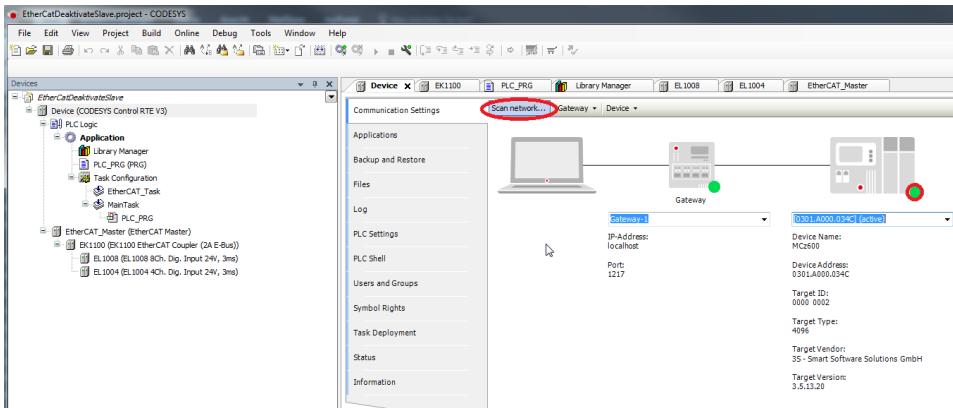
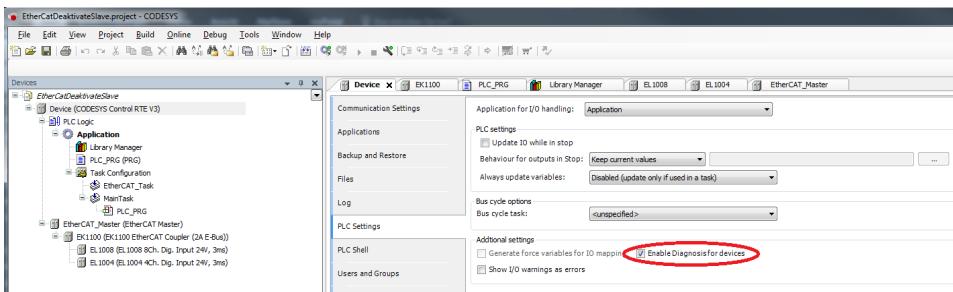


# EtherCAT: Switching Off/On a Slave from the IEC Program

- Create a "Standard project" and select **CODESYS Control Win V3** as the device.
- Define the target system by means of **Network scan**.



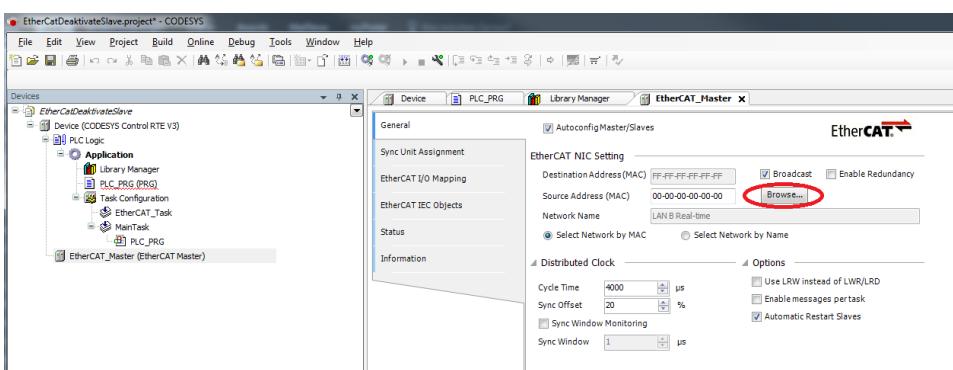
- Activate the **Diagnosis for devices**.



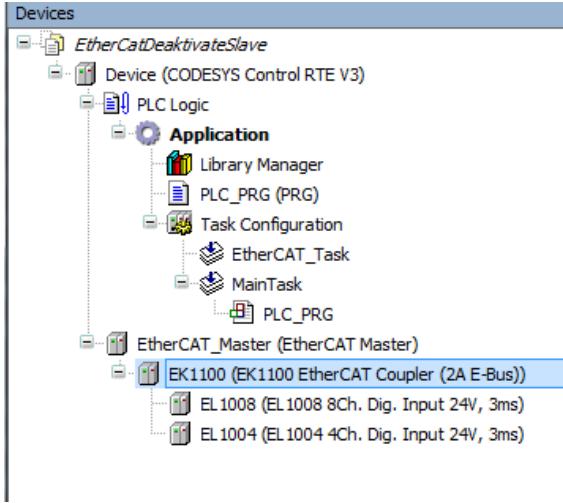
- Insert an **EtherCat Master** Ethernet adapter and specify the interface to be used.



If a target system has not been defined yet, then the error message "Gateway not configured" is displayed.



- Insert a slave below the **EtherCat Master** or scan the bus.



- Edit the **PLC\_PRG** POU as follows:

#### Declaration

```

VAR
    xDisable      : BOOL;
    xEnable       : BOOL;
    xReconfigure   : BOOL;
    itfNodeSlave  : DED. INode;
    fbReconfigure : DED. Reconfigure;
    eState        : IoDrvEthercatLib. ETC_SLAVE_STATE;
END_VAR

```

#### Implementation

```

itfNodeSlave := EK1100;

IF xDisable THEN
    xDisable := FALSE;
    itfNodeSlave.Enable := FALSE;
    xReconfigure := TRUE;
END_IF

IF xEnable THEN
    xEnable := FALSE;
    itfNodeSlave.Enable := TRUE;
    xReconfigure := TRUE;
END_IF

fbReconfigure(xExecute := xReconfigure, itfNode := EtherCAT_Master);

IF fbReconfigure.xDone THEN
    xReconfigure := FALSE;
END_IF

EK1100(); // Necessary for the status to be updated
eState := EK1100.wState;

```

- Start the project and test the functionality by deactivating and activating the slave.

**Device Application PLC\_PRG**

Expression	Type	Value	Prepared value
xDisable	BOOL	FALSE	
xEnable	BOOL	FALSE	
xReconfigure	BOOL	FALSE	
itfNodeSlave	DED.Node	16#89743134	
fbReconfigure	DED.Reconfigure		
eState	ETC_SLAVE_STATE	0	

```

1 itfNodeSlave := EK1100;
2
3 IF xDisable=FALSE THEN
4   xDisable:=FALSE;
5   itfNodeSlave.Enable := FALSE;
6   xReconfigure:=TRUE;
7 END_IF
8
9 IF xEnable=FALSE THEN
10  xEnable:=FALSE;
11  itfNodeSlave.Enable := TRUE;
12  xReconfigure:=TRUE;
13 END_IF
14
15 fbReconfigure(xExecute:=xReconfigure:=FALSE, itfNode := EtherCAT_Master);
16
17 IF fbReconfigure.xDone=FALSE THEN
18  xReconfigure:=FALSE;
19 END_IF
20
21 EK1100(); // Necessary for the status to be updated
22 eState[0]:=EK1100.wState[0] RETURN

```

**Device Application PLC\_PRG**

Expression	Type	Value	Prepared value
xDisable	BOOL	FALSE	
xEnable	BOOL	FALSE	
xReconfigure	BOOL	FALSE	
itfNodeSlave	DED.Node	16#89743134	
fbReconfigure	DED.Reconfigure		
eState	ETC_SLAVE_STATE	0	

```

1 itfNodeSlave := EK1100;
2
3 IF xDisable=FALSE THEN
4   xDisable:=FALSE;
5   itfNodeSlave.Enable := FALSE;
6   xReconfigure:=TRUE;
7 END_IF
8
9 IF xEnable=FALSE THEN
10  xEnable:=FALSE;
11  itfNodeSlave.Enable := TRUE;
12  xReconfigure:=TRUE;
13 END_IF
14
15 fbReconfigure(xExecute:=xReconfigure:=FALSE, itfNode := EtherCAT_Master);
16
17 IF fbReconfigure.xDone=FALSE THEN
18  xReconfigure:=FALSE;
19 END_IF
20
21 EK1100(); // Necessary for the status to be updated
22 eState[0]:=EK1100.wState[0] RETURN

```