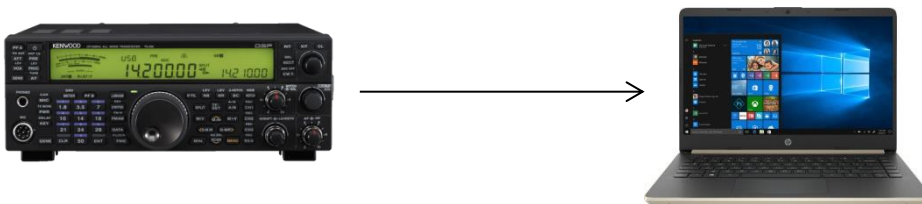


Today's digital communication in HAM Radio (Amateur radio), creates many times a situation where **one Hardware unit has to exchange data with several Software packages.**

A case example is described to focus on the problem:

A very popular communication way between two radio stations is using the FT8 protocol.

Therefore the operator needs first of all Transceiver (Receiver/Transmitter) e.g. TS590S connected to a PC on hand of a COM port e.g. COM6



On the pc several software packages can be installed:

- Communication software e.g. WSTJ-X (FT8)
- Remote control software for the transceiver e.g. ARCP-590
- Logbook e.g. Logger32

Making a connection between to Amateur Radio Stations can e.g. following this procedure:

1 - Select first a transmitting frequency on hand of the WSTX software on the pc e.g. 14.074 MHz

Therefore we use a serial protocol and on hand of the transceiver's COM port e.g. COM 6 we can instruct this device to switch to e.g. 14.076 MHz

2 – It is very handy to use remote Transceiver software on the screen to change some Transceiver parameters e.g. ALC level, Power level, some filters

Therefore we use a serial protocol and on hand of the transceiver's COM port e.g. COM 6 we can instruct this device to reduce the ALC level, Power level ... – BUT THE PORT IS ALREADY IN USE by WSJT-X

3 – Suppose the two stations finished a communication and that has to be put in the logbook.

Therefore we use a serial protocol and on hand of the transceiver's COM port e.g. COM 6 we can instruct Logger 32 to take note of this – BUT THE PORT IS ALREADY IN USE by WSJT-X

4 – Suppose we have rotary beam and want to control the antenna position

Therefore we use a serial protocol and on hand of the transceiver's COM port e.g. COM 6 we can instruct that particular program to turn the beam e.g. South east – BUT THE PORT IS ALREADY IN USE by WSJT-X

“We all now the problem and we are all searching the web trying to find Virtual software to solve this problem. Finally we find some free packages, but they works only for 32bit systems, works only Windows Pro versions, works only W7 or 8some package seem to work well but finally crashes twice a day....”

***** A Perfect solution is the Virtual serial port driver Pro – from ELTIMA *****

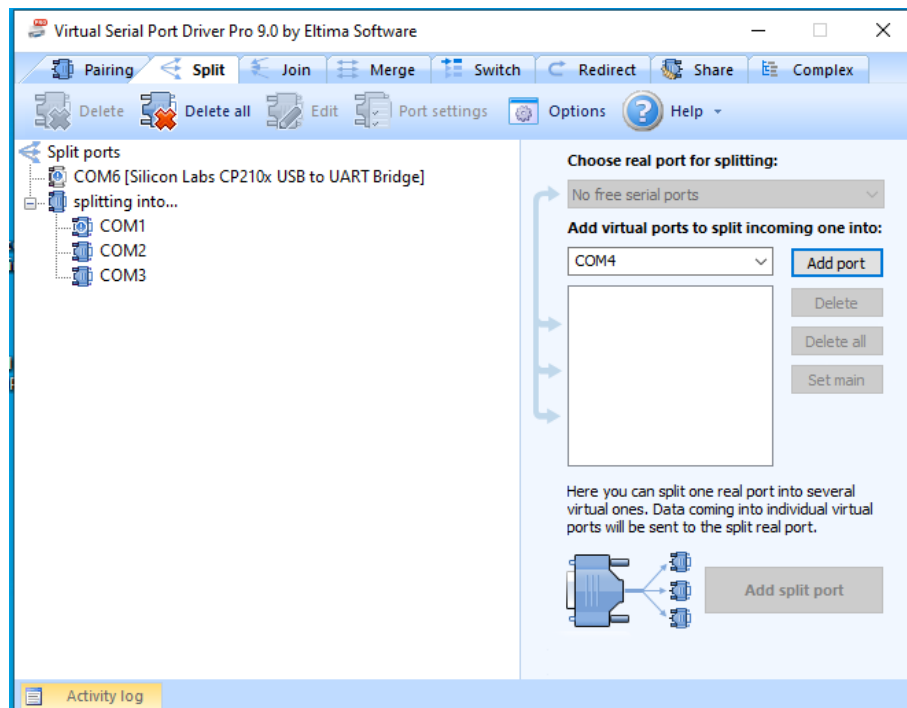
<https://www.virtual-serial-port.org/products/serialsplitter/>

“Any RS232, RS422, or RS485 port residing on your computer can be easily split into multiple virtual interfaces that will fully emulate its behavior and parameters. Once you enable this feature in Virtual Serial Port Driver PRO, all data coming to the split physical port will be forwarded to its virtual copies, each of them sending this data to a connected serial app.”

This software consist a “Serial Splitter” module who allows many software packages to communicate in real time, at fast speed, with one hardware unit, e.g.COM6 in this case.

Installing and configure the Virtual serial port driver Pro/Splitter is really easy:

As an example I created 3 Virtual COM1 COM2 COM3 how communicate with the one hardware port from our Transceiver e.g. COM6

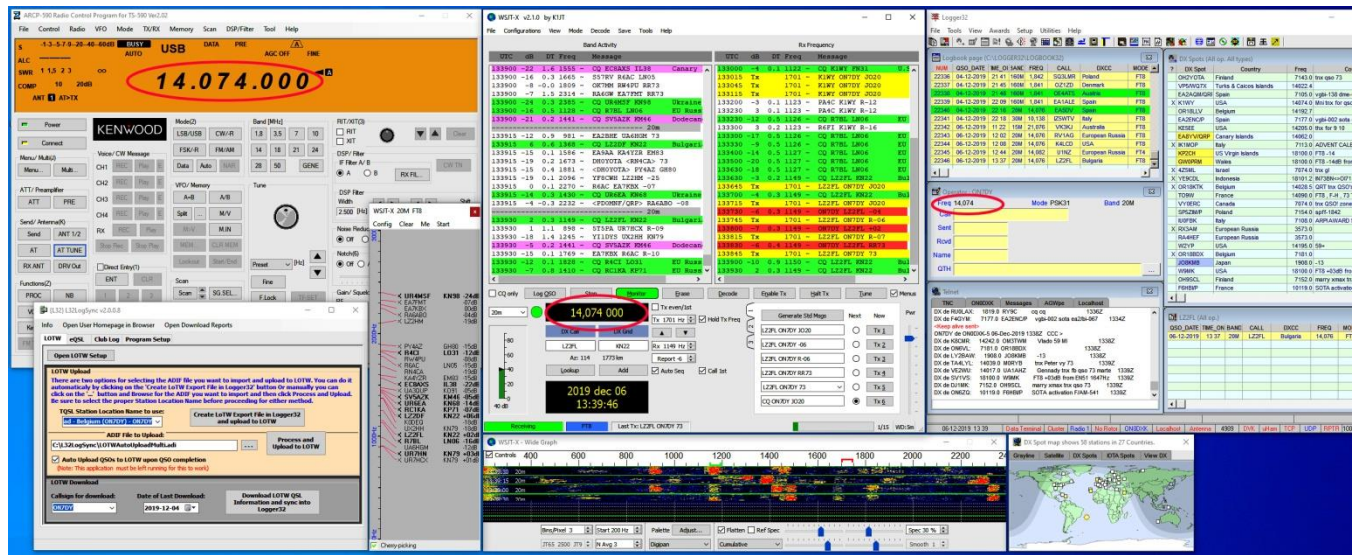


We now have to change the COM settings of our software packages as:

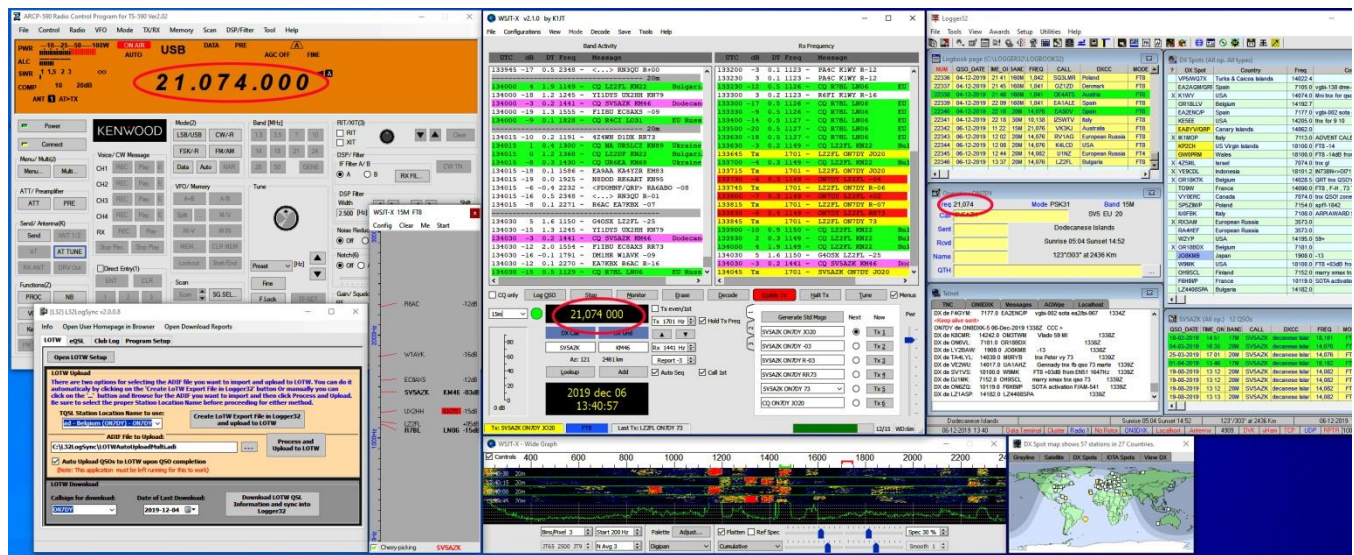
- Remote control software for the transceiver COM1
- Communication software WSTJ-X COM2
- Logger32 COM3

The LG wide screen I used in this case, allows to show the screens of the 3 connected software packages at the same time:

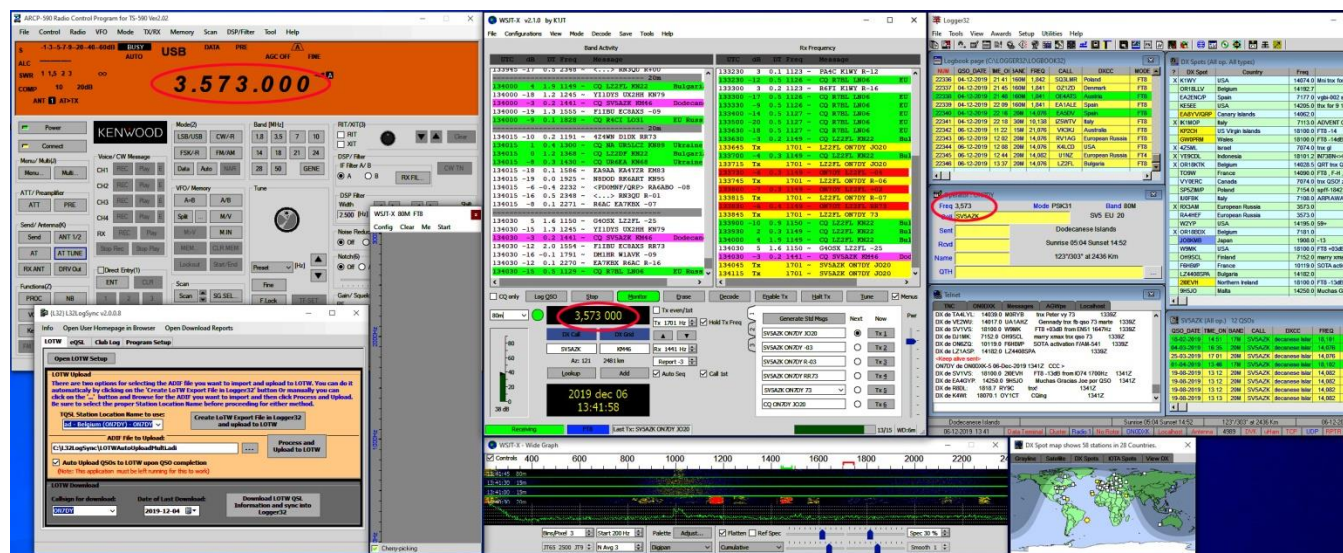
Transceiver switched to the frequency 14.074Mhz. and the 3 programs read the frequency 14.074 MHz at the same time.



Transceiver switched to the frequency 21.074Mhz. and the 3 programs read the frequency 21.074 MHz at the same time.



Transceiver switched to the frequency 3.573 Mhz. and the 3 programs read the frequency 3.573 MHz at the same time.



An overview picture of the radio station ON7DY showing the screen and software packages beside the transceiver. Frequencies are rather difficult to read but reflect the sense of this case.



Conclusion:

A perfect solution to split serial ports into many virtual serial ports can easily be done by:

“the Virtual serial port driver Pro – from **ELTIMA**”

<https://www.virtual-serial-port.org/products/serialsplitter/>