

OB1 - <offline>

"Main_Program"

Name:

Author:

Time stamp Code:

Lengths (block/logic/data):

Family:

Version: 0.1

Block version: 2

06/26/2011 08:10:52 PM

02/15/1996 04:51:12 PM

00368 00228 00026

Name	Data Type	Address	Comment
TEMP		0.0	
OB1_EV_CLASS	Byte	0.0	Bits 0-3 = 1 (Coming event), Bits 4-7 = 1 (Event class 1)
OB1_SCAN_1	Byte	1.0	1 (Cold restart scan 1 of OB 1), 3 (Scan 2-n of OB 1)
OB1_PRIORITY	Byte	2.0	Priority of OB Execution
OB1_OB_NUMBR	Byte	3.0	1 (Organization block 1, OB1)
OB1_RESERVED_1	Byte	4.0	Reserved for system
OB1_RESERVED_2	Byte	5.0	Reserved for system
OB1_PREV_CYCLE	Int	6.0	Cycle time of previous OB1 scan (milliseconds)
OB1_MIN_CYCLE	Int	8.0	Minimum cycle time of OB1 (milliseconds)
OB1_MAX_CYCLE	Int	10.0	Maximum cycle time of OB1 (milliseconds)
OB1_DATE_TIME	Date_And_Time	12.0	Date and time OB1 started

Block: OB1 "Main Program Sweep (Cycle)"

Example 13.4 - Simple operator interface and alarm for tank level control

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Network: 1

Example 13.3 conversion

```
// Do conversion of transducer reading to level in feet.
L      "LT428_MEAS"
ITD                                // Int to double
DTR                                // double to real
L      5.530000e+003
-R                                          // subtract 5530
L      2.211800e+004
/R                                          // divide by 22118
T      "TmpR"                          // Save for later multiply
L      1.500000e+001
L      1.000000e+000
-R                                          // do 15 - 1
L      "TmpR"
*R                                          // mult by result of first divide
L      1.000000e+000
+R                                          // add 1
T      "LT428_VAL"
```

Network: 2

Example 13.3 control

```
// Control of tank level
L      "LT428_VAL"
L      "T428_MIN"
<R                                // On when drop below minimum
O      "XV427_OPEN"
A(
L      "LT428_VAL"
L      "T428_MAX"
<=R                                // Keep on while <= maximum
)
A      "T428_CNTRL"
=      "XV427_OPEN"
```

Network: 3

```
// Calculate T428 level for operator display
L      "LT428_VAL"
L      1.000000e+001
*R                                // Multiply by 10
RND                                // Round
T      "LT428_DISP"              // Convert to Int
```

Network: 4

```
// Read minimum level from operator display, convert to feet.
L      "LT428_MINDP"
ITD                                // to double int
DTR                                // to real
L      1.000000e+001
/R                                // divide by 10
T      "T428_MIN"
```

Network: 5

```
// Max level is min level + 1.5
L      "T428_MIN"
L      1.500000e+000
+R
T      "T428_MAX"
```

Network: 6 Low level indication

```
// Low alarm lamp when level < 4
L      "LT428_VAL"
L      4.000000e+000
<R
=      "T428_LOLA"
```

Network: 7 Horn active

```
// Level below 2.0 causes horn to be activated
L      "LT428_VAL"
L      2.000000e+000
<R
=      "T428_Hrn_Act"
```

Network: 8

Low level alarm horn

```
// Horn activated when level drops below 2.0 or has remained below 2.0
// for 5 minutes. Acknowledge button silences it.
FP      "Hrn_Ons"
O       "Ack_Tmr".Q
O(
A       "T428_HORN"
AN      "ALM_ACK"
)
=       "T428_HORN"
```

Network: 9

```
// Time level stays below 2.0 after horn acknowledged
A       "ALM_ACK"
O       "Ack_Tmr_En"
A       "T428_Hrn_Act"
AN      "Ack_Tmr".Q
=       "Ack_Tmr_En"
CALL    "TON" , "Ack_Tmr"
IN:="Ack_Tmr_En"
PT:=T#5M
Q :=
ET:=
```