

PICK&PLACE / PLC\_1 [CPU 1511-1 PN] / Program blocks

Main [OB1]

Main Properties							
General							
Name	Main	Number	1	Type	OB	Language	LAD
Numbering	Automatic						
Information							
Title	"Main Program Sweep (Cycle)"	Author		Comment		Family	
Version	0.1	User-defined ID					

Main				
Name	Data type	Default value	Supervision	Comment
▼ Input				
Initial_Call	Bool			Initial call of this OB
Remanence	Bool			=True, if remanent data are available
Temp				
Constant				

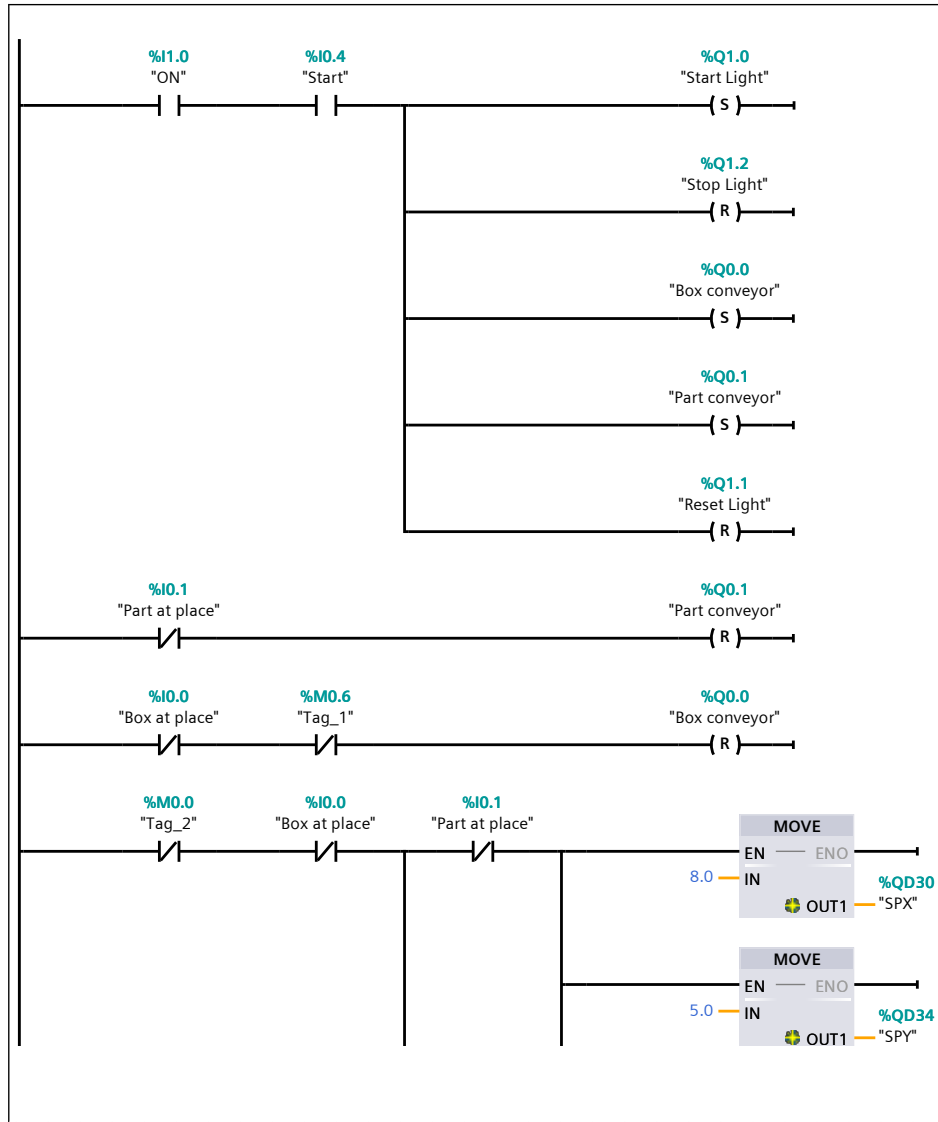
Network 1:



Symbol	Address	Type	Comment
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Network 2:

Network 2: (1.1 / 10.1)



Network 2: (2.1 / 10.1)

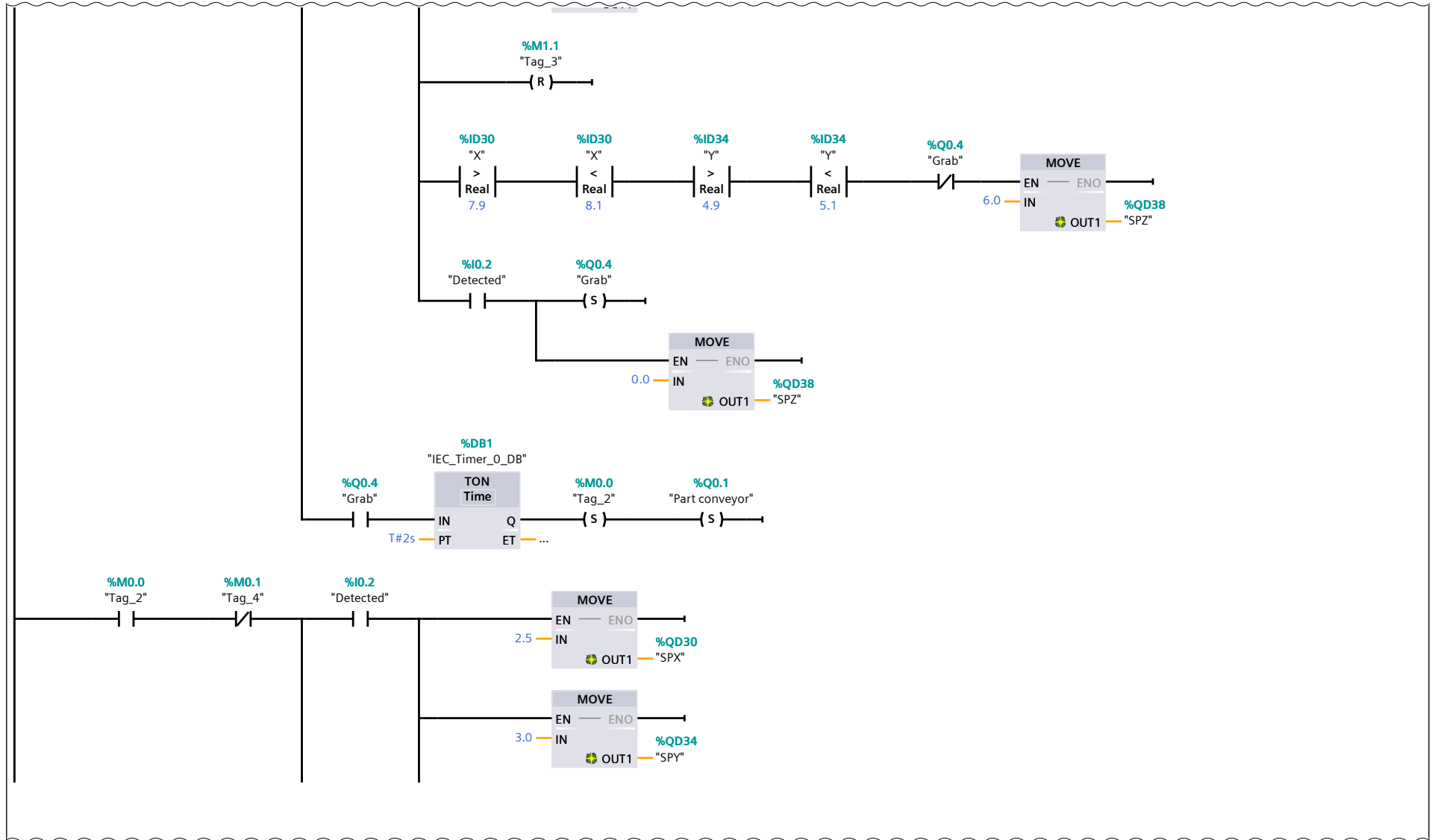
1.1 ( Page1 - 2)

The diagram illustrates a ladder logic network for a control system. It features several logic elements and their interconnections:

- Top Section:**
  - A reset coil (R) is connected to the power rail, labeled **%M1.1 "Tag\_3"**.
  - A series of comparators and a move instruction are connected to the power rail:
    - Comparator 1: **%ID30 "X"** (Real 7.9) > Real 8.1.
    - Comparator 2: **%ID30 "X"** (Real 8.1) < Real 8.1.
    - Comparator 3: **%ID34 "Y"** (Real 4.9) > Real 5.1.
    - Comparator 4: **%ID34 "Y"** (Real 5.1) < Real 5.1.
    - Move Instruction: **%Q0.4 "Grab"** (6.0) is connected to the EN input of a **MOVE** block. The IN input is connected to the power rail. The OUT1 output is connected to **%QD38 "SPZ"**.
  - A normally open contact labeled **%I0.2 "Detected"** is connected to the power rail.
  - A set coil (S) is connected to the power rail, labeled **%Q0.4 "Grab"**.
- Bottom Section:**
  - A timer block **%DB1 "IEC\_Timer\_0\_DB"** is connected to the power rail. Its IN input is connected to the power rail. Its PT input is connected to **T#2s**. Its Q output is connected to a set coil (S) labeled **%M0.0 "Tag\_2"**. Its ET output is connected to a set coil (S) labeled **%Q0.1 "Part conveyor"**.
  - A series of logic elements are connected to the power rail:
    - Normally open contact: **%M0.0 "Tag\_2"**.
    - Normally open contact: **%M0.1 "Tag\_4"**.
    - Normally open contact: **%I0.2 "Detected"**.
    - Move Instruction: **%Q0.4 "Grab"** (2.5) is connected to the EN input of a **MOVE** block. The IN input is connected to the power rail. The OUT1 output is connected to **%QD30 "SPX"**.
    - Move Instruction: **%Q0.4 "Grab"** (3.0) is connected to the EN input of a **MOVE** block. The IN input is connected to the power rail. The OUT1 output is connected to **%QD34 "SPY"**.

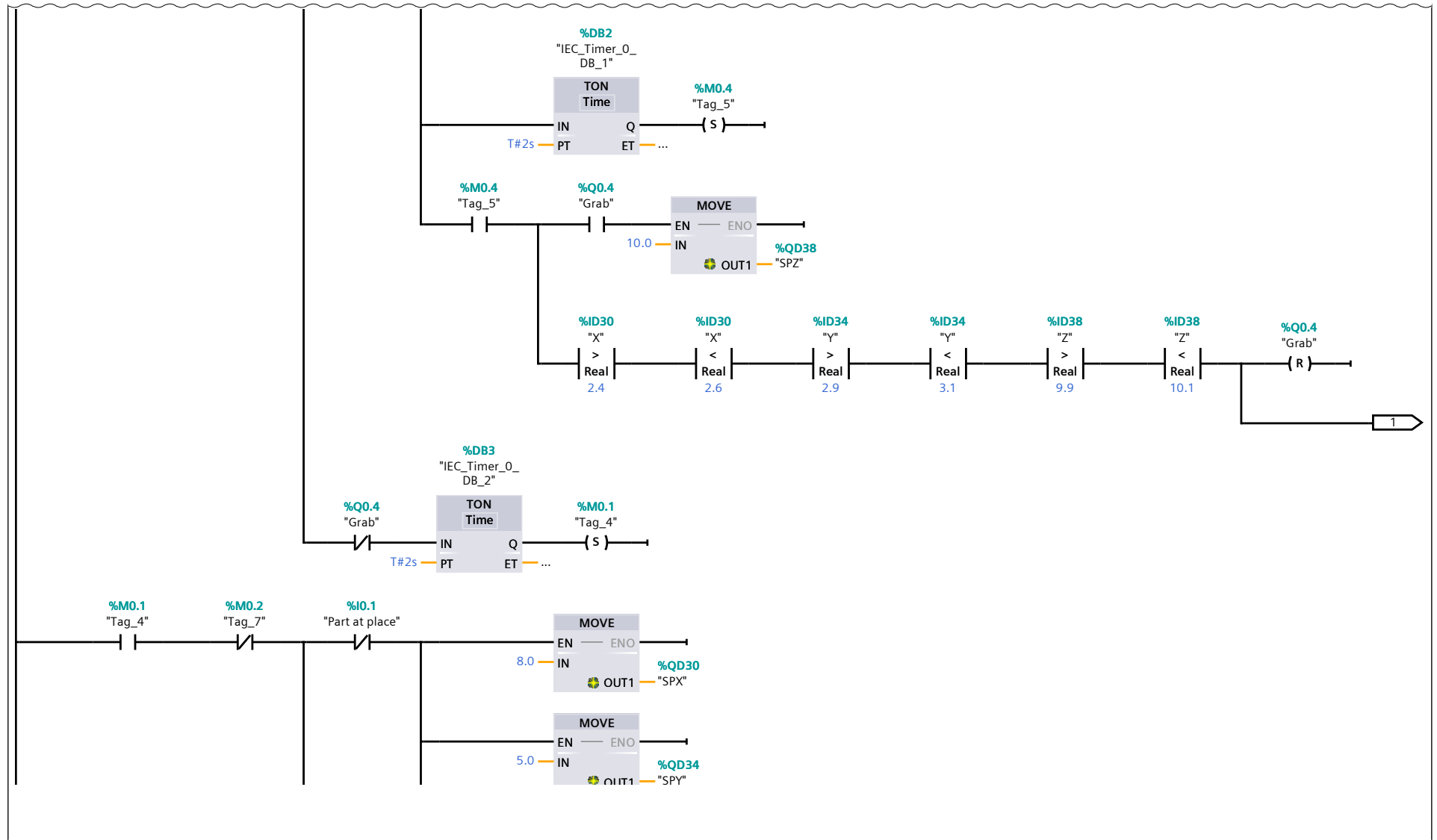
3.1 ( Page1 - 4)

3.1 ( Page1 - 4)



Network 2: (3.1 / 10.1)

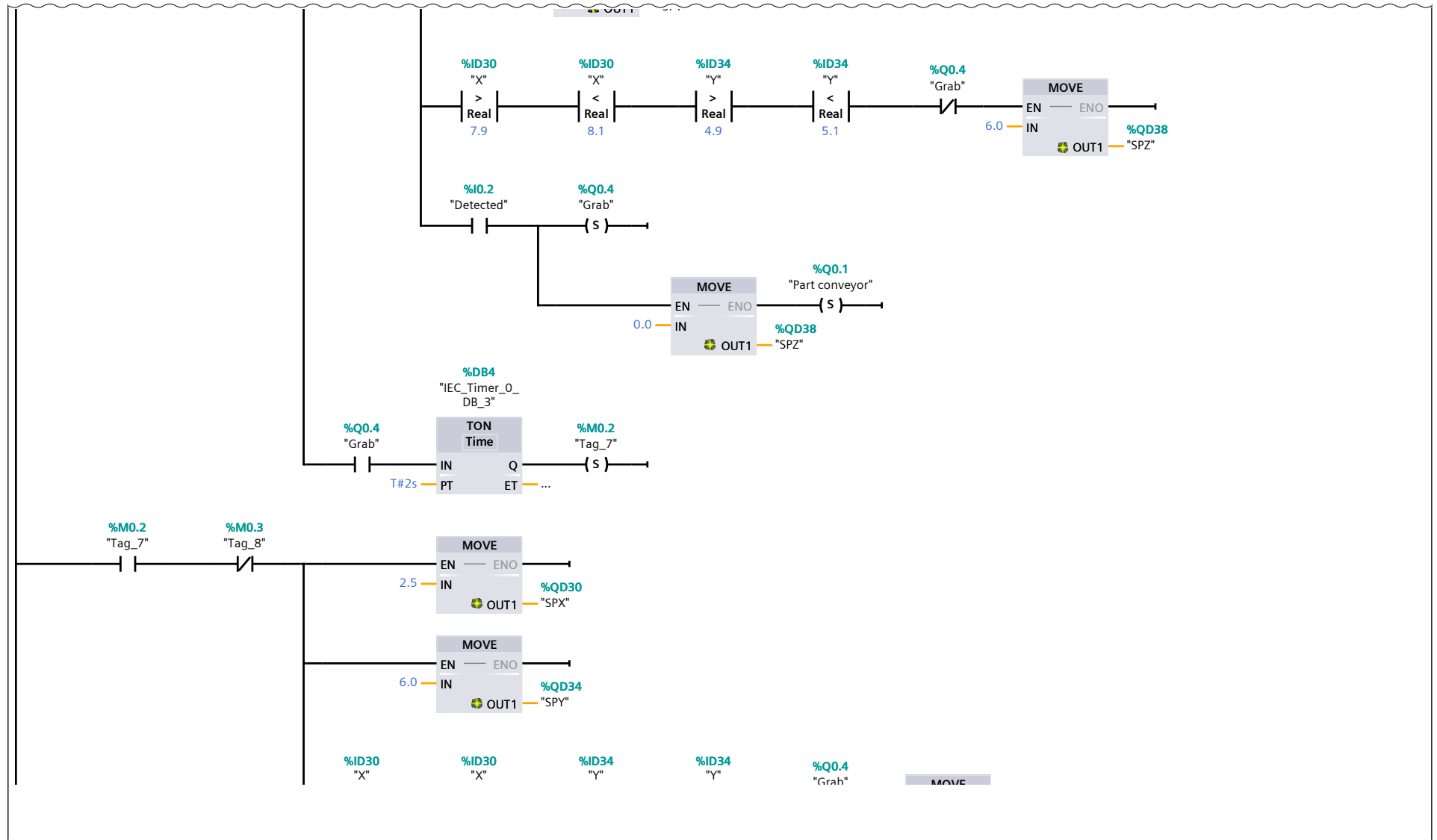
2.1 ( Page1 - 3)



4.1 ( Page1 - 5)

Network 2: (4.1 / 10.1)

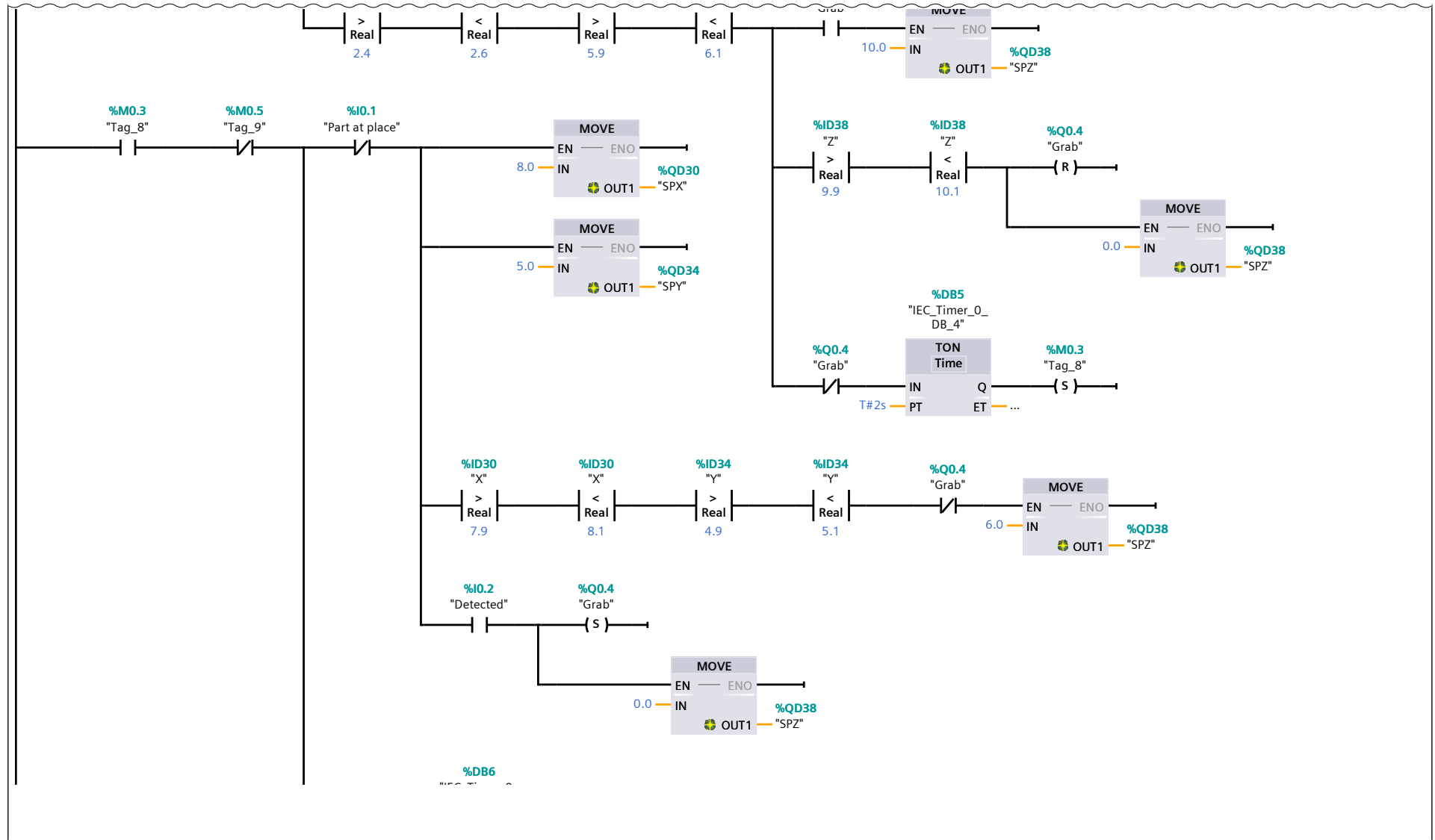
3.1 ( Page1 - 4)



5.1 ( Page1 - 6)

Network 2: (5.1 / 10.1)

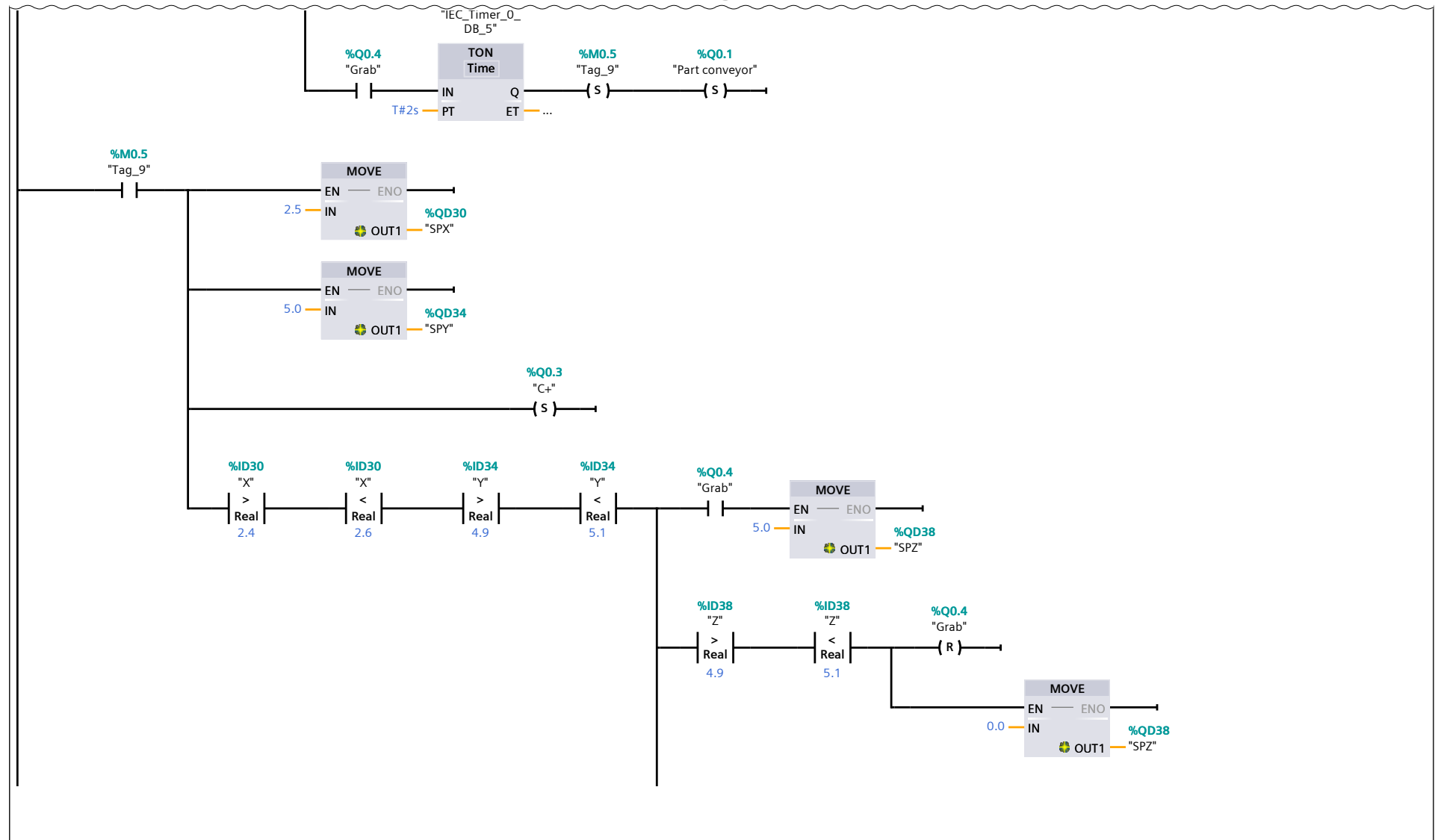
4.1 ( Page1 - 5)



6.1 ( Page1 - 7)

Network 2: (6.1 / 10.1)

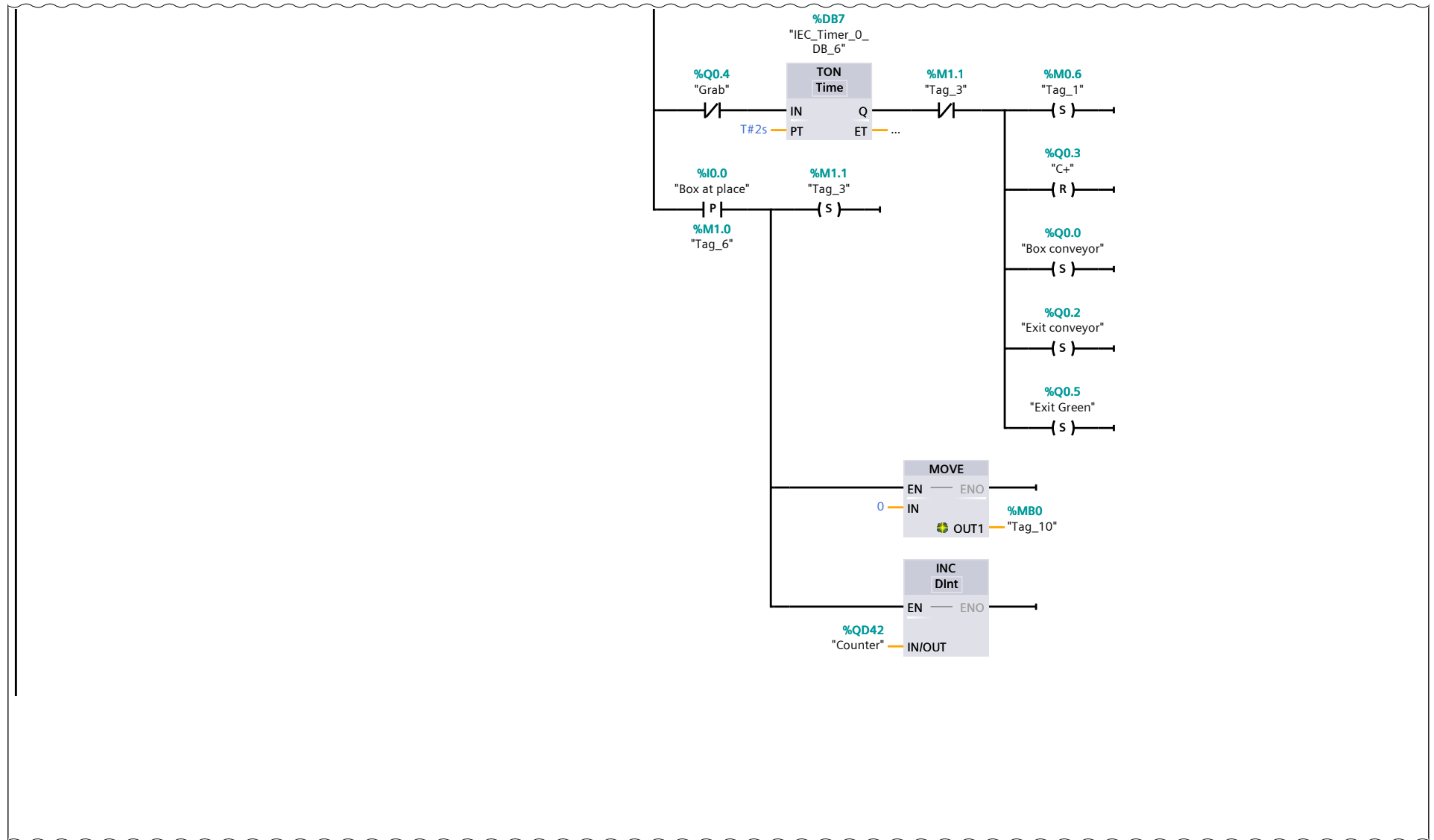
5.1 ( Page1 - 6)



7.1 ( Page1 - 8)

Network 2: (7.1 / 10.1)

6.1 ( Page1 - 7)



8.1 ( Page1 - 9)



**Network 2: (8.1 / 10.1)**

7.1 ( Page1 - 8)

9.1 ( Page1 - 10)

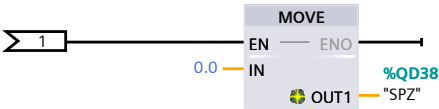
**Network 2: (9.1 / 10.1)**

8.1 ( Page1 - 9)

10.1 ( Page1 - 11)

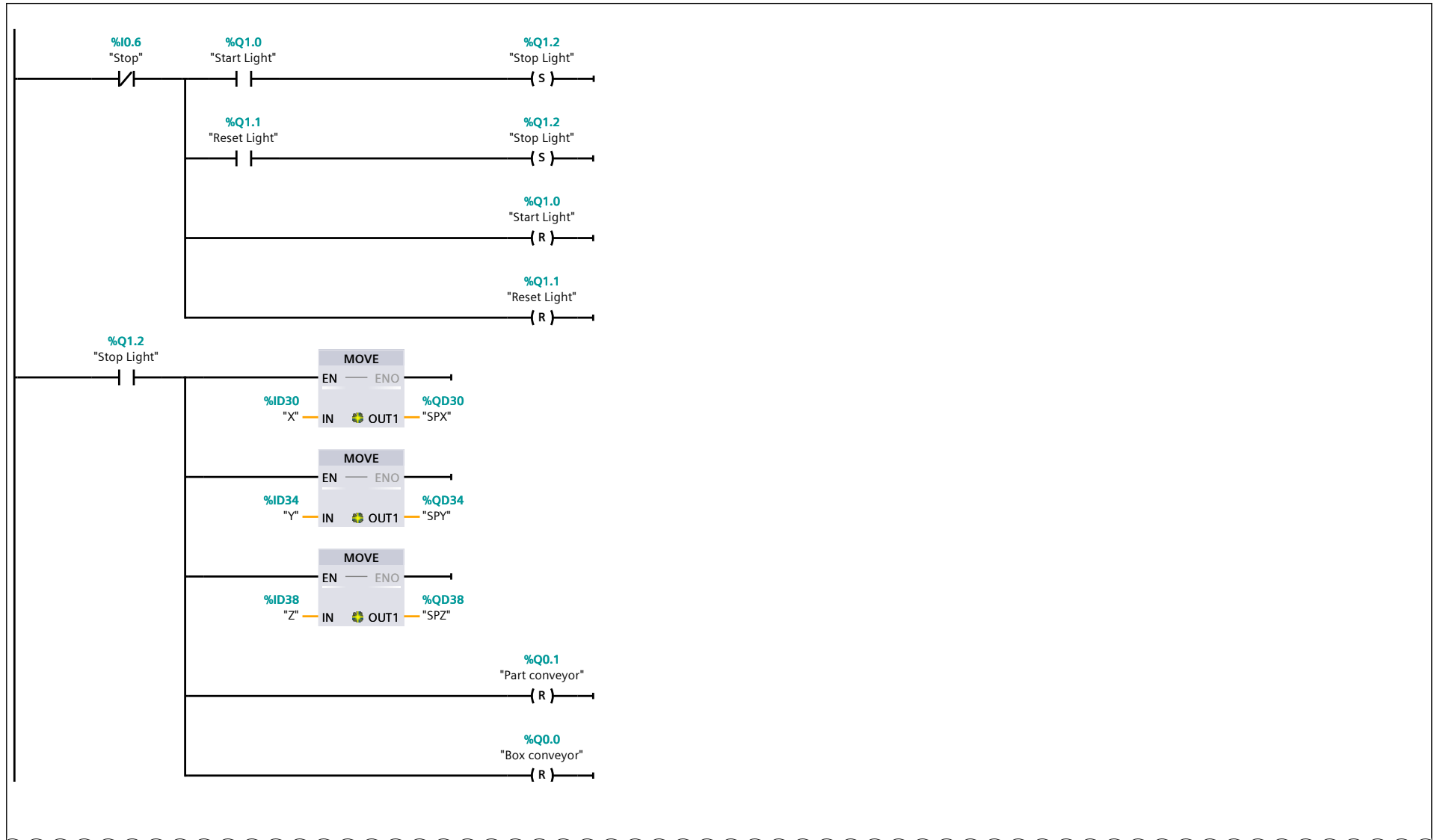
Network 2: (10.1 / 10.1)

9.1 ( Page1 - 10)



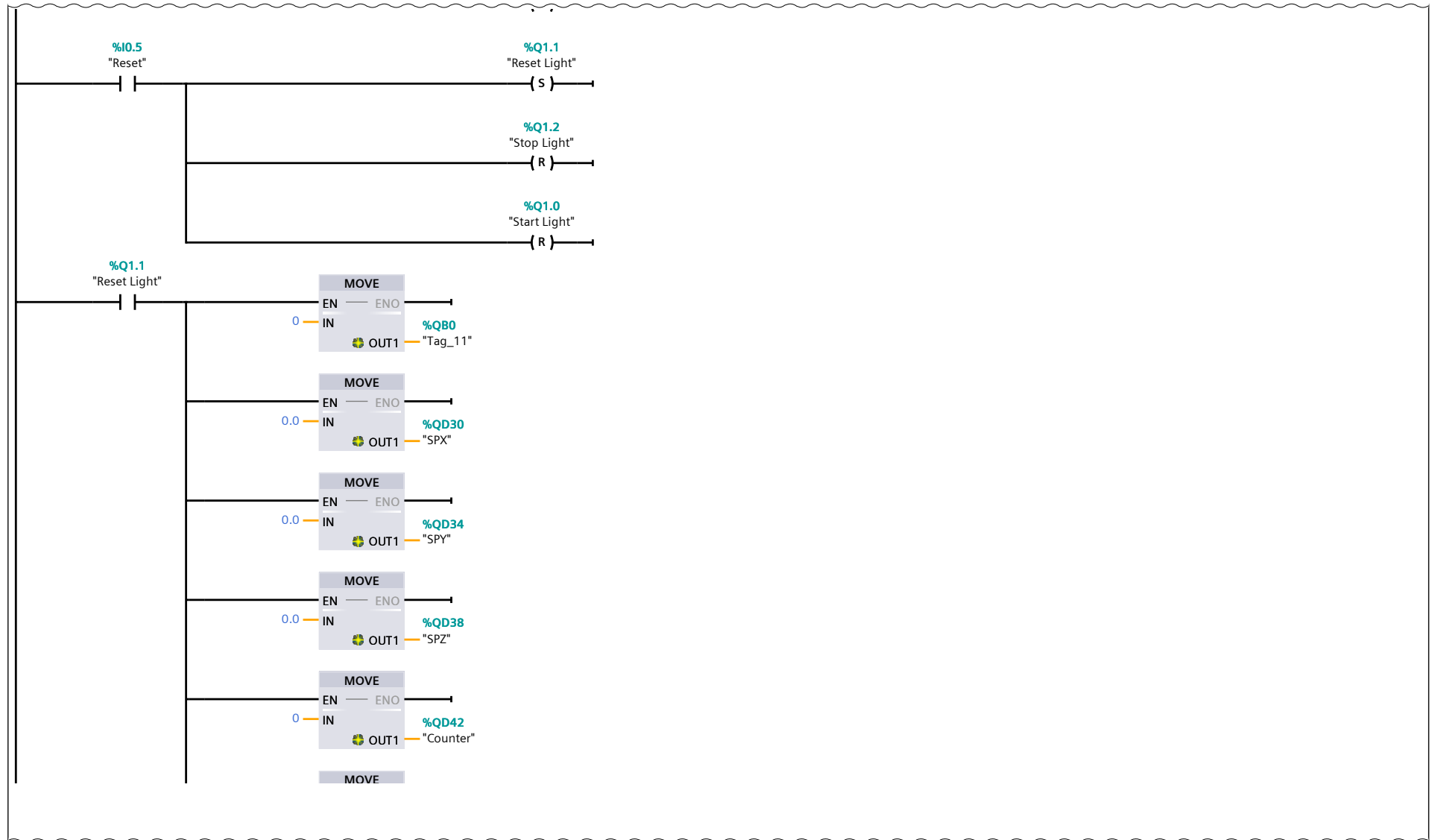
Totally Integrated Automation Portal				
Symbol	Address	Type	Comment	
"Box at place"	%I0.0	Bool		
"Box conveyor"	%Q0.0	Bool		
"C+"	%Q0.3	Bool		
"Counter"	%QD42	DInt		
"Detected"	%I0.2	Bool		
"Exit conveyor"	%Q0.2	Bool		
"Exit Green"	%Q0.5	Bool		
"Grab"	%Q0.4	Bool		
"ON"	%I1.0	Bool		
"Part at place"	%I0.1	Bool		
"Part conveyor"	%Q0.1	Bool		
"Reset Light"	%Q1.1	Bool		
"SPX"	%QD30	Real		
"SPY"	%QD34	Real		
"SPZ"	%QD38	Real		
"Start Light"	%Q1.0	Bool		
"Start"	%I0.4	Bool		
"Stop Light"	%Q1.2	Bool		
"Tag_1"	%M0.6	Bool		
"Tag_2"	%M0.0	Bool		
"Tag_3"	%M1.1	Bool		
"Tag_4"	%M0.1	Bool		
"Tag_5"	%M0.4	Bool		
"Tag_6"	%M1.0	Bool		
"Tag_7"	%M0.2	Bool		
"Tag_8"	%M0.3	Bool		
"Tag_9"	%M0.5	Bool		
"Tag_10"	%MB0	Byte		
"X"	%ID30	DWord		
"Y"	%ID34	Real		
"Z"	%ID38	Real		
Network 3:				

Network 3: (1.1 / 3.1)



Network 3: (2.1 / 3.1)

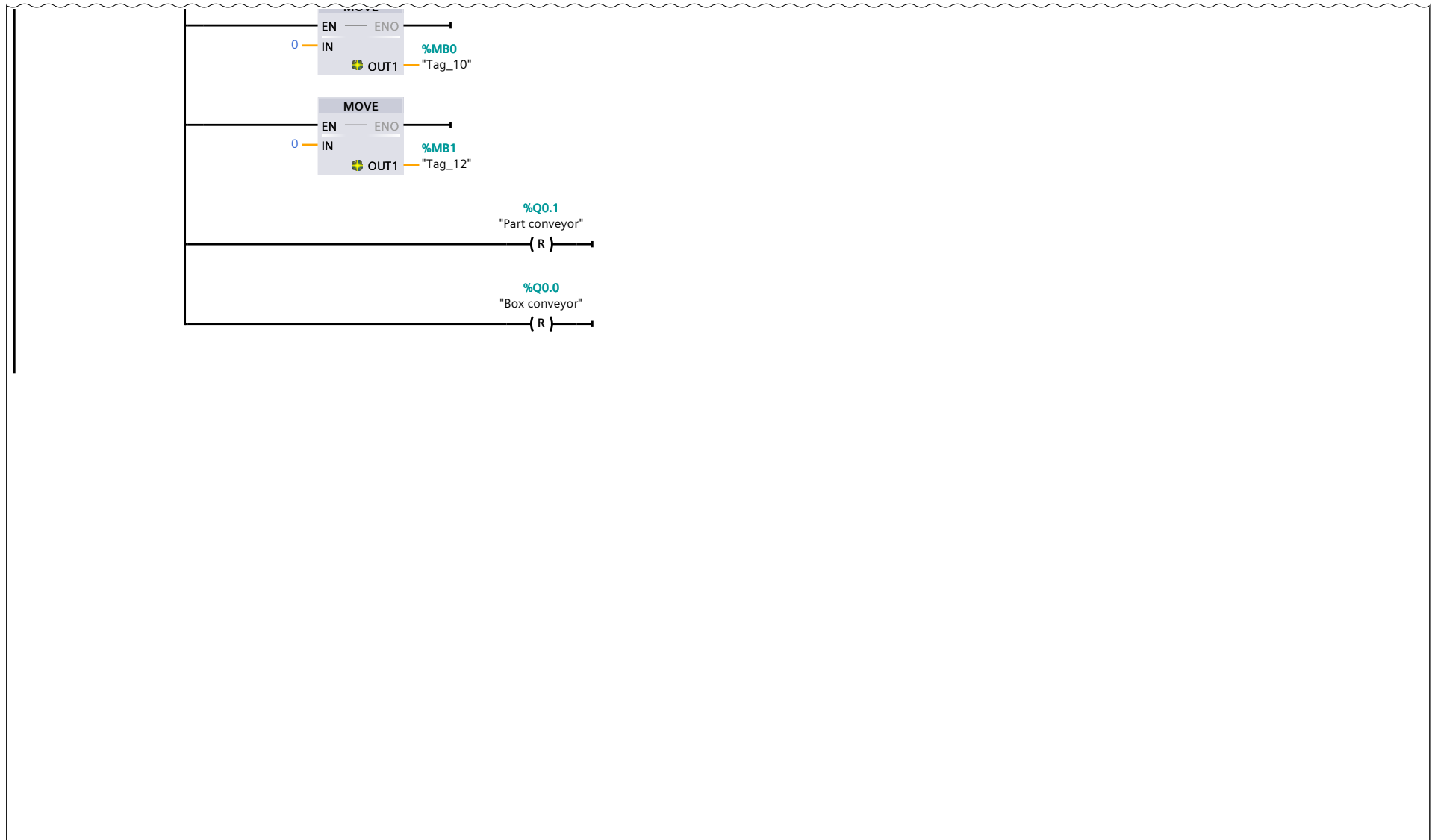
1.1 ( Page1 - 13)



3.1 ( Page1 - 15)

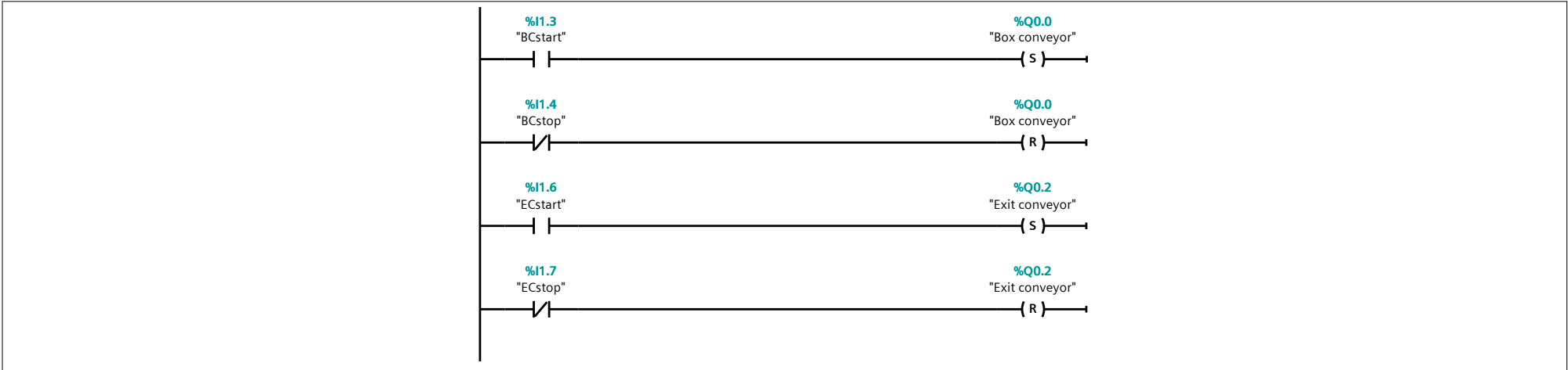
Network 3: (3.1 / 3.1)

2.1 ( Page1 - 14)



Symbol	Address	Type	Comment
"Box conveyor"	%Q0.0	Bool	
"Counter"	%QD42	DInt	
"Part conveyor"	%Q0.1	Bool	
"Reset Light"	%Q1.1	Bool	
"Reset"	%I0.5	Bool	
"SPX"	%QD30	Real	
"SPY"	%QD34	Real	
"SPZ"	%QD38	Real	
"Start Light"	%Q1.0	Bool	
"Stop Light"	%Q1.2	Bool	
"Stop"	%I0.6	Bool	
"Tag_10"	%MB0	Byte	
"Tag_11"	%QB0	Byte	
"Tag_12"	%MB1	Byte	
"X"	%ID30	DWord	
"Y"	%ID34	Real	
"Z"	%ID38	Real	

Network 4:





Totally Integrated Automation Portal				
<b>Symbol</b>	<b>Address</b>	<b>Type</b>	<b>Comment</b>	
"BCstart"	%I1.3	Bool		
"BCstop"	%I1.4	Bool		
"Box conveyor"	%Q0.0	Bool		
"ECstart"	%I1.6	Bool		
"ECstop"	%I1.7	Bool		
"Exit conveyor"	%Q0.2	Bool		