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# Application Note

## C002 Profibus Acyclic Parameter Write Call Example

HA502487C002 Issue A

AC30 V1.1 onwards

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## Requirements

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### **Intended Users**

This Application Note is to be made available to all persons who are required to install, configure or service equipment described herein, or any other associated operation.

The information given is intended to enable the user to obtain maximum benefit from the equipment.

### **Application Area**

The equipment described is intended for industrial motor speed control utilising AC induction or AC synchronous machines.

### **Personnel**

Installation, operation and maintenance of the equipment should be carried out by qualified personnel. A qualified person is someone who is technically competent and familiar with all safety information and established safety practices; with the installation process, operation and maintenance of this equipment; and with all the hazards involved.

### **Hazards**

Refer to the Safety Information given at the front of the Product Manual supplied with every Parker SSD Drives product.

# C002 PROFIBUS ACYCLIC PARAMETER WRITE CALL EXAMPLE

## Abstract

This application note gives an example of using the Profibus communication option to perform an acyclic DP-V1 write to a parameter.

## Pre-Requisite

The pre-requisites are an AC30 drive and a Profibus communications option connected to a Siemens Step-7 PLC.

## Introduction

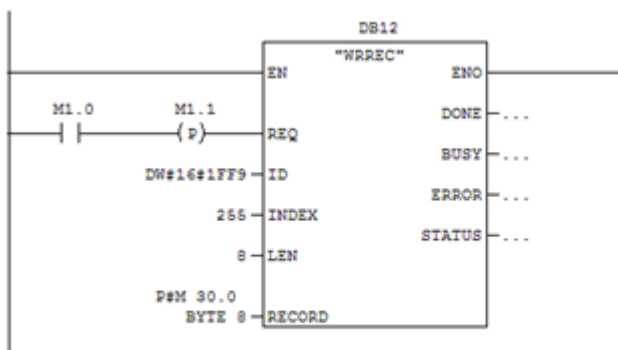
The AC30 Profibus communications option allows data to be transferred between the AC30 drive and PLC either cyclically as process data, or acyclically using a DP-V1 read or write. For acyclic reads and writes the AC30 Profibus option uses a special Read Call or Write Call. An example Write Call is provided.

For more information see the Profibus DP-V1 Communications Option HA501837U001.

## Example Write Call

In this example the AC30 parameter being written to is **0627** Comms Control Word, and a value of **16#ABCD** is being written (2 bytes).

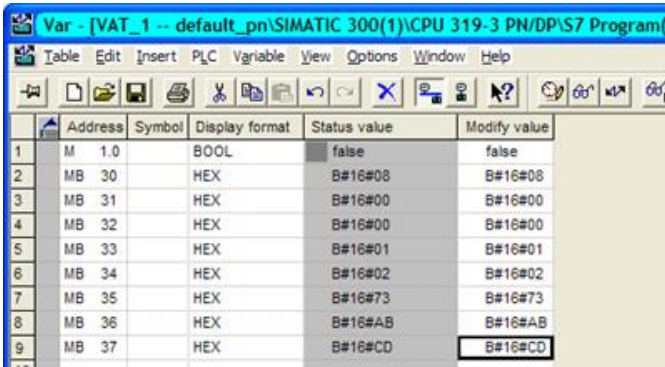
First use the WRREC function:



- The input ID is set to the Diagnostic Address, in this case 8185 (16#1FF9), representing slot 0.
- The input Index is *always* 255.
- The input LEN is set to the size of the record. As a write to a parameter is being performed this will be 6+n, where n is the number of the bytes of the parameter being written to. As the parameter Comms Control Word is 2 bytes, LEN will be set to 8.

The record M30-M37 should be set to the values shown below:

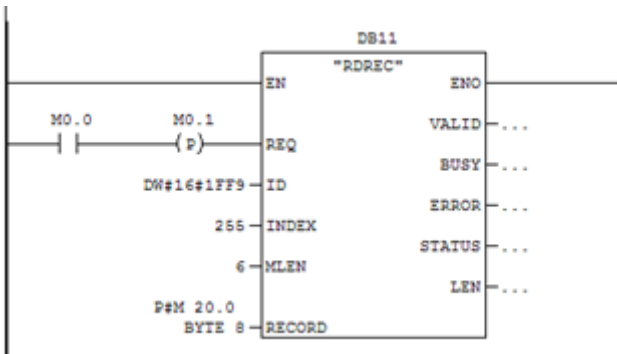
08h	00h	00h	01h	02h	73h	ABh	CDh
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- The parameter number we are writing to is 627 (16#0273). This is stored in MB34 and MB35.
- The value being written is 16#ABCD. This is stored in MB36 and MB37.

To initiate a write request make sure M1.0 is FALSE, and then set to TRUE. The value should then be written to the parameter in the drive.

Use the RDREC to check for the response:



Set up the RDREC in a similar way to the WRREC above. This time the length of the response record is 6 bytes in MB20 to MB25.

To initiate a read request make sure M0.0 is FALSE, and then set to TRUE. The RDREC REQ input could be triggered from the WRREC DONE output. The record will then get populated with the response as below.

11	M	0.0	BOOL	true	false
12	MB	20	HEX	B#16#08	
13	MB	21	HEX	B#16#00	
14	MB	22	HEX	B#16#00	
15	MB	23	HEX	B#16#01	
16	MB	24	HEX	B#16#02	
17	MB	25	HEX	B#16#73	
18	MB	26	HEX	B#16#00	
19	MB	27	HEX	B#16#00	

MB24 and MB25 will have the parameter number from the WRREC:

08h	00h	00h	01h	02h	73h
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