

# TECHNICAL DOCUMENTATION

## Example 11.1

Project	Example 11.1
Designer	
Application	example_11_1.stu
Software Version	ControlExpert V15.0-SP1
Creation Date	6/16/2023 9:29:08 AM
Last Modification Date	6/16/2023 9:30:52 AM
Target PLC	BMX P34 1000 02.00CPU 340-10 Modbus

## Derived FB Types

Name	Version	Date
<b>MOTOR</b>	1.11	6/26/2011 4:35:12 PM
<b>New_DFB</b>	0.02	7/10/2009 11:26:04 AM

Copyright © 2011 - 2023 Dogwood Valley Press, LLC.	<b>Author:</b>	<b>5 Derived FB Types</b>	<b>Printed on 6/16/2023</b>
	<b>Dept.:</b>		
	<b>Project: Example 11.1</b>		<b>Page: 2/13</b>

# MOTOR

## Properties:

Version:1.1.1

## Descriptive file:

### <inputs>:

Name	Type	Value	Comment
Aux	BOOL	FALSE	Auxiliary contact from motor; when on motor has started
Hoa	BOOL	FALSE	Hand-Off-Auto indication; On when in auto
Ovrlld	BOOL	TRUE	Overload indication; On when motor trip due to overload
Alarm_Reset	BOOL	FALSE	Reset alarms
Man_Mode	BOOL	TRUE	Area maintenance indication for group of equipment
Man_Start	BOOL	FALSE	Area start request
Man_Stop	BOOL	FALSE	Area stop request

### <outputs>:

Name	Type	Value	Comment
Starter	BOOL		To motor starter

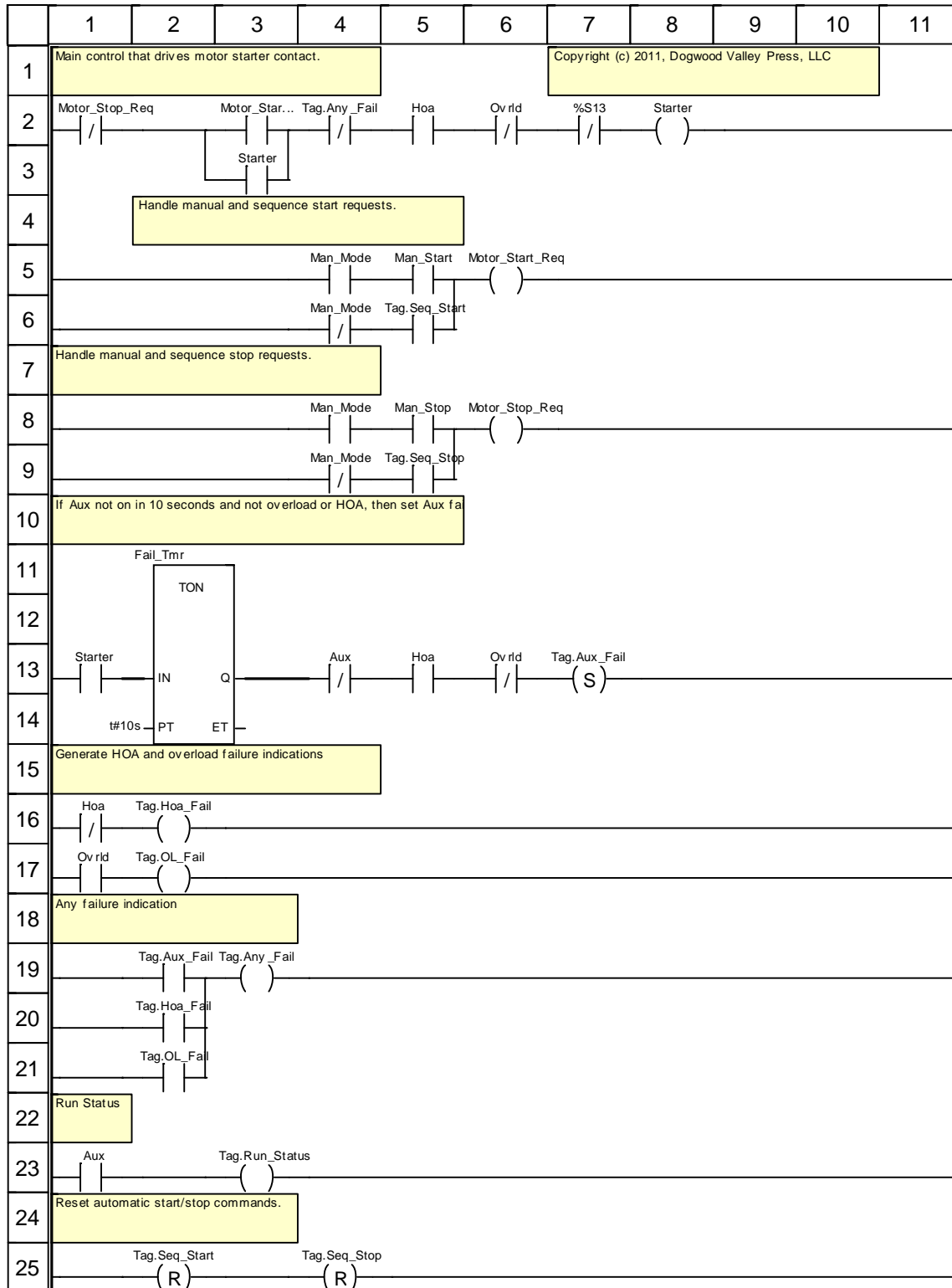
### <inputs/outputs>:

Name	Type	Value	Comment
Tag	Motor_Type		
Run_Status	BOOL		Motor running status
Any_Fail	BOOL		On when any motor failure
Aux_Fail	BOOL		On when aux fails to turn on after motor starts
OL_Fail	BOOL		On when motor overload
HOA_Fail	BOOL		On when HOA switch not in proper position
Seq_Start	BOOL		Sequence start request
Seq_Stop	BOOL		Sequence stop request

### <public>:

None

# MainLD <DFB> : [MOTOR]



	1	2	3	4	5	6	7	8	9	10	11
26	Reset alarm indications										
27	Alarm_Re... Tag.Aux_Fail										
			(R)								

## Truncated labels:

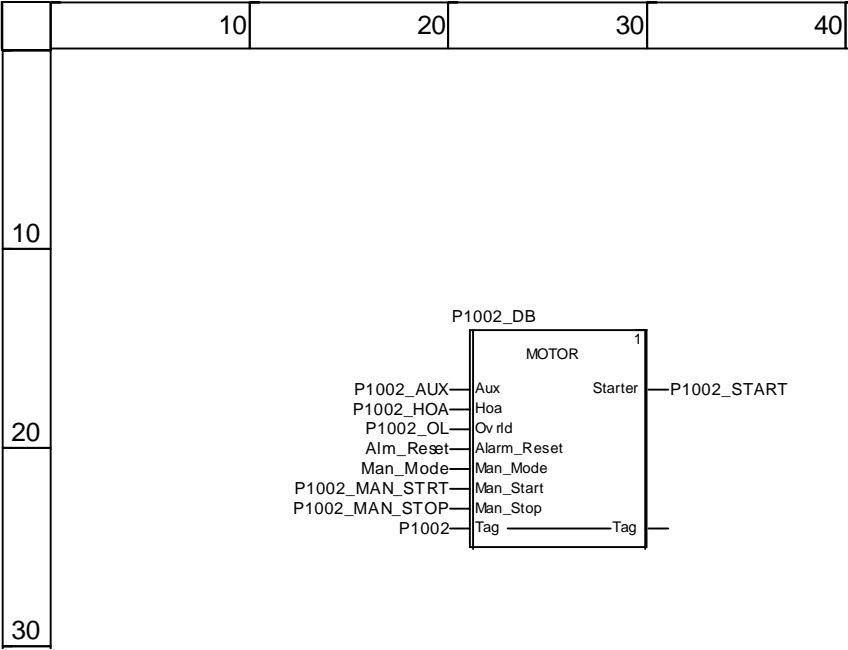
Label	Position(s)
Alarm_Reset	(1, 27)
Motor_Start_Req	(3, 2)

# MAST

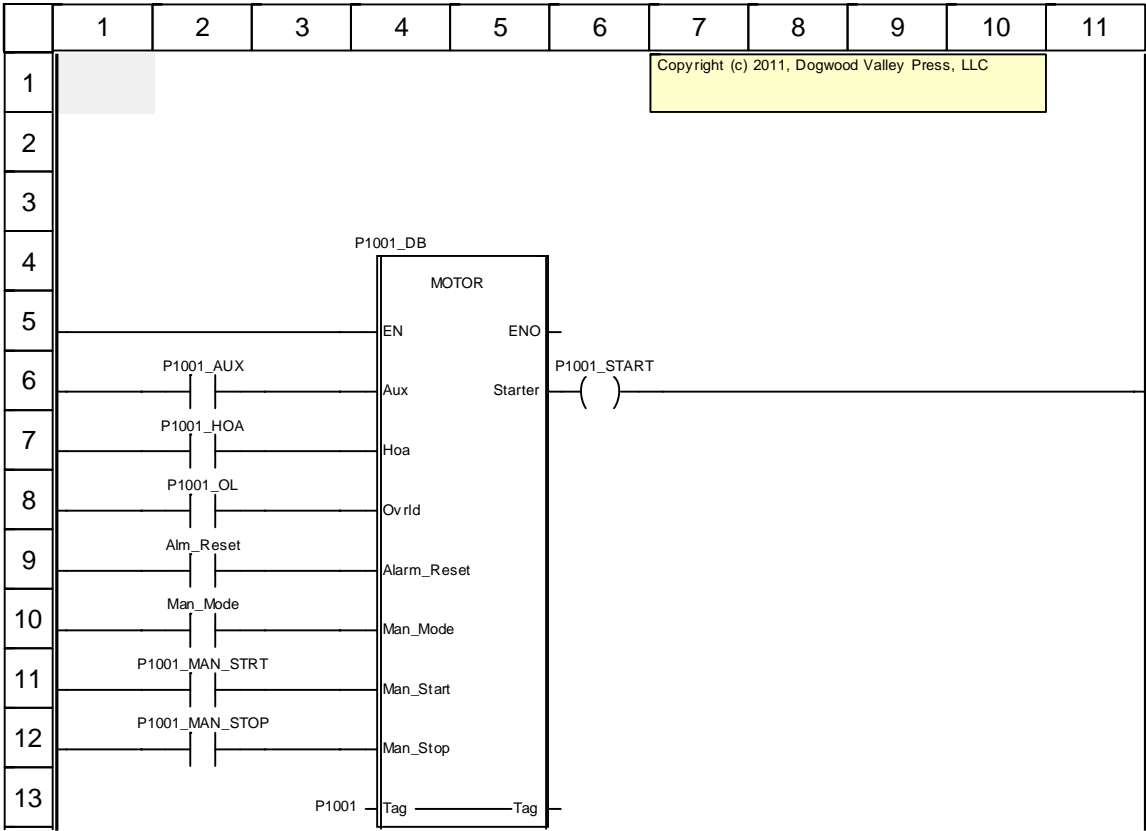
**Specific properties**

Configuration	Cyclic
Task period configuration	0
Watchdog time configuration	250

# FBD\_Call : [MAST]



# MainLD : [MAST]





# 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
Alm_Reset	FBD_Call : [MAST]	(l: 14, c: 21)	R
	MainLD : [MAST]	(l: 9, c: 2)	R
Man_Mode	FBD_Call : [MAST]	(l: 14, c: 21)	R
	MainLD : [MAST]	(l: 10, c: 2)	R
P1001	MainLD : [MAST]	(l: 4, c: 4)	R/W
P1001_AUX	MainLD : [MAST]	(l: 6, c: 2)	R
P1001_DB	MainLD : [MAST]	(l: 4, c: 4)	FC
P1001_HOA	MainLD : [MAST]	(l: 7, c: 2)	R
P1001_MAN_STOP	MainLD : [MAST]	(l: 12, c: 2)	R
P1001_MAN_STRT	MainLD : [MAST]	(l: 11, c: 2)	R
P1001_OL	MainLD : [MAST]	(l: 8, c: 2)	R
P1001_START	MainLD : [MAST]	(l: 6, c: 6)	W
P1002	FBD_Call : [MAST]	(l: 14, c: 21)	R/W
P1002_AUX	FBD_Call : [MAST]	(l: 14, c: 21)	R
P1002_DB	FBD_Call : [MAST]	(l: 14, c: 21)	FC
P1002_HOA	FBD_Call : [MAST]	(l: 14, c: 21)	R
P1002_MAN_STOP	FBD_Call : [MAST]	(l: 14, c: 21)	R
P1002_MAN_STRT	FBD_Call : [MAST]	(l: 14, c: 21)	R
P1002_OL	FBD_Call : [MAST]	(l: 14, c: 21)	R
P1002_START	FBD_Call : [MAST]	(l: 14, c: 21)	W

# Cross References

## MOTOR:

### Addresses

Object	Referred into	Location	Usage
%S13	MainLD <DFB> : [MOTOR]	(I 2, c: 7)	R

### Variables or FB instances

Object	Referred into	Location	Usage
Alarm_Reset	MainLD <DFB> : [MOTOR]	(I 27, c: 1)	R
Aux	MainLD <DFB> : [MOTOR]	(I 13, c: 4)	R
		(I 23, c: 1)	R
Fail_Tmr	MainLD <DFB> : [MOTOR]	(I 11, c: 2)	FC
Hoa	MainLD <DFB> : [MOTOR]	(I 2, c: 5)	R
		(I 13, c: 5)	R
		(I 16, c: 1)	R
Man_Mode	MainLD <DFB> : [MOTOR]	(I 5, c: 4)	R
		(I 6, c: 4)	R
		(I 8, c: 4)	R
		(I 9, c: 4)	R
Man_Start	MainLD <DFB> : [MOTOR]	(I 5, c: 5)	R
Man_Stop	MainLD <DFB> : [MOTOR]	(I 8, c: 5)	R
Motor_Start_Req	MainLD <DFB> : [MOTOR]	(I 2, c: 3)	R
		(I 5, c: 6)	W
Motor_Stop_Req	MainLD <DFB> : [MOTOR]	(I 2, c: 1)	R
		(I 8, c: 6)	W
Ovrld	MainLD <DFB> : [MOTOR]	(I 2, c: 6)	R
		(I 13, c: 6)	R
		(I 17, c: 1)	R
Starter	MainLD <DFB> : [MOTOR]	(I 2, c: 8)	W
		(I 3, c: 3)	R
		(I 13, c: 1)	R
Tag	MainLD <DFB> : [MOTOR]	(I 2, c: 4)	R
		(I 6, c: 5)	R
		(I 9, c: 5)	R
		(I 13, c: 7)	W
		(I 16, c: 2)	W
		(I 17, c: 2)	W
		(I 19, c: 2)	R
		(I 19, c: 3)	W
		(I 20, c: 2)	R
		(I 21, c: 2)	R
		(I 23, c: 3)	W
		(I 25, c: 2)	W
		(I 25, c: 4)	W
		(I 27, c: 2)	W

# Cross References

New\_DFB:

Variables or FB instances

Object	Referred into	Location	Usage
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