HowTo setup PowerSDR-IQ for PMSDR

Special note:

You should not use PowerSDR for your very first software installation! There are too many holes to fall in! It is much more easy to use Winrad in one of it's current available versions. In times of writing it is Winrad-1.61 (no longer developed), WinradHD-0.81, WinradPLUS-1.03, or WinradF-1.5. My recommendation is WinradHD, because it does have the full functional range of the original version, plus much more enhancements inside, for instance an improved DSP engine!

This is NOT a user guide for the program itself. Download it from the FLEXRADIO [1] site and study the user manual carefully!

Good to know before installation:

- The PMSDR DLL does support **PowerSDR-IQ ONLY!**
- Last version of PowerSDR-IQ available is 1.12.24, but I could not find an error free installable version on the net,
 - while **v1.12.23** is doing well, and available on different Servers.
- The DLL supports all PowerSDR-IQ versions up to v1.12.xx
 - Versions starting v1.19.xx and higher are no longer supported, because they don't have the Ext-IO Interface any more!

PowerSDR-IQ settings:

After installing the PowerSDR-IQ version of your choice:

- Copy the three DLL Files [2] in to the PowerSDR program folder:
 - o c3260.dll
 - Extio_PMSDR.dll (last version v3.2r9 for PowerSDR-IQ and G8JCFSDR)
 - (Do not use this Extio_PMSDR.dll for Winrad!)
 - o mpusbapi.dll
- Start the PowerSDR program and click on SETUP.



In the upcoming window click on **General** \rightarrow **Hardware Config**,

PowerSDR-IQ Setup				
General Ext. Ctrl Audio DS Hardware Config USB Cal	iP Display Transmit Keyb ibration Filters RX2 Optic			AT Control Tests
Radio Model © SDR (Si570) Rx 2. © Del ne	SDR control Config LPT Address: 378 V LPT Delay: 0	Si570		
		Expert		
Wizard		Receive Only		
Reset Database Impo	ort Database	ОК	Cancel	Apply

and set Radio Model as well as Receive Only as indicated.

Open General → ExtIO, and set the check mark in to the PM-SDR Enable field.

PowerSDR-IQ Setup)					
General Ext. Ctrl Audio Hardware Config USB			mit Keyboard 2 0ptions			AT Control Tests
PM-SDR Options						
PM-SDR Enable						
Reset Database	Import Data	abase		ОК	Cancel	Apply

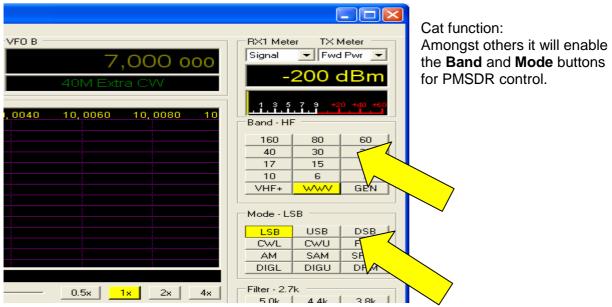
(As an immediate response, the DLL control window will appear on the screen.) Open the **Audio** → **Primary** tab and choose your **Soundcard**, **Sample Rate** and **Driver**.

PowerSDR-IQ Setup	
General Ext. Ctrl Audio DSP Display Tr Primary VAC	ransmit Keyboard Appearance PA Settings CAT Control Tests
Primary Sound Card Setup Details	Sound Card Selection
Driver: MME	Unsupported Card
Input: M-Audio Delta 44 1/2	Buffer Size
Output: Realtek AC97 Audio	2048 - 2 -
Mixer: None	Sample Rate Mid cain
Receive:	48000 - 50 -
Transmit:	
	2,23 ÷
Reset Database Import Database	OK Cancel Apply

It is wise not to use the **Sound Card Selection** if you will find an entry for your card, because "supported" in this case is very strong FLEXRADIO hardware related! Use **Unsupported Card** instead, and set the details of your choice.

It might be necessary here to play with the different driver versions available, unless you see a spectrum in PowerSDR-IQ! Use the Driver pull-down menu for selection.

Compared against the Winrad-DLL, the Extio_PMSDR.dll for PowerSDR-IQ does not have any Quick-Tune, SKED nor CAT related controls inside, while in contrast to it, CAT is fully implemented in PowerSDR-IQ.



Therefore you have to enable CAT Control, and the others as indicated.

PowerSDR-IQ Setup				
General Ext. Ctrl Audio DSP	Display Transmit Keyboar	d Appearance	PA Settings	CAT Control Tests
CAT Control	PTT Control Enable PTT Port: COM1	Test	ID as:	PowerSDR
B 1200 - Parity ne -	F RTS F DTR			Diffset VFO A
Data 🚽 🚽	DigL/U Returns LSB/U	SB	DIGL	DIGU
	Allow Kenwood Al Com	nand	2125 📫	2125 🕂
	$\overline{\langle}$			
Reset Database Import D	latabase.	ок	Cancel	Apply

Important in here is the **CAT Control** only, while the others (**ID as**; **Allow Kenwood Al Command**) somehow interact with 3thrd party programs like HRD.

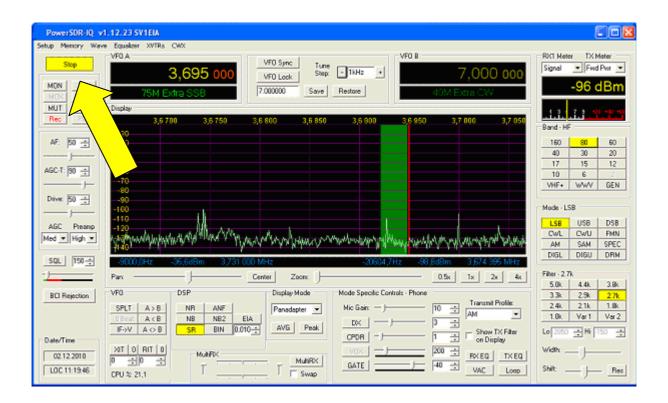
It would be interesting for you, that it is not essential to have a real corresponding Com-Port available. What ever you choose as a **Port** setting, it will work!

(Quite honestly, I don't know how they handle that, but it works. The PMSDR radio does follow your clicks in PowerSDR-IQ!)

☐ DTR	Enable Of		
)igL/U Returns LSB/USB TexProfiler Installed Jlow Kenwood Al Command	DIGL	DIGU 2125 🕂	Hit OK , and will save all
OK	Cancel	Apply	
			l

Hit **OK**, and that last keystroke will save all your settings!

So, right now it is time to hit the **START** button, and hopefully you will see a Spectrum on your PowerSDR-IQ screen.

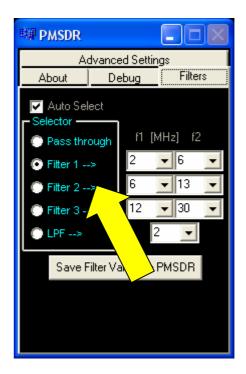


If you don't see it, go back to the Audio settings and play with the drivers pull down menu, unless you see a spectrum!

Swap I/Q channels

Because I have not found any possibility inside the program to swap the I/Q channels, it might be necessary to swap the position of your hardware input connectors in to the soundcard, unless you hear the right voice-sound on LSB/USB mode!

🗰 PMSDR	
About Ac	Debug Filters
	frequency on LCD
Mut _	Bias 2.46 V
- Si570 Frequ	uenc; ration
Use exte Band	own-Converter ernal Downconverter LO [Hz]
_2m ┏ IF Pan-Ada	116000000 👤
	4SDR on IF IF [Hz]
Switchboar	
☐ 3th harm Save actua	onic Mode (experimental)
PMSDR Do	SL wnconverter
LO freq.	▼ IF [Hz] 48677000



There is nothing to say much over the DLL itself, unless you would like to play with the **Filters**, the experimental **3th Harmonic Mode**, or make use of the **Pan-Adapter Mode**, which I haven't yet tried.

Have Fun!

[1] <u>http://www.flex-radio.com/</u>[2] <u>http://www.iw3aut.altervista.org/downloads.htm</u>

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