

TECHNICAL DOCUMENTATION

Example 12.3

Project	Example 12.4
Designer	
Application	EXAMPLE_12_3.stu
Software Version	ControlExpert V15.0-SP1
Creation Date	6/16/2023 10:28:26 AM
Last Modification Date	6/16/2023 10:43:04 AM
Target PLC	BMX P34 1000 02.00CPU 340-10 Modbus

MAST

Specific properties

Configuration	Cyclic
Task period configuration	0
Watchdog time configuration	250

Main : [MAST]

120|

1|10|20|30|40|50|60|70|80|90|100|110|

134|

```
1  (* Example 12.3 *)
2  (* Copyright (c) 2023 Dogwood Valley Press, LLC *)
3
4  (* Convert analog input to level *)
5  LT428_Val := (INT_TO_REAL(LT428_MEAS))*(15.0-1.0)/10000.0 + 1.0;
6
7  (* Level control: turn on when low, turn off when *)
8  (*   high. If not enabled, always turn off      *)
9  IF T428_Cntrl THEN
10     IF (LT428_Val < T428_Min) THEN
11         XV427_OPEN := TRUE;
12     END_IF;
13     IF (LT428_Val > T428_Max) THEN
14         XV427_OPEN := FALSE;
15     END_IF;
16 ELSE
17     XV427_OPEN := FALSE;
18 END_IF;
```

FAST

Specific properties

Configuration	Periodic
Task period configuration	5
Watchdog time configuration	100

Cross References

Application:

Addresses

Object	Referred into	Location	Usage
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Variables or FB instances

Object	Referred into	Location	Usage
LT428_MEAS	Main : [MAST]	(l: 5, c: 27)	R
LT428_Val	Main : [MAST]	(l: 10, c: 9)	R
		(l: 13, c: 9)	R
		(l: 5, c: 1)	W
T428_Cntrl	Main : [MAST]	(l: 9, c: 4)	R
T428_Max	Main : [MAST]	(l: 13, c: 21)	R
T428_Min	Main : [MAST]	(l: 10, c: 21)	R
XV427_OPEN	Main : [MAST]	(l: 11, c: 9)	W
		(l: 14, c: 9)	W
		(l: 17, c: 5)	W

EF objects

Object	Referred into	Location	Usage
int_to_real	Main : [MAST]	(l: 5, c: 15)	FC

Cross References

BCD_INT:

Variables or FB instances

Object	Referred into	Location	Usage
dig	BCDToInt <DFB> : [BCD_INT]	(l 25, c: 4)	W
		(l 26, c: 7)	R
		(l 29, c: 25)	R
djunkin	BCDToInt <DFB> : [BCD_INT]	(l 20, c: 2)	W
		(l 25, c: 23)	R
		(l 30, c: 15)	R
		(l 30, c: 4)	W
		(l 35, c: 5)	R
		(l 43, c: 37)	R
errflg	BCDToInt <DFB> : [BCD_INT]	(l 23, c: 2)	W
		(l 27, c: 7)	W
		(l 36, c: 4)	W
		(l 40, c: 5)	R
i	BCDToInt <DFB> : [BCD_INT]	(l 24, c: 6)	R
In_BCD	BCDToInt <DFB> : [BCD_INT]	(l 20, c: 26)	R
mult	BCDToInt <DFB> : [BCD_INT]	(l 21, c: 2)	W
		(l 29, c: 29)	R
		(l 31, c: 12)	R
		(l 31, c: 4)	W
		(l 43, c: 48)	R
Out_Int	BCDToInt <DFB> : [BCD_INT]	(l 22, c: 2)	W
		(l 29, c: 15)	R
		(l 29, c: 4)	W
		(l 41, c: 4)	W
		(l 43, c: 15)	R
		(l 43, c: 4)	W

EF objects

Object	Referred into	Location	Usage
dint_to_int	BCDToInt <DFB> : [BCD_INT]	(l 25, c: 11)	FC
		(l 43, c: 25)	FC
word_to_dint	BCDToInt <DFB> : [BCD_INT]	(l 20, c: 13)	FC

Cross References

INT_BCD:

Variables or FB instances

Object	Referred into	Location	Usage
dig	IntToBCD <DFB> : [INT_BCD]	(l 23, c: 6)	W
		(l 24, c: 27)	R
i	IntToBCD <DFB> : [INT_BCD]	(l 22, c: 8)	R
In_Int	IntToBCD <DFB> : [INT_BCD]	(l 18, c: 7)	R
		(l 18, c: 30)	R
		(l 19, c: 14)	R
junkin	IntToBCD <DFB> : [INT_BCD]	(l 19, c: 4)	W
		(l 23, c: 13)	R
		(l 25, c: 16)	R
		(l 25, c: 6)	W
		(l 32, c: 31)	R
mult	IntToBCD <DFB> : [INT_BCD]	(l 20, c: 4)	W
		(l 24, c: 31)	R
		(l 26, c: 14)	R
		(l 26, c: 6)	W
Out_BCD	IntToBCD <DFB> : [INT_BCD]	(l 17, c: 2)	W
		(l 32, c: 4)	W
out_int	IntToBCD <DFB> : [INT_BCD]	(l 21, c: 4)	W
		(l 24, c: 17)	R
		(l 24, c: 6)	W
		(l 32, c: 59)	R

EF objects

Object	Referred into	Location	Usage
int_to_word	IntToBCD <DFB> : [INT_BCD]	(l 32, c: 19)	FC
		(l 32, c: 47)	FC
rol	IntToBCD <DFB> : [INT_BCD]	(l 32, c: 15)	FC
rol_word	IntToBCD <DFB> : [INT_BCD]	(l 32, c: 15)	FC

Cross References

New_DFB:

Variables or FB instances

Object	Referred into	Location	Usage
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