

# Motion Coordinator Application Note

Number:MC-1012, Revision 2, 2/28/2007  
Subject: Using the Profibus Daughter Board

---

## *Introduction*

## *Scope of Operation*

**This document applies to the BASIC program developed for Motion Coordinator types MC204, MC216 and Euro205. The program is provided for evaluation and example purposes and no guarantee is made as to its suitability for a particular Profibus application.**

In order to include the Motion Coordinator in a Profibus network the following components are required:

1. MC BASIC program P297DRxxx.bas (where xxx is the version number of the program)
2. Profibus GSD file; MC0595.GSD. (Electronic Data Sheet for COM PROFIBUS)
3. This Document.
4. Motion Perfect and serial programming cable.

## *Installation and Set-up*

1. MC BASIC program.

The program must be loaded into the Motion Coordinator and set to run from power-up. Set the "node" variable in the program to the required Profibus Address for the Motion Coordinator. Make sure the "db" variable is set to the slot number of the Profibus Daughter Board.

Once the SPC3 chip on the daughter board is initialised, the software is very efficient at transferring data in and out. In the MC204, however, a process number of 4 or 5 is recommended for optimum running. When using the MC216 and Euro205, a low process number may be used with little impact on processing speed.

2. Profibus GSD File.

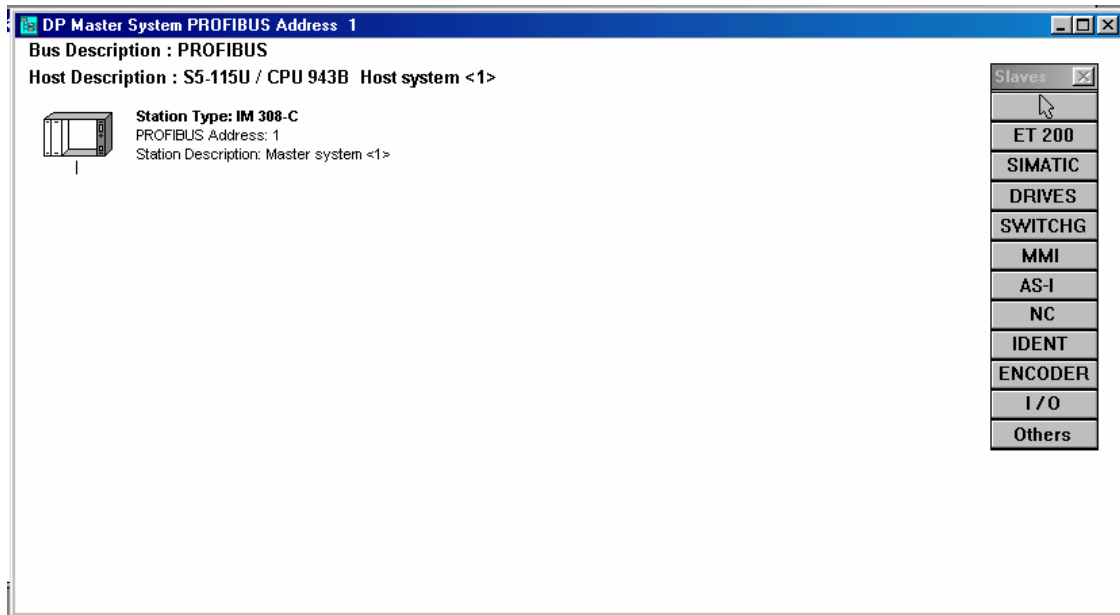
The GSD file supplied (MC0595.GSD) must be copied to the GSD folder used by COM PROFIBUS or the equivalent Profibus configuration tool supplied by the PLC vendor. The Motion Coordinator can then be added to the Profibus network by selecting OTHER and P297 Motion Coordinator from the list.

# Motion Coordinator Application Note

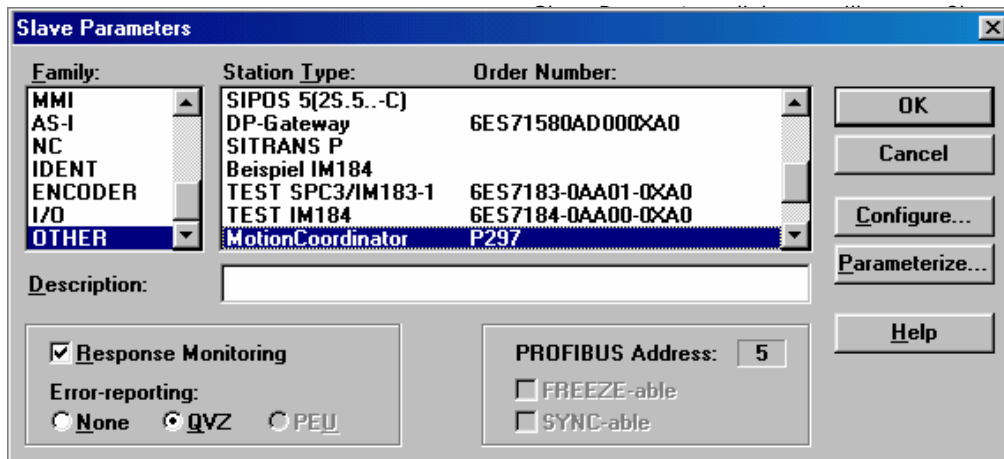
Number:MC-1012, Revision 2, 2/28/2007  
Subject: Using the Profibus Daughter Board

The following sequence shows how to include the Motion Coordinator in a fieldbus network using COM PROFIBUS.

1. Launch the window shown below and click on Others.



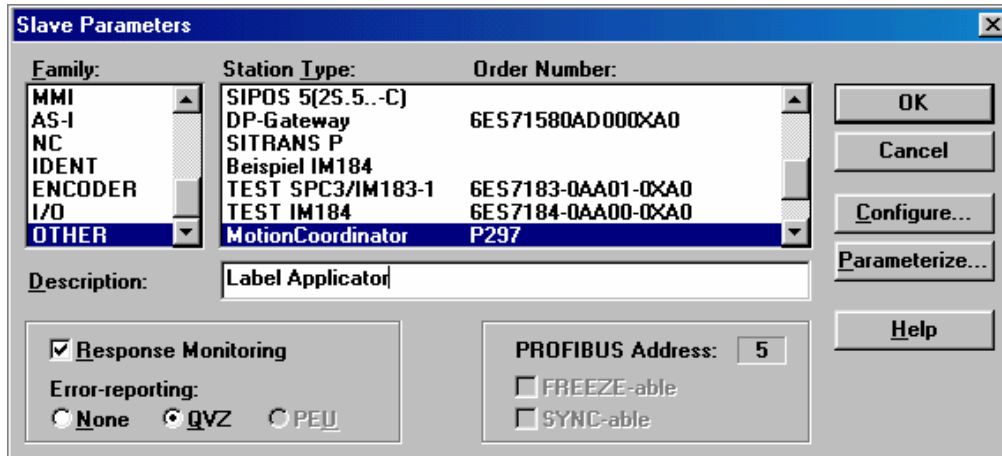
2. Add the Box Icon to the network on the left and the Motion



# Motion Coordinator Application Note

Number:MC-1012, Revision 2, 2/28/2007  
Subject: Using the Profibus Daughter Board

3. Add your own description in the text box like this:



The 'Slave Parameters' dialog box is shown with the following configuration:

Family:	Station Type:	Order Number:
MMI	SIPOS 5(2S.5..-C)	
AS-I	DP-Gateway	6ES71580AD000XA0
NC	SITRANS P	
IDENT	Beispiel IM184	
ENCODER	TEST SPC3/IM183-1	6ES7183-0AA01-0XA0
I/O	TEST IM184	6ES7184-0AA00-0XA0
<b>OTHER</b>	<b>MotionCoordinator</b>	<b>P297</b>

Description: Label Applicator

Response Monitoring

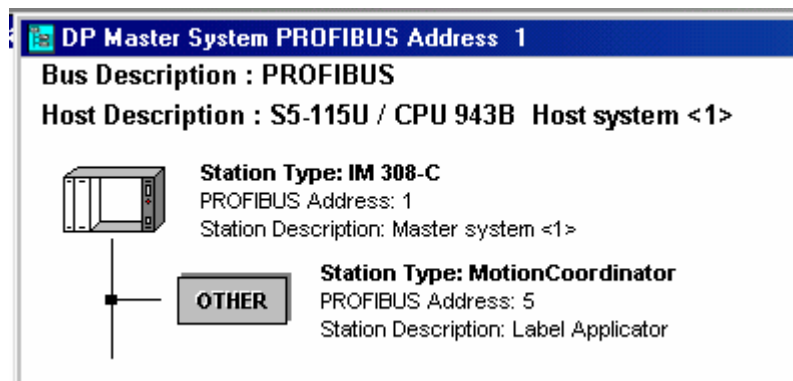
Error-reporting:  
 None  QVZ  PEU

PROFIBUS Address: 5

FREEZE-able  
 SYNC-able

Buttons: OK, Cancel, Configure..., Parameterize..., Help

4. Click OK and the Motion Coordinator will appear on the diagram like this:



Now add any other nodes to the network that are required and close the window. Finally export the file in the required format, usually Binary, for use by the PLC or other Profibus Master. The master will now search for the Motion Coordinator blocks on the Profibus network and when found will connect to it and start transferring the variable blocks.

# Motion Coordinator Application Note

Number:MC-1012, Revision 2, 2/28/2007  
Subject: Using the Profibus Daughter Board

---

## *MC BASIC Program Settings*

```
'=====
' DESCRIPTION:
' Profibus driver for Cyclic Data Transfer
' This program sets up the SPC3 chip for transfer of 16 integers from
' master and 16 integers to master on a cyclic basis as determined by
' master unit.
' Variables:
'   VR(20) to VR(35) : Data TO master (16bit int)
'   VR(36) to VR(51) : Data FROM master (16bit int)
'
' V1.00: 08/01/2001 Beta Release includes full 16+16 VR transfer
'
restart:
RESET
node = 5           <--- Set this to the required Profibus Address
debug = TRUE

GOSUB user_dps_reset

REPEAT
  GOSUB dps2_ind
  IF timeout_flag=TRUE THEN GOTO restart
UNTIL FALSE
STOP

user_dps_reset:

db=0 'Daughter Board slot number <--- Set to the slot number where the board
      is fitted (0 to 3)

' Hardware reset SPC3:
```

# Motion Coordinator Application Note

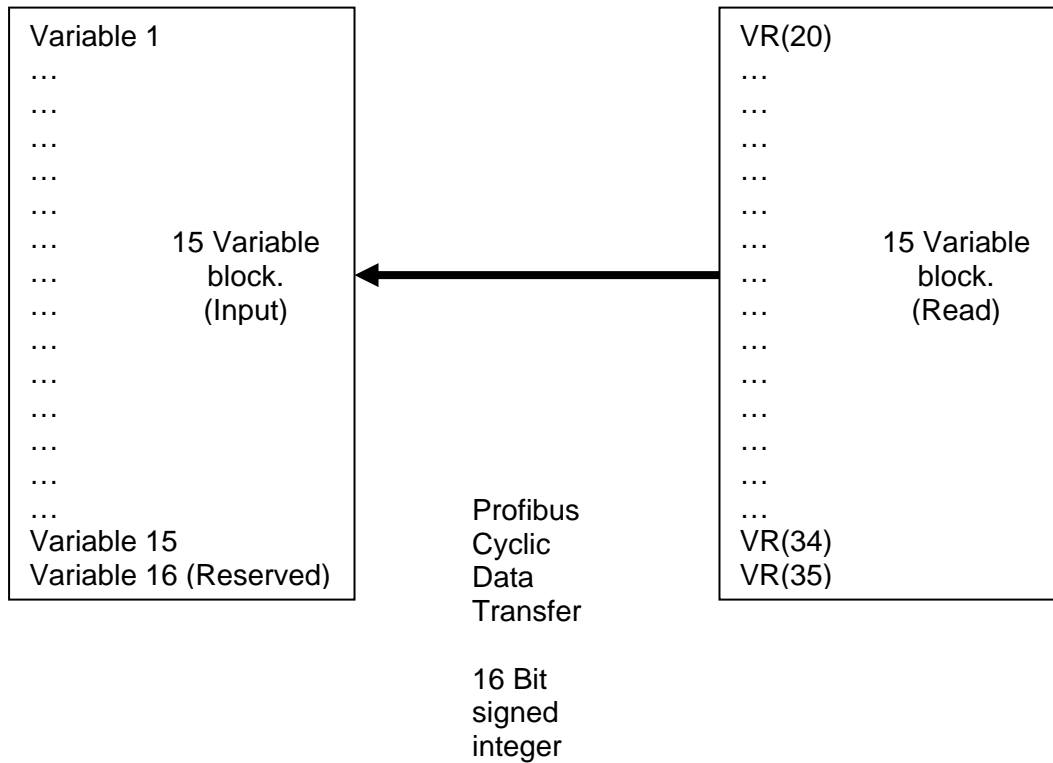
Number:MC-1012, Revision 2, 2/28/2007  
Subject: Using the Profibus Daughter Board

## Appendix I

### Data Transfer Diagram

#### Master (PLC)

#### Motion Coordinator



# Motion Coordinator Application Note

Number:MC-1012, Revision 2, 2/28/2007  
Subject: Using the Profibus Daughter Board

---

