Setting up the PowerSDR software with Commander and WinWarbler for CW, Phone, PSK, and RTTY
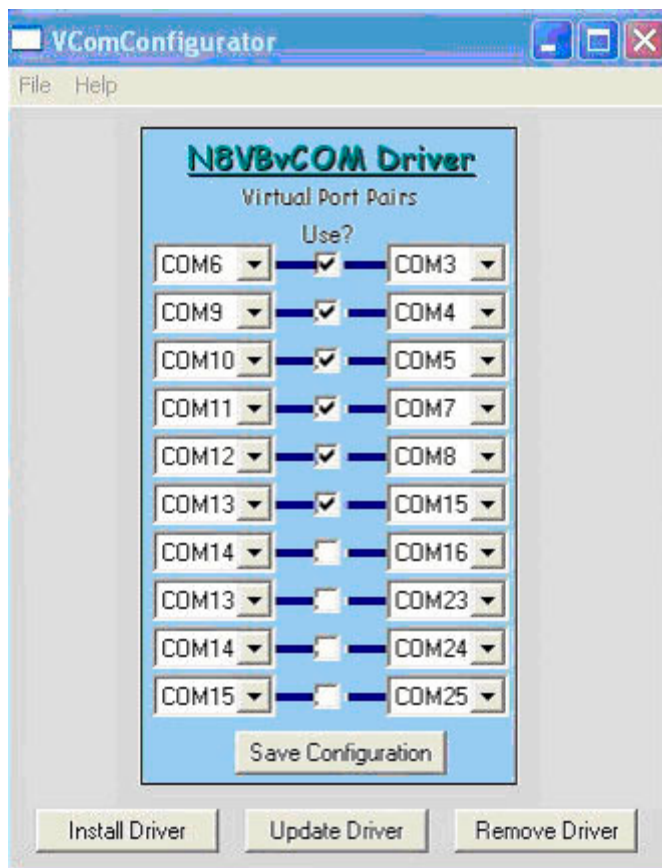
PowerSDR and WinWarbler can provide PSK, RTTY (using the included MMTTY engine) and full featured cw transmission. WinWarbler can also serve as a Digital Voice Keyer (DVK), by transmitting pre-recorded audio files.

The first step is to define a connected pair of virtual serial ports using a 'Virtual Com Port Emulator.

One choice of com port emulator is VCom or **com0com**. Vcom can be obtained from http://www.philcovington.com/SDR.html . Setup **Vcom** to create and connect virtual serial ports 3 and 6 as shown:

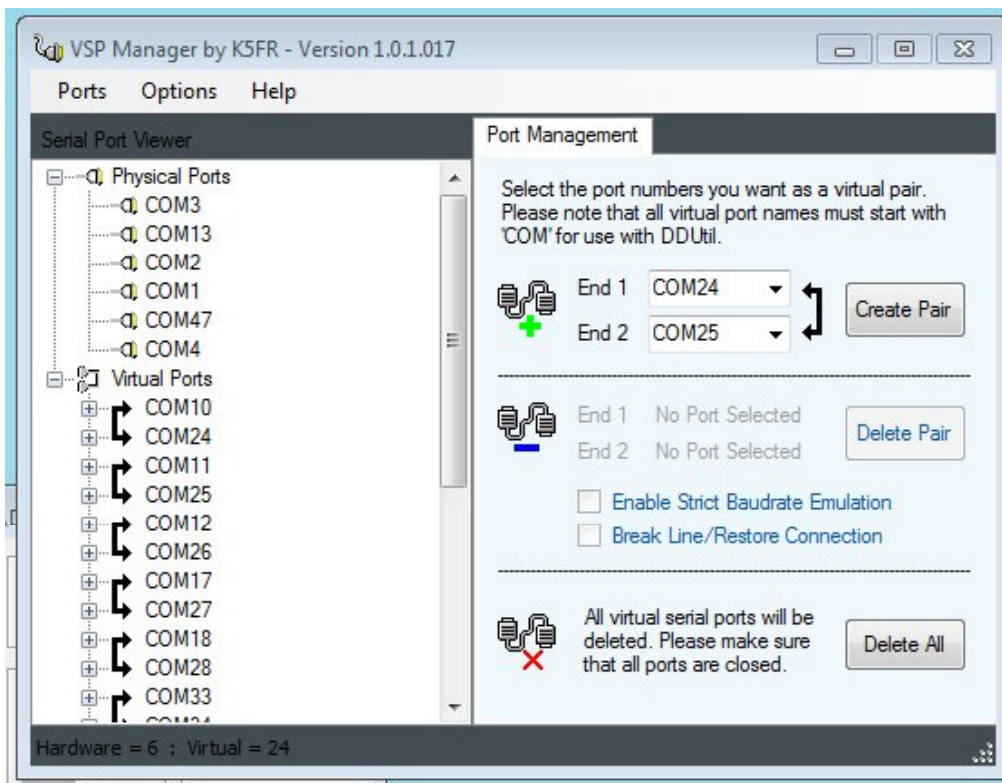**Another Choice of virtual Com Port Emulator is VSPmanager.**

VSPManager and it's companion DDUtil, are a integrated Virtual Com Port program and com port sharing/directing program designed with DXLabs in mind. The combo offer multi rig, multi antenna sharing, amplifier selection between PSDR and DXLabs. VSPmanager, a free Virtual Com port program that is very easy to use and is available

from Steve Nance K5FR. DDUt, also included the ability to integrate Commander/Winwarbler with CWSkimmer for full one click Split Operation.
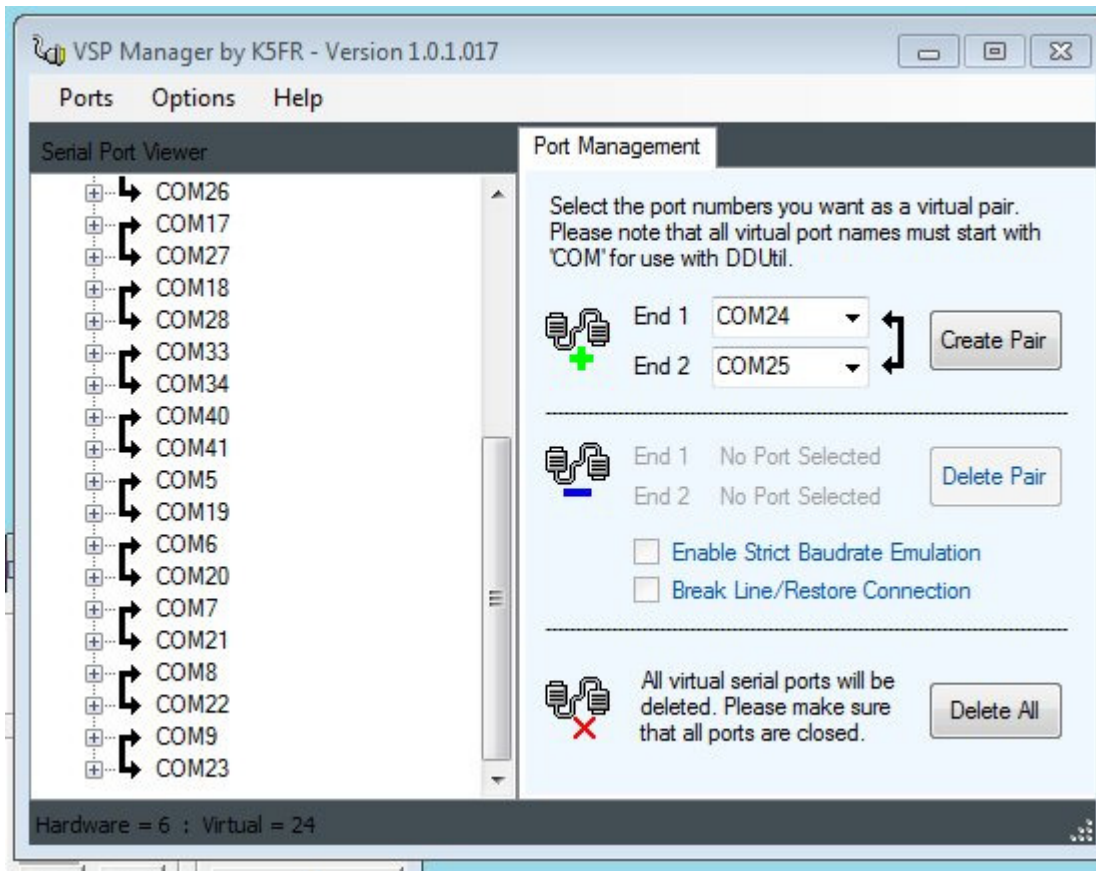
See: http://k5fr.com/ddutilwiki.index.php?title=VSPM

When setting up your VIRTUAL COM PORTS, keep in mind, that some Ham Radio programs only offer a limited amount of com port setup choices. Usually limiting the choices between com 1 and com 8. Whereas Flex allows almost unlimited com port numbers to be selected.

Therefore I set up my com port pairs choosing a Low number (for conventional programs) mated to a High Number (for Virtual programs)

(I couldn't get it all in one picture, continued on next page)

As you can see above, I have 6 **physical** com ports and a group of **Virtual ports**.

Each of the Virtual Com ports has two "numbers", but actually only makes one port.

To communicate the data across two programs, you select one side of the virtual com port in one program and the other side of the virtual com port is selected in the other program.

For instance, my Flex Control Program, PSDR, Uses Com 19 for its Cat Control port which connects to DXLab's Commander by selecting Com 5.

So if your Contest Program only allows use of com 1 through 8, you need to create pairs that use one of these single digit numbers with a selection of high 2 digit numbers.

For Digital Modes, such as RTTY and PSK which DXlabs WinWarbler provides, you can use a soundcard just as you do with conventional radios.
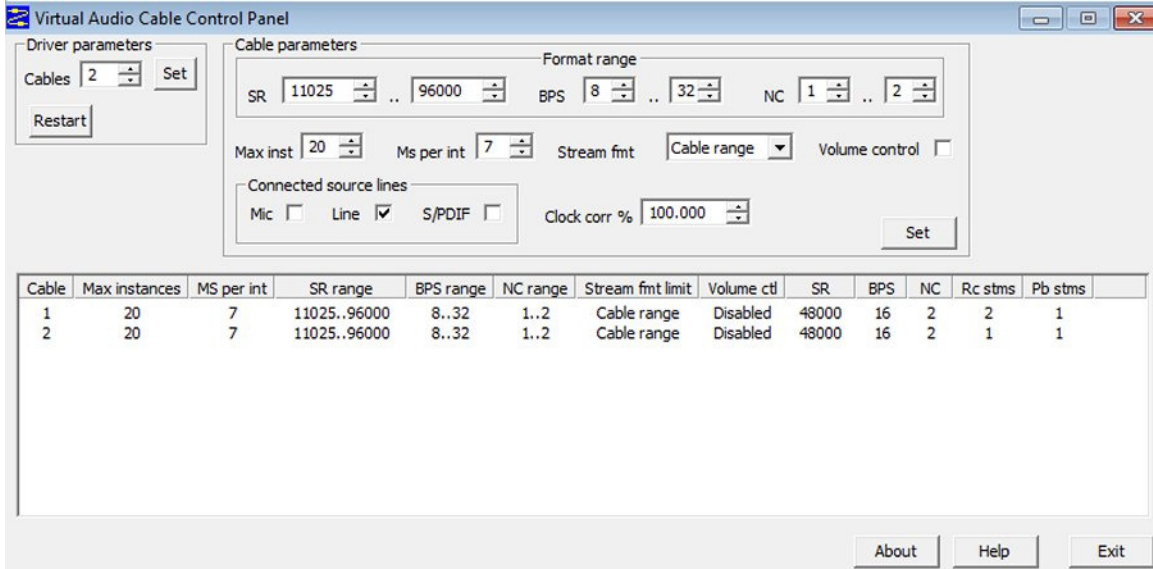
OR YOU CAN GO FULL DIGITAL for maximal efficiency

For the purpose of this wiki, we will discuss using VAC or Virtual Sound Cables. The benefit is the elimination of having to decode analog to digital, and then decode digital to

analog, with it's inherent latency and slight loss of quality. Virtual Audio Cables are digital to digital, faster, cleaner, and more efficient.
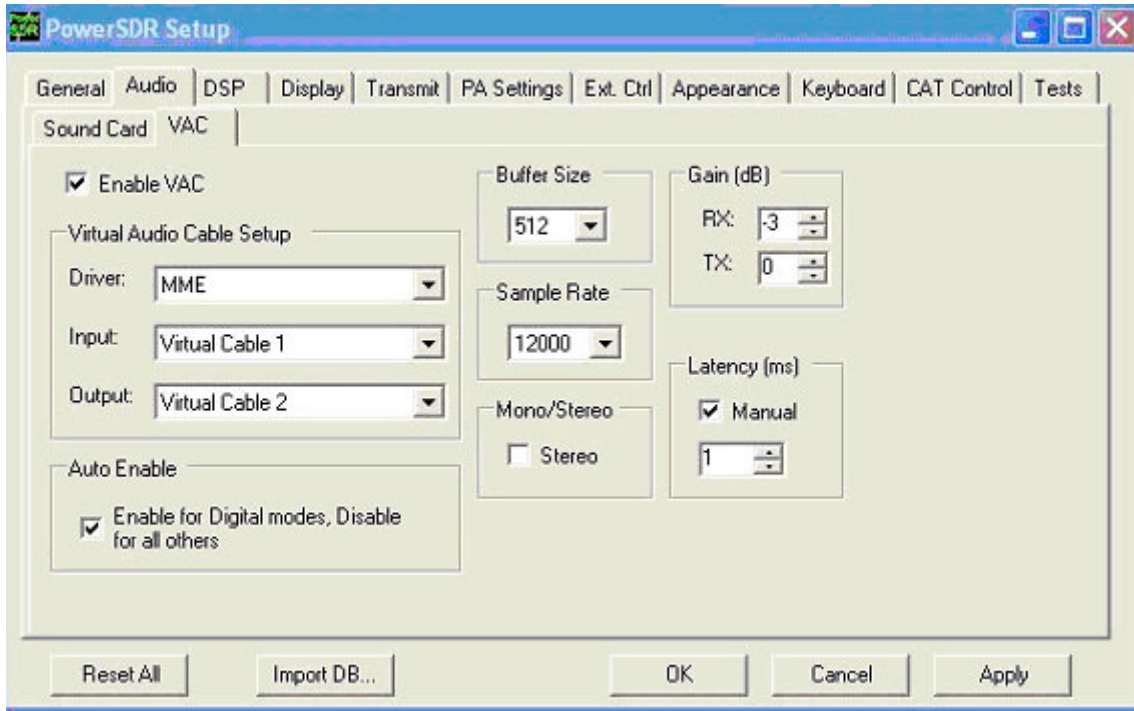
You can download the Virtual Audio Cable (**VAC**) program from http://software.muzychenko.net/eng/vac.html   The PREFERRED VERSION IS VAC 4.09 only.

and set it up as shown here: You can type in the settings and remember to click the 'Set' button to save your changes.

NOTE: PSDR and or DXLabs must not be running when you make changes to the default settings in the Control Panel.

The next step is to setup PowerSDR. Open its **Setup** window, select the **VAC** tab, and configure it as shown here:
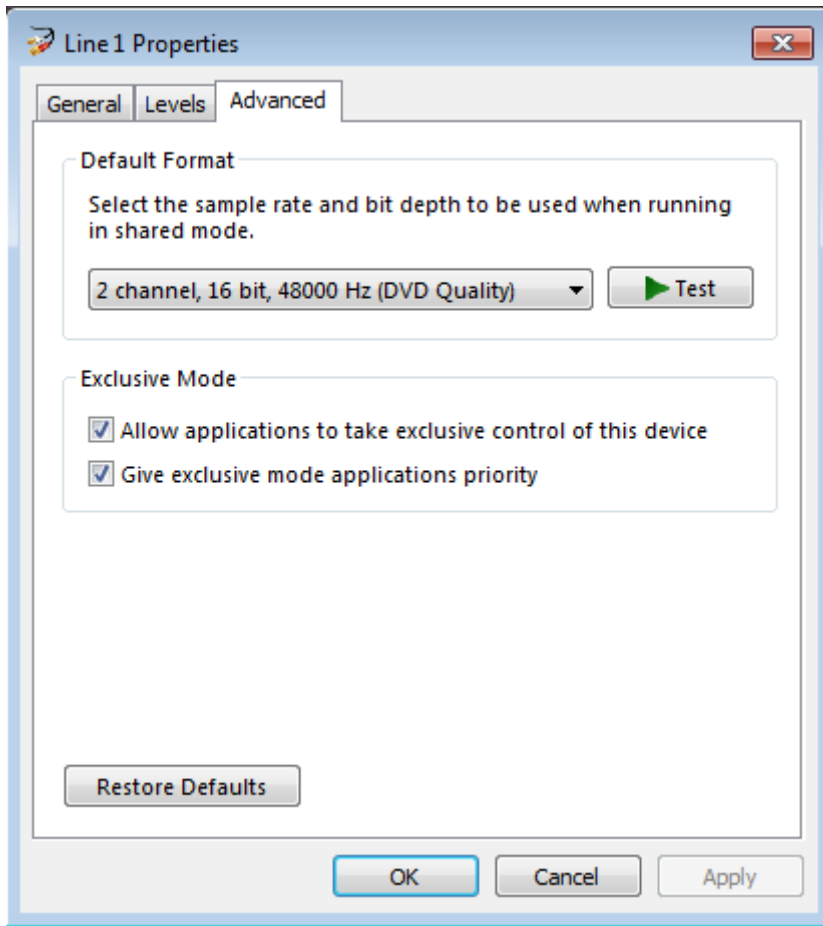
In DXLabs WinWarbler One more step if you are using Win7. Win7 likes to specify sound card settings for it's default sound system.

One more step if you are using Win7. Win7 likes to specify sound card settings for it's default sound card. To fix this, you must go to Win7 Control Panel>Sound and select the Virtual Sound Cable line 1 and 2 and change the settings to those below on BOTH CABLES IN BOTH 'PLAYBACK' AND 'RECORD.

NOTE: this is from http://kc.flexradio.com/KnowledgebaseArticle50504.aspx

Make sure PowerSDR and any digital mode programs are not running

1. Click on the Windows **Start** button and Select the **Control Panel** option
2. Click on the **Hardware and Sound category**
3. In the Sound sub-category, select **Manage Audio Devices**
4. In the **Playback** tab, locate the first VAC cable, it should be labeled as **Line 1, Virtual Audio Cable**. **Right click** on it and select **Properties** from the menu.
5. Click on the **Advanced** tab
6. Click on the drop down box in the **Default Format** section. Select "**2 channel, 16 bit, 48000 Hz (DVD Quality**)"

7. In the **Exclusive Mode** section, check both boxes; "**Allow applications to take exclusive control of this device**" and "**Give exclusive mode applications priority**".
8. Click on the **OK** button
9. Repeat steps 5-6 for all of the VAC cables in the Playback tab
10. Select the Recording tab.
11. In the **Recording** tab, locate the first VAC cable,it should be labeled as **Line 1, Virtual Audio Cable**. **Right click** on itand select **Properties** from the menu.
12. Click on the **Advanced** tab
13. Click on the drop down box in the **Default Format** section. Select "**2 channel, 16 bit, 48000 Hz (DVD Quality**)"
14. In the **Exclusive Mode** section, check both boxes; "**Allow applications to take exclusive control of this device**" and "**Give exclusive mode applications priority**".
15. Click on the **OK** button
16. Repeat steps 5-6 for all of the VAC cables in the **Recording** tab