Controller FRC_CC_2025
Controller Fault Handler
Power-Up Handler

Tasks

MainTask
- **MainProgram**
  - **JSR**
  - **ESTOP**
  - **Modbus**
  - **Ref_Tablets**
  - **Stack_Light**
  - **Tag_Converter_Static**
- **GameSpf**
  - **JSR**
  - **Counters**
  - **Tag_Converter_GS**

Unscheduled

Motion Groups

Ungrouped Axes

Add-On Instructions

One_Way_Encoder
Logic for a normally colsed double beam-break style counter. By Ed Jordan. Added rollback logic from Lucas Anderson of FIRST.
- **Logic**

raC_Opr_NetModbusTCPServer
Modbus TCP Server
- **Logic**
- **Prescan**

raC_Tec_NetModbusTCPServer_FndEmptySckt
- **Logic**

raC_Tec_NetModbusTCPServer_RespStrBit
- **Logic**
- **Prescan**

raC_Tec_NetModbusTCPServer_RespStrWord
- **Logic**
- **Prescan**

Data Types

User-Defined
- **AcceptResponse**
- **raC_UDT_ModbusCreateParam**
- **raC_UDT_ModbusServerBase**
- **raC_UDT_ModbusServerData**
- **raC_UDT_ModbusServerHMI**
- **raC_UDT_ModbusServerRWSocket**
- **raC_UDT_ModbusServerRWSocketInfo**
- **READ_DATA_REQ**
- **READ_RESP_STR**
- **REQUEST_PARAMETERS**
- **SockAddr**
- **STR_OUT**
- **WRT_DATA**

Strings
- **STR0008**
- **STR0016**
- **STR0032**
- **STR0500**

- **STR2048**
- **STR_1**
- **STR_4096**
- **STR_462**

Add-On-Defined

One_Way_Encoder

Logic for a normally colsed double beam-break style counter. By Ed Jordan. Added rollback logic from Lucas Anderson of FIRST.

raC_Opr_NetModbusTCPServer

Modbus TCP Server

raC_Tec_NetModbusTCPServer_FndEmptySckt

raC_Tec_NetModbusTCPServer_RespStrBit

raC_Tec_NetModbusTCPServer_RespStrWord

Module-Defined

- **AB:1732E_D16:C:0**
- **AB:1732_16CFG:C:0**
- **AB:1732_8IOL1:C:0**
- **AB:1732_8IOL693203F1:O:0**
- **AB:1732_8IOL69913948:I:0**
- **AB:1732_8IOL72738B51:I:0**
- **AB:1732_8IOL9634EE8F:I:0**
- **AB:1732_8IOL9A3B8618:O:0**
- **AB:1732_8IOL:I:0**
- **AB:1732_8IOLDE47892F:O:0**
- **AB:1732_8IOLEAE59101:O:0**
- **AB:1732_8IOLEB898D93:I:0**
- **AB:1732_8IOLF18D6B1D:I:0**
- **AB:1732_8IOLF3AEF134:I:0**
- **AB:1732_8IOL_Struct_Event:I:0**
- **AB:1732_8IOL_Struct_Status:I:0**
- **AB:1732_D16:I:0**
- **AB:1732_D16:O:0**
- **AB:1732_DI16:I:0**
- **AB:1732_DO16:O:0**
- **AB:1769_HSC1_Range:C:0**
- **AB:Embedded_AnalogIO1:C:0**
- **AB:Embedded_AnalogIO1:I:0**
- **AB:Embedded_AnalogIO1:O:0**
- **AB:Embedded_DiscreteIO1:C:0**
- **AB:Embedded_DiscreteIO1:I:0**
- **AB:Embedded_DiscreteIO1:O:0**
- **AB:Embedded_HSC1:C:0**
- **AB:Embedded_HSC1:I:0**
- **AB:Embedded_HSC1:O:0**
- **AB:Embedded_HSC1_STRUCT_OUT1:O:0**
- **AB:STRATIX_5400_20PORT_GB_MANAGED:I:0**
- **AB:STRATIX_5700_18PORT_GB_MANAGED:I:0**
- **AB:STRATIX_8000_10PORT:I:0**
- **AB:STRATIX_8000_14PORT:I:0**
- **AB:STRATIX_8000_18PORT:I:0**
- **AB:STRATIX_8000_6PORT:I:0**

Trends

I/O Configuration

1769 Bus

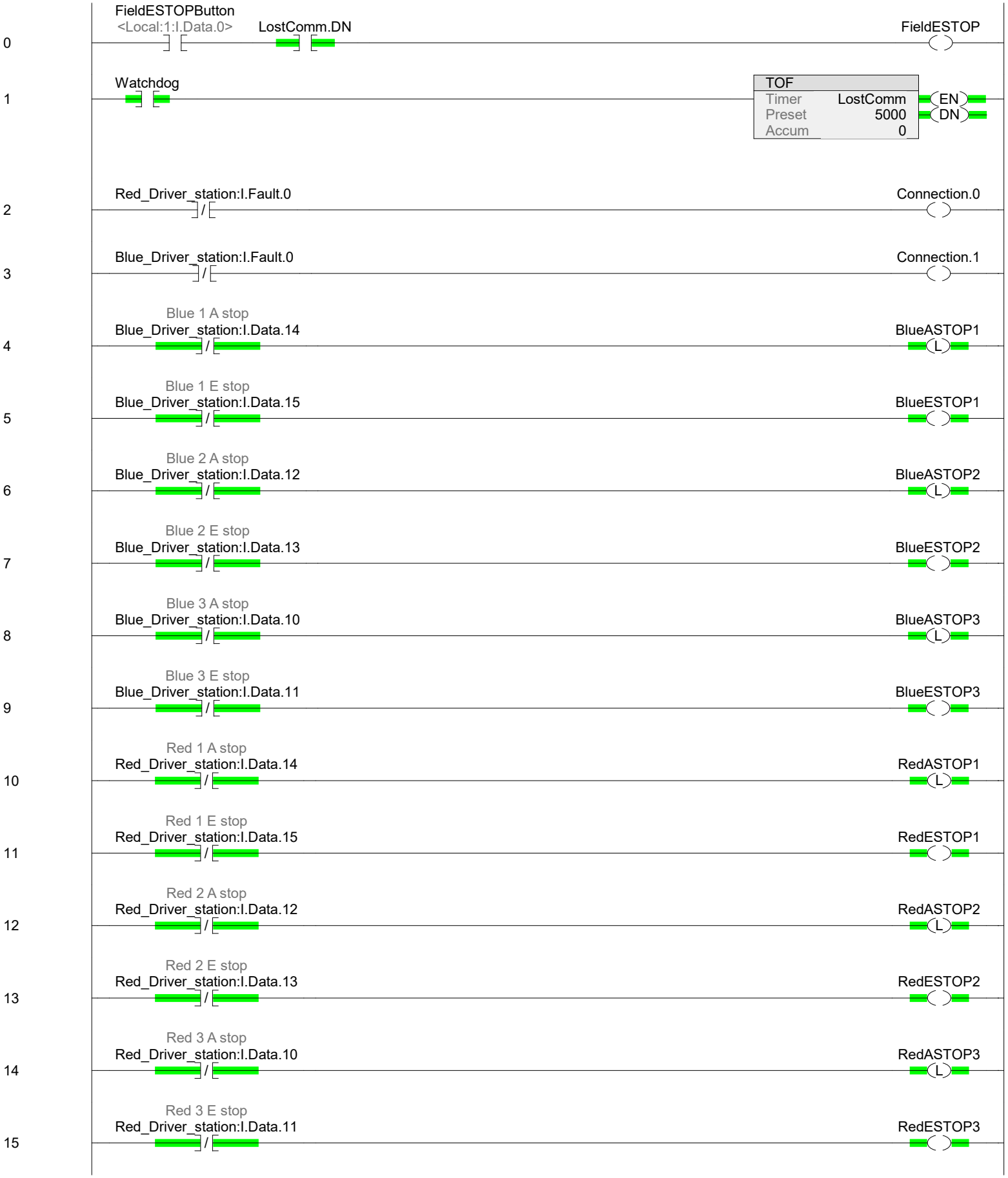
[0] 1769-L24ER-QBFC1B FRC_CC_2025

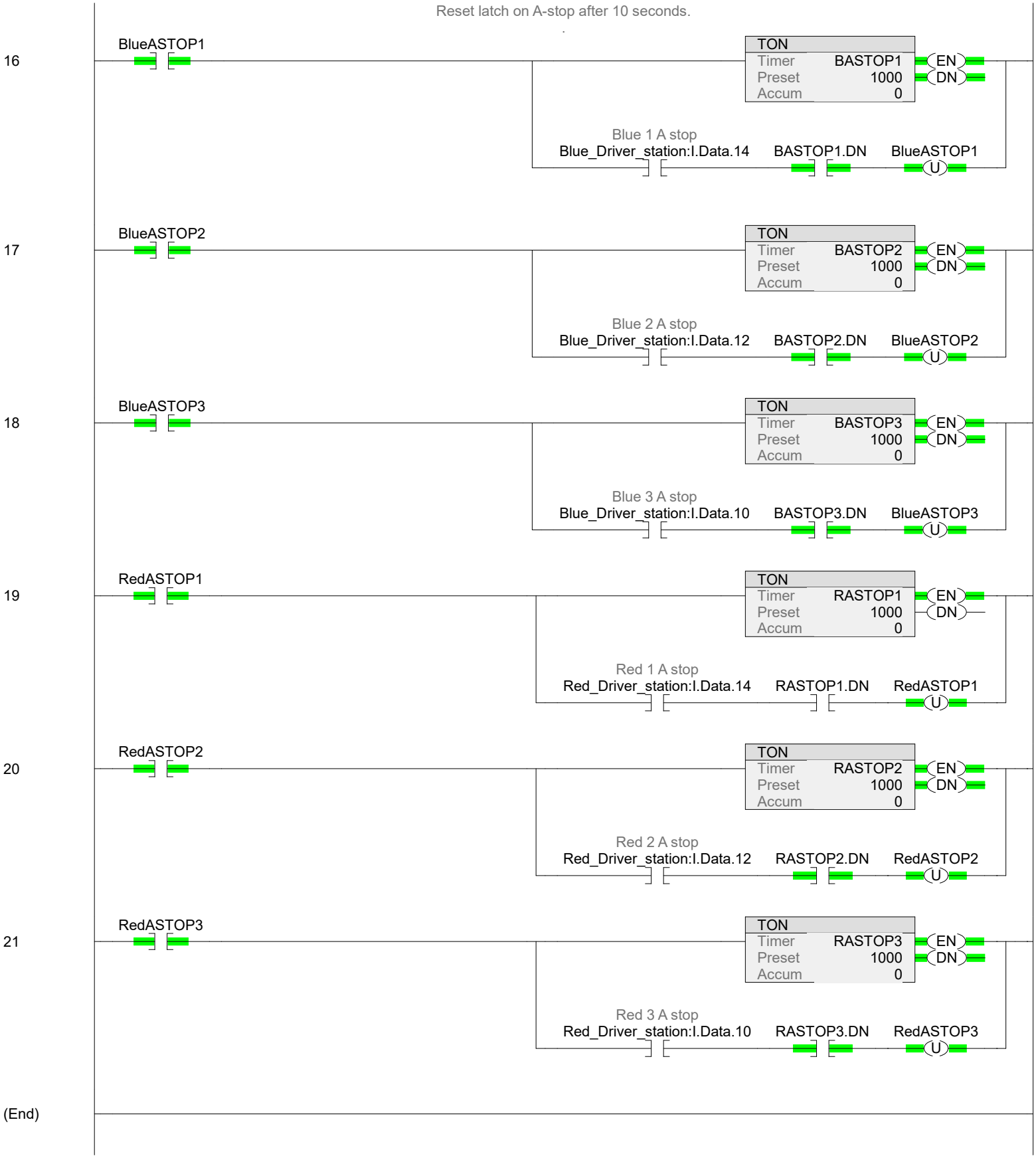
[1] Embedded Discrete_IO

- **[2] Embedded Analog_IO**
- **[3] Embedded Counters**

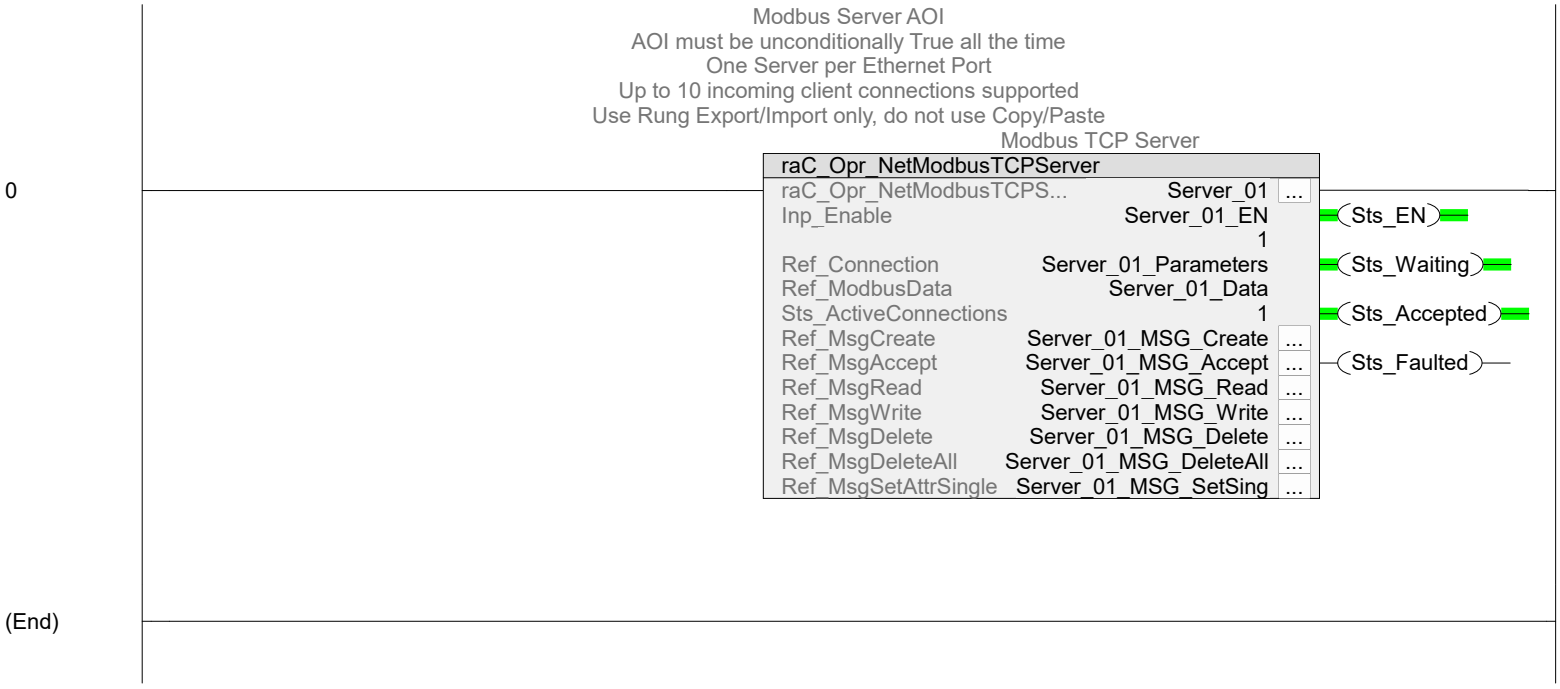
Ethernet

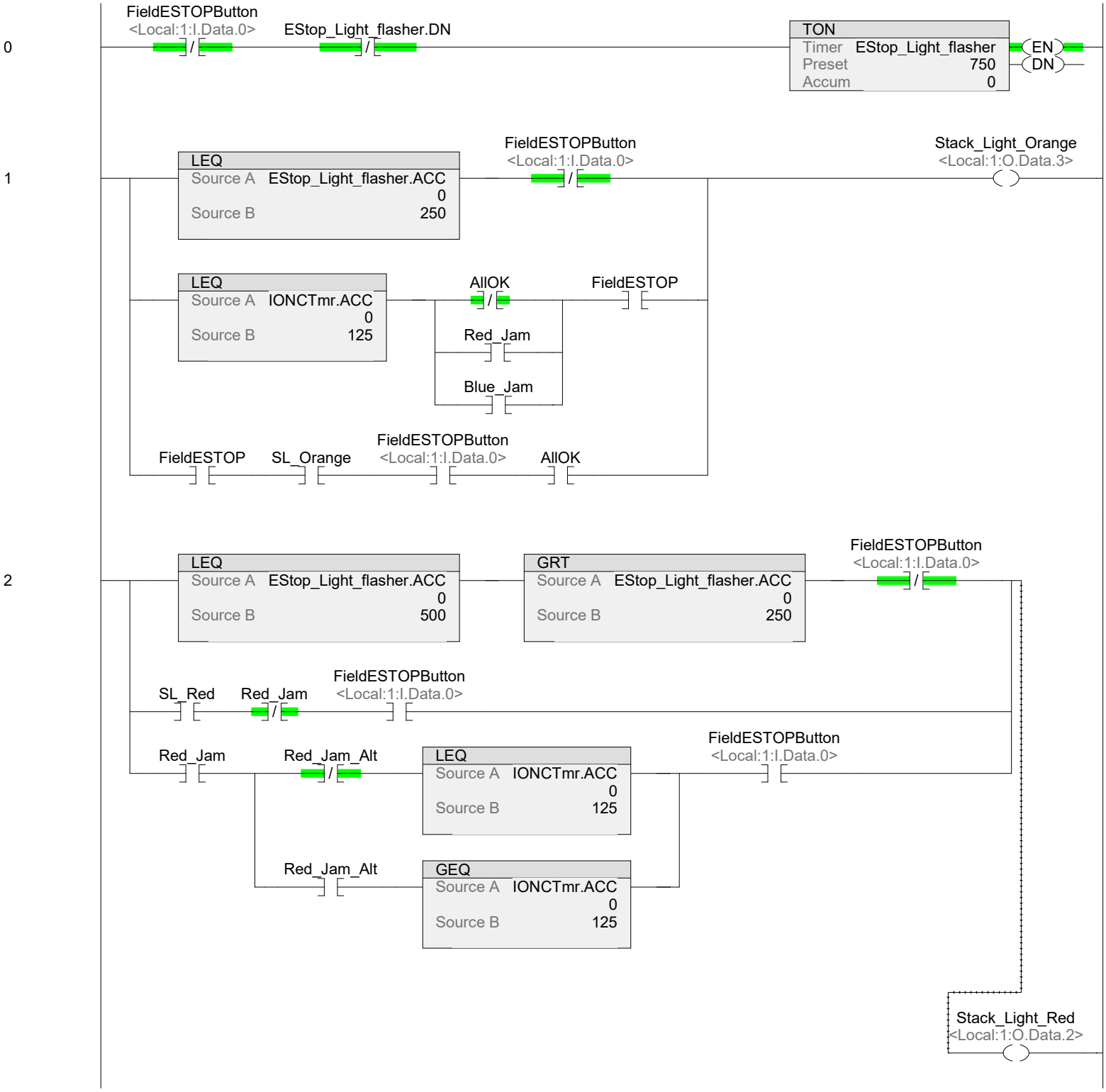
- **1769-L24ER-QBFC1B FRC_CC_2025**
- **1732E-16CFGM12/A Red_Driver_station**
- **1732E-16CFGM12/A Blue_Driver_station**
- **1732E-8IOLM12R/B Red_Smart_IO**
- **1732E-8IOLM12R/B Blue_Smart_IO**
- **1783-HMS8TG8EG4CGN Red_DS_Switch**
- **1783-HMS8TG8EG4CGN Blue_DS_Switch**

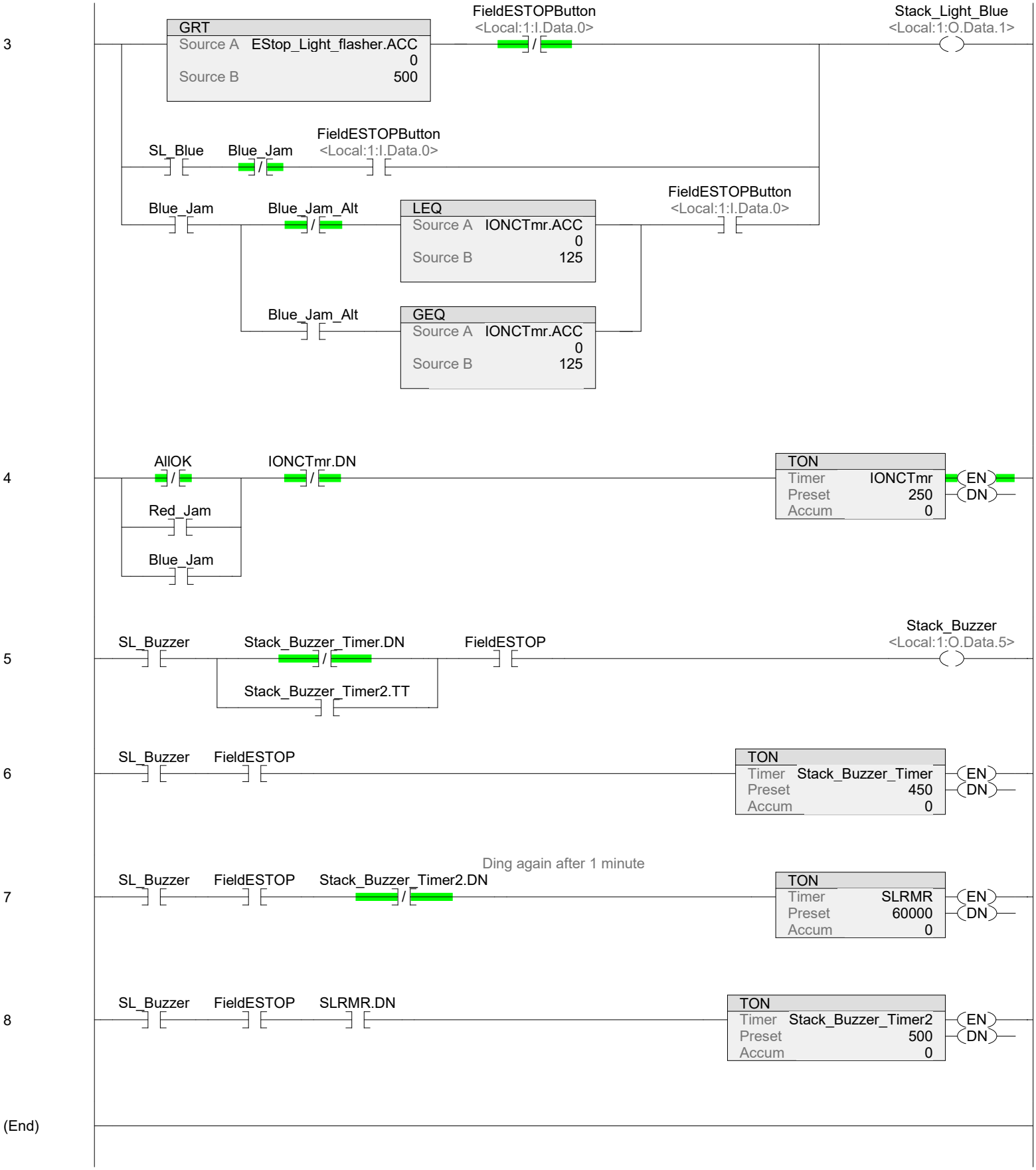

0
FieldESTOPButton
<Local:1:I.Data.0>
LostComm.DN
FieldESTOP
1
Watchdog
TOF
Timer LostComm
Preset 5000
Accum 0
EN
DN
2
Red_Driver_station:I.Fault.0
Connection.0
3
Blue_Driver_station:I.Fault.0
Connection.1
4
Blue 1 A stop
Blue_Driver_station:I.Data.14
BlueASTOP1
5
Blue 1 E stop
Blue_Driver_station:I.Data.15
BlueESTOP1
6
Blue 2 A stop
Blue_Driver_station:I.Data.12
BlueASTOP2
7
Blue 2 E stop
Blue_Driver_station:I.Data.13
BlueESTOP2
8
Blue 3 A stop
Blue_Driver_station:I.Data.10
BlueASTOP3
9
Blue 3 E stop
Blue_Driver_station:I.Data.11
BlueESTOP3
10
Red 1 A stop
Red_Driver_station:I.Data.14
RedASTOP1
11
Red 1 E stop
Red_Driver_station:I.Data.15
RedESTOP1
12
Red 2 A stop
Red_Driver_station:I.Data.12
RedASTOP2
13
Red 2 E stop
Red_Driver_station:I.Data.13
RedESTOP2
14
Red 3 A stop
Red_Driver_station:I.Data.10
RedASTOP3
15
Red 3 E stop
Red_Driver_station:I.Data.11
RedESTOP3

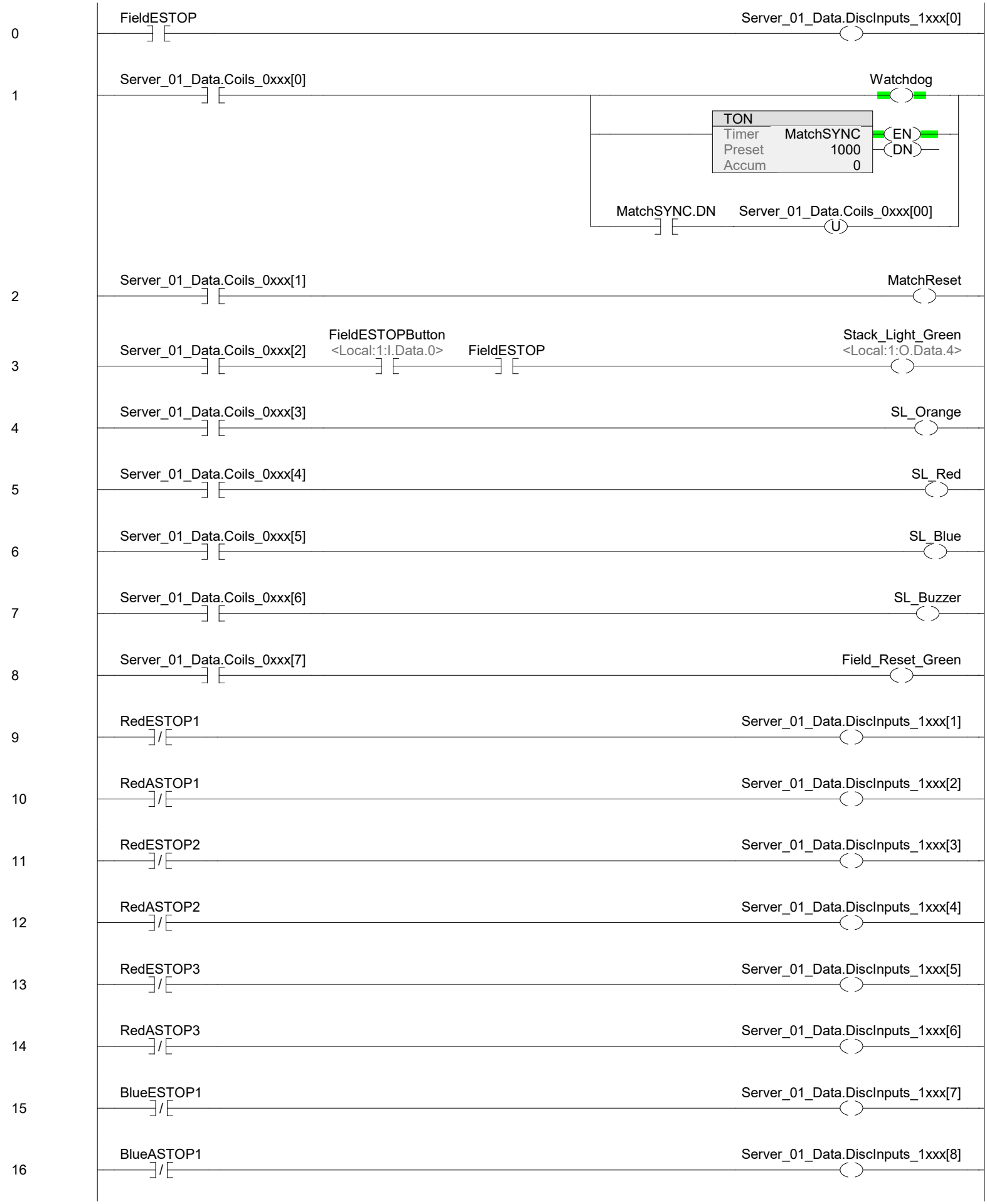

Reset latch on A-stop after 10 seconds.
16
BlueASTOP1
TON
Timer BASTOP1
Preset 1000
Accum 0
EN
DN
Blue 1 A stop
Blue_Driver_station:I.Data.14
BASTOP1.DN
BlueASTOP1
U
17
BlueASTOP2
TON
Timer BASTOP2
Preset 1000
Accum 0
EN
DN
Blue 2 A stop
Blue_Driver_station:I.Data.12
BASTOP2.DN
BlueASTOP2
U
18
BlueASTOP3
TON
Timer BASTOP3
Preset 1000
Accum 0
EN
DN
Blue 3 A stop
Blue_Driver_station:I.Data.10
BASTOP3.DN
BlueASTOP3
U
19
RedASTOP1
TON
Timer RASTOP1
Preset 1000
Accum 0
EN
DN
Red 1 A stop
Red_Driver_station:I.Data.14
RASTOP1.DN
RedASTOP1
U
20
RedASTOP2
TON
Timer RASTOP2
Preset 1000
Accum 0
EN
DN
Red 2 A stop
Red_Driver_station:I.Data.12
RASTOP2.DN
RedASTOP2
U
21
RedASTOP3
TON
Timer RASTOP3
Preset 1000
Accum 0
EN
DN
Red 3 A stop
Red_Driver_station:I.Data.10
RASTOP3.DN
RedASTOP3
U
(End)


0
JSR
Routine Name ESTOP
1
JSR
Routine Name Modbus
2
JSR
Routine Name Ref_Tablets
3
JSR
Routine Name Tag_Converter_Static
4
JSR
Routine Name Stack_Light
(End)

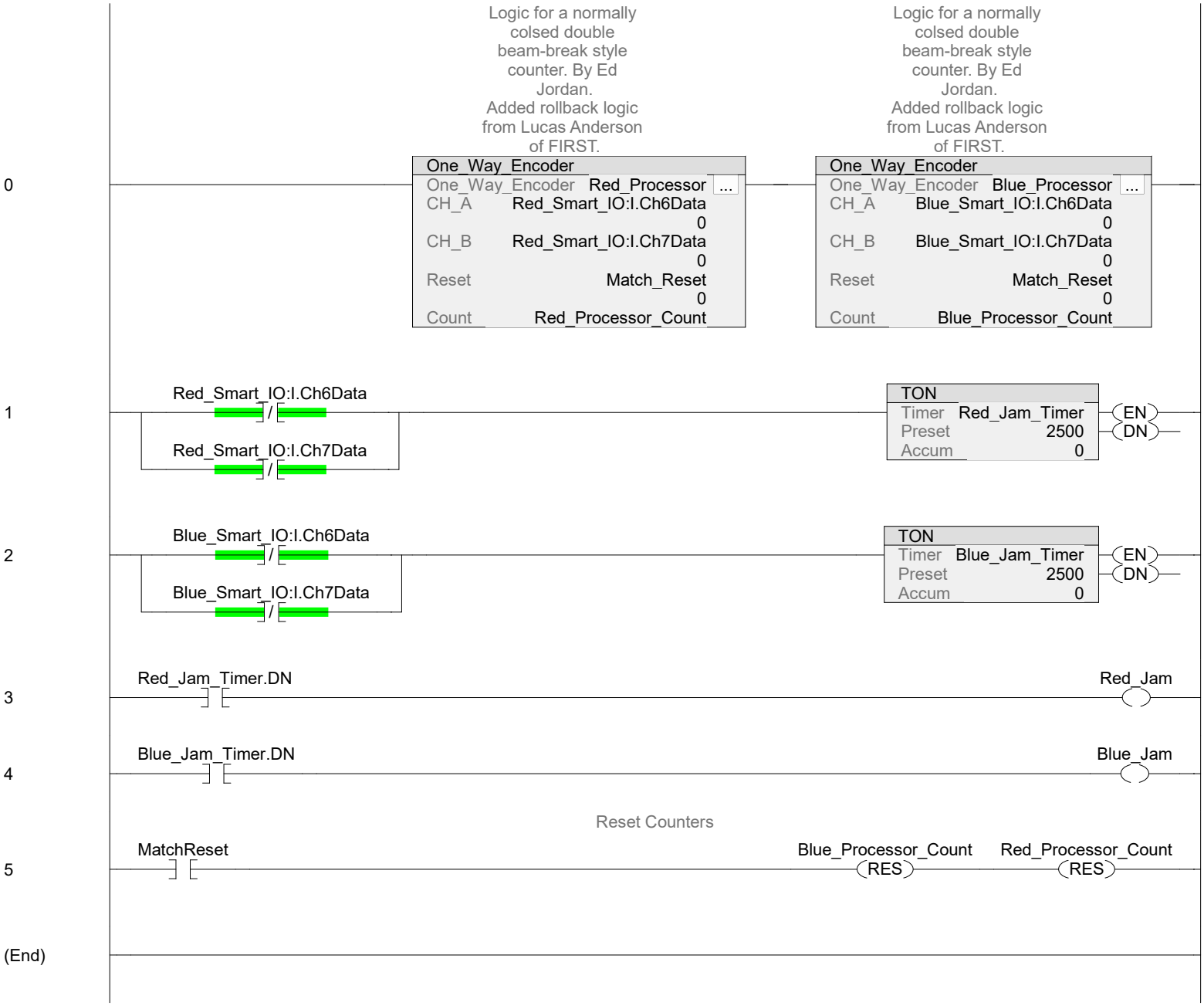

Modbus Server AOI
AOI must be unconditionally True all the time
One Server per Ethernet Port
Up to 10 incoming client connections supported
Use Rung Export/Import only, do not use Copy/Paste
Modbus TCP Server
raC_Opr_NetModbusTCPServer
raC_Opr_NetModbusTCPS... Server_01
Inp_Enable Server_01_EN
1
Ref_Connection Server_01_Parameters
Ref_ModbusData Server_01_Data
Sts_ActiveConnections 1
Ref_MsgCreate Server_01_MSG_Create
Ref_MsgAccept Server_01_MSG_Accept
Ref_MsgRead Server_01_MSG_Read
Ref_MsgWrite Server_01_MSG_Write
Ref_MsgDelete Server_01_MSG_Delete
Ref_MsgDeleteAll Server_01_MSG_DeleteAll
Ref_MsgSetAttrSingle Server_01_MSG_SetSing
Sts_EN
Sts_Waiting
Sts_Accepted
Sts_Faulted
0
(End)

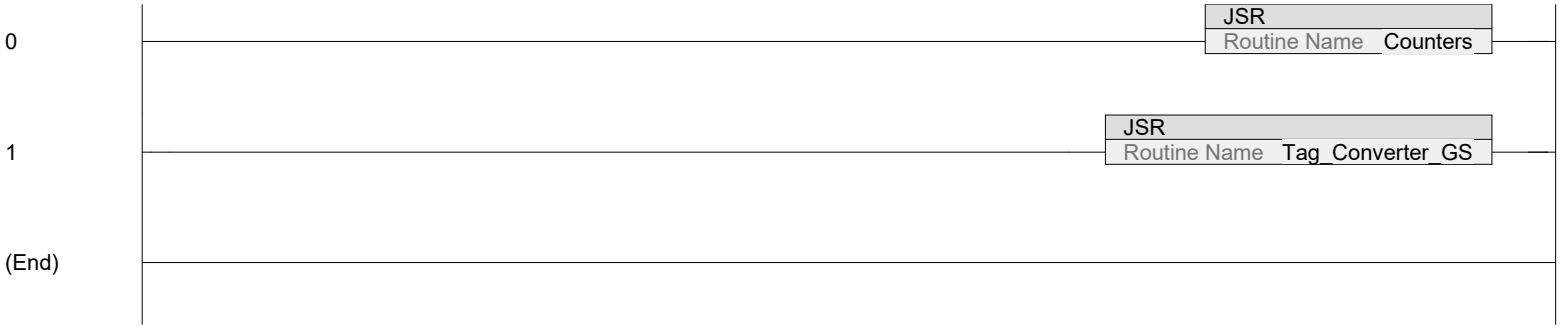

0
FieldESTOPButton
<Local:1:I.Data.0>
EStop_Light_flasher.DN
TON
Timer EStop_Light_flasher
Preset 750
Accum 0
EN
DN
1
LEQ
Source A EStop_Light_flasher.ACC
0
Source B 250
FieldESTOPButton
<Local:1:I.Data.0>
Stack_Light_Orange
<Local:1:O.Data.3>
LEQ
Source A IONCTmr.ACC
0
Source B 125
AllOK
FieldESTOP
Red_Jam
Blue_Jam
FieldESTOP
SL_Orange
FieldESTOPButton
<Local:1:I.Data.0>
AllOK
2
LEQ
Source A EStop_Light_flasher.ACC
0
Source B 500
GRT
Source A EStop_Light_flasher.ACC
0
Source B 250
FieldESTOPButton
<Local:1:I.Data.0>
SL_Red
Red_Jam
FieldESTOPButton
<Local:1:I.Data.0>
Red_Jam
Red_Jam_Alt
LEQ
Source A IONCTmr.ACC
0
Source B 125
FieldESTOPButton
<Local:1:I.Data.0>
Red_Jam_Alt
GEQ
Source A IONCTmr.ACC
0
Source B 125
Stack_Light_Red
<Local:1:O.Data.2>

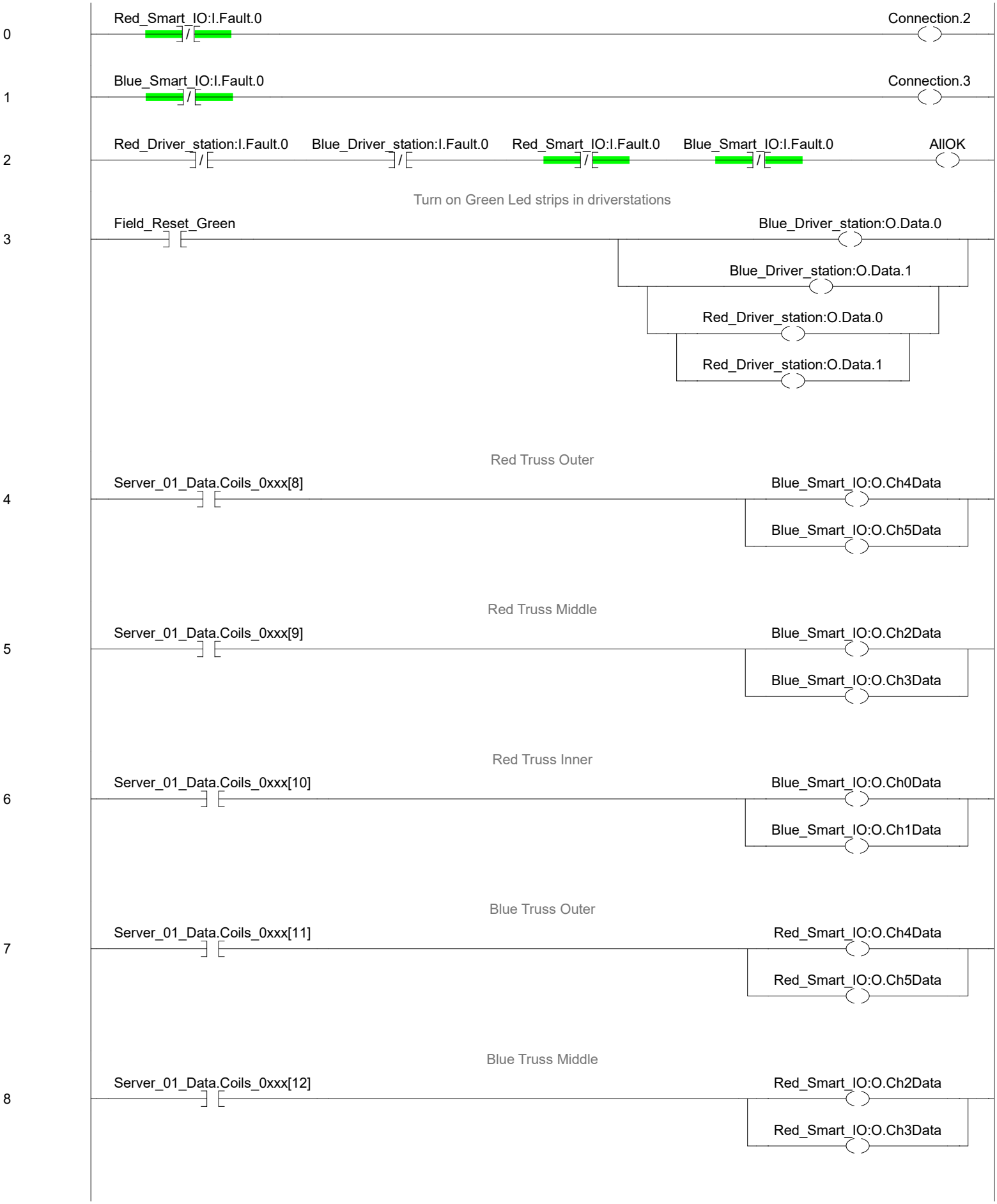

3
GRT
Source A EStop_Light_flasher.ACC
0
Source B 500
FieldESTOPButton
<Local:1:I.Data.0>
Stack_Light_Blue
<Local:1:O.Data.1>
SL_Blue
Blue_Jam
FieldESTOPButton
<Local:1:I.Data.0>
Blue_Jam
Blue_Jam_Alt
LEQ
Source A IONCTmr.ACC
0
Source B 125
FieldESTOPButton
<Local:1:I.Data.0>
Blue_Jam_Alt
GEQ
Source A IONCTmr.ACC
0
Source B 125
4
AllOK
IONCTmr.DN
TON
Timer IONCTmr
Preset 250
Accum 0
EN
DN
Red_Jam
Blue_Jam
5
SL_Buzzer
Stack_Buzzer_Timer.DN
FieldESTOP
Stack_Buzzer
<Local:1:O.Data.5>
Stack_Buzzer_Timer2.TT
6
SL_Buzzer
FieldESTOP
TON
Timer Stack_Buzzer_Timer
Preset 450
Accum 0
EN
DN
Ding again after 1 minute
7
SL_Buzzer
FieldESTOP
Stack_Buzzer_Timer2.DN
TON
Timer SLRMR
Preset 60000
Accum 0
EN
DN
8
SL_Buzzer
FieldESTOP
SLRMR.DN
TON
Timer Stack_Buzzer_Timer2
Preset 500
Accum 0
EN
DN
(End)

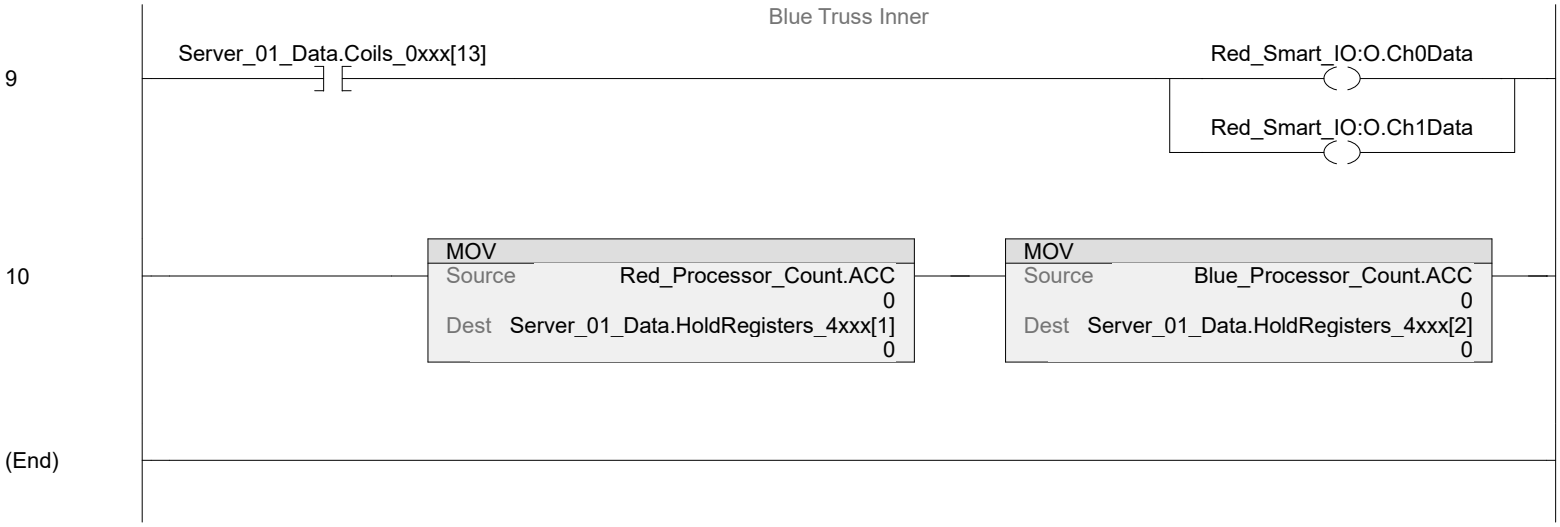

0
FieldESTOP
Server_01_Data.DiscInputs_1xxx[0]
1
Server_01_Data.Coils_0xxx[0]
Watchdog
TON
Timer MatchSYNC
Preset 1000
Accum 0
EN
DN
MatchSYNC.DN
Server_01_Data.Coils_0xxx[00]
U
2
Server_01_Data.Coils_0xxx[1]
MatchReset
3
Server_01_Data.Coils_0xxx[2]
FieldESTOPButton
<Local:1:I.Data.0>
FieldESTOP
Stack_Light_Green
<Local:1:O.Data.4>
4
Server_01_Data.Coils_0xxx[3]
SL_Orange
5
Server_01_Data.Coils_0xxx[4]
SL_Red
6
Server_01_Data.Coils_0xxx[5]
SL_Blue
7
Server_01_Data.Coils_0xxx[6]
SL_Buzzer
8
Server_01_Data.Coils_0xxx[7]
Field_Reset_Green
9
RedESTOP1
Server_01_Data.DiscInputs_1xxx[1]
10
RedASTOP1
Server_01_Data.DiscInputs_1xxx[2]
11
RedESTOP2
Server_01_Data.DiscInputs_1xxx[3]
12
RedASTOP2
Server_01_Data.DiscInputs_1xxx[4]
13
RedESTOP3
Server_01_Data.DiscInputs_1xxx[5]
14
RedASTOP3
Server_01_Data.DiscInputs_1xxx[6]
15
BlueESTOP1
Server_01_Data.DiscInputs_1xxx[7]
16
BlueASTOP1
Server_01_Data.DiscInputs_1xxx[8]


17
BlueESTOP2
Server_01_Data.DiscInputs_1xxx[9]
18
BlueASTOP2
Server_01_Data.DiscInputs_1xxx[10]
19
BlueESTOP3
Server_01_Data.DiscInputs_1xxx[11]
20
BlueASTOP3
Server_01_Data.DiscInputs_1xxx[12]
21
Red_DS_Switch:I.PortGi1_2Connected
Server_01_Data.DiscInputs_1xxx[13]
22
Red_DS_Switch:I.PortGi1_3Connected
Server_01_Data.DiscInputs_1xxx[14]
23
Red_DS_Switch:I.PortGi1_4Connected
Server_01_Data.DiscInputs_1xxx[15]
24
Blue_DS_Switch:I.PortGi1_2Connected
Server_01_Data.DiscInputs_1xxx[16]
25
Blue_DS_Switch:I.PortGi1_3Connected
Server_01_Data.DiscInputs_1xxx[17]
26
Blue_DS_Switch:I.PortGi1_4Connected
Server_01_Data.DiscInputs_1xxx[18]
27
MOV
Source Connection
16
Dest Server_01_Data.HoldRegisters_4xxx[0]
16
MOV
Source RedFoul.ACC
0
Dest Server_01_Data.HoldRegisters_4xxx[1]
0
MOV
Source RedMajorFoul.ACC
0
Dest Server_01_Data.HoldRegisters_4xxx[2]
0
MOV
Source BlueFoul.ACC
0
Dest Server_01_Data.HoldRegisters_4xxx[3]
0
MOV
Source BlueMajorFoul.ACC
0
Dest Server_01_Data.HoldRegisters_4xxx[4]
0
(End)


0
Logic for a normally colsed double beam-break style counter. By Ed Jordan. Added rollback logic from Lucas Anderson of FIRST.
One_Way_Encoder
One_Way_Encoder Red_Processor ...
CH_A Red_Smart_IO:I.Ch6Data
0
CH_B Red_Smart_IO:I.Ch7Data
0
Reset Match_Reset
0
Count Red_Processor_Count
Logic for a normally colsed double beam-break style counter. By Ed Jordan. Added rollback logic from Lucas Anderson of FIRST.
One_Way_Encoder
One_Way_Encoder Blue_Processor ...
CH_A Blue_Smart_IO:I.Ch6Data
0
CH_B Blue_Smart_IO:I.Ch7Data
0
Reset Match_Reset
0
Count Blue_Processor_Count
1
Red_Smart_IO:I.Ch6Data
Red_Smart_IO:I.Ch7Data
TON
Timer Red_Jam_Timer
Preset 2500
Accum 0
EN
DN
2
Blue_Smart_IO:I.Ch6Data
Blue_Smart_IO:I.Ch7Data
TON
Timer Blue_Jam_Timer
Preset 2500
Accum 0
EN
DN
3
Red_Jam_Timer.DN
Red_Jam
4
Blue_Jam_Timer.DN
Blue_Jam
Reset Counters
5
MatchReset
Blue_Processor_Count
RES
Red_Processor_Count
RES
(End)


0
JSR
Routine Name Counters
1
JSR
Routine Name Tag_Converter_GS
(End)


0
Red_Smart_IO:I.Fault.0
Connection.2
1
Blue_Smart_IO:I.Fault.0
Connection.3
2
Red_Driver_station:I.Fault.0
Blue_Driver_station:I.Fault.0
Red_Smart_IO:I.Fault.0
Blue_Smart_IO:I.Fault.0
AllOK
Turn on Green Led strips in driverstations
3
Field_Reset_Green
Blue_Driver_station:O.Data.0
Blue_Driver_station:O.Data.1
Red_Driver_station:O.Data.0
Red_Driver_station:O.Data.1
Red Truss Outer
4
Server_01_Data.Coils_0xxx[8]
Blue_Smart_IO:O.Ch4Data
Blue_Smart_IO:O.Ch5Data
Red Truss Middle
5
Server_01_Data.Coils_0xxx[9]
Blue_Smart_IO:O.Ch2Data
Blue_Smart_IO:O.Ch3Data
Red Truss Inner
6
Server_01_Data.Coils_0xxx[10]
Blue_Smart_IO:O.Ch0Data
Blue_Smart_IO:O.Ch1Data
Blue Truss Outer
7
Server_01_Data.Coils_0xxx[11]
Red_Smart_IO:O.Ch4Data
Red_Smart_IO:O.Ch5Data
Blue Truss Middle
8
Server_01_Data.Coils_0xxx[12]
Red_Smart_IO:O.Ch2Data
Red_Smart_IO:O.Ch3Data


Blue Truss Inner
9
Server_01_Data.Coils_0xxx[13]
Red_Smart_IO:O.Ch0Data
Red_Smart_IO:O.Ch1Data
10
MOV
Source Red_Processor_Count.ACC
0
Dest Server_01_Data.HoldRegisters_4xxx[1]
0
MOV
Source Blue_Processor_Count.ACC
0
Dest Server_01_Data.HoldRegisters_4xxx[2]
0
(End)

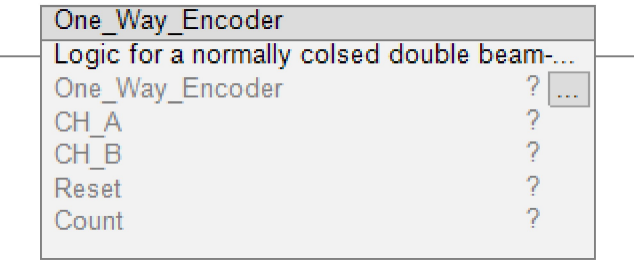
Signature Listing

One_Way_Encoder v1.0

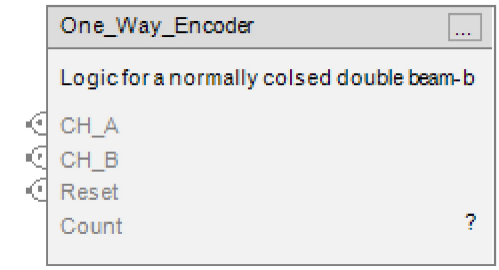
Logic for a normally colsed double beam-break style counter. By Ed Jordan.
Added rollback logic from Lucas Anderson of FIRST.

Available Languages

Relay Ladder



Function Block



Structured Text

```
One_Way_Encoder(CH_A, CH_B, Reset, Count);
```

Parameters

Required	Name	Data Type	Usage	Description
X	One_Way_Encoder	One_Way_Encoder	InOut	Logic for a normally colsed double beam-break style counter. By Ed Jordan. Added rollback logic from Lucas Anderson of FIRST.
	EnableIn	BOOL	Input	
	EnableOut	BOOL	Output	
X	CH_A	BOOL	Input	
X	CH_B	BOOL	Input	
X	Reset	BOOL	Input	
X	Count	COUNTER	InOut	

Extended Description

Execution

Condition	Description
EnableIn is true	

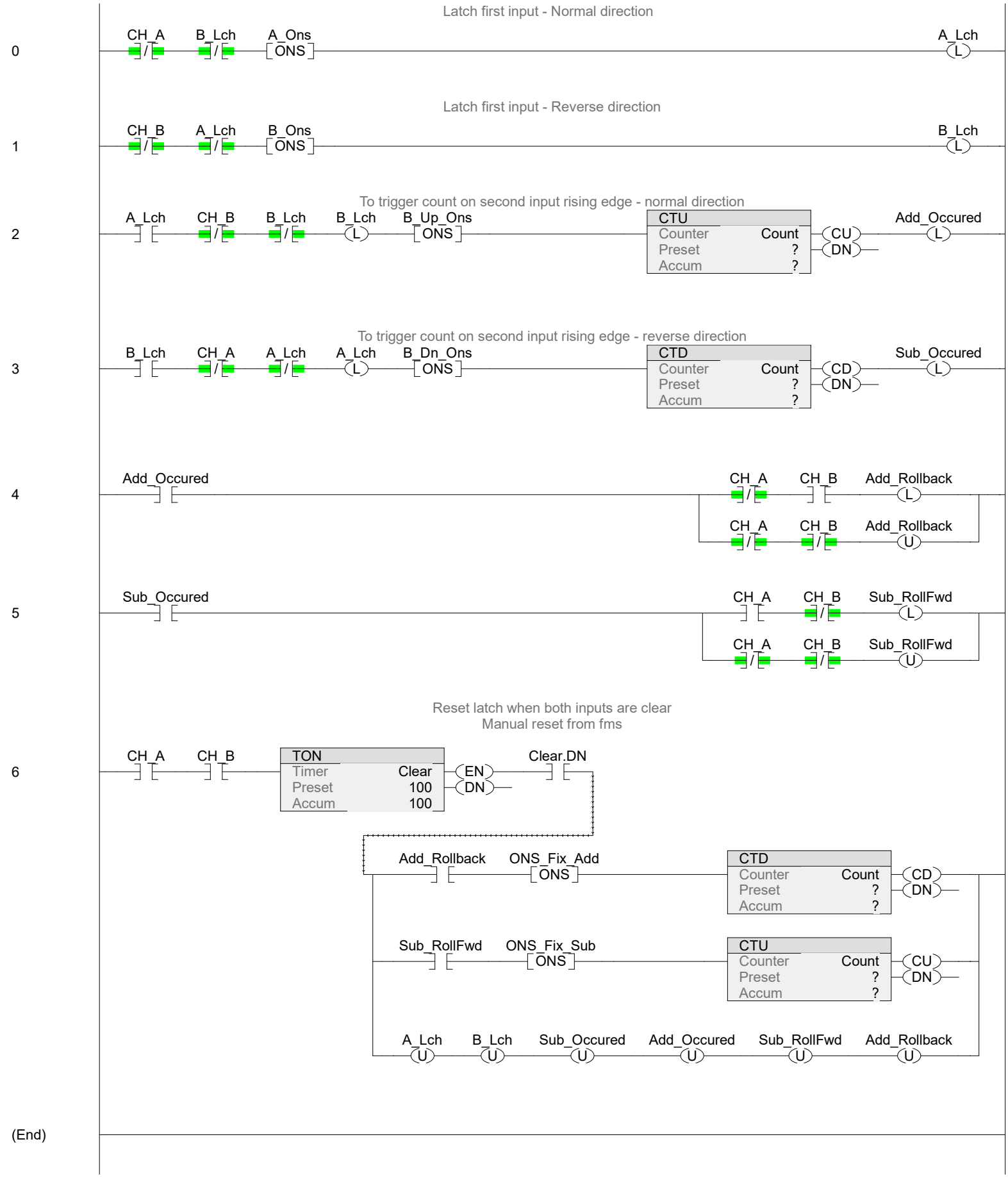
Revision v1.0 Notes

Name	Default	Data Type	Scope
CH_A	0	BOOL	One_Way_Encoder
Usage:	Input Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read/Write		
CH_A - One_Way_Encoder/Logic -	*0(XIO), 3(XIO), 4(XIO), 5(XIC), 5(XIO), 6(XIC)*		
CH_B	0	BOOL	One_Way_Encoder
Usage:	Input Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read/Write		
CH_B - One_Way_Encoder/Logic -	*1(XIO), 2(XIO), 4(XIC), 4(XIO), 5(XIO), 6(XIC)*		
Count		COUNTER	One_Way_Encoder
Usage:	InOut Parameter		
Required:	Yes		
Visible:	Yes		
Constant	No		
Count - One_Way_Encoder/Logic -	**2(CTU), *3(CTD), *6(CTD), *6(CTU)*		

Name	Default	Data Type	Scope
A_Lch	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*A_Lch - One_Way_Encoder/Logic - *0(OTL), *3(OTL), *6(OTU), 1(XIO), 2(XIC), 3(XIO)*			
A_Ons	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*A_Ons - One_Way_Encoder/Logic - *0(ONS)*			
Add_Occured	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*Add_Occured - One_Way_Encoder/Logic - *2(OTL), *6(OTU), 4(XIC)*			
Add_Rollback	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*Add_Rollback - One_Way_Encoder/Logic - *4(OTL), *4(OTU), *6(OTU), 6(XIC)*			
B_Dn_Ons	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*B_Dn_Ons - One_Way_Encoder/Logic - *3(ONS)*			
B_Lch	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*B_Lch - One_Way_Encoder/Logic - *1(OTL), *2(OTL), *6(OTU), 0(XIO), 2(XIO), 3(XIC)*			
B_Ons	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*B_Ons - One_Way_Encoder/Logic - *1(ONS)*			
B_Up_Ons	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*B_Up_Ons - One_Way_Encoder/Logic - *2(ONS)*			
Clear		TIMER	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*Clear - One_Way_Encoder/Logic - *6(TON)*			
Clear.DN	0	BOOL	
Clear.DN - One_Way_Encoder/Logic - 6(XIC)			
ONS_Fix_Add	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*ONS_Fix_Add - One_Way_Encoder/Logic - *6(ONS)*			
ONS_Fix_Sub	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*ONS_Fix_Sub - One_Way_Encoder/Logic - *6(ONS)*			
Sub_Occured	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		
*Sub_Occured - One_Way_Encoder/Logic - *3(OTL), *6(OTU), 5(XIC)*			

Sub_RollFwd	0	BOOL	One_Way_Encoder
Usage:	Local Tag		
External Access:	None		

*Sub_RollFwd - One_Way_Encoder/Logic - *5(OTL), *5(OTU), *6(OTU), 6(XIC)*


Latch first input - Normal direction
CH_A
B_Lch
A_Ons
ONS
A_Lch
L
Latch first input - Reverse direction
CH_B
A_Lch
B_Ons
ONS
B_Lch
L
To trigger count on second input rising edge - normal direction
A_Lch
CH_B
B_Lch
B_Lch
B_Up_Ons
ONS
L
CTU
Counter
Count
Preset
?
Accum
?
CU
DN
Add_Occured
L
To trigger count on second input rising edge - reverse direction
B_Lch
CH_A
A_Lch
A_Lch
B_Dn_Ons
ONS
L
CTD
Counter
Count
Preset
?
Accum
?
CD
DN
Sub_Occured
L
Add_Occured
CH_A
CH_B
Add_Rollback
L
CH_A
CH_B
Add_Rollback
U
Sub_Occured
CH_A
CH_B
Sub_RollFwd
L
CH_A
CH_B
Sub_RollFwd
U
Reset latch when both inputs are clear
Manual reset from fms
CH_A
CH_B
TON
Timer
Clear
Preset
100
Accum
100
EN
DN
Clear.DN
Add_Rollback
ONS_Fix_Add
ONS
CTD
Counter
Count
Preset
?
Accum
?
CD
DN
Sub_RollFwd
ONS_Fix_Sub
ONS
CTU
Counter
Count
Preset
?
Accum
?
CU
DN
A_Lch
U
B_Lch
U
Sub_Occured
U
Add_Occured
U
Sub_RollFwd
U
Add_Rollback
U
(End)

Data type Name: One_Way_Encoder

Description:
Logic for a normally colsed double beam-break style counter. By Ed Jordan.
Added rollback logic from Lucas Anderson of FIRST.

Size: 16 byte(s)

Name	Value	Data Type	Style
EnableIn		BOOL	Decimal
Enable Input - System Defined Parameter			
External Access:	Read Only		
EnableOut		BOOL	Decimal
Enable Output - System Defined Parameter			
External Access:	Read Only		
CH_A		BOOL	Decimal
External Access:	Read/Write		
CH_B		BOOL	Decimal
External Access:	Read/Write		
Reset		BOOL	Decimal
External Access:	Read/Write		

1769 Bus : Local Modules

Local: [0] 1769-L24ER-QBFC1B FRC_CC_2025

Type:	1769-L24ER-QBFC1B CompactLogix™ 5370 Controller	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
Slot:	0	Electronic Keying:	Disabled
Revision:	31.11	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off

Embedded I/O : Local Modules

Local: [1] Embedded Discrete_IO

Type:	Embedded 16 Point 24V DC Sink/Source Input /16 Point 24V DC Source Output	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
Slot:	1	Electronic Keying:	Compatible Keying
Revision:	3.1	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
Use Unicast:	n/a		

Module Defined Configuration Tag	Value	Data Type
Local:1:C		AB:Embedded_DiscreteIO1:C:0
.Filter0OffOn_0	0	BOOL
.Filter0OffOn_1	0	BOOL
.Filter0OffOn_2	0	BOOL
.Filter0OffOn_3	0	BOOL
.Filter0OnOff_4	0	BOOL
.Filter0OnOff_5	0	BOOL
.Filter0OnOff_6	0	BOOL
.Filter0OnOff_7	0	BOOL
.Filter1OffOn_0	0	BOOL
.Filter1OffOn_1	0	BOOL
.Filter1OffOn_2	0	BOOL
.Filter1OffOn_3	0	BOOL
.Filter1OnOff_4	0	BOOL
.Filter1OnOff_5	0	BOOL
.Filter1OnOff_6	0	BOOL
.Filter1OnOff_7	0	BOOL

Ethernet : Local Modules

1732E-16CFGM12/A Red_Driver_station

Type:	1732E-16CFGM12/A EtherNet/IP 16 Point Self-configuring 24VDC	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	10.0.100.41	Electronic Keying:	Disabled
Revision:	1.6	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
RPI:	20 ms	Use Unicast:	Yes

Module Defined Configuration Tag	Value	Data Type
Red_Driver_station:C		AB:1732E_D16:C:0
.FilterOffOn	2000	INT
.FilterOnOff	2000	INT
.FaultMode	0	BOOL
.FaultValue	0	BOOL

.ProgMode	0	BOOL
.ProgValue	0	BOOL

1732E-16CFGM12/A Blue_Driver_station

Type:	1732E-16CFGM12/A EtherNet/IP 16 Point Self-configuring 24VDC	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	10.0.100.42	Electronic Keying:	Disabled
Revision:	1.6	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
RPI:	20 ms	Use Unicast:	Yes

Module Defined Configuration Tag	Value	Data Type
Blue_Driver_station:C		AB:1732E_D16:C:0
.FilterOffOn	2000	INT
.FilterOnOff	2000	INT
.FaultMode	0	BOOL
.FaultValue	0	BOOL
.ProgMode	0	BOOL
.ProgValue	0	BOOL

1732E-8IOLM12R/B Red_Smart_IO

Type:	1732E-8IOLM12R/B 8 Channel IO-Link Master	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	10.0.100.45	Electronic Keying:	Disabled
Revision:	2.1	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
ConnectionName:	OutputData	RPI:	20 ms
Input Type:	Unicast	Input Trigger:	Cyclic
Use Unicast:	n/a		

Module Defined Configuration Tag	Value	Data Type
Red_Smart_IO:C		AB:1732_8IOL1:C:0
.Ch0FaultMode	100	SINT
.Ch0ProgMode	100	SINT
.Ch1FaultMode	100	SINT
.Ch1ProgMode	100	SINT
.Ch2FaultMode	100	SINT
.Ch2ProgMode	100	SINT
.Ch3FaultMode	100	SINT
.Ch3ProgMode	100	SINT
.Ch4FaultMode	100	SINT
.Ch4ProgMode	100	SINT
.Ch5FaultMode	100	SINT
.Ch5ProgMode	100	SINT
.Ch6FaultMode	-1	SINT
.Ch6ProgMode	-1	SINT
.Ch7FaultMode	-1	SINT
.Ch7ProgMode	-1	SINT
.Ch0FilterOffOn	0	SINT
.Ch0FilterOnOff	0	SINT
.Ch1FilterOffOn	0	SINT
.Ch1FilterOnOff	0	SINT
.Ch2FilterOffOn	0	SINT

.Ch2FilterOnOff	0	SINT
.Ch3FilterOffOn	0	SINT
.Ch3FilterOnOff	0	SINT
.Ch4FilterOffOn	0	SINT
.Ch4FilterOnOff	0	SINT
.Ch5FilterOffOn	0	SINT
.Ch5FilterOnOff	0	SINT
.Ch6FilterOffOn	0	SINT
.Ch6FilterOnOff	0	SINT
.Ch7FilterOffOn	0	SINT
.Ch7FilterOnOff	0	SINT
.MasterSyncEnabled	0	BOOL

1732E-8IOLM12R/B Blue_Smart_IO

Type:	1732E-8IOLM12R/B 8 Channel IO-Link Master	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	10.0.100.46	Electronic Keying:	Disabled
Revision:	2.1	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
ConnectionName:	OutputData	RPI:	20 ms
Input Type:	Unicast	Input Trigger:	Cyclic
Use Unicast:	n/a		

Module Defined Configuration Tag	Value	Data Type
Blue_Smart_IO:C		AB:1732_8IOL1:C:0
.Ch0FaultMode	100	SINT
.Ch0ProgMode	100	SINT
.Ch1FaultMode	100	SINT
.Ch1ProgMode	100	SINT
.Ch2FaultMode	100	SINT
.Ch2ProgMode	100	SINT
.Ch3FaultMode	100	SINT
.Ch3ProgMode	100	SINT
.Ch4FaultMode	100	SINT
.Ch4ProgMode	100	SINT
.Ch5FaultMode	100	SINT
.Ch5ProgMode	100	SINT
.Ch6FaultMode	-1	SINT
.Ch6ProgMode	-1	SINT
.Ch7FaultMode	-1	SINT
.Ch7ProgMode	-1	SINT
.Ch0FilterOffOn	4	SINT
.Ch0FilterOnOff	4	SINT
.Ch1FilterOffOn	4	SINT
.Ch1FilterOnOff	4	SINT
.Ch2FilterOffOn	4	SINT
.Ch2FilterOnOff	4	SINT
.Ch3FilterOffOn	4	SINT
.Ch3FilterOnOff	4	SINT
.Ch4FilterOffOn	0	SINT
.Ch4FilterOnOff	0	SINT
.Ch5FilterOffOn	0	SINT
.Ch5FilterOnOff	0	SINT
.Ch6FilterOffOn	0	SINT
.Ch6FilterOnOff	0	SINT
.Ch7FilterOffOn	0	SINT
.Ch7FilterOnOff	0	SINT
.MasterSyncEnabled	0	BOOL

1783-HMS8TG8EG4CGN Red_DS_Switch

Type:	1783-HMS8TG8EG4CG N Stratix 5400 20 Port Switch, 8 copper Gigabit, 8 PoE Gigabit, 4 combo Gigabit	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	10.0.100.48	Electronic Keying:	Compatible Keying
Revision:	5.1	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
RPI:	1000 ms	Use Unicast:	Yes

1783-HMS8TG8EG4CGN Blue_DS_Switch

Type:	1783-HMS8TG8EG4CG N Stratix 5400 20 Port Switch, 8 copper Gigabit, 8 PoE Gigabit, 4 combo Gigabit	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	10.0.100.49	Electronic Keying:	Compatible Keying
Revision:	5.1	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
RPI:	1000 ms	Use Unicast:	Yes