Specialised Settings for Beckhoff Drives

There are a number of specialised settings that need to take place on the Beckhoff setup for a new machine.

Contents

Velocity Control Following Error to Internal Integral Loop Time

Ax5000 Drives

Ax8000 Drives

Comments

Velocity Control

...This setting is for AX5000 Drives only

Change to velocity mode

IODevices->Drive->EtherCAT->Advanced->MailBox->SoE->Operation Mode = Velocity



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Following Error to Internal

...This setting is for AX5000 Drives only

From Axes, select the axis, then the "Axis_Drive" bar. Click on Parameter tab, Following Error Calculation is under "Other Settings" Set to 'Intern'

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les l		Parameter	Value	Tes	and the second s
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Integral Loop Time

This parameter gives a close following error calculation and improves the shape of slots by avoiding overrun on the axes

Ax5000 Drives

Step	Description	Picture
1	In the Drive Manager for the drive, Go to the Startup tab	
	Find S-0-0101 for Channel A The default value is 8.0, we need to change it to 0.8	17 31 Prodel (E) 34400 (A) 0740 Arr print (1979) (1979) (1979) (1979) (1979) Arr print (1979)
2	 If you cannot find an entry you will need to add a new entry 	B S Del 54/01/18 64/01/18
3	Click Edit button (or click add if this is a new Entry)	
4	Find the value for S-0-0101 in the box and click on it	Edit. SERCCOS Statup Entry X Insular Davida For 000000 St. 14011 000000 Davidati For 000000 000000 Davidati For 000000 000000 Davidati For 000000 000000 Davidati For 000000 000000 Comment 0000 000000 Comment 0000 000000 Comment 000 Value Discontraction 10000 0000000 Comment 000 000000000000000000000000000000000000
5	Change the Data (Hexbin) value to 08 00 and click OK	
6	both channels A and B if they are dual drives	



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7	Once all drives have been updated, reset the device to fix the settings Right click on the device containing the settings and Select Online Reset			Imag Imag Imput Imput <td>Vale Kish Kennin Kenore Kenore Kenore Netton Sare Device 4 (EtherCAT) rd Aspend EtherCAT (rd Bogend Dynamic Contain Dinline Reset Change Id Change To Conge Id Sate Sate with Links Sat andependent Project File Disable Resource</td> <td> er</td> <td>Shift+Alt+A Del Cfri+C Cfri+C Cfri+X Cfri+V</td> <td>Di Box Drin Terr Terr Terr Terr MC MC</td>	Vale Kish Kennin Kenore Kenore Kenore Netton Sare Device 4 (EtherCAT) rd Aspend EtherCAT (rd Bogend Dynamic Contain Dinline Reset Change Id Change To Conge Id Sate Sate with Links Sat andependent Project File Disable Resource	 er	Shift+Alt+A Del Cfri+C Cfri+C Cfri+X Cfri+V	Di Box Drin Terr Terr Terr Terr MC MC

...This process changes the "Startup" parameters for the system, so that any drive plugged in to this axis position in future will
automatically take the same parameters

Ax8000 Drives

See

https://stuga.dokit.app/wiki/TB0442_Removing_Slot_Overrun_on_Beckhoff_AX8000_Drives

