

## One4All: RS232 Physical Port Extender for Virtual Ports

One4All is a very useful application when you have a PC or notebook with only one physical RS232 port and you need the same information in several software. Initially it was created for coastal and ocean navigation, being able to use the GPS information in several navigation software simultaneously, but it can also be used with other RS232 input devices (radars, Echo-bathymeter, CTD, etc.) including development boards (Arduino, ESP8266 and other devices that send information through RS232 ports).

This application is used in conjunction with applications that create virtual RS232 ports such as:

- Virtual Serial Port Driver
- com0com
- Free Virtual Serial Ports
- Virtual Serial Port Emulator
- Virtual Serial Port Kit

One4All is distributed under the **MIT license**, that is, it is free for use in scientific research and for commercial use, with the obligation to **cite the developer**.

### Order of operation

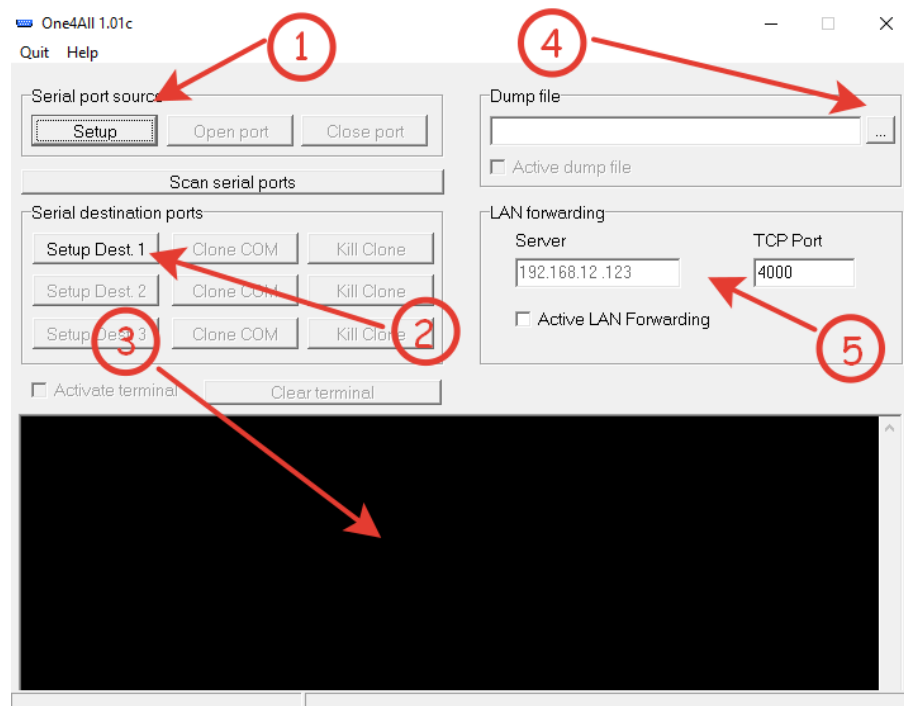


Figure 1. One4All options.

- a) Create pairs of virtual RS232 ports.
- b) Connect the device to the physical RS232 port.
- c) Configure in (Fig. 1-1) the physical RS232 port to receive the information.
- d) Open the physical RS232 port.
- e) Activate the terminal (Fig. 1-3) to confirm if the information is being received from the physical RS232 port.
- f) Configure the virtual RS232 ports (Fig. 1-2) as shown in the following figure.

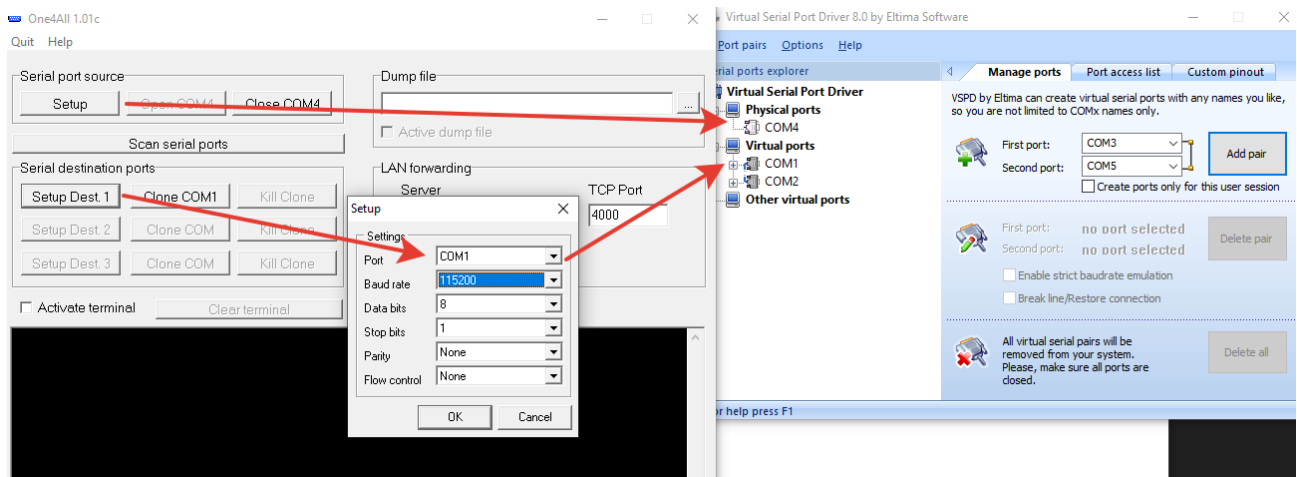


Figure 2. Example of configuration of the virtual RS232 ports.

- g) Clone the virtual RS232 ports. Once cloned One4All starts forwarding all the information received by the physical RS232 port to the virtual RS232 output ports.
- h) All received data can also be saved to a file by activating the Dump file option (Fig. 1-4).
- i) And forwarded over the computer network (LAN or WAN) by creating a service using the local IP and a TCP port (Fig. 1-5).
- j) Data forwarding can be for the terminal, virtual RS323 ports, file or network forwarding via the **Activate terminal**, **Kill Clone**, **Activate dump file** or **Activate LAN Forwarding** options.

Good luck,  
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