

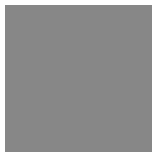
BALLUFF

Software- Description

Identification-Systeme BIS

Sample program S7-300/400 Profinet

with BIS M-4008



Sample Program Description for BIS M-4008

1 BIS M SAMPLE PROGRAMM

The S7 project „**BIS_M4008_Sample**“ contains in FB10 an example call of FB31 for BIS M4008. Configured is a S7 CPU 315-2PN/DP. I/O module length 64 Byte, Periphery HW start address: E/A 256. All FB 31 input parameters are set suitable to hardware configuration. The FB is initialized automatically by the program. The memory bit M100.0 „BIS M Init“ is set in the OB100 at PLC startup. For controlling the example, the variable table „VAT_BIS_M4008_IB“ is available.

1.1 Sample functions

The following commandos are supported in the demo program:

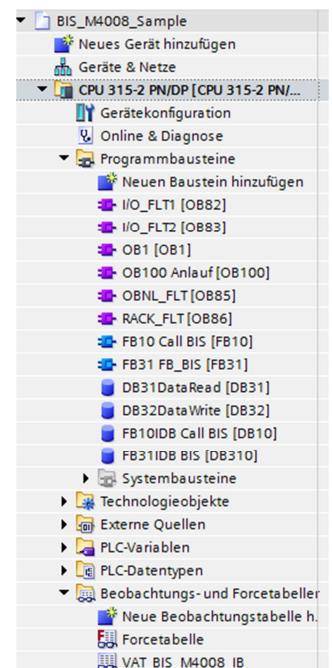
- Read data carrier (USER-data)
- Write data carrier (USER-data)
- Store Auto Read start address
- Type and serial number
- Initialize CRC_16 data check
- Write constant value to data carrier

ATTENTION

Please test carefully if the used commandos are supported by the processor and the read/write head! The maximum read/write length of the FB is 32,767 byte.

1.2 General Data

Program name:	BIS_M4008_Sample
Invoked blocks:	FB10, FB31, SFB4 TON
Reserved memory bits:	MW100-128
Reserved Timers:	none
Reserved Counters:	none
Configured I/O Range	64 Byte
Invoke:	absolute
Device compatibility:	Siemens Simatic® S7-300 CPU 315 2PN/DP with TIA-Portal V13SP1



Sample Program Description for BIS M-4008

1 BIS M SAMPLE PROGRAMM

1.3 Control and watch options with the variable table

Description of FB input parameters:

- „M100.1 BIS M Start“ starts commando
- „M100.2 BIS M ProcReset“ resets processor and FB
- „M100.3 BIS M HeadOff“ disables the R/W head
- „M100.4 Default BIS M“ sets FB parameters to default values
- „MW104 CommandNo“ pretends the actual command
- „MW106 BIS M Offset Send“ Offset in send data block
- „MW108 BIS M Offset Rece“ Offset in receive data block
- „MW110 TAG_StartAddr“ pretends start address
- „MW114 TAG_NumbOfByte“ pretends number of bytes to read/write

...N/DP [CPU 315-2 PN/DP] ▶ Beobachtungs- und Forcetabellen ▶ VAT_BIS_M4008_IB					
	Name	Adresse	Anzeigeformat	Beobachtungs...	Steuervert
1	// FB input parameter bit				
2	"M100.1 BIS M Start"	%M100.1	BOOL		TRUE
3	"M100.2 BIS M ProcReset"	%M100.2	BOOL		FALSE
4	"M100.3 BIS M HeadOff"	%M100.3	BOOL		FALSE
5	"M100.4 Default BIS M"	%M100.4	BOOL		
6	// FB input parameter word				
7	// CommandoNo: 1 Read, 2 Write, 7 Store "Auto Read" addr., 9 Typ and serial, 12 CRC init,				
8	"MW104 CommandNo"	%MW104	Hex		16#0001
9	"MW106 BIS M Offset Send"	%MW106	DEZ+/-		0
10	"MW108 BIS M Offset Rece"	%MW108	DEZ+/-		0
11	"MW110 TAG_StartAddr"	%MW110	DEZ+/-		0
12	// ! DB length == maximum number of byte == 2047 byte!				
13	"MW114 TAG_NumbOfByte"	%MW114	DEZ+/-		2047
14	// FB output parameter bit				
15	"M101.0 BIS M Ready"	%M101.0	BOOL		
16	"M101.1 BIS M Error"	%M101.1	BOOL		
17	"M101.3 BIS M DatCarrPres"	%M101.3	BOOL		
18	// FB output parameter words				
19	"MW122 BIS M ErrorCode"	%MW122	Hex		

Description of FB output parameters:

- „M101.0 BIS M Ready“ job or reset done
- „M101.1 BIS M Error“ job done with errors
- „M101.3 BIS M DataCarrPres“ data carrier present
- „MW122 BIS M ErrorCode“ error number processor and FB



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1 BIS M SAMPLE PROGRAMM

1.4 Disclaimer of Liability sample program:

This demo program is free of charge and is a universal application example. This demo program shall help program and configure PLC applications and shall provide possible solutions.

The user is not entitled to claim for warranty, error correction and updates. In particular there is excluded any claims against Balluff GmbH for damages that might result from the use of this demo program. Excluded from this limitation of liability shall be (a) those damages that are based on injury to life, limb or health, (b) a liability according to the Produkthaftungsgesetz (German Product Liability Law) and (c) cases of willful intent.

Please check if the demo program is intended for your application before adapting it in plants and machineries.

By using the S7 sample, made available free of charge you accept the limitation of warranty and liability!

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Valid from function block version 1.2 • C17; Subject to change.