6.5 Bus systems

Function	Effect
• Configuration as field bus user	• Selection of important settings for the application

The positioning controllers can be integrated into a field bus network. The available bus systems are listed in Table 6.39.

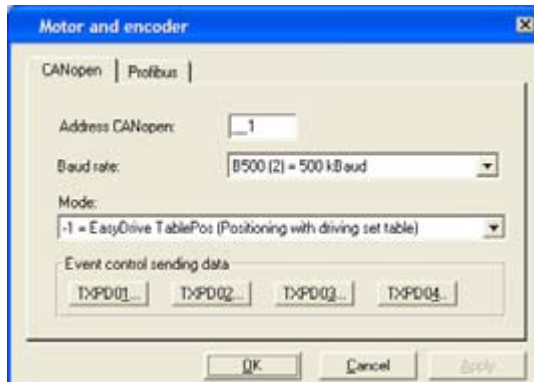| Field bus	possible for positioning controller	Connection	Required documentation for commissioning
CANopen	CDE3000 CDB3000 CDF3000	device internal (standard) via X5	User manual CM-DPV1
PROFIBUS	CDE3000 CDB3000	external communication module CM-DPV1	CANopen user manual
Download of required documentation under http://www.lust-antriebstechnik.de			

Table 6.39   Possible field bus systems

6.5.1 CAN_{open}

DRIVEMANAGER or KEYPAD are used to set field bus address and baud rate. An operating mode can be additionally selected. Further settings of the field bus configuration solely take place via the field bus system.

The CANopen user manual is required when connecting, commissioning and diagnosing a drive controller in the CANopen network.

CANopen configuration parameter

DRIVEMANAGER	Function	Value range	WE	Parameter
Address CAN$_{open}$	Set the software field bus address. The software address is added to the hardware address set with the coding switch	0 ... 127	1	580_COADR (_CAN)
Baud rate	Permissible data transmission frequencies (see Table 6.40).	B_1M ... B10	B500	581_COBDR (_CAN)
Mode of operation	Determination for DSP402 or EASYDRIVE modes with the definition of control and status channel (see Table 6.40). The operating mode is preset when selecting a preset solution.	-4 ... 6	-1	638_H6060 (_CAN)

Baud rate 581-COBDR		
BUS	Setting	Baud rate
0	B_1M	1 MBaud
1	B800	800 kBaud
2	B500	800 kBaud
3	B250	250 kBaud
4	B125	800 kBaud
5	B50	50 kBaud
6	B20	20 kBaud
7	B10	10 kBaud

Operating mode 638-H6060	
Setting	Mode of operation
-4	-
-3	EASYDRIVE ProgPos (PLC control)
-2	EASYDRIVE Basic
-1	EASYDRIVE TablePos (travel set table)
0	-
1	DSP402 - Profile position mode
2	-
3	DSP402 - Profile velocity mode
4	-
5	-
6	DSP402 - Homing Mode

Table 6.40   Setting the CANopen baud rate and operating mode

TxPDO-Event control

3.

The 4 transmission PDOs are sent in asynchronous mode (factory setting, see CANopen user manual) in dependence on one or several events. The events for each individual PDO can be selected from individual function masks, see example in Fig. 6.51. The same event (e. g. input IS02) can be used several times, i.e. with each TX event control.
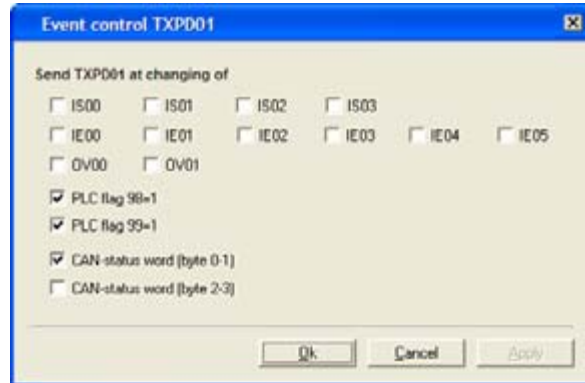

Fig. 6.51   Function mask event control for TxPDO1 with CDB3000

The events are saved bit by bit in the parameters TXEVn (n = 1 ... 4).

DRIVEMANAGER	Function	Value range	WE	Parameter
Button TXPDO1	Events for sending of the first transmission PDO (TxPDO1) Bit by bit coded acc. to Table 6.41	0h ... FFFFh	7000h	148-TXEV1 (_CAN)
Button TXPDO2	Events for sending of the second transmission PDO (TxPDO2) Bit by bit coded acc. to Table 6.41	0h ... FFFFh	7000h	149-TXEV2 (_CAN)
Button TXPDO3	Events for sending of the third transmission PDO (TxPDO3) Bit by bit coded acc. to Table 6.41	0h ... FFFFh	7000h	675-TXEV3 (_CAN)
Button TXPDO4	Events for sending of the fourth transmission PDO (TxPDO4) Bit by bit coded acc. to Table 6.41	0h ... FFFFh	7000h	676-TXEV4 (_CAN)

Bit	Default	TxPDOn (n = 1 ... 4) send in case of change of ...
0	0	Input IS00
1	0	Input IS01
2	0	Input IS02
3	0	Input IS03
4	0	Input IE00
5	0	Input IE01
6	0	Input IE02
7	0	Input IE03
8	0	Input IE04
9	0	Input IE05
10	0	Virtual output OV00
11	0	Virtual output OV01
12	1	PLC-Flag M98=1
13	1	PLC-Flag M99=1
14	1	CAN status word
15	0	Extended CAN status word (only with EASYDRIVE operating modes)

Table 6.41   Bit by bit coding of parameters TXEVn

Explanations

• The diagnose of the CANopen control and status word as well as the network status takes place in the function menu "Actual values", tab "CANopen", see chapter 6.8.4.