How to use a multi-axis motor driver module on the ECAT-M801?

Take AZD4A- KED as an example

Note: The motor driver module must comply with the CiA402 specification.

1.1 Establishing a connection with ECAT-M801



(1)Please confirm FirmWare Version is 1.0.15 or above

- (2) Click to find ECAT-M801
  (3) Select the device number and click to establish communication with the specified device.
- 1.2 Establishing a slave module network architecture

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Slaveln	to					
5	🕹 📩	1	▼ PC	•		
	2			S	etup	
	-			s	laveNo	
5	劉覽資料夾			X	duct	
	Onen ESI files					•
	a 🎍	icpdas		^		
		DUCON_Utility		_		
		Ecat-M801				
	-	API			A402 Pdo Mapp	Mode:0
		ESI			multi-axis	
		🍌 Motefg			Entry Increme	ent(hex):
		PC_drivers			number of av	
		UpdateFirmv	vare		number of ax	
		р 順 Отшту		~		
		ОК	Cancel		Apply	Pdo Assign
		3	)			

(2) Click 📀 to open the Select ESI file directory dialog, please put the module's

ESI file into the ESI folder.

(3) Press "OK" to start building the slave module network architecture.

SlaveInfo	
🔁 🔕 📥 🏦 🔹 🗸 PC	•
EcatNetworkInfo	Setup SlaveNo 0 Product MADLT05BF DC Enable •
	CiA402 Pdo Mapping Mode: 1 Mode:

- (4) Aftrt building , click 💼 Slave , change CiA402 Pdo Mapping to "Mode: 1"
- (5) Aftrt building , click Slave , check multi-axis , enter Pdo Entry Increment :800 and number of axes : 4

Parameter Description:

Pdo Entry Increment: Increment of each Pdo Entry, Explain with Controlword Index of Controlword of first axis is 6040h

While Index of Controlword of second axis is 6840h, then set to 800 While Index of Controlword of second axis is7040h, then set to 1000 number of axes: Number of axes supported by the module

- (5) Click 📥 Archive this network architecture
- 1.3 Motion Control Initialization Parameter File Editing Procedure

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<b>()</b>				
	etter Dagradik		X	
⊡. Motionconfig 	AxisNo	Axis 0		-
add Axis insert Axis delete Axis	SlaveNo SubAxis PPU HomeMethed HomeSpeed_SearchSw HomeSpeed_SearchZr HomeAcc EncoderPPR MotorPPR	65535 0 10000 1 5 1 20 0 51200 Default	? user unit/s user unit/s user unit/s^2	

- (1) click <sup>①</sup>Enter the motion control initialization parameter file editing page
- (2) click **G** Create a new initialization parameter file
- (3) click Axis, The axis parameters can be modified in the right block. Right click on Axis and a menu will appear to add, insert and delete axes. Parameter description:

SlaveNo: The slave number(connection position) corresponding to the axis

number, the axis number is the Axis list order, if required

For the virtual axis, set the SlaveNo to 65535

SubAxis: For multi-axis motor driver modules, set 0 to select the first axis of the

driver, set 1 to select the second axis of the driver, and so on

PPU: Pulses Per Unit , pulses of each unit

HomeMethod: Method to find Home

HomeSpeed\_SearchSw : speed of searching Switch

HomeSpeed\_SearchZr: speed of searching index

HomeAcc: accelerations for finding Home

EncoderPPR: How many pulses per revolution of encoder, modules that comply with the CiA402 specification do not need to set this MotorPPR: How many pulses per revolution of motor, modules that comply with the CiA402 specification do not need to set this After setting the parameters, click to save the file.

1.4 The remaining steps are the same as other CiA402-compliant drive modules. For instructions, please refer to the third chapter of the <u>software manual</u>.