Quick Setup Guide for Winlink on VHF/UHF with Signalink on Windows

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Get the Software

Download

- Soundmodem: soundmodem100.zip from here <u>http://uz7.ho.ua/packetradio.htm</u> and extract the files in a location you can find easily (e.g. folder on Desktop)
- Winlink Express: https://winlink.org/WinlinkExpress Mind you, once installed it will show up as "RMS Express" (that is the old name, the Winlink team has not updated it yet).

(Always check any downloads with your antivirus before executing)

SoundCard Considerations

After you have hooked up your Signalink please make sure it is not selected as the Open Volume Mixer default audio device by right mouse Spatial sound (Off) 5 clicking on the speaker icon and selecting Playback devices Playback Devices. You can adjust in that Recording devices menu. Sounds Troubleshoot sound problems (v) de ENG 12/18/2017

Also make sure that Signalink is not your active Playback Device. You can select Select playback device your active playback device by left clicking on the speaker icon and selecting Speakers / Headphones (Realtek High Definition Au any playback device other than USB Audio CODEC. Selecting Acer T232HL (Intel(R) Display Audio) Speakers/Headphones in the example here is a good idea. 20:49 de and 信. (1) ENG 12/18/2017

Setting up Soundmodem100

Go to the soundmodem.exe file you extracted earlier. Double-click to run the program.

	MN.20 120000	• 170	0 🔹 🔹 DCI	threshold			Hold point	ers	
lyCall	DestCall	Status	Sent pkts	Sent bytes	Rovd pkts	Rovd bytes	Revd FC	CPS TX	CPS R
		1	000		2000			3000	
			····	talete i	1	·		, , 1	

On the Soundmodem screen, click **Settings** then **Devices**.

You will see this screen:

Sound Card	
Output device Speakers (USB	Audio CODEC)
Input device Microphone (US	SB Audio CODEC)
🔲 Dual channel	TX SampleRate 11025
TX rotation	TX corr. PPM
🔽 Single channel output	RX SampleRate 11025
Color waterfall	RX corr. PPM 0
🔽 Stop waterfall on minimize	Priority Highest 🔹
Server setup	
AGWPE Server Port 8000	🕅 Enabled
KISS Server Port 8100	✓ Enabled
PTT Port	
Select PTT port NONE	🗖 Dual PTT
	Swap COM pins for PTT
or	I

Output device: **Speakers (USB Audio CODEC)** Input device: **Microphone(USB Audio CODEC)**

Note: This selects your Signalink as the Output and Input device for soundmodem and Winlink Express. The Signalink may sometimes show up as 2-USB Audio CODEC or similar.

Set the TX and RX dials on your Signalink to the 11 o'clock position. You can adjust that later if needed. Set DLY(delay) to 0.

Uncheck **TX rotation** Check **Single channel output** Check **Stop waterfall on minimize** AGWPE Server Port 8000 Uncheck Enabled KISS Server Port 8100 Check Enabled Select PTT Port: NONE (for the SignaLink USB) Uncheck Dual PTT Uncheck Swap COM pins for PTT Click OK

Click Settings then Modems

You will only have to change settings in "Modem filters ch:A", ignore "ch:B"

Modem filters o	ch: A		Modem filters ch	n: B	
BPF Width	1400	Show	BPF Width	500	Show
TXBPF Width	1600	Show	TXBPF Width	500	Show
LPF Width	650	Show	LPF Width	155	Show
BPF Taps	256		BPF Taps	256	
LPF Taps	128		LPF Taps	128	
🔽 Default set	tings		🔽 Default setti	ngs	
✓ KISS Optin ✓ non-AX25 Modem type cl	hization filter h: A		☐ KISS Optimi ✓ non-AX25 fill ✓ Modern type ch	zation Iter B	
Mode AFS	SK AX.25 12	200bd 👻	Mode AFS	K AX.25 300)bd 👻
TXDelay 500	ms	ec	TXDelay 250	mse	c
TXTail 50	ms	ec	TXTail 50	mse	С
	pa	irs	Add. RX 0	pair	\$
Add. RX 0			Add BX shift	30 Hz	
Add. RX 🛛	30 Hz		Aud. HA shire J		

Check – **Default settings**

Check – KISS Optimization Check – non-AX25 filter

Under Modem type ch: A Set Mode to **AFSK AX.25 1200bd** Enter TXDelay **500** msec

Note: TXDelay and TXTail can be adjusted over time. 500 and 50 are good starting numbers, your radio may support lower or higher numbers.

Click OK

In the main Window make sure to select A: AFSK AX.25 1200bd and set to 1700

SoundModem by UZ7HO - Ver 0.97b - [AFSK AX.25 1200bd]	-	\times
Settings View Clearmonitor Calibration About		
A: AFSK AX.25 1200bd 👤 1700 主 🖝 DCD threshold		

Winlink Express

Leave soundmodem running and start RMS Express.



Packet Winlink

Select Open Session: Packet Winlink

Winlink Express	s 1.5.10.0 - K6OLI									570		×
KEOLI	- Settings	Message Att	achments 1	Move To:	Saved It	ems v	Delete Open Sessio	n:	Packet Winlink	Logs	Help	
	B & + I	2	* 0						Telnet Winlink	~	_	
No active session									Pactor Winlink		_	
System Folders	Date/Tim	e - Mess	iage ID	Size	Source	Sender	Recipient	S	Robust Packet Winlink Winmor Winlink			-
Inbox (0 unre 🔺	2017/04/2	1 04:07 VAKX	RNF80JR4	703	WBENCT	WBENCT	W6JDG	Re	Iridium GO Winlink	ercise 0	4\09-04\	22
Read Items (2017/04/1	7 20:52 KHZC	ZTBU2SZI	524	WEJDG	W6JDG	SMTP:johndavid	11	Dacket D3D	ae 04\0	9 - 04\22	
Sent Items (2	2017/04/1	1 22:32 VYGA	YUZTPTEN	446	KKSEZP	KKGEZP	KFGTIM	11	Pactor P2P	ercise 04	1/09 - 04/2	22
Saved Items	2017/04/0	5 22:05 NIK10	D1WRNFT4	382	KKSEZP	KKGEZP	KF6TIM	11	Robust Packet P2P	tise 04/1	2 - 04/08	
Deleted Item: Drafts (0)	2017/03/3	1 02:04 WM3	YV9XBY26G	349	KKSEZP	KKGEZP	KEOLI	AC	Telnet P2P	Exercise	2017-03-	-27
Personal Folders	8 @ 2017/03/3	0 03:38 3HTC	PYLROUMZ	1346	WEJDG	W6JDG	SMTP johndavid	11	Denter Denter and			
	2017/03/3	0 03:29 H3YD	ZG8MNKA0	347	WEJDG	W6JDG	KSOLI	AC	Winmor Radio-only	Exercise	2017-03-	27
	2017/03/2	8 16:20 KWU	Y3CL28XD8	348	MBEAT	WBGYJJ	KSOLI	AC	Telnet Radio-only	Exercise	2017-03-	-27
	2017/03/2	7 01:55 LX2U	BBECMOPN	846	KKGEZP	KKGEZP	KFGTIM	11	Telnet Post Office	pise 03/2	24 - 04/01	
	2017/03/2	3 01:46 FHAL	F4EOIRH9	372	KK6EZP	KKGEZP	KFSTIM	11	WL2K ARES NE Winlink Ex	ercise 02/	19 - 02/25	
Global Folders	2017/03/1	704:29 N3Z1	WB1NXK2K	368	KK6EZP	KK6EZP	KEOLI	AC	K: FW: Re: //WL2K ICS21	3 - Baker to	Vegas - N	Mera v

Click on Open Session:

You are now in the Winlink Packet Session

Exit Settings	Switch to	Peer-to	-Peer Session	Cha	annel Selectio	on 1200 Baud	Start	Stop
Connection type:	Direct	-	W6GSW-10		Via			
Connection script:				*	Edit script	Add script	Remove s	cript
				_				

_

Click Settings

INC Connection					
Packet TNC Type: KISS			~		
Packet	TNC Model:	NOR	MAL 🗸	AutoConnect Time	3
	Serial Port:	TCP	~	Disabled	
тс	P Host/Port	127.0	0.0.1	8100	
If Auto Connect is enabled one	n session wh	en Winl	ink Express is	started	
				states	
TNC Parameters	1200 P		O 9600 B		
TX Delay (Miliaconda):	400		0 9000 B	bue	
I > Delay (miniseconds).	400	~	300	~	
Maximum Packet Length:	128	~	255	~	
Maximum Frames:	4	~	7	~	
Frack:	2	~	2	~	
Persistance:	160	~	224	~	
Slot time:	30	~	20	~	
Maximum Retries:	5	~	5	~	
Disable Xmt Transmit Level:	100	*	100	*	
Enable IPol					

Select Packet TNC Type: KISS Select Packet TNC Model: NORMAL

Note: some gateways support ACKMODE, which may be useful if there is a lot of traffic, some gateways do not, so NORMAL is a good place to start.

Select Serial Port: **TCP** (instead of COM port options in the dropdown menu) Set TCP Host / Port: **127.0.0.1 / 8100** Select TNC Parameters **1200 Baud** Check **Enable IPoll** Click **Update**

Connecting to a gateway

Connection type:	Direct	-)[W6GSW-10	Via	
Connection script:				Edit script	Add script Remove sc
Time to next Autoc	onnect = [Disabled			

Select Connection Type: **Direct** Enter Gateway name, in this example: **W6GSW-10**

On your radio set the frequency to the gateway frequency, in this example 145.050MHz. This frequency will be different for different gateways! Use Channel Selection (see Quick Tip below) to make sure you have the correct gateway and frequency for your area.

Note: Some radios require digital mode to be enabled before you can make a digital connection on the selected frequency. Please refer to your radio manual for details.

Click Start

Quick Tip: Channel Selection

Update your available channels on a regular basis, once a month at the very least. Using Channels automatically populates the relevant fields in the Packet Winlink Session window.

Click Channel Selection Click Update-via-Internet

(if you have filled in your grid square correctly in Winlink Express Setup, the Channel list autopopulates)

Packet Chan	nel Selector	69			19		×
Exit Select	Channel Up	date Table V	ia Internet Up	date Table Vi	a Radio		
Stations found	d within 160 kil	ometers of y	our grid square.	1			
Callsign	Frequency (MHz)	Baud	Grid Square	Group	Distance (km)	Bearing (Degrees)	^
W6GSW-10	145.050	1200	DM04WB	PUBLIC	010	180	
W6GSW-10	431.125	9600	DM04WB	PUBLIC	010	180	
K6HRP-10	145.050	1200	DM03WW	PUBLIC	023	180	
K6HRP-4	145.050	1200	DM03WW	PUBLIC	023	180	
AJ7C-10	145.050	1200	DM04TA	PUBLIC	027	238	
AJ7C-10	431.125	9600	DM04TA	PUBLIC	027	238	
K6CCR-10	145.050	1200	DM04TA	PUBLIC	027	238	
KK6QMS-10	145.050	1200	DM03SX	PUBLIC	036	238	
W6ACS-11	431.125	9600	DM13CW	PUBLIC	039	127	
K6JGL-10	145.050	1200	DM03TU	PUBLIC	041	215	
AG6MO-10	145.090	1200	DM14EC	PUBLIC	046	097	
KE6RHV-10	145.630	1200	DM04XN	PUBLIC	046	010	
KE6WEZ-10	145.050	1200	DM04PG	PUBLIC	055	284	
W6CTR-10	144.970	1200	DM14FA	PUBLIC	056	105	
W6ACS-10	431.475	9600	DM13DS	PUBLIC	057	137	
WB6TT-10	144.970	1200	DM13FU	PUBLIC	064	121	
K6NBR-10	145.050	1200	DM13BO	PUBLIC	065	159	
WALLER CA	104 175	0000	DIMODO	-	0.05	150	Y

Double-click the channel you want to use.

The Packet Winlink Session window will read **ATTENTION: Set the packet radio frequency to xxx.xxxMHz**, this also gives you the frequency you should set your radio to.

Quick Tip: Winlink Screen Resolution Fix

In some cases Winlink resizes, making the font painfully small to read. You can keep this from happening by following these steps:

Right mouse-click on the RMS Express icon.

Select < Properties>.

Select the <Compatibility> tab.

Check < Override high DPI scaling behavior>.

In the <Scaling performed by> drop-down box select <System>

Check <Disable full screen optimizations>.

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			9	I\.

RMS Express - Sho	ortcut Properties		×
Security	Details	Previous V	ersions
General	Shortcut	Compa	atibility
If this program isn't we running the compatibi Run compatibility	orking correctly on this lity troubleshooter. troubleshooter	version of Window	ws, try
Compatibility mode	ipaubility settings man	ualiyr	
Run this program	n in compatibility mode	for	
Windows 8	in a comparison of the compari		
THIGOWS C			
Settings			
Reduced color	mode		
8-bit (256) color	\sim		
Run in 640 x 480	screen resolution		
Override high D Scaling perform	PI scaling behavior. ed by:		
System		~	
Disable fullscre	en optimizations		
Run this program	n as an administrator		
긎 Change settir	igs for all users		
	ОК	Cancel	Apply