Log4OM 2
Amateur Radio Software

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Quick Start Guide

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Introduction

This Guide is intended to provide the basic information required to get a user quickly started with Log4OM Version 2, for more comprehensive guidance the user must consult the main user guide and the YouTube Tutorials.

Getting Started

It is essential for the correct operation of the software that the 'Initial start-up' section of the Program Configuration is completed.

Log4OM version 1 and version 2 can both be run at the same time because they use different installation paths and it is NOT necessary to uninstall version 1 before installing version 2

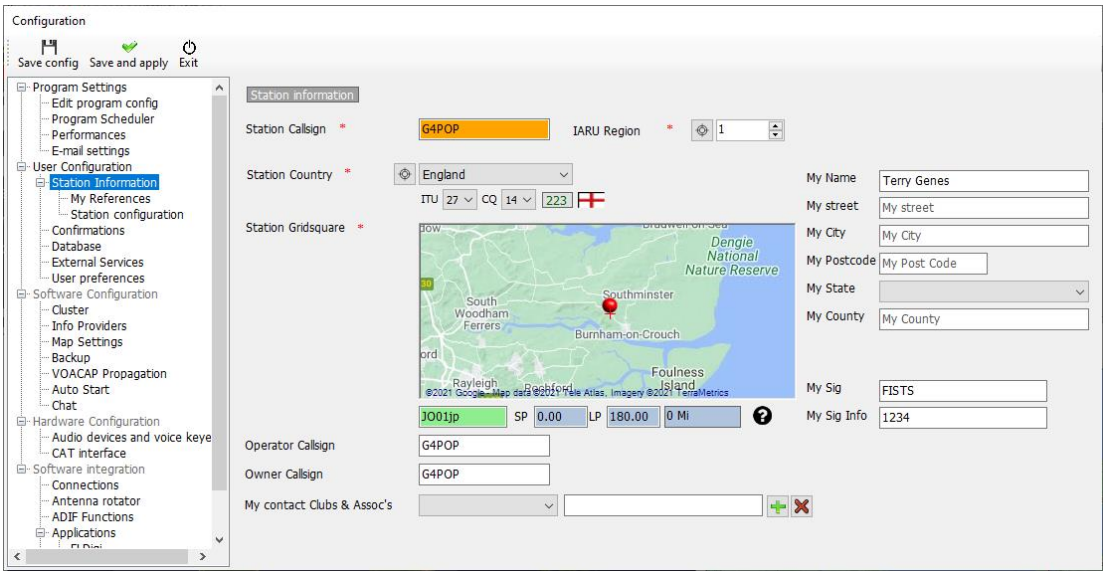
Installation

- Download the software from http://www.log4om.com
- Unzip (Unpack) the compressed download file to a convenient location
- Run the installer exe file

It is not necessary to run Version 2 as an administrator unless Omnirig or other associated programs (e.g. WSJT, JTALERT) are elevated for multithreading in which case Omnirig and all programs working with it should also be elevated (Run as an administrator).

Initial set-up

Once the program is installed double click on the desk top shortcut. On initial start-up the user is presented with the window below, all information on the left hand side e.g. call signs etc, **MUST** be completed to enable Log4OM V2 to select the correct band-plans, maps, modes etc.



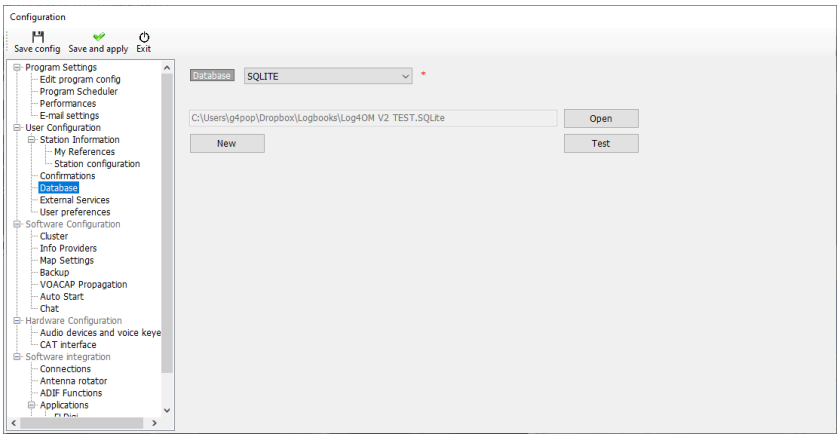
Minimum information:

- Station Call - This is the current call sign being used e.g. G4POP, G4POP/P or GW4POP/M
- Station country - The country where the Station call is located (In the examples above either England or Wales.) The ITU & CQ zones are automatically set upon entering the country but in the case of very large continents like Australia or the USA which cover many different zones please check that the selected zone is correct.
- Grid Locator - The 6-digit Maidenhead locator applicable to the current 'Station Call'
- Operator call - This may not be the station call perhaps because the station call is a special event or club call with many different operators using the equipment.
- Owners call - The person who owns the station

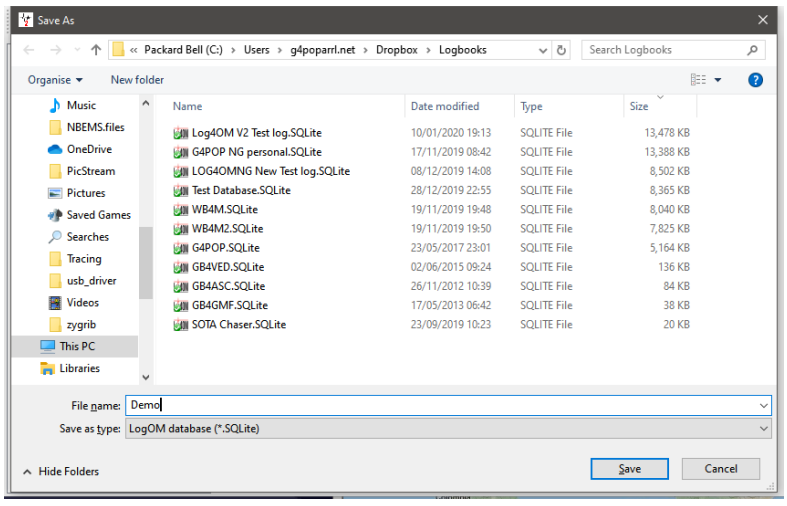
The personal information on the right hand side of the screen is used when operating with Winkeyer or other facilities which employ macros containing the users information.

Creating the database

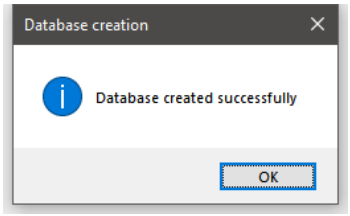
- Having completed this form click 'Save and apply'
- The program will open and present another configuration tab for creating a new database as below



- Click on the 'New' button to create a new database
- Navigate to a location for storage of the data.
- Enter a meaningful name for the database.



- Click 'Save' followed by 'OK' then 'Save and apply'



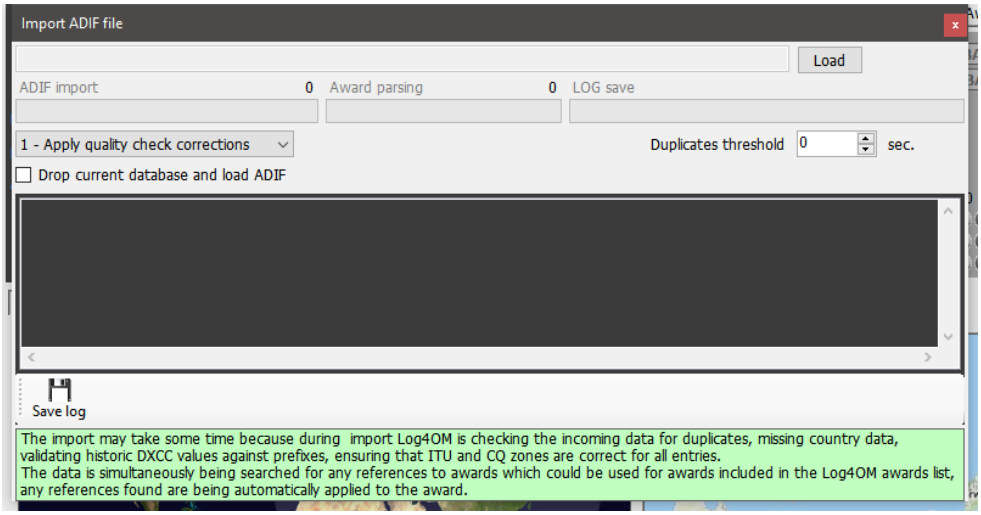
Note:

- **QSO's cannot be recorded until a database has been created.**
- **The sqlite database from version 1 of Log4OM is not compatible with version 2.**
- **Users of version 1 must export an ADIF file version 3>>> from version 1 and import it into version 2 once a database has been created in version 2 as described above.**

ADIF Import

Once a database has been created an ADIF file exported from any other logging program can be imported to Log4OM V2.

- Click menu 'File/Import ADIF'
- Click on the 'Load' button



- Navigate to the location of the ADIF file to be imported
- Select the ADIF file and click 'Open'
- Check the box 'Apply country corrections on load' to correct any DXCC errors in the incoming ADIF file.
- Checking the box 'Drop current database on load ADIF' if is required to replace existing QSO's
- Click 'Import' and wait to be notified that the import is complete.

Note all data will be lost and replaced by the incoming ADIF file!
leaving the 'Drop current database on load' box unchecked will merge the imported data with the existing data.

Any changes made to the incoming data will be listed and a copy of the log file containing details of any changes can be saved for future reference by clicking the **'Save log'** button at the bottom of the import window.

The 'Duplicates threshold' allows the user to set a margin for matching the QSO start times +/- nn seconds up to 60 seconds to avoid causing duplicates due to timing errors. This is a function is used when importing QSO from other sources that do not have a time resolution to seconds (e.g. QRZ.COM exports) and it is required to merge the QRZ log with the Log4OM logbook.

Illegal suffixes

Strange suffixes may cause some errors during import and cause an incorrect DXCC number and country name to be applied.

Examples:

- A station incorrectly using /LH as a suffix intending to signify a 'Light House' will be interpreted as a Norwegian station and recorded as such!
- A station incorrectly using /PM as a suffix intending to signify 'Pedestrian Mobile' will be interpreted as an Indonesian station and recorded as such!

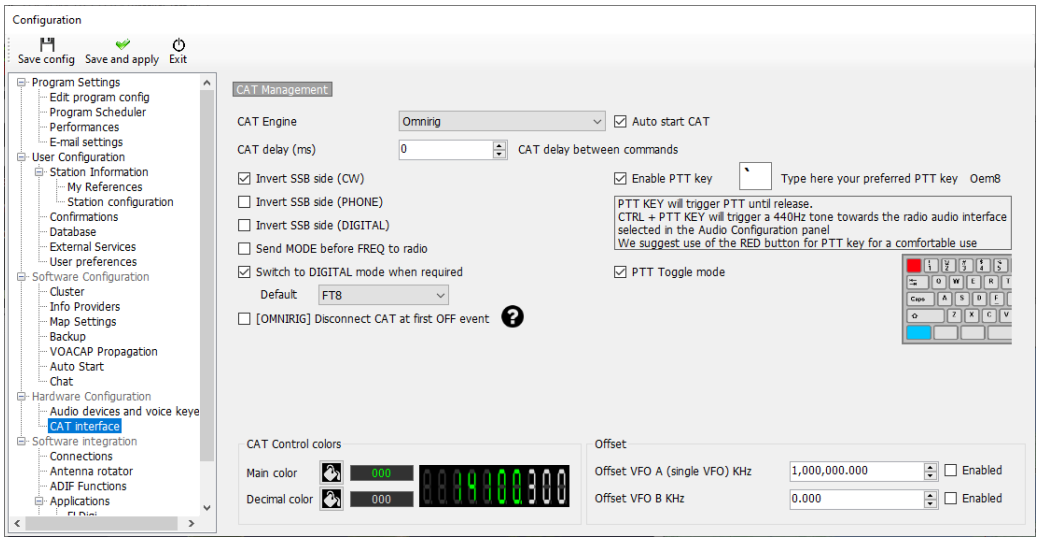
/MM (Maritime Mobile) and /AM (Aeronautical Mobile) will be saved without a country name or DXCC due to the locations being outside any entity.

/P (Portable), /A (Alternative location in some countries), /QRP, /QRPP and /M (Mobile) will have no impact on the import and the country will be identified by the normal call sign prefix.

Call checking also includes checking the valid dates of special calls and DXPeditions to ensure further accuracy.

Radio CAT Control

To select the CAT Interface, click on 'Settings/Program configuration then select 'CAT Interface'



- Select the required interface (Omnirig or Hamlib)
- Check the 'Auto start CAT' box
- Click on 'Save and apply'

Various other options are provided for the idiosyncrasies of various radios

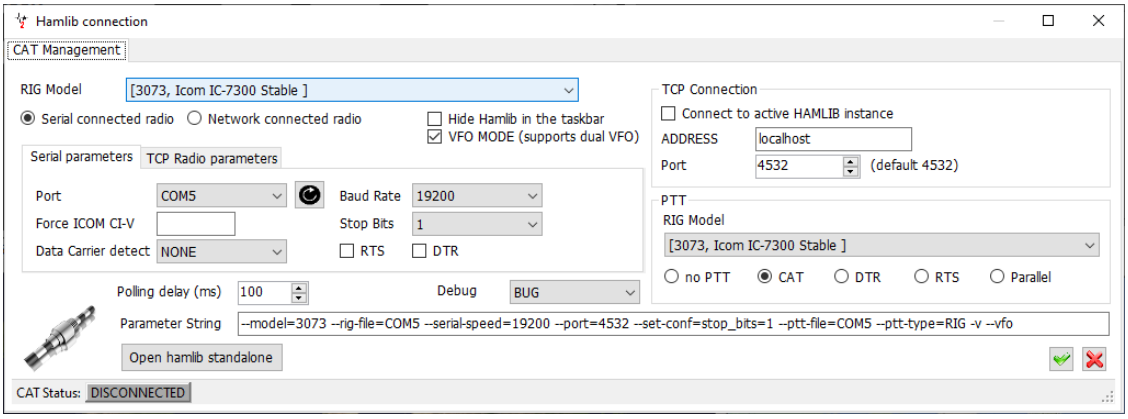
If Omnirig is selected the user must download and install Omnirig from http://dxatlas.com/OmniRig/ - Then re-start Log4OM V2

Connecting CAT

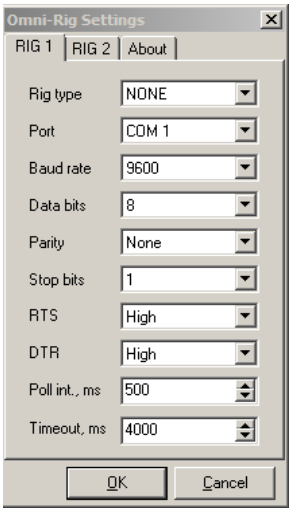
Click on 'Connect/CAT/Show CAT interface'

Depending on the selection made in the Program configuration either the Hamlib or the Omnirig interface window will appear as below

Hamlib interface

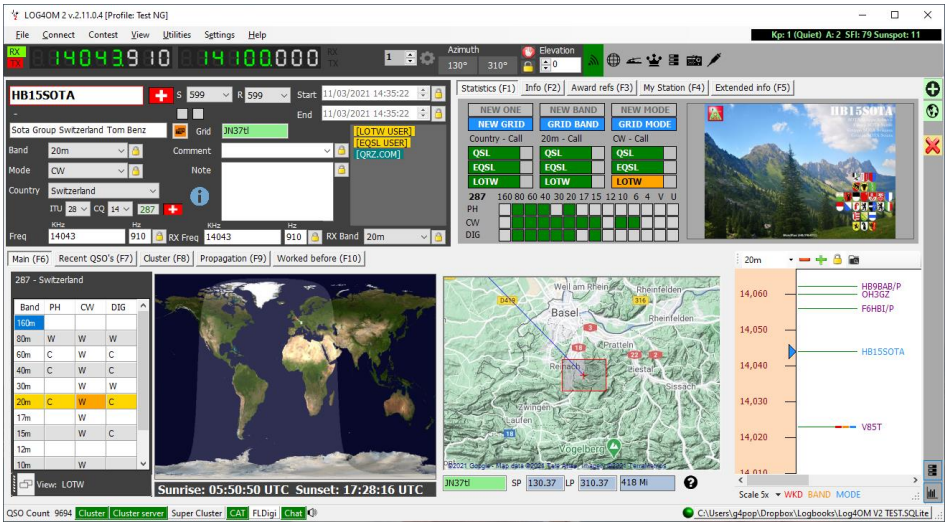


OmniRig Interface



Select the appropriate radio and set the com port and baud rate to match that of the radio and any other parameters for the equipment to be used and then click Open/OK.

Once connected the green CAT LED at the bottom of the Log4OM V2 window should light and the frequency will be displayed at the top.



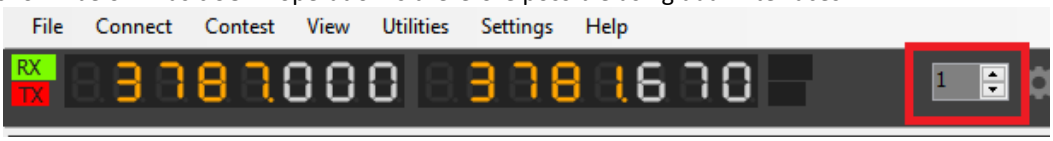
CAT Screen

Selecting CAT screen from the 'Connect/CAT' menu provides a large floating CAT control window which provides the following features.

- Change frequency by scrolling the digital display numerals with the mouse scroll wheel or by clicking the left mouse button to increase the frequency or right clicking to decrease.
- Change bands and modes by using the buttons
- Change between rig 1 and 2 if using Omnirig by selection at the top right.
- Set VFO offsets by clicking the settings cog icon at the top right of the window

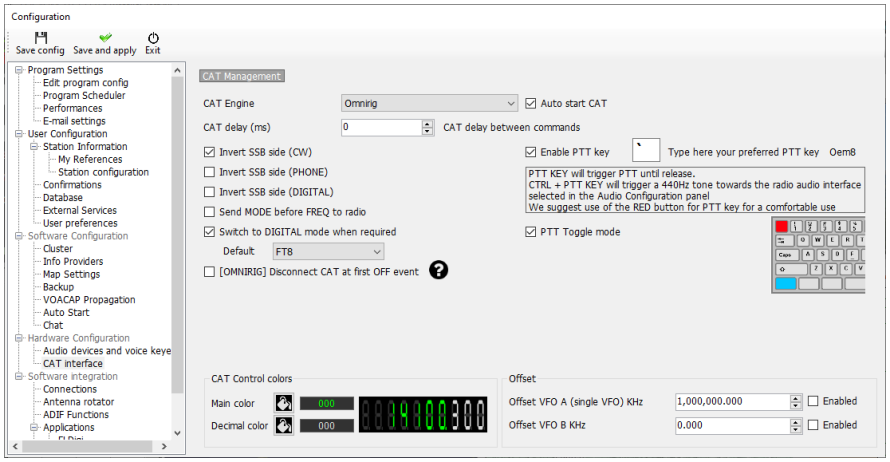
SO2R and dual radios

When using Omnirig it is possible to switch between two different radios using the Rig 1 & Rig 2 selection on the toolbar as shown below. Basic SO2R operation is therefore possible using dual interfaces.



PTT and Tune

In the Settings/Program Configuration/CAT Interface tab it is possible to select which keyboard keys trigger PTT and Tune.



- Check the 'Enable PTT Key' check box
- Select the required keyboard key
- Click the 'Save and Apply' icon

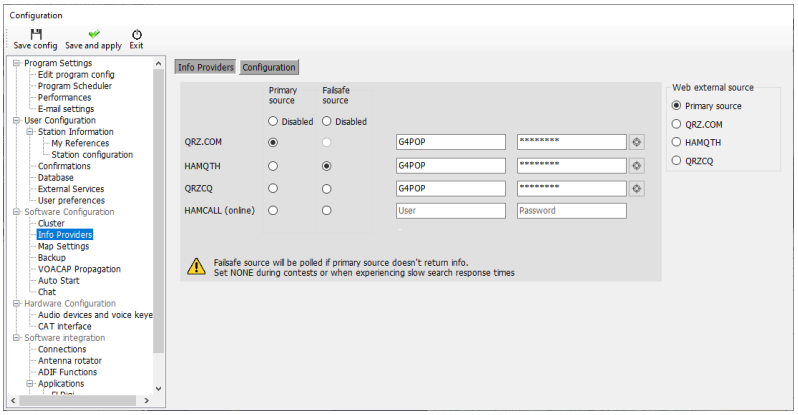
The action is a press and hold not a toggle on/off action - PTT or tune will cease when the keyboard button is released.

Automatic Call Sign lookup

The user can select the online call lookup service to be the primary source and a choice of a failsafe or backup lookup service in the event of the primary source not being available or not providing information about the call sign being looked up.

In the settings/Program configuration menu select 'Info providers'

The user must first add the username and password for each source. Clicking the button directly to the right of each password field tests the lookup service is being correctly accessed, if it is working correctly a green check mark appears to the left of the user name field.



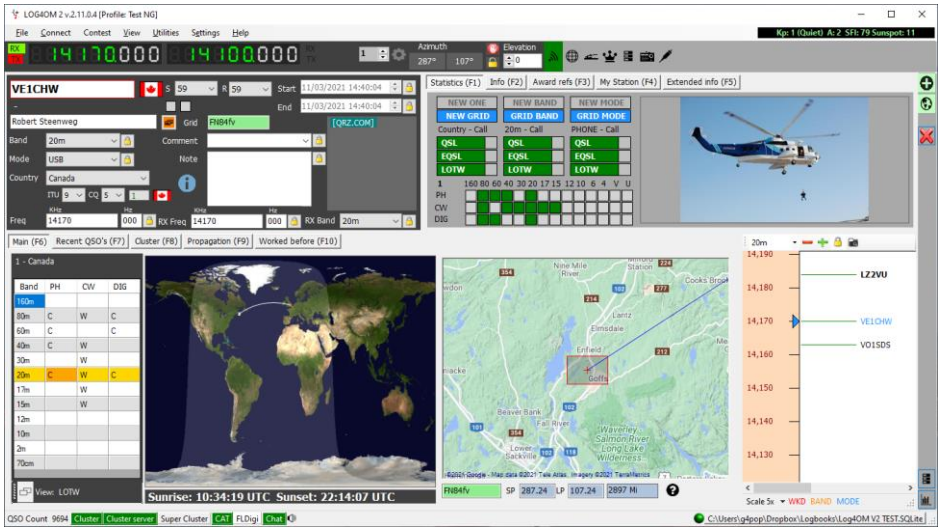
The user can also select which source is used when the external browser is opened by using the menu choices to the right.

For an in-depth explanation for obtaining the best lookup results consult the main user guide.

Adding QSO's

In the main UI enter the call sign of the station being worked in the Call sign field, the program will lookup the callsign using the on line lookup service selected and complete the data and frequency and mode information will be recorded from the CAT connection.

Change or add any information like RST or comments and notes



Click either the Green + (add button) or the enter/return key on the keyboard to save the QSO.

Incomplete lookup data

If the grid locator (Maidenhead Locator) is not displayed when entering a call sign, possibly some other information is also not displayed.

Reasons:

1. The user has not configured the lookup facility correctly in log4OM settings/program configuration/Info providers.

2. User is an unpaid 'Ham Member' at QRZ - Full lookup data is only available for paid XML subscribers.

3. The users XML subscription to QRZ has expired.

4. The station being looked up has not provided information for his bio at QRZ.

5. Incorrect username or password entered at settings/program configuration/Info providers.

Choices

1. Renew or subscribe to QRZ as a paid xml subscriber.

2. Check login settings in the Log4OM config at settings/program configuration/Info providers

3. Use HamQTH as the primary lookup source

Telnet Cluster

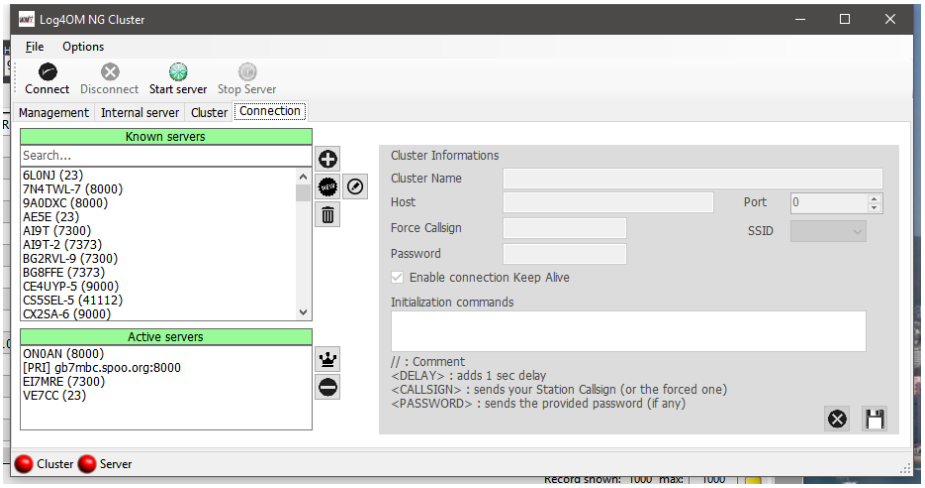
The Telnet cluster in Log4OM V2 will connect to many different cluster and skimmer servers simultaneously and will aggregated the results to provide a high quality list of DX spots without unnecessary duplicates.

Log4OM V2 also provides a cluster server to enable these aggregated results to be sent to other client software.

Setting up the Telnet cluster

Access to the Telnet server is by the Connect/Telnet cluster menu.

Servers may be selected from the 'known Server' list and added to the 'Active server' list and the user can add a new cluster server to the list by completing the cluster information form followed by clicking the save icon.



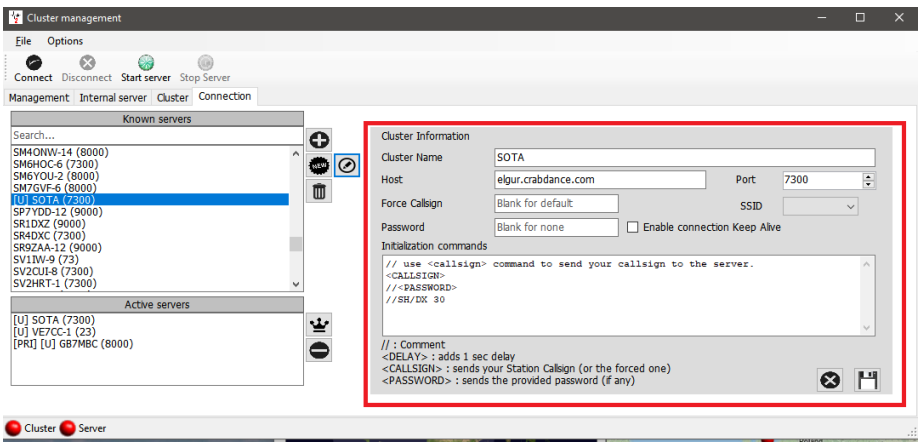
When all the desired cluster servers have been selected clicking the 'Connect' icon on the tool bar will open the 'Management' tab and display the connections being made and the incoming spots.

Adding and editing Cluster servers

User defined cluster servers may be added by clicking the ‘New’ button and adding the server and login details in the panel on the right-hand side.

Similarly, an existing cluster server may be edited by selecting it in the top left-hand panel and clicking the ‘Pen’ (Edit) icon.

When the addition or editing is complete it must be saved by clicking the save icon ‘Floppy disk’ at the lower right



Important note:

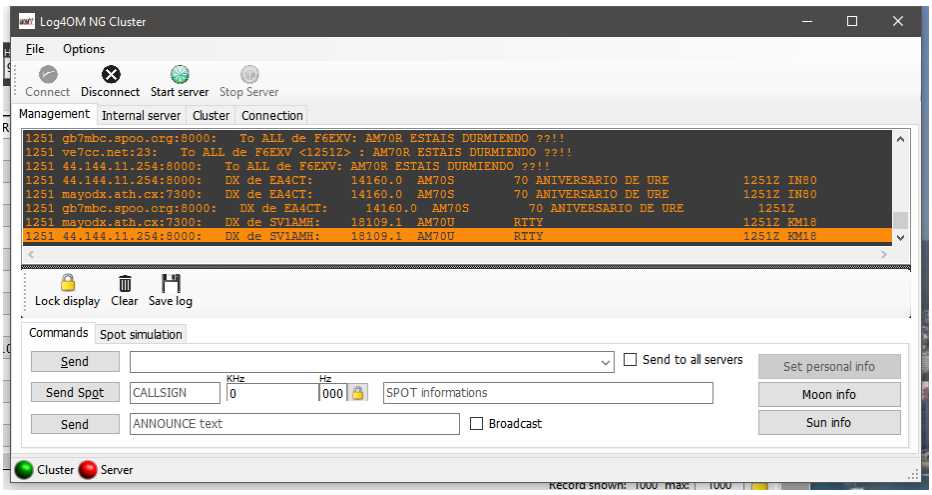
When editing an existing cluster that has already been selected as an active server it is necessary to remove it from the active server list, select the server in the known server list and click the ADD (+) button to replace it in the active server panel.

Primary cluster server

The Primary cluster is indicated with [PRI] in the Active servers list will receive user commands like spots and other messages and will be also the standard destination for incoming commands through internal cluster server. The Primary cluster can be selected with the “crown icon”.

User cluster servers

User defined cluster servers are prefixed with a (U) and are preserved when the cluster server list is updated/



Sending cluster commands

Cluster commands, filters, announcements, and spots may be sent from the commands tab in the 'Management' tab.

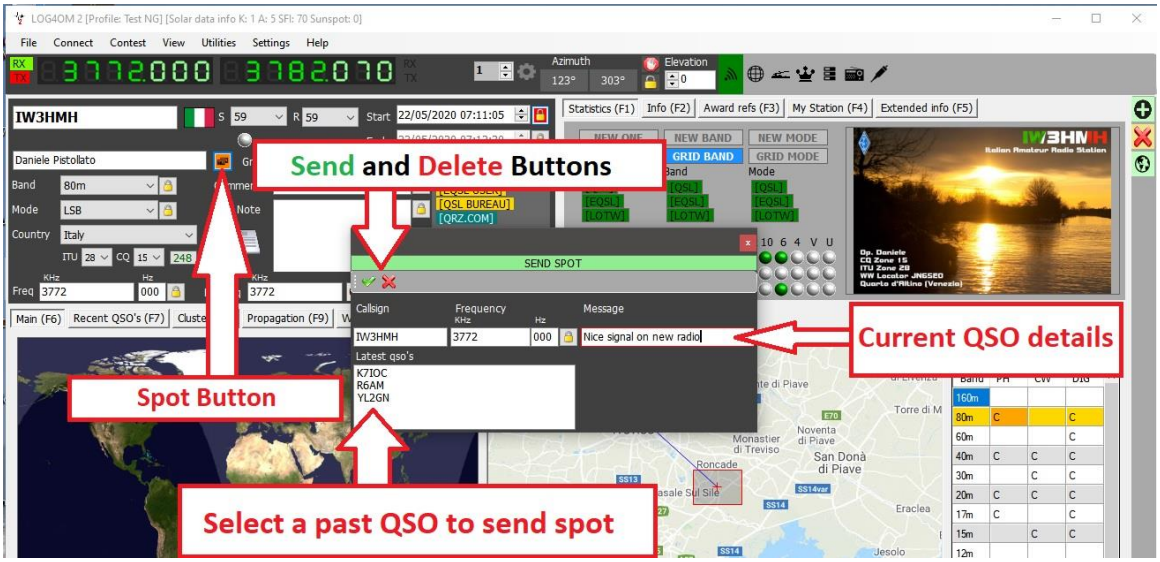
The 'Commands' tab enables the user to send commands like Show/DX or set special cluster server filters, for details of cluster commands see the documentation for the chosen cluster servers, DX Spider, CC User etc) Spots can also be sent from this window providing the user is registered with the chosen cluster servers.

Sending spots to a cluster

Spots can be sent directly from the QSO input screen by clicking on the send spot icon indicated in the graphic below.

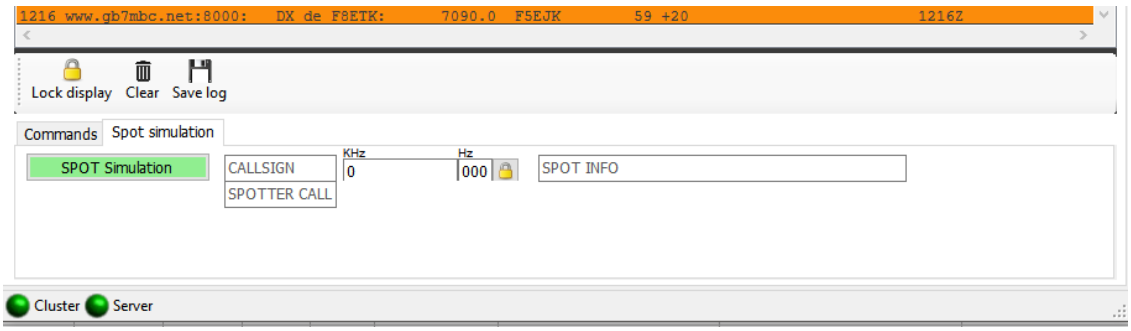
Please Note:

The user must be registered with a cluster server to be able to send spots to it



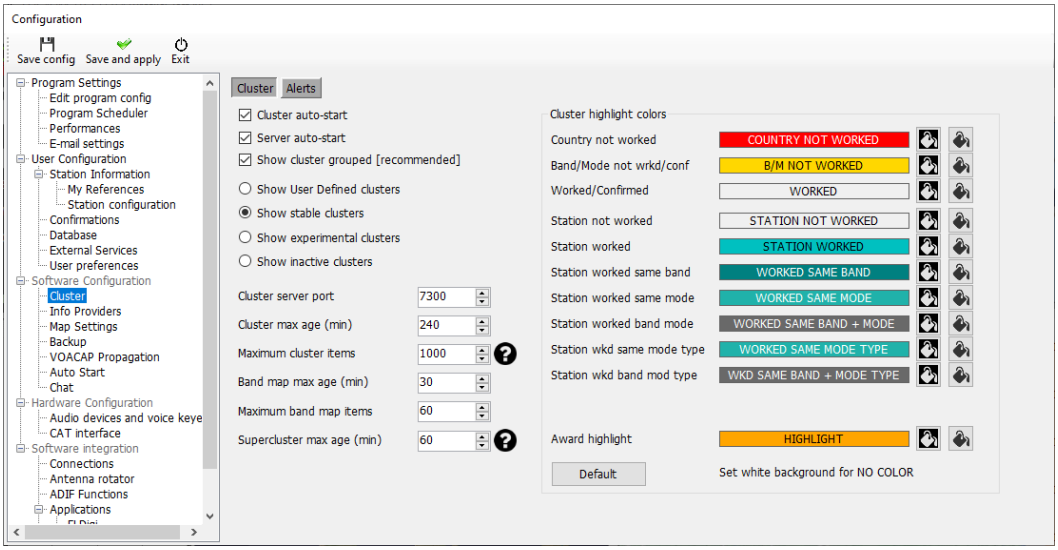
Spot Simulation

The 'Spot simulation' tab in the Connect/Telnet Cluster/Cluster Management screen allows the user to simulate sending a spot for test purposes without that spot being sent to the on-line cluster servers the spot is only displayed on the local computers cluster window.



Cluster configuration

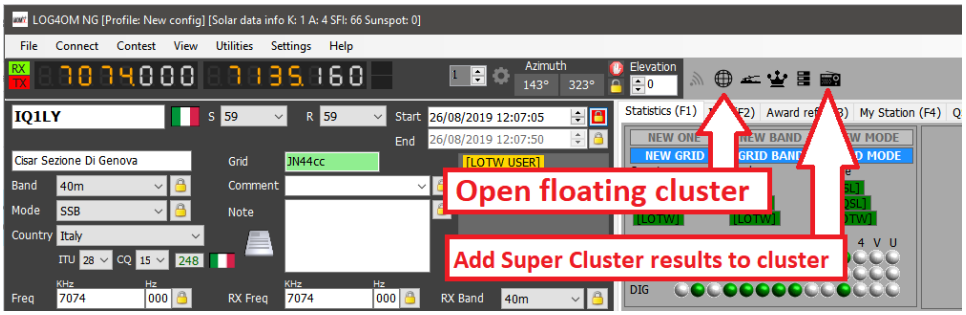
In the Settings/program configuration menu there are various options for the Telnet cluster e.g., Auto start of cluster and server and cluster highlighting selection.



The cluster can be started directly from main USER INTERFACE. Cluster disconnection is possible only through cluster management screen.

Cluster displays

The main cluster is included in the main user interface; however a floating cluster screen can be deployed by clicking the cluster icon on the top tool bar.



Both cluster displays provide displays of country worked/confirmed status and choices of band, mode and display views as below.

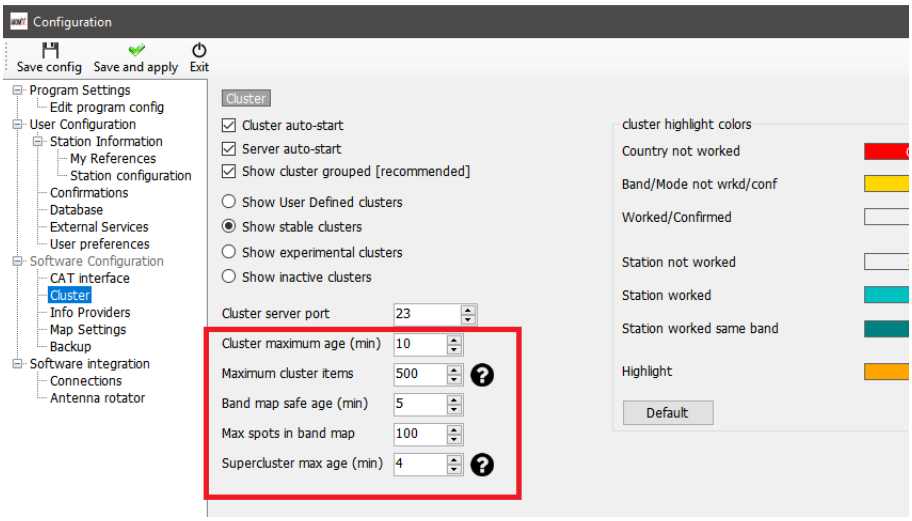
Super Cluster

The Super Cluster gathers data from HRDLog of QSO's recently logged by HRDLog users and amalgamates that information with the main cluster results providing an extremely accurate indication of spot quality.

Example:
If G4POP logs a QSO with VK7AMA in the last few minutes and spots are also received from the telnet clusters for the same band and mode then there is a high probability that VK7 is workable from the UK.

In the image above the 'Data quality' column displays spots of HIGH quality which have been received by Telnet and from the HRDLog data, whereas POOR quality indicates the data was only received via HRDLog and SPOT are spots received only via Telnet.

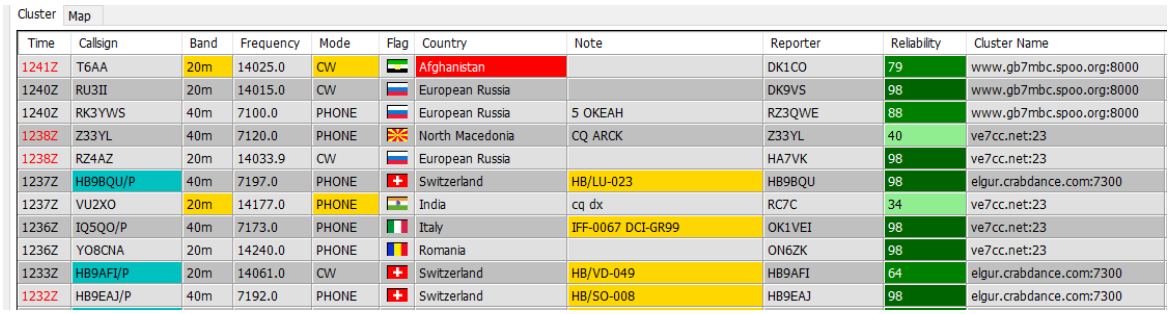
The age and maximum number of spots displayed in the Cluster, Band map and from HRDLog for the Super Cluster display can be selected by the user in the settings/program configuration/cluster tab as shown below.



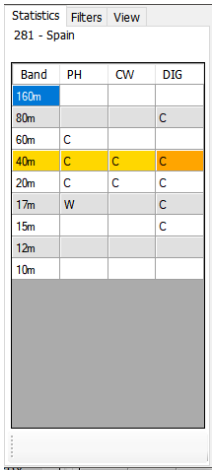
The 'Statistics' pane displays the worked/confirmed status and by what method of confirmation, of the country depending on that selected in the Program configuration/Confirmations menu shown on the right below.

Cluster time coloured red

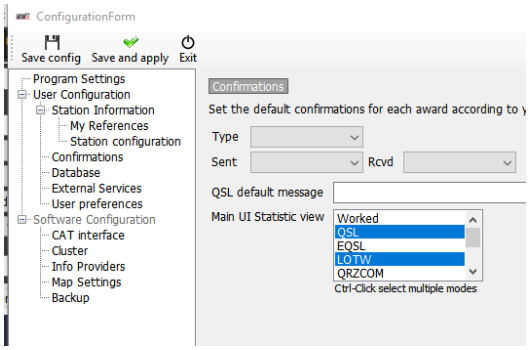
When the time for a spot is in a red font it indicates that the spotted station is a known LOTW user



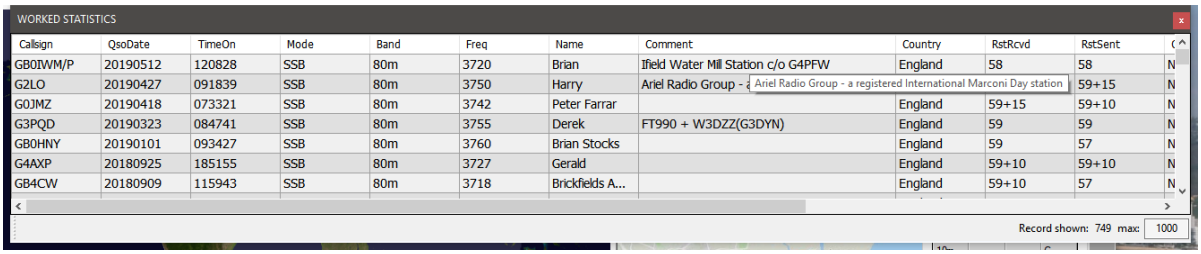
Time	Callsign	Band	Frequency	Mode	Flag	Country	Note	Reporter	Reliability	Cluster Name
1241Z	T6AA	20m	14025.0	CW		Afghanistan		DK1CO	79	www.gb7mbc.spoo.org:8000
1240Z	RU3II	20m	14015.0	CW		European Russia		DK9VS	98	www.gb7mbc.spoo.org:8000
1240Z	RK3YWS	40m	7100.0	PHONE		European Russia	5 OKEAH	RZ3QWE	88	www.gb7mbc.spoo.org:8000
1238Z	Z33YL	40m	7120.0	PHONE		North Macedonia	CQ ARCK	Z33YL	40	ve7cc.net:23
1238Z	RZ4AZ	20m	14033.9	CW		European Russia		HA7VK	98	ve7cc.net:23
1237Z	HB9BQU/P	40m	7197.0	PHONE		Switzerland	HB/LU-023	HB9BQU	98	elgur.crabdance.com:7300
1237Z	VU2XO	20m	14177.0	PHONE		India	cq dx	RC7C	34	ve7cc.net:23
1236Z	IQ5QO/P	40m	7173.0	PHONE		Italy	IFF-0067 DCI-GR99	OK1VEI	98	ve7cc.net:23
1236Z	YO8CNA	20m	14240.0	PHONE		Romania		ON6ZK	98	ve7cc.net:23
1233Z	HB9AFI/P	20m	14061.0	CW		Switzerland	HB/VD-049	HB9AFI	64	elgur.crabdance.com:7300
1232Z	HB9EAJ/P	40m	7192.0	PHONE		Switzerland	HB/SO-008	HB9EAJ	98	elgur.crabdance.com:7300



Band	PH	CW	DIG
160m			
80m			C
60m	C		
40m	C	C	C
20m	C	C	C
17m	W		C
15m			C
12m			
10m			



Double clicking a cell in the statistics pane marked with a W or C will open a worked before list of all of the contacts with that country on the band/mode of the cell selected.

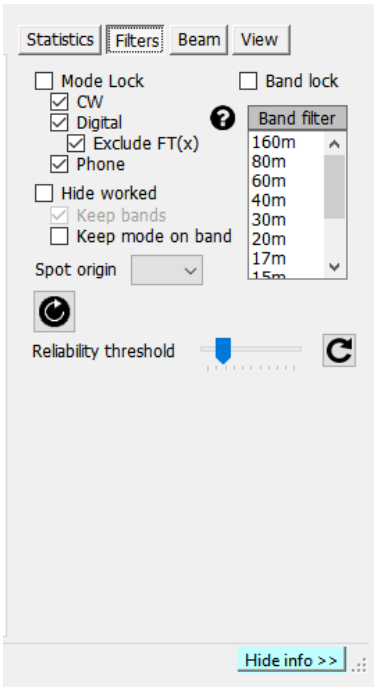


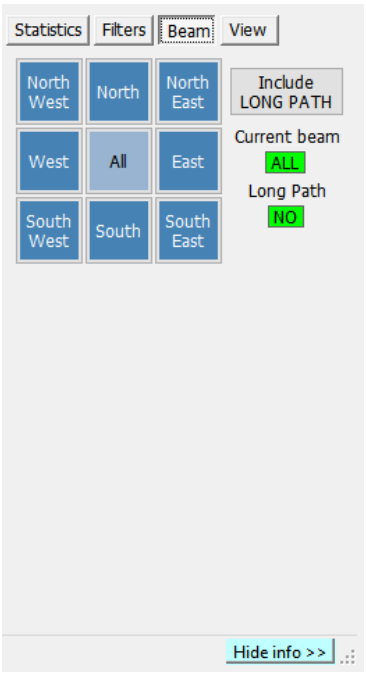
Callsign	QsoDate	TimeOn	Mode	Band	Freq	Name	Comment	Country	RstRcvd	RstSent	
GB0IWM/P	20190512	120828	SSB	80m	3720	Brian	Ifield Water Mill Station c/o G4PFW	England	58	58	N
G2LO	20190427	091839	SSB	80m	3750	Harry	Ariel Radio Group - a	England	59+15		N
G0JMZ	20190418	073321	SSB	80m	3742	Peter Farrar		England	59+15	59+10	N
G3PQD	20190323	084741	SSB	80m	3755	Derek	FT990 + W3DZZ(G3DYN)	England	59	59	N
GB0HNY	20190101	093427	SSB	80m	3760	Brian Stocks		England	59	57	N
G4AXP	20180925	185155	SSB	80m	3727	Gerald		England	59+10	59+10	N
GB4CW	20180909	115943	SSB	80m	3718	Brickfields A...		England	59+10	57	N

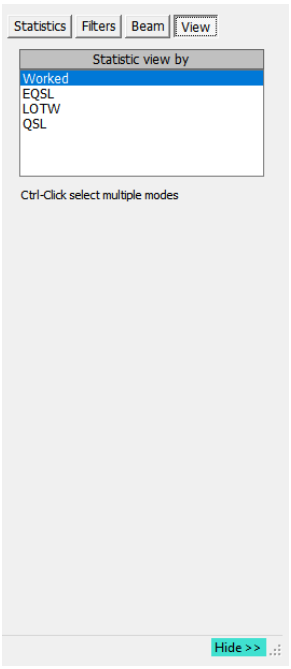
Cluster filters

The cluster filters provide a method of tailoring the spots to be displayed by band, mode, worked and QSL confirmation status - Use Ctrl/Click to select or deselect bands or statistics confirmation types.

The Beam filters enable selection of spots from a specific compass direction via short path or short and long path. This will enable filtering based on current beam direction in order to optimize efficiency.

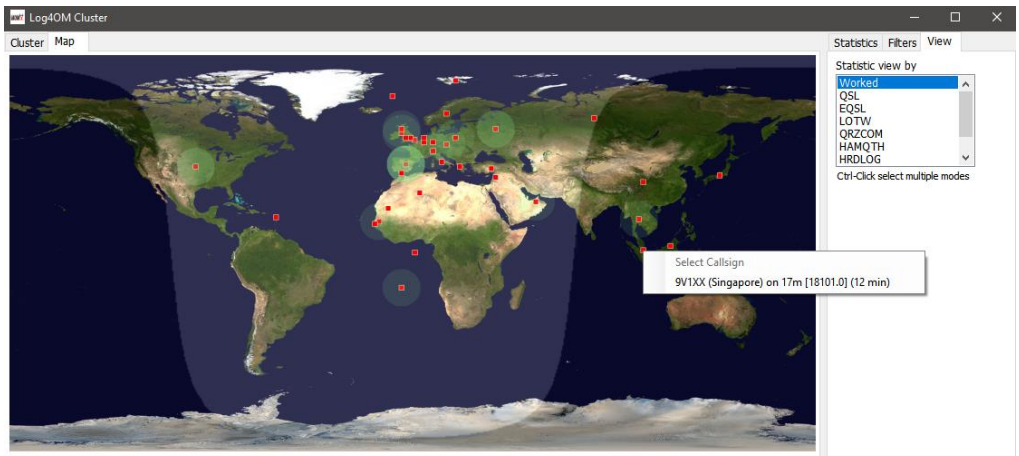






Cluster spots map

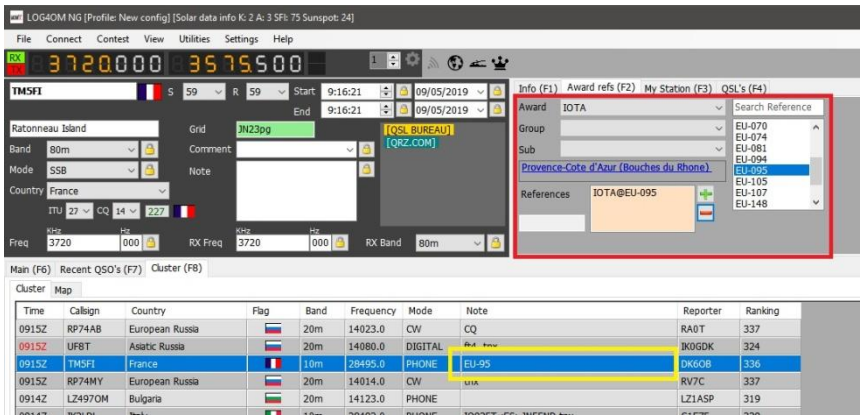
Clicking the 'Map' tab in either cluster will display a map of the current cluster spots, clicking a spot reveals the details of the spot a further click on the revealed call sign will perform the same actions as detailed in the 'cluster actions' section.



Intelligent cluster

When a spot is clicked on in the cluster if there is an award reference e.g. IOTA, SOTA or Log4OM V2 designer awards the text in the cluster comments/notes field is parsed, matched and added to the awards panel.

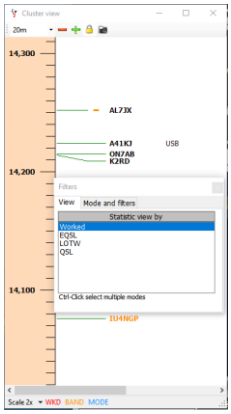
Below is an example of an IOTA reference being 'Read' from the notes field automatically.



Cluster Band map

Cluster band map can be accessed by the Connect/Cluster Band View menu and multiple Band map can be opened for individual bands.

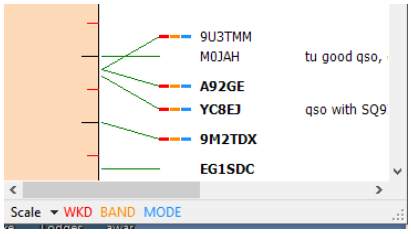
The band map is automatically reopened when restarting Log4OM V2 in the same size and position as last opened.



Band map filters

Clicking the small folder icon at the top of the band map provides options to change the statistics view from 'Worked' to confirmation types (EQSL< LOTW or QSL) and multiple confirmation types can be selected by holding the Ctrl key depressed and left clicking the menu selections.

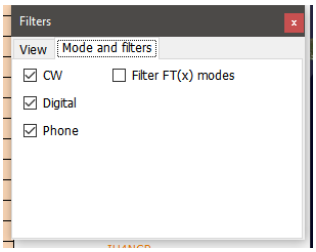
The confirmation status for the selected filter(s) is indicated by the small coloured bars to the left of the call signs



WKD = Worked (Red)
BAND = Band (Orange)

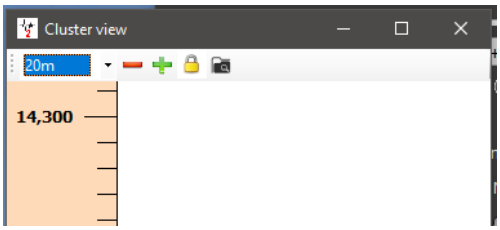
MODE + Mode (Blue)

The 'Mode' tab in this window provides a choice of Phone, Digital or CW spots to be displayed.



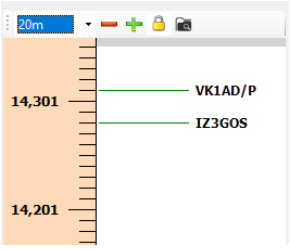
Band map Bands

The drop-down menu at the top left provides choice of bands to be displayed



Band Map Scale menu

The zoom level or scale of the band map can be changed using the 'Scale' drop down menu at the lower left of the Band Map from 0.5x to 15.0x or the +/- buttons at the top of the band map window.



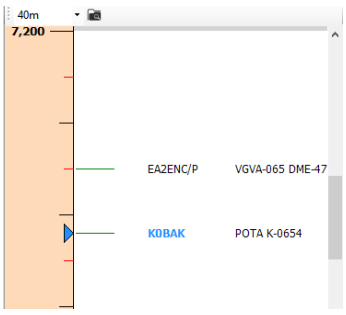
Band map Lock.

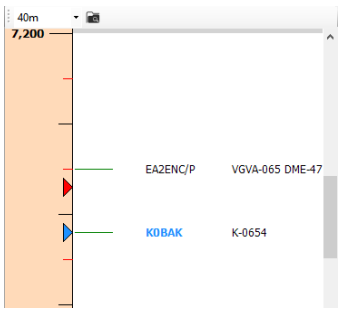
Clicking the yellow padlock locks the band map frequency display to the band selected on the radio if there is a CAT connection.

Band map CAT frequency display

The current radio RX/TX frequency is displayed on the band map frequency scale by a blue arrowhead marker, as the image on the left below.

When in split mode (assuming the radio is supported by Omnirig) the blue arrowhead marker indicates the RX frequency and the red arrowhead marker the TX frequency, as shown in the image on the right below.





Band map Call sign colours

— 8S0C
— E21YDP
— E2A
— UT1XX
— EG3SDC
— WA1GOS
— SO0A
— HA1AD
— ER5LL
— VA3TIC
— EG1SDC
— IQ3AZ/P
— 6E6E
— NM5M
— K8BZ
— VE3KI
— K1VUT
— K3SV
— NN5O
— W7SW
— N4OO

Black = Phone

Orange = Digital

Purple = CW

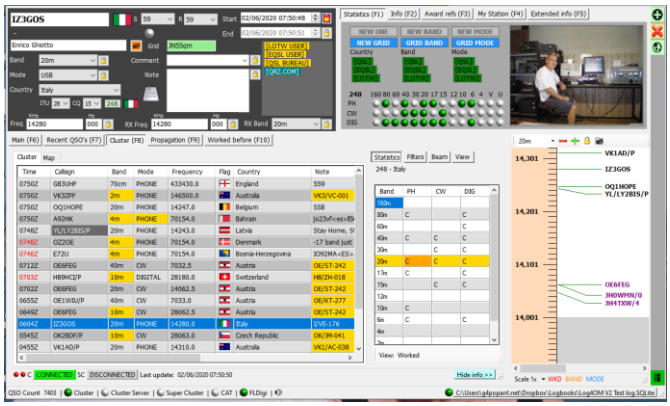
Blue = Spot close to the radio VFO frequency

Bold = A recent spot (e.g. spotted in the last 5 mins)

Please note: Clicking on a spot in the band map will activate a lookup in the main UI F6 view including country worked statistics, it will not activate the country statistics in the main cluster because the main cluster is able to function independently.

Band Map Mouse Actions

Identical to Cluster actions below with the addition of the ability to 'SCROLL' the band up and down with the mouse scroll wheel.



Cluster actions

Single click on cluster spot

1. Adds call to call sign input field
2. Looks call sign up in Clublog, QRZ, Recent calls and completed data fields

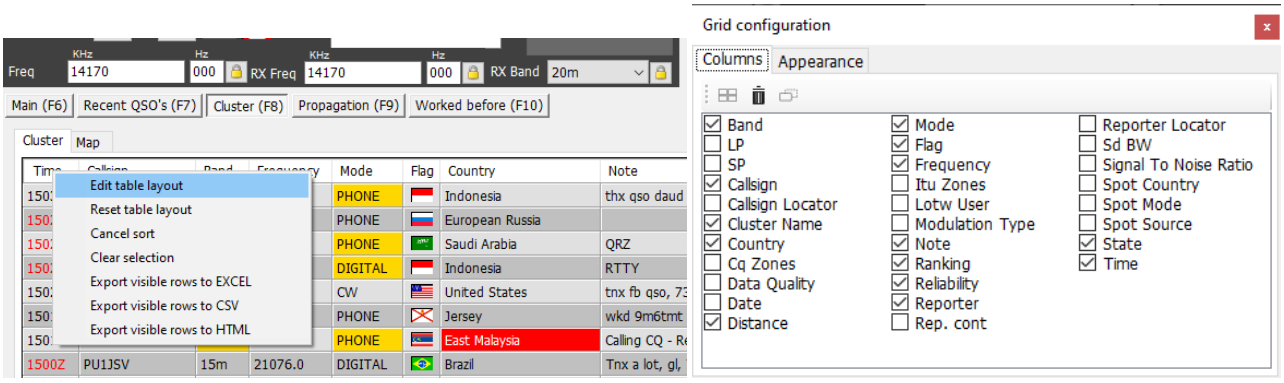
3. Checks for SOTA or IOTA or other award reference in comments and notes fields and completes the appropriate awards program fields.
4. Fills country worked by mode and band graph
5. Draws great circle path on world map
6. Opens the large-scale station location map and biography photo if available from lookup site
7. Fills SP/LP headings, antenna elevation and distances in the Contact(F3) tab
8. Adds data to the Info (F1) tab for the station
9. Displays 'Worked' banner in the lookup data box - If 'Worked before' is clicked the worked before window opens displaying all previous contacts with that station.
10. If a call sign is found for call during lookup, clicking the lookup providers name (QRZ, HamQTH) opens the web browser at the page of the call sign
11. Fills mode, frequency and band in the input window if CAT is enabled.

Double click on cluster spot

All as 1 above plus changes radio mode and frequency on the radio.

Cluster grid columns

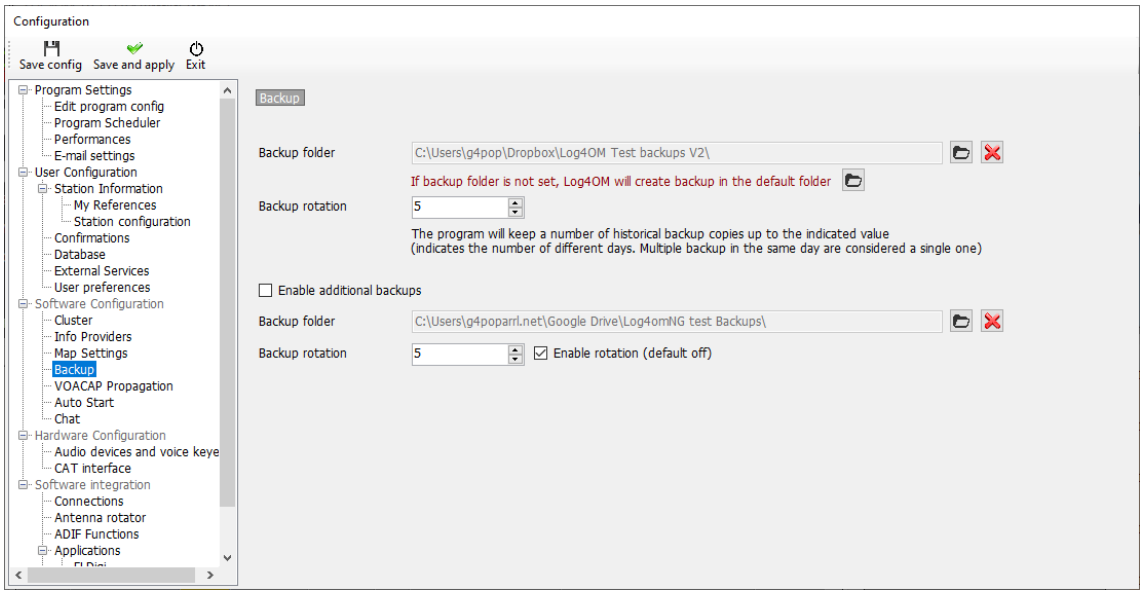
Right clicking on the cluster column title bar provides access to a menu, selecting 'Edit table layout' provides the user with a selection of which columns to be displayed and also font size and colour selections.



Columns can be re-ordered by left clicking the title bar of the column to be moved and dragging to its new location.

Backups

It is highly recommended that the user enables the automatic backup facilities included in the software, details of which are fully covered in the main user guide.



Duplicating Log4OM setup on another PC

e.g. The user has a station in the house and one in the garage using the same type of equipment and wishes to duplicate the various screen layouts and configuration from the house PC to the one in the garage.

Action

Copy the contents of the 'USER' folder here C:\Users\YOUR USER NAME\AppData\Roaming\Log4OM2\user to the same folder on the other machine.

The authors of Log4OM and its associated documentation and visual aids take no responsibility for any defects or malfunctions cause by its use or interpretation. E&OE