

OB1 - <offline>

"Main_Program" This block contains the user program

Name: Cycle **Family:** GetStart

Author: Siemens **Version:** 1.0

Block version: 2

Time stamp Code: 1999 02 11 11:49:29

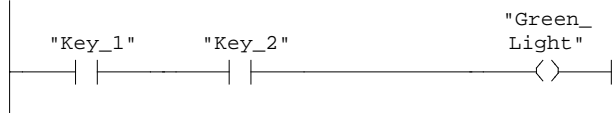
Interface: 1998 09 14 10:09:52

Lengths (block/logic/data): 00472 00346 00026

Name	Data Type	Address	Comment
TEMP		0.0	
OB1_EV_CLASS	Byte	0.0	Bits 0 to 3 = 1 (incoming event), bits 4 to 7 = 1 (event class 1)
OB1_SCAN_1	Byte	1.0	1 (cold restart scan 1 of OB1), 3 (scan 2-n of OB1)
OB1_PRIORITY	Byte	2.0	1 (priority of 1 is lowest)
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 Cyclically Processed Main Program

Network: 1 Connecting in Series

**Symbol information**

I0.1 Key_1 For the series connection

I0.2 Key_2 For the series connection

Q4.0 Green_Light Coil of series connection

Network: 2 Connecting in Parallel

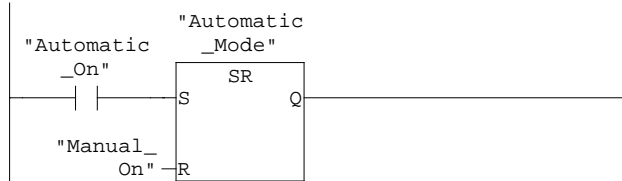
**Symbol information**

I0.3 Key_3 For the parallel connection

I0.4 Key_4 For the parallel connection

Q4.1 Red_Light Coil of the parallel connection

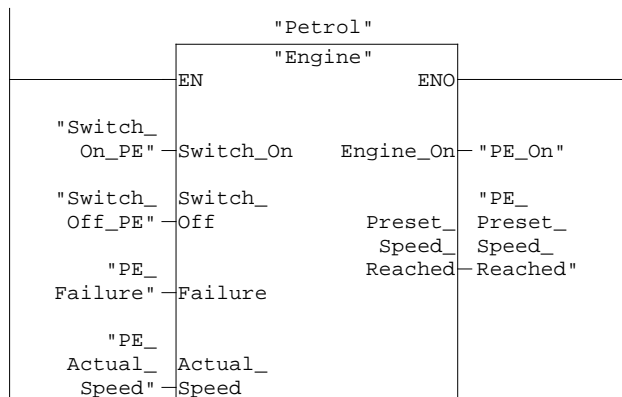
Network: 3 SR (Set, Reset) Memory Function



Symbol information

I0.5	Automatic_On	For the memory function (switch on)
Q4.2	Automatic_Mode	Memory function
I0.6	Manual_On	For the memory function (switch off)

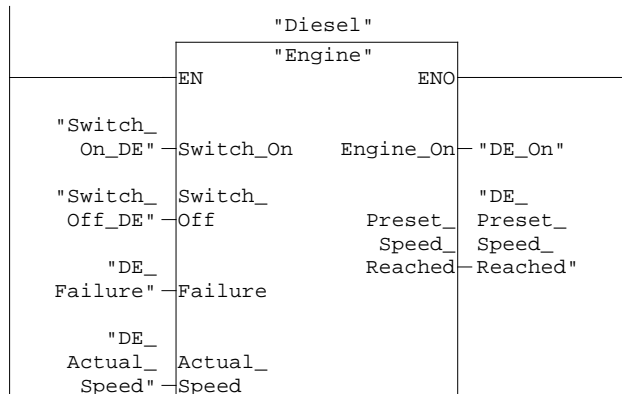
Network: 4 Switching on the Petrol Engine



Symbol information

FB1	Engine	Engine control
DB1	Petrol	Data for petrol engine
I1.0	Switch_On_PE	Switch on petrol engine
I1.1	Switch_Off_PE	Switch off petrol engine
I1.2	PE_Failure	Petrol engine failure
MW2	PE_Actual_Speed	Actual speed for petrol engine
Q5.0	PE_On	Command for switching on petrol engine
Q5.1	PE_Preset_Speed_Reached	Display "Petrol engine preset speed reached"

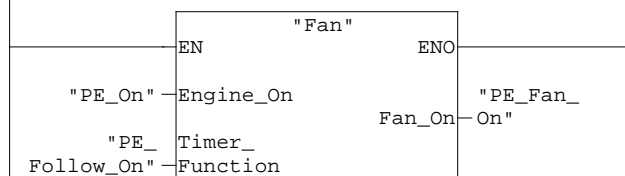
Network: 5 Switching on the Diesel Engine



Symbol information

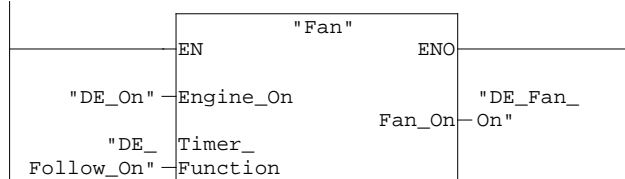
FB1	Engine	Engine control
DB2	Diesel	Data for diesel engine
I1.4	Switch_On_DE	Switch on diesel engine
I1.5	Switch_Off_DE	Switch off diesel engine
I1.6	DE_Failure	Diesel engine failure
MW4	DE_Actual_Speed	Actual speed for diesel engine
Q5.4	DE_On	Command for switching on diesel engine
Q5.5	DE_Preset_Speed_Reached	Display "Diesel engine preset speed reached"

Network: 6 Controlling the Fan for the Petrol Engine

**Symbol information**

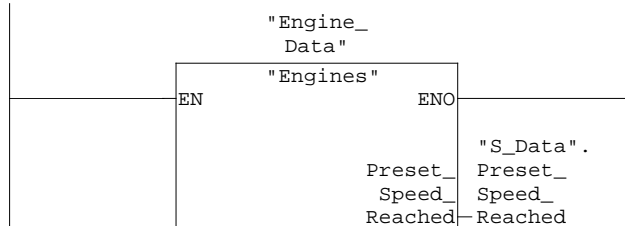
FC1	Fan	Fan control
Q5.0	PE_On	Command for switching on petrol engine
T1	PE_Follow_On	Follow-on time for petrol engine fan
Q5.2	PE_Fan_On	Command for switching on petrol engine fan

Network: 7 Controlling the Fan for the Diesel Engine

**Symbol information**

FC1	Fan	Fan control
Q5.4	DE_On	Command for switching on diesel engine
T2	DE_Follow_On	Follow-on time for diesel engine fan
Q5.6	DE_Fan_On	Command for switching on diesel engine fan

Network: 8 Example of Multiple Instances

**Symbol information**

FB10	Engines	Example of multiple instances
DB10	Engine_Data	Instance data block for FB10
DB3.DBX4.0	"S_Data".Preset_Speed_Reached	Both engines have reached the preset speed

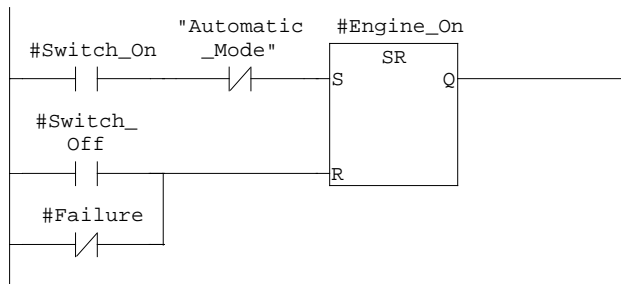
FB1 - <offline>

"Engine" Engine control
Name: ENGINE **Family:** GetStart
Author: Siemens **Version:** 1.0
Block version: 2
Time stamp Code: 1999 02 11 11:49:31
Interface: 1998 10 05 17:35:28
Lengths (block/logic/data): 00154 00044 00000

Name	Data Type	Address	Initial Value	Comment
IN		0.0		
Switch_On	Bool	0.0	FALSE	Switch on engine
Switch_Off	Bool	0.1	FALSE	Switch off engine
Failure	Bool	0.2	FALSE	Engine failure, causes the engine to switch off
Actual_Speed	Int	2.0	0	Actual engine speed
OUT		0.0		
Engine_On	Bool	4.0	FALSE	Engine is switched on
Preset_Speed_Reached	Bool	4.1	FALSE	Preset speed reached
IN_OUT		0.0		
STAT		0.0		
Preset_Speed	Int	6.0	1500	Requested engine speed
TEMP		0.0		

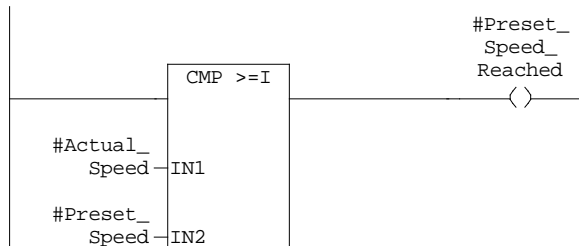
Block: FB1 Function Block for Controlling the Engine

Network: 1 Switching on Engine, Normally Open and Normally Closed Contacts

**Symbol information**

Q4.2 Automatic_Mode Memory function

Network: 2 Monitoring the Speed



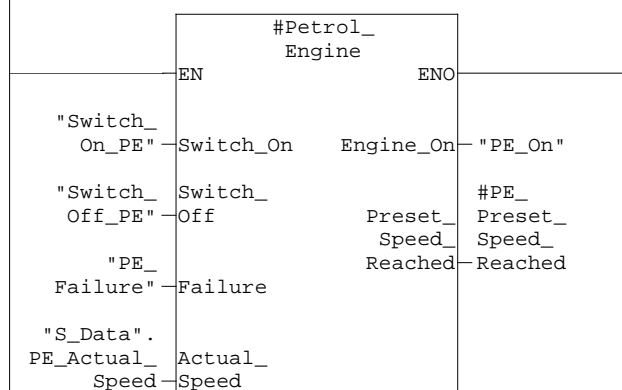
FB10 - <offline>

"Engines" Example of multiple instances
Name: Multiple **Family:** GetStart
Author: Siemens **Version:** 1.0
Block version: 2
Time stamp Code: 1999 02 11 11:49:34
Interface: 1998 10 05 17:35:28
Lengths (block/logic/data): 00392 00246 00010

Name	Data Type	Address	Initial Value	Comment
IN		0.0		
OUT		0.0		
Preset_Speed_Reached	Bool	0.0	FALSE	Both engines have reached the preset speed
IN_OUT		0.0		
STAT		0.0		
Petrol_Engine	Engine	2.0		First local instance of FB1 "Engine"
Diesel_Engine	Engine	10.0		Second local instance of FB1 "Engine"
TEMP		0.0		
PE_Preset_Speed_Reached	Bool	0.0		Preset speed reached (petrol engine)
DE_Preset_Speed_Reached	Bool	0.1		Preset speed reached (diesel engine)

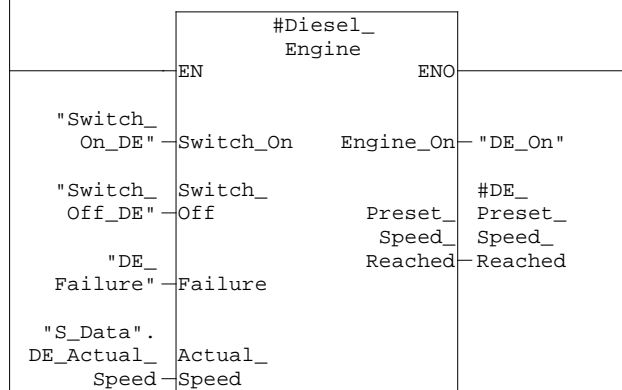
Block: FB10 Example of Multiple Instances

Network: 1 Switching on the Petrol Engine

**Symbol information**

I1.0	Switch_On_PE	Switch on petrol engine
I1.1	Switch_Off_PE	Switch off petrol engine
I1.2	PE_Failure	Petrol engine failure
DB3.DBW0	"S_Data".PE_Actual_Speed	Actual speed for petrol engine
Q5.0	PE_On	Command for switching on petrol engine

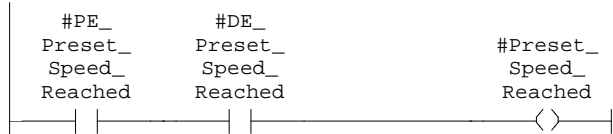
Network: 2 Switching on the Diesel Engine



Symbol information

I1.4	Switch_On_DE	Switch on diesel engine
I1.5	Switch_Off_DE	Switch off diesel engine
I1.6	DE_Failure	Diesel engine failure
DB3.DBW2	"S_Data".DE_Actual_Speed	Actual speed for diesel engine
Q5.4	DE_On	Command for switching on diesel engine

Network: 3 Reaching the Preset Speed for both Engines



FC1 - <offline>

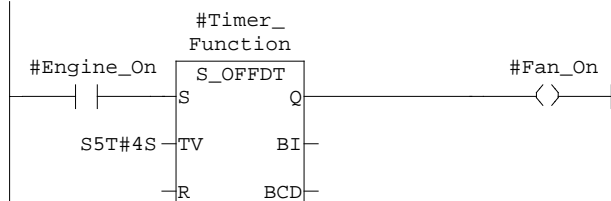
"Fan" Fan control

Name: FAN **Family:** GetStart**Author:** Siemens **Version:** 1.0**Block version:** 2**Time stamp Code:** 1999 02 11 11:49:36**Interface:** 1998 10 05 17:35:28**Lengths (block/logic/data):** 00126 00028 00000

Name	Data Type	Address	Comment
IN		0.0	
Engine_On	Bool	0.0	Signal for switching on the engine
Timer_Function	Timer	2.0	Timer function used for the switch-off delay
OUT		0.0	
Fan_On	Bool	4.0	Signal for switching on the fan
IN_OUT		0.0	
TEMP		0.0	
RETURN		0.0	
RET_VAL		0.0	

Block: FC1 Function for Controlling the Fan

Network: 1 Controlling the fan



DB1 - <offline>**Data view**

"Petrol"

Data for petrol engine

Data block type: Instance data block for FB1

Name: Petrol **Family:** GetStart
Author: Siemens **Version:** 1.0
Block version: 2

Lengths (Block / Data): 00110 / 00008**Time stamp****Code:** 1999 02 11 11:49:39**Interface:** 1998 10 05 17:35:28

Comment:

Address	Declaration	Name	Type	Initial value	Actual value	Comment
0.0	in	Switch_On	BOOL	FALSE	FALSE	Switch on engine
0.1	in	Switch_Off	BOOL	FALSE	FALSE	Switch off engine
0.2	in	Failure	BOOL	FALSE	FALSE	Engine failure, causes the engine to switch off
2.0	in	Actual_Speed	INT	0	0	Actual engine speed
4.0	out	Engine_On	BOOL	FALSE	FALSE	Engine is switched on
4.1	out	Preset_Speed_Reached	BOOL	FALSE	FALSE	Preset speed reached
6.0	stat	Preset_Speed	INT	1500	1500	Requested engine speed

DB2 - <offline>**Data view**

"Diesel"

Data for diesel engine

Data block type: Instance data block for FB1

Name: Diesel **Family:** GetStart
Author: Siemens **Version:** 1.0
Block version: 2

Lengths (Block / Data): 00110 / 00008**Time stamp****Code:** 1999 02 11 11:49:41**Interface:** 1998 10 05 17:35:28

Comment:

Address	Declaration	Name	Type	Initial value	Actual value	Comment
0.0	in	Switch_On	BOOL	FALSE	FALSE	Switch on engine
0.1	in	Switch_Off	BOOL	FALSE	FALSE	Switch off engine
0.2	in	Failure	BOOL	FALSE	FALSE	Engine failure, causes the engine to switch off
2.0	in	Actual_Speed	INT	0	0	Actual engine speed
4.0	out	Engine_On	BOOL	FALSE	FALSE	Engine is switched on
4.1	out	Preset_Speed_Reached	BOOL	FALSE	FALSE	Preset speed reached
6.0	stat	Preset_Speed	INT	1500	1200	Requested engine speed

DB3 - <offline> - Declaration view

"S_Data" Shared data block
Global data block DB 3
Name: S_Data **Family:** GetStart
Author: Siemens **Version:** 1.0
Block version: 2
Time stamp Code: 1999 02 11 11:49:44
Interface: 1998 10 05 17:35:28
Lengths (block/logic/data): 00100 00006 00000

Block: DB3

Address	Name	Type	Initial value	Comment
0.0		STRUCT		
+0.0	PE_Actual_Speed	INT	0	Actual speed for petrol engine
+2.0	DE_Actual_Speed	INT	0	Actual speed for diesel engine
+4.0	Preset_Speed_Reached	BOOL	FALSE	Both engines have reached the preset speed
=6.0		END_STRUCT		

DB10 - <offline>**Data view**

"Engine_Data"

Instance data block for FB10

Data block type:

Instance data block for FB10

Name: MI_Data **Family:** GetStart
Author: Siemens **Version:** 1.0
Block version: 2

Lengths (Block / Data): 00154 / 00018

Time stamp

Code: 1999 02 11 11:49:47

Interface: 1998 10 05 17:35:28

Comment:

Address	Declaration	Name	Type	Initial value	Actual value	Comment
0.0	out	Preset_Speed_Reached	BOOL	FALSE	FALSE	Both engines have reached the preset speed
2.0	stat:in	Petrol_Engine.Switch_On	BOOL	FALSE	FALSE	Switch on engine
2.1	stat:in	Petrol_Engine.Switch_Off	BOOL	FALSE	FALSE	Switch off engine
2.2	stat:in	Petrol_Engine.Failure	BOOL	FALSE	FALSE	Engine failure, causes the engine to switch off
4.0	stat:in	Petrol_Engine.Actual_Speed	INT	0	0	Actual engine speed
6.0	stat:out	Petrol_Engine.Engine_On	BOOL	FALSE	FALSE	Engine is switched on
6.1	stat:out	Petrol_Engine.Preset_Speed_Reached	BOOL	FALSE	FALSE	Preset speed reached
8.0	stat	Petrol_Engine.Preset_Speed	INT	1500	1500	Requested engine speed
10.0	stat:in	Diesel_Engine.Switch_On	BOOL	FALSE	FALSE	Switch on engine
10.1	stat:in	Diesel_Engine.Switch_Off	BOOL	FALSE	FALSE	Switch off engine
10.2	stat:in	Diesel_Engine.Failure	BOOL	FALSE	FALSE	Engine failure, causes the engine to switch off
12.0	stat:in	Diesel_Engine.Actual_Speed	INT	0	0	Actual engine speed
14.0	stat:out	Diesel_Engine.Engine_On	BOOL	FALSE	FALSE	Engine is switched on
14.1	stat:out	Diesel_Engine.Preset_Speed_Reached	BOOL	FALSE	FALSE	Preset speed reached
16.0	stat	Diesel_Engine.Preset_Speed	INT	1500	1200	Requested engine speed