

FAQ for ECAT-2000

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1. How to make Beckhoff Configurator or TwinCAT recognize ECAT-2000?

EtherCAT devices are described in an XML file, ESI (EtherCAT Slave Information) file, which describes the modules of the ECAT-2000 series named "**ICPDAS ECAT-2000.xml**."

(1) Download the ESI file, **ICPDAS ECAT-2000.xml**, from the website

http://ftp.icpdas.com/pub/cd/fieldbus_cd/ethercat/slave/ecat-2000/software/

or from the CD in the shipping package

CD: \fieldbus_cd\ethercat\slave\ecat-2000\software

(2) Copy the file "**ICPDAS ECAT-2000.xml**" to the destination folder of EtherCAT Master Tools(**Beckhoff EtherCAT Configurator** or **TwinCAT** etc.)

C:\EtherCAT Configurator\EtherCAT\ICPDAS ECAT-2000.xml

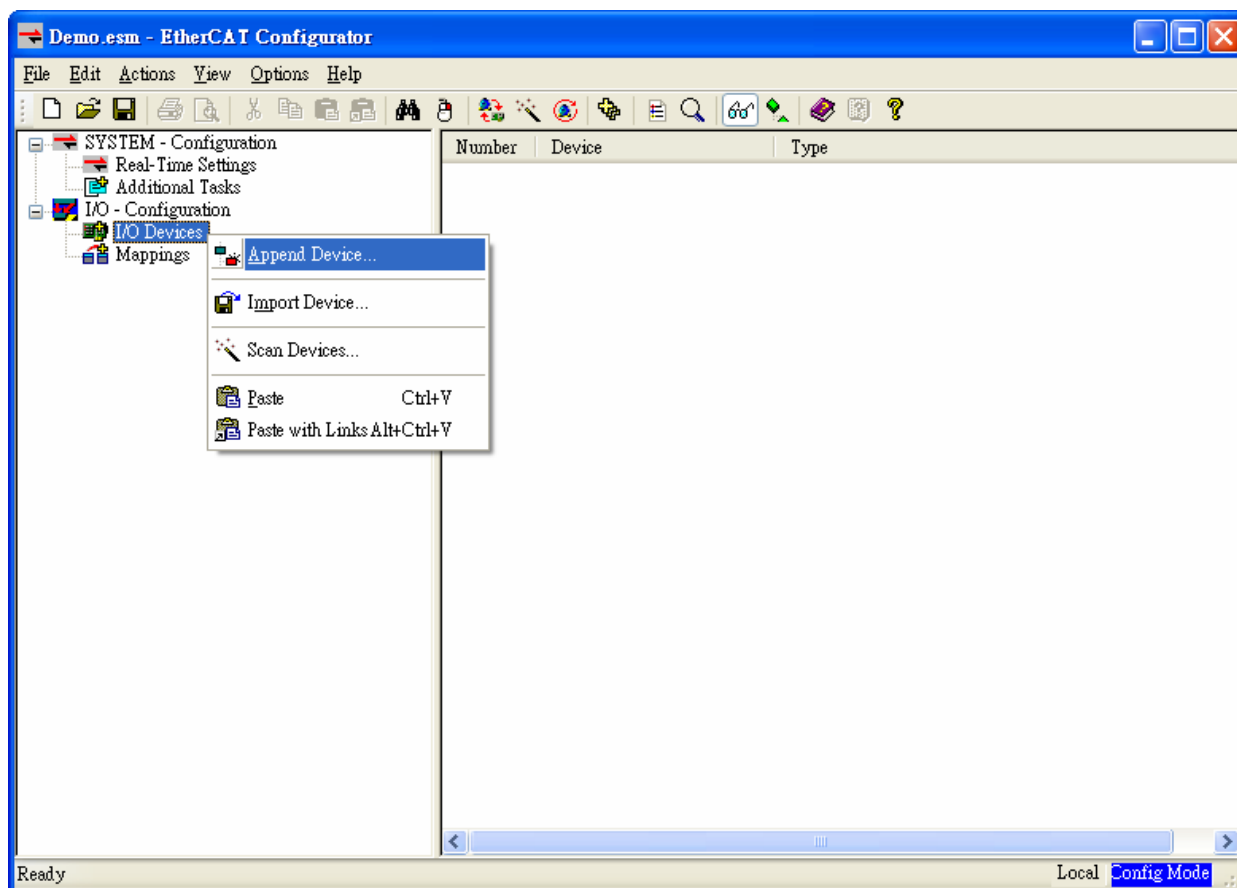
C:\TwinCAT\Io\EtherCAT\ICPDAS ECAT-2000.xml

Otherwise, if you are using another tool, to the folder set for that tool.

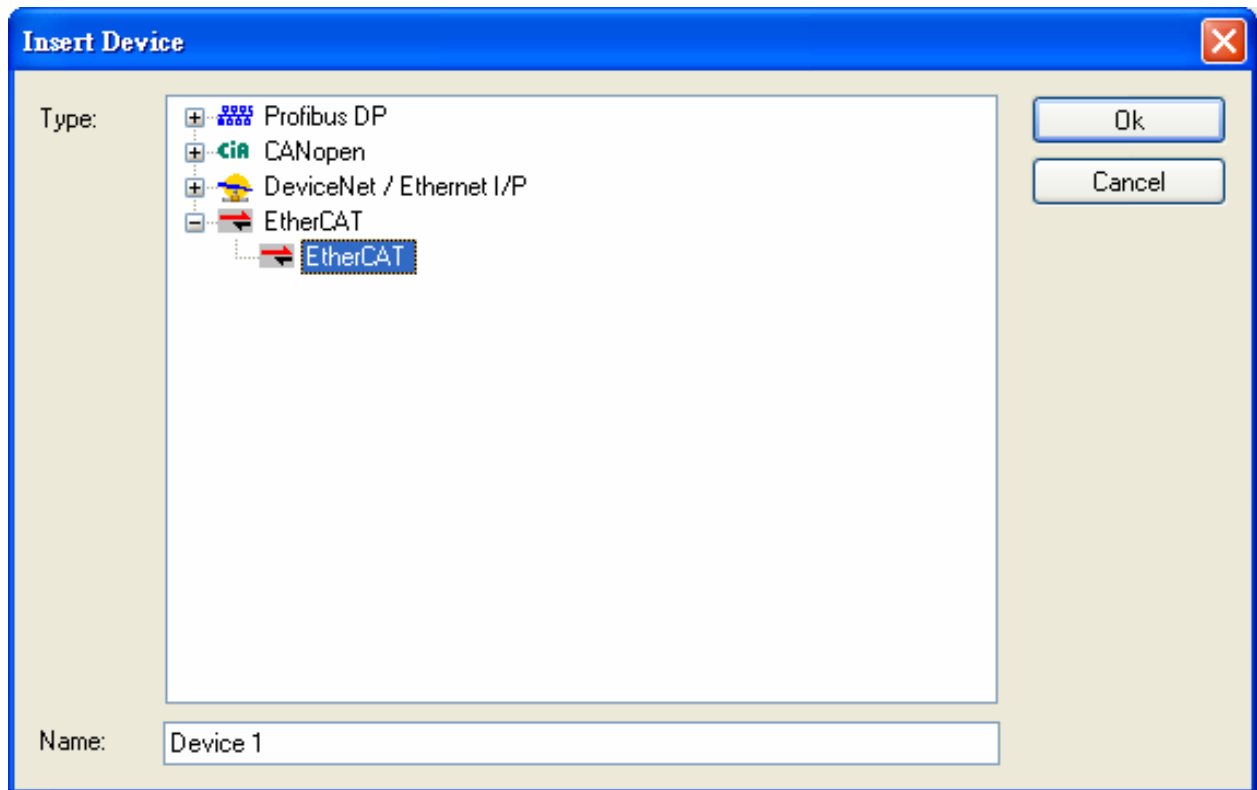
2. How to scan ECAT-2000 in Beckhoff Configurator or TwinCAT?

This part is described the configuration using the example of ECAT-2055 and the *EtherCAT Configurator* supplied by Beckhoff.

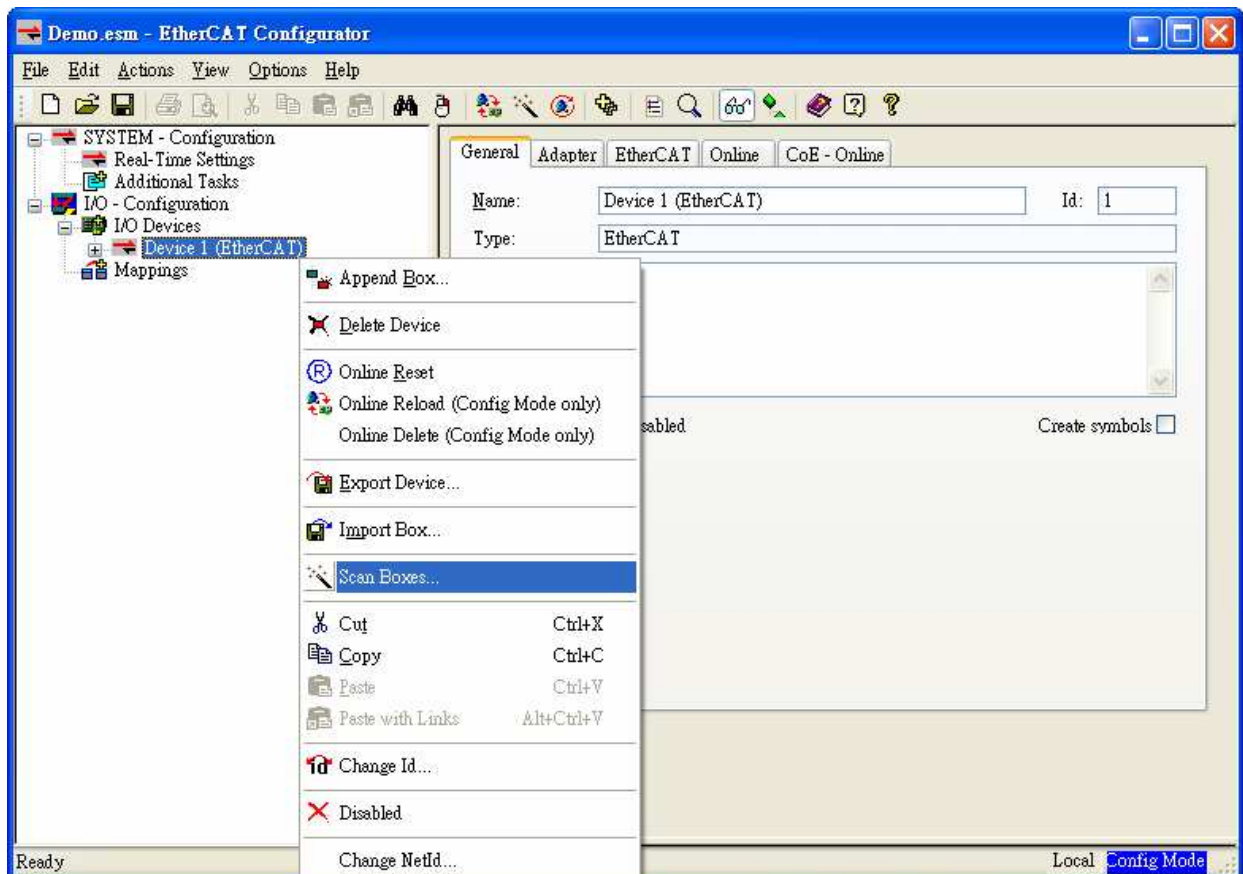
- (1) Start your *EtherCAT Configurator*.
- (2) Choose File, New to create a new I/O Configuration.
- (3) Click *I/O Device* with the right mouse button and choose *Append Device...* in the menu, and then the dialog window Insert Device is opened.



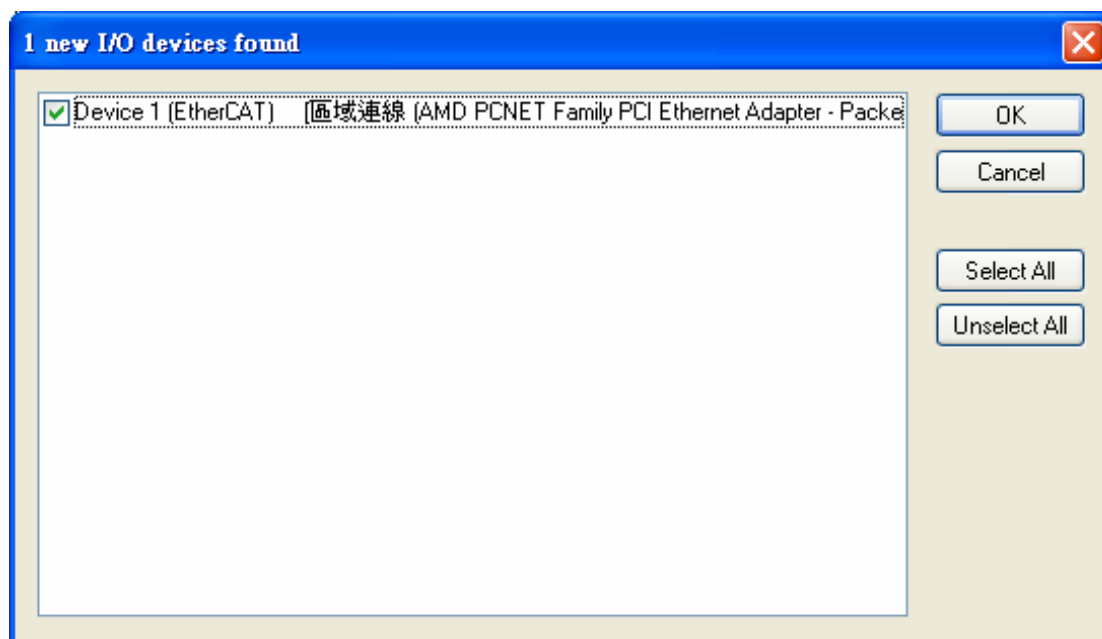
(4) Select the **EtherCAT** type in this dialog window and confirm with **OK**.



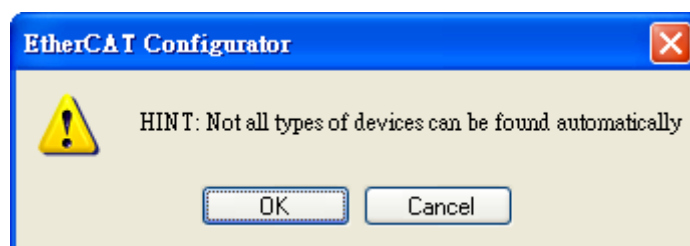
(5) **Device 1 (EtherCAT)** is added to to your configuration, i.e. a new EtherCAT line. Click **Device 1(EtherCAT)** with the right mouse button and choose **Scan Boxes...** in the menu.



(6) Choose the correct network device which is connected to ECAT-2000.



(7) If the hint is shown, click **Yes/OK** and continue.



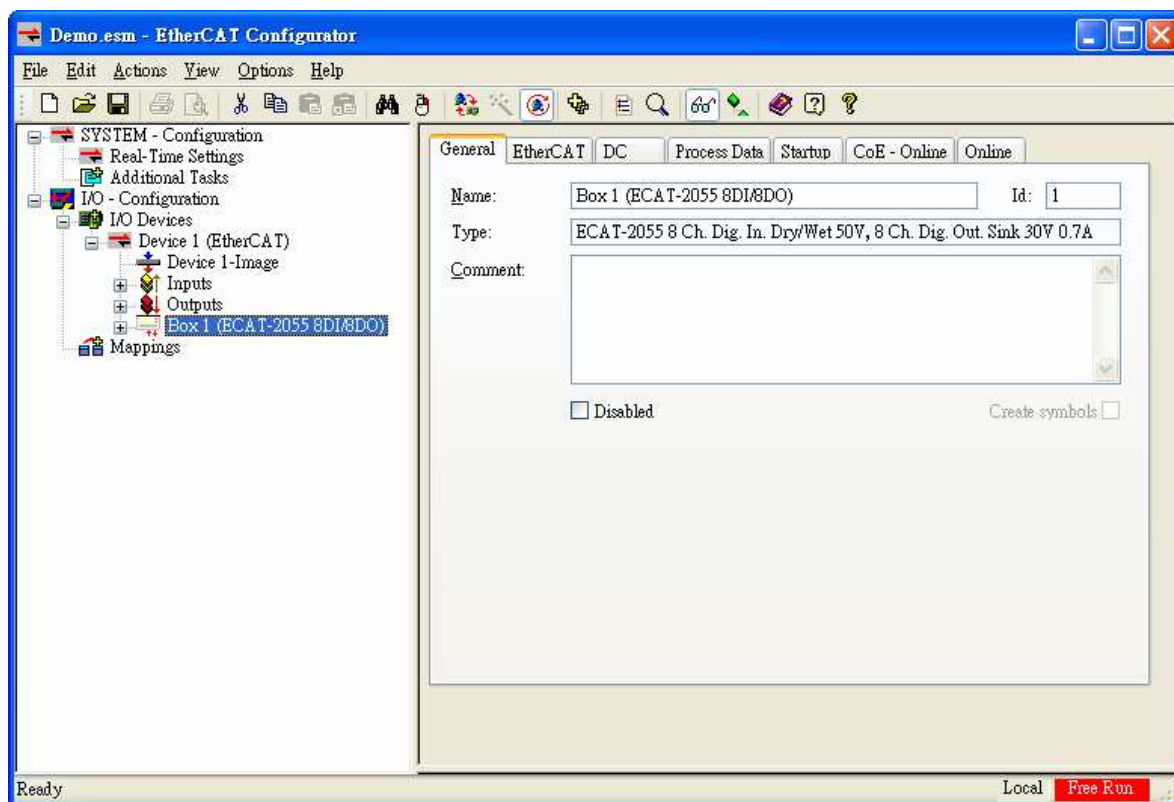
(8) Click **Yes** to start scanning for ECAT-2000.



(9) Click **Yes** to activate the free run mode for EtherCAT Configurator.



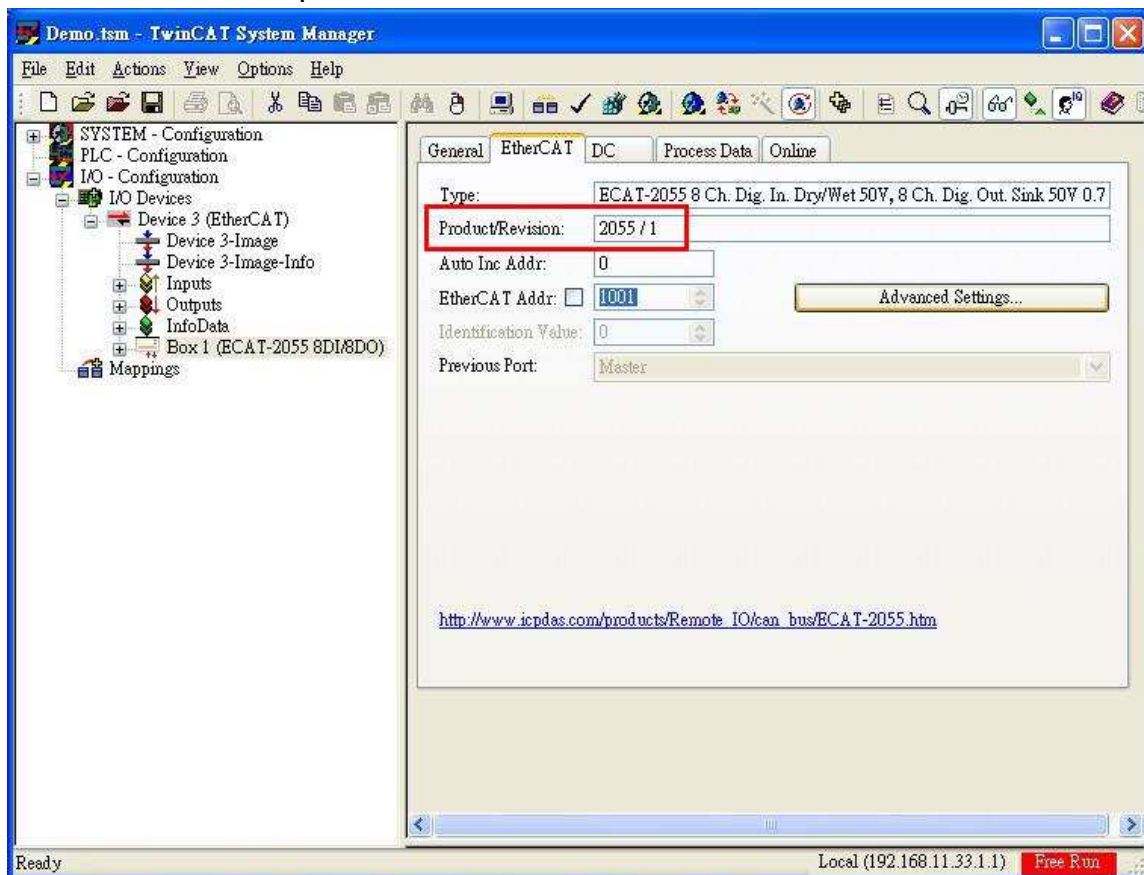
(10) The **ECAT-2000 (Box 1)** is now shown in the EtherCAT Configurator.



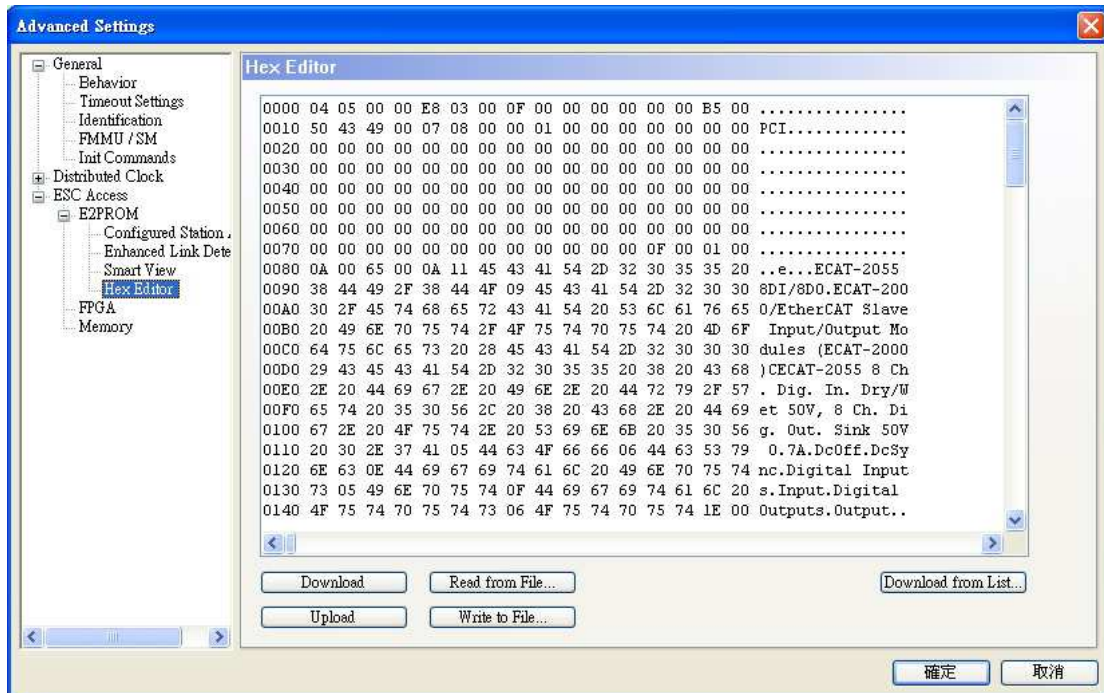
3. How to upgrade the EEPROM or ESI file of ECAT-2000 via TwinCAT?

This part is described the ECAT-2055 is upgraded from Revision 1 to Revision 2 via **Beckhoff EtherCAT TwinCAT** as follows,

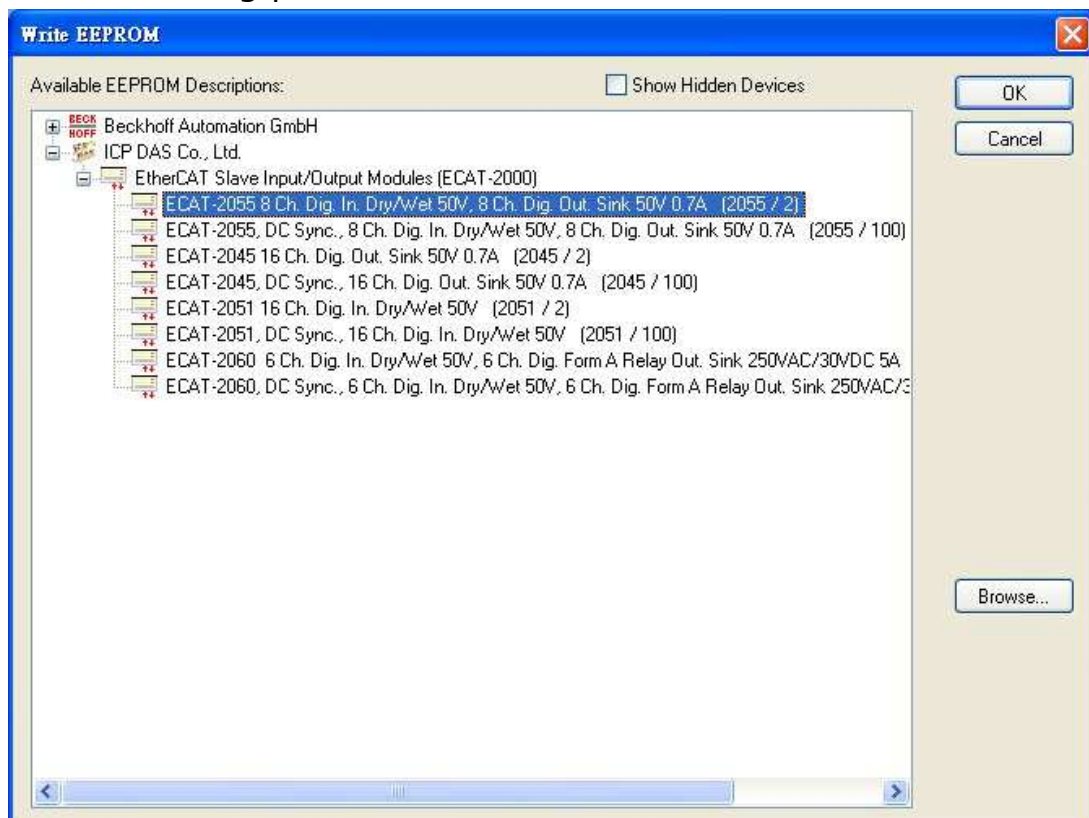
- (1) Please refer to the Page 2(**How to scan...ECAT-2000...**)to get the desired **ECAT-2055 (Box 1)** .
- (2) Click the item **ECAT-2055 (Box 1)**, and choose **EtherCAT** Page. Notice the version is **Revision 1** before the upgration.
- (3) Click the **Advanced Settings...** button and then the “Advanced Settings” window will show up.



- (4) Choose **ESC Access**→**E2PROM**→**Hex Editor** in the left-hand side and click the button **Download from List...** on the bottom-right side. The window “Write EEPROM” will show up.

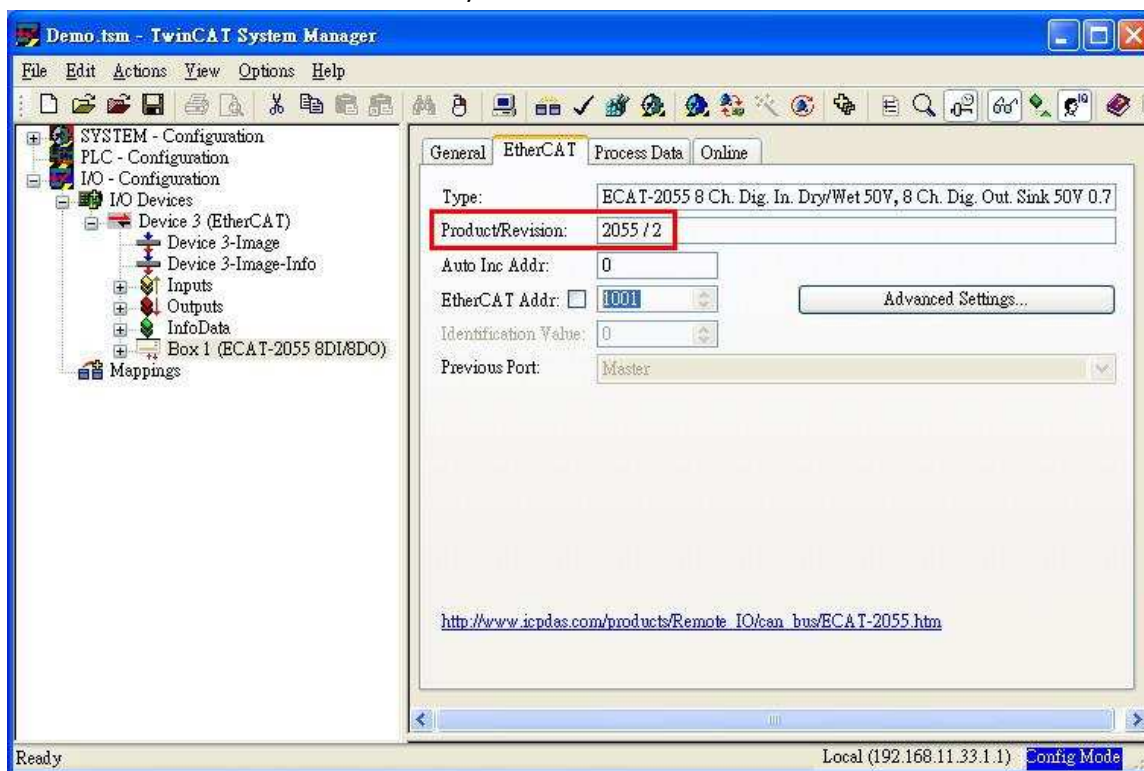


- (5) Choose the EEPROM Description named **ECAT-2055 Revision 2**: in the list of **ICPDAS Co., Ltd. → EtherCAT Slave... → ECAT-2055... (2055/2)**, and click **OK** to start the writing process and wait until the success.



(6) Unplug the power supply and reboot the ECAT-2055.

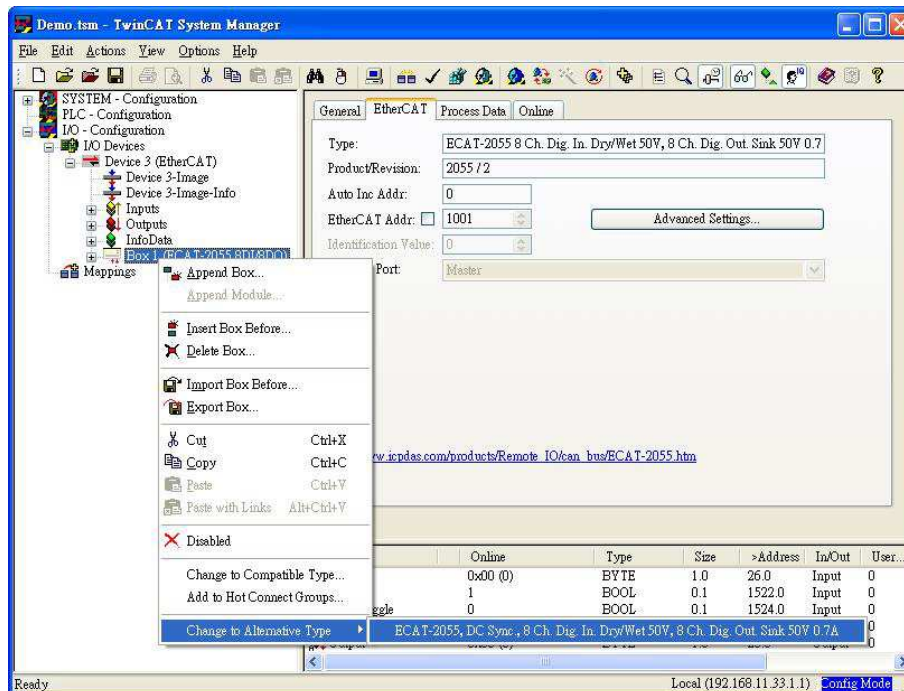
(7) Restart a new file and rescan, and confirm the ECAT-2055 is Revision 2.



4. How to switch ECAT-2000 in Free-Run to Distributed Clock and back?

This part is described how to switch ECAT-2055 to DC mode via **Beckhoff EtherCAT TwinCAT**. You can switch back in the similar way.

- (1) Please refer to Page 2(**How to scan...ECAT-2000...**) to get **ECAT-2055 (Box 1)**.
- (2) Right Click on the item **Box 1 (ECAT-2055 8DI/8DO)** and choose **Change to Alternative Type**→**ECAT-2055, DC Sync.,...**, and confirm to download the EEPROM. During the write access (several seconds) the power supply for the ECAT-2055 and the EtherCAT communication must not be interrupted.



- (3) **Unplug the power supply and reboot the ECAT-2055.**
- (4) Restart a new file and rescan, and confirm the item is **Box 1 (ECAT-2055 DC Sync. 8DI/8DO)**, Product/Revision is 2055/100 with DC Tab page.

