

K4 Extensibility

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The other day someone asked me whether we might add remote antenna rotator control to the K4 front panel. This is a good time to point out a characteristic that's baked into the K4's user interface: extensibility.

For example, we included a dedicated switch function called REM ANT. (This is the "hold" function of the main ANT switch.) We'll be able to add multiple antenna-related controls to this switch. It might bring up a rotator controller, remote antenna switch controller, even custom switching for complex stations -- right on the K4's screen. You could assign labels to custom functions or name your antennas to improve usability.

Like the K3/K3S, the K4 also has programmable function switches. But it has many more of them. There are four dedicated switches (PF1-PF4) above the RIT/XIT offset control, plus another 14 tap/hold functions accessible by tapping the "Fn" soft switch on the LCD.

Any of these programmable controls can be used as simple shortcuts to often-used menu entries or other functions. We're also planning to include means for setting up switch "macros" (collections of commands) either manually or automatically.

Users of our existing transceivers may already be familiar with manual macro setup. In this case you'd enter a string of K4 2-letter commands as text.

Automatic macro setup will work differently: first you'll select a programmable control as the target, then record any combination of other controls to it by activating them in the desired order.

For example, suppose you frequently use two different waterfall heights (as a percentage of total panadapter height). You could manually enter the text for a switch macro using the pertinent commands. In the automatic method, you would start macro record, adjust the waterfall to one of the desired values in the usual way, then stop macro record. That Fn or PFn control would now perform the same operation with a single switch activation. This could be repeated to add other custom settings.

Another example is setting up the VFOs and second receiver for DXing. You might start macro record, then tap A>B twice (copying both frequency and mode, etc.), then offset VFO B by 2 kHz, turn on the second RX, and set the passbands for the two receivers to useful starting points. When you terminate macro record, you'll now be able to do all of this with one press.

Taking things a step further, the K4 will allow external computer applications to "curate" their own controls on the K4's LCD. In its simplest form, this would allow an application to send details of one or more custom menu entries to the K4. These menu entries would appear in the K4's own menu, typically in the "APPS" category. The user could then make changes to the external application's settings directly from the K4's screen when it isn't convenient to do it at the computer.

Of course this will also work the other way around. Virtually all K4 functions will be controllable from computer applications capable of sending control commands via USB, RS232, or Ethernet.