

FT8 Basics

Agenda

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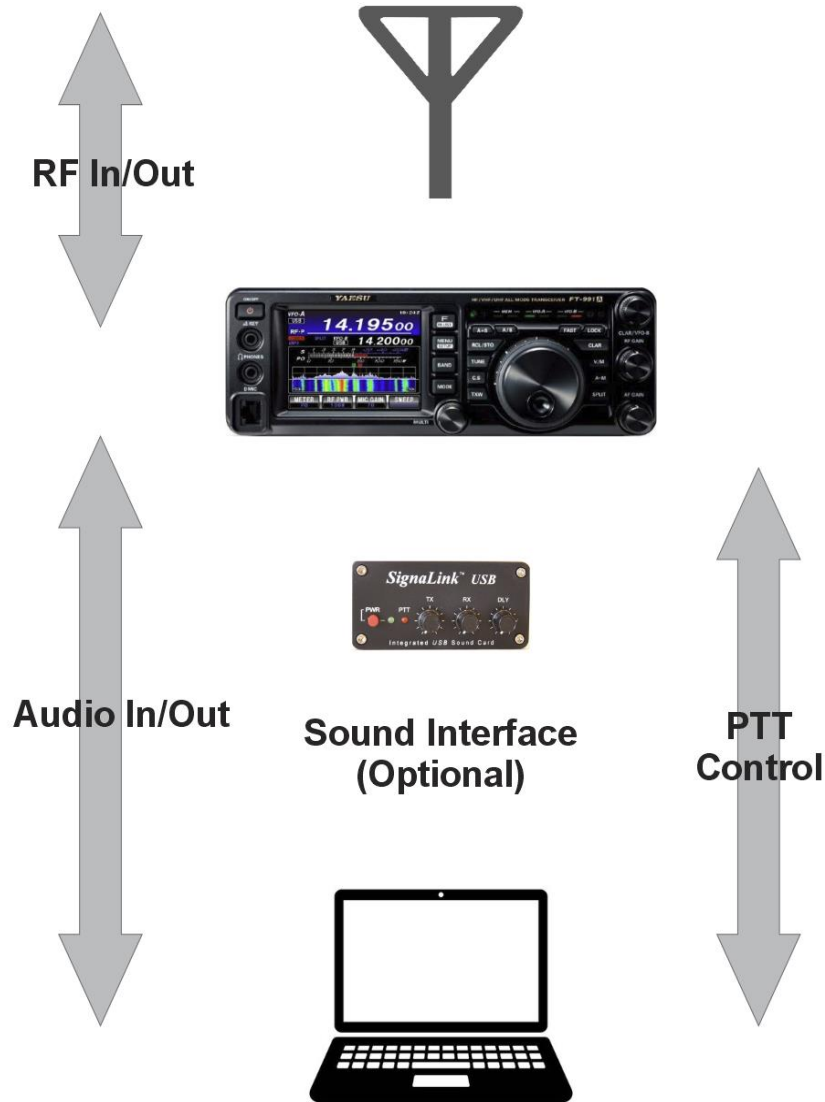
- What is FT8?
- Equipment and signal path
- Software installation (WSJTX) (Windows)
- Time
- PC Sound Settings
- Overview of the interface
 - Setup
 - Mode
 - Waterfall
 - Text windows
 - Controls
- Transceiver Setup
 - Frequency/Mode
 - RF Gain/Other Processing
 - ALC and power
- How to answer a CQ
- How to call CQ
- Logging
- Signal to Noise
- Finding an open slot
- Supplemental Software (GridTracker)

Links:

WSJTX - <https://wsjt.sourceforge.io/>

GridTracker - <https://gridtracker.org/>

FT8 Signal Path



Color highlighting in WSJT-X defaults to the following scheme:

Color	Category
- Red -	Duplicate call on Band and Mode
- Green -	Unconfirmed Country
- Blue -	Unconfirmed State
- Purple -	Unconfirmed Grid
No color	Station has not been worked, but the country, state, and grid are all confirmed

Instructional Notes:

- What is FT8?

FT8, which stands for Franke-Taylor design, 8-FSK modulation, is a digital mode of radio communication used by amateur radio operators. It was created by Joe Taylor (K1JT) and Steve Franke (K9AN) and released on June 29, 2017, along with the software package WSJT. FT8 is known for its efficiency and ability to make reliable contacts in weak signal conditions. It's popular with ham radio operators for its quick exchanges and low signal-to-noise ratio requirements.

- Equipment and signal path

Transceiver

Getting audio into and out of the Transceiver/Computer

You may need an interface for older Transceivers

PTT keying vs. VOX

- Software installation (WSJT)

Download/Install are pretty normal

File... Settings

- General - Call sign/grid

- Radio – CAT control, PTT

- Audio – Soundcard Input/Output

- Reporting – For external logging use UDP Server settings

(N3FJP Note - Listen for WSJT in the Settings > Application Program Interface
> WSJT Interface section)

- Advanced – ARRL Field Day

Configurations – you can save for different needs

- Time

Sync time according to your operating system

- PC Sound Settings

- Sound Control Panel

- Sounds... Sound Scheme... No Sound

- Overview of the interface

- Setup

- Already covered

- Mode

- FT8

- Special event/contest

- Waterfall

- Spectrum of the audio heard

- TX and RX frequencies
- Actual frequency relevant to text window
- Text windows
 - Band Activity / Color codes
 - RX Frequency
- Controls
 - Audio Level
 - DX Call/Grid
 - TX even/1st
 - Hold Tx Freq
 - Messages
 - Next/Now
 - Power (Pwr) / Audio Out level
- Transceiver Setup
 - Frequency/Mode – Manage by WSJTX or Logging, not both
 - RF Gain/Other processing
 - Turn it OFF!! You want the computer to do all the work
 - ALC and power
 - Transceiver isn't made for 100% duty
 - Recommend no more than 40 watts on 100 watt rig
 - What happens when you exceed ALC?
 - Watch ALC during transmit
 - Keep level below ALC “bump”
 - Changing TX frequency can change level
- How to answer a CQ
- How to call CQ
- Logging
 - Integration with your logging is not required, but recommended
 - File... Open Log Directory
 - wsjtx.log
 - ALL.log
 - View... Contest Log
- Signal to Noise
 - What is that dB?
- Finding an open slot
 - The right click on the waterfall
 - RX changes when you select a contact
- Supplemental Software (GridTracker)
 - Adds to the understanding of who is contacting who
 - Great for targeting