# **How to Install Winlink Express**

Winlink Express is the new name for RMS Express.

# What is Winlink

You can find an overview of the Winlink system in these videos:

- <u>https://www.youtube.com/watch?time\_continue=231&v=1v330\_1dezw</u>
- <u>https://www.youtube.com/watch?v=RF0OMNZCEVA</u>

You can also go to the Winlink website at:

• <u>http://winlink.org/</u>

## Installation

### Signalink

When you plug in the USB Signalink, Windows will create a new sound device. You should go into the control panel and make sure it is not the default sound device. That will prevent Windows from send Windows' sounds through your radio.

### Soundmodem

Soundmodem provides a software terminal node controller (TNC). We recommend that you use a Signalink to connect your computer to your radio.

### Installation

Go to: <u>http://uz7.ho.ua/packetradio.htm</u> and download:

- soundmodem97.zip note: the version number (97) could be higher if a newer version is out
- user\_guide\_v045b\_EN.pdf again the version number could be different.

Unzip soundmodem97.zip getting soundmodem.exe. You can place this file anywhere, though you will probably want to put a link to it on your desktop for ease of use.

#### Setup

Run the program soundmodem.exe.

You will get a screen that looks like this:

SoundModem by UZ7HO - Ver 0.97b - [AFSK AX.25 1200bd]		- 1	
Settings View Clear monitor Colibration About			
A: AFSK AX.25 1200bd 🔽 1700 🗲 CDD threshold			
1:Fm KJ4QFY-10 To Al4UR <rr f="" r="" r6=""> [15:26:16R] [+++] 1:Fm KJ4QFY-10 To Al4UR <i c="" len="128" pid="F0" r6="" s5=""> [15:26:19R] [++\$] Re: //wL2K hi0ú*Y\$iôzmfÿÅÞçði ½iôs/ing-Iíoá*i*jüe*/IJVZē:m:_ißælNþ/I%i]Iðúæi}@~`ÿáMMÀùÆî[G  òu]¶ÄàxnD[=-îû;Idû 1:Fm Al4UR To KJ4QFY-10 <r r="" r6=""> [15:26:20T] 1:Fm KJ4QFY-10 To Al4UR <i c="" len="128" pid="F0" r6="" s6=""> [15:26:22R] [+++] aló/&lt;} s/iSinôt#Å èj[CázûkJ*±U,Ü IgÔuç@K_eFRÂŬK*IeÅ[]* (*&amp;ŇmĐisīöäjĔFp]SdYáÑÕuţÎX_Inijó\îàiy&amp;¯ &amp;^x ='Á#ï bLRjiUá= 1:Fm KJ4QFY-10 To Al4UR <i c="" len="21" pid="F0" r6="" s7=""> [15:26:22R] [+++] 1:Fm KJ4QFY-10 To Al4UR <i c="" len="21" pid="F0" r6="" s7=""> [15:26:22R] [+++] 1:Fm KJ4QFY-10 To Al4UR <i c="" len="3" pid="F0" r6="" s7=""> [15:26:22R] [+++] 1:Fm Al4UR To KJ4QFY-10 <i c="" len="3" pid="F0" r0="" s6=""> [15:26:23T] FF</i></i></i></i></i></r></i></rr>	łæ		^
1:Fm KJ4QFY-10 To Al4UR <rr f="" r="" r7=""> [15:26:24R] [+++] 1:Fm KJ4QFY-10 To Al4UR <i c="" len="3" pid="F0" r7="" s0=""> [15:26:26R] [+++] FQ</i></rr>			
1:Fm AI4UR To KJ4QFY:10 <rr r="" r1=""> [15:26:27T] 1:Fm KJ4QFY:10 To AI4UR <disc c="" p=""> [15:26:41R] [+++] 1:Fm KJ4QFY:10 To AI4UR <disc c="" p=""> [15:26:45R] [+++] 1:Fm KJ4QFY:10 To AI4UR <disc c="" p=""> [15:26:48R] [+++] 1:Fm KJ4QFY:10 To AI4UR <disc c="" p=""> [15:26:58R] [+++] 1:Fm KJ4QFY:10 To AI4UR <disc c="" p=""> [15:26:58R] [+++] 1:Fm KJ4QFY:10 To AI4UR <disc c="" p=""> [15:26:58R] [+++] 1:Fm KJ4QFY:10 To AI4UR <disc c="" p=""> [15:27:07B] [+++]</disc></disc></disc></disc></disc></disc></disc></disc></disc></disc></disc></disc></disc></rr>			
1:Fm KJ4QFY-10 To AI4UR <disc c="" p=""> [15:27:10R] [++#]</disc>			
MyCall DestCall Status Sent pkts Sent bytes Rovd pkts Rovd bytes Rovd FC CPS TX CPS R	IX	Direction	
1000 2000 2000			1000
1000 2000 3000 I setendendendendendendendendendendendendende	-	-	4000
· · · · · · · · · · · · · · · · · · ·			
	1-1-2-1-3		and a second

Note that the chosen modem should be AFSK AX.25 1200bd and the center frequency should be 1700Hz.

Next chose *Settings*  $\rightarrow$  *Devices* to specify that you want to use the Signalink.

Settings	×							
Sound Card								
Output device Speakers (USB Audio CODEC )								
Input device Microphone (US	68 Audio CODEC 1							
🗖 Dual channel	TX SampleRate 11025							
▼ TX rotation	TX corr. PPM 0							
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							
ОК	Cancel							

In the Output device and input device drop down box chose your Signalink (hint: it will have USB in the name.)

Set the reset of the fields to match the image

Press OK

#### Next chose *Settings* $\rightarrow$ *Modem*.

	Modem settings	×				
	Modem filters eh: A	Modem filters ch: 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 settings	Default settings				
	PreEmphasis filter 🛛 🔽 🔽 All	PreEmphasis filter 🛛 🔽 🖉 All				
	<ul> <li>✓ KISS Optimization</li> <li>✓ non-AX25 filter</li> </ul>	<ul> <li>✓ KISS Optimization</li> <li>✓ non-AX25 filter</li> </ul>				
	Modem type ch: A	Modem type ch: B				
	Mode AFSK AX.25 1200bd 💌	Mode AFSK AX.25 300bd 💌				
	TXDelay 250 msec	TXDelay 250 msec				
	TXTail 50 msec	TXTail 50 msec				
	Add. RX 2 pairs	Add. RX 0 pairs				
	Add. RX shift 30 Hz	Add. RX shift 30 Hz				
Ч	Bits Recovery SINGLE	Bits Recovery NONE				
	Ok	Cancel				

We will only use channel A.

Set the Mode first it will change all the other values. Then correct any differences between your settings and the illustration.

Press OK.

You are finished setting up soundmodem.

# **Install Winlink Express**

Goto https://www.winlink.org/WinlinkExpress and click on "Download Winlink Express".

Run the file you downloaded by double clicking on the icon in the download bar on your browser.

This will install Winlink Express.

### **Setup Winlink Express**

Start Winlink Express, you will get the following screen.

🗱 Winlink Express Properties		×
Call Signs	Contact Information (Optional)	
Callsign suffix (optional): (Used for country code) Show password	Name:	
	Street address 1:	
Password recovery e-mail:	Street address 2:	
(Non-Winlink e-mail address where lost password will be sent when requested)	City:	
Remove Callsign Request password be sent to recovery e-mail	State/Province:	
	Country:	
Auxiliary Callsions and Tactical Addresses	Postal code:	
Add Entry	Web Site URL (optional):	
Remove Entry	Phone number:	
Edit Entry	Non-Winlink e-mail:	
	Additional information (optional):	
My Grid Square: Lat/Lon to Grid Square		
Winlink Express registration key:		
Path to propagation forecast program: C:\itshfbc\	Recalculate HF path quality if SFI changes more than: 30	
Service Codes	Keep logs for 2 🗢 weeks. Keep deleted messages for 30	days.
PUBLIC	Display list of pending incoming messages prior to download	
(Use PUBLIC for ham call signs. Separate multiple service codes by spaces.) If you change service codes, you must update the list of channels.	Wam about connections to stations holding messages     Allow diagnostic information to be sent to the Winlink Development T     Automaticaly install field test (beta) versions of Winlink Express	eam
Update Cancel	Use Amazon cloud server (AWS) beta version	

Put in your call sign. If you already have an account put in your password.

If you don't already have an account leave the password blank. Your account will be created the first time you connect with the system. You will be able to get this email the second time you connect. You should then update the password field with the password sent to you.

Your address will be *<your callsign>@*winlink.org

Fill the rest of the fields appropriately.

Press "Update" and you will be taken to the main screen:

Winlink Express 1.5.7.0 - Al4UR								\			×
AI4UR - Settings	Message	Attachm	ents	Move To: Sa	ved Items	~	Delete Open Sess	sion: Packet Win	link 🗸 Log	s Help	
	2	🚑   <del>&gt;&gt;</del>	0								
In Packet Winlink session.											
System Folders		Date/Time	-	Message ID	Size	Source	Sender	Recipient	Subject		
Inbox (0 unread) Read Items (0) Outbox (0) Sent Items (12) Saved Items (0) Deleted Items (1)											
Drafts (0)	II.										
Global Folders											
Contacts											~

You call sign will be in the upper left corner. On the top toward the right is the connection method in a drop down box and a link "Open Session".

You can get back to the previous screen when you need to by clicking "Settings"

# Setting up connection methods

### **Telnet Session**

Let's you send a message through the Winlink System using the Internet only, no radio needed.

### Setup

Choose "Telnet Winlink Session" for your connection method and click "Open Session"

You will get a new window.



Select Settings set yours to match the screen below.

8	Telnet Properties	×								
	Telnet Connection Telnet by default always connects to the first available CMS site. This is normally all that is required and no telnet properties need to be set.									
	If you have a need to connect to an RMS Relay site then check the box below and enter a path name to the site. If RMS Relay is running on the same machine as this program use the path name 127.0.0.1.									
	Use RMS Relay									
	TCP/IP path to the RMS Relay site: 127.0.0.1									
	Port to connect to: 8772 (Default is 8772)									
	Telnet Session AutoConnect Time									
	Automatic Background Monitoring Polling time: Disabled  Send all messages in Outbox									
	Update Cancel									

Close this window. Telnet mode setup is now complete, you are now ready to send a message using a Telnet Winlink Session.

Close the Telnet Winlink Session window.

### **Packet Winlink Session**

This will allow you to connect through the radio to the RMS Gateway on top of DeKalb Fire Rescue HQ.

The frequency to use is 145.590 Simplex no PL tone.

### Setup

In the connection dropbox, choose "Packet Winlink Session" and then press "Open Session"

Secket Winlink Session	_		×							
Exit Settings Switch to Peer-to-Peer Session Channel Selection 1200 Baud Start Stop										
Connection type: Direct - KJ4QFY-10 Via BUFGA ,										
Connection script:										
Time to next Autoconnect = Disabled										
*** Starting WL2K packet session *** Initializing KISS over TCP Host 127.0.0.1 Port 8100 *** Initialization complete *** Ready			^							
			~							

The connection type should be: Direct

The station should be KJ4QFY-10

Next press Settings.

Packet Winlink/P2P Setup				×
TNC Connection				
Packet TNC Type: KISS			$\sim$	
Packet	TNC Model:	ACKM	IODE 🗸	AutoConnect Time
	Serial Port:	TCP	$\sim$	Disabled 🗸
тс	P Host/Port	127.0	.0.1	8100
TNC Parameters				
	1200 Bau	bu	🔘 9600 Ba	ud
TX Delay (Milliseconds):	400	$\sim$	300	~
Maximum Packet Length:	128	$\sim$	255	~
Maximum Frames:	4	$\sim$	7	~
Frack:	2	$\sim$	2	~
Persistance:	160	$\sim$	224	~
Slot time:	30	$\sim$	20	$\sim$
Maximum Retries:	5	$\sim$	5	$\sim$
Disable Xmt Level Adjust Transmit Level:	100	*	100	
Enable IPoll				
Update		Ca	incel	]

Set you settings to match the above.

Press Update and then close the Packet Winlink Session window.

You are ready to send mail.

# **Sending Mail**

# Create the message

From the main interface:



Press the "Message" menu:

🗱 Enter a	new message				_		$\times$
Close Se	elect Template	Attachments	Post to Outbox	pell Check	Save in Drafts		
From:	AI4UR	<ul> <li>✓ Sen</li> </ul>	d as: Winlink Message	$\sim$	Request read	receipt	Set
To:							
Cc:							
Subject:							
Attach:							
							^
							~

Fill out the To:, Subject: & Body of the email.

To: can either be a callsign if it is to be delivered within the Winlink system, or can be a regular Internet email address.

When you are done, press "Post to Outbox" to queue the message for delivery.

### Send the message

### Telnet

On the main interface choose the connection method Telnet Winlink. Press "Open Session".

🗱 Te	Inet Winlink	Session			_	×
Exit	Settings	Start	Stop	Time to next Autoconnect = Disabled		
						$\sim$
						 $\sim$

### **Packet Winlink**

If you are using "Packet Modem" with a Signalink, be sure that soundmodem is already running! On the main interface select "Packet Winlink" in the dropdown box. Press "Open Session"

Secket Winlink Session	_		×						
Exit Settings Switch to Peer-to-Peer Session Channel Selection 1200 Baud Start Stop									
Connection type: Direct • KJ4QFY-10 Via BUFGA ,									
Connection script:   Edit script Add script Remove script									
Time to next Autoconnect = Disabled									
*** Starting WL2K packet session *** Initializing KISS over TCP Host 127.0.0.1 Port 8100 *** Initializing complete *** Ready			^						

You see the initialization messages as above if you are using soundmodem. If you do not get that, check you setup.

Press "Start"