

Advantech SE Technical Share Document

Date	2019 /11 /21						
Category	□FAQ ■ SOP	Related Product	CODESYS				
	Driver Tech Note						
Abstract	How to connect WISE5074 by ID switch on CODESYS						
Keyword	EtherCAT, Modbus server, disconnection						
Related OS	N/A						
Revision History							
Date	Version	Author	Reviewer	Description			
2019/11/21	V1.0 0	wen.Chang	Nick.Liu				

Problem Description & Architecture:

Sometimes we need to locate devices by ID switch in EtherCAT network which could help users composed their programming logic easily on their project. Thus, this SOP shows you how to connect it by CODESYS.

Brief Solution - Step by Step:

 Please know your devices' order in the EtherCAT topology and then scan all of devices. In the following picture, WISE-5580 connects to WISE-5074 and then connects to EK1101.



WISE-5580 \rightarrow WISE-5074 \rightarrow EK1101

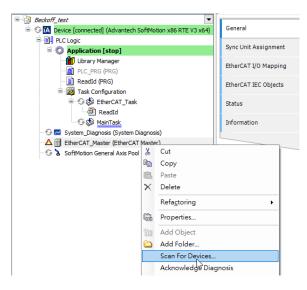


Enabling an Intelligent Planet

ID Switch of WISE-5074 and ID is 7.



a. "Scan for device" in online mode



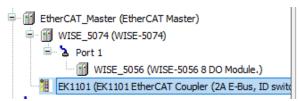
b. CODESYS will list all slaves by order. Copy to project and then logout RTE

Device name	Device type	Alias Address		
📮 - WISE_5074	WISE-5074	7		
WISE_5056	WISE-5056 8 DO Module.	0		
EK1101	EK1101 Ether AT Coupler (2A E-Bus, ID switch)	208		

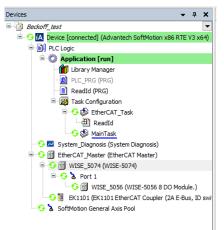


Enabling an Intelligent Planet

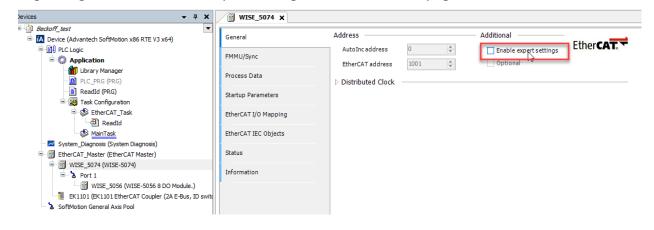
c. All devices are added to project by order.



d. Login again to make sure that all devices could be connected with no identification. Green sign means that it is connected.



2. Log out again, check "Enable expert settings" at the WISE-5074page.



3. Choose "Explicit device identification" and fill ID into configured station alias. In this sample, ID is 7.

Beckoff_test						
IA Device (Advantech SoftMotion x86 RTE V3 x64)	General	Address Additional				
I) PLC Logic Application	FMMU/Sync	AutoIncaddress EtherCAT address 1001 Definal				
- mill Library Manager - mill PLC_PRG (PRG)	Expert Process Data	Distributed Clock				
ReadId (PRG) SeadId (PRG) SeadId (PRG)	Process Data	Startup Checking — D Timeouts — D Timeout				
= 😻 EtherCAT_Task □ 🕘 ReadId	Startup Parameters	D C Cyclic Unit Control: Assign to Local µC Watchdog Identification				
→ MainTask Z System_Diagnosis (System Diagnosis)	EtherCAT I/O Mapping					
EtherCAT_Master (EtherCAT Master)	EtherCAT IEC Objects	O Disabled				
	Status	Configured station alias (ADO 0x0012) Value				
WISE_5056 (WISE-5056 8 DO Module.) K1101 (EK1101 EtherCAT Coupler (2A E-Bus, ID swite	Information	Explicit device identification (ADO 0x0134)				
SoftMotion General Axis Pool		Data Word (2 Bytes) ADO (hex)				



Enabling an Intelligent Planet

4. Then login again, and you will see that CODESYS could connect to WISE-5074 by identification.

Address Additional EtherCAT address Additional EtherCAT address O Optional Optional Optional Optional Optional Optional Current State Operational Optional O