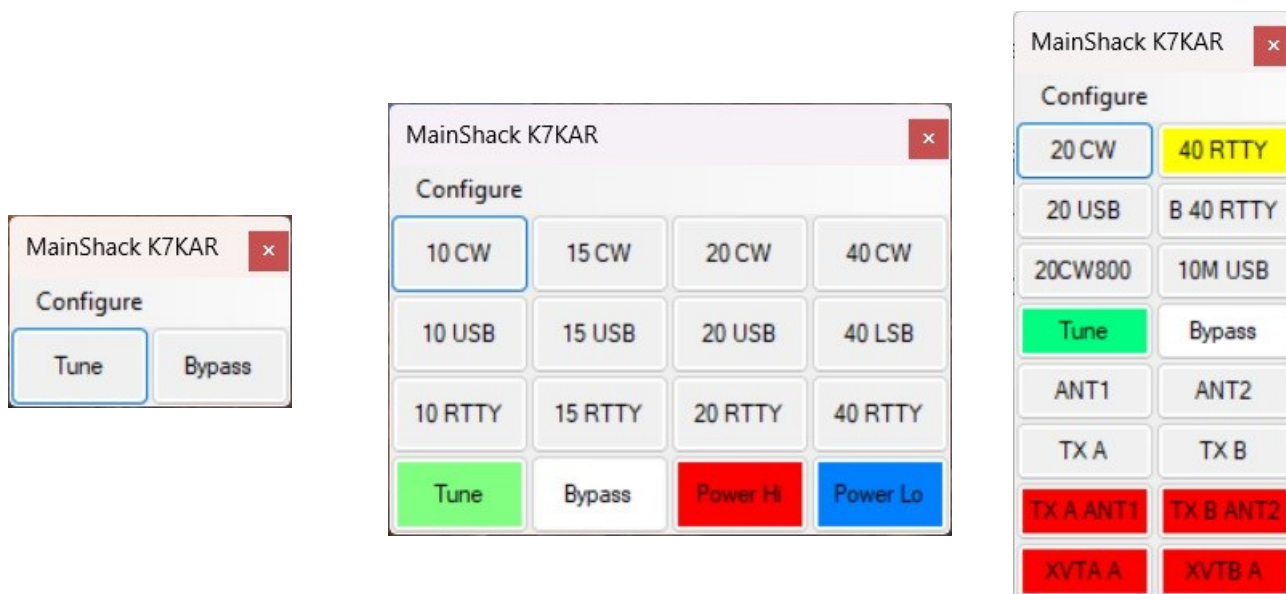


Flex Buttons Utility

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In the late 1990s I wrote a little utility called FKeys that was an addition to the WriteLog contesting program allowing one to use a mouse rather than the keyboard to initiate various functions. I recently redid that utility, and while doing so I thought it might be interesting to expose a few Flex functions in the same utility. After a little fiddling I decided it would be better to make a separate utility to expose the Flex functions. This is that utility. The pictures below show three different layouts that I set up to demonstrate various possibilities. You can have as many or as few of these buttons as you like and you can arrange them as you like.



The image on the left is what you get when you first install FlexButtons (Default). It simply allows you to force the ATU to re-tune or to bypass the ATU. The image in the middle allows you to select several frequencies and modes, manage the ATU and set the power to high (95) and low (35) power levels. The image on the right throws in several antenna selection options and introduces a function for slice B. You can setup any of these as a template to work from when making your version of FlexButtons.

In this version you can set up buttons to switch to a frequency and mode, activate the ATU, switch the transmit focus among slices and other things. Nothing that you can't do from SmartSDR or Maestro, but FlexButtons allows you to do them with a single mouse click.

Installation

You can download this documentation and the software from my [website \(http://www.kregli.com\)](http://www.kregli.com). It's free – if you feel the need to pay for it, donate to some good charity.

Once you get the zip file (FlexButtons.zip) create a directory in any convenient location (e.g. C:\Programs\FlexButtons). Then extract the files from FlexButtons.zip to that directory (right click

FlexButtons.zip and select Extract All...). Depending on the privileges you have, you could run into your security system. You'll have to work your way around that. Choosing a directory you documents folder may make that easier.

You'll see FlexButtons.exe, FlexButtons.pdf (this document), four dlls from Flex and some ".reg" files.

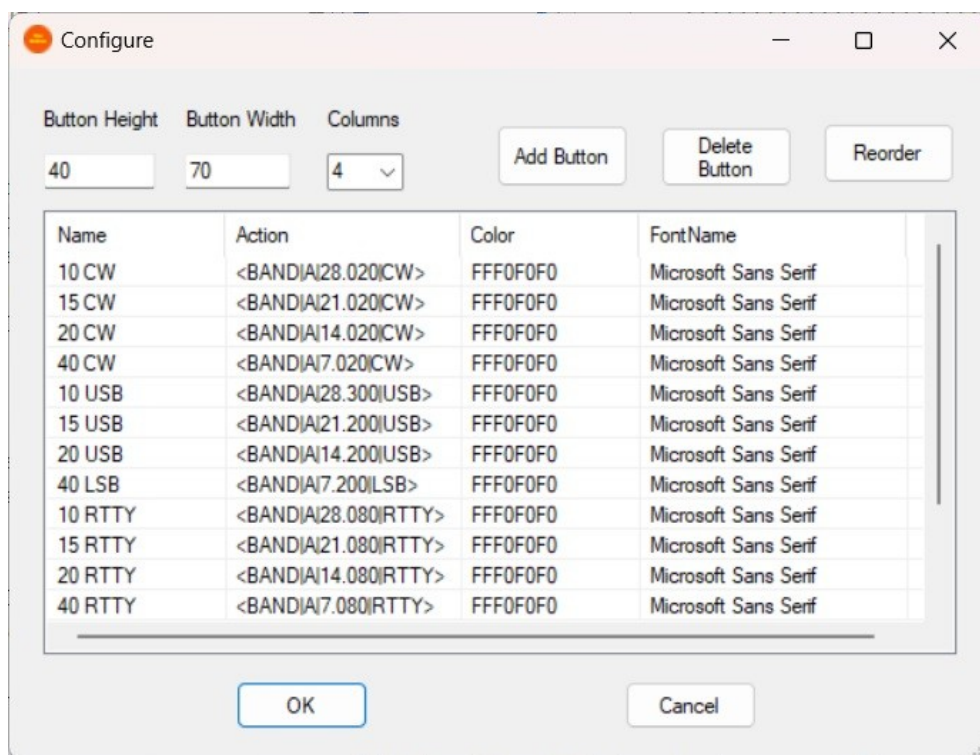
Double click on FlexButtons.exe and you should see FlexButtons appear in the upper left of you screen with the default set of buttons. The information about the buttons is stored in the Windows Registry and the program will setup the necessary keys when it runs the first time (for those who know about the Registry it's [HKEY_CURRENT_USER\Software\K7KAR\FlexButtons]). If your account is short on privileges, you may have to use "Run as Administrator..." the first time you run the program. Windows will tell you.

If your radio is on and connected to the same LAN as your computer the buttons should work to BYPASS or reTUNE the ATU. With this base you can change the configuration to meet your needs.

Configuration

Once the program is working you will probably want to add some buttons. Think about how you operate and start with one or two buttons that will help. Add more once you see how it feels. If you are more aggressive, you can double click on one of the ".reg" files to start with any of the three layouts shown at the top of this document.

Click on the word "Configure" at the top you will see the configuration screen. We'll start from the "Generic" layout for the examples below.



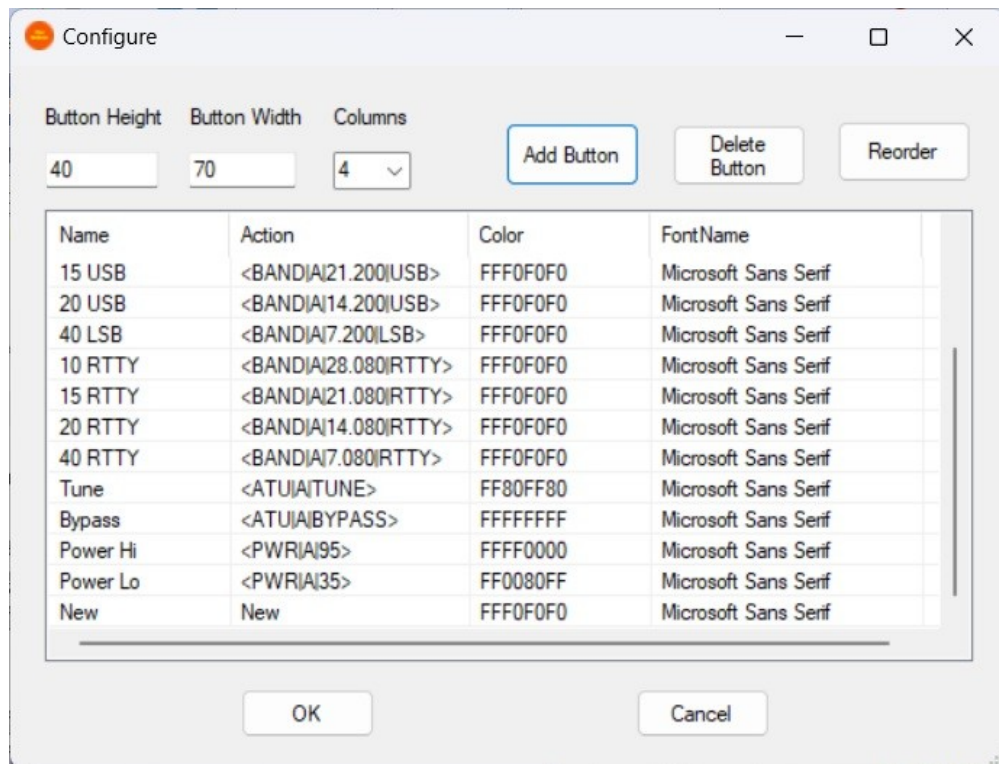
On the top row you can select the size of the buttons and the number of columns. By changing the height to 60, the width to 100 and the number of columns to 8 you'll get something that looks like:



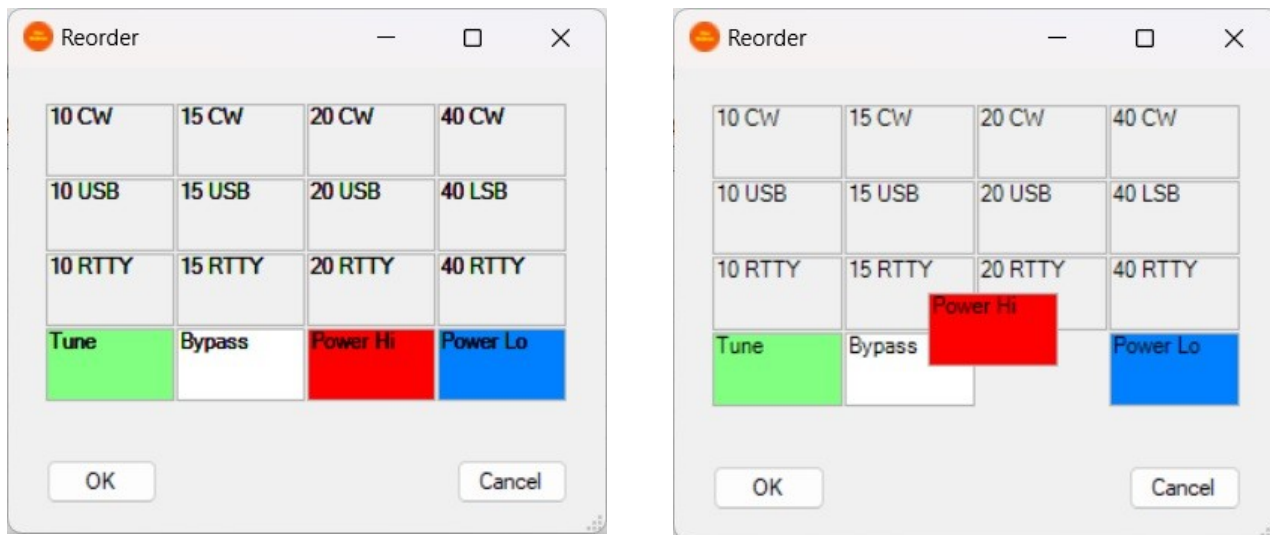
Adjust the number of columns and button size to help fit the buttons into your screen layout. Initially the title will show as “No Radio”; once it discovers your radio it will show the nickname and callsign.

You can add a button (at the end of the list) by clicking “Add Button”. The “Add Button” won’t add a function, just a dummy button that will show up as (New). You can delete a button by clicking on it’s name and then clicking “Delete Button”. We’ll get to “Reorder” button below.

The screen shows, for each button, the button text, the encoded function information, the button color and the button font. You can’t change them here – we’ll get to that shortly. You may have to scroll down to see the “New” button as shown below.

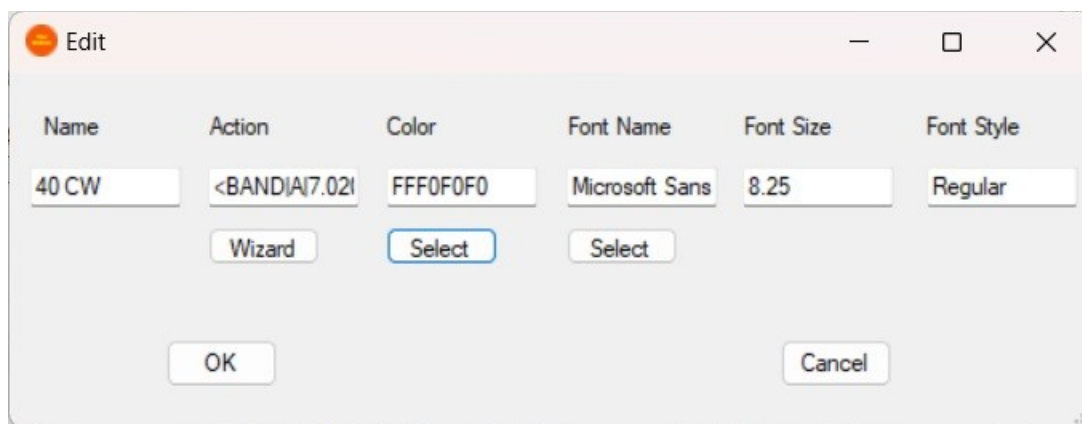


You can also rearrange the order of the buttons by clicking the “Reorder” button. That will produce a screen that looks like the main screen, and allows you to drag buttons to the location you want them.



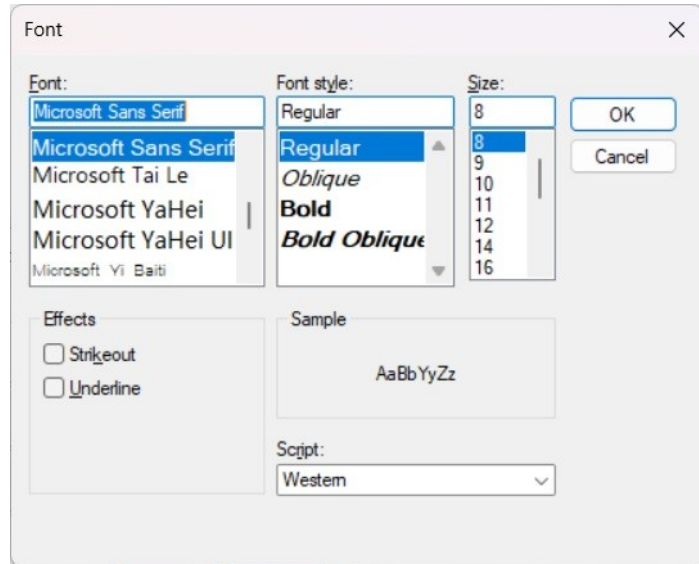
The red button is shown being dragged (the mouse cursor doesn’t show in the screen capture). When the mouse button is released the button will be placed at the nearest “reasonable” location and the other buttons adjusted to maintain a clean layout. It takes a little practice to get used to it.

Next we have to discuss how to modify the buttons and their actions. To modify a button you double click on the name of the button you want to modify (including the “New” button). The information about the button will appear in the “Edit” window:

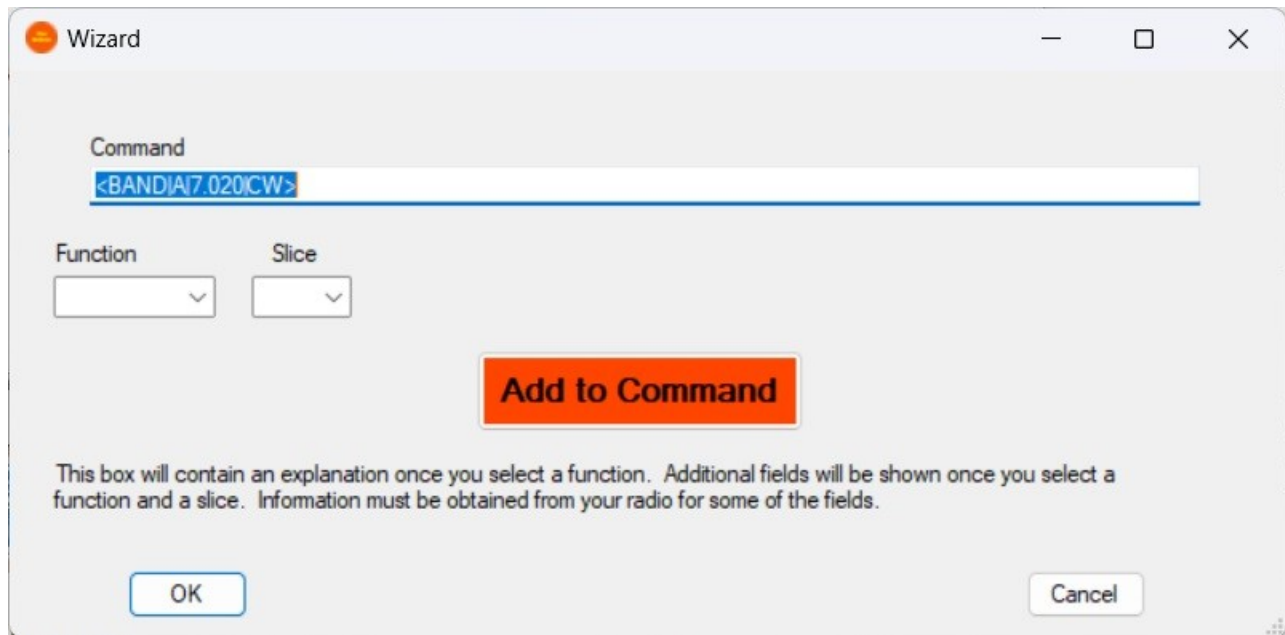


You can modify any of the fields in this window, but at first you should limit that to the Name field. For the other fields there are special tools to make modifying them easier.

If you click the Select button below the Color or Font fields you will see a standard windows dialog for picking colors and fonts.



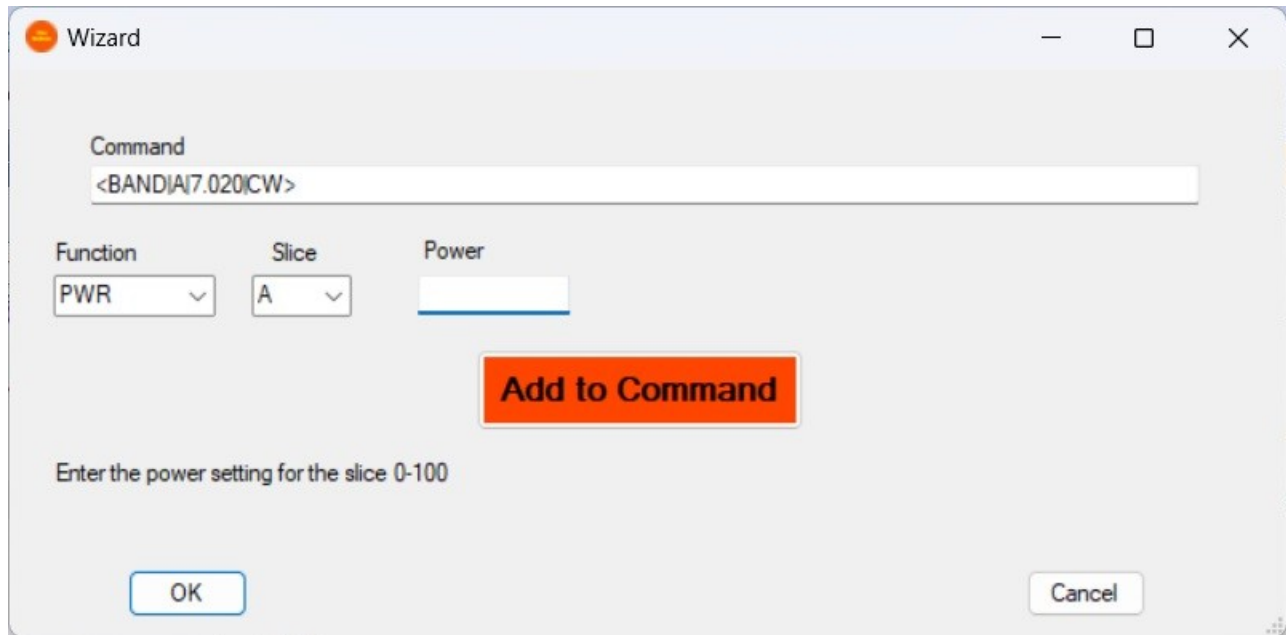
Under the Action field is the Wizard button that will help setup one (or more) actions that the button will invoke.



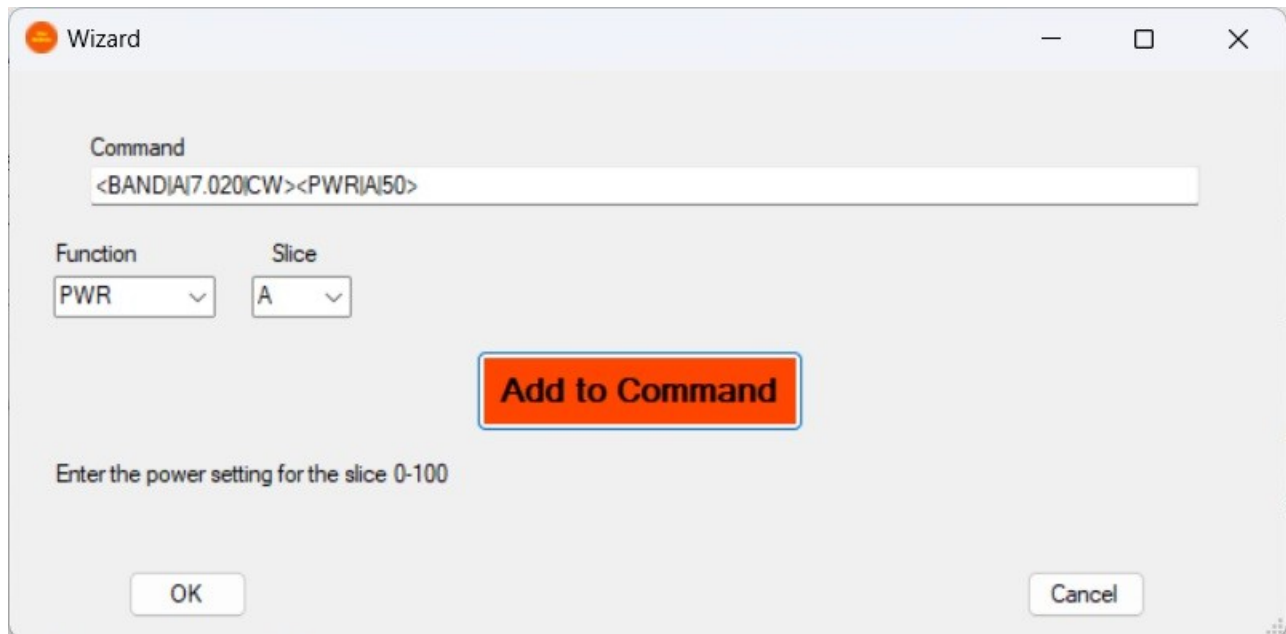
Normally the command field will show the current command. You can either delete that or add additional commands for the button to invoke (in sequence).

The current command sets the frequency to 7.020 and the mode to CW. Let's add a second command to set the power level for the radio. Creating a new command requires several steps. First you must

select a command and the slice that you want to affect. Then other relevant fields will show. In this case the “Power” field will appear.



When you click the “Add to Command” button, the new command will be added to the command line and the screen will reset.



You could create the same effect on this button with a triple of commands <FREQ|A|7.020><MODE|A|CW><PWR|A|50>. The second takes a few micro seconds longer to execute, but you’ll never see the difference.

The current set of functions contains: FREQ, MODE, ATU, SLICE, ANT, FIL BAND, FMF and PWR.

FREQ sets the frequency for a slice. Reduce the dial spinning.

MODE sets the mode, the radio.

ATU allows you to update the ATU tuning or bypass the ATU.

SLICE allows you to switch the TX focus to the selected slice.

ANT allows you to change the selected antenna for TX, RX or both for the selected slice.

FIL allows you to set the Hi and Lo points for the current filter.

BAND combines setting a frequency and mode for the slice – other things such as filter, power, etc. will be what the radio has stored.

FMF allows you to set the frequency, mode and filter bounds for the selected slice (don't use this one if you're not sure how the filter bounds work). When the command is to your liking remember to click the "Add to Command" button to move it to the "Command" field.

Have fun. If you have questions or suggestions send an email to me at keith@kregli.com.