Manual
PCI Driver Installation

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W&T

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Perform work on and with W&T products only if they are described here and you have fully read and understood the Manual. Improper use may result in personal risk. We assume no liability for the consequences of improper use. If in doubt, first check with us or with your dealer!

The serial W&T PCI cards are, with the exception of Linux, only accessible under the various operating systems through special drivers. These drivers are subject to continuous development with respect to their technical features as well as the number and type of operating systems.

Therefore W&T makes the current drivers and software installation manuals available on the data sheet pages for PCI cards in the Internet under http://www.wut.de.

Whereas Linux kernel version 2.4 and higher supports the PCI cards directly with no additional drivers, on Windows 98/ME/NT/2000 and XP systems the driver installs virtual COM ports through which the serial ports on the PCI cards can be accessed.

Detailed information concerning installation and configuration of the drivers under the various operating systems can be found in this document.

W&T

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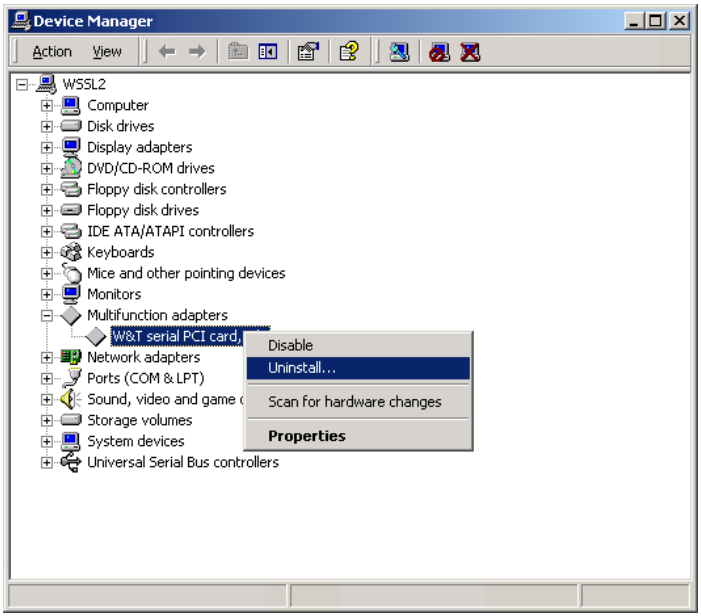
Update and uninstalling

The PCI driver can be updated from any previous version. To do this, you must first open the Device Manager and uninstall the card. This is done the same way under Windows 98/ME/ 2000 and XP.

Open the Device Manager and uninstall the existing PCI card.



Confirm the deinstallation and restart the PC. Follow the instructions on the following pages.

To uninstall the PCI card drivers under Windows NT, start the program *Uninst.exe* in the *NT4_Serial* - sub-directory.

Windows confirms the uninstall. Restart the PC and follow the instructions on the following pages.

Installation under Windows 98/ME

1. Installing the PCI Serial Controller

Installation of the driver is essentially automated. During the installation you must simply specify the path under which the driver files are to be found. This is generally the CD-ROM drive if you are installing the driver contained on the CD-ROM.

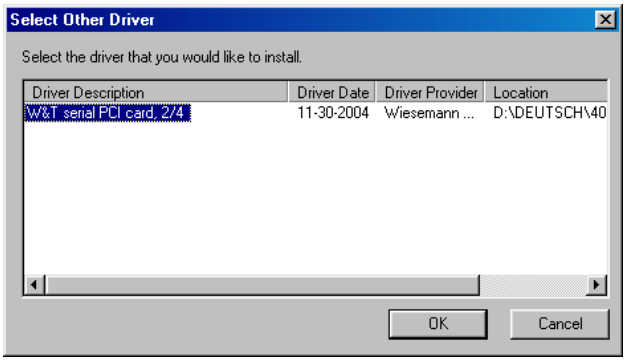
After first starting Windows 98/ME, Windows responds with the following window indicating that a new hardware component has been found and that it is looking for a driver for this component. Confirm the message by clicking on *Next*.

Confirm the driver installation by clicking on *Next* and let Windows look for an appropriate driver for the connected device:

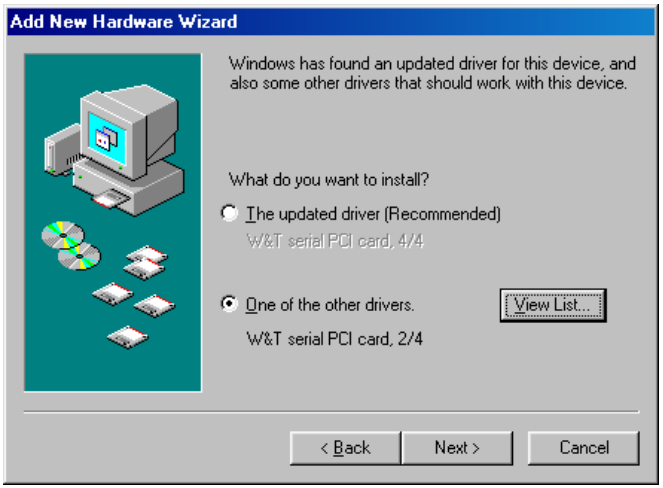
Then specify the path under which Windows can find the driver:

Windows now finds the standard driver *W&T serial PCI card, 4/4*, in the path you specified. If you are using a PCI card with four ports, start the installation by clicking on *Next*. If you are using the PCI card as a 2-port version, select *View list*...

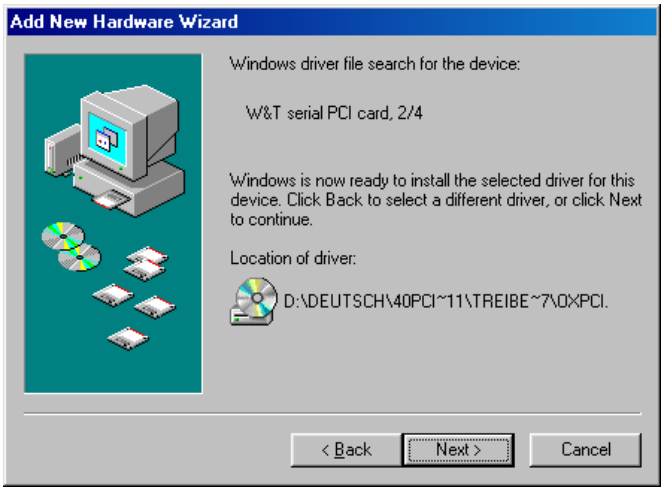
Select the driver *W&T serial PCI card, 2/4* and confirm the installation with *OK*.



Window now asks for confirmation that you want to install the driver. Confirm this with *Next.*



Windows then confirms that the file *OXPCI.INF* belonging to the device was found. Start installation of the driver by clicking on *Next*.



Windows confirms the completed installation. Confirm this with *Finish*.

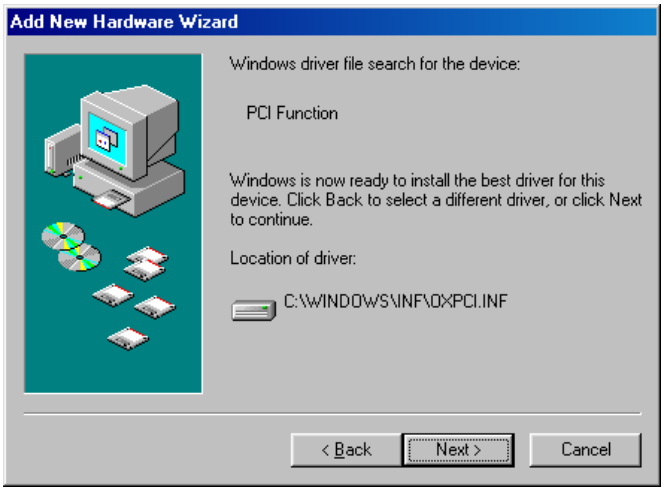
2. Installing the PCI Function

After installation of the PCI controller, the PCI function is automatically installed. Confirm by clicking on *Next*.

Click on *Next* to have Windows search for the driver.

Then specify the path under which Windows can find the driver:

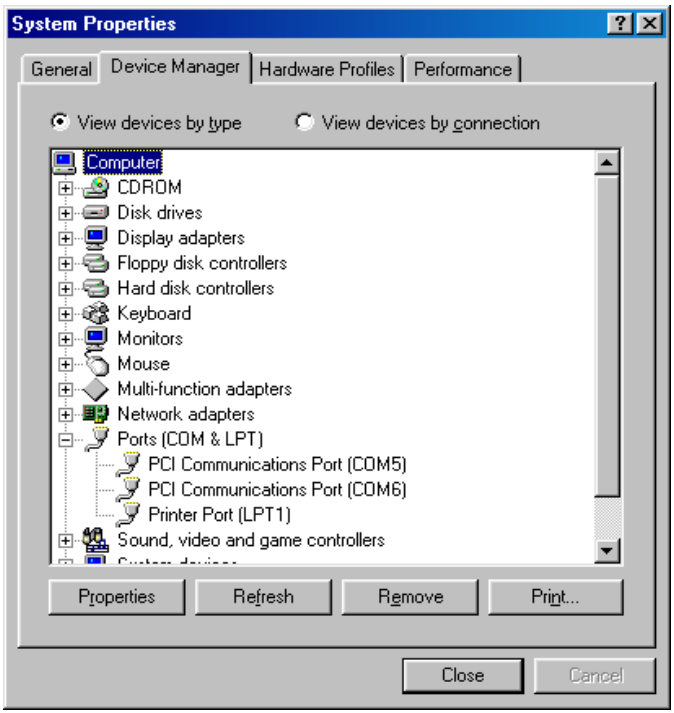
Windows then confirms that the file *OXPCI.INF* belonging to the device was found. Start installation of the driver by clicking on *Next*.



Windows confirms the completed installation. Confirm this with *Finish*.

3. Driver options

After successful installation go to *Start -> Control Panel -> System -> Device Manager -> Ports (COM and LPT)* where you will see two or four entries for the configured PCI ports – in the example below as COM5 and COM6:

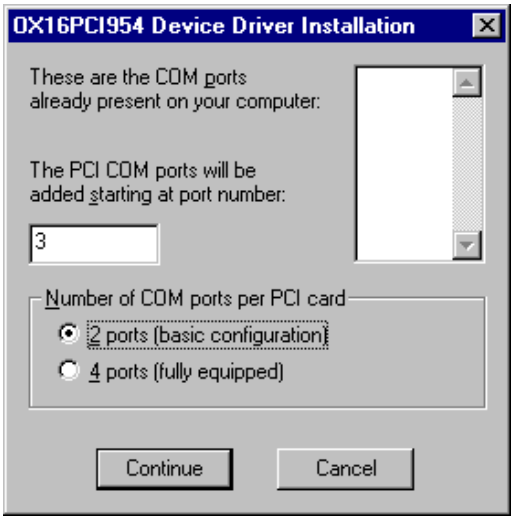


Double-clicking on an entry lets you configure the port, whereby the values set under *Settings* are generally overwritten by the configuration selected in the corresponding application. Of interest are the possibilities provided under *Data Rate* for setting special baud rates and enabling *Quad Speed*.

Installation under Windows NT

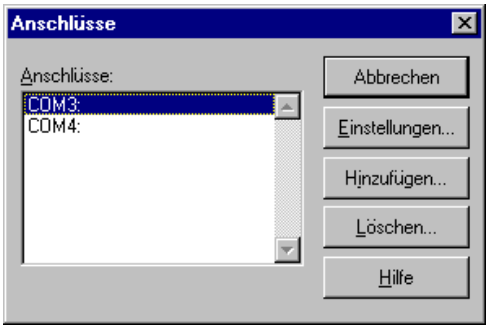
Important: To install the driver for the serial W&T PCI cards on a Windows NT4.0 computer, you must have Administrator rights for the PC.

To install the PCI card, start the proram *Serial.exe* in the *NT4_Serial* sub-directory. Select starting with which COM port you want the card installed and how many ports will be used.

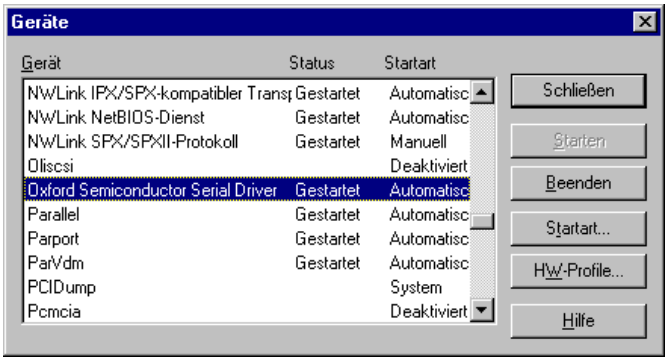


Windows confirms the completed installation. Confirm this with *OK*.

The driver creates two or four additional ports in the system. Under *Start > Settings > Control panel > Ports* you can verify the success of the installation and configure the ports.



Under *Start > Settings > Control panel > Devices* the *Oxford Semiconductor Serial Driver* must also be entered and started.



Installation under Windows 2000

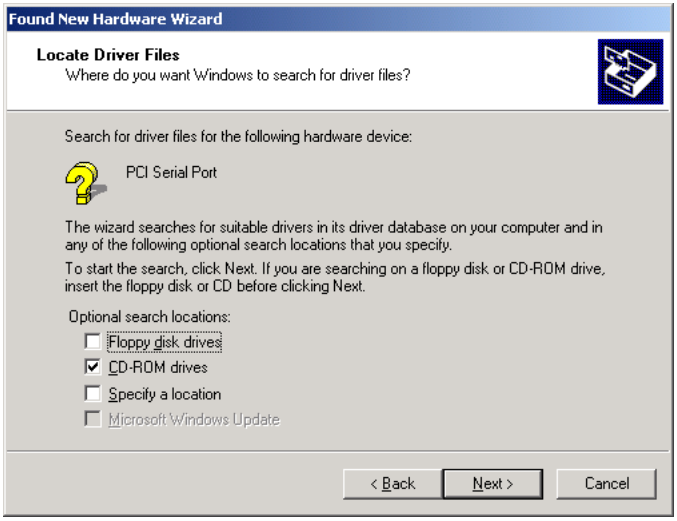
1. Installing the PCI Serial Controller

Installation of the drivers is essentially automated. During the installation you must simply specify the path under which the driver files can be found. This is generally the CD-ROM drive if you are installing the drivers contained on the CD-ROM provided.

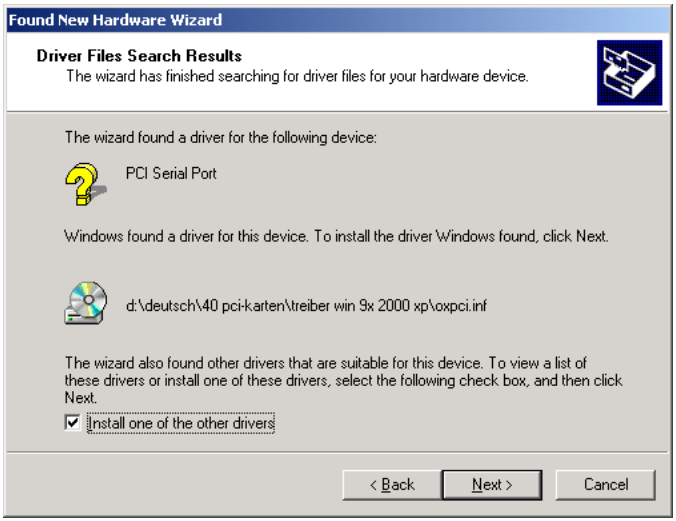
After first starting Windows 2000 Windows responds with the following window, that a new hardware component has been found and that a driver for this component is being installed. Confirm the message by clicking on *Next*.

Confirm the driver installation by clicking on *Next* and let Windows search for an suitable driver for the connected device:

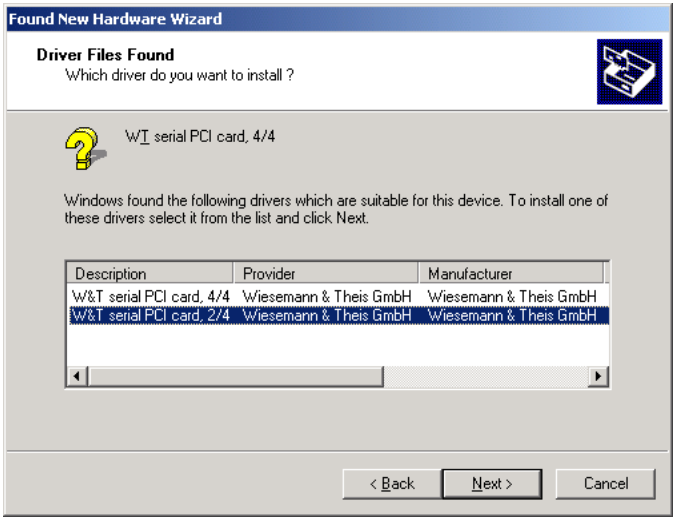
Then specify the path under which Windows can find the driver:



Windows now finds the standard driver. Select the option *Install one of the other drivers* and confirm this with *Next*.



Select the *W&T serial PCI card, 2/4* driver, if you are using two ports on the PCI card or the *W&T serial PCI card, 4/4* driver if you are using four ports.



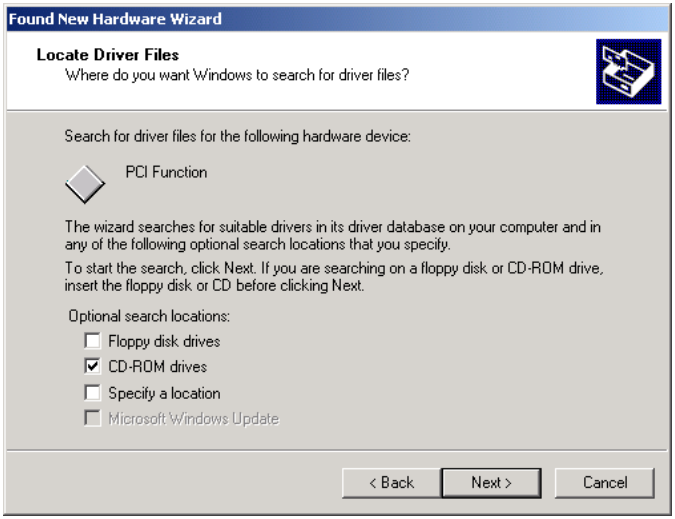
Windows confirms the completed installation. Confirm this with *Finish*.

2. Installing the PCI Function

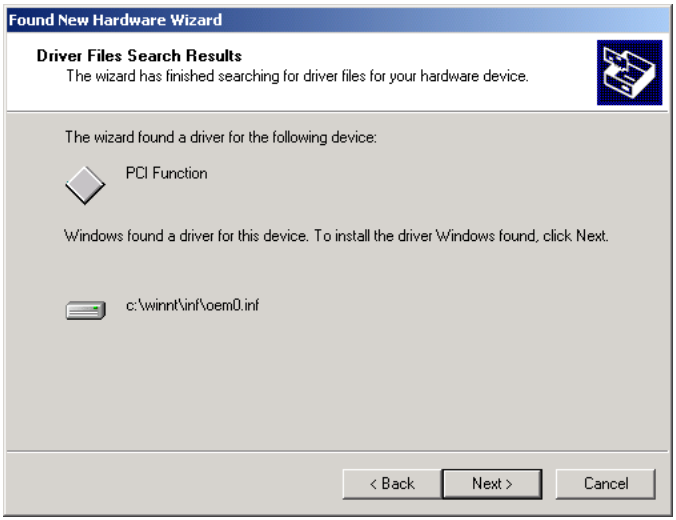
After installation of the PCI controller, the PCI function is then automatically installed. Confirm by clicking on *Next*.

Click on *Next* to have Windows search for the driver.

Then specify the path under which Windows can find the driver:



Windows then confirms that the file *OEM2.INF* belonging to the device was found. Start installation of the driver by clicking on *Next*.



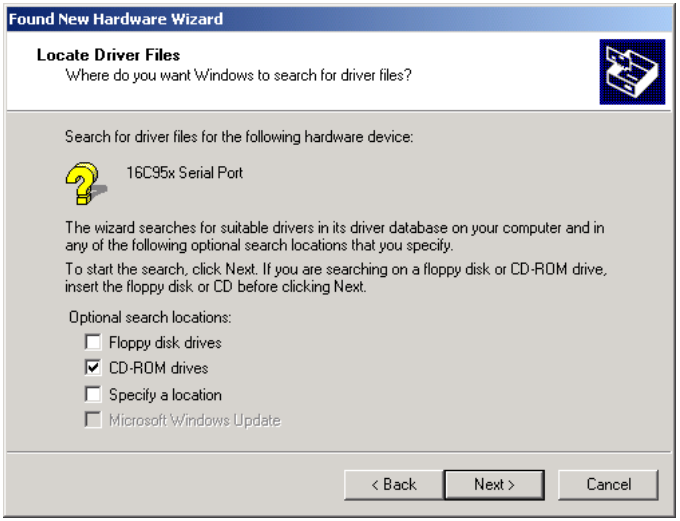
Windows confirms the completed installation. Confirm this with *Finish*.

3. Installing the Serial Ports

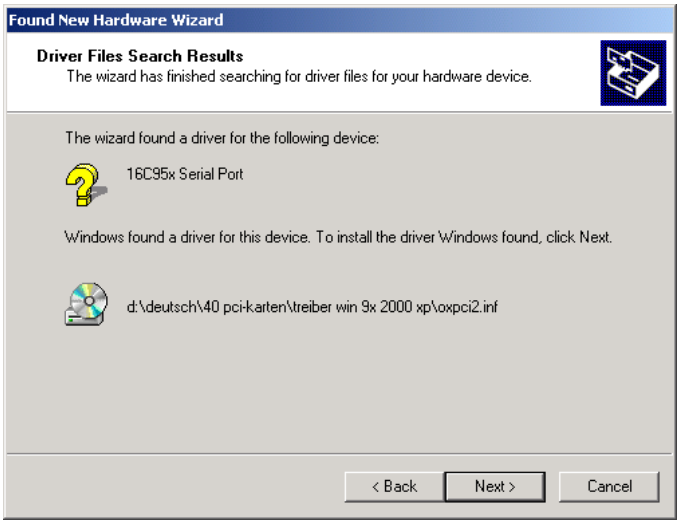
Now installation of the serial ports is automatically started. Confirm by clicking on *Next*.

Click on *Next* to have Windows search for the driver.

Then specify the path under which Windows can find the driver:



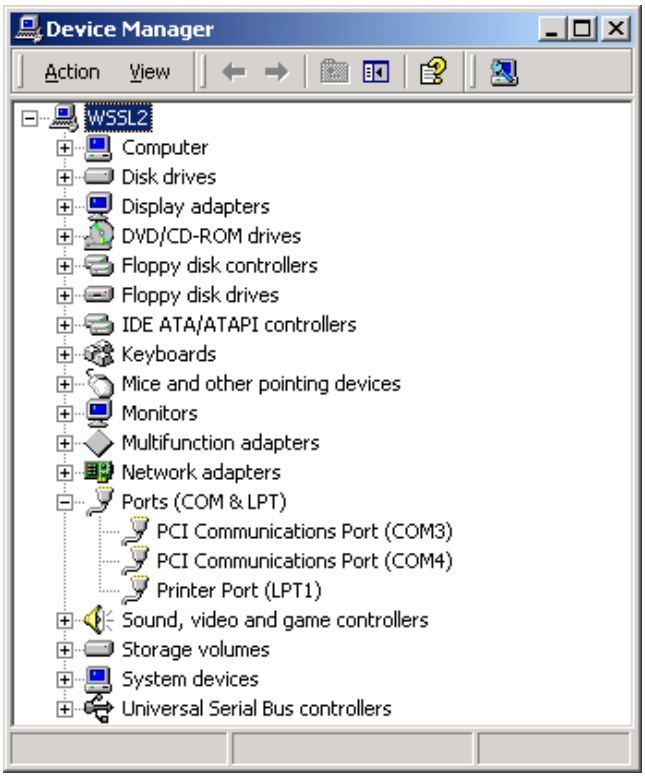
Windows then confirms that the file *OXPCI2.INF* belonging to the device was found. Start installation of the driver by clicking on *Next*.



Windows confirms the completed installation. Confirm this with *Finish*.

4. Driver options

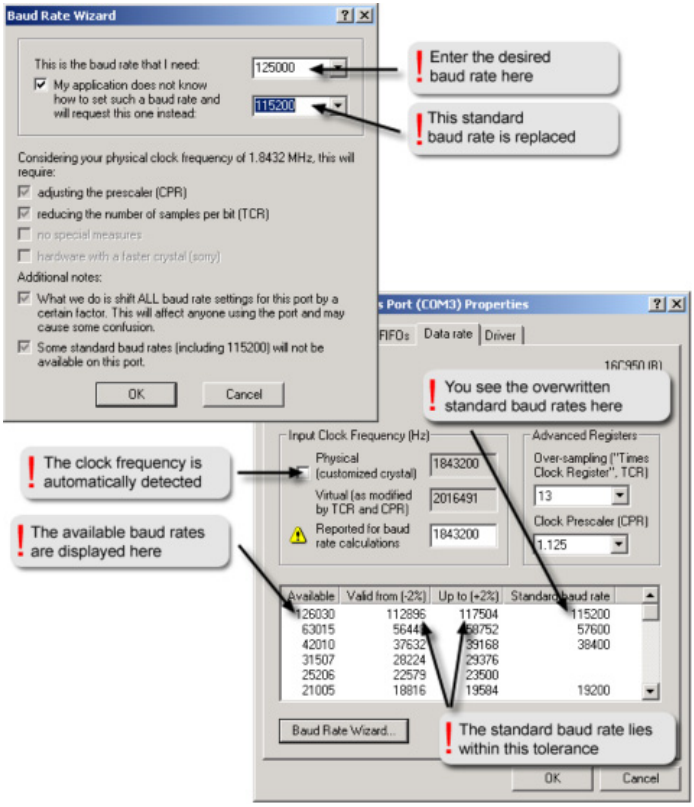
After successful installation go to *Start -> Control Panel -> System -> Device Manager -> Ports (COM and LPT)* where you will see two or four entries for the configured PCI ports – in the example below as COM3 and COM4:



Double-clicking on an entry lets you configure the port, whereby the values set under *Settings* are generally overwritten by the configuration selected in the corresponding application. Under *Advanced...* you can change the numbering of the ports.

On the *Data Rate* tab it is possible to use the *Baud Rate Wizard…* to enter the desired baud rate. If your application does not support the selected baud rate, there is the option of overwriting a standard baud rate so that for example 125,000 bps is hiding behind a baud rate of 115,200 bps. Note here that all the other standard baud rates change as well (see example). If the driver cannot generate the desired baud rate with the standard clock, this is displayed under *hardware with a faster crystal*. As soon as you confirm the changes with OK the Wizard automatically generates the necessary entries.

Here is an example using a baud rate of 125,000 bps:

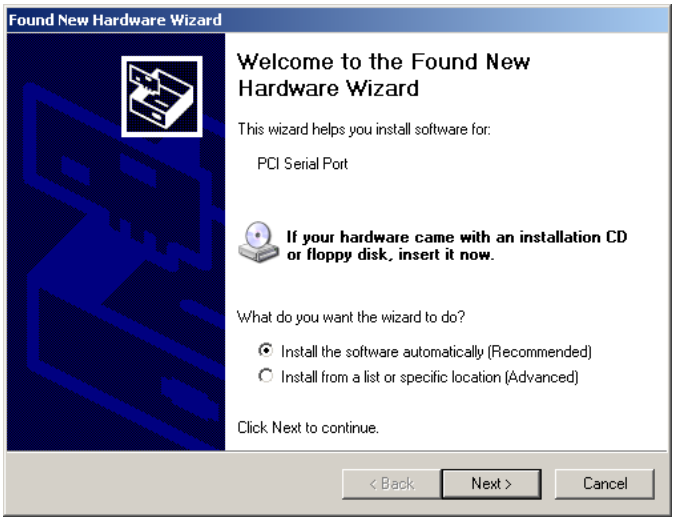


Installation under Windows XP

1. Installing the PCI Serial Controller

Installation of the drivers is essentially automated. During the installation you must simply specify the path under which the driver files can be found. This is generally the CD_ROM drive if you are installing the drivers contained on the CD-ROM provided.

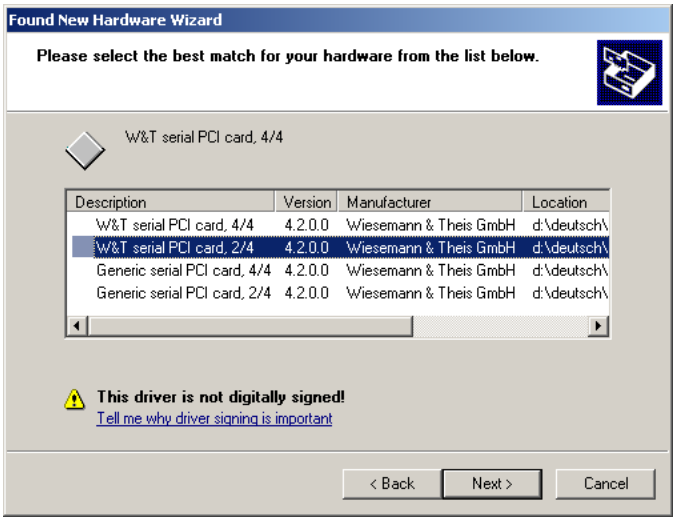
After first starting Windows XP Windows responds with the following window, that a new hardware component was found and a driver is being installed for this component. Confirm the message by clicking on *Next*.



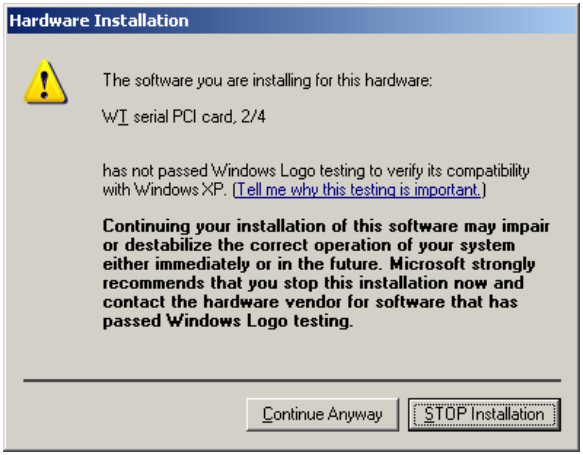
Windows now lists the existing drivers, which are divided into *W&T* and *Generic.* The W&T drivers are from Wiesemann & Theis, and the generic driver is an original Microsoft driver.

Select the *W&T serial PCI card, 2/4* Treiber, if you are using two ports on the PCI card or the *W&T serial PCI card, 4/4* driver if you are using four ports.

Use of the Microsoft driver is offered as an alternative. Bear in mind, however, that the greater performance of the UART hardware in expanded 16950 mode, especially the larger FIFOs, are unused by this driver. This increases the probability that at higher transmission rates data may be lost due to a serial buffer overflow, which is why we generally discourage use of the generic driver.



Window now asks for confirmation that you want to install the driver. Confirm this with *Continue Anyway*.

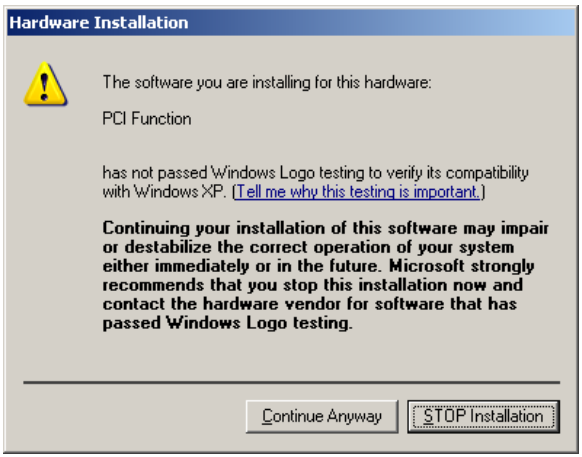


Windows confirms the completed installation. Confirm this with *Finish*.

2. Installing the PCI Function

After installation of the PCI controller, the PCI function is automatically installed. Confirm by clicking on *Next*.

Window now asks for confirmation that you want to install the driver. Confirm this with *Continue Anyway*.

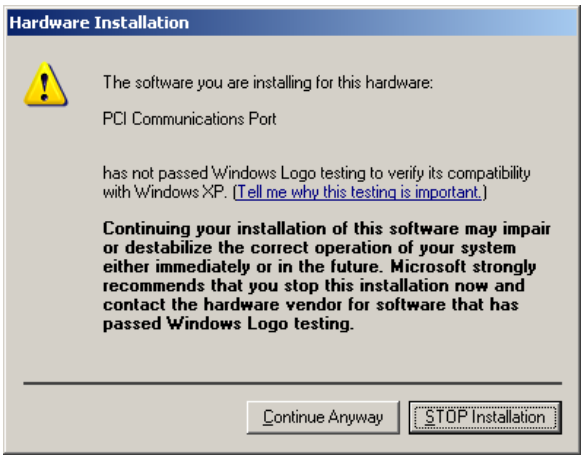


Windows confirms the completed installation. Confirm this with *Finish*.

3. Installing the Serial Ports

Now installation of the serial ports is automatically started. Confirm by clicking on *Next*.

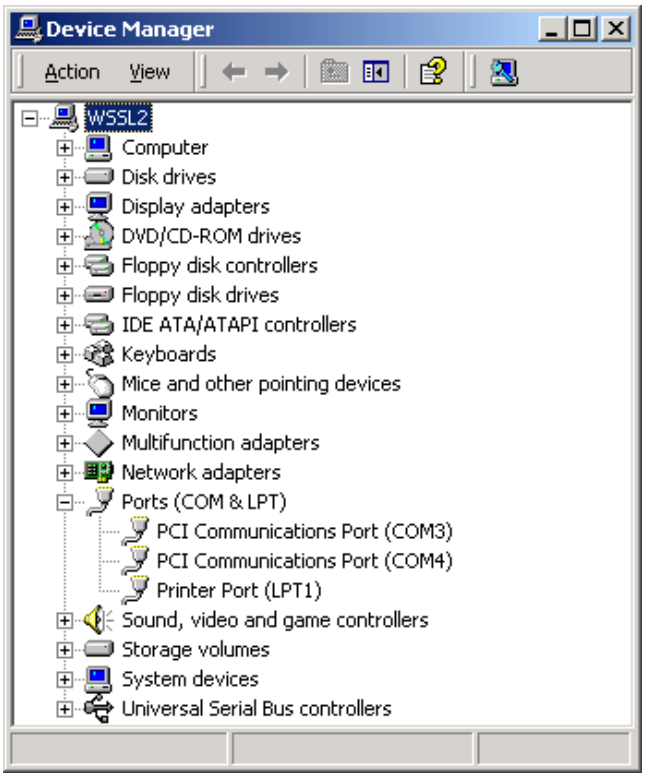
Window now asks for confirmation that you want to install the driver. Confirm this with *Continue Anyway*.



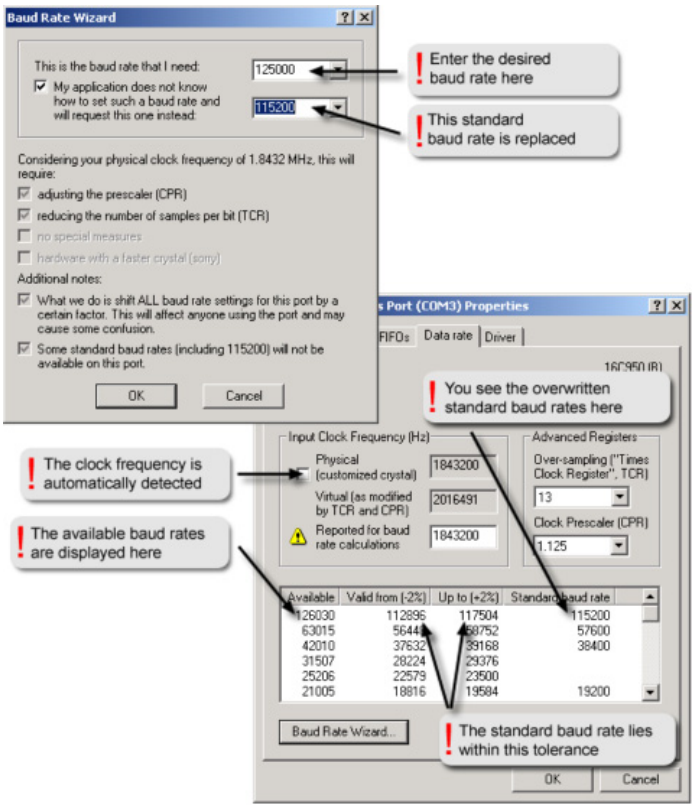
Windows confirms the completed installation. Confirm this with *Finish*.

4. Driver options

After successful installation go to *Start -> Control Panel -> System -> Device Manager -> Ports (COM and LPT)* where you will see two or four entries for the configured PCI ports – in the example below as COM3 and COM4:



Double-clicking on an entry lets you configure the port, whereby the values set under *Settings* are generally overwritten by the configuration selected in the corresponding application. Under *Advanced...* you can change the numbering of the ports.

On the *Data Rate* tab it is possible to use the B*aud Rate Wizard...* to enter the desired baud rate. If your application does not support the selected baud rate, there is the option of overwriting a standard baud rate so that for example 125,000 bps is hiding behind a baud rate of 115,200 bps. Note here that all the other standard baud rates change as well (see example). If the driver cannot generate the desired baud rate with the standard clock, this is displayed under *hardware with a faster crystal*. As soon as you confirm the changes with OK the Wizard automatically generates the necessary entries.

Here is an example using a baud rate of 125,000 bps: