

com0com + com2tcp

virtual serial COM port

How to use and configurate

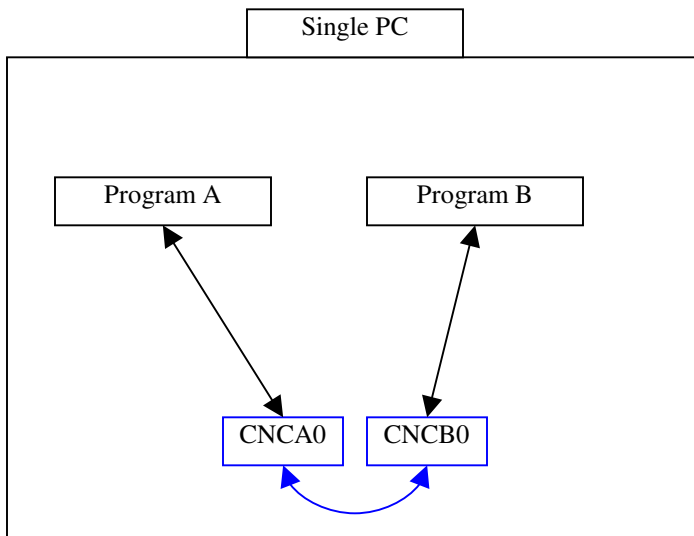
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1 Foreword

The **com0com** tool is an open source program to be found on:
<http://sourceforge.net/projects/com0com/>

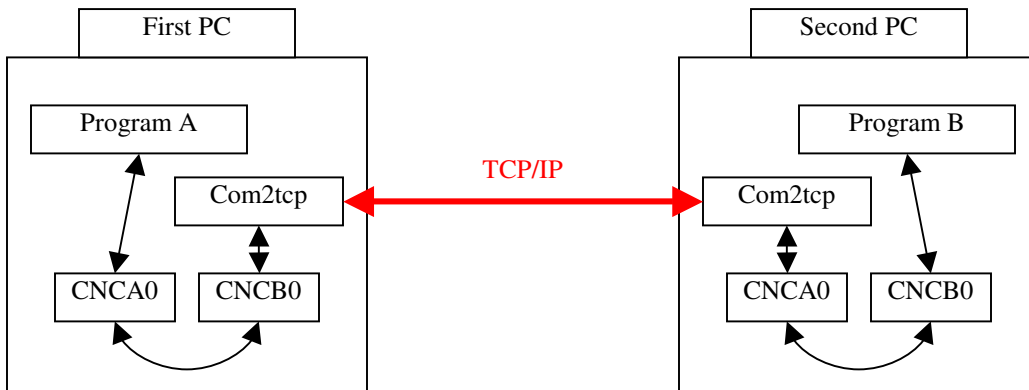
With **com0com** one can install couples of twins connected virtual serial ports that can be used to test programs that use serial ports, even if ports are not physically available.



With the **com2tcp** tool it is possible to connect one virtual serial port to the TCP/IP network. Is it then possible to test application running on different PC.

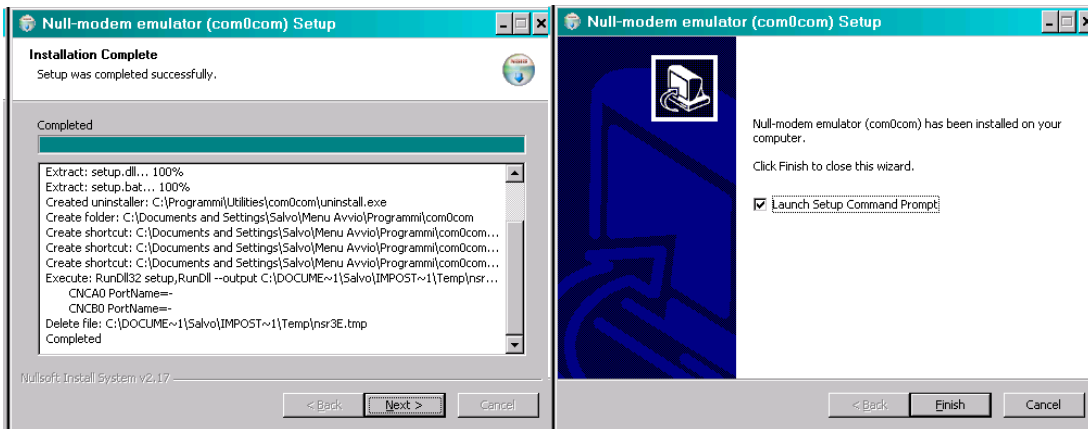
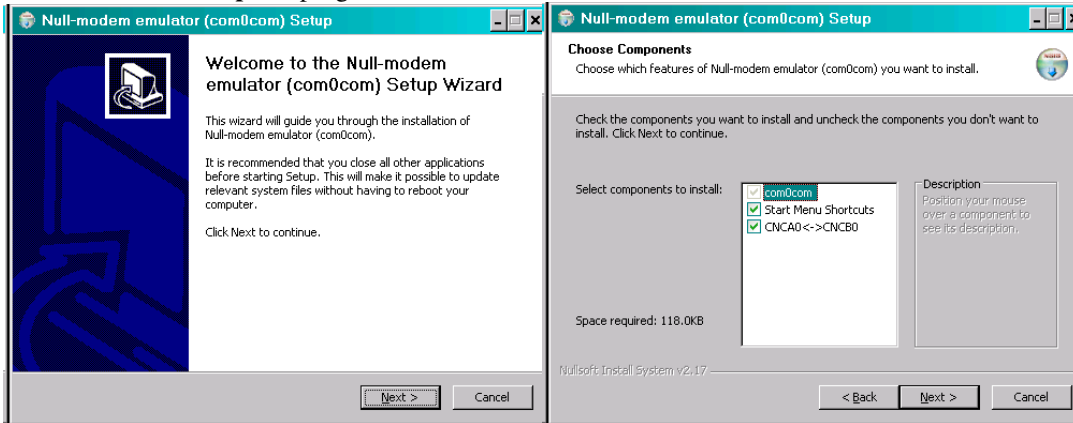
Virtual serial port have CNCAx and CNCBx as default name. This default name can be changed at the installation time or later. Virtual ports are always created in couple.

Using the **com2tcp** tool it is possible to test programs running on different PC.



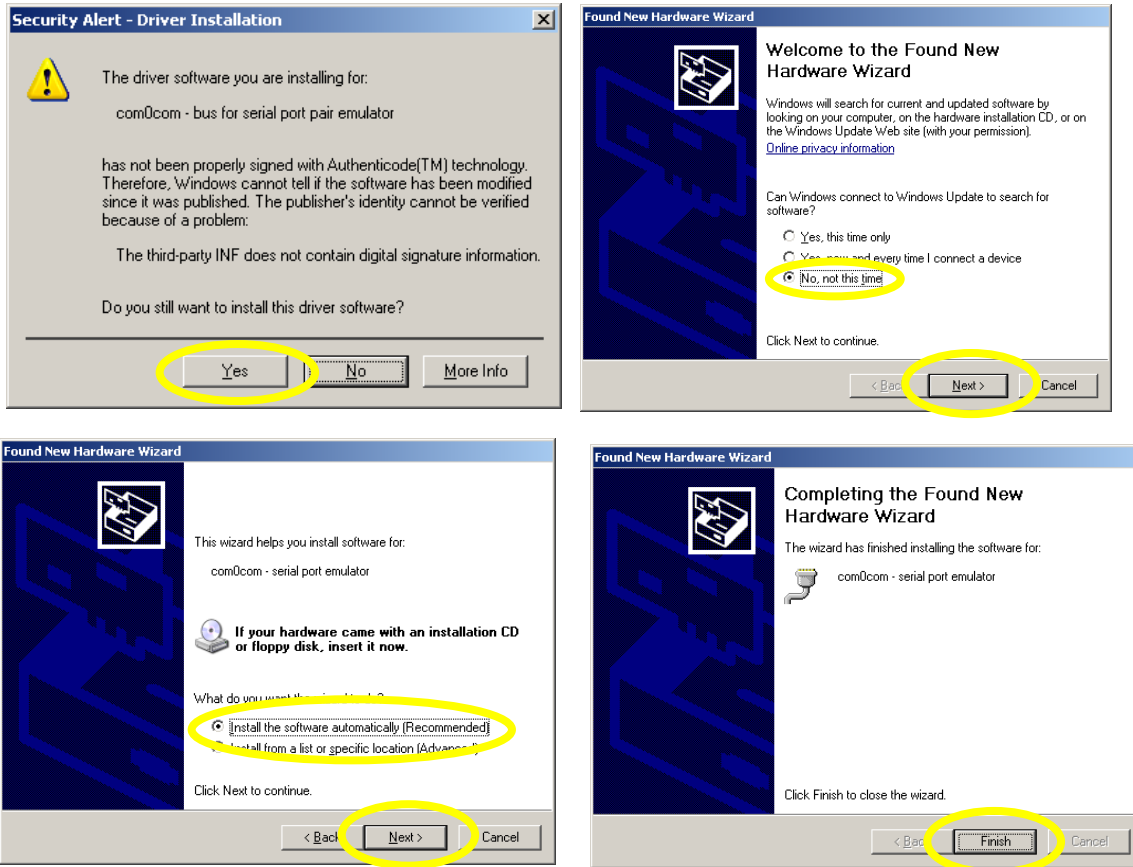
2 Installing com0com

- Download the com0com package (zip file) from <http://com0com.sourceforge.net>
- Open the zip file and expand the com0com installation folder.
- Run the **setup.exe** program.



Virtual serial port COM using com0com and com2tcp utilities

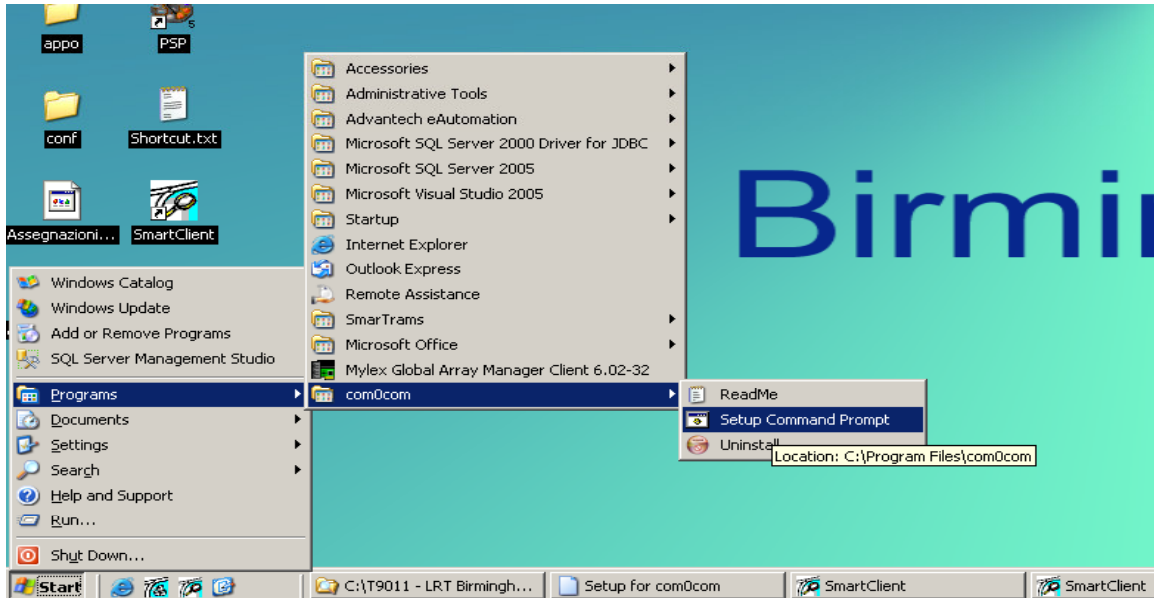
At first installation time, and later when other ports will be added, the standard add device dialog box will appear:



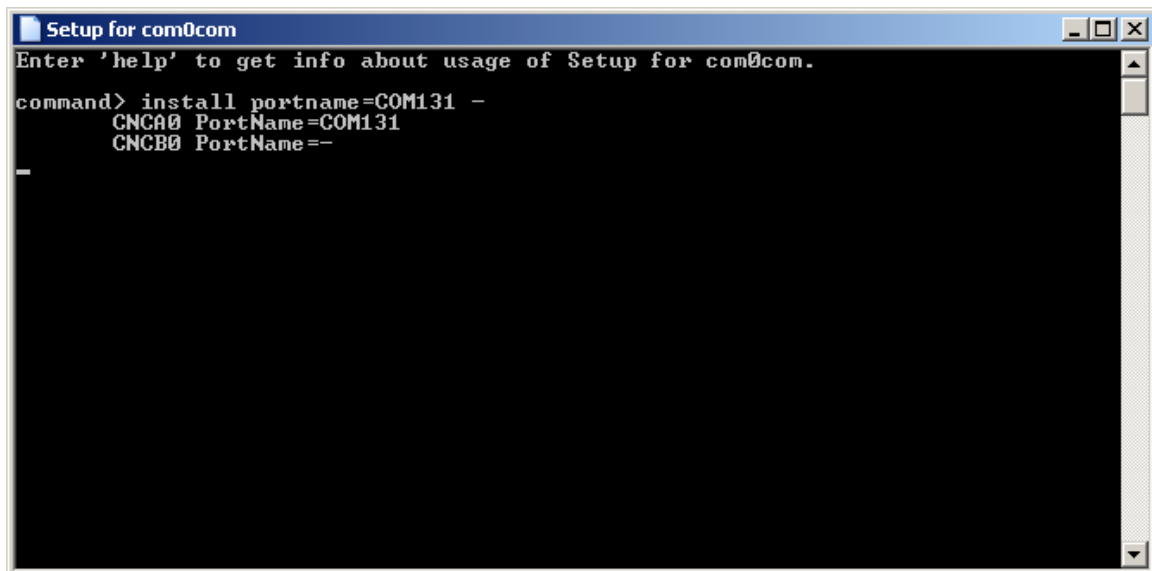
Repeat this sequence everytime that you add some other virtual port twins.

3 Adding new port twins

If you need to add new virtual port twins, delete them or modify, start the com0com configuration tool:



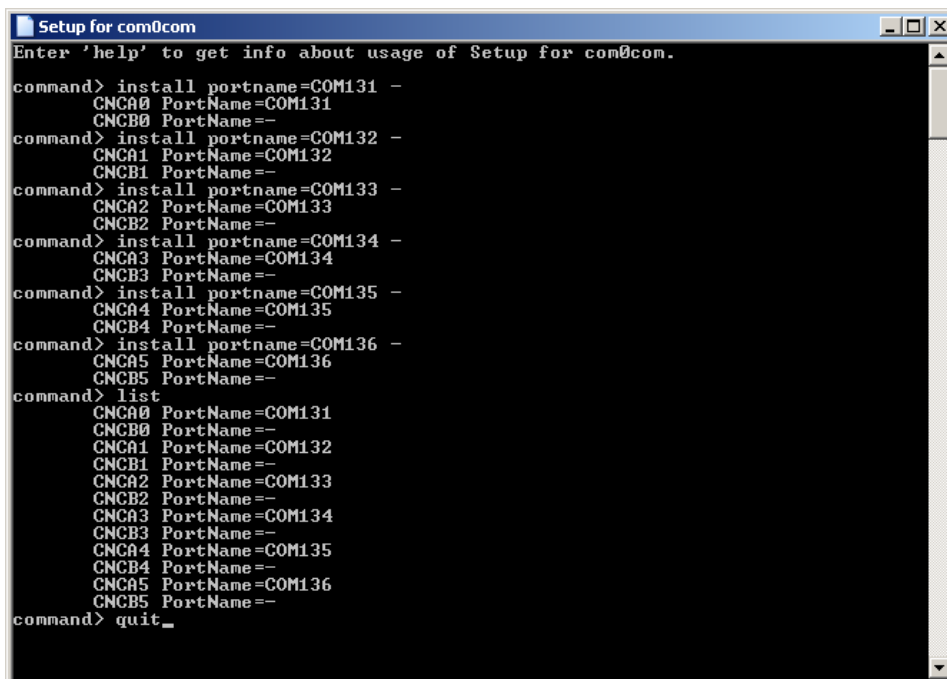
A DOS based utility will be launched



Virtual serial port COM using com0com and com2tcp utilities

Useful com0com setup commands are:

- **help**: to get an help page.
- **install - -**: to install a port twin with standard names CNCAx and CNCBx
- **install Portname=<portname> Portname=<portname>**: to install a port twin with custom names. Es: **install Portname=COM10 Portname=COM11** will install a port twin with names COM10 and COM11. Put a dash instead of a portname to define a standard name CNCAx or CNCBx. ES: **install - Portname=COM22** will install a port twin with names CNCAx and COM22.
- **remove <n>**: will remove the nth twin ports. Es: **remove 3** will remove the twin ports CNCA3 and CNCB3 or they corresponding portnames.
- **change CNCxx portname=COMyy**: assign the name COMyy to the virtual port CNCxx. ES: **change CNCA4 portname=COM22** renames the CNCA4 port to COM22
- **list**: prints a list of configured virtual port with their corresponding names (if any).
- **quit**: leaves the tool.

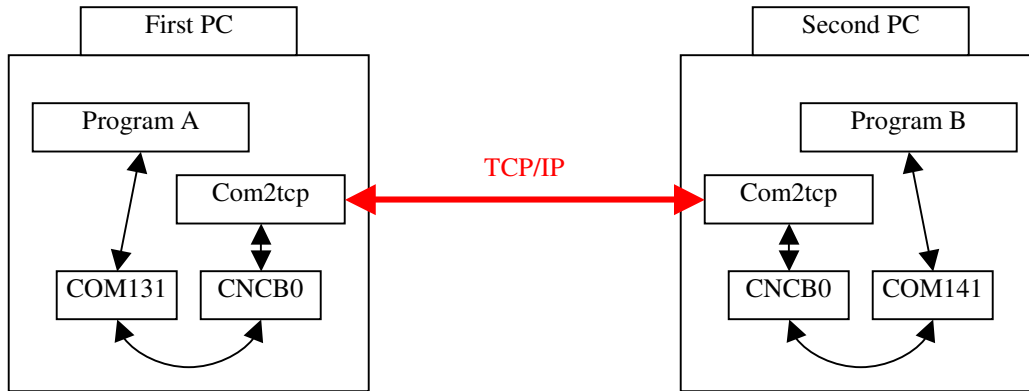


```
Setup for com0com
Enter 'help' to get info about usage of Setup for com0com.

command> install portname=COM131 -
  CNCA0 PortName=COM131
  CNCB0 PortName=-
command> install portname=COM132 -
  CNCA1 PortName=COM132
  CNCB1 PortName=-
command> install portname=COM133 -
  CNCA2 PortName=COM133
  CNCB2 PortName=-
command> install portname=COM134 -
  CNCA3 PortName=COM134
  CNCB3 PortName=-
command> install portname=COM135 -
  CNCA4 PortName=COM135
  CNCB4 PortName=-
command> install portname=COM136 -
  CNCA5 PortName=COM136
  CNCB5 PortName=-
command> list
  CNCA0 PortName=COM131
  CNCB0 PortName=-
  CNCA1 PortName=COM132
  CNCB1 PortName=-
  CNCA2 PortName=COM133
  CNCB2 PortName=-
  CNCA3 PortName=COM134
  CNCB3 PortName=-
  CNCA4 PortName=COM135
  CNCB4 PortName=-
  CNCA5 PortName=COM136
  CNCB5 PortName=-
command> quit_
```

4 Using com2tcp

The com2tcp tool is used to tie a virtual serial port to the tcp/ip network. Typical application is the following:



With this tool you can test a master-slave program running on two (or more) different PC.

To install the com2tcp tool just download the zip file from the sourceforge website:

<http://sourceforge.net/projects/com0com/>, and expand it to a folder.

Com2tcp works on a client-server way. One side has to be server, the other side will be client.

Let's explain it with a working example:

First PC	Second PC
IP: 172.18.1.1	IP: 172.18.10.1
Program A connected with COM131 (CNCA0)	Program B connected with COM141 (CNCA0)
Com2tcp connected with CNCB0	Com2tcp connected with CNCB0
Com2tcp working server mode on port 23	Com2tcp working client mode on 172.18.1.1 port 23
Com2tcp start command: > com2tcp --telnet \\.\CNCB0 23	Com2tcp start command: > com2tcp --telnet \\.\CNCB0 172.18.1.1 23

Start the com2tcp tool in a dos window or with a batch file.

If you have more than a port to connect with com2tcp, use a batch file with the **start** command, as follows:

(server side)	(client side)
start com2tcp --telnet \\.\CNCB0 23	start com2tcp --telnet \\.\CNCB0 172.18.1.1 23
start com2tcp --telnet \\.\CNCB1 24	start com2tcp --telnet \\.\CNCB1 172.18.1.1 24
start com2tcp --telnet \\.\CNCB2 25	start com2tcp --telnet \\.\CNCB2 172.18.1.1 25
start com2tcp --telnet \\.\CNCB3 26	start com2tcp --telnet \\.\CNCB3 172.18.1.1 26

The batch file can be created with the windows notepad, saving the file with BAT suffix, like "**startports.bat**". Then create a shortcut to start the batchfile.

If you need to close all open com2tcp instances, just create a batch file with this line:

taskkill /IM com2tcp

Every running instance of com2tcp will be terminated.

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