TB0422 Commissioning ZX5 Software 2018

0422 Commissioning ZX5 Software 2018

Difficulty Medium

Ouration 6 hour(s)

Contents

Introduction Step 1 - Setup Front End PC Step 2 - Setup Back End PC Step 3 - Install TwinCAT if Required Step 4 - Set up a route Step 5 - Build the Visual Studio Project Step 6 - Select Auto-start boot project for BOTH projects Step 7 - Log on to the machine into tc3Multi and PLCreset Step 8 - Set the PLC to Run Mode on Boot Step 9 - TwinCAT NetId Step 10 - Customer and Build No Step 11 - Reset Parameters Step 12 - Reset userVariables Comments

Introduction

The first step in commissioning a new machine is to get the basic software setup correctly installed. Because the software is designed to be very flexible across many machine types, the simplest way to do this is to copy from a recently built similar machine.

Step 1 - Setup Front End PC

Follow technical bulletin 409 to setup PC with correct naming conventions and TeamViewer.

Step 2 - Setup Back End PC

Follow TB0451 to set up the Beckhoff PC

Step 3 - Install TwinCAT if Required

...All Netmatters CNC machines will have TwinCAT already installed, so you can normally skip this step



Install TwinCAT 3.16 from the mainserver

(G:\Design\TwinCAT3\TC31-Full-Setup.3.1.4022.16). Go through the wizard and when prompted restart the PC. (2019 PCs will have this)

Step 4 - Set up a route

Once restarted the TwinCAT icon will appear in the bottom right toolbar. We can now set up a route. Left click the TwinCAT icon once. There will be a menu, go to "Route" then "Add Route...". This is where the machine and the program can be linked. Making sure the machine infeed is on and connected to the local network,

- 1. Press on add in the bottom left of the window (1).
- 2. From here perform a broadcast search (2), this will search for any Beckhoff devices on the network.
- 3. When the machine is found select it (3)
- 4. and press add route (4).

Step 5 - Build the Visual Studio Project

There are two ways to approach this

- Use an existing project from a similar, older machine. This is a shortcut method but relies on having a copy of the setup from a machine with the same EtherCAT setup
- 2. Build a new project from scratch use this method if this is the first machine of its type

					Add Route Dialog					2	
					Enter Host Name / IP:				Refresh Statu	-	Broadcast Search
winCAT Static	Routes				Host Name 0	Connected	Address	AMS NetId	TwinCAT	OS Versio	n Conment
Route 2066	Availetid	Address	Type trp tp	Comment	A2013 Leb01		192.168.16 192.168.16	5.28.84.88.1.1 5.31.173.86.1.1	2.11.2234	Win XP Windows	7
			10.0		2066)	κ.	192.168.16	5.57,155.20.1.1	3.1.4022	Windows	1
					٤						
					< Route Name (Target):	2056		8	ute Name (Remo	ote): [1	BUNTER PC
					< Route Name (Target): AmsNetId:	2066	5-20-1-1] Re] Ti	ute Name (Remo	ote): [BURITER PC Remote Route
					Route Name (Target): AmsNetSd: Transport Type:	2066 5.57.152 TOP_JP	5-20.1.1] Re] Ti] (ute Name (Reno arget Route ⊇ Project 2 Turus	ew): []	BURITER PC Cemote Route ONone
					< Route Name (Target): AmsNetId: Transport Type: Address Infi:	2066 5.57.15 TCP_3P 2066	5-20-1-1 V] ва 1 ті 2 () 2 ()	ute Name (Remo arget Route) Project ® Static) Temporary	94): [BUNTER PC Remote Route O None Static O Temporary
414-	Tanaa				 Koute Hame (Tanget): AmsNet5d: Transport Type: Address Infis: ● Host Name >P 	2066 5.57.151 TCP_3P 2066 Address	5.20.1.1] Ra] Ti (()] ()	ute Name (Reno arget Route) Project ® Static) Temporary	ote):	BURITER PC temote Route O None © Static O Temporary
Add	Emore				€ Route Name (Tanget): Amsbert3: Transport Type: Address Info: ® Nont Name ○ P Connection Timeout (s):	2066 5.57.151 TCP_JP 2066 Address 5	5.20.1.1 V		ute Name (Reno arget Route ⊃Project ® Static ⊃ Temporary	ote): [BURTER PC temote Route None Static Temporary



Step 6 - Select Auto-start boot project for BOTH projects

Select Auto-start boot project. This can be found under

1. PLC > tc3Multi_6_24



Step 7 - Log on to the machine into tc3Multi and PLCreset

Make sure to log onto the machine in $\ensuremath{\text{tc3Multi}}$ AND $\ensuremath{\text{PLCreset}}$

Select from the dropdown box at the top (1) and click the green Download icon (2)

You may need to run the program (if this is the first time download) click the green play triangle (3)



à o.d »

SYSTEM

Real-Time

1

Solution 'Z071' (2 project
 Solution 'Z071' Drive Mana

ve Manager 2 Project3

ice & (Eti

Drives (AX8620-0000-0103) @Dev

Y & Z Drive (AX8206-0000-0102) R & GX Drive (AX8206-0000-0102)

SX & SR Drive (AX8206-0000-0102)

Step 8 - Set the PLC to Run Mode on Boot

- 1. Select Run Mode radio button
- 2. Type the password (Stuga001)
- 3. Click Apply

Step 9 - TwinCAT NetId

Find the target NetId from System->Routes Copy it Paste it into two parameters in c:\ddrive\params.saw

amsNetId=5.68.192.220.1.1 ... twinCATAddress=5.68.192.220.1.1



Config Mode

Step 10 - Customer and Build No

Set these parameters in c:\ddrive\params.saw according to the customer and build number

customer=WindowPlas

Step 11 - Reset Parameters

Set these parameters in c:\ddrive\params.saw to ensure any old customer data will not "get in the way"

autoLoadLength=5500 beamStrokeLength=700 bladeOffset/=67.5 bladeOffset/=67.5 networkdir=c:\batches\ password=none printerIPAddress=[IP Address of printer] productionRecipients=none remakesPassword=none sawSYType=2 throwaway=320 throwawayChunkSize=100 usePLCEstop=0 (1 is for TwinSAFE systems) zTurretSawType=2

Step 12 - Reset userVariables

Set these parameters in c:\ddrive\uservariables.mul to reset mechanical adjustments to zero

DOFFSETWO=0 DOFFSETWI=0 DOFFSETVO=0 DOFFSETVI=0 xOFFSETWO=560 xOFFSETWI=560 xOFFSETVO=560 xOFFSETVI=560 tool1XOffset=0.0 tool2XOffset=0.0 tool3XOffset=0.0 tool4XOffset=0.0 tool7XOffset=0.0 tool8XOffset=0.0 tool1SPDOffset=0 tool2SPDOffset=0 tool3SPDOffset=0 tool4SPDOffset=0 tool7SPDOffset=0 tool8SPDOffset=0