

AN714 – TPDO and RPDO Writing a Message

Introduction

The purpose of this application note is to provide an example of writing and reading the TPDO and RPDO message.

TPDO

TPDO stands for Transmit PDO (Process Data Object) protocol.

RPDO

RPDO stands for Receive PDO (Process Data Object) protocol.

PDO

PDO stands for Process Data Object. Transferring 8 bytes (or 64 bits) in a message using binary code.

Destroy TPDO1

'Destroy' the TPDO by setting the leading bit of the COB-ID to '1'.

TPDO1 default COB-ID when not destroyed is 0x400001FF.

Write object 0x1800, sub-index 1 with new COB-ID = 0xC00001FF.

Unlock TPDO1

Unlock the TPDO1 mapping parameters. Set the 'number of entries' parameter to '0'.

Write object 0x1A00, sub-index 0 = 0.

Edit Parameters

Edit the mapping parameters to point to the objects that you are interested in.

(0x1A00, sub-index 1 through 4)

Lock TPDO1

Lock the TPDO1 mapping parameters.

Write 0x1A00, sub-index 0 = 4 (or indicate the number of mapped objects)

Un-Destroy TPDO1

'Un-Destroy' TPDO1.

Write object 0x1800, sub-index 1 with new COB-ID = 0x40001FF.

Version	Date	Author	Comments
1.00	June 17, 2022	Greg LaRonde / Sue Thomas	Initial Release