

## The additional features of wsjt-x\_improved

Wsjt-x\_improved is an extended version of WSJT-X. I want to stay as close as possible to the original WSJT-X with my 'improved' variants. Therefore you will find all basic WSJT-X functions unchanged. Both programs are compatible with each other, which makes the switch very easy. The program settings are automatically applied, and also the change back to the original WSJT-X works. The following screen shot gives you a first overview of the additional features:

The screenshot displays the WSJT-X software interface. At the top, a waterfall plot shows frequency activity from 500 to 3500 Hz. Below it, a decode list table is visible, with a 'Decode' menu open showing options like 'Fast', 'Normal', 'Deep', and 'Enable AP'. A red box highlights the 'Deep' option, with an annotation: "toggle False Decode Reduction On/Off". Another red box highlights the 'H' buttons in the control panel, with an annotation: "additional buttons for Hound mode ('H'), and for the frequently used modes (very useful when Menus are disabled)". A third red box highlights the 'Band Hopping' panel, with an annotation: "an additional tab 3 contains the Band Hopping feature. If you have a multiband antenna, you can use this to scan over the bands (and let you be alerted for any wanted DXCC, grid, zone, etc.). Very useful also together with PSK Reporter to get a quick overview on the current propagation. Band Hopping occurs every other full minute." The interface also shows a frequency display of 14,074,000 Hz and various other controls like 'Monitor', 'Enable Tx', and 'Band Hopping'.

Note: After the great success of the mode buttons, we have now also implemented them in the original WSJT-X (as of v2.6.0 GA).

### Three different GUIs

Wsjt-x\_improved is always available with three different GUIs: One has WSJT-X's standard GUI (= this is the default download), then there is a more compact GUI (= alternative layout, "AL"), and another one is optimized for widescreens. The latter two provide a larger Band Activity window, so that you don't need to scroll that often. Just try them and see which you like best.

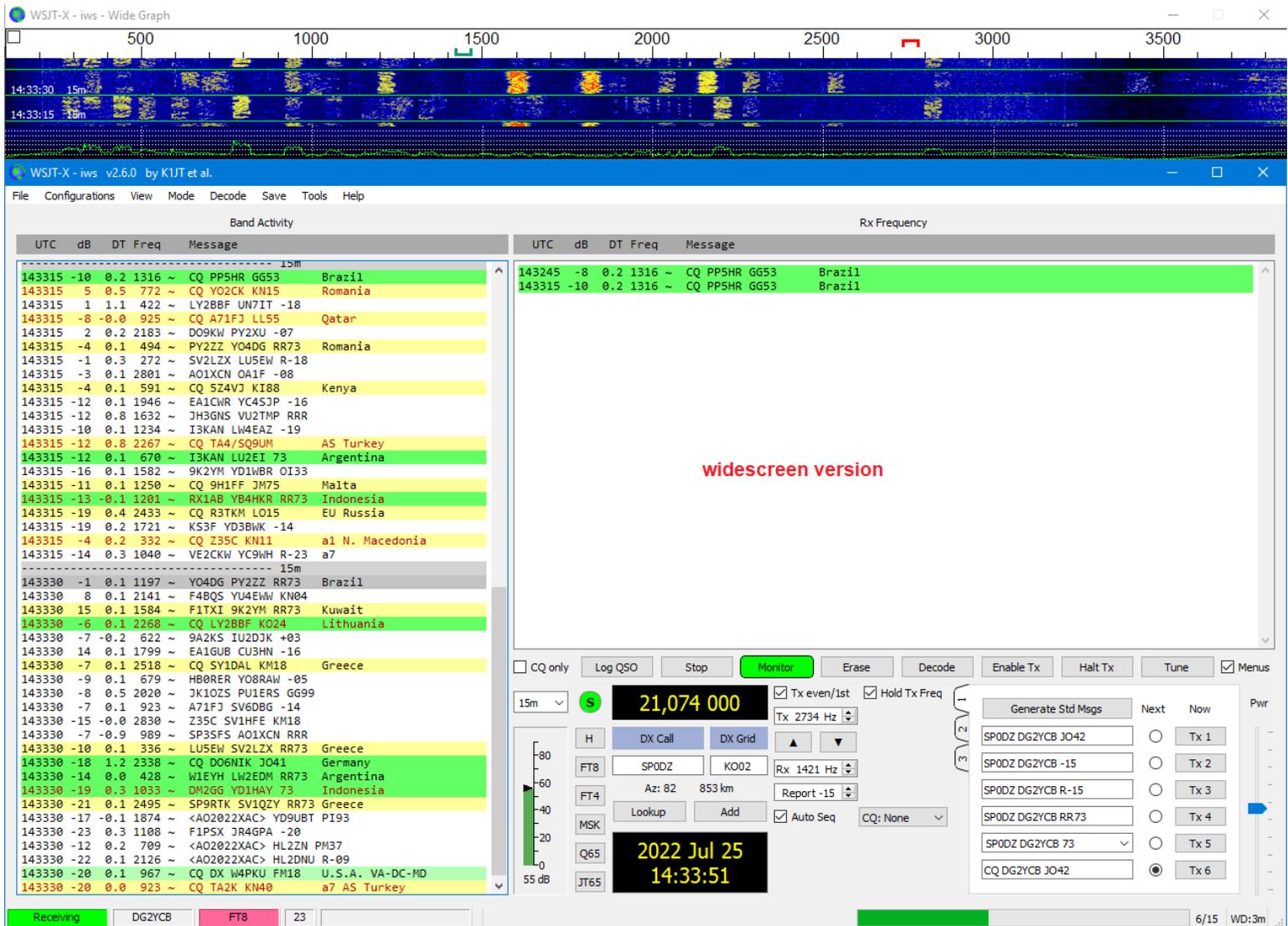
For technical reasons, each version has its own installer.

Screen shot of the version with the **alternative layout (AL)**:

The screenshot displays the WSJT-X v2.6.1 by K1JT et al. software interface in the alternative layout (AL). The interface is divided into several sections:

- Wide Graph:** A spectral display at the top showing frequency from 500 to 3500 kHz. A vertical green line is positioned at approximately 1500 kHz.
- Band Activity:** A table on the left showing received signals. The columns are UTC, dB, DT, Freq, and Message. The messages include call signs and locations, such as "CQ DX S04NR J093 Poland" and "CQ S08AA KN19 Poland".
- Rx Frequency:** A window on the right showing the current reception frequency (3154 Hz) and various controls. It includes buttons for "DX Call", "DX Grid", "Enable Tx", "Halt Tx", and "Tune". A list of active bands is shown, with checkboxes for 160m, 80m, 60m, 40m, 30m, 20m, 17m, 15m, 12m, 10m, 6m, 4m, 3m, 2m, 1.8m, 1.6m, 1.4m, 1.2m, 1.0m, 0.9m, 0.8m, 0.7m, 0.6m, 0.5m, 0.4m, 0.3m, 0.2m, 0.1m, and 0.05m.
- Status Bar:** At the bottom, it shows "Receiving", "DG2YCB", "FT8", "23", and "2/15 WD:5m".

Screen shot of the **widescreen version**:



Try out which GUI layout you like best.

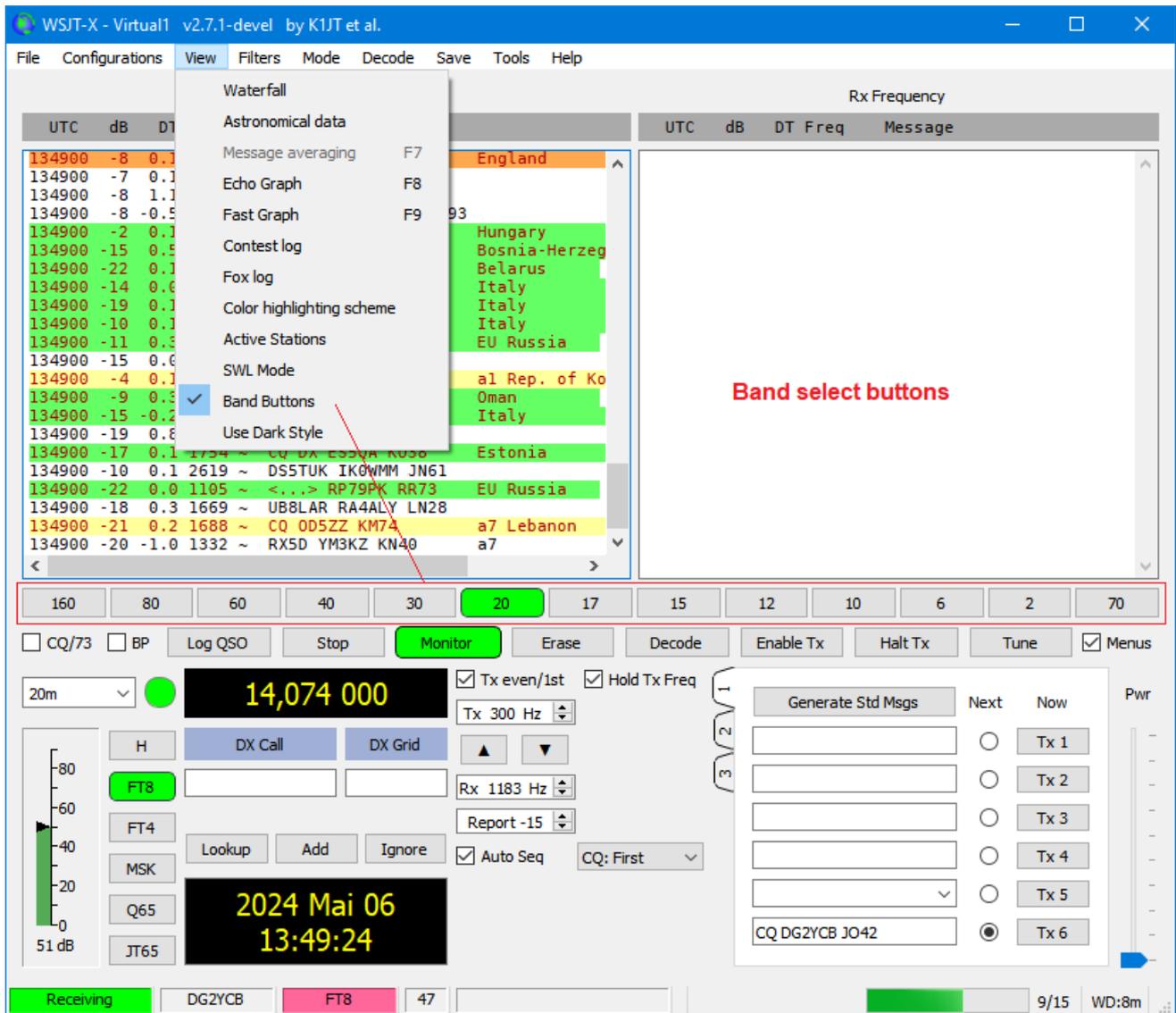
You can also install several program versions side by side by installing them in separate directories (e.g. "c:\WSJT\wsjtx\_improved", "c:\WSJT\wsjtx\_improved\_AL", "c:\WSJT\wsjtx\_improved\_widescreen"), and by creating starter hyperlinks on your desktop for the "wsjtx.exe" files located in the respective \bin subfolders. Then you can start them as required and make a good comparison.

Your WSJT-X.ini file with your settings will be recognized and used automatically.

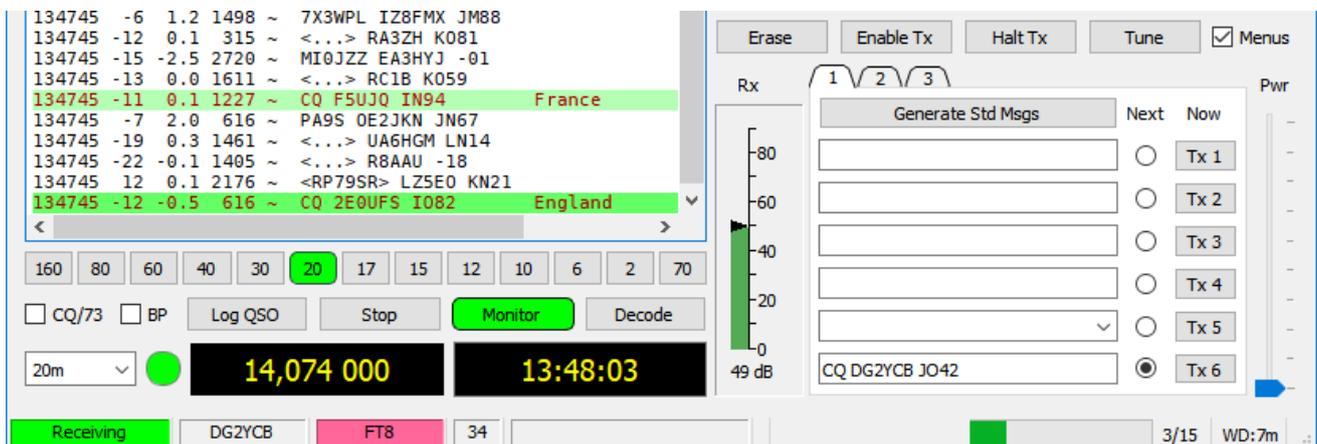
If you want to run several program instances at the same time, this is also possible. This is described in the WSJT-X User Guide. Just in brief: For this, you have to start "wsjtx.exe" with the additional parameter "--rig-name=NAME\_XYZ". The program then creates individual .ini files for each instance so that they can be operated independently of each other.

## Optional band buttons

Optional band select buttons can be switched on or off in the View menu (as of version 2.7.1). A click on one of the band select buttons takes you to your preferred band/mode default frequency, and a right-click sets the main DXpedition frequencies.

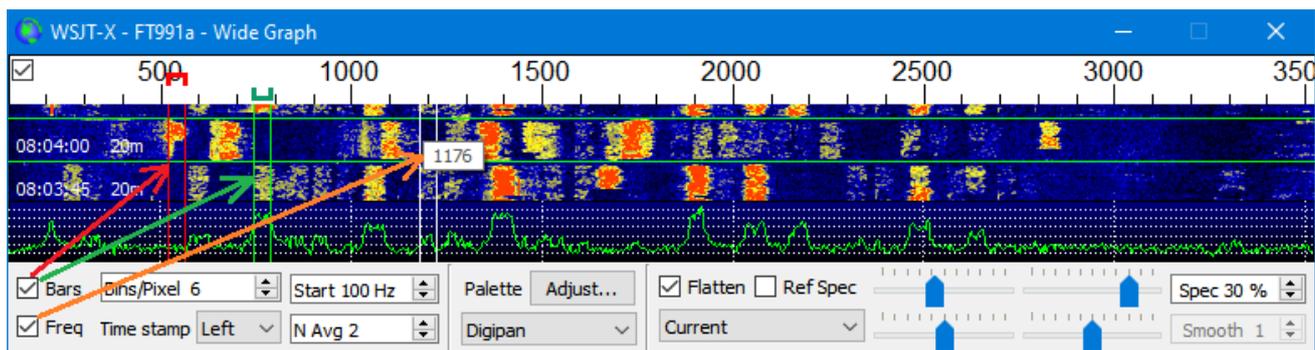


Band select buttons are available for all 3 GUI layouts. This is how it looks with the AL version:



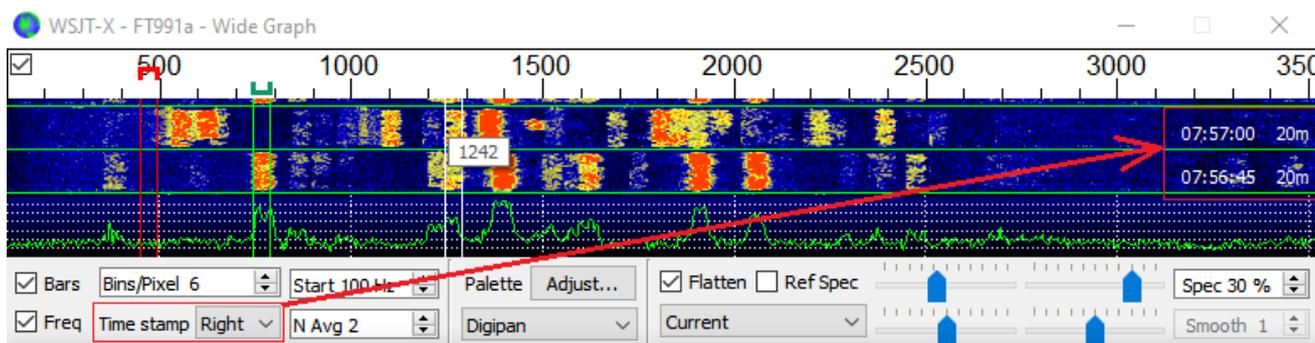
## Enhanced features for the Wide Graph window

### 1. Optional display of bars for Rx and Tx frequency on the waterfall (like JTDX)



### 2. Additional options for the Time stamp on the waterfall: Off / Left / Right

You can choose to show the timestamp on the waterfall on the left or right, or turn it off.



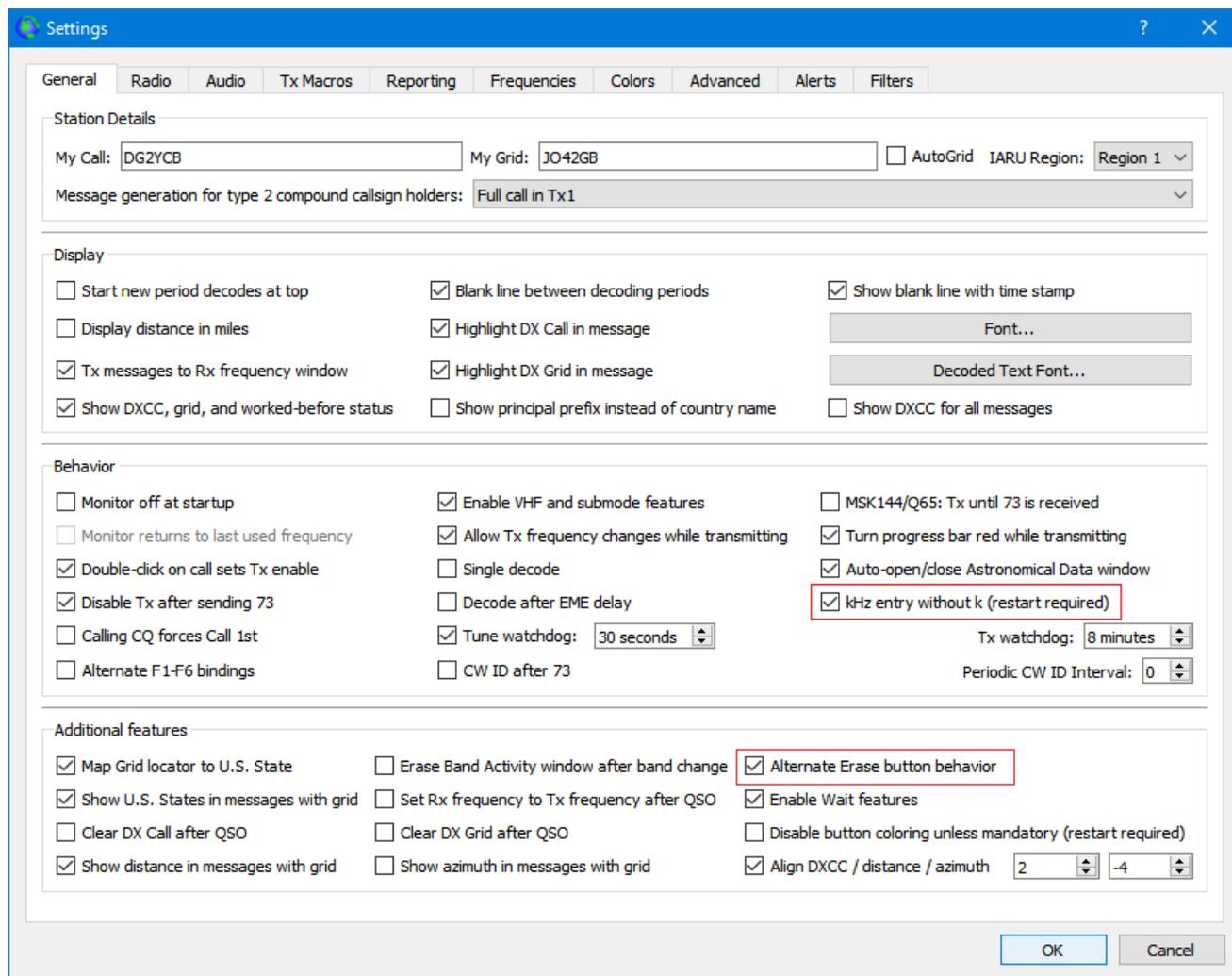
### 3. Improved behavior of the mouse buttons when clicking on the waterfall display

- Left-click --> set Rx offset (unchanged)
- Right-click --> set Tx offset (NEW, behaves now like with JTDX)
- Double-click on right mouse button --> set Rx & Tx offset (Rx = Tx), (NEW feature)
- Shift + left-click --> set Tx offset (unchanged)
- Ctrl + left-click --> set Rx & Tx offset (unchanged)

## Alternate Erase button behavior

When activated, the Erase button behaves like with JTDX:

- Left-click --> Erase the Band Activity window
- Right-click --> Erase the Rx Frequency window
- Double-click on left mouse button --> Erase both windows (unchanged)



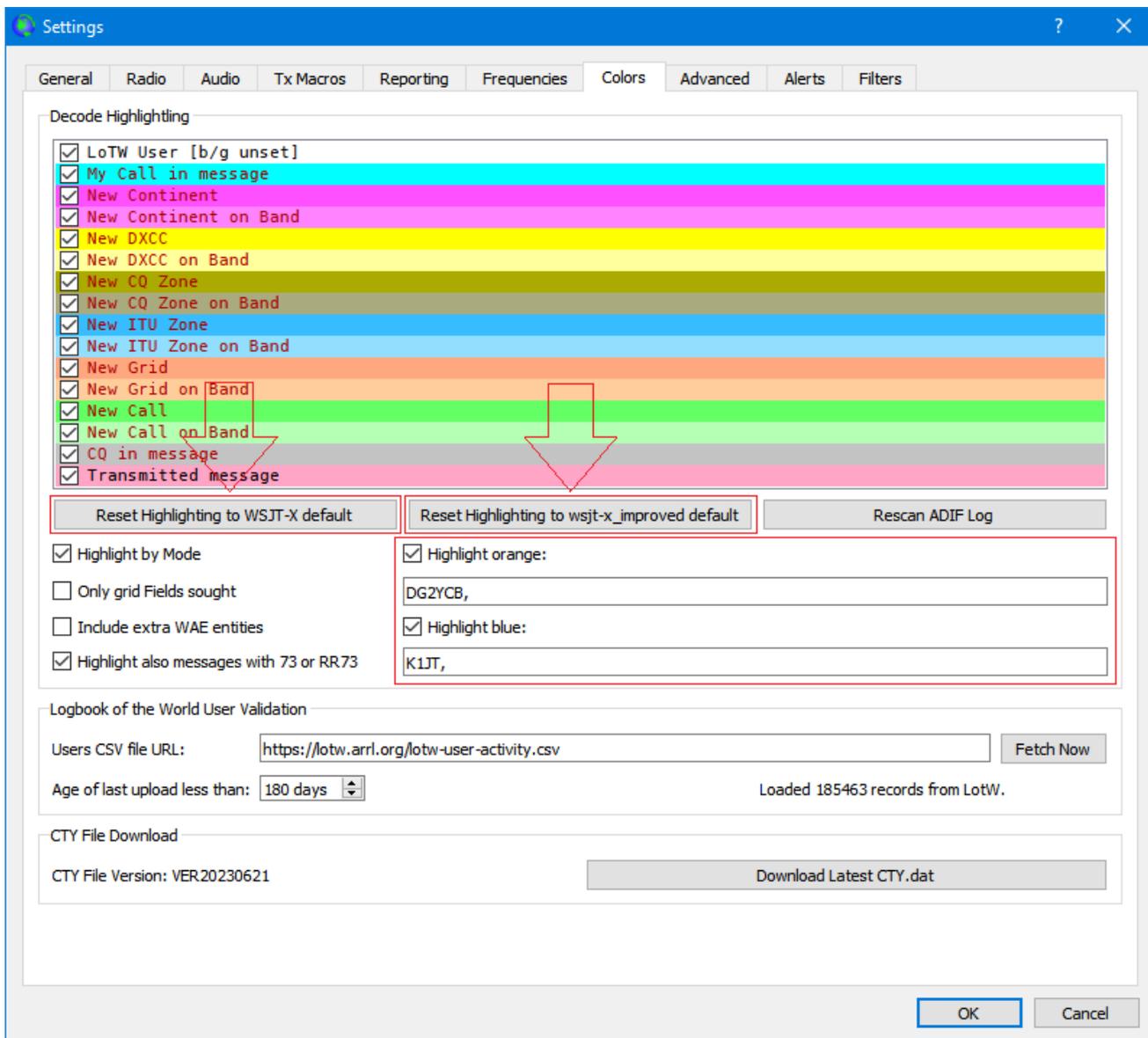
## kHz entry without k

Especially with EME, where you normally use a bandwidth of significantly more than 5 kHz, you often have to change the frequency to other, nearby band segments. You can do this by entering "164k" and pressing return, for example. This then changes the frequency from 438.065 MHz to 438.164 MHz, for example.

When the "kHz entry without k" checkbox is activated, you only need to enter the digits (e.g. on the numeric keypad of the keyboard) and can press the Enter key right there. A small but very useful improvement!

## Advanced highlighting options

I myself use an alternative color scheme, which is easier on the eyes and which is more suitable for the dark style due to its more pastel-like colors. As of v2.7.0-rc2, every user can now easily switch between the original WSJT-X color scheme and this "wsjt-x\_improved" default. With the "wsjt-x\_improved" default scheme, stations uploading their logbook to LotW will have black foreground color, others red. Stations worked B4 are displayed with gray background.



And of course, as before, everyone can customize the color scheme according to their own preferences.

It is now also possible to highlight individual callsigns or grids according to your specifications. Callsigns and/or grids can be highlighted with orange or blue background color. Callsigns/grids must be separated by commas and can be mixed (e.g. "K1JT, DG2YCB, JO33, JN58,"). Important: There must be a comma behind each callsign (i.e. also at the end of the line).

## Wait features

The "Wait Features" are nice little assistance functions to help finish a QSO more intelligently than calling all the time when the other station does not answer, or disappears temporarily due to QSB.

### 1. Wait and Reply

As long as you have the other station's callsign in the DX Call box, Wait and Reply will attempt to continue your QSO when the station finally answers your call. This also ensures that a second RR73 is sent when the other station could not copy your first. Wait and Reply is automatically enabled for modes where Auto Seq is available.

**Wait & Reply:**

- is always enabled (unless deactivated)
- gives a reply to the station in the DX Call box when you receive a message from this station
- does NOT enable Tx otherwise

The screenshot shows the WSJT-X interface with the following details:

- Band Activity and Rx Frequency tables are empty.
- Frequency: 144,174 000
- Mode: FT8
- DX Call: K1JT
- DX Grid: [Empty]
- Report: -15
- Auto Seq: [Checked]
- Q65: 2023 Feb 01 08:46:51
- Generate Std Msgs table:

Generate Std Msgs	Next	Now	Pwr
K1JT TE0ST JO42	<input type="radio"/>	Tx 1	
K1JT TE0ST -15	<input type="radio"/>	Tx 2	
K1JT TE0ST R-15	<input type="radio"/>	Tx 3	
K1JT TE0ST RR73	<input type="radio"/>	Tx 4	
K1JT TE0ST 73	<input type="radio"/>	Tx 5	
CQ TE0ST JO42	<input checked="" type="radio"/>	Tx 6	

**Attention:** Your rig may be set to Tx when Wait & Reply is enabled. Take the necessary precautions!

If necessary, right-click on the DX Call button to clear the DX Call box, which disables Wait & Reply.

Notes: Also, for other reasons, you should not have a callsign in your DX call box longer than necessary for the QSO unless you want to observe this station (e.g. using "Highlight DX Call in message"). Consider enabling the "Clear DX Call after QSO" option if a right-click on the DX Call button is too much for you.

## 2. Wait and Call:

In situations where the QSB is so strong that the other station disappears for an extended period of time, Wait and Call can help you. When this feature is enabled, the other station will be called up to three times as soon as they reappear on the band with their message containing "CQ", "73" or "RRR". To enable Wait and Call, click on the new DX Call button. Wait and Call requires a valid callsign in the DX Call box (= the station where you are in QSO with) as well as Auto Seq to be enabled. Any manual intervention, such as pressing the Halt Tx or Stop button, will immediately disable Wait and Call, giving you full control over your QSO in any case.

**Wait & Call:**

- has to be activated by a left-click on the DX Call button (which turns then red)
- waits for the station from the DX Call box and calls it up to 3 times when it reappears on the bands and sends either "CQ" or "73" or "RR73" or "RRR"

The screenshot shows the WSJT-X interface with the following details:

- Band Activity window: Empty table with columns UTC, dB, DT, Freq, Message.
- Rx Frequency window: Empty table with columns UTC, dB, DT, Freq, Message.
- Main interface: Frequency 144,174,000 Hz, DX Call button (red), DX Grid button, K1JT callsign, 2023 Feb 01 08:47:11 timestamp, and a list of standard messages (K1JT TE0ST JO42, K1JT TE0ST -15, K1JT TE0ST R-15, K1JT TE0ST RR73, K1JT TE0ST 73, CQ TE0ST JO42).

"Wait and Reply" and "Wait and Call" are available as of the update 2022-10-07 on.

**Attention:** Your rig may be set to Tx when Wait & Call is enabled. Take the necessary precautions!

### 3. Wait and Pounce:

Wait and Pounce lets you respond to incoming CQ messages from other stations. To activate Wait and Pounce, select one of the CQ: categories (i.e. CQ: Max Dist or CQ: Max dB or CQ: Min dB) and then right-click on the Enable Tx button which then turns orange. In the next over, wsjt-x\_improved will answer the CQ calling of the most distant / strongest / weakest station.

WSJT-X v2.7.0-rc1 by K1JT et al.

File Configurations View Mode Decode Save Tools Help

Band Activity

UTC	dB	DT	Freq	Message
162930	-13	1.8	2150	~ IK6FBB I8EJC JM88
----- 20m -----				
162945	-10	0.1	2158	~ PB0ACU <...> -16
162945	3	-0.2	1848	~ <...> F6AUS R+02
162945	-3	0.3	2684	~ RP78GGG <...> RR73
162945	1	1.1	1364	~ CQ Y02CK KN15 Romania
162945	5	0.2	1930	~ RP78K <...> 73
162945	-12	0.2	2011	~ F1PBZ IZ8PPI -14
162945	-5	0.1	1523	~ <...> RV6F LN14
162945	-11	1.1	958	~ CQ IT90ID JM67 Italy
162945	-7	0.2	1317	~ G8VJU IZ5IME -06
162945	-14	0.0	2629	~ R30Z <...> -10
162945	-11	0.0	875	~ DJ1TU UX7UU RR73 Ukraine
162945	-8	0.6	1290	~ RP78TA <...> RRR
162945	-19	0.1	2766	~ CQ SP5OSF K001 Poland
162945	-16	0.2	3063	~ CQ OH2CRF KP12 Finland
162945	-17	0.4	548	~ G6ITM OH3BY RR73 Finland
162945	-14	0.4	1160	~ DH6BH <...> -01
162945	-8	0.2	1540	~ LY3BFH F4FSY -03
162945	-13	0.2	905	~ CQ 9H1VN JM75 Malta
162945	-17	0.7	629	~ GS3PYE EA1IEQ RRR

Rx Frequency

UTC	dB	DT	Freq	Message
162945	-10	0.1	2158	~ PB0ACU <...> -16

Wait & Pounce:  
Select a category from the CQ: combo box and right-click the Enable Tx button to activate Wait and Pounce.

Enable Tx

Generate Std Msgs Next Now Pwr

Tx 1  
Tx 2  
Tx 3  
Tx 4  
Tx 5  
Tx 6

CQ: Max Dist  
CQ: None  
CQ: First  
CQ: Max Dist  
CQ: Max dB  
CQ: Min dB

Receiving DG2YCB FT8 19 10/15 WD:8m

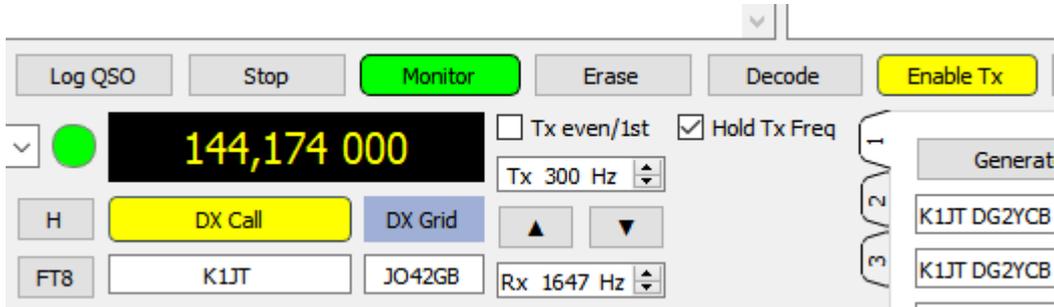
Wait and Pounce can also be combined with the Filters feature. You can then for example "wait" for CQ messages containing a certain prefix, grid, callsign or keyword.

"Wait and Pounce" is available as of v2.7.0-rc1.

**Attention:** Your rig may be set to Tx when Wait & Pounce is enabled. Take the necessary precautions!

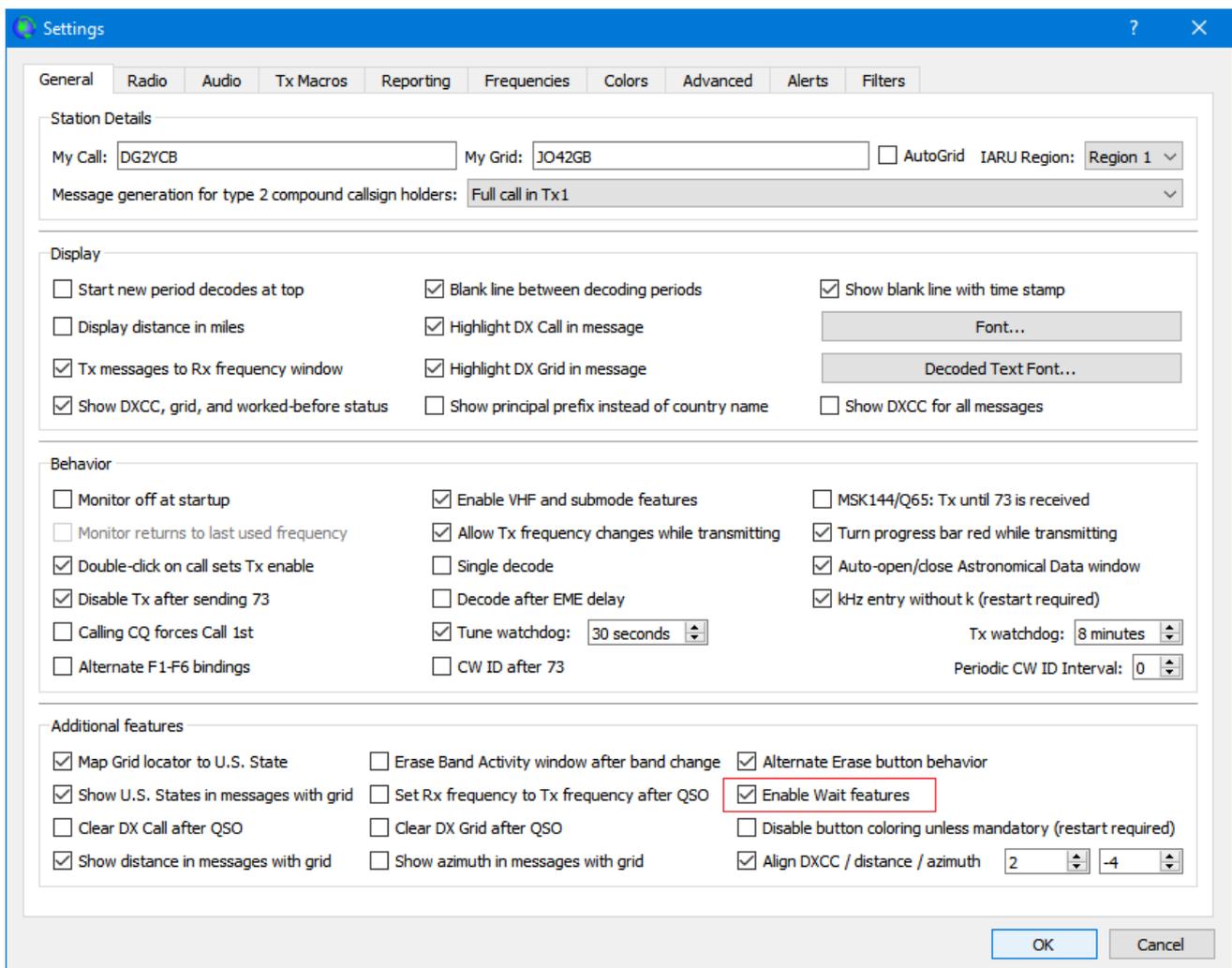
## Yellow coloring of the "Enable Tx" and "DX Call" buttons

The "Enable Tx" and "DX Call" buttons are colored yellow if certain incoming messages might switch the Tx on. This is always the case in Hound Mode, but also with Wait & Reply or Wait & Call enabled. Some OMs had requested this safety feature to remind them to keep their ATU or PA on. If necessary, right-click on the DX Call button to clear the DX Call box and thus disable any active Wait function.



## Option to disable the Wait features

The "Wait features" (Wait & Reply, Wait & Call, Wait & Reply) can be disabled. As there is actually no reason why to disable them, they are enabled by default. However, a few OMs have requested this option.



## Filters

The Filters give you a powerful tool for customization of what is being displayed in the Band Activity window.

The screenshot shows the 'Filters' settings window. At the top, there are tabs for 'General', 'Radio', 'Audio', 'Tx Macros', 'Reporting', 'Frequencies', 'Colors', 'Advanced', 'Alerts', and 'Filters'. The 'Filters' tab is active. Below the tabs, the text reads 'Filters for the Band Activity window'. Underneath, it says 'Territories 1-4 for the Hide checkboxes in the View menu'. There are four input fields for territories: 'U.S.A.', 'Russia', 'Germany', and an empty field. Below this is the 'Blacklist' section with a checked checkbox 'Hide messages containing the following callsigns or keywords:'. There are four input fields for the blacklist, with 'D1DX' in the first. The 'Whitelist' section has an unchecked checkbox 'Show only messages containing the following callsigns or keywords:'. There are four input fields for the whitelist, with '/P', '/QRP', 'YOTA', and 'COTA' in the first four. Below that is the 'Always Pass' section with an unchecked checkbox 'Always pass messages with the following keywords:'. There are four input fields for the always pass list, with 'K1JT' and 'DG2YCB' in the first two. At the bottom, there are two checkboxes: 'Apply filters only to the callsigns of the calling stations' (checked) and 'Use filters for Wait and Pounce only' (unchecked). At the very bottom right, there are 'OK' and 'Cancel' buttons.

There is a Blacklist, a Whitelist, and an Always Pass list. In addition, you can specify up to 4 territories for which hiding can be switched on and off directly from the View menu of the main program window. From there you can also hide messages from a specific continent or stations worked B4 on band.

Filter criteria can be combined in any way.

The Blacklist can for example be used to hide pirate stations, contest messages or messages with unwanted content. You can enter whole callsigns, parts of them or keywords.

A meaningful use of the Whitelist is if you are ONLY interested in messages with certain grids, calls, or keywords. All other messages, except those allowed via the Always Pass list, will then be hidden.

Use the Always pass list to display specific stations even though the respective country or continent is hidden.

You can optionally apply the filters only to the callsigns of the calling stations, or use the filters for Wait and Pounce only. In the latter case, all messages will be displayed in the Band Activity window, but Wait & Pounce will respond only to stations that meet the set filter criteria.

As soon as a filter is activated that results in not all decodes being displayed in the Band Activity window, this is indicated in the status label (this is the display at the bottom left). It changes from green "Receiving" to cyan "Receiving, filter activated".

The screenshot displays the WSJT-X software interface. At the top, a waterfall plot shows frequency activity from 500 to 3500 Hz. Below the plot is a call list table with columns for UTC, dB, DT, and Message. A menu is open over the call list, showing various filtering options. Red arrows point from text labels to specific menu items:

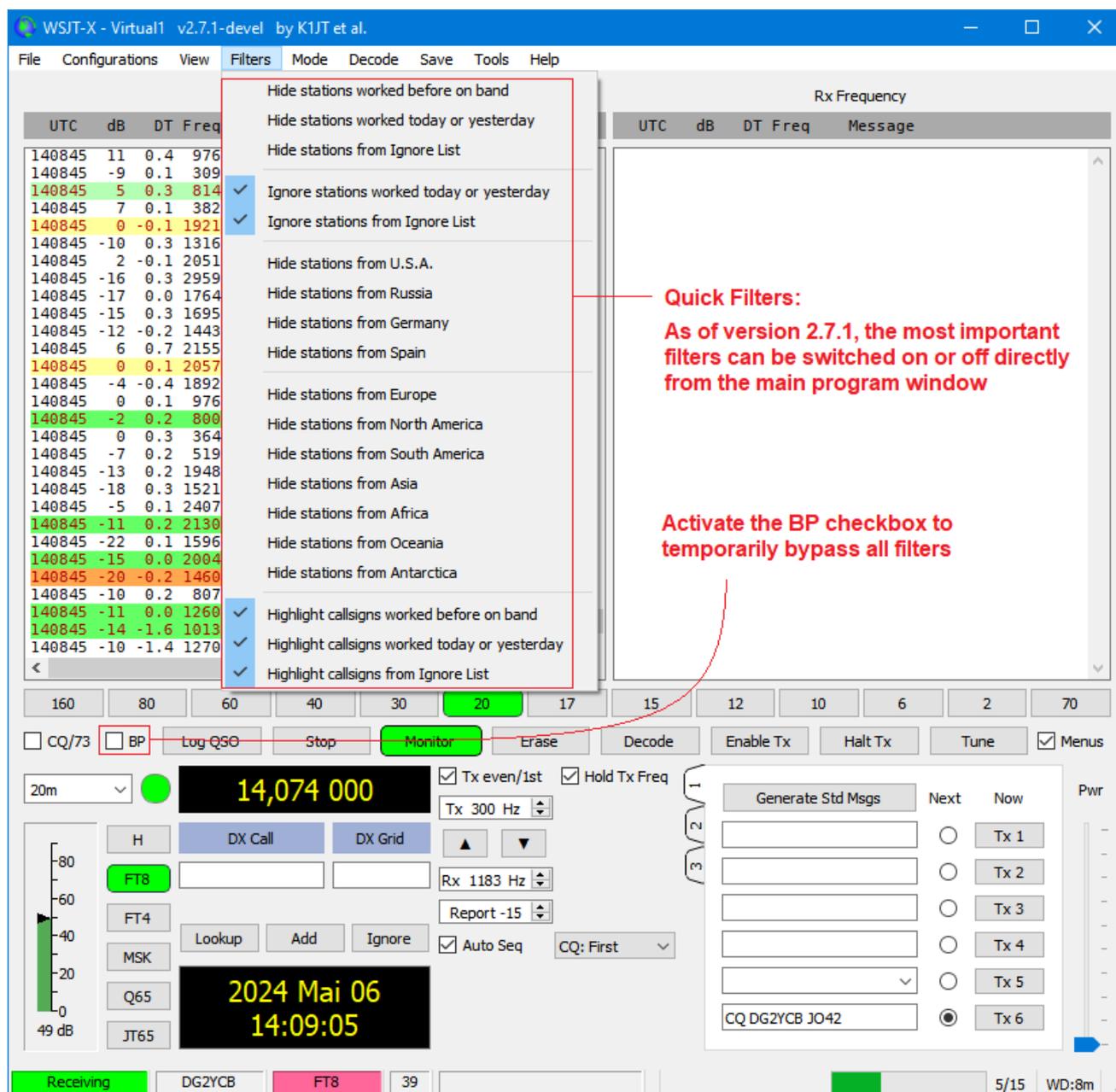
- "Hide callsigns worked B4 on band" points to "Hide B4 callsigns".
- "Hide up to 4 territories" points to "Hide stations from U.S.A.", "Hide stations from Russia", "Hide stations from Germany", and "Hide stations from Territory 4".
- "Hide individual continents" points to "Hide stations from Europe", "Hide stations from North America", "Hide stations from South America", "Hide stations from Asia", "Hide stations from Africa", "Hide stations from Oceania", and "Hide stations from Antarctica".
- "... Filters on" points to the status bar at the bottom left.

The status bar at the bottom left shows "Receiving, Filters On" in cyan text. A date and time stamp "2023 Jun 28 12:28:06" is visible in the center of the interface.

Filters are automatically disabled for Special Operating modes, so that you don't accidentally miss a station.

**Notes:** As of version 2.7.1, there are more filter options available directly via the main program window. All these so-called Quick Filters are now combined in a separate Filters menu.

And there is a new BP checkbox with which you can (temporarily) bypass all set filters with one click. Very useful if you have skipped certain areas (e.g. to display only DX stations) but now want to monitor the entire band activity for a certain time.



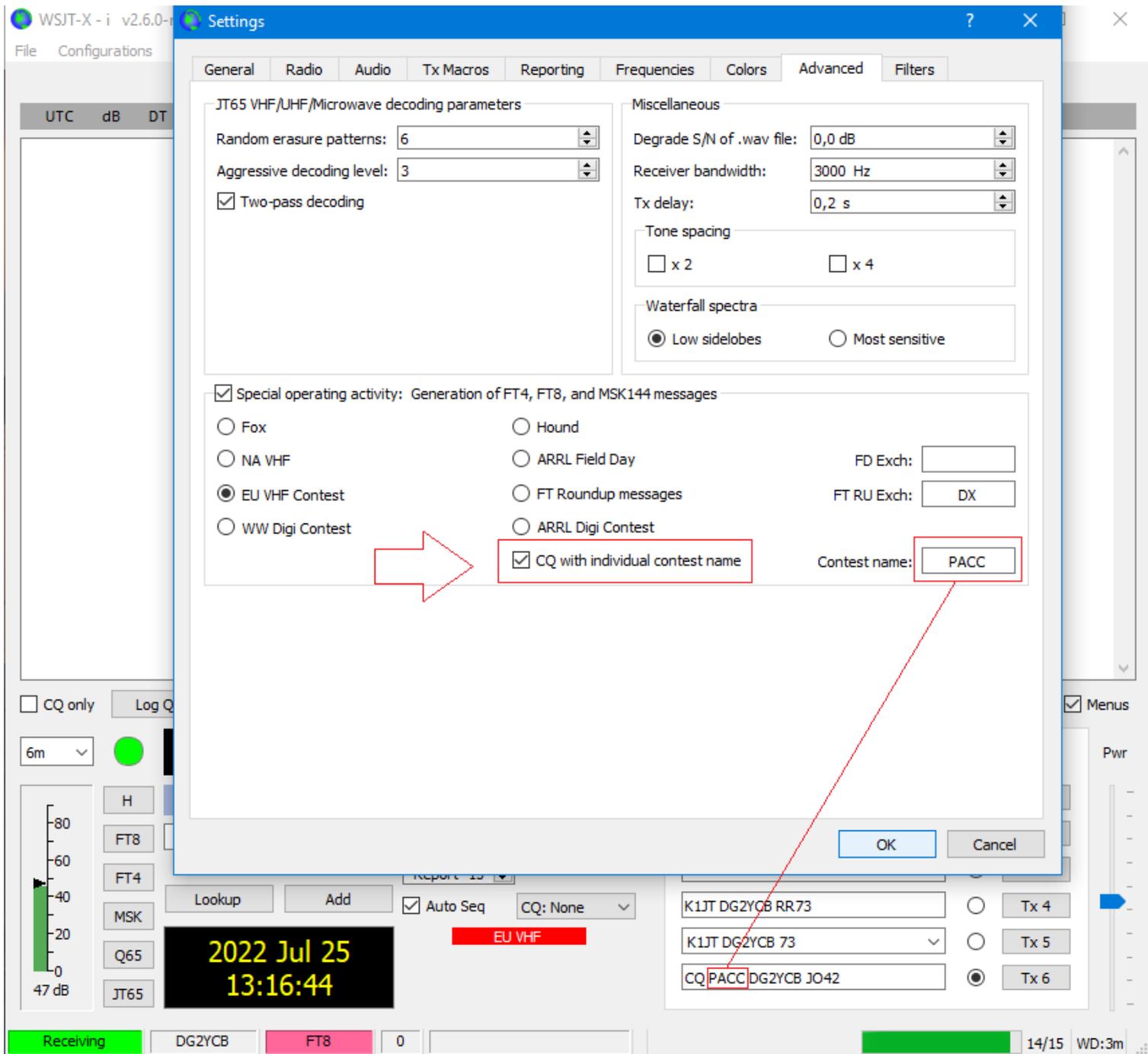
## Ignore List

A click on the Ignore button adds the callsign from the DX Call box to a so-called Ignore list. If you have also activated "Ignore stations from the Ignore List", such stations are automatically ignored when you use CQ: First, CQ: Max Dist, CQ: Max dB, CQ: Min dB or Wait and Reply.

You can erase the Ignore List from the File menu.

## Call CQ with an individual contest name

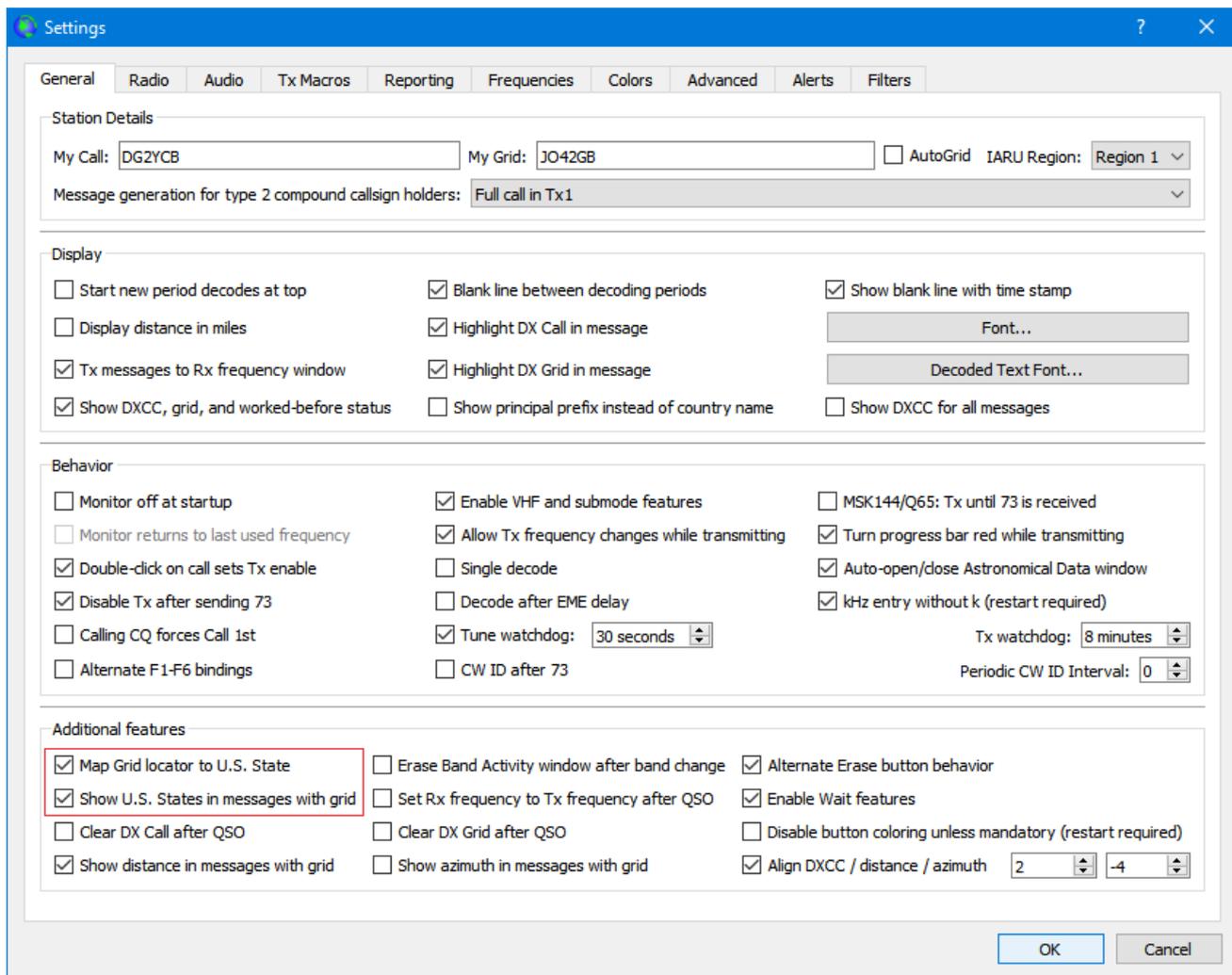
Optionally, when in contest mode, you can call CQ with an individual contest name instead of "CQ TEST" or "CQ RU". This is particularly useful



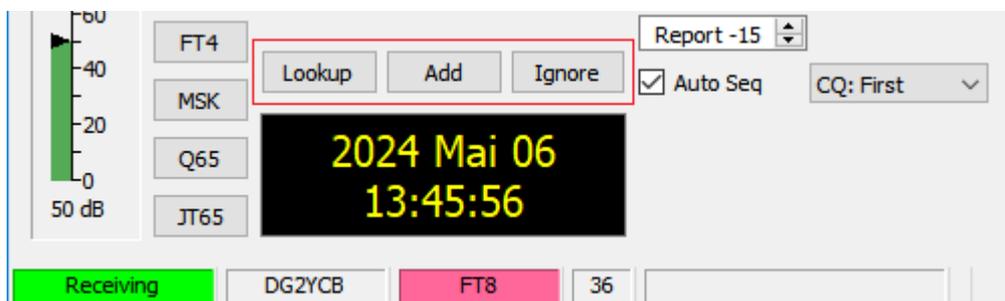
Note: This wsjt-x\_improved function has now also found its way into the original WSJT-X (as of v2.6.0 GA).

## Map grid locators to U.S. States and Canadian Provinces

Wsjt-x\_improved includes also an extra feature introduced by NJ0A. With that, you can let wsjt-x\_improved map grid locators to U.S. States and Canadian Provinces (useful when working without JTAAlert). Current limitation: Sometimes the result is only a list of possible States.



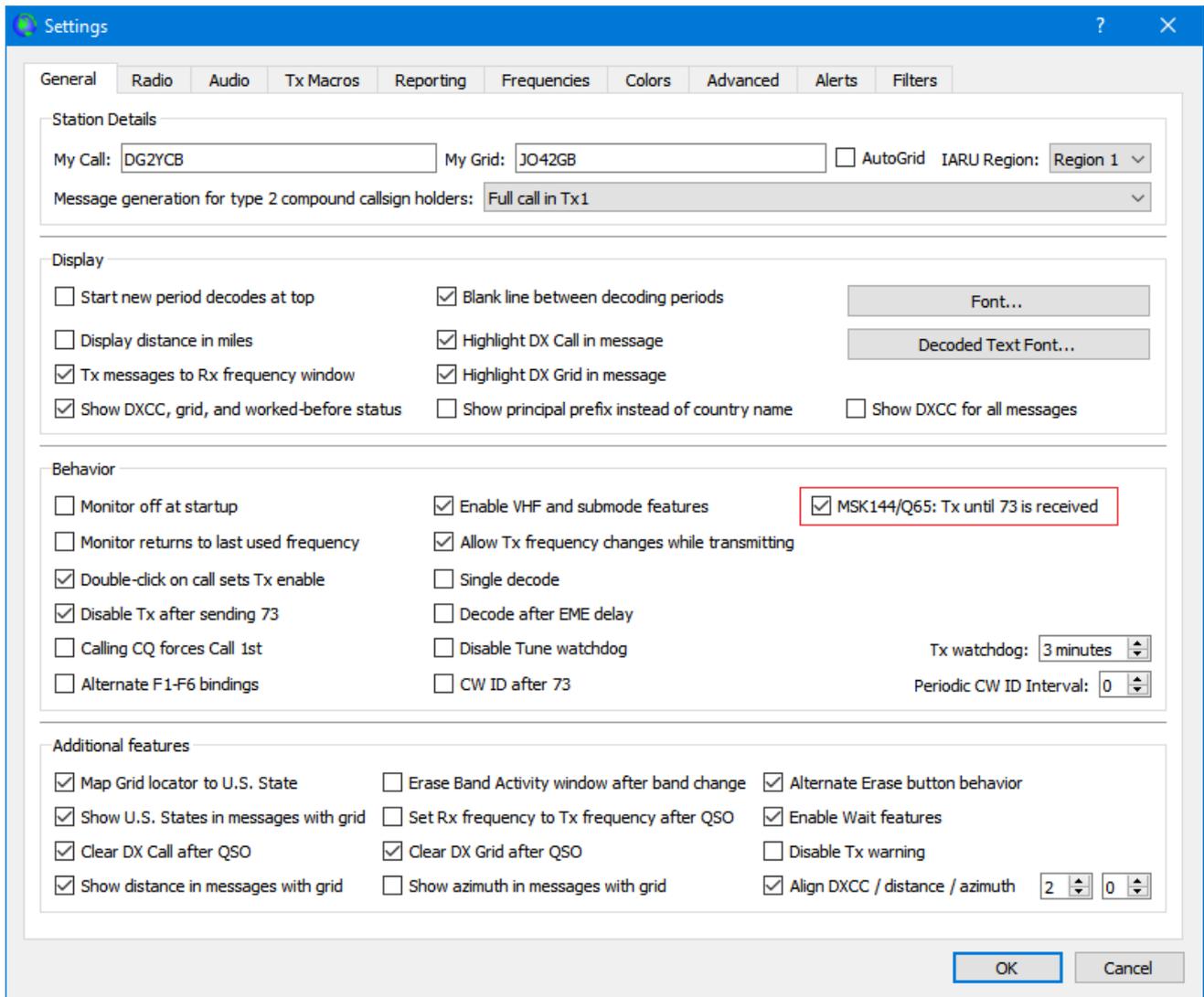
## Search the DX Call on qrz.com, hamqth.com, or qrzcq.com



- Right-click on the **Lookup** button --> Search for the DX Call on qrz.com
- Right-click on the **Add** button --> Search for the DX Call on hamqth.com
- Right-click on the **Ignore** button --> Search for the DX Call on qrzcq.com

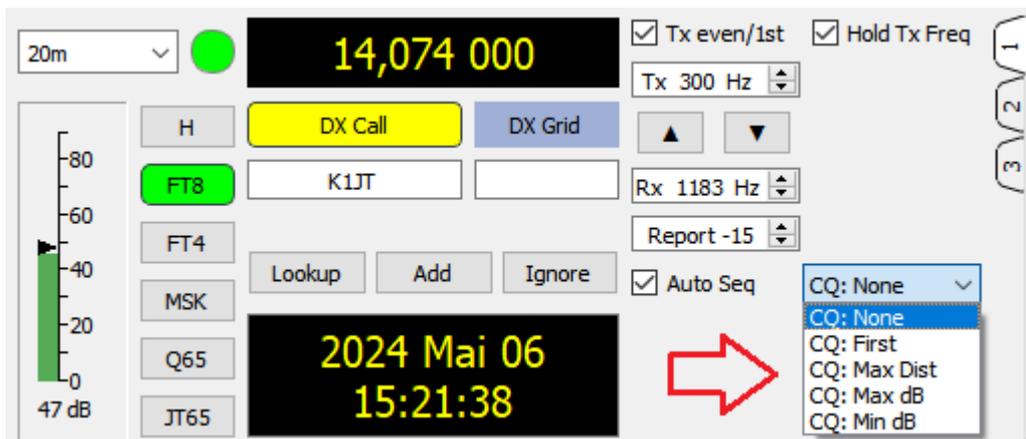
### MSK144/Q65: Tx until 73 is received

New option since the Update of February 2023: "MSK144/Q65: Tx until 73 is received". It does what the name promises. Quite useful on VHF/UHF/SHF. It increases the success rate for a difficult QSO. A maximum of 10 attempts are made before it times out. Use Wait & Reply in case this is still not enough for you.



### CQ: First / CQ: Max Dist / CQ: Max dB / CQ: Min dB

If selected and CQ is called, the program will respond to the first / most distant / strongest / weakest station.

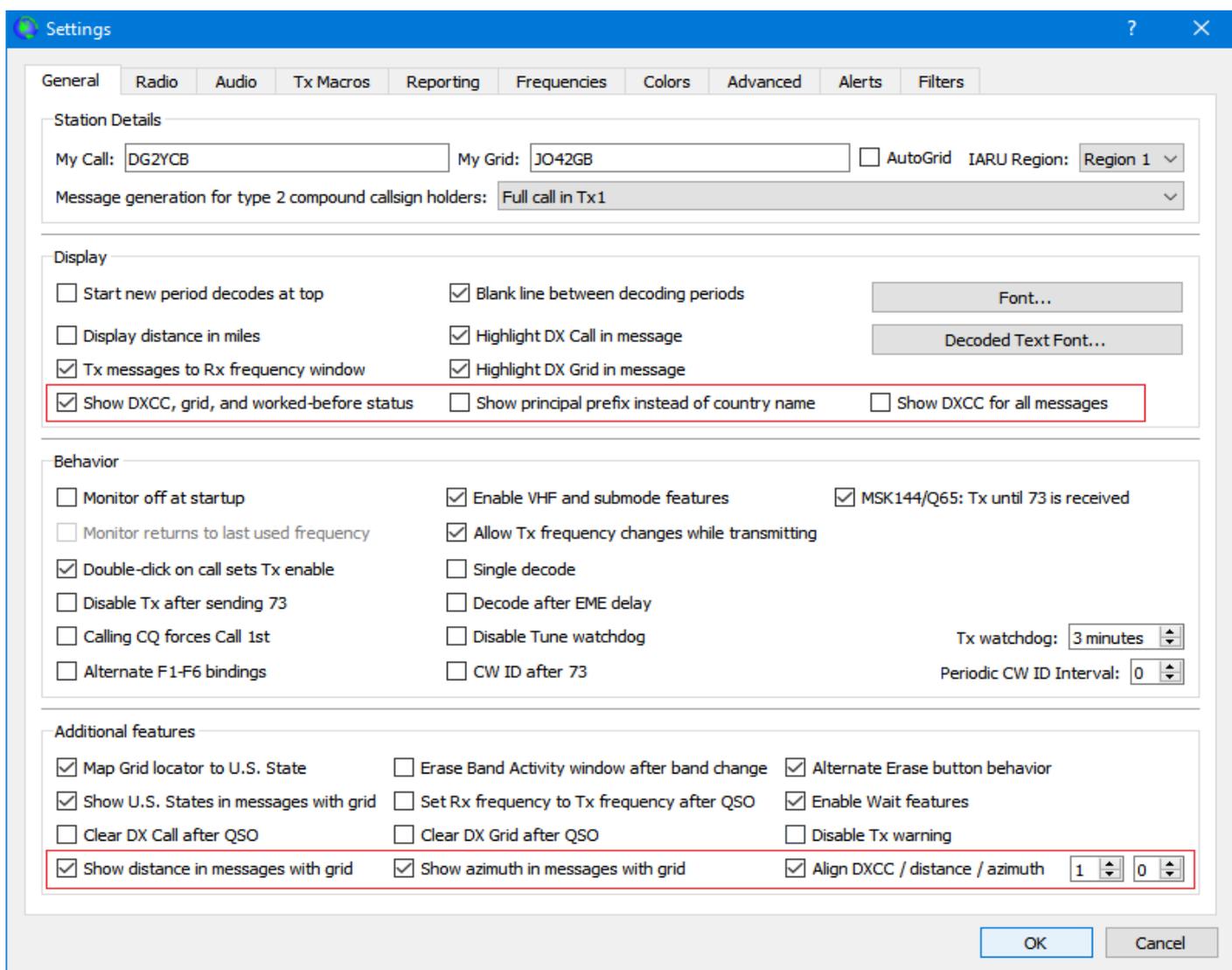


## Show distance and/or azimuth with grid

If a station sends a valid Maidenhead locator, wsjt-x\_improved now automatically calculates the distance and the great-circle azimuth and displays it in the Band Activity pane.

A new "Align DXCC / distance / azimuth" checkbox allows you to keep the DXCC names (or principal prefixes) as well as distance/azimuth in an aligned table form. Two spin boxes allow further configuration of the preferred layout:

- The first spin box sets the number of spaces between the decoded message and the DXCC name (or the principal prefix). The default is set to "1", which means one space more compared to the WSJT-X standard.
- The second spin box sets the number of spaces between the DXCC and the distance/azimuth field. You can increase or decrease the default number.
- The first spin box works also when "Align DXCC / distance / azimuth" is not checked. It can be used to increase the spacing between the decoded messages and the DXCC names. I programmed this because the number of stations with non-standard callsigns has greatly increased, and a little more space might be appropriate.



Some checkboxes have been repositioned to make it a bit more compact and intuitive. The "Show country information for all messages" checkbox has been moved to the General tab and renamed "Show DXCC for all messages" so that the three content-related checkboxes are now arranged directly next to each other.

The following screen shot shows the Band Activity pane with "Show distance in messages with gid", "Show azimuth in messages with gid" and "Align DXCC / distance / azimuth" enabled.

WSJT-X - FT991a v2.6.1 by K1JT et al.

File Configurations View Mode Decode Save Tools Help

### Band Activity

UTC	dB	DT	Freq	Message	UTC	dB
074915	-20	0.3	1735	~ CQ ZL2BX RE68	New Zealand	[18349 km / 50°]
074915	-19	0.4	444	~ V01BBN VK2WN RR73	Australia	
----- 30m						
074930	12	0.1	1172	~ ZL1UHX EB2AM RR73	Spain	
074930	10	0.3	916	~ CQ GI0HW0 I074	N. Ireland	[939 km / 292°]
074930	-6	0.1	1379	~ CQ 2E0CVN I080	England	[819 km / 262°]
074930	17	0.1	651	~ CQ 9A5JU JN85	Croatia	[958 km / 136°]
074930	-14	0.8	1804	~ CQ LA8ENA J048	Norway	[720 km / 2°]
074930	9	1.5	2798	~ F5RFS F4FLQ R-18		
074930	-5	0.1	1242	~ CQ F4FZR JN25	France	[771 km / 201°]
074930	-6	0.1	1902	~ JA8DIV WB5BHS RR73	U.S.A.	
074930	-13	0.1	1518	~ V31MA MM3RCR R-14		
074930	-8	0.1	1299	~ VK2WN V01BBN 73	Canada	
074930	-13	0.1	2953	~ T30UN G000F I081		[795 km / 270°]
074930	-8	0.2	811	~ CQ F4DIA JN36	France	[626 km / 191°]
074930	-8	0.1	1606	~ CQ SQ5BUJ K002	Poland	[853 km / 82°]
074930	-11	0.1	1627	~ EA5HM SM6CWP +03		
074930	-16	0.2	1691	~ CQ PE1NMM J032	al Netherlands	[114 km / 297°]
074930	-17	0.1	911	~ MW7TTA OH3UBL R-06		
074930	9	0.5	2002	~ K7CTV F6BHK JN24	a7	[878 km / 199°]
----- 30m						
074945	5	0.1	2728	~ <DH8TOM/QR> F8GHA JN24		[878 km / 199°]
074945	1	0.1	2175	~ OH3UBL MW7TTA RR73	Wales	
074945	11	0.6	1090	~ K4LTC IK4TVP -05		
074945	4	0.4	2288	~ MM3RCR V31MA RR73	Belize	
074945	12	0.2	1682	~ F4FLQ F5RFS RR73	France	
074945	-4	0.1	1243	~ F4FZR N1UL EL95	FL	[7780 km / 286°]
074945	1	0.1	1338	~ V01BBN EA7HY -11		
074945	0	0.1	1979	~ T30UN KP4JRS FK68		[7418 km / 271°]
074945	7	0.2	777	~ WB5BHS F1DSZ JN06		[822 km / 224°]
074945	-10	0.1	2796	~ T30UN W9COS -16		
074945	-6	0.2	290	~ <T30UN> N1UL/3		
074945	2	0.2	994	~ F4DIA HA5AJZ JN97		[908 km / 120°]
074945	2	0.2	667	~ T30UN W1JBD -10		
074945	5	0.2	503	~ K4LTC EC1A 73	Spain	
074945	-16	0.8	607	~ CQ KB8BMN EN82	U.S.A. MI	[6533 km / 300°]
074945	-2	0.4	781	~ CQ EC2AMN IN71	Spain	[1556 km / 226°]
074945	-13	0.1	2214	~ CQ 5P0WARD	Denmark	
074945	-10	0.3	1354	~ V01BBN VK4ZD QG62		[15997 km / 61°]
074945	-16	0.3	2144	~ K5UY F1HFP JN28		[466 km / 214°]
074945	-12	1.0	1125	~ SM6CWP EA5HM R-08		
074945	-17	0.3	1735	~ CQ ZL2BX RE68	New Zealand	[18349 km / 50°]
074945	-20	0.5	1002	~ T30UN N9MT EN71	IN-MI-OH	[6729 km / 301°]

CQ/73
 Log QSO
Stop
Monitor
Decode

30m

S 10,136 000

07:50:03

Rx  

 56 dB

Receiving

FT-991

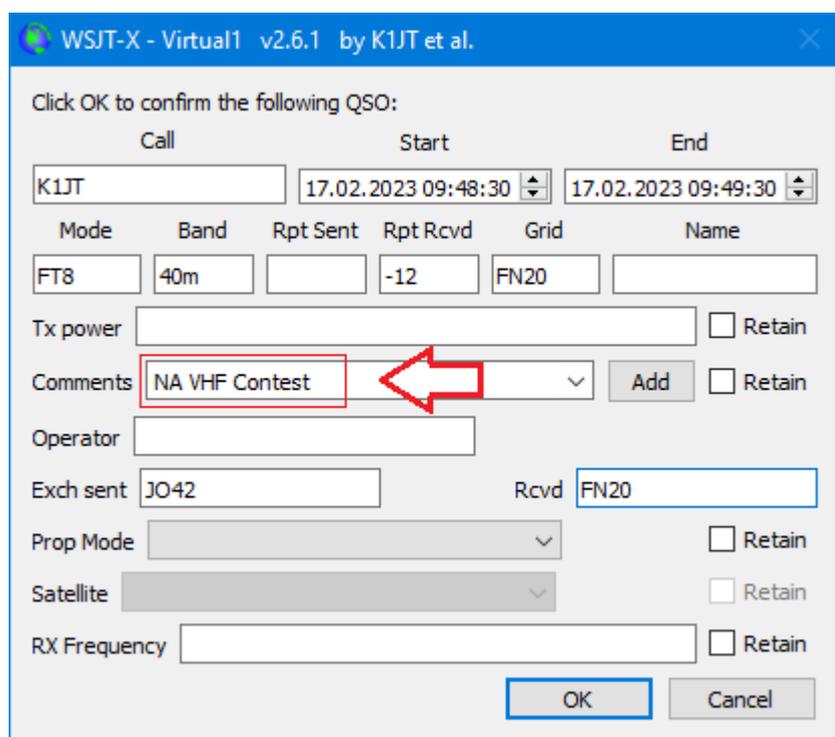
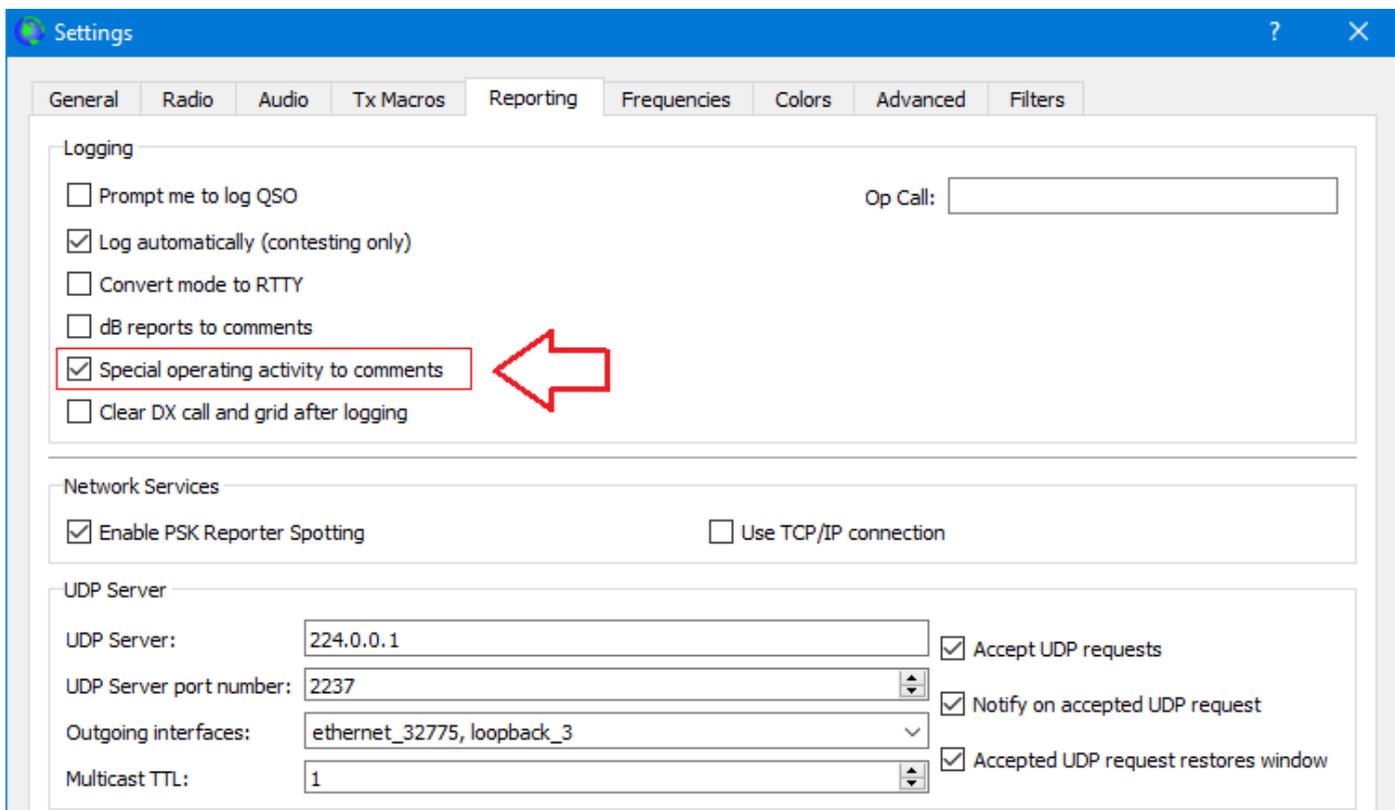
FT8

22

### Special operating activity to comments

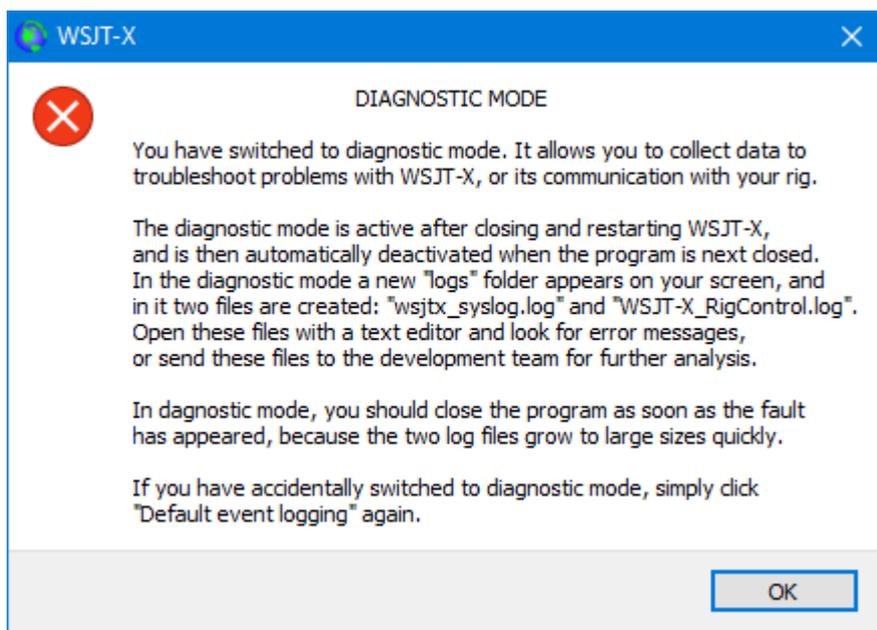
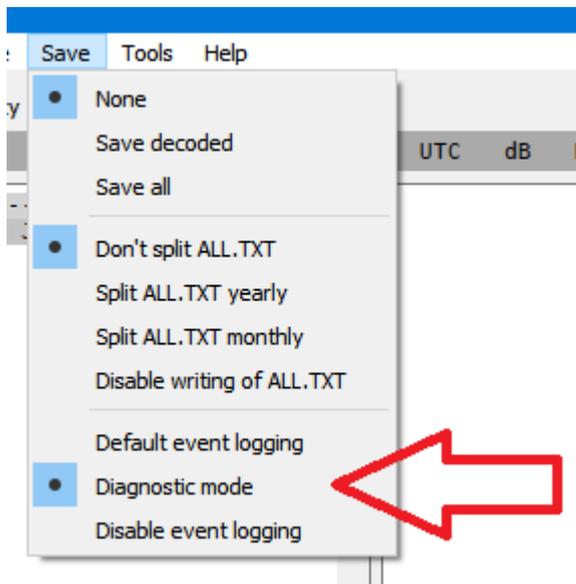
Check this box to automatically add the Special Operating Activity mode/name to the comments field. For example, it adds "NA VHF Contest" or "EU VHF Contest" to the comments. If "CQ with an individual contest name" is enabled and a valid abbreviation is entered in the Contest Name field (e.g. "PACC"), this abbreviation + "Contest" will be added to the comments (e.g. "PACC Contest").

Note: Retained comments and "dB reports to comments" override this feature.



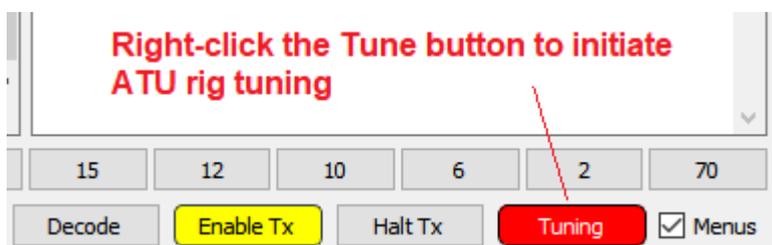
## Diagnostic mode

Versions from v2.6.0-rc2 upwards have a built-in diagnostic mode. This makes it easy to collect data to troubleshoot problems with wsjt-x\_improved, or with its communication with your rig (hamlib issues, not responding COM ports, etc.).



## Right-click the Tune button to initiate rig tuning (ATU)

With versions from v2.7.1 "240510" upwards, you can initiate ATU rig tuning directly from the program. It is required that your rig is connected via hamlib, and that your rig model supports this feature.



## Dark Style

As of the update 2022-10-07 on, you can switch to dark style directly in the main window. Just click on the new item "Use Dark Style" in the "View" menu. This switch does more than restart of wsjtx.exe with the parameter --stylesheet :/qdarkstyle/style.qss. Additionally, it adjusts some internal settings and uses an optimized stylesheet for the dark style. If you have enabled the dark style, you should adjust the highlight color scheme towards pastel tones. Go at Settings to Colors and adjust the background colors according to your needs.

WSJT-X v2.6.0 by K1JT et al.

File Configurations View Mode Decode Save Tools Help

Band Activity					Rx Frequency				
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
153045	8	0.1	1055	SP4Ct UA3ZQN KO90	152945	-9	0.1	735	AP2IN DK3BK JO53
153045	8	0.1	1077	SV1AST 9A4ZM JN64	152945	-15	0.1	718	JH1NCZ SP3IMM R-13
153045	-4	0.8	2415	CQ CT2FZZ IM67 Portugal	153015	-13	0.1	718	JH1NCZ SP3IMM R-13
153045	-1	0.6	2295	9H5JY UA3GX KO93					
153045	16	0.0	1388	AM7RBB RD7P R-13					
153045	-10	0.1	1159	PD5DRE YB6RMT -08					
153045	-16	0.1	2121	CQ PD1HPB JO22 Netherlands					
153045	-15	0.1	2179	S55G JI2NWI RR73 Japan					
153045	-5	0.2	1235	IU6JKI EW7NR R-13					
153045	0	0.1	1290	CT3IB 9A2KS JN65					
153045	-13	0.5	1700	UN0LK DM3PYA JO63					
153045	-18	0.2	1860	A41ZZ CT1FAM IM59					
153045	-9	0.9	290	CQ IK4LZH JN54 Italy					
153045	-10	0.3	406	CQ PD3AL JO22 Netherlands					
153045	-6	-0.2	1213	CQ R2ZDO KN99 EU Russia					
153045	5	1.1	1373	UN0LK EA7JCL IM87					
153045	-8	0.1	2009	LA0GE RA3AIC 73 EU Russia					
153045	-20	0.3	2273	WIN SP6AXW JO80					
153045	-9	0.1	2029	9H5JY R9JAA -22					
153045	-26	0.2	2388	SV1AST PE1NPS -12					
153045	-16	0.4	1990	CQ BD8AHK OM20 CQ Zone 24					
153045	-21	0.2	2052	SP4CE RA5BQ -10					
153045	-26	0.2	1821	UA45JB RZ05W -18					
153045	-25	0.1	2351	SP6AXW JM1GDA -11					
153045	-10	0.1	1075	CQ RV6LN LN88 EU Russia					
153045	-9	-1.4	1083	SV1AST IW6MR JN72					
153045	6	0.1	210	NC1RL IK5WER R-22 a7					

CQ only   Log QSO   Stop   Monitor   Erase   Decode   Enable Tx   Halt Tx   Tune   Menus

20m   **S**   **14,074 000**   Tx 2702 Hz   Hold Tx Freq   Report -15   Auto Seq   CQ: None

H   DX Call   DX Grid   FT8   K1JT   FN20QI   FT4   Az: 293   6188 km   MSK   Q65   2022 Okt 05   15:31:06   JT65

Generate Std Msgs   Next   Now   Pwr

K1JT DG2YCB JO42	<input type="radio"/>	Tx 1
K1JT DG2YCB -15	<input type="radio"/>	Tx 2
K1JT DG2YCB R-15	<input type="radio"/>	Tx 3
K1JT DG2YCB RR73	<input type="radio"/>	Tx 4
K1JT DG2YCB 73	<input type="radio"/>	Tx 5
CQ DG2YCB JO42	<input checked="" type="radio"/>	Tx 6

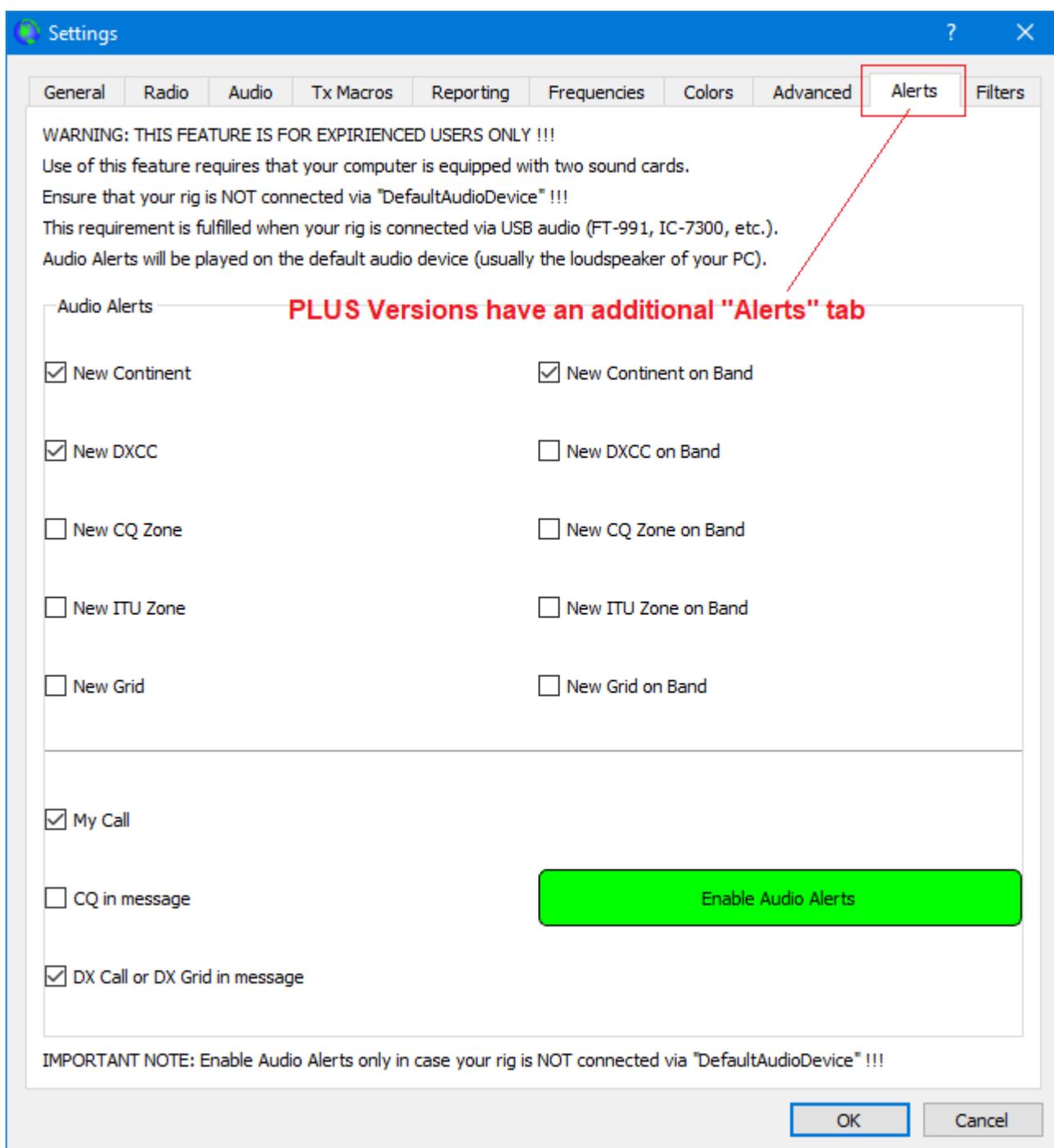
Receiving   DG2YCB   FT8   30   6/15   WD:2m

There is also a **PLUS version** of each of the 3 versions available, which has 2 additional features: Audible alerts (e.g. "New DXCC" or "Calling You") and Cloudlog support.

**Alerts:** Very important: Ensure that your rig is NOT connected via "DefaultAudioDevice" !!!

Use of this feature requires that your computer is equipped with two sound cards. This requirement is fulfilled when your rig is connected via USB audio (FT-991, IC-7300, etc.). The audio alerts will be played on the default audio device (usually the loudspeaker of your computer) while the normal wsjt-x output is still lead to your rig only.

To configure audio alerts, you will find under "Settings" a new tab "Alerts". Just select the checkboxes and click on "Enable Audio Alerts". Note that playing of any audio alerts is independent of your settings under "Decode Highlighting". However, audio alerts are only useful for parameters for which "Decode Highlighting" is activated. On the other hand, you usually don't want to get an acoustic alert for every optical decode highlighting. Useful settings could for example be:



## Cloudlog support

Optionally upload of your QSOs to Cloudlog. Cloudlog is an open-source PHP & MySQL based amateur radio logging application. You can find it at <https://www.magicbug.co.uk/cloudlog/>. Many thanks to DF2ET for programming this feature!

The image shows a screenshot of the 'Settings' dialog box in a software application, specifically the 'Advanced' tab. The 'Enable Cloudlog Features' section is highlighted with a red border. This section includes a checked checkbox for 'Enable Cloudlog Features', followed by input fields for 'API URL', 'API Key', and a dropdown for 'Station ID' (set to 1). A 'Test API Key' button is located to the right of the 'Station ID' dropdown. Other tabs visible include General, Radio, Audio, Tx Macros, Reporting, Frequencies, Colors, Alerts, and Filters. The 'JT65 VHF/UHF/Microwave decoding parameters' section shows 'Random erasure patterns' set to 6, 'Aggressive decoding level' set to 3, and 'Two-pass decoding' checked. The 'Miscellaneous' section includes 'Degrade S/N of .wav file' at 0,0 dB, 'Receiver bandwidth' at 3000 Hz, and 'Tx delay' at 0,2 s. The 'Waterfall spectra' section has 'Low sidelobes' selected. The 'Special operating activity' section lists various contests and activities, with 'NCCC Sprint' and 'CQ with individual contest name' checked.

Settings

General Radio Audio Tx Macros Reporting Frequencies Colors Advanced Alerts Filters

JT65 VHF/UHF/Microwave decoding parameters

Random erasure patterns: 6

Aggressive decoding level: 3

Two-pass decoding

Miscellaneous

Degrade S/N of .wav file: 0,0 dB

Receiver bandwidth: 3000 Hz

Tx delay: 0,2 s

Tone spacing

x 2  x 4

Waterfall spectra

Low sidelobes  Most sensitive

Special operating activity: Generation of FT4, FT8, and MSK144 messages

Fox  Hound

NA VHF  NCCC Sprint  ARRL Field Day FD Exch: 1A DX

EU VHF Contest  FT Roundup messages FT RU Exch: MA

WW Digi Contest  ARRL Digi Contest

Q65 Pileup  CQ with individual contest name Contest name: NCCC

Enable Cloudlog Features

API URL:

API Key:

Station ID: 1