

Remote FT8 - As Easy As 1-2-3

Operating FT8 remotely is really easy. In fact, it may be the easiest mode to do remotely. I operate FT8 remotely from wherever I am, including overseas! I'm going to show you how to do it in just 3 steps. My examples are on a Mac, but a PC is just the same.

The nice thing about operating FT8 remotely the way I'll show you is that you don't have to worry about getting the radio's audio to stream over the internet and you don't have to worry about network latency. You do, however, have to dedicate a computer to be your FT8 computer while you're away.

As for what you need remotely, that can be anything from a phone or tablet, to another computer. I have operated FT8 from all of the above, including working China from an iPhone during a dinner at Pacificon.

Step 1: Radio with Interface

Obviously you need a radio, but what kind of interface? I left that vague because it depends. The simplest configuration is just an audio interface to a computer. I've built these with a couple of 600 ohm audio transformers, and then used the radio's VOX to control transmitting. This works well, but you won't be able to change bands. A more sophisticated interface might be something like the SignalLink USB from Tigertronics. This will give you nice clean audio over USB. If you can then get the radio interfaced to the computer over serial, that makes for a very nice setup. Many newer radios have both audio and radio control over USB, and that's ideal. I happen to be using a K4 at the moment which has everything over the USB, but many other radios will do this. Typically you keep your radio on while you are operating remotely. Make sure you plan for any potential for lightning with proper electrical protection of your antenna system.

Step 2: Computer with Screen Sharing

You will need that computer now. You have to install wsjt-x for starters. Then install or make sure you can use the built-in screen sharing software. A popular choice is RealVNC, which operates cross-platform. Zoom can screen share too by leaving a session open, but you'll need to buy an account to leave it up for a long time. On the Mac screen sharing is also built in. For Windows, Microsoft Teams can screen share. I'm sure there are more out there. You just need to be able to move the mouse, click, and type.

Step 3: Radio and Network Connectivity

If you have your radio connected to the computer, all you have to do is tell wsjt-x to talk to it. There is a guide that will help you get that set up correctly. The things to watch out for are rig type mismatches, null modems, and baud rates. If you get those aligned, then the dial frequency on your radio should be displayed on wsjt-x and you should be able to change bands. More guidance here: <https://wsjt.sourceforge.io/wsjt-x-doc/wsjt-x-main-2.6.1.html#RADIO>

To get network connectivity working, I recommend Tailscale. Tailscale lets you create a small VPN (Virtual Private Network) cluster among a set of computers that have Tailscale installed. This allows them to talk to each other no matter what network you're using or where you are in the world, even behind firewalls. Things operate almost as if they are local. Tailscale will assign you a DNS domain name that you can use to access your systems. And it's free! More information at <https://tailscale.com/>.

Since you are screen sharing, the potential for a stuck transmitter because of internet connectivity is less than when you control the PTT remotely. You can't ignore it, though. Make sure you set a reasonable timeout in wsjt-x. The default is 6 minutes, and that works well for many cases.

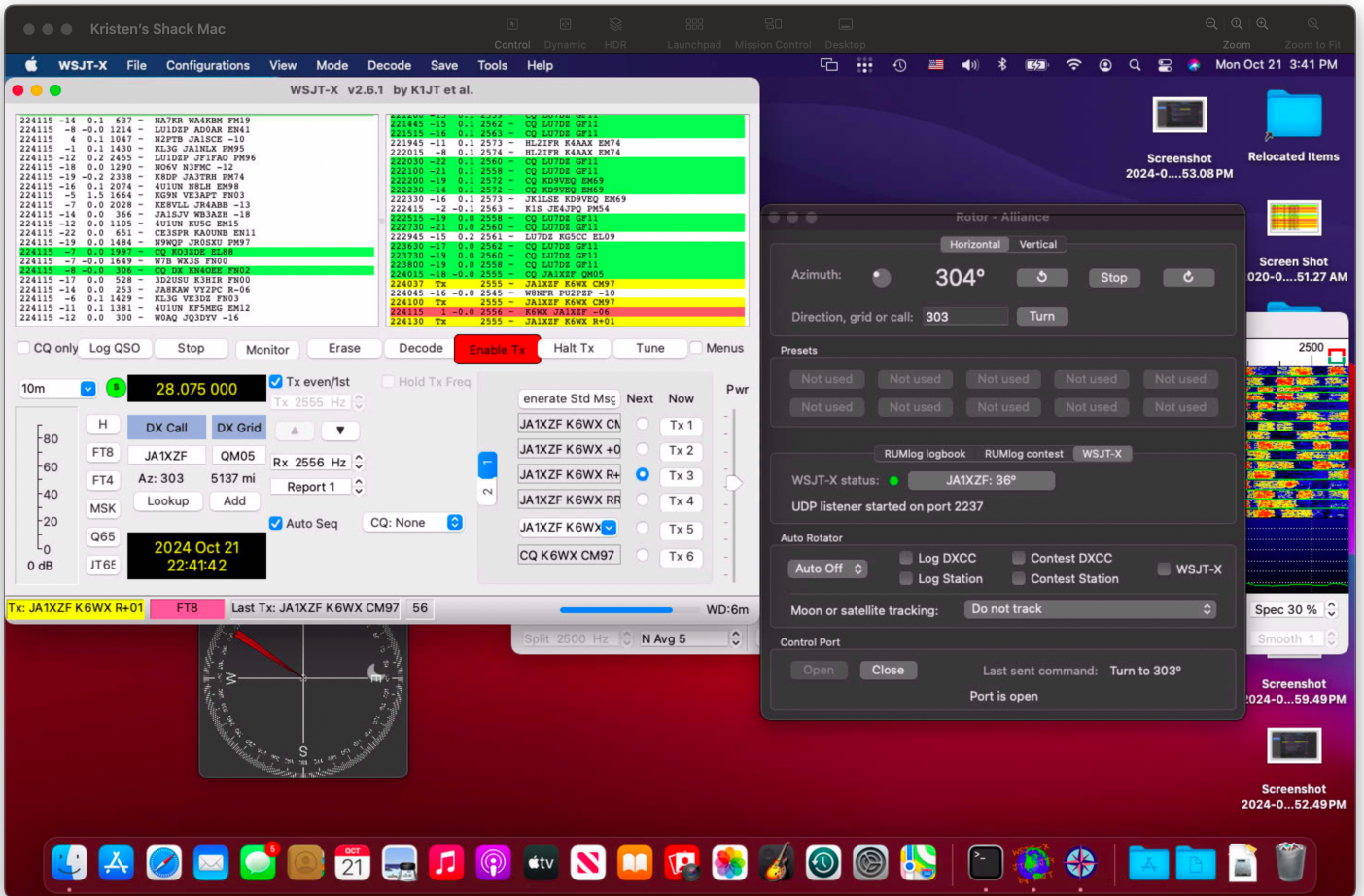
Step 3a: Rotator

If you have a rotator, see if there is a way to operate it remotely. That makes things even more fun and optimal for your remote operation. I used the ERC Version 4, USB kit and interfaced it to my old Alliance rotator controller. It worked fine, except that I needed a rather large toroid to decouple any RF from the USB wire. See https://www.schmidt-alba.de/eshop/product_info.php?products_id=42. This controller emulates a Yaesu rotator that most software will handle just fine.

Have Fun!

That's basically it. The rest is just point and click from anywhere in the world. I had fun working someone that was sitting next to me in Bonaire (PJ4), while I operated my home station in San Jose,

CA. It was extra fun to turn up the audio and hear my own signal from thousands of miles away! So,



try this simple method to get on the air remotely with FT8.