

SDSetup
Connection via TwinCAT

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1. Purpose

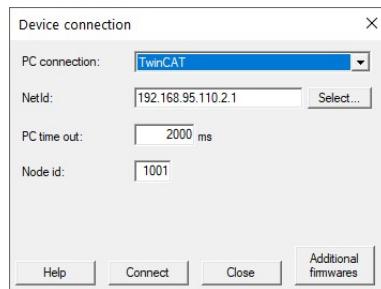
This document describes how to reach the CMZ drives connected to TwinCAT (Beckhoff) from SDSetup. This possibility was introduced by SDSetup version 4.4.0.

2. Connection

It is considered that the SDSetup and the TwinCAT are present on the same PC; otherwise, first refer to the paragraph *TwinCAT ADS installation/configuration*.

To connect, you need to enter the network identifier on SDSetup.

Procedure: open the **Device connection** window on SDSetup, select TwinCAT in **PC connection** and enter the **NetId** of the fieldbus:



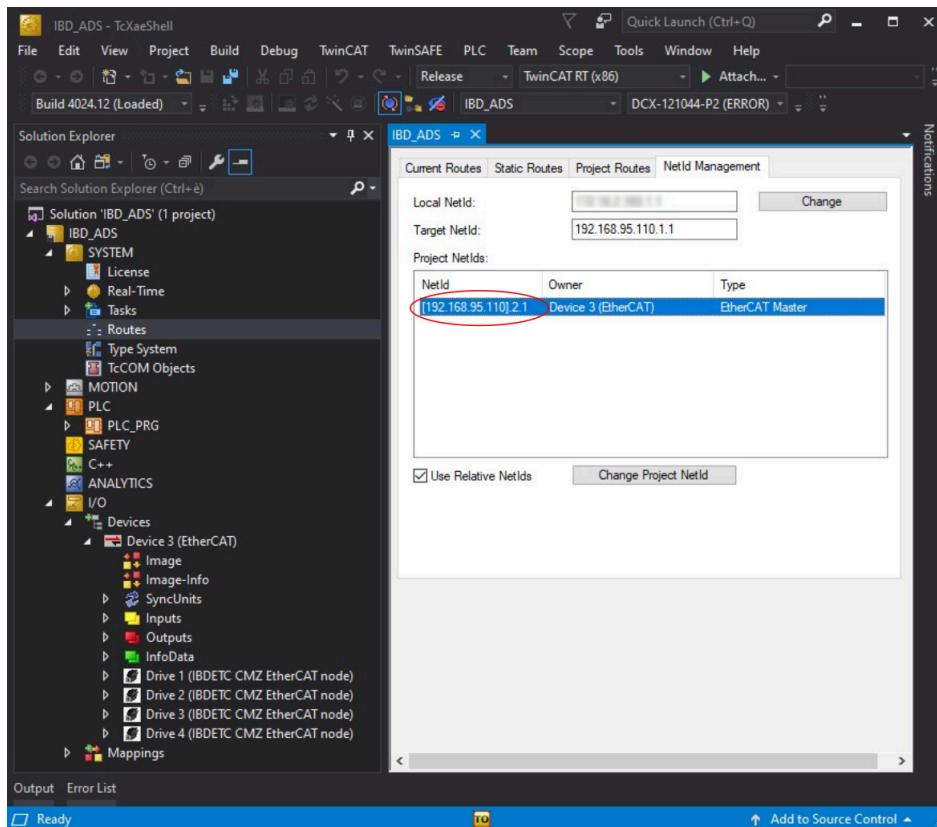
Now it is already possible to connect the SDSetup to the drive:

1. select the drive using **Select...** or **Node id**;
2. push the button **Connect**.

At this point the SDSetup is connected to the drive.

How to find the *NetId*

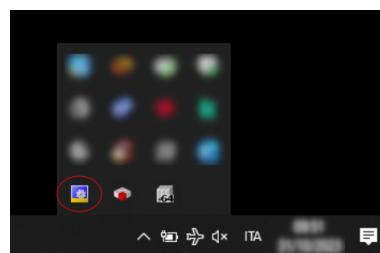
To find the *NetId* of the fieldbus, read the **NetId** from the TwinCAT development environment:



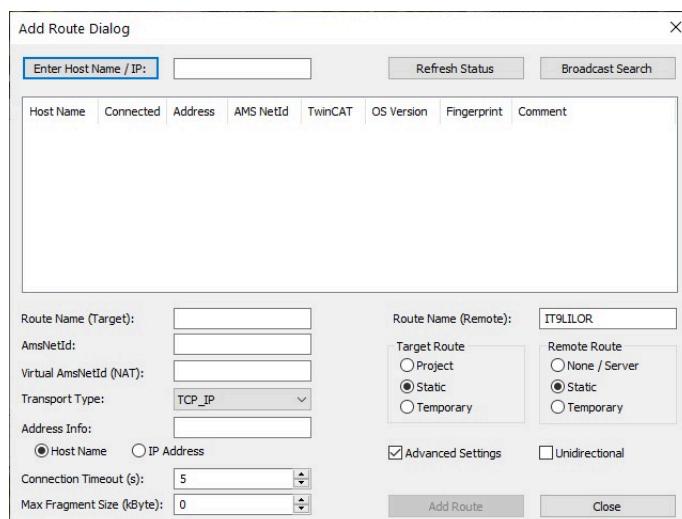
3. TwinCAT ADS installation/configuration

In case the TwinCAT is not present in the SDSetup PC, you need to install the *TwinCAT ADS* software component. Below is the procedure to install/configure the component:

1. On the PC where the SDSetup is present, install the *TwinCAT ADS* software component, which can be downloaded from the Beckhoff website.
2. Open the window in the desktop notification area (as shown); press the right mouse button on the circled icon; then select **Router** and press on **Edit Routes**:

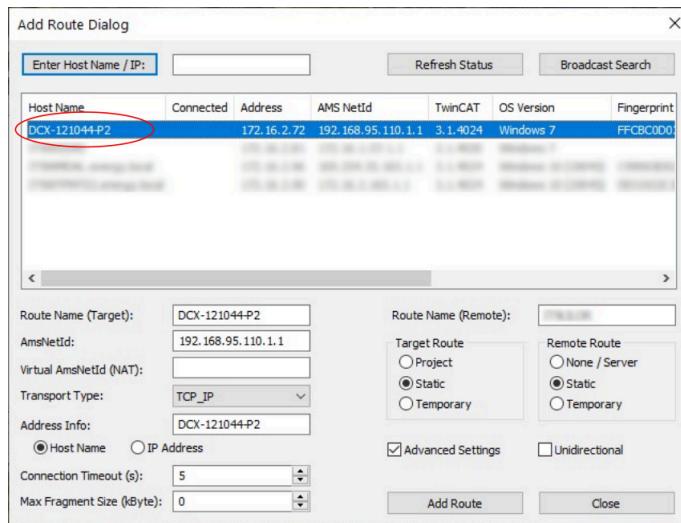


in the window that appears, press **Add...**, then the window appears:

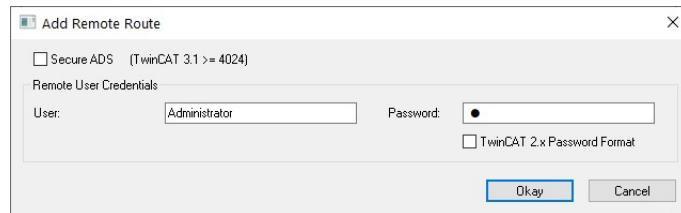


Press **Broadcast Search** to search for the PLC.

3. Select the desired PLC and press **Add Route**:



4. Uncheck **Secure ADS** and enter the credentials declared in the project; then press **Okay**:



5. Carry out the procedure in the paragraph *Connection*.

4. Troubleshooting

Below is the list of problems, causes and remedies.

Error on SDSetup	
Description	PLC program update error. Firmware update error. Parameter update error.
Probable cause	In the TwinCAT project the drive was not added using the descriptor file.
Remedy	Add the drive to the TwinCAT project using the descriptor file.

Slowness of SDSetup	
Description	Little reactivity of SDSetup when changing pages or updating parameters.
Probable cause	In the TwinCAT project the fieldbus task is too slow.
Remedy	Try reducing the fieldbus task cycle time.

Problems with TwinCAT ADS	
Description	Error installing/configuring the TwinCAT ADS. Difference in the procedure described, compared to what was documented by Beckhoff.
Probable cause	The TwinCAT version used is different from the one described.
Remedy	Refer to Beckhoff documentation.

Failure to connect to the drives	
Description	Connection error to the selected drive.
Probable cause	The drive is turned off. The <i>Node id</i> is incorrect. The drive is neither <i>operational</i> nor <i>pre-operational</i> .
Remedy	Check that the drive is turned on. Check that the <i>Node id</i> is correct. Check that the drive is in <i>operational</i> or <i>pre-operational</i> .

5. Context

Below is the list of the tools used.

Tool	Version
SDSetup	4.4.0
TwinCAT	3.1.4024.12

