

# Radio Programming with CHIRP



RMHAM University  
Tech Talks

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# Your Host





# What is CHIRP?

# CHIRP



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

<https://chirp.danplanet.com/projects/chirp/wiki/Home>

# Capabilities



What can it program?

- Dozens of manufacturers, hundreds of radios

What doesn't it do?

- DMR, D-Star, C4FM
- Motorola

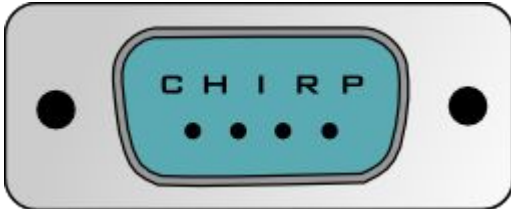
# vs RT Systems?



FT-3D Programmer - Yatsu FT3D 7.3TD														
File Edit Communications Settings Window Help														
Yatsu FT3D 7.3TD X														
	Receive Frequency	Transmit Frequency	Offset Frequency	Offset Direction	Operating Mode	AMS	Name	Tone Mode	CTCSS	DCS	DCS Polarity	RxDG		
P1	447.52500	442.52500 5.00 MHz	Minus	FM			10U1	Tone	146.2 Hz	023	RN-TN	00		
2	447.52500	442.52500 5.00 MHz	Minus	FM			10U2	Tone	203.5 Hz	023	RN-TN	00		
3														
4														
5	448.22500	443.22500 5.00 MHz	Minus	FM			11U1	Tone	141.3 Hz	023	RN-TN	00		
6	146.98500	146.38500 600 kHz	Minus	FM			11V2	Tone	100.0 Hz	023	RN-TN	00		
7	449.25000	444.25000 5.00 MHz	Minus	FM			11U3	Tone	141.3 Hz	023	RN-TN	00		
8	147.43500	147.43500	Simplex	FM			11V4D	None	103.5 Hz	023	RN-TN	00		
9	445.80000	445.80000	Simplex	FM			11U5D	None	103.5 Hz	023	RN-TN	00		
10														
11	146.64000	146.04000 600 kHz	Minus	FM			12V1	Tone	100.0 Hz	023	RN-TN	00		
12	449.22500	444.22500 5.00 MHz	Minus	FM			12U2	Tone	141.3 Hz	023	RN-TN	00		
13	147.12000	147.72000 600 kHz	Plus	FM			12V3	Tone	88.5 Hz	023	RN-TN	00		
14	448.22500	443.22500 5.00 MHz	Minus	FM			12U4	Tone	141.3 Hz	023	RN-TN	00		
15	146.55000	146.55000	Simplex	FM			12V5D	None	103.5 Hz	023	RN-TN	00		
16	147.55500	147.55500	Simplex	FM			12V6D	None	103.5 Hz	023	RN-TN	00		
17	449.60000	444.60000 5.00 MHz	Minus	FM			12U7	Tone	100.0 Hz	023	RN-TN	00		
18	449.45000	444.45000 5.00 MHz	Minus	FM			12U8	Tone	103.5 Hz	023	RN-TN	00		
19	449.62500	444.62500 5.00 MHz	Minus	FM			12U9	Tone	141.3 Hz	023	RN-TN	00		
20	447.22500	442.22500 5.00 MHz	Minus	FM			12U10	Tone	141.3 Hz	023	RN-TN	00		
21														
22	146.88000	146.28000 600 kHz	Minus	FM			12V13	Tone	100.0 Hz	023	RN-TN	00		
23	447.75000	442.75000 5.00 MHz	Minus	FM			12U14	Tone	141.3 Hz	023	RN-TN	00		
24	147.15000	147.75000 600 kHz	Plus	FM			12V15	Tone	100.0 Hz	023	RN-TN	00		
25	448.85000	443.85000 5.00 MHz	Minus	FM			12U17	Tone	88.5 Hz	023	RN-TN	00		
26														
Ready														

**rt** SYSTEMS   
RADIO PROGRAMMING MADE EASY

# vs RT Systems?



**rt** SYSTEMS   
RADIO PROGRAMMING MADE EASY



# Building a Generic Codeplug



# Generic Codeplug Methods



- Manual entry
- Online databases
  - RadioReference
  - RepeaterBook
  - RFinder
- CSV (next slide)

# Power User: Spreadsheet to CSV



- No import wizard like RT Systems
- Not too hard to transform our own CSV to fit CHIRP's "shape"
- Docs at [https://chirp.danplanet.com/projects/chirp/wiki/CSV\\_HowTo](https://chirp.danplanet.com/projects/chirp/wiki/CSV_HowTo)



# Transferring to Radios

# Baofeng UV-5R

- Clone mode
- Only 127 channels, so might have to cut/paste some things around



# Kenwood TH-D72

- Live mode



# Yaesu FT3D

- CHIRP doesn't support SD card
- What happens to C4FM channels?





# Contact Me

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