Installation Instruction **AC500**

Scalable PLC for
Individual Automation

USB-Driver Installation

Doc. ID: 3ADR020159M0201

Programming Cable TK503/TK504

Content

Introduction and basics

Intended use

The TK503/TK504 programming cable is used to transfer data between the PLC and a PC or laptop. It is used for programming purpose.

Description

The TK503/TK504 programming cable can be used to operate and configure the PLC via a PC or laptop.

In order to do this, CODESYS software, driver and utility programs must be installed and a TK503 programming cable or TK504 programming cable must be connected.

PC system requirements

- Platform: Microsoft Windows Vista, Windows 7, Windows 10

- CD-ROM drive

- USB port available for connecting the TK503/TK504 programming cable

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Content of the installation package

Name	Type
📁 x64	File folder
📁 x86	File folder
setup.ini	Configuration settings
slabvcp.cat	Security Catalog
slabvcp.inf	Setup Information
TK503_TK504_Driver_Installation.pdf	Adobe Acrobat Document
TK503_TK504_Installer.exe	Application

Installation

Installation steps

Before you can use the TK503/TK504 programming cables, the appropriate USB driver must be installed on your PC or laptop.

The driver for the TK503/TK504 programming cables are installed in two steps:

- Pre-installation of the drivers on your PC using the program *TK503_TK504_Installer.exe*.

- Installation of the new hardware in Windows after the TK503 programming cable or TK504 programming cable is plugged in for the first time.

☞ **NOTICE**	Before you connect the TK503/TK504 programming cable with the PC, install the USB drivers first.

Pre-installation routine

1. Start the pre-installation of the driver by calling *TK503_TK504_Installer.exe.*

Name	Type
x64	File folder
x86	File folder
setup.ini	Configuration settings
slabvcp.cat	Security Catalog
slabvcp.inf	Setup Information
TK503_TK504_Driver_Installation.pdf	Adobe Acrobat Document
TK503_TK504_Installer.exe	Application

☞ **NOTICE**	You must have administrator rights to run the installation for the USB drivers.

2. Define the installation directory.

TK503_TK504 programming cable Driver Installer

ABB
TK503_TK504 programming cable

Installation Location: Driver Version 6.5

C:\Program Files (x86)\Silabs\MCU\CP210x\

[Change Install Location...]   [Install]   [Cancel]
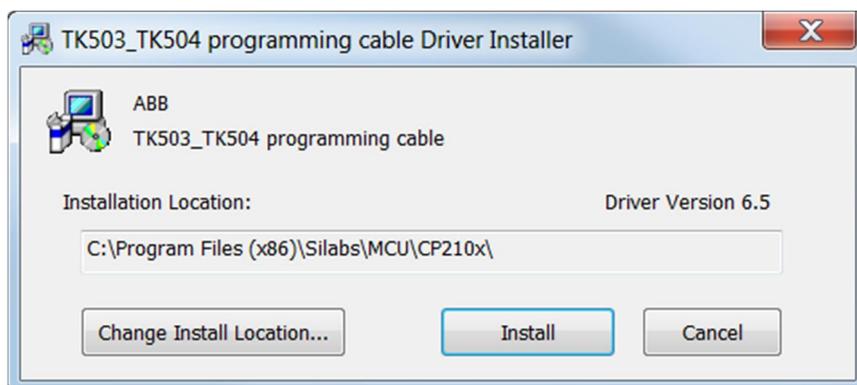
This directory can be changed by clicking the **Change Install Location** button. The installation directory is where the driver package is copied and from where you can start the installation.

Pre-installation check

- Check that a current version of the driver is not already installed.

- Check that an older version of the driver is not already installed.

3. Start the pre-installation via the **Install** button.
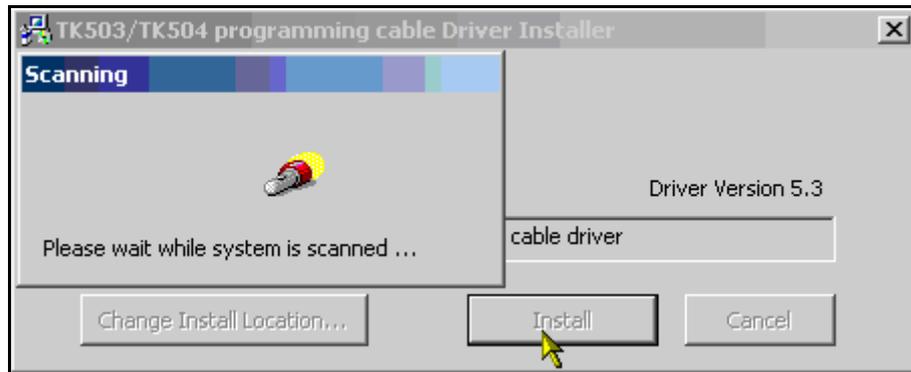
Windows Vista users only:
Start the *TK503&TK504Installer.exe* with the **Run as** administrator option, even if you have administrator rights. Acknowledge the following dialog with the **Allow** button.
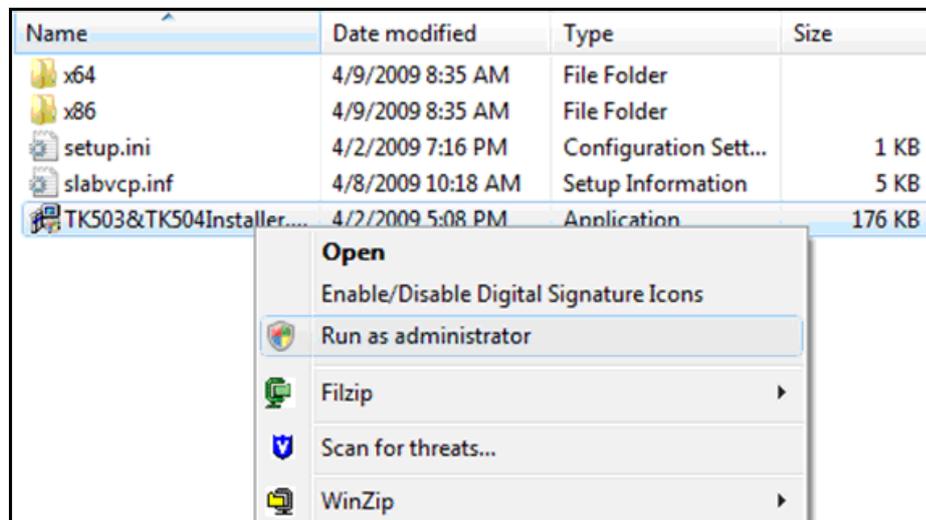
Windows 7 users only:
Windows will display an error message after clicking **Install** button. This is because the installation folder is encrypted with the Encrypting File System (EFS) enabled in your PC.
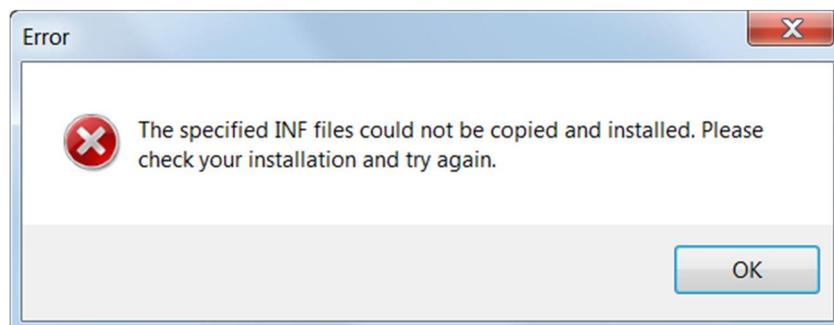
On this condition, you have to decrypt the installation folder before installing.
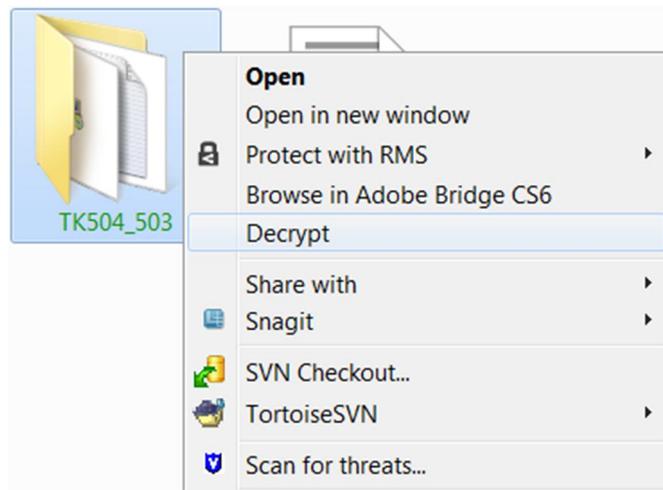
Then, start the *TK503_TK504_Installer.exe* with the **Run as administrator** option just as mentioned above.

Installation of new hardware

If the pre-installation of the drivers on your PC with *TK503_TK504_Installer.exe* is completed successfully, after the TK503/TK504 programming cable is plugged in for the first time, Windows detects that a new USB device is connected and the device driver software is installed and ready to use immediately.
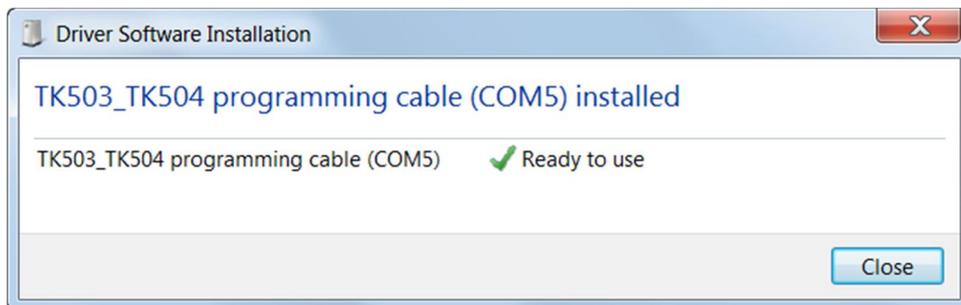
Communication

Virtual communication port configuration

If the TK503/TK504 programming cable is plugged in a USB interface, Windows creates a virtual communication port (COM Port).

All communication ports can be viewed under Device Manager – ports

1. Open the computer management by clicking **Manage** in the context menu of **My Computer** on your Desktop.

   > You can also check here whether the virtual COM port is available.
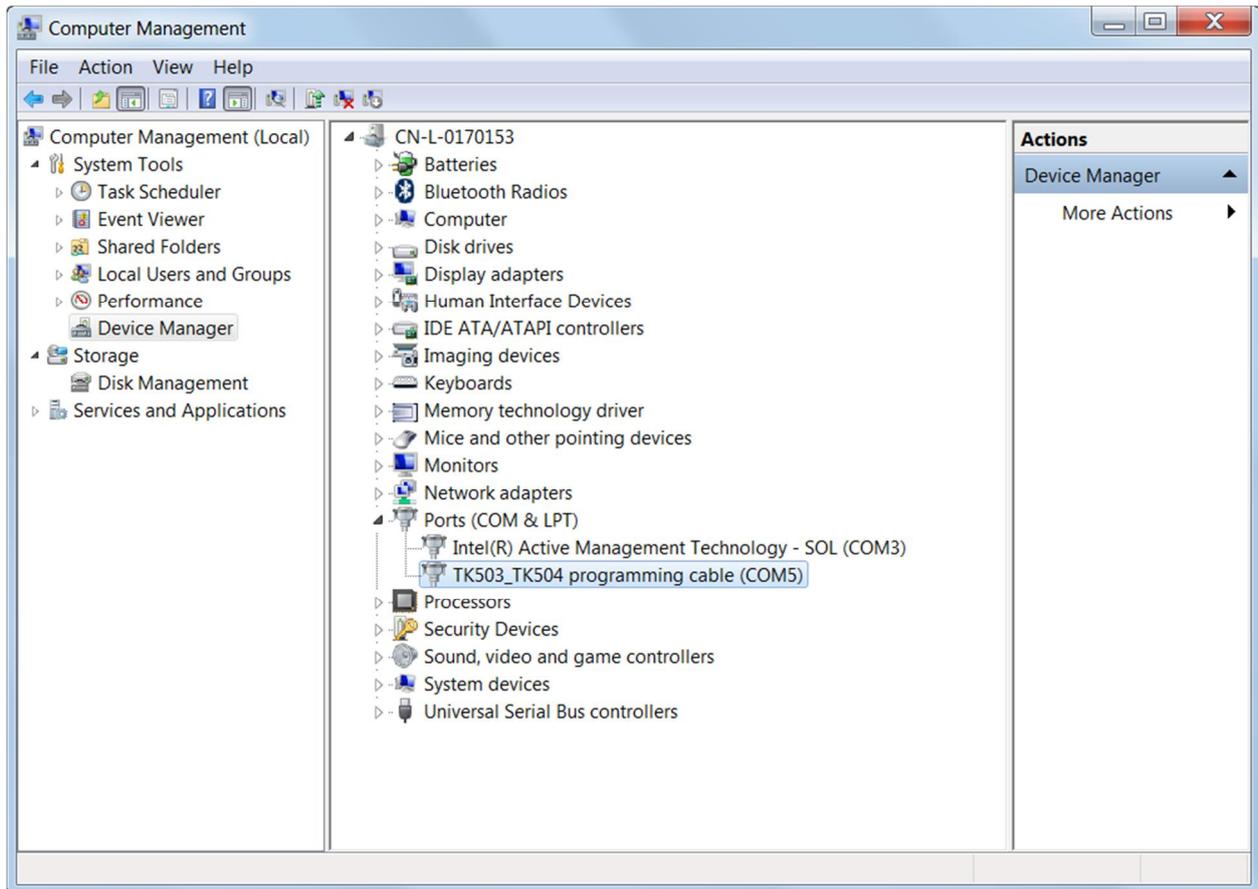
You can set the maximum baud rate and change the virtual COM port number in the **Properities** under **Port Settings**

	When configuring the communication connection in CODESYS, the baud rate can also be set separately for each COM connection.
NOTICE	

2. Set the baud rate.
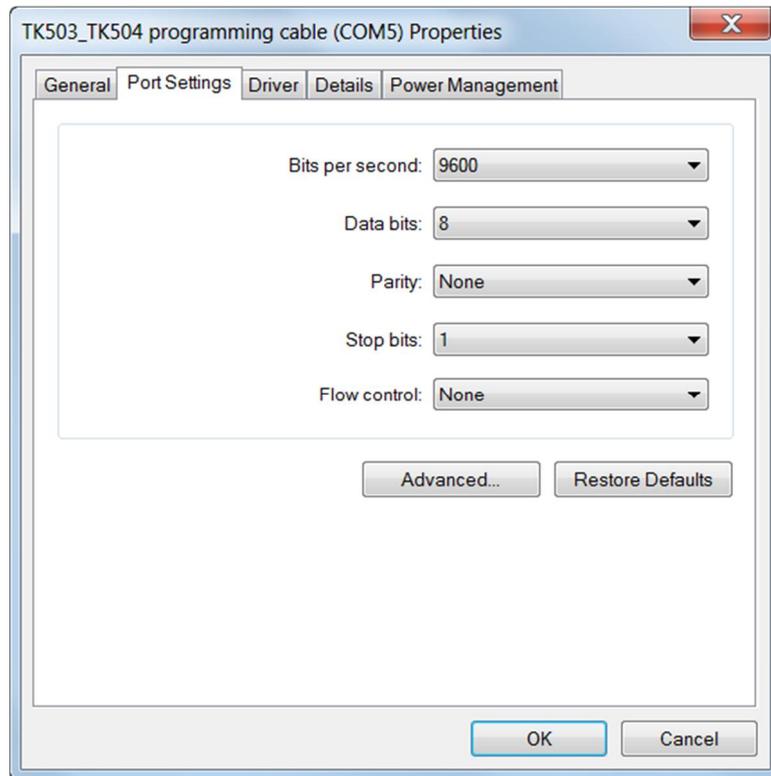
3. Set the COM Port Number under **Advanced** (up to COM32).
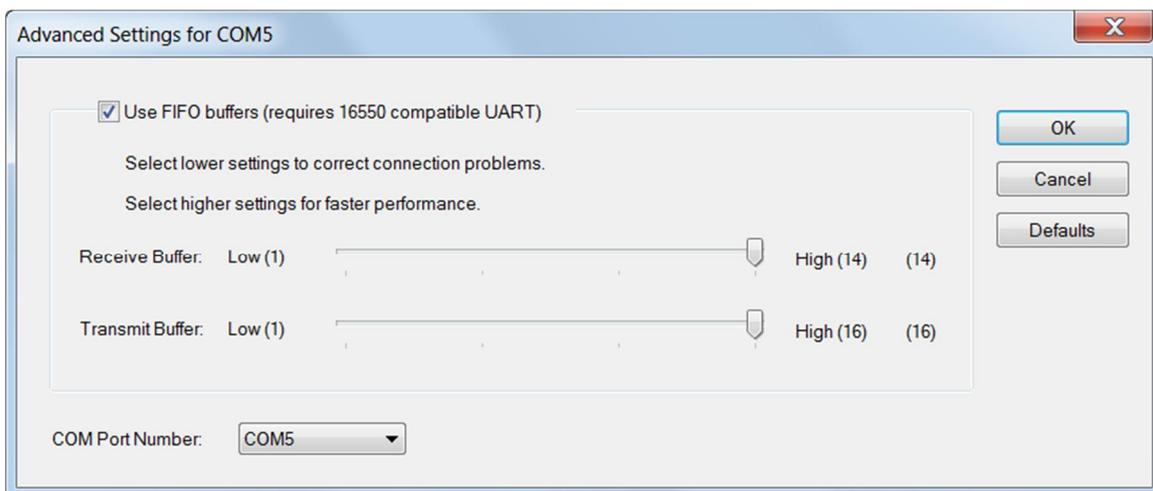
CODESYS communication

In CODESYS, the communication settings can be done via **Online –> Communication Parameters –> Port.** After that the TK503/TK504 programming cable can work properly to build up communication between CODESYS and PLC.

The following procedure must be observed without fail in order to ensure that commission is carried out correctly.

1. Install TK503/TK504 programming cable driver.

2. Connect the TK503 programming cable or TK504 programming cable to PC.

3. Windows detects the new hardware – complete the installation.

4. Start CODESYS and open the project or create a new one.

5. Create a new communication channel under **Communication Parameters.**
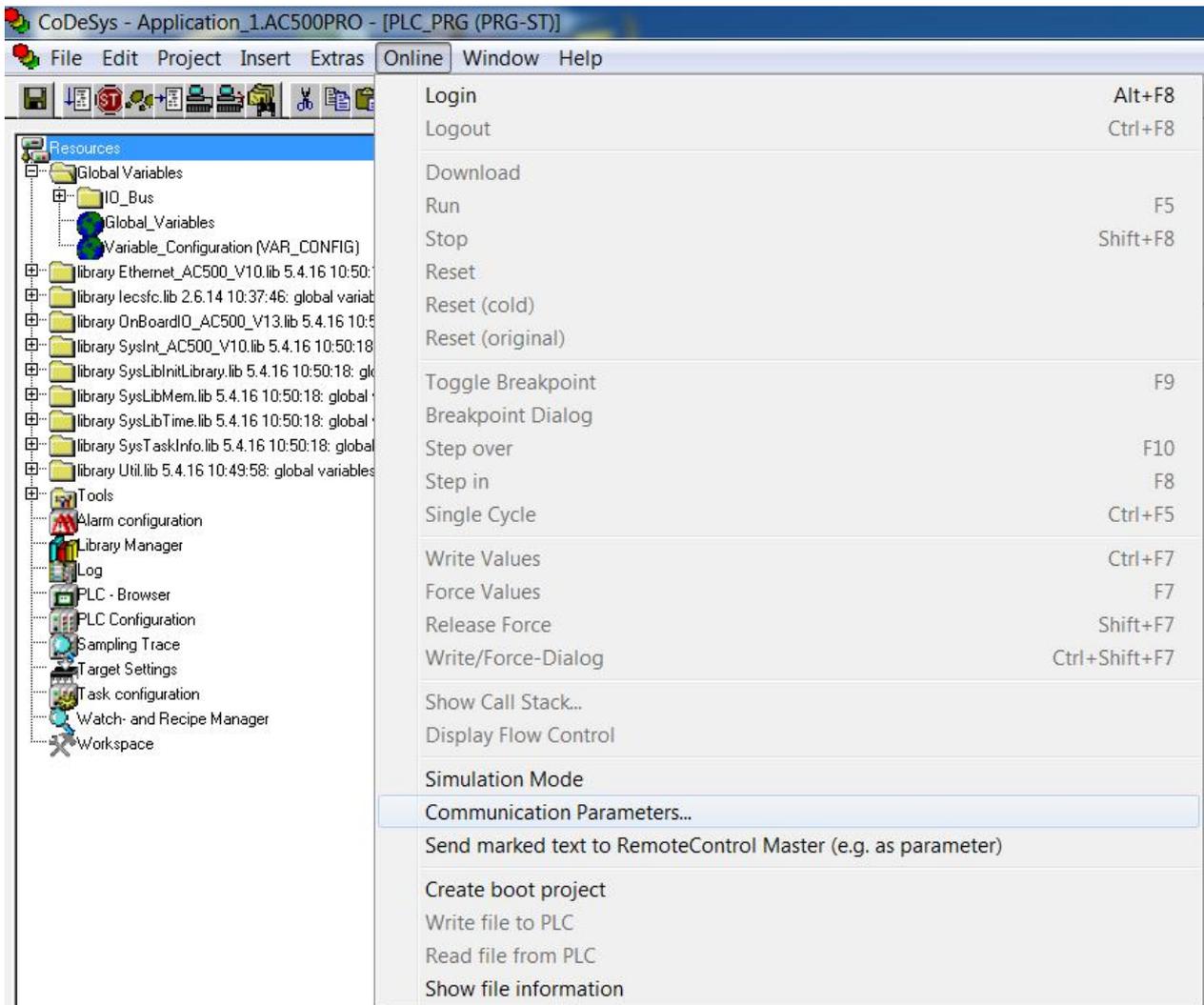
6. Select the new virtual COM port.

Communication Parameters

Channels

- Local
  - 192.168.0.220
  - 192.168.0.210
  - S232
  - S232
  - IP221
- com4
- IP221

Serial (RS232)

Name	Value	Comment
Port	COM6	
Baudrate	19200	
Parity	No	
Stop bits	1	
Motorola byteorder	Yes	
Flow Control	Off	

OK
Cancel
New ...
Remove
Gateway ...
Update

Communication Parameters: New Channel

Name: IP221_

OK
Cancel

Device

Name	Info
ABB Arcnet AC	ABB SST Arcnet AC driver
ABB RS232 AC	ABB RS232 AC driver
ABB Tcp/Ip Level 2 AC	ABB SST Tcp/Ip Level 2 routing driver
Tcp/Ip	3S Tcp/Ip driver
Serial (RS232)	3S Serial RS232 driver
Serial (Modem)	3S Modem driver
Tcp/Ip (Level 2 Route)	3S Tcp/Ip Level 2 Router Driver

⚠ **CAUTION!**	The port number here must be the same as the port number list in the Device manager – Port – TK503/TK504 programming cable (COMx), or the communication cannot be built up.

☞ **NOTICE**	The number of COM Port depends on the availability on your computer. The baudrate can be selected between 19200 and 115200 bps.

7. Login and create the communication between CODESYS and PLC
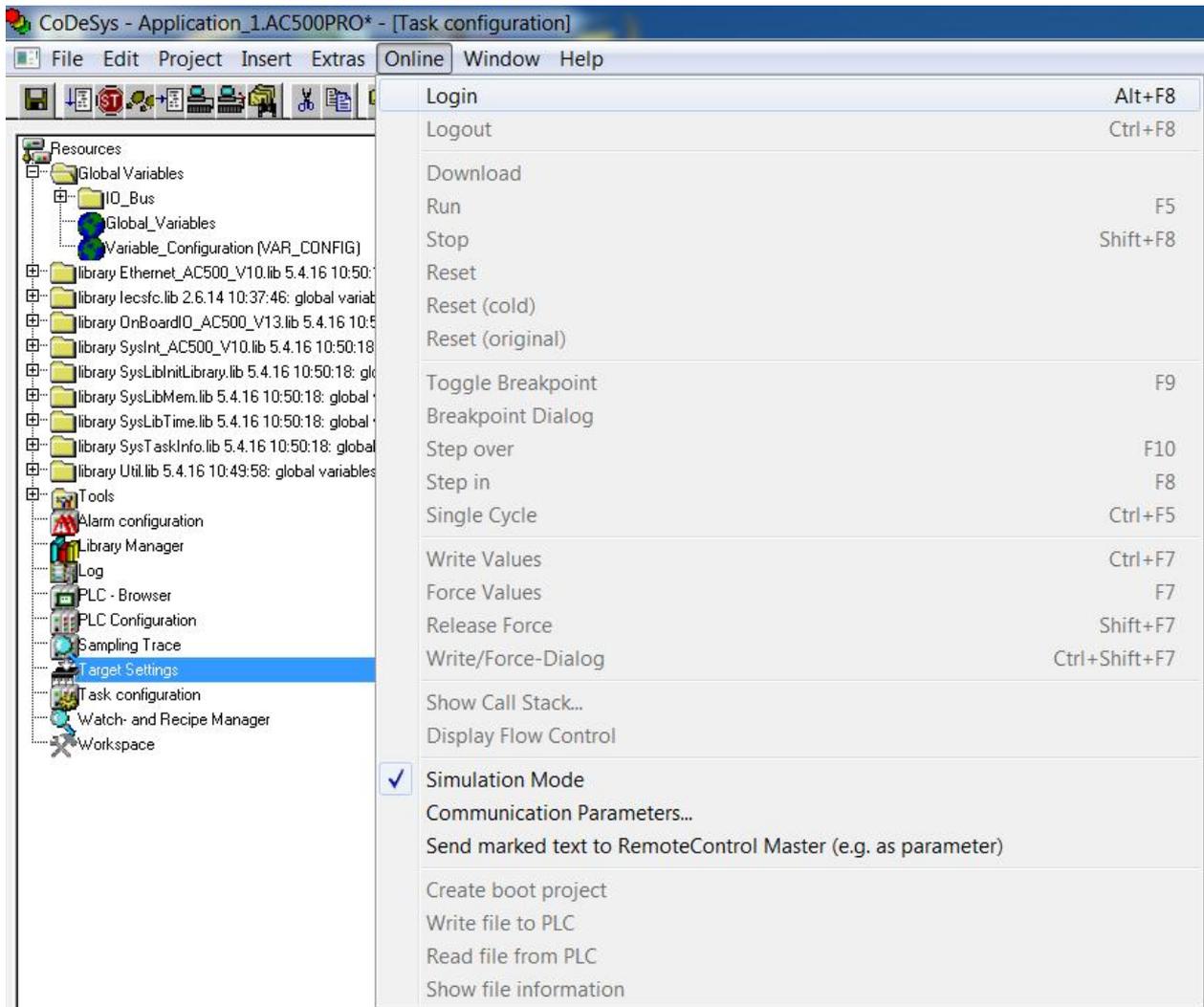
Uninstallation/Update

Uninstall or update the windows installation of driver

1. Start the computer management and select the Device Manger. Search for entry **TK503/TK504 programming cable**. Make a right mouse click at this entry and you can choose **Uninstall** or **Update Driver** from the context menu.
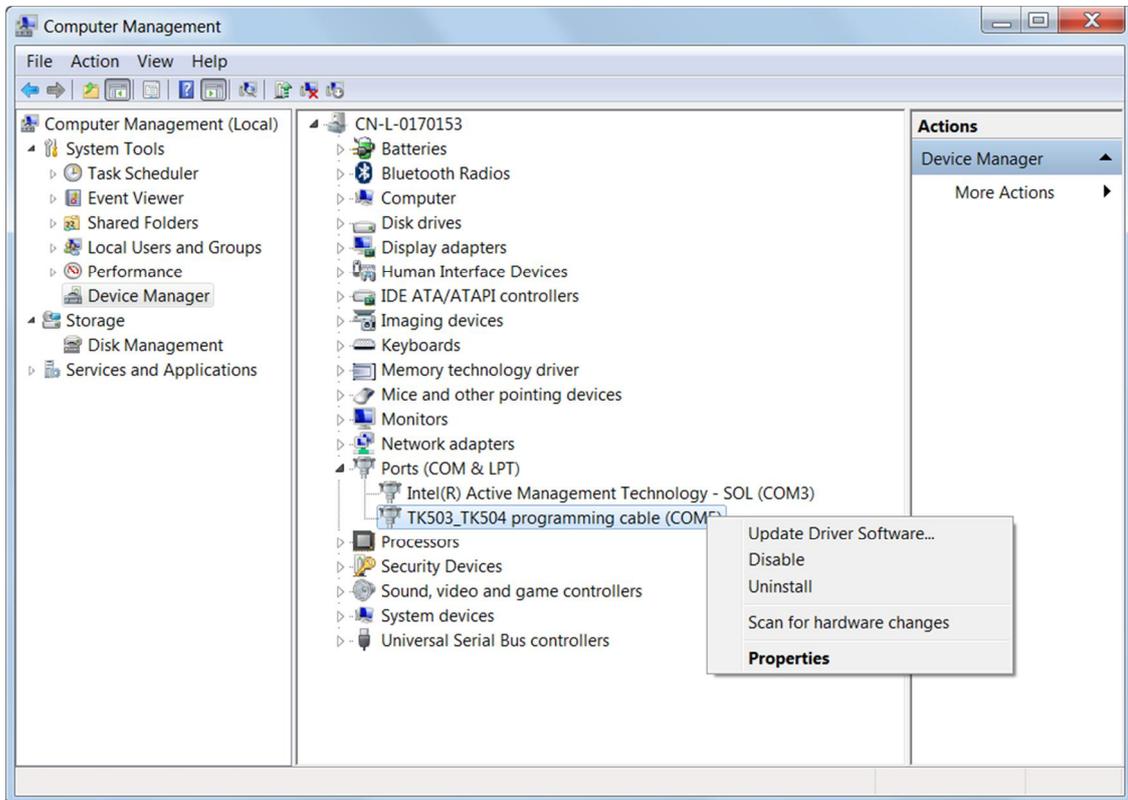
When you choose **Uninstall**, you need to decide whether to delete the driver software for this device or not.
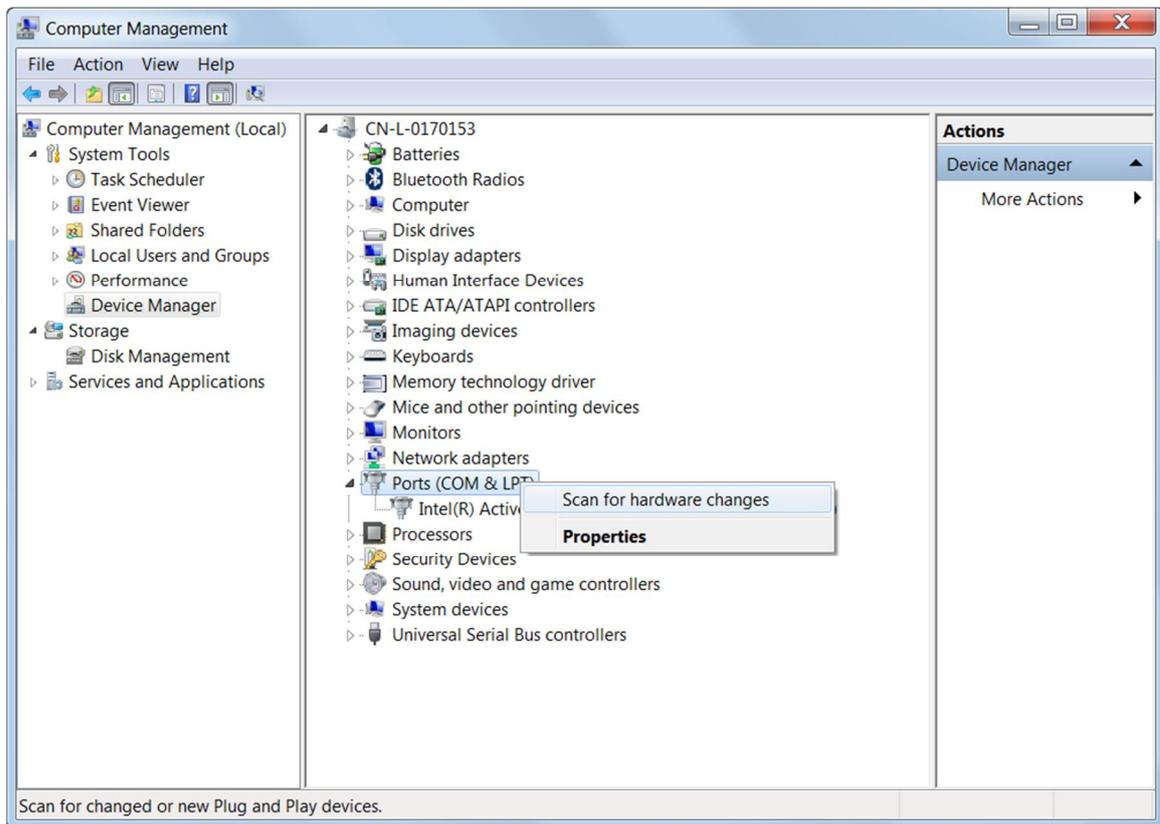
If **Delete the driver software for this device** is chosen, the driver cannot be reinstalled automatically. You need to reinstall the driver from start.

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