Yaesu FT-991A Digital Setup

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Use this document at your own risk. If you find that I missed something, please let me know.

This document will go through the setup of the FT991A, FLDIGI and WSJT-X, as well as associated programs that make the digital modes run efficiently.
Use these instructions at your own risk. These are the settings I use for digital modes as of this date. Firmware and software change over time, so these settings could be different if you have new versions of the software or firmware. You should try to keep up with software versions and radio firmware that can be downloaded for the Yaesu site.

Firmware Update

Because webpages change over time: Do a google search for "Yaesu ft991A manual". Make sure you are on the FT-991A page. There should be two tabs "Description" and "Files". Go to the "Files" tab. Download the "FT-001A All Current Firmware …..". This is a ZIP file that contains the Firmware Upgrade Manual **(Read carefully before proceeding with update)** and the Firmware to be installed. The instructions are a bit confusing but if you follow precisely you should have no problems. There can be up to four different firmware upgrades, depending on your current firmware version.

COM Port Drivers

External modems are not needed with the FT-991A. It has its own internal modem/sound card. It is recommended to purchase the RT Systems cable and software. Download the "FT-991A/ SCU-17 USB Driver Installation Manual" and the "FT-991A/ SCU-17 USB Driver (Virtual COM Port Driver). Read the manual before continuing. **Be sure to install the drivers before connecting the cable which is a standard USB cable.** This will install two com port drivers. Connect the USB cable between the computer and the radio. Now open the device manager and look at the com ports that are installed. Make note of the enhanced port. This is the port that we will be using to control the radio from the computer.

RT Systems Software

There are two programs with the RT Systems software: FT-991A Programmer and FT-991A Menu Editor. You can use the FT-991A Programmer to setup frequency memories. Frequencies can be downloaded from Repeaterbook.com for free and then uploaded to the radio. These will be mostly UHF/VHF frequencies. **Remember to save the file in case you need to reset your radio.** FT-991A Menu Editor can be used to save your FT-991A radio menus. Setup your menus on the radio and download the menus from the radio and **save the file**. I would also go through the menus and write down the menu number, menu description and the changed menu item. All changed menu items are in white letters.

Digital Software Setup

The next two sections will cover two digital software programs WSJT-X and FLDIGI. There are several other software programs needed to make these programs work efficiently. These programs will be covered in their respective sections.
It is important that you use time syncing software, so your pc time is very accurate. (Covered Below)

WSJT-X Digital Mode Software

Software to Download

Below are the programs I use. Versions can change frequently and should be kept up to date. Some programs can be substituted with other programs.

NetTime 3.14 For time syncing. Download from www.timesynctool.com
WSJT-X 1.8.0-win32 Digital mode software https://physics.princeton.edu/pulsar/k1jt/wsjtx.html
JTAlert 2.10.7 Display state, countries, etc needed http://hamapps.com
HamApps Callsign Database http://hamapps.com
TQSL Amateur 2.3.1 Send Log to LOTW http://www.arrl.org/tqsl-download
Amateur Contact Log v6.1 Log Contacts easy for LOTW www.n3fjp.com/aclog.html
All programs are free with the exception of Amateur Contact Log. You can purchase all of their programs for around $60. Well worth the price. Most local hams use this software and can be networked during contests.

Radio Setup

Press MENU(SETUP) button

28	GPS/232C Select	RS232C
29	232C Rate	38400bps
31	CAT Rate	38400bps
32	CAT TOT	100msec
59	CW Freq Display	Direct Freq
62	Data Mode	Others
64	Other Disp (SSB)	1500Hz
65	Other Shift (SSB)	1500Hz
66	Data Lcut Freq	OFF
68	Data Hcut Freq	OFF
71	Data PTT Select	RTS
72	Data Port Select	USB
74	FM MIC Select	MIC
77	FM Pkt Port Select	USB
106	SSB Mic Select	MIC
115	SCP Display Mode	Water Fall
141	Tuner Select	External (If using External Tuner)

Press F(M-LIST) button

WIDTH – 3000 (This setting doesn't always hold, so check first thing if software waterfall doesn't look right.

Meter – ALC The ALC Meter should read zero when transmitting. Use DT Gain and Multi Knob to adjust

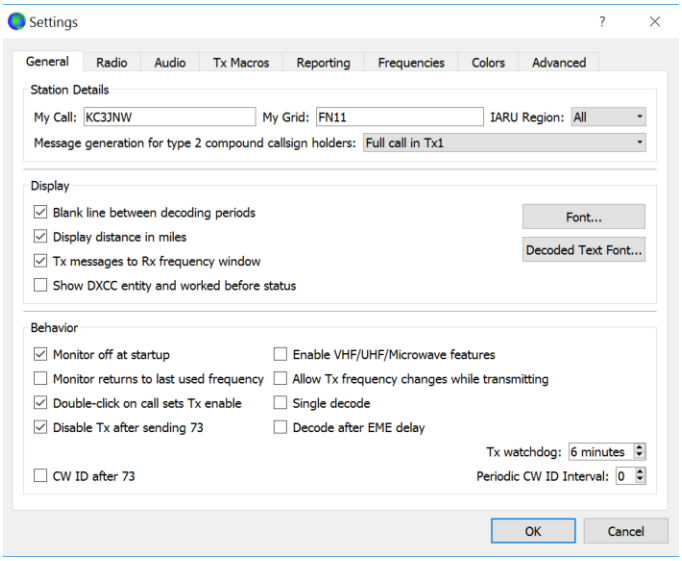
Mode - Always use DATA USB (if you have trouble getting the tones on freq check the mode)

Always check these three things first if you have any problems.

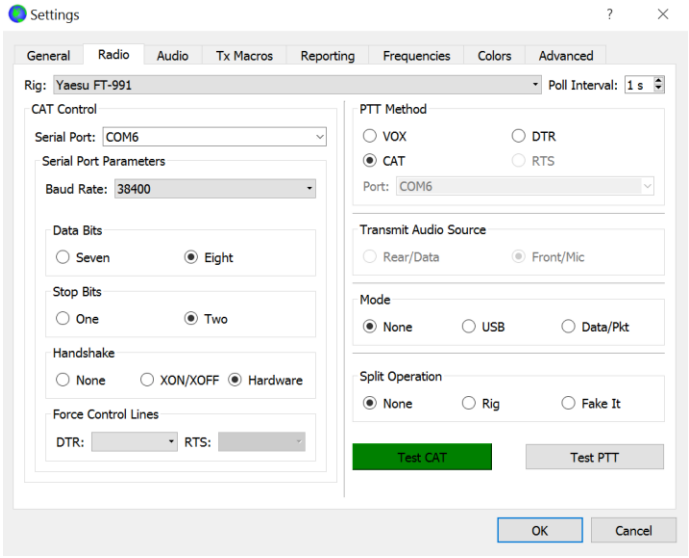
Software Installs

1. **Install NetTime** – This software will keep your PC time accurate. If pc time is off by more than a couple of seconds, you will not be able to make contacts.

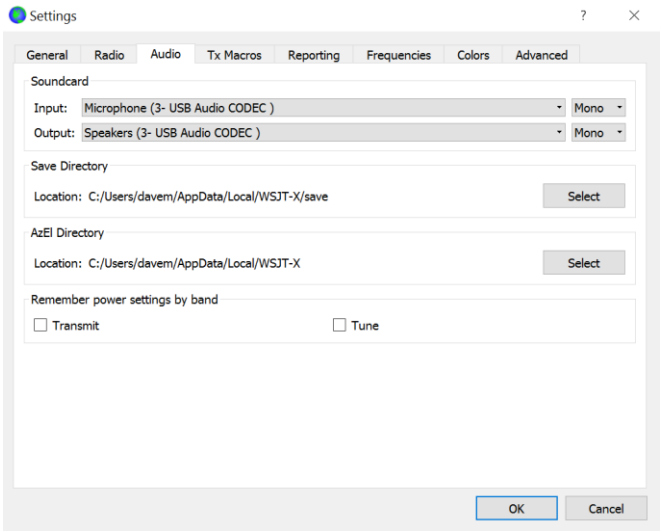
2. **Install WSJT-X** - This is the software where you will make contacts. You should have already installed the USB cable and drivers. Your USB cable should be connected, and radio turned on to setup this software. Below are screen shots for the radio setup. Enter call sign and grid location. Check boxes should look like diagram below.



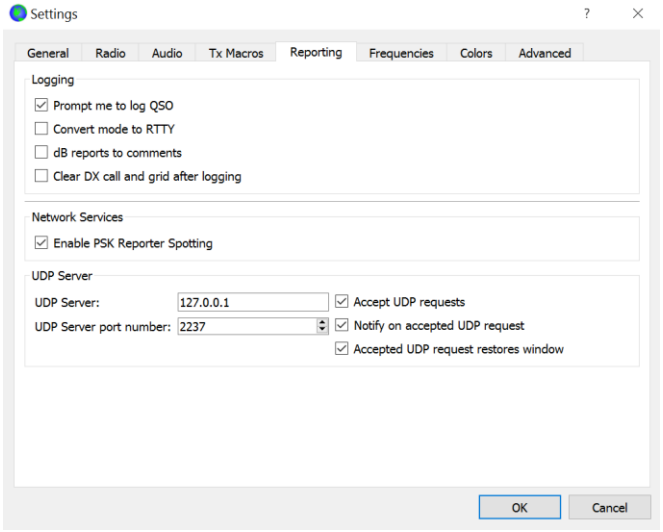
The COM port below should be the enhanced com port from installing the drivers. After the Screen below is setup you can test by pressing the “Test CAT” and “Test PTT”



The Input and Output in the screen below should be the USB Audio CODEC ports.



“Prompt me to log QSO” After you send 73 a screen will prompt you to log the QSO.
“Enable PSK Reporter Spotting” – You can use https://www.pskreporter.info/ to display helpful information about your signal and others on your band.



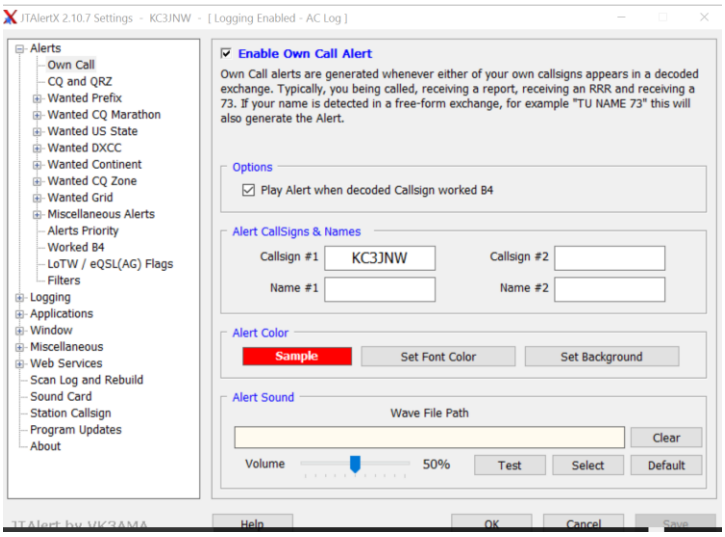
3. **Install Amateur Contact Log** - This is the contact log used by many local hams. It is not free but well worth the money. It can also be networked for contesting or field day.

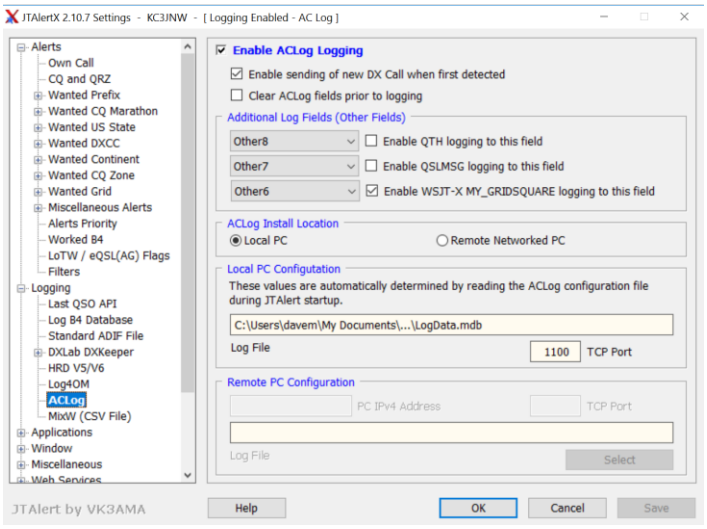
   Go to the Settings Tab and click on Setup then enter the Common Fields information.

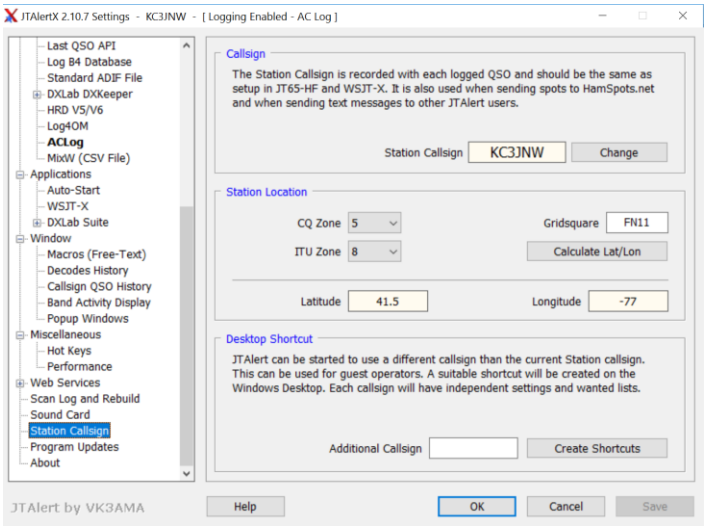
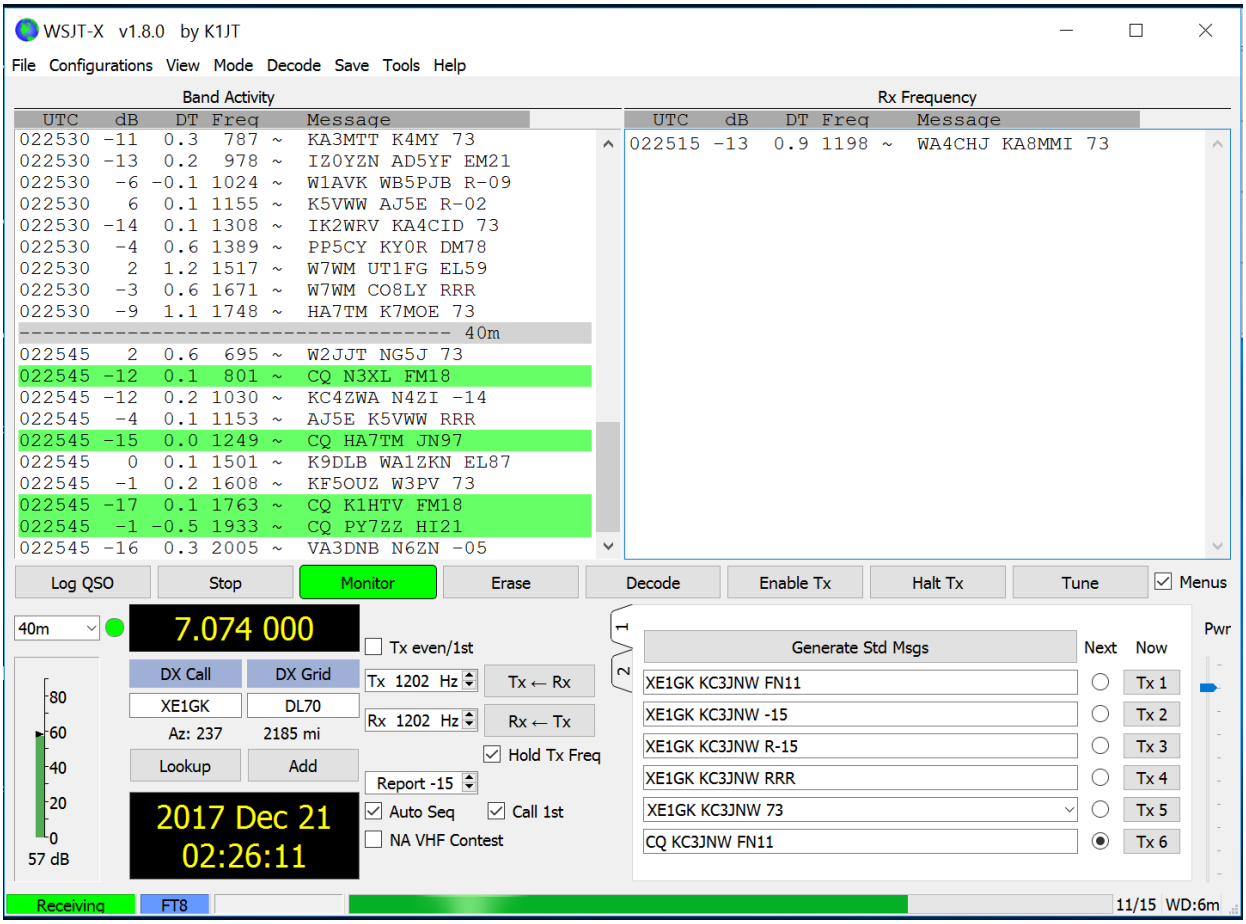
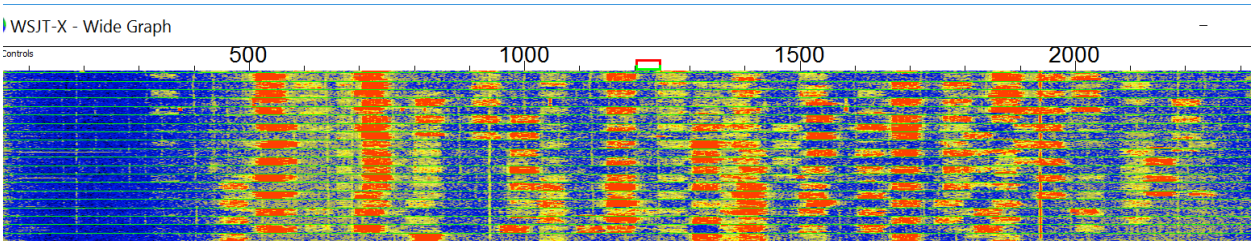
   There are other settings that you will want to change once you start using.

4. Install TQSL – This program makes uploading logs to LOTW very easy. You must create a certificate for LOTW validation. Check out the following link that will walk you through creating the certificate and TQSL setup. https://lotw.arrl.org/lotw-help/

5. Below are screen shots from TQSL. There may be other settings that you will want to change for displaying call signs already contacted as well as how to display states and countries contacted.




JTAlertX 2.10.7 Settings - KC3JNW - [Logging Enabled - AC Log]
Alerts
Own Call
CQ and QRZ
Wanted Prefix
Wanted CQ Marathon
Wanted US State
Wanted DXCC
Wanted Continent
Wanted CQ Zone
Wanted Grid
Miscellaneous Alerts
Alerts Priority
Worked B4
LoTW / eQSL(AG) Flags
Filters
Logging
Last QSO API
Log B4 Database
Standard ADIF File
DXLab DXKeeper
HRD V5/V6
Log4OM
ACLog
MixW (CSV File)
Applications
Window
Miscellaneous
Web Services
Enable ACLog Logging
Enable sending of new DX Call when first detected
Clear ACLog fields prior to logging
Additional Log Fields (Other Fields)
Other8
Enable QTH logging to this field
Other7
Enable QSLMSG logging to this field
Other6
Enable WSJT-X MY_GRIDSQUARE logging to this field
ACLog Install Location
Local PC
Remote Networked PC
Local PC Configutation
These values are automatically determined by reading the ACLog configuration file during JTAlert startup.
C:\Users\davem\My Documents\...\LogData.mdb
Log File
1100
TCP Port
Remote PC Configuration
PC IPv4 Address
TCP Port
Log File
Select
JTAlert by VK3AMA
Help
OK
Cancel
Save


JTAlertX 2.10.7 Settings - KC3JNW - [Logging Enabled - AC Log]
Last QSO API
Log B4 Database
Standard ADIF File
DXLab DXKeeper
HRD V5/V6
Log4OM
ACLog
MixW (CSV File)
Applications
Auto-Start
WSJT-X
DXLab Suite
Window
Macros (Free-Text)
Decodes History
Callsign QSO History
Band Activity Display
Popup Windows
Miscellaneous
Hot Keys
Performance
Web Services
Scan Log and Rebuild
Sound Card
Station Callsign
Program Updates
About
Callsign
The Station Callsign is recorded with each logged QSO and should be the same as setup in JT65-HF and WSJT-X. It is also used when sending spots to HamSpots.net and when sending text messages to other JTAlert users.
Station Callsign
KC3JNW
Change
Station Location
CQ Zone
5
Gridsquare
FN11
ITU Zone
8
Calculate Lat/Lon
Latitude
41.5
Longitude
-77
Desktop Shortcut
JTAlert can be started to use a different callsign than the current Station callsign. This can be used for guest operators. A suitable shortcut will be created on the Windows Desktop. Each callsign will have independent settings and wanted lists.
Additional Callsign
Create Shortcuts
JTAlert by VK3AMA
Help
OK
Cancel
Save

When running, the screens for JTAlert and WSJT-X should look like the screens below. If they don't look like the screens below check the WIDTH and make sure you are running DATA-USB as the mode on the radio. If it looks like it is transmitting but not showing power going to the antenna check the ALC.