Flex Logger (V0.8)

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Flex Logger is an early stage logging program that is based off of Flex Buttons. It may not get past the general logger stage as there are several very good logging programs out there and to get to their level of capability is a huge job. For me it is an interesting project and if nobody else ever uses it that's fine. I personally use WriteLog when I'm contesting. The current version of Flex Logger is OK for general logging on phone and CW and has enough features to work on Field Day for those modes. The screen below shows what may be my layout for Field Day. It can be used in conjunction with the CWTY Decoder application (WD6CNF) – highlight something in the CWTY decoder then double click in the logging field (say CALL) and the highlighted text will transfer.

🔀 Fle	ex Logg	jer 0.8.0.0 - F	ield Day							_	
File	e La	yout								16:5	7 / 22:57:58
Seq	Call		Time		Frequency	Mode	Catego	ry	Section		
0001	Са 	all	Category	Section					14	1.038	CW (30)
						Send Buffers					
C	Q	Run Exch	Run QRZ	Call S	<u>P</u> S <u>P</u> Exe	ch (QRZ	CAT	SEC	?	QSL
						Bands					
10m	CW	15m CW	20m CW	40m C\	W 80m C	W 10	m USB	15m U	SB 20m USB	40m LSB	80m LSB
						Utility					
Mu	te	WNB	NB	RIT	Tune	P	an 10	Pan S	eg	Speed Up	Speed Down
Send											
Send											

The log is at the top and the entry fields are next. It shows the frequency and mode. In the case of CW it shows the internal keyer speed. The first row of buttons will send buffers using the internal keyer. The buffers can use the entered call (%C), sequence number (%S) and first RST field (%R). The second row of buttons just selects bands and modes. The third row of buttons turns several functions on and off as well as allowing you to increase/decrease the keyer speed. Then there are two fields that allow ad hoc entry of text to send. If you don't like this layout you can change almost everything.

Pretty much everything can be configured and the configuration screens and available buttons are very similar to Flex Buttons (I used cut and paste a lot). I haven't tried to make it work with multiple slices – it will get information for the frequency and mode from the "active radio".

cons	lder.											
🔏 Fle	x Logger 0.8.	0.0 - General								-		X
File	Layout	t								17	:57/2	23:57:11
Seq	Call	Time		Frequency	Mode	Name	QTH	Notes	Snt	Rcv		
0001	Call	Name	QTH	N	lotes		Snt 59	Rcv 59		14.222	US	в
						Ba	inds					
10	m CW	15m CW	20M CW	40M CW		80m CW	10m USB	15M USB	20M USB	40M LSB	8	0m LSB
						U	tility					
Ν	lute	WNB	NB	Tune		RIT	Pan Seg	Pan 10				

The screen below is a general logger layout to give an idea of what kind of alternatives you might consider.

Since this is very preliminary, I'll just include the Flex Buttons documentation below to show how to set up the buttons. Before that I'll show the screens used to set up the logging fields. The first shows the configuration screen with the Field Day layout, while the second shows the general logger. The left side of the screen is pretty much the same as for Flex Buttons. The right side is used in a similar fashion to select the logging fields. There is also a checkbox to select local or UTC time. You can add or delete logging fields in a manner similar to Flex Buttons. To edit a field double click of the field name.

80	10 ~ 2 ~	Add Button	Delete Button Reorder	Add	Field Delet	e Field			
Name	Action	Color	FontName	Show	Value	Name	Width	Check Type	Case Rule
Send Buffers	<gap 20></gap 20>	FFFFFF80	Microsoft Sans Serif	True		Category	80	FD_CATEG	UPPER
CQ	<cwx text 0 cq fd="" n7<="" td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td><td>True</td><td></td><td>Section</td><td>80</td><td>ARRL_SEC</td><td>UPPER</td></cwx text 0 cq>	FFF0F0F0	Microsoft Sans Serif	True		Section	80	ARRL_SEC	UPPER
Run Exch	<cwx text 0 %c 3a<="" td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td><td></td><td></td><td></td><td></td><td></td><td></td></cwx text 0 %c>	FFF0F0F0	Microsoft Sans Serif						
Run QRZ	<cwx text 0 tu fd<="" qrz="" td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td><td></td><td></td><td></td><td></td><td></td><td></td></cwx text 0 tu>	FFF0F0F0	Microsoft Sans Serif						
Call S&P	<cwx text 0 n7g ></cwx text 0 n7g >	FFF0F0F0	Microsoft Sans Serif						
S&P Exch	<cwx text 0 r 3a="" mt =""></cwx text 0 r>	FFF0F0F0	Microsoft Sans Serif						
QRZ	<cwx text 0 grz fd="" n<="" td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td><td></td><td></td><td></td><td></td><td></td><td></td></cwx text 0 grz>	FFF0F0F0	Microsoft Sans Serif						
CAT	<cwx text 0 3a 3a =""></cwx text 0 3a>	FFF0F0F0	Microsoft Sans Serif						
SEC	<cwx text 0 mt mt =""></cwx text 0 mt>	FFF0F0F0	Microsoft Sans Serif						
?	<cwx text 0 ? ></cwx text 0 ? >	FFF0F0F0	Microsoft Sans Serif						
QSL	<cwx text 0 qsl ></cwx text 0 qsl >	FFF0F0F0	Microsoft Sans Serif						
Bands	<gap 20></gap 20>	FFFFFF80	Microsoft Sans Serif						

100) 10 ~ 0 ~	Add Button	Delete Button Reorder	Add F	Field Dele	te Field			
Name	Action	Color	FontName	Show	Value	Name	Width	Check Type	Case Rule
Bands	<gap 20></gap 20>	FFFFFF80	Microsoft Sans Serif	True		Name	80	NONE	NORMAL
10m CW	<band active 28.020< td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td><td>True</td><td></td><td>QTH</td><td>120</td><td>NONE</td><td>NORMAL</td></band active 28.020<>	FFF0F0F0	Microsoft Sans Serif	True		QTH	120	NONE	NORMAL
15m CW	<band active 21.020< td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td><td>True</td><td></td><td>Notes</td><td>200</td><td>NONE</td><td>NORMAL</td></band active 21.020<>	FFF0F0F0	Microsoft Sans Serif	True		Notes	200	NONE	NORMAL
20M CW	<band active 14.020< td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td><td>True</td><td>599</td><td>Snt</td><td>40</td><td>RST</td><td>NORMAL</td></band active 14.020<>	FFF0F0F0	Microsoft Sans Serif	True	599	Snt	40	RST	NORMAL
40M CW	<freq a 7.025><mod< td=""><td>FFF0F0FF</td><td>Microsoft Sans Serif</td><td>True</td><td>599</td><td>Rev</td><td>40</td><td>RST</td><td>NORMAL</td></mod<></freq a 7.025>	FFF0F0FF	Microsoft Sans Serif	True	599	Rev	40	RST	NORMAL
80m CW	<band a 3.540 cw></band a 3.540 cw>	FFF0F0F0	Microsoft Sans Serif						
10m USB	<band active 28.200< td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td><td></td><td></td><td></td><td></td><td></td><td></td></band active 28.200<>	FFF0F0F0	Microsoft Sans Serif						
15M USB	<freq a 21.200><mo< td=""><td>FFF0F0FF</td><td>Microsoft Sans Serif</td><td></td><td></td><td></td><td></td><td></td><td></td></mo<></freq a 21.200>	FFF0F0FF	Microsoft Sans Serif						
20M USB	<freq a 14.225><mo< td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td><td></td><td></td><td></td><td></td><td></td><td></td></mo<></freq a 14.225>	FFF0F0F0	Microsoft Sans Serif						
40M LSB	<freq a 7.150><mod< td=""><td>FFF0F0FF</td><td>Microsoft Sans Serif</td><td></td><td></td><td></td><td></td><td></td><td></td></mod<></freq a 7.150>	FFF0F0FF	Microsoft Sans Serif						
80m LSB	<band active 3.700 < td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td><td></td><td></td><td></td><td></td><td></td><td></td></band active 3.700 <>	FFF0F0F0	Microsoft Sans Serif						
Utility	<gapi20></gapi20>	FFFFFF80	Microsoft Sans Serif						

Double clicking on one of the fields shows the following screen.

EditFields x
Show
True ~
Default Value
599
Name
Snt
Width
40
Check Ture
RST ~
Core Bala
NORMAL ~
OK Cancel

The default value will be inserted automatically if set. If you select "False" for "Show" the field will not appear on the sceen but will be filled by the default value. There are a very small number of checks that you can choose. You can also force the field to upper or lower case.

The installation package has registry files to add Field Day and General layouts in addition to the default that is installed automatically. The ArrlSections.dat file is just a text file with a list of sections.

That's about it for now. For anything else take a look in the Flex Buttons documentation below.

Flex Buttons documentation.

Simplicity of operation and screen real estate are things I care about when I'm operating. This little utility simplifies my screen layout and reduces the number of clicks I need to accomplish some common functions. I no longer have PGXL and TGXL utilities running all the time and don't need to run SmartSDR for mouse access to functions. 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. **Note:** It is best to start your radios, PGXL and TGXL *before* starting FlexButtons. It will only pick up a TGXL at startup.

RV/Station	KTKAR Maa	stro				MainShack	K7KAR Maes	tro	
NV Station	IN INALL MIDE	300				Layout	Configure	TGXL	PGXL
Layout	Configure	Radio PG	XL O TGXL				Ba	nds	
Mute	WNB	20M USB	40M CW			10 Bottom	10 Top	15 Bottom	15 Top
	.,					20 Bottom	20 Top	40 Bottom	40 Top
							Ut	ility	
RVStation K	7KAR Maestro	0			×	WNB	NB	PGXL	TGXL
Layout	Configure	Radio multiFle	ex		ITGXL		Q	SO	
20M USB	10M USB	40M CW	Tune TGXL	Mute	TGXL	CQ	EXCH	CFM/QRZ	RPT
RIT	Pan 10	Pan Segment	ower Hi Po	ower Lo	PGXL	Pan Segment	Call	QRL	QRZ
]		Pap 20	BIT to 0	XIT to 0	TGXL

ONE CLICK!

You can combine two or more functions on one button, such as: on slice A go to 14.329Mhz, USB with a 2700 Hz filter, the panadapter zoomed to 10 kHz, set PoWeR to 25 W, BYPASS the ATU, set the TGXL to TUNE and the PGXL to OPERATE. And now you're ready for the Flex Net.

The image below shows a "full boat": two radios, multiFlex, a PGXL and a TGXL in use at the same time. We'll get to all of this as we go on, but for now let's stick to a single radio, no multiFlex and one or two slices. I haven't looked into remote operations yet, so that may or may not work. Notice that the title bar indicates the nickname, callsign and station (from multiFlex).

MainShac	k K7KAR Maes	stro					
Layout	Configure	Radio mu	ltiFlex			PG	XL TGXL
15M CW	20M CW	20M USB	10M USB	40M CW	FlexNet	Winlink	Tune TGXL
Mute	RIT	Pan 10	Pan Segment	Power Hi	Power Lo	TGXL	PGXL

The current set of exposed functions includes:

ANF: Automatic Notch Filter on/off/toggle ANT: set the RX, TX or RX/TX antenna ATU: TUNE or BYPASS BAND: Set a frequency and mode BLANK: Insert a blank space for a button CWX: Send a pre-programmed buffer or text DAX: Set the DAX channel DIV: Diversity on/off/toggle FDX: Full duplex on/off/toggle FIL: Set the filter bounds FREQ: Set the frequency in MHz GAP: Insert a blank row for a title MEM: Select a memory profile to use MODE: Set the operating mode MOX: Turn MOX on/off/toggle MUTE: Set the mute state on/off/toggle NB: Turn the Noise Blanker on/off/toggle NR: Noise Reduction on/off/toggle PAN: Set the panadapter zoom to Band, Segment or a specific width in MHz PGXL: Switch the active PGXL to operate or standby PWR: Set the transmit power level RIT: Set the offset in Hz for the RIT RUN: Run a program with arguments SLICE: Set the active transmit slice SCAN: Set timer and buttons to cycle through SPEED: Increase or decrease the CW speed SPOTS: Clear all spots STEP: Set the dial step rate in Hz TGXL; Switch the active TGXL to operate or standby TNF: All Tracking Notch Filters on/off/toggle TUNE: Radio TUNE on/off/toggle VOX: VOX on/off/toggle WIDTH: Set the filter to a width in Hz WNB: Turn the Wideband Noise Blanker on and off XIT: Set the offset in Hz for the XIT

The functions that turn things on and off generally allow you to "toggle" as well. I've get the functions I'd like with a few that were suggested by others. If you don't see something that you use often, let me know. I don't want to include things like changing the nickname, but frequent actions are fair game.

The image on the top left (Default) is what you get when you first install FlexButtons. The image below that (Generic) allows you to select several frequencies and modes, manage a TGXL and a PGXL, zoom the panadapter, zero RIT and toggle audio mute. The image on the right (Optional) throws in some heading (GAP) buttons along with some CWX buffers. You can setup any of these as a template to work from when making your configuration for FlexButtons. I suggest starting with just two or three buttons and use it a bit, then make another layout with things that will be helpful to you. Starting with all bands, all modes is tedious and painful when you decide you want to make a change.

Installation

You can download this documentation and the software from my <u>website (http://www.kregli.com</u>). 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 in your documents folder may make that easier.

You'll see FlexButtons.exe, FlexButtons.pdf (this document), FlexButtonsRepair.exe, six dlls from Flex, and some ".reg" files. Ignore the *.reg and *.dll files for now.

Double click on FlexButtons.exe and you should see FlexButtons appear in the upper left of your screen with the default set of buttons (be patient, it takes a few seconds to search for radios). 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 Registy 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. It may also object (the first time) with a warning that the program is unsigned – this is true. You're allowed to run it anyway (I don't feel the need to register it in the Microsoft Store). See the description of FlexButtonsRepair.exe below.

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

Configuration

Once the program is working you will probably want to add/change some buttons. Start by clicking on "Layout" and then "New". Pick a name like "Test" to get started. Think about how you operate and start with one or two buttons that will help. Add more once you see how it feels. You can also attach multiple functions to a single button. 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 and you will see the configuration screen. We'll start from the "Default" layout for the examples below (that's the top left picture above). Note: the name of the layout is shown on the configuration screen. There is also a button to delete the layout.

On the first row of text boxes you can select the size of the buttons and the number of columns. Try it, it's easy to change it back. Adjust the number of columns and button size to help fit the buttons into your overall screen layout. CWX Pads will be discussed later. Change fonts and color to help you recognize buttons quickly. For buttons that are of the ON/OFF/TOGGLE type the color will show when the item is in the ON state; while in the OFF state it will be gray.

Notice that in the screen below you can mark the application as "Always on Top". This will cause FlexButtons to sit on top of (most) other applications on your screen.

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 text/name to highlight it then clicking "Delete Button". We'll get to "Reorder" below.

40 70		Add Button	Delete Button Reorder
Name	Action	Color	FontName
Mute	<mute a toggle></mute a toggle>	FFF0F0F0	Microsoft Sans Serif
WNB	<wnbia toggle=""></wnbia>	FFF0F0F0	Microsoft Sans Serif
20M USB	<freqia(14.225><mo< td=""><td>FFF0F0F0</td><td>Microsoft Sans Serif</td></mo<></freqia(14.225>	FFF0F0F0	Microsoft Sans Serif
40M CVV	<freqia(7.025><mod< td=""><td>FFF0F0F0</td><td>Microsoft Sans Sent</td></mod<></freqia(7.025>	FFF0F0F0	Microsoft Sans Sent

The screen shows, for each button, the button text/name, 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. Any changes you make will be discarded if you click "Cancel". Clicking "OK" will cause the changes to take effect.

The screen below shows the addition of a "New" button. You may have to scroll down to see it if you have a lot of buttons. You can double click on the name (New) to change the name, color, font and to replace "Action" with an actual function using the Wizard (described below).

utton Heig 10	ht Button Wi 70	dth Columns 4 ~	s CWX Pads	ſ	Add Button	D	elete	Reorder
				_			attorn	
Name	A	ction		Color		FontNar	ne	
Mute	<	MUTEIAITO	GGLE>	FFF0	FOFO	Microso	ft Sans Serif	
WNB	<	WNBIAITOG	GLE>	FFF0	FOFO	Microso	ft Sans Serif	
20M USB	<	FREQIAI14.2	225> <mo< td=""><td>FFF0</td><td>FOFO</td><td>Microso</td><td>ft Sans Serif</td><td></td></mo<>	FFF0	FOFO	Microso	ft Sans Serif	
40M CW	<	FREQIAI7.02	25> <mod< td=""><td>FFF0</td><td>FOFO</td><td>Microso</td><td>ft Sans Serif</td><td></td></mod<>	FFF0	FOFO	Microso	ft Sans Serif	
New	A	ction		FFF0	FOFO	Microso	ft Sans Serif	

CWX Pads are scratch pads that you can put text in will you are operating. The text will be sent through the CWX mechanism when you click the associated "Send" button. This only works for CW.

MainShac	k K7KAR Maes	stro	x
Layout	Configure		
Mute	WNB	20M USB	40M CW
			Send
			Send

If you first select an existing button by clicking on it the "Add Button" with change to "Dupe Button" and clicking on "Dupe Button" will add a new button with the characteristics of the selected button.

0	70 4 ~ 2	> Dupe Button	Delete Button
Name Mute WNB 20M USB 40M CW	Action <muteia[toggle3 <wnbia[toggle3 <freqia]14.225><m <freqia]7.025><m< th=""><th>Color FFF0F0F0 FFF0F0F0 MO FFF0F0F0 OD FFF0F0F0</th><th>FontName Microsoft Sans Serif Microsoft Sans Serif Microsoft Sans Serif Microsoft Sans Serif</th></m<></freqia]7.025></m </freqia]14.225></wnbia[toggle3 </muteia[toggle3 	Color FFF0F0F0 FFF0F0F0 MO FFF0F0F0 OD FFF0F0F0	FontName Microsoft Sans Serif Microsoft Sans Serif Microsoft Sans Serif Microsoft Sans Serif

You can also rearrange the order of the buttons by clicking the "Reorder" button. You will see a screen that looks similar to the main screen, and allows you to drag buttons to the location you want them.

RIT Pan 10 Pan Segment Power Hi Power Lo F	PGXL

Grab the red button with the mouse and drag it up and to the left (don't let go yet). The result should look something like the picture below.

OM USB	10M USB	40M CW	Tune TGXL	Mute	TGXL
IT	Pan 10	nent		Power Lo	PGXL

The red button is shown being dragged (the mouse cursor doesn't show in the screen capture). When the mouse button is released (go ahead and release it) 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 the process.

20M USB	10M USB	Power Hi	40M CW	Tune TGXL	Mute
(GXL	RIT	Pan 10	Pan Segment	Power Lo	PGXL

Note: there is an issue with GAP buttons. You can't move one to the bottom of the order. The only way to get one there is to make it the last button you add, then don't move 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 a "New" button). The information about the button will appear in the "Edit" window:

Name	Action	Color	Font Name
WNB	<wnbiaitoggle></wnbiaitoggle>	FFFFF00	Microsoft Sans S
	Wizard	Select	Select
OK			Cancel

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 the standard Windows dialogs for picking colors and fonts.

Color X	Font		×
Basic colors: Image: Color: Image: Color: <td>Eont: Microsoft Sans Serif Microsoft Sans Serif Microsoft Tai Le Microsoft YaHei Microsoft YaHei UI Microsoft Yi Baiti</td> <td>Font style: Bold Oblique Regular <i>Oblique</i> Bold <i>Bold Oblique</i></td> <td>Size: 12 OK 12 Cancel 14 16 18 20 22 24</td>	Eont: Microsoft Sans Serif Microsoft Sans Serif Microsoft Tai Le Microsoft YaHei Microsoft YaHei UI Microsoft Yi Baiti	Font style: Bold Oblique Regular <i>Oblique</i> Bold <i>Bold Oblique</i>	Size: 12 OK 12 Cancel 14 16 18 20 22 24
	Effects Strikeout Underline	Sample AaBbYyZ	Z
Define Custom Colors >> OK Cancel	Color:	Script: Western	~

For functions that turn things ON and OFF (or TOGGLE), the selected color will be displayed when the item (i.e. WNB) is in the ON state and the usual gray background will be displayed when the item is in the OFF state.

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

Wizard		x
0	nmand REQIA[7.025> <mode]a[cw></mode]a[cw>	
Func	n V	
This a fur	x will contain an explanation once you select a function and slice. Additional fields will be shown once you sele on and a slice. Information must be obtained from your radio for some of the fields.	ct
	OK	

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

The current command sets the frequency for slice A 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. You can select a specific slice (A, B, C, etc.) or you can select the ACTIVE slice. If you select ACTIVE FlexButtons will send the command to what the radio determines is the active slice. Once you've selected a slice the other relevant fields will show. In this case the "Power Level" field will appear. Note: several commands including VOX, SPOTS, BLANK, GAP, TGXL and PGXL commands don't use a slice so the slice selection box won't be visible.

Command <freqia(7< th=""><th>.025><modeiaic< th=""><th>N></th><th></th></modeiaic<></th></freqia(7<>	.025> <modeiaic< th=""><th>N></th><th></th></modeiaic<>	N>	
Function	Slice	Power Level	
PWR	<u>A</u> <u> </u>	50	
		Add to Command	
Enter the powe	r setting for the sli	e 0-100	

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

Wizard	x
Command <freqia(7.025><modeja(cw><pwrja(50></pwrja(50></modeja(cw></freqia(7.025>	
Function	
ОК	Cancel

An interesting feature is to show the presence of TGXL and PGXL devices and whether they are in active or standby state. You can see them in the menu bar at the top of the window in the examples at the beginning of this document.

The SCAN command is somewhat special. In the wizard it will ask for a time interval and then allow you to add as many button names as you like (don't go crazy) before clicking on the "Add to Command" button. You should not include other commands on the same button as a SCAN command.

Command <scani10i1.2.3></scani10i1.2.3>			
Function	Interval (sec)	Next Button	
SCAN ~	10 Add	Mute WNB 20M USB 40M CW	
This function allows you the (multiple) buttons you	to build a scan function. On a select. Note:if you change t	an interval you set (seconds) FlexButtons will automatically pre the order of buttons or remove buttons you will have to redo th	ess Ie

As you can see in the picture above, the SCAN command has a sequence of numbers after the interval. The sequence of numbers is the list of buttons to be sequentially executed when the SCAN is operational. If you change the order of buttons or remove buttons AFTER creating the SCAN button you will not get what you expect!

The RUN command requires some special consideration. This allows you to invoke other programs such as a logging program or a spotting program. I added it as it seems a popular feature. It is set up so that you can have a RUN button which functions prior to the radio being present if you only have one command attached to that button. If the radio is present you can have multiple commands attached to the button.

We allow multiple radios. If, during the discovery process, we find more than one radio a third menu selection appears called "Radio". Clicking on it will allow you to select which radio FlexButtons will connect to. Initially the window title will show as "No Radio"; once it discovers your radio it will show the nickname and callsign.

MainShack	K7KAR Mae	stro			×
Layout	Configure	Radio			
20M USB	10M USB	RVStatio MainSh	on ack	Mute	TGXL
RIT	Pan 10	Pan Segment	Power Hi	Power Lo	PGXL

multiFlex

multiFlex allows multiple programs to access a Flex 6x00 radio and provide services similar to SmartSDR. Currently, a maximum of two programs (stations) is allowed. On receive they can operate independently (band, mode, etc.). On transmit, only one has control. FlexButtons is NOT a program that counts as a multiFlex client, but it interacts with the radio, so it could be associated with either of the two stations. If you are operating in multiFlex mode FlexButtons will add a multiFlex menu. If you click on the multiFlex menu it will show the (two) multiFlex stations. The one that is NOT in control will be "grayed out". When you select one of the clients, the FlexButtons actions will attempt to relate to that client. In particular, a command that says "set the mode to USB for slice A" will look for a slice A associated with the last station you clicked on and cause that station to switch to USB in slice A. Some functions relate to the station that has control and will go there regardless of which station you've selected in FlexButtons. For instance, setting the power level works this way.

The picture below is a multiFlex environment showing the multiFlex menu. It cannot change the controlling station. That must be done at the station desiring control.

RVStation	K7KAR Maest	ro			×
Layout	Configure	Radio	multiFlex	PG)	L TGXL
20M USB	10M USB	40M (DESKTOP-N Maestro	054B70	TGXL
RIT	Pan 10	Pan	Power Hi	Power Lo	PGXL

Registry

As much as I try to prevent it, you may end up with a layout that is not viable as your startup. That makes FlexButtons pretty much unusable. You can use Regedit.exe to resolve the issues if you are comfortable with that, but I've added a little utility to help fix the problems. FlexButtonsRepair.exe will allow you to "start over" by removing all trace of FlexButtons from the Registry, or remove a particular layout, or set a different startup layout.

If you want to remove FlexButtons entirely, first use the utility to remove all Registry entries and then simply delete the FlexButtons directory.

	110	
Remove ALL Registry Entries		You may remove all traces of FlexButtons from the Registry. You may then remove the directory containing FlexButtons or run FlexButtons to re-initialize the Registry.
Layout Repair Actio	ins V	You may select one of the known layouts from the combo
Derdelit		how and then either DEMOVE it

The Registry may also be edited using the Regedit.exe tool provided by Microsoft. You MUST be careful with this because you can destroy your Windows system if you get carried away. However, if you stay within the confines of the FlexButtons section you'll be OK. The picture below shows how I *export* a layout so that it can be installed on a different computer. I expand the view of the Registry until the Optional layout is shown, then right-click on "Optional" to get the menu shown. Then I can select Export on the popup menu. The resulting ".reg" file is similar to the ones provided with the distribution and can be loaded into the Registry by double clicking on it. You can view it with Notepad.exe as it is just a vanilla text file.

Registry Editor				- 🗆 X
File Edit View F	avorites Help			
Computer\HKEY_CUR	RENT_USER\Software\K7	KAR\FlexButtons\Optional		
Computer(HKEY_CUR Computer(HKEY_CUR Canon Chang Chrom Classe Clients	RENT_USER\Software\K7H BJ peTracker nium es s s tite le Corporation R eys xButtons Default Functions Generic Mine Ontional Expand New Find Delete Rename Export Permissions	KAR(FlexButtons\Optional Name) (Default)) Actions) ButtonHeight) ButtonWidth) Colors) FontColors) FontColors) FontSizes) FontSizes) FontStyles) Names) X) Y	Type REG_SZ REG_MULTI_SZ REG_DWORD REG_DWORD REG_MULTI_SZ REG_MULTI_SZ REG_MULTI_SZ REG_MULTI_SZ REG_MULTI_SZ REG_MULTI_SZ REG_DWORD REG_DWORD	Data (value not set) <gap 20> <band active 28 cw> <pwr active 25> <band activi 0x0000028 (40) 0x00000046 (70) FFFFFF80 FFF0F0F0 FFF0F0F0 FFF0F0F0 FFF0F0F0 FFF0F0F0 FFF0F00000 FF000000</band activi </pwr active 25></band active 28 cw></gap 20>
> C > McA > McA > Mici > Nick	Find Delete Rename Export Permissions Copy Key Name			

Cosmetic Stuff

You can do a little more with configuration to decorate and organize your layout. There are two functions that you can add to "buttons" that will change them into non-clickable separators.

The first is to use the wizard to create a button that has the "BLANK" action. It will leave a blank spacer the size of a button in your layout. You can move it around to even out the layout. You can see an example in the picture below. There is no text, but you can select the background color.

The second is to use the wizard to create a button that has the "GAP" action. It will leave a blank row of the specified height with the text that you specify as the name of the button. As with other buttons you can select the font and the background color. GAP buttons should not be combined with other commands because they require special handling to ensure they fill a whole row.



Final Comments

Remember to start your radios first so that FlexButtons can pick them up when it starts. It can pick up some things while active, but not all.

There is no reason you cannot run multiple copies of FlexButtons with different layouts at the same time, but there is only one *current* layout and that will be the last layout selected, so configuring with multiple copies running is a bad idea.

Here are a couple of layouts for really different operators.



The one on the left is set for someone who checks into several nets and is interested in ARRL activities. Each of these buttons will set the radio to a specific frequency and mode (and possibly invoke the ATU).

The one on the right might be used by a contester. When they're running they'd mostly click the "RIT to 0" button. When they're doing S&P they'd either tune from the bottom of the band to the top and then move back to the bottom with a click (or the reverse). They might want to pan the entire band segment to see where the activity is or where the spots are and then switch back to 10 kHz pan to tune in stations.

My original vision for this program was that I'd have five or six buttons that would do things that were a pain to do on the Maestro. After making it available to others, I found many would start with 20 or so buttons and want to increase. I suspect people will come up with all sorts of configurations that I've never imagined! Tell me about them – I might be able to make it easier to setup or use.

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