

## Virtual port sharing using com0com and hub4com

As few, or almost as many, Virtual COM ports as you want can be set up with **com0com**, and shared with a hardware port with **hub4com**. com0com installs the virtual ports on your system and they will then be available every time you run. hub4com links the port and need to be run each time you start the system. Various versions of these programs exist. Early com0com versions were unsigned; Microsoft does not like unsigned drivers but there are signed 32 and 64 bit com0com v3 setup packages available at:

[https://powersdr-iq.googlecode.com/files/setup\\_com0com\\_W7\\_x86\\_signed.exe](https://powersdr-iq.googlecode.com/files/setup_com0com_W7_x86_signed.exe)

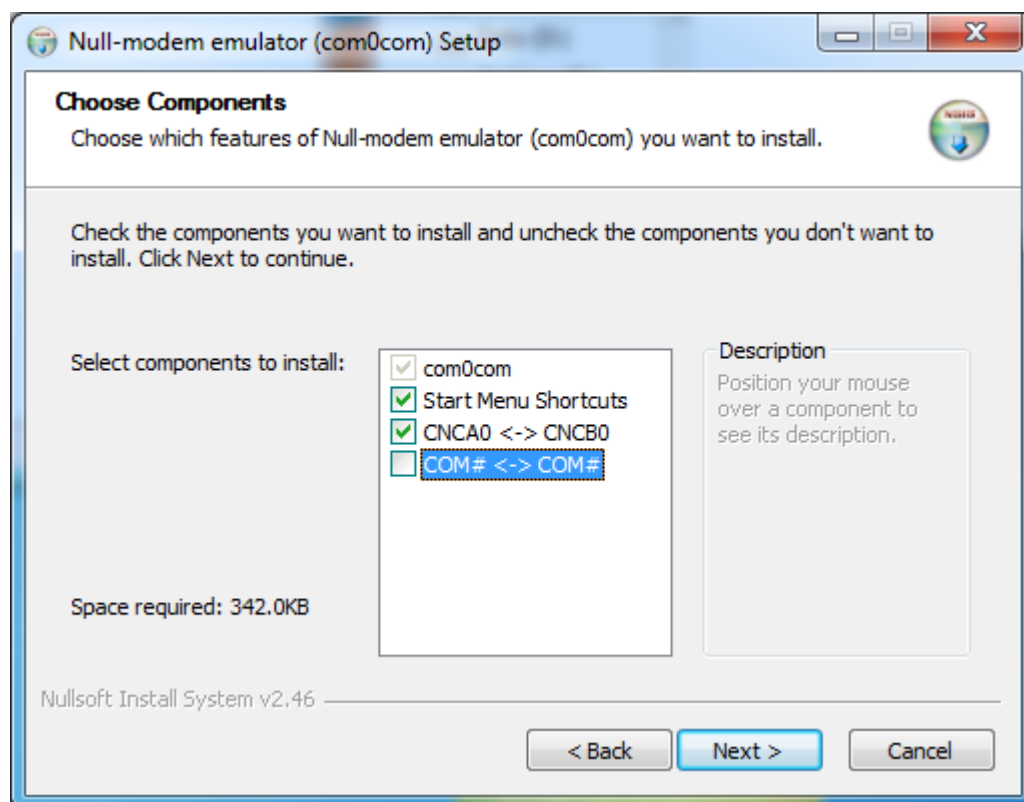
[https://powersdr-iq.googlecode.com/files/setup\\_com0com\\_W7\\_x64\\_signed.exe](https://powersdr-iq.googlecode.com/files/setup_com0com_W7_x64_signed.exe)

hub4com is now up to v2.1.0.0 and hub4com-2.1.0.0-386.zip can be downloaded at:

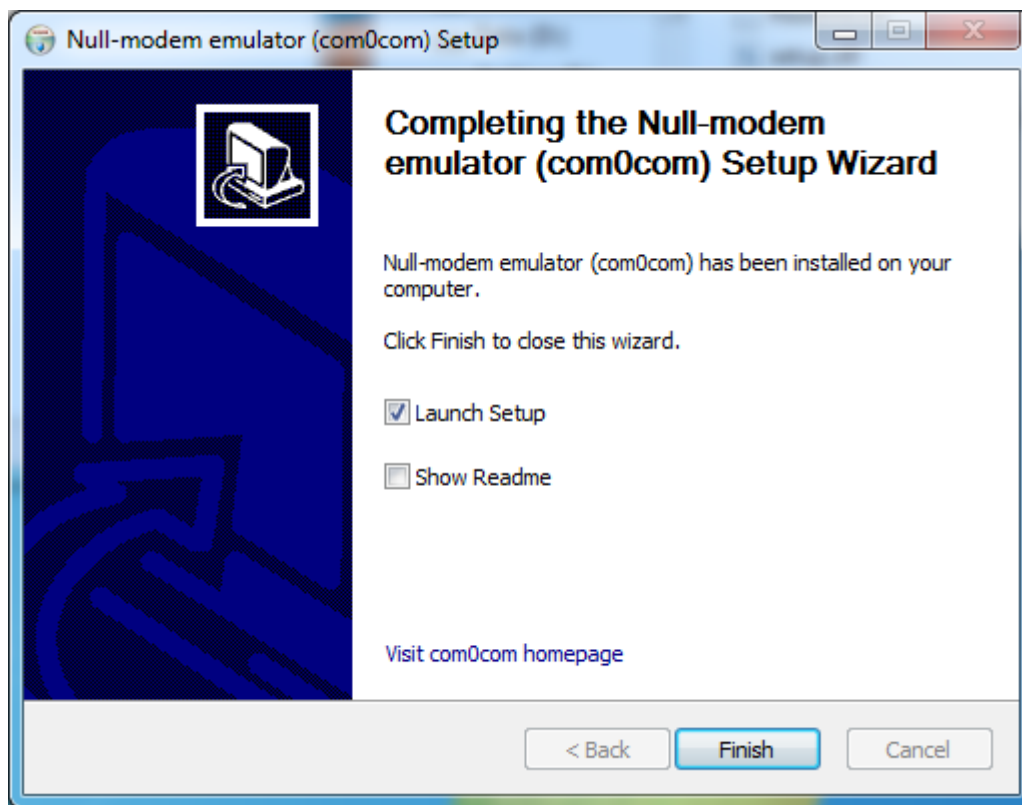
<http://sourceforge.net/projects/com0com/files/hub4com/2.1.0.0/>

The following is based on these programs, the 64bit com0com being used in this case.

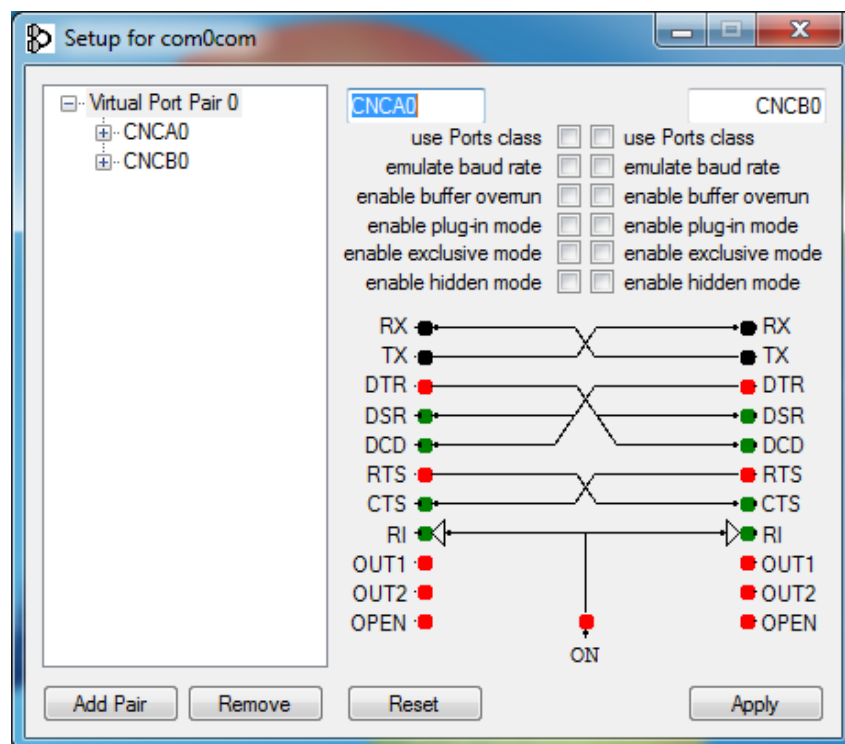
**Install, unchecking the COM# line offered during the install:**



Click Next and this should appear:

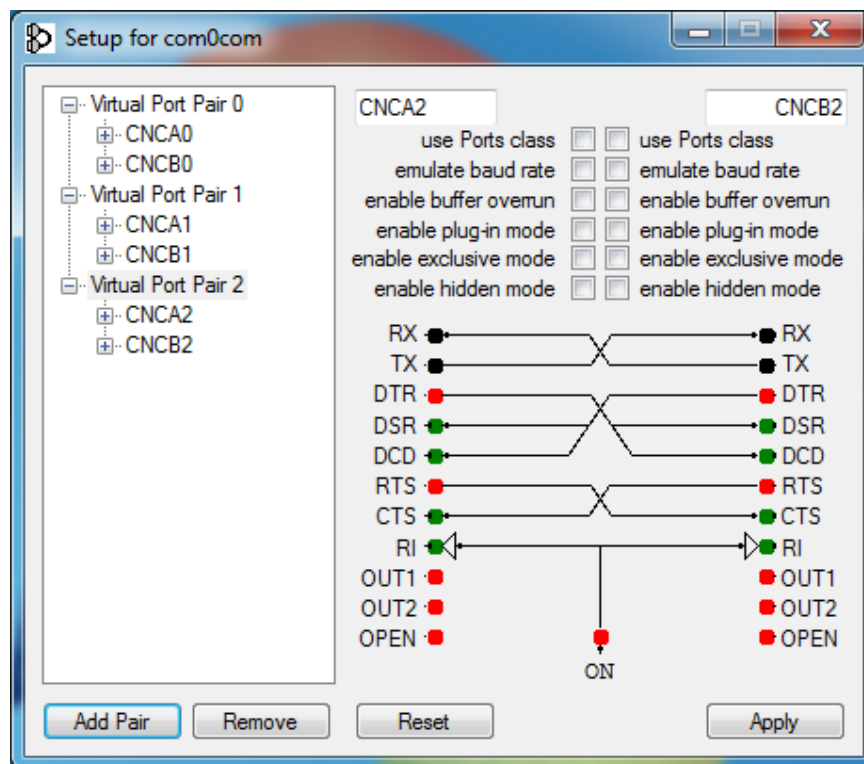


Uncheck Show Readme, click Finish to run Setup and this should appear:



This window will also appear whenever com0com Setup is run from the Start menu.

You can now add virtual port pairs as required. Each pair will eventually add one virtual COM port to your system with the 'B' sides all connected together to a hardware port. This shows three pairs:



### With three pairs in place:

Highlight Virtual Port Pair 0 and change the 'CNCA0' in the first box to read whatever COM number you have spare on your system. COM1 is my single hardware port so:

CNCA0 changed to COM2

On COM side (left): tick use Ports class

On CNC side: tick emulate baud rate

On both: tick enable buffer overrun

On CNC side tick enable hidden mode

### Repeat the above with:

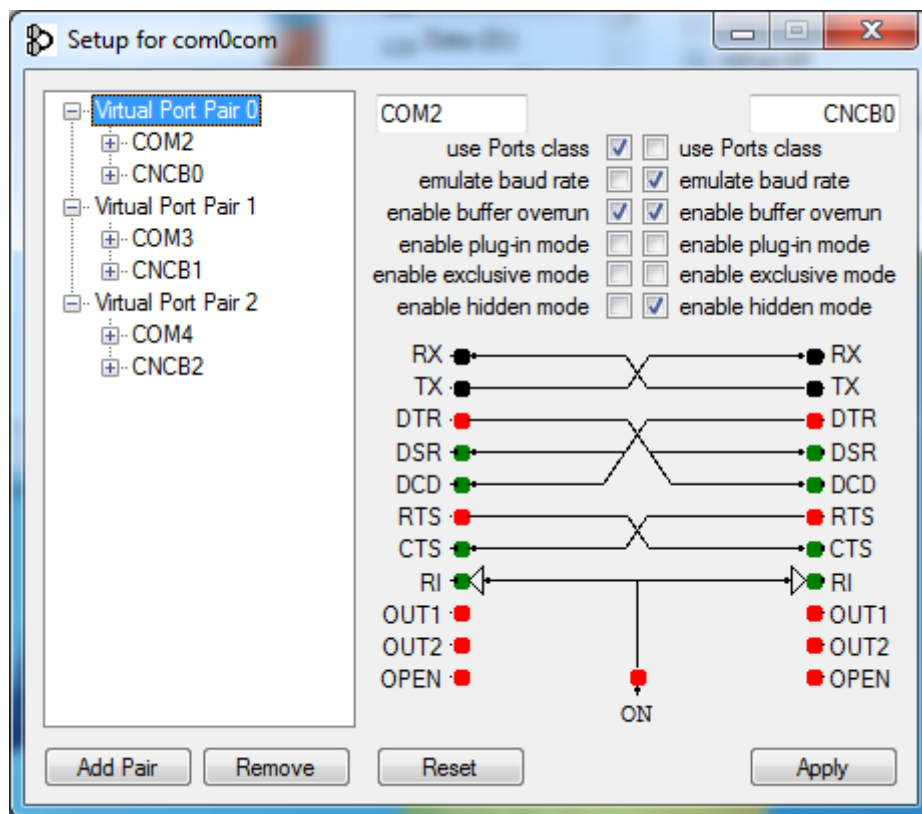
CNCA1 changed to COM3

CNCA2 changed to COM4

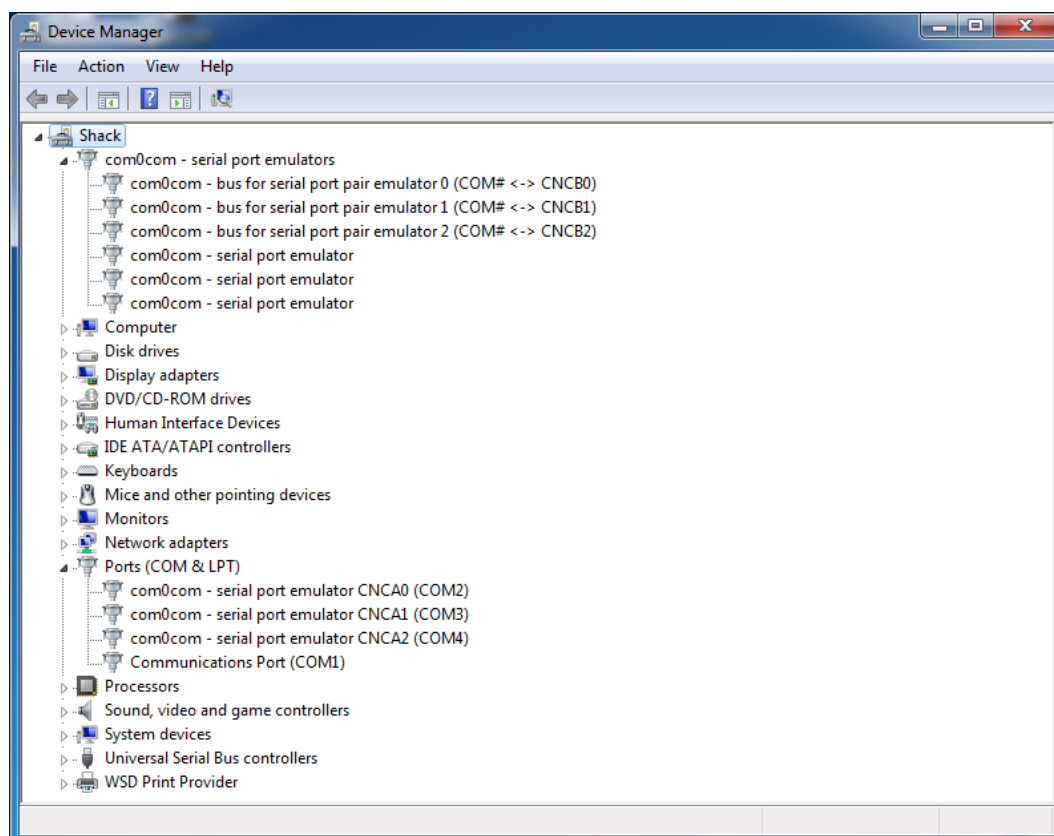
Or whatever you have chosen, for however many pairs you need.

These will emulate the connected baud rate, allow buffer overruns and hide the CNC ports from your connected software.

It should look like this:



The Device Manager view should look like this:



**Port sharing is enabled by a separate program, hub4com.exe.**

This routes the CNC side of each pair to and from COM1

With hub4com.exe in the com0com Program folder, you can run it with these two lines in a batch file (the second line may word wrap and should not be broken in the batch file):

**cd C:\Program Files (x86)\com0com**

**start "" hub4com.exe --route=All:0 --route=0:All --baud=38400 --octs=off**

**\\.\COM1 \\.\CNCB0 \\.\CNCB1 \\.\CNCB2**

This will run the batch file, opening a command prompt. COM1 will be connected bidirectionally to virtual ports COM2, 3 and 4 at 38400 baud with CTS off.. You can now minimise the command prompt window while hub4com runs in the background. You will find that programs that connect to COM ports will offer the extra three ports as a connection option.

With a rig (K3 here) connected to the COM1 hardware port, NaP3 can now be connected to any of the newly created COMs, eg to COM2, with Logger32 connected to COM3, CW Skimmer connected to COM4.

From now on, each time the computer is turned on the virtual ports will be present; run the hub4com batch file and away you go.