

CONTESTING – WHAT YOU NEED TO KNOW

- Bellbrook Amateur Radio
 - Contest Online ScoreBoard
 - Any Mode (CW, SSB, Digital)
 - Configure
 - Contest Software Logging Software
 - N3fJP
 - N1MM+
 - and OnLiNE score reporting on Field Day





SUMMARY INSTRUCTIONS

- Contest Online ScoreBoard
- Contest Logging Software
- Startup WSJT-X
- Install GridTracker
- Startup GridTracker
- Startup N3FJP
- Select configuration options

SCORE REPORTING ON FIELD DAY

- Score reporting can be done real time on field day
- This applies regardless mode
 - CW, SSB or Digital
- The first few slides apply to all modes
- The remainder of the slides focus on WSJT-X





CONTEST ONLINE SCOREBOARD

[Register your call sign](#) (select Bellbrook Amateur Radio Club (there are two on list))
[Link to instructions](#)

← → ↻ 🔒 contestonlinescore.com/profile/?action=register 🔍 ☆ 🗄️ 🌐 ⋮

📱 Apps 🔄 Installing an extensi... 🔄 Electronic Model Sy... 📄 Printable NFL Week... 🌐 tabletop simulator...

Contest Online ScoreBoard 📱 17 Jun 2020 01:48 UTC

Coming: RSGB Hope QSO Party RTTY ▼ Go

Powered by ICOM

Home Login Filter View Clear Filter Breakdown Clubs Manual post Teams Supported contests Help with logger set up

Callsign:

Name:

E-mail:


Password:

CFM Password:

Continent: NORTH AMERICA ▼

Club: Bellbrook Amateur Radio Club ▼

Team: None ▼

I'm not a robot  reCAPTCHA
Privacy - Terms

Register



EXAMPLE CONTEST WITH CLUB TAB SELECTED

Contest Online ScoreBoard x Contest Online Score Board x +

contestonlinescore.com/clubs/

Apps Installing an extensi... Electronic Model Sy... Printable NFL Week... tabletop simulator...

CWops Mini-CWT 3 Club competition

17 Jun 2020 02:01 UTC (Refreshes every 5 min)

	Club name / Call	Score	QSOs	Mult
1	Frankford Radio Club	57,294	507	476
	AA3B	20,520	152	135
	K3WJV	14,042	119	118
	N2NT	13,888	124	112
	KE2D	8,464	92	92
	K3PP	380	20	19
2	CWOPS	35,600	200	178
	N7LU	35,600	200	178
3	Society of Midwest Contesters	29,959	389	373
	WT9U	8,633	97	89
	N7US	7,744	88	88
	KG9X	5,767	79	73
	W9ILY	4,900	70	70
	K7JOE	2,915	55	53
	K9ZO	0	0	0
	WT9Q	0	0	0
4	Deep Dixie Contest Club	21,566	294	278
	W5TM	10,609	103	103
	K4OAQ	5,382	78	69
	AB0TX	4,752	72	66
	WV4P	462	22	21
	K4AFE	361	19	19
5	Saskatchewan Contest Club	19,710	146	135
	VE5MX	19,710	146	135
6	Yankee Clipper Contest Club	13,969	240	231
	W1VE	7,832	89	88
	K1RV	2,544	53	48
	K1TH	2,401	49	49
	N1VH	868	31	28
	K1NY	324	18	18
7	Western Washington DX Club	13,566	119	114
	K7RL	13,566	119	114
8	Florida Contest Group	13,466	228	224
	N4FP	6,237	81	77
	AA4ND	3,889	53	53



SOFTWARE INSTALL

N3FJP Field Day Software:

1. [Link](#) to download software
2. First 30 contacts are free
3. 8.99 for over 30 contacts. Lifetime packages for logging and contest
4. Easy to use and our club use software for contest
5. Supports all modes
6. Limited Contest supported

N1MM Logger+

1. [Link](#) to download software
2. Most used contest software in the world
3. Free
4. Simple to use / setup in its base. Install a little more complex then N3FJP
5. Supports almost every contest in the world
6. also can be extremely powerful and some optional feature are powerful and complex
7. Supports all modes
8. Many Youtube videos on setup and configuration

Logging	AF	AS	EU	NA	OC	SA	Grand Total
N1MM	24	388	1776	1397	121	177	3,883
Win-Test	17	34	382	50	5	13	501
TR4W	2	84	362	14	3	2	467
CTESTWIN (J11AQY)	0	348	1	0	3		352
UcxLog	1	4	320	1	2	0	328
N3FJP	0	1	4	264	3	0	272
5MContest	1	41	165	1	0	3	211
WriteLog	0	13	35	137	5	1	191
QARTest	2	2	180	0	0	3	187
CQWW Adif2CabilloConverter	4	17	106	47	5	3	182
none listed	1	58	87	22	3	1	172
DXLog.net	3	16	113	7	2	4	145
AATest		24	93	1	0	0	118
MixW	1	8	93	2	1	0	105



WSJT-X CONTEST REPORTING N₃FJP

The screenshot displays the WSJT-X software interface with the 'Reporting' settings dialog box open. The dialog box has several sections:

- Logging:**
 - Prompt me to log QSO
 - Log automatically (contesting only)
 - Convert mode to RTTY
 - dB reports to comments
 - Clear DX call and grid after logging
- Network Services:**
 - Enable PSK Reporter Spotting
- UDP Server:**
 - UDP Server: 127.0.0.1
 - UDP Server port number: 2237
 - Accept UDP requests
 - Notify on accepted UDP request
 - Accepted UDP request restores window
- Secondary UDP Server (deprecated):**
 - Enable logged contact ADIF broadcast
 - Server name or IP address: 127.0.0.1
 - Server port number: 2333

The background shows the WSJT-X v2.2.1 interface with a frequency display at the top and a log window at the bottom. The log window shows a contact for W2ADW on 20m.



WSJT-X CONTEST SETUP FIELD DAY, N3FJP OR N1MM+

Field Day Setup:

1. click on settings,
2. click on advance
3. Click special operating activity
4. Click ARRL field Day
5. Enter ARRL/RAC section in FD Exch:” box

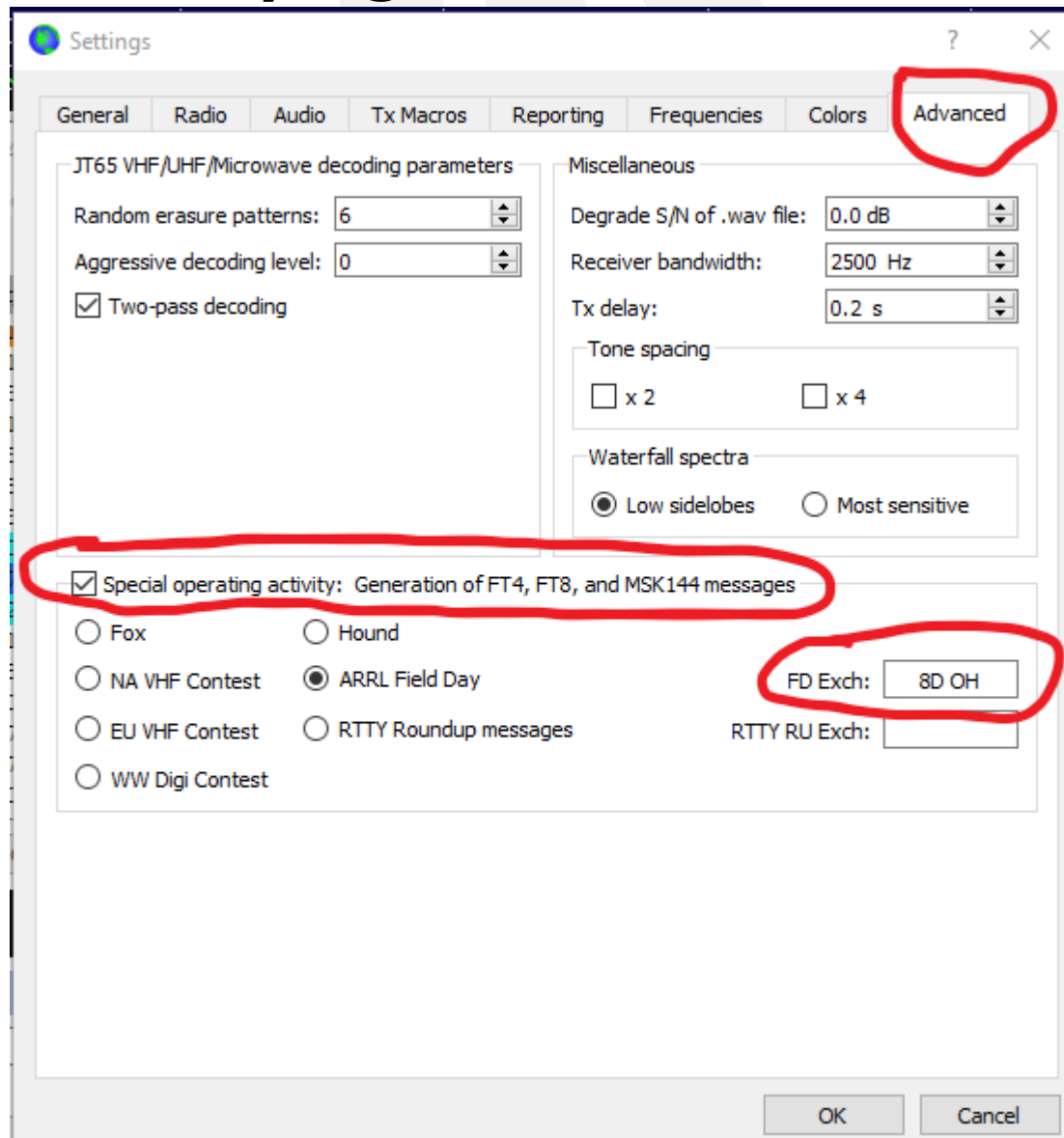
ARRL Field Day QSO exchange sequence example

CQ FD AC8ZU EM79

K1ABC W9XYZ **6A WI**

W9XYZ K1ABC R **8D OH**

K1ABC W9XYZ RR73



N3FJP LINK TO GRIDTRACKER TO ALLOW AUTOMATIC WRITES TO THE LOG FROM WSJT-X (CAN ALSO USE JTALERT)



ent Contacts Last 20 All

N3FJP API 1.5

Server API - Allow any properly coded program to connect

API Server Functionality - Use this section to enable other programs, including other N3FJP Software programs, to connect to this one.

I often receive requests from folks who would like to interface their digital or logging programs with my logging software. To accommodate those requests, I have added easily implemented Application Program Interface (API) functionality, to enable any other program to do just that!

If you have a program that you would like to see interfaced with my software, please contact the developer(s) and refer them to this page:
<http://www.n3fjp.com/help/api.html>

Unless you let the programmer(s) know that you would like to see them

[Please click here for the detailed API specifications.](#)

TCP API Enabled (Server) Port 1100

Server Running = True
 Port = 1100

Client - Only use this to connect to another N3FJP program

API Client Functionality - Use this section to enable this program to connect to another N3FJP Software program (usually Amateur Contact Log) to see if the entity you are working is confirmed.

Before enabling this feature, from the host program's menu options (usually Amateur Contact Log) click Settings > API and check the checkbox to enable the TCP API

Host Port

Enable Entity Confirmation Check via API

Disconnected

Call Sign	Entity 1	Entity 2	Entity 3
79	EN89	EN99	FN09
78	EN88	EN98	FN08
77	EN87	EN97	FN07
76	EN86	EN96	FN06
75	EN85	EN95	FN05
74	EN84	EN94	FN04
73	EN83	EN93	FN03
72	EN82	EN92	FN02
71	EN81	EN91	FN01
70	EN80	EN90	FN00
79	EM89	EM99	FM09
78	EM88	EM98	FM08
77	EM87	EM97	FM07
76	EM86	EM96	FM06
75	EM85	EM95	FM05
74	EM84	EM94	FM04
73	EM83	EM93	FM03

Total Cont
 Total QSO
 Total Multi
 Total Score
 QSOs / Hr
 QSOs / Hr



INSTALL GRID TRACKER AND CLICK ON GEAR

GridTracker ©2020 N0TTL v1.20.0510 [Band: 20m Mode: FT8 Layer: Grids]

GridTracker
14.074.000 Hz (20m) FT8
Sat 13 Jun 2020 16:23:47 UTC

TRANSMIT

PSK-Reporter Band Activity

160 80 60 40 30 20 17 15 12 10 6 4 2

AC8ZU EM79VO
Calling
SA3ANZ JP93 -9
Sweden 4182mi 28°

Calls **171** QSO **2076**
DXCCs **61** QSL **1594**
Decodes **286** Last **2**

Clear Live Clear QSO

QSO/Live View
Band **Auto**
Mode **Auto**

Spots: 82 Refresh: 1m 5s
Max Age: 5m

GridTracker v1.20.0510

Legend QSO QSL
QSQ CC CODX
QRZ QTH WSPR



GRIDTRACKER – CLICK ON F3FJP

The screenshot shows the GridTracker software interface with the 'Logging' tab selected. The interface includes a menu bar at the top with options: General, Lookups, Audio, Map, RX Spots, Logging, Alerts, Call Roster, Messaging, Changes, and About. Below the menu bar is a table of logging services with columns for Source/Sync, Menu?, Startup?, Log?, Details, Test, and Result. A yellow circle highlights the 'N3FJP ACLog' entry in the table.

Source/Sync	Menu?	Startup?	Log?	Details	Test	Result
GridTracker		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	GridTracker QSO Logfile		
Local File(s)	<input type="checkbox"/>	<input type="checkbox"/>				
PSK-Reporter	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		24 Hour History		
QRZ.com	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	API Key <input type="text" value="....."/>	<input type="button" value="Test"/>	
ClubLog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Callsign <input type="text" value="AC8ZU"/> Password <input type="text" value=""/> Email <input type="text" value=""/>	<input type="button" value="Test"/>	
HRDLOG.net			<input type="checkbox"/>	Callsign <input type="text" value=""/> Upload Code <input type="text" value=""/> *** How to get upload code ***	<input type="button" value="Test"/>	
Cloudlog			<input type="checkbox"/>	URL <input type="text" value="http://127.0.0.1/index.php/api/qso"/> API Key <input type="text" value=""/>	<input type="button" value="Test"/>	
eQSL.cc			<input type="checkbox"/>	User <input type="text" value=""/> Password <input type="text" value=""/> QTH Nickname <input type="checkbox"/>	<input type="button" value="Test"/>	
LotW	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Login <input type="text" value=""/> Password <input type="text" value=""/>	<input type="button" value="Test Download"/>	
N1MM Logger+			<input type="checkbox"/>	IP <input type="text" value="127.0.0.1"/> Port <input type="text" value="2333"/>		
Log4OM			<input type="checkbox"/>	IP <input type="text" value="127.0.0.1"/> Port <input type="text" value="2236"/>		
N3FJP ACLog			<input checked="" type="checkbox"/>	IP <input type="text" value="127.0.0.1"/> Port <input type="text" value="1100"/>		
DXKeeper			<input type="checkbox"/>	IP <input type="text" value="127.0.0.1"/> Port <input type="text" value="52000"/>		
HRD Logbook			<input type="checkbox"/>	IP <input type="text" value="127.0.0.1"/> Port <input type="text" value="7826"/>		

N1MM+ ALLOW AUTOMATIC WRITES TO THE CONTEST LOG FROM WSJT-X DIRECTLY (ALSO CAN AUTO UPDATE HRD AT LOG AT SAME TIME)



WSJT-X Decode List

Time	Call	SNR	Freq	Msg
22:12:30	HP1KZ	1	1494	CQ HP1KZ FJ08
22:12:30	CO7IG	-13	2006	CQ CO7IG FL01
22:12:30	W6WWD	-2	689	CQ W6WWD DM03
22:12:30	N4NF	-14	618	CQ N4NF EL96
22:12:30	WJ5L	-6	1308	CQ WJ5L DM61
22:12:45	CT1FAW	-20	2369	CQ CT1FAW IM58
22:12:45	VA7DBJ	-18	1855	CQ VA7DBJ CN89
22:13:15	VE7SA	-6	2628	CQ EU VE7SA CN79
22:13:15	LU4FW	-17	942	CQ LU4FW FF96
22:13:45	KK7X	6	553	CQ KK7X DN17
22:13:45	HP1RY	-3	1694	CQ HP1RY FJ09
22:13:45	N5XZ	-10	1209	CQ N5XZ EL29
22:13:45	KJ7IAZ	-3	1769	CQ KJ7IAZ DN55
22:13:45	KB5WCK	-4	746	CQ KB5WCK EM12
22:13:45	W8DCF	-10	491	CQ W8DCF EM79
22:13:45	KN4ZGM	-17	399	CQ KN4ZGM EL97
22:13:45	XE2OCM	-11	1411	CQ XE2OCM DL95
22:13:45	R2AL	-8	1751	CQ R2AL KO85
22:13:45	AA4CB	-13	447	CQ AA4CB EL98
22:13:45	AC1MX	-19	1428	CQ AC1MX FN34
22:13:45	W9JA	-18	1121	CQ W9JA EN43

Score - 12 Points

Band	Mode	QSOs	Pts	Pt/Q
14	FT8	3	6	2.0
Total	Both	3	6	2.0

Score: 12
1 Mult = 1.0 Q's

WSJT-X v2.2.1

UTC	dB	DI	Freq	Message
221345	-10	0.7	491	CQ W8DCF EM79 U.S.A.
221345	1	0.1	948	WQ6L KO5T EM12
221345	-18	0.1	2459	EB7DX N4PHH EM60
221345	-15	0.1	2221	KP4JRS I21AEL JN45
221345	-14	0.5	1629	KC7HEX NSMHI R-19
221345	-17	-0.5	399	CQ KN4ZGM EL97 U.S.A.
221345	-3	0.3	830	MI7RFG VE7FSB CN79
221345	-11	0.3	1411	CQ XE2OCM DL95 Mexico
221345	-9	0.2	2016	VK1UT LU7IAC -12
221345	-12	0.1	1816	N7GRB W5MZX EM50
221345	-8	0.4	1751	CQ R2AL KO85 EU Russia
221345	-13	0.2	447	CQ AA4CB EL98 U.S.A.
221345	-5	-0.3	839	W4KEF LU3DLY GF14
221345	-11	0.1	2159	WQ6L N7LX DN51
221345	-13	0.1	1383	HP1KZ K6EV DM14
221345	-13	0.5	1979	HP1FWH W7PC CM97
221345	-10	0.2	587	G7KHV 8P5RE -10
221345	-19	0.1	1428	CQ AC1MX FN34 U.S.A.
221345	-14	0.3	340	W6WWD WP4QYE FK68
221345	-18	0.1	1121	CQ W9JA EN43 U.S.A.

21000.00 MIXED+DIG Manual - VFO A

Class: R2AL

UA: EU/EUROPEAN RUSSIA, Zn 16

6/22/2020 22:14:22Z ARRL Field Day (June) - ham_2020-06-18.s3db

MM-DD HH:MM	Call	Freq	M... E... Sect	Pts
06-22 20:19	K5IKB	1407...	FT8 -07	2
06-22 20:25	N1GUV	1407...	FT8 -02	2
06-22 20:39	N2EIM	1407...	FT8 -10	2

14.074 000

2020 Jun 22 22:14:23

63 dB

Generate Std Msgs

Next	Now
R2AL AC8ZU EM79	Tx 1
R2AL AC8ZU -09	Tx 2
R2AL AC8ZU R-09	Tx 3
R2AL AC8ZU RR73	Tx 4
R2AL AC8ZU 73	Tx 5
CQ AC8ZU EM79	Tx 6

N1MM+ CONTEST SETUP (SELECT FD AS SUPPORT TYPE)



ham_2020-06-18.s3db

New log For: ARRL Field Day (June)

Log Type

Start Date

Use Up/Down cursor keys to see long description above.

Total number of contacts in database 8

Contest

Category

Operator State for Log Type QSOPARTY

Band Note - the program does not validate categories. Check the contest rules for valid categories.

Power

Mode

Overlay

Station

Assisted Time Category

Transmitter

Sent Exchange Omit RST. E.g. CQWW: 05 SS: A 56 EMA

Operators

Soapbox

N1MM+ CONTEST SETUP (CHANGES THAT APPLY TO ME)



ham 2020-05-04.s3db

Select Existing Log

Contest	Start Date	Contest Description
FD	2020-06-06 18:00:00	ARRL Field Day (June)
RSGBHQPF4	2020-06-06 00:00:00	RSGB Hope QSO Party FT4
RSGBHQPF4	2020-06-06 00:00:00	RSGB Hope QSO Party FT4
COVID_19	2020-06-06 00:00:00	Covid-19 StayHome Event June 2020
RSGBHQPF4	2020-05-09 00:00:00	RSGB Hope QSO Party FT4

Total number of contacts in database 29

Contest Associated Files

Category 0 Contacts

Operator SINGLE-OP

Band ALL

Power LOW

Mode SSB+CW+DIGITAL

Overlay N/A

Station FIXED

Assisted ASSISTED

Transmitter UNLIMITED

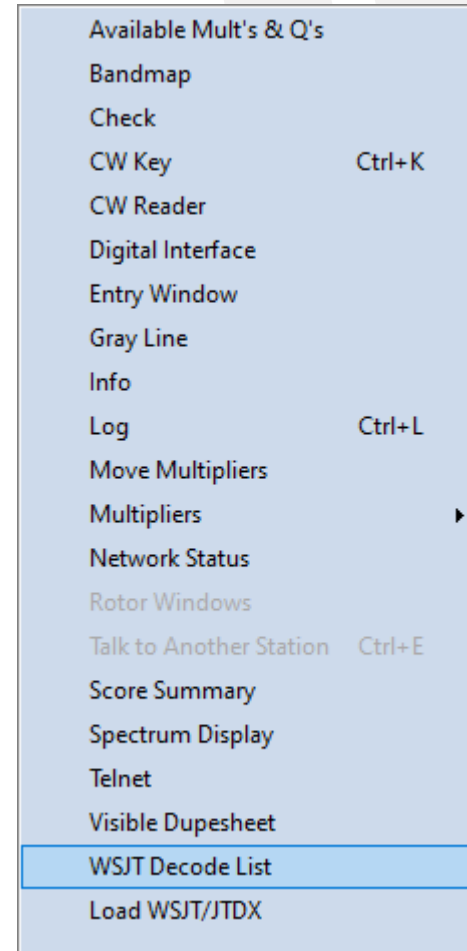
Sent Exchange 8D OH

Operators AC8ZU

Soapbox

N1MM+WSJT-X DECODE WINDOW

- Start WSJT-x 1st
- Then start N1MM+
- Open Decode Window
- Click on call sign will automatically start a QSO on the appropriate frequency

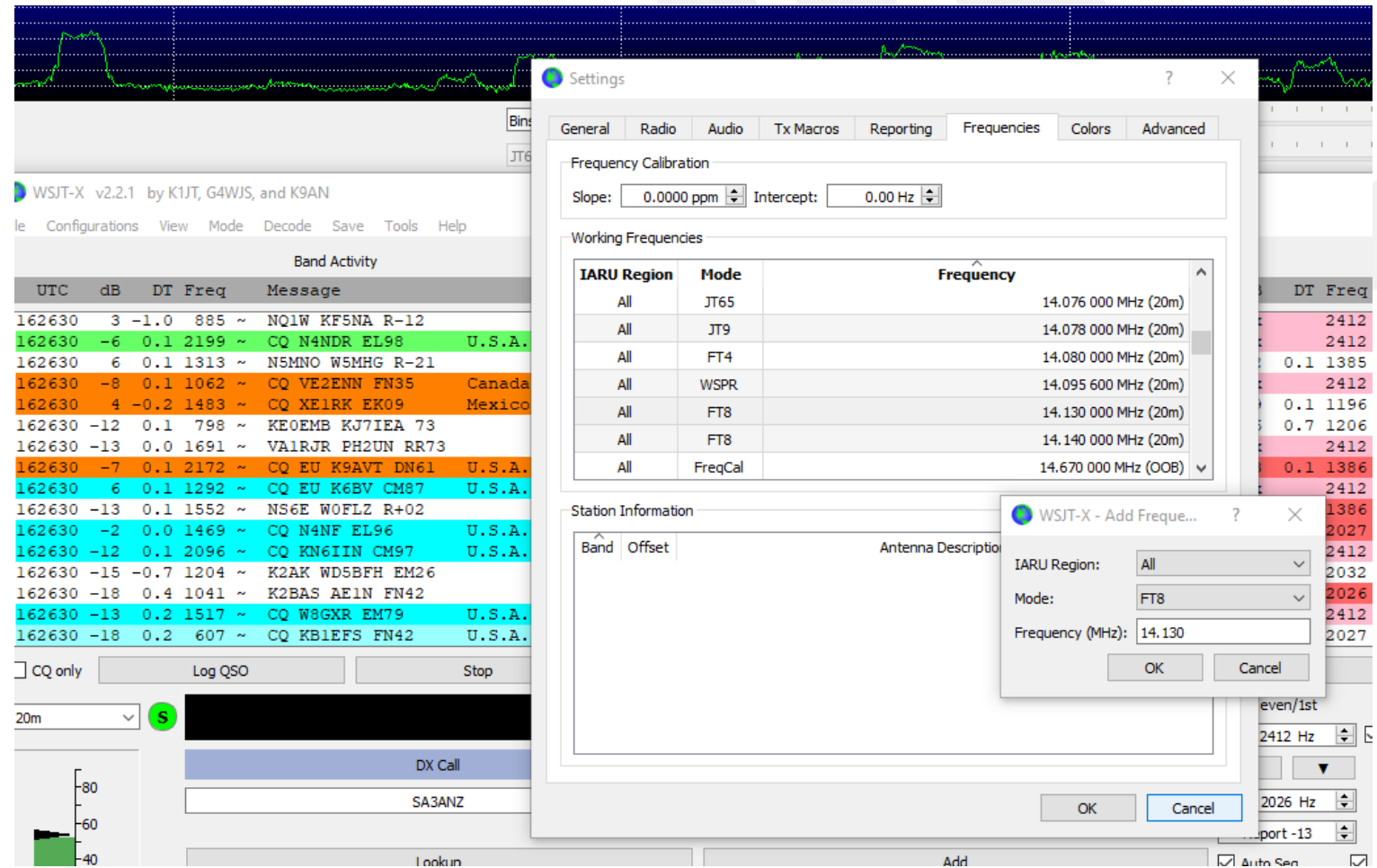


A screenshot of the 'WSJT-X Decode List 1' window. The window has a title bar with a close button and a 'Max Lines' button. Below the title bar is a table with the following columns: Time, Call, SNR, Freq, and Msg. The table contains 15 rows of decoded messages, with the first 15 rows highlighted in green. The messages are as follows:

Time	Call	SNR	Freq	Msg
18:00:00	WB9VGJ	-14	2002	CQ WB9VGJ DM34
18:00:15	XE2N	-8	650	CQ XE2N DL95
18:00:15	K0MC	-14	1798	CQ K0MC DM89
18:00:30	KA5KEH	-2	1010	CQ KA5KEH EM12
18:00:30	W1WWB	1	1301	CQ W1WWB EM95
18:00:30	KB1VX	-3	1053	CQ KB1VX FN43
18:00:30	KM4LFT	10	361	CQ KM4LFT EM83
18:00:30	N6ZT	8	932	CQ N6ZT DM04
18:00:30	AB1WG	-9	426	CQ AB1WG FN34
18:00:30	PY2YW	-15	2070	CQ PY2YW GG66
18:00:30	N8BV	-9	1580	CQ N8BV EM79
18:00:30	KA2DUT	3	938	CQ KA2DUT FN30
18:00:45	K9RJO	14	1012	CQ K9RJO EN52
18:00:45	AE2Z	-7	589	CQ AE2Z FN33
18:00:45	WS6Y	-12	1494	CQ WS6Y DM35
18:00:45	W1SD	-14	1433	CQ W1SD FN42

WSJT-X ADDING CONTEST FREQUENCIES

1. Click on settings
2. Click on frequencies tab
3. Right click on any frequency line and enter the frequency information to add
4. Suggested frequencies for FT4 mode are: 3.580-3.590, 7.080-7.090, 14.080-14.090, 21.080-21.090 and 28.080-28.090 MHz
5. Set the WSJT-X dial frequency to a multiple of 2 kHz, for example, 14.082, 14084 MHz
6. Same concept for FT8. More important for FT4 since the signal is wider and it will be very busy



The screenshot shows the WSJT-X v2.2.1 interface. The 'Settings' dialog box is open, with the 'Frequencies' tab selected. The 'Working Frequencies' table is visible, showing various modes and frequencies. A 'WSJT-X - Add Freque...' dialog is open, allowing the user to add a new frequency.

IARU Region	Mode	Frequency
All	JT65	14.076 000 MHz (20m)
All	JT9	14.078 000 MHz (20m)
All	FT4	14.080 000 MHz (20m)
All	WSPR	14.095 600 MHz (20m)
All	FT8	14.130 000 MHz (20m)
All	FT8	14.140 000 MHz (20m)
All	FreqCal	14.670 000 MHz (OOB)

The 'Add Freque...' dialog shows the following fields:

- IARU Region: All
- Mode: FT8
- Frequency (MHz): 14.130



APPENDIX

ADDITIONAL WSJT-X INFO



WSJT-X TIPS

- Make sure compute clock is within a second of the atomic clock (very easy to check)

- <https://time.is/>

The screenshot shows the TIME.IS website interface. At the top, it says 'Your time is exact!' followed by a note: 'The difference from Time.is was +0.076 seconds (±0.106 seconds)'. Below this, it states 'Time in Dayton, Ohio, United States now:'. The main time display is '02:14:51 pm'. Below the time, it shows the date 'Wednesday, June 24, 2020' and the sun status 'Sun: + 06:10AM + 09:09PM (14h 59m) More info'. At the bottom, there is a row of buttons for different cities: New York (02:14pm), London (07:14pm), Paris (08:14pm), Moscow (09:14pm), Beijing (02:14am), and Tokyo (03:14am).

- [Link to FT8 Guide \(maybe a little out of date\)](#)
- **Have Fun**, try FT4 , WSTX-x allows any station to compete and make DX contacts

WSJT-X THIS ALLOWS CLICKING ON CALLSIGN TO AUTO TRANSMIT



Settings

General Radio Audio Tx Macros Reporting Frequencies Colors Advanced

Station Details

My Call: AC8ZU My Grid: EM79VO AutoGrid IARU Region: All

Message generation for type 2 compound callsign holders: Full call in Tx3

Display

Start new period decodes at top

Blank line between decoding periods

Display distance in miles

Tx messages to Rx frequency window

Show DXCC, grid, and worked-before status Show principal prefix instead of country name

Behavior

Monitor off at startup Enable VHF/UHF/Microwave features

Monitor returns to last used frequency Allow Tx frequency changes while transmitting

Double-click on call sets Tx enable Single decode

Disable Tx after sending 73 Decode after EME delay

Calling CQ forces Call 1st

Alternate F1-F6 bindings Tx watchdog: 9 minutes

CW ID after 73 Periodic CW ID Interval: 0

OK Cancel

UTC	dB	DT	Freq	Message
164630	6	-0.2	2145	~ GOKJP K6BV 73
164630	-14	0.1	565	~ KF7YEL KN6FDB R-07
164630	-16	0.1	1200	~ KE3OG UA1ANR -18
164630	-13	-1.8	1143	~ WBOMH KJ6YFY R+06
164630	-17	0.1	777	~ JH1HRJ MW0CSO RR73
164630	-8	0.2	1273	~ CQ DL8LAS JO54 German
164630	-3	0.2	2124	~ EA9ACF KM4LRH EM50
164630	-9	0.1	2519	~ KG5ZEL NC7L -10
164630	-10	0.1	892	~ OM3DX KK6US CM97
164630	-15	0.5	441	~ WQ6L IK4LZH JN54
164630	-12	0.1	2172	~ CQ EU K9AVT DN61 U.S.A.
164630	-15	0.1	1620	~ NS6E ON3CQ -05
164630	-14	0.2	1452	~ W7TRA WW8L -07
164630	-16	0.1	327	~ CQ S50XX JN65 Sloven
164630	-13	0.1	1410	~ KD6GRD PH2UN RR73
164630	-18	0.1	1048	~ <4A60I> KN4YYY EL88

WSJT-X – FIND A CLEAR FREQUENCY TO TRANSMIT ON AND CLICK HOLD FREQUENCY



Band Activity

UTC	dB	DT	Freq	Message
203645	-4	0.1	442	HA1RB KBOKFH EM17
203645	16	0.1	2167	OK3RM KSCKR R-14
203645	-7	-1.0	1499	K8SQB K6IAN RR73
203645	-16	0.2	924	CQ IZ8VYU JN71 Italy
203645	-6	0.0	2402	R1TZ YVSDRN -15
203645	6	0.2	2300	VE3FRN KGSRJ 73
203645	-14	0.1	2388	CQ WA7EYP DM43 U.S.A.
203645	-14	0.1	2146	NP4JF WASIWB 73

Rx Frequency

UTC	dB	DT	Freq	Message
203530	-15	0.1	2017	IK7XLU WA2HIP -14
203530	-8	0.3	1721	UR3QFL G4UJS IO83
203545	-17	0.2	924	CQ IZ8VYU JN71 Italy
203601	Tx		2245	IZ8VYU AC8ZU EM79
203615	-18	0.2	924	9A2KS IZ8VYU JN71
203615	-18	0.1	1142	CQ PH2UN JO21 Netherlands
203645	-16	0.1	1143	PY2SAO PH2UN -15
203700	Tx		2245	PH2UN AC8ZU EM79

Transmit Controls

14.074 500

PH2UN JO21

2020 Jun 16 20:37:01

Hold Tx Freq