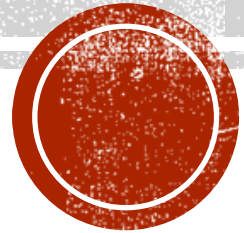
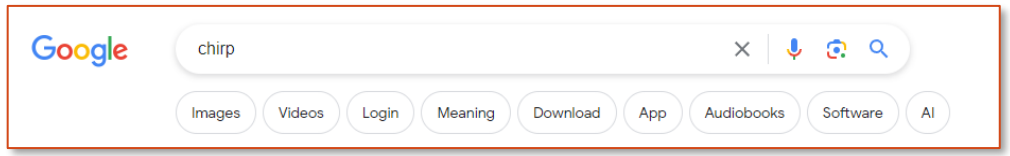
HOW TO PROGRAM AN HT WITH CHIRP



By Patrick Hall

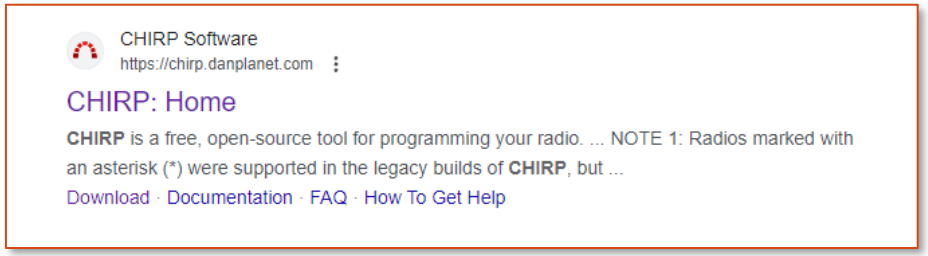
KO4HEX

NAVIGATE TO CHIRP WEBPAGE:



Go to Google.com

Search Chirp



Find the chirp.danplanet.com link

SELECT "GET IT!"

Home Projects

CHIRP

Home Download Documentation Activity Roadmap Issues Repository

CHIRP is a free, open-source tool for programming your radio. It supports a large number of manufacturers and models, as well as provides a way to interface with multiple data sources and formats.

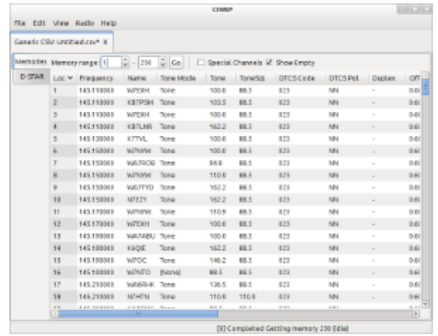
get it!

To get started:

1. Download CHIRP for your platform
2. Check out the "How to get help" page, and the rest of the Documentation.
3. Join the mailing list!
4. Be sure to review the FAQ.

In case you run into a problem with CHIRP:

1. Before you open a new ticket, please consult the Documentation.
2. Also, please perform a search through all open and closed issues. Maybe someone else had the same problem before, and a solution is already available.
3. If your problem is about how to use CHIRP with an already supported radio, then you should ask that question in the mailing list.
4. Once you have looked through the Wiki and searched all open/closed issues, you can open a new ticket (did you ask on the mailing list?). There, you may file a bug report, request a new feature, or request the implementation of a new radio. Please be detailed and follow the instructions in "How To Report Issues".



CHIRP downloads

CHIRP is distributed as a series of automatically-generated builds. Any time we make a change to CHIRP, a build is created for it the next day. Thus, CHIRP is versioned by the date on which it was created, which makes it easy to determine if you have an older build. We don't put experimental things into CHIRP before they are ready, except where specifically called out with a warning. Thus, you do not need to worry about finding a stable version to run. *You should always be on the latest build available.*

Upgrading: You do NOT need to uninstall an existing version of CHIRP before installing a newer one. Just install the new one and it will replace the existing copy! However, be sure to quit CHIRP before installing the new version!

The CHIRP team recommends CHIRP-next unless you experience problems with your radio. If you do, please see How_To_Report_Issues.

CHIRP downloads

CHIRP is distributed as a series of automatically-generated builds. Any time we
you have an older build. We don't put experimental things into CHIRP before th
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CHIRP-next

The next-generation version of CHIRP is now available for gener
is, and ChirpNextBuildChanges for an overview of some of the la

Download the latest CHIRP-next build here

System requirements for CHIRP-next:

- Windows 10 and later (64-bit)
- macOS Big Sur and later (universal binary with Intel and
- Linux (all modern distros with python3, details here)

CHIRP-legacy

The "legacy" build of chirp contains support for some drivers tha
does not work in CHIRP-next because it requires attention, you

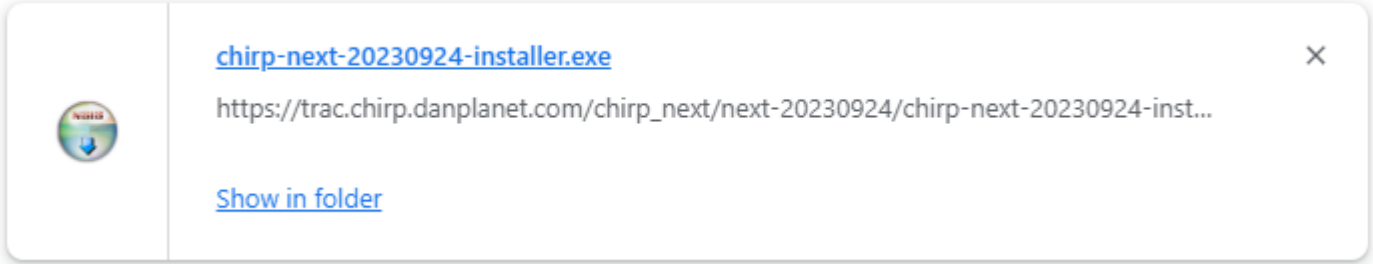
It is not advised to use CHIRP-legacy unless you have a s

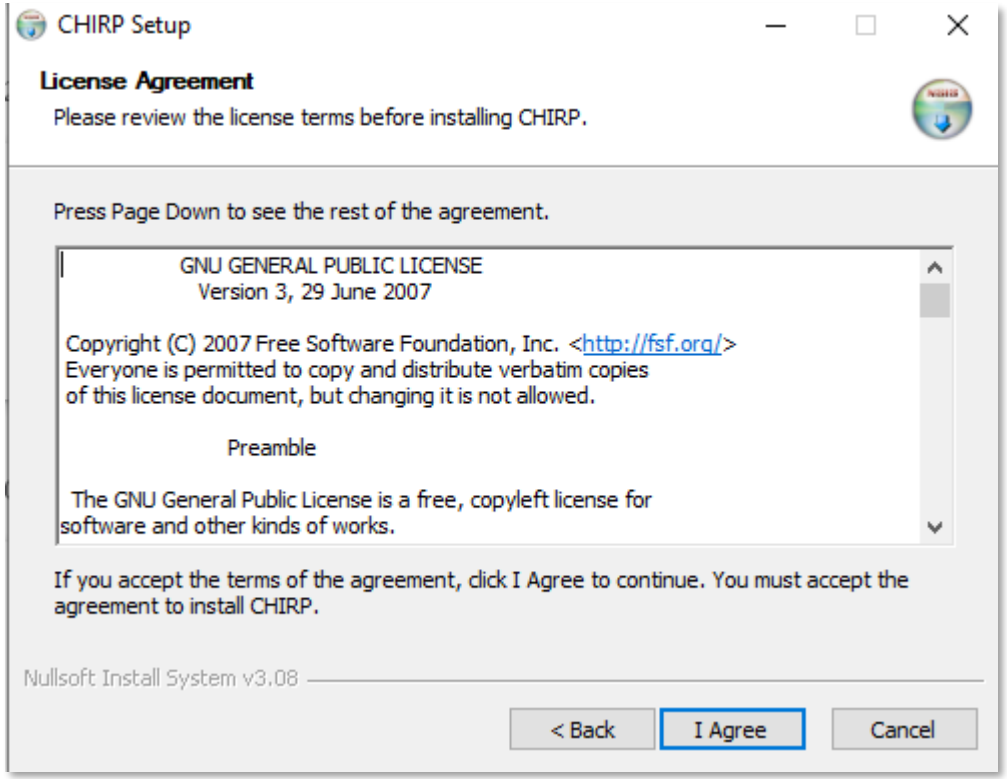
Download the legacy build here

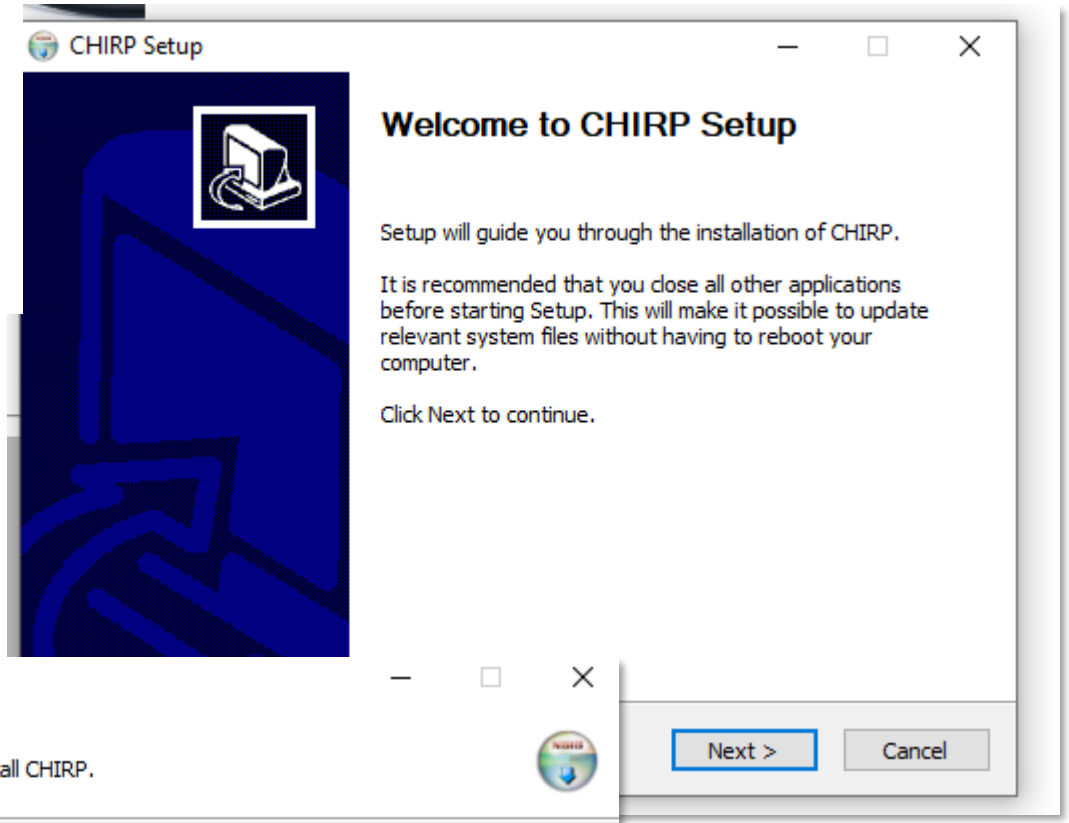
System requirements for CHIRP-daily:

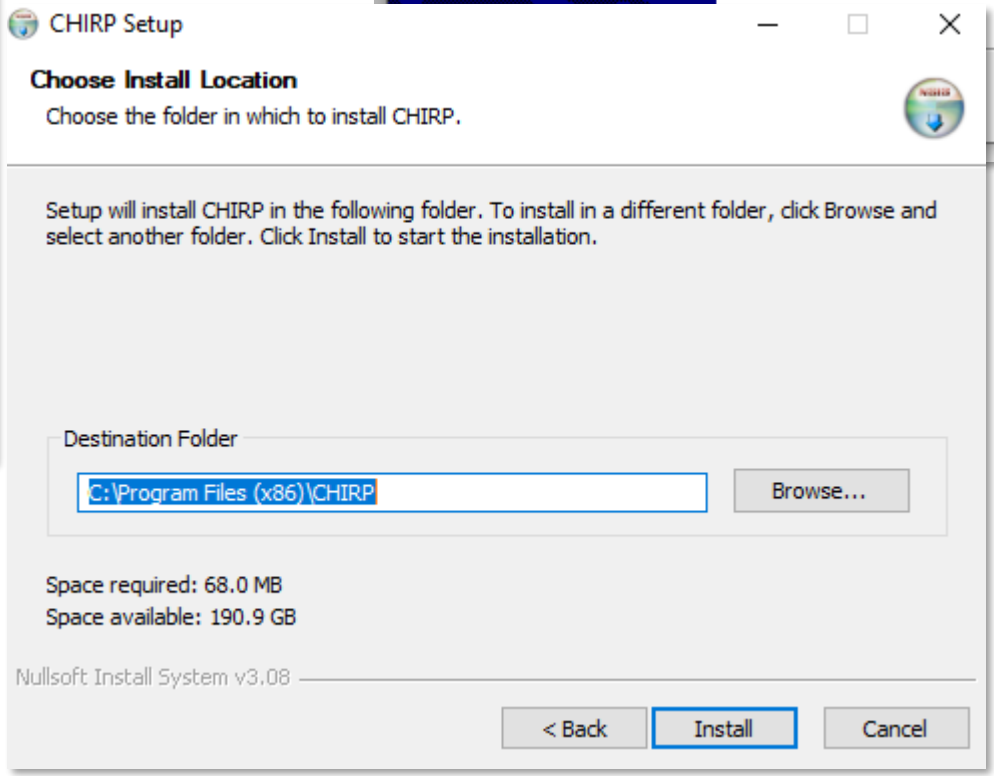
- Windows 2000, XP, Vista, 7, 8, 10, and 11. Older versions
- macOS Intel and Apple Silicon macOS, but requires install
- Linux via flatpak

	Name	Last modified	Size	Description
	Parent Directory		-	
	unit_report.html	2023-09-24 02:30	2.3M	
	supported.md	2023-09-24 02:30	17K	
	model_support.html	2023-09-24 02:30	1.6M	
	driver_report.html	2023-09-24 02:30	9.5M	
	chirp-next-20230924.app.zip	2023-09-24 02:30	37M	MacOS Application
	chirp-next-20230924-win32.zip	2023-09-24 02:30	28M	Windows in-place application
	chirp-next-20230924-installer.exe	**2023-09-24 02:30**	**23M**	**Windows Installer (recommended)**
	chirp-20230924.tar.gz	2023-09-24 02:30	1.7M	Source Tarball
	chirp-20230924-py3-none-any.whl	2023-09-24 02:30	1.4M	Python 3 wheel
	build.properties	2023-09-24 02:30	95	
	SHA1SUM	2023-09-24 02:30	651	









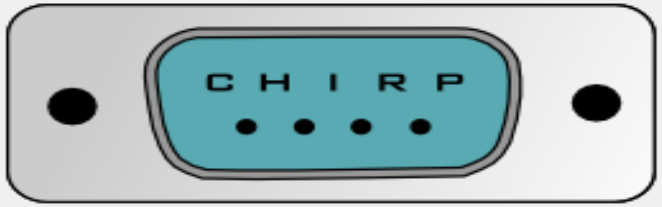
Navigate to your downloads and follow the prompts to install

CHIRP

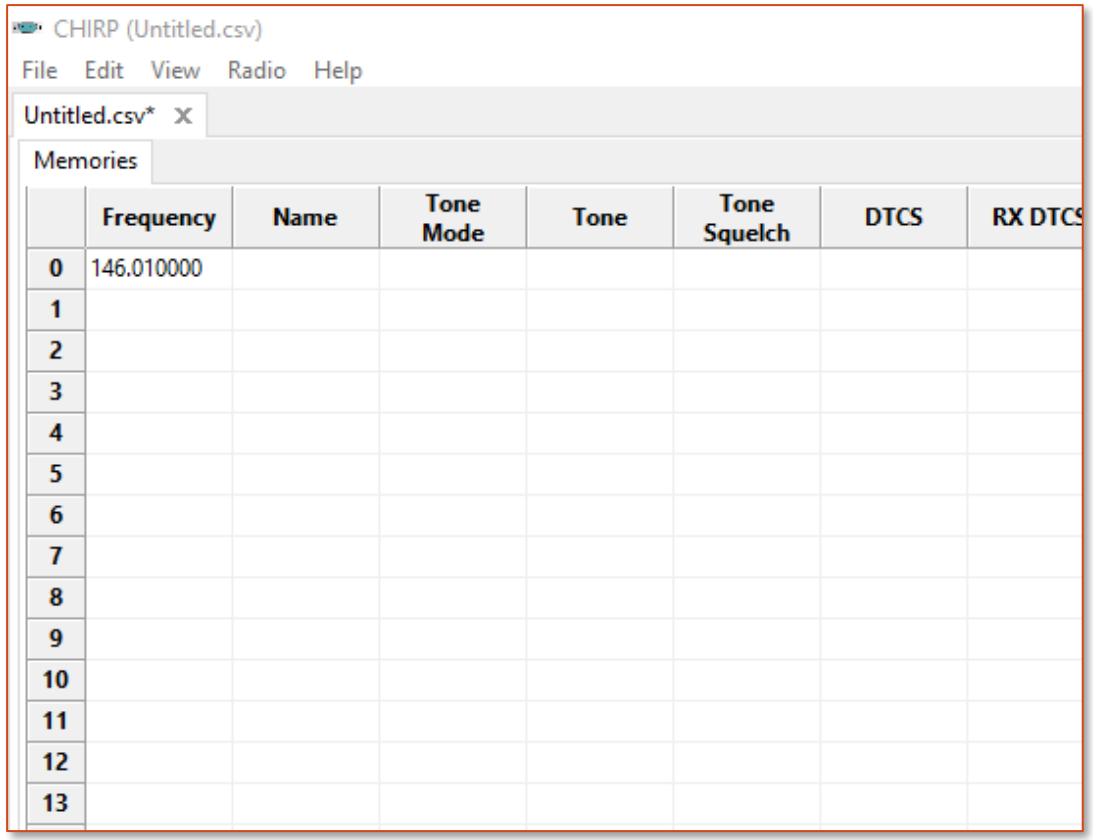
File Edit View Radio Help

Welcome

Welcome to

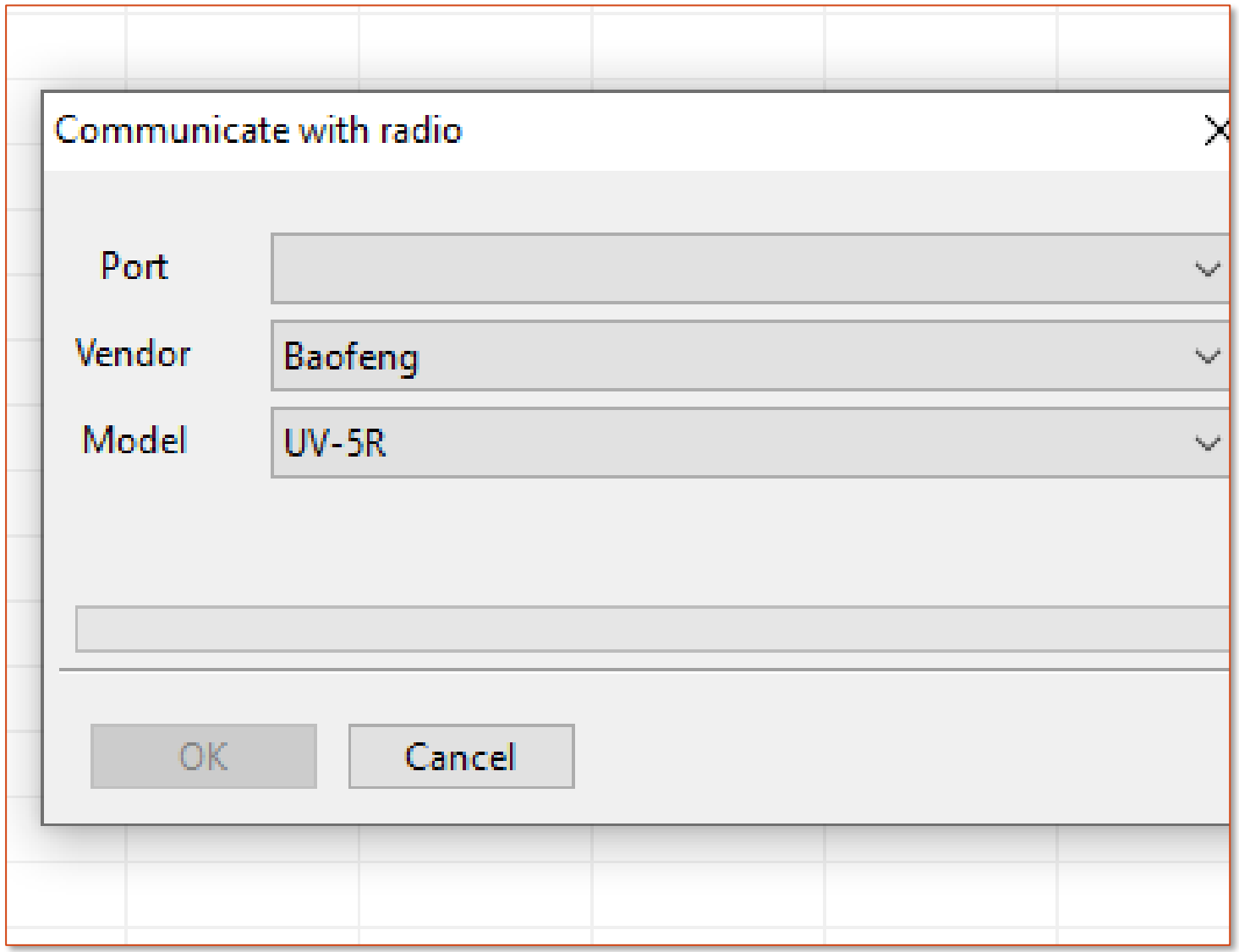


Get started by either:
Opening a file (File Menu)
Downloading a radio (Radio Menu)



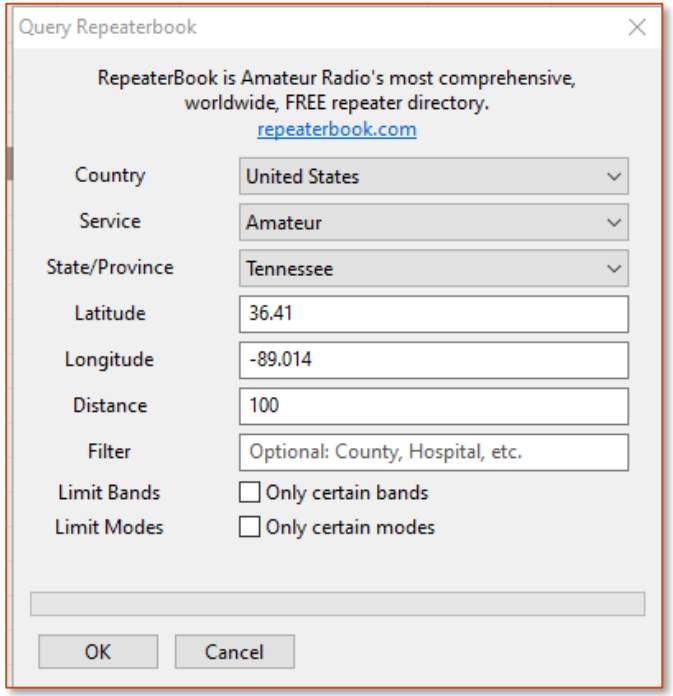
FILE - NEW:

- This is opening a new "file"
- For the purpose of this presentation, I will leave it as "Untitled.csv"
- I will also remove the information in the first row that auto populated as 146.01 as this is not needed.
- We will customize this file to upload to the radio



RADIO - DOWNLOAD FROM RADIO

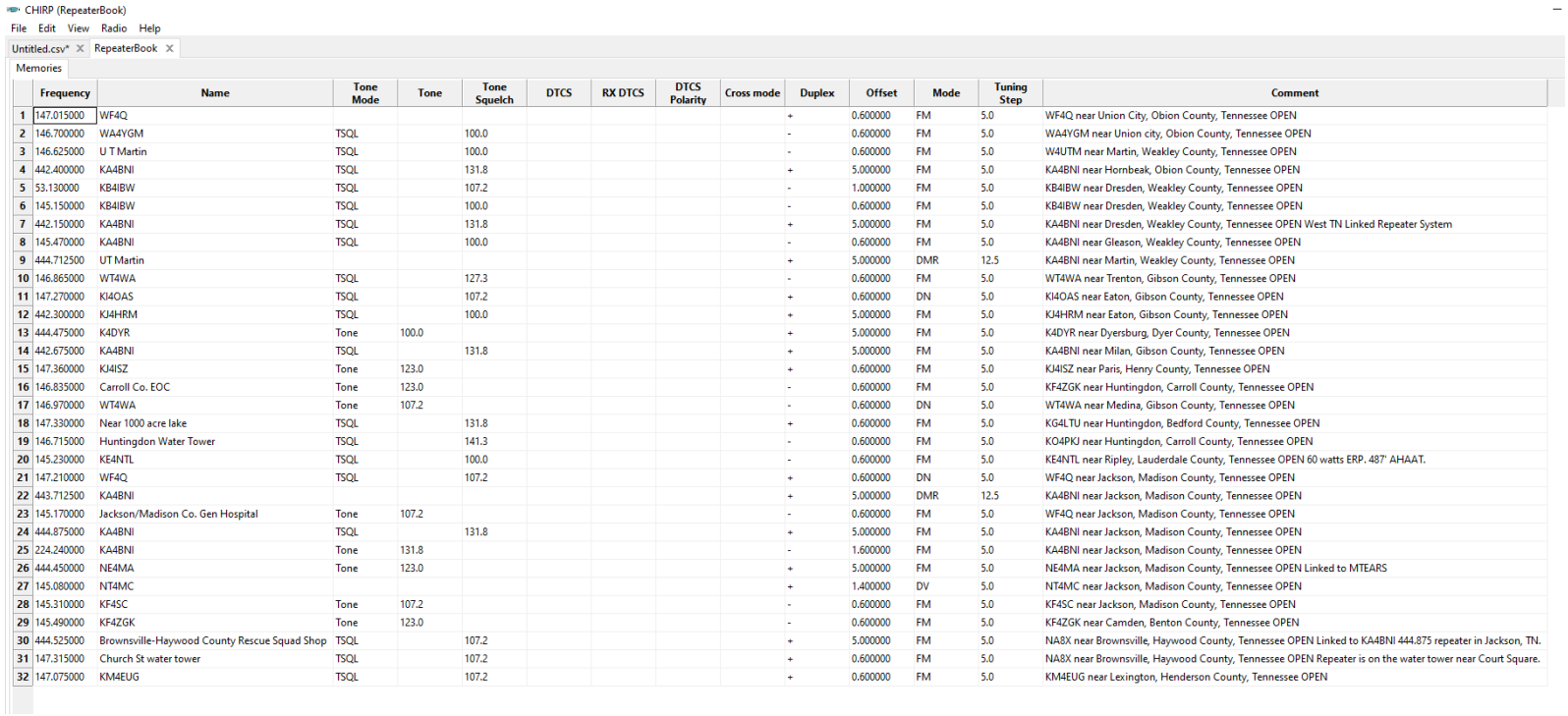
- Hook up your radio to a computer with a program cable
- Find the correct port
- Select your "vendor"
- Select your radio then click "ok"
- This will put any information from your radio on to the computer in the file that you can edit



This will query the repeaterbook website and download the repeaters based on what you put in this query.

It is an easy way to "mass download" repeaters to not input them manually.

RADIO – QUERY SOURCE – REPEATER BOOK


CHIRP (RepeaterBook)

File Edit View Radio Help

Untitled.csv* | RepeaterBook

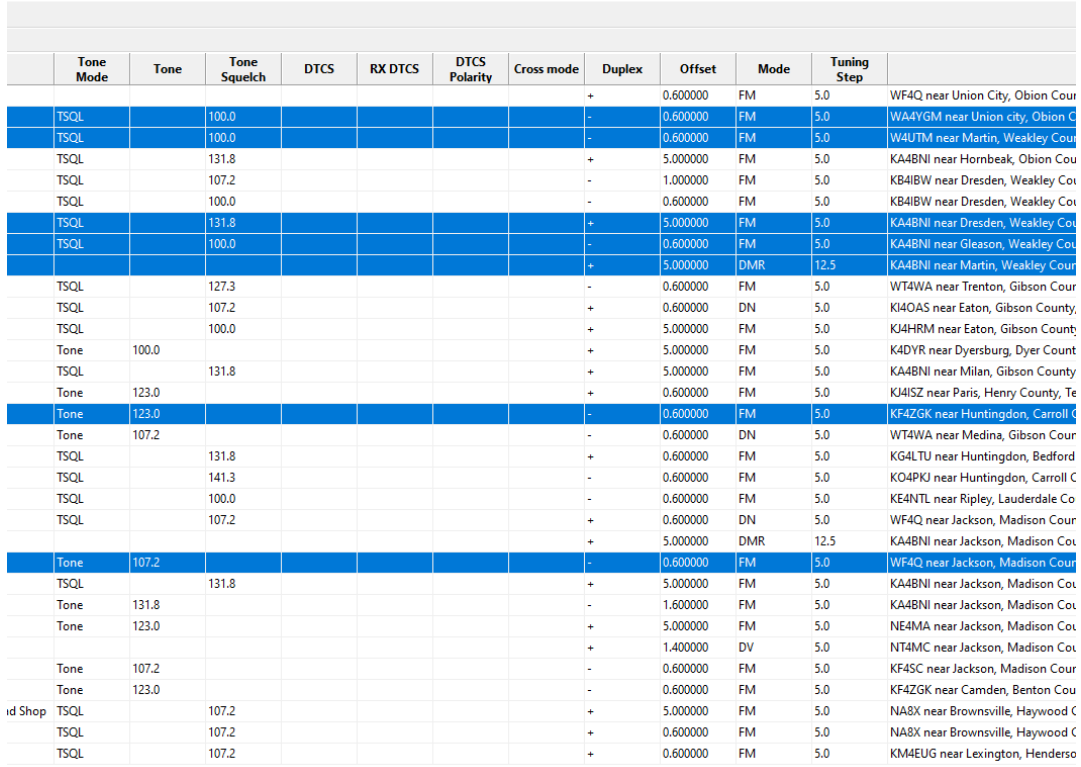
Memories

	Frequency	Name	Tone Mode	Tone	Tone Squelch	DTCS	RX DTCS	DTCS Polarity	Cross mode	Duplex	Offset	Mode	Tuning Step	Comment
1	147.015000	WF4Q								+	0.600000	FM	5.0	WF4Q near Union City, Obion County, Tennessee OPEN
2	146.700000	WA4YGM	TSQL		100.0					-	0.600000	FM	5.0	WA4YGM near Union city, Obion County, Tennessee OPEN
3	146.625000	U T Martin	TSQL		100.0					-	0.600000	FM	5.0	W4UTM near Martin, Weakley County, Tennessee OPEN
4	442.400000	KA4BNI	TSQL		131.8					+	5.000000	FM	5.0	KA4BNI near Hornbeak, Obion County, Tennessee OPEN
5	53.130000	KB4IBW	TSQL		107.2					-	1.000000	FM	5.0	KB4IBW near Dresden, Weakley County, Tennessee OPEN
6	145.150000	KB4IBW	TSQL		100.0					-	0.600000	FM	5.0	KB4IBW near Dresden, Weakley County, Tennessee OPEN
7	442.150000	KA4BNI	TSQL		131.8					+	5.000000	FM	5.0	KA4BNI near Dresden, Weakley County, Tennessee OPEN West TN Linked Repeater System
8	145.470000	KA4BNI	TSQL		100.0					-	0.600000	FM	5.0	KA4BNI near Gleason, Weakley County, Tennessee OPEN
9	444.712500	UT Martin								+	5.000000	DMR	12.5	KA4BNI near Martin, Weakley County, Tennessee OPEN
10	146.865000	WT4WA	TSQL		127.3					-	0.600000	FM	5.0	WT4WA near Trenton, Gibson County, Tennessee OPEN
11	147.270000	KI4OAS	TSQL		107.2					+	0.600000	DN	5.0	KI4OAS near Eaton, Gibson County, Tennessee OPEN
12	442.300000	KJ4HRM	TSQL		100.0					+	5.000000	FM	5.0	KJ4HRM near Eaton, Gibson County, Tennessee OPEN
13	444.475000	K4DYR	Tone	100.0						+	5.000000	FM	5.0	K4DYR near Dyersburg, Dyer County, Tennessee OPEN
14	442.675000	KA4BNI	TSQL		131.8					+	5.000000	FM	5.0	KA4BNI near Milan, Gibson County, Tennessee OPEN
15	147.360000	KJ4ISZ	Tone	123.0						+	0.600000	FM	5.0	KJ4ISZ near Paris, Henry County, Tennessee OPEN
16	146.835000	Carroll Co. EOC	Tone	123.0						-	0.600000	FM	5.0	KF4ZGK near Huntingdon, Carroll County, Tennessee OPEN
17	146.970000	WT4WA	Tone	107.2						-	0.600000	DN	5.0	WT4WA near Medina, Gibson County, Tennessee OPEN
18	147.330000	Near 1000 acre lake	TSQL		131.8					+	0.600000	FM	5.0	KG4LTU near Huntingdon, Bedford County, Tennessee OPEN
19	146.715000	Huntingdon Water Tower	TSQL		141.3					-	0.600000	FM	5.0	KO4PKJ near Huntingdon, Carroll County, Tennessee OPEN
20	145.230000	KE4NTL	TSQL		100.0					-	0.600000	FM	5.0	KE4NTL near Ripley, Lauderdale County, Tennessee OPEN 60 watts ERP. 487' AHAAT.
21	147.210000	WF4Q	TSQL		107.2					+	0.600000	DN	5.0	WF4Q near Jackson, Madison County, Tennessee OPEN
22	443.712500	KA4BNI								+	5.000000	DMR	12.5	KA4BNI near Jackson, Madison County, Tennessee OPEN
23	145.170000	Jackson/Madison Co. Gen Hospital	Tone	107.2						-	0.600000	FM	5.0	WF4Q near Jackson, Madison County, Tennessee OPEN
24	444.875000	KA4BNI	TSQL		131.8					+	5.000000	FM	5.0	KA4BNI near Jackson, Madison County, Tennessee OPEN
25	224.240000	KA4BNI	Tone	131.8						-	1.600000	FM	5.0	KA4BNI near Jackson, Madison County, Tennessee OPEN
26	444.450000	NE4MA	Tone	123.0						+	5.000000	FM	5.0	NE4MA near Jackson, Madison County, Tennessee OPEN Linked to MTEARS
27	145.080000	NT4MC								+	1.400000	DV	5.0	NT4MC near Jackson, Madison County, Tennessee OPEN
28	145.310000	KF4SC	Tone	107.2						-	0.600000	FM	5.0	KF4SC near Jackson, Madison County, Tennessee OPEN
29	145.490000	KF4ZGK	Tone	123.0						-	0.600000	FM	5.0	KF4ZGK near Camden, Benton County, Tennessee OPEN
30	444.525000	Brownsville-Haywood County Rescue Squad Shop	TSQL		107.2					+	5.000000	FM	5.0	NA8X near Brownsville, Haywood County, Tennessee OPEN Linked to KA4BNI 444.875 repeater in Jackson, TN.
31	147.315000	Church St water tower	TSQL		107.2					+	0.600000	FM	5.0	NA8X near Brownsville, Haywood County, Tennessee OPEN Repeater is on the water tower near Court Square.
32	147.075000	KM4EUG	TSQL		107.2					+	0.600000	FM	5.0	KM4EUG near Lexington, Henderson County, Tennessee OPEN

REPEATERBOOK QUERY

- Results from the previous Query

COPY THE REPEATERS YOU WANT WITH CTRL CLICK, THEN PASTE IN NEW TAB "UNTITLED.CSV"



	Tone Mode	Tone	Tone Squelch	DTCS	RX DTCS	DTCS Polarity	Cross mode	Duplex	Offset	Mode	Tuning Step	
								+	0.600000	FM	5.0	WF4Q near Union City, Obion Cour
	TSQL		100.0					-	0.600000	FM	5.0	WA4YGM near Union city, Obion C
	TSQL		100.0					-	0.600000	FM	5.0	W4UTM near Martin, Weakley Cou
	TSQL		131.8					+	5.000000	FM	5.0	KA4BNI near Hornbeak, Obion Cou
	TSQL		107.2					-	1.000000	FM	5.0	KB4IBW near Dresden, Weakley Cou
	TSQL		100.0					-	0.600000	FM	5.0	KB4IBW near Dresden, Weakley Cou
	TSQL		131.8					+	5.000000	FM	5.0	KA4BNI near Dresden, Weakley Cou
	TSQL		100.0					-	0.600000	FM	5.0	KA4BNI near Gleason, Weakley Cou
								+	5.000000	DMR	12.5	KA4BNI near Martin, Weakley Cour
	TSQL		127.3					-	0.600000	FM	5.0	WT4WA near Trenton, Gibson Cour
	TSQL		107.2					+	0.600000	DN	5.0	KI4OAS near Eaton, Gibson County,
	TSQL		100.0					+	5.000000	FM	5.0	KJ4HRM near Eaton, Gibson County
	Tone	100.0						+	5.000000	FM	5.0	K4DYR near Dyersburg, Dyer Count
	TSQL		131.8					+	5.000000	FM	5.0	KA4BNI near Milan, Gibson County
	Tone	123.0						+	0.600000	FM	5.0	KJ4ISZ near Paris, Henry County, Te
	Tone	123.0						-	0.600000	FM	5.0	KF4ZGK near Huntingdon, Carroll C
	Tone	107.2						-	0.600000	DN	5.0	WT4WA near Medina, Gibson Cour
	TSQL		131.8					+	0.600000	FM	5.0	KG4LTU near Huntingdon, Bedford
	TSQL		141.3					-	0.600000	FM	5.0	KO4PKJ near Huntingdon, Carroll C
	TSQL		100.0					-	0.600000	FM	5.0	KE4NTL near Ripley, Lauderdale Co
	TSQL		107.2					+	0.600000	DN	5.0	WF4Q near Jackson, Madison Cour
								+	5.000000	DMR	12.5	KA4BNI near Jackson, Madison Cou
	Tone	107.2						-	0.600000	FM	5.0	WF4Q near Jackson, Madison Cour
	TSQL		131.8					+	5.000000	FM	5.0	KA4BNI near Jackson, Madison Cou
	Tone	131.8						-	1.600000	FM	5.0	KA4BNI near Jackson, Madison Cou
	Tone	123.0						+	5.000000	FM	5.0	NE4MA near Jackson, Madison Cou
								+	1.400000	DV	5.0	NT4MC near Jackson, Madison Cou
	Tone	107.2						-	0.600000	FM	5.0	KF4SC near Jackson, Madison Cour
	Tone	123.0						-	0.600000	FM	5.0	KF4ZGK near Camden, Benton Cou
id Shop	TSQL		107.2					+	5.000000	FM	5.0	NA8X near Brownsville, Haywood C
	TSQL		107.2					+	0.600000	FM	5.0	NA8X near Brownsville, Haywood C
	TSQL		107.2					+	0.600000	FM	5.0	KM4EUG near Lexington, Henderso

- You may use Ctrl click to select individual rows or Shift click to select a range of rows
- You can also combine Shift click and Ctrl click – just be careful to use the right one in the right situation or you will end up selecting thing you don't want
- Copy either Ctrl +C or right click and "Copy"

Untitled.csv* | RepeaterBook

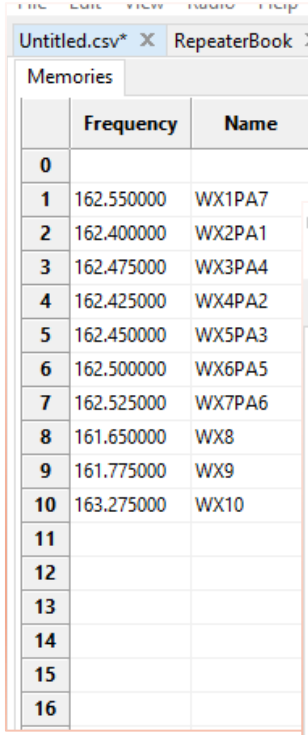
Memories

	Frequency	Name	Tone Mode	Tone	Tone Squelch	DTCS	RX DTCS	DTCS Polarity	Cross mode	Duplex	Offset	Mode	Tuning Step	Skip	Power	Comment
0	146.700000	WA4YGM	TSQL		100.0					-	0.600000	FM	5.0		50W	WA4YGM nea
1	146.625000	U T Martin	TSQL		100.0					-	0.600000	FM	5.0		50W	W4UTM near
2	442.150000	KA4BNI	TSQL		131.8					+	5.000000	FM	5.0		50W	KA4BNI near I
3	145.470000	KA4BNI	TSQL		100.0					-	0.600000	FM	5.0		50W	KA4BNI near
4	444.712500	UT Martin								+	5.000000	DMR	12.5		50W	KA4BNI near I
5	146.835000	Carroll Co. EC	Tone	123.0						-	0.600000	FM	5.0		50W	KF4ZGK near
6	145.170000	Jackson/Mad	Tone	107.2						-	0.600000	FM	5.0		50W	WF4Q near Ja
7																
8																
9																
10																

VIEW OF "UNTITLED.CSV" AFTER PASTING SELECTED REPEATERS FROM PREVIOUS SLIDE

- Note: I did remove the first entry 146.01 from the "untitled.csv" file before I pasted these entries in.

FILE – OPEN STOCK CONFIG – US NOAA WEATHER


Untitled.csv* | RepeaterBook | US NOAA Weather Alert.csv

Memories

	Frequency	Name	Tone Mode	Tone	Tone Squelch	DTCS	RX DTCS	DTCS Polarity	Cross mode	Duplex	Offset	Mode	Tuning Step	Skip	Power	Comment
0																
1	162.550000	WX1PA7										FM	5.0		50W	
2	162.400000	WX2PA1														
3	162.475000	WX3PA4														
4	162.425000	WX4PA2														
5	162.450000	WX5PA3														
6	162.500000	WX6PA5														
7	162.525000	WX7PA6														
8	161.650000	WX8														
9	161.775000	WX9														
10	163.275000	WX10														
11																
12																
13																
14																
15																
16																

CHIRP (US NOAA Weather Alert.csv)

File Edit View Radio Help

Untitled.csv* | RepeaterBook | US NOAA Weather Alert.csv

Memories

	Frequency	Name	Tone Mode	Tone	Tone Squelch	DTCS	RX DTCS	DTCS Polarity	Cross mode	Duplex	Offset	Mode	Tuning Step	Skip	Powe
0															
1	162.550000	WX1PA7										FM	5.0		50W
2	162.400000	WX2PA1										FM	5.0		50W
3	162.475000	WX3PA4										FM	5.0		50W
4	162.425000	WX4PA2										FM	5.0		50W
5	162.450000	WX5PA3										FM	5.0		50W
6	162.500000	WX6PA5										FM	5.0		50W
7	162.525000	WX7PA6										FM	5.0		50W
8	161.650000	WX8										FM	5.0		50W
9	161.775000	WX9										FM	5.0		50W
10	163.275000	WX10										FM	5.0		50W
11															
12															
13															
14															
15															
16															
17															

Importing NOAA WX then copying the stations

UPDATED FILE(UNTITLED.CSV)WITH NOAA, AND PROXY SEARCH

CHIRP (Untitled.csv)

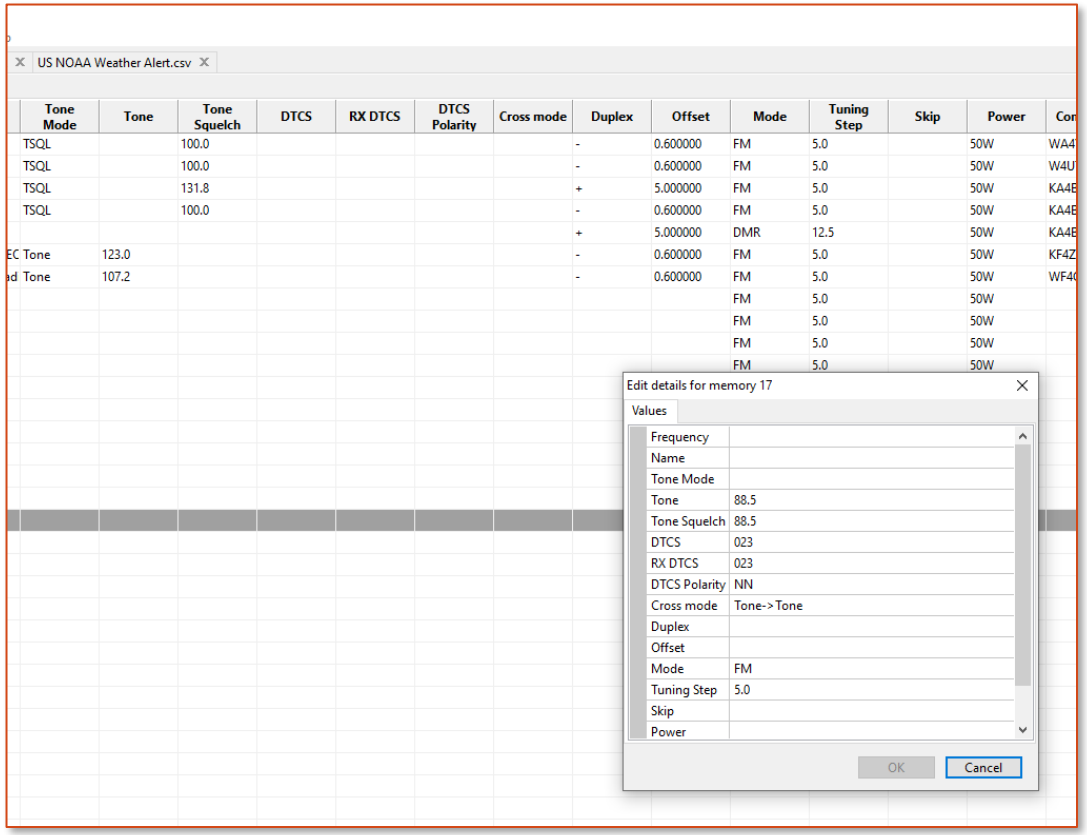
File Edit View Radio Help

Untitled.csv* | RepeaterBook | US NOAA Weather Alert.csv

Memories

	Frequency	Name	Tone Mode	Tone	Tone Squelch	DTCS	RX DTCS	DTCS Polarity	Cross mode	Duplex	Offset	Mode	Tuning Step	Skip	Power	Comment
0	146.700000	WA4YGM	TSQL		100.0					-	0.600000	FM	5.0		50W	WA4YGM nea
1	146.625000	U T Martin	TSQL		100.0					-	0.600000	FM	5.0		50W	W4UTM near
2	442.150000	KA4BNI	TSQL		131.8					+	5.000000	FM	5.0		50W	KA4BNI near I
3	145.470000	KA4BNI	TSQL		100.0					-	0.600000	FM	5.0		50W	KA4BNI near (
4	444.712500	UT Martin								+	5.000000	DMR	12.5		50W	KA4BNI near I
5	146.835000	Carroll Co. EC	Tone	123.0						-	0.600000	FM	5.0		50W	KF4ZGK near
6	145.170000	Jackson/Mad	Tone	107.2						-	0.600000	FM	5.0		50W	WF4Q near Ja
7	162.550000	WX1PA7										FM	5.0		50W	
8	162.400000	WX2PA1										FM	5.0		50W	
9	162.475000	WX3PA4										FM	5.0		50W	
10	162.425000	WX4PA2										FM	5.0		50W	
11	162.450000	WX5PA3										FM	5.0		50W	
12	162.500000	WX6PA5										FM	5.0		50W	
13	162.525000	WX7PA6										FM	5.0		50W	
14	161.650000	WX8										FM	5.0		50W	
15	161.775000	WX9										FM	5.0		50W	
16	163.275000	WX10										FM	5.0		50W	
17																
18																
19																

RIGHT CLICK CELL – PROPERTIES – EDIT CELL



- You can select multiple channels at once. I did this for the next slide.
- This will allow you to edit several fields at once for multiple rows
- This is also where you can manually enter in repeaters

TIP: SELECTED MULTIPLE WX ROWS TO TURN DUPLEX OFF. THIS PREVENTS TRANSMIT ON UNWANTED CHANNELS

CHIRP (Untitled.csv)

File Edit View Radio Help

Untitled.csv* | RepeaterBook | US NOAA Weather Alert.csv

Memories

	Frequency	Name	Tone Mode	Tone	Tone Squelch	DTCS	RX DTCS	DTCS Polarity	Cross mode	Duplex	Offset	Mode	Tuning Step	Skip	Power	Comment
0	146.700000	WA4YGM	TSQL		100.0					-	0.600000	FM	5.0		50W	WA4YGM nea
1	146.625000	U T Martin	TSQL		100.0					-	0.600000	FM	5.0		50W	W4UTM near
2	442.150000	KA4BNI	TSQL		131.8					+	5.000000	FM	5.0		50W	KA4BNI near I
3	145.470000	KA4BNI	TSQL		100.0					-	0.600000	FM	5.0		50W	KA4BNI near (
4	444.712500	UT Martin								+	5.000000	DMR	12.5		50W	KA4BNI near I
5	146.835000	Carroll Co. EC	Tone	123.0						-	0.600000	FM	5.0		50W	KF4ZGK near
6	145.170000	Jackson/Mad	Tone	107.2						-	0.600000	FM	5.0		50W	WF4Q near Ja
7	162.550000	WX1PA7								off		FM	5.0		50W	
8	162.400000	WX2PA1								off		FM	5.0		50W	
9	162.475000	WX3PA4								off		FM	5.0		50W	
10	162.425000	WX4PA2								off		FM	5.0		50W	
11	162.450000	WX5PA3								off		FM	5.0		50W	
12	162.500000	WX6PA5								off		FM	5.0		50W	
13	162.525000	WX7PA6								off		FM	5.0		50W	
14	161.650000	WX8								off		FM	5.0		50W	
15	161.775000	WX9								off		FM	5.0		50W	
16	163.275000	WX10								off		FM	5.0		50W	
17																

UPLOAD TO RADIO!

- Plug your radio into the computer with the programming cable
- Turn your radio on
- Go to Radio-Upload to Radio
- Get on the Air!!