

ABB	Specification			
Department: CNILX-ED	Date: 2010-05-11	File number: Programming cable driver installation specification_2010-05-11.doc	Page: 1/21	
Prepared by:	Checked by:	Approved by:	Replacement for:	Valid for: AC500-eCo

Programming cable driver installation specification

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1 introduction

1.1 Installation requirement

The following installation requirement must be fulfilled:

- Operation system: Windows XP, Windows 7
- Administrator rights
- CD-ROM drive (only with CD installation)
- USB interface

1.2 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 stages:

1. Pre-installation of the drivers on your PC using the program "TK503&TK504Installer.exe"
2. Installation of the new hardware in Windows after the TK503 programming cable or TK504 programming cable is plugged in for the first time

Note: First install the USB drivers before you connect the TK503/TK504 programming cable with the PC.

2 Installation

2.1 Install package

The driver installer is built as a single executable that reference a file called setup.ini, This INI file contains all of the settings used for driver installation and uninstallation. This TK503&TK504Installer.exe and setup.ini combo should exist in a directory alongside the .sys driver files, .inf installation files.

The structure of TK503&TK504Installer Driver Package for Windows XP/7 looks like this:

- TK503&TK504Installer.exe
- setup.ini (customized setup values)
- x64 (driver and library files 64 bit)
- x86 (driver and library files 32 bit)
- slabvcp.inf (INF file for driver)

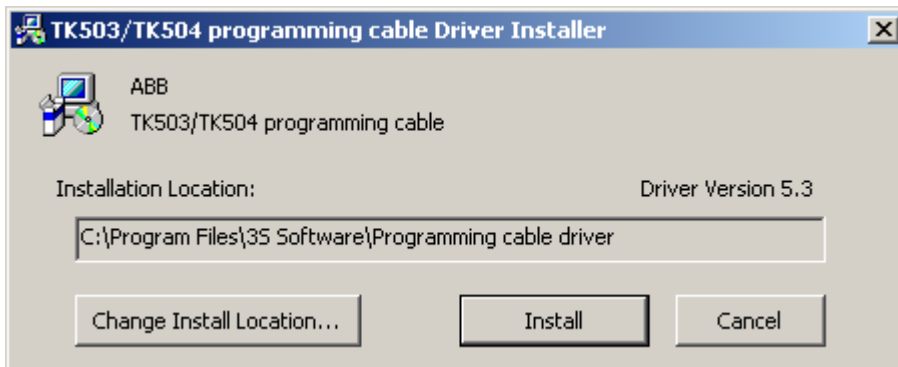
2.2 Installation directory selection

There is an option in the setup.ini file that determines if drivers should be copied to the PC. If driver files are supposed to be copied to the hard drive, then a default installation directory specified in setup.ini is displayed in the DriverInstaller window.

- Start the pre-installation of the driver by double clicking TK503&TK504Installer.exe

Name	Size	Type
x64		File Folder
x86		File Folder
TK503&TK504Installer.exe	176 KB	Application
setup.ini	1 KB	Configuration Settings
slabvcp.inf	5 KB	Setup Information

- Define the installation directory

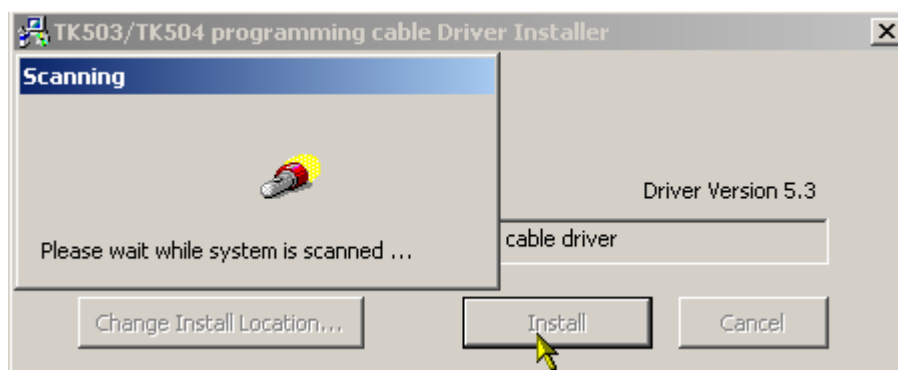


This directory can be changed by clicking the “Change Install Location” Button. The installation directory is where the driver package is copied and also where the installation originates. This is so the original install media (such as a CD or floppy) is not needed every time a device is installed.

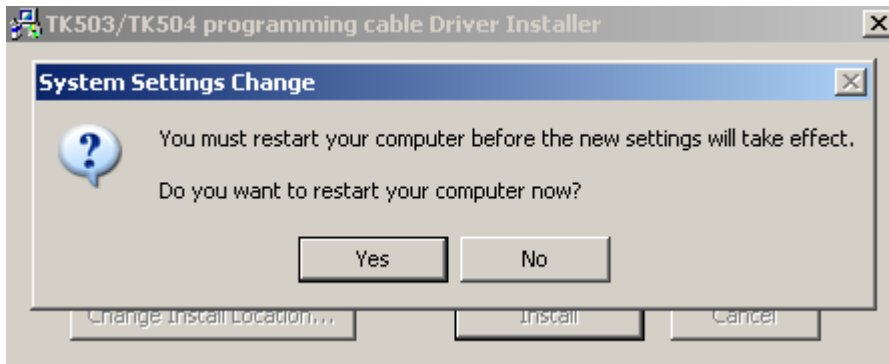
2.3 Pre-installation routine

When the install button is clicked, the installer goes through a process to make sure that the driver is installed successfully and cleanly. The steps are as follows:

- Pre-installation check
 - Check that a current version of the driver is not already installed.
 - Check that a older version of the driver is not already installed.
- Start the pre-installation via the install button



- Reboot your PC or laptop at the end of the successful installation



Note: you can not install the USB drivers if you do not have any local administrator rights.

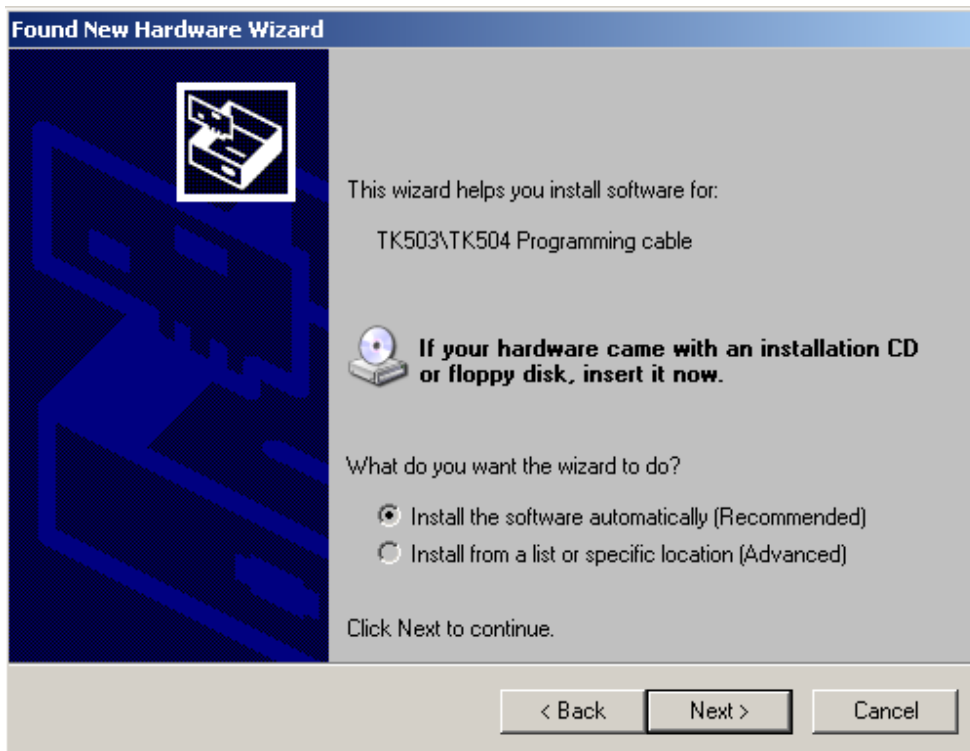
2.4 Driver installation routine

After the TK503/TK504 programming cable is plugged in for the first time, Windows detects that a new USB device is connected and the "New Hardware Wizard" window is prompted.

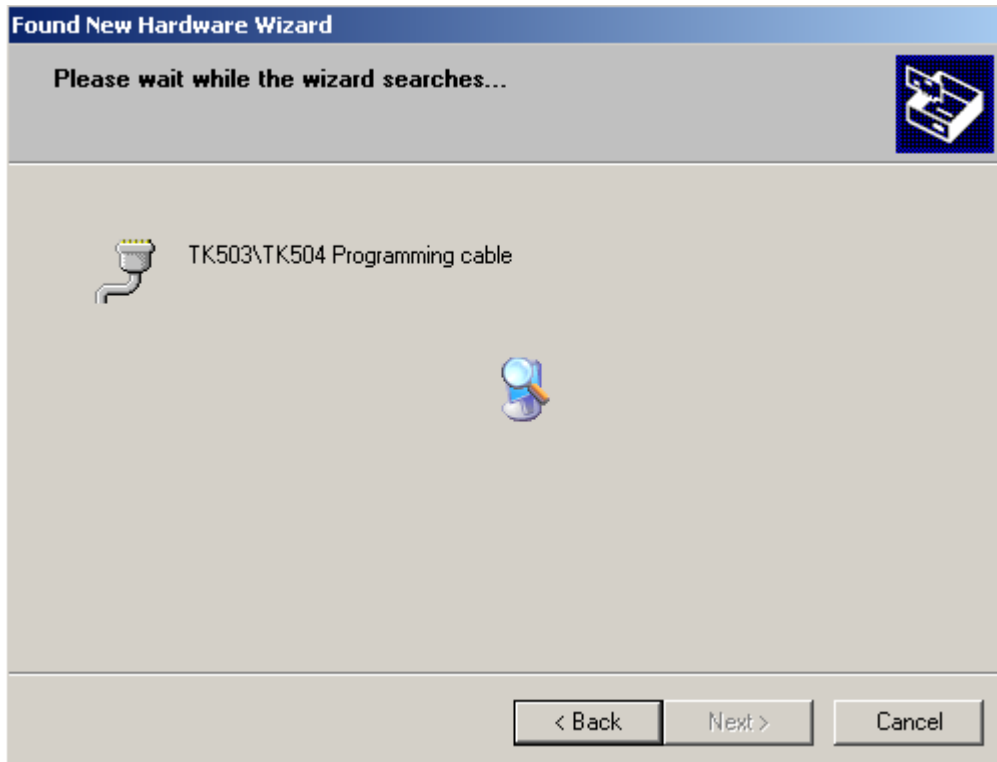
- Select here "No, not this time" and then click "Next".

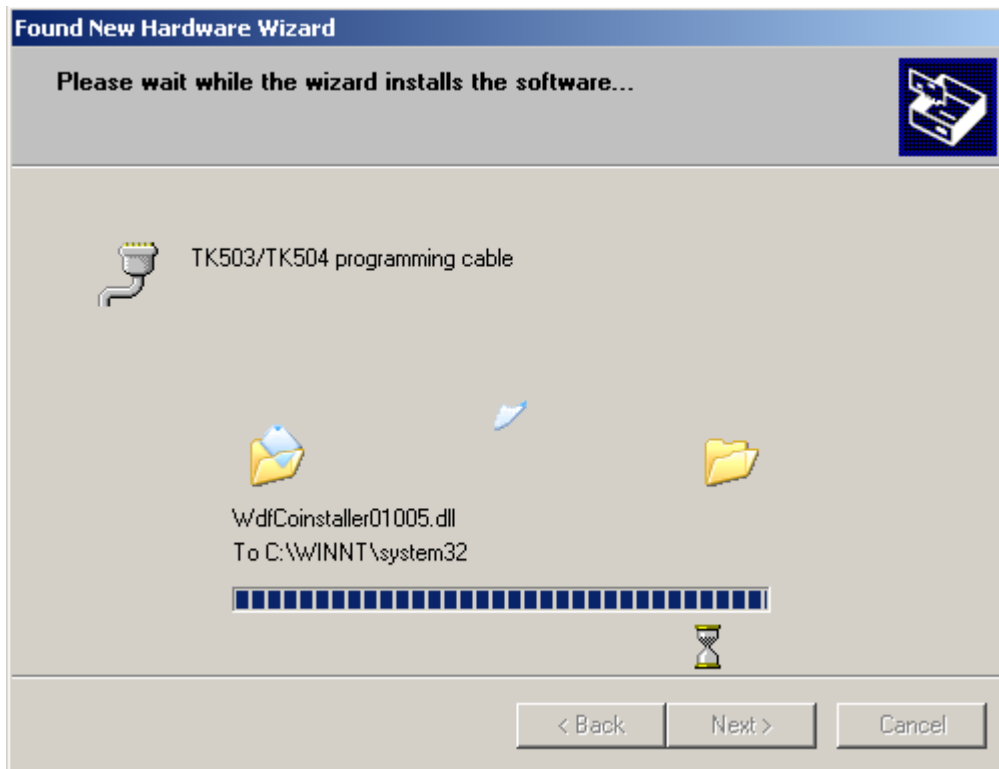


- Select here "Install the software automatically" and then click "Next".



The driver for the TK503 programming cable or the TK504 programming cable is searched for and then installed.





The installation is completed once you close the "Completing the Found New Hardware Wizard" window via the "Finish" button.



3 Update

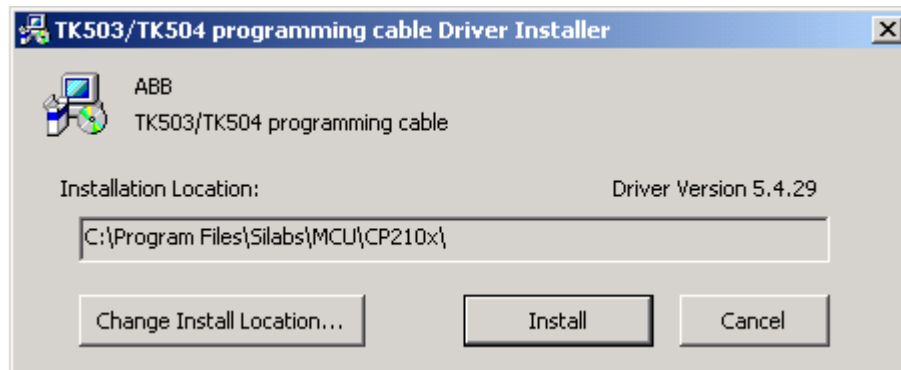
If an older version of this driver was installed previously, the update steps are as follows:

3.1 Installation directory selection

- Start the update installation of the driver by double clicking TK503&TK504Installer.exe

Name	Size	Type
x64		File Folder
x86		File Folder
setup.ini	1 KB	Configuration Settings
slabvcp.inf	5 KB	Setup Information
TK503&TK504Installer.exe	180 KB	Application

- Define the installation directory



This directory can be changed by clicking the “Change Install Location” Button. The installation directory is where the driver package is copied and also where the installation originates.

3.2 Update installation routine

If an older version of this driver was installed previously, it will perform a proper removal before installing the new driver.

- Select “Yes” to confirm the update

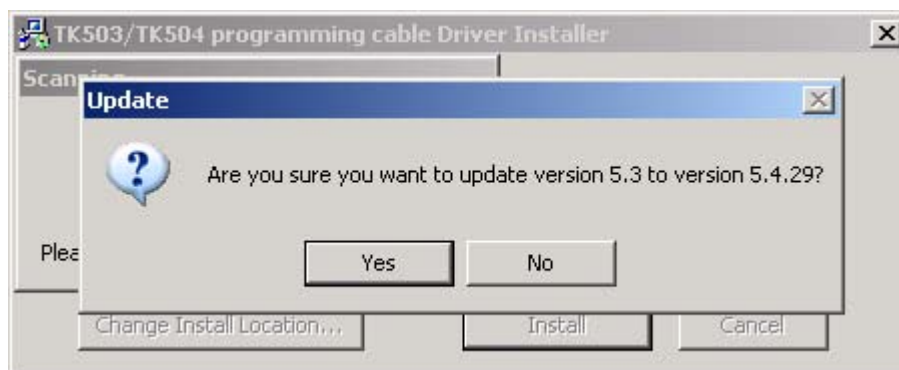


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- Select “Yes” to remove the old drivers



- Reboot your PC or laptop at the end of the successful update installation



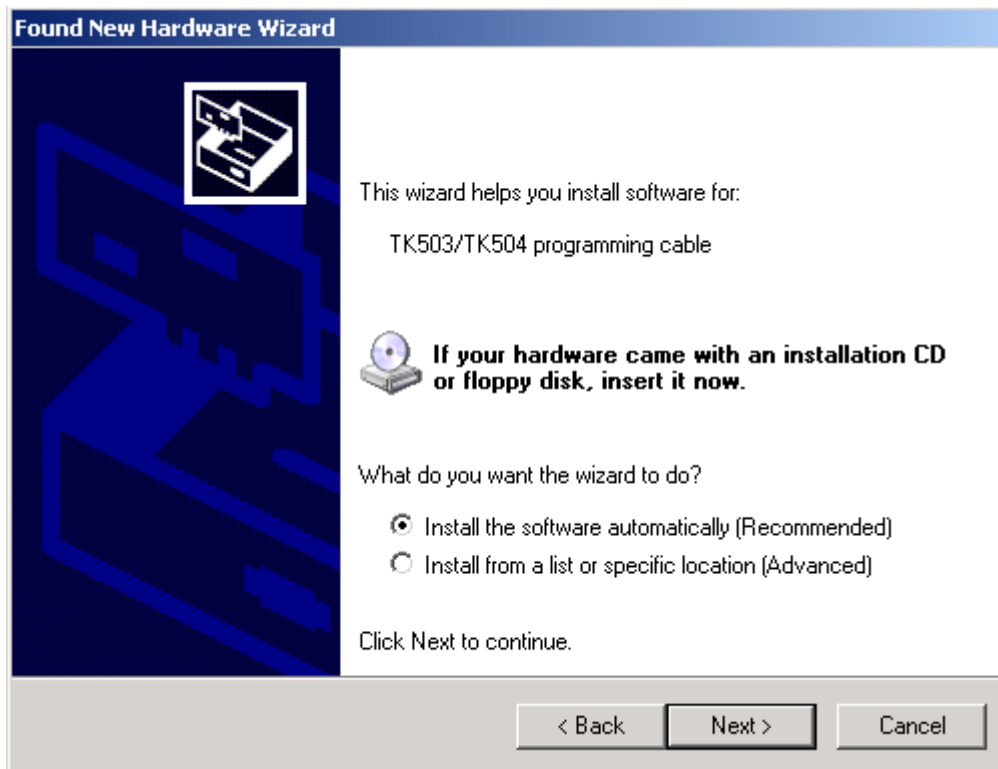
3.3 Driver installation routine

After the TK503/TK504 programming cable is plugged in for the first time after driver updated, Windows detects that a new USB device is connected and the “ New Hardware Wizard ” window is prompted.

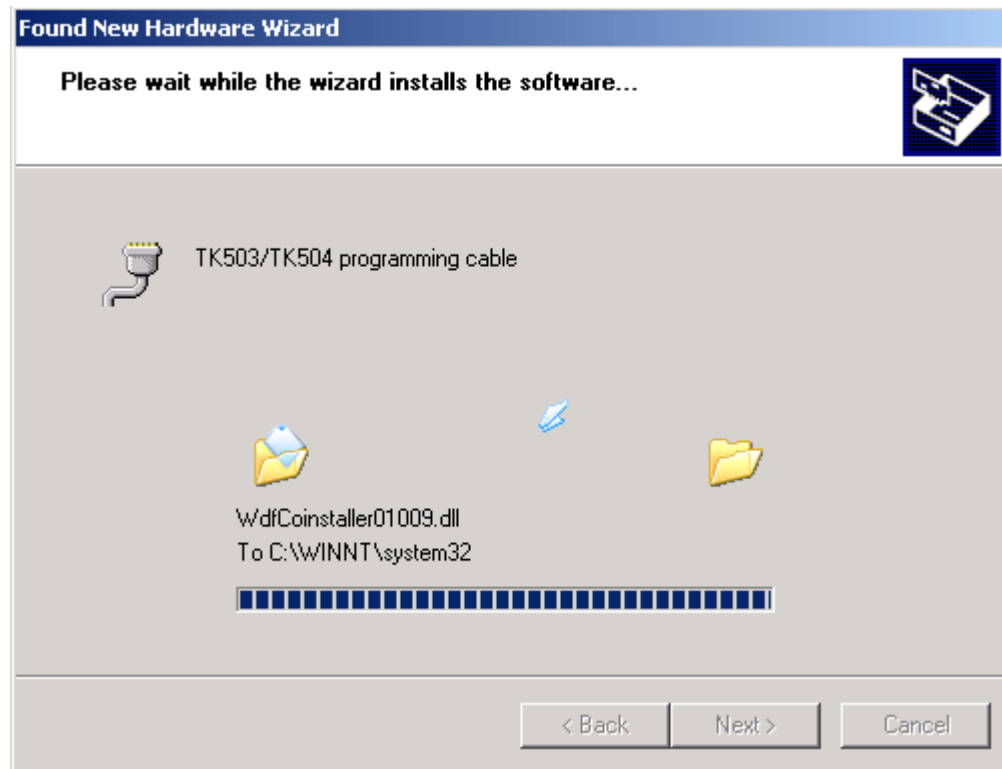
- Select here “ No, not this time ” and then click “ Next ”.



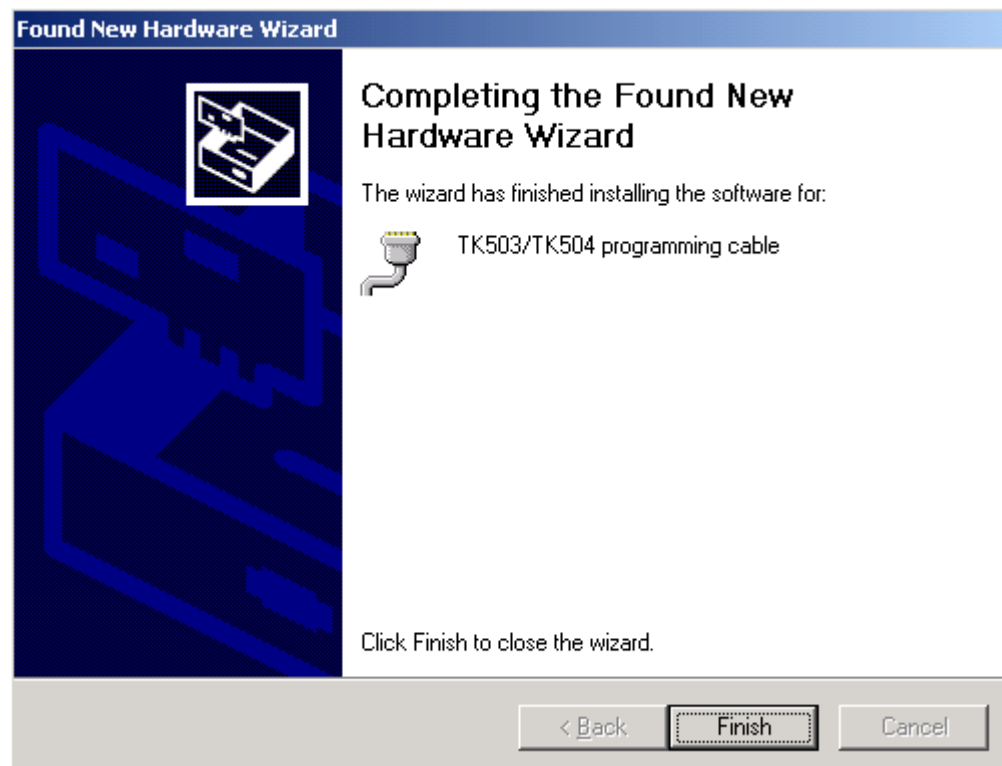
- Select here “ Install the software automatically ” and then click “Next”.



The driver for the TK503 programming cable or the TK504 programming cable is searched for and then installed.



The installation is completed once you close the "Completing the Found New Hardware Wizard" window via the "Finish" button.

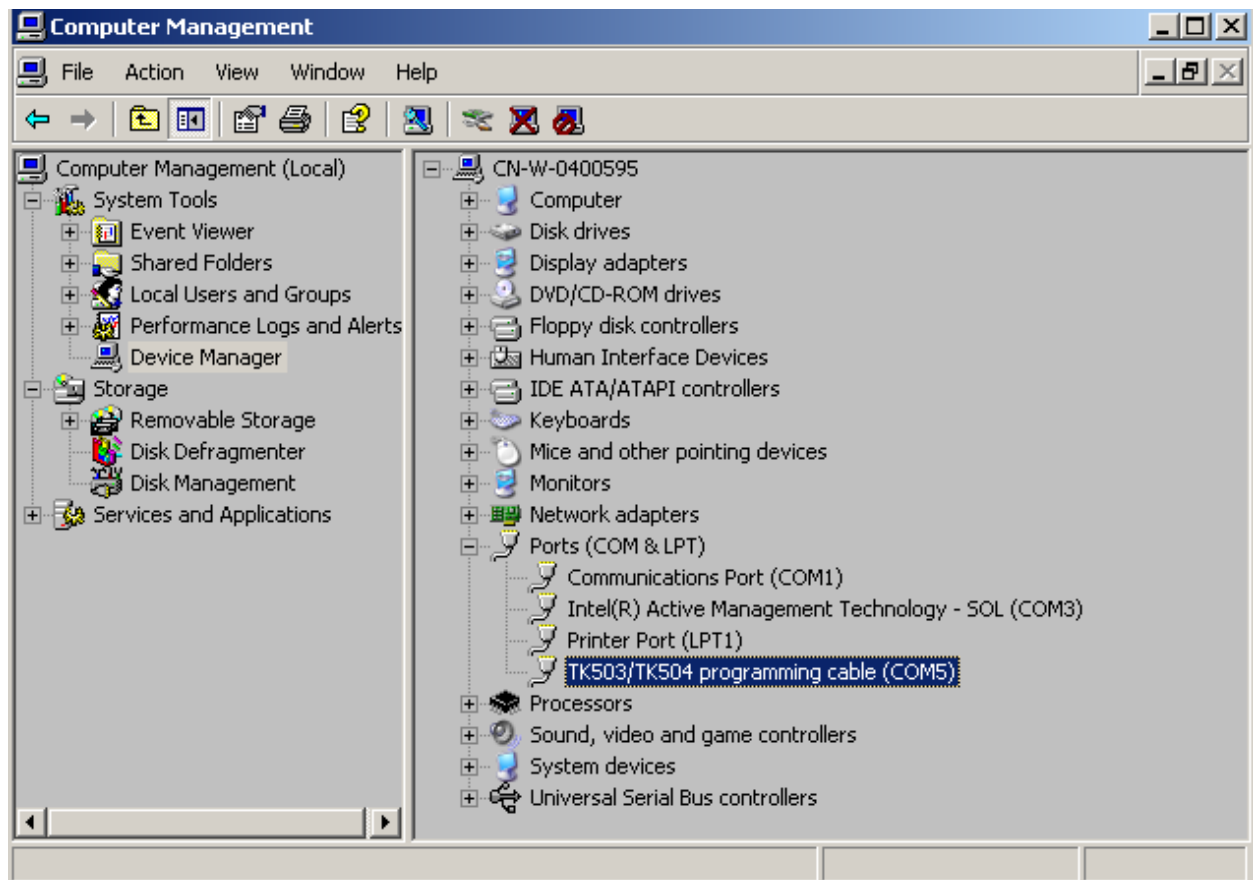


4 Using the virtual communication port

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. Open the computer management by clicking manage in the context menu of My Computer on your Desktop or via Control Panel – Administrative Tools – Computer management.

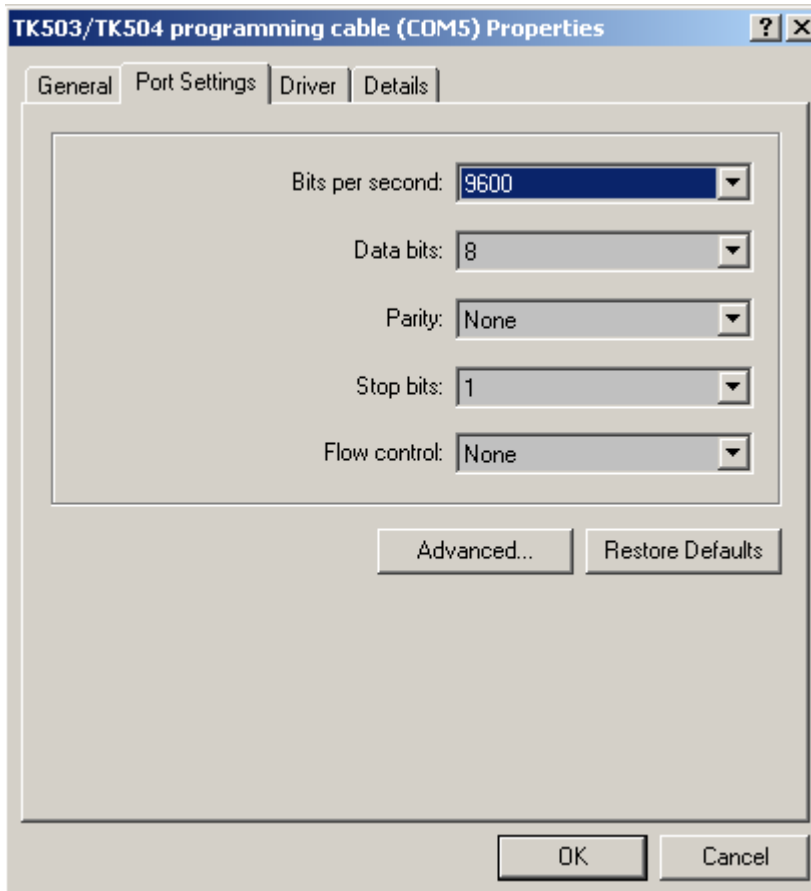
You can also check here whether the virtual COM port is available. If this is not the case, there may be a conflict with another device. Read under “ what do you do if... “ how to proceed in this case.



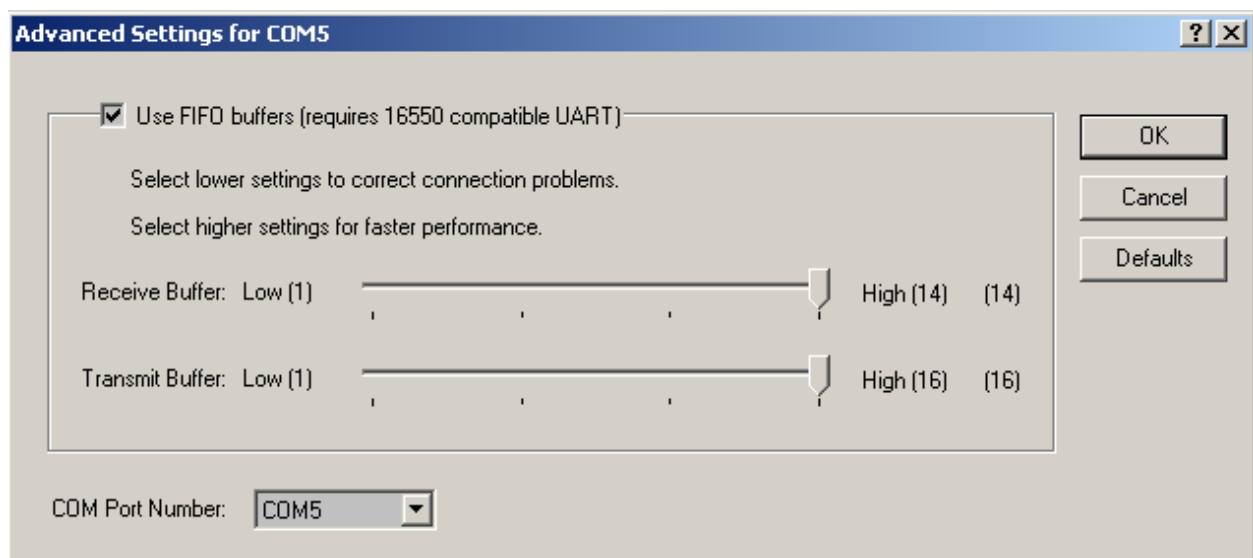
You can set the maximum baud rate and change the virtual COM port number in the “ Properties” under “Port Settings”.

Note: when configuring the communication connection in CoDeSys, the baud rate can also be set separately for each COM connection.

- Set the baud rate



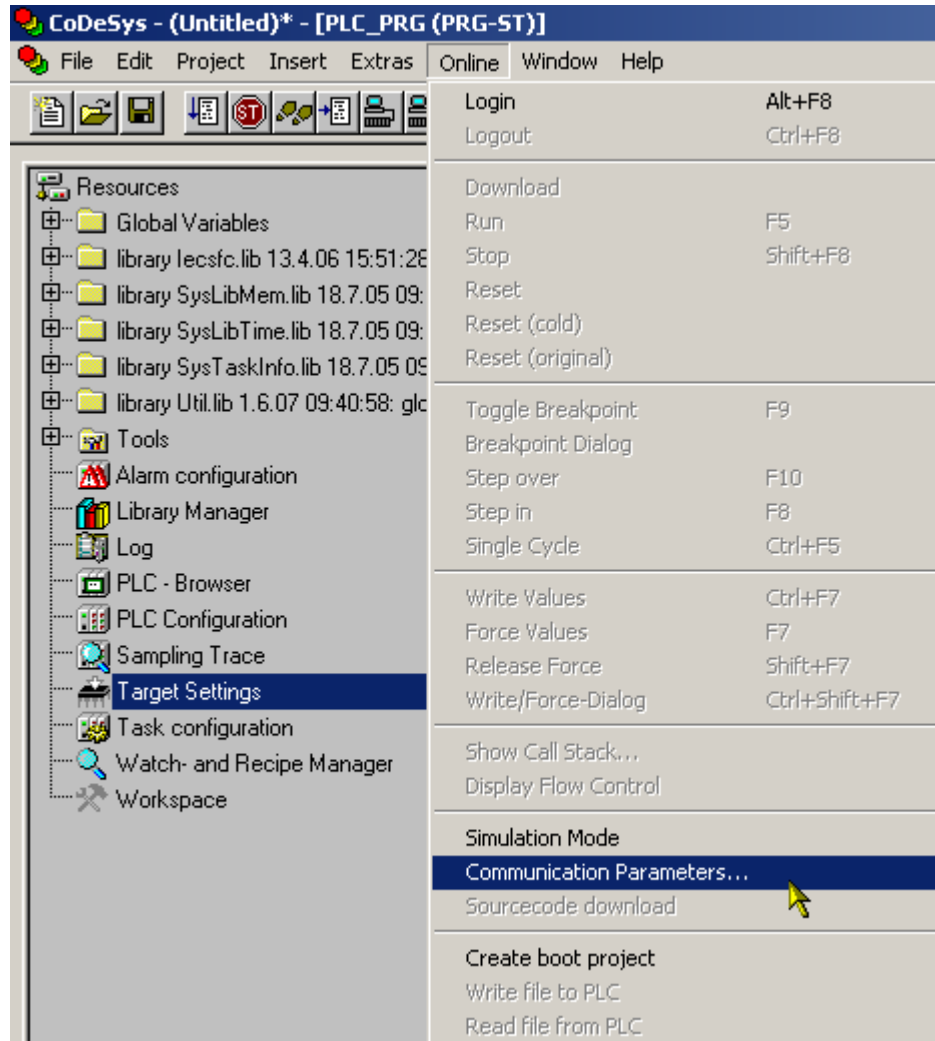
- Set the COM Port Number under " Advanced " (up to COM32)



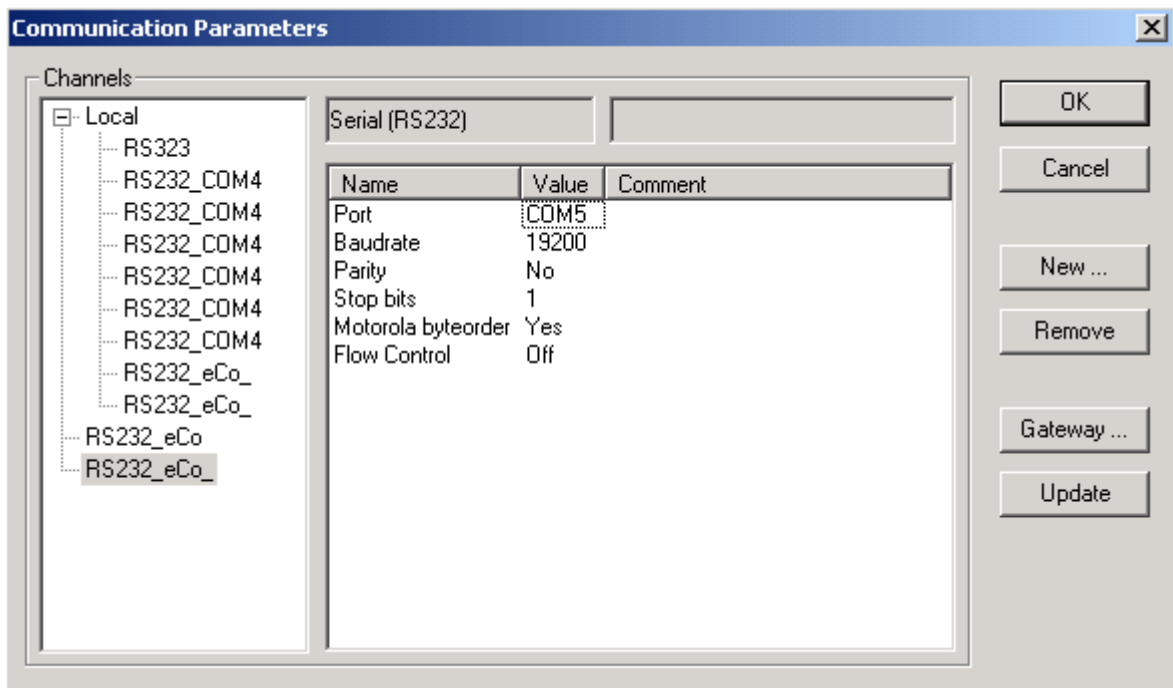
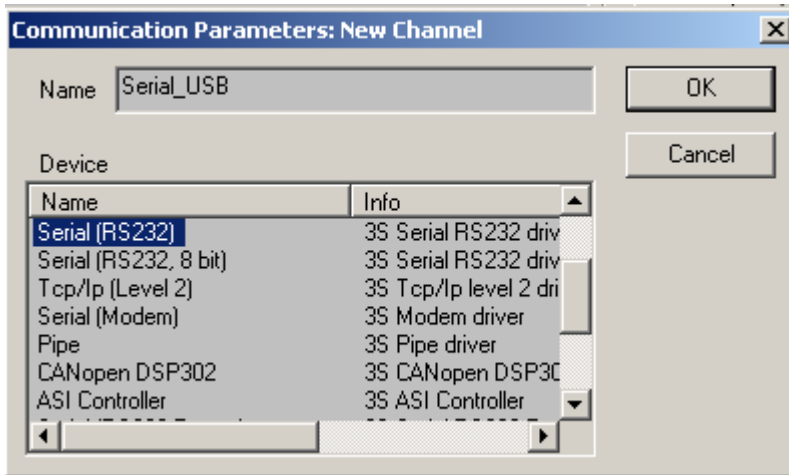
In CoDeSys the communication settings can be done via Online – Communication Parameters – Port, after that the TK503/TK504 programming cable can work properly to build up communication between CoDeSys and PLC.

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

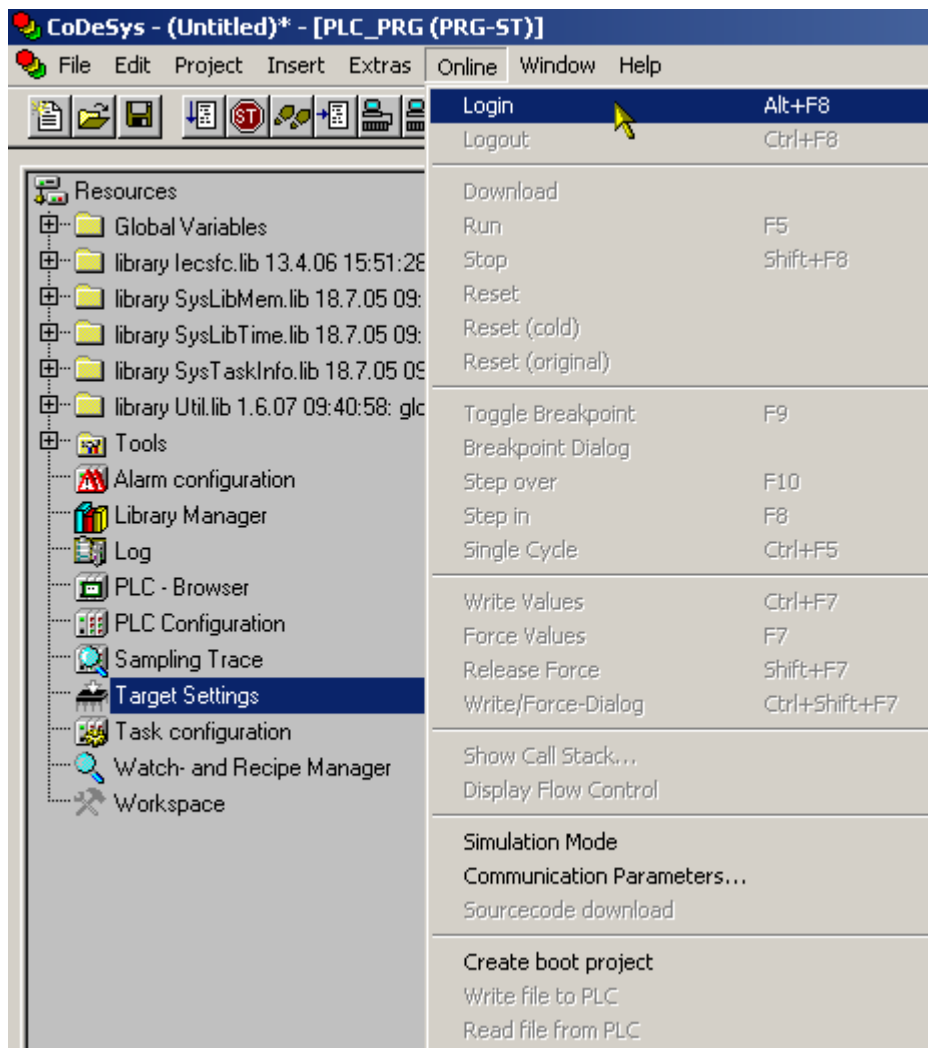


6. Set the new virtual COM port



Important note: The port number here should be the same as the port number list in the Device manager – Port – “TK503/TK504 programming cable (COMx)”, otherwise the communication can not be built up.

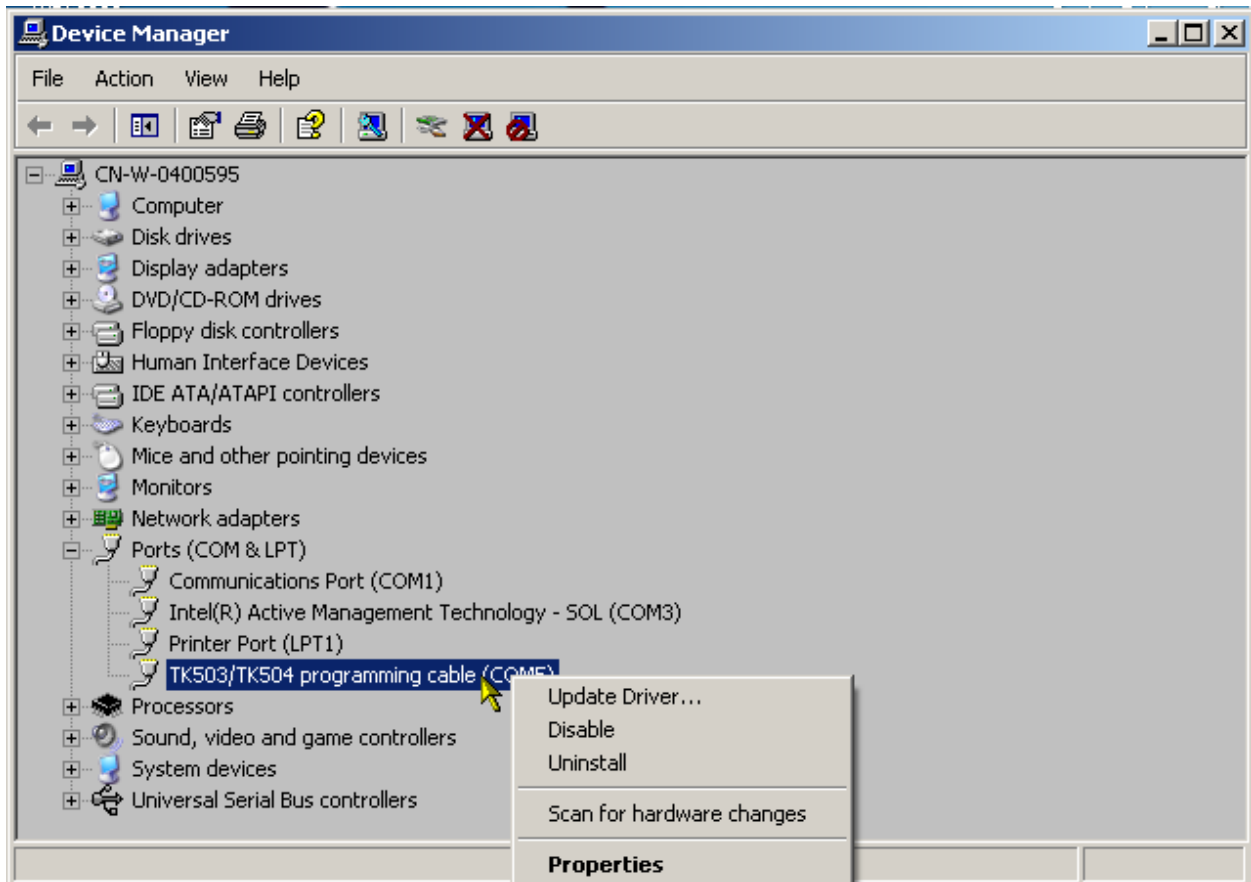
7. Login and Create the communication between CoDeSys and PLC



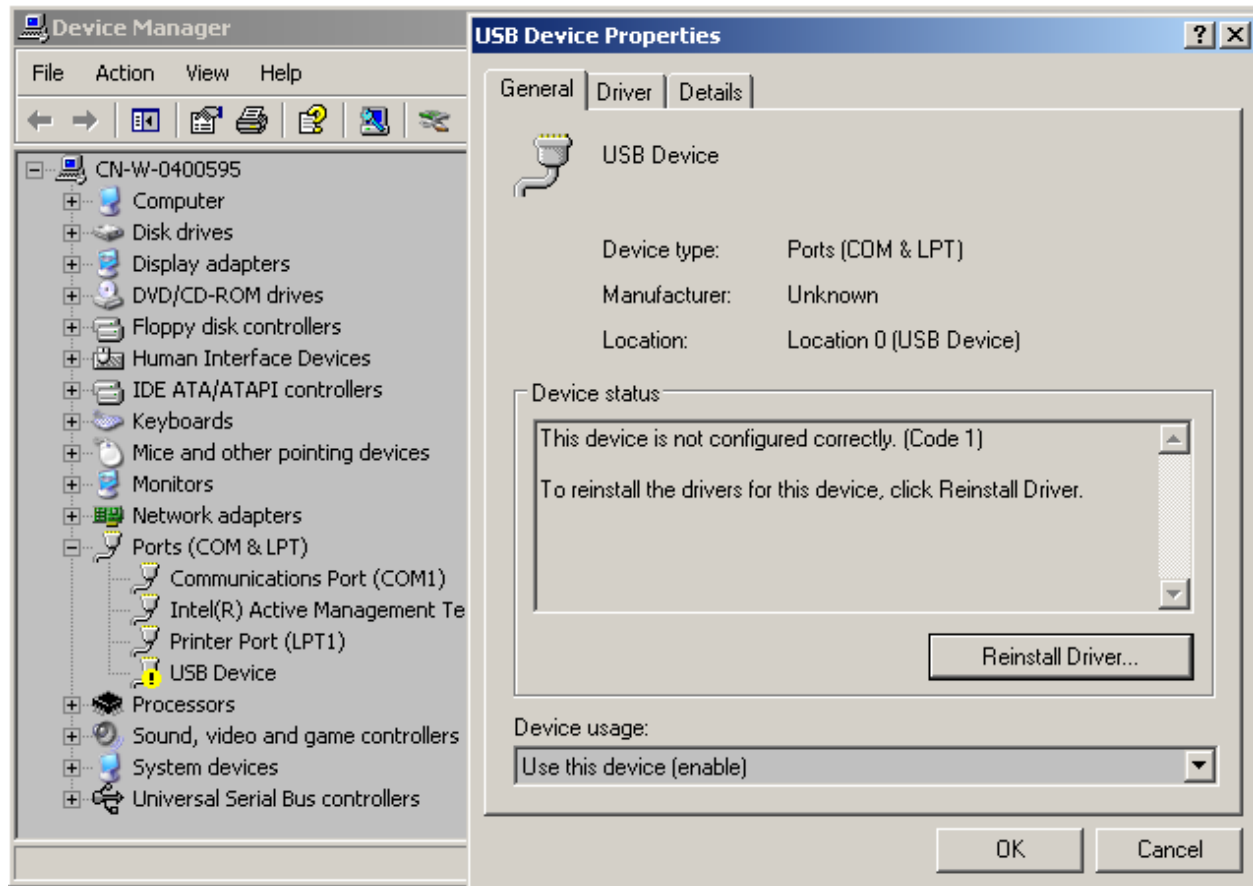
5 Uninstall the driver

- uninstall or update the windows installation of driver

Start the computer management and select the Device Manger. Search the entry "TK503/TK504 programming cable". Make a right mouse click at this entry and choose "Uninstall" or "Update" from the context menu.

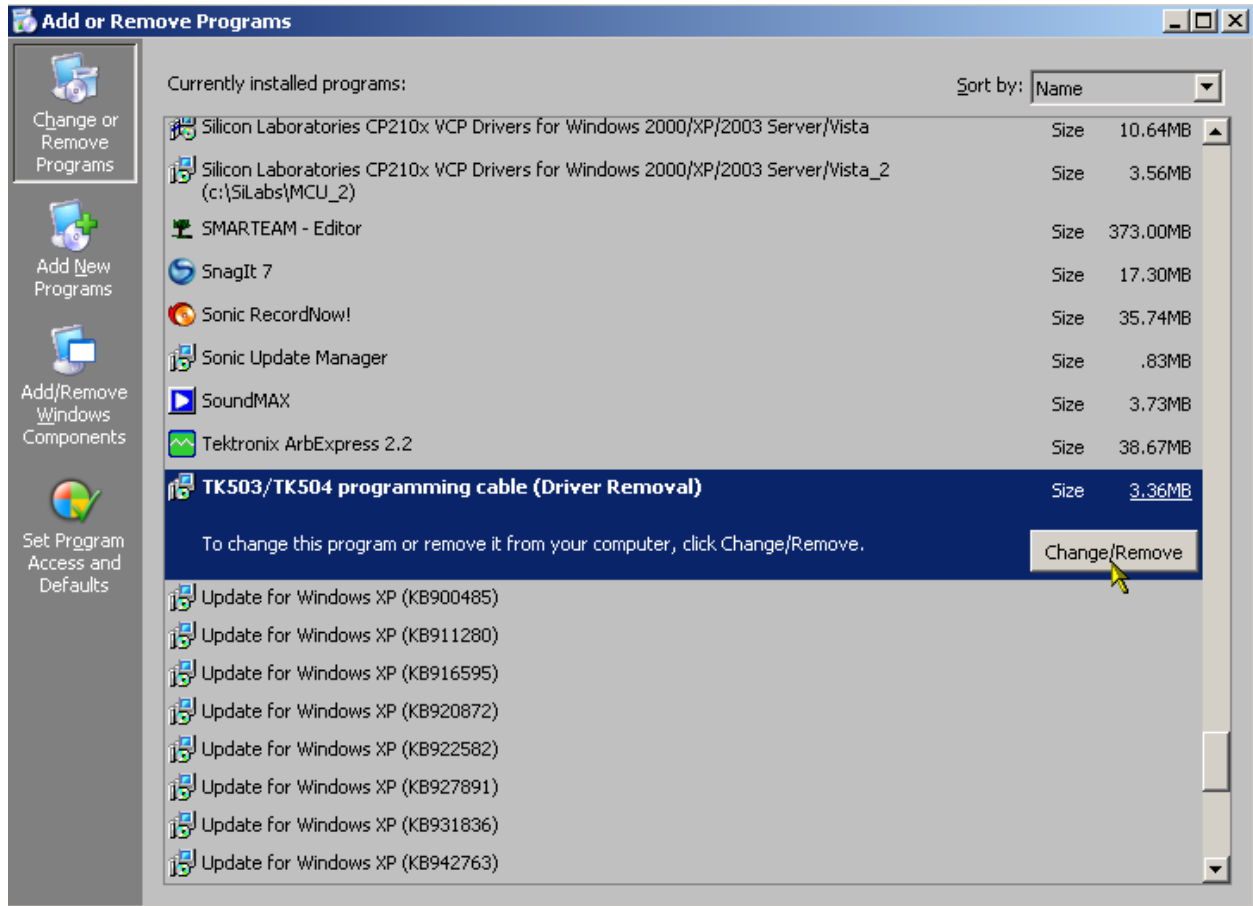


Note: This only remove the operation of the part 2.4 " Driver install routin ", after that you can reinstall the driver in " USB Device Properties" under " Reinstall Driver".



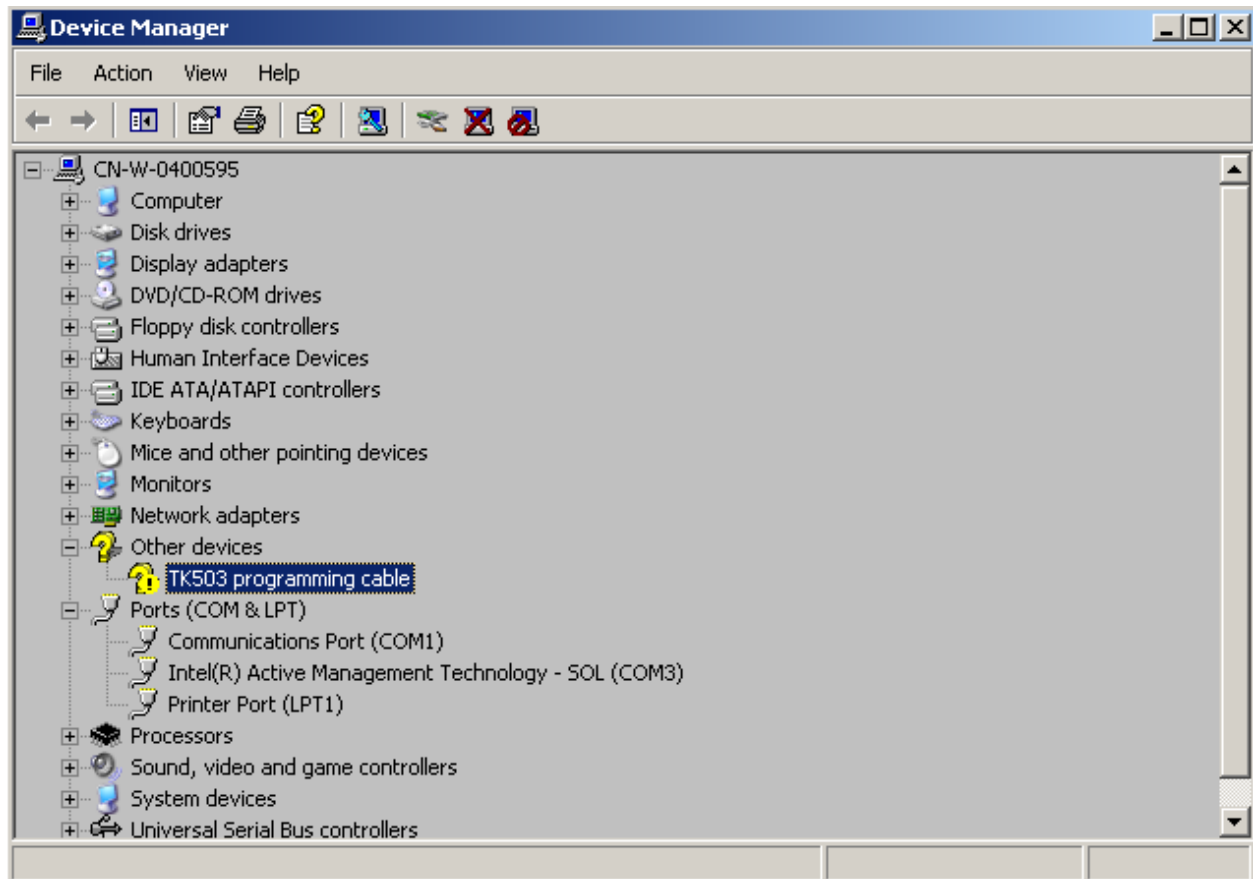
- All driver files from the Windows folder and the pre-installed driver files are remove from PC

Click the " Change/Remove " button in Windows Control Panel – Add or Remove Programs – TK503/TK504 programming cable.



6 What do you do if...

All communication ports can be viewed under Computer Management – Device Manager – ports. You can also check here whether the virtual port is available or whether there is a driver conflict. Open the Computer Management by clicking Manage in the context menu of My computer on your Desktop or via Control Panel – Administrative Tools – Computer Management.



In the above case no driver was found for the TK503 programming cable. This could be the case if you have already fitted the TK503 programming cable although there is no pre-installation of driver present on your PC. In this case, proceed as follows:

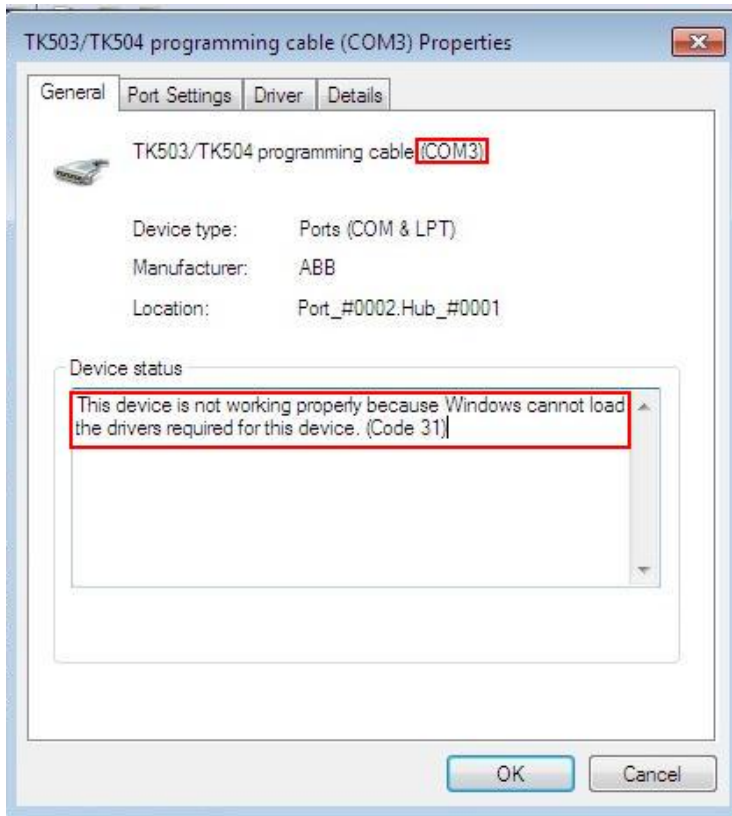
- Right click the unrecognized device with the question mark symbol and select “Uninstall”
- Then carry out the pre-installation once more as described above before connecting the TK503 programming cable to your PC

Note for Windows 7: If the Windows 7 is 32-bit version, maybe the device can't working properly immediately after the driver is installed, like as:



In this case, you should change device's COM port number to a available port. For example:

Before device's COM port number is changed, the programming cable is not working properly:



After device's COM port number is changed to COM20, and reconnect the programming cable, the programming cable is working properly:

