

# ExpertSDR2 and CW Skimmer

Guide

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## ExpertSDR2 and CW Skimmer

This guide describes how to setup ExpertSDR2 for use with one or two CW Skimmers. For more information on the use of the individual software packages see their websites.

CQ Skimmer<a href="http://www.dxatlas.com/CwSkimmer/">http://www.dxatlas.com/CwSkimmer/</a>Virtual Audio Cable<a href="http://software.muzychenko.net/eng/vac.htm">http://software.muzychenko.net/eng/vac.htm</a>

## 1. ExpertSDR2 and CW Skimmer software connection diagram



Create one audio cable.

#### 1.1 VAC configuration:

🛃 Virtual Audio Cable Control Panel
Driver parameters Cable parameters
Cables 9 + Set
Clients 59
Streams 0 Figure to Stream the
Restart     Connected source ines       Mic     Line       SIPDIF     Clock corr %       Set
Colle Maximizations MC and a Difference MC and a Charge Anthrite Verlage all CD 200 MC De stars Difference MC and
Cable Max instances MS per int Sk range BrS range NC range Stream mit imit Volume ct Sk BrS NC Kc stms PD stms Onows Oriows
About Help Evit

## 2. Connecting CW Skimmer to ExpertSDR2 Software.

### 2.1. CW Skimmer Settings

#### 2.1.1 Tab Radio



#### 2.1.2. Tab Audio

Settings	×
Radio Audio Misc.   Operator   Telnet   Calls	
C MME C WDM	
Signal 170 Device	
09 Virtual Cable 1	$\mathbf{\cdot}$
Audio I/U Device	
	-
Audio Volume Channels	
C Left/Right = 1/Q	
Shift Right Channel Data by	
○ -1 sample	
OK Can	cel
/@/jelsta	reception

#### 2.1.3. Tab Telnet

Settings		×
Radio Audio Misc. Ope	rator Telnet Calls	
✓ Enable Telnet Server	<b>`</b>	
Port: 7300 🚖	)	
Require Password		
Password:		
🔲 Do not send callsigns wi	thout "CQ"	
Allow SKIMMER comma	nds	
Crily to/from this Us	er:	
	OK C	ancel
· · · · · · · · · · · · · · · · · · ·	(.0)7jal	Sereenshio

#### 2.2. ExpertSDR2 Settings

#### 2.2.1. Tab **Device**

Options		
Device Sound card Display CAT Pan	el Futures Manager CW Skimmer	
Transceiver: SunSDR2  SDR Address: 192,168,16,200	Mic VAC VOX DSP TX CW Ext.Ctrl	Expert
SUR Roberss. 192.188.18.200 SDP Parts SUUU1 Sumple Rate: 78125 RX: A3 TX: A3 Disable audio output Use RX Wide filter VHF LNA	PIC VAC VOX DSP IX CW EXCON PC Microphone Input: Переназначение звуковых устр Input Channels: 2 Sample rate: 44100 Buffer size: 2048 Latency: 0	AGC Slope: 0 dB Attack: 1,3 ms Decay: 500 ms Hang time: 10 ms Treshold: -60 dB
Save load	SDR Microphones SDR Microphones Mic1 boost Mic2 boost Default Cancel	Apply OK

You can chose any sample rate in this setting based on your operating situation. CW Skimmer will skim the bandwidth chosen in CW Skimmer setup with its center on the frequency tuned (see Sample Rate in 2.1.1).

#### 2.2.2. Tab CW Skimmer

C Options	
Device Sound card Display CAT Panel Futures Manager	
Receiver 1 Receiver 2	
Connect Address: localhost Callsign: Callsign Port: 7300 Callsign: Callsign	
Telnet Log	
Ende	
Driver: Windows WDM-KS	
Output: Virtual Cable 1	
Channels: 2  Sample rate: 96000	
Buffer size: 2048  Latency: 0	
Save load Default Cance	Apply OK

Chose the same port as you set in CW Skimmer setup (see 2.1.3).

#### 2.2.3. Tab Features

Enter the full path to CWSkimmer.exe to automatically launch CW Skimmer when starting ExpertSDR2.

C Options	Los ha sense, main op	anti-technologie (108	
Device Sound card Display CAT	Panel Features Manager CW Ski	nmer	
Choose the programm, witch must be star	rted with ExpertSDR2:		
Prog 1 D:/LogHX/LogHX2	.exe	arguments:	
Prog 2 C:/Program Files (	x86)/Afreet/CwSkimmer/CwSkimmer.exe	arguments:	
Prog 3		arguments:	
Prog 4		arguments:	
Prog 5		arguments:	
Prog 6		arguments:	
Prog 7		arguments:	
Prog 8		arguments:	
Prog 9		arguments:	
Prog 10		arguments:	
Save load		Default Cano	el Apply OK

2.2.4. The **SKM** button allows you to manually connect and disconnect CW Skimmer. This is useful if you don't want to launch CW Skimmer automatically or if CW Skimmer is using too much of your computer resources and you need to quickly turn it off. (See CW Skimmer help on how to fine tune CW Skimmer CPU usage).

🛃 Exp	ertSDR2														x
<u> </u>	RX2	- 0d3 - I	BS PA	SC MEM	Volume:		(له	Mon:		MON -			Options	- About	
MOX	Tone Mixe	EQ W	AC SOL	Mule VO	X BreakIn	▼ COMP	▼ 58	<b>0</b> 10	SKM.	SM					
- <b>F</b>	•		RF:		Dr	ive:			Tone:			MicPC 🔻			
AM	SAM DSB	LSB USB	CW NFM	WFM SPEC	DIGL DIG.	U DRM	1601 80	M 60M	40M 30M	20M 17M	15M (	IZM CB	10M 6	M 2M	GEN
SubRX		1 <mark>8.1 90.0</mark> 1798 - Berge	B TX	LOCK SAVE SET 7			88	398		-14 LL S0	0.0dDm S1 S	-100 -80 3 S5 S7 S	-C0 -4 2 120	10 -20 110 16	ببلب 180 م
RIT	▼ XIT ▼	AGC: Slow	👻 Step	10 Hz 🔹 🤊	BIN	NR NE	81 NB2	/NF	1.8K	2K 2,2K	2,5K 2	.7K 2.9K	3.0K 3.	3K 3.5K	User
865x181	) 🧮 1% 👘	4				08:09:49	шс					Пт 12 Ик	онь 2015	11:09:	491 OC

**Note!** If you have a CW Skimmer path specified in the Features tab and the **SKM** button is switched on, CW Skimmer will start automatically after ExpertSDR2 starts. If the connection to CW Skimmer fails for any reason press **SKM** button to reconnect.

## 3. Connecting two CW Skimmers to ExpertSDR2 Software

Two CW Skimmers can be connected to the two receivers in ExpertSDR2. This is a useful feature when you need to skim two bands simultaneously, for example in an SO2R contest setup.

Create 2 virtual audio cables, one for each receiver.

#### 3.1 VAC configuration:

🔀 Virtual Audio Cable Cor	ntrol Panel
Driver parameters	Cable parameters Engrat range
Cables 9 🔆 Set	SR 22050 96000 BPS 8 24 NC 1 2
Clients 59	Max inst 20 : Ms per int 7 : Stream fmt Cable range  Volume control
Streams   U	Connected source lines
Restart	Mic □ Line ▼ S/PDIF □ Clock corr % 100.000 ÷
Cable Max instances MS	Sper int SR range BPS range NC range Stream fmt limit Volume ctl SR BPS NC Rc stms Pb stms Oflows UFlows
1 20	7 8000192000 324 12 Cable range Disabled
2 20	/ down152000 on 24 1.42 Cable lange Usabled
1	
	About Help Exit

To be able to run two parallel copies of CW Skimmer you need to create a separate configuration for your second skimmer. Create a shortcut on the desktop with a descriptive name, for example "Skimmer\_RX2".

Open properties (right click on the icon) and insert the following argument <u>after</u> the path and file name in the Target field;

#### ini="C:\Users\Public\SkimmerRX2.ini"

The complete line should look something like this, make sure there is a space before the ini= statement;

"C:\Program Files (x86)\Afreet\CwSkimmer\CwSkimmer.exe" ini="C:\Users\Public\SkimmerRX2.ini" You can place the .ini file in the same directory as the first skimmer's data directory as long as it has its own unique file name.

Security	Details	Previous Versions
General	Compatibility	
Ci	W Skimmer	
Target type:	Application	
Target location	CwSkimmer	
Target:	kimmer.exe" ini=C:\Us	ers\Public\SkimmerRX2.in
Start in:	"C:\Program Files\Afree	et\CwSkimmer"
Shortcut key:	None	
Run:	Normal window	-
Comment:		
Open File L	ocation Change Ic	on Advanced

Run this shortcut and make the settings below for this copy of CW Skimmer.

Make the following settings in ExpertSDR2 for the second CW Skimmer;

Settings	Settings	Settings
Radio Audio Misc. Operator Telnet Calls	Radio Audio Misc. Operator Telnet Calls	Radio Audio Misc. Operator Teinet Calls
Hardware Type         LD Frequency, Hz           ○ 3-kHz Radio         0           ○ SoltRock         0           ○ SoltRock.IF         CW Pitch, Hz           ○ SDR-IQ         0           ○ QS1R         Audio IF, Hz	Soundcard Driver MME © WDM Signal I/O Device 10 Vitual Cable 2	Enable Teihet Server     Port: 7301     P     Require Password     Password
C Mercury C Perseus C 48 kHz C 48 kHz C 192 kHz C 192 kHz	Audio Volume Channels Cha	Do not send callsigns without "DQ"     Allow SKIMMER commands     Only to/from this User:
OK Cancel	OK Cancel	OK Cancel

C Options	
Device Sound card Display CAT Panel Futures Manager	CW Skimmer
Receiver 1 Receiver 2	
Connect Address: localhost Callsign: UT4LW Port: 7301 Password:	
PY TO Output	Telnet Log
Enable     Driver: Windows WDM-KS     Ouqu* Virtual Cable 2     Channels: 2 ▼ Sample rate: 96000 ▼ Buffer size: 2048 ▼ Latency: 0 ↓	
Save load	Default Cancel Apply OK

If you like CW Skimmer to start automatically when ExpertSDR2 is launched, insert the program path and the ini file path in the **Features** tab. Alternatively you can specify the path to the shortcut on your desktop in the program field and leave the arguments empty.

E Options		
Device Sound card Display CAT Panel Futures Manager CW Skimmer		
Choose the programm, witch must be started with ExpertSDR2:		
Prog 1 D:/LogHX/LogHX2.exe	arguments:	
Prog 2 C:/Program Files (x86)/Afreet/CwSkimmer/CwSkimmer.exe	arguments:	
Prog 3 C:/Program Files (x86)/Afreet/CwSkimmer/CwSkimmer.exe	arguments:	ini=C:\Users\Yuri\MyIniFile
Prog 4	arguments:	
Prog 5	arguments:	
Prog 6	arguments:	
Prog 7	arguments:	
Prog 8	arguments:	
Prog 9	arguments:	
Prog 10	arguments:	
Save load Default	Cance	Apply OK