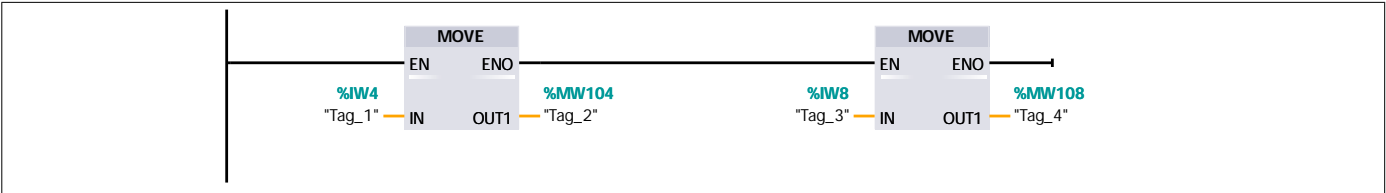
| | | | | | |
|----------|---------------|-----------|--------|------|----|
| Name | Duplicate_Ins | Number | 2 | Type | FC |
| Language | LAD | Numbering | Manual | | |

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 | | |

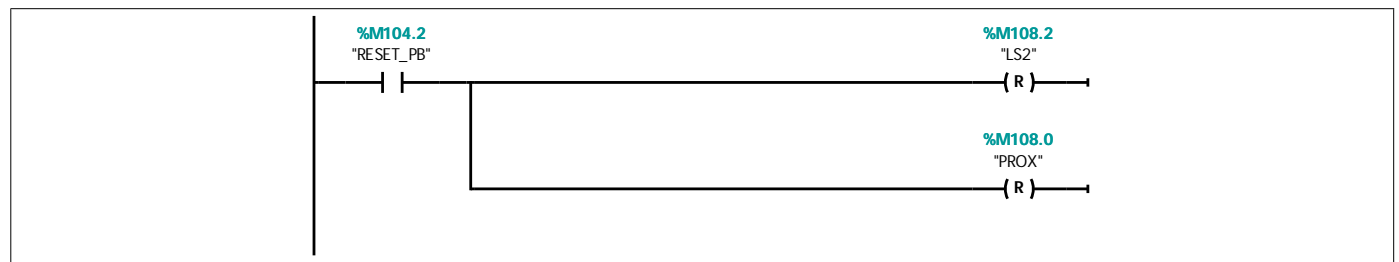
Information

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

| Name | Data type | Default value |
|-----------------|-----------|---------------|
| Input | | |
| Output | | |
| InOut | | |
| ▼ Static | | |
| Prox_On_Tmr | TON | |
| Prox_Off_Tmr | TON | |
| LS1_Tmr | TON | |
| LS2_Tmr | TON | |
| Prox_Off_Tmr_IN | Bool | false |
| Oiler_Up_NTrans | Bool | false |
| Temp | | |
| Constant | | |

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

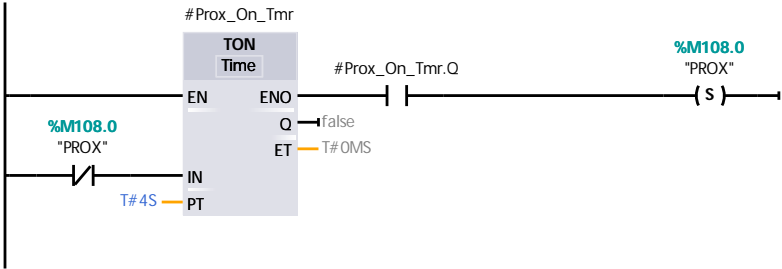
On reset, reset PROX and LS2



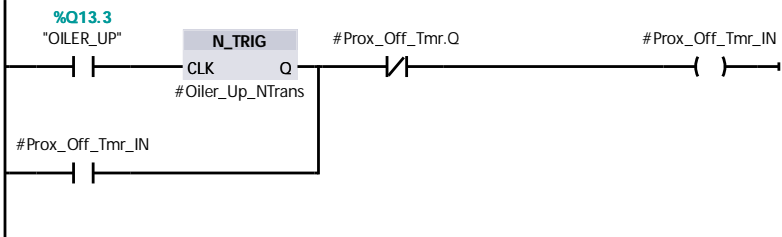
Network 2: Proximity sensor, on when platform is in station

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

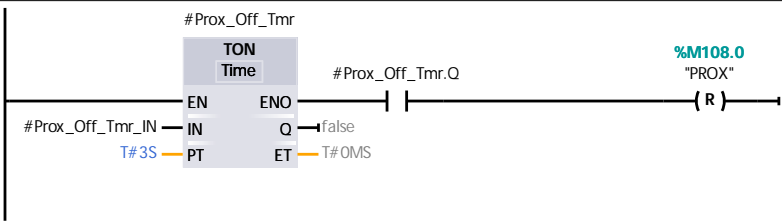
Reset 3 secs after OILER_UP transitions off



Network 3:



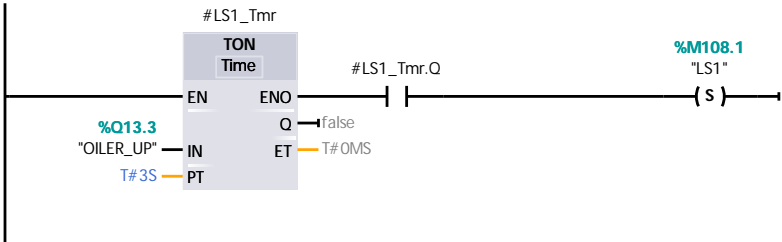
Network 4: Proximity sensor, on when platform is in station



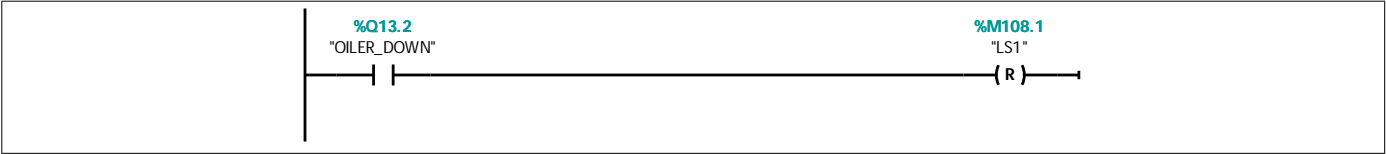
Network 5: Limit switch, on (closed) when oiler tip is in raised position

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

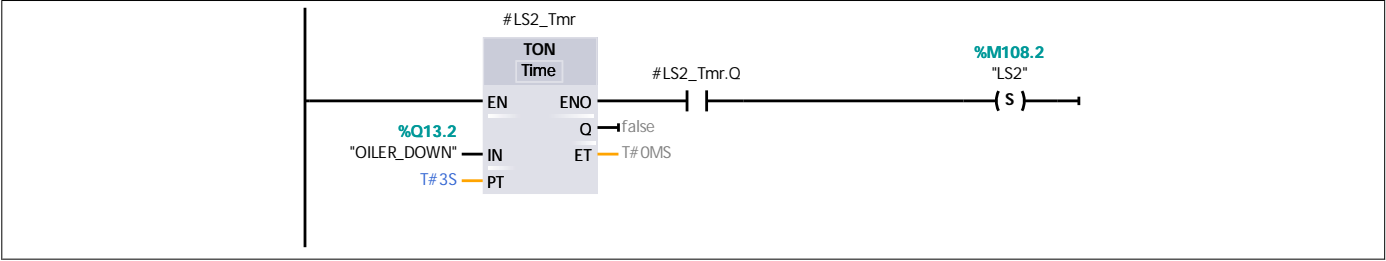
Set LS2 when OILER_DOWN on for 3 sec. Reset when OILER_UP



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

