

## Main\_Program [OB1]

### Main\_Program Properties

#### General

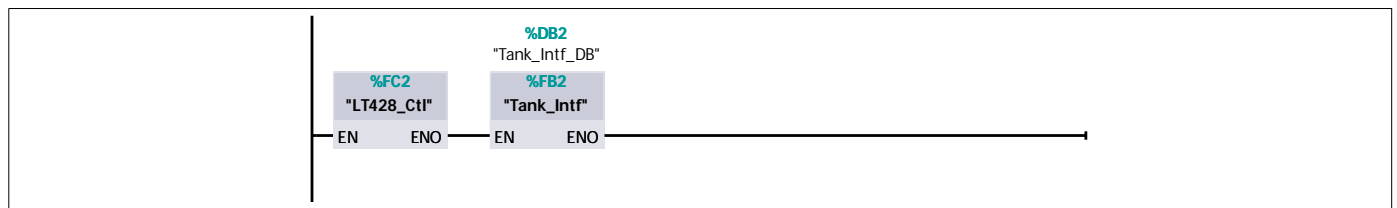
<b>Name</b>	Main_Program	<b>Number</b>	1	<b>Type</b>	OB
<b>Language</b>	LAD	<b>Numbering</b>	Manual		

#### Information

<b>Title</b>	"Main Program Sweep (Cycle)"	<b>Author</b>		<b>Comment</b>	Example 12.4 Copyright 2013 Dogwood Valley Press
<b>Family</b>		<b>Version</b>	0.1	<b>User-defined ID</b>	

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:



## LT428\_Ctl [FC2]

## LT428\_Ctl Properties

## General

Name	LT428_Ctl	Number	2	Type	FC
Language	SCL	Numbering	Manual		

## Information

Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
Input		
Output		
InOut		
Temp		
Constant		
▼ Return		
LT428_Ctl	Void	

```
0001 (* Example 12.3 Simple tank level control *)
0002
0003 (* Copyright 2013 Dogwood Valley Press *)
0004
0005 // Convert analog input to level
0006 "LT428_Val" := (( "LT428_MEAS" - 5530 ) / ( 22118.0 )) * ( 15.0 - 1.0 ) + 1.0;
0007
0008 // Level control: turn on when low, turn off when high.
0009 // If not enabled, always turn off
0010 IF "T428_Cntrl" THEN
0011     IF ( "LT428_Val" < "T428_Min" ) THEN
0012         "XV427_OPEN" := TRUE;
0013     END_IF;
0014     IF ( "LT428_Val" > "T428_Max" ) THEN
0015         "XV427_OPEN" := FALSE;
0016     END_IF;
0017 ELSE
0018     "XV427_OPEN" := FALSE;
0019 END_IF;
```

# R\_TRIG [FB9]

## R\_TRIG Properties

### General

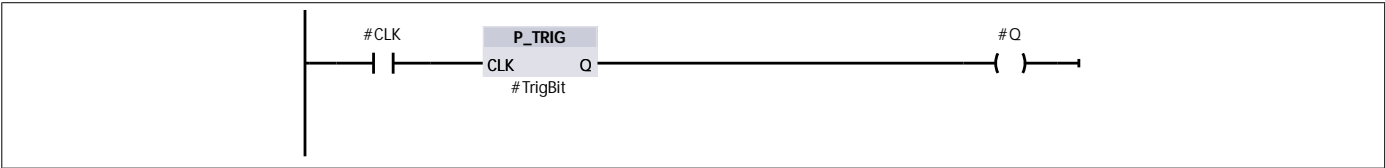
Name	R_TRIG	Number	9	Type	FB
Language	LAD	Numbering	Manual		

### Information

Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Input		
CLK	Bool	false
▼ Output		
Q	Bool	false
InOut		
▼ Static		
TrigBit	Bool	false
Temp		
Constant		

## Network 1:



## Tank\_Intf [FB2]

## Tank\_Intf Properties

## General

Name	Tank_Intf	Number	2	Type	FB
Language	SCL	Numbering	Manual		

## Information

Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
Input		
Output		
InOut		
▼ Static		
HrnTrig	"R_TRIG"	
AckTrig	"R_TRIG"	
T428_Hrn_Act	Bool	false
HrnTrip	Bool	false
Ack_Tmr_En	Bool	false
Ack_Tmr_Q	Bool	false
Ack_Tmr	TON	
Temp		
Constant		

```
0001 // Example 12.4 Simple operator interface/alarm system for tank
0002
0003 // Copyright 2022 Dogwood Valley Press
0004
0005 // Make sure T428_Min is at least 2.1 and no more than 13.4
0006 IF ("T428_Min" < 2.1) THEN
0007     "T428_Min" := 2.1;
0008 END_IF;
0009 IF ("T428_Min" > 13.4) THEN
0010     "T428_Min" := 13.4;
0011 END_IF;
0012 // Calculate max level
0013 "T428_Max" := "T428_Min" + 1.5;
0014 // Low level alarms
0015 "T428_LOLA" := ("LT428_Val" < 4.0);
0016 #T428_Hrn_Act := ("LT428_Val" < 2.0);
0017 // Transitions for level and ack button
0018 #HrnTrig(CLK := #T428_Hrn_Act);
0019 #AckTrig(CLK := "ALM_ACK");
0020 // Trigger horn when level drops below 2.0 or
0021 // stays below 2 for 5 minutes after ack'ed.
0022 IF ((#HrnTrig.Q) OR (#Ack_Tmr.Q)) THEN
0023     "T428_HORN" := TRUE;
0024 ELSE
0025     IF #AckTrig.Q THEN
0026         "T428_HORN" := FALSE;
```

```
0027     END_IF;
0028 END_IF;
0029
0030 // Time level staying below 2 after ack
0031 IF (#AckTrig.Q AND #T428_Hrn_Act) THEN
0032     #Ack_Tmr_En := TRUE;
0033 END_IF;
0034 IF #Ack_Tmr_En AND (NOT #T428_Hrn_Act OR #Ack_Tmr_Q ) THEN
0035     #Ack_Tmr_En := FALSE;
0036 END_IF;
0037 #Ack_Tmr( IN:=#Ack_Tmr_En, PT:=T#5m, Q=>#Ack_Tmr_Q);
0038
```