

Sound Card Packet Operation, by Mike Trautman, K9MLT

There has been some interest within CCARES in operating packet radio. Some operators are interested in using the sound cards in their computers instead of expensive TNCs. KF8ZN began researching Sound Card TNCs and motivated me to find some Sound Card Packet operating solutions. Here is a "quick and dirty" guide to Sound Card Packet Operation.

The only hardware needed is appropriate cabling to connect your computer to your radio. Cable design will vary with each rig but specs can be found at several locations on the Internet or often in your radio's operating manual. You can make up your own cable or order an easy to construct home brew Sound Card TNC kit. There are many of these on the market.

I use the "Rascal" from BuxCom. For about \$30 you receive the TNC components (takes an hour or two to assemble), the appropriate cable for your radio (specified by you when you order), as well as a CD full of all kinds of software for digital modes including Packet, PSK31, SSTV, RTTY, WeatherFax, and more. The Rascal can also be ordered pre-built. The URL is here: www.packetradio.com

Though these devices are called TNCs, they don't really do the entire job of modulating and demodulating data like a more expensive desktop TNC. They depend on software and the computer's soundcard to do much of the work. Although operating PSK31 and other digital modes is very nearly a plug and play project with the Rascal, we found packet to be a bit more complicated. You need two kinds of software to run Sound Card Packet.

First you need a "packet engine" that is loaded before other packet software and fulfills the TNC function. Then you need a terminal, data, or BBS program to enter and transmit data. I'm going to give two examples of packet engines each with its own family of compatible software. My suggestions will be limited to freeware Windows applications.

The AGWPE suite of applications includes a Soundcard Packet engine and several handy terminals and monitors, Etc. Go to this URL for information about their products, and packet operation in general. <http://www.elcom.gr/sv2agw/soundcardpacket.htm> There's also an AGWE APRS program available for \$49 that could be very useful to CCARES.

I currently use the AGW Packet Engine (must be loaded first) and AGW Terminal or AGW monitor. This is a nice set of applications that get along well with each other. There are several other packet software products that work well with AGWPE. I like the features and extensive documentation of WinPack, which is closely related to UIview's APRS software. <http://www.winpack.org.uk/>

An alternative packet engine, very popular in Europe is the Flexnet packet engine and compatible programs. The URL is here http://pages.sbcglobal.net/kb5iwt/flex32/flx_32.htm and a nice terminal program is here <http://www.uspacket.org/paxon/paxon.htm> One problem with Paxon is that its documentation is in German but its program interface is English.

Buying a full featured TNC and commercial software might be easier and quicker. But if you're like me and want to try packet, here's a way to do it without straining the budget. I hope this summary smoothes the way.

73, de K9MLT (Thanks to: KF8ZN, AB9FJ, KC9HND, K9SI, N9PFT, N9XDC, N9DN, W9IPV and others for motivation, field testing, advice and encouragement!)