# Log4OM 2 Amateur Radio Software By Daniele Pistollato IW3HMH





By Terry Genes G4POP

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## Welcome to Log4OM V2

This latest version of Log4OM, Log4OM V2, is refined to include extra facilities requested by Log4OM V1 users, OM and YL's alike, and to streamlining the user interface.

Log4OM V2 is free software developed by Daniele Pistollato IW3HMH for the complete management of the station log. The application is developed in C # and is compiled for any Windows operating system Windows 7 and above.

The software will only function on Linux machines using the "Wine" Windows emulator or Mac OS X machines using "Parallels" emulation software or using "Boot Camp" The Log4OM V2 team do not provide support for the program when its being run on Linux or Mac machines it is designed for use with Windows 8/10/11>>>

Log4OM V2 is designed to be easy to understand, while being easy to adapt to the requirements of the individual. QSO's are personal and so no constraints have been made to prevent the user from accessing QSO data (Including by direct access to whatever database source is used).

Each set, list or data in the program is stored in text files, JSON or XML which can be edited by the user.

This approach allows the user to modify the list of awards, contests, operating modes, bands, band plans, views of the QSO and all other available parameters and information. This information is freely accessible and usable by other

programs and can be updated independently by the user if required. The database used for storing the QSO's is SQLite, which is open Source and free tools are available to read and write data in the database from the Internet.

More advanced users may wish to use the MySQL support included in the program, which makes a networked logbook for multiple stations possible for contests and DXPeditions.

The software is freely downloadable at <u>https://www.log4om.com</u> and its use is free of charge and available for any private purpose, commercial users should contact the author.

Log4OM V2 is constantly evolving and new versions with new features are released regularly. The author endeavours to maintain compatibility with previous versions of the database. However, before performing any update, it is important to <u>make a backup</u> copy of the data because the publisher takes no responsibility for lost data.

#### Updating from a previous version of Log4OM Version 2

This is a simple matter of running the .exe installer to overwrite the current installation, the database and configuration will be retained but it is a wise precaution to **make a backup** before updating.

While the author attempts to avoid problems and errors it is imperative, as is normal for all software, that the user makes regular backups of data either manually or with the special functions provided in the program. Log4OM by default creates an ADIF backup on each program shutdown, keeping history of last backups and monthly saves.

#### Migrating from Log4OM Version 1

Log4OM version 2 cannot use the SQLITE database created/used by Log4OM version 1, it has an entirely different structure.

Users of Log4OM Version 1 should export an ADIF file in ADIF 3 format and then import it into the new version 2 of Log4OM once a database has been created or use a Log4OM v.1 backup as the ADIF source.

The configuration and set up of version 1 is not transferable to version 2 so it is necessary for users to complete the relevant configuration menus in version 2 when first installing the software.

## **Program features**

- Accurate call lookup by multiple external sources QRZ, HamQTH, QRZCQ, HamCall and internal Clublog aggregated with automatic fallback to a secondary source if the primary contains no data.
- Award tracking and display fully configurable by the user.
- Band mapping of cluster spots with multiple band viewers individually filtered by mode and band by the user.
- Call sign online QSL graphics and large scale, scrollable location map displays
- Dynamic UDP inbound / outbound support over multiple ports and services for hardware including amplifiers
- Ease of use via mouse or keyboard
- Standalone contest support with integral CAT display.
- CW keyer with support for Winkeyer units and EESDR TCI protocol with integral CAT display.
- Expert Electronics SunSDR support using the TCI interface for all required features like CAT and keyer control.
- Full management of confirmations of the QSO data is available with different methods of delivery of the most appropriate confirmation type, including merging of QSO confirmation data from QRZ, LOTW & EQSL.
- Full SOTA & IOTA support
- Support for complex queries when searching for those without SQL knowledge.

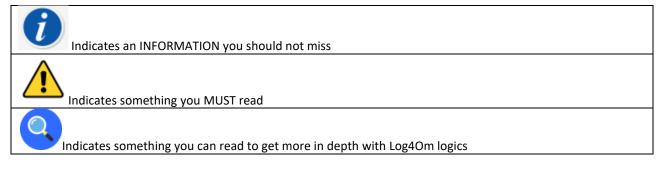
- Integrated with online logbooks for LOTW, eQSL, QRZ.com, HamCall, Clublog, HamQTH, HRDlog.net etc.
- Integration with N1MM, PSTRotator, QARTest, WSJT-X, JTAlert, Gridtracker, EESDR 3.0, FLDigi etc.,
- Intelligent cluster aggregates the information from multiple cluster servers and HRDLog Super cluster with spot quality display.
- Intelligent cluster filtering provides automatic collection of award references.
- Log4OM cluster server for distribution of spots to other programs.
- Multiple Cluster viewer band map by band and mode
- Propagation analysis using VOACAP linked to call sign lookup and cluster which predicts probability of a connection (Contact)
- Local weather conditions using METAR/TAF
- Radio CAT control via either TCI, Omnirig or Hamlib
- Real time grey line presentation with long and short path tracks and headings.
- Search and filtering of data is the most advanced of any logging software.
- Security of user information and data with multiple backup options and locations.
- UDP Inbound, Outbound and Proxy facilities
- User configured layouts for cluster and logbook grids.
- Upload data to user's own web sites.
- Voice Keyer

Support for Log4OM V2 is supplied free from the author at

https://www.Log4OM.com

## **Getting Started**

#### **Conventions used.**



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).

#### Setting programs to 'Run as an administrator'.

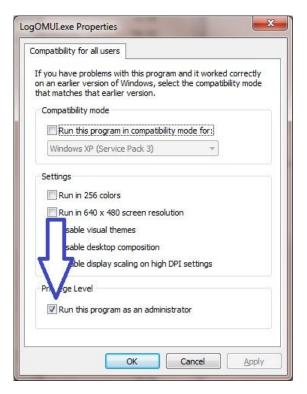
If users wish to synchronise CAT control with multiple programs it is imperative to use Omnirig and to set <u>Omnirig</u> and all programs sharing the <u>Omnirig CAT control</u> multi-threading to run as an administrator as follows:

- Locate the L4ONG application exe at C:\Program Files (x86)\IW3HMH\Log4OM NextGen
- Locate the L4ONG.exe and right click on the file and select 'Properties'.
- In the 'Compatibility' tab click the bottom button marked 'Change settings for all users'
- Check the 'Run as an administrator' box.
- Click 'Apply' followed by 'OK'

Repeat the above for Omnirig and any other programs sharing Omnirig.

| eneral  | Compatibility          | Security             | Details     | Previous Versions                             |
|---------|------------------------|----------------------|-------------|---|
| atche   |                        | indows, se<br>rsion. |             | l it worked correctly<br>ompatibility mode th |
|         | atibility mode         |                      |             |   |
|         | Run this progra        | m in compa           | tibility mo | de for:                                       |
| Wi      | ndows XP (Sen          | vice Pack            | 3)          | *   |
| Settin  |                        |                      |             |   |
|         | igs<br>Run in 256 colo | 195                  |             |   |
|         |                        |                      |             |   |
|         | Run in 640 x 48        |                      | esolution   |   |
|         | Disable visual tł      | nemes                |             |   |
|         | Disable desktop        | compositi            | on          |   |
|         | Disable display        | scaling on           | high DPI    | settings                                      |
| Privile | ege Level              |                      |             |   |
|         | Run this progra        | m as an ad           | ministrato  | r   |
| Ch      | nange settings f       | or all users         |             |   |

Ensure the bottom box marked by the Blue arrow 'Run this program as an administrator' is checked.



Click 'Apply' and then OK to close this window.

Click OK for the remaining window and return to your desktop.

Restart Log4OM, the Communicator will run and be minimized as in the first image.

## **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 <u>MUST</u> be completed to enable Log4OM V2 to select the correct band-plans, map, 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 exceptionally 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'
- Operators 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.
- Owner's call The person who owns the station.

The personal information on the right-hand side of the screen is used when operating with CW Keyer or other facilities which employ macros containing the user's information.

| ♥ ♥<br>Save config Save and apply Exit  |  |  |             |                   |   |
|---|--|--|-------------|-------------------|---|
| Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings | Station information Station Callsign * | G4POP IARU Region *  |             |                   |   |
| User Configuration  | Station Country                        | England ~  | My Name     | Terry Genes       |   |
| - Station Information - My References   |  | TTU 27 ∨ CQ 14 ∨ 223   | My street   | 62 Marconi Avenue |   |
|   | Station Gridsquare *                   | Danbury  | My City     | Burnham on Crouch |   |
| Database  |  | Dengie<br>National   | My Postcode | CM0 8EY           |   |
| External Services   |  | National<br>Nature Reserve   | My State    |                   | ~ |
| Award preferences   |  | South South  | My County   | Essex             |   |
| Software Configuration  |  | Woodham  |             | -                 | _ |
| - Cluster Cluster Alert   |  | Ferrers Burnham-on-Crouch  | My Sig      | FISTS             | _ |
| E- Info Providers   |  | ord  | My Sig Info | 1234              |   |
| Configuration   |  | Foulness   |             |                   |   |
| Map Settings  |  | Rayleigh<br>©2022 Google - Map data @2022 Mele Atlas, Imagery ©2022 TerraMetrics |             |                   |   |
|   |  | JO01jp SP 0.00 LP 180.00 0 Mi  |             |                   |   |
| - Auto Start  |  |  |             |                   |   |
| Chat  | Operator Callsign                      | G4POP  |             |                   |   |
| Hardware Configuration     Audio devices and voice keye   | Owner Callsign                         | G4POP  |             |                   |   |
| - CAT interface   | My contact Clubs & Assoc's             | ×  | ×           |                   |   |
|   |  |  |             |                   |   |
| E-Software Integration  |  |  |             |                   |   |

#### **Creating a Logbook Database**



It is NOT possible to save or import QSO's unless the user first creates a database for the information to be saved to.

The user may have as many databases (Logbooks) as required e.g. Main call sign, Contest call sign or Special Event call sign etc.

However due to the powerful search and filtering tools in Log4OM V2, a single logbook may be used providing the QSO's have the correct Station and operator calls recorded. It is then possible to identify all QSO's using specific user call signs (Station or operator calls) and analyse the results for that set of QSO's. **The statistics are calculated on the whole database and not by station/call sign.** 

The standard database is SQLIte but a MySQL database may be used for multi station contest operation of in the case of gigantic databases.

#### How to create a SQLite database.

- Go to 'Settings/Program configuration/Database'
- Select the type of database (SQLite is best for normal users)
- Click the 'New' button
- Select a location to save the database (A cloud storage is a good choice)
- Give the database a meaningful file name
- Click 'Save' in the file explorer window.
- Click 'Save & exit in the 'Program Configuration' window

| Configuration                                   |   |      |  |
|---|---|------|--|
| M 🖌 O   |   |      |  |
| Save config Save and apply Exit                 |   |      |  |
| Program Settings                                | Database SOLITE   |      |  |
| - Edit program config                           | Database SQLITE   |      |  |
| Program Scheduler                               |   |      |  |
| E-mail settings                                 | C:\Users\g4pop\Dropbox\Logbooks\Log4OM V2 TEST.SQLite         | Open |  |
| User Configuration                              | C. (Users (grpop) (Dropbox (Eugbooks (Eugroni v2 TEST. SQLice | Open |  |
| Station Information                             | New   | Test |  |
| My References                                   |   |      |  |
| Station configuration                           |   |      |  |
| Database  |   |      |  |
| External Services                               |   |      |  |
| User preferences                                |   |      |  |
| - Award preferences                             |   |      |  |
| Software Configuration     Guster               |   |      |  |
| Cluster Alert                                   |   |      |  |
|   |   |      |  |
| Configuration                                   |   |      |  |
| Map Settings<br>Backup                          |   |      |  |
| VOACAP Propagation                              |   |      |  |
| - Auto Start                                    |   |      |  |
| Chat  |   |      |  |
| Hardware Configuration                          |   |      |  |
| - Audio devices and voice keye<br>CAT interface |   |      |  |
| CW Keyer interface                              |   |      |  |
| Software integration                            |   |      |  |
| Connections                                     |   |      |  |
|   |   |      |  |

#### **Changing Database**

Log4OM allows an unlimited number of databases to be created, changing between databases does not require a program restart.

- File/Open New database
- Click on 'Open' in the 'Database' tab

| Configuration   |   | – 🗆 X        |
|---|---|--------------|
| Save config Save and apply Exit   |   |              |
| Program Settings     Edit program config     Edit program config      User Configuration     My References     Station Informations     Ordifmations     Database     External Services     User preferences     Software Configuration     CAT interface     Custer     Info Providers     Map Settings     Backup     Software integration     Contextions     Antenna rotator     ADIF Functions | Database       SQLITE       •         C:\Users\g4poparrI.net\Dropbox\Logbooks\HUGEV2 LOG.SQLIte         New | Open<br>Test |

- Select the required database and click on 'Open'
- Click 'OK' in the connection test pop up window
- Click 'Save and apply'

#### **Using MySQL Databases**

MySQL databases are only required for contest or field day operations where multiple stations/operators are saving QSO's to a central database simultaneously or for gigantic databases over 150,000 QSO's

- Create a MySQL database using the MySQL tools provided by the MySQL database software
- Connect to it by going to the log4OM Settings/Program Configuration/Database tab and selecting MySQL from the 'Database' drop down menu at the top.

| Configuration   |  |  |
|---|--|--|
| Save config Save and apply Exit   |  |  |
| Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings                                       | Database MYSQL V                               | Deploy MySQL Database  |
| User Configuration     Station Information  | MySQL Address                                  | MySQL Address  |
| My References<br>Station configuration  | Database name                                  | Database name log4om2  |
| ···· Confirmations<br>···· Database   | Username O O O O O O O O O O O O O O O O O O O | MySQL Admin  |
| External Services   | Password                                       | MySQL Password   |
|   | Port 0   | Port 3306  |
| - Software Configuration - Cluster  | 🗹 Use SSL 🛛 🚱                                  | Use SSL  |
| ⇔ Cluster<br>└── Cluster Alert<br>⊖─ Info Providers<br>└── Configuration<br>·── Map Settings  |  | This action will create a NEW DATABASE. If used over an<br>existing database it will REMOVE ALL DATA |
| Backup<br>VOACAP Propagation<br>Auto Start<br>Chat  | Check Wing Clion Switch To MySQL               | Side to right to confirm operation   |
| Hardware Configuration     Audio devices and voice keye     CAT interface     CW Keyer interface     Software integration     Consections |  |  |

- Complete the fields on the left with the information from the MySQL database created earlier.
- Check the connection using the lower left button
- Complete the security fields to the right
- Click Create database.

#### **Cloud storage of databases**

Locating the database in one of the many "Cloud" storage providers is a very safe way of protecting the database because it can always be recovered either directly from the cloud or from any computer connected to that cloud storage facility.

It also makes it possible for the use of multiple logging sites e.g. Home on a local PC, Portable with a tablet or even a Windows phone. (Very useful for SOTA and WWFF operators.)

Unexpected results & data loss will be experienced if the log is updated <u>simultaneously</u> from more than one of the computers – Only use one instance of LOG4OM V2 at any time when working with a shared cloud hosted (google drive, dropbox, ...) database file (SQLite).

#### **Typical situation:**

A user has the following setup:

- 1. A main computer in the shack.
- 2. A laptop in the house used to update QSL sent and received status.
- 3. A Notebook computer used when operating portable or at an alternative location.

All computers must have LOG4OM V2 and cloud storage like Dropbox installed and use the same file located in a Dropbox folder, e.g. C:\....\Dropbox\Log4OM Logs\Mylog.sqlite

In use:

- The user operates from his shack and the Dropbox log is updated and gets synchronized to the other two computers as QSO's are added.
- Later the user operates from another QTH or portable using a Notebook computer and the Dropbox log is updated and gets synchronized to the other two computers as QSO's are added.
- The following day using the laptop the user updates the Log4OM status for 100 QSL cards that came from the bureau and also 24 cards that were sent out Dropbox synchronizes to the other two computers.

**Result:** 

- All computers have the latest QSO's and also the latest QSL status.
- If the automatic backup facility included in Log4OM V2 is used to backup to Dropbox also the user then enjoys full security by having a copy of his log and a backup on all computers that he has connected to Dropbox.





If the user needs to use all three computers <u>simultaneously</u>, as in a contest situation with three different stations logging to a central logbook, then it is necessary to use a MySql database or a LOCAL SQlite file not accessed through cloud storage (local network shared)

#### **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

| Import ADIF file  |      |   |       |                         |     |      |      |
|---|------|---|-------|-------------------------|-----|------|------|
|   |      |   |       |                         |     | Load |      |
| ADIF import   | 0    | Award parsing 0                             | LC    | DG save                 |     |      |      |
| 1 - Apply quality check corrections   |      | Award check<br>O No check O Basic<br>O Deep |       | Duplicates threshol     | d 0 | •    | sec. |
|   |      |   |       |                         |     |      |      |
|   |      |   |       |                         |     |      |      |
|   |      |   |       |                         |     |      |      |
| Save log  |      |   |       |                         |     |      |      |
| The import may take some time because of<br>validating historic DXCC values against prefit<br>The data is simultaneously being searched | ìxes | , ensuring that ITU and CQ zones a          | ire c | orrect for all entries. |     |      |      |

- Navigate to the location of the ADIF file to be imported
- Select the ADIF file and click 'Open'
- Select the drop-down menu option 'Apply quality check corrections' to correct any DXCC errors in the file.
- The 'Duplicates threshold' allows the user to set a margin for matching the QSO time +/- nn seconds up to 60 seconds to avoid causing duplicates due to time errors. This 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.
- Select the depth of award checking required
- Checking the box 'Drop current database on load ADIF' if is required to replace the 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 this box unchecked will merge the imported data with the existing data.

NOTE QSO's are not uploaded to the online logbooks like QRZ, Hamlog etc during ADIF import

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 <u>'Save log'</u> button at the bottom of the import window.

#### **Illegal suffixes**

Strange suffixes may cause some errors during import and cause an incorrect DXCC number and country name to be applied. This is beyond the control of Log4OM or its author and is a practice that shoud not be encouraged.

#### 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 correctly by the normal call sign prefix.

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

#### **Multiple Configurations (Identities)**

There may be occasions where more than on configuration (ID/Set up) is required, if for example if the user needs to run a club station and his/her home station or where there is more than one operator in a home and they each need separate setups for their respective call signs, logbooks, confirmations etc on a single PC

Log4OM provides a facility for an unlimited number of separate configurations may be used on a single PC

In the settings/Program configuration/User configurations tab these separate identities (Configurations) can be created, either by:

- 1. Creating a completely new identity by clicking on the + 'Add new config' button.
- 2. By cloning an existing configuration by clicking the 'Folders' icon 'Clone current config' button, this saves time if the new configuration is similar to the original, perhaps just a /P call with different Location.

#### Creating a desktop shortcut for a new ID

A desktop shortcut can also be created for each current config by clicking the 'Chain' icon 'Create link on desktop'

Configs are deleted by first selecting the config to be deleted from the drop-down list followed by clicking on the 'Trash can' Icon

| and Configuration              |  |
|--------------------------------|--|
| Save config Save and apply Exi |  |
| Program Settings               | Iser Configuration<br>Configuration ID 51f59f84-34a1-4e93-8abb-4c3142514ce5 ACTIVE<br>Description New config<br>Create desktop shortcut<br>Add New<br>Delete<br>Make Active<br>Clone current |

#### Creating a new Identity (Config)

- Open the settings/Program configuration/User configurations tab
- Either click the New or clone icon as identified above
- Add a name for the ID in the Description field
- If a new ID is being created complete the various information for a new configuration or if 'cloning' an existing config make whatever changes are required for the new configuration.
- Click the 'Chain' desktop shortcut icon to create a new desktop shortcut.
- Click the green check mark to make the configuration active.
- Click 'Save and Apply'

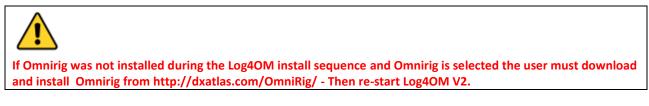
#### **Radio CAT Control**

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

| Configuration  |   |   |  |
|--|---|---|--|
| Save config Save and apply Exit  |   |   |  |
| Program Settings     Edit program Schouler     Performances     Errai sattings     User Configuration     My References     Station Information     My References     Station configuration     Confirmations     Database     External Services     External Services     Software Configuration     Configuration     Configuration     Configuration     Configuration     Configuration     Configuration     Custer     Configuration     Configuration     Configuration     Configuration     Configuration     Construct     Software Configuration     Configuration     Custer     Info Providers     Locket Plate     Backup     - VOACAP Prograpation     Auto Start | CAT Management         Settings       Omnirig         CAT Engine       Omnirig         CAT deby (ms)       0         2 Invert SS8 side (CW)       Invert SS8 side (PHONE)         Invert SS8 side (OIGITAL)       Send MODE before FREQ to radio         2 Switch to DIGITAL mode when required       Default         FT8       ✓ | selected in the Audio Configur<br>We suggest use of the RED by<br>PTT Toggle mode | 440Hz tone towards the radio audio interface |
| Chat<br>Hardware Configuration   | CAT Control colors  | Offset  |  |
| Audio devices and voice keye     CAT interface   | Main color 🚯 000  | Offset VFO A (single VFO) KHz   | 1,000,000.000 🗘 🗆 Enabled                    |
| CW Keyer interface Software integration Connections  | Decimal color 🕐 000   | Offset VFO B KHz  | 0.000 🗘 🕞 Enabled                            |

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

Various other options are provided for the idiosyncrasies of various radios



#### **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

| P 🤟 🤟 🕹<br>Save config Save and apply Exit  |   |
|---|---|
| - Program Settings - Edit program config - Program Scheduler - Performances - E-mal settings  | CAT Management Settings Omnirig Hamilib TCI HAMLIB PARAMETERS   |
| User Configuration  | RIG Model   |
| Station Information     My References   | Serial connected radio     Hide Hamilib in the taskbar     Connect to active HAMLIB instance  |
| Station configuration   | Network connected radio     VFO MODE (supports dual VFO)     ADDRESS     127.0.0.1  |
| Confirmations<br>Database   | Serial parameters TCP Radio parameters Port 4532 🗘 (default 4532)   |
| External Services     User preferences     Award preferences     Software Configuration     Goldster                                | Port         COM18         Saud Rate         38400         PTT           Force ICOM CI-V         Stop Bits         1         Port         © |
| Cluster Alert   | Data Carrier detect NONE  |
| Configuration   | Polling delay (ms) 50 🔹 Debug 🗸   |
| Map Settings<br>Backup  | Generated parameter Stringmodel=0rig-file=COM18serial-speed=38400port=4532set-conf=stop_bits=1  |
|   | Used parameter stringmodel=0 -rig-file=COM18 -serial-speed=38400port=4532 -set-conf=stop_bits=1   |
| <ul> <li>Hardware Configuration</li> <li>Audio devices and voice keye</li> <li>CAT interface</li> <li>CW Kever interface</li> </ul> | *****   |

#### **OmniRig Interface**

| Omni-Rig Settings |       |    |  |  |  |
|-------------------|-------|----|--|--|--|
| RIG 1 RIG 2 About |       |    |  |  |  |
|                   |       |    |  |  |  |
| Rig type          | NONE  | -  |  |  |  |
| Port              | COM 1 | •  |  |  |  |
| Baud rate         | 9600  | -  |  |  |  |
| Data bits         | 8     | -  |  |  |  |
| Parity            | None  | -  |  |  |  |
| Stop bits         | 1     | -  |  |  |  |
| RTS               | High  | •  |  |  |  |
| DTR               | High  | •  |  |  |  |
| Poll int., ms     | 500   | \$ |  |  |  |
| Timeout, ms       | 4000  | •  |  |  |  |
| <u> </u>          |       |    |  |  |  |

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.

#### **TCI Interface**

Log4OM provides unparalleled support for the SunSDR range of radios using the TCI protocol provided by Expert Electronics EESDR software as follows:

#### **TCI CAT control**

The TCI protocol provides two-way integration of band, frequency and mode information for both VFO's on each receiver with Log4OM.

Log4OM switches control automatically to the receiver that has focus and obtains Band, Frequency and mode data.

This CAT interface is specifically for the Expert SunSDR radios, the ports shown are for illustration purposes only they may be different on individual installations.

| Configuration   |   |
|---|---|
| Save config Save and apply Exit   |   |
| Program Settings     Edit program Settings     Program Scheduler     Performances     E-mail settings     User Configuration     Station configuration     Station configuration     Settings     Backup     VOACAP Propagation     -Audio devices and voice keye     CAT interface     CW Keyer interface     Software Interface     CW Keyer interface     CW Keyer interface | CAT Management         Settings Omming Hamilib TCI         TCP Connecton         ADDRESS 127.0.0.1         Port       7820         (default 50001)         SPOT management         Send cluster spot to radio interface         SPOT send cluster spot to radio interface         SPOT send cluster spot to radio interface         SPOT send cluster spot to radio interface |

#### TCI PTT

PTT can be activated from the keyboard via the Log4OM/TCI interface

#### TCI CW

CW using the CW keyer control interface included in Log4OM for the EESDR receiver currently being used, thus providing auto online lookup of calls, user defined macros, various keyer controls including speed and QSO logging all from a single user interface. See section Keyer in this guide

#### **TCI EESDR Cluster Spots**

Cluster spots from the Log4OM cluster are automatically displayed on the EESDR spectrum

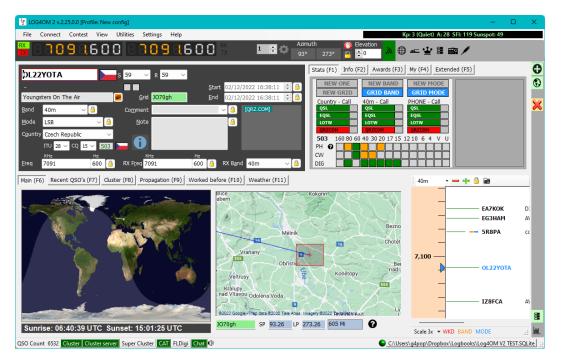
Left clicking on a displayed spectrum spot automatically sets frequency and mode while at the same time entering the call in the Log4OM QSO interface for online lookup and logging.

Right clicking on a displayed spectrum spot automatically enters the call in the Log4OM QSO interface for online lookup.

| DIGL DIGU WFM  |                            | Agc              | Drive       |                   | Mic.1                           |                                      |            |
|----------------|----------------------------|------------------|-------------|-------------------|---------------------------------|--------------------------------------|------------|
| +60            | ● <b>■</b> 014.182.2       | 00 🚥 💷 💷         |             | тх                | 014.343.200<br>SUB A>B B>A SWAP |                                      |            |
| NB             | BIN NR ANC ANF             | APF NF NF+       |             | 2.5K 2.7          | K 3.0K 3.3K USER                |                                      |            |
| EA4TL          | A: 14.182.200 MHz<br>8Z3FD | RM2D<br>II7WRTC  |             |                   | OE3WMA<br>WRTC                  |                                      | WOMCB      |
|                |                            |                  |             |                   |                                 |                                      |            |
|                |                            |                  |             |                   |                                 |                                      |            |
| , W.N.         |                            |                  | R           |                   |                                 |                                      |            |
| forman W Wales | any mildlinger the         | rupavelal manual | www.muliply | manufanalarananan | North March March               | where we we we want the second short | Anon Annap |
|                |                            |                  |             |                   |                                 |                                      |            |
| 4.176          | 14.200                     | 14.225           | 14.250      | 14.275            | 14.300                          | 14.325                               |            |
|                |                            |                  |             |                   |                                 |                                      |            |
|                |                            |                  |             |                   |                                 |                                      |            |
|                |                            |                  |             |                   | to the state                    |                                      |            |

Double clicking on a spot in the Log4OM clusters or band maps instantly synchronises the SunSDR band, frequency and mode with that of the spot.

Once connected the green CAT indicator 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.

| Configuration  |  |   |
|--|--|---|
| 円 ♥ ()<br>Save config Save and apply Exit  |  |   |
| Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings     User Configuration     Station Information   | CAT Management         Settings       Omnirig         CAT Engine       TCIProtocol         CAT delay (ms)       0  | ✓ ☑ CAT auto-start<br>tween commands  |
| - My References<br>- Station configuration<br>- Local weather<br>- Confirmations<br>- Database<br>- External Services<br>- User preferences<br>- Award preferences<br>- Software Configuration<br>- Cluster<br>- Cluster Alert<br>- Info Providers<br>- Configuration<br>- Map Settlings | <ul> <li>Invert SSB side (CW)</li> <li>Invert SSB side (PHONE)</li> <li>Invert SSB side (DIGITAL)</li> <li>Send MODE before FREQ to radio</li> <li>Switch to DIGITAL mode when required</li> <li>Default RTTY ~</li> <li>Apply offset to spot frequency towards radio</li> </ul> | Enable PTT key     Type here your preferred PTT key     PTT KEY will trigger PTT until release.     CTRL + PTT KEY will trigger a 440Hz tone towards the radio audio interface     selected in the Audio Configuration panel     We suggest use of the RED button for PTT key for a comfortable use     PTT Toggle mode     If y 5 () 5     If y 5 |
| Backup     VOACAP Propagation     Auto Start     Chat     Hardware Configuration     Audio devices and voice keye     CAT interface     CW Keyer interface     CW Keyer interface  | CAT Control colors<br>Main color       Main color     000     000     000       Decimal color     000  | Offset<br>Offset VFO A KHz 0.000  |

- 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.

#### Icom IC7300 CAT control for multiple DATA programs.

The IC7300 and similar radios that have two CAT connections that can be separated provide an easy and unique method of connecting multiple software data packages.

- 1. Having installed the Icom USB port drivers to the PC
- 2. Connect a USB cable to the rear connection on the IC7300 and to a USB port on the PC
- 3. Connect a USB CI-V cable to the 'REMOTE' socket on the back of the IC-7300 and another USB port on the PC.
- 4. Make a note of the port numbers for these two connections as shown in the PC device manager

#### Setting up the IC7300

In Menu/Set/Connectors/CI-V set the following

CI-V Baud rate = 19200 CI-V Tranceive = OFF CI-V USB Port = Unlink from (Remote) CI-V USB Baud Rate = 19200 All other settings as default

#### Setting up Log4OM

Download and install Omnirig.

In Settings/Program Configuration/CAT Interface

CAT Engine = Omnirig Check the box = Auto start CAT Check the box = Invert SSB side (CW) Check the box = Switch to digital mode when required Default = Select FT8 from list Click 'SAVE AND APPLY'

#### In the Omnirig menu

- 1. Select the radio from the drop-down list (IC7300 DATA)
- 2. Select the com port number for the USB USB connection to the radio and set the Baud rate to 19200
- 3. Click OK (Frequency and mode changes on the radio will be reflected in Log4OM

#### Setting up WSJT CAT control

In WSJT File/Settings/Radio

Select OMNIRIG Rig?? In the Rig menu Set PTT method to CAT Set Mode to DATA/PKT Set Split Operation to FAKE IT Click OK

#### Setting up FLDIGI CAT control

In FLDigi Configure/Configure Dialog/Rig Control/Hamlib

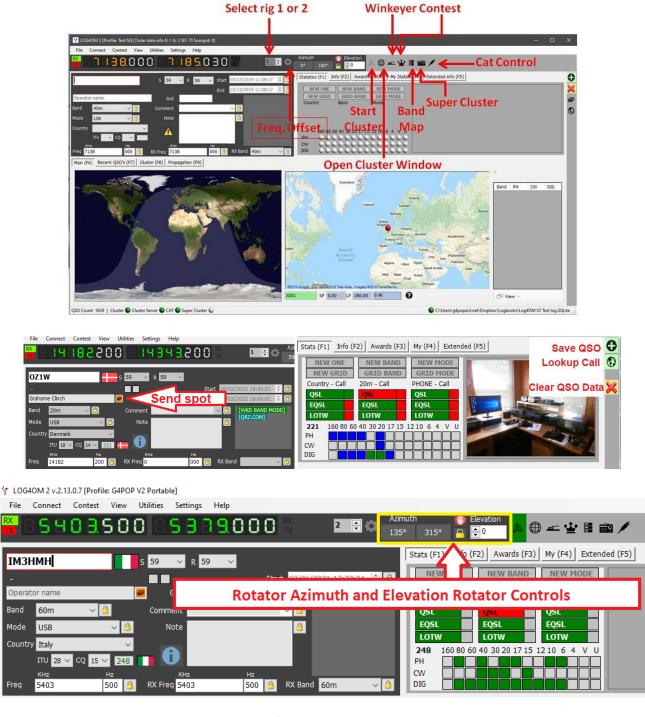
Select Icom IC7300 (Stable) from the Rig menu Check the box 'USE HAMLIB' Select the USB CI-V – Remote com port number in the 'DEVICE' menu Set 'BAUD RATE' to 19200 Click on 'INITIALISE' Click 'SAVE' Click 'Close' In the Configure menu click on Save Config

Changing freq and mode on the radio will be reflected in Log4OM, WSJT and FLDigi and Freq and Mode changes in those programs will be replicated on the radio.

All other WSJT/Log4OM/FLDigi setup instructions for logging are detailed elsewhere in the user guide.

## **Main UI Icons & Controls**

A different range of icons and symbols is used to that previously employed in version 1, here is an explanation of their uses.



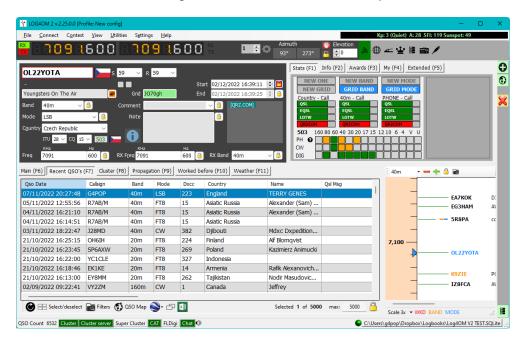
Rotator control when connected using PSTRotator for Azimuth, Elevation, parking and locking is available by using the controls in the screen shot above.

Save QSO can also be achieved with keyboard RETURN key during QSO data entry. Clear QSO Data can also be achieved by using the keyboard Esc key.

| $\mathbf{X}$ | Cancel/clear                 | $\checkmark$ | ОК                | -         | Add/save                      |
|--------------|------------------------------|--------------|-------------------|-----------|-------------------------------|
| ×            | Close                        | <b>3</b> 2   | Background colour | <b>A</b>  | Foreground (Font) colour      |
|              | Connected                    | Â            | Upload            | $\ominus$ | Download                      |
|              | Upload data                  |              | Delete data       |           | Add data                      |
|              | Download data                | $\mathbf{S}$ | Delete            | 쉨         | Primary choice / Contest mode |
|              | Save                         | 0            | Settings          | Å         | CW Keyer                      |
|              | Open Cluster                 | <i>h</i> .   | Start Cluster     | 1↓        | Refresh                       |
|              | Select/deselect              |              | Filters           |           | Band Map                      |
| <u></u>      | Super Cluster                | 6            | Start             |           | Stop Rotator                  |
|              | Park Antenna or Lock a field |              | Send spot         | $\odot$   | Web Lookup                    |
| Ð            | Detach                       | Î            | Delete            | Ð         | Clone                         |

## **Managing Layouts**

The layout, titles and column order of most grids can be tailored to the user's requirements.



#### **Records displayed**

At the lower right-hand corner of some lists there is a value displayed (Default 5000) this is the number of records being displayed **not the number of records in the database.** 

Changing the number to a higher/lower value will display more/less records in the grid, setting the value to zero will display all records in the database.



#### PLEASE NOTE

The value set in the lower right corner of grids will be reset to the default value set in the Settings/Program Configuration/Program settings upon restarting the software.

| Configuration   |  |  |
|---|--|--|
| 월 ♥ ♥<br>Save config Save and apply Exit  |  |  |
| Program Settings     Edit program config     Program Scheduler     Performances     E-mai settings     User Configuration     Station Information     My References     Station configuration     Local weather     Configuration     Database     External Services     User preferences | Program Settings Check for updates Check for PUBLIC BETA updates Send statistics Internet connection status Distance unit Default Log Level Map provider | PRIVACY NOTE:<br>Check for updates report program version + country.<br>Send statistics report program version + country + callsign<br>Thanks for sharing detailed statistics<br>Automatic<br>Mies<br>Info<br>GoogleMaps |
| Award preferences     Award preferences     Ostrvare Configuration     Custer     Louster Alert     Info Providers     Configuration     Map Settings     Backup     VOACAP Propagation     Auto Start  | QSO Attachment archive path<br>GRID default row count<br>Automatic backup on closure<br>Ask before exit  | 5000 Range 100 - 10.000 Default setting on restart WARN: Disabiling backup is NOT RECOMMENDED  |

The default range is 100 – 10000 and cannot be set to values outside this range

#### **Column Layout and Title Editing**

The row order, width, title names and included data can be edited in Log4OM V2 by the user in all tables e.g., cluster, recent QSO's etc.

#### Adjusting column widths

Select the vertical divider between column title headers and drag to widen or narrow column widths.

|   | Hz<br>000 🎒      | RX Band <mark>80m ~</mark> | QSL Via | ·     |
|---|------------------|----------------------------|---------|-------|
| d | Freq             | Name                       | Comment | Notes |
|   |                  | Calculation                |         |       |
|   | 5379             | Grahame                    |         |       |
|   | 5379<br>7076.162 | Michal Valousek            |         |       |

#### Changing column order

To change the position/order of the columns left click and hold in the middle of a column title then drag left or right as required to re-position.

#### Adding and removing columns

Right click in a title field and select 'Edit table layout'

| req       | KHz Hz<br>3772 000 🙆             | RX     | Freq 37  | 72   | Hz<br>000 🔒 | RX Band       |
|-----------|----------------------------------|--------|----------|------|-------------|---------------|
| lituation | n map (F6) QSO Archive (F7       | ) Clus | ter (F8) |      |             |               |
| Callsi    |                                  | Revd   | Mode     | Band | Freq        | Name          |
| OZ1V      | Edit table layout<br>Cancel sort |        | SSB      | 60m  | 5379        | Grahame       |
| 0К1V      | Export to EXCEL                  |        | FT8      | 40m  | 7076.162    | Michal Valous |
| EA4D      | Export to CSV                    |        | FT8      | 40m  | 7075.319    | Gabriel Duran |
| R125      | Export to HTML                   |        | SSB      | 20m  | 14204       | The "Fifth Oo |
| G3PQ      | Export to ADIF                   |        | SSB      | 80m  | 3755        | Derek         |
| OZ1V      | Export to ADIP                   |        | SSB      | 60m  | 5371.5      | Grahame       |

Check or uncheck the boxes to select the desired columns

|   | ok   |  |  | x |
|---|--|--|--|---|
|   | Columns Appearan   | се   |  |   |
|   | 88 🗴 🕫   |  |  |   |
|   | Qso Date         Time On         Callsign         Rst Sent         Rst Rcvd         Mode         Band         Freq         Name         Station Callsign | Address Age AIndex Ant Az Ant El Ant Path Antenna Arrl Sect Band Rx Arrl Check | Callsign Url<br>Class<br>Cnty<br>Conty<br>Contacted Op<br>Contest Id<br>Dxcc<br>Cq Zone<br>Itu Zone<br>Continent |   |
| S | <  |  |  | > |

### **Changing column titles**

By slowly left clicking twice or by pressing the F2 key on the keyboard on any title in the 'Edit Table Layout' window enables the column name/title to be edited or reset to default layout.

| ok   |  |   | x                    |
|--|--|---|----------------------|
| Columns Appearan   | ce   |   |                      |
| 88 🗴 🕫   |  |   |                      |
| Qso Date     Time On     Callsign     Rst Sent     Rst Sent     Mode     Band     Freq     Name     Station Callsign     < | Address     Age     Ardex     Andex     Ant Az     Ant Az     Ant Path     Ant Path     Antenna     Arrl Sect     Band Rx     Arrl Check | Callsign Url Cass Crty Comment Contacted Op Contest Id Dxcc Q Zone Itu Zone Continent | □□□□□□□□ <b>&gt;</b> |
|  |  |   |                      |

| 1 | • |  |
|---|---|--|
|   | 7 |  |
| 1 | Ľ |  |

Clear column name to reset to its default value

#### Colour and sizes of text

Selecting the 'Appearance' tab in the 'Edit Table Layout' menu allows font size selection and cell/text colour changes.

|   | ok 🗵                   |
|---|------------------------|
| ł | Columns Appearance     |
| ł | Default cell style     |
| ł | Normal row back fore   |
| l | Selected row back fore |
| 1 | Alternate cell style   |
| 1 | Normal row back fore   |
| 1 | Selected row back fore |
| 1 | Font size 9            |

#### **Displaying references & Associations**

It is possible to list two award references and two associations in the QSO grids e.g., IOTA, SOTA etc

In the settings/program configuration/user preferences tab select the reference to be displayed in the 'Ref 1' to 'Ref 6' fields' - Click save and apply

| Configuration   |  |  |  |  |  |
|---|--|--|--|--|--|
| Save config Save and apply Exit   |  |  |  |  |  |
| Program Settings     Edit program config     Program Scheduler     Performances     E-mai settings     Securty Settings     User Configuration     My References     Station Informations     Local weather     Configuration     Database     External Services     Ward preferences     Award preferences | User preferences         Preferred bands         Preferred modes            • • • • • • • • • • • • • • •  | Overwrite user gridsquare in main UI     Award quick view     You can show up 6 different award references in the QSO     grids, called Reference1 to Reference6 and related to 2     awards of your choice. You can then rename fields in QSO     grid     Ref 1 IOTA |  |  |  |
| Software Configuration  | ○ 6 ○ 4  | Association quick view   |  |  |  |
| Cluster Cluster Alert Clust Providers Configuration Club membership Backup VOACAP Propagation VOACAP Aleropagation  | <ul> <li>Set QSO Start time when leaving callsign field</li> <li>External services delayed upload</li> <li>Retrieve operator name from previous QSO's</li> </ul> | You can show up 2 different associations in the QSO grids, called Association1 and Association2 and related to 2 associations of your choice. You can then rename fields in QSO grid Association 1 Association 2   |  |  |  |
| Auto Start     Chat     Hardware Configuration     Audio devices and voice keyer     CAT interface     ON Knure interface   |  | D seconds before uploading the QSO to external systems and writing it to the ADIF file, if<br>correct or unintentionally saved QSO. Saving to the database is always immediate.  |  |  |  |

The title of the two reference fields can be changed in the edit table layout dialog as instructed above.



## **QSO Input**

Log4OM automatically looks up a call sign added to the QSO input area using the on-line services selected, The Clublog Call Exception (Clublog Call Exc) database, QSL Manager database, LOTW database and the users logbook to check if the station has been worked before and displays the results of the lookups together with a list of the data sources found for the call.

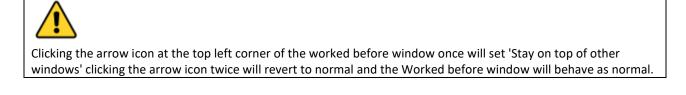
| v.2.2                       | 20.0.0 [Profile: Test NG]         |  | ×  |
|-----------------------------|-----------------------------------|--|--|
|                             | Contest View Utilities Settings H |  | Kp: 2 (Quiet) A: 5 SFI: 97 Sunspot: 103  |
| <b>888</b>                  | 185500 00838                      | Q:100 \\ 2005E                                       | 0° 180° o €0 → 0 ⊕ ≪ 🖢 🖩 📾 🗡   |
| G4POP                       | <b>→</b> S 59 ∨ R 59              | ×.   | Stats (F1)         Info (F2)         Awards (F3)         My (F4)         Extended (F5) |
| -<br>Terry Genes            | Grid JO01jp                       | Start 18/02/2022 16:54:52<br>End 18/02/2022 16:54:52 | NEW GRID GRID BAND GRID MODE   |
| Band 20m                    | Comment                           | V 🙆 [WKD SAME BAND]                                  | Country - Call 20m - Call PHONE - Call QSL         |
| Mode USB<br>Country England | ✓ <a>B</a> Note                   | [LOTW USER]     [EQSL USER]     [EXCHANGES OSL]      |  |
|                             | v q 14 ∨ 223 🛖 🛈                  | [QRZ.COM]  | 223 160 80 60 40 30 20 17 15 12 10 6 4 V U<br>PH                                       |
| KHz<br>Freq 14182           | Hz KHz<br>200 🎒 RX Freq 0         | Hz<br>000 🔒 RX Band 🗸 🗸 🗸                            |  |

Some of the data sources in the list are hyperlinks which can be clicked on to open either a worked before window or browser displaying the details of the call sign.

Here is an example of clicking on the WORKED BEFORE Hyperlink. (The Worked Before window can also be opened from the 'View' menu or the Worked before (F10) tab in the main UI)

| VORKED BEFORE       |                  |      |      |          |          |          |                     |         |                  | - 0                         |
|---------------------|------------------|------|------|----------|----------|----------|---------------------|---------|------------------|-----------------------------|
| Qso Date            | Callsign         | Band | Mode | Freq     | Rst Sent | Rst Rcvd | Name                | Comment | Country          | QTH                         |
| 10/01/2020 19:13:10 | <b>GI0HWO</b>    | 40m  | FT8  | 7075.633 |          |          | John Crawford-Baker |         | Northern Ireland | Islandmagee, Country Antrim |
| 05/05/2018 07:02:19 | <b>GI0HWO</b>    | 60m  | SSB  | 5379     | 57       | 57       | John                |         | Northern Ireland | Islandmagee, Country Antrim |
| 02/04/2018 07:44:48 | GI0HWO           | 60m  | SSB  | 5379     | 59       | 59       | John                |         | Northern Ireland | Islandmagee, Country Antrin |
| 26/03/2018 17:33:33 | <b>GI0HWO</b>    | 60m  | SSB  | 5379     | 59+10    | 59+05    | John                |         | Northern Ireland | Islandmagee, Country Antrin |
| 24/10/2017 18:55:00 | <b>GI0HWO</b>    | 60m  | FT8  | 5357.909 | +10      | +04      | John                |         | Northern Ireland | Islandmagee, Country Antrim |
| 01/08/2017 07:03:16 | GI0HWO           | 60m  | SSB  | 5403.5   | 59       | 59       | John                |         | Northern Ireland | Islandmagee. Country Antrin |
|                     | tered statistics |      |      |          |          |          |                     |         |                  | Record shown: 610 max: 70   |

Log4OM downloads the entire Clublog Call exceptions and prefix lookup database. (Clublog Call Exc) One of the driving reasons for Club Log's existence is to increasing logging accuracy and this database used in conjunction with other data collated by Log4OM ensures the best call/prefix accuracy available in any logging software.



The right-hand side of the input panel displays the bands/modes the country has been worked on and the confirmation status for that country/Band/Made plus the grid reference status.

#### Green = Country WB4 on that band/mode

Blue = The entered call sign (And consequently that country) has been worked on that band/mode



The upper part of the graphic above shows that:

- 1. The country is confirmed by QSL, EQSL & LOTW (Rectangular green boxes)
- 2. The country is confirmed by EQSL on the band (20m) (Rectangular green boxes)
- 3. The country is NOT confirmed by QSL or LOTW on the band (20m) (Rectangular Red boxes)
- 4. The country is confirmed for the mode (Phone) by all three confirmation methods (Rectangular green boxes)
- 5. The station (Call) has been confirmed on the band (20M) & mode (Phone) by EQSI (Small square Green boxes on right)
- 6. The station (Call) has NOT been confirmed on the band (20M) or mode (Phone) by QSL or LOTW (Small Red square boxes on right)

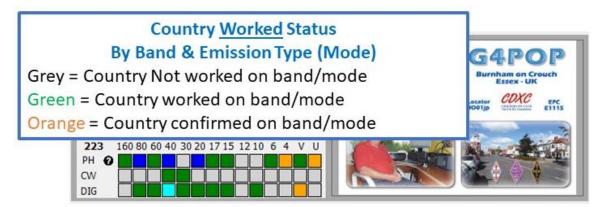
The lower part of the graphic above shows that:

- The station (Call) and therefore the country has been worked on:(Blue squares) 80, 40, & 20M Phone and 40M by Data mode
- 2. The country has also been worked on: (Green squares)
- 160, 60, 17M & 15m, 6m, 4, 2m & 70cm on Phone
   40m & 30m on CW
   80, 60m, 30, 20, 17m, 15m, 10m & 2m on a digital mode

On the right is displayed whatever image is available from the look up source (QRZ etc.) Bio page

## Statistics (F1) matrix

The matrix display in the Statistics tab displays confirmation status by confirmation type by country, band & mode as depicted below.





Statistics shown here are derived by the program settings through the CONFIRMATION menu:

| Configuration  |  |
|--|--|
| [뷔   |  |
| Program Settings     Program Scheduler     Program Scheduler     User Configuration     Station Information     My References     Station configuration     Confirmations     Database     External Services     User preferences     User preferences     Software Configuration     CAT interface     Cluster     Info Providers     Map Settings     Backup     VOACAP Propagation     Auto Start | Confirmations         Set the default confirmations for each award according to your preferences         Type <ul> <li>Apply default</li> <li>set</li> </ul> QSL default message <ul> <li>Main UI Statistic view</li> <li>QSL EQSL EQSL EQSL EQSL EQSL EQSL EQSL E</li></ul> |

The extreme right side of the input area displays the image, if any, available from the lookup site.

#### Frequency, band and mode data entry

If a radio is connected via CAT control the frequency, band and mode data is entered automatically, without a radio connected this data can be entered manually.

For manual entry of QSO's the frequency, band and mode can be locked by pressing the 'Padlock' icon to the right of each field.

#### Date and time entry

The date and time is derived from the computers clock and is automatically adjusted to GMT/UTC/Zulu time.

The date and time can be set manually, as when entering historic QSO's and can be locked using the 'Padlock' icons to the right of the fields.

#### **QSO Start date and time**

The date and start time can either be the date and time the QSO is saved or if the 'Set QSO start time when leaving the call sign field' box is checked in the Settings/Program configuration/user preferences tab, the time will be set as the cursor leaves the call sign field by using the Tab key or selecting another field with a mouse cursor click (See Performance tab of configuration menu)

| Configuration  |   |
|--|---|
| Save config Save and apply Exit  |   |
| Program Settings Edd: program Scheduler Performances E-mail settings User Configuration Station Information - Station configuration Station configuration - Confirmations - Database E-mail Services - Software Configuration - Audio devices and voice keye - CAT interface - Configuration - Audio devices and voice keye - CAT interface - Configuration - Configuration - Audio devices and voice keye - CAT interface - Configuration - Marker titegration - Configuration - Audio devices and voice keye - CAT interface - Configuration - Set QSO Start time when leaving calsign field - Device frame integration - Configuration <td>Overwrite user gridsquare in main UI     Award quick view     You can show up 2 different award references in the QSO     grids, caled Reference 1 and Reference 2 and related to 2     awards of your choice. You can then rename fields in QSO     grid     Reference 1 SOTA     Vou choice 2 and related to 2     Awards of your choice. You can then rename fields in QSO     grid     Reference 2 DTA     Vou choice 2 and related to 2     Awards of your choice. You can then rename fields in QSO     Reference 2 DTA     Vou choice 2 and related to 2     Association quick view     You can show up 2 different associations in the QSO grids, called Association 1 and     Association quick view     You can show up 2 different associations of your choice. You can then rename fields in     QSO     grid     Association 1 FISTS     Association 2 TENTEN     Seconds before uploading the QSO to external systems and writing it to the ADIE file, if     portect or unintentionally saved QSO. Saving to the database is always immediate.</td> | Overwrite user gridsquare in main UI     Award quick view     You can show up 2 different award references in the QSO     grids, caled Reference 1 and Reference 2 and related to 2     awards of your choice. You can then rename fields in QSO     grid     Reference 1 SOTA     Vou choice 2 and related to 2     Awards of your choice. You can then rename fields in QSO     grid     Reference 2 DTA     Vou choice 2 and related to 2     Awards of your choice. You can then rename fields in QSO     Reference 2 DTA     Vou choice 2 and related to 2     Association quick view     You can show up 2 different associations in the QSO grids, called Association 1 and     Association quick view     You can show up 2 different associations of your choice. You can then rename fields in     QSO     grid     Association 1 FISTS     Association 2 TENTEN     Seconds before uploading the QSO to external systems and writing it to the ADIE file, if     portect or unintentionally saved QSO. Saving to the database is always immediate. |
|  |   |

#### Pause/Break key – Start time

This may be used at any time to lock the date and time or unlock it for QSO start time recording

# Information (Info F2)

| Stats (F1) | Info (F2) Awards (F3) My (F4) Exten                        | ded (F5) |           |   |
|------------|--|----------|-----------|---|
| County     |  | Prefix   | FY5       |   |
| State      | ~  | Lat      | 5.14583   | • |
| QTH        | 74290 TALLOIRES-MONTMIN                                    | Lon      | -52.62500 | • |
| Address    | 678 Route De L'egalite<br>74290 Talloires-Montmin<br>74290 |          |           |   |
| QSL Msg    |  | 8        |           |   |
| QSL Via    | NO MORE QSL VIA BURO FROM SEPTEMBEI                        |          |           |   |

This tab in the QSO input area displays additional information about the station being worked/looked up

NOTE: The QSL Msg (ADIF field QSLMSG) is the message that the user wants to be included in the confirmation to eQSL etc

### Adding special award references

If it is necessary to add an award reference like IOTA, SOTA, WWFF etc then the Award Refs. (F3) tab should be opened, the award selected and the reference added to the list box.

Standard awards like DXCC, WPX, WAC, WAS, Marathon etc are calculated from the standard fields already present so no user intervention is required for those awards.

If an award reference is recognised from the cluster comments field, it will be automatically added to the reference list.

| File Connect Contest View Utilities Settings Help |   |   | Kp: 2 (Quiet) A: 5 SFI: 97 Sunspot: 103 |
|---|---|---|---|
| 🗱 авнавазоо (авнаназ)                             | Image: Second state         Azimuth           Image: Second state         1           Image: Second state         1           Image: Second state         1 | 310° ⊖ €levation                            | in /                                    |
| HB9EAJ/P 59 V R 59 V                              | Stat  | ts (F1) Info (F2) Awards (F3) My (F4) Exter | nded (F5)                               |
|   | Start 18/02/2022 17:19:18 🚔 🎦 🗛   | ward WAP_WADA ~                             | References                              |
| Stephan Schmid 🖉 Grid JN37sn                      |   | roup Swissair Radio Club                    | Search WAP-081                          |
| Band 20m V 📋 Comment                              | V 📋 [LOTW USER] SI  |   | ×                                       |
| Mode USB 🗸 🙆 Note                                 | [QRZ.COM]   | AP-081 HB9ICE or HE8ICE-Zürich              |   |
| Country Switzerland                               |   | 26@GE<br>DTA@HB/AG-010                      |   |
| ITU 28 🗸 CQ 14 🗸 287 📑 🕕                          | PO  | TA@HB-0005<br>AP_WADA@WAP-081               |   |
| KHz Hz KHz Hz                                     |   |   |   |
| Freq 14182 200 🛅 RX Freq 0 00                     | D 📋 RX Band 🗸 🕒   |   |   |

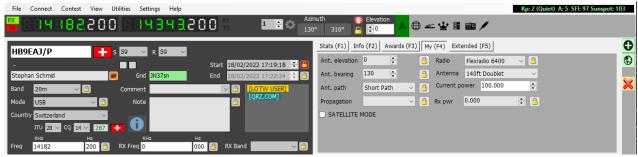
## Grid locators and award references

Some award references like SOTA contain the grid reference of the particular activation site, if this available Log4OM will provide a selection drop down menu for the grid reference allowing the user to select either the grid reference for the activation site or that found from the online lookup which is invariably the other stations home QTH.

| KG8V s 59 v R 59 v                                   |   | Stats (F1) In        | nfo (F2) Awards (F3) My (F4) | Extended (F5)                                    |
|--|---|----------------------|------------------------------|--|
|  | Start 05/09/2023 12:05:48 🚖 💾                     |                      | ISA                          | References W6                                    |
| Band 20m Comment EN82hm                              | V B [WKD SAME MODE GROUP]                         | Sub N<br>W6/NS-200 7 | Iorthern Sierra              | W6/NS-191<br>V6/NS-192<br>W6/NS-193<br>W6/NS-194 |
| Mode USB V A Notes                                   | [LOTW USER]     [EXCHANGES QSL]     [NICK: ROBIN] | SOTA@W6/N            | 200                          | W6/NS-194<br>W6/NS-195<br>W6/NS-196<br>W6/NS-197 |
| ГГU <mark>6 ~ CQ 5 ~ 291 🎬 🕕</mark><br>КН2 Н2 КН2 Н2 | [QRZ.COM]   |                      |                              | W6/NS-198<br>W6/NS-199<br>W6/NS-200              |
| Freq 0 000 🙆 RX Freq 0 000 🧯                         | 🔒 RX Band 🛛 🗸 🙆                                   |                      |                              |  |

# Changing a user's station information

It is also possible to change the information with regard to the user's station like antenna, radio used, power levels in the My Station (F4) tab, before saving the QSO.



Overriding the default QSO Confirmation method

By selecting the QSL's (F5) tab it is possible to override the default QSL confirmation settings selected in the 'Program Configuration/Confirmations' menu.

| File Connect Contest View Utilities Settings Help   | Kp: 2 (Quiet) A: 5 SFI: 97 Sunspot: 103  | 3       |
|---|--|---------|
|   | uth 🔮 Elevation 💦 🖶 🛥 🔮 🖉 📾 🗡  |         |
| G4POP 59 × 8 59 ×   | Stats (F1)         Info (F2)         Awards (F3)         My (F4)         Extended (F5) | 0       |
| - Start 18/02/2022 17:24:38 🔶 🗎   | Override default confirmation  | $\odot$ |
| - Statt 18/02/2022 17:24:38 ♥ □<br>Terry Genes Ø Grid J001jp End 18/02/2022 17:25:20 ♀ 音  | Type LOTW - 💾 🗙  |         |
|   | Sent Invalid V Rcvd No V   | ×       |
| Band 20m V Comment V C (WKD SAME BAND)  |  | · ·     |
| Mode USB V C [EQSL USER]  | Contact Clubs & Assoc's 🗸 🗸 🗸  |         |
| Country England   | Special interest group Bunkers on the air  |         |
| ITU 27 V CQ 14 V 223 🕂 🕛  | SIG info 12345678  |         |
| KHz         Hz         KHz         Hz           Freq         14182         200         3         RX Freq         000         3         RX Band          3 | E-mail address g4pop@arrl.net  |         |

# Saving the QSO

When all information is complete the QSO can be saved by clicking on the Green + (ADD) button or using the keyboard key 'Enter'

# **Compact Data Entry window**

It is possible to select a separate small input display to enable users with restricted screen space to possition the input UI at a different possition on the monitor by selecting 'Data entry' from the 'View' Menu, or by clicking the toolbar icon shown below.

The main window will then be minimised (NOT CLOSED) and the detachable compact data entry display positioned wherever the user requires.

| Y LOG4OM 2 v.2.32.1.6 [Profile: New config]  | – 🗆 X  |
|--|--|
| Ele Connect Contest View Utilities Settings Help   | : 1.67 (Quiet) A: 10 SFI: 196 Sunspot: 176   |
| 💑 8 1 4 9 1 5 0 3 0 8 1 4 0 2 9 5 0 0 🗮 💴 🗢 🔤 🖓 🔂 🖗 🖛 🕸 🖬 🗡 🖬  |  |
| G4POP         5 599         R 599         Stat   | CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR<br>CARPOR |
| Main (F6) Recent QSO's (F7) Cluster (F8) Propagation (F9) Worked before (F10) Weather (F11) Click to open 'Compact   | Data Entry' window   |
| Boreham<br>msford<br>Great Baddow<br>Boreham<br>Berenter<br>Southin<br>Ferense<br>Southin<br>Ferense<br>Southin<br>Ferense<br>Southin<br>Ferense<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin<br>Southin | 14,300<br>VI6010TA<br>TF/DK1VK<br>HFII<br>IWORQ3   |

|                          |                              |  |                                       |                                   |                                     |  |                              | × |
|--------------------------|------------------------------|--|---------------------------------------|-----------------------------------|-------------------------------------|--|------------------------------|---|
| ІЖЗНМН                   | S 59 V R 59                  | ✓  | Statistics (F1) In                    | fo (F2) Awards                    | (F3) My (F4) Ext                    | ended (F5)   |                              | 0 |
| -<br>DANIELE PISTOLLAT   | O <u>G</u> rid JN65eo        | <u>S</u> tart 07/01/2023 14:50:16 🐳 🤷<br>End 07/01/2023 14:50:16 🐳 🎱 | NEW ONE<br>NEW GRID<br>Country - Call | NEW BAND                          | NEW MODE<br>GRID MODE               |  | Kalian Amateur Radio Station | × |
| Band 40m                 | Comment                      | [WKD BAND MODE]     [LOTW USER]     [EOSL USER]                      | QSL<br>EQSL<br>LOTW                   | 40m - Call<br>QSL<br>EQSL<br>LOTW | PHONE - Call<br>QSL<br>EQSL<br>LOTW |  |                              |   |
| Country Italy            | Q 15 V 248                   | [EXCHANGES QSL]<br>[NICK: LELE]<br>[QRZ.COM]                         | QRZCOM<br>248 160 80 6<br>PH Q        | QRZCON<br>0 40 30 20 17 15        | QRZCOM<br>1210 6 4 V U              |  |                              |   |
| кнг<br><u>F</u> req 7110 | Hz KHz<br>074 A RX Freq 7110 | Hz<br>074 🎒 RX B <u>a</u> nd 40m 🗸 🤮                                 | CW DIG                                |                                   |                                     | Dp. Daniele<br>CQ Zone 15<br>ITU Zone 29<br>WW Locator JNGSED<br>Quarto d'Altino (Venezia) |                              |   |

## Delete a QSO(s)

QSO's can be deleted from the recent QSO (F7) window by the following actions

1. Click the 'Unlock' padlock icon at the bottom right-hand corner of the window (Icon will go red when unlocked)

|      | каренныя                            |
|------|-------------------------------------|
|      | Kylesku, Sutherland                 |
|      | Kent                                |
|      | Nr. Alslev, Falster Island          |
|      | 58-316 Walbrzych                    |
|      | 28330 PORI                          |
|      | Manresa                             |
|      |                                     |
|      |                                     |
| Reco | Unlock > a                          |
|      | box\Logbooks\Log4OMV2 G4POP.SQLite; |

- 2. Select the QSO's to be deleted by using the Windows shift/click or Ctrl/click method
- 3. Press the keyboard 'Del' button

4. Click the padlock icon again to re-lock to avoid accidental deletion (Icon will revert to yellow when locked)

## **Clearing the data**

If the QSO is not to be saved then clicking the X (CLEAR) button or pressing the keyboard key 'ESC'

## **Resources Editor**

The 'Resources editor (Settings/Resources editor) enables the user to edit the tables/Lists e.g. Bands, Modes, Club lists etc.

- 1. Double click on the required Program resource
- 2. Edit the list
- 3. Click the floppy disc 'Save' button in the lower right-hand corner.
- 4. Restart Log4OM

| 🕯 🦅 Resource editor   |          |   | - |   | ×   |
|---|----------|---|---|---|-----|
| Log4OM would require a RESTART to reload it's config files  |          |   |   |   |     |
| Program resources<br>clustercommands.txt<br>clusterdefaultscript.txt  | ^        | User edited resources<br>bandlist_user.txt<br>Irst_user.xml |   |   | Ô   |
| r contest.csv<br>ITU_IARU.csv<br>Smodelst.csv<br>NonStandardCallsign.txt  | ~        |   |   |   |     |
| SHOW/ANNOUNCE           SHOW/BULCKMASTER < call>           SHOW/BULETINS           SHOW/CALENDAR           SHOW/CALENDAR           SHOW/CONFIGURATION           SHOW/DX STATS           SET/FILTER NEEDS/CW           SET/FILTER NEEDS/RTTY           N |          |   |   |   |     |
| F   |          |   |   | × | Н   |
| Current file: C:\Users\g4poparrl.net\AppData\Roaming\Log4OM   | 12\clust | ercommands.txt  |   |   | .:: |

### **Keyboard shortcuts.**

The keyboard can be used as follows for speedy QSO entry

TAB key - Moves cursor through the main QSO input fields.

Esc Key - Clear data entered in the QSO input fields

Enter Key - To add a QSO

Back slash (\) Key - Press and hold for PTT (PTT KEY is user selectable in Configuration CAT menu)

CTRL + PTT KEY – Send a 440Hz tune audio to the default transmit audio card.

# **Logbook Printing**

There are many methods of printing the log database but the simplest is as follows:

1. Utilities/logbook print

2. In the resulting window select a location and provide a file name.

| Print LogBook  |
|--|
| PDF output file C:\Users\g4pop\OneDrive\Desktop\G4POP_Logbook_20240308195250.pdf |
| Station callsign filter  |
| Station call G4POP   |
| <ul> <li>Export all station calls in log</li> </ul>                              |
| <ul> <li>Export when station callsign contains the call</li> </ul>               |
| O Export exactly this station call   |
| Start from QSO # 1   |
|  |
| POF  |
| QSO found: 0 .:  |

3. Select 'Start from QSO#' enter either no 1 for a complete log print or a QSO record number if the print is for appending to an existing printed log.

4. Click the PDF logo at bottom right and I see a confirmation that the file was saved.

# Lazy Log

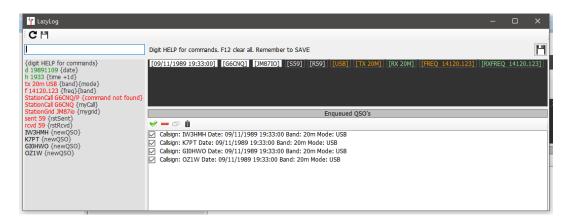
To facilitate rapid entry of QSO's from old paper logs or manually recorded field events Log4OM provides a special QSO entry method whereby the basic fixed data is retained with only call sign to be rapidly input.

Fixed data is items which do not change across many entries: Date, Time, My Grid, Mode, Band, Frequency etc, changing data is call sign contest exchange etc

- Open the Lazy Log from the Utilities/Lazy log menu
- Enter the date (D 20200222) time (h 1933 or H 193345) press the enter/return key on the keyboard
- Add the band mode information (TX 20m USB) press the enter/return key on the keyboard
- Input frequency is required (F 14120.123) press the enter/return key on the keyboard
- Etc Etc Etc

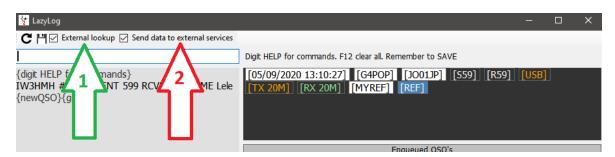
| 🙀 LazyLog  |  |   |
|--|--|---|
| C 💾 🗹 External lookup 🗹 Send data to external services   |  |   |
| тизнин   | Type HELP for commands. F12 clear all. Remember to SAVE  |   |
| DATE/TIME COMMAND<br>D (DATE yyyyMMdd)<br>H {TIME HIMmnss}<br>+[MINUTES] {"AUTO"}<br>-[MINUTES] ("AUTO"}<br>+S[SECONDS] ("AUTO"}   | [02/04/2022 13:41:40] [G4POP] [J001JP] [[S59] [R59] [USB] [TX 20M] [RX 20M] [MYREF SOTA@G/CE-004] [REF |   |
| -[SECONDS] {"AUTO"}<br>RST   | Enqueued QSO's   |   |
| SENT [RST SENT]<br>RCVD [RST RECEIVED]<br>TX COMMAND<br>TX [BAND]<br>TX [MODE]<br>TX [BAND] [MODE]<br>FREQ COMMAND<br>F {TX FREQUENCY}<br>RX (BAND]<br>FREQ RX COMMAND<br>FRX {RX FREQUENCY} |  |   |
| IN INCOMPANY CALL  | 0 items selected   | _ |

• Once the basic data is input the other stations call sign can be added and when the enter/return key is pressed the QSO will be added to the list (See below)



- The date, time band, mode, frequency, and all data can be changed as applicable for each QSO if required.
- To save the list of QSO's to the logbook click on the save icon at the top right of the window (Floppy disk) or click Ctrl + S
- To clear the entry click Ctrl + R

When the QSO's are added to the logbook the normal update procedures of online lookup's and award reference checks are completed, thus providing a complete data record.



If the check box 'EXTERNAL LOOKUP' (No 1) is checked the call sign will be checked with the on line resources selected in the program config and the fields will be populated with that data as the QSO is saved to the logbook.

If the check box 'SEND DATA TO EXTERNAL SOURCES' (No 2) is checked then the QSO will automatically be uploaded to the external logs selected in the program config. e.g. QRZ, LOTW, EQSL, Clublog Exceptions file etc.

## LazyLog Entry commands

| Family             | Command                   | Note  | Usage              |
|--------------------|---------------------------|---|--------------------|
| TX COMMAND         | TX [BAND]                 | Set the current TX band. This will also align RX<br>Band to the same value  | <b>tx</b> 20m      |
|                    | TX [MODE]                 | Set the current MODE  | tx USB             |
|                    | TX [BAND] [MODE]          | Set the current BAND and MODE   | tx 20m USB         |
| FREQ<br>COMMAND    | F {TX FREQUENCY}          | In kHz.<br>If missing, removes the TX frequency. If set, this<br>will also update TX BAND, RX frequency and RX<br>band to the same value. | f 14120.10         |
| RX COMMAND         | RX [BAND]                 | Set the current RX band   | <b>rx</b> 20m      |
| FREQ RX<br>COMMAND | FRX {RX FREQUENCY}        | In kHz.<br>If missing, removes the RX frequency. If set, this<br>will also update RX BAND accordingly.                                    | frx 7110           |
| MY CALL            | STATIONCALL [MY CALLSIGN] | Set the station callsign  | stationCall IW3HMH |
| MYREF              | MYREF CLEAR               | Clears station references   | myref clear        |

|                       | MYREF [AWARD]<br>[REFERENCE]   | Set my station award reference(s). Multiple subsequent references are allowed.  | myref IOTA EU-131  |
|-----------------------|--|---|--|
| MY GRID               | STATIONGRID [MY<br>GRIDSQUARE]   | Set the station gridsquare  | stationGrid JN65eo   |
| CONTACT<br>DETAILS    | NAME {CONTACT NAME}  | The name of the contacted operator/station. If blank clears the name for the current QSO  | name John Doe  |
|                       | COUNTY {COUNTY}  | The station county. If blank clears the county for the current QSO  | county MARICOPA  |
|                       | STATE {STATE}  | The station State. This field is checked for valid states on save, according to identified/provided DXCC. If blank, clears the state for the current QSO          | state AZ   |
|                       | COMMENT {TEXT}   | The QSO comment   | Comment that's a great guy   |
| REF                   | REF CLEAR  | Clears contact references   | ref clear  |
|                       | REF [AWARD] [REFERENCE]  | Set contact award reference(s). Multiple<br>subsequent references are allowed.<br>Contact references are CLEARED after successful<br>QSO save                     | ref IOTA EU-131  |
| RST                   | SENT [RST SENT]  | Set the default RST SENT value  | <b>SENT</b> 599  |
|                       | RCVD [RST RECEIVED]  | Set the default RST RECEIVED value  | <b>RCVD</b> 599  |
| CONTEST               | CONTEST {CONTEST CODE}   | Set the CONTEST ID. If blank, disable the contest mode  | contest ARRL-10  |
| DATE/TIME<br>COMMANDS | D {DATE}   | Set the QSO date (yyyyMMdd format)  | <b>d</b> 20200110  |
|                       | H {TIME}   | Set the QSO time (HHmm or HHmmss). If time < actual log time adds +1 day  | h 1933<br>H193321  |
|                       | +[MINUTES] {"AUTO"}  | Add [MINUTES] to the current date/time. AUTO<br>parameter set automatic increase on each QSO if<br>different timing is not set in the QSO COMMAND<br>row          | +5<br>5<br>+2 AUTO   |
|                       | -[MINUTES] {"AUTO"}  | Remove [MINUTES] from the current date/time.<br>AUTO parameter set automatic increase on each<br>QSO if different timing is not set in the QSO<br>COMMAND row     | -5<br>-6 AUTO  |
|                       | +S[SECONDS] {"AUTO"}   | Add [SECONDS] to the current date/time. AUTO<br>parameter set automatic increase on each QSO if<br>different timing is not set in the QSO COMMAND<br>row          | +S10<br>S10<br>S21 AUTO  |
|                       | -[SECONDS] {"AUTO"}  | Remove [SECONDS] from the current date/time.<br>AUTO parameter set automatic increase on each<br>QSO if different timing is not set in the QSO<br>COMMAND row     | -S10<br>-S30 AUTO  |
| QSO<br>COMMANDS       | {DATE/TIME COMMAND}<br>[CALLSIGN]<br>#{GRIDSQUARE}<br>{SENT [RST SENT]}<br>{RCVD [RST RECEIVED]}<br>{CS [CONTEST SENT]}<br>{CR [CONTEST RECEIVED]}<br>AMETER] {OPTIONAL PARAMETER} | At the carriage return the system will save the<br>QSO into the temporary list of QSO's<br>SENT command can be replaced by ><br>RCVD command can be replaced by < | G4POP <b>RCVD</b> 599<br>+5s IW3HLI #JN65ER<br>SENT599 RCVD555<br>G4POP <599 |

# Save entries – Ctrl + S

**Clear entries – Ctrl + R** 

# **Net Control**

A sophisticated net control facility is accessible via the 'Utilities' menu which provides a simple way of participating or managing group QSO's (Nets)

| en net Roy                | val Signals Net 🔷 🗸   |                      |  |                               |                      |                      |                                       | Actual users      | 0 Uniq                                      | jue <sup>0</sup>                          |
|---------------------------|-----------------------|----------------------|--|-------------------------------|----------------------|----------------------|---------------------------------------|-------------------|---|---|
|                           |                       |                      |  |                               |                      |                      |                                       | Users record      | 3   |   |
|                           |                       |                      | ON AIR   |                               |                      |                      |                                       | NET USI           | RS  |   |
| TIVE USERS                | TIME MANAGER          |                      |  |                               |                      |                      | Callsign                              | Name              | Country                                     | QTH                                       |
| allsign<br>i3AYZ<br>i3VOT | Name<br>JIM<br>GEORGE | QTH<br>Diss<br>Derby | Date/Time on<br>19/04/2020 9:46:27<br>19/04/2020 9:47:22   | Country<br>England<br>England | RST Sent<br>59<br>53 | RST Rcvd<br>59<br>51 | G8HQJ<br>GI0HWO<br>LA0HK<br>921W<br>< | JOHN CRA          | England<br>Northern Ir<br>Norway<br>Denmark | Delabol<br>Islandm<br>AKSDAI<br>Nr. Alsle |
| 1. Select                 | a call in the NE      | T USERS box and re   | ecord the RST sent/rcvd re                                 | eports and tr                 | ype any commen       | nts                  | Save QSO                              | in log 80m<br>LSB | ~ 🙆<br>~                                    |   |
| when th                   | ey join the net -     | This action record   | ll sign) from the NET USER<br>s their start (Joining) time | e and RST rep                 | oorts.               |                      | Sent<br>59 v<br>Comments              | Rcvd<br>59 🗸      |   |   |
|                           |                       |                      | ; his call from the ON AIR<br>e net and saves the QSO to   |                               |                      | box - This           |                                       |                   |   |   |
|                           |                       |                      |  |                               |                      |                      |                                       |                   |   |   |

The Net Control window simulates an air traffic controller's movement board and provides a drag and drop facility for members joining or leaving the net.

The time when the member joins the net is recorded as the QSO start time for that net member. This time commences when the call sign of an inactive member is dragged from the 'NET USERS' pane into the 'On Air' pane.

Likewise, when a member leaves the net his call sign is dragged out of the 'On Air' pane into the 'NET USERS' pane. This action will record the end time for the QSO with that member. A lookup of either QRZ or HamQTH is carried out as the QSO is added to the log and any missing details are updated.

## Adding nets

Nets can be added or deleted by using the buttons indicated in the graphic below.

To view an existing net, select from the names in the drop-down menu in the 'Open net' field near the top of the screen.

To create a new net:

1. Click the 'New Net' button and enter a name in the 'Net Name" dialog



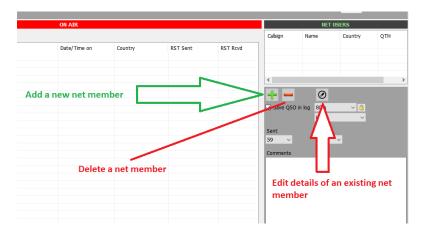
2. Click the check mark icon to add the new net or press enter (To abort the action press Esc or click the red cross X)

# **Opening a net**

| Y NET Control            | n NET          | 2.0          | lick the 'Ope | en net' butto | n        |
|--------------------------|----------------|--------------|---------------|---------------|----------|
| Open NET Royal Signals N | et 🗸           |              |               |               |          |
| ACTIVE USERS TIM         | AGER           | ON AIR       |               |               |          |
| Callsign Nar             | QTH            | Date/Time on | Country       | RST Sent      | RST Rcvd |
| L                        | J              |              |               |               |          |
| 1. Select the            | e required net |              |               |               |          |
|                          |                |              |               |               |          |

## Adding or editing a net member

- 1. To add a net member, click on the green cross
- 2. To delete a member, click on the red minus (-) sign
- 3. To edit a member's details, click on the pen icon



In the 'Call sign Management' screen, insert any details required and click on the green check mark at the top of the window marked 'Add and save in NET config'

Details can also be added to the call signs of 'Inactive members' (listed on right of screen) To do this, highlight a call sign then click on the icon for editing (a pen in a circle to the right of the minus/delete button) Insert new details and click on the green check mark at the top of the window marked 'Add and save in NET config'

| Contact                     | ×  |     |
|-----------------------------|--|-----|
| 🥥 Search 🛭 😽 Add and sav    | e in NET config                                      | cir |
| Callsign                    | IW3HMH   | 1:  |
| Name                        | Daniele Pistollato                                   | 1:  |
| QTH                         | Quarto d'Altino (VENICE)                             | İ   |
| Country                     | Italy ~<br>TTU 28 ~ CQ 15 ~ 248                      |     |
| Contact groups/associations | FISTS v 12345  | ł   |
| Special Interest group      | Lagoon Awards  |     |
| Special Interest group info | For working all islands in the Venice Lagoon on 23cm |     |
| (F) 01 1                    |  |     |

Clicking on the 'SEARCH' icon will cause a lookup of that call sign using the online sources selected in the program config, the various fields will be auto filled.

Clicking on the Green check mark icon (Add & save in NET config) will store the updated or new contact to the Net control database for future use.

# Editing 'Active' net members information

Highlighting an active member and selecting the 'Edit QSO data' tab allows the user to update virtually all of the information about that contact for both the active net member and the user of net control

| Y NET Control   |                      | -                | $\Box$ ×                |
|---|----------------------|------------------|-------------------------|
| New NET Close NET Delete NET  |                      |                  |                         |
| Open NET Testing Net  | Actual users         | 1 Unic           | que 1                   |
|   | Users record         | 2                |                         |
| ON AIR  |                      | NET USERS        |                         |
| ACTIVE USERS TIME MANAGER   | Callsign<br>K7PT     | Name<br>STEVEN H | Country<br>United Stat. |
| QSO Info Contact's details Award Refs. My Station My Refs. QSL Info |                      |                  |                         |
| OZ1W S 59 √ R 59 √ QSO Start 01/05/2025 10:38:13 □▼                 |                      |                  |                         |
| GRAHAME CLINCH QSO End 01/05/2025 10:38:1 V                         |                      |                  |                         |
| Band 60m V G Grid J054vv PFX 0Z1                                    |                      |                  |                         |
| RX Band V G Comment   |                      |                  |                         |
| Mode USB V A Note   |                      |                  |                         |
| Country Denmark ~   |                      |                  |                         |
| TU 18 V CQ 14 V 221   |                      |                  |                         |
| Freq 0 000 Contest  |                      |                  |                         |
| KHz Hz Sent   |                      |                  |                         |
| RX Freq 0 000 a Received  |                      |                  |                         |
|   | +                    |                  |                         |
|   | 🗹 Save QSO in        | log 60m          | ~ 🔒                     |
|   | External look        | kup USB          | $\sim$                  |
|   | Default sent         | Default ro       | vd                      |
|   | 59 ~                 | 59               | ~                       |
|   | Default comme        | nt               |                         |
|   |                      |                  |                         |
| NET STATUS C Use drag and drop or double c                          | ick between lists to | o add and remov  | e (save) QSO            |

## Net Time manager

Some club nets need to monitor the amount of time a net member is speaking on each over! For this purpose, Log4OM provides a 'Time Manager' click on the Time Manager tab in the 'ON AIR' box.

| Y NET Control                               |              |       |                                 |   | -                       |                         |
|---|--------------|-------|---------------------------------|---|-------------------------|-------------------------|
| New NET Open NET Close NET Delete NET       |              |       |                                 |   |                         |                         |
| Open NET Testing Net V                      |              |       |                                 | Actual users  | 1 Unic                  | que 1                   |
|   |              |       |                                 | Users record  | 2                       |                         |
| ON  | AIR          |       |                                 |   | NET USERS               |                         |
| ACTIVE USERS   TIME MANAGER   Edit QSO data | Current user | START | STOP                            | Callsign<br>K7PT  | Name<br>STEVEN H        | Country<br>United Stat. |
|   | Taking since |       | Total elapsed                   |   |                         |                         |
|   |              |       |                                 | Save QSO in External look Default sent 59 Default comme | USB<br>Default ro<br>59 | vd                      |
| NET STATUS 🔘                                |              |       | Use drag and drop or double cli | ck between lists to                                     | o add and remov         | e (save) QSO            |

Double clicking on a call sign transfers it to the 'Current user' field and start the timer, when the person finishes his/her over click the 'Stop' button to stop the clock and save the time alongside the users call sign in the left box.

## **Closing a net**

Click the 'Close net' button, if some net members call signs remain in the 'ON AIR' box the user is prompted to save the QSO's or ignore and close.

# Map types

## Main UI Map

There are two map in the main user interface:

That on the left is a real time grey line map that also plots the Short and long path Azimuth lines, the map style can be changed in the Settings/Program configuration/Map menu.

On the right is a Google map display of the location of the other station entered in the call sign input field and is based on the locator found in the call sign lookup or if no locator is found the approximate centre of the country.



The lower edge of the large scale Google map displays the Locator, Short and long paths and distance.



The right hand map can be zoomed using the mouse scroll wheel and by holding the right mouse button pressed the map can be repositioned/dragged.

The Google map on the right can be zoomed into street level view.



Local map choice

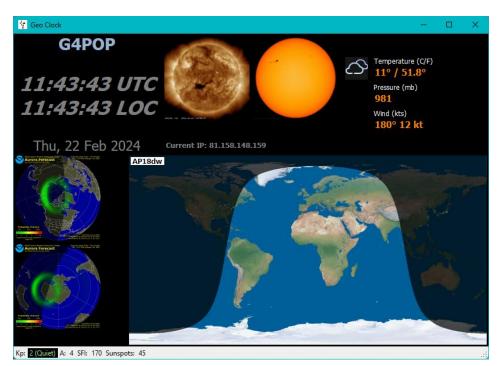
The user can select either Google Maps, Bing or Street Maps from the Settings/Program configuration/program settings menu as shown below.

NOTE: Having clicked save and apply it is necessary to restart Log4OM for the changes to take effect

| Configuration  |   |  |
|--|---|--|
| Save config Save and apply Exit  |   |  |
|  |   | PRIVACY NOTE:         Check for updates report program version + country.         Send statistics report program version + country + callsign         Thanks for sharing detailed statistics         Automatic         Miles |
| Confirmations<br>Database  | Default Log Level   | Info v P   |
| External Services     User preferences     Award preferences     Software Configuration     Cluster     Cluster Alert     Info Providers     Configuration     Map Settings     Backup     VOACAP Propagation     Auto Start     Chat     Hardware Configuration | Map provider<br>QSO Attachment archive path<br>GRID default row count<br>Automatic backup on closure<br>Ask before exit | GoogleMaps   |
| Audio devices and voice keye     CAT interface     CW Keyer interface  | Those fields are used by Log4OM team<br>Log4OM Team user  | n to manage awards. Normal users must ignore them  |
|  | Log4OM Team password  |  |

# World Clock and Map

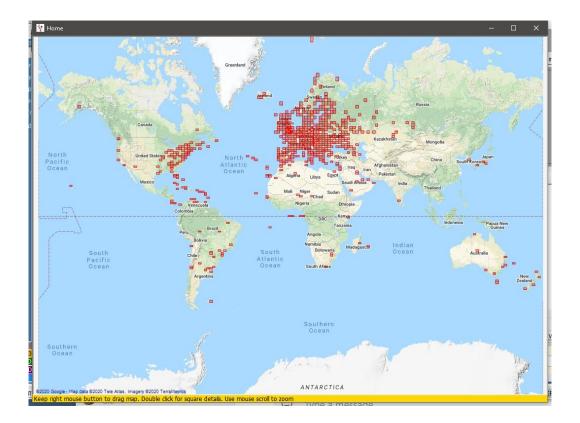
This floating world clock/map provides instant information about local weather, propogation, time and grey line, to access it use view/World Clock



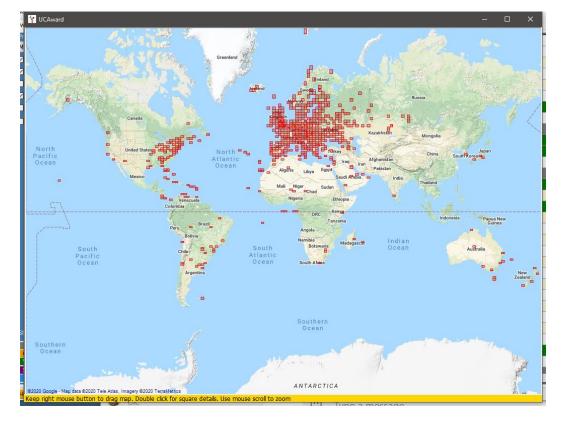
# **QSO** Maps

Most grids have a QSO Map icon on the bottom toolbar, clicking this icon will display a map of QSO Grid square locators and if filters have been applied the display will reflect the filtered results.

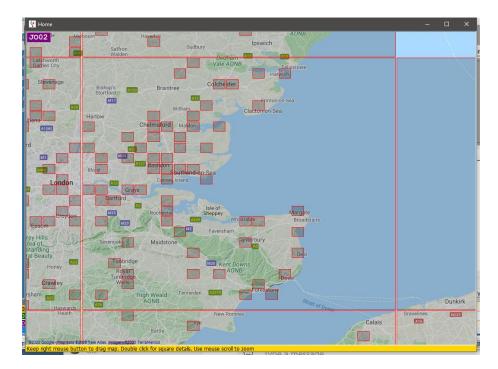
| ile <u>C</u> onnect Contest  | View Utilities   | S <u>e</u> ttings <u>H</u> elp  |   |  |  |  |   |   |                                  |                 |               |      |
|--|--|---|---|--|--|--|---|---|----------------------------------|-----------------|---------------|------|
| 838600   | 00088  | 80605868  | <<br>K  | 1 🛟 🗘  | Azimuth<br>0°  |  | Elevation   | .≫ ⊕  | <u>≪</u> ¥                       | = 💼 🖊           | ۶             |      |
| ALLSIGN  | S 59   | ✓ R 59 ✓ Start 30/  | /06/2020 08   | 8:07:50 韋 🧯  | Statist  | tics (F1)  | nfo (F2) Av   | vard refs (I                                    | F3) My St                        | ation (F4)      | Extended info | (F5) |
|  |  | End 30/   | /06/2020 08   | 8:07:50 🗘 🧯  | 3  | IEW ONE  | NEW BA  | ND N  | EW MODE                          |                 |               |      |
| perator name   | 🗾 🗾 Gri  | id  |   |  |  | EW GRID  | GRID B/   |   | RID MODE                         |                 |               |      |
| id 80m ~   | Commer   | nt 🗸 🗸  | <u>a</u>  |  | Cou  | ntry   | Band  | Mod   | de                               |                 |               |      |
|  | A Not  |   | 8   |  |  |  |   |   |                                  |                 |               |      |
|  |  |   | -   |  |  |  |   |   |                                  |                 |               |      |
| ntry   |  |   |   |  | -  | 160 80 6   | 0 40 30 20  |   |                                  | U               |               |      |
| ITU V CQ V   |  |   |   |  | PH   |  |   |   |                                  | 8               |               |      |
| KHz Hz   |  |   |   |  |  |  |   |   |                                  |                 |               |      |
|  |  | KHz Hz<br>8760 000 🐴 RX   | Band 80r  | n v (  | DIG  | 000  |   |   | iččč                             | ŏ 📖             |               |      |
| g 3760 000   | 🔋 🚨 RX Freq 3  | 3760 000 🦲 RX   |   | m v 🧯  | DIG  | 000  |   |   | :                                | č 📖             |               |      |
| a 3760 000<br>in (F6) Recent QSO's (F7   |  | ropagation (F9) Worked before   | e (F10)   |  |  | 000  |   | 0000  | 5555<br>+ 1                      | č 📖             |               |      |
| a 3760 000<br>in (F6) Recent QSO's (F7<br>iso Start Date   | Callsign   | 3760     000     00     R <sup>3</sup> ropagation (F9)     Worked before       Country  | e (F10)<br>Rst  | Rst Rcvd   | Band   | Freq   | Mode  | Nar ^   |                                  | č<br><u>8</u> e |               |      |
| a         3760         000           in (F6)         Recent QSO's (Finite Content QSO's (Finite Conten QSO's (Finite Content QSO's (Finite Content QSO's (Finite Conte | Cluster (F8)     P       Callsign     KH7X   | 3760     000     Image: Constraint of the second se | e (F10)<br>Rst<br>59  | Rst Rcvd<br>59   | Band<br>80m  | 0  | LSB   | Oah   | 3,780                            | č<br>           |               |      |
| 3760         000           in (F6)         Recent QSO's (F7)           iso Start Date         106/2020 06:49:16           /06/2020 18:17:50         106/2020 18:17:50  | RX Freq     3       Cluster (F8)     P       Callsign     KH7X       G4ELZ   | 3760     0.00     3     RV       ropagation (F9)     Worked before       Country     Hawai       England  | e (F10)<br>Rst<br>59<br>53  | Rst Rcvd<br>59<br>44   | Band<br>80m<br>20m   | 0<br>14302   | LSB<br>SSB  | Oah<br>Jeff                                     | 3,780                            | č<br>           |               |      |
| 3760         000           in (F6)         Recent QSO's (F7           so Start Date         (06/2020 06:49:16           /06/2020 18:17:50         (06/2020 18:16:01  | Cluster (F8)     P       Callsign       KH7X       G4ELZ       OH6KSX  | 3760     000     Image: Constraint of the second se | e (F10)<br>Rst<br>59<br>53<br>55  | Rst Rcvd<br>59<br>44<br>42   | Band<br>80m<br>20m<br>20m  | 0<br>14302<br>14302  | LSB<br>SSB<br>SSB   | Oah<br>Jeff<br>Sarr                             |                                  | č               |               |      |
| 3760         000           n (F6)         Recent QSO's (F)           so Start Date         /06/2020 06:49:16           /06/2020 18:17:50         /06/2020 18:16:01           /06/2020 18:16:35         /06/2020 18:13:45   | Custer (F8)         P           Callsign         KH7X           G4ELZ         OH6K5X           9A5MX   | 3760     0.00     3     RV       ropagation (F9)     Worked before       Country     Hawai       England  | e (F10)<br>Rst<br>59<br>53<br>55<br>55<br>59  | Rst Rcvd<br>59<br>44<br>42<br>59   | Band<br>80m<br>20m<br>20m<br>20m   | 0<br>14302<br>14302<br>14302   | LSB<br>SSB<br>SSB<br>SSB                                    | Oah<br>Jeff<br>Sam<br>Sve                       | 3,780<br>3,770                   |                 |               |      |
| 3760         0000           n (F6)         Recent QSO's (F)           so Start Date         //06/2020 06:49:16           //06/2020 18:17:50         //06/2020 18:17:50           //06/2020 18:17:55         //06/2020 18:13:45           //06/2020 18:11:46         //06/2020 18:11:46   | Custer (F8)     P       Callsign     KH7X       G4ELZ     OH6KSX       9A5MX     EA2DT   | 3760     0.00     3     RV       ropagation (F9)     Worked before       Country     Hawai       England  | e (F10)<br>Rst<br>59<br>53<br>55<br>55<br>59<br>53  | Rst Rcvd<br>59<br>44<br>42<br>59<br>33                                     | Band<br>80m<br>20m<br>20m<br>20m<br>20m  | 0<br>14302<br>14302<br>14302<br>14302  | LSB<br>SSB<br>SSB<br>SSB<br>SSB                             | Oah<br>Jeff<br>Sarr                             | 3,780                            |                 |               |      |
| 3760         000           in (F6)         Recent QSO's (F:           iso Start Date         106/2020 06:49:16           1/06/2020 18:17:50         106/2020 18:16:10           1/06/2020 18:16:45         106/2020 18:11:46           1/06/2020 18:11:46         106/2020 18:11:46  | RX Freq     P       Cluster (F8)     P       Calsign     KH7X       G4ELZ     OH6KSX       9A5MX     EA2DT       IU1KGS  | 3760     0.00     3     RV       ropagation (F9)     Worked before       Country     Hawai       England  | Rst           59           53           55           59           53           59           53           59           53           55           | Rst Rcvd<br>59<br>44<br>42<br>59<br>33<br>51                               | Band           80m           20m           20m           20m           20m           20m           20m   | 0<br>14302<br>14302<br>14302<br>14302<br>14302   | LSB<br>SSB<br>SSB<br>SSB<br>SSB<br>SSB                      | Oah<br>Jeff<br>Sarr<br>Sve<br>Man               | 3,780<br>3,770                   |                 |               |      |
| 3760         000           in (F6)         Recent QSO's (F;           so Start Date         106/2020 06:49:16           0/06/2020 06:49:16         106/2020 18:17:50           0/06/2020 18:16:601         106/2020 18:16:45           0/06/2020 18:16:19         106/2020 18:10:19           0/06/2020 18:10:19         106/2020 18:10:19   | Custer (F8)     P       Callsign     KH7X       G4ELZ     OH6KSX       9A5MX     EA2DT   | 3760     0.00     3     RV       ropagation (F9)     Worked before       Country     Hawai       England  | e (F10)<br>Rst<br>59<br>53<br>55<br>55<br>59<br>53  | Rst Rcvd<br>59<br>44<br>42<br>59<br>33                                     | Band<br>80m<br>20m<br>20m<br>20m<br>20m  | 0<br>14302<br>14302<br>14302<br>14302  | LSB<br>SSB<br>SSB<br>SSB<br>SSB                             | Oah<br>Jeff<br>Sam<br>Sve                       | 3,780<br>3,770                   |                 |               |      |
| a 3760 000<br>in (F6) Recent QSO's (F7   | Cluster (F8) P<br>Cluster (F8) P<br>Callsign<br>KH7X<br>G4ELZ<br>OH6KSX<br>9A5MX<br>EA2DT<br>IU1KGS<br>G0FEX   | 000     000     R       ropagation (P9)     Worked before       Country       Havai       England       Finand       I       I       I       I       I  | * (F10)       Rst       59       53       55       59       53       59       53       59       53       59       53       55       55       59 | Rst Rcvd<br>59<br>44<br>42<br>59<br>33<br>51<br>58                         | Band           80m           20m           20m | 0<br>14302<br>14302<br>14302<br>14302<br>14302<br>14302  | LSB<br>SSB<br>SSB<br>SSB<br>SSB<br>SSB<br>SSB               | Oah<br>Jeff<br>Sarr<br>Sve<br>Man               | 3,780<br>3,770<br>3,760          |                 |               |      |
| 3760         000           n (F6)         Recent QSO's (F7           so Start Date         006/2020 06:49:16           0/06/2020 06:49:16         006/2020 18:17:50           0/06/2020 18:16:601         006/2020 18:13:45           0/06/2020 18:11:46         006/2020 18:10:19           0/06/2020 18:10:90         906/2020 18:09:09  | Callsign           Callsign           Callsign           KH7X           G4ELZ           OH6KSX           9A5MX           EA2DT           IU1KGS           G0FEX           RW1F | 7760 000 R RV<br>ropagation (F9) Worked before<br>Country<br>Havai<br>England<br>Finland  | FILON Rst 59 53 53 55 59 53 55 59 55 59 59 59 59 59 59  | Rst Rcvd<br>59<br>44<br>42<br>59<br>33<br>51<br>58<br>58<br>59             | Band           80m           20m           20m | 0<br>14302<br>14302<br>14302<br>14302<br>14302<br>14302<br>14302<br>14302                          | LSB<br>SSB<br>SSB<br>SSB<br>SSB<br>SSB<br>SSB<br>SSB        | Oah<br>Jeff<br>Sarr<br>Sve<br>Man<br>Ken<br>Man | 3,780<br>3,770<br>3,760          |                 |               |      |
| 3760         000           n (F6)         Recent QSO's (F/           so Start Date         (96/2020 06:49:16           (96/2020 18:17:45         (96/2020 18:17:45           (96/2020 18:17:45         (96/2020 18:17:45           (96/2020 18:10:19         (96/2020 18:10:19           (96/2020 18:09)         (96/2020 18:09)           (96/2020 18:09)         (96/2020 17:52:51   | Calsign<br>Custer (F8) P<br>Calsign<br>KH7X<br>G4ELZ<br>OH6KSX<br>9A5MX<br>EA2DT<br>JU1KGS<br>G0FEX<br>RWJF<br>DL9MD1<br>CAMPIM  | 7760 000 R R<br>ropagation (F9) Worked before<br>Country<br>Havai<br>England<br>Finland<br>Country<br>Russia<br>Russia<br>public of Germany   | e (F10)<br>Rst<br>59<br>53<br>59<br>53<br>55<br>59<br>59<br>59<br>59<br>59<br>59<br>59<br>59<br>59  | Rst Rcvd<br>59<br>44<br>42<br>59<br>33<br>51<br>58<br>58<br>59<br>59<br>59 | Band<br>80m<br>20m<br>20m<br>20m<br>20m<br>20m<br>20m<br>20m<br>20m<br>20m<br>40m  | 0<br>14302<br>14302<br>14302<br>14302<br>14302<br>14302<br>14302<br>14302<br>14247<br>7158<br>7158 | LSB<br>SSB<br>SSB<br>SSB<br>SSB<br>SSB<br>SSB<br>SSB<br>SSB | Oah<br>Jeff<br>Sarr<br>Sve<br>Man<br>Ken<br>Man | 3,780<br>3,770<br>3,760<br>3,750 |                 |               |      |



| ward view Award filters Statistics Mainten | ance Massive editor |                    |           |                 |      |     |     |     |     |     |     |     |     |    |   |
|--|---------------------|--------------------|-----------|-----------------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|---|
| Predefined config                          | Reference           | Reference          | Reference | Country         | 160m | 80m | 40m | 30m | 20m | 17m | 15m | 12m | 10m | 6m | ~ |
| MIXED ~                                    | 1                   | VE - Canada        | NA        | Canada          |      | V   | v   |     | v   |     | w   |     |     |    |   |
| Show worked only                           | 5                   | OH0 - Aland Is.    | EU        | Aland Island    |      |     | W   |     | С   |     |     |     | w   |    |   |
|  | 6                   | KL7 - Alaska       | NA        | Alaska          |      |     | w   |     |     |     |     |     |     |    |   |
|  | 7                   | ZA - Albania       | EU        | Albania         |      | С   |     |     | w   |     | w   |     |     |    |   |
| Award view                                 | 14                  | EK - Armenia       | AS        | Armenia         |      |     |     |     | w   |     |     |     |     |    |   |
| Detailed (mode) statistics                 | 15                  | UA9, UA0 - As      | AS        | Asiatic Russia  |      |     |     | w   | w   | v   | С   |     |     |    |   |
| Strict mode                                | 18                  | 4J - Azerbajjan    | AS        | Azerbaijan      |      |     |     |     | v   |     |     |     |     |    |   |
| Salechode                                  | 21                  | EA6 - Balearic Is. | EU        | Balearic Is.    |      | w   | v   | w   | v   | w   | w   |     | W   |    |   |
|  | 27                  | EU - Belarus       | EU        | Belarus         |      | w   | W   |     | w   | v   | v   |     | w   |    |   |
|  | 29                  | EA8 - Canary Is.   | AF        | Canary Is.      |      |     | v   |     | v   |     |     |     |     |    |   |
|  | 32                  | EA9 - Ceuta &      | AF        | Ceuta & Melila  |      |     | v   |     | w   |     |     |     | W   |    |   |
|  | 40                  | SV9 - Crete        | EU        | Crete           |      |     |     |     | v   | w   |     | w   |     |    |   |
|  | 45                  | SV5 - Dodeca       | EU        | Dodecanese      |      |     |     |     | v   |     |     |     |     |    |   |
|  | 52                  | ES - Estonia       | EU        | Estonia         |      | w   | С   | С   | v   |     |     |     | w   |    |   |
|  | 54                  | UA - European      | EU        | European Russia |      | v   |     |     |     |     |     |     | V   |    |   |
|  | 60                  | C6A - Bahamas      | NA        | Bahamas         |      |     | W   |     |     |     |     |     |     |    |   |
|  | 70                  | CO - Cuba          | NA        | Cuba            |      |     | W   |     | w   |     |     |     |     |    |   |
|  | 75                  | 4L - Georgia       | AS        | Georgia         |      |     | v   |     | w   |     | w   |     |     |    |   |
|  | 79                  | FG - Guadeloupe    | NA        | Guadeloupe      |      |     |     |     | w   |     |     |     |     |    |   |
|  | 86                  | YN - Nicaragua     | NA        | Nicaragua       |      |     |     |     | w   |     |     |     |     |    |   |
|  | 88                  | HP - Panama        | NA        | Panama          |      |     |     |     | w   |     |     |     |     |    |   |
|  | 90                  | 9Y - Trinidad      | SA        | Trinidad & To   |      |     |     |     | С   |     |     |     |     |    |   |
|  | 91                  | P4 - Aruba         | SA        | Aruba           |      |     |     |     | w   |     | V   |     |     |    |   |
|  | 95                  | J7 - Dominica      | NA        | Dominica        |      | W   |     |     |     |     |     |     |     |    |   |
|  | 7 100               | LU - Argentina     | SA        | Argentina       |      | С   |     |     | v   |     |     |     |     |    |   |
| ation                                      | 105                 | KG4 - Guantan      | NA        | Guantanamo Bay  |      |     |     |     | v   |     |     |     |     |    |   |
| WORKED                                     | 106                 | GU - Guernsey      | EU        | Guernsey        |      |     | V   |     |     |     |     |     |     |    |   |
| ONFIRMED                                   | 108                 | PY - Brazil        | SA        | Brazil          |      | v   | W   |     | v   | v   | v   |     |     |    |   |
| ALIDATED                                   | 110                 | KH6 - Hawaii       | OC        | Hawaii          |      | W   |     | 1   | 1   |     | 1   |     |     |    |   |



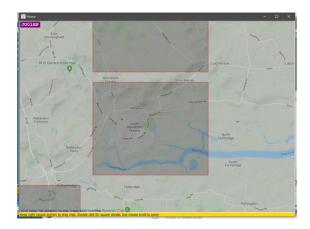
Scrolling the mouse wheel will zoom the map in and out and right click and drag will move the map.



Double left clicking on a square will display a list of QSO's related to that grid square.

| Callsign | Qso Date            | Band | Mode | Country | Freq     | Gridsquare | Name                     |  |
|----------|---------------------|------|------|---------|----------|------------|--------------------------|--|
| MOXTA    | 18/05/2020 19:26:48 | 60m  | USB  | England | 5395     | JO01bo     | Selim Møxta              |  |
| 41X      | 05/02/2020 20:57:00 | 80m  | SSB  | England | 3720     | JO01dg     | Steve Knell              |  |
| G4UPE    | 05/02/2020 08:36:33 | 60m  | USB  | England | 5395     | JO01if     | Richard Alias Dick Bruce |  |
| G4DBW    | 25/01/2020 12:48:00 | 40m  | FT8  | England | 7075.838 | JO01ni     | Rw Hammond               |  |
| G4UPE    | 16/01/2020 08:15:18 | 60m  | USB  | England | 5320     | J001if     | Richard Alias Dick Bruce |  |
| G4UPE    | 13/01/2020 08:28:02 | 60m  | USB  | England | 5320     | J001if     | Richard Alias Dick Bruce |  |
| GB1RNLI  | 09/01/2020 11:50:24 | 80m  | LSB  | England | 3718     | JO01qj     | Matt                     |  |
| G4ELP    | 22/11/2019 08:40:15 | 60m  | USB  | England | 5398.5   | JO01mi     | David J Stockley         |  |
| G4UPE    | 22/11/2019 08:24:04 | 60m  | USB  | England | 5398.5   | JO01if     | Richard Alias Dick Bruce |  |
| G4UPE    | 18/11/2019 08:27:04 | 60m  | USB  | England | 5371.5   | JO01if     | Richard Alias Dick Bruce |  |
| G4UPE    | 16/11/2019 08:39:18 | 60m  | USB  | England | 5371.5   | JO01if     | Richard Alias Dick Bruce |  |
| G4ELP    | 12/11/2019 08:39:14 | 60m  | USB  | England | 5403.5   | JO01mi     | David J Stockley         |  |
| G4UPE    | 12/11/2019 08:34:37 | 60m  | USB  | England | 5403.5   | JO01if     | Richard Alias Dick Bruce |  |
| G4UPE    | 01/11/2019 10:13:17 | 60m  | USB  | England | 5398.5   | JO01if     | Richard Alias Dick Bruce |  |
| G4ELP    | 01/11/2019 10:12:44 | 60m  | USB  | England | 5398.5   | J001mi     | David J Stockley         |  |
| G4UPE    | 20/07/2019 07:26:09 | 60m  | SSB  | England | 5395     | JO01if     | Richard Alias Dick Bruce |  |
| G4UPE    | 02/11/2018 07:43:56 | 60m  | SSB  | England | 5379     | J001if     | Dick                     |  |

Zooming in and double left clicking a 6-digit square will display the QSO's related to that 6 digit square



| MAP QSO  |                     |      |      |         |          |            |               |      |   |
|----------|---------------------|------|------|---------|----------|------------|---------------|------|---|
| Callsign | Qso Date            | Band | Mode | Country | Freq     | Gridsquare | Name          | <br> | _ |
| GOBCW    | 05/02/2005 09:35:00 | 40m  | SSB  | England | 7147.998 | 3001hp     | DAVID GREVETT |      |   |
|          |                     |      |      |         |          |            |               |      | 1 |
| Goden    |                     |      |      |         |          |            |               |      |   |

# Google Earth & kml files

Google Earth kml files may be created and displayed in Google earth from various grids either filtered or unfiltered,

providing the QSO's contain a grid square, and is available by clicking on the GE Icon 📚 at the bottom of each grid.

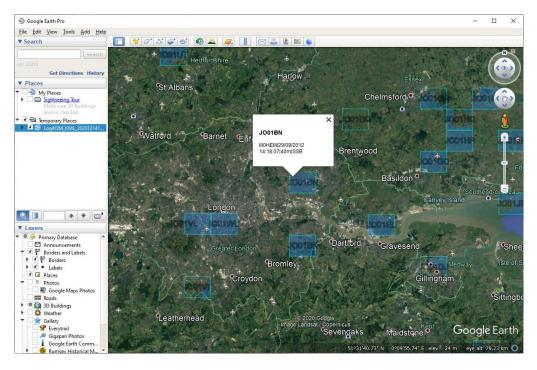
| •        | nfo 🛵 Export to ADIF 🚓 Exp<br>Single field update   Date/Time upd |                     | s Direct SQL | .]       |       |          |          |            |   |
|----------|---|---------------------|--------------|----------|-------|----------|----------|------------|---|
| CALLSIGN | QSO da  | te range            |              |          |       |          |          |            |   |
|          | From 14/1   | 2/2020              |              |          |       |          |          |            |   |
|          | To 14/1   | 2/2020              |              |          |       |          |          |            |   |
| Callsign | Qso Date  | Qso End Date        | Band         | Freq     | Mode  | Rst Sent | Rst Rcvd | Gridsquare |   |
| WA3OGQ   | 17/12/2018 01:22:15   |                     | 40m          | 7074.52  | FT8   | -10      | -17      | FM09       |   |
| KS4OT    | 16/12/2018 01:30:45   |                     | 40m          | 7074.46  | FT8   | -16      | -23      | EM83       |   |
| N1UK     | 16/12/2018 01:15:15   |                     | 40m          | 7074.3   | FT8   | -14      | -14      | FM05       |   |
| N4 TB    | 14/04/2018 08:01:15   | 14/04/2018 08:02:45 | 40m          | 7074.614 | FT8   | -08      | -10      | EL97       |   |
| KD4D     | 13/09/2014 06:57:57   |                     | 40m          | 7158.1   | SSB   | 59       | 59       | FM19hc     |   |
| W3DIY    | 20/04/2014 06:33:51   |                     | 40m          | 7129     | SSB   | 59+20    | 57       | FM19bb     |   |
| KK4CPS   | 16/01/2014 08:10:27   | 16/01/2014 08:10:27 | 40m          | 7039.874 | FSK31 | 599      | 599      | EM72nr     |   |
| N8XLJ    | 09/01/2014 08:06:22   | 09/01/2014 08:06:22 | 40m          | 7041.882 | FSK31 | 556      | 599      | EN81er     |   |
| K3RA     | 10/03/2011 04:33:10   |                     | 40m          | 7005.656 | CW    | 599      | 599      | FM19pf     |   |
| K3LR     | 06/03/2010 07:11:04   |                     | 40m          | 7128     | SSB   | 59       | 59       | EN91se     |   |
| KF3EQ    | 28/07/2009 05:52:19   |                     | 40m          | 7130     | SSB   | 58       | 54       | FM09dv     |   |
| WA4MBI   | 08/04/2009 05:59:09   |                     | 40m          | 7146     | SSB   | 57       | 57       | EL98hh     |   |
| <        |   |                     |              |          |       |          |          |            | > |

QSO manager filtered by DXCC 291 (USA) and Band = 40M ready to generate GE Map by clicking the  $\Im$  icon

|               |          | 40m         | 7130 | S |
|---------------|----------|-------------|------|---|
|               | KML Co   | onnection n | nap  | S |
|               | KML Gr   | id map      |      |   |
| ats 🕤 QSO Map | <u>-</u> |             |      |   |

Select the required map type

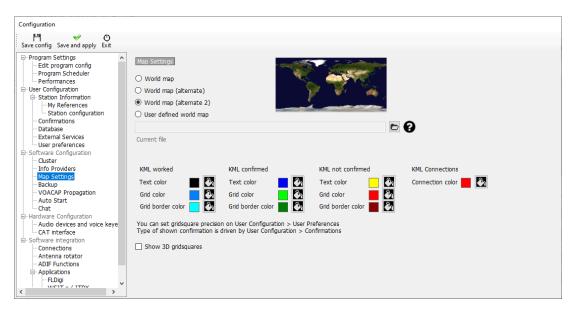
Save the fie to a convenient location and GE opens to display results

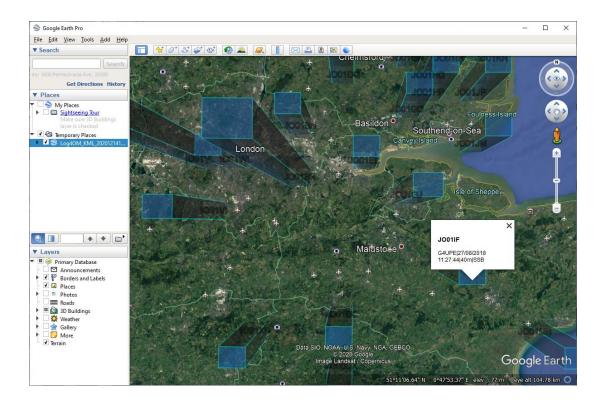


Clicking on a square displays the QSO's for that square

## **Google Earth KML map colours**

In Settings/Program configuration/Map settings it is possible to configure the colours displayed and select 2D or 3D display.





# How lookup works

Call signs can be entered in the Input window below by three methods.

- 1. Manual Entry
- 2. Single click on a cluster or Bandplan spot
- 3. Received via UDP from and external program like WSJT, JTDX, Gridtracker etc



The call sign is then 'Looked up' using the methods and in the 'Priority' order set by the user in the program configuration menu below:

| Configuration                              |  |
|--|--|
| .≞. ♥. ♥                                   |  |
| Save config Save and apply Exit            | 7  |
| Program Settings     Edit program config   | Info providers configuration   |
| - Program Scheduler                        | Use Clublog database   |
| Performances                               | Use CTY database   |
| E-mail settings                            |  |
| User Configuration     Station Information | CQ and ITU source priority<br>REALTIME LOGGING HISTORIC QSO (before today)                 |
| My References                              | Priority 1 (max) EXTERNAL SOURCE CLUBLOG   |
| - Station configuration                    |  |
| Local weather                              | Priority 2 CLUBLOG EXTERNAL SOURCE   |
| ···· Confirmations                         | Priority 3 COUNTRY FILE (CTY)  |
| ···· Database                              | CO and TRU second the selection of the following selection selection (the formula field)   |
| External Services     User preferences     | CQ and ITU zones will be calculated using the following priority list (from left to right) |
| Award preferences                          | Priority 1 source  |
| Software Configuration                     | Country File Priority 2 source Clublog Callsign exception FCC & LOTW OUTPUT                |
| Cluster                                    | Priority 3 source  |
| Cluster Alert                              |  |
| - Info Providers Configuration             | Show profile image in main User Interface  |
| Map Settings                               | Enable download may result in delays during busy contest days                              |
| Backup                                     |  |
| ··· VOACAP Propagation                     |  |
| Auto Start                                 |  |
| Chat<br>Hardware Configuration             |  |
| Audio devices and voice keve               |  |
| - CAT interface                            |  |
|  |  |
|  |  |

The 'External Source' having already been selected in the 'Program configuration' menu below.

| l.   |                     |                  |                              |  |           |   |                       |
|--|---------------------|------------------|------------------------------|--|-----------|---|-----------------------|
|  |                     |                  |                              |  |           |   |                       |
| fig Save and apply Exit                            |                     |                  |                              |  |           |   |                       |
| ram Settings                                       |                     |                  |                              |  |           |   |                       |
| dit program config                                 | Info providers      |                  |                              |  |           |   | Web external source   |
| Program Scheduler                                  |                     | Primary          | Failsafe                     |  |           |   | - Web external source |
| erformances  |                     | source           | source                       |  |           |   | Primary source        |
| -mail settings                                     |                     |                  | O                            |  |           |   | O QRZ.COM             |
| Configuration                                      |                     | O Disabled       | <ul> <li>Disabled</li> </ul> |  |           |   |                       |
| My References                                      | QRZ.COM             | 0                |                              | G4POP  | ******    | 0 | ○ HAMQTH              |
| - Station configuration                            |                     | -                |                              |  |           |   | O ORZCO               |
| Local weather                                      | HAMQTH              | 0                | 0                            | G4POP  | *****     | ¢ | 0 4.204               |
| Confirmations                                      |                     |                  |                              | -  |           |   |                       |
| Database   | QRZCQ               | 0                | 0                            | G4POP  | ******    | ¢ |                       |
| External Services                                  |                     | ~                | 0                            | lines  | Deserverd |   |                       |
| Jser preferences                                   | HAMCALL (online)    | 0                | 0                            | User   | Password  |   |                       |
| Award preferences                                  | HAMCALL (Installed  |                  | 0                            | HAMCALL DVD Path   | C:\ ~     |   |                       |
| ware Configuration                                 | Thirtenez (Instance | ,                | 0                            |  | Cit -     |   |                       |
| Cluster Alert                                      |                     |                  |                              |  |           |   |                       |
| Info Providers                                     | Failsafe sour       | ce will be polle | d if primary sou             | rce doesn't return info.<br>iencing slow search response t | ·         |   |                       |
| Configuration                                      | Set NONE d          | uning concests   | or when exper                | encing slow search response c                              | imes      |   |                       |
| Map Settings                                       |                     |                  |                              |  |           |   |                       |
| Backup   |                     |                  |                              |  |           |   |                       |
| /OACAP Propagation                                 |                     |                  |                              |  |           |   |                       |
| Auto Start   |                     |                  |                              |  |           |   |                       |
| Chat   |                     |                  |                              |  |           |   |                       |
| ware Configuration<br>Audio devices and voice keve |                     |                  |                              |  |           |   |                       |
| CAT interface                                      |                     |                  |                              |  |           |   |                       |
|  |                     |                  |                              |  |           |   |                       |
| CW Kever interface                                 |                     |                  |                              |  |           |   |                       |

In the examples above Log4OM checks

1<sup>st</sup> The external source of QRZ.com and if no information is available there HamQTH

2<sup>nd</sup> The Clublog database which contains specific dates and times when the call sign is/was operative.

NOTE: If the lookup is for Bouvet Island and clublog identifies that the station was only on air for 4 days in February 2023 and its grid reference was WXYZ then that information overrides anything else found by other sources and the QSO can only be logged if the QSO date is within the 4 days of activity.

3<sup>rd</sup> The CTY file which is very basic information for any data not available from the first two checks above.

Clearly if the priority is changed by the user a very different result is obtained e.g.

#### PLEASE NOTE

When a QSO is in progress in an external program like WSJT etc the Log4OM lookup is only displayed it is not what is saved when the QSO is completed by the WSJT software sending the QSO via UDP

UNLESS the user elects to update the data received in the QSO sent from the external program in the Program Configuration menu shown below:

| Configuration   |  |                              |   |                           |                        |              |     |
|---|--|------------------------------|---|---------------------------|------------------------|--------------|-----|
| Save config Save and apply Exit   |  |                              |   |                           |                        |              |     |
| My References<br>Station configuration<br>Local weather<br>- Confirmations<br>- Database<br>- External Services<br>- User preferences | Connections<br>UDP UDP Proxy Remote Control<br>UDP INBOUND<br>Port Connection name<br>33333 TEST | Service type ADIF_MESSAGE  V | ÷ | UDP OUTBOUND<br>Port<br>0 | )<br>Connection name   | Service type | -   |
| Award preferences   | Default answer on msg received   |                              |   | Broadcast                 | Destination IP Address | 127.0.0.1    |     |
| - Cluster   |  | _                            |   | Obiotector                |                        | 12/10/012    | - 1 |
| Cluster Alert   | UDP Inbound para   | neters                       |   |                           |                        |              |     |
| - Info Providers  | 🛩 🗕 🗗  |                              |   |                           |                        |              |     |
| Configuration   | USE_EXTERNAL_DATA  |                              |   |                           |                        |              |     |
| Map Settings  | UPDATE_GRIDSQUARE  |                              |   |                           |                        |              |     |
| Backup     VOACAP Propagation   | UPDATE_CQ_ITUZONE  |                              |   |                           |                        |              |     |
| - Auto Start  | 2 items selected   | ed                           |   |                           |                        |              |     |
| - Chat  | UDP Inbound conn   |                              |   |                           | UDP Outbound co        |              | _   |
| Hardware Configuration  |  | ections                      |   |                           | UDP Outbound co        | nnections    | _   |
| Audio devices and voice keve  | 🛩 💳 🗗 🧴  |                              |   | 🤟 🗕 👻                     |                        |              |     |
| - CAT interface   | [UDP_INBOUND] [JT_MESSAGE] [22   | 37] MSHV                     |   |                           |                        |              |     |
| - CW Keyer interface  | [UDP_INBOUND] [MESSAGE_LISTEN]   | ER] [2242] UDP BROADCAS      |   |                           |                        |              |     |
| Software integration  |  |                              |   |                           |                        |              |     |
| Connections   |  |                              |   |                           |                        |              |     |
| - Antenna rotator   |  |                              |   |                           |                        |              |     |
| - ADIF Functions  |  |                              |   |                           |                        |              |     |
| Applications  |  |                              |   |                           |                        |              |     |
| FLDigi  | 2 items selected   | ed                           |   |                           | 0 items selec          | ted          |     |
| Web integration   | WSJT-X default port: 2237  |                              |   | PSTRotator defau          | lt port: 12040         |              |     |
|   |  |                              |   |                           |                        |              |     |

#### Speed of lookup

As of version 2.26.0.05 a lookup performance enhancement was added to enable the user or support team to identify where delays are caused

|   | × |
|---|---|
| Callsign data quality check complete   $\Sigma$ 0:00.0022   $\Delta$ 0:00.0022<br>UDP outbound enqueued complete   $\Sigma$ 0:00.0024   $\Delta$ 0:00.0001<br>SYNC message sent to user interfaces   $\Sigma$ 0:00.0037   $\Delta$ 0:00.0012<br>BEGIN external QSO data enrichment   $\Sigma$ 0:00.0855   $\Delta$ 0:00.0037<br>END external QSO data enrichment   $\Sigma$ 0:00.7855   $\Delta$ 0:00.7820<br>Worked before complete   $\Sigma$ 0:00.7935   $\Delta$ 0:00.040<br>External image retrieved   $\Sigma$ 0:00.8930   $\Delta$ 0:00.0994<br>Name from previous QSO retrieval complete   $\Sigma$ 0:00.9120   $\Delta$ 0:00.0189<br>Available awards for call retrieved   $\Sigma$ 0:00.9222   $\Delta$ 0:00.0102<br>GRID SET   $\Sigma$ 0:00.9682   $\Delta$ 0:00.0460<br>Chat searched for callsign   $\Sigma$ 0:00.9773   $\Delta$ 0:00.0091<br>Statistics set   $\Sigma$ 0:01.0239   $\Delta$ 0:00.0466<br>Award references load complete   $\Sigma$ 0:01.0552   $\Delta$ 0:00.0312 |   |
| ОК  |   |

## Call sign Look up processes

When a call sign is entered in the Call sign input filed of Log4OM information is simultaneously collated from many different resources to provide the most accurate information currently available. e.g. On-line call lookup services like QRZ, HamQTH, HamCall, QRZCQ, Clublog Exceptions file, Log4OM databases, QSL manager lists, LOTW user lists and CTY data for zone information.

The lookup is handled differently for QSO's that are being imported via an ADIF file 'Historic data' to that of a Call sign being entered during the process of making a contact (New QSO) which is considered to be 'Real time' data.

'Historic data' from imported QSO's may often be an entirely different set of information to the same call sign currently in use, there are many reasons for this as in the examples below:

- Call sign holder moved QTH
- Call sign was re-issued to a new licensee
- The IARU changed the zoning of the country/QTH
- The call is no longer in use
- The DXCC country prefix was changed

## Resources

#### Information Providers.

In the quest for accuracy of data when recording and updating QSO's Log4OM Version 2 collates information from both external information providers and information maintained by the Log4OM team.

#### **External sources**

- Solar data from NOAA and VOACAP (Alex VE3NEA)
- CTY Data from Jim Reisert AD1C
- Clublog data from Clublog.org
- Call sign exceptions from Clublog.org
- HRDLog online
- LOTW Users from ARRL/LOTW
- IOTA data from RSGB/IOTA
- SOTA Summit information from SOTA
- Online call lookups from QRZ, HamQTH, QRZCQ & HamCall

### Data maintained by the Log4OM Team

- Awards definitions
- Country file
- SOTA Associations list
- Band/Mode files
- All files released through application releases

## User selection of info providers

Log4OM utilises two different ways of using the external sources as data sources, because some sources work in real-time, so these work only on "current" QSO lookup, while other sources are able to recover data from the past (historic)

The default REALTIME LOGGING lookup priority for CQ and ITU zones is:

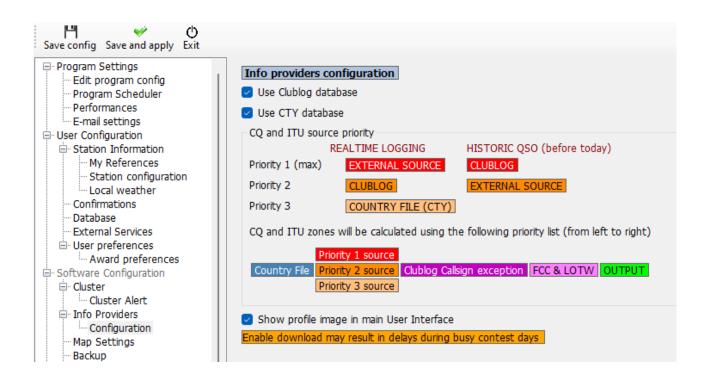
- 1. External Source (QRZ, Hamqth etc)
- 2. Clublog Exceptions file
- 3. CTY Fike

If the CTY has a valid CQ/ITU zone for the call sign being looked up, this will be the source selected. The CTY file is designed to be used for real time contesting.

Due to the limitation above Log4OM provides two different methods for call look up, one for "Realtime " logging and another for "historic" QSO logging (Historic is any QSO entered where QSO date is different to today's date)

Historic QSO lookup by default is Clublog and Exceptions file first, followed by 'External Sources' (QRZ/HAMQTH etc.). This is because if a QSO that is 10 years old is entered the best source for historic data is Clublog and then any

external source.



Log4OM downloads the entire Clublog Call exceptions (Clublog Call Exc.) and prefix lookup database. One of the driving reasons for Club Log's existence is to increasing logging accuracy and this database used in conjunction with other data collated by Log4OM ensures the best call/prefix accuracy available in any logging software.

#### **Updating data resources**

The lookup process accuracy relies on the data that is used being current and Log4OM V2 ensures that the reference resources are updated automatically at regular intervals.

The following files are automatically downloaded at scheduled intervals.

- Solar data
- CTY Data
- Clublog Exceptions file data
- LOTW user's data
- Country Data
- Mode and band data
- Awards definitions
- IOTA Database
- SOTA Summit lists & SOTA Associations table

Manual update of those database resources is also available from the settings menu (Settings/Update resources)

#### **Scheduling Data Updates**

In the Settings/ Program Configuration/Program Scheduler it is possible to control how often these data sources are updated by selecting the data source from the list and changing the update frequency by days, minutes, hours and seconds, followed by clicking the save icon then Save and apply. We recommend to keep the default values, as they're calculated to have the best efficiency without overloading external data providers. SPOT updates are always available to manage exceptional situations.

| Configuration         Since config. Save and apply Ent         Program StatMar         Bit program Configuration         Bit provides         Bit provides     < | • |
|--|---|
|--|---|

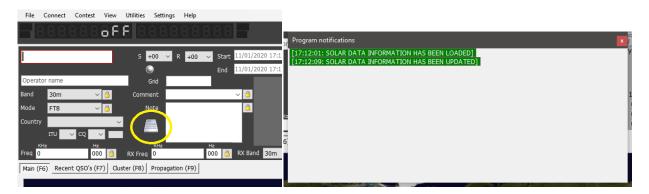
## **Update Notifications**

When Log4OM initially starts it updates data the files as mentioned earlier and notifies the user of such updates with an icon in the main UI, the icon also informs of any program updates



Left clicking on the icon will display the message window listing the updated files and also availability of a program update as above, right clicking the icon will clear it.

If no program updates are available, then the icon shown below indicates that only data updates were found.



## Info (Service) Providers

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.

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.

| Program Settings     Edit program config     Program Scheduler     User Configuration                               | Info Providers Conf         | iguration                          |                                |          |   |          |            |  |
|---|-----------------------------|------------------------------------|--------------------------------|----------|---|----------|------------|--|
| Station Information     My References     Station configuration     Confirmations                                   |                             | Primary<br>source                  | Failsafe<br>source             |          |   |          |            | Web external source<br>Primary source<br>QRZ.COM |
| Database<br>External Services   | QRZ.COM                     | ۲                                  |                                | V        | G4POP   | *****    | $\diamond$ | O HAMQTH   |
| User preferences  | HAMQTH                      | 0                                  | ۲                              | <b>V</b> | G4POP   | ******   | •          | ○ QRZCQ  |
| CAT interface   | QRZCQ                       | 0                                  | 0                              |          | User  | Password | 0          |  |
| - Info Providers<br>Map Settings  | HAMCALL (online)            | 0                                  | 0                              |          | User  | Password | 0          |  |
| Auto Status<br>Software integration<br>- Connections<br>- Anterna rotator<br>- Anterna rotator<br>- Anterna rotator | Failsafe sour<br>Set NONE d | ce will be polle<br>uring contests | d if primary so<br>or when exp | erienc   | doesn't return info.<br>Ing slow search response time | 25       |            |  |

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

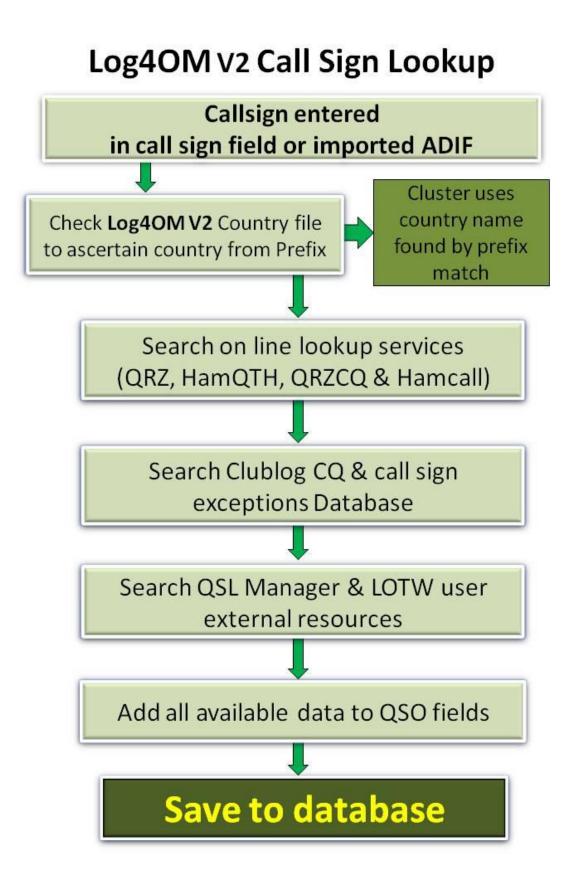
### Source priorities.

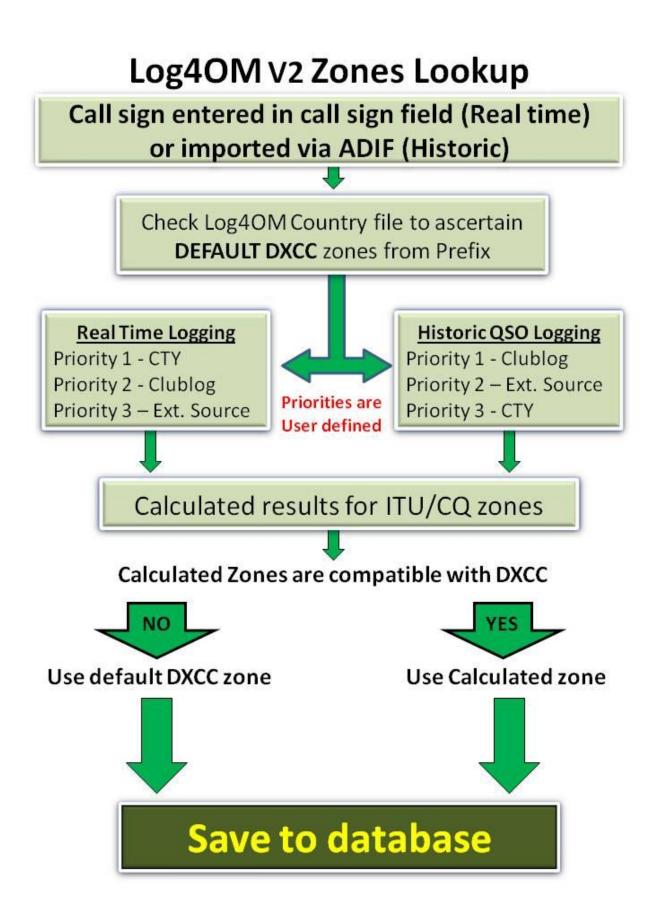
CQ and ITU zones present a difficult situation because due to either a station changing QTH or changes being made in zoning over the years the zones applicable to a call sign or country may alter according to when the QSO was made. Therefore, historic QSO's which already exist in the logbook or that are being imported from another program must be prioritised differently to a new (Real time) QSO being added.

| Configuration<br>❤ Ტ  |   |
|---|---|
| Save config Save and apply Exit   |   |
| Program Settings     -Edt program config     -Program Scheduler     -Performances     -Erral settings     User Configuration     -Station Information     -Station Information     -Station Information     -Station Information     -Station Configuration     -Local weather     -Confirmations     -Database     -External Services     -External Services     -Local weather     -Configuration     -VoACAP Propagation     -Auto Statt     -Chat     -Chat     -Chat     -Chat     -Chat     -Chat     -Chat     -Configuration     -Auto statt     -Chat     -Chat | Info providers configuration         I Use Cubig database         Use CTY database         CQ and ITU source priority         REALTINE LOGGING       HISTORIC QSO (before today)         Priority 1 (max)       EXTERNAL SOURCE         Priority 2       CUBLOG         Priority 3       COUNTRY FILE (CTY)         CQ and ITU zones will be calculated using the following priority ist (from left to right)         Priority 7 FIL       Priority 3 source         Country File       Priority 2 source         Country File       Priority 3 source         Show profile image In main User Interface         Enable download may result in delays during busy contest days |

## **Call lookup flow charts**

The first flow chart shows the lookup procedure for general call sign information, the second chart depicts the method of determining the correct ITU and CQ zones related to a call sign





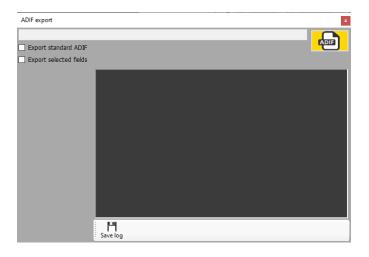
# **QSO Export**

## **Bulk exporting**

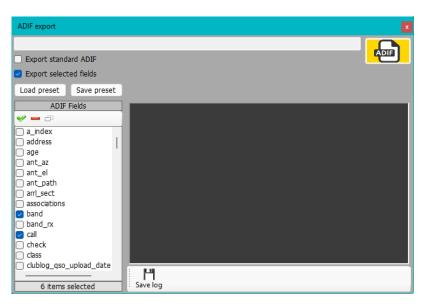
• To export the complete logbook, go to the 'File' menu and select 'Export ADIF'



• If only standard ADIF fields are to be exported, not the complete data including Log4OM dedicated fields, check the box 'Export as standard ADIF'



• To export a user defined list of ADIF fields, check the 'Export selected fields' box and then check the fields required.



# NOTE:

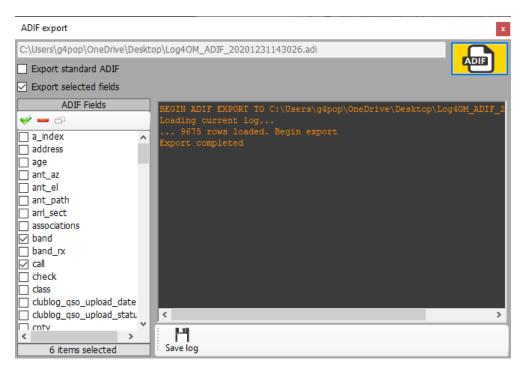
To save repetitive field selections for regular tasks the user can 'Save Preset' for later use and recalling that selection using the 'Load preset' buttons.

| 🙀 Save As   |                          |                          |                             |                           | ×     |
|---|--------------------------|--------------------------|-----------------------------|---------------------------|-------|
| $\leftrightarrow$ $\rightarrow$ $\checkmark$ $\uparrow$ | AppData > Roaming > Log4 | OM2 > Preset ADIF Export | ~ C                         | Search Preset ADIF Export | م     |
| Organise 🔻 New folder                                   |                          |                          |                             | ≣ .                       | • (?) |
| > 🛓 Downloads   | Nar                      | ne                       | Date modified               | Туре                      | Size  |
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| 🗸 🛄 This PC   | 1                        |                          |                             |                           |       |
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| > 📻 Data (D:)   |                          |                          |                             |                           |       |
| · · · · · · · · · · · · · · · · · · ·                   |                          |                          |                             |                           | _     |
| File <u>n</u> ame: ADIF exp                             | ort preset.txt           |                          |                             |                           | ~     |
| Save as <u>t</u> ype: TXT files (                       | *.txt)                   |                          |                             |                           | ~     |
| <ul> <li>Hide Folders</li> </ul>                        |                          |                          |                             | Save Ca                   | incel |

• Add a name and location by clicking the 'ADIF' button

| 🥳 Save As                                    |                                    |    |                   | ×                |
|--|------------------------------------|----|-------------------|------------------|
| $\leftrightarrow \rightarrow \cdot \uparrow$ | ■ > This PC > Desktop >            | ~  | ල් Search Desktop | Q                |
| Organise 🔻 🛛 N                               | lew folder                         |    |                   | :: • ?           |
| Music  | ^ Name ^ State                     | us | Date modified     | Туре ^           |
| 📙 OneNote Up                                 | oloactmp.drivedownload             |    | 31/12/2020 14:24  | File folder      |
| Pictures                                     | Optimised 📀                        |    | 15/12/2020 15:14  | File folder      |
| This PC                                      | 🚽 🍰 Google Drive 🛛 🤗               |    | 16/12/2020 08:10  | Shortcut         |
| 3D Objects                                   | L4OM2 User guide - Shortcut 🥑      |    | 02/10/2020 16:01  | Shortcut         |
| Desktop                                      | ▲ Log4OM_ADIF_20201231142356.adi ⊘ |    | 31/12/2020 14:24  | HAM Radio ADIF 🗸 |
|  | ✓ <                                |    |                   | >                |
| File <u>n</u> ame                            | : Log4OM_ADIF_20201231142941.adi   |    |                   | ~                |
| Save as <u>t</u> ype                         | ADIF File (*.adi)                  |    |                   | ~                |
| ∧ Hide Folders                               |                                    |    | Save              | Cancel           |

• Clicking the 'Save' button starts the export and records the process in the text box



- The main window will display the exports progress and any anomalies, and this information may be saved to a text file by clicking the floppy disk 'Save' button.
- When 'Export complete' text is displayed in the text box the export window can be closed by clicking on the small red cross at the top right-hand corner of the window

## **Export selected QSO's**

Log4OM Version 2 provides export of QSO's in ADIF, CSV, HTML and Excel formats in the grid views e.g. Awards, Recent QSO's, QSO Manager etc

- First select the QSO's to be exported by either the Windows method of left click, shift click or ctrl click, alternatively use the powerful search 'Filters' and the 'Select all' buttons at the bottom of the grids.
- To access the export action click the 'Export to ADIF' button at the top of the window if in the QSO Manager, in other grid views right click the title heading of a grid or right click on the selected QSO(s) and select the export required from the menu

| Callsign                                      | - Oco  |   | Band                     | Mode        | Freq  | Rst Sent                   | Rst Rcvd               | Name   | C |
|---|--|---|--------------------------|-------------|---|----------------------------|------------------------|--|---|
| 2E0HP1  | LFA Reset table layout<br>MSI Cancel sort<br>Clear selection<br>Exect to EXCEL |   | 40m                      | LSB         | 708   | 53                         | 57                     | Carl Gorse   |   |
| 2EOLFA  |  |   | 40m                      | LSB         | 7   | 59                         | 59                     | Tony   |   |
| 2E0MSI  |  |   | 80m                      | LSB         | 5 -   | 59+10                      | 59+10                  | John   |   |
| 2M0SD   |  |   | 20m                      | USB         | 14  | 59                         | 59                     | Jamie Williams   |   |
| 3A2MV   |  |   | 17m                      | FT8         | 18 4  | -11                        | -15                    | Franco   |   |
| 4X4DK   | Export to C<br>Export to H   |   | 60m                      | Right       | click a                                     | ny colu                    | mn title               | to view menu   | 1 |
| 4X4DK<br>4Z5ML                                | Export to H  |   | 60m<br>17m<br>20m        | Right       | click a                                     | ny colu                    | mn title               | to view menu   |   |
| 4X4DK<br>4Z5ML<br>4Z5NN                       | Export to H  | ITML  | 17m                      |             |   |                            |                        |  |   |
| 4X4DK<br>4Z5ML<br>4Z5NN<br>5B/G4RUW           | Export to H  | ITML<br>cted to ADIF                                  | 17m<br>20m               | PORDI       | 14072.009                                   | 599                        | 333                    | Lak  |   |
| 4X4DK<br>4Z5ML<br>4Z5NN<br>5B/G4RUW<br>5B4AIF | Export to H<br>Export sele   | 4TML<br>cted to ADIF<br>017 09:53:56<br>1017 18:27:00 | 17m<br>20m<br>20m<br>60m | USB<br>JT65 | 14240                                       | 595<br>59+10               | 58                     | ROGER DANIEL   |   |
| 4X4DK<br>4Z5ML<br>4Z5NN<br>5B/G4RUW<br>5B4AIF | Export to H<br>Export sele   | 4TML<br>cted to ADIF<br>017 09:53:56<br>1017 18:27:00 | 17m<br>20m<br>20m<br>60m | USB<br>JT65 | 14072.005<br>14240<br>5358.392              | 59+10<br>-11               | 599<br>58<br>-14       | ROGER DANIEL<br>Norman"s Club Station                          |   |
| 4X4DK<br>4Z5ML<br>4Z5NN<br>5B/G4RUW<br>5B4AIF | Export to H<br>Export sele   | ITML<br>cted to ADIF<br>017 09:53:56                  | 17m<br>20m<br>20m<br>60m | USB<br>JT65 | 14072.039<br>14240<br>5358.392<br>14075.604 | 599<br>59+10<br>-11<br>+01 | 58<br>58<br>-14<br>-16 | ROGER DANIEL<br>Norman''s Club Station<br>Andrey Sachkov LZ2HM |   |

# **Exporting Specific ADIF fields**

- Go to Utilities/QSO manager
- Sort and select the QSO's to be exported
- Click the 'Export to ADIF' button on the top tool bar
- Check the box marked 'Export selected fields'
- Click the yellow 'ADIF' button
- Save the file

| Q<br>S                | ADIF export             |          |    |
|-----------------------|-------------------------|----------|----|
| 1                     | Export standard ADIF    |          |    |
|                       | Export selected fields  |          |    |
| n                     | ADIF Fields             |          | -  |
| L<br>S<br>Q<br>E<br>N | <pre></pre>             |          |    |
| -                     | clublog_qso_upload_date | × -      | -  |
| ₹€                    |                         | < >>     | 1  |
| ł                     | < >                     | H        |    |
| Ľ,                    | 6 items selected        | Save log | Te |

# **QSO** Deletion

QSO's may be deleted individually from the QSO edit window by selecting the 'Trash bin' delete button on the top tool bar.

| Edit QSO |                        |            |               |            |           |                     | x |
|----------|------------------------|------------|---------------|------------|-----------|---------------------|---|
| 💾 🗹      | ۵ ا                    |            |               |            |           |                     |   |
| QSO Info | His der is Award Refs. | My Station | My QTH My Ref | is. QSL In | nfo       |                     |   |
| HB9CUE   |                        | S 58       | ~ R 33        | $\sim$     | QSO Start | 07/05/2020 07:34:00 |   |
|          | <b>1</b>               |            |               |            | QSO End   | 07/05/2020 07:34:00 |   |
| Hansjuer | )                      |            | Grid          |            |           |                     |   |
| Pand     | 400                    | 0          | Commont       | _          |           |                     |   |
|          | QSO Delet              | e bu       | tton          |            |           |                     | ^ |
| Mode     | 558 🗸                  |            |               |            |           |                     |   |
|          | Switzerland            | $\sim$     |               |            |           |                     | ~ |
|          | ITU 28 ~ CQ 14 ~ 28    | 7 🕂        | Contest       |            |           | ~                   |   |
| Freq     | KHz Hz<br>7182 000     | <u> </u>   | Sent          |            |           |                     |   |
| RX Freq  | кнz нz<br>0 000        | 8          | Received      |            |           |                     |   |

To open the edit window double left click on a QSO or select 'Edit QSO' from the right click menu.

## Bulk deletion of QSO's

QSO's can be deleted selectively on by bulk by clicking the 'Unlock Delete' button at the bottom right corner of the grid. (When unlocked the padlock Icon turns red)

| Nation          |  |
|-----------------|--|
| Ibrahim Saud    |  |
| Danny           |  |
| Ivica Ljubenkov | <u>ح</u> کے  |
| Stevan Knezevic |  |
|                 | ×  |
|                 | Record shown: 1000 max: 1000 🕒                             |
| C:\l            | Jsers\g4poparrl.net\Dropbox\Logbooks\Log4OMV2 G4POP.SQLite |

When the 'Unlock Delete' button is unlocked select the QSO's for deletion either by mouse click or filtering and then press the 'Del' button on the computer keyboard.

# Filtering (Searching) QSO's

Log4OM version 2 provides even more powerful filtering possibilities without the need for in depth knowledge of regular expressions etc

The 'Filters' function is placed at the bottom of most grid windows as shown below.

| SM7HZK       27/08/2019 07:20:45       20m       FT8       14074.919       -23         LA1XJA       27/08/2019 07:17:       20m       FT8       14075.221       -07         5B4AMX       27/08/2019 07:14:       20m       FT8       14075.604       +01         DF7WB/P       26/08/2019 09:49:       40m       FT8       7074.679       -03         HA1RB       26/08/2019 09:49:       40m       FT8       7075.892       -13         OK1VM       26/08/2019 09:30:       40m       FT8       7076.049       00             584.01       59.01       59.01       59.01 |  |  |  |   |   |  |  |
|---|--|--|--|---|---|--|--|
| 5B4AMX         27/08/2019 07:14:         20m         FT8         14075.604         +01           DF7WB/P         26/08/2019 09:49:         40m         FT8         7074.679         -03           HA1RB         26/08/2019 09:41         0m         FT8         7075.892         -13           OK1VM         26/08/2019 09:30:         40m         FT8         7076.049         00  | 27/08/2019 07:20:4                           | 5  | 20m  | FT8   | 14074.919   | -23  |  |
| DF7WB/P         26/08/2019 09:49:         40m         FT8         7074.679         -03           HA1RB         26/08/2019 09:44         0m         FT8         7075.892         -13           OK1VM         26/08/2019 09:30:0         40m         FT8         7076.049         00  | 27/08/2019 07:17:                            | -  | 20m  | FT8   | 14075.221   | -07  |  |
| HA1RB 26/08/2019 09:4 0m FT8 7075.892 -13<br>OK1VM 26/08/2019 09:30: 40m FT8 7076.049 00<br><   | 27/08/2019 07:14:                            |  | 20m  | FT8   | 14075.604   | +01  |  |
| OK1VM 26/08/2019 09:30:0 40m FT8 7076.049 00  | 26/08/2019 09:49:                            |  | 40m  | FT8   | 7074.679  | -03  |  |
|   | 26/08/2019 09:4                              | Om   | FT8  | 7075.892  | -13   |  |  |
|   | OK1VM 26/08/2019 09:30:0 40m FT8 7076.049 00 |  |  |   |   |  |  |
|   |  |  |  |   |   |  |  |
| Verresh   |  |  |  |   |   |  |  |
|   |  | 27/08/2019 07:17:<br>27/08/2019 07:14:<br>26/08/2019 09:49:<br>26/08/2019 09:4<br>26/08/2019 09:30:0 | 27/08/2019 07:17:<br>27/08/2019 07:14:<br>26/08/2019 09:49:<br>26/08/2019 09:41<br>26/08/2019 09:30:<br>Select/deselect  Filte | 27/08/2019 07:17:1       20m         27/08/2019 07:14:       20m         26/08/2019 09:49:       40m         26/08/2019 09:49:       40m         26/08/2019 09:30:       40m         26/08/2019 09:30:       40m         Select/deselect       Filters       Deserved | 27/08/2019 07:17:       20m       FT8         27/08/2019 07:14:       20m       FT8         26/08/2019 09:49:       40m       FT8         26/08/2019 09:49:       40m       FT8         26/08/2019 09:40:       0m       FT8         26/08/2019 09:30:       40m       FT8         26/08/2019 09:30:       40m       FT8         26/08/2019 09:30:       40m       FT8         Select/deselect       Filters       Detach | 27/08/2019 07:17:         20m         FT8         14075.221           27/08/2019 07:14:         20m         FT8         14075.604           26/08/2019 09:49:         40m         FT8         7074.679           26/08/2019 09:41         0m         FT8         7075.892           26/08/2019 09:30:         40m         FT8         7076.049 |  |

Clicking the 'Filters' button opens the following window which contains four tabs. Standard fields, References and My references and confirmations.

| Filters                             |  | ×                          |
|-------------------------------------|--|----------------------------|
| H C D<br>Standard fields References | My References     Confirmations     Associations       V     EQUAL     V     291 |                            |
| e - 5                               | Query parameters   | Use Params<br>Indent level |
| og.dxcc = 291                       |  | 0 🔹<br>AND (default)<br>OR |
|                                     |  | Modes<br>PH CW DIG         |
|                                     | 1 items selected   | O Use custom query         |

#### **Standard fields**

This is the simplest form of filtering whereby a standard field can be selected and a value for that field to be searched for which is either 'Equal to', 'Not equal to' or one of the other standard choices in the drop down menu.

Once the field, condition and value have been selected clicking the plus (+) button will add that filter to the list.

In the example above the filter is set to find all DXCC entities which are 'Equal to' DXCC 291 (USA) the result will be that only contacts with the USA will now be displayed.

The filters can be cascaded to drill down to very fine detail, the example below depicts filters cascaded to select only those QSO's that were with stations in the USA using CW on 80 meters that were in CQ Zone 3 (West Coast)

| Filters  | ×                  |
|--|--------------------|
| ビ      直     Standard fields References My References Confirmations Associations |                    |
| Dxcc v EQUAL v 291   |                    |
| Query parameters   | Use Params         |
| 🛩 🗕 🗗 📋  | Indent level       |
| log.dxcc = 291   | 0                  |
|  | AND (default)      |
|  | OR                 |
|  | Modes              |
|  | PH CW DIG          |
| 1 items selected   | O Use custom query |

Additional choices can be made by using the 'AND' plus the 'OR' selections to the selection could be changed to CW AND FT8 to display QSO's with stations in the USA on both modes CW and FT8 on 80m in CQ zone 3, alternatively using the OR connector the result would display stations worked on EITHER mode.

## Date filtering

When attempting to filter by date it is required to include a start and end time, not just the date.

e.g.

QSO date Greater than 09/02/2020 00:00:00 'AND' smaller (Less) than 09/02/2020 23:59:59 will filter all QSO's for that day

|    | Filters   | ×                            |
|----|---|------------------------------|
|    | Standard fields     References     My References     Confirmations       QsoDate     V     SMALLER     27/06/2020 2 | 3:59:59                      |
|    | Query parameters  | Use Params      Indent level |
| S  | ☑ log.qsodate > 27/06/2020 00:00:01 ☑ AND   | 0                            |
| or | ✓ log.qsodate < 27/06/2020 23:59:59   | AND (default)                |
|    |   | OR                           |
|    |   | Modes<br>PH CW DIG           |
|    | 3 items selected  | O Use custom query           |

#### **Using Indents.**

The indent functions allow users to create blocks of query parameters.

As an example:

log.dxcc = 291 AND log.mode = CW AND log.band = 80m AND log.cqzone = 3

Which with the indent, will become

log.dxcc = 291 AND ((log.mode = CW OR log.mode = USB) OR log.cqzone = 3)

Which translates to:

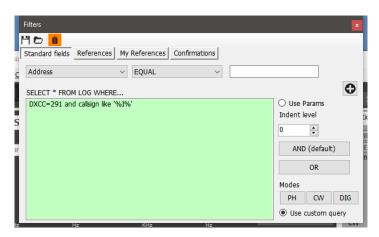
If dxcc = 291 and mode is CW or USB. If mode is not CW or USB, show data if CQZone is 3

The indent level is fundamental to use the engine correctly.

| Filters                   | rences   My References   Confirmations |                    |
|---------------------------|--|--------------------|
|                           |  |                    |
| CQZone                    | ✓ EQUAL ✓ 3                            |                    |
|                           |  | C                  |
|                           | Query parameters                       | Use Params         |
| 🥪 💳 🗗                     |  | Indent level       |
| log.dxcc = 291            |  | 1                  |
| ✓ > > log.mode = ✓ > > OR | CW                                     |                    |
| ✓ > > log.mode =          | USB                                    | AND (default)      |
| ✓ > OR                    |  | OR                 |
| > log.cqzone = 3          |  |                    |
|                           |  | Modes              |
|                           |  | PH CW DIG          |
|                           | 6 items selected                       | O Use custom query |
| Hz                        | KHz Hz                                 |                    |

### **Use Query**

If the 'Use query' button at the lower right is clicked, it enables the use of complex SQL queries.



#### Save and load filters

Filters may be saved for reuse later by clicking the icons on the top tool bar



### References

The references tab provides searching QSO's for stations worked activating specific awards references e.g. IOTA, SOTA, WAIL et

| Filters         |                 |            |                                       | x |
|-----------------|-----------------|------------|---------------------------------------|---|
| Standard fields | References      | My Refer   | ferences Confirmations Associations   |   |
| Award           | SOTA            | ~          | References                            |   |
| Reference       | GM/CS-013       |            | gm<br>                                |   |
| Exclude Q       | 50 containing t | his award: | rd GM/CS-013                          |   |
|                 | Load ref        | erences    | GM/CS-014 '<br>GM/CS-015<br>GM/CS-016 |   |
|                 |                 |            |                                       |   |
|                 |                 |            |                                       |   |
|                 |                 |            |                                       |   |
|                 |                 |            |                                       |   |
|                 |                 |            |                                       |   |
|                 |                 |            |                                       |   |

NOTE: If only the award is selected, and the 'Reference' field is left empty the result will be that all QSO's that qualify for that award will be displayed.

## **My References**

Provides searching using the users own reference e.g. when the user was portable on an IOTA Island, Lighthouse, summit etc

| Filters    |                          |                                     | x |
|------------|--------------------------|-------------------------------------|---|
|            |                          |                                     |   |
|            | References My Refe       | rences Confirmations Associations   |   |
| Award      | ARLHS_WLOL ~             | References                          |   |
| Reference  | ERU-0165                 | eu                                  |   |
| Exclude QS | 50 containing this award |                                     |   |
|            | Load references          | ERU-0165 I<br>ERU-0166<br>ERII-0167 |   |
|            |                          |                                     |   |
|            |                          |                                     |   |
|            |                          |                                     |   |
|            |                          |                                     |   |
|            |                          |                                     |   |
|            |                          |                                     |   |
|            |                          |                                     |   |

### Confirmations

This filter enables searching on the QSO confirmation status of each form of confirmation, QSL, eQSL, LOTW, QRZ, HamQTH, HRDLog, Clublog and Custom and any combination of confirmation.

| Filters                       |                               |           |                |          |
|-------------------------------|-------------------------------|-----------|----------------|----------|
| H 🖻 🧴                         |                               |           |                |          |
| Standard fields References My | References Confirmations Asso | ciations  |                |          |
| Search confirmation (SPECIFI  | C) -                          |           |                |          |
| Sent 🗸                        | Received ~                    | Mixed     | confirmation s | earch    |
| Specific value O YES O NO     | O Specific value ○ YES ○ NO   |           | Sent           | Received |
| Via 🗸 🗸 🗸                     | Via ~                         | LOTW      | ~              | ~        |
| • Sent □ 29/06/2022 □▼        | O Rcvd □ 29/06/2022 □▼        | EQSL      | ~              | ~        |
| ⊖ Rng                         | ○ Rng                         | PAPER QSL | ~              | ~        |
|                               |                               | Logic     | AND            | ○ OR     |
|                               |                               |           |                |          |
|                               |                               |           |                |          |
|                               |                               |           |                |          |

## Associations

| Filters         |            |               |               |              |  |
|-----------------|------------|---------------|---------------|--------------|--|
| 14 🖻 🧴          |            |               |               |              |  |
| Standard fields | References | My References | Confirmations | Associations |  |
| Association     | FISTS      | ~             |               |              |  |
| My Association  | SKCC       | ~             |               |              |  |
|                 |            |               |               |              |  |
|                 |            |               |               |              |  |
|                 |            |               |               |              |  |
|                 |            |               |               |              |  |
|                 |            |               |               |              |  |
|                 |            |               |               |              |  |
|                 |            |               |               |              |  |
|                 |            |               |               |              |  |

# Filter - Saving, loading and deleting

To avoid repetitive construction of filter Log4OM provides a save, load and delete function using the icons at the top left of the filter window.

| Filters   | X |
|---|---|
| H 🗁 🧰<br>Stan rd fields References My References Confirmations  | 3 |
| S confirmation LOTW -<br>Yes - Rcvd No  |   |
| €       t       19/06/2020  < | ] |
| Save, Load & Delete icon  | 5 |
|   |   |
|   |   |

#### **Filters – Actioning**

When the filter dialog box is closed by clicking on the small red cross at the top right of the window the filtered are activated and the filtered results are displayed in the adjacent grid window

## **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.

| 🜌 Log40M NG Cluster                           |   |      | - |     | × |
|---|---|------|---|-----|---|
| Eile Options                                  |   |      |   |     |   |
| Connect Disconnect Start server Stop Server   |   |      |   |     |   |
| Management Internal server Cluster Connection |   |      |   |     |   |
| Known servers                                 |   |      |   |     |   |
| Search  | Cluster Informations  |      |   |     |   |
| 6L0NJ (23)<br>7N4TWL-7 (8000)                 | Cluster Name  |      |   |     |   |
| 940DYC (8000)                                 | Host  | Port | 0 |     | * |
| AESE (23)<br>AI9T (7300)                      | Force Callsign  | SSID |   |     |   |
| AI9T-2 (7373)<br>BG2RVL-9 (7300)              | Password  |      |   |     |   |
| BG8FFE (7373)                                 | Enable connection Keep Alive  |      |   |     |   |
| CE4UYP-5 (9000)<br>CS5SEL-5 (41112)           | Initialization commands   |      |   |     |   |
| CX2SA-6 (9000)                                |   |      |   |     |   |
| Chick Constant (Constant)                     |   |      |   |     |   |
| ON0AN (8000)<br>[PRI] gb7mbc.spoo.org:8000    | // : Comment<br><delay> : adds 1 sec delay</delay>                      |      |   |     |   |
| EI7MRE (7300)<br>VE7CC (23)                   | <callsign> : sends your Station Callsign (or the forced one)</callsign> |      |   |     |   |
|   | <password> : sends the provided password (if any)</password>            |      |   | 0   |   |
|   |   |      |   | •   |   |
| Cluster Server                                |   |      |   |     |   |
|   | Record shown: 1000 max: 1000  |      |   | 100 |   |

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

| 🙀 Cluster management                               |  |   |                 | -      | o x    |
|--|--|---|-----------------|--------|--------|
| Eile Options                                       |  |   |                 |        |        |
| Connect Disconnect Start server Stop Server        |  |   |                 |        |        |
| Management Internal server Cluster Connection      |  |   |                 |        |        |
| Known servers                                      |  |   |                 |        |        |
| Search   | Cluster Information  |   |                 |        |        |
| SM4ONW-14 (8000)<br>SM6HOC-6 (7300)                | Cluster Name   | SOTA  |                 |        |        |
| SM6YOU-2 (8000)<br>SM7GVF-6 (8000)                 | Host   | elgur.crabdance.com   | Port            | 7300   | *      |
| U SOTA (7300)<br>SP7YDD-12 (9000)                  | Force Callsign   | Blank for default   | SSID            |        | $\sim$ |
| SR1DXZ (9000)<br>SR4DXC (7300)                     | Password   | Blank for none Enable conne   | ction Keep Aliv | /e     |        |
| SR9ZAA-12 (9000)                                   | Initialization commands  |   |                 |        |        |
| SV1IW-9 (73)<br>SV2CUI-8 (7300)<br>SV2HRT-1 (7300) | // use <callsign><br/><callsign><br/>//<password><br/>//SH/DX 30</password></callsign></callsign>                  | command to send your callsign to the  | server.         |        | ^      |
| Active servers [U] SOTA (7300) [U] VE7CC-1 (23)    | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,  |   |                 |        | ~      |
| [PRI] [U] GB7MBC (8000)                            | // : Comment<br><delay> : adds 1 sec<br/><callsign> : sends y<br/><password> : sends</password></callsign></delay> | delay<br>our Station Callsign (or the forced one)<br>the provided password (if any) |                 | Ø      | ) []   |
| 😜 Cluster 💽 Server                                 |  |   |                 | DALEAR |        |

#### 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/

| 🚧 Log4OM NG Cluster  |   |                   |         |                     | _   | □ ×  |
|--|---|-------------------|---------|---------------------|---|------|
| <u>F</u> ile Options   |   |                   |         |                     |   |      |
| File Options   | Stop Server   |                   |         |                     |   |      |
| Management Internal server Clust   | er Connection   |                   |         |                     |   |      |
| 1251 gb7mbc.spc.org:8000<br>1251 ve7cc.net:23: To AL<br>1251 44.144.11.254:8000:<br>1251 44.144.11.254:8000<br>1251 ag07dk.ath.cz:7300:<br>1251 gb7mbc.spc.org:8000<br>1251 gb7mbc.spc.org:8000;<br>1251 44.144.11.254:8000; | L de F6EXV <1251Z> :<br>To ALL de F6EXV: AM7<br>DX de EA4CT: 141<br>DX de EA4CT: 141<br>DX de EA4CT: 1<br>DX de SV1AMH: 181 |                   |         | DE URE<br>IO DE URE | 1251Z IN80<br>1251Z IN80<br>1251Z<br>1251Z KM18<br>1251Z KM18 | *    |
| Clear Save log   |   |                   |         |                     |   | >    |
| Commands Spot simulation   |   |                   |         |                     |   |      |
| Send Spot CALLSIGN   | KHz Hz<br>  0 000 🙆   | SPOT informations | ~       | Send to all servers | Set perso<br>Moon   | info |
| Send ANNOUNCE tex  | t   | Br                | oadcast | n: 1000 max: 1000   | Sun i   | nto  |

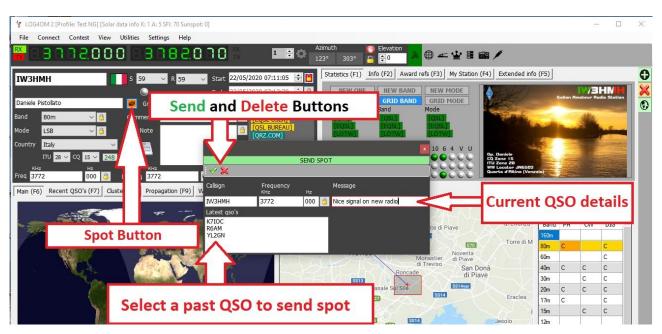
## Sending cluster commands

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.



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

Please Note:

### **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.

| 1216 www.gb7mbc.net:80     | 000: DX de F8ETK:          | 7090.0 F5EJK 59 +20 | 12162 ~ |
|----------------------------|----------------------------|---------------------|---------|
| Lock display Clear Save lo | g                          |                     |         |
| Commands Spot simulation   | CALLSIGN 0<br>SPOTTER CALL | HZ<br>000           |         |
| Cluster 🜑 Server           |                            |                     |         |

## **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.

| ave config Save and apply Exit                                      |  |          |                            |                                   |   |            |
|---|--|----------|----------------------------|-----------------------------------|---|------------|
| - Edit program config   | Cluster  |          |                            |                                   |   |            |
| Program Scheduler   | Cluster auto-start                             |          | Cluster highlight colors   |                                   |   |            |
| <ul> <li>User Configuration</li> <li>Station Information</li> </ul> | Server auto-start                              |          | Country not worked         | COUNTRY NOT WORKED                | 8 | <b>B</b> 1 |
| My References<br>Station configuration                              | Show cluster grouped [reco                     | mmended] | Band/Mode not wrkd/conf    | B/M NOT WORKED                    |   | 2          |
| - Confirmations   | O Show User Defined clusters                   |          | Worked/Confirmed           | WORKED                            |   | 2          |
| - Database<br>- External Services                                   | Show stable clusters                           |          | Station not worked         | STATION NOT WORKED                |   | 2          |
|   | <ul> <li>Show experimental clusters</li> </ul> |          | Station worked             | STATION WORKED                    |   | 2          |
| - CAT interface   | O Show inactive clusters                       |          | Station worked same band   | WORKED SAME BAND                  |   | 2          |
| Cluster<br>Info Providers   | Cluster server port                            | 23       | Station worked same mode   | WORKED SAME MODE                  |   | 2          |
| Map Settings<br>Backup  | Cluster maximum age (min)                      | 90       | Station worked band mode   | WORKED SAME BAND + MODE           |   | 2          |
| - VOACAP Propagation<br>- Auto Start                                | Maximum cluster items                          | 300 🕂 🚱  | Station wkd same mode type | WORKED SAME MODE TYPE             |   | 2,         |
| Software integration  | Band map safe age (min)                        |          | Station wkd band mod type  | WKD SAME BAND + MODE TYPE         |   | 2,         |
| - Connections<br>Antenna rotator                                    |  |          |                            |                                   |   |            |
| ADIF Functions  | Max spots in band map                          | 50 🜩     |                            |                                   |   |            |
|   | Supercluster max age (min)                     | 90 🗧 🚱   | Award highlight            | HIGHLIGHT                         | 3 | <b>B</b> 1 |
|   | Play sound on new cluster a                    | lert     | Default                    | Set white background for NO COLOR |   |            |

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.

| IN LOG40M NG [Profile: New con<br>File Connect Contest Vie |                | Settings Help | anspor of  |  |  |                             |
|--|----------------|---------------|--|--|--|-----------------------------|
| 1014000  | ) - <b>1</b> I | 35,160        | 143°   | ation in the second sec | ⊕  | -                           |
| IQ1LY  | S 59           | ✓ R 59        | <ul> <li>Start 26/08/2019 12:07:05</li> <li>End 26/08/2019 12:07:50</li> </ul> | Statistics (F1)  | F2) Award re   | B) My Station (F4<br>W MODE |
| Cisar Sezione Di Genova                                    | Grid           | JN44cc        | [LOTW USER]  | NEW GRID   | GRID BANT  | D MODE                      |
| Band 40m v 🙆   | Comme          | nt            | Open fl  | oating clus  | ter  | 23                          |
| Mode SSB 🗸 🍐   | Note           |               | Lopenti  |  | HOTWE  | ISLI<br>TWO                 |
| Country Italy  | × 📁            |               |  | become and   | Contraction of the local distance of the loc | 4 V U                       |
| TTU 28 ℃ CQ 15 ℃ 24  | 18 🔲 👘         | •             | Add Super  | <b>Cluster result</b>  | s to cluste  | ricce                       |

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.

| uster p | fap      |      |           |                          |                          |      |               |           |          |              |      | Statistics Filters View |     |     |     |
|---------|----------|------|-----------|--------------------------|--------------------------|------|---------------|-----------|----------|--------------|------|-------------------------|-----|-----|-----|
| Time    | Callsign | Flag | Frequency | Country                  | Note                     | Band | Emission Type | Spot Mode | Reporter | Data Quality | Ri ^ | 248 - It                | aly |     |     |
| 219Z    | OZ1ADL   |      | 14080     | Denmark                  |                          | 20m  | DIGITAL       | FT4       |          | Spot         | 31   | Band                    | PH  | CW  | DIG |
| 219Z    | F90AGNK  |      | 14026.9   | France                   |                          | 20m  | CW            |           | JH1GNU   | Soot         | 33   | 160m                    | Pn  | CVV | 010 |
| 219Z    | HL3EHK   | 1    | 14074     | Republic of Korea (S. Ko |                          | 20m  | DIGITAL       | FT8       |          | High         | 26   | 80m                     | 0   | -   | c.  |
| 2192    | M3JIE    | Ŧ    | 14074     | England                  |                          | 20m  | DIGITAL       | FT8       |          | Poor         | 33   | 60m                     | C   | -   | C.  |
| 218Z    | RZ5D/6/M | -    | 14180.0   | European Russia          | rda RO-23/41 rafa HHZ2   | 20m  | PHONE         |           | RV9USA   | apoc         | 33   | 40m                     | с   | с   | 0   |
| 218Z    | Z35M/P   |      | 14060.0   | Macedonia                | QRP on a beach Z3FF-0001 | 20m  | CW            |           | Z37FCA   | Spot         | 27   | 30m                     | 0   | C   | C.  |
| 218Z    | UA3KA/M  |      | 14016.0   | European Russia          |                          | 20m  | CW            |           | RQ3M     | Spot         | 33   | 20m                     | 6   | C   | 6   |
| 218Z    | BG5UER   |      | 14074     | China                    |                          | 20m  | DIGITAL       | FT8       |          | Spot         | 27   | 20m                     | c   | L   | 0   |
| 217Z    | VK2BY    |      | 14250.0   | Australia                | keep calling dx          | 20m  | PHONE         |           | 2E0FSD   | Spot         | 29   | 1./m                    | 0   | 0   | 0   |
| 217Z    | F4FZR    |      | 14080     | France                   |                          | 20m  | DIGITAL       | FT4       |          | Spot         | 33   | 12m                     | -   | C   | L   |
| 216Z    | GD1JNB   | 2    | 14247.0   | Isle of Man              | Islo of Man BOOMING      | 20m  | PHONE         |           | PB5X     | Spot         | 25   | 1.2m                    | с   | -   | -   |
| 216Z    | RZ5D/M   | -    | 14180.0   | European Russia          | rda RO-23/41 rafa HHZ2   | 20m  | PHONE         |           | RV9USA   | Spot         | 33   | 100                     |     | -   | -   |

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.

| Configuration   |  |         |     |                            |                                   |                |            |
|---|--|---------|-----|----------------------------|-----------------------------------|----------------|------------|
| Save config Save and apply Exit                         |  |         |     |                            |                                   |                |            |
| My References<br>Station configuration                  | Cluster  |         |     |                            |                                   |                |            |
| Confirmations   | Cluster auto-start                             |         |     | Cluster highlight colors   |                                   |                |            |
| Database<br>External Services                           | Server auto-start                              |         |     | Country not worked         | COUNTRY NOT WORKED                | $\mathfrak{D}$ | 4          |
| User preferences     Award preferences                  | Show cluster grouped [recom                    | mended] |     | Band/Mode not wrkd/conf    | B/M NOT WORKED                    | 3              | ۵.         |
| Software Configuration                                  | ○ Show User Defined clusters                   |         |     | Worked/Confirmed           | WORKED                            | 3              | <b>e</b> n |
| Cluster Alert   | <ul> <li>Show stable clusters</li> </ul>       |         |     | Station not worked         | STATION NOT WORKED                | 2              | <b>a</b>   |
| Info Providers     Configuration                        | <ul> <li>Show experimental clusters</li> </ul> |         |     | Station worked             | STATION WORKED                    | 2              | 4          |
| Map Settings<br>Backup                                  | <ul> <li>Show inactive clusters</li> </ul>     |         |     | Station worked same band   | WORKED SAME BAND                  | 2              | 4          |
| VOACAP Propagation                                      | Cluster server port                            | 7300    | ÷   | Station worked same mode   | WORKED SAME MODE                  | 8              | 4          |
| - Auto Start<br>Chat                                    | Cluster max age (min)                          | 120     | ÷   | Station worked band mode   | WORKED SAME BAND + MODE           | 2              | <b>a</b>   |
| Hardware Configuration     Audio devices and voice keve | Maximum cluster items                          | 1000    | • 🔒 | Station wkd same mode type | WORKED SAME MODE TYPE             | 2              | <b>a</b>   |
| - CAT interface<br>CW Kever interface                   | Band map max age (min)                         | 25      | ŧ   | Station wkd band mod type  | WKD SAME BAND + MODE TYPE         | ð              | <b>e</b> 1 |
| - Software integration Connections                      | Maximum band map items                         | 60      | ÷   |                            |                                   |                |            |
| Antenna rotator   | Supercluster max age (min)                     | 100     | ÷ 🖌 | Award highlight            | HIGHLIGHT                         | 3              | ۵          |
| - Applications  | Cluster overload control (spot/min             | ) 100   | ÷ 0 | Default                    | Set white background for NO COLOR |                |            |
| WSJT-x / JTDX   | Cluster batch [advanced]                       | 30      | - 8 |                            |                                   |                |            |

## 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

| Cluster | Мар      |      |           |       |      |                 |                   |          |             |                          |
|---------|----------|------|-----------|-------|------|-----------------|-------------------|----------|-------------|--------------------------|
| 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 |

## **Statistics Pane**

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.



| wet ConfigurationForm<br>비미 양   |  |
|---|--|
| Program Settings User Configuration  Station Information  My References  Cation configuration  Confirmations  Confirmations  Confirmations  Cation configuration  Cat interface  Cluster  Cluster  Cluster  Map Settings Backup | Confirmations<br>Set the default confirmations for each award according to y<br>Type<br>Sent |

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.

| WORKED STATE                              | STICS                      |        |      |      |      |               |  |                    |                     |         |     |
|---|----------------------------|--------|------|------|------|---------------|--|--------------------|---------------------|---------|-----|
| 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 - Ariel Radio Group - a regist | ered International | Marconi Day station | 59+15   | N   |
| GOJMZ                                     | 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   |
| <   |                            |        |      |      |      |               |  |                    |                     |         |     |
| 4<br>4<br>4<br>4<br>4<br>4<br>4<br>4<br>4 | Record shown: 749 max 1000 |        |      |      |      |               |  |                    |                     |         |     |

## **Cluster Spot Modes**

Cluster servers DO NOT send any mode information in the data they provide, therefore Log4OM derives the mode from the Log4OM bandplans (either from the fixed frequencies like FT8 shown in bandplan xml or the individual band data)

On rare occasions a spotter may include a mode in the 'Notes' field and if this is the case Log4OM will use that information to override any mode derived from the Log4OM bandplans.

There are three cluster columns available displaying mode information and they function as follows

#### Mode

The mode group either Phone, CW or Digital

The 'Mode' is derived from the bandplan files according to the section of the band the frequency falls in, or from the notes field if the spotter has included mode information.

### Spot Mode

This column displays the submode and is obtained either form the spot frequencies in the beginning of the bandplans or from the notes field in the incoming cluster data. Sub mode example could be DOM-M which is a submode of Domino and therefore in the Digital mode group or FT8 which is a submode of MFSK and also Digital

### **Modulation Type**

This is the used to set the radio when a spot is clicked and derived from the bandplans and could be USB, LSB etc

### **About Bandplans**

The International Amateur Radio Union (IARU) divide the world into regional bandplans.

These three regional IARU organizations corresponding to the three ITU Radio Regions: <u>Region 1</u> — Africa, Europe, Middle East, and northern Asia <u>Region 2</u> — the Americas <u>Region 3</u> — the rest of Asia and the Pacific

The bandplans define the operating frequency limits and modes on which individual national bandplans are based.

Log4OM includes the three basic IARU regional bandplans plus four country specific bandplans for Brazil, The UK, USA and Denmark.

When a user in the UK, USA, Brazil or Denmark enters their information in the Station Info menu of the Log4OM program config, Log4OM will automatically use the applicable bandplan for those countries. (bandplan\_dxcc108.xml, bandplan\_dxcc221.xml, bandplan\_dxcc223.xml or bandplan\_dxcc291.xml)

Other countries will use the regional bandplan applicable to the region (bandplan\_r1.xml, bandplan\_r2.xml or bandplan\_r3.xml)

Users may tailor the regional or country specific bandplans to their specific requirement and save the bandplan as a 'USER' bandplan e.g. bandplan\_r1\_user.xml or bandplan\_dxcc123\_user.xml. When Log4OM is started it will choose a user bandplan if one is available and that user bandplan will not be overwritten by subsequent program updates, as are the default bandplans.

Band maps are not editable in the resources editor the user must use notepad to modify the files found in the C:\Users\USER NAME\AppData\Roaming\Log4OM2\bandplan folder.

The bandplan information is used in various areas of the program, like the cluster, band maps etc

## **Cluster filters**

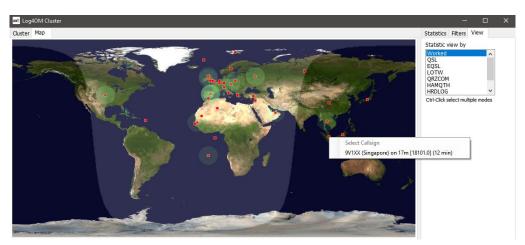
The cluster filters provide a method of tailoring the spots to be displayed by band, mode, worked and QSL confirmation status - Use Ctrl/Click to select or deselect bands or statistics confirmation types.

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.

| Statistics       Filters       Beam       View         Mode Lock       Band lock         CW       Digital       Band filter         Exclude FT(x)       Phone       160m         Hide worked       Keep bands       30m         Spot origin       Image: Spot origin       Image: Spot origin         Relability threshold       Image: Spot origin       Image: Spot origin | Statistics       Filters       Beam       View         North       North       North       East       Include         West       Al       East       Current beam         South       South       South       No         West       South       South       East | Statistics       Filters       Beam       View         Statistic view by       Worked       Editeration of the second of the |
|--|--|--|
| Hide info >> .:  | Hide info >>   | Hide >>  |

## **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.

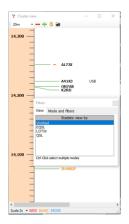
Below is an example of an IOTA reference being 'Read' from the notes field automatically.

| File Co   | onnect Cont  | est View Utilities  | Settings Help | p         |           |           |         |              |                      |              |                  |      |
|-----------|--------------|---------------------|---------------|-----------|-----------|-----------|---------|--------------|----------------------|--------------|------------------|------|
| 88        | anad         | 000 35              | 1550          | 0         | 1 🛟       | • 1 0     | D == ¥  |              |                      |              |                  |      |
| TMSFI     |              | S 59                | √ R 59 √      | Start 9:1 | 6:21      | 3 09/05/2 | 019 🗸 🎒 | Info (F1) Aw | rard refs (F2) My St | ation (F3) Q | SL's (F4)        |      |
|           |              |                     |               | End 9:1   | 6:21      | 09/05/2   | 019 🗸 🧕 | Award IOT    | A                    | ~            | Search Refere    | ince |
| Ratonneau | u Island     | Grid                | JN23pg        |           |           | L BUREAU] |         | Group        |                      | ~            | EU-070<br>EU-074 | ^    |
| Band 8    | 30m          | 🗸 📴 Comm            | ent           |           | ~ 🙆 🔽     | IZ.COM]   |         | Sub          |                      | ~            | EU-081           |      |
| Node S    | SB           | V 🙆 Note            |               |           | 6         |           |         | Provence-Cot | e d'Azur (Bouches d  | u Rhone)     | EU-094<br>EU-095 |      |
| Country F | rance        | ~                   |               |           |           |           |         | References   | IOTA@EU-095          | -            | EU-105<br>EU-107 | 1    |
| Π         | TU 27 V CQ 1 | 4 - 227             |               |           |           |           |         |              | _                    |              | EU-148           | ~    |
| КН        |              | Hz                  | KHz           | Hz        | _         |           |         |              |                      |              |                  |      |
| req 3     | 720          | 000 🙆 🛛 RX Fre      | q 3720        | 000       | RX Band   | 80m       | ~ 🔒     |              |                      |              |                  |      |
| Main (F6) | Recent QSO's | s (F7) Cluster (F8) |               |           |           |           |         |              |                      |              |                  |      |
| Cluster   | Мар          |                     |               |           |           |           |         |              |                      |              |                  |      |
| Time      | Callsign     | Country             | Flag          | Band      | Frequency | Mode      | Note    |              |                      | Reporter     | Ranking          |      |
| 0915Z     | RP74AB       | European Russia     | <b>_</b>      | 20m       | 14023.0   | CW        | CQ      |              |                      | RAOT         | 337              |      |
| 0915Z     | UF8T         | Asiatic Russia      | -             | 20m       | 14080.0   | DIGITAL   | fed tow |              |                      | IKOGDK       | 324              |      |
| 0915Z     | TM5FI        | France              |               | 10m       | 28495.0   | PHONE     | EU-95   |              |                      | DK6OB        | 336              |      |
| 0915Z     | RP74MY       | European Russia     | -             | 20m       | 14014.0   | CW        | UIA     |              |                      | RV7C         | 337              |      |
| 0914Z     | LZ4970M      | Bulgaria            | -             | 20m       | 14123.0   | PHONE     |         |              |                      | LZ1ASP       | 319              |      |
|           |              |                     |               |           |           |           |         |              |                      |              |                  |      |

## **Cluster Band map**

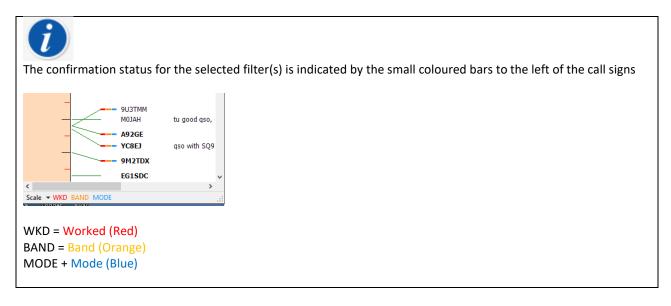
Cluster band map can be accessed by the Connect/Cluster Band View menu and multiple Band map can be opened for individual bands.

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

| - | Filters 🛛             |
|---|-----------------------|
|   | View Mode and filters |
| _ | CW Filter FT(x) modes |
| - | ✓ Digital             |
|   | Phone                 |
|   |                       |
| - |                       |
|   |                       |
|   |                       |
|   | TUANCO                |

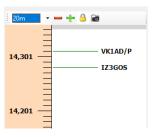
## **Band map Bands**

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.



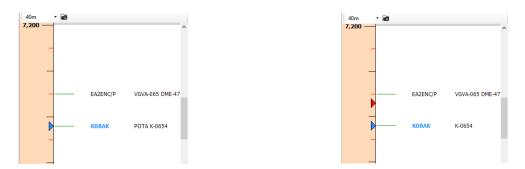
#### Band map Lock.

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** 8SOC E21YDP E2A - UT1XX - EG3SDC WA1GOS - HA1AD - ERSLL VASTIC Black = Phone - EG1SDC · IQ3AZ/P Orange = Digital 6E6E NM5M K8BZ Purple = CW VE3KI K1VUT Blue = Spot close to the radio VFO frequency K3SV **NN50** Bold = A recent spot (e.g. spotted in the last 5 mins) W7SW N400

**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.

| le <u>C</u> onnect   | C <u>o</u> ntest  | <u>V</u> iew <u>U</u> tilities   | S <u>e</u> t           | tings <u>H</u> elp  |   |   |   |              |   |                                  |              |                    | Kp: 3 (Quie           | t) A: 28 | SFI: 119 Sunspot: 49                             |                |
|--|---|--|------------------------|---|---|---|---|--------------|---|----------------------------------|--------------|--------------------|-----------------------|----------|--|----------------|
| 8.80   | 9 R 8   | 500  | В                      | <mark>898</mark> 600  | RX<br>TX  | 1 🛟 {   | Azimuth<br>289° 109   | ° 🔒 🔁 °      | tion  | ) = ¥                            |              | 1 🗡 👘              |                       |          |  |                |
| Y2FU   |   | 🔶 s 59   | ~                      | r 59 🗸  |   |   | Stats (F  | 1) Info (F2) | Awards (F3)   | My (F4)                          | Extende      | d (F5)             |                       |          |  |                |
|  |   |  |                        | <u>s</u> t  | tart 02/12/   |   |   |              | NEW BAND  | NEW M                            |              |                    |                       |          | VV2EII   |                |
| ve Mcdougal  |   | <b>2</b>   | <u>G</u> rid           | FN86fl Er   | nd 02/12/   | 2022 16:42:57   | A A B B B B B B B B B B B B B B B B B B   |              | m - Call  | PHONE - C                        |              |                    | and the second second | -        | VIZTU  |                |
| id 17m   | ~ [6  | Co <u>n</u>  | ment                   |   | - ~ <u></u>   | EXCHANGES QSL   | QSL<br>EQSL   | Q            | SL OSL  | QSL<br>EQSL                      |              |                    |                       |          |  |                |
| ie USB   |   | ~ 🔒  | <u>N</u> ote           |   | 8   | [QRZ.COM]   | LOTW  |              | QSL<br>DTW  | LOTW                             |              |                    |                       |          |  |                |
| untry Canada   |   | ~  |                        |   |   |   | QRZC  | ом 🛛 🔍       | RZCOM   | QRZCOM                           |              |                    | San Alertan           |          |  |                |
| TTU 2 🗸  | - co 5  | 1  | 8                      |   | _   |   | 1<br>PH 6   | 160 80 60 40 | 30 20 17 15 :   | 121064                           |              |                    | -                     | 0- 14 B  |  |                |
|  |   |  | Ť.,                    |   |   |   | CW CW   |              | ┢╋╋   |                                  |              | and the second     |                       | -        |  |                |
| KHz  |   | Hz   |                        |   |   |   |   |              |   |                                  |              |                    |                       |          |  |                |
|  |   |  | req 70                 |   | RX B <u>a</u> nd  | 40m   | V 🔒 DIG   |              |   |                                  |              |                    |                       |          | Gajar Taylor, PE, Canadar 🛛 🗢                    |                |
| eq 7091  |   | 600 🤷 RX F   | req 70                 | 91 600 🧧  | -   |   |   |              |   |                                  |              |                    | : 40m                 | -        |  |                |
| eq 7091<br>in (F6) Recen   |   |  | req 70                 | 91 600 🧧  | RX B <u>a</u> nd<br>efore (F10)   |   |   |              |   |                                  |              |                    | . 40m                 |          | - + G  |                |
| n (F6) Recen<br>luster Map   | nt QSO's (Fi  | 600 🤷 RX F<br>7) Cluster (F8)  | req 70<br>Prop         | 91 600 agation (F9) Worked b  | -   |   | )   |              | Statistics  |                                  | leam Vi      | ew                 | . 40m                 | -        |  |                |
| n (F6) Recen<br>luster Map<br>Spot Source  | nt QSO's (Fi  | 600 🙆 RX F<br>7) Cluster (F8)<br>Callsign  | Prop<br>Flag           | 91 600 G<br>agation (F9) Worked b<br>Country  | efore (F10)<br>Band   | Weather (F11  | )<br>Emission Type  | Spot Mode    | Statistics  |                                  | leam Vi      | ew                 | . 40m                 | -        | <b>— + 3 छ</b><br>ЕА7КОК                         |                |
| n (F6) Recen<br>luster Map<br>Spot Source<br>Cluster   | t QSO's (F7<br>Time<br>1641Z  | 600 A RX F<br>7) Cluster (F8)<br>Callsign<br>IZOPAP  | Prop<br>Flag           | 91 600 G<br>agation (F9) Worked b<br>Country<br>Italy   | efore (F10)<br>Band<br>80m  | Weather (F11<br>Frequency<br>3676.0   | )<br>Emission Type<br>PHONE   | Spot Mod     | 1 - Canad   | da                               |              |                    | : 40m                 | -        |  |                |
| q 7091<br>h (F6) Recen<br>uster Map<br>Spot Source<br>Suster<br>Cluster  | Time<br>1641Z<br>1641Z  | 600 A RX F<br>7) Cluster (F8)<br>Callsign<br>IZOPAP<br>VU2SRT  | req 70<br>Prop<br>Flag | 91 600 agation (F9) Worked b<br>Country<br>Italy<br>India   | efore (F10)<br>Band<br>80m<br>40m   | Weather (F11<br>Frequency<br>3676.0<br>7008.0   | )<br>Emission Type<br>PHONE<br>CW   | Spot Mode    | - '   | da                               | cw           | DIG                | i 40m                 | -        | <b>— + 3 छ</b><br>ЕА7КОК                         | A              |
| q 7091<br>h (F6) Recen<br>uster Map<br>Spot Source<br>Juster<br>Juster   | Time<br>1641Z<br>1641Z<br>1640Z   | 600 A RX F<br>Calsign<br>IZOPAP<br>VU2SRT<br>EA7KOK  | req 70<br>Prop<br>Flag | 91 600 agation (F9) Worked b<br>Country<br>Italy<br>India<br>Spain  | efore (F10)<br>Band<br>80m<br>40m<br>40m                                    | Weather (F11<br>Frequency<br>3676.0<br>7008.0<br>7135.0   | Emission Type<br>PHONE<br>CW<br>PHONE   | Spot Mod     | 1 - Canae<br>Band   | da<br>PH                         | cw           |                    | . 40m                 | -        | — + В ≥ ЕА7КОК ЕG3HAM                            | A              |
| q 7091<br>(F6) Recen<br>uster Map<br>Spot Source<br>luster<br>luster<br>luster<br>luster<br>luster   | Time<br>16412<br>16412<br>16402<br>16402  | 600 AX F<br>7) Cluster (F8)<br>Callsign<br>IZOPAP<br>VU2SRT<br>EA7KOK<br>R80URAN   | Flag                   | 91 600 agation (F9) Worked b<br>Country<br>Italy<br>India<br>Spain<br>European Russa  | efore (F10)<br>Band<br>80m<br>40m<br>40m<br>80m                             | Weather (F11<br>Frequency<br>3676.0<br>7008.0<br>7135.0<br>3515.0   | Emission Type<br>PHONE<br>CW<br>PHONE<br>CW                                     | Spot Mod     | 1 - Canar<br>Band<br>80m                                    | da<br>PH<br>C                    | cw           | DIG<br>C           |                       |          | — + В ≥ ЕА7КОК ЕG3HAM                            | 59<br>A\<br>CC |
| q 7091<br>a (F6) Recen<br>uster Map<br>Spot Source<br>luster<br>luster<br>luster<br>luster<br>luster<br>luster<br>luster                     | Time<br>16412<br>16412<br>16402<br>16402<br>16392                                     | 600     AX F       7)     Cluster (FB)       Callsign     IZOPAP       VU2SRT     EA7KOK       R80URAN     EG3PCD                                  | Flag                   | 91 600 a<br>agaton (F9) Worked b<br>Country<br>Italy<br>India<br>Spain<br>European Russia<br>Spain                          | efore (F10) Band 80m 40m 80m 40m 40m 40m 40m 80m 40m                        | Weather (F11           Frequency           3676.0           7008.0           7135.0           3515.0           7155.0   | Emission Type<br>PHONE<br>CW<br>PHONE<br>CW<br>PHONE                            | Spot Mod     | 1 - Canad<br>Band<br>80m<br>60m                             | da<br>PH<br>C<br>C<br>C<br>C     | cw           | DIG<br>C           | 40m                   |          | — +  | A۱             |
| q 7091<br>n (F6) Recen<br>uster Map<br>Spot Source<br>duster<br>duster<br>duster<br>duster<br>duster<br>duster                               | Time<br>16412<br>16412<br>16402<br>16402<br>16392<br>16382                            | 600     AX F       Cluster (F8)       Callsign       IZOPAP       VU2SRT       EA7KOK       R80URAN       EG3PCD       VY2FU                       | Flag                   | 91 600 a<br>agaton (P9) Worked b<br>Country<br>Italy<br>India<br>Spain<br>Canada  | efore (F10) Band 80m 40m 80m 40m 17m  | Weather (F11           Frequency           3676.0           7008.0           7135.0           3515.0           7155.0           18133.0                                   | Emission Type<br>PHONE<br>CW<br>PHONE<br>CW<br>PHONE<br>PHONE<br>PHONE          |              | 1 - Canad<br>Band<br>80m<br>60m<br>40m                      | da<br>PH<br>C<br>C<br>C          | cw<br>w      | DIG<br>C           |                       | ·<br>    | — + В ≥ ЕА7КОК ЕG3HAM                            | A              |
| q 7091<br>h (F6) Recen<br>uster Map<br>Spot Source<br>duster<br>duster<br>duster<br>duster<br>duster<br>duster<br>duster<br>duster<br>duster | Time<br>16412<br>16412<br>16402<br>16402<br>16402<br>16392<br>16382<br>16382          | Calsign         Calsign           ZOPAP         VU2SRT           EA7KOK         R80URAN           EG3PCD         VY2FU           R3RZ         R3RZ | Flag                   | 91 600 aagaton (F9) Worked b<br>Country<br>Itały<br>India Spain<br>European Russa<br>Spain<br>European Russa                | efore (F10) Band 80m 40m 40m 40m 17m 80m                                    | Weather (F11           Frequency           3676.0           7008.0           7135.0           3515.0           7155.0           18133.0           3628.0                  | Emission Type<br>PHONE<br>CW<br>PHONE<br>CW<br>PHONE<br>PHONE<br>PHONE<br>PHONE | Spot Mod     | 1 - Canar<br>Band<br>80m<br>60m<br>40m<br>30m               | da<br>PH<br>C<br>C<br>C          | cw<br>w<br>c | DIG<br>C<br>C      |                       | ·<br>    | еаткок<br>Ебзнам<br>Базнам<br>Базнам<br>ОL22Y0TA | A              |
| aq 7091<br>n (F6) Recen<br>luster Map<br>Spot Source<br>Cluster<br>Cluster<br>Cluster<br>Cluster<br>Cluster<br>Cluster                       | Time<br>16412<br>16412<br>16402<br>16402<br>16402<br>16392<br>16382<br>16382<br>16372 | Calsign<br>ZOPAP<br>VU2SRT<br>EA7KOK<br>R80URAN<br>EG3PCD<br>VY2EU<br>R3RZ<br>SQ95PRK  | Flag                   | 91 600 aagation (F9) Worked b<br>Country<br>Italy<br>Inda<br>Spain<br>European Russia<br>Spain<br>European Russia<br>Poland | efore (F10) Band 80m 40m 80m 40m 17m 80m 80m 80m 80m 80m 80m 80m 80m 80m 80 | Weather (F11           Frequency           3676.0           7008.0           7135.0           3515.0           7155.0           18133.0           3628.0           3708.9 | Emission Type<br>PHONE<br>CW<br>PHONE<br>CW<br>PHONE<br>PHONE<br>PHONE<br>PHONE | SSB          | 1 - Canad<br>Band<br>80m<br>60m<br>40m<br>30m<br>20m        | da<br>PH<br>C<br>C<br>C          | cw<br>w<br>c | DIG<br>C<br>C<br>C |                       |          | EA7KOK<br>EG3HAM<br>SRBPA<br>OL22YOTA<br>W9AFB   | A1<br>CC       |
| eq 7091  | Time<br>16412<br>16412<br>16402<br>16402<br>16402<br>16392<br>16382<br>16382          | Calsign         Calsign           ZOPAP         VU2SRT           EA7KOK         R80URAN           EG3PCD         VY2FU           R3RZ         R3RZ | Flag                   | 91 600 aagation (F9) Worked b<br>Country<br>Italy<br>Inda<br>Spain<br>European Russa<br>Spain<br>European Russa<br>Poland   | efore (F10) Band 80m 40m 40m 40m 17m 80m                                    | Weather (F11           Frequency           3676.0           7008.0           7135.0           3515.0           7155.0           18133.0           3628.0                  | Emission Type<br>PHONE<br>CW<br>PHONE<br>CW<br>PHONE<br>PHONE<br>PHONE<br>PHONE |              | 1 - Canar<br>Band<br>80m<br>60m<br>40m<br>30m<br>20m<br>17m | PH<br>C<br>C<br>C<br>C<br>C<br>W | cw<br>w<br>c | DIG<br>C<br>C<br>C |                       |          | еаткок<br>Ебзнам<br>Базнам<br>Базнам<br>ОL22Y0TA | A              |

## **Cluster actions**

#### Single click on cluster spot

- 1. Adds call to call sign input field
- 2. Looks call sign up in Clublog Exceptions file, 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 Alerts**

When a desired spot is received by the cluster an audio alert can be activated by checking the 'Enable alert sound' check box in the Settings/Program Configuration/cluster' ALERTS tab.

| Configuration<br>Save config Save and apply Exit  |  |    |   |
|---|--|----|---|
| Program Settings     Program Scheduler     Station configuration     Software Schware S | Cluster Alert<br>Enable alert sound<br>Sound 1<br>Sound 2<br>Sound 3<br>Sound 4<br>Sound 5<br>Sound 6<br>Sound 6<br>Sound 7<br>Sound 8 | Q) | ☐ Enable alert e-mail<br>E-mail destination address<br>terrygenes⊕gmail.com |

The audio alert will sound, and an alert message will appear in the main UI as below

The required alert sound can be selected from the six choices and each one can be tested by clicking on the speaker icon.

| CALLSIGN              |                 |                         | +00 V Start 11/01/2020 17:2<br>End 11/01/2020 17:2 |    | Cluster alerts -   | × |
|-----------------------|-----------------|-------------------------|--|----|--|---|
| Operator name         |                 | Grid                    |  |    | [17:24:43: OZ1JRL (DENMARK) 10M DIGITAL [NEW ONE ON BAND/MODE]]<br>[17:27:15: GW45KA (WALES) 10M DIGITAL [NEW ONE ON BAND/MODE]]   | 1 |
| Band <mark>30m</mark> | ~ 🔒             | Comment                 | ✓ <sup>(a)</sup>                                   | Ċ  |  |   |
| Mode FT8              | ~ <u></u>       | Note                    | <u></u>  |    | a de la companya de la |   |
| Country               | ~               |                         |  | Ц  |  |   |
| TU V                  | cq 🗸            |                         |  |    | u  |   |
| Freq 0                | Hz<br>000       | RX Freq 0               | Hz<br>000 🎒 RX Band 30m                            | 1  |  |   |
| Main (E6) Recent      | 050's (F7) Clus | ster (F8) Propagation ( | E9)  | ١, |  |   |

Main (F6) Recent QSO's (F7) Cluster (F8) Propagation (F9)

Left clicking the alert icon will open the list of alerts as shown on the right above, right clicking on the alert icon will clear it.

## **Email Spot Alert Notification**

When a required spot is received an email can be automatically sent to the user by enabling and completing the email alert field.

| Program Settings Edit program config                            | Cluster Alert      |                            |
|---|--------------------|----------------------------|
| Program Scheduler<br>Performances                               | Enable alert sound | Enable alert e-mail        |
| E-mail settings   | Sound 1            | E-mail destination address |
| User Configuration     Station Information                      | O Sound 2          | + -                        |
| My References   | O Sound 3          | terrygenes@gmail.com       |
| Station configuration<br>Confirmations                          | O Sound 4          |                            |
| Database  | O Sound 5          |                            |
| <ul> <li>External Services</li> <li>User preferences</li> </ul> | O Sound 6          |                            |
| Award preferences   | Sound 7            |                            |
| - Software Configuration - Cluster - Cluster Alert              | O Sound 8          |                            |

### **Filtering alerts**

Defining the rules that will trigger the alert is done in the 'Alert management' window (Settings/Alert configuration)

• Provide a filter rule name and description in the definition tab and select the cluster or clusters to watch, turn the status switch on to make the filter active.

| 🦞 Alert management  |                      |  | -         |            | ×    |
|---|----------------------|--|-----------|------------|------|
| 🏟 💾 💼   |                      |  |           |            |      |
| Existing rules  | Definition Call/Dxcc | Band/Mode Origin Awards By stats                       |           |            |      |
| [OFF] SOTA<br>[OFF] 6M ALERT<br>[OFF] NEW BAND<br>[OFF] WWFF<br>RP76U | Rule name            | SOTA   |           |            |      |
|   | Description          |  |           |            |      |
|   |                      |  |           |            |      |
|   | Status               |  |           |            |      |
|   | E-mail notification  | E-mail not enabled / Alert email not enabled. (        | Check e-r | nail setti | ings |
|   |                      | Hold CTRL for multiple sel.<br>Cluster<br>SuperCluster |           |            |      |
| Alerts will be applied to new incom                                   | ning spots when you  | close this window                                      |           |            | .::  |

• In the Call/DXCC tab check the name of the DXCC country to be alerted for

| 🦉 Alert management                |   | - 0  | ×        |
|-----------------------------------|---|--|----------|
| 🍩 💾 💼                             |   |  |          |
| Existing rules                    | Definition Call/Dxcc Band/Mode Origin Awards By                   | r stats  |          |
|                                   | Callsign list   | DXCC (no selection = ALL)  |          |
|                                   | ✓ — ∅ +   | 🛩 🗕 🗗 🔗 Cont 🛛   |          |
|                                   |   | South Shetland Is. Southern Sudan [deleted] Sov. Mil. Order of Malta | ^        |
| F                                 |   | ☐ Spain<br>☑ Spratly Is.<br>☑ Sri Lanka                              |          |
|                                   |   | Sudan<br>Sumatra [deleted]<br>Suriname                               |          |
|                                   | 0 items selected  |  | <u> </u> |
|                                   | U Items selected<br>Use of wildcard allowed.                      | 1 items selected<br>Continent (no selection = ALL)                   | _        |
|                                   | eg. IW3*, */P<br>If empty, no filters will be applied on callsign | AF<br>AN   | ^        |
|                                   |   | AS<br>EU<br>NA   | ~        |
| Alerts will be applied to new inc | oming spots when you close this window                            |  |          |

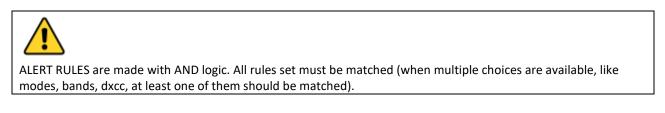
• If the DXCC entity is required on specific bands or modes select the band/mode in the Band/mode tab. This example will alert for every occasion a spot for Spratly

| Alert management                  |  | - 🗆 X                              |
|-----------------------------------|--|------------------------------------|
| Existing rules                    | Definition Call/Dxcc Band/Mode Origin Awards B | / stats                            |
|                                   | Bands (no selection = ALL)                     | Mode (no selection = ALL)          |
|                                   | 👻 🗕 ē  | a 🗸 🗕 🗗                            |
|                                   | 160m   | CHIP64 ^                           |
|                                   | ☐ 60m  |                                    |
|                                   | 40m  | CONTESTI                           |
| F                                 | ☑ 30m<br>□ 20m                                 |                                    |
|                                   | 17m  | DIGITALVOICE                       |
| e                                 | □ 15m<br>□ 12m                                 | DOMINO<br>DOMINOF                  |
| 2                                 | 10m  | 1 items selected                   |
|                                   |  | Emission type (no selection = ALL) |
|                                   |  | CW<br>DIGITAL<br>PHONE             |
|                                   | 1 items selected                               |                                    |
| Alerts will be applied to new inc | oming spots when you close this window         |                                    |
|                                   | N 49 Au  | Germany Ukraine                    |

• When all selections have been chosen click the floppy disk save icon and the alert filter will appear in the left side panel.

| 🙀 Alert management                |   | - | × |
|-----------------------------------|---|---|---|
| H                                 |   |   |   |
| Existing rules                    | Definition Call/Dxcc Band/Mode Origin Awards By stats |   |   |
| SPRATLY IS                        | Rule name SPRATLY IS                                  |   |   |
|                                   |   |   |   |
|                                   |   |   |   |
|                                   |   |   |   |
| F                                 | Description   |   |   |
| e                                 |   |   |   |
| 1                                 |   |   |   |
|                                   | Status  |   |   |
|                                   | Status Hold CTRL for multiple sel.                    |   |   |
|                                   | Sources Cluster                                       |   |   |
|                                   | SuperCluster  |   |   |
| Alerts will be applied to new inc | oming spots when you close this window                |   |   |

Alerts can be created by Call sign, prefix or suffix, DXCC, Continent, Band, Mode, Emission type, Spotter call sign, spotter continent, spotter country or for specific awards identified in the Notes field.



When using filters based on station statistics, for example a new country at least one of the fields must match

| Existing rules     Definition Call/Dxcc Band/Mode Origin Awards By stats     NEW ONE ON BAND/MODE     New ONE     Unworked BAND     Unworked Emission type   | × |
|--|---|
| NEW ONE ON BAND/MODE O New ONE O Unworked BAND   |   |
| Confirmation filter by     ONt confirmed     Confirmation filter by     ONt confirmed BAND     Confirmation filter by     ONt confirmed BAND     ONt confirmed BAND     ONt confirmed BAND/Emission type     ONt confirmation filters are effective only when at lease     one confirmation method is selected |   |
| F Alerts will be applied to new incoming spots when you close this window  |   |

## **Testing alerts**

To test an alert, use the 'Spot simulation' facility in the 'Cluster management' window - Spot simulations are not broadcast to the on air Telnet clusters, they are only displayed on the local PC

| 1318 www.gb7mbc.net:8000:<br>1318 www.gb7mbc.net:8000: | DX de PA2V:  | 14199.0 W<br>432174.0 F | 6APE Loud                  | 1318Z |
|--|--------------|-------------------------|----------------------------|-------|
| 1318 Simulation: DX de                                 | OZ1W: 5398.5 | G4POP/P                 | TESTING ALERTS             | 1318Z |
|  |              |                         |                            |       |
|  |              |                         |                            |       |
|  |              |                         |                            |       |
| <  |              |                         |                            |       |
| Lock display Clear Save log                            |              |                         |                            |       |
| Commands Spot simulation                               |              |                         |                            |       |
| SPOT Simulation  |              | Hz<br>398               | Hz<br>500 🎒 TESTING ALERTS |       |
|  | OZ1W         |                         |                            |       |

## **Cluster support for CW Keyer**

If the Keyer interface is open then the actions for single and double click will send call sign, lookup data, band and mode data directly to the Keyer fields

## **Email alert notifications**

Email notification of cluster alerts can be automatically sent to the user if the interface is set up as follows.

- 1. Go to the Settings/Program configuration/e-mail settings menu.
- 2. Check the 'Enable email' check box.
- 3. Complete the email details for the outgoing email account.
- 4. Click on the 'Test' button which will result in an email being sent and confirmed.
- 5. Click 'Save config'
- 6. Click on the yellow 'Configure alert email' button which will transfer to the 'Cluster Alert' tab

| Configuration  |   |
|--|---|
| [비 ❤ ᠿ<br>Save config Save and apply Exit  |   |
| Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings     User Configuration     Station Information     My References     Station configuration | E-mail settings       Enable Log4OM e-mail         Sender e-mail       Terrygenes@outlook.com       Port 587       Services configuration         SMTP Server       smtp-mail.outlook.com       Configure Alert e-mail         ✓ Use SSL       SMTP requires authorization  |
| Confirmations     Database     External Services     User preferences  | SMTP User     Terrygenes@outlook.com       SMTP Password     TEST       Important note:     TEST  |
| - Cluster - Cluster Alert - Cluster Alert - Info Providers - Configuration - Map Settings - Backup - VOACAP Propagation  | E-mail settings have been extensively tested by our team. Please note we may have difficulties providing support on mail configuration due to security reasons related to your e-mail privacy. Your email credentials will be stripped out from the SUPPORT REQUEST files, so we're unable to reproduce your situation even with your data (and we kindly ask you to NOT send us your original config files from the settings folder as they contain your email data) |
| Auto Start     - Chat     - Chat     - Hardware Configuration     - Audio devices and voice keye     - CAT interface     Software integration     - Connections                                | About GMAIL<br>Gmail has specific security measures to prevent abuse from "unauthorized" or unknown mail clients (Log4OM will be probably<br>marked as "unknown mail client").<br>If you experience troubles please consider enabling "less secure apps" there https://myaccount.google.com/lesssecureapps or<br>use another SMTP server.<br>Gmail ports are 465 (SSL) or 587 (TLS)   |
| Antonno rotator  |   |

- 7. Enter the destination address for email alerts in the green box.
- 8. Click on the green cross (+) to add it to the list below.
- 9. Click 'Save and apply'

| Configuration Status Program Stettings Program Stettings Program Stettings Program Stettings Program Stettings Status Program Stettings Status Program Stettings Status Status Informations Sound 1 Status St |  |   |   |                            |
|--|--|---|---|----------------------------|
| Save config Save and apply Exit   Program Settings   - Fedgram Scheduler   - Performances   - Brable alert sound   - Brable alert sound   - Brable alert sound   - Station configuration   - Station configuration   - Confirmations   - Database   - Database   - Database   - Software Configuration   - Custer Alert   - Info Providers   - Custer Alert   - Info Providers   - Custer Alert   - Database   - Software Configuration   - Auto Start   - Custer Alert   - Info Providers   - Custer Alert   - Info Providers   - Custer Alert   - Auto Start   - Configuration   - Audo Start   - Cont refraces   - Software Configuration   - Custer Alert   - Info Providers   - Custer Alert   - Info Providers   - Custer Alert   - Hardware Configuration   - Auto Start   - Cont   - Custer Alert   - Hardware Configuration   - Audo Start   - Cont refrace   - Software Configuration   - Custer Alert   - Hardware Configuration   - Audo Start   - Cont refrace   - Software Integration   | Configuration  |   |   |                            |
| <ul> <li>Program Settings</li> <li>Edit program Config</li> <li>Performances</li> <li>E-mail settings</li> <li>User Configuration</li> <li>Sound 1</li> <li>E-mail destination address</li> <li>Sound 2</li> <li>Sound 3</li> <li>Sound 3</li> <li>Sound 4</li> <li>Sound 5</li> <li>Sound 5</li> <li>Sound 6</li> <li>User Configuration</li> <li>Sound 7</li> <li>Solund 7</li> <li>Sound 8</li> <li>Sound 8</li> </ul>  |  |   |   |                            |
| → Edt program config       → Edt program config         → Program Scheduler       □ Enable alert sound       □ Enable alert e-mal         → Performances       ● Sound 1       ■ E-mail destination address         □ User Configuration       ○ Sound 3       ■ errygenes@gmail.com         □ Station configuration       ○ Sound 4       ● Sound 5         □ Database       ○ Sound 5       ○ Sound 6         □ User Configuration       ○ Sound 7         ● Outser       ○ Sound 8         □ Luster       ○ Sound 8         ● Luster       ○ Sound 8         ● Avard preferences       ○ Sound 8         ○ Luster       ○ Sound 8         ● Audores       ○ Sound 8         ● Juser preferences       ○ Sound 8         ● Luster Alert       ○ Infoguration         ● Luster Alert       ○ Sound 8         ● Luster Alert       ○ Configuration         ● Audores       ○ Sound 8         ● Hardware Configuration       ○ Sound 8         ● Hardware Configuration       ● South 4         ● Audores       ○ Configuration         ● Audores and voice keyee       ○ Configuration         ● Audores configuration       ● South 4         ● Software intergration       ● Configuration   | Save config Save and apply Exit  |   |   |                            |
|  | Save config Save and apply Exit  Program Settings Program Scheduler Program Program Program Scheduler Program Scheduler Program Prog | Enable alert sound      Sound 1      Sound 2      Sound 3      Sound 4      Sound 5      Sound 6      Sound 7 | ٩ | E-mail destination address |
|  |  |   |   |                            |

#### Notes.

Email alerts may be forwarded to multiple email addresses

To remove email addresses from the list, highlight the address to be removed and click the red minus icon (-) Audible alerts can be enabled and tested in this tab also.

Go to the 'Settings/Alert configuration menu'.

- Select or construct the alert that e-mail notification is required for.
- Switch on the 'E-Mail notification' switch for the alerts to be actioned.

| 🖞 Alert management              |   | 5 <u>000</u> |           | × |
|---------------------------------|---|--------------|-----------|---|
| 🏟 💾 💼                           |   |              |           |   |
| Existing rules<br>IOTA AND SOTA | Definition Call/Dxcc Band/Mode Origin Awards By stats |              |           |   |
| [OFF] OZ1W                      | Rule name NEW BAND                                    |              |           |   |
| OFF] WWFF<br>NEW BAND           |   |              |           |   |
|                                 |   |              |           |   |
|                                 | Description   |              |           |   |
|                                 | Description   |              |           |   |
|                                 |   |              |           |   |
|                                 |   |              |           |   |
|                                 | Status  |              |           |   |
|                                 | E-mail notification                                   |              |           |   |
|                                 | Hold CTRL for multiple sel.                           |              |           |   |
|                                 | Sources Cluster SuperCluster                          |              |           |   |
|                                 |   |              |           |   |
| Alerts will be applied to new   | incoming spots when you close this window             |              | www.sevue |   |

When an alert is triggered Log4OM will email notification of the alert by email as below.

\_\_\_\_\_

\_\_\_\_\_

Log4OM message START

New cluster alert generated at 04/03/2021 10:08:20 UTC (04/03/2021 10:08:20 local)

Triggered rules: [OZ1W]

Callsign: OZ1W Country: Denmark Band: 80m Emission type: PHONE

Log4OM message END

# **Propagation predictions**

Log4OM version 2 includes a powerful propagation prediction tool based on VOACAP to calculate the best band/path between the users' station and the station to be contacted (Call sign must be entered in call sign field)

The tool is accessible either through the Propagation tab in the main UI or from the drop-down menus at the top of the main UI. To obtain a prediction is it necessary to enter the other stations call sign and band.

The predictions are calculated using the TX power level set in the Log4OM Settings/Program configuration/station configuration/TX Power field or as modified in the 'My Station (F4)' tab of the QSO input panel of the main UI. The antenna is not selectable and is based on a standard dipole.

Three views are available which display either S/N ratio, Circuit Reliability or SdBW, explanations of these displays can be found in the excellent document by *Jari Perkiömäki OH6BG* which is reproduced below.

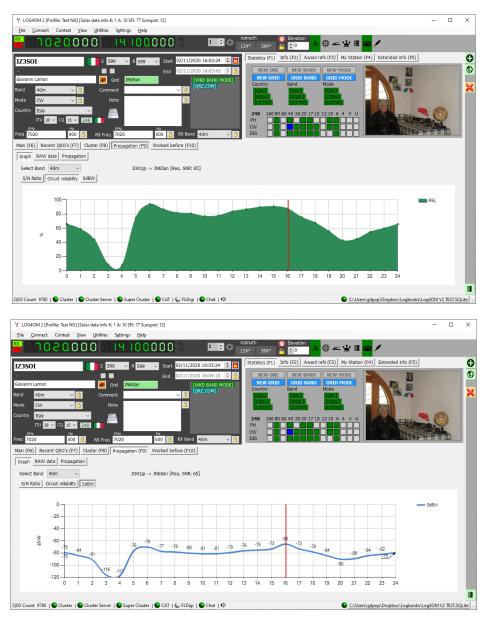


A separate window for propagation display is available from the view menu.

If the window is opened after the call is entered the calculations have already been done as a result the window will be empty. The window needs to be opened first so that when the call is entered it receives the results of the calculation.



The 'Source' menu in the floating Propagation window allows the display to also be derived from the call entered in the contest or keyer windows.



The raw data is also available in the tab 'Raw Data'

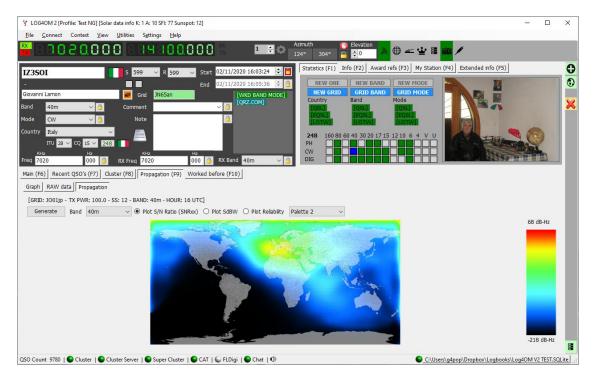
| 4 LOG4OM 2 v.2.13.0.7 [Profile: G4POP V2 Portable]   | ×   |
|--|---|
| File Connect Contest View Utilities Settings Help  | Kp: 1 (Quiet) A: 3 SFI: 75 Sunspot: 20  |
| 🕌 2 2 2 4 0 4 5 2 0 0 2 2 4 5 4 5 5 0 0 🗄 🛛 🕹 🕹 🕹 🕹 👘 🖉 🗮 📽 🖌  | ·   |
| IW3HMH         S 599 v         R 599 v         Start         02/06/2021 13:53:23         0           Danele Patolato         God         3/865e0         End         02/06/2021 13:53:23         0         INEW MADE         INEW MADE | 3)  |
| Man (#6)         Recent QSO's (#7)         Outer (#6)         Propagation (#9)         Worked before (#10)           Graph         EAUX dist         Propagation (#9)         Worked before (#10)           0.58         6.55         -12         -6         16         70         71         -         \$10000           0.58         6.55         52         -12         -6         16         70         71         -         \$10000           0.58         6.55         52         -12         -6         16         70         71         -         \$10000           0.58         6.55         52         -12         -6         16         60 <t< td=""><td>20m → → → A A A A A A A A A A A A A A A A</td></t<>   | 20m → → → A A A A A A A A A A A A A A A A   |
| V<br>Save log<br>CSO Count 6443 [Cluster Server: Super Cluster   CAT   FLDig] [Chat] (D  | 14,035         NE2V           14,034         WT3K           14,032         K920           C         Scale 25x           Scale 25x         WKD BAND MODE           D:\Google DriveLlogbooks(G4POP V2 Personal.SCLite)         Image: Contemport of the second seco |

## **Propagation map**

The propagation map that is also available from the 'View' menu or Propagation tab (F9) is not self generating from the call sign input because it takes time to calculate every grid square to be able to draw the map.

#### To activate

- 1. Select the band of interest
- 2. Select the data display type S/N Ratio, SdBW or Plot reliability
- 3. Choose the Map colour Palette
- 4. Click the 'Generate' button As stated drawing the propagation map takes time so please wait!



### **Reliability column**

A reliability factor is also displayed in a column of the cluster with the higher percentage of probability being progressively highlighted in a darker green, the Signal to noise ration and SdBW are also displayed.

| luster | Мар       |      |                          |           |                                |          |      |               |           |             |            |     |       |         | Statistics Filters Beam View          |
|--------|-----------|------|--------------------------|-----------|--------------------------------|----------|------|---------------|-----------|-------------|------------|-----|-------|---------|---------------------------------------|
| Time   | Callsign  | Flag | Country                  | Frequency | Note                           | Reporter | Band | Emission Type | Spot Mode | Spot Source | Relability | S/N | Sd BW | Ranking | ▲ Mode Lock Band                      |
| 506Z   | VE9FI     | •    | Canada                   | 14203.0   | NEW BRUNSWICK. CANADA.TX.RUSS. | G1TDN    | 20m  | PHONE         |           | Cluster     | 13         | 19  | -118  | 327     | CW 🚱 Band                             |
| 503Z   | TM33EUDX  |      | France                   | 7158.0    | SES CQ                         | F2VX     | 40m  | PHONE         |           | Cluster     | 92         | 67  | -75   | 336     | Diatal 160m                           |
| 503Z   | IT9ECY    |      | Italy                    | 7095.0    | Award Laika                    | ON3LTE   | 40m  | PHONE         |           | Cluster     | 92         | 67  | -75   | 340     |                                       |
| 501Z   | IU1DUB/MM |      | Italy                    | 14042.0   | Red Sea                        | F5NZY    | 20m  | CW            |           | Cluster     | 14         | 17  | -119  | 340     | 40m                                   |
| 459Z   | GIOLAM    | FF-  | Northern Ireland         | 7180.0    |                                | ON7WM    | 40m  | PHONE         |           | Cluster     | 90         | 65  | -70   | 296     | 20m                                   |
| 453Z   | OR18LLV   |      | Belgium                  | 7118.4    |                                | ON8ZA    | 40m  | PHONE         |           | Cluster     | 93         | 68  | -64   | 330     | Keep bands 17m                        |
| 452Z   | OR18WLD   |      | Belgium                  | 7037.1    | SES                            | ON4BB    | 40m  | CW            |           | Cluster     | 93         | 68  | -64   | 330     | Keep mode on band                     |
| 443Z   | LZ1WR     |      | Bulgaria                 | 14245.0   |                                | HB9HBZ   | 20m  | PHONE         |           | Cluster     | 75         | 55  | -87   | 320     | Reliability threshold                 |
| 443Z   | OR18WLD   |      | Belgium                  | 7042.0    | SES                            | ON4BB    | 40m  | DIGITAL       |           | Cluster     | 93         | 68  | -64   | 330     | · · · · · · · · · · · · · · · · · · · |
| 439Z   | LY2PX     |      | Lithuania                | 14223.0   | Tnx QSO 59 in HB               | HB9HBZ   | 20m  | PHONE         |           | Cluster     | 70         | 49  | -87   | 313     |                                       |
| 436Z   | HA8RM     |      | Hungary                  | 7006.0    | cq dx gl Peter                 | ON8DM    | 40m  | CW            |           | Cluster     | 92         | 67  | -75   | 331     |                                       |
| 436Z   | OK1VEI/P  |      | Czech Republic           | 7181.0    | OKFF 1543                      | ON3EI    | 40m  | PHONE         |           | Cluster     | 92         | 67  | -75   | 328     |                                       |
| 433Z   | 7Z1IS     | 84   | Saudi Arabia             | 14240.0   | RYAD, SAUDI ARABIA TNX.IBRA    | G1TDN    | 20m  | PHONE         |           | Cluster     | 48         | 46  | -97   | 260     |                                       |
| 433Z   | DLOSAT    | -    | Fed. Republic of Germany | 3647.0    | cq                             | DM2XM    | 80m  | PHONE         |           | Cluster     | 88         | 63  | -64   | 338     | v                                     |

Adjusting the 'Reliability threshold' slider in the 'Filters' menu will change the threshold at which the reliability levels will be displayed.

#### **IMPORTANT NOTE**

Because the 'Reliability' value in the cluster view is calculated on for 2 or 4 digit locator grid references for the centre of the country it will not match the refined propogation forecast in the 'Propogation (F9) tab which is calculated on the precise location of the station entered in the input fields and is calculated on the 6 digit locator obtained from the on line look up source.



## The MUF and SNR Distribution

#### Choosing the Best Frequency

You have now run the prediction and are anxious to operate between the chosen locations on the frequencies you entered. There are two things to discuss in our analysis:

- What is the best of our frequencies?
- What is the predicted SNR (Signal-to-Noise) distribution on that frequency?

## The Meaning of MUF

In VOACAP, the MUF (maximum usable frequency) is a statistical concept. The MUF is defined here as the median maximum usable frequency for a given ionospheric path, month, SSN and hour. On each day of the month at this hour, there is a maximum observed frequency (MOF) for a mode. The median of this distribution is called the MUF. Therefore, it is not the maximum usable frequency in terms of communications.

In other words, the MUF is the frequency for which ionospheric support is predicted on 50% of the days of the month, ie. 15 days out of 30 days. So on a given day communications may or may not succeed on the frequency marked as the MUF.

To ensure a good communication link between two locations, the operating frequency is typically chosen below the predicted MUF. It is often claimed that the optimal operating frequency lies somewhere between 80-90% of the MUF (e.g. if the MUF is 10 MHz, the optimal frequency would be around 8-9 MHz). However, in VOACAP it is the predicted SNR distribution using Complete System Performance methods (e.g. Methods 20, 21, 22 or 30) that determines which frequencies provide an acceptable grade of service

## The MUFday

The MUF is also related to another parameter, MUFday. The value of the MUFday is the fraction of the days in a month at that hour that the operating frequency is below the MUF for the most reliable mode (that is, the mode with the highest reliability of meeting the required SNR). The mode and the associated data shown below the user-specified frequencies are always the most reliable mode. For a more detailed discussion, see Calculating MUFdays.

## SNR, SNR10 and SNR90: The Predicted SNR Distribution

The SNR distribution tells us what grade of service is to be expected over the days in the month on a given frequency at a given hour. A statistical method is used to determine the grade of service over 27 days (SNR90), 15 days (SNR) and 3 days (SNR10) out of 30 days. However, it does not tell you which days are good or which days are bad.

Below are the four SNR output parameters needed for analysis:

| 1.0 | 13.1            | 6.1  | 7.2  | 9.7  | 11.9              | 13.7 | 15.4 | 17.7 | 21.6 | 25.9 | 0.0 | 0.0 | FREQ   |
|-----|-----------------|------|------|------|-------------------|------|------|------|------|------|-----|-----|--------|
|     | F2F2            | F2F2 | F2F2 | F2F2 | <mark>F2F2</mark> | F2F2 | F2F2 | F2F2 | F2F2 | F2F2 | -   | -   | MODE   |
|     | <mark>80</mark> | 63   | 69   | 78   | 83                | 78   | 68   | 28   | -39  | -58  | -   | -   | SNR    |
|     | 26.7            | 12.4 | 13.8 | 21.2 | 26.7              | 26.8 | 26.8 | 26.8 | 26.8 | 13.3 | -   | -   | SNR LW |
|     | 18.5            | 7.6  | 7.1  | 7.8  | 12.7              | 22.2 | 25.7 | 25.7 | 25.7 | 7.6  | -   | -   | SNR UP |
|     | 54              | 51   | 55   | 57   | <mark>56</mark>   | 51   | 41   | 1    | -66  | -71  | -   | -   | SNRxx  |

**The SNR** indicates the dB-Hz value that can be maintained on 50% of the days (ie. on 15 days) in the month. In our example above on 11.9 MHz, the SNR value is 83 (dB-Hz).

**The SNRxx** (ie. SNR90, provided the REQ.REL. is 90%) indicates the dB-Hz value that can be maintained on 90% of the days (ie. on 27 days) in the month. In our example above on 11.9 MHz, the SNRxx value is 56 (dB-Hz). This can be calculated as SNR - SNR LW (or 83 - 27 = 56 in our example).

And finally, **the SNR10** (calculated as SNR + SNR UP) is the dB-Hz value that can be maintained on 10% of the days (ie. on 3 days) in the month. In our example above on 11.9 MHz, the SNR10 value is appr. 96 (dB-Hz).

The two most prominent parameters to consider in search of the best frequency are the SNR and SNR90 values. As a rule of thumb, look for the highest SNR value and the highest SNR90 value. Let us assume that the required SNR we wish to maintain in our circuit is 67 (not a good but still a reasonable listening quality in international broadcasting). We will see that the SNRxx is below 67 at all our frequencies which means none of them cannot maintain that grade of service on 27 days out of 30 days. Then we will need to look for the highest SNR. Of our frequencies, the best would be 11.9 MHz with the SNR value of 83. Conclusion

In conclusion, 11.9 MHz is the best candidate for the operating frequency at 01 UTC during that month. 11.9 MHz is also below the predicted MUF of 13.1 MHz for that mode.

## The RPWRG and the REL

Let us expand our example above by adding two other output parameters (RPWRG and REL) as follows:

| 1.0 13.1 | 6.1  | 7.2  | 9.7  | 11.9              | 13.7 | 15.4 | 17.7 | 21.6 | 25.9 | 0.0 | 0.0 | FREQ   |
|----------|------|------|------|-------------------|------|------|------|------|------|-----|-----|--------|
| F2F2     | F2F2 | F2F2 | F2F2 | <mark>F2F2</mark> | F2F2 | F2F2 | F2F2 | F2F2 | F2F2 | -   | -   | MODE   |
| 80       | 63   | 69   | 78   | <mark>83</mark>   | 78   | 68   | 28   | -39  | -58  | -   | -   | SNR    |
| 13       | 16   | 12   | 10   | 11                | 16   | 26   | 66   | 133  | 138  | -   | -   | RPWRG  |
| 0.74     | 0.24 | 0.57 | 0.74 | 0.78              | 0.70 | 0.51 | 0.03 | 0.00 | 0.00 | -   | -   | REL    |
| 26.7     | 12.4 | 13.8 | 21.2 | <mark>26.7</mark> | 26.8 | 26.8 | 26.8 | 26.8 | 13.3 | -   | -   | SNR LW |
| 18.5     | 7.6  | 7.1  | 7.8  | 12.7              | 22.2 | 25.7 | 25.7 | 25.7 | 7.6  | -   | -   | SNR UP |
| 54       | 51   | 55   | 57   | <mark>56</mark>   | 51   | 41   | 1    | -66  | -71  | -   | -   | SNRxx  |

The RPWRG is related to the SNR90 and REQ.SNR. In our example above, the REQ.SNR was set to 67 (program config - user preferences).

The RPWRG (the required power gain) parameter tells us **how many decibels are needed in the communication system to achieve the SNR90 value of 67**. It is calculated as REQ.SNR - SNRxx (or 67 - 56 = 11 on 11.9 MHz). As the value of the RPWRG is positive in our example, it means that many decibels are needed for our system; if the value had been negative, that many decibels would have been in excess (ie. unnecessary) to achieve the required SNR for 27 days out of 30 days.

This parameter relates to the (communication) system design. In our example on 11.9 MHz, we should consider what measures we could take to add the necessary 11 desibels to the system: doubling the transmitting power would give us 3 desibels, using a more powerful transmitter antenna could give us a few desibels more, and at the receiving end we could choose, say, a 3-element Yagi instead of the whip antenna which would still contribute some more desibels.

**The REL is related to the SNR and REQ.SNR**, and is defined as a circuit reliability factor. It tells us the percentage of days in the month when the SNR value will equal to or exceed the REQ.SNR. The SNRxx tells us which SNR value can be achieved on 90% of the days (27 days) in the month. If the SNRxx would have been 67, then the value of REL had been 0.90 (or 90%, which is the REQ.REL. we have specified) and the RPWRG would have been zero (0).

#### Conclusion

The REL value of 0.78 on 11.9 MHz suggests that the required SNR of 67 can be achieved on 78% of days in the month. To translate the percentage value to the number of days, take a look at the Z Tables. We will see that 78% equals to 23 days.

Originally written and copyrighted by Jari Perkiömäki OH6BG, <u>https://www.voacap.com/muf.html</u>

## **Memory reminder (Favourites)**

In the view/Memory reminder window it is possible to save a list of often used frequencies (Favourites)

| Memory Reminder   | ×   |
|---|-----|
| <b>D</b> +  | Ó   |
| Memory<br>Nets<br>Wets<br>Som Nets<br>[Old Timers net] 3,772.00 KHz<br>[Old Timers net] 3,780.00 KHz<br>QRP Frequencies<br>[20m Calling Freq] 14,235.00 KHz |     |
| Double click to set frequency   | .:: |

- Click the folder icon to add a folder, enter a folder name and click the enter/return key on the keyboard.
- Select the folder created and click the Green + button to add a frequency name and frequency, click the check mark icon to save the entry.

The mode is automatically selected according to the mode recorded for that frequency in the band plan file

## **Voice Keyer**

Log4OM2 provides a voice keyer facility with six recordable memories.

## Voice Keyer setup

To set up the voice keyer and record voice keyer messages open the Log4OM Program Configuration window from the 'Settings' menu and select the 'Audio Devices' tab.

| Configuration   |  |  |   |  |
|---|--|--|---|--|
| e ➡ ♥ ♥<br>Save config Save and apply Exit  |  |  |   |  |
| Program Settings     Program Config     Program Scheduler     User Configuration     Status Information     Status Information     Confirmations     Software Configuration     Confirmations     Software Configuration     Confirmations     Software Configuration     Confirmations     Software Configuration     Custer     Software Configuration     Custer     Software Configuration     Auto Status     Backup     VOACAP Propagation     Auto Status     Software Configuration     CAT Interface     Software Configuration     Connections     ADIF Functions     FLDgi | Autoudresces<br>From Radio (Microphone)<br>To Radio (Speaker)<br>Recording<br>Recording device<br>[FrontMic (Realtek High Du<br>Listening device<br>[Speakers (C-Media USB A | File 1<br>File 2<br>File 3<br>File 4<br>File 5 | CQ CQ CQ<br>G4POP<br>Agan<br>QR2 QR2 de G4POP<br>QR2 QR2 de G4POP<br>CR2 DX<br>B84VED | Man UI and Contest hotkeys.<br>Press ESC to stop<br>C (TRL+F1<br>C (TRL+F2<br>C (TRL+F3<br>C (TRL+F3<br>C (TRL+F5<br>C (TRL+F6 |

- 1. Select the devices to be used for the transmission of the keyer messages in the 'From/To Radio' drop down menu's
- 2. Choose the recording and playback devices in the 'Recording' panel
- 3. Provide a 'File name' for each memory. Note: Until a recording is completed the file name box will be highlighted Red.
- 4. Hold down the red button to the right of a memory name and record a message using a microphone connected to the computer At the end of the recording release the red record button. Note: The file name box will change to green to indicate that it contains a message.
- 5. Click on the headphone symbol to the right of the recording button to playback the recording for that memory.

## Voice Keyer in use

- The voice keyer messages are triggered by Ctrl + Function keys 1 to 6
- When a message is being sent there is a visual indication at the bottom of the main UI

|    | 2    |       |   |            | SP |  |
|----|------|-------|---|------------|----|--|
|    |      | ] i   |   |            |    |  |
| er | 🔍 Fl | .Digi | I | 🕼 AUDIO OU | Т  |  |
|    |      |       |   |            |    |  |

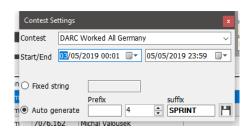
- Messages can be aborted during sending by pressing the keyboard key 'Esc'
- Messages can be sent either when the main UI is active, or the contest window is open

## Contest mode

Although not a fully featured contest logger Log4OM V2 provides a very useful interface for the casual contester. The dedicated contester should use the Log4OM V2 integration with N1MM for best efficiency.

## Contest setup.

• Select 'Contest/contest settings'.



- Select the appropriate contest.
- Adjust the start and end dates and times.
- Add any fixed string, Prefix or suffix for the contest.
- Set the serial number to the required start number.
- Click on the save icon at lower right (Floppy disk)
- Close the Contest settings window.

## Contest operating.



• Start the contest display by selecting 'Contest/contest' from the menu bar or by clicking on the Contest icon (Crown) in the main toolbar.



- The list of stations worked during the contest period is shown at the bottom of the window.
- If any station has been worked before [Dupe WKD SAME BAND] appears in the information window.
- The serial number is incremented automatically and is displayed together with any prefix or suffix at the top of the window.
- The user's aerial and radio specifications can be changed by selecting from the 'My (F4)' Tab.
- The radio in current use can be changed by the rig selection list beside the frequency display for SO2R operation.

## **Contest Cluster view.**

During a contest, cluster servers and online lookup services are under extreme pressure due to the volume of lookups and spots which can slow Log4OM down. There is also no requirement to check if countries and modes were worked in the past, only countries/bands/modes not worked during the contest period are of interest.

Log4OM therefore provides a contest mode for the cluster which disables those unnecessary functions providing a contest focused cluster display.

To engage the contest cluster display, the user should select a contest and enter contest mode, then in the cluster control window select 'View' and check the 'Contest view' button as below.

| Time  | Spot Source  | Callsion | Frequency | Flag | Country         | Cluster Name                | Band | Emission Type | Reporter | Not   |               | atistic view |            | 1 |
|-------|--------------|----------|-----------|------|-----------------|-----------------------------|------|---------------|----------|-------|---------------|--------------|------------|---|
| 1034Z | Cluster      | TM56REF  | 14037.7   |      | France          | www.gb7mbc.net:8000 (ssid:) | 20m  | CW            | F5SGI    |       | Mindred       | ALDUC VIEW   | e by       |   |
|       |              |          |           |      |                 |                             |      |               | FDSGI    |       | EQSL          |              |            |   |
| 1025Z | SuperCluster | VA3SF    | 14023     |      | Canada          | https://www.hrdlog.net      | 20m  | CW            |          |       | LOTW          |              |            |   |
| 1022Z | Cluster      | EC7AKV   | 14057.0   | -    | Spain           | www.gb7mbc.net:8000 (ssid:) | 20m  | CW            | EA1TG    | pota  | QSL<br>ORZCOI | м            |            |   |
| 1020Z | SuperCluster | 10WBX    | 14016.8   |      | Italy           | https://www.hrdlog.net      | 20m  | CW            |          |       |               | select multi | iole modes |   |
| 1012Z | Cluster      | RP80DPW  | 14021.0   |      | European Russia | www.gb7mbc.net:8000 (ssid:) | 20m  | CW            | RV3DEP   | Victo |               |              |            |   |
| 1011Z | Cluster      | TM29REF  | 14029.0   |      | France          | www.gb7mbc.net:8000 (ssid:) | 20m  | CW            | HA6VH    |       | O Clust       | ter View     |            |   |
| 1000Z | SuperCluster | PD1B     | 14019.27  |      | Netherlands     | https://www.hrdlog.net      | 20m  | CW            |          |       | Cont          | test view    |            |   |
| 0959Z | SuperCluster | F4IBJ    | 14011.2   |      | France          | https://www.hrdlog.net      | 20m  | cw            |          |       |               |              |            |   |
|       |              |          |           |      |                 |                             |      |               |          |       |               |              |            |   |

## **Contesting with CW Keyer**

When in contest mode the CW Keyer is also in contest mode and provides the same contest sent and received fields as in the main contest window.



Select a set of contest macros from the 'Macro (CTRL+F9) tab and start the keyer as described in the keyer section of this user guide. Keyboard operation for maximum QSO speed s also supported in contest mode.

#### **CW Macros**

A full list of available macro fields is shown in the 'Macro information' tab, including the Contest received number <CONT\_RX> and 'Contest sent number' <CONT\_TX>

| Main (CTRL-F6) Recent QSO's (CTRL-F7) | Cluster (CTRL-F8) Macro (CTRL-F9) CW History (CTRL-F10) Macro information Serial Settings |
|---------------------------------------|---|
| <my_call> or *</my_call>              | My callsign   |
| <call> or !</call>                    | Counterpart callsign (from keyer screen)  |
| <strx></strx>                         | RST received (from keyer form) with 9 replaced by N                                       |
| <sttx></sttx>                         | RST sent (from keyer form) with 9 replaced by N   |
| <strxf></strxf>                       | RST received (from keyer form) as it's logged   |
| <sttxf></sttxf>                       | RST sent (from keyer form) as it's logged   |
| <name> or <my_name></my_name></name>  | My name   |
| <country></country>                   | My country  |
| <grid></grid>                         | My gridsquare   |
| <my_iota></my_iota>                   | My IOTA ref   |
| <my_sota></my_sota>                   | My SOTA ref   |
| <my_opcall></my_opcall>               | My operator call  |
| <my_qth></my_qth>                     | My QTH  |
| <my_antenna></my_antenna>             | My Antenna (as currently selected in main UI)   |
| <my_rig></my_rig>                     | My rig (as currently selected in main UI)   |
| <his_name></his_name>                 | Counterpart name  |
| <n></n>                               | Repeat the whole string n times (Must be between 2 and 10).                               |
|                                       | Can be placed anywhere in the string.   |
| <cont_rx></cont_rx>                   | In contest mode: contest received number  |
| <cont_tx></cont_tx>                   | In contest mode: contest sent number  |
| <temp_c></temp_c>                     | Current temperature in CELSIUS  |
| <temp f=""></temp>                    | Current temperature in FAHRENHEIT   |
| <wind_dir></wind_dir>                 | Current wind direction in degrees   |
| <wind_spd_kmh></wind_spd_kmh>         | Current wind speed in Km/h  |
| <wind_spd_kts></wind_spd_kts>         | Current wind speed in knots   |
| <wind_spd_ms></wind_spd_ms>           | Current wind speed in meters per second   |
| <cur_weather></cur_weather>           | Current weather phenomena   |
| <cur_clouds></cur_clouds>             | Current cloud coverage  |
|                                       |   |

#### Adding a contest name

To add a contest name to the list, edit the contest.csv file in Settings/resources editor.

Ensure that the contest name and the contest organiser are separated by a semi-colon.

e.g. ARRL RTTY Round-Up;ARRL-RTTY

#### Note: Save the edit by clicking the small floppy disc icon at the bottom right corner of the resources window.

| 🙀 Resource editor   | -                     | C | ו | × |
|---|-----------------------|---|---|---|
| Log4OM would require a RESTART to reload it's config files  |                       |   |   |   |
| Program resources   | User edited resources |   |   |   |
| clusterdefaultscript.txt<br>clusterknownwords.txt   |                       |   |   | Î |
| contest.csv   |                       |   |   |   |
| modelist.csv  |                       |   |   |   |
| NonStandardCallsign.txt   |                       |   |   |   |
| PODXS Great Pumpkin Sprint;070-160M-SPRINT  |                       |   |   |   |
| PODXS Three Day Weekend;070-3-DAY<br>PODXS 31 Flavors;070-31-FLAVORS                              |                       |   |   |   |
| PODXS 40m Firecracker Sprint;070-40M-SPRINT<br>PODXS 80m Jay Hudak Memorial Sprint;070-80M-SPRINT |                       |   |   |   |
| PODXS PSKFest;070-PSKFEST   |                       |   |   |   |
| PODXS St. Patricks Day;070-ST-PATS-DAY<br>PODXS Valentine Sprint;070-VALENTINE-SPRINT             |                       |   |   |   |
| Ten-Meter RTTY Contest (2011 onwards);10-RTTY<br>Open Season Ten Meter OSO Party:1010-OPEN-SEASON |                       |   |   |   |
| 7th-Area QSO Party;7QP  |                       |   |   |   |
| Alabama QSO Party;AL-QSO-PARTY<br>JARL All Asian DX Contest (CW);ALL-ASIAN-DX-CW                  |                       |   |   |   |
| JARL All Asian DX Contest (PHONE);ALL-ASIAN-DX-PHONE<br>ANARTS WW RTTY;ANARTS-RTTY                |                       |   |   |   |
| Anatolian WW RTTY;ANATOLIAN-RTTY  |                       |   |   |   |
| Asia - Pacific Sprint; AP-SPRINT  |                       |   |   |   |
| File opened   |                       | Ð | × | Ш |
| $Current file: C:\Users\g4pop\AppData\Roaming\Log4OM2\contest.csv$                                |                       |   |   |   |

## **CW Keyer - Setup**

### There are three methods of using CW with Log4OM

- 1. Use a Winkeyer interface (or a Winkeyer clone)
- 2. Using 'Com port keying' with a simple interface
- 3. TCI connection for radios like the SunSDR, Anan etc

## Set keyer type and key function

In Program config/CW Keyer Interface

- 1. Select the type of keyer engine to be used (Winkeyer/TCI/Serial)
- Set function of the 'Esc' button Unchecked - Esc deletes TX string only Checked - deletes TX String and Call info

| Configuration   |  |
|---|--|
| Save config Save and apply Exit   |  |
| Program Settings     Edt program Scheduler     Performances     Enal settings     User Configuration     Station Information     Station Information     Station Configuration     Local weather     Configuration     Audio devices and voice keyer     CAT interface     Software Configuration     CAT interface     Software integration     Configuration     Configuration     Configuration     Configuration     CAT interface     Software integration     Configuration     Confi | CW Keyer         Select preferred keyer engine       SeriaPort         ESC button clears calsign too |

All three connection methods are listed below, but once connected the functionality of the Log4OM CW Keyer window is common to all connection types.

### Winkeyer Instructions

## PLEASE NOTE

Winkeyer is a hardware unit designed by K1EL <u>https://www.hamcrafters2.com/</u> there are also other derivatives.

To use the Winkeyer support in Log4OM the user MUST have a Winkeyer hardware unit connected between the PC and the Radio.

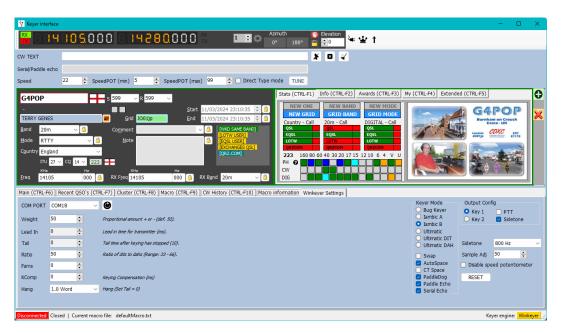
Alternatively use a Winkeyer port emulation software like that provided by FlexRadio and SunSDR TCI, if using a Winkeyer Port emulator please consult the relevant user guide.

The Winkeyer interface can be opened either by selecting CW keyer from the 'View' menu or by clicking the Morse key icon in the top toolbar.

The Winkeyer interface is not compatible with old versions of Winkeyer only the USB versions will integrate.

## **Winkeyer Settings**

All Winkeyer settings can be changed in the 'WK Settings' tab and this is where the Winkeyer USB port should be selected.

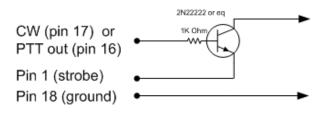


## **Com Port Keying Instructions**

Log4OM provides support for CW keying via a com port providing a suitable CW morse code keying interface cable is attached to the PC.

### Interface

Suitable cables are available on the internet, a reccommended source is Technofix UK, or the user can easily construct on as in the diagram below.



By curtosy of N1MM

## Setting up

In the Log4OM Program Configuration menu select CW Keyer interface and keyer engine 'Serial Port' as below, click 'Save and apply.

| Configuration  |   |
|--|---|
| Save config Save and apply Exit  |   |
| Program Settings     Podram Settings     Performances     Performances     Performances     Performation     Performation     Performation     Performation     Program Scheduler     Performation     Performation     Performation     Performation     Performation     Performation     Podramation     Performation     Podramation     Podramation | CW Keyer         Select preferred keyer engine         ESC button clears callingn too |

Open the CW Keyer interface by clicking the 'Morse key' icon in the main UI window and select the 'Serial settings' tab.

| LOG4OM 2 v.2.31.0.9 [Profile: New config]             |                                     |   |
|---|-------------------------------------|---|
| COG40M 2 V.2.3 I.U.9 [Profile: New config]            |                                     |   |
| <u>File Connect Contest View Utilities Settings H</u> | 2lp                                 | Kp: 0.33 (Quiet) A: 7 SFI: 127 Sunspot: 7                                 |
| BERRE 0005000 50858                                   | 0.000 💥 💶 🗰 🗘                       | Azimuth 🕐 Elevation 🔊 🕀 🖛 🛂 🗄 🗰 🗡   |
| CALLSIGN s 599 v R 599                                | ×                                   | Stats (F1) Info (F2) Awards (F3) M/(F4) Extended (F5)                     |
| -   | <u>S</u> tart 11/03/2024 22:52:41 🛟 | NEW ONE     NEW BAND     Y MODE   |
| Operator name 🖉 <u>G</u> rid                          | End 11/03/2024 22:52:41 🗘           | NEW GRID GRID BAND     D MODE     Country - Call     Band - Call     Call |
| Band 20m V 🔒 Comment                                  | ✓ <sup>6</sup>                      | Country Can burna Can is Can  |
| Mode RTTY G   | <u></u>                             | Click here to open KEYER UI   |
|   | _                                   | - 160 80 60 40 30 20 17 15 12 10 6 4 V U                                  |
|   |                                     |   |
| KHz Hz KHz  | Hz                                  |   |
| Ereq 14105 000 🙆 RX Freq 14105                        | 000 🔒 RX Band 20m 🗸 🔞               |   |

In 'Serial settings' tab of the keyer window select the com port to which the CW keyer interface cable is connected and set the Key pin and PTT Pin settings to match the connected radio. (The illustration below is the setting for the Icom IC7100)

| 🏆 Keyer interface   |   |                       |
|---|---|-----------------------|
| 8888888888888   | Azmuth  |                       |
| CW TEXT   |   |                       |
| Speed 20 🗧 SpeedPOT (min) 5   | 5 🗧 SpeedPOT (max) 99 🗧 Direct Type mode TUNE 4   |                       |
| CALLSIGN s 59   | 9 V R 59 V  | (CTRL-F3) My (CTRL-F4 |
| -   | Start 22/02/2024 12:08:11 ÷ ⓐ NEW ON NEW GRI  | E                     |
| Operator name  Band 20m  Cor  | Grid End 22/02/2024 12:08:11 🔄 🖨 Country - Can Bano - Can Mode                                  | - can                 |
| Mode USB V  | Note  |                       |
| Country   | - 160 80 60 40 30 20 17 15 12 10  | 64VU                  |
| ITU V CQ V  | РН <b>Ф</b>   |                       |
| Freq 14105 000 🎒 RX I   | K Freq 14105 000 🤒 RX Band 20m 🗸 🎒 DIG  |                       |
|   |   |                       |
| Main (CTRL-F6) Recent QSO's (CTRL-F7)   | Cluster (CTRL-F8) Macro (CTRL-F9) CW History (CTRL-F10) Macro information Serial Settings       |                       |
| Main (CTRL-F6)         Recent QSO's (CTRL-F7)         C           COM PORT         COM5 | Cluster (CTRL-F8)   Macro (CTRL-F9)   CW History (CTRL-F10)   Macro information Serial Settings |                       |
| COM PORT COM5   |   |                       |
| COM PORT COM5 V<br>Key PIN<br>D DTR O RTS   |   |                       |
| COM PORT COM5   | 800 Hz  |                       |

Click the connect icon on the tool bar (Cable with plug) and the confirmation of connection in the bottom left window frame should turn green.



#### Please refer to the information below for an explanation of the functionality of the keyer and its macros.

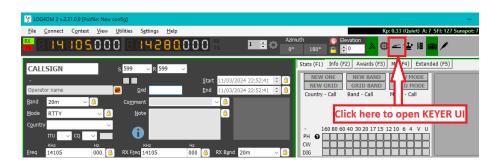
### **TCI CW implementation**

Log4oM fully supports EESDR 3.0 for the SunSDR radios and other software that utilises the TCI protocol developed by Expert Electronics.

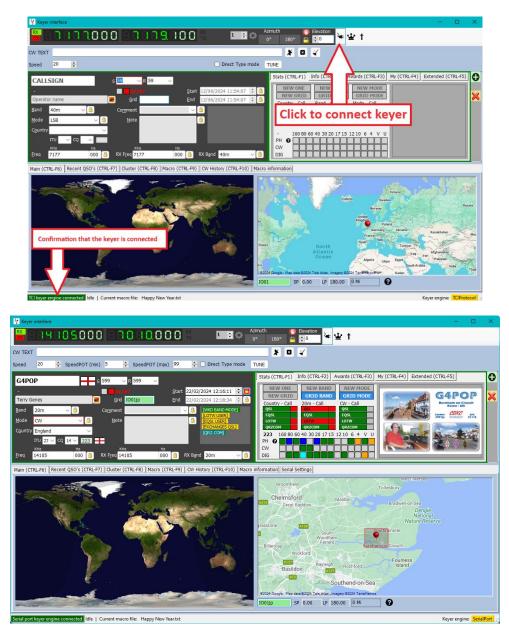
In the Settings/program config/CW Keyer interface menu, select 'TCI Protocol' as the CW keyer – Click 'Save and apply'

| Configuration   |                               |             |   |
|---|-------------------------------|-------------|---|
| Save config Save and apply                              |                               |             |   |
| My References<br>Station configuration<br>Local weather | CW Keyer                      |             |   |
| ····· Local Weather                                     | Select preferred keyer engine | TCIProtocol | ~ |
| Database  |                               |             |   |
|   |                               |             |   |
| User preferences  |                               |             |   |
| Award preferences                                       |                               |             |   |
| Software Configuration                                  |                               |             |   |
| Cluster   |                               |             |   |
| Cluster Alert   |                               |             |   |
| Configuration   |                               |             |   |
| - Map Settings  |                               |             |   |
| Backup  |                               |             |   |
| VOACAP Propagation                                      |                               |             |   |
| - Auto Start  |                               |             |   |
| Chat  |                               |             |   |
| Hardware Configuration                                  |                               |             |   |
| Audio devices and voice keyer                           |                               |             |   |
| ···· CAT interface                                      |                               |             |   |
| CW Keyer interface                                      |                               |             |   |
| ⊡ Software integration                                  |                               |             |   |

Open the CW Keyer interface by clicking the 'Morse key' icon in the main UI window.



Click the connect icon on the tool bar (Cable with plug) and the confirmation of connection in the bottom left window frame should turn green.



Providing Log4OM has been configured for TCI control of the radio then all CW functions including macros will work. Please refer to the information below for an explanation of the functionality of the keyer and its macros.

## CW Keyer In use

## Starting & stopping the keyer

Once the connection method has been selected (Winkeyer, Com Port or TCI) the keyer can be started by clicking the connect icon next to the frequency display (Looks like a mains lead)



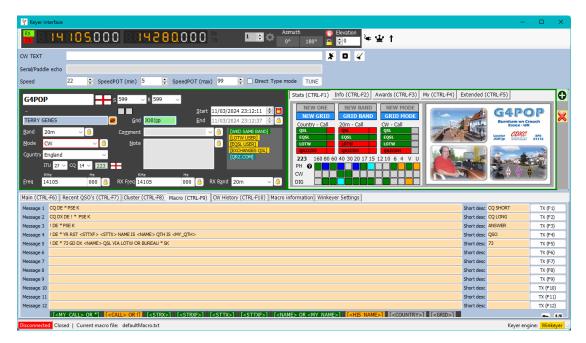
The connection details will be highlighted green at the bottom left corner of the keyer window.

After use the keyer must be disconnected by clicking the connect icon again before the keyer window is closed.

Log4OM V2 keyer support is designed for keyboard operation to enable high speed operation in contest or DX Expedition conditions, the mouse can also be used but this will be slower and more cumbersome.

Function Keys F1 - F12 - Activate user macros as constructed or edited in the Macros (Alt 2) tab.

An unlimited number of macro sets (Each set contains 12 macros) can be saved by using the floppy disk icon at the lower right of the Macro (Alt 2) tab and recalled by clicking the arrow at the lower right of the Macro (Alt 2) tab.



## Call and QSO data entry

The cursor defaults to the Call sign field, when a call sign is entered a lookup is done as described elsewhere, the WB4 status is shown in the data lookup pane at the bottom of the WK window.

Tabbing out of the call sign field automatically records the QSO start time. The user can now tab through all of the other entry fields and enter or edit the data as required.

**Ctrl -Enter** - Saves the QSO to the logbook and records the end time of the QSO and clears the entered date and positions the cursor back into the call sign field ready for the next QSO.

Alt-W - Clears the data entered.

## **Keyboard sending**

In addition to the macros it is possible to send CW messages by typing into the 'Text input' filed at the top of the WK window, checking the 'Direct type mode' box will cause the text will be sent as its entered.

Alternatively, with the 'Direct type mode' box unchecked text will not be sent until the 'SEND' button is pressed or the keyboard shortcut **Alt-S** is pressed

Alt-A - Clears the text in the input field.

## **Cluster support for CW Keyer**

When the keyer interface is open then the actions for single and double click on a cluster spot will send the spotted call sign, band, and mode data directly to the keyer fields.



Double click on last message resends that message

## **CW keyer Hotkey list**

Function Keys F1 - F12 - Activates user macros
Ctrl-A - Clears the text in the Text input field and aborts transmission
Ctrl-Enter - Saves the QSO to the logbook
Ctrl-W - Clears all data entered
Ctrl-S - Sends text in direct type Text input field
Esc - Clears the call sign and lookup data
Tab - Advances the cursor to the next field
Double mouse click - Double clicking on the last message sent, Re-sends message

## **CW Macro List**

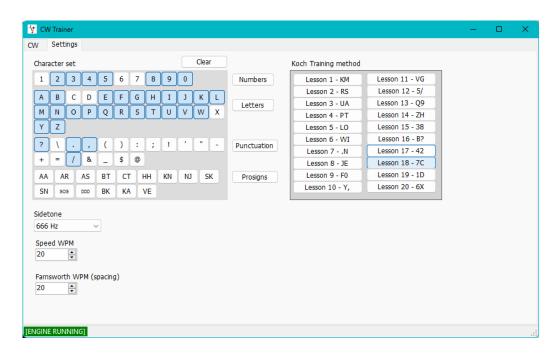
| Main (CTRL-F6) Recen  | nt QSO's (CTRL-F7) Cluster (CTRL-F8) Macro (CTRL-F9) CW History (CTRL-F10) Macro information Serial Settings |
|---|--|
| <my_call> or *</my_call>  | My callsign  |
| <call> or !</call>  | Counterpart callsign (from keyer screen)   |
| <strx></strx>   | RST received (from keyer form) with 9 replaced by N  |
| <sttx></sttx>   | RST sent (from keyer form) with 9 replaced by N  |
| <strxf></strxf>   | RST received (from keyer form) as it's logged  |
| <sttxf></sttxf>   | RST sent (from keyer form) as it's logged  |
| <name> or <my_name:< td=""><td>&gt; My name</td></my_name:<></name> | > My name  |
| <country></country>   | My country   |
| <grid></grid>   | My gridsquare  |
| <my_iota></my_iota>   | My IOTA ref  |
| <my_sota></my_sota>   | My SOTA ref  |
| <my_opcall></my_opcall>   | My operator call   |
| <my_qth></my_qth>   | My QTH   |
| <my_antenna></my_antenna>   | My Antenna (as currently selected in main UI)  |
| <my_rig></my_rig>   | My rig (as currently selected in main UI)  |
| <his_name></his_name>   | Counterpart name   |
| <n></n>   | Repeat the whole string n times (Must be between 2 and 10).  |
|   | Can be placed anywhere in the string.  |
| <cont_rx></cont_rx>   | In contest mode: contest received number   |
| <cont_tx></cont_tx>   | In contest mode: contest sent number   |
| <temp c=""></temp>  | Current temperature in CELSIUS   |
| <temp f=""></temp>  | Current temperature in FAHRENHEIT  |
| <wind_dir></wind_dir>   | Current wind direction in degrees  |
| <wind_spd_kmh></wind_spd_kmh>                                       | Current wind speed in Km/h   |
| <wind_spd_kts></wind_spd_kts>                                       | Current wind speed in knots  |
| <wind_spd_ms></wind_spd_ms>   | Current wind speed in meters per second  |
| <cur_weather></cur_weather>   | Current weather phenomena  |
| <cur_clouds></cur_clouds>   | Current cloud coverage   |
|   |  |

## **CW Trainer**

Provision is made for those users learning or trying to improve their CW by inclusion of a CW trainer – Go to Utilities/CW Trainer.

| 🙀 CW Trainer   | _   |                  | ×     |
|--|-----|------------------|-------|
| CW Settings  |     |                  |       |
| Generate random letters Generate random calls                              |     |                  |       |
| Words count     5     +     characters / prosigns     Press ESC to stop TX |     | -                |       |
|  |     | Check<br>results |       |
| Type answer without spacing. Set space to replace missed characters.       |     | Signal fac       | -     |
|  | Whi | te noise         | level |
| [ENGINE RUNNING]   Sading  |     |                  |       |

In the CW tab it is possible to set the trainer to send random groups of letters or call signs while typing what was heard in the lower window – the keyboard 'Esc' key stops the sending.



The settings tab provides a choice of manually selecting letters, numbers, punctuation or prosign's. Alternatively, the user can select one of the Koch training lessons.

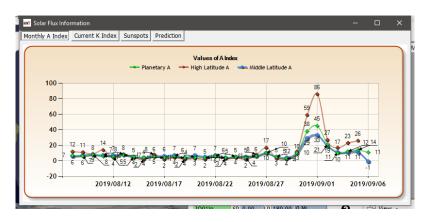
| 🖞 CW Trainer   | - (   |                 | ×     |
|--|-------|-----------------|-------|
| CW Settings  |       |                 |       |
| Generate random letters Generate random calls                        | _     |                 |       |
| Words count     5     Characters / prosigns   Press ESC to stop TX   |       | S               |       |
| DK7OB BI4JUS UN7JDB GW1PJP JI1CAZ                                    |       | theck<br>esults |       |
| Type answer without spacing. Set space to replace missed characters. | 🗌 Sig | inal fad        | ing   |
|  | White | 1               | level |
| [ENGINE RUNNING]   C Fading [DISABLED]                               |       |                 | :     |

# Solar Data

The solar Geomagnetic data information is regularly updated from NOAA and basic information is displayed on the top frame of Log4OM, displaying K & A index values, the current SFI and number of sunspots



More detailed solar data including historic information is available in the View/Solar data dialog which displays the Monthly A Index, Current K index, Sunspots and a sunspot Prediction graph.



# **QSO** Manager

Complete management of QSO data is achieved in the QSO Manager (Utilities/QSO Manager) which can be searched by call sign and date range using the quick search dialogs at the top of the window.

|          |                     |            | e "My" update |      | Direct SQL | <u> </u> |         |     |  |
|----------|---------------------|------------|---------------|------|------------|----------|---------|-----|--|
| CALLSIGN |                     | QSO date I |               |      |            |          |         |     |  |
|          | From                | 27/06/2    | 020 🔍 🔻       |      |            |          |         |     |  |
|          | То                  | 27/06/2    | 020 🔲 🔻       |      |            |          |         |     |  |
| Callsign | Qso Date            | Band       | Freq          | Mode | Rst Sent   | Rst Rcvd | Comment | Sig |  |
| IW3HMH   | 25/06/2020 11:18:02 | 10m        | 0             | FT8  | +00        | +00      |         |     |  |
| DZ1W     | 21/06/2020 12:11:44 | 80m        | 3685          | LSB  | 59         | 59       |         |     |  |
| РҮЗХХ    | 13/06/2020 11:28:24 | 40m        | 7006          | CW   | 569        | 549      |         |     |  |
| G4PIP    | 09/06/2020 22:24:09 | 40m        | 7130          | LSB  | 59         | 59       |         |     |  |
| E2JXO    | 09/06/2020 06:32:20 | 30m        | 10108         | CW   | 579        | 569      |         |     |  |
| ГК5МН    | 05/06/2020 08:26:31 | 6m         | 50313         | FT8  | +00        | +00      |         |     |  |
| U2DD     | 25/05/2020 22:19:41 | 80m        | 3520          | CW   | 599        | 599      |         |     |  |
| IH4TXW/4 | 24/05/2020 06:07:15 | 40m        | 7008.5        | CW   | 549        | 579      |         |     |  |
| <7IOC    | 22/05/2020 07:09:24 | 20m        | 14075         | RTTY | 599        | 599      |         |     |  |
| R6AM     | 22/05/2020 07:09:15 | 15m        | 21210         | USB  | 59         | 59       |         |     |  |

THE USER IS ADVISED TO BACKUP LOGBOOK DATA BEFORE EDITING

### **Update Info**

This button at the top left side of screen, updates the selected QSO(s) using the on-line search facilities selected by the user in the program configuration and the Clublog Historic data file, Log4OM country and special call lists.

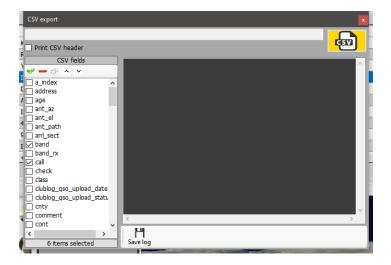
### **Export to ADIF**

This button at the top of the screen, exports the selected QSO(s) to an ADIF file using the latest version of the ADIF format available. The users choice of fields can be exported by user selection or alternatively a standard ADIF file may be generated.



### **Export to CSV**

This option allows export of the select QSO's with the users choice of fields to be exported and the choice of exporting a header in CSV format



### **Backup Button**

The backup button will save a FULL backup of the user's logbook to a location of the users choice

### **Refresh button**

The 'Refresh' button at the bottom left side of screen, updates/refreshes the items displayed in the grid.

### Select/Deselect

Located at the bottom of the screen this button either selects all of the entries displayed or deselects the entries displayed/selected by alternate clicks.

### **Bulk updates**

All fields can be updated in bulk by using the various update tabs in the QSO manager having first selected the QSO's for update in the 'Search QSO' tab

First filter and select the QSO(s) to be bulk edited then click the 'Refresh' button at the bottom of the main pane.

### Search QSO

This tab enables the operator to search and select the QSO/QSO's to be edited by using the 'Filter' menu at the bottom of the window and then selecting the QSO's either by mouse click, shift/click or ctrl/click or to select all click on the 'Select/deselect' button at the bottom.

| •         | nfo nfo Export to ADIF    |            |             | Backup   | s Direct SO | 1        |         |     |   |
|-----------|---------------------------|------------|-------------|----------|-------------|----------|---------|-----|---|
| earch QSO | Single field update Date/ | Time updat | e My update | QSO Chec | G Direct SQ | -        |         |     |   |
| CALLSIGN  |                           | QSO date   | range       | ]        |             |          |         |     |   |
|           | From                      | 27/06/2    | .020 🔲 🔻    |          |             |          |         |     |   |
|           | То                        | 27/06/2    | 020 🔲 🔻     |          |             |          |         |     |   |
| Callsign  | Oso Date                  | Band       | Freg        | Mode     | Rst Sent    | Rst Rcvd | Comment | Sig |   |
| IW3HMH    | 25/06/2020 11:18:02       |            | 0           | FT8      | +00         | +00      |         |     |   |
| OZ1W      | 21/06/2020 12:11:44       | 80m        | 3685        | LSB      | 59          | 59       |         |     |   |
| РҮЗХХ     | 13/06/2020 11:28:24       | 40m        | 7006        | CW       | 569         | 549      |         |     |   |
| G4PIP     | 09/06/2020 22:24:09       | 40m        | 7130        | LSB      | 59          | 59       |         |     |   |
| CE2JXO    | 09/06/2020 06:32:20       | 30m        | 10108       | CW       | 579         | 569      |         |     |   |
| TK5MH     | 05/06/2020 08:26:31       | 6m         | 50313       | FT8      | +00         | +00      |         |     |   |
| LU2DD     | 25/05/2020 22:19:41       | 80m        | 3520        | CW       | 599         | 599      |         |     |   |
| JH4TXW/4  | 24/05/2020 06:07:15       | 40m        | 7008.5      | CW       | 549         | 579      |         |     |   |
| K7IOC     | 22/05/2020 07:09:24       | 20m        | 14075       | RTTY     | 599         | 599      |         |     |   |
| R6AM      | 22/05/2020 07:09:15       | 15m        | 21210       | USB      | 59          | 59       |         |     |   |
| <         |                           |            |             |          |             |          |         |     | > |

### **Update Single field**

Select the field for update and enter a value, then click the 'Update' button

| K | Q QSO Manager  | - |       | × |
|---|--|---|-------|---|
|   | 🗘 Update info 📠 Export to ADIF 🙀 Export to CSV 💾 Backup  |   |       |   |
| S | earch QSO Single field update Date/Time update "My" update QSO Checks Direct SQL   |   |       |   |
|   | QSO update works on SELECTED QSO from the Search QSO screen  |   |       |   |
|   | Massive update   |   |       |   |
|   | Massive update will set the selected field to the selected value on all QSO selected in the first tab. CONTINENT, DXCC and COUNTRY will be changed TOGETHER. |   |       |   |
|   | Field to update New value  |   |       |   |
|   | Dxcc V Chatham Is. V   |   |       |   |
|   | 34   | U | PDATE |   |
|   | <  |   | \$    | ~ |
|   |  |   |       |   |

### Date/Time update

#### Date

The date of the selected QSO's may be bulk edited by selecting the correct date from the calendar field and clicking 'Execute' this will not change the recorded time.



#### Time

The time of selected QSO's may be edited by adjusting the values plus/minus and clicking on the 'Execute' button.

#### Align QSO time to Timestamp

This should not be used in conjunction with QSO's imported from an ADIF file, please read the warning note by clicking on the Question mark (?)

#### Align End time with start time

The QSO end date can be aligned with the start date by clicking the Green button

#### Simulation

All of the above actions may be simulated before actioning by using the Simulation check , which is set to 'Simulation' by default for safety reasons.

### My Update

This tab provides an opportunity to bulk update the users references e.g. IOTA, SOTA, WWFF etc and associations e.g. Fists, ten ten etc

- 1. Select the reference area in the My Reference drop down menu
- 2. Select the award type in the 'Award' menu e.g. SOTA, WWFF, POTA etc
- 3. Choose the reference and add it to the reference list
- 4. Click execute to update

|  | ort to ADIF csp Export to CSV |   | QL  |    | _            |   | ×       |
|--|-------------------------------|---|---|----|--------------|---|---------|
|  | be performed only on QSO m    |   |   |    |              |   |         |
| My references England  | 223                           | SOTA<br>England<br>Central England<br>4 Bardon Hill<br>G/CE-004 | ✓         Reference           G/CE-001         G/CE-001           ✓         G/CE-002           ✓         G/CE-001           ✓         G/DE-002           ✓         G/DE-003           ✓         G/DE-003           ✓         G/DE-003           ✓         G/DE-003 | ^  | KECUTE       |   |         |
| My associations  | ~                             | + ×   |   | EX | <b>ECUTE</b> |   |         |
| IW3HMH125/06/2020 11:<br>OSO Saved       Operation completed          Save log | 18:02 10m FT8 references      | updated   |   |    |              | > | < ><br> |

#### **Direct SQL updates**

Alternatively, the advanced user can use the Direct SQL method of updating but this should be used with caution and a BACKUP is essential before updating.

| 🐓 QSO Manager  | – 🗆 X   |
|--|---|
| Update info 🚛 Export to ADIF 🚮 Export to CSV 💾 Backup                            |   |
| Search QSO Single field update Date/Time update "My" update QSO Checks Direct SQ |   |
| Direct SQL   |   |
| Direct SQL will work on the database at low level. No checks. No filters. Han    | dle with care, you may loose access to your data. |
| Query to execute (DELETE/INSERT/UPDATE only)                                     | I know the risk                                   |
|  | I made a backup                                   |
|  | I know i can test it without commit               |
|  | Without backup nobody can help me                 |
|  | GO AHEAD! Commit (LIVE MODE)                      |
|  | EXECUTE   |
| D H  |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |

To prevent accidental updates the series of check boxes on the right must all be checked, the 'Execute' can then be clicked to do the SQL updates

#### Save and Load SQL queries

The two icons at the lower left enable SQL Queries to be saved and recovered for future use.

#### **QSO Checks**

Several automatic updates and checks can be facilitated in this tab e.g.

- 1. Update Distance and bearing
- 2. Update My Callsign/Operator/Owner as set in the current profile
- 3. Update My Associations as set in the current profile
- 4. Update My Country/address as set in the current profile (This always overwrites existing data)
- 5. Update My Grid Square as set in the current profile
- 6. Update TX Band from QSO frequency
- 7. Fix state value to correct format
- 8. Update using external sources if DXCC is unknown
- 9. Set Pro-Mode to Sat on all satellite QSO's
- 10. Update country name, continent, CQ and ITU zone list according to QSO DXCC

| 🙀 QSO Manager  |  |   | - 1                    | ⊐ × |
|--|--|---|------------------------|-----|
| Update info  | DIF Export to CSV Backup   |   |                        |     |
| Search QSO Single field update                           | Date Export to ADIF "My" update QSO  | Checks Direct SQL   |                        |     |
| Log4OM can perform a couple of da                        | ta quality checks on your log and fix maj  | ior issues. A backup copy of your LOG is always reco                                      | ommended.              |     |
| Quality check activity                                   | 1 - Update DISTANCE / BEARING  | 3   |                        | ~   |
|  |  | Overwrite existing if set   | SIMULATION (no update) |     |
|  | Verbose logging  | Apply default values when possible  | EXECUTE                |     |
| Calculation is made only i<br>if APPLY DEFAULT option is | nd bearing data on selected QS<br>f QSO gridsquare is available<br>selected, distance is calcula | 80's<br>ited to the COUNTRY CENTER if QSO grids<br>with ZERO distance set will be updated | equare is missing      |     |
| <  |  |   |                        | > ~ |
| Save log   |  |   |                        |     |

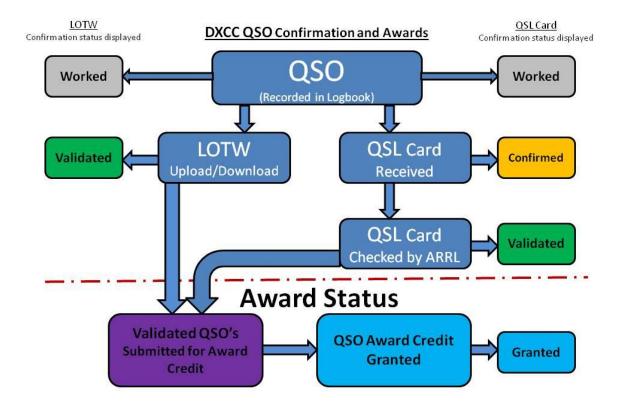
### Editing a QSO

Double clicking or right clicking a QSO and selecting 'Edit' will open the editing window for the QSO

| Edit QSO |                     |             |         |         |      |            |      |           |                     | × |
|----------|---------------------|-------------|---------|---------|------|------------|------|-----------|---------------------|---|
| 💾 🎸      | ۵   🥹               |             |         |         |      |            |      |           |                     | - |
| QSO Info | His details Award F | Refs. My    | Station | My QTH  | My R | efs. QSL I | Info | Attachmen | ts                  |   |
| E12IP    |                     | S           | 599     | ∼ R     | 599  | $\sim$     |      | QSO Start | 03/12/2020 20:27:37 |   |
|          |                     |             |         |         |      |            |      | QSO End   | 03/12/2020 20:27:59 |   |
| Robbie P |                     |             |         | Grid    |      | IO52qj     |      |           |                     |   |
| Band     | 80m                 | ~ <u></u>   |         | Comme   | nt   |            |      |           |                     |   |
| RX Band  | 80m                 | ~ 🔒         |         | Note    |      |            |      |           |                     | ^ |
| Mode     | CW                  | × 🔒         |         |         |      |            |      |           |                     |   |
|          | Ireland             | $\sim$      |         |         |      |            |      |           |                     | ~ |
|          | ITU 27 ~ CQ 14 ~    | 245         |         | Contest | t    |            |      |           | ~                   |   |
| Freq     | KHz<br>3535         | Hz<br>000 🔒 |         | Sent    |      |            |      |           |                     |   |
| RX Freq  | кнz<br>3535         | Hz<br>000 🔒 |         | Receive | d    |            |      |           |                     |   |

# **QSL Management for DXCC awards**

To better understand the way QSO confirmations are used in DXCC awards this flow chart takes the QSO from initiation to award claim and credit.



# **QSO** Confirmations

QSO confirmations for Paper QSL's eQSL's, QRZ, HRDLog, LOTW, Clublog etc are all managed by the 'QSL Manager' located in the 'utilities' menu.

Outbound and inbound QSO confirmations by QSL Card, eQSL, LOTW and QRZ.com. HamQTH, HRDLog & Clublog online logs do not provide a method of automatically retrieving data, downloading can only be done by a manual download followed by manual import of the ADIF files

### **QSO** selection for confirmations

As a QSO is saved (Logged) it is marked in accordance with the user settings selected in the settings/program configuration/confirmations tab.

| Configuration<br>X<br>Save config Save and apply Exit   |  |
|---|--|
| Geream Settings     Geream Settings     Geream Scheduler     Gonfmettons     Gonf | Continuctions         Set the default confirmations for each award according to your preferences         Type       LOTW         Sent       Requested         QSL default       Rcvd         Main UI Statistic view       Vorked<br>QSL<br>QSL default         Worked<br>QSL<br>QSCOM<br>UQZCOM<br>UQZCOM<br>Ctrl-Cick select multiple modes |
| VURLOP Propagation     Vorkop Propagation     Hardware Configuration     Audo devices and voice keyer     CAT interface     Software integration     CAT interface     Software integration     Operations     Applications     FUDgi     WSJT-x / JTDX   |  |
| 4   |  |

Each type of confirmation can be set separately with one of the following ADIF choices for both sent and received status.

### **Confirmation Sent status**

| Status | Meaning              | Description  |
|--------|----------------------|--|
| Y      | yes                  | <ul> <li>an outgoing QSL card has been sent</li> <li>the QSO has been uploaded to, and accepted by, the online service</li> </ul>                              |
| N      | no                   | <ul> <li>do not send an outgoing QSL card</li> <li>do not upload the QSO to the online service</li> <li>The outgoing confirmation has not been sent</li> </ul> |
| R      | requested            | <ul> <li>the contacted station has requested a QSL card</li> <li>the contacted station has requested the QSO be uploaded to the online service</li> </ul>      |
| Q      | queued               | <ul> <li>an outgoing QSL card has been selected to be sent</li> <li>a QSO has been selected to be uploaded to the online service</li> </ul>                    |
| I      | ignore or<br>invalid |  |

#### **Confirmation Received status**

| Status | Meaning              | Description   |
|--------|----------------------|---|
| Y      | yes<br>(confirmed)   | <ul> <li>an incoming QSL card has been received</li> <li>the QSO has been confirmed by the online service</li> </ul>                                  |
| N      | no                   | <ul> <li>an incoming QSL card has not been received</li> <li>the QSO has not been confirmed by the online service</li> </ul>                          |
| R      | requested            | <ul> <li>the logging station has requested a QSL card</li> <li>the logging station has requested the QSO be uploaded to the online service</li> </ul> |
| 1      | ignore or<br>invalid |   |

### Selecting QSO's

Selecting QSO's 'Sent status' for uploading to LOTW is done in the settings/program configuration/external services tab and should coincide with the confirmation settings detailed above.

| Save config Save and apply Exit  |   |  |                                    |  |
|--|---|--|------------------------------------|--|
| Are comp See and spip Cht<br>Program Settings<br>- Eck program config<br>- Program Settings<br>- Program Settings<br>- Program Settings<br>- Program Settings<br>- Program Settings<br>- Setting Configuration<br>- Mark References<br>- Setting Configuration<br>- Configuration<br>- Database<br>- Settings Configuration<br>- Audio devices and voice keye<br>- Configuration | User<br>Password<br>TQSL exe path<br>Temporary path<br>Station ID<br>TQSL Private pass<br>My call (opt)<br>Send My Station u<br>Require TQSL log<br>10 SL Interactive r | node<br>that all provided QSO will be correctly uploaded to LoTW w | SENT status is:<br>NO<br>REQUESTED | be upbaded when<br>This should match with default<br>LOTW SENT STATUS set in<br>Win not be upbaded<br>automaticaly |

It is also possible to select QSO's by the sent or received status in the QSL manager

| Special activit                               | Select required 😱 Upload selected (   |                                  | oad confirmations               |  |                              |                                  |        |
|---|---|----------------------------------|---------------------------------|--|------------------------------|----------------------------------|--------|
| CALLSIGN                                      | <b>\$</b>   | •                                |                                 |  |                              |                                  |        |
|   | /04/2020 □▼ To □ 20/04/2020 □▼  |                                  | 🗹 Enable update                 |  |                              |                                  |        |
| Search confirm                                | nation QSL ~  |                                  | Update selected                 | QSO's confirmations                      |                              |                                  |        |
| Sent N  | o v 🗌 Rcvd No   | ~                                | Sent No                         | ~  | Rcvd                         | No                               | ~      |
| Via U   | ndefined Via Undefir  | ied 🗸                            | 🗌 Via 🛛 Unde                    | efined ~                                 | 🗌 Via                        | Undefined                        | ~      |
|   |   |                                  |                                 |  |                              |                                  |        |
|   | 20/04/2020 • • • Revd 20/0  | 04/2020                          | 20/04/2020                      | Clear                                    | 20/04/                       | 2020 🖳 🗖                         | 10.112 |
| O Range                                       | C Range   |                                  |                                 |  |                              | G                                |        |
| Callsign                                      | Qso Date  | Band                             | Mode                            | Confirmation                             | Sent                         | Received                         |        |
| Callsign                                      | Qso Date<br>20/04/2020 14:49:58   | Band<br>20m                      | Mode<br>CW                      | Confirmation<br>QSL                      | Sent<br>No                   | Received<br>No                   |        |
| Callsign AN100L M05BZ                         | Qso Date<br>20/04/2020 14:49:58<br>14/02/2020 08:51:38                        | Band<br>20m<br>80m               | Mode<br>CW<br>LSB               | Confirmation<br>QSL<br>QSL               | Sent<br>No<br>No             | Received<br>No<br>No             |        |
| Callsign<br>AN100L<br>M0SBZ<br>DA2TE          | Qso Date<br>20/04/2020 14:49:58<br>14/02/2020 08:51:38<br>11/02/2020 22:55:30 | Band<br>20m<br>80m<br>40m        | Mode<br>CW<br>LSB<br>FT8        | Confirmation<br>QSL<br>QSL<br>QSL        | Sent<br>No<br>No             | Received<br>No<br>No<br>No       |        |
| Callsign<br>AN100L<br>M05BZ<br>9A2TE<br>54MWJ | Qso Date<br>20/04/2020 14:49:58<br>14/02/2020 08:51:38<br>11/02/2020 08:50:37 | Band<br>20m<br>80m<br>40m<br>80m | Mode<br>CW<br>LSB<br>FT8<br>LSB | Confirmation<br>QSL<br>QSL<br>QSL<br>QSL | Sent<br>No<br>No<br>No<br>No | Received<br>No<br>No<br>No<br>No |        |
| Callsign Callsign AN100L M0SBZ DA2TE          | Qso Date<br>20/04/2020 14:49:58<br>14/02/2020 08:51:38<br>11/02/2020 22:55:30 | Band<br>20m<br>80m<br>40m        | Mode<br>CW<br>LSB<br>FT8        | Confirmation<br>QSL<br>QSL<br>QSL        | Sent<br>No<br>No             | Received<br>No<br>No<br>No       |        |

Users can also search and sort on the confirmation status in the QSO Manager/Filters/Confirmations tab and the recent QSO's/filters/confirmations tab



# 1

Automatic upload of confirmations in real time as the QSO is entered is achieved as detailed in the section 'QSO automatic upload to online logs'

### QSO manual upload to online logs

- Select the type of confirmation in the 'Search confirmation' menu
- Select the QSO's to be uploaded or click 'Select required'
- Click the 'Upload selected QSO's' button at the top of the QSL manager window
- Click the green 'Upload' button in the resulting upload screen

| 💡 QSL Mana     |                                     |              |                                |                   |                | 🛛 🖬 Upload confirmations — 🗆 🗙                               |
|----------------|-------------------------------------|--------------|--------------------------------|-------------------|----------------|--|
| Special activi | ities                               |              |                                |                   |                | ti Confirmation type: EQSL                                   |
| Search         | Select required Opload selected QSO | Download cor | nfirmations                    |                   |                |  |
| CALLSIGN       |                                     |              |                                |                   |                |  |
| From 20        | 0/04/2020 🖉 To 20/04/2020 🖉         | M En         | able update                    |                   |                |  |
| Search confirm | mation EQSL ~                       | Upda         | te selected QSO's confirmation | s                 |                |  |
| Sent N         | No V Rovd No                        | ~ 🗆 s        | ent No ~                       | Rcvd No           |                |  |
|                |                                     |              |                                |                   |                |  |
| Sent           | 20/04/2020 🐨 🖲 Revd 🔲 20/04/202     | 10 🖉 🗖 21    | 0/04/2020 🐨 🗌 Clear            | 20/04/2020        | 💷 🗌 Clear      |  |
| O Range        | O Range                             |              |                                |                   | 0 💾            |  |
|                |                                     |              |                                |                   |                |  |
|                |                                     |              |                                |                   |                |  |
| Calsign        | Qso Date E                          | Band M       | Iode Confirmation              | Sent              | Received ^     |  |
| AN100L         | 20/04/2020 14:49:58 2               | t0m CV       |                                | No                | No E           |  |
| MOSBZ          | 14/02/2020 08:51:38 8               | 10m LS       | B EQSL                         | Yes               | No E           |  |
| 9A2TE          |                                     | i0m FT       |                                |                   | Yes I          |  |
| G4MWJ          |                                     | I0m LS       |                                | Yes               | No I           |  |
| IBQDK          |                                     | iOm FT       |                                |                   | Yes I          | P  |
| SP8AJK         |                                     | i0m FT       |                                | Yes               | No I           |  |
| <              |                                     | -            |                                |                   | ·· · · · · · · | X  |
| E Select/d     | leselect 📷 Filters                  |              | S                              | elected 0 of 6102 | max: 10000     | 1 to 14  |
|                |                                     |              |                                |                   |                | Clear Save log   |
|                |                                     |              |                                |                   |                | Yes No No 28/08/2019 00:00:00 DE7W8/P 26/08/2019 09:49:30 40 |

An upload of the complete logbook to Clublog is possible by selecting **'Special activities'** at the top of the QSL Manager screen which will purge all existing records held for the user at Clublog and replace them with the uploaded records - **Use with caution!** 

### **Download QSO confirmations**

To download confirmations from eQSL

- Select eQSL from the 'Search Confirmation' menu
- Click the 'Download confirmations' button at the top of the window
- Select either a date range or from the 'Last download' received date
- In the case of eQSL check the box 'Download cards' if records of the eQSL cards are required
- Click the green 'Download' arrow at the top right corner of the window

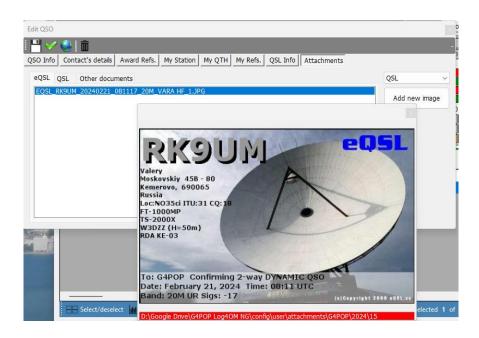
| w/t Download confirmations                       |  | – 🗆 X     |
|--|--|-----------|
| Confirmation type: EQSL                          |  |           |
| <ul> <li>Date range</li> </ul>                   | Last download                                |           |
| QSO from 01/01/1900 ~                            | Received since 2/09/2019 V My Callsign (opt) |           |
| QSO to 04/09/2019 ~                              | Download cards                               |           |
|  |  |           |
| 15:57:26: Sending ADIF ger                       |  |           |
| 15:57:27: Parsing ADIF fil                       |  | 29357.adi |
|  |  |           |
| 15:57:30: EQSL UPDATING ST<br>15:57:32: EQSL END | TATISTICS                                    |           |
|  |  |           |
|  |  |           |
|  |  |           |
|  |  |           |
| <  |  | >         |
| 1 TH   |  |           |
| Clear Save log                                   |  |           |

A progress and results report is displayed in the main section of the download screen and can be saved by clicking on the floppy disk 'Save' icon at the bottom left corner.

#### Viewing EQSL cards

Open the 'Edit QSO' dialog for a QSO by double clicking on the QSO record

Select the 'Attachments' tab and click on file to view the related eqsl Card



#### LOTW manual download

- In the QSL manager select LOTW from the 'Special activities' menu
- Click the 'Download confirmations' button at the top of the window.
- Select either a date range or from the 'Last download' received date.
- If it is not required to download Checked Paper QSL confirmations do not check the box 'Retrieve 'Checked' Paper QSL's'
- Download can be filtered by the user's station call sign if required.
- Where the user has multiple ID's the ID number may be selected to refine the download to a specific identity.
- Click the green 'Download' arrow at the top right corner of the window.
- When the download is complete close the download window to view the results in the QSL Manager grid.

| 🙀 Download confi   | rmations   |                                  |            |   |                 | - 0                 | ×          |
|--------------------|------------|----------------------------------|------------|---|-----------------|---------------------|------------|
| Confirmation type: | LOTW       |                                  |            |   |                 |                     | $\bigcirc$ |
| O Date range       |            | <ul> <li>Last downloa</li> </ul> | d          | <ul> <li>Retrieve electronic confirmations</li> <li>Retrieve "Checked" Paper QSL's</li> </ul> | Add not found Q | SO to log           |            |
| QSO from           | 07/01/2024 | Received since                   | 30/12/2024 | My Callsign (opt)   |                 |                     |            |
| QSO to             | 07/01/2025 | 🖵 🗌 Download ca                  | ds         | Account ID (opt)  | 0               | Import<br>from file | đ          |
|                    |            |                                  |            |   |                 |                     |            |
|                    |            |                                  |            |   |                 |                     |            |
|                    |            |                                  |            |   |                 |                     |            |
|                    |            |                                  |            |   |                 |                     |            |
|                    |            |                                  |            |   |                 |                     |            |
|                    |            |                                  |            |   |                 |                     |            |
|                    |            |                                  |            |   |                 |                     |            |
|                    |            |                                  |            |   |                 |                     | _          |
| Clear Save log     |            |                                  |            |   |                 |                     |            |

PLEASE NOTE: If no updates are available for download from LOTW the QSL Manager grid will not be populated unless the 'Search' button is pressed.

#### Importing an LOTW file

Where the user has downloaded a file from the ARRL/LOTW web site this can be imported and merged with the current logbook, it updates the confirmation status in the same manner as a normal download.

### **Recording QSL cards**

To manually enter QSL cards received by post or from the bureau

- Select 'QSL' in the 'Select confirmation' field
- Enter the call of the card received in the 'Call sign' field at the top of the window
- Check the box 'Enable massive update'
- Select the QSO's that are confirmed by the card
- Complete the fields on the right of the cream update pane
- Click the floppy disk 'Save' icon

| OZ1W  |  |   | -                                | Enable massive update                           |   |   |   |   |
|---|--|---|----------------------------------|---|---|---|---|---|
| Search confirm                                | ation QSL                              | ~   |                                  | Update selected QSO's confirm                   | nations   |   |   |   |
| _   | v<br>lefined v<br>04/09/2019 v         | Rcvd     No       Via     Undefin       Date     04/0       Range | ned ~                            | Sent No<br>Via Undefined<br>04/09/2019<br>Clear |   | Clear   |   |   |
| Confirmation                                  | Sent                                   | Received  | Qsl Sent                         | Sent Date                                       | Callsign  | Qso Date  | Band  | Mode  |
| QSL   | No                                     | No  | No                               |   | OZ1W  | 31/07/2019 07:47:52   | 60m   | USB   |
| QSL   | No                                     | No  | No                               |   | OZ1W  | 20/07/2019 07:25:28   | 60m   | USB   |
| QSL   | No                                     | No  | No                               |   | OZ1W  | 17/07/2019 07:46:10   | 60m   | USB   |
|   |  |   |                                  |   | 07000   |   |   | LSB   |
| QSL   | No                                     | No  | No                               |   | OZ1W  | 29/05/2019 08:27:28   | 80m   | 200   |
| QSL<br>QSL                                    | No<br>No                               | No<br>No  | No<br>No                         |   | OZ1W<br>OZ1W  | 29/05/2019 08:27:28<br>27/05/2019 07:19:41  | 80m<br>40m                                    | LSB   |
| QSL   |  |   |                                  |   |   |   |   |   |
| QSL<br>QSL                                    | No                                     | No  | No                               |   | OZ1W  | 27/05/2019 07:19:41   | 40m   | LSB   |
| QSL<br>QSL<br>QSL                             | No<br>No                               | No<br>No  | No<br>No                         |   | OZ1W<br>OZ1W  | 27/05/2019 07:19:41<br>26/05/2019 06:59:21  | 40m<br>40m                                    | LSB<br>LSB                                    |
| QSL<br>QSL<br>QSL<br>QSL                      | No<br>No<br>No                         | No<br>No<br>No  | No<br>No<br>No                   |   | OZ1W<br>OZ1W<br>OZ1W  | 27/05/2019 07:19:41<br>26/05/2019 06:59:21<br>01/04/2019 07:20:56   | 40m<br>40m<br>60m                             | LSB<br>LSB<br>USB                             |
| QSL<br>QSL<br>QSL<br>QSL<br>QSL               | No<br>No<br>No<br>No                   | No<br>No<br>No<br>No  | No<br>No<br>No<br>No             |   | 0Z1W<br>0Z1W<br>0Z1W<br>0Z1W  | 27/05/2019 07:19:41<br>26/05/2019 06:59:21<br>01/04/2019 07:20:56<br>20/03/2019 07:57:29  | 40m<br>40m<br>60m<br>60m                      | LSB<br>LSB<br>USB<br>USB                      |
| QSL<br>QSL<br>QSL<br>QSL<br>QSL<br>QSL        | No<br>No<br>No<br>No<br>No             | NO<br>NO<br>NO<br>NO<br>NO  | No<br>No<br>No<br>No             |   | 0Z1W<br>0Z1W<br>0Z1W<br>0Z1W<br>0Z1W  | 27/05/2019 07:19:41<br>26/05/2019 06:59:21<br>01/04/2019 07:20:56<br>20/03/2019 07:57:29<br>26/02/2019 09:03:08   | 40m<br>40m<br>60m<br>60m<br>60m               | LSB<br>LSB<br>USB<br>USB<br>USB               |
| QSL<br>QSL<br>QSL<br>QSL<br>QSL<br>QSL<br>QSL | No<br>No<br>No<br>No<br>No<br>No       | No<br>No<br>No<br>No<br>No<br>No                                  | No<br>No<br>No<br>No<br>No       |   | 0Z1W<br>0Z1W<br>0Z1W<br>0Z1W<br>0Z1W<br>0Z1W<br>0Z1W  | 27/05/2019 07:19:41<br>26/05/2019 06:59:21<br>01/04/2019 07:20:56<br>20/03/2019 07:57:29<br>26/02/2019 09:03:08<br>30/01/2019 08:12:01                        | 40m<br>40m<br>60m<br>60m<br>60m<br>60m        | LSB<br>LSB<br>USB<br>USB<br>USB<br>USB        |
|   | No<br>No<br>No<br>No<br>No<br>No<br>No | No<br>No<br>No<br>No<br>No<br>No<br>No                            | No<br>No<br>No<br>No<br>No<br>No |   | OZ1W           OZ1W           OZ1W           OZ1W           OZ1W           OZ1W           OZ1W           OZ1W | 27/05/2019 07:19:41<br>26/05/2019 06:59:21<br>01/04/2019 07:20:56<br>20/03/2019 07:57:29<br>26/02/2019 09:03:08<br>30/01/2019 08:12:01<br>28/01/2019 08:54:56 | 40m<br>40m<br>60m<br>60m<br>60m<br>60m<br>60m | LSB<br>LSB<br>USB<br>USB<br>USB<br>USB<br>USB |

Updating SENT cards can be achieved in a similar manner by completing the left hand side of the Cream coloured pane marked 'Sent'

Search for QSO's by date, date range, sent and received status is done in the search pane on the left, more complicated searches are achieved by using the 'Filter' facility at the bottom of the window.

| Filters           |            |                |   |     | x             |
|-------------------|------------|----------------|---|-----|---------------|
| Standard fields R | References | My References  |   |     |               |
| Dxcc              | ~          | EQUAL          | ~ | 291 | f             |
|                   | 0          |                |   |     | •             |
| -                 |            | ery parameters |   |     | O Use Params  |
| 🤟 💳 🗇 📋           | ~ ~        |                |   |     | Indent level  |
| ✓ log.dxcc = 29   | 91         |                |   |     | 0             |
|                   |            |                |   |     | AND (default) |
|                   |            |                |   |     | OR            |
|                   |            |                |   |     | Modes         |
|                   |            |                |   |     | PH CW DIG     |
|                   | 1 i        | tems selected  |   |     | Use query     |

### QSL Cards – Processing from card receipt to award credit granted status

1. Mark all QSO's as QSL sent in QSL manager. (Either automatically when printing labels or manually in the QSL manager)

| Special activities       |                              |                 |             |                     |          |                       |               |  |
|--------------------------|------------------------------|-----------------|-------------|---------------------|----------|-----------------------|---------------|--|
| Search 🔶 Select re       | quired Diplo                 | ad selected QSO | Download co | onfirmations        |          |                       |               |  |
| CALLSIGN                 |                              |                 |             |                     |          |                       |               |  |
| From 05/09/2023          | To 05/09                     | /2023 🔲 🔻       |             | 🕑 Enable            | e update |                       |               |  |
| Search confirmation (SP  | ECIFIC) QSL                  | -               |             |                     |          | Update selected QSO's | confirmations |  |
| Cart                     | Destined                     |                 |             |                     |          | Sent Yes              | ~ 😮           |  |
| Sent                     | <ul> <li>Received</li> </ul> | ~               | Mixed       | confirmation search |          | 🗹 Via 🛛 Direct        | ~             |  |
| O Specific value O YES O | ) NO O Specific v            | alue O YES O NO |             |                     | eived    | ☑ 05/09/2023 🔍 🗸      | Clear         |  |
| Via                      | <ul> <li>✓ Via</li> </ul>    | ~               | LOTW        | ~                   |          | Rcvd                  | ~             |  |
| • Sent 05/09/2023        | Rcvd C                       | 05/09/2023      | EQSL        | ~                   | ~        | 🗆 Via                 | ~             |  |
| O Rng                    | O Rng                        |                 | PAPER QSL   | ~                   | ~        | 05/09/2023            | Clear         |  |
|                          |                              |                 | Logic       |                     | DR       |                       |               |  |
| Qso Date                 | Callsign                     | Country         | Dxcc        | Band                | Mode     | Qsl Received          | Qsl Sent      |  |
| 05/09/2023 09:15:28      | E51D                         | North Cook Isl  | 191         | 30m                 | CW       | No                    | Yes           |  |
| 05/09/2023 09:14:53      | SP4TB/P                      | Poland          | 269         | 40m                 | LSB      | No                    | Yes           |  |
| 05/09/2023 09:14:30      | PA1LX                        | Netherlands     | 263         | 20m                 | USB      | No                    | Yes           |  |
| 05/09/2023 09:14:09      | VK6DW                        | Australia       | 150         | 20m                 | CW       | No                    | Yes           |  |
| 05/09/2023 09:13:51      | EA3GXZ                       | Spain           | 281         | 40m                 | LSB      | No                    | Yes           |  |
| 05/09/2023 09:13:05      | IZ8FCA                       | Italy           | 248         | 20m                 | USB      | No                    | Yes           |  |
| 05/09/2023 09:12:39      | KL7ZK                        | Alaska          | 6           | 15m                 | USB      | No                    | Yes           |  |
| 05/09/2023 09:12:19      | OZ1JDA                       | Denmark         | 221         | 20m                 | FT8      | No                    | Yes           |  |
|                          |                              |                 |             |                     |          |                       |               |  |
|                          |                              |                 |             |                     |          |                       |               |  |

2. Mark QSL cards as received in the QSL Manager

| Special activities  |                  |                 |             |                     |         |                         |          |  |
|---|------------------|-----------------|-------------|---------------------|---------|-------------------------|----------|--|
| Search + Select re  | equired 🎧 Upload | I selected QSO  | Download co | onfirmations        |         |                         |          |  |
| CALLSIGN  |                  |                 |             |                     |         |                         |          |  |
| From 05/09/2023   | то 05/09/2       | 2023 🔲 🔻        |             | 🕑 Enable            | update  |                         |          |  |
| Search confirmation (SP   | ECIFIC) QSL      | •               |             |                     | U       | Ipdate selected QSO's o | _        |  |
| Sent  | Received         | ~               | Marcal .    | confirmation search |         | Sent                    | (2)      |  |
| Specific value O YES (  |                  | ue () YES () NO | MD(ed (     |                     |         | Via                     | ~        |  |
| Via   | Via              |                 | LOTW        | Sent Kec            | eiveu V | 05/09/2023              | Clear    |  |
|   |                  | ~               | EQSL        |                     |         | Rcvd Yes                | ~        |  |
| • Sent 05/09/2023   | Rcvd             | 05/09/2023 🔲 🔻  | -           |                     |         | Via Direct              | ~ (m ma) |  |
| O Rng   | O Rng            |                 | PAPER QSL   |                     |         | 05/09/2023 🔲 🕇 🗌        | Clear    |  |
|   |                  |                 | Logic       |                     | DR      |                         |          |  |
| Qso Date  | Callsign         | Country         | Dxcc        | Band                | Mode    | Qsl Received            | Qsl Sent |  |
| 05/09/2023 09:15:28   | E51D             | North Cook Isl  | 191         | 30m                 | CW      | Yes                     | Yes      |  |
| 05/09/2023 09:14:53   | SP4TB/P          | Poland          | 269         | 40m                 | LSB     | Yes                     | Yes      |  |
| 05/09/2023 09:14:30   | PA1LX            | Netherlands     | 263         | 20m                 | USB     | Yes                     | Yes      |  |
| 05/09/2023 09:14:09   | VK6DW            | Australia       | 150         | 20m                 | CW      | Yes                     | Yes      |  |
|   | EA3GXZ           | Spain           | 281         | 40m                 | LSB     | Yes                     | Yes      |  |
|   | IZ8FCA           | Italy           | 248         | 20m                 | USB     | Yes                     | Yes      |  |
| 05/09/2023 09:13:51<br>05/09/2023 09:13:05                        |                  | Alaska          | 6           | 15m                 | USB     | Yes                     | Yes      |  |
| 05/09/2023 09:13:51   | KL7ZK            |                 |             | 20m                 | FT8     | Yes                     | Yes      |  |
| 05/09/2023 09:13:51<br>05/09/2023 09:13:05                        | KL7ZK<br>OZ1JDA  | Denmark         | 221         | 2011                |         |                         |          |  |
| 05/09/2023 09:13:51<br>05/09/2023 09:13:05<br>05/09/2023 09:12:39 |                  | Denmark         | 221         | 2011                |         |                         |          |  |

The 'Award statistics' displays all QSO's marked as above as 'Confirmed'

| ward DXCC - DXCC 🗘 In                           | nport data       |                  |           |                |      |     |     |     |     |     |     |     | 1  |
|---|------------------|------------------|-----------|----------------|------|-----|-----|-----|-----|-----|-----|-----|----|
| Award view Award filters Statistics Maintenance | e Massive editor |                  |           |                |      |     |     |     |     |     |     |     |    |
| Predefined config                               | Reference        | Reference        | Reference | Country        | 160m | 80m | 40m | 30m | 20m | 17m | 15m | 12m | đ  |
| ~   | 6                | KL7 - Alaska     | NA        | Alaska         |      |     |     |     |     |     | С   |     | 62 |
| 🔍 All 💿 Wkd 🕒 Not wkd 🌑 Wkd not cfmd            | 150              | VK - Australia   | oc        | Australia      |      |     |     |     | С   |     |     |     | 면  |
| Show only valid references                      | 191              | E5 - North Co    | ос        | North Cook Isl |      |     |     | с   |     |     |     |     |    |
| Sub group details                               | 221              | OZ - Denmark     | EU        | Denmark        |      |     |     |     | с   |     |     |     |    |
| Award view                                      | 248              | I - Italy        | EU        | Italy          |      |     |     |     | С   |     |     |     |    |
| Detailed (mode) statistics                      | 263              | PA - Netherlands | EU        | Netherlands    |      |     |     |     | С   |     |     |     |    |
| Strict mode                                     | 269              | SP - Poland      | EU        | Poland         |      |     | С   |     |     |     |     |     |    |
|   | 281              | EA - Spain       | EU        | Spain          |      |     | С   |     |     |     |     |     |    |
|   |                  |                  |           |                |      |     |     |     |     |     |     |     |    |
|   |                  |                  |           |                |      |     |     |     |     |     |     |     |    |
|   |                  |                  |           |                |      |     |     |     |     |     |     |     |    |
| Station 🗸                                       |                  |                  |           |                |      |     |     |     |     |     |     |     |    |
| My gridsquare                                   |                  |                  |           |                |      |     |     |     |     |     |     |     |    |
| WORKED  |                  |                  |           |                |      |     |     |     |     |     |     |     |    |
| CONFIRMED<br>VALIDATED                          |                  |                  |           |                |      |     |     |     |     |     |     |     |    |
| SUBMITTED<br>GRANTED                            |                  |                  |           |                |      |     |     |     |     |     |     |     |    |
| GRANTED 🙂 😲                                     |                  |                  |           |                |      |     |     |     |     |     |     |     |    |

#### 3. Mark a QSO as QSL card submitted for DCXX award

Click the small floppy disk save icon before clicking save and apply.

| Edit QSO         |                                      |  |  |
|------------------|--------------------------------------|--|--|
| 💾 🞸              | 🤩   🛅                                |  |  |
| QSO Info         | Contact's details Award Refs. My Sta | tation My QTH My Refs. QSL Info Attachments  |  |
| Award            | DXCC                                 | References     Ref. Status     CONFIRMED     V   |  |
| Group            | OC                                   | Search   Search   Submitted  GRANTED  GRAN |  |
| Sub              |                                      | <b>⋞</b> – ⋳   |  |
| 191 E5 -         | North Cook Is.                       | DXCC     DXCC     DXCC-10  |  |
| DXCC@1<br>VUCC@E | 91<br>J11                            | O DXCC-12 DXCC-12  |  |
| WAC@O<br>WAZ@3   | C                                    | 1 items selected     0 items selected  |  |
| WPX@E            |                                      | Changes in status/submitted/granted should be explicitly saved   |  |
|                  |                                      |  |  |
|                  |                                      |  |  |
|                  |                                      |  |  |
|                  |                                      |  |  |

The QSO marked as submitted in the edit window is now marked as 'Submitted' in Award status.

| 6         KL7 - Alaska         NA         Alaska         Image: Constraint of the state o | Reference         Reference         Reference         Country         160m         80m         40m         30m         20m         17m         15m         12m         12m </th <th>vard DXCC - DXCC 🗘 In</th> <th>nport data</th> <th></th>   | vard DXCC - DXCC 🗘 In                          | nport data       |                |           |                |      |     |     |     |     |     |     |     |   |
|---|--|--|------------------|----------------|-----------|----------------|------|-----|-----|-----|-----|-----|-----|-----|---|
| Network         Other Hereinice         Reference         Country         Torum         Source         Torum         Torum <thtorum< th="">         Torum</thtorum<>   | Note         Note         Note         Note         Not  | ward view Award filters Statistics Maintenance | e Massive editor |                |           |                |      |     |     |     |     |     |     |     |   |
| Al • Wkd         Not wkd         O Wkd not cfm         ISO         KL7 - Alaska         O K         Alaska         O K         <  | 6         KL7 - Abska         NA         Abska         O <tho< th=""> <tho< th="">         O         &lt;</tho<></tho<>  |  | Reference        | Reference      | Reference | Country        | 160m | 80m | 40m | 30m | 20m | 17m | 15m | 12m | 1 |
| Show only valid references         191         E5 - North Co         O C         North Cook Isl         SUB         SUB         Image: Constraint Cons                                  | Inc. way a way inc. clinit         150         VK - Australa         OC         Australa         C         Image: Control of the clinit         Image: Control of the clinit | ~  | 6                | KL7 - Alaska   | NA        | Alaska         |      |     |     |     |     |     | С   |     | ъ |
| Sub group details         221         OZ - Demark         EU         Demark         C   | als         221         0.2 - Denmark         EU         Denmark         C <td>All 💿 Wkd 🔍 Not wkd 🕥 Wkd not cfmd</td> <td>150</td> <td>VK - Australia</td> <td>ос</td> <td>Australia</td> <td></td> <td></td> <td></td> <td></td> <td>С</td> <td></td> <td></td> <td></td> <td>1</td>   | All 💿 Wkd 🔍 Not wkd 🕥 Wkd not cfmd             | 150              | VK - Australia | ос        | Australia      |      |     |     |     | С   |     |     |     | 1 |
| Avard view         248         I - Italy         EU         Italy         C         C         C           D betaled (mode) statistics         263         PA - Netherlands         EU         Netherlands         C   | 248         I - Italy         EU         Italy         I         Italy         C   | Show only valid references                     | 191              | E5 - North Co  | oc        | North Cook Isl |      |     |     | SUB |     |     |     |     | 1 |
| Detaled (mode) statistics 263 PA - Netherlands EU Netherlands C C C   | 263         PA - Netherlands         EU         Netherlands         C         C         C           269         SP - Poland         EU         Poland         C         C         C         C         C  |  | 221              | OZ - Denmark   | EU        | Denmark        |      |     |     |     | С   |     |     |     | 1 |
| 260 SD Rohod SU Rohod   | 269         SP - Poland         EU         Poland         C  |  | 248              | I - Italy      | EU        | Italy          |      |     |     |     | С   |     |     |     |   |
| 269 SP - Poland Ell Poland  |  |  |                  |                | EU        |                |      |     |     |     | С   |     |     |     | 4 |
| Strict mode   | 281 EA - Spain EU Spain C  | Detailed (mode) statistics                     |                  |                |           |                |      |     |     |     |     |     |     |     | l |
| 281 EA - Spain EU Spain C   |  | <b>v</b>                                       | 281              | EA - Spain     | EU        | Spain          |      |     | С   |     |     |     |     |     | 1 |
|   |  |  |                  |                |           |                |      |     |     |     |     |     |     |     | L |
|   |  | tation   |                  |                |           |                |      |     |     |     |     |     |     |     | L |
| tation  |  | ly gridsquare                                  |                  |                |           |                |      |     |     |     |     |     |     |     | ł |
| itation voi   |  | WORKED<br>CONFIRMED                            |                  |                |           |                |      |     |     |     |     |     |     |     |   |
| Av grösquare  |  |  |                  |                |           |                |      |     |     |     |     |     |     |     |   |

Applying for a preconfigured DXCC award i.e. Digital, RTTY, Satellite or Mixed etc

4. Select the required award i.e. 'Mixed' in the awards reference menu. (Click the small floppy disk save icon before clicking save and apply.)

| Edit QSO        |                   |             |            |               |          |          |             |                             |                       | ×  |
|-----------------|-------------------|-------------|------------|---------------|----------|----------|-------------|-----------------------------|-----------------------|----|
| 💾 🗹             | ۵ ڬ               |             |            |               |          |          |             |                             |                       | -  |
| QSO Info        | Contact's details | Award Refs. | My Station | My QTH        | My Refs. | QSL Info | Attachm     | ents                        |                       |    |
| Award           | DXCC              |             | ~          |               | ferences | F        | Ref. Status | CONFIRMED                   | ) ~                   |    |
| Group           | ос                |             |            | Search<br>191 |          | I        | SUBM        | ITTED                       | GRANTED               |    |
| Sub             |                   |             | ~          |               |          | _        | e – e       |                             | 🛩 🗕 🗗                 |    |
| 191 E5 -        | North Cook Is.    |             | -          |               |          |          | DXCC-RT     | TY                          | DXCC<br>DXCC-10       |    |
| DXCC@1          |                   |             | 0          |               |          |          | DXCC-PH     | _                           | DXCC-10               | 1  |
| WPX@E<br>WAZ@3  | 2                 |             |            |               |          |          | 2 items     |                             | 0 items select        | ed |
| WAC@O<br>VUCC@B |                   |             |            |               |          |          |             | status/sub<br>xplicitly sav | mitted/granted<br>red | H  |
|                 |                   |             |            |               |          |          |             |                             |                       |    |
|                 |                   |             |            |               |          |          |             |                             |                       |    |
|                 |                   |             |            |               |          |          |             |                             |                       |    |
|                 |                   |             |            |               |          |          |             |                             |                       |    |

The predefined config in award status for DXCC/Mixed now also shows 'Submitted' as in the 'Mixed' example below.

| 🤨 Awards status                                |                  |                  |           |                |      |     |     |     |     |     | —   |     |    |
|--|------------------|------------------|-----------|----------------|------|-----|-----|-----|-----|-----|-----|-----|----|
| ward DXCC    DXCC                              | nport data       |                  |           |                |      |     |     |     |     |     |     |     |    |
| ward view Award filters Statistics Maintenance | e Massive editor |                  |           |                |      |     |     |     |     |     |     |     |    |
| Predefined config                              | Reference        | Reference        | Reference | Country        | 160m | 80m | 40m | 30m | 20m | 17m | 15m | 12m | 10 |
| MIXED ~  | 6                | KL7 - Alaska     | NA        | Alaska         |      |     |     |     |     |     | С   |     | ę  |
| 🕽 All 💿 Wkd 🔍 Not wkd 🕥 Wkd not cfmd           | 150              | VK - Australia   | ос        | Australia      |      |     |     |     | С   |     |     |     | 14 |
| Show only valid references                     | 191              | E5 - North Co    | ос        | North Cook Isl |      |     |     | SUB |     |     |     |     | 1  |
| Sub group details                              | 221              | OZ - Denmark     | EU        | Denmark        |      |     |     |     | С   |     |     |     |    |
| Award view                                     | 248              | I - Italy        | EU        | Italy          |      |     |     |     | С   |     |     |     |    |
| Detailed (mode) statistics                     | 263              | PA - Netherlands |           | Netherlands    |      |     |     |     | С   |     |     |     |    |
| Strict mode                                    | 269              | SP - Poland      | EU        | Poland         |      |     | С   |     |     |     |     |     |    |
|  | 281              | EA - Spain       | EU        | Spain          |      |     | С   |     |     |     |     |     | L  |
|  |                  |                  |           |                |      |     |     |     |     |     |     |     | L  |
|  |                  |                  |           |                |      |     |     |     |     |     |     |     | L  |
|  |                  |                  |           |                |      |     |     |     |     |     |     |     | L  |
| Station  |                  |                  |           |                |      |     |     |     |     |     |     |     | L  |
| My gridsquare                                  |                  |                  |           |                |      |     |     |     |     |     |     |     | L  |
| ny giuoquuio                                   |                  |                  |           |                |      |     |     |     |     |     |     |     | 4. |
| WORKED   |                  |                  |           |                |      |     |     |     |     |     |     |     | ι. |
| WORKED<br>CONFIRMED                            |                  |                  |           |                |      |     |     |     |     |     |     |     | L  |
| WORKED   |                  |                  |           |                |      |     |     |     |     |     |     |     |    |

5. When cards are returned from the card checker and granted for the required award, edit the QSO as 'Granted' for DXCC

(Click the small floppy disk save icon before clicking save and apply.)

| Edit QSO       |                        |                    |                      |   | ×           |
|----------------|------------------------|--------------------|----------------------|---|-------------|
| I 💾 🞸          | ۵ 🗎                    |                    |                      |   |             |
| QSO Info       | Contact's details Awar | d Refs. My Station | My QTH My Refs. Q    | SL Info Attachments                                       |             |
| Award          | DXCC                   | ~                  | References<br>Search | Ref. Status CONFIRMED                                     | ~           |
| Group          | OC                     |                    | 191                  | SUBMITTED G   | RANTED      |
| Sub            |                        | ~                  |                      | ✓ - □   |             |
| 191 E5 -       | North Cook Is.         | +                  |                      | DXCC     DXCC     DXCC                                    |             |
| VUCC@E         | 111                    |                    |                      | DXCC-10 DXCC-<br>DXCC-12 DXCC-                            |             |
| WAC@O<br>WAZ@3 |                        | 0                  |                      |   | 1004        |
| WPX@E          |                        |                    |                      | 2 items selected 1 item<br>Changes in status/submitted/gr | ms selected |
| DXCC@1         | 91                     |                    |                      | should be explicitly saved                                |             |
|                |                        |                    |                      |   |             |
|                |                        |                    |                      |   |             |
|                |                        |                    |                      |   |             |
|                |                        |                    |                      |   |             |
|                |                        |                    |                      |   |             |

Award status for DXCC without using a predefined config shows the QSO as 'Granted'

| vard DXCC - DXCC 🗘 In                          | nport data     |                  |           |                |      |     |     |     |     |     |     |     | 1 |
|--|----------------|------------------|-----------|----------------|------|-----|-----|-----|-----|-----|-----|-----|---|
| ward view Award filters Statistics Maintenance | Massive editor |                  |           |                |      |     |     |     |     |     |     |     |   |
| Predefined config                              | Reference      | Reference        | Reference | Country        | 160m | 80m | 40m | 30m | 20m | 17m | 15m | 12m | X |
| ~  | 6              | KL7 - Alaska     | NA        | Alaska         |      |     |     |     |     |     | С   |     | é |
| 🕨 All 💿 Wkd 🔍 Not wkd 🕥 Wkd not cfmd           | 150            | VK - Australia   | ос        | Australia      |      |     |     |     | С   |     |     |     | ٣ |
| Show only valid references                     | 191            | E5 - North Co    | OC        | North Cook Isl |      |     |     | GRA |     |     |     |     |   |
| Sub group details                              | 221            | OZ - Denmark     | EU        | Denmark        |      |     |     |     | С   |     |     |     |   |
| Award view                                     | 248            | ,                | EU        | Italy          |      |     |     |     | С   |     |     |     |   |
| Detailed (mode) statistics                     | 263            | PA - Netherlands |           | Netherlands    |      |     |     |     | С   |     |     |     |   |
| Strict mode                                    | 269            |                  | EU        | Poland         |      |     | С   |     |     |     |     |     |   |
| •  | 281            | EA - Spain       | EU        | Spain          |      |     | С   |     |     |     |     |     |   |
|  |                |                  |           |                |      |     |     |     |     |     |     |     |   |
|  |                |                  |           |                |      |     |     |     |     |     |     |     |   |
|  |                |                  |           |                |      |     |     |     |     |     |     |     |   |
| tation v                                       |                |                  |           |                |      |     |     |     |     |     |     |     |   |
| 1y gridsquare                                  |                |                  |           |                |      |     |     |     |     |     |     |     |   |
|  |                |                  |           |                |      |     |     |     |     |     |     |     |   |
| WORKED   |                |                  |           |                |      |     |     |     |     |     |     |     |   |
| WORKED<br>CONFIRMED<br>VALIDATED               |                |                  |           |                |      |     |     |     |     |     |     |     |   |

The predefined config 'Mixed' remains as 'Submitted because it was not select as granted for mixed when the QSO was edited.

| 4 Awards status                                 |                  |                  |           |                |      |     |     |     |     |     | _   |     | ×          |
|---|------------------|------------------|-----------|----------------|------|-----|-----|-----|-----|-----|-----|-----|------------|
| ward DXCC - DXCC 🗘 In                           | nport data       |                  |           |                |      |     |     |     |     |     |     |     | Î          |
| Award view Award filters Statistics Maintenance | e Massive editor |                  |           |                |      |     |     |     |     |     |     |     |            |
| Predefined config                               | Reference        | Reference        | Reference | Country        | 160m | 80m | 40m | 30m | 20m | 17m | 15m | 12m | Ø          |
| MIXED ~   | 6                | KL7 - Alaska     | NA        | Alaska         |      |     |     |     |     |     | С   |     | 6          |
| 🕽 All 💿 Wkd . 💿 Not wkd . 💿 Wkd not cfmd        | 150              | VK - Australia   | OC        | Australia      |      |     |     |     | С   |     |     |     | - <u>6</u> |
| Show only valid references                      | 191              | E5 - North Co    | ос        | North Cook Isl |      |     |     | SUB |     |     |     |     |            |
| Sub group details                               | 221              | OZ - Denmark     | EU        | Denmark        |      |     |     |     | С   |     |     |     |            |
| Award view                                      | 248              | I - Italy        | EU        | Italy          |      |     |     |     | С   |     |     |     |            |
| Detailed (mode) statistics                      | 263              | PA - Netherlands | EU        | Netherlands    |      |     |     |     | С   |     |     |     |            |
| Strict mode                                     | 269              | SP - Poland      | EU        | Poland         |      |     | С   |     |     |     |     |     |            |
|   | 281              | EA - Spain       | EU        | Spain          |      |     | С   |     |     |     |     |     |            |
|   |                  |                  |           |                |      |     |     |     |     |     |     |     |            |
|   |                  |                  |           |                |      |     |     |     |     |     |     |     | L          |
|   |                  |                  |           |                |      |     |     |     |     |     |     |     |            |
| Station 🗸                                       |                  |                  |           |                |      |     |     |     |     |     |     |     | L          |
| 4y gridsguare                                   |                  |                  |           |                |      |     |     |     |     |     |     |     |            |
| WORKED  |                  |                  |           |                |      |     |     |     |     |     |     |     |            |
| CONFIRMED                                       |                  |                  |           |                |      |     |     |     |     |     |     |     |            |
| VALIDATED<br>SUBMITTED                          |                  |                  |           |                |      |     |     |     |     |     |     |     |            |
| GRANTED   |                  |                  |           |                | _    | _   | _   | _   | _   | _   | _   | _   | 1          |
|   |                  |                  |           |                |      |     |     |     |     |     |     |     | -          |

6. Marking a QSO granted for 'Mixed' in addition to just DXCC and it shows as such in the Award status DXCC/Mixed

| 1<br>ok Isl<br>ids | 160m | 80m | 40m | 30m | 20m | 17m | 15m<br>C | 12m |
|--------------------|------|-----|-----|-----|-----|-----|----------|-----|
|                    |      |     |     |     | 6   |     | С        |     |
|                    |      |     |     |     | 6   |     |          |     |
|                    |      |     |     |     | С   |     |          |     |
|                    |      |     |     | GRA |     |     |          |     |
| ds                 |      |     |     |     | С   |     |          |     |
| ds                 |      |     |     |     | С   |     |          |     |
|                    |      |     |     |     | С   |     |          |     |
|                    |      |     | С   |     |     |     |          |     |
|                    |      |     | С   |     |     |     |          |     |
|                    |      |     |     |     |     |     |          |     |
|                    |      |     |     |     |     |     |          |     |
|                    |      |     |     |     |     |     |          |     |
|                    |      |     |     |     |     |     |          |     |
|                    |      |     |     |     |     |     |          |     |
|                    |      |     |     |     |     |     |          |     |
|                    |      |     |     |     |     |     |          |     |
|                    |      |     |     | C   |     | C   |          |     |

#### NOTES:

If the user does not select a predefined DXCC award as Submitted or Granted in the QSO edit dialog it will not display as such in the matching 'Preconfigured award' view in the 'award status' display

| Edit QSO           |                               |            |            |              |               |             |                   |
|--------------------|-------------------------------|------------|------------|--------------|---------------|-------------|-------------------|
| 🗸 🌾                | 🎍   👼                         |            |            |              |               |             |                   |
| QSO Info           | Contact's details Award Refs. | My Station | My QTH     | My Refs. QSL | Info Attachme | ents        |                   |
| Award              | DXCC                          | ~          |            | eferences    | Ref. Status   | UNCONFIRM   | ED ~              |
| Group              | NA                            |            | Search 291 |              | SUBMI         | TTED        | GRANTED           |
| Sub                |                               | ~          |            |              | 🥩 🗕 🗗         |             | 🛩 🗕 🗗             |
| 291 K, W           | - United States of America    | -          |            |              | DXCC-RTT      | ΓY          | DXCC-RTTY         |
| DXCC@29            | -                             |            |            |              | DXCC-M        |             | DXCC-M<br>DXCC-PH |
| FFMA@EN<br>VUCC@EN |                               |            |            |              | 1 items s     |             | 1 items selected  |
| WAC@NA<br>WAZ@5    |                               |            |            |              |               | status/subn | nitted/granted    |

Selecting DXCC without a pre-configured award allows the user to define the display results: e.g. Display only contacts with South Sudan on 10, 15 & 20m using CW for the current year?

The pre-configured award parameters restrict the displayed results to those allowed by ARRL for the chosen DXCC award rules i.e., CW, phone etc.

### QSO automatic upload to online logs

In the Settings/Program configuration/external services tab select the on-line logs that are required to automatically upload. (QRZ, Clublog, HRDLog, EQSL, HamQTH and LOTW)

### QRZ.com

#### The user MUST be a paid/subscribing XML member of QRZ to use the auto upload API provided by QRZ.

The QRZ API Key can be found by logging into the QRZ users web page and selecting My Logbook/settings, the API key is shown on the left hand side in the Logbook Info pane.



Copy and paste the API Key into the 'API Key' field as shown below and check the box 'Automatic upload on new QSO.

| wit Configuration   |   |
|---|---|
| Save config Save and apply Exit                                 |   |
| Program Settings     Edit program config                        | External services                           |
| User Configuration     Station Information                      | QRZ.COM CLUBLOG HRDLOG.NET EQSL HAMQTH LOTW |
| My References<br>Station configuration                          | API KEY                                     |
| ···· Confirmations<br>···· Database                             | Automatic upload on new QSO                 |
| <ul> <li>External Services</li> <li>User preferences</li> </ul> |   |
| Software Configuration CAT interface                            |   |
| Cluster<br>Info Providers                                       |   |
| Man Settings  |   |

### Clublog

Complete the required fields and check the box 'Automatic upload on new QSO.

| 🚧 Configuration   |   |
|---|---|
| P¶  |   |
| Program Settings     Edit program config     User Configuration | External services                           |
| Station Information   | QRZ.COM CLUBLOG HRDLOG.NET EQSL HAMQTH LOTW |
| Confirmations   | Callsign                                    |
| Database     External Services     User preferences             | E-mail                                      |
| - Software Configuration - CAT interface - Cluster              | Automatic upload on new QSO                 |

### HRDLog

Obtain the upload code from the HRDLog web site and enter it with the call sign and check the box 'Automatic upload on new QSO'

If it is required to be visible to friends when on air in the HRDLog web page also select the 'Automatic HRDLog on air' box.

| ave config Save and apply Exi                                  | t<br>1                                      |
|--|---|
| Program Settings   | External services                           |
| User Configuration<br>- Station Information<br>- My References | QRZ.COM CLUBLOG HRDLOG.NET EQSL HAMQTH LOTW |
| Station configuration  | User  |
| Confirmations<br>Database                                      | Upload code                                 |
| External Services<br>User preferences                          | Automatic upload on new QSO                 |
| Software Configuration<br>CAT interface                        | Automatic HRDLog ON AIR                     |
|  |   |

| HRDLOG Upload code is NOT the users HRDLog password. It can be found in HRDLog user settings page or a request for an upload 'KEY' can be made on the HRDLog web site. |  |
|--|--|

### EQSL

Complete the required fields and check the box 'Automatic upload on new QSO.

#### EQSL BUG

#### As at the time of writing 02/10/2020 there is a problem with eqsl passwords

EQSL allows users to register using an 18-digit password but the EQSL upload password will only accept 14 digits which causes upload or login to EQSL to fail.

EQSL have been made aware of this bug but until they cure it users are reccommended to restrict password lengths to 14 digits

Ensure that the 'QTH Nickname' corresponds to that shown on the EQSL user profile page

| wit Configuration   |   |
|---|---|
| Save config Save and apply Exit                                 |   |
| Program Settings     Edit program config     User Configuration | External services                                       |
| Station Information   | QRZ.COM CLUBLOG HRDLOG.NET EQSL HAMQTH LOTW             |
| My References<br>Station configuration                          | User  |
| Confirmations<br>Database                                       | Password  |
| External Services<br>User preferences                           | QTH Nickname  |
|   | Automatic upload on new QSO                             |
| Cluster   | 🖂 Update QSO locator based on EQSL reported locator 🛛 🕜 |
| - Info Providers<br>Map Settings                                |   |
| Dackup  |   |

Also check the 'Update QSO Locator based on EQSL' to use the locator from EQSL

### HamQTH

Complete the required fields and check the box 'Automatic upload on new QSO.

| 🚧 Configuration   |   |
|---|---|
| Save config Save and apply Exit                                   |   |
| <ul> <li>Program Settings</li> <li>Edit program config</li> </ul> | External services                           |
| User Configuration     Station Information     My References      | QRZ.COM CLUBLOG HRDLOG.NET EQSL HAMQTH LOTW |
| Station configuration   | User 📄                                      |
| Confirmations<br>Database   | Password                                    |
| - External Services<br>   | Callsign                                    |
| Software Configuration CAT interface                              | Automatic upload on new QSO                 |
| Cluster<br>Info Providers   |   |
| Man Cattings  |   |

### LOTW

Complete the required fields and check the box 'Automatic upload on new QSO'.



- The TQSL program must be installed and a valid certificate recorded
- The 'Temporary path' MUST be completed
- The 'Station ID' and 'User' (Call sign) MUST match that for the certificate being used by TQSL

| Configuration  |   |
|--|---|
| Save config Save and apply Exit                              |   |
| Program Settings     Edit program config                     | External services                           |
| User Configuration     Station Information     Wy References | QRZ.COM CLUBLOG HRDLOG.NET EQSL HAMQTH LOTW |
| Station configuration  | User  |
| ···· Confirmations<br>···· Database                          | Password                                    |
| External Services<br>User preferences                        | TQSL exe path 🛛 🕞 😨                         |
|  | Temporary path (opt)                        |
| ···· Cluster<br>··· Info Providers                           | Station ID 🗸 🕞 🚱                            |
| Map Settings<br>Backup                                       | TQSL Private pass                           |
| Software integration     Connections                         | My call (opt)                               |
| Antenna rotator<br>ADIF Monitor                              | Automatic upload on close                   |



When all on line log details are completed click the 'SAVE and APPLY' button



Automatic upload to external sources will happen in a range of 0 to 30 seconds after saving by background process.

Log4OM will provide an option to add 1 minute minimum delay after the QSO is saved, to allow users to delete erroneous QSO saved

### LOTW manual upload

In the 'Utilities/QSL manager' window the user may sort, filter and select using the tools provided and detailed elsewhere or employ the 'Select required' button.

#### **Select Required**

The select required button will sort according to the settings selected in the 'Settings/Program Configuration/confirmations' and the 'Settings/Program Configuration/External services/LOTW' tabs.

e.g.

If confirmation type LOTW is set to sent = Requested

and

If the External service LOTW 'UPLOAD FLAG' is set to Requested

Then

Clicking the 'Select Required' button will filter the QSO's for all marked LOTW sent status = Requested and highlight them ready for upload

| 🦅 QSL Manager                   |                  |                    |                     |                 | - 🗆        | ×    |
|---------------------------------|------------------|--------------------|---------------------|-----------------|------------|------|
| Special activities              |                  |                    |                     |                 |            |      |
| Search Select required Vpload s | elected QSO Down | load confirmations |                     |                 |            |      |
| CALLSIGN                        |                  |                    |                     |                 |            |      |
| From 20/04/2020 To 20/04/20     | 20 🔲 🔻           | Enable update      |                     |                 |            |      |
| Search confirmation LOTW ~      |                  | Update selected (  | QSO's confirmations |                 |            |      |
| Sent Requested V Rcvd           | No ~             | Sent No            | ~                   | Rcvd No         |            | ~    |
|                                 |                  |                    |                     |                 |            |      |
| ● Sent 20/04/2020 . • Rcvd      | 20/04/2020       | 20/04/2020         | Clear               | 20/04/2020      | Clea       | r    |
| O Range O Range                 |                  |                    |                     |                 |            | 19   |
|                                 |                  |                    |                     |                 | • • •      |      |
|                                 |                  |                    |                     |                 |            |      |
|                                 |                  |                    |                     |                 |            |      |
| Callsign Qso Date               | Band             | Mode               | Confirmation        | Sent            | Received   | Sei  |
| AN100L 20/04/2020 14:49:58      | 20m              | cw                 | LOTW                | Requested       | No         | Elec |
| HB0A 28/10/2018 01:09:48        | 80m              | SSB                | LOTW                | Requested       | Yes        | Elec |
| <                               |                  |                    |                     |                 |            | >    |
| Select/deselect                 |                  |                    |                     | Selected 2 of 2 | max: 10000 |      |
|                                 |                  |                    |                     |                 |            |      |
|                                 |                  |                    |                     |                 |            |      |

Clicking on the 'Upload selected QSO' button at the top of the window will open the upload window which will display the number of QSO's being uploaded and when the Green upload arrow is pressed display the progress of the upload.

| 🙀 Upload confirmati  | tions — | - 🗆 X       |
|----------------------|---------|-------------|
| Confirmation type: [ | LOTW    | <u>ନ୍</u> 🔀 |
| QSO count: [         | 24      |             |
|                      |         | ^           |
|                      |         |             |
|                      |         |             |
|                      |         |             |
|                      |         |             |
|                      |         |             |
|                      |         |             |
|                      |         |             |
|                      |         |             |
|                      |         | ~           |
| <                    |         | >           |
| Clear Save log       |         |             |

When the actions are completed close all windows

### LOTW Automatic upload

LOTW ask developers not to automatically upload QSO's as each QSO is saved because it puts too much load on the LOTW servers during times of contests and special expeditions.

Log4OM will automatically upload QSO's that are marked Sent status = No or requested according to the settings in the 'Settings/Program Configuration/confirmations' and the 'Settings/Program Configuration/External services/LOTW' tabs, when the program is closed down.

To select this automatic upload facility check the box 'Automatic upload on close in the 'Settings/Program Configuration/External services/LOTW' tab.

| Configuration  |  |
|--|--|
| Save config Save and apply Exit  |  |
| Program Settings     Edit program config     Program Scheduler     User Configuration     Station Information     My References     Satistic Configuration     Ontifurmation     Database     Database     Software Configuration     Custer     Info Providers     Map Settings     Backup     VOACAP Propagation | External services         QRZ.COM       CLUBLOG       HRDLOG.NET       EQSL       HAMQTH       LOTW         User       G4POP       Consider (SO to be uploaded when SENT status is:         TQSL exe path       C:\Program Files (x86)\TrustedQSL\tqsl.exe       Image: Consider (SO to be uploaded when SENT status is:         Temporary path (opt)       C:\Users\gd+popart.net\AppData\Roaming\Log4(       Image: Consider (SO to be uploaded when SENT status is:         Station ID       Home       Image: Consider (SO to be uploaded when SENT status is:         TQSL Private pass       Image: Consider (SO to be uploaded when SENT status is:         My call (opt)       Image: Consider (SO to be uploaded when SENT status is: |
| Auto Start     Auto Start     Auto Configuration     Audio devices and voice keyer     CAT interface     Software integration     Connections     AndEr Autority     ADIF Functions     Applications     FILDigi     WSJT-x / JJTDX  | Automatic upload on close Please note Log4OM will not upload to LoTW archives on each QSO saved, as requested by LoTW in their specs.  |

### **Explanation of External service/LOTW fields**

User – The users call sign

Password – The password used when logging into the ARRL/LOTW web site

**TQSL exe path** – The location of the TQSL software on the users computer (Default is C:\Program files (x86)\TrustedQSL\tqsl.exe)

**Temporary path** – A location on the local computer where Log4OM can store LOTW temporary files – The user MUST specify a location.

Station ID – The Station location as stored in TQSL program for the Call sign specified in the User field above.

TQSL Private password – Any private password used by TQSL (Not normally used)

My Call – The users call sign (Not normally used)

# Labels

Log4OM provides a label print and design feature for QSL card and address labels.

### Label design

Label design is available in the 'Utilities' menu, some standard label templates are provided but new templates are easily designed using the Utilities/Label Definition menu.

| 🥳 Label definition   | n                        |              | -  |          |
|--|--------------------------|--------------|--|----------|
| Load label Avery   | 8160                     | ~ -          |  |          |
| Page layout Lab  | el properties            |              |  |          |
|  | 0.2 🜩                    | Name         |  | Ľ        |
| Left margin  |                          | Right margin | Corrective factor                                      |          |
| 0.2  | Rows 10 두<br>Columns 3 두 | 0.2          | Vertical<br>0.00 - Proportional                        | Inverted |
|  |                          |              | Horizontal<br>0.00  Proportional<br>Printer Top margin | Inverted |
|  | Bottom margin<br>0.2     |              | 0.00 🜩   |          |
| Set A4   |                          | 20.8         |  | TEST     |
| ¼* Label definition       Load label     Avery       Page layout     Lab       Interline     2       2     ÷       Font size     5       5     ÷       Ø Print calsign     Color print | 8160                     | v -          |  |          |

Once a template has been designed a test print facility is provided to check the design fits the label stationary by clicking the 'Test PDF' button.

### <u>NOTE</u>

Printers of the same make and model do vary somewhat in the print layout so Paul might have to make some SMALL changes to the correction factors - If you do then DON'T FORGET TO SAVE THE LAYOUT.

#### Points to watch for

1. Dont assume a template is automatically saved, it must be manually saved

2. Corrective factors will often need to be applied to label templates to account for differences in printer accuracy.

3. Entering a correction factor adds that correction EQUALLY to each label spacing.

4. Checking the box for a proportional correction factor increases the label spacing correction factor proportionally with each successive row/column e.g., if a value of 3 is selected the first space will be 3, the second spacing will be 6, the third spacing will be 9 etc etc.

5. Checking the box for an inverted proportional correction factor increases the label spacing correction factor proportionally **in reverse** e.g., if a value of 3 is selected the last space will be 3, the penultimate spacing will be 6, the next spacing will be 9 etc etc etc.

It is suggested that a test print to normal copy paper is made and that then be placed over the label stationary and held up to a light source to check for layout correctness instead of printing tests directly to expensive label stationary.

### PLEASE NOTE

Even printers from the same manufacture and of the same model will vary in print layout it may therefore be necessary to use the 'Corrective factor' fields to fine tune the layout.

### **QSL Label Printing**

The Label print menu can be selected from the utilities menu.

- Select the QSO's for which labels are required by using the various filtering options in the QSO selection tab i.e., Sent status, date range, QSL method, Station call sign and by 'Answer received QSL's' or on any other field by using the filters. (Selection by station call sign is particularly useful when operating special event call signs or contest calls.)
- Once the QSO's are selected highlight them for printing

| SEARCH          | Confirm selection | on 🗖 Answert                | o received QSL |                |          |                   |              |        |
|-----------------|-------------------|-----------------------------|----------------|----------------|----------|-------------------|--------------|--------|
|                 | /                 |                             |                | Search date ra | nge      |                   |              |        |
| QSL Sent status | No                | ✓ 🗆 Con                     | test mode From |                | 2        |                   |              |        |
| QSL Sent via    |                   | <ul> <li>Station</li> </ul> | To<br>callsign | 29/00/202      |          | Automatic refresh |              |        |
| Callsign        | Qso Date          | Band                        | Country        | Rst Rcvd       | Rst Sent | Qsl Sent          | Qsl Received | Eqsl R |
| К7РТ            | 21/05/2022 0      | 30m                         | United States  | 59             | 59       | No                | Yes          | No     |
| LZ920MLC        | 10/09/2018 1      | 20m                         | Bulgaria       | 59             | 59+10    | No                | Yes          | No     |
| DQ2018KTMS      | 21/06/2018 2      | 40m                         | Fed. Republic  | 599            | 599      | No                | Yes          | Yes    |
| DC7KM           | 13/02/2018 1      | 60m                         | Fed. Republic  | -11            | +06      | No                | Yes          | Yes    |
| 10JX            | 12/10/2017 1      | 30m                         | Italy          | +03            | +13      | No                | Yes          | No     |
| JF2F            | 29/09/2017 1      | 30m                         | Kaliningrad    | +05            | -22      | No                | Yes          | Yes    |
| 5B/G4RUW        | 11/09/2017 0      | 20m                         | Cyprus         | 58             | 59+10    | No                | Yes          | No     |
| DL2VPO          | 22/07/2017 1      | 17m                         | Fed. Republic  | -08            | -01      | No                | Yes          | No     |
| LA1SNA          | 13/07/2017 0      | 40m                         | Norway         | +04            | -07      | No                | Yes          | Yes    |
| DI 67110        | 11/07/2017 1      | C0                          | red needla     | ••             | 20       | N-                |              |        |

- Click 'Confirm selection'
- Ensure the information is correct for each QSO by using the online lookup choices at the top of the window
- Append any special QSL message or note to be added
- Select the desired QSL method (No send, Bureau, Direct, Manager or Manager DCT)
- Click the Green check mark at the top right of the window to confirm the selection and details

| 🧏 Label print                         |   |                                     |               | -             |          | ć |
|---------------------------------------|---|-------------------------------------|---------------|---------------|----------|---|
| QSO selection Routing Print           |   |                                     |               |               |          |   |
| CALLSIGN HB9HLM Country Sw            | vitzerland HamQTH   | QRZ.com QRZCQ                       | Hamcall       |               |          |   |
| André Breguet Qsl Via Hb9ocr          | QSL Shipping method   | NEW (                               | ONE NEW BAN   | D NEW MODE    | /        |   |
| Address                               | NO SEND   | NEW G                               | GRID GRID BAN | ID GRID MODE  | PREVIOUS | 5 |
| André Breguet Qsl Via Hb9ocr          | Bureau Direc  | t                                   |               |               |          |   |
| Boudry/Ne<br>Switzerland              | Manager Manager   | DCT                                 |               |               |          |   |
| • • • • • • • • • • • • • • • • • • • |   |                                     |               |               |          |   |
|                                       | MANAGER HB9   | OCR H                               | amQTH QRZ.com | QRZCQ Hamcall | Ĩ        |   |
| HB9OCR 2 USD or 2 IRC or via Buro     | Address   | QSL Vi                              |               |               | -        |   |
| OSL Message                           | Marco Hardmeier<br>Via Ponte Tresa 15<br>Sorengo<br>Ti 6024 | <ul><li>▲ HB900</li><li>✓</li></ul> | CR            | ~             |          |   |
|                                       |   | Selected QSO wil                    | ll be printed |               |          |   |
| Note                                  | e   |                                     |               |               |          |   |
| [                                     | HB9HLM 11/08/2018 13:0                                      | 0:09 20m SSB Refs:                  |               |               |          |   |
| SASE required                         |   |                                     |               |               |          |   |
| Contribution required                 |   |                                     |               |               |          |   |
|                                       |   |                                     |               |               |          |   |
|                                       |   | 1 items sele                        | ected         |               |          |   |
| Label 7 of 10                         |   |                                     |               |               |          |   |

- When all have been marked as selected click the 'Print' tab
- Select the required label stationary
- Check additional print details (Print QSO Msg, Comment, My refs. etc)
- Select the appropriate label messages (Nothing, Print QSL message or print notes)
- Check the required print selections (Direct, Print address labels etc.)
- Select the position of the first label to be printed
- Click the PDF button

| O selection Routing Print   |   | - □ >   |
|---|---|---|
| O selection Routing Print<br>Step 1: Label choice<br>Select label Avery 8160 ∨ Refresh Edit<br>Single QSO messages (each QSO)<br>O Nothing O Print my refs O Print Comment<br>Label messages (bottom area)<br>O Nothing O Print OSL Message O Print Notes | Step 2: Print selection  Print ADDRESS labels Print BUREAU Print DIRECT Print MANAGER DIRECT Print MANAGER BUREAU  Print MANAGER BUREAU  Print OSL requiring SASE | Step 3: Print<br>Skip initial<br>0 1 Labels<br>Reset PRINTED status |
| Step 4: QSO update<br>Selected QSO will be updated to new QSL   | Print QSL requiring contribution  | Resulting QSL sent status   |
|   |   | Queued V  |
| ·   |   | Sent date<br>17/12/2020   |
|   |   | H   |

• The DEFAULT PDF viewer will open and display the labels to be printed as below

| E Home Comment<br>I Home Comment<br>Cipboard Act<br>Select<br>Tools   | View Form                                 | Protect Sh<br>TT A 184.3<br>Reflow Rotate<br>View | 3% • • -               | Help Extras (<br>L T From<br>swriter Highlight From<br>File<br>Comment     | Tell me what you       | 1. 6         | Link 🔮<br>Bookmark 戻         | ) File Attachment<br>Image Annotation<br>Audio & Video<br>Insert                              | c | ि 🕰 Find                       | <u>,</u> @• ⊲ |          |
|---|---|---|------------------------|--|------------------------|--------------|------------------------------|---|---|--------------------------------|---------------|----------|
| G6CNQ cfm qso:<br>DATE T  | 20200111155303.4<br>IME BAND<br>88:14 15m | IA3HV<br>MODEx2<br>PSK31                          | RST<br>599 *<br>QSL(*) | TO HA3HV<br>Pal Bekei<br>Setalo U. 35<br>H-7432 Hetes<br>Hungary           |                        |              |                              | G6CNQ cfm qso:<br>DATE<br>2004-08-07<br>QSL DIRECT<br>Aland Island (5)                        |   | OH0Z<br>BAND MOD<br>10m SSB    |               | Comce Pr |
| TO OHOZ<br>Åland Islands<br>Osi Via W0mm<br>Lotw - Oqrs - Direct - Via<br>Åland Islands<br>Åland Island             | Bureau                                    |   |                        | G6CNQ cfm qso:<br>DATE<br>2004-10-09<br>QSL DIRECT<br>European Russia (54) | TIME BAND<br>12:59 15m | NODE:<br>SSB | x2 RST<br>599*<br>PSE QSL(*) | TO RV3ZZ<br>Mike Semenov Mikha<br>309506<br>Staryi Oskol, Po Box<br>Russia<br>European Russia |   |                                |               |          |
|   | TIME BAND<br>12:04 10m                    | SSB   | RST<br>59 *<br>QSL(*)  | TO TS7N<br>Kerkennah 2000/2003<br>Hotel Cercina<br>Sidi Fredj<br>Tunisia   |                        |              |                              | G6CNQ cfm qso:<br>DATE<br>2003-12-27<br>QSL DIRECT<br>European Russia (54)                    |   | UA3QGT<br>BAND MOD<br>10m PSK3 | Ex2 RST       |          |
| TO UA3QGT<br>Nickolay Vereshagin<br>Lesnaja 4<br>Belogore, Voronezh Obl.<br>Vr, 396576<br>Russia<br>European Russia |   |   |                        |  |                        |              |                              |   |   |                                |               |          |

- Assuming the results are acceptable print the labels.
- Select the QSO sent status to be marked for each of the QSO's listed
- Select the date for the QSO's to be marked as QSL sent date
- Click the 'Floppy disk' save icon and each QSO will have its QSL sent status and sent date updated and saved.

| 🦞 Label print  |  | - 🗆 X   |
|--|--|---|
| QSO selection Routing Print  |  |   |
| Step 1: Label choice         Select label       Avery 8160       Refresh       Edit         Single QSO messages (each QSO)       Nothing       Print my refs       Print Comment         Label messages (bottom area)       Nothing       Print QSL Message       Print Notes  | Step 2: Print selection Print ADDRESS labels Print BUREAU Print DIRECT Print MANAGER DIRECT Print MANAGER BUREAU Print QSL requiring SASE Print QSL requiring contribution | Step 3: Print<br>Skip initial<br>0 🕞 Labels<br>Reset PRINTED status |
| Step 4: QSO update           Selected QSO will be updated to new QSI           ✓ | L sent status  | Resulting QSL sent status Yes Sent date 17/12/2020                  |
| <ul> <li>Z73DN 07/06/2018 04:59:15 40m FT8 Refs:</li> <li>GB100MPD 09/11/2018 10:58:29 40m SSB Refs:</li> <li>HB9HLM 11/08/2018 13:00:09 20m SSB Refs:</li> <li>Z2920MLC 10/09/2018 13:50:27 20m SSB Refs:</li> <li>VE3UTT 04/06/2018 12:28:00 20m FT8 Refs:</li> <li>YL100V 15/11/2018 20:22:50 80m SSB Refs:</li> </ul>  |  | H   |
| 8 items selected   |  |   |
| Label 10 of 10   |  | .:  |

The operation can be aborted by clicking on the 'Reset  $\ensuremath{\mathsf{PRINTED}}$  status' button

### Default QSL message

A user defines default message can be added to the Settings/Program configuration/confirmations tab as below:

| Configuration  |   |
|--|---|
| Save config Save and apply Exit  |   |
| Program Settings     Edit program config     Program Scheduler     Performances     Station Information     Station Information     Onfiguration     Configuration     Configuration     Configuration     Configuration     Custer     Software Configuration     Cont Stat     Chat     Statup     Software Integration     Aulto Stat     CAT interface     Software Integration     ADIF Functions     Applications     ADIF Functions     Software Integration     ADIF Functions     Applications     Software Integration     Software Integration     Software Integration     Software Integration     Software Integration     ADIF Functions     Applications     Software Integration     Software     Software     Software Integration     Software | Confirmations for each award according to your preferences         Type       QSL       Image: Colspan="2">Apply default set         Sent       No       Rcvd       No       Set         QSL default message       Tnx for QSO happy Xmas       Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Confirmations for each award according to your preferences         Main NI Statistic view and KML output color statistics       Tnx for QSO happy Xmas       Image: Colspan="2">Colspan="2"         Main UI Statistic view of Colspan="2">Colspan="2"       Colspan="2">Colspan="2"         Colspan="2">Colspan="2"       Colspan="2"         Colspan="2">Colspan="2"       Colspan="2"         Colspan="2">Colspan="2"       Colspan="2"         Colspan="2">Colspan="2"       Colspan="2"         Colspan="2">Colspan="2"       Colspan="2"         Colspan="2"       Colspan="2"       Colspan="2"         Colspan="2"       Colspan="2"       Co |

# **Statistics analysis**

Log4OM V2 provides detailed statistical analysis of the database in a variety of ways

### Statistics for Countries worked and confirmed

The status of a confirmation for a country (DXCC Entity) is displayed in the statistics form (View/Statistics)

These statistics can be filtered by the following methods:

- Confirmation type QSL, EQSL, LOTW etc
- Band or multiple bands
- Mode or multiple modes
- Date range
- Include or display deleted entries and un-worked countries

These filters are applied by using the selection menus at the top of the window.

| Country Statistics Grid Statistics  |  |
|---|--|
|   |  |
| Station Callsign -  |  |
| Aland Island       Aland Island       Statistic view by       Band filter       Mode filter         Albania       Worked       Image: Constraint of the state of the st   |  |
| Image: Construction of the second constructi |  |

Selecting a country in the left-hand country list will display all contacts with that country.

| Gabon                       | ∧ Statistic  | view by      |         | Band filt  | or.        |       | 1ode filter |          |                | _         |               |
|-----------------------------|--------------|--------------|---------|------------|------------|-------|-------------|----------|----------------|-----------|---------------|
| Georgia                     | Worked       | . view by    |         |            | er         |       |             |          |                |           |               |
| Gibraltar                   | QSL          |              | 80m     | <u> </u>   | ^          |       | -           | ^        | From 18/07/2   | 019 🔲 🔻   |               |
| Greece<br>Guadeloupe        | EQSL<br>LOTW |              | ☐ 60m   |            |            |       | FEC         | <u>^</u> | To 18/07/2     | 019 🔲 🔻   |               |
| Guantanamo Bay              | QRZCOM       |              | 40m     |            | ~          | ARDOP | 20          | ~        | Hide not worke |           |               |
| Guernsey                    | HAMQTH       | ~            |         | items sele | at a d     |       | ems selecte |          | Hide deleted   | su -      |               |
| Hungary                     | HKDLOG       | *            | 0       | items sele | ected      | 010   | ems selecte | ed       |                |           |               |
| Iceland<br>India            | Callsign     | Qso Date     |         | Dxcc       | Country    | Band  | Mode        | Qsl Sent | t Qsl Received | Lotw Sent | Lotw Received |
| Ireland                     | PD0PVR/P     | 27/08/2018 1 | 0:59:30 | 263        | Netherland | s 40m | SSB         | NotSent  | No             | Sent      | No            |
| Isle of Man                 | PA0JMD       | 10/04/2018 1 | 5:34:00 | 263        | Netherland | s 60m | FT8         | NotSent  | No             | Sent      | No            |
| Israel<br>Italy             | PF3X         | 24/10/2017 1 | 8:59:00 | 263        | Netherland | s 60m | FT8         | NotSent  | No             | Sent      | Confirmed     |
| Japan                       | PA3CPS       | 13/07/2017 0 | 6:23:00 | 263        | Netherland | s 40m | FT8         | NotSent  | No             | Sent      | Confirmed     |
| Jersey                      | PA3VTC       | 10/07/2017 0 |         | 263        | Netherland | s 60m | SSB         | NotSent  | No             | Sent      | No            |
| Jordan<br>Kaliningrad       | PE1AUV       | 10/07/2017 0 |         | 263        | Netherland | s 60m | JT65        | NotSent  | No             | Sent      | Confirmed     |
| Kazakhstan                  | PA3VTC       | 01/06/2017 0 |         | 263        | Netherland | s 60m | SSB         | NotSent  | No             | Sent      | No            |
| Kuwait                      | PAOWPD       | 22/10/2016 0 |         | 263        | Netherland |       | SSB         | NotSent  |                | Sent      | No            |
| Kyrgyzstan<br>Latvia        | PAGFUN       | 20/08/2016 0 |         | 263        | Netherland |       | SSB         | NotSent  |                | Sent      | No            |
|                             | PASGB        | 01/05/2016 0 |         | 263        | Netherland |       | SSB         | NotSent  |                | Sent      | No            |
| Liechtenstein               | PELLCG       |              |         | 263        | Netherland |       | SSB         | NotSent  |                | Sent      | No            |
| Lithuania                   |              | 23/04/2016 0 |         |            |            |       |             |          |                |           |               |
| Lord Howe Is.<br>Luxembourg | PA/DK3RV/P   | 30/03/2016 1 |         | 263        | Netherland |       | SSB         | NotSent  |                | Sent      | No            |
| Macedonia                   | PA5HR        | 08/03/2016 1 |         | 263        | Netherland |       | SSB         | NotSent  |                | Sent      | No            |
| Madagascar<br>Madeira Is.   | PF3X         | 02/03/2016 1 | 1:07:45 | 263        | Netherland | s 40m | PSK31       | NotSent  | No             | Sent      | Confirmed     |

Double clicking on an entry in the list will open the editor window.

| www. Statistics   |   |                     |   |             |               |                                |              |  |           | _        |          | $\times$ |
|---|---|---------------------|---|-------------|---------------|--------------------------------|--------------|--|-----------|----------|----------|----------|
| Country Statistics Grid Statistics  |   |                     |   |             |               |                                |              |  |           |          |          |          |
| Station Callsign  | •   |                     |   |             |               |                                |              |  |           |          |          |          |
| Gabon        Georgia        Gibraltar        Gibraltar        Guadeloupe        Guadeloupe        Guadeloupe        Hungary | Statisti<br>Worked<br>QSL<br>EQSL<br>LOTW<br>QRZCOM<br>HAMQTH<br>HRDLOG |                     | Band filte<br>Dim<br>Om<br>Om<br>O items select | ~           | AM<br>AMTORFI | ode filter<br>EC<br>ms selecte |              | m 18/07/20<br>18/07/20<br>Hide not worke<br>Hide deleted | 019 🔲 🔻   |          |          |          |
| iteland<br>Iceland<br>India   | Callsign  | Qso Date            | Dxcc  | Country     | Band          | Mode                           | Qsl Sent     | Qsl Received   | Lotw Sent | Lotw F   | Received | · ^      |
| Ireland   | PD0PVR/P  | 27/08/2018 10:59:   | 30 263  | Netherlands | s 40m         | SSB                            | NotSent      | No   | Sent      | No       |          |          |
| Isle of Man   | PA0JMD  | 10/04/2018 15:34:   | 00 263  | Netherlands | s 60m         | FT8                            | NotSent      | No   | Sent      | No       |          |          |
| Israel  | PF3X  | 24/10/2017 18:59:   | 00 263  | Netherlands | s 60m         | FT8                            | NotSent      | No   | Sent      | Confirm  | ed       |          |
| Japan   | PA3CPS  | 13/07/2017 06:23:   | 10 263  | Nothorbode  | 40m           | FT8                            | NotSent      | No   | Sont      | Confirm  | ed       |          |
| Jersey<br>Jordan  | PA3 Edit QSC  | )                   |   |             |               |                                |              |  |           | No       |          |          |
| Kaliningrad   | PE1   🛄 💊   | 🖉 🤐 🗋 👘             |   |             |               |                                |              |  |           | Confirm  | ed       |          |
| Hazakhstan  | PA3 QSO Inf   |                     | d Refs. My St                                   | tation My Q | TH My Ref     | s. QSL I                       | info         |  |           | No       |          | _        |
| E Kuwait<br>Kyrgyzstan  | PAO   |                     | u iters. hy s                                   |             |               | 3. QJL1                        |              |  |           | No       |          |          |
|   | PA6 PF3X  |                     | S +03   | ∨ R -1      | .2 ~          | QSO St                         | art 24/10/20 | 17 18:59:00  |           | No       |          | _        |
| Eebanon   | PA8   |                     |   |             |               | QSO Er                         | nd 🗹 24/10   | /2017 18:59:00   |           | No       |          |          |
| Liechtenstein   | PE1 Lauren  | s                   |   | Grid        | JO21io        |                                |              |  |           | No       |          | _        |
| tord Howe Is.   | PA/I Band   | ~                   | · 🔒   | Comment     |               |                                |              |  |           | No       |          |          |
| Euxembourg  | PA5 RX Ban  |                     |   | Note        |               |                                |              |  |           | No       |          |          |
| Macedonia<br>Madagascar   | PE3   | -                   |   | NOCE        |               |                                |              |  |           | Confirm  | ed       | ~        |
| Madeira Is.   | < Mode  | FT8 ~               | · 🔒   |             |               |                                |              |  |           |          | 1        | >        |
|   | N Country   | Netherlands         | $\sim$  |             |               |                                |              |  | ~         | wn: 49 m | ax: 10   | 000      |
|   |   | ITU 27 $\vee$ CQ 14 | ~ 263   |             |               |                                |              |  |           |          |          | :        |
|   | Freq<br>Log40   | 5357 9              | 59 🔒 RX I                                       | Freq 5357   | 95            | 9 🔒                            |              |  |           |          |          | 1        |

### **Editing data**

At the top of the editor window are 4 icons:

- The extreme left icon like a floppy disk saves any changes made
- The second, check mark icon saves and changes and closes the window
- The third icon which is globe shaped performs an on line lookup of the call sign and updates any missing information.
- The right-hand icon resembling a dustbin deletes the record.



The various tabs provide editing of the other stations data, the users data and QSO information, including updating QSL confirmations and award references.

### Statistics for Grid references worked and confirmed

The grid statistics tab in the main window provides similar information and filtering possibilities to the country's confirmations grid for Maidenhead grid References.

| tation Callsign   | -  |   |   |  |   |   |   |                             |   |
|---|--|---|---|--|---|---|---|-----------------------------|---|
| Aland Islands<br>Albania<br>Algeria<br>Andorra<br>Argentina<br>Armenia<br>Aruba<br>Ascension Island<br>Asiatic Russia   | Statistic view b<br>Worked<br>QSL<br>EQSL<br>LOTW<br>QRZCOM<br>HAMQTH<br>HRDLOG<br>CLUBLOG | Band and mode           Band filter           Image: Image of the state o | Date range C<br>Mode fil<br>C AM<br>AMTORFE<br>ARDOP<br>ATV |  | onal filters  |   |   |                             |   |
| Australia   |  |   | d 0 items sel   | -<br>ected   |   |   |   |                             |   |
| Austria<br>Azerbaijan   |  | 0 items selecte   |   |  |   |   |   |                             |   |
| Austria<br>Azerbaijan<br>Azores   | Callsign   | Qso Date  | Band  | Mode   | Station Callsign  | Address   | Age                                       | AIndex                      | /   |
| Austria<br>Azerbaijan<br>Azores<br>Bahamas  | Callsign<br>PY6AA  | 0 items selecte   | Band  |  | Station Callsign<br>G4POP   | Address<br>Rua Dos Radio  | -   | AIndex 6                    | /   |
| Austria<br>Azerbaijan<br>Azores<br>Bahamas<br>Balearic Islands  |  | Qso Date  | Band<br>2m  | Mode   | -   |   | 0   |                             | /<br>2  |
| Austria<br>Azerbaijan<br>Azores<br>Bahamas<br>Bahamas<br>Balearic Islands<br>Barbados   | PY6AA  | 0 items selecte<br>Qso Date<br>21/01/2024 1   | Band<br>2m<br>15m   | Mode<br>FM   | G4POP   | Rua Dos Radio   | 0   | 6                           | 2   |
| Austria<br>Azerbaijan<br>Azores<br>Bahamas<br>Balearic Islands<br>Barbados<br>Belarus<br>Belgium  | PY6AA<br>PY2OA   | Qso Date<br>21/01/2024 1<br>18/03/2022 1  | Band<br>2m<br>15m<br>17m                                    | Mode<br>FM<br>CW   | G4POP<br>G4POP  | Rua Dos Radio<br>P.O.Box- 1505  | 0<br>0<br>0                               | 6                           | 2<br>2<br>2<br>0  |
| Austria<br>Azerbaijan<br>Azores<br>Bahamas<br>Balearic Islands<br>Barbados<br>Belarus<br>Belgium<br>Bosnia-Herzegovina  | PY6AA<br>PY2OA<br>PY2IQ  | O items selecte           Qso Date           21/01/2024 1           18/03/2022 1           11/10/2020 1           15/08/2020 1  | Band<br>2m<br>15m<br>17m<br>17m                             | Mode<br>FM<br>CW<br>FT8                                    | G4POP<br>G4POP<br>G4POP   | Rua Dos Radio<br>P.O.Box- 1505<br>Rua Samaria 9   | 0<br>0<br>0<br>0                          | 6<br>6<br>2                 | 2<br>2<br>2<br>0<br>0   |
| Austria<br>Azerbaijan<br>Azores<br>Bahamas<br>Balearic Islands<br>Barbados<br>Belarus<br>Belgium<br>Bosnia-Herzegovina<br>Brazi   | PY6AA<br>PY2OA<br>PY2IQ<br>PY2RAR<br>PY2CX   | Qso Date           21/01/2024 1           18/03/2022 1           11/10/2020 1           15/08/2020 1           15/07/2020 1   | Band<br>2m<br>15m<br>17m<br>17m<br>15m                      | Mode<br>FM<br>CW<br>FT8<br>FT8<br>FT8<br>FT8               | G4POP<br>G4POP<br>G4POP<br>G4POP<br>G4POP   | Rua Dos Radio<br>P.O.Box- 1505<br>Rua Samaria 9<br>Avenida 1, 20<br>Verona 174 0                  | 0<br>0<br>0<br>0<br>0<br>0                | 6<br>6<br>2<br>4<br>11      | A 2000 Control 100 Control  |
| Austria<br>Azerbaijan<br>Azores<br>Bahamas<br>Balearic Islands<br>Barbados<br>Belgium<br>Belgium<br>Bosnia-Herzegovina<br>Belgium<br>Bulgaria<br>Canada                         | PY6AA<br>PY2OA<br>PY2IQ<br>PY2RAR<br>PY2CX<br>PY2IQ  | Qso Date           21/01/2024 1           18/03/2022 1           11/10/2020 1           15/08/2020 1           15/07/2020 1           14/02/2018 1  | Band<br>2m<br>15m<br>17m<br>17m<br>15m<br>15m<br>17m        | Mode<br>FM<br>CW<br>FT8<br>FT8<br>FT8<br>FT8<br>FT8<br>FT8 | G4POP           G4POP           G4POP           G4POP           G4POP           G4POP           G4POP           G4POP | Rua Dos Radio<br>P.O.Box- 1505<br>Rua Samaria 9<br>Avenida 1, 20<br>Verona 174 0<br>Rua Samaria 9 | 0<br>0<br>0<br>0<br>0<br>0<br>0           | 6<br>6<br>2<br>4<br>11<br>3 | A 2000 C 2000 |
| - Austria<br>- Azerbajan<br>- Azerbajan<br>- Bahamas<br>Bahamas<br>- Bahamas<br>- Bahamas<br>- Baharas<br>- Belarus<br>- Belgium<br>- Belgium<br>- Bruz<br>- Bruz<br>- Bulgaria | PY6AA<br>PY2OA<br>PY2IQ<br>PY2RAR<br>PY2CX   | Qso Date           21/01/2024 1           18/03/2022 1           11/10/2020 1           15/08/2020 1           15/07/2020 1   | Band<br>2m<br>15m<br>17m<br>17m<br>15m<br>17m<br>20m        | Mode<br>FM<br>CW<br>FT8<br>FT8<br>FT8<br>FT8               | G4POP<br>G4POP<br>G4POP<br>G4POP<br>G4POP   | Rua Dos Radio<br>P.O.Box- 1505<br>Rua Samaria 9<br>Avenida 1, 20<br>Verona 174 0                  | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 6<br>6<br>2<br>4<br>11      |   |

### Filters grid Confirmation status, bands and modes.

### Filter grids by date range

| tation Callsign   | •   |   |   |                                |                                  |   |                       |                   |                  |
|---|---|---|---|--------------------------------|----------------------------------|---|-----------------------|-------------------|------------------|
| Aland Islands     Aland Islands     Albania     Albania     Argeria     Argentina     Argentina     Armenia     Armenia     Ascension Island     Asiatic Russia     Astralia     Astralia | Statistic view by<br>Vorked<br>QSL<br>EQSL<br>LOTW<br>QRZCOM<br>HAMQTH<br>HRDLOG<br>CLUBLOG | QSO<br>From 🗹 01,   | Date range           Date range           /01/2025           /05/2025 | Contact data A                 | dditional filters                |   |                       |                   |                  |
| Azerbaijan  | Callsign  | Qso Date  | Band  | Mode                           | Station Callsign                 | Address   | Age                   | AIndex            |                  |
|   |   | -   |   | FM                             | G4POP                            | Rua Dos Radio   | -                     | 6                 | 2                |
| Bahamas   | DVCAA   |   |   |                                |                                  |   |                       |                   |                  |
| Balearic Islands  | PY6AA   | 21/01/2024 1  | 2m  |                                |                                  |   | -                     | -                 |                  |
| Balearic Islands<br>Barbados  | PY2OA   | 18/03/2022 1  | 15m   | CW                             | G4POP                            | P.O.Box- 1505   | 0                     | 6                 | 2                |
| Balearic Islands<br>Barbados<br>Belarus   | PY2OA<br>PY2IQ  | 18/03/2022 1<br>11/10/2020 1  | 15m<br>17m  | CW<br>FT8                      | G4POP<br>G4POP                   | P.O.Box- 1505<br>Rua Samaria 9                                  | 0                     | 6<br>2            | 2                |
| Balearic Islands<br>Barbados  | PY2OA   | 18/03/2022 1  | 15m<br>17m  | CW                             | G4POP                            | P.O.Box- 1505   | 0                     | 6                 | 2                |
| Balearic Islands<br>Barbados<br>Belarus<br>Belgium<br>Bosnia-Herzegovina<br>Brazil  | PY2OA<br>PY2IQ  | 18/03/2022 1<br>11/10/2020 1  | 15m<br>17m<br>17m   | CW<br>FT8                      | G4POP<br>G4POP                   | P.O.Box- 1505<br>Rua Samaria 9                                  | 0 0 0 0               | 6<br>2            | 2                |
| Balearic Islands<br>Barbados<br>Belarus<br>Belgium<br>Bosha-Herzegovina<br>Israzi<br>Bulgaria   | PY2OA<br>PY2IQ<br>PY2RAR  | 18/03/2022 1           11/10/2020 1           15/08/2020 1                        | 15m<br>17m<br>17m<br>15m  | CW<br>FT8<br>FT8               | G4POP<br>G4POP<br>G4POP          | P.O.Box- 1505<br>Rua Samaria 9<br>Avenida 1, 20                 | 0<br>0<br>0<br>0      | 6<br>2<br>4       | 2<br>0<br>0<br>0 |
| Balearic Islands<br>Barbados<br>Belarus<br>Belgium<br>Bosnia-Herzegovina<br>Brazil  | PY2OA<br>PY2IQ<br>PY2RAR<br>PY2CX   | 18/03/2022 1           11/10/2020 1           15/08/2020 1           15/07/2020 1 | 15m<br>17m<br>17m<br>15m<br>17m                                       | CW<br>FT8<br>FT8<br>FT8<br>FT8 | G4POP<br>G4POP<br>G4POP<br>G4POP | P.O.Box- 1505<br>Rua Samaria 9<br>Avenida 1, 20<br>Verona 174 0 | 0<br>0<br>0<br>0<br>0 | 6<br>2<br>4<br>11 | 2<br>0<br>0      |

### Filter by contact data

| Aland Islands<br>Albania<br>Albania<br>Algeria<br>Adarara<br>Adarara<br>Adarara<br>Adarara<br>Adarara<br>Adarara<br>Adarara<br>Adarara<br>Arustna<br>Aastic Russia<br>Aastic Russia<br>Austria<br>Austria<br>Austria<br>Austria<br>Austria<br>Austria<br>Austria<br>Austria<br>Austria<br>Across<br>Bahamas<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Bahamas<br>Belavis<br>Bahamas<br>Belavis<br>Bahamas<br>Belavis<br>Bahamas<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Belavis<br>Bel | tion Callsign  | •   |                              |                        |      |                  |                |     |        |    |
|---|--|---|------------------------------|------------------------|------|------------------|----------------|-----|--------|----|
| Azores'<br>Bahamas<br>Bahamas<br>Balearic IslandsCalisignQso DateBandModeStation CalisignAddressAgeAIndexPY6AA21/01/2024 12mFMG4POPRua Dos Radio06Balearic Islands<br>Balearic IslandsPY2OA18/03/2022 115mCWG4POPP.O.Box-150506PY2OA18/03/2022 115mCWG4POPRua Samaria 902PY2IQ11/10/2020 117mFT8G4POPAvenida 1, 2004PY2RAR15/08/2020 117mFT8G4POPVerona 174 0011PY2RAR15/07/2020 115mFT8G4POPRua Samaria 903Bulgaria<br>CanadaPY2IQ14/02/2018 120mFT8G4POPAlexta-Isea d00   | Albania<br>Algeria<br>Andorra<br>Argentina<br>Armenia<br>Aruba<br>Ascension Island<br>Astatic Russia<br>Australia<br>Australia | Worked<br>QSL<br>EQSL<br>LOTW<br>QRZCOM<br>HAMQTH<br>HRDLOG | Propagation Mo<br>Satellite  | de Satellite<br>QO-100 | ~    |                  |                |     |        |    |
| Bahamas         PY6A         21/01/2024 1         2m         FM         G4POP         Rua Dos Radio         0         6           Balearic Islands         Barbados         PY2OA         18/03/2022 1         15m         C/V         G4POP         P.O.Box- 1505         0         6           Barbados         PY2OA         18/03/2022 1         15m         C/V         G4POP         P.O.Box- 1505         0         6           Belgium         Bosnia-Herzegovina         PY2IQ         11/10/2020 1         17m         FT8         G4POP         Avenida 1, 20         0         4           Brazil         PY2CX         15/07/2020 1         17m         FT8         G4POP         Verona 174 0         0         11           Bulgaria         PY2IQ         14/02/2018 1         17m         FT8         G4POP         Rua Samaria 9         0         3           PY2IQ         14/02/2018 1         17m         FT8         G4POP         Rua Samaria 9         0         3   |  | Callsion  | Oso Date                     | Band                   | Mode | Station Callsion | Address        | Age | AIndex | A  |
| Balearic Islands         PY2OA         18/03/2022 1         15m         CW         G4POP         P.0.Box-1505         0         6           Barbados         Py2IQ         11/10/2020 1         17m         FT8         G4POP         Rua Samaria 9         0         2           Belgium         Py2IQ         11/10/2020 1         17m         FT8         G4POP         Avenida 1, 20         0         4           Brazi         Py2QX         15/07/2020 1         15m         FT8         G4POP         Verona 174 0         0         11           Bulgaria         Py2IQ         14/02/2018 1         17m         FT8         G4POP         Rua Samaria 9         0         3           Canada         Py2IQ         14/02/2017 1.         20m         FT8         G4POP         Alberta loss d         0         0   | Bahamas  | PY6AA   | 21/01/2024 1                 | 2m                     | FM   | G4POP            | Rua Dos Radio  | 0   | 6      | 22 |
| Belgium         PY2IQ         11/10/2020 1         17m         FT8         G4POP         Rua Samaria 9         0         2           Belgium         PY2RAR         15/08/2020 1         17m         FT8         G4POP         Avenida 1, 20         0         4           Bosnia-Herzegovina         PY2RAR         15/08/2020 1         17m         FT8         G4POP         Avenida 1, 20         0         4           Bulgaria         PY2IQ         14/02/2018 1         17m         FT8         G4POP         Rua Samaria 9         0         3           Canada         DVMR         14/02/2013 1         20m         TTP         C400P         Allocata lang d         0         0  |  |   |                              |                        | CW   | G4POP            |                |     |        | 22 |
| Belgium         PY2RAR         15/08/2020 1         17m         FT8         G4POP         Avenida 1, 20         0         4           Bosnia-Herzegovina         PY2CX         15/07/2020 1         17m         FT8         G4POP         Avenida 1, 20         0         4           Bulgaria<br>Canada         PY2LQ         15/07/2020 1         15m         FT8         G4POP         Verona 174 0         0         11   | balbauus   | PY210   |                              |                        | FT8  | G4POP            | Rua Samaria 9  | 0   | 2      | 0  |
| Bits         PY2CX         15/07/2020 1         15m         FT8         G4POP         Verona 174 0         0         11           Bulgaria         PY2IQ         14/02/2018 1         17m         FT8         G4POP         Rua Samaria 9         0         3           Canada         14/02/2018 1         17m         FT8         G4POP         Alberta Jaco         0         0  | Belarus  |   |                              |                        |      |                  |                |     |        | 0  |
| Bulgaria<br>Canada         PY2IQ         14/02/2018 1         17m         FT8         G4POP         Rua Samaria 9         0         3   | Belgium  |   |                              |                        |      |                  | -              |     |        | 0  |
| Canada 11/02/2010 11 Jun 11/00 CTP CAUCAD Address Control Address Control Control Address Control Cont  | Belgium<br>Bosnia-Herzegovina  |   | 15/07/2020 1                 |                        |      |                  |                |     |        | 2  |
| Capacity Telenter 14/07/2017 1 2011 F10 04POP Albeito Jose 0 0 0  | Belgium<br>Bosnia-Herzegovina<br>Brazil  | PY2CX   |                              |                        | ET9  | G4DOD            | Rua Samaria O  |     |        | 20 |
|   | Belgium<br>Bosnia-Herzegovina<br>Brazil<br>Bulgaria<br>Canada  | PY2CX<br>PY2IQ  | 14/02/2018 1                 | 17m                    |      |                  |                |     | 0      | 0  |
| Cayma Islands   | Belgium<br>Bosnia-Herzegovina<br>Brazil<br>Bulgaria  | PY2CX<br>PY2IQ  | 14/02/2018 1<br>14/07/2017 1 | 17m<br>20m             |      |                  | Alberto Jose d | 0   | 0      | 0  |

### Filter grid data by Additional filters

| Intry Statistics Grid Statistics  |   |                              |       |                 |                   |                |     |        |    |
|---|---|------------------------------|-------|-----------------|-------------------|----------------|-----|--------|----|
| tation Callsign   | •   |                              |       |                 |                   |                |     |        |    |
| Aland Islands Albania | Statistic view by<br>Worked<br>QSL<br>EQSL<br>LOTW<br>QRZCOM<br>HAMQTH<br>HRDLOG<br>CLUBLOG | Band and mode                | orked | Contact data Ar | dditional filters |                |     |        |    |
| Azerbaijan<br>Azores  | Callsign  | Oso Date                     | Band  | Mode            | Station Callsign  | Address        | Age | AIndex |    |
| Bahamas   | PY6AA   | 21/01/2024 1                 | 2m    | FM              | G4POP             | Rua Dos Radio  | 0   | 6      | 22 |
| Balearic Islands  | PY2OA   | 18/03/2022 1                 | 15m   | CW              | G4POP             | P.O.Box- 1505  | 0   | 6      | 2  |
|   | PY2IQ   | 11/10/2020 1                 | 17m   | FT8             | G4POP             | Rua Samaria 9  | 0   | 2      | 0  |
|   | PY2RAR  | 15/08/2020 1                 | 17m   | FT8             | G4POP             | Avenida 1, 20  | 0   | 4      | 0  |
| Belgium   | PTZNAN  |                              | 15m   | FT8             | G4POP             | Verona 174 0   | 0   | 11     | 0  |
|   | PY2CX   | 15/07/2020 1                 |       |                 |                   | Due Comparie O | 0   | 3      | 2  |
|   |   | 15/07/2020 1<br>14/02/2018 1 |       | FT8             | G4POP             | Rua Samaria 9  | 0   |        |    |
|   | PY2CX   |                              | 17m   | FT8<br>FT8      | G4POP<br>G4POP    | Alberto Jose d |     | 0      | 0  |

The filtered results can be viewed as a QSO map or on Google Earth and exported to an Excel spreadsheet.

## Award status

The status of award confirmations, submissions and credit is displayed in the Awards Statistics form (View/Awards Statistics) by selecting DXCC from the awards menu and the type of DXCC award from the Preferred config. menu.

| d view Award filters Statistics Ma | intenance Massive | editor             |           |                  |      |     |     |     |     |     |     |     |     |    |    |      |   |
|------------------------------------|-------------------|--------------------|-----------|------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|----|------|---|
| lefined config                     | Reference         | Reference          | Reference | Country          | 160m | 80m | 40m | 30m | 20m | 17m | 15m | 12m | 10m | 6m | 2m | 70cm | ^ |
| ED                                 | 1                 | VE - Canada        | NA        | Canada           |      | С   | С   | v   | v   | V   | v   | v   | v   | с  |    |      |   |
|                                    | 3                 | YA - Afghanistan   | AS        | Afghanistan      |      |     |     |     | v   |     |     |     |     |    |    |      | - |
|                                    | 4                 | 387 - Agalega      | AF        | Agalega & St     |      |     | v   | V   | v   |     |     |     |     |    |    |      |   |
|                                    | 5                 | OH0 - Aland Is.    | EU        | Aland Island     |      |     | С   | v   |     | с   | v   |     | v   |    |    |      |   |
|                                    | 6                 | KL7 - Alaska       | NA        | Alaska           |      |     |     | С   | v   |     |     |     |     |    |    |      |   |
|                                    | 7                 | ZA - Albania       | EU        | Albania          |      | W   | С   | v   |     | с   | С   | w   | с   |    |    |      |   |
| trict mode 😧                       | 9                 | KH8 - America      | oc        | American Samoa   |      |     |     |     | v   |     | v   |     | с   |    |    |      |   |
|                                    | 10                | FT5Z - Amster      | AF        | Amsterdam &      |      |     |     | V   |     |     |     | v   | v   |    |    |      |   |
|                                    | 11                | VU4 - Andama       | AS        | Andaman & Ni     |      |     |     |     | V   |     | v   | С   | v   |    |    |      |   |
|                                    | 12                | VP2E - Anguila     | NA        | Anguila          |      |     |     | v   |     |     |     |     |     |    |    |      |   |
|                                    | 13                | CE9, KC4 - An      | AN        | Antarctica       |      |     | w   |     | v   | w   | С   |     | С   |    |    |      |   |
|                                    | 14                | EK - Armenia       | AS        | Armenia          |      |     |     | С   | С   | v   | с   |     |     |    |    |      |   |
|                                    | 15                | UA9, UA0 - As      | AS        | Asiatic Russia   |      | w   | С   | v   |     |     |     |     |     |    |    |      |   |
|                                    | 16                | ZL9 - New Ze       | oc        | New Zealand      |      |     |     |     | v   |     |     |     |     |    |    |      |   |
|                                    | 17                | YV0 - Aves I.      | NA        | Aves Is.         |      |     | v   |     | v   |     |     |     |     |    |    |      |   |
|                                    | 18                | 43 - Azerbağan     | AS        | Azerbaijan       |      |     | w   | v   | с   | v   | v   | С   | С   |    |    |      |   |
|                                    | 20                | KH1 - Baker &      | oc        | Baker & Howla    |      |     |     |     | v   |     |     |     |     |    |    |      |   |
|                                    | 21                | EA6 - Balearic Is. | EU        | Balearic Is.     |      | V   | с   | v   |     |     | С   | С   | с   | v  |    |      |   |
|                                    | 22                | T8 - Palau         | OC        | Palau            |      |     |     |     | V   | С   | С   | С   |     |    |    |      |   |
| ion .                              | 24                | 3Y - Bouvet        | AF        | Bouvet           |      |     |     |     | v   |     |     |     |     |    |    |      | 1 |
| VORKED                             | 27                | EU - Belarus       | EU        | Belarus          |      | V   | V   |     | с   | С   | С   | v   | с   |    |    |      |   |
| NFIRMED                            | 29                | EA8 - Canary Is.   | AF        | Canary Is.       | v    | С   | С   | v   |     |     | v   | v   | v   | v  | С  |      |   |
| LIDATED                            | 31                | T31 - C. Kiriba    | 00        | Central Kiribati |      |     |     |     | v   |     |     |     |     |    |    |      |   |

The awards filters tab enables advanced filtering of awards (Not major default awards like DXCC etc)

| 🦞 Awards status                             |  |  |   | - 🗆        | ×     |
|---|--|--|---|------------|-------|
| Award DXCC - DXCC                           | 🛔 Import data                            |  |   |            | Ô     |
| Award view Award filters Statistics Mainter | nance Massive editor                     |  |   |            |       |
| Ochaser view                                | Valid bands Emission                     | Valid modes Valid cont                       | DXCC  |            |       |
| Activator view                              | ✓ — ○ CW<br>DIGITAL                      | 4-5 4-5                                      | 🛩 — 🗇 🧔 Cont 🔹  |            |       |
| Reference to Reference view                 | 160m     PHONE     PHONE     40m     30m | AM AF<br>AMTORFEC AN<br>ARDOP AS             | <ul> <li>□ Abu Ail Is. [deleted]</li> <li>□ Afghanistan</li> <li>□ Agalega &amp; St. Brandon Is.</li> <li>□ Aland Island</li> </ul> | ^          |       |
| Award resets yearly                         | 20m                                      | C4FM NA<br>CHIP OC                           | Alaska  |            |       |
| Satellite contacts only                     | 0 items selected                         | SA     O items selected     O items selected | Aldabra [deleted] 0 items selected  | ~          |       |
| Exclude satellite contacts                  | Specific groups                          | Specific Sub Groups                          | U items selected  |            |       |
| Range filter                                | V = 0                                    |  |   |            |       |
| From 28/05/2020                             | □ NA                                     | <b>^</b>                                     |   |            |       |
| To 28/05/2020                               | AF<br>SA                                 |  |   |            |       |
|   | AS AS                                    |  |   |            |       |
| IGNORE ALL FILTERS                          |  |  | Refresh   |            |       |
| 0   | AN AN                                    | <b>~</b>                                     | C   |            |       |
| -   | 0 items selected                         | 0 items selected                             |   |            |       |
|   |  |  |   |            |       |
|   |  |  |   |            |       |
|   |  |  |   |            |       |
|   |  |  |   |            |       |
|   |  |  |   |            |       |
|   |  |  |   |            |       |
|   |  |  |   |            |       |
| CHASER ACTIVATOR                            |  |  | VIEW REFERENCE BY QS  | O CONFIRMA | TION: |

Complete statistics for confirmation and award credited status is displayed in the 'Statistics' tab

| ward view Awa |      | Statistics |     |     |     |     |     |     |     |    |    |      |       |
|---------------|------|------------|-----|-----|-----|-----|-----|-----|-----|----|----|------|-------|
| Statistic     | 160m | 80m        | 40m | 30m | 20m | 17m | 15m | 12m | 10m | 6m | 2m | 70cm | Total |
| NORKED        | 38   | 79         | 172 | 181 | 326 | 309 | 300 | 267 | 269 | 58 | 5  | 2    | 339   |
| CONFIRMED     | 36   | 70         | 149 | 164 | 322 | 301 | 290 | 251 | 254 | 46 | 5  | 2    | 339   |
| /ALIDATED     | 31   | 58         | 89  | 143 | 234 | 199 | 186 | 161 | 169 | 37 | 1  | 2    | 317   |
| SUBMITTED     |      |            |     |     |     |     |     |     |     |    |    |      |       |
| GRANTED       |      |            |     |     |     |     |     |     |     |    |    |      |       |
| NORKED CW     | 2    | 17         | 51  | 159 | 133 | 141 | 76  | 66  | 42  | 9  |    |      | 261   |
| CONFIRMED CW  | 2    | 14         | 37  | 141 | 112 | 124 | 65  | 59  | 38  | 8  |    |      | 239   |
| ALIDATED CW   | 2    | 13         | 21  | 106 | 82  | 80  | 42  | 46  | 33  | 8  |    |      | 207   |
| SUBMITTED CW  |      |            |     |     |     |     |     |     |     |    |    |      |       |
| GRANTED CW    |      |            |     |     |     |     |     |     |     |    |    |      |       |
| WORKED DIGI   | 30   | 48         | 43  | 95  | 79  | 33  | 32  | 27  | 42  | 9  |    |      | 147   |
| CONFIRMED D   | 26   | 43         | 30  | 78  | 66  | 23  | 24  | 20  | 30  | 9  |    |      | 129   |
| VALIDATED D   | 26   | 41         | 30  | 76  | 59  | 18  | 21  | 19  | 22  | 9  |    |      | 117   |
| SUBMITTED D   |      |            |     |     |     |     |     |     |     |    |    |      |       |
| GRANTED DIG   |      |            |     |     |     |     |     |     |     |    |    |      |       |
| NORKED PHO    | 16   | 50         | 151 |     | 321 | 293 | 292 | 240 | 253 | 51 | 5  | 2    | 336   |
| CONFIRMED P   | 16   | 36         | 128 |     | 315 | 274 | 279 | 220 | 236 | 38 | 5  | 2    | 335   |
| ALIDATED P    | 9    | 15         | 65  |     | 209 | 152 | 163 | 123 | 141 | 28 | 1  | 2    | 294   |
| SUBMITTED P   |      |            |     |     |     |     |     |     |     |    |    |      |       |
| SRANTED PH    |      |            |     |     |     |     |     |     |     |    |    |      |       |

### Viewing confirmations in awards that rely on upload management

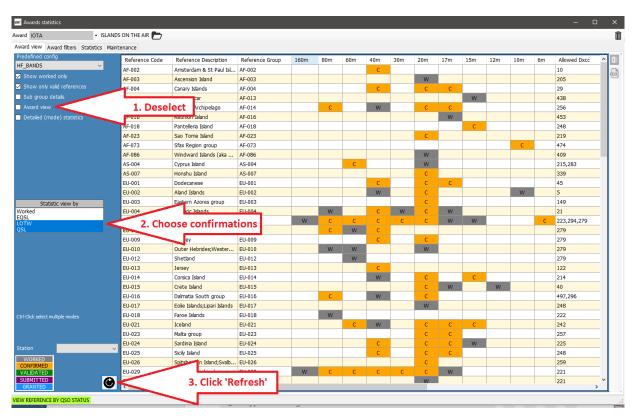
Some awards do not require confirmation by the normal methods of paper QSL's, LOTW, eQSL etc because the awards are confirmed and credited by an upload to the award manager only e.g. IOTA and SOTA.

With these awards the display will only provide a grey 'Worked' status cell for the references worked as below.

| ward view Award filters Statistics M | laintenance Massive | editor         |               |         |      |     |     |     |     |     |     |     |     |     |    |    |
|--------------------------------------|---------------------|----------------|---------------|---------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| redefined config                     | Reference           | Reference      | Reference     | Country | 160m | 80m | 60m | 40m | 30m | 20m | 17m | 15m | 12m | 10m | 6m | 4m |
| HASER ~                              | 9H/GO-001           | Ta'Dbiegi      | Malta         | Malta   |      |     |     |     | W   |     |     |     |     |     |    |    |
|                                      | EA1/CT-081          | Las Nievespico | Spain - North | Spain   |      |     |     |     |     | W   |     |     |     |     |    |    |
|                                      | EA2/BI-057          | Ereñozar       | Spain - North | Spain   |      |     |     | w   |     |     |     |     |     |     |    |    |
| Sub group details                    | G/SP-013            | Gun            | England       | England |      |     |     |     |     |     |     | W   |     |     |    |    |
| Award view                           | OE/SB-271           | Lidaunberg     | Austria       | Austria |      |     |     |     |     | W   |     |     |     |     |    |    |
| Detailed (mode) statistics           | SP/BZ-028           | Praszywka Wie  | Poland        | Poland  |      |     |     |     |     | W   |     |     |     |     |    |    |
| Strict mode                          | SV/AA-001           | Athos          | Greece        | Greece  |      |     |     |     |     | W   |     | W   |     |     |    |    |
| •                                    | SV/ST-062           | Seintani       | Greece        | Greece  |      |     |     |     |     | W   |     |     |     |     |    |    |
|                                      |                     |                |               |         |      |     |     |     |     |     |     |     |     |     |    |    |
| tion                                 | ✓                   |                |               |         |      |     |     |     |     |     |     |     |     |     |    |    |

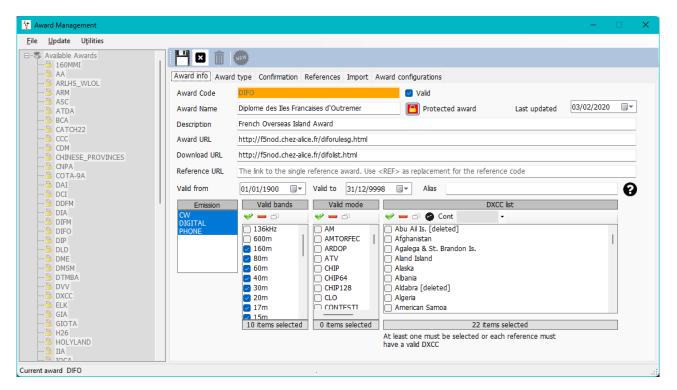
It is possible to choose to display confirmations by:

- 1. By de-selecting the 'Award view' check box
- 2. Selected the confirmation types from the 'Statistics view by' menu
- 3. Click on the refresh button.



# Awards Manager - Basic use

It is possible to edit, create, import and export awards using the Awards Manager (Utilities/Award manager)



Double left clicking any award in the left-hand pane will open it ready for editing



Awards can be backed up, imported and exported using the File menu and updated via the update menu while the Utilities menu provides Excel file management for merging files.

### Backup and restore user awards

Select in the 'File menu

#### **Exporting an award**

Select the award by double clicking on it in the left-hand pane.

- Select File/Export award.
- Select a location, provide a name and save.

### Importing an Award

- Go to Utilities/Award manager then File/Import award select file close award manager.
- Go to Settings/maintenance/rescan QSO References (This will take some time but you can watch its progress in the Help/Real time log window

### **Updating Awards**

Provides update of IOTA, SOTA and the Log4OM general awards

### Utilities

Allows merging and export of Excel worksheets.

| 🦅 Log4OM NG Log Viewer   |   | - | ×      |
|--|---|---|--------|
| 11:40:10.397 Info:<br>11:40:10.414 Info:<br>11:40:10.455 Info:<br>11:42:02.144 Info:<br>11:42:02.148 Info:<br>11:42:02.198 Info:<br>11:42:02.235 Info:<br>11:42:02.235 Info:<br>11:42:42.934 Info:<br>11:42:42.924 Info:<br>11:42:42.924 Info:<br>11:42:42.924 Info: | * [AwardsDatabase][45 ms] : Awards list retrieved from database<br>[AwardsDatabase] : Loading Awards list from database<br>[AwardsDatabase][45 ms] : Awards list retrieved from database |   | ^<br>> |
| Lock display Clear Save log  |   |   | ОК     |

• When the bottom line indicates 'Award update complete', the log window can be closed

## Award credit - Editing

There can be occasions where award credits require editing, either singly or in bulk. Single award credit editing can be accomplished by double clicking on the relevant QSO and selecting the 'Award Refs' tab in the edit window, selecting the award and checking/unchecking the submitted and granted check boxes.

| Edit QSO   |                          |                                |  | ×       |
|--|--------------------------|--------------------------------|--|---------|
| QSO Info His details A   | ward Refs. My Station My | QTH My Refs. QSL Info          |  |         |
| F Award IOTA<br>Group AF-002<br>Sub<br>AF-002 Amsterdam St I<br>☑ IOTA@AF-002<br>☑ DXCC@10<br>☑ WAZ@39 | Paul Islands             | References<br>Search<br>AF-002 | Ref. Status VALIDATEI<br>SUBMITTED<br>V — C<br>HF bands<br>1 items selected<br>Changes in status/sub<br>should be explicitly say | GRANTED |
| MC   |                          |                                |  |         |

# Award Credit – Bulk Editing

When more than one QSO requires credit updating:

- 1. Open the 'View/Award status' display
- 2. Select the required award

|                                    | ANDS ON THE AIR            |                             |           |                           |      |     |     |     |     |     |     |     |     |     |        |   |
|------------------------------------|----------------------------|-----------------------------|-----------|---------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|---|
| ward view Award filters Statistics | Maintenance Mas            | sive editor                 |           |                           |      |     |     |     |     |     |     |     |     |     |        | _ |
| vedenied coning                    | Reference                  | Reference Description       | Reference | Country                   | 160m | 80m | 60m | 40m | 30m | 20m | 17m | 15m | 12m | 10m | 6m - 1 | ^ |
|                                    | AF-002                     | Amsterdam & St Paul Islands | AF-002    | Amsterdam & St. Paul Is.  |      |     |     |     | v   | v   | v   |     | V   |     | _      |   |
|                                    | AF-003                     | Ascension Island            | AF-003    | Ascension Is.             |      |     |     |     |     |     |     |     |     | GRA |        |   |
| Show only valid references         | AF-004                     | Canary Islands              | AF-004    | Canary Is.                |      | w   |     | W   |     |     |     |     |     |     | w      |   |
| Sub group details                  | AF-005                     | Leeward Islands (aka Sotav  | AF-005    | Cape Verde                |      |     |     | W   |     | W   |     |     |     |     | GRA    |   |
| Award view                         | AF-006                     | Diego Garcia Island         | AF-006    | Chagos Is.                |      |     |     |     |     |     |     |     |     |     |        |   |
|                                    | AF-007                     | Comoro Islands              | AF-007    | Comoros                   |      |     |     |     | w   |     |     |     |     |     | w      |   |
| Strict mode                        | AF-008                     | Crozet Islands              | AF-008    | Crozet Is.                |      |     |     |     |     | GRA |     |     |     |     |        |   |
| •                                  | AF-009                     | Europa Island               | AF-009    | Juan de Nova, Europa      |      |     |     |     |     |     | GRA |     |     | GRA |        |   |
|                                    | AF-010                     | Bioco (aka Fernando Poo) Is | AF-010    | Equatorial Guinea         |      |     |     |     |     | GRA | v   |     |     |     |        |   |
|                                    | AF-011                     | Glorioso Islands            | AF-011    | Glorioso Is.              |      |     |     |     |     | v   | V   | GRA | v   |     |        |   |
|                                    | AF-012                     | Juan de Nova Island         | AF-012    | Juan de Nova, Europa      |      |     |     |     |     |     |     | V   |     | GRA |        |   |
|                                    | AF-013                     | Madagascar                  | AF-013    | Madagascar                |      |     |     |     |     | GRA |     |     |     |     |        |   |
|                                    | AF-014                     | Madeira Archipelago         | AF-014    | Madeira Is.               |      | GRA |     | GRA |     |     |     | W   |     |     | w      |   |
|                                    | AF-015                     | Saint Brandon Islands       | AF-015    | Agalega & St. Brandon Is. |      |     |     | W   |     |     |     |     |     |     |        |   |
|                                    | AF-016                     | Reunion Island              | AF-016    | Reunion Is.               |      |     |     |     |     | w   |     | GRA |     |     |        |   |
| tation                             | <ul> <li>AF-017</li> </ul> | Rodrigues Island            | AF-017    | Rodrigues Is.             |      |     |     |     |     | GRA |     |     |     |     |        |   |
| WORKED                             | AF-018                     | Pantelleria Island          | AF-018    | Italy                     |      |     |     |     |     |     |     | w   |     |     |        |   |
| CONFIRMED                          | AF-019                     | Pelagie Islands             | AF-019    | Italy                     |      |     |     |     |     | GRA |     |     |     |     |        | 1 |
| VALIDATED<br>SUBMITTED             | AF-020                     | Bijagos Archipelago         | AF-020    | Guinea-Bissau             |      |     |     | W   |     | GRA |     |     |     |     |        | ~ |
| GRANTED                            |                            |                             |           |                           |      |     |     |     |     |     |     |     |     |     | ~      | 1 |

- 3. Select the 'Massive editor' tab
- 4. Filter then highlight the QSO's for editing
- 5. Select the required action

| ward view Awa     | rd filters Statis | tics Maintenance | Massive e | dtor             |               |     |        |        |        |           |           |           |           |   |
|-------------------|-------------------|------------------|-----------|------------------|---------------|-----|--------|--------|--------|-----------|-----------|-----------|-----------|---|
| Action            |                   | Remove Grante    |           | Set Granted      |               |     |        |        |        |           |           |           |           |   |
|                   |                   |                  |           | aec oranced      |               |     |        |        |        |           |           |           |           |   |
| Granted key (blar | nk for ALL)       |                  | ~         |                  |               |     |        |        |        |           |           |           |           |   |
|                   |                   | Remove Submitt   | ted       | Set Submitted    |               |     |        |        |        |           |           |           |           |   |
| Submitted key (b  | blank for ALL)    |                  | ~         |                  |               |     |        |        |        |           |           |           |           |   |
|                   |                   | Set UNCONFIRM    | IFD       | Set CONFIRMED    | Set VALIDATED |     |        |        |        |           |           |           |           |   |
| Callsign          | Oso Date          | Band             | Mode      | Station Callsign | Address       | Age | AIndex | Ant Az | Ant El | Ant Path  | Antenna   | Arrl Sect | Band Rx   | _ |
| G81945PJ          | 12/05/2020 2.     |                  | FT8       | CT1BXX           | 1001000       | 0   | 0      | 0      | 0      | THICT GOI | THICCHING | Ten Decc  | Danie Tex |   |
| GB1945PJ          | 07/05/2020 1.     |                  |           | CT1BXX           |               |     |        |        |        |           |           |           |           |   |
| WP4IRV            | 02/05/2020 1.     |                  |           |                  |               |     |        |        |        |           |           |           |           |   |
| VK7AC             | 01/05/2020 2.     | 40m              |           | CT1BXX           |               |     |        |        |        |           |           |           |           |   |
| AM8WARD           | 20/04/2020 1.     |                  |           |                  |               |     |        |        |        |           |           |           |           |   |
| AMSWARD           | 20/04/2020 1.     | 15m              | SSB       | CT1BXX           |               |     |        |        |        |           |           |           |           |   |
| AMBWARD           | 20/04/2020 1.     |                  |           | CT1BXX           |               |     |        |        |        |           |           |           |           |   |
| AMBWARD           | 19/04/2020 2.     | 40m              | SSB       | CT1BXX           |               |     |        |        |        |           |           |           |           |   |
| 8A95IARU          | 19/04/2020 1.     | 20m              |           | CT1BXX           |               |     |        |        |        |           |           |           |           |   |
| AM6WARD           |                   |                  |           |                  |               |     |        |        |        |           |           |           |           |   |
| AM8WARD           |                   |                  |           |                  |               |     |        |        |        |           |           |           |           |   |
|                   |                   |                  |           |                  |               |     |        |        |        |           |           |           |           |   |
|                   |                   |                  |           |                  |               |     |        |        |        |           |           |           |           |   |
|                   |                   |                  |           |                  |               |     |        |        |        |           |           |           |           |   |
| IK4LZH            |                   |                  |           |                  |               |     |        |        |        |           |           |           |           |   |
| IKALZH            | 08/04/2020 1      |                  |           | CT18YY           |               | 0   | 0      | 0      | 0      |           |           |           |           |   |

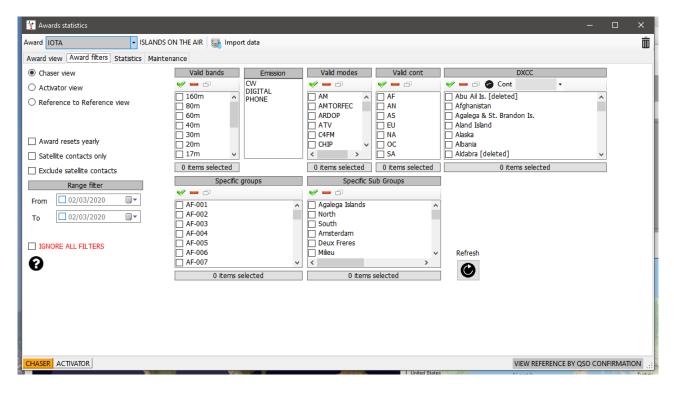
- 6. Click on the relevant action (Remove Granted, Set Granted, Set confirmed etc.)
- 7. Click 'OK' in the warning box to proceed

### **IOTA Award handling**

- Open the View/Award statistics screen
- Select the IOTA award from the drop down 'Award' menu
- To view only those islands worked check the 'Show worked only' check box

| vard view Award filters Statistics | Maintenance    |                               |                            |      |     |     |     |     |     |     |     |     |     |          |
|------------------------------------|----------------|-------------------------------|----------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| redefined config                   | Reference Code | Expo<br>Reference Description | rt data<br>Reference Group | 160m | 80m | 60m | 40m | 30m | 20m | 17m | 15m | 12m | 10m | ^        |
| ~                                  | HB/LU-023      | Dottenberg/ Dotteberg         | Switzerland                |      |     |     |     |     | w   |     |     |     |     |          |
| Show worked only                   | HB/LU-026      | Werniswald                    | Switzerland                |      |     |     |     |     | w   |     |     |     | w   | - 6      |
| Show only valid references         | HB/LU-029      | Bireggwald                    | Switzerland                |      |     |     |     | w   |     |     |     |     |     | 11       |
| Sub group details                  | HB/NE-007      | Le Soliat                     | Switzerland                |      |     |     |     |     | w   |     |     |     |     |          |
| Award view                         | HB/NW-010      | Widderfeld Stock              | Switzerland                |      |     |     |     |     | w   |     |     |     |     |          |
| Detailed (mode) statistics         | HB/NW-012      | Oberbauenstock                | Switzerland                |      |     |     |     | w   |     |     |     |     |     |          |
| Strict mode                        | HB/NW-014      | Niederbauen Chulm             | Switzerland                |      | w   |     |     |     |     |     |     |     |     |          |
| Suice mode                         | HB/NW-018      | Klewenstock                   | Switzerland                |      |     |     |     | w   |     |     |     |     |     |          |
|                                    | HB/NW-021      | Drachenflue                   | Switzerland                |      |     |     |     |     | w   |     |     |     |     |          |
|                                    | HB/NW-022      | Rotzberg                      | Switzerland                |      |     |     |     | W   |     |     |     |     |     |          |
|                                    | HB/OW-004      | Wissigstock                   | Switzerland                |      |     |     | w   |     |     |     |     |     |     |          |
|                                    | HB/OW-010      | Brienzer Rothorn              | Switzerland                |      |     |     |     | W   | w   |     |     |     | W   | É l      |
|                                    | HB/OW-014      | Güpfi                         | Switzerland                |      |     |     |     |     |     |     |     |     | W   |          |
|                                    | HB/OW-020      | Miesenstock                   | Switzerland                |      |     |     |     |     | w   |     |     |     |     |          |
|                                    | HB/OW-025      | Haglere                       | Switzerland                |      |     |     |     |     | w   |     |     |     |     |          |
|                                    | HB/SG-012      | Muntaluna                     | Switzerland                |      |     |     | w   |     |     |     |     |     |     |          |
|                                    | HB/SG-017      | Hinterrugg/ Hinderrugg        | Switzerland                |      |     |     |     |     | W   |     |     |     |     |          |
|                                    | HB/SG-024      | Leistchamm                    | Switzerland                |      |     |     |     |     | W   |     |     |     |     |          |
|                                    | HB/SG-033      | Gulmen/ Gulme                 | Switzerland                |      |     |     |     |     | w   |     |     |     |     |          |
|                                    | HB/SG-044      | Wilkethöchi                   | Switzerland                |      |     |     |     | W   | w   |     |     |     |     |          |
|                                    | HB/SG-046      | Ruine Neutoggenburg           | Switzerland                |      |     |     |     |     | w   |     | W   |     |     |          |
|                                    | HB/SG-049      | Selun                         | Switzerland                |      |     |     |     |     |     |     |     |     |     |          |
| ation                              | HB/SG-060      | Tweralpspitz                  | Switzerland                |      |     |     |     | W   |     |     |     |     |     |          |
|                                    | HB/SH-001      | Hagen                         | Switzerland                |      |     |     |     |     |     |     | W   |     |     |          |
| WORKED<br>CONFIRMED                | HB/SH-002      | Wannenberg/ Wannebärg         | Switzerland                |      |     |     |     |     | W   |     |     |     |     |          |
| ALIDATED                           | HB/SO-001      | Hasenmatt                     | Switzerland                |      |     |     |     |     | W   |     |     |     |     |          |
| SUBMITTED<br>GRANTED               | HR/SOL002      | Granchanharg                  | Switzerland                |      |     |     | \M/ |     |     |     |     |     |     | <b>~</b> |

- Clicking on the 'Award Filters' tab provides access to a wide range of filtering opportunities
- Select the filters required and then the refresh button



• The statistics tab displays information about the number of islands worked by band, mode and confirmation status.

| Award view Aw | ard filters | Statistics | Maintenar | nce |     |     | Export | data |     |     |    |    |       |  |
|---------------|-------------|------------|-----------|-----|-----|-----|--------|------|-----|-----|----|----|-------|--|
| Statistic     | 160m        | 80m        | 60m       | 40m | 30m | 20m | 17m    | 15m  | 12m | 10m | 6m | 2m | Total |  |
| WORKED        |             | 2          | 30        | 23  | 87  | 115 | 9      | 15   |     | 19  | 1  | 2  | 251   |  |
| CONFIRMED     |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| VALIDATED     |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| SUBMITTED     |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| GRANTED       |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| WORKED CW     |             | 1          | 14        | 21  | 87  | 108 | 9      | 15   |     | 18  |    |    | 226   |  |
| CONFIRMED CW  |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| VALIDATED CW  |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| SUBMITTED CW  | '           |            |           |     |     |     |        |      |     |     |    |    |       |  |
| GRANTED CW    |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| WORKED DIGI   |             |            |           |     |     | 1   |        |      |     |     |    |    | 1     |  |
| CONFIRMED D   |             | _          |           |     |     |     |        |      |     |     |    |    |       |  |
| VALIDATED D   |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| SUBMITTED D   |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| GRANTED DIG   |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| WORKED PHO    |             | 1          | 16        | 2   |     | 8   | 1      |      |     | 1   | 1  | 2  | 32    |  |
| CONFIRMED P   |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| VALIDATED P   |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| SUBMITTED P   |             |            |           |     |     |     |        |      |     |     |    |    |       |  |
| GRANTED PH    |             |            |           |     |     |     |        |      |     |     |    |    |       |  |

• On occasion it may be required to rescan the award references, and this can be done from the 'Maintenance' tab.

| Avard gota  Sumits On The AV  Sumits On The AV  Avard tew Avard files Statuto  Kernelse of the current avards from your lop.  Subset Actwork  Sumatic Sumatic On the AV  Sumatic On the | 🙀 Awards statistics   |                     | - 0           | ×    |
|--|---|---------------------|---------------|------|
| WARNING:         This buttom will REMOVE all references of the current awards from your bg.         DapOM is able to rebuild references of the current awards from your bg.         Is some cause of your how directly swed the reference is the SOO without withing anything in the comments, and the reference is not recoverable from QSO data, this reference cannot be AUTOMATICALLY recovered and will be lost. Use at your own risk         WIPE AWARD REFERENCES         RESCAN AWARD REFERENCES   | f Award SOTA - Summits On The Air 🙀 Import data 🧕 Export data   |                     |               | Ē    |
| The buttom will REMOVE all references from QSO data, if enough data are available.<br>LogiOM is able to rebuild references from QSO data, if enough data are available.<br>If the SOF cases if you can be soft wat be reference in the QSO without withing anything in the comments, and the reference is not recoverable from QSO data, this reference cannot<br>be AUTOMATEALLY recovered and will be lost. Use at your own text<br>WIDE AWARD REFERENCES<br>RESCAN AWARD REFERENCES<br>RESCAN AWARD REFERENCES  | E Award view Award filters Statistics Maintenance   |                     |               |      |
|  | This button will REMOVE all references of the current awards from your log.<br>Log4OM is able to rebuild references from QSO data, if enough data are available.<br>In some cases if you have directly saved the reference in the OSO without writing anything in the comments, and the reference is not recoverable from OSO data, this reference ca   | nnot                |               |      |
|  | WIPE AWARD REFERENCES   |                     |               |      |
|  | RESCAN AWARD REFERENCES   |                     |               |      |
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| CHASER ACTIVATOR VIEW REFERENCE BY QSO CONFIRMATION ::   | 1   |                     |               |      |
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| CHASER ACTIVATOR VIEW REFERENCE BY QSO CONFIRMATION ::   |   |                     |               |      |
| CHASER ACTIVATOR VIEW REFERENCE BY QSO CONFIRMATION ::   |   |                     |               |      |
| CHASER ACTIVATOR VIEW REFERENCE BY QSO CONFIRMATION ::   | iq  |                     |               |      |
|  |   | VIEW REFERENCE BY C | SO CONFIRMATI | ION: |

### Updating using the IOTA CSV download file

IOTA provide a CSV download of the users QSO awards status in csv (Comma separated value) format and that file can be merged with the users Log4OM logbook to update the Validated or Granted status.

- In the IOTA award window click the 'Import data' button on the top tool bar
- Select the csv file previously downloaded from the IOTA web site
- Select the (,) Comma field separator from the 'Field separator' drop down menu
- Check the 'File contains header' box
- Click 'Preview'

| Batch confirmation in   | nport   | ×           |
|---|---|-------------|
| Parameter setting   | Execution   |             |
| Import file   | C:\Users\g4poparrl.net\Desktop\IOTA_rsgb_importado.csv  | <b>D</b> 🔀  |
| Field separator   | , 🗸 🗸 File contains header  |             |
| Preview   |   | [           |
| "AF-002","FT5ZM","2<br>"AF-003","ZD8Z","00<br>"AF-004","EA8AJO","   | "UTC", "Count for", "Method", "Status"<br>2014-01-29 11:21:00", "HF bands", "QSL", "Accepted"<br>100-00-00 00:00:00", "HF bands", "QSL", "Accepted"<br>1000-00-00 00:00:00", "HF bands", "QSL", "Accepted"<br>1000-00-00 00:00:00", "HF bands", "QSL", "Accepted" | ^<br>>      |
| Drag and drop fields  | s into relevant destination fields  | 🗙 Clear     |
| Award IOTA  | Multiple credit separator   | Save config |
| Fields identified   | QSO match fields Award match fields Award match rules   |             |
| 0 # "Ref. No."<br>1 # "Callsign"<br>2 # "UTC"<br>3 # "Count for"<br>4 # "Method"<br>5 # "Status"<br>✓ Allow reuse of fi | Fields match   Callsign   Reference (opt)   Band   Mode   Date   Date   Date   Date + Time   HH ~: ~ mm ~: ss ~ (   |             |
|   |   |             |

### Updating modified award references

From time-to-time award providers change the style of the award references, recently an award organisation changed their award references but unfortunately did not provide a table for cross referencing the old reference with the new one, further they omitted any method of relating the reference to the country/entity because they removed the country prefix and did not provide a DXCC entity reference.

Fortunately, Log4OM has provided a method of migrating old award references previously logged against historic QSO's to the modified references.

In the Utilities/award manager screen, select 'Utilities'

| <u>F</u> ile <u>U</u> pdate U <u>t</u> ilities |                  |                     |                     |                                     |              |            | × |
|--|------------------|---------------------|---------------------|-------------------------------------|--------------|------------|---|
|  | - H 🛛 💼 H        | NEW                 |                     |                                     |              |            |   |
| 🖰 🗛  | Award info Award | type Confirmation F | References Import A | ward configurations                 |              |            |   |
| ARLHS_WLOL                                     | Award Code       |                     |                     | 🗌 Valid                             |              |            |   |
| 🖰 ASC  |                  |                     |                     |                                     |              | 24/06/2024 |   |
| 🔁 ATDA   | Award Name       |                     |                     | Protected award                     | Last updated | 24/06/2024 |   |
| BCA<br>CATCH22                                 | Description      |                     |                     |                                     |              |            |   |
|  | Award URL        |                     |                     |                                     |              |            |   |
| 🖰 CDM  |                  |                     |                     |                                     |              |            |   |
| CHINESE_PROVINCES                              | Download URL     |                     |                     |                                     |              |            |   |
| CNPA   | Reference URL    |                     |                     |                                     |              |            |   |
| DAI  | Valid from       | 01/01/1900          | Valid to 31/12/99   | Alias                               |              |            | • |
| 🖰 DCI  | Valid from       | 01/01/1900          | Valid to 31/12/999  | Alids                               |              |            | 0 |
| DDFM   | Emission         | Valid bands         | Valid mode          | DXC                                 | CC list      |            |   |
| DIA  | CW               | V = 6               | V = 0               | 🛩 😑 🗇 Cont                          | -            |            |   |
| DIFO   | PHONE            | 136kHz              | AM                  | Abu Ail Is [deleted]                |              |            |   |
| 📴 DIP  |                  | 🗆 600m              | AMTORFEC            | Afghanistan                         |              | 1          |   |
| 🔁 DLD  |                  | 160m                | ARDOP               | Agalega & St Brandon Islands        |              |            |   |
| DLI  |                  | □ 80m<br>□ 60m      | CHIP                | Aland Islands                       |              |            |   |
| DME DMSM                                       |                  | 0 40m               | CHIP64              | Albania                             |              |            |   |
| 🖰 DRB  |                  | 30m                 | CHIP128             | Aldabra [deleted]                   |              |            |   |
| DTC  |                  | 20m                 | 0 CLO               | Algeria                             |              |            |   |
| DTMBA  |                  | 🗋 17m               |                     | American Samoa                      |              |            |   |
| DXCC   |                  | 0 items selected    | 0 items selected    | 0 items                             | selected     |            |   |
|  |                  | o non o occedu      | C Rente Selecced    | At least one must be selected or ea |              |            |   |
| ELK  |                  |                     |                     | have a valid DXCC                   |              |            |   |
|  |                  |                     |                     |                                     |              |            |   |

- 1. Select 'Reference Migration' and choose the 'Award code' to be updated
- 2. Select the type of update or analysis– For multiple references update choose the csv file provided by the award provider by clicking the browse icon on the right (Looks like a folder)
- 3. Click the gear icon to activate changes of a simulation

| V Award reference migration  | —    |         | ×                |
|--|------|---------|------------------|
| Award Code POTA  |      |         |                  |
| Orphaned references analysis Single reference update Multiple reference update   |      |         |                  |
|  |      |         |                  |
| Expected CSV file format:<br>AWARD CODE;OLD REFERENCE;NEW RF<br>ex: IOTA;EU-155;EU-018;Pantelleria I<br>(*) fields are optional<br>2<br>Vieria |      |         |                  |
| Save log   |      |         |                  |
| We *strongly* encourage a full backup before running the activity 3  | Simu | ulation | <mark>%</mark> • |
| Current award: SPOTA   |      |         | .:               |

<u>BE AWARE</u> – Updating multiple references could take hours depending on how many references are contained in the award organisers csv file.

### **Missing CSV import data**

The IOTA CSV is not very comprehensive and difficult to match to logged QSO's because it does not contain band and mode information, this is further complicated where some entries in the CSV file do not contain a date or time of QSO. Log4OM provides a match where there is only one QSO with that particular call sign but in the event of a station being worked on several bands the choice is left to the user to either ignore (Be strict in matching) or mark all (Releaxed) as follows.

#### Strict mode:

Updates ONE AND ONLY ONE QSO per row. If multiple QSO are found with the parameters, it will NOT update anything.

#### **Relax constraints:**

When one or more SEARCHING PARAMETERS are invalid (e.g. iota DATE is 00-00-0000) the application will NOT UPDATE anything. If the Relax constraints flag is set, one or more missing parameters are IGNORED.

Selecting both STRICT MODE and RELAX CONSTRAINTS means:

'Update only ONE QSO per row. If one parameter is missing, ignore it. but still allow update of only one QSO per row'

The IOTA import works with both selected, because it will ignore an invalid date (00-00-0000) but will match the QSO only if the callsign matches and there is only one QSO with this callsign.

| Batch confirmation | import  | x   |
|--------------------|---|-----|
| Parameter setting  | Execution   |     |
| Import file        |   | > 🔀 |
| Field separator    | ✓ ✓ File contains header Award IOTA ✓                 |     |
| ✓ Preview          | 1   |     |
|                    | a<br>   | ~   |
|                    |   |     |
| þ                  |   | ~   |
| <                  |   | >   |
| Load config        | Save config 🔀 Clear                                   |     |
| Drag and drop fiel | lds into relevant destination fields                  |     |
| Fields identified  | QSO match fields Award match fields Award match rules |     |
|                    | □ Strict mode   |     |
|                    | Relax contrainsts                                     |     |
|                    |   |     |
|                    |   |     |
|                    |   |     |
|                    |   |     |
|                    |   |     |
| Allow reuse of     | fields  |     |
|                    |   |     |
|                    |   |     |

- Click on the 'Load config' button and select the 'IOTA\_IMPORT\_CONFIRMATIONS.json' file
- Click Open

| 1   | 🙀 Open  |  |                  |           |                | ×      |
|-----|---|--|------------------|-----------|----------------|--------|
| el. | $\leftarrow \rightarrow \checkmark \uparrow$ _ « g4pe | oparrl.net > AppData > Roaming > Log40 | M2 > awards      | ✓ Ö Searc | h awards       | ٩      |
| 1   | Organise 🔻 New folder                                 |  |                  |           |                | • •    |
|     | 🐉 Dropbox 🛛 ^   | Name                                   | Date modified    | Туре      | Size           |        |
| A I | OneDrive  | IOTA_IMPORT_CONFIRMATIONS.json         | 03/01/2020 17:49 | JSON File | 1 KB           |        |
|     | 8 g4poparrl.net                                       |  |                  |           |                |        |
|     | 💻 This PC   |  |                  |           |                | -      |
|     | 🐂 Libraries   |  |                  |           |                |        |
| а   | Network   |  |                  |           |                |        |
| v   | .tmp.drivedownl                                       |  |                  |           |                |        |
| el  | DIG Club  |  |                  |           |                |        |
| -   | ESQLforLog4OM   |  |                  |           |                |        |
| 1   | Log4OM  |  |                  |           |                |        |
| 1   | Markus HB9BRJ   |  |                  |           |                |        |
| -   | - Optimised   |  |                  |           |                |        |
|     | Personal  |  |                  |           |                |        |
|     | Radio   |  |                  |           |                |        |
| L   | 📙 Afreet Program 🗸                                    |  |                  |           |                |        |
|     | File <u>n</u> ar                                      | me: IOTA_IMPORT_CONFIRMATIONS.json     |                  | → json    | files (*.json) | ~      |
|     |   |  |                  |           | <u>O</u> pen   | Cancel |

• Click the 'Execution' tab

| Batch confirmation import   | 2   |  |
|-----------------------------|-----|--|
| Parameter setting Execution |     |  |
| 🤣 😓                         |     |  |
|                             | ^   |  |
|                             |     |  |
|                             |     |  |
|                             |     |  |
|                             |     |  |
| <                           | ×   |  |
| Lock display Clear Save log | .:: |  |

- Clicking the left hand 'Gear' icon will simulate the merge action without modifying the users logbook.
- Clicking the right hand 'Gear' icon will import and merge the data to the user's logbook
- When the merge has completed close the import window and click the refresh button in the main IOTA Award view.

| rard view Award filters Statistics N<br>edefined config |                |                          |                 |      |     |     |     |     |     |     |            |     |     |     |    |    |
|---|----------------|--------------------------|-----------------|------|-----|-----|-----|-----|-----|-----|------------|-----|-----|-----|----|----|
| edenned coning  | Reference Code | Reference Description    | Reference Group | 160m | 80m | 60m | 40m | 30m | 20m | 17m | 15m        | 12m | 10m | 6m  | 4m | 2m |
| Show worked only  | AF-002         |                          | AF-002          | _    |     |     |     | GRA | GRA | GRA | 12 million | GRA | GRA |     | -  | -  |
|   | AF-003         | Ascension Island         | AF-003          |      | _   |     | _   |     |     | W   |            | 1   | GRA |     |    | _  |
|   | AF-004         | Canary Islands           | AF-004          | _    | W   |     | W   | w   | GRA |     |            |     |     |     | -  | W  |
| Sub group details                                       | AF-005         |                          | AF-005          |      |     |     | w   |     | W   | w   |            |     |     | GRA |    |    |
|   | AF-006         | Diego Garcia Island      | AF-006          |      |     |     |     |     |     | W   |            |     |     |     |    |    |
|   | AF-007         | Comoro Islands           | AF-007          | -    | _   |     |     | W   | w   | w   | GRA        | w   | w   | W   |    | -  |
| Strict mode   | AF-008         | Crozet Islands           | AF-008          |      |     |     |     |     | GRA | 1   |            | _   |     |     |    | _  |
| · · · · · · · · · · · · · · · · · · ·                   | AF-009         | Europa Island            | AF-009          |      |     |     |     |     |     | GRA |            |     | GRA |     |    |    |
|   | AF-010         | Bioco (aka Fernando Po   | AF-010          |      |     |     |     |     | GRA |     |            |     |     |     |    | _  |
|   | AF-011         | Glorioso Islands         | AF-011          |      |     |     |     |     | GRA | GRA |            | GRA | GRA |     |    |    |
|   | AF-012         | Juan de Nova Island      | AF-012          |      |     |     |     |     | -   |     | GRA        | 1   | GRA |     |    |    |
|   | AF-013         | Madagascar               | AF-013          |      |     |     |     |     | GRA | W   |            |     |     |     |    |    |
|   | AF-014         | Madeira Archipelago      | AF-014          |      | GRA |     | GRA |     |     |     | W          |     |     |     |    |    |
|   | AF-015         | Saint Brandon Islands    | AF-015          |      |     |     | W   |     |     |     |            |     |     |     |    |    |
|   | AF-016         | Reunion Island           | AF-016          |      |     |     |     |     | W   |     | GRA        |     |     |     |    |    |
|   | AF-017         | Rodrigues Island         | AF-017          |      |     |     |     |     | GRA |     |            |     |     |     |    |    |
|   | AF-018         | Pantelleria Island       | AF-018          |      | _   |     | _   | w   |     | 1   | W          |     |     |     |    |    |
|   | AF-019         | Pelagie Islands          | AF-019          |      | 1   |     |     |     | GRA |     |            |     |     |     |    |    |
|   | AF-020         | Bijagos Archipelago      | AF-020          |      |     |     | w   |     | GRA | GRA |            |     |     |     |    |    |
|   | AF-021         | Prince Edward and Mari   | AF-021          |      |     |     |     |     | GRA |     |            |     |     |     |    |    |
|   | AF-022         | St Helena Island         | AF-022          |      |     |     |     |     |     |     | GRA        |     |     |     |    |    |
|   | AF-023         | Sao Tome Island          | AF-023          |      |     |     |     | W   | GRA | W   |            | w   | w   |     |    |    |
|   | AF-024         | Inner Islands            | AF-024          |      |     |     |     |     | w   |     |            |     |     |     |    |    |
|   | AF-025         | Aldabra Islands          | AF-025          |      |     |     |     |     | GRA |     |            |     |     |     |    |    |
|   | AF-026         | Cosmoledo Islands        | AF-026          |      |     |     |     |     | GRA |     |            |     |     |     |    |    |
|   | AF-027         | Mayotte Island           | AF-027          |      |     |     |     |     | W   | w   | GRA        |     | GRA |     |    |    |
| ition   | ~ AF-028       | Socotra (Sugutra)        | AF-028          |      |     |     |     | GRA | GRA |     |            | GRA | GRA |     |    |    |
| WORKED  | AF-029         | Tristan da Cunha Islands | AF-029          |      |     |     |     |     | w   |     |            |     | GRA |     |    |    |
| ONFIRMED  | AF-030         | Gough Island             | AF-030          |      |     |     |     |     |     | -   |            | GRA | GRA |     |    |    |
| ALIDATED  | AF-031         | Tromelin Island          | AF-031          |      |     |     |     |     |     |     | GRA        | GRA |     |     |    |    |

View after importing an IOTA csv file showing Granted QSO's

| ard view Award filters Statistics M<br>edefined config |                            |                                   |                  |      |     |     |     |     |        |     |     |     |     |    |    |    | ~ |
|--|----------------------------|-----------------------------------|------------------|------|-----|-----|-----|-----|--------|-----|-----|-----|-----|----|----|----|---|
| ~  | Reference Code             | Reference Description             | Reference Group  | 160m | 80m | 60m | 40m | 30m | 20m    | 17m | 15m | 12m | 10m | 6m | 4m | 2m | - |
| Show worked only                                       | AF-002                     | Amsterdam & St Paul Isl           | AF-002           |      |     |     | W   |     |        |     |     |     |     |    |    |    |   |
| Show only valid references                             | AF-003<br>AF-004           | Ascension Island                  | AF-003<br>AF-004 |      |     |     | w   |     | w<br>V | w   |     |     |     | -  |    |    | 1 |
| Sub group details                                      | AF-004                     | Canary Islands                    | AF-004<br>AF-013 |      |     |     | w   |     | V      | w   | w   |     |     |    |    |    |   |
| Award view   | AF-013<br>AF-014           | Madagascar<br>Madeira Archipelago | AF-013<br>AF-014 |      | w   |     | w   |     | w      | v   | w   |     |     |    |    |    |   |
|  | AF-014                     | Reunion Island                    | AF-014<br>AF-016 |      | w   |     | w   |     | w      | w   |     |     |     |    |    |    |   |
| Detailed (mode) statistics                             | AF-018                     | Pantelleria Island                | AF-018           |      |     |     |     |     |        | w   | w   |     |     |    |    |    |   |
| Strict mode  | AF-018                     | Sao Tome Island                   | AF-018<br>AF-023 |      |     |     |     |     | v      |     | vv  |     |     |    |    |    |   |
|  | AF-023                     | Sfax Region group                 | AF-023           |      |     |     |     |     | v      |     |     |     | w   |    |    |    |   |
|  | AF-086                     | Windward Islands (aka             | AF-086           |      |     |     |     |     | w      |     |     |     |     | -  |    |    |   |
|  | AS-004                     | Cyprus Island                     | AS-004           |      |     | w   |     |     | w      |     |     |     |     |    |    |    |   |
|  | AS-007                     | Honshu Island                     | AS-007           |      |     |     |     |     | w      |     |     |     |     |    |    |    |   |
|  | EU-001                     | Dodecanese                        | EU-001           |      |     |     | w   |     | v      | v   |     |     |     |    |    |    |   |
|  | EU-002                     | Aland Islands                     | EU-002           |      |     |     | w   |     | w      |     |     |     | w   |    |    |    |   |
|  | EU-003                     | Eastern Azores group              | EU-003           |      |     |     |     |     | w      |     |     |     |     | -  |    |    |   |
|  | EU-004                     | Balearic Islands                  | EU-004           |      | w   |     | w   | w   | v      | w   |     |     |     |    |    |    |   |
|  | EU-005                     | Great Britain                     | EU-005           | w    | w   | w   | v   |     | w      | w   | w   |     |     | W  |    | W  |   |
|  | EU-008                     | Inner Hebrides                    | EU-008           |      | w   |     | v   |     |        |     |     |     |     |    |    |    | 1 |
|  | EU-009                     | Orkney                            | EU-009           |      |     |     | w   |     | w      |     |     |     |     |    |    |    |   |
|  | EU-010                     | Outer Hebrides:Wester             | EU-010           |      | w   | w   |     |     | w      |     |     |     |     |    |    |    |   |
|  | EU-012                     | Shetland                          | EU-012           |      |     | w   |     |     |        |     |     |     |     |    |    |    |   |
|  | EU-013                     | Jersey                            | EU-013           |      |     |     | w   |     |        |     |     |     |     |    |    |    |   |
|  | EU-014                     | Corsica Island                    | EU-014           |      |     |     | w   |     | w      |     | w   |     |     |    |    |    |   |
|  | EU-015                     | Crete Island                      | EU-015           |      |     |     |     |     | w      | w   |     | w   |     |    |    |    |   |
|  | EU-016                     | Dalmatia South group              | EU-016           |      | w   |     | w   |     | w      |     |     |     |     |    |    |    |   |
|  | EU-017                     | Eolie Islands;Lipari Islands      | EU-017           |      |     | 1   |     |     | w      |     |     |     |     |    |    |    |   |
|  | EU-018                     | Faroe Islands                     | EU-018           |      | w   |     |     |     |        |     |     |     |     |    |    |    |   |
| ation  | <ul> <li>EU-021</li> </ul> | Iceland                           | EU-021           |      |     | w   | w   |     | W      | v   | w   |     |     |    |    |    |   |
| WORKED   | EU-023                     | Malta group                       | EU-023           |      |     |     |     |     | v      | w   |     |     |     |    |    |    |   |
| ONFIRMED   | EU-024                     | Sardinia Island                   | EU-024           |      |     |     | w   |     | w      |     | w   |     |     |    |    |    |   |
| VALIDATED<br>UBMITTED<br>GRANTED                       | EU-025                     | Sicily Island                     | EU-025           |      |     | W   |     |     | v      | w   |     |     |     |    |    |    |   |

View after importing an IOTA csv file showing validated QSO's

### **SOTA Awards**

There are occasions where an operator is activating a summit in another country, because the SOTA summit list is filtered by call sign it will display only references for the country of the actual call sign, not the prefix in use.

Another anomaly is when the activator is in one country but because of location is activating a summit in the adjacent country.

In these instances, use the procedure detailed below to enter the activation reference:

1. Change the station call sign in Settings/Program Configuration/station information e.g. OE/G4POP/P

| Configuration  |  |                                     |
|--|--|-------------------------------------|
| P¶   |  |                                     |
| Program Settings     Edit program config     Program Scheduler     User Configuration          | Station information Station Callsign * | OE/G4POP/P IARU Region              |
| Station Information     My References     Station configuration     Confirmations     Database | Station Country *                      | © England ~<br>ITU 27 ~ CQ 14 ~ 223 |

- 2. In the Settings/Program Configuration/station information/My References selected the SOTA award.
- 3. Because the list of SOTA references are filtered by the call sign prefix to display just references for that Call sign the required reference may not be listed. Click the Black + (Plus or Add) sign Enter the Reference then press the enter key on the PC keyboard. That ref will appear in the references box bottom left.

| Configuration  |                              |                      |        |  |
|--|------------------------------|----------------------|--------|--|
| Save config Save and apply Exit  |                              |                      |        |  |
| Program Settings     Edit program config     Program Scheduler     User Configuration                                | My reference<br>My station ( |                      |        |  |
| Station Information     My References     Station configuration     Confirmations     Database     External Services | Award<br>Group<br>Sub        | SOTA                 | ~<br>~ | References           Search           G/CE-001           G/CE-002           G/CE-003           G/CE-004           C/CE-005 |
| User preferences  Software Configuration  Cluster  Info Providers  Map Settings  Backup                              | ☑ IOTA@<br>☑ SOTA@           | EU-005<br>DOE/OO-271 | •      | G/CE-005<br>G/DC-005<br>G/DC-005<br>G/DC-006   |

4. Click save and apply

When a contact is made this is the resultant QSO log entry with the correct My SOTA reference and station call sign.

| Main (F6) Recent QSO | 's (F7) Cluster ( | (F8) Propaga | tion (F9) |          |          |                    |          |                            |                  |
|----------------------|-------------------|--------------|-----------|----------|----------|--------------------|----------|----------------------------|------------------|
| Qso Date             | Callsign          | Band         | Mode      | Rst Sent | Rst Rcvd | Name               | Comment  | My References              | Station Callsign |
| 19/01/2020 18:43:33  | TW3HMH            | 30m          | CW        | 599      | 599      | Daniele Pistollato | 12<br>12 | IOTA@EU-005 SOTA@OE/00-271 | OF/G4POP/P       |

NOTE: After entering the activation QSO's edit the station call sign in Settings/Program Configuration/station information and then uncheck the OE/OO-271 box in Settings/Program Configuration/station information/My References and click save and apply

### **Exporting SOTA QSO's**

Log4OM provides a csv export facility to provide correctly formatted files which can be imported to the on-line SOTA database.

- Click the 'Export data' button at the top of the SOTA Awards screen
- Select 'Chaser', 'Activator' or 'Ref to Ref' (S2S)
- Set a date range if required
- Select the 'Station callsign' required
- Click 'Select/deselect' at the bottom of the window to select the QSO's for export or individually select QSO/s
- Click the GREEN Export button and select a location to save the csv file

|            | Callsign | Qso Date            | Rst Sent | Rst Rcvd | Band | Freq    | Name                          | Comment |
|------------|----------|---------------------|----------|----------|------|---------|-------------------------------|---------|
| 06/03/2020 | DK7NL    | 03/01/2020 13:08:00 | 599      | 559      | 30m  | 10118.5 | Rolf                          |         |
| 06/03/2020 | DM5MR    | 03/01/2020 13:07:20 | 599      | 559      | 30m  | 10118.5 | "Mike" Marco Rusczyk          |         |
|            | ON4ON    | 03/01/2020 13:07:00 | 599      | 599      | 30m  | 10118.5 | Danny Commeyne                |         |
| n callsign | RN3QN    | 03/01/2020 13:06:00 | 599      | 559      | 30m  | 10118.5 | Oleg A. Schekin               |         |
| ~          | HB9DDZ   | 03/01/2020 13:05:00 | 599      | 559      | 30m  | 10118.5 | Nick Zinsstag                 |         |
|            | YO6CFB   | 03/01/2020 13:03:00 | 599      | 559      | 30m  | 10118.5 | Bako-Szabo Laszlo             |         |
|            | EA2LU    | 03/01/2020 13:02:00 | 599      | 599      | 30m  | 10118.5 | Jorge Daglio Accunzi          |         |
|            | EA2DT    | 03/01/2020 13:00:00 | 599      | 559      | 30m  | 10118.5 | Manuel                        |         |
|            | OH7BF    | 03/01/2020 12:57:00 | 599      | 339      | 20m  | 14059.5 | Jaakko Koivuniemi             |         |
|            | HB9AGH   | 03/01/2020 12:53:00 | 599      | 579      | 20m  | 14059.5 | Ambrosi Fluetsch              |         |
|            | EA7GV    | 03/01/2020 12:52:00 | 599      | 559      | 20m  | 14059.5 | Jose L. Menjibar              |         |
|            | DJ5AV    | 03/01/2020 12:51:00 | 599      | 569      | 20m  | 14059.5 | Michael Oerter                |         |
|            | HA7NE    | 03/01/2020 12:49:00 | 599      | 569      | 20m  | 14059.5 |                               |         |
|            | EA2IF    | 03/01/2020 10:49:00 | 599      | 559      | 30m  | 10120.5 | Op                            |         |
|            | SM5LNE   | 03/01/2020 10:48:00 | 579      | 559      | 30m  | 10120.5 | Jan Skoldin                   |         |
|            | EA2DT    | 03/01/2020 10:46:00 | 599      | 559      | 30m  | 10120.5 | Manuel                        |         |
|            | OH5LP    | 03/01/2020 10:41:00 | 579      | 579      | 20m  | 14061.5 | Seppo Lahti                   |         |
|            | CT1BQH   | 03/01/2020 10:40:00 | 599      | 539      | 20m  | 14061.5 | Joao Carlos Rodrigues Morgado |         |
|            | HB9BSH   | 03/01/2020 10:39:00 | 579      | 229      | 20m  | 14061.5 |                               |         |
|            | HB9AGH   | 03/01/2020 10:38:00 | 599      | 579      | 20m  | 14061.5 | Ambrosi Fluetsch              |         |

### Exporting SOTA QSO's as an ADIF file

SOTA now provides an ADIF import facility, suitable ADIF files can be exported from the Log4OM QSO Manager

### Importing (Merging) a SOTA CSV file

A downloaded SOTA CSV files can be merged into Log4OM as follows:

- In the SOTA Awards screen select the 'Import data' button at the top of the window
- Select the file to be imported
- Set the field separator (Usually a comma (,)
- Click the 'Preview' button to preview a sample of the file for importing
- Click the 'Load config' button and load the preconfigured SOTA Import config file

| Batch confirmation                                    | import  |
|---|---|
| Parameter setting                                     | Execution   |
| Import file   | C:\Users\g4poparrl.net\Desktop\Markus HB9BRJ SOTA\hb9brj_SOTA_download.csv  |
| Field separator                                       | , v V File contains header  |
| Preview   |   |
| DL/HB9BRJ/P 03/<br>DL/HB9BRJ/P 03/<br>DL/HB9BRJ/P 03/ | 01.2820.12.289 DM.RW.253 LAMHL; CW. HAPNE;<br>01.2820.12.29 LDM.RW.253 LAMHL; CW. UADAY,<br>01.2820.12.52 DM.RW.253 LAMHL; CW.EAR3Y,<br>01.2020.12.52 DM.RW.253 LAMHL; CW.IABACH,<br>01.2020.12.53 DM.RW.253 LAMHL; CW.IABACH,<br>01.2020.12.55 DM.RW.253 LAMHL; CW.IABACH, |
|   | kis into relevant destination fields  |
| bing and drop no                                      | Clear   |
| Award SOTA  | <ul> <li>Multiple credit separator</li> <li>Load config</li> <li>Save config</li> </ul>   |
| Fields identified                                     | QSO match fields Award match fields Award match rules   |
| 0 # DL/HB9BRJ/F                                       |   |
| 1 # 03/01/2020<br>2 # 12:49                           | HA7NE DM/BW-235   |
| 3 # DM/BW-235<br>4 # 14MHz                            | 14MHz   |
| 5 # CW<br>6 # HA7NE<br>7 #                            | CW  |
| /#  | 03/01/2020 Date Time format   |
|   | 12:49 yyyy ~ / ~ MM ~ / dd ~ •  |
|   | Date + Time HH v : v mm v : ss v 😜  |
| Allow reuse of  | fields  |
|   |   |

• Click the 'Execution' tab at the top of the window

| Batch confirmation import    | × |
|------------------------------|---|
| Parameter setting Execution  |   |
| ço 🐘                         |   |
|                              |   |
|                              |   |
|                              | - |
|                              |   |
|                              |   |
|                              |   |
| Lock display Clear Save log  |   |
| : Lock display Clear Savelog | i |

- Clicking the left hand 'Gear' icon will simulate the merge action without modifying the user's logbook.
- Clicking the right hand 'Gear' icon will import and merge the data to the user's logbook
- When the merge has completed close the import window and click the refresh button in the main SOTA Award view.

The verified and Granted status will now be displayed for those QSO's updated by the import

#### NOTE:

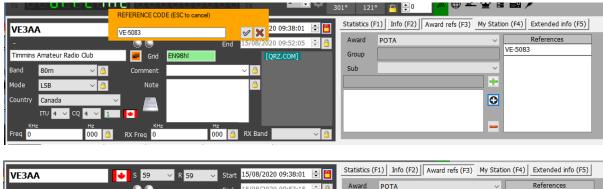
This is a MERGE (Update) function it does not add QSO's to the logbook that do not exist in the logbook it is used to UPDATE existing records.

# Adding missing award references

It is impossible for the Log4OM awards manager to keep every set of award references up to date because they constantly change and there are thousands of them, he updates them as regularly as possible but occasionally the user may not be able to find the reference required.

In that event follow the instructions below.

- 1. Enter the call sign of the station being worked or open the QSO edit window for an existing QSO
- 2. In the 'Awards refs' tab, select the award required.
- 3. Click the black plus sign (+)
- 4. In the orange dialog box that appears type in the award reference
- 5. Click on the 'Check' mark to add the reference or the red cross to abort
- 6. Save the QSO/Edit



| -             |                   |                  | End 15/08/2020 09:53:15 ≑ 🔒 | Award | POTA    | ~        | References |  |
|---------------|-------------------|------------------|-----------------------------|-------|---------|----------|------------|--|
| Timmins A     | mateur Radio Club | Grid EN98        |                             | Group |         |          | VE-5083    |  |
| Band          | 80m 🗸 🤷           | Comment          | ~ 📋                         | Sub   |         | ~        |            |  |
| Mode          | LSB 🗸 👸           | Note             | <u> </u>                    |       |         | <u> </u> |            |  |
| Country       | Canada            | ✓                |                             | POTA@ | VE-5083 | 0        |            |  |
| 1             | TTU 4 🗸 CQ 4 🗸 1  |                  |                             |       |         |          |            |  |
| KHz<br>Freq 0 | Hz<br>000         | KHz<br>RX Freg 0 | Hz<br>000 🎒 RX Band 🗸 🎽     |       |         |          |            |  |
|               |                   |                  |                             |       |         |          |            |  |

### **Award Editor**

The management of awards in Log4OM is fully customizable. It is possible to create an award in a few minutes, integrating it perfectly into the system and ready for immediately use.

#### Important information.

The Log4OM Awards can be of 3 types: References, QSO Fields and Call sign.

#### [REFERENCE TYPE AWARD]

The "REFERENCE" type awards are characterized by having a unique code for each reference that identifies it. This reference can often be found in the notes of the cluster or it can be entered by hand, it can also be derived from a lookup on an external system (e.g. QRZ.COM) or it can be automatically retrieved by Log4OM from the notes of a previously imported QSO.

Example of REFERENCE type awards are: World Wide Flora & Fauna award reference: IFF-1369 IOTA award reference: EU-166 World Castles award reference: I-12874

#### [QSO FIELDS]

"QSO FIELDS" provide award data automatically, the information is retrieved automatically from the standard QSO data that is collected and saved at the time a QSO is recorded. These awards are not visible in the main user interface of the program (Awards reference fields in the F3 tab of the QSO input window), because they are automatically derived by analyzing the normal QSO data.

In order to create a QSO FIELDS award it is necessary to indicate a field among those available, which will be used by the program to search for references used in the calculation of the award.

Examples of QSO FIELDS awards are: DXCC award: This award is based on the 'DXCC' field WAS award: This award is based on the STATE field WORKED ALL ITALIAN PROVINCES AWARD: This award is based on the abbreviation of the province contained in the ADDRESS field.

To limit the number of "false contacts" it is possible to limit the Award to work only on the DXCCs for which the award is valid.

e.g. Filtering an award by DXCC entity numbers 291, 110 & 6 and the STATE field provides the WAS (Worked all States) award results, only for the United States of America, Hawaii and Alaska.

In the case of the WAIP (Worked all Italian Provinces) award will be filtered by DXCC entity number 248 and the STATE field to provide just results for WAIP

#### [CALLSIGN TYPE]

A CALLSIGN award uses the QSO contact's call sign to retrieve any references. It is also possible to operate on parts of the call sign (e.g. on the prefix).

An example of CALLSIGN awards are the commemorative awards, where there are several stations and the connection with these stations, from the known call sign or specific special prefix e.g. GB500nnn, produces useful references for achieving the award.

### Award management usage

| wwt Award Manag     | gement       |           |                |                  |        |                 |      |  | _      |           | × |
|---------------------|--------------|-----------|----------------|------------------|--------|-----------------|------|--|--------|-----------|---|
| File Update         | Utilities    | $\square$ |                |                  |        |                 |      |  |        |           |   |
| E-S Available A     | Awards       | ^         | Hø 💼           | NEW              |        |                 |      |  |        |           |   |
| - 🔒 AA<br>- 🔒 ARLHS | WIO          |           |                |                  |        |                 |      |  |        |           |   |
| ASC                 |              |           | Award into Awa | rd type   Confir | matio  | on References   | Imp  | ort Award configurations   |        |           |   |
| 🚽 📴 ATDA            |              |           | Award Code     |                  |        |                 |      | Valid  |        |           |   |
| 🛁 BCA               |              |           | Award Name     |                  |        |                 |      | Protected award Last upd   | ated 0 | 8/09/2019 | ~ |
|                     | 122          |           |                |                  |        |                 |      |  | -      | -,,       |   |
|                     |              |           | Description    |                  |        |                 |      |  |        |           |   |
|                     | SE_PROVINCES |           | Award URL      |                  |        |                 |      |  |        |           |   |
| - 🖰 COTA-           |              |           | Download URL   |                  |        |                 |      |  |        |           |   |
| DARC_               | DOK          |           | Reference URL  |                  |        |                 |      |  |        |           |   |
|                     |              |           | Kelelelice OKL |                  |        |                 |      |  |        |           | - |
|                     |              |           | Valid from     | 01/01/1900       | $\sim$ | Valid to 31/12  | 9998 | Alias 📃  |        |           | 0 |
| - 🖰 IOTA            |              |           | Emission       | Valid bands      |        | Valid mode      |      | DXCC list  |        |           |   |
| BAC                 |              |           | CW             | V = 0            |        | V - 6           |      | / 🗕 🗇 🙆 Cont 📃 🗸   |        |           |   |
| SOTA                | ۵            |           | DIGITAL        | 160m             | ~      | AM N            | ~ E  | Abu Ail Is. [deleted]  |        | ^         |   |
|                     |              |           | PHONE          | 80m              |        | AMTORFEC        |      | Afghanistan  |        |           |   |
| 🛁 WAB               |              |           |                | 60m              |        | ARDOP           |      | Agalega & St. Brandon Is.  |        |           |   |
| - 🖰 WAC             |              |           |                | 40m              |        | ATV             |      | Aland Island   |        |           |   |
|                     |              |           |                | 30m              |        | C4FM            |      | Alaska   |        |           |   |
|                     |              |           |                | 20m              |        | CHIP<br>CHIP64  |      | ] Albania<br>] Aldabra [deleted]                                     |        |           |   |
|                     |              |           |                | □ 17m            |        |                 |      | Algeria  |        |           |   |
| - 🚊 WANC            | A            |           |                |                  |        |                 |      |  |        |           |   |
| WAS                 |              |           |                | 0 items select   | ed     | 0 items selecte |      | 0 items selected   |        |           |   |
| WWFF                | :            |           |                |                  |        |                 |      | t least one must be selected or each refere<br>ust have a valid DXCC | ance   |           |   |
| <b>7\\/D</b>        |              | ¥         |                |                  |        |                 | m    |  |        |           |   |
| Current award -     |              |           |                |                  |        |                 |      |  |        |           |   |

In the area to the left of the screen users will find the awards available in Log4OM. The number of awards will increase over time, the program will be automatically updated with revised versions of existing awards and new awards will be added periodically.

The padlock symbol indicates that the award is PROTECTED, i.e. that it is an award which is managed by the Log4OM team. This does not prevent users from editing it or adding references, however such edits and additions will be overwritten automatically with new program updates therefore users are advised to backup their awards file to another folder.

In the area on the right is the management area for the individual awards.

#### Icon toolbar functions:

Save current award | Cancel edit | Delete award | New award



### **Award Info**

| ward info Awa | ard type Confirmat   | ion References In    | import Award configurations   |   |
|---------------|----------------------|----------------------|---|---|
| Award Code    |                      |                      | 🗌 Valid   |   |
| Award Name    |                      |                      | Protected award Last updated 09/09/2019                                   | ~ |
| Description   |                      |                      |   |   |
| Award URL     |                      |                      |   |   |
| Download URL  | Award reference lis  | t for future referen | nce updates   |   |
| Reference URL | The link to the sing | le reference award   | . Use <ref> as replacement for the reference code</ref>                   |   |
| Valid from    | 01/01/1900 ~         | Valid to 31/12/99    | 998 ~ Alias   | 0 |
| Emission      | Valid bands          | Valid mode           | DXCC list   |   |
| CW<br>DIGITAL | e e e                | V <b>-</b> 6         | ✓ — □ ② Cont  |   |
| PHONE         | ☐ 160m ∧             |                      | Abu Ail Is. [deleted]   |   |
|               | □ 60m                | ARDOP                | Agalega & St. Brandon Is.   |   |
|               | 40m                  |                      | Aland Island  |   |
|               | 30m                  | C4FM                 | 🗌 Alaska  |   |
|               | 🗌 20m                |                      | 🗌 Albania   |   |
|               | 🗌 17m                | CHIP64               | Aldabra [deleted]   |   |
|               | □ 15m 🗸              | CHIP128 V            | Algeria Y   |   |
|               | 0 items selected     | 0 items selected     | 0 items selected  |   |
|               |                      |                      | At least one must be selected or each reference<br>must have a valid DXCC |   |

**Award Code:** Is the award key of the award. References are saved in the form <AWARD CODE>@<REFERENCE CODE>. This key is unique in the awards list. No duplicates are allowed.

Valid: If checked, the award is valid and can be used by Log4OM

Award Name: The user friendly name of the award.

Description: A brief description of the award characteristics

Award URL: The award home page web address

**Download URL: [RECOMMENDED]** Contains the page where the awards references can be retrieved. Useful for award managers to find reference lists to be updated.

Reference URL: If the award has a webpage that allows users to lookup the reference, this is the place where users should put the Web page address. Replace the reference code with <REF>. Log4OM will place the current reference at runtime.

As example, for IOTA: https://www.iotamap.org/grpref/<REF>

(https://www.iotamap.org/grpref/EU-025)

A hyperlink will be placed in award reference screen as below:

| Statistics      | (F1) Info (F2) | Award refs (F3) | Му     | Station (F4)     | QSL's (F | 5)       |
|-----------------|----------------|-----------------|--------|------------------|----------|----------|
| Award           | ΙΟΤΑ           |                 | $\sim$ | Referer          | nces     |          |
| Group           | EU-025         |                 |        | Search           |          |          |
|                 | 20 020         |                 | -      | AF-018<br>AF-019 |          | ^        |
| Sub             |                |                 | ~      | EU-019           |          |          |
| <u>EU-025 S</u> | icily Island   |                 |        | EU-025           |          |          |
|                 | DEU-025        |                 | e      | EU-028<br>EU-031 | _        |          |
|                 |                |                 | ÷.     | EU-045           |          |          |
|                 |                | 6               | -      | EU-050<br>EU-051 |          | <b>,</b> |
|                 |                |                 |        |                  |          |          |

Valid From and Valid To: This is the valid period of the award. QSO outside this range will not be considered.

For awards that change references yearly users must use "AWARD CODE" + YEAR format in the award code field, so users will not lose their old references for previous participations to those awards.

Alias: If an award will change his name users may want to change his award code. Old QSO will be accepted and assigned to this award if their references matches the award code OR the award alias.

An example: WFF (World Flora Fauna) changed its code (and references) from WFF to WWFF. Log4OM V1 has references in format WFF@IFF-123, Log4OM V2 has the award code changed to WWFF. Log4OM added an alias to WFF in order to automatically convert old references into new.

| Award info  | Award type   | Confirmation    | References    | Import     | Award configu                 | rations     |                   |            |   |
|-------------|--------------|-----------------|---------------|------------|-------------------------------|-------------|-------------------|------------|---|
| Award Code  | WWFF         |                 |               |            | 🗹 Valid                       |             |                   |            |   |
| Award Nam   | e World F    | lora and Fauna  | Award         |            | Protected                     | award       | Last updated      | 10/07/2019 | ~ |
| Description |              |                 |               |            |                               |             |                   |            |   |
| Award URL   | http://v     | vwff.co/        |               |            |                               |             |                   |            |   |
| Download U  | JRL http://v | vwff.co/wwff-c  | lata/wwff_dir | ectory.cs  | 5V                            |             |                   |            |   |
| Reference I | JRL The link | to the single r | eference awa  | ard. Use - | <ref> as replac</ref>         | ement for t | the reference cod | le         |   |
| Valid from  | 01/01/       | 1900 ~ Va       | lid to 31/12/ | /9998      | <ul> <li>Alias WFF</li> </ul> | -           |                   |            | 0 |

**Emission:** Valid emission types for this award. QSO's which are not made in the emission type selected are not considered for the award and the award will not be listed in the available awards for the contact.

Valid emission types are: CW, DIGITAL, PHONE. At least one must be selected.

Valid Bands / Valid Modes: Users can limit bands and modes for the award by selecting specific bands and modes, if nothing is selected all bands, and/or, all modes are valid.

**DXCC List:** The list of the DXCC where this award is valid. Country specific awards must have the country DXCC set. At least one DXCC must be selected.

HINT: Log4OM is able to retrieve DXCC list from references itself, where DXCC field is mandatory (at least one for each reference, multiple allowed). If Log4OM is not able to find a list of valid DXCC for the award from the award DXCC list or from the reference list (because reference list is empty), the award will not be saved.

### **AWARD TYPE**

| ward info Aw   | vard type    | Confirmation R     | eferences In   | nport Award con     | figurations               |               |                  |   |
|----------------|--------------|--------------------|----------------|---------------------|---------------------------|---------------|------------------|---|
| Award type     |              | ~                  |                | Possible reference  | additional prefixes       |               | ~ 🕇 🗙            | P |
| QSO Paramet    | ters         |                    |                |                     |                           |               |                  |   |
| Award will sea | arch in QS   | O field:           |                | ~ Ву                | Reference Code            | O Description | O Search Pattern |   |
| Exact mat      | tch (if uncł | necked, it will se | arch reference | e inside the field) |                           |               |                  |   |
| Award refere   | ence leading | g string           |                | Award               | reference trailing string |               | 2                |   |
|                |              |                    |                |                     |                           |               |                  |   |
| SQL Filters    |              |                    |                |                     |                           |               |                  |   |
|                |              |                    |                |                     |                           |               |                  |   |
|                |              |                    | 3              |                     |                           |               |                  |   |
| Notes on awar  | rd           |                    |                |                     |                           |               |                  |   |
|                |              |                    |                |                     |                           |               |                  |   |
|                |              |                    |                |                     |                           |               |                  |   |
|                |              |                    |                |                     |                           |               |                  |   |
|                |              |                    |                |                     |                           |               |                  |   |
|                |              |                    |                |                     |                           |               |                  |   |

### Possible reference additional prefixes

Some awards have references mapped with strings that are not usually the same as those used when an operator spots a call sign on the cluster.

As an example, DME award has references in form "045678". Usually those references are mapped as DME-045678

Using its internal logic, Log4OM compares "45678" with "DME-45678" and "DME45678" coming from the spot, and would not find a match in this case. However, if in the "Possible additional prefixes" for the DME Award, the user inserts the string "DME", Log4OM will try to find a match:

It will associate "45678" with "DME45678" but also the opposite way it will associate "DME45678" with "45678", thus obtaining a positive match for the award.

### Award type

This field require one value. REFERENCE, QSOFIELDS or CALLSIGN.

| Award type   | 12                              |
|--------------|---------------------------------|
| - QSO Parame | REFERENCE<br>QSOFIELDS          |
| Award will s | CALLSIGN<br>earch in OSO field: |

If QSOFIELDS is selected, some options become available

| QSO Parameters   |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| Award will search in QSO field: 🛛 🗸 By 🖲 Reference Code 🔿 Description 🔿 Search Pattern |  |  |  |  |  |  |  |
| Exact match (if unchecked, it will search reference inside the field)                  |  |  |  |  |  |  |  |
| Award reference leading string Award reference trailing string                         |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| SQL Filters  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

### **QSO** Field

Contains the list of QSO fields that the award may explore. Users can select only one of them (and at least one, if QSOFIELDS award type is selected)

Search by: this will indicate to Log4OM what part of the reference must be searched in the field.

#### **Reference code**

Log4OM will search for the reference code in the indicated field. As example: Award DXCC, field is DXCC and this field is searched by Reference Code (the DXCC number)

#### Description

If an award is searching for a string in a field, and this string is not the reference code itself but the description, users must select By Description. Log4OM will search this inside the QSO field, instead of reference code.

As an example: an award will grant users a reference for each QSO made with operators with Judi, Michael and David in the operator name, and reference code are J for JURI, M for Michael and D for David.

In this case Log4OM will search the field: NAME for Michael, David or Judi and will assign according reference code to the QSO, that are the J, D and M reference descriptions

<u>By Search Pattern:</u> Users can use a regular expression to search inside the field for the required string. When matched, the award reference is assigned (Award reference must have a valid search pattern set)

#### Exact match

If checked, the field must be EXACTLY the reference code or the description selected. If unchecked, the field will be parsed successfully if contains reference code or description.

#### Reference leading and trailing.

Assume users have an award that is scanning for ITALIAN PROVINCES.

Italian provinces are made by 2 letters, usually enclosed in brackets. WAIP award is made to scan address field searching those letters, but those 2 letters may appear everywhere in the address and Log4OM must be sure to catch only the address that contains the province. In Italy, usually, address is in the form:

Roma street, 164/G 30020 – Quarto D'Altino (VE) Italy

Province, in this case, is VE, and reference is VE. A search by reference code without exact match will easily find this address as belonging to VE province (and it's correct).

However another address will also match...

Example: Venezia Street, 30 - 00100 Rovigo (RO) - Italy

Here, a scan of the address will detect Venezia (and Rovigo RO province), creating a false reference for Venice. In that case Log4OM resolves the situation by adding start and end brackets "(" and a ")" to the reference code. During scan, Log4OM will not search just for VE inside the string, but for "(VE)", catching the first reference as VENICE (VE) and the second as ROVIGO (RO)

### **Sql Filters**

Reserved for future development.

### Notes on award

Here users can type everything useful on the award. As example: "send email to xyz@gmail, for an updated reference list"

### CONFIRMATION

| Award info Awar | d type Confirma | tion References | Import | Award configurations |
|-----------------|-----------------|-----------------|--------|----------------------|
| Grant Codes     |                 | ×               | 6      |                      |
| Confirmation    | Validation      |                 |        |                      |
| CUSTOM          | CUSTOM          |                 |        |                      |
| EQSL            | EQSL            |                 |        |                      |
| LOTW<br>QSL     | LOTW<br>QSL     |                 |        |                      |
| 402             | 202             |                 |        |                      |
|                 |                 |                 |        |                      |
|                 |                 |                 |        |                      |
|                 |                 |                 |        |                      |

This is one of the most complex and powerful things of Log4OM.

In Log4OM a reference can assume 3 states - UNCONFIRMED, CONFIRMED or VALIDATED.

Unconfirmed means the Reference is registered but the user has not received any confirmation. As example, an award that requires a QSL to make the reference valid, has reference status UNCONFIRMED (WORKED ONLY) when the QSO is made.

Awards may have multiple kind of validations.

Some awards do not require any confirmation from the other station (activator) because the activator provides a list of QSO to the award manager, an example of this is IOTA.

Some awards will require a user to provide a QSL paper card confirmation, but they must validate them before the QSO is confirmed as valid for use to obtain the award.

Some awards will automatically grant users the qso as VALID when users receive the confirmation. As example, all EQSL awards. When users receive a QSL they automatically know that the contact is confirmed and valid for EQSL.

How these fields work:

#### Confirmation

What confirmation is required to have the reference confirmed? (confirmed means users can use the confirmation for further requests to the award management).

Values are: EQSL, LOTW, QSL and /or CUSTOM (multiple selection is allowed)

For IOTA the CONFIRMATION is unnecessary. Confirmation are provided by IOTA website itself in form of a downloadable file. For IOTA confirmations the users should select CUSTOM.

For DXCC a confirmation with LOTW or QSL is valid and can be used to request an award (a QSL card must be validated but it is acceptable as a confirmation). For LOTW users should select LOTW + QSL

If award require an EQSL confirmation, users should set EQSL.

#### Validation

What kind of validation is needed to mark a QSO validated and then useable for award request?

If award is completely managed by external organizations like IOTA, the user must set CUSTOM as the confirmation type, in this case Log4OM will <u>not</u> automatically confirm or validate user award references by monitoring arrival of QSO confirmations of any kind.

For DXCC, validation will arrive from an external data flow (LOTW file download), so Log4OM will receive this information and only when a LOTW contact is marked VALIDATED can users consider it validated (even if it's confirmed). Again, confirmation must be set as CUSTOM for LOTW, as it must not be automatically set by Log4OM on confirmation registration.

For EQSL awards, the presence of the EQSL confirmation is both confirming and granting a credit for the award itself. So users can set VALIDATION = EQSL. Log4OM will automatically set the references of this award as VALIDATED when an EQSL is received.

#### **Special situations**

Assume an award that is accepting QSL and EQSL as a confirmation. The QSL must be validated by a card checker, but they have direct access to EQSL to validate a users EQSL confirmations.

In this case users should set CONFIRMATION to EQSL + QSL / VALIDATION to EQSL + CUSTOM When users receive an EQSL the reference will be confirmed and validated. When users receive a paper QSL the reference will be CONFIRMED and may be manually updated to VALIDATED when card checker approves it.

#### Grant codes:

Log4OM is able to import a text file in CSV format from any source and search for validations/confirmations in the file itself. It's also able to scan LOTW downloaded ADIF searching for peculiar LOTW fields.

An example of award that provide confirmation / validation status in a CSV format is the IOTA program.

When users retrieve the IOTA confirmation file and pass it through Log4OM file checker, it will search for field: "count for" for the string "HF bands". This will mark the QSO CONFIRMED in IOTA.

```
"Ref. No.", "Callsign", "UTC", "Count for", "Method", "Status"
"AF-004", "EA8ADL", "2012-05-01 16:17:00", "HF bands", "DXCC matches one IOTA", "Active"
"AF-005", "D4A", "2012-03-24 14:41:00", "HF bands", "Accepted Operation", "Active"
"AF-014", "CQ3L", "2012-03-24 14:17:00", "HF bands", "Accepted Operation", "Active"
"AF-016", "T019A", "2019-04-29 09:26:00", "HF bands", "DXCC matches one IOTA", "Active"
"AF-028", "706T", "2012-05-14 16:43:00", "HF bands", "Accepted Operation", "Active"
```

In order to have this QSO confirmed in Log4OM users should import that file, but users also need to inform Log4OM that the string "HF bands" means CONFIRMED. To do that, users must add a GRANT CODE in the confirmation section, to reflect that:

This is how an IOTA award is configured in Log4OM

| H 🛛 📋                                  | NEW                                  |   |                      |
|--|--------------------------------------|---|----------------------|
| Award info Awar                        | d type Confirmation                  | References Import   | Award configurations |
| Grant Codes HF                         | bands                                | <ul> <li>-</li> /ul> |                      |
| Confirmation<br>CUSTOM<br>EQSL<br>LOTW | Validation<br>CUSTOM<br>EQSL<br>LOTW |   |                      |
| QSL                                    | QSL                                  |   |                      |

### AWARD REFERENCES

| 💾 🛛 💼 🐗  |   |
|--|---|
| Award info Award type Confirmation   | References Import Award configurations  |
| Reference list<br>Search   | 💾 🛛 前 👹 📻 Reference count: 1172 / 1172  |
| AF-001<br>AF-002<br>AF-003<br>AF-004<br>AF-005   | Reference code   Valid     Description  |
| AF-006<br>AF-007<br>AF-008<br>AF-009<br>AF-010<br>AF-011<br>AF-012<br>AF-013   | Reference subgroup<br>Valid from 01/01/1900 v to 31/12/9998 v ^(.*)(word1 word2)(.*)\$<br>Score 0                   |
| AF-014<br>AF-015<br>AF-016<br>AF-017<br>AF-018<br>AF-019<br>AF-020<br>AF-021<br>AF-021<br>AF-022<br>AF-023<br>AF-024 | DXCC list  Cont  Cont  Abu Ail Is. [deleted]  Afghanistan  Agalega & St. Brandon Is.  Aland Island  Alaska  Albania |
| AF-025<br>AF-026<br>AF-027   | 0 items selected  |

This is the core of the award. The references.

Reference group and subgroup are optional but group is strongly suggested to provide more filtering options to the award itself.

Reference code must contain a call sign for CALLSIGN type awards.

All fields are self explanatory.

Alias field is used to account for award reference renaming or when a reference has multiple codes or has a worldwide award code and regional codes referring to the same place.

As example, if a castle has reference IT-123 in the WORLD CASTLES AWARD and the ITALIAN CASTLES AWARD has reference ITA-999 for the same reference, users may add IT-123 as alias for ITA-999. In this case, adding IT-123 (or reading that from cluster) will automatically give users reference for IT-123 in the world castles award and will find ITA-999 reference in the Italian castles award.

### Import award references

| 💾 🛛 💼 👹                   |                                |                         |                 |            |
|---------------------------|--------------------------------|-------------------------|-----------------|------------|
| Award info Award type     | Confirmation References        | Import Award configurat | tions           |            |
| Select file and format    | mport config Import            |                         |                 |            |
| Import file               |                                |                         |                 | <b>D</b> 🔀 |
| Field separator ,         | $\sim$                         |                         |                 | 63         |
| Preview                   |                                |                         |                 |            |
|                           |                                |                         |                 | <u></u>    |
|                           |                                |                         |                 |            |
|                           |                                |                         |                 |            |
| <                         |                                |                         |                 | >          |
| Drag and drop fields into | relevant destination fields    | Allow reuse of field    | is              |            |
| Fields identified         | Destination or fixed value     |                         |                 |            |
|                           | Reference Code                 | DXCC                    | Valid from      |            |
|                           | Reference Description          | Gridsquare              | Valid to        |            |
|                           | Reference group                | Activation Score        | Reference alias |            |
|                           | Reference sub group            | Activation Bonus Score  |                 |            |
| If file contains a "val   | lid" flag set field and value: | Valid field             | Valid value     | Next step  |

The very powerful Log4OM automatic import function for references reduces the user workload considerably..

The 'Import' is in 3 sections.

| Select file and format Im | ort config Import |
|---------------------------|-------------------|
|---------------------------|-------------------|

### Select file and format

**Field separator:** the text file field separator.

**Preview:** Will show a preview of the file to help users find the correct separator character. In this case, the comma is bad, because Log4OM can only identify one field, the semi colon (;) should have been selected.

| Import file   | C:\Users\lele\Desktop\waip.csv   |
|---|--|
| Field separator   | , ~  |
| Preview   |  |
| AG;Agrigento;Sicil<br>AL;Alessandria;Pie<br>AN;Ancona;March | gione;Prefixes;Note;Alias;EndDate;Deleted<br>lia;IT9-IW9-IG9-IQ9;;;;<br>emonte;I1-IK1-IW1-IZ1-IQ1-IU1;;;;<br>ne;I6-IK6-IW6-IZ6-IQ6-IU6;;;;<br>osta;IX1-IW1-IQ1;;;; |
| Drag and drop fi  | ields into relevant destination fields   |
| Fields identified   | Destination or fixed value   |
| 0 # sigla;Provin  | ce;Re Reference Code DXCC  |
|   | Reference Description Grids  |

The right separator is ";", and after a preview, this is the list of fields:

| Fields identified |   |
|-------------------|---|
| 0 # sigla         |   |
| 1 # Province      |   |
| 2 # Regione       |   |
| 3 # Prefixes      |   |
| 4 # Note          |   |
| 5 # Alias         |   |
| 6 # EndDate       |   |
| 7 # Deleted       | _ |

For Worked All Italian Provinces Log4OM selects this configuration. Log4OM knows that the NOTE fields contain the START date of the reference, while the END DATE, if any, contains the END DATE.

Some provinces were renamed through the years, Alias will resolve that field.

Deleted field contains a note when a province is deleted, Log4OM will assume the value set as the VALID value, so leaving it blank will allow Log4OM to have all provinces marked as valid, and DELETED (this is different from blank) as INVALID.



If a CSV file doesn't have a header users will see on the FIELDS IDENTIFIED a list of the values of the first row. This will not create any kind of issue on further activities. Simply drag and drop the right field in the right place.

| Fields identified     | Destination or fixed value      |                        |         |           |
|-----------------------|---------------------------------|------------------------|---------|-----------|
| 3 # Prefixes          | sigla                           | 248                    | Note    |           |
|                       | Province                        | Gridsquare             | EndDate |           |
|                       | Regione                         | Activation Score       | Alias   |           |
|                       | Reference sub group             | Activation Bonus Score | ]       |           |
| If file contains a "v | alid" flag set field and value: | Deleted                |         | Next step |

Note that DXCC field has been typed manually (and not dragged from the fields) as its fixed.

Log4OM manually updated the province of Sardinia after import, because the DXCC field was not available in the file. Users can edit the file in excel and save some time and complexity.

### **Import Config**

Here users can inform Log4OM if the reference format expected is a number (e.g. DXCC field) or a string.

Users can also provide the date format used in the CSV file, by selecting the correct format.

A reference may contains multiple DXCC codes, as example for a park that is shared between multiple countries. In this case, users can set the separator of the multiple DXCC fields to allow Log4OM to identify them correctly.

For awards that report DXCC fields as a PREFIX LIST, users must mark the "DXCC is char PREFIX" Log4OM will try retrieving the right DXCC code from the prefix.

Merge: Actual reference list will be merged with the imported one.

Skip first row: If the CSV field contains header, users must set this flag.

Import: This will import the file ...

### AWARD CONFIGURATIONS

Award view may be configured to reflect multiple situations.

| 💾 🛛 💼 🐗   |   |                             |
|---|---|-----------------------------|
| Award info Award type Confirmation R                        | References Import Award configurations        |                             |
| This page contains the different sub awar                   | ds types available for the current award.     |                             |
| A type must be intended as a SUBSET of<br>Award definitions | the Award Info set of information for a speci | fic challenge.              |
| Search  | i 🚞 🗵 🔟 🦉 🗗                                   |                             |
|   | Base Info Extended info                       |                             |
|   | Name  |                             |
|   | Description                                   |                             |
|   |   |                             |
|   |   |                             |
|   |   |                             |
|   | Chaser view O Activator view O F              | Reference to Reference view |
|   | Award resets yearly                           | Valid period                |
|   | Satellite contacts only                       | From 08/09/2019             |
|   | Exclude satellite contacts                    | To 08/09/2019 💷             |
|   | Grant Code                                    | - <b>- X</b>                |
|   |   |                             |
|   |   |                             |
|   |   |                             |
|   |   |                             |
|   |   |                             |

As example, DXCC has a lot of sub-awards that may be useful to view in depth.

With award configurations users can create filters that will be shown in the award statistics screen in the "predefined config".

#### www Awards statistics

| Award                          |   | • • 🖿      | ,           |  |
|--------------------------------|---|------------|-------------|--|
| Award view                     | Award filters                                 | Statistics | Maintenance |  |
| Show or<br>Sub grou<br>Award v | orked only<br>nly valid referen<br>up details |            |             |  |

DXCC is a clear example of this:

| Award definitions |
|-------------------|
| Search            |
| 10M               |
| 12M               |
| 15M               |
| 160M              |
| 17M               |
| 20M               |
| 2M                |
| 30M               |
| 40M               |
| SBANDS            |
| 6M                |
| 70CM<br>80M       |
| CHALLENGE         |
| CW                |
| DIGITAL           |
| MIXED             |
| PHONE             |
| SATELLITE         |
|                   |
|                   |
|                   |

In detail, let's examine 10M configuration

| Base Info E  | extended info                       |                             |  |
|--|-------------------------------------|-----------------------------|--|
| Name   | 10m                                 |                             |  |
| Description  | Contacts must be made on 10<br>1945 | D meters since November 15, |  |
| Chaser view      Activator view      Reference to Reference view |                                     |                             |  |
| Award re   | esets yearly                        | Valid period                |  |
| Satellite  | contacts only                       | From 15/11/1945             |  |
| Exclude :  | satellite contacts                  | To ☑ 31/12/9998 🗐▼          |  |
| Grant Code   | DXCC-10 ~                           | / 🕂 🗙 🔒                     |  |

Chaser view: Show the typical "chaser" view, the QSO shown from user's point of view as a chaser.

**Activator view:** The award will be presented from the point of view of an activator. Only QSO where users have a STATION REFERENCE as activator of the same award will be shown.

**Reference to reference view:** Only QSO made FROM a reference in the award with operators in a valid reference of the same award are shown. This is the SOTA "summit to summit" view.

Award reset yearly: Statistics are shown and filtered in the award statistics for the selected year. This option will enable the "year filter".

Satellite contacts only: Only satellite contacts are considered

Exclude satellite contacts: Satellite contacts will be excluded from the view.

**Grant code:** for the DXCC award, this is the GRANT CODE that is retrieved from LOTW download. If Log4OM finds DXCC-10 in the list of granted codes received from LOTW it mark the contact VALIDATED for the current SPECIFIC award view.

A specific configuration can be personalized in depth to show only a subset of references using the extended info:

| Base Info Exte                               | nded info        |                  |                  |
|--|------------------|------------------|------------------|
| Emission                                     | Valid bands      | Valid mode       | Valid cont       |
| CW<br>DIGITAL                                | 🤣 🗕 🗗            | e – 5            | e - 5            |
| PHONE  | 160m 🔨           | AM 🔨             | AF 🔨             |
|  | 🗌 80m            | AMTORFEC         | AN AN            |
|  | 40m              | ARDOP            | AS               |
|  | □ 30m 🗸          | ATV V            | EU 🗸             |
|  |                  |                  |                  |
| ,  | 1 items selected | 0 items selected | 0 items selected |
| Specif                                       | ic groups        | Specific Su      | ib Groups        |
| 🥪 😐 🗗  |                  | 💓 😐 🗗            |                  |
| V - Cr                                       |                  |                  | N                |
| ✓ — □.º                                      | ^                |                  | 6                |
| -  | ^                |                  | 6                |
| □ NA   | ^                |                  | 3                |
| NA<br>AF                                     | ^                |                  | ß                |
| NA<br>AF<br>SA                               | ^                |                  | G                |
| □ NA<br>□ AF<br>□ SA<br>□ AS                 | ^                |                  | G                |
| □ NA<br>□ AF<br>□ SA<br>□ AS<br>□ OC<br>□ EU |                  |                  |                  |

### **External confirmation import**

For all awards that have "external management", like IOTA, Log4OM is able to import a CSV text file containing info about the reference status.

The interface is complex and powerful, but Log4OM provides predefined schema for known awards. Log4OM made the confirmation import so "complex" because Log4OM wanted to provide users with the most powerful and complete tool to manage their log and their awards.

For the "casual user" Log4OM provides, for standard awards, a predefined set of configurations, based on the award standard files provided by the award managers.

To load predefined config, simply press the Load Config button. Save Config will export the config in the Log4OM awards database.



The import function is available through the award statistics screen, in the top bar:

| www. Awards sta | tistics       |                        |
|-----------------|---------------|------------------------|
| Award           |               | • 🔁                    |
| Award view      | Award filters | Statistics Maintenance |
| Predefined      | config        |                        |
|                 |               | ✓                      |

The import screen is divided into sub sections for clarity.

Log4OM will import a IOTA status file, as example. Here a section of an IOTA file:

```
"Ref. No.", "Callsign", "UTC", "Count for", "Method", "Status"
"AF-004", "EA8ADL", "2012-05-01 16:17:00", "HF bands", "DXCC matches one IOTA", "Active"
"AF-005", "D4A", "2012-03-24 14:41:00", "HF bands", "Accepted Operation", "Active"
"AF-014", "CQ3L", "2012-03-24 14:17:00", "HF bands", "Accepted Operation", "Active"
"AF-016", "T019A", "2019-04-29 09:26:00", "HF bands", "DXCC matches one IOTA", "Active"
"AF-012", "FT4JA", "2016-04-02 15:34:43", "HF bands", "Accepted Operation", "Accepted"
"AF-002", "FT5ZM", "2014-01-29 11:21:00", "HF bands", "Accepted"
"AF-003", "ZD8Z", "0000-00-00 00:00:00", "HF bands", "QSL", "Accepted"
```

| arameter setting Exe   | cution                                      |                                 |
|------------------------|---|---------------------------------|
| import file            |   |                                 |
| Field separator        | ✓ ✓ File contains header                    |                                 |
| ✓ Preview              |   |                                 |
|                        |   |                                 |
|                        |   |                                 |
|                        |   |                                 |
|                        |   |                                 |
| <                      | to relevant destination fields              | -                               |
|                        |   | × 0                             |
| Award                  | <ul> <li>Multiple credit se</li> </ul>      | eparator v Load config Save con |
| ields identified       | QSO match fields Award match                | fields Award match rules        |
|                        | Fields match                                |                                 |
|                        |   |                                 |
|                        | Callsign Reference (or                      | pt)                             |
|                        | Callsign Reference (o                       | pt)                             |
|                        | Band  | pt)                             |
|                        | Band Mode                                   |                                 |
|                        | Band  | Date Time format                |
|                        | Band Mode                                   |                                 |
|                        | Band<br>Mode<br>Date                        | Date Time format                |
| 기 Allow reuse of field | Band<br>Mode<br>Date<br>Time<br>Date + Time | Date Time format                |

#### **Qso Match fields:**

This section allow users to identify data in the import that can help Log4OM identify the QSO. Some of those fields may be missing, in this case Log4OM will make some analysis of the data, trying to find the right QSO (or multiple QSO in some cases)

Drag and drop fields to the correct places. If DATE is provided, drag the date field in the Date position. If TIME is provided do the same. If format is DATE + TIME (as in our case) the right field is this:



In this situation Log4OM only has CALLSIGN, REFERENCE and UTC date+time.

| Award IOTA  | $\sim$   | Multiple credit separat         | vor v                              | Load config | Save config |
|---|--|---------------------------------|------------------------------------|-------------|-------------|
| Fields identified<br>0 # "Ref. No."<br>1 # "Callsign"<br>2 # "UTC"<br>3 # "Count for"<br>4 # "Method"<br>5 # "Status" | QSO match fields<br>Fields match<br>"Callsign"<br>Band<br>Mode<br>Date | Award match fields<br>Ref. No." | Award match rules Date Time format |             |             |
| Allow reuse of fields   | Time<br>"UTC"  | ]                               | уууу ~ / ~ ММ<br>НН ~ : ~ mm       |             |             |

Remember to check the date-time format used in the file.

### Award match fields

| Award IOTA                                      | ✓ Multiple credit separator ✓ Load config Save config   |
|---|---|
| Fields identified                               | QSO match fields Award match fields Award match rules   |
| 0 # "Ref. No."<br>1 # "Callsign"<br>2 # "UTC"   | Mark reference O Confirmed O Validated   Use fields  Multiple values accepted with   separator                                      |
| 3 # "Count for"<br>4 # "Method"<br>5 # "Status" | Set confirmed when       Field Confirmed       is       Value         Set validated when       Field Validated       is       Value |
|   | Add SUBMITTED award tags from field: Submitted Or type value  |
|   | ○ Always ○ If validated   |
|   | Add GRANTED award tags from field: Granted Or type value  |
| Allow reuse of fields                           | ○ Always ○ If validated ● When Check field is Value   |

Red fields Will accept drag/drop from file columns

Green fields Will accept drag/drop and direct typing

#### Mark reference:

CONFIRMED: when a QSO is found in the file, the Reference is automatically marked CONFIRMED

VALIDATED: when a QSO is found in the file, the Reference is automatically marked VALIDATED

USE FIELDS: If the file contains both CONFIRMED and VALIDATED information. Further filters are required.

| Mark reference O C | onfirmed 🔿 Valida | ated | • Use fields | Multiple values accepted<br>  separator |
|--------------------|-------------------|------|--------------|---|
| Set confirmed when | Field Confirmed   | is   | Value        | 0                                       |
| Set validated when | Field Validated   | is   | Value        | 0                                       |

Users can analyze confirmed and validated status, from QSO fields. When the indicated string is found, the QSO is considered CONFIRMED (or VALIDATED) and SUBMITTED/GRANTED values are IGNORED

#### Submitted status

After validation, some awards require another step, that is the submission of the reference for the final grant of the award. Log4OM is able to manage this phase working with external files, other than with single references.

When a QSO is submitted users can mark it with a TAG. As an example, users may want to mark the QSO with IOTA\_MIXED tag, or users may have a file that contains the list of submitted QSO for the IOTA MIXED award.

| Add SUBMITTED award tags from field: | Submitted   | G  | or type value |
|--------------------------------------|-------------|----|---------------|
| ○ Always ○ If validated ④ When       | Check field | is | Value         |

In this case users can use a field from the file, if any, or directly type the tag value in the field.

#### Users can select:

ALWAYS: All QSO are marked SUBMITTED. This is typically the case of a file that reports SUBMITTED QSO.

IF VALIDATED: Add the tag if the reference is validated

WHEN: Add the tag if the indicated field has the set value

If nothing is indicated in the Submitted field nothing is done

#### **Granted status**

After submission, users may import a GRANTED file from the award. This will finally mark the QSO as GRANTED for the selected award / award code.

| Add GRANTED award tags from field: | Granted     | 0  | or type value |
|------------------------------------|-------------|----|---------------|
| ○ Always ○ If validated            | Check field | is | Value         |

In this case users can use a field from the file, if any, or directly type the tag value in the field.

Users can select:

ALWAYS: All QSO are marked GRANTED. This is typically the case of a file that reports GRANTED QSO.

IF VALIDATED: Add the tag if the reference is validated

WHEN: Add the tag if the indicated field has the set value.

If nothing is indicated in the Granted field, nothing is done

#### **IOTA** settings

Users can download an IOTA status file from <a href="https://www.iota-world.org/">https://www.iota-world.org/</a>

And selecting DOWNLOAD QSOS (CSV) after login.

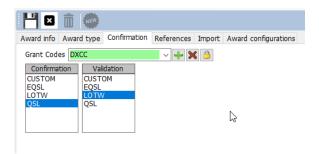
| MANAGEMENT NEWS     | MY IOTA          | MY OPERA | TIONS     |
|---------------------|------------------|----------|-----------|
| IME INFORMATION LOG | PENDING QSOS     | ſS       | IOTA SHOP |
|                     | ACCEPTED QSOS    |          |           |
|                     | SUMMARIES        | •        |           |
|                     | ADD QSOS FROM CI | LUB LOG  |           |
|                     | ADD CONTEST QSO  | S        |           |
|                     | ADD QSLS         |          |           |
|                     | SUBMIT HF APPLIC | ATION    |           |
| -                   | SUBMIT VHF APPLI | ICATION  |           |
| -                   | AWARDS           |          |           |
| fo@iota-world.org   | DOWNLOAD QSOS (  | (CSV)    |           |

| Award  | ΙΟΤΑ                                  | ~  | Multiple credit separato                        | or 🗸 🗸              | Load config                       | Save config |
|--|---------------------------------------|--|---|---------------------|-----------------------------------|-------------|
| Fields id  | entified                              | QSO match field                            | S Award match fields                            | Award match rules   |                                   |             |
| 0 # "Re<br>1 # "Ca<br>2 # "U"<br>3 # "Co<br>4 # "Me<br>5 # "St | allsign"<br>TC"<br>punt for"<br>ethod | Fields match<br>"Callsign"<br>Band<br>Mode | "Ref. No."                                      | [                   | r)                                |             |
|  |                                       | Date                                       |   | Date Time format    |                                   |             |
|  |                                       | Time                                       |   | уууу 🗸 - 🗸 ММ       | ✓ - dd ✓ ●                        |             |
|  |                                       | "UTC"                                      |   | HH 🗸 : 🗸 mm         | ~ : ss ~ 🕒                        |             |
| Allov 🗸  | v reuse of fields                     |  |   |                     |                                   |             |
| Award  | ΙΟΤΑ                                  | ~  | Multiple credit separate                        |                     | Load config                       | Save config |
| Fields id  | entified<br>ef. No."                  | QSO match field                            | s Award match fields                            | Award match rules   | Multiple columns                  |             |
| 1 # "Ca<br>2 # "U  | allsign"                              | Mark reference                             | ○ Confirmed ○ Val                               | idated 💿 Use fields | Multiple values ac<br>  separator | cepted with |
|  | ount for"<br>ethod"                   | Set confirmed                              |   | is Value            |                                   | 9<br>9      |
|  |                                       |  |   |                     |                                   |             |
|  |                                       |  | ED award tags from field<br>If validated — When | Submitted           | or type value                     |             |
|  |                                       | Add GRANTED                                | award tags from field:                          | "Count for"         | or type value                     |             |
|  | v reuse of fields                     |  |   |                     |                                   |             |

# Award Submitted and Granted display

Award definitions may require an optional additional definition of a GRANT CODE.

This code will be used to manage display of SUBMISSION and GRANTED status at award level.



How this field works:

This was a QSO with CANADA on 80 meters

| Edit QSO  |                         |   | × |
|-----------|-------------------------|---|---|
| ! 💾 🎸     | 실   🛅                   |   |   |
| QSO Info  | His details Award Refs. | My Station My QTH My Refs. QSL Info Documents |   |
| Award     | DXCC                    | References                                    |   |
| Group     | NA                      | Search  |   |
| Sub       |                         | ~   |   |
| 1 Canada  |                         | •   |   |
| DX        | @1                      |   |   |
|           |                         |   |   |
| Ref. Stat | us VALIDATED            | ~   |   |
| Submitter | i tags                  |   |   |
| Granted t | ags                     |   |   |

It has been VALIDATED but has NO SUBMITTED or GRANTED tags attached to it in the PREDEFINED config, this qso marks the 80M DXCC , because there is no 'Predefined Config' as VALIDATED.

| www. Awards statistics  |                    |                  |                |      |          |     |     | -   | - 🗆 | ×    |
|---|--------------------|------------------|----------------|------|----------|-----|-----|-----|-----|------|
| Award DXCC -  | DXCC 📂             | B                |                |      |          |     |     |     |     | Ī    |
| Award view Award filters Stat                                 | istics Maintenance |                  |                |      |          |     |     |     |     |      |
| Predefined confia   | ReferenceCode      | ReferenceDescrip | ReferenceGroup | 160m | 80m      | 40m | 30m | 20m | 17m | ^ x1 |
| Show worked only  | 1                  | Canada           | NA             |      | <b>v</b> | V   | v   | V   | v   |      |
|   | 3                  | Afghanistan      | AS             |      |          |     |     | V   | С   | •    |
| Show only valid references                                    | 4                  | Agalega & St     | AF             |      |          |     |     |     |     |      |
| Sub group details<br>Award view<br>Detailed (mode) statistics | 5                  | Aland Is.        | EU             |      | V        | V   | V   | V   | v   |      |
|   | 6                  | Alaska           | NA             |      |          |     | v   | V   | v   |      |
|   | 7                  | Albania          | EU             |      |          | W   | С   | v   | v   |      |
|   | 9                  | American Samoa   | oc             |      |          |     |     |     |     |      |

Mark the QSO... as submitted by adding a "DXCC" tag to the SUBMITTED tags. DXCC tag is the one set in the award definition here, as shown some rows above:

| 4  ⊠             |                         |                                |                 |        |
|------------------|-------------------------|--------------------------------|-----------------|--------|
| Award info       | Award type              | Confirmation                   | References      | Import |
| Grant Co         | des DXCC                |                                | >               | ۵      |
|                  |                         |                                |                 |        |
| Edit QSO         |                         |                                |                 |        |
| i 💾 🛷 🤩 i i      | Ō                       |                                |                 |        |
| QSO Info His det | alls Award Refs. My Sta | ation My QTH My Refs           | QSL Info Docume | nts    |
| Award DXCC       |                         | <ul> <li>References</li> </ul> |                 |        |
| Group NA         |                         | Search                         | _               |        |
| Sub              |                         | ~ 1                            |                 |        |
| 1 Canada         |                         | •                              |                 |        |
| DXCC@1           |                         | 2                              |                 |        |
|                  |                         | -                              |                 |        |
|                  |                         | -                              |                 |        |
| Ref. Status      | VALIDATED               | ~                              |                 |        |
| Submitted tags   | DXCC                    | - 🕂 🗶 🔒                        |                 |        |
| Granted tags     |                         | - 🕂 🗶 🔒                        | 14              |        |
|                  |                         |                                |                 |        |

Log4OM has now set DXCC as submitted tags. Press the SAVE button it to apply the changes (the small floppy icon) and the QSO is SAVED using the top bar buttons it to permanently save the changes in the database.

Refreshing the statistics causes the Award statistics to change to SUBMITTED in CANADA 80M, because the AWARD default submit/grant code is matching the DXCC value in the QSO tags:

| ward DXCC - I                   | DXCC 📂            |                  |                |      |     |     |     |     |     |          |
|---------------------------------|-------------------|------------------|----------------|------|-----|-----|-----|-----|-----|----------|
| ward view Award filters Stat    | stics Maintenance |                  |                |      |     |     |     |     |     |          |
| Predefined config               | ReferenceCode     | ReferenceDescrip | ReferenceGroup | 160m | 80m | 40m | 30m | 20m | 17m | ^        |
| ~                               | 1                 | Canada           | NA             |      | SUB | v   | V   | v   | V   | Ģ        |
| Show worked only                | 3                 | Afghanistan      | AS             |      |     |     |     | v   | С   | Let e    |
| Show only valid references      | 4                 | Agalega & St     | AF             |      |     |     |     |     |     |          |
| Sub group details<br>Award view | 5                 | Aland Is.        | EU             |      | V   | v   | v   |     |     |          |
| Detailed (mode) statistics      | 6                 | Alaska           | NA             |      |     |     | V   | v   | V   |          |
|                                 | 7                 | Albania          | EU             |      |     | w   | С   | v   | v   |          |
|                                 | 9                 | American Samoa   | oc             |      |     |     |     |     |     |          |
|                                 | 10                | Amsterdam &      | AF             |      |     |     |     |     |     |          |
|                                 | 11                | Andaman & Ni     | AS             |      |     |     |     |     |     |          |
|                                 | 12                | Anguilla         | NA             |      |     |     |     |     | v   |          |
|                                 | 13                | Antarctica       | AN             |      |     | С   |     | v   |     |          |
|                                 | 14                | Armenia          | AS             |      | W   | v   | W   | С   |     |          |
| Station 🗸                       | 15                | Asiatic Russia   | AS             |      | V   | V   | v   | v   | v   |          |
| WORKED A                        | 16                | New Zealand      | oc             |      |     |     | w   |     |     |          |
| CONFIRMED 🖤                     | 17                | Aves I.          | NA             |      |     |     |     |     |     |          |
| VALIDATED<br>SUBMITTED          | 18                | Azerbaijan       | AS             |      |     | v   | V   | V   | V   | <b>_</b> |

When selecting the 80 meters view using the specific sub-award view (available from the PREDEFINED CONFIG drop down)

| ward DXCC - D                   | xcc 📂         |                  |                |     |             |                |            |   |
|---------------------------------|---------------|------------------|----------------|-----|-------------|----------------|------------|---|
| ward view Award filters Statis  | -             |                  |                |     |             |                |            |   |
| Predefined config               | ReferenceCode | ReferenceDescrit | ReferenceGroup | 80m | AllowedDxcc | Country        | GridSquare | ^ |
| 80M ~                           | 1             | Canada           | NA             |     | 1           | Canada         |            |   |
| Show worked only                | 3             | Afghanistan      | AS             |     | 3           | Afghanistan    |            |   |
| Show only valid references      | 4             | Agalega & St     | AF             |     | 4           | Agalega & St   |            |   |
| Sub group details<br>Award view | 5             | Aland Is.        | EU             | w   | 5           | Aland Island   |            |   |
| Detailed (mode) statistics      | 6             | Alaska           | NA             |     | 6           | Alaska         |            |   |
|                                 | 7             | Albania          | EU             |     | 7           | Albania        |            |   |
|                                 | 9             | American Samoa   | OC             |     | 9           | American Samoa |            |   |
|                                 | 10            | Amsterdam &      | AF             |     | 10          | Amsterdam &    |            |   |
|                                 | 11            | Andaman & Ni     | AS             |     | 11          | Andaman & Ni   |            |   |

The award status is still showing VERIFIED, because QSO is verified and no suitable tags are found to mark this QSO submitted or granted for the 80meters DXCC sub award.

The 80M specific 'tags' (that Log4OM, for DXCC, retrieves automatically from LOTW import functions) are defined by the ARRL itself as ADIF Field. Those "tags" are selected in Log4OM Award Configuration screen:

| aut Award Management       | >  | × |
|----------------------------|--|---|
| File Update Utilities      |  |   |
| Available Awards     AA    | 💾 🖸 🗴 🧔  |   |
| ARLHS_WLOL                 | Award info Award type Confirmation References Import Award configurations  |   |
| ATDA                       | This page contains the different sub awards types available for the current award.<br>A type must be intended as a SUBSET of the Award Info set of information for a specific challenge. | _ |
| CATCH22                    | Award definitions  |   |
| 🔂 CDM                      | 10M Base Info Extended info  |   |
| CHINESE_PROVINCES          | 12/1<br>15M Name 80m   |   |
|                            | Description         Contacts must be made on 80 meters since November 15, 1945           ZM         1945   |   |
|                            | 30M<br>40M   |   |
|                            | SBANDS<br>IGM O Chaser view O Activator view O Reference to Reference view   |   |
| USA-CA                     | OCM     Award resets yearly     Valid period   |   |
| 🍎 WAB                      | CW Satelite contacts only From 15/11/1945  |   |
| WAC                        | DIGITAL<br>MIXED To 31/12/9998   |   |
| 🌤 WAIP<br>🌤 WAJA<br>🌤 WALA | PHONE<br>SATELLITE   |   |

For DXCC, the ADIF code that represent a SUBMITTED/GRANTED status for 80M award is DXCC-80. Incidentally DXCC program will not support "SUBMITTED" feedback, but only GRANTED, through their ADIF download functions, so Log4OM will never show SUBMITTED status for DXCC. This feature is available for any other kind of award.

To simulate receipt of a DXCC-80 GRANTED status from the latest LOTW downloaded ADIF.

| Edit QSO  |                         |            |                 |          |           |  |
|-----------|-------------------------|------------|-----------------|----------|-----------|--|
| 💾 🎸       | 🤐   💼                   |            |                 |          |           |  |
| QSO Info  | His details Award Refs. | My Station | My QTH My Refs. | QSL Info | Documents |  |
|           |                         |            |                 |          |           |  |
| Award     | DXCC                    | ~          | References      |          |           |  |
| Group     | NA                      |            | Search          | -        |           |  |
| Sub       |                         |            | 1               |          |           |  |
|           |                         |            |                 |          |           |  |
| 1 Canada  | 1                       | +          |                 |          |           |  |
| DXCC      | @1                      | 9          |                 |          |           |  |
|           |                         |            |                 |          |           |  |
|           |                         | -          |                 |          |           |  |
|           |                         |            |                 |          |           |  |
| Ref. Stat | us VALIDATED            | $\sim$     |                 |          |           |  |
| Submitte  | d tags DXCC             |            | ~ 🕂 🗙 🕒         |          |           |  |
| Granted t | ags DXCC-80             |            | × <b>×</b> A P  | 1        |           |  |
|           |                         |            |                 |          |           |  |

The Log4OM reference will automatically receive the DXCC-80 tags from the ADIF download, but the user can manually force it to simulate the situation, or to manually mark the granted status for an award that doesn't support or provide update information in electronic format.

After having pressed the SAVE (Floppy disc icon) button the reference is now stored in the QSO data, save the QSO itself to permanently save the information in the database and refresh the award statistics, selecting 80M award in the "predefined config" section.

| www. Awards statistics<br>Award DXCC - D | CC  | D           |                  |            |     |     |    |          |              | -          |     | ×   |
|--|-----|-------------|------------------|------------|-----|-----|----|----------|--------------|------------|-----|-----|
| Award view Award filters Statist         | ics | Maintenance |                  |            |     |     |    |          |              |            |     |     |
| Predefined config                        | R   | ferenceCode | ReferenceDescrip | ReferenceG | oup | 80m | Al | owedDxcc | Country      | GridSquare | • ^ | XII |
| 80M ~                                    | 1   |             | Canada           | NA         |     | GRA | 1  |          | Canada       |            |     | ß   |
| Show worked only                         | 3   |             | Afghanistan      | AS         |     |     | 3  |          | Afghanistan  |            |     | œ   |
| Show only valid references               | 4   |             | Agalega & St     | AF         |     |     | 4  |          | Agalega & St |            |     |     |
| Sub group details Award view             | 5   |             | Aland Is.        | EU         |     |     | 5  |          | Aland Island |            |     |     |
| Detailed (mode) statistics               | 6   |             | Alacka           | NΔ         |     |     | 6  |          | Alacka       |            |     |     |

80M now displays GRANTED, because 80M is searching for DXCC-80 tag in the submitted or granted fields and changed the display accordingly.

Predefined "award wide" situation is still showing the GRANTED status, because no changes have been made on that side.

| wet Awards statistics            | 2               | 1                |                |      |     |     |     | -   | - 🗆 |   |
|----------------------------------|-----------------|------------------|----------------|------|-----|-----|-----|-----|-----|---|
| Award DXCC - DX                  | (CC 🔁           |                  |                |      |     |     |     |     |     |   |
| Award view Award filters Statist | ics Maintenance |                  |                | _    |     | _   |     |     |     |   |
| Predefined config                | ReferenceCode   | ReferenceDescrip | ReferenceGroup | 160m | 80m | 40m | 30m | 20m | 17m | ^ |
| ~                                | 1               | Canada           | NA             |      | SUB | V   | V   | V   | V   |   |
| Show worked only                 | 3               | Afghanistan      | AS             |      |     |     |     | V   | С   |   |
| Show only valid references       | 4               | Agalega & St     | AF             |      |     |     |     |     |     |   |
| Sub group details Award view     | 5               | Aland Is.        | EU             |      | V   | V   | v   | V   | v   |   |
| Detailed (mode) statistics       | 6               | Alaska           | NA             |      |     |     | V   | V   | v   |   |
|                                  | 7               | Albania          | EU             |      |     | W   | С   | v   | v   |   |

In the "real world" the DXCC-80 is always accompanied by "DXCC" tag in the ADIF file from LoTW, so those displays may be marked received, submitted or granted, but the main view will show the GRANTED status from a mix of sub awards, this can create confusion if the user is not aware of what is happening in the background.

For the DXCC award, Log4OM automatically takes care of all of these aspects, for other awards the user can manually mark tags in the references with custom codes, or use the IMPORT feature to load files provided by the award program managers.

### POTA – Award Update

- 1. Download the latest csv file from the POTA site <u>https://pota.app/all\_parks.csv</u> and save it to a known location.
- 2. In Utilities/Award manager double left click on the POTA award
- 3. Open the 'Import' tab and view 'Select file and format.'
- 4. Select the file that was downloaded from POTA in the 'Import file' field by clicking the folder icon on the right.
- 5. Click the preview button.

| 🦉 Award Management           |   | – 🗆 X |
|------------------------------|---|-------|
| <u>File Update Utilities</u> |   |       |
| DDFM                         |   |       |
| UIA<br>UIFM<br>UIFO<br>UIFO  | Award info Award type Confirmation References Import Award configurations Select file and format Import config Import   |       |
| DLD                          | Import file C:\Users\g4pop\OneDrive\Desktop\al_parks.csv  |       |
| DME<br>DMSM<br>DBB           | Field separator , Y   |       |
| DTC<br>DTMBA                 | Preview 3   | -     |
| DVV<br>DXCC                  | "reference", "name", "active", "entityld", "locationDesc."<br>"K-0001", "Acada National Park", "1", "291", "US-ME"<br>"K-6002", "Alagnak Wild New National Park", "1", "6", "US-KK" | A     |
|                              | "K-0003"."Aniak-chak National Preserve"."1"."6","US-AK"<br>"K-0004","Arches National Park","1","2911,"US-UT"  |       |
| H26<br>HOLYLAND              | 4   | Þ     |

6. Drag and drop the fields from the 'Fields identified' window to the relevant 'Destination' fields E.G.

| Reference to Reference code  |
|------------------------------|
| Name to Refence description  |
| Entityid to DXCC             |
| LocalDesc to Reference group |

| "reference", "name", "active", "entityld", "locationDesc"<br>"K-0001", "Acadia National Park", "1", "291", "US-ME"<br>"K-0002", "Anajanak Wild River National Park", "1", "6", "US-AK"<br>"K-0003", "Anajachak National Preserve", "1", "6", "US-AK"<br>"K-0004", "Arches National Park", "1", "291", "US-UT" |                            |                        |                 |           |  |  |  |
|---|----------------------------|------------------------|-----------------|-----------|--|--|--|
| Drag and drop fields into relevant destination fields OR directly type FIXED values into fields   |                            |                        |                 |           |  |  |  |
| Allow reuse of fields   | Destination or fixed value |                        |                 |           |  |  |  |
| Fields identified          1 # "name"         2 # "active"         3 # "entityId"         4 # "locationDesc   | "reference"                | DXCC 🔐                 | Valid from      |           |  |  |  |
|   | ference Description        | Gridsquare             | Valid to        |           |  |  |  |
|   | rerence group              | Activation Score       | Reference alias |           |  |  |  |
|   | Reference sub group        | Activation Bonus Score | ]               |           |  |  |  |
| If file contains a "valid" flag set field and value:  |                            | Valid field            | Valid value     | Next step |  |  |  |

- 7. Click the 'Next step' button
- 8. If merging an update to the existing data check the merge box, otherwise leave it unchecked.

9. Check the box 'Skip first row' otherwise the import will include the header fields which are not required.

| 🙀 Award Management   |   | -   |        | × |
|--|---|-----|--------|---|
| Eile Update Utilities  |   |     |        |   |
| Ele         Update         Uptice           -         0.04         0.04           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.08         0.07           -         0.07         0.088           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07           -         0.07         0.07 <th>Award fro. Award type Confirmation References. Import. Award configurations<br/>Select file and format; Timport config import.<br/>Reference format: YYYY / V MM / / dd<br/>Date format: YYYY / V MM / / dd<br/>DXCC code in reference<br/>Mutpie DXCC separator ,<br/>DXCC schar PREFIX<br/>Reference<br/>Skip first row</th> <th>Nex</th> <th>t step</th> <th></th> | Award fro. Award type Confirmation References. Import. Award configurations<br>Select file and format; Timport config import.<br>Reference format: YYYY / V MM / / dd<br>Date format: YYYY / V MM / / dd<br>DXCC code in reference<br>Mutpie DXCC separator ,<br>DXCC schar PREFIX<br>Reference<br>Skip first row | Nex | t step |   |
| Current award POTA   |   |     |        |   |

- 10. Click 'Next step'
- 11. In the resulting 'Import' tab click the HD icon marked with a green plus sign, wait for the import to finish and click the 'Operation completed' OK button
- 12. CLICK THE 'SAVE AWARD' FLOPPY DISK ICON AT THE TOP OF THE AWARD WINDOW

# WWFF – Award Update

#### Select file and format

| Import file:           | \wwff_directory.csv<br>Link:<br>Make sure the file is save  | d as an U                    | point to the downloaded CSV file<br><u>http://wwff.co/wwff-data/wwff_directory.csv</u><br>ITF-8 file!!! |
|------------------------|---|------------------------------|---|
| Field separator: ,     |   |                              |   |
| Allow reuse of fields: | checked   |                              |   |
| Field settings:        | Reference Code:<br>DXCC:<br>Valid from:<br>Reference Description:<br>Gridsquare:<br>Valid to:<br>Reference group:<br>Activation Score:<br>Reference alias:<br>Reference sub group:<br>Activation Bonus Score: | referen<br>-<br>country<br>- | dxcc<br>validFrom<br>name<br>-  |
| Valid settings:        | Valid field:<br>Valid value:  |                              | status<br>active  |

| inter a month inter a la construction de la constru | type Confirmati   | on Refer                              | ences Import   | Award configurations   |                                      |                                       |
|--|---|---------------------------------------|--|--|--------------------------------------|---------------------------------------|
| Select file and form   | at Import conf  | ig Impor                              | t  |  |                                      |                                       |
| Import file  | H:\Downloads\\  | wwff_dire@                            | ctory.csv  |  |                                      | <b>D</b> 🔀                            |
| Field separator  | , ~   |                                       |  |  |                                      |                                       |
| Preview  |   |                                       |  |  |                                      |                                       |
| 1SFF-0001,active,Sp<br>3AFF-0001,active,"R<br>3AFF-0002,active,"T<br>3BFF-0001,active,"B   | ratly,1SFF,1S,1S,1<br>?serve du Larvotto<br>ombant ? corail des | S.AS,n/a<br>",3AFF,3A,<br>s Sp?lugues | a,0000-00-00,000<br>3A,3A,EU,-,,,n/a<br>s '',3AFF,3A,3A,3/ | .ocator,latitude,longitude,IUCNc<br>10-00-00,,0,"Spratty Archipe<br>,0000-00-00,0000-00-00,,0,<br>A,EU,n/a,0000-00-00,0000-0<br>/a,0000-00-00,0000-00( | ,Monaco,-<br>)0-00,-,-,0,,-,Monaco,- | · · · · · · · · · · · · · · · · · · · |
| <  |   |                                       |  |  |                                      | >                                     |
| Drag and drop field  | ls into relevant d  | estination                            | fields OR direc  | tly type FIXED values into fi  | ields                                |                                       |
| Allow reuse of f   | fields Destir   | nation or                             | fixed value  |  |                                      |                                       |
| Fields identified  |   |                                       |  |  |                                      |                                       |
| _  | refere  | nce                                   |  | dxcc   | 2 validFrom                          |                                       |
| 15 # notes<br>16 # lastMod<br>17 # changeLog   | ↑ refere  |                                       |  | dxcc<br>Gridsquare   | ValidFrom                            |                                       |
| 16 # lastMod<br>17 # changeLog<br>18 # reviewFlag  | ^   |                                       |  |  |                                      |                                       |
| 16 # lastMod<br>17 # changeLog   | name  | Ξγ                                    |  | Gridsquare   | Valid to                             |                                       |
| 16 # lastMod<br>17 # changeLog<br>18 # reviewFlag<br>19 # specialFlags<br>20 # website<br>21 # country<br>22 # region  | name<br>count   | Ξγ<br>1                               | value:   | Gridsquare<br>Activation Score   | Valid to                             | Next step                             |

➔ NEXT STEP

# Import config:

| Date Format:               | yyyy-MM-dd |
|----------------------------|------------|
| Multiple DXCC separator: , |            |
| DXCC is char PREFIX:       | checked    |
| Merge:                     | -          |
| Skip first row:            | checked    |

| Award info Award type Confirmation References Import Award configurations |           |
|---|-----------|
| Select file and format Import config Import                               |           |
| Reference format STRING ~   |           |
| Date format yyyy MM - dd - Od   |           |
| DXCC code in reference  |           |
| Multiple DXCC separator , 🗸   |           |
| DXCC is char PREFIX   |           |
| Merge   |           |
| Skip first row  |           |
|   |           |
|   |           |
|   |           |
|   |           |
|   |           |
|   |           |
|   | Next stee |
|   | Next step |
|   |           |

➔ NEXT STEP

#### Import

When you click on the import button the import will start. When done, more than 48000 records have been imported, and you always will see some errors. Most of these errors are repetitive because the Excel CSV file has some issues.

|  | 48109  |
|--|--|
| egin import of 48109 records             | <b>^</b>   |
|  | 265, ACTIVE, TAHKUNA , ESFF, ES, ES, ES, EU, -, KO19HB, 59.06920, 22.64713     |
|  | 2-25 VALIDITY BACKDATED AGREED BY 15FLN TO 2017-08-24 BY MANFRE                |
| OW: 6401: FFF-0178 DXCC not found: FO-FF |  |
| OW: 7469: FFF-1246 DXCC not found: FK-NO | C  |
| OW: 9118: DELETED DXCC not found: -      |  |
| OW: 9126: DELETED DXCC not found: -      |  |
|  | 10,ACTIVE,NEW FOREST NATIONAL PARK,GXFF,G,G,G,EU,-,,,N/A,0000-                 |
| OW: 9128: RENAMED DXCC not found: -      |  |
| OW: 9136: DELETED DXCC not found: -      |  |
|  | 15-05-26 by MOYMA - Deleted","2015-05-26 by I5FLN - Approved <br< td=""></br<> |
|  | 07, ACTIVE, NORTHUMBRIAN COAST SPA - DURHAM COAST NNR/SAC (SOUTH)              |
|  | 16-12-15 by MOYMA - Updated","2016-12-15 by MOYMA - Updated: La                |
| OW: 9676: RENAMED DXCC not found: -      | 061,ACTIVE,ST KILDA NNR AND WHS,GXFF,GM,GM,GM,EU,-,,,N/A,0000-                 |
| OW: 9695; RENAMED DXCC not found: -      | JOI, ACIIVE, SI KILDA NNK AND WHS, GAFF, GM, GM, GM, EU, -,,,, N/A, 0000-      |
| OW: 9699: RENAMED DXCC not found: -      |  |
| OW: 9798: DELETED DXCC not found: -      |  |
| OW: 9806: DELETED DXCC not found: -      |  |
| OW: 9813: DELETED DXCC not found: -      |  |
| OW: 9815: DELETED DXCC not found: -      |  |
| OU. 0020. DENERED DVCC found.            | · · · · · · · · · · · · · · · · · · ·  |
|  | >  |

Usually you will face "invalid reference" and "DELETED/RENAMED DXCC not found". Usually these are related, the problem is an invalid row in the CSV file (usually a wrong CR/LF). This must be fixed in the CSV file!

The log file will show you the row numbers where a problem occurred. Use Notepad++ or a similar editor to edit the wwff\_directory.csv file. In Notepad++ you can use CTRL-G to jump to a row.

We have the first issue in row 6098, so let us go there:

| Go To                            |                  | ×                 |
|----------------------------------|------------------|-------------------|
| )                                |                  |                   |
| . ● <u>L</u> ine                 | ○ <u>O</u> ffset |                   |
| 5                                |                  |                   |
| ) You are here :                 | 6098             |                   |
| You want to go to :              | 6098             | Go                |
| )You can't go further than:<br>) | 48110            | I'm going nowhere |
|                                  |                  |                   |

#### We can see that there is a wrong CR/LF

 6095
 ESFF-0262, active, Kiipsaare, ESFF, ES, ES, EU, -, K008MA, 58.49235, 21.84523, "Cat Ib", 2017-08-08,0000-00-00, "Vilsandi RP, Kiipsaare skv.", "201

 6096
 ESFF-0263, active, Vormsi, ESFF, ES, ES, EU, -, K019NA, 59.02421, 23.12324, Natura2000, 2017-08-08,0000-00-00, EU-034, "2019-01-14 by ESINOA - Upda

 6097
 ESFF-0264, active, "Osmussaare ", ESFF, ES, ES, EU, -, K019NA, 59.02421, 23.12324, Natura2000, 2017-08-08,0000-00-00, EU-034, "2019-01-14 by ESINOA - Upda

 6098
 ESFF-0264, active, "Osmussaare ", ESFF, ES, ES, EU, -, K019NH, 59.01800, 23.02100, Natura2000, 2017-08-08,0000-00-00, EU-034, "2019-01-14 by ESINOA

 6098
 ESFF-0265, active, "Tahkuna ", ESFF, ES, ES, EU, -, K019HB, 59.06920, 22.64713, 2017-08-24,000-00-0, -, "2019-01-14 by ESINOA - Updated", "2019-02-25 validity backdated agreed by ISFLN to 2017-08-24 by Manfred DF6EX", 0, <u>https://www.protectedplatet.net/tahkuna=ite-of-communi</u>

 6100
 ESFF-0266, deleted, "Kaavi Saaremaa ", ESFF, ES, ES, EU, -, -, 57.58900, 2.21100, "Cat IV", 2017-08-24,2019-02-07, "Nature Reserve", "2019-02-07 by

 6101
 ESFF-0267, deleted, "Kopu Hiiumaa ", ESFF, ES, ES, EU, -, -, 58.54900, 2.21100, "Cat IV", 2017-08-24, 2019-02-07, "Conservation Covernant", "2019-02

Row 6099 belongs to 6098, that is the reason why we get the error messages for row 6098/6099.

Go the first column in row 6099, hit backspace and enter a blank. The row should look like:

```
ion, Locator, Region<br>2017-08-08 by i5fln - Approved<br>2017-08-07 by i5fln - Created",0,,<u>https://protectedplanet.n</u>iry, Locator, Region<br/>br>2017-08-08 by i5fln - Approved<br>2017-08-07 by i5fln - Created ",0,,<u>https://protectedplanet.n</u>i9-18 by i5fln - Approved<br>2017-09-18 by i5fln - Created 2017-12-25 validity backdated agreed by I5FLN to 2017-08-24 by<br/>·09-18 by i5fln - Approved<br>2017-09-18 by i5fln - Created 2017-12-25 validity backdated agreed by I5FLN to 2017-08-24 by
```

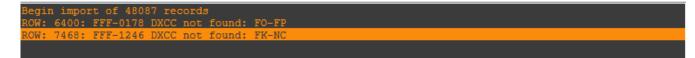
We have similar issues in row 9118, 9126, 9127, 9128...

We can see again that there are issues with wrong CR/LF in the CSV file:

9114 GDFF-0023,active,Scarlett,GxFF,GD,GD,GD,EU,-,,,n/a,0000-00-00,0000-00-00,-,-,-,0,,-,"Isle Of Man",-9115 GFF-0001, deleted, "Deleted - was Brecon Beacons National Park", GxFF, G, G, G, EU, -, -, 0.00000, 0.00000, n/a, GFF-0002,deleted, "Deleted - was Cairngorms National Park",GxFF,G,G,G,EU,-,,,,n/a,0000-00-00,0000-00-9116 9117 Deleted", "Duplicate deleted - see GMFF-001<br/>br>Duplicate deleted - see GMFF-001", 0, NP-CG, -, England, -GFF-0003,deleted,"Chalk Sound National Park",GxFF,VP5,VP5,VP5,NA,-,,,,n/a,0000-00-00,0000-00,"Rer 9118 9119 GFF-0004, active, "Dartmoor National Park", GxFF, G, G, G, EU, -, , 50.74105, -3.92687, n/a, 0000-00-00, 0000-00-00 GFF-0005,deleted,"East Bay Islands National Park",GxFF,VP5,VP5,VP5,NA,-,,,,n/a,0000-00-00,0000-00-00 9120 9121 GFF-0006,active,"Exmoor National Park",GxFF,G,G,G,EU,-,,51.13253,-3.65847,n/a,0000-00-00,0000-00-00, 9122 GFF-0007, deleted, "Grand Turk Cays National Park, Land and Sea", GxFF, VP5, VP5, VP5, NA, -, ,, , n/a, 0000-00-GFF-0008,active, "Lake District National Park", GxFF, G, G, G, EU, -, , 54.46111, -3.08848, n/a, 0000-00,00000 9123 GFF-0009.deleted, "Deleted - was Loch Lomond and The Trossachs National Park", GxFF, G, G, G, EU, -, ., ., n/a, 9125 Deleted","Duplicate deleted - see GMFF-0002",0,NP-LL,-,Scotland,-GFF-0010,active,"New Forest National Park",GxFF,G,G,G,EU,-,,,,n/a,0000-00-00,0000-00-00,"National Pa 9126 9127 Renamed","Name Changed<br>Name Changed",0,NP-NF,-,England,-9128 GFF-0011,deleted,"North West Point Marine National Park",GxFF,VP5,VP5,VP5,NA,-,,,,n/a,0000-00-00,000 9129 GFF-0012, active, "North York Moors National Park", GxFF, G, G, G, EU, -, , 54.38700, -0.89200, n/a, 0000-00-00, ( GFF-0013, active, "Northumberland National Park", GxFF, G, G, G, EU, -,, 55.28900, -2.19000, n/a, 0000-00-00,000 9130 9131 GFF-0014, active, "Peak District National Park", GxFF, G, G, G, EU, -, , 53.30000, -1.75000, n/a, 0000-00,00000 GFF-0015,active, "Pembrokeshire Coast National Park", GxFF, GW, GW, GW, EU, -,, 51.98634, -4.82716, "Cat V", 00 9132 GFF-0016,deleted,"Princess Alexandra National Park Land and Sea",GxFF,VP5,VP5,VP5,NA,-,,,,n/a,0000-C 9133 GFF-0017,deleted,"Deleted - was Snowdonia National Park",GxFF,G,G,G,EU,-,,,,n/a,0000-00-00,0000-00-0 9134 Plas Deleted", "Duplicate deleted - see GWFF-074<br>Duplicate deleted - see GWFF-074", 0, NP-SN, -, Wales, -GFF-0018,active,"South Downs National Park",GxFF,G,G,G,EU,-,,50.96860,-0.69430,"Cat V",0000-00-00,00 9136 9137 GFF-0019, active, "The Broads National Park", GxFF, G, G, G, EU, -,, 52.60492, 1.60922, n/a, 0000-00-00, 0000-00-9138 GFF-0020, active, "Yorkshire Dales National Park", GxFF, G, G, G, EU, -,, 54.19629, -2.16252, n/a, 0000-00-00, 00 GFF-0021,deleted,"Ferguson Bay Base Camp ",GxFF,VP8-Sh,VP8-Sh,VP8-Sh,SA,-,,,n/a,0000-00-00,2016-01-9139 GFF-0022, deleted, "Station 'Bl' Bird Island Station ", GxFF, VP8-SG, VP8-SG, VP8-SG, SA, -, , , , n/a, 0000-00-00 9140

Please note that the row numbers will change if you edit one of the faulty rows. You always can re-run the import to check the progress and to get up-to-date row numbers. Do not forget to save the CSV file in your editor before proceeding.

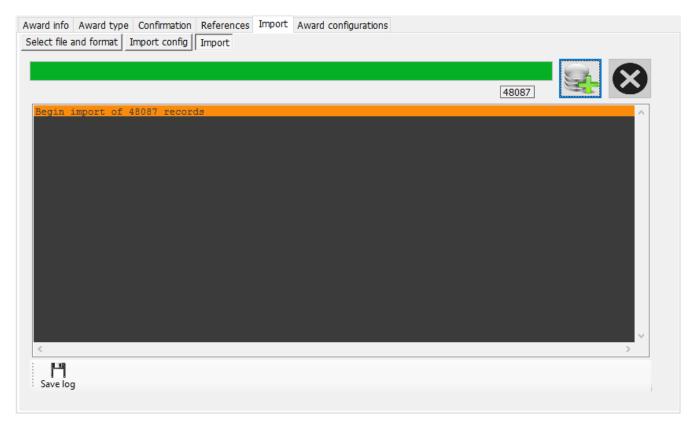
After fixing all the CR/LF problems in the CSV file, my import log file looks like this:



This is now a different issue you should not face because we are updating the awardOverride file on a regular basis. Log4OM cannot assign a valid DXCC country to FO-FP and FK-NC. I think this should mean FO **F**rench **P**olynesia (175) and FK **N**ew **C**aledonia (162), both are not valid DXCC prefixes.

Should you face an issue like this I would recommend letting us know in the awards forum and we will have a look. If needed, we will update the exception file.

The exception file already has been updated with these two issues, so everything should be fine now:



Well done! You have updated the WWFF file with the latest list from the WWFF webpage.

If you have any problems, please let us know on the Log4OM v2 Award Support forum:

#### forum.log4om.com

Compiled by Claus, OE6CLD Log4OM Award Manager

# Awards list customising

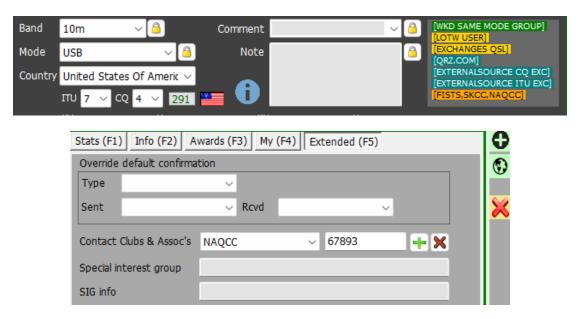
Not all awards are of interest to the user and in this case the user can select just the awards of interest to be displayed in the main UI by selecting settings/Program configuration/User preferences and then selecting the awards tab.

Unwanted awards can be dragged from the 'Active awards' box and dropped into the 'Inactive awards' box – Then click 'Save and apply'

| Configuration   |  |
|---|--|
| ▶ ダーク PAL Save and apply Exit   |  |
| Program Settings     Program Config     Program Scheduler     Performances     User Configuration     Station Information | General prefs       Awards         Award preferences       You can remove awards from the list of the award chased.         Select the awards you want EXCLUDE from cluster identification and main UI interface |
| - My References   | Active awards Inactive awards  |
| Station configuration   |  |
| Database  |  |
| - External Services   | ARLHS WLOL   |
| User preferences  | ASC  |
| Software Configuration  | ATDA   |
| Cluster   | BCA  |
| - Info Providers  |  |
| Map Settings  | -<br>Drag and drop selected items to the required list   |
| Backup  | Drag and drop selected items to the required list  |
| ···· VOACAP Propagation   |  |
| ··· Auto Start  |  |
| Chat  |  |
| Hardware Configuration  |  |
| - Audio devices and voice keye  |  |
| CAT interface   |  |
| - Software integration Connections  |  |
| - Antenna rotator   |  |
| - ADIF Functions  |  |
| Applications  |  |
| FLDigi  |  |
|   |  |
| < >   |  |

# **Club Membership lists**

Log4OM provides a facility to recognize if station is a member of a club and display the clubs in the info box as below add a member's membership reference to the QSO.



Enable this facility from the Program Configuration/Software configuration/info providers/Club membership menu.

| Configuration                      |                      |                 |         |                                     |
|------------------------------------|----------------------|-----------------|---------|-------------------------------------|
| Save config Save and apply Exit    |                      |                 |         |                                     |
|                                    |                      |                 |         |                                     |
| Program Settings                   | Club membership list |                 |         |                                     |
| Edit program config                | Enable club membersh |                 |         |                                     |
| Program Scheduler     Performances | Enable Club membersi | nip moniconing  |         |                                     |
| E-mail settings                    | Club name search     | ~               |         | Selected clubs                      |
| Security Settings                  |                      |                 |         |                                     |
| User Configuration                 |                      |                 |         | [TEN TEN] [FISTS] [HIGH SPEED CLUB] |
| Station Information                | Club Name            | Club Code       |         | [NAQCC] [SKCC]                      |
| My References                      | _                    |                 |         |                                     |
| Station configuration              | Description          |                 |         |                                     |
| - Local weather                    | File source          | ~               |         |                                     |
| Confirmations                      | The source           |                 |         |                                     |
| Database                           | Source Path/URL      |                 | D       |                                     |
| - External Services                |                      | Member ID posit | ion 1   |                                     |
| User preferences                   | Callsign position 1  | Member ID posit | on 1 🔻  |                                     |
| Award preferences                  | Separator character  | Skip first row  | Enabled |                                     |
| Software Configuration             |                      |                 |         |                                     |
| Cluster     Cluster Alert          |                      |                 |         |                                     |
| Info Providers                     |                      |                 |         |                                     |
| Configuration                      |                      |                 |         |                                     |
| Club membership                    |                      |                 |         |                                     |
| Map Settings                       |                      |                 |         |                                     |
| Backup                             | ·                    |                 |         |                                     |
| VOACAP Propagation                 |                      |                 |         |                                     |
| - Auto Start                       |                      |                 |         |                                     |
| Chat                               |                      |                 |         |                                     |
| Hardware Configuration             |                      |                 |         |                                     |
| - Audio devices and voice keyer    | Load default clubs   |                 |         | 0                                   |
| - CAT interface                    | Lood deradic Clubs   |                 |         | •                                   |

- 1. Enable the membership engine by checking the box at the top
- Use the club's name search field to select one of the default clubs Selected clubs are highlighted green in the matrix of clubs, those not selected/enabled are highlighted yellow. A selected club can be de-selected by unchecking the lower 'Enabled' check box
- 3. Alternatively, a user can provide his own list as a csv file providing the format is membership number, call sign e.g. 2879, G4POP
- 4. Having inserted the club name and the file location select the call sign position, Member ID and Separator character used in the file.
- 5. If the first row contains field header names check the 'Skip first row' box
- 6. Check the lower 'Enabled' check box.
- 7. Click Save and apply.

#### **PLEASE NOTE:**

The default lists are updated automatically or can be forced to update from the settings/update resources/club membership menu.

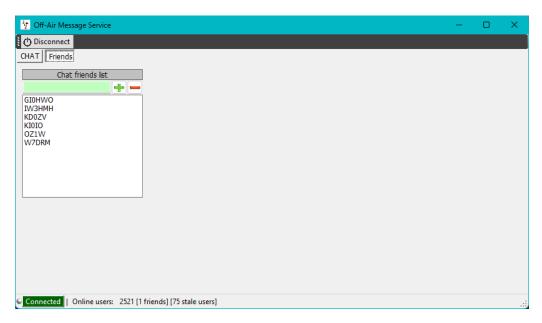
# User Chat system (Off-Air Messages)

Users of GridTracker can Chat/message each other in real time by using the Off-Air Message service accessible from the 'Connect' menu.

- 1. Click Utilities/User Chat system
- 2. Select the station to chat to, from the list on the right.
- 3. Enter the message in the lower window.
- 4. Click the add (+) button.
- 5. Read the reply.

| 🖞 Off-Air Message Service                                   | -                | o x                   |
|---|------------------|-----------------------|
| Disconnect  |                  |                       |
| CHAT Friends  |                  |                       |
| [KD0ZV]   | Show friends     |                       |
|   | Search           |                       |
|   | Call             |                       |
|   | 2E0APG<br>2E0EPB | L4 <sup> </sup><br>L4 |
|   | 2E0FNM           | GT                    |
|   | 2E0FOA<br>2E0FWE | L4<br>GT              |
|   | 2E0GSF           | GT                    |
|   | 2E0GSZ           | GT                    |
|   | 2E0HGT           | L4                    |
|   | -                |                       |
| •   | · ·              |                       |
|   |                  |                       |
| Connected   Online users: 2512 [1 friends] [72 stale users] |                  |                       |

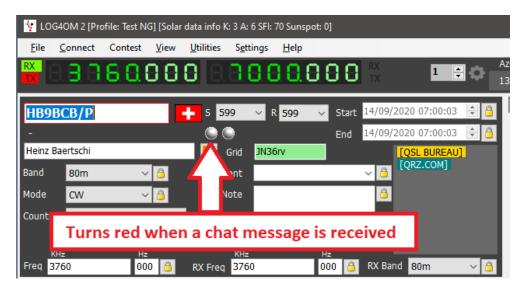
- 6. Select friends in the list and right click then click 'add or remove friend' to add them to the friends list.
- 7. Check the 'Show friends' box to review friends
- 8. A list of friends is displayed in the 'Friends' tab



9. Alerts and auto start for the Off-Air messenger can be configured in the Program Configuration/Chat tab

# Chat message alerts

When a chat message is received an audible alert is sounded and the chat LED changes to red as below



Clicking on a friend that is active will display his current frequency and mode and allow messages to be sent between the two parties.

| 🙀 Off-Air Message Service                               |             | - D >  | < |
|---|-------------|--------|---|
| Disconnect  |             |        |   |
| CHAT Friends  |             |        |   |
| [KD0ZV]   | Show friend | s      |   |
|   | Search      |        |   |
|   | Call        |        | ٦ |
|   | KD0ZV       | 🤺 🕒 L4 |   |
|   |             |        |   |
|   |             |        |   |
|   |             |        |   |
|   |             |        |   |
|   |             |        | 4 |
| Good evening hows things                                |             | KD0ZV  | 1 |
| •   | 30m         | FT8    | 1 |
|   | 10144 KHz   |        |   |
|   |             |        |   |
| Connected   Online users: 1 [1 friends] [1 stale users] |             |        |   |

- The red dot to the left of the call indicates your friend is on air.
- The gold star indicates a friend.
- L4 or GT indicates that your friend is using either GridTracker or Log4OM

# Log4OM V2 connections explained

Log4OM supports an increasing number of external services (inbound and outbound), through a highly flexible configuration mechanism.

## **UDP network services**

#### Inbound services description

#### [INBOUND] ADIF MESSAGE:

This service is able to receive an INCOMING adif message via UDP, containing an ADIF string. The string is then processed and added to the Log4OM database. Messages received through this system are passed through Log4OM data quality routines and uploaded to external services, if configured and available.

#### [INBOUND] N1MM MESSAGE:

Log4OM is able to receive N1MM messages.

Supported messages are:

- ContactInfo (new QSO added),
- ContactReplace (QSO update),
- ContactDelete (QSO removal)

#### [INBOUND] JT MESSAGE:

Log4OM is able to receive UDP messages generated by JTDX / WSJT-X applications.

Inbound message from JTDX/WSJT-X update the Log4OM main QSO input fields with Call, Band, Frequency and mode, thus enabling users to view all lookup and worked before information in Log4OM for the station currently being contacted in JTDX/WSJT-X.

All other messages are discarded from this UDP connection.

#### [INBOUND] MESSAGE LISTENER:

This is a technical type of inbound message which is useful for debugging purposes and to detect if the other service is sending messages properly.

Everything received by the 'Message listener' is saved into the Log4OM program log.

#### **Outbound services description**

#### [OUTBOUND] ADIF MESSAGE:

Log4OM will broadcast every new QSO added to the database through user interface, ADIF automatic import (ADIF monitor) and UDP inbound messages.

ADIF messages can be chained together, so Log4OM can receive an UDP ADIF message (inbound) from an application, save it and re-broadcast (outbound) to another application, listener or another Log4OM instance that is listening for inbound UDP messages

#### [OUTBOUND] PSTROTATOR:

Messages directed to PST Rotator. Please note after configuring PSTRotator in program settings the user <u>must</u> create an outbound connection of PSTROTATOR type to actually send messages to PSTRotator.

#### [OUTBOUND] CALLSIGN:

The Call signs entered into the input field of the main Log4OM user interface, keyer interface or contest interface are broadcasted as UDP messages using this outbound service type.

## **Multiple connections - Inbound and Outbound**

Log4OM is able to receive via a virtually unlimited number of ports for each inbound message.

The user may listen for multiple ADIF MESSAGE senders that are working on different ports, or receive JT messages from both WSJT-x and JTDX running concurrently.

At the same time, each message type forwarded to the outbound UDP channel will be sent on all services of the required type. Users can create multiple [OUTBOUND] ADIF MESSAGE services (on different ports).

When Log4OM sends an ADIF message, this will also be sent to all outbound services of that type you have enabled.

## **UDP network services – Settings**

#### Inbound

| Image: Weight of the second secon |  |                       |                      |              |   |
|--|--|-----------------------|----------------------|--------------|---|
|  | Connections           UDP         UDP Proxy           Remote Control |                       |                      |              |   |
| Database   | UDP INBOUND  | UDP OUTBOUND          |                      |              |   |
| - External Services  | UDP Inbound connections  | Port Con              | nnection name        | Service type |   |
| User preferences   |  | 0                     |                      |              | ~ |
| - Award preferences  | 🛩 🗕 🗇 📋 🕗 🗘  | · ·                   |                      |              |   |
| Software Configuration   | [UDP_INBOUND] [ADIF_MESSAGE] [2234] INCOMING JTALERT/Q               | Broadcast Des         | stination IP Address | 127.0.0.1    |   |
| ⊜- Cluster   | UDP_INBOUND] [JT_MESSAGE] [2237] INCOMING JT MESSAGE                 |                       | 1100.0.1             |              | _ |
| Cluster Alert  |  |                       | UDP Outbound con     | nections     |   |
|  |  |                       |                      |              |   |
| Info Providers   |  | 🛩 💳 🗇 🧴               |                      |              |   |
| Configuration  |  |                       |                      |              |   |
|  |  |                       |                      |              |   |
| Configuration  |  |                       |                      |              |   |
|  |  |                       |                      |              |   |
|  |  |                       |                      |              |   |
| - Configuration<br>Map Settings<br>Backup<br>VOACAP Propagation<br>Auto Start  |  |                       |                      |              |   |
| Configuration<br>Map Settings<br>Backup<br>VOACAP Propagation<br>Auto Start<br>Chat  |  |                       |                      |              |   |
| Configuration Map Settings Backup VOACAP Propagation Auto Start Chat Hardware Configuration  |  |                       |                      |              |   |
| Configuration - Map Settings - Backup - VOACAP Propagation - Auto Start - Chat - Chat - Auto Configuration - Auto devices and voice keye   | 0 items selected   |                       | 0 items select       | ted          |   |
| Configuration Hap Settings Backup VOACAP Propagation - Auto Start - Chat Hardware Configuration - Audio devices and voice keye - CAT interface   | 0 items selected   |                       |                      | ted          |   |
| Configuration     Map Settings     Backup     VOACAP Propagation     Auto Start     Cont     Hardware Configuration     Audo Start     CAt     CAT interface     CW Keyer Interface  | 0 items selected   | PSTRotator default pc |                      | ted          |   |
| Configuration     Hap Settings     Backup     Auto Settings     Auto Start     Chat     Hardware Configuration     Auto Settings     Hardware Configuration     Audio devices and voice keye     CAT interface     Software integration     Software integration   | 0 items selected   |                       |                      | ted          |   |
| Configuration     Map Settings     Backup     VOACAP Propagation     Auto Start     Chat     Hardware Configuration     Addo devices and voice keye     CAT interface     Configuration     Software integration     Connections   | 0 items selected   |                       |                      | ted          |   |
| Configuration     Map Settings     Backup     VOACAP Propagation     - Auto Start     Chat     Hardware Configuration     - Autoi devices and voice keye     -CAT interface     COK Keyer interface     Software integration     - Antenna rotator   | 0 items selected   |                       |                      | ted          |   |
| Configuration     Map Settings     Backup     VOACAP Propagation     -Auto Start     Chat     Hardware Configuration     Audio devices and voice keye     -CAT interface     OW Keyer interface     Software integration     -Antenna rotator     -ADIF Enuctions  | 0 items selected   |                       |                      | ted          |   |
| Configuration     Hap Settings     Backup     VOACAP Propagation     - Auto Start     - Chat     Hardware Configuration     - Audio devices and voice keye     -CAT interface     CCW Keyer interface     Software interface     Software interface     - Antenna rotator     - AntEnna rotator     - AntEnna rotator     - ADJF Functions     - Aplic Functions   | 0 items selected   |                       |                      | ted          |   |
| Configuration     Map Settings     Backup     VOACAP Propagation     -Auto Start     Chat     Hardware Configuration     Audio devices and voice keye     -CAT interface     OW Keyer interface     Software integration     -Antenna rotator     -ADIF Enuctions  | 0 items selected   |                       |                      | ted          |   |

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Ο

To edit an existing service, press the Pen button

|                                      | Inbound connection                                  |
|--------------------------------------|---|
|                                      | UDP INBOUND   |
|                                      | Connection name INCOMING JTALERT/GT ADIF            |
|                                      | Port 2234 Service type ADIF_MESSAGE ~               |
|                                      | Default answer on msg received                      |
|                                      | UDP Inbound parameters                              |
|                                      | <b>₩</b> = 5  |
|                                      | USE_EXTERNAL_DATA UPLOAD_QSO                        |
|                                      | UPDATE_GRIDSQUARE                                   |
|                                      | UPDATE_CQ_ITUZONE                                   |
|                                      |   |
|                                      | 3 items selected                                    |
|                                      | Preset config                                       |
|                                      | JTDX/WSJT ADIF WSJT/JTDX UDP ADIF from GT / JTAlert |
|                                      |   |
|                                      | 🛩 🗕 🗇 🗴 🔿   |
| To add a new service, press the Plu  | s button.   |
|                                      |   |
|                                      |   |
| To delete an existing service, press | the Bin button. 🛩 💻 🗗 🔟 🖉 😲                         |

To select/unselect (Enable/Disable) a service use the check boxes or Green check mark and Red minus sign.

Port: The port Log4OM is listening to for UDP messages

Connection name: Friendly name for the connection

Service Type: Inbound service type

**Default answer**: A message that is sent back to the sender when a packet is received (may be required as acknowledge from other applications)

#### Outbound

| UDP OUTBOUND     |  |              |   |  |  |  |
|------------------|--|--------------|---|--|--|--|
| Port             | Connection name                            | Service type |   |  |  |  |
| 0                |  | ~ 4          | • |  |  |  |
| Broadcast        | Destination IP Address                     | 127.0.0.1    |   |  |  |  |
|                  |  |              |   |  |  |  |
|                  |  |              |   |  |  |  |
|                  | UDP Outbound co                            | nnections    |   |  |  |  |
| 🥪 🗕 🗇 📋          |  |              |   |  |  |  |
| UDP_OUTBO        | UDP_OUTBOUND] [ADIF_MESSAGE] [0] LOG4OM V1 |              |   |  |  |  |
|                  |  |              |   |  |  |  |
|                  |  |              |   |  |  |  |
|                  |  |              |   |  |  |  |
|                  |  |              | _ |  |  |  |
|                  | 0 items selec                              | ted          |   |  |  |  |
| PSTRotator defau | It port: 12040                             |              |   |  |  |  |

Port: The port Log4OM is using to transmit UDP messages

Connection name: Friendly name for the connection

Service Type: Outbound service type

Broadcast: Send broadcast UDP message

Destination IP address: Default (empty) is 127.0.0.1 (loopback - local host)

#### **UDP Proxy**

UDP data can only be received by one listener at a given time. Multiple listeners on the same port will compete for the same packet but only one, without reproducible rules, will be able to retrieve it.

Some applications send UDP packets that are used by other applications, but those packets may be of interest to Log4OM. To allow Log4OM to listen those packets, a proxy function is implemented in Log4OM.

Log4OM offers an UDP proxy that receives a packet, uses it and then resends the same packet on another port (or another IP/port if necessary). It can be used to forward UDP messages through firewall port 80 or other requirements, while still being able to use the captured messages.

Proxy should have a "service type" indicated. All messages received will be managed from Log4OM like inbound messages of the inbound type indicated. e.g. Log4OM can read an incoming ADIF data with the [INBOUND] ADIF MESSAGE UDP and rebroadcast the data to another instance of Log4OM, possibly at a remote location.

Ì

Proxy will extend capabilities of UDP inbound by adding packet forwarding.

If it is required to listen for messages that do not need to be repeated (Forwarded) elsewhere, you should use an UDP INBOUND configuration instead.

|   | Save config Save and apply Exit  |  |
|---|--|--|
| ~   |  | nections<br>▷ [UDP Proxy] Remote Control<br>PP PROXY TUBOUND<br>UDP proxy connections<br>· - ○ û ⊘ ♀   |
|   | Adud devices and voice keye     CAT interface     COV Keyer interface     Software integration     Romaticsons     Applications     Applications     Poplications     Poplications | 0 Tems selected  |
| To add a new service,                           | press the Plus bu  | tton. 🛩 🗕 🗇 💼 ⊘ 💽  |
|   |  | Inbound proxy connection         UDP INBOUND PROXY         Connection name         Source address         IP Address         Leave blank for any         Port         Destination address         IP Address         127.0.0.1         Port         Internal relay to UDP inbound service         Service name         UDP proxy parameters         Image: Content of theme selected |
| To delete an existing s                         | service, press the I   | 3in button. 🥗 💳 直 🧭 🗘  |
| To select/unselect (Er                          | nable/Disable) a se  | rvice use the check boxes or Green check mark and Red minus sign.  |
| To edit an existing ser<br>Connection name: Fri |  |  |
| Source address: The                             | address of the serv  | ver that is sending the message. IP can be blank (any) while PORT is necessary.  |
| Destination address:                            | The IP of the targe  | t computer where the message should be sent. The local computer is   |

# **Remote Control**

Log4OM has a feature that allows other applications to remotely interact with the software. It's called REMOTE CONTROL and is available on the Remote-Control tab. More messages will be added in future.

| Configuration   |  |
|---|--|
| 역 · · · · · · · · · · · · · · · · · ·   |  |
| HW References     Hotocollipselocological     Hotocollipselocological     Local weather     Local | Connections         UDP Provy       Remote Control         Remote control port         2241       •         •       Enable data output through UDP         Remote control output port       2242         •       •         •       Remote control output port         •       •         •       Remote control output port         •       •         •       •         •       •         •       •         •       Send to specific IP address/port         •       Send 5 seconds status messages |

Messages are in the format:

<MESSAGE TYPE><KEY>PARAM<KEY>PARAM...

#### Supported messages:

#### CALLSIGN

Message format: <CALLSIGN>{callsign} Response: <RESULT>OK Usage: Log4OM will put the provided callsign in the lookup area of the active windows

#### WORKED

Message format: <WORKED>{callsign} Available responses: <RESULT>YES <RESULT>NO

#### WORKED + BAND

Message format: <WORKED>{callsign}<BAND>{band} Available responses: <RESULT>YES\_SAME\_BAND

<RESULT>YES <RESULT>NO

# **ADIF Functions**

## **ADIF Monitor**

Log4OM can listen to multiple ADIF file changes at the same time. When a difference on the ADIF file is detected, Log4OM will perform the import action.

| Configuration  |  |
|--|--|
| 円 ♥ Ŏ<br>Save config Save and apply Exit   |  |
| My References     Station configuration     Local weather     Confirmations     Database     External Services     User preferences     Award preferences     Software Configuration     Cluster     Lotster Alert     To Coviders | ADIF Functions         ADIF Monitor         ADIF Monitor         Enable ADIF monitor         Log4OM will automatically scan enabled ADIF files searching for new QSO to be imported.         Read from WEB URL         ADIF file         Upload QSO to external services         Delete ADIF file after load         Upload QSO to external services         Delete ADIF file after load         Upload protect on the protect of the after load         Upload gSO to external services |
| - Configuration<br>- Map Settings<br>- Backup<br>- VOACAP Propagation  | Opdate inbound data using external sources Check file to enable  |
| - Auto Start   | ADIF files   |
| Chat   |  |
| - Hardware Configuration   |  |
| - Audio devices and voice keye   |  |
| CAT interface  |  |
| CW Keyer interface   |  |
| Software integration   |  |
| - Connections<br>Antenna rotator   |  |
| - ADIF Functions   |  |
| Applications   |  |
| FLDigi   | 0 items selected   |
| Web integration  | Reset currently selected file position   |
| -  |  |
|  |  |

There are some options on the import phase. Those options are:

Upload QSO to external services - This will upload the QSO's to the on line services like eQSL, HRDLog, QRZ etc

Delete ADIF file after load - Deletes the original ADIF file as soon as the download is finished

**Import only QSO containing station call sign.** This option is useful when sharing common station using a single instance of WSJT-X, JTDX or other digital mode software that only allow you to change the call sign. We strongly suggest to avoid use of the DELETE FILE with IMPORT ONLY QSO CONTAINING STATION CALLSIGN to avoid deleting other OM QSO's

Please note the IMPORT ONLY QSO CONTAINING STATION CALLSIGN will also import QSO where the STATION CALLSIGN is missing.

**Update inbound data using external sources:** The imported QSO's have missing data added using the external sources selected by the user (QRZ etc)



Log4OM can also monitor for remote files over internet. In that case a file check is performed every 60 minutes (fixed) if an internet connection is available.

In this case the application is not able to delete ADIF file, but can call a remote URL passing parameters via a query string (GET) to a remote listener that may take actions on the remote file automatically (some web programming skills are required).



Log4OM for local files keeps track of the last character read and starts an import from this character if a file is not smaller than expected (aka new). A button to reset currently file position is available and works on the selected file (only local files are affected, remote files are always downloaded and parsed fully)

## **ADIF** output

Log4OM is able to write an output ADIF file on each QSO saved into the database (via the user interface, UDP message or ADIF monitor). A bulk ADIF import will not trigger this function.

# **ADIF** post

Log4OM is able to send a POST/GET message to an external website, passing custom parameters and required payloads.

Available payloads that can be passed either by GET or POST are:

<ADIF>: The adif string <STATIONCALLSIGN>: The sender station callsign <DATETIME>: current date + time in yyyyMMddHHmmss format <DATE>: current date in yyyyMMdd format <TIME>: current time (UTC) in HHmmss format

## ADIF output usage scenario

Imagine a shared club station installation of Log4OM. Each QSO being entered can be:

Exported to an ADIF file at the end of activities and loaded into your main log

Sent through UDP to your home pc, assuming you have Log4OM running and firewall ports are open and correctly configured

Sent to a remote website (your hosting, your home NAS, ...) that is sharing a specific web page.

This information can be retrieved at a later time using ADIF MONITOR to read the remote file created on the server, or by opening a custom coded page that will retrieve previously sent QSO's that may have been saved somewhere, in a remote file or a remote database.

Here is an example of a small page that you can used as template (PHP).

This page will receive a POST message with some parameters, will save the ADIF in a field called "your callsign.txt" on the server that you can point to at some later from the users home instance of Log4OM.

#### upload.php

```
<?php
$allowedPassword = array("OM 1 CALL|OM 1 PASSWORD", "OM 2 CALL|OM 2 PASSWORD",
"OM 3 CALL|OM 3 PASSWORD");
if ( in array($ POST["userid"] . "|" . $ POST["password"], $allowedPassword) )
{
     $my file = $ POST["userid"] . '.txt';
     $handle = fopen($my file, 'a') or die('Cannot open file: '.$my file);
      if (flock($handle, LOCK EX))
     {
           $data = $ POST["adif"] .PHP EOL;
           fwrite($handle, $data);
           echo "OK";
                                       // flush output before releasing the lock
           fflush($handle);
           flock($handle, LOCK UN);
                                       // release the lock
```

```
}
else
{
    // should never happen as flock is a blocking call
    echo "AGAIN";
    }
    fclose($handle);
}
else
{
    echo "USER/PASSWORD UNKNOWN (required fields are userid/password/adif)";
}
```

Assume this page is placed here: https://www.mywebsite.com/upload.php The page is not returning anything (nothing on ECHO returned if everything is OK)

This page will receive 3 parameters: userid, password, adif

An example of how the page can be configured is shown below:

| Configuration<br>Y Save config Save and apply Exit  |  |  |
|---|--|--|
| My References     Station configuration     Configuration     Configuration     Database     External Services     Lower preferences     Award preferences     Custer     Configuration     Custer Alert     Info Providers     Lotoffuguration     Map Settings     Backup     VOACAP Propagation     Auto Start     Chat     Hardware Configuration     Audo devices and voice keye     CAT Interface     COK Weyer Interface     Software Integration     Cotware Inte | ADIF Functions         ADIF Monitor       ADIF Output         ADIF Monitor       ADIF Output         ADIF Monitor       ADIF Output         Target URL       https://www.mywebsite.com/upload.php         Transmission method       Use POST         Transmission method       Use POST         POST / GET Parameters       Image: mage: m | smit data HTMLEncoded (recommended)         KEY: The name of the POST field / GET field         VALUE: The value of the parameter         Special VALUES: <adif> replace field with the QSO ADIF value         <station callscion=""> replace field with ourset STATION CALLSCION         <cadietime> replace field with UTC date in format yyyyMMdd+Himmss         <catex< td=""> /catex<></catex<></catex<></catex<></catex<></catex<></catex<></catex<></catex<></catex<></catex<></cadietime></station></adif> |
| Antenna rotator     ADIF Functions     Applications   | Expected answer if OK Application will search for this string in   | the result (trim applied)  |
| - FLDigi<br>- WSJT-x / JTDX<br>- Web integration  | To avoid circular references do not load QSOs on services the<br>This operation will trigger their sending (POST) again indefi   | nat create ADIF files that are, at the same time, monitored by Log4OM.<br>nitely, making them growing faster.  |

The page will generate a file called OM\_1\_CALL.txt in the same folder, so that it can retrieved with ADIF monitor:

| Configuration   |   |
|---|---|
| ዛ 🖌 ሳ   |   |
| Save config Save and apply Exit   |   |
| My References<br>Station configuration<br>Local weather<br>Onfirmations<br>Database<br>External Services  | ADIF Functions<br>ADIF Monitor ADIF Output ADIF POST<br>Enable ADIF monitor   |
| Excernal Services     User preferences  | Log4OM will automatically scan enabled ADIF files searching for new QSO to be imported. 🗌 Read from WEB URL 😱   |
| Border Dieterences     Award preferences     Software Configuration     Cluster     Louster Alert     Info Providers     Configuration     Map Settings     Backup     VOACAP Propagation | ADIF fie<br>Upload QSO to external services Delete ADIF file after load Import only QSO containing station callsign Update inbound data using external sources Check file to enable |
| - Auto Start  | ADIE files  |
| Chat  |   |
| Hardware Configuration  | 💞 🗕 🗗 📋   |
| Audio devices and voice keye     CAT interface     CW Keyer interface     Software integration     Connections     Antenna rotator     ADIF Functions                                     |   |
| Applications  | 0 items selected  |
| Web integration   | Reset currently selected file position  |

There is not a "remote delete" service in the web page, so the URL called after the download is empty in our example.

# Program Configuration Menu's

#### **Program Configuration**

Log4OM V2 can be as powerful or as simple as the user requires according to how the software is configured, it is suggested that the user selects the configuration settings most suitable to his/her method of operating.

What follows is a brief description of each tab in the Settings/Program configuration menu for a more detailed explanation of each function see the function specific areas of this user guide.

#### **Common functions**

At the top of the main configuration window are three icons as follows:

- 1. Save config This saves the settings without exiting the configuration menu
- 2. Save and apply This saves the settings and closes the configuration window
- 3. Exit This exits the configuration window without saving any changes made.

## **Program Settings**

This tab sets the basic parameters of the software and is generally self-explanatory, but some expansion of some selections is required.

## **Check for updates**

If this box is checked the user will be notified upon opening the program if later versions are available for download.

## **Check for Public Beta updates**

If this box is checked the user will be notified upon opening the program if a Beta version is available for download.

#### **NOTE:** Beta versions can be unstable and should only be installed by experienced users – **ALWAYS SAVE REGULAR BACKUPS IN ORDER TO PREVENT LOSS OF DATA in case a Beta version crashes**

## **Default Log level**

This should generally remain at 'Info' unless one of the Log4OM support team requests it to be changed for trouble shooting.

## **QSO Attachment archive path**

Set a location here for downloaded images etc to be stored, a useful location is C:\.....\AppData\Roaming\Log4OM2\user\attachments e.g., eqsl QSL cards.

#### Grid default row count

The number of entries displayed in the data grids like Recent QSO's. It is not necessary to display all entries which might slow down the display in the case of very large logbooks. Regardless of the number of entries being displayed all lookups, sorting and filtering is done on the complete database.

| Configuration  |   |   |
|--|---|---|
| 월 ♥ O<br>Save config Save and apply Exit   |   |   |
| Save config Save and apply Exit  Program Scheduler  Program Scheduler  Performances  - Enail settings  User Configuration  - My Refrences  - Station configuration  - Local weather  - Confimations  - Database  - External Services  - Award preferences  - Award preferences  - Award preferences  - Custer  - Custer Alert  - Configuration  - My Settings - Backup  - WOACAP Propagation | Program Settings Check for updates Check for PUBLIC BETA updates Send statistics Internet connection status Distance unit Default Log Level Map provider QSO Attachment archive path GRID default row count Automatic backup on closure Aks before exit | PRIVACY NOTE:         Check for updates report program version + country.         Send statistics report program version + country + callsign         Thanks for sharing detailed statistics         Automatic         Miles         Info         GoogleMaps         S000         Range 100 - 10.000         WARN: Deabling backup is NOT RECOMMENDED |
| - Auto Start     - Chat     - Chat     - Hardware Configuration     - Audio devices and voice keye     - CAT interface     - CW Keyer interface     - CW Keyer interface     - CM Keyer interface  | Those fields are used by Log4OM team<br>Log4OM Team user<br>Log4OM Team password  | i to manage awards. Normal users must ignore them   |

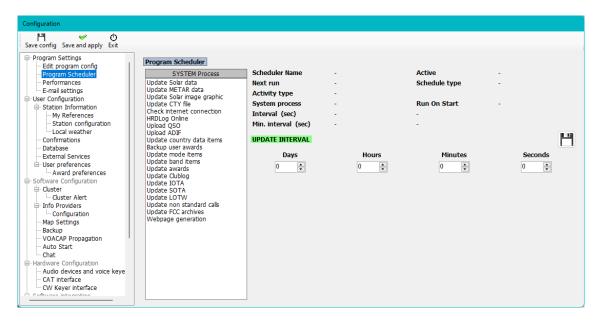
# Edit Program config

This provides a method to revert to the program defaults in situations where the user regrets the changes made to layouts and settings.

| Configuration                            |                               |                                 |
|--|-------------------------------|---------------------------------|
| P ♥ ♥<br>Save config Save and apply Exit |                               |                                 |
| Program Settings     Edit program config | Edit program config Please no | ote those changes may create te |
| Program Scheduler<br>Performances        | Program restore               |                                 |
| E-mail settings                          | Reset grid layouts            | Reset map cache                 |
| Station Information                      | Remove user files             | Reset window positions          |
| My References<br>Station configuration   |                               |                                 |
| Local weather                            | Reset to factory settings     |                                 |
| ···· Confirmations                       |                               |                                 |
| Database                                 |                               |                                 |
| External Services     User preferences   |                               |                                 |
| Award preferences                        |                               |                                 |
| - Software Configuration                 |                               |                                 |
| 🖃 Cluster                                |                               |                                 |
| Cluster Alert                            |                               |                                 |
| Info Providers     Configuration         |                               |                                 |
| Map Settings                             |                               |                                 |
| Backup                                   |                               |                                 |
| ··· VOACAP Propagation                   |                               |                                 |
| Auto Start<br>Chat                       |                               |                                 |
| Configuration                            |                               |                                 |
| Audio devices and voice keye             |                               |                                 |
| ···· CAT interface                       |                               |                                 |
| CW Keyer interface                       |                               |                                 |
|  |                               |                                 |

## **Program Scheduler**

Log4OM imports and updates many data files in an endeavour to provide the most accurate information for its users, this window allows the user to set the frequency with which those files are updated. Each change must be saved by clicking the small 'Save' floppy disk icon at the lower right.



## Performance

In situations where perhaps the PC is less than capable of having performance issues it is possible to enhance the performance in the 'Performance' menu by unchecking some of the lookup and parsing boxes.

## **Performance check**

Performance can be compared by clicking the 'Performance Check' button

| Configuration  |   |
|--|---|
| Save config Save and apply Exit  |   |
| Save config Save and apply Exit  Program Settings  Program Scheduler Performances Email settings  User Configuration Station Information Station Information Configuration Configuration Configuration Configuration Cluster Cluster Preferences Cluster Preferences Cluster Alert Cluster Alert Cluster Alert Cluster Alert Configuration Map Settings Backup VOACAP Propagation Auto Statt Hardware Configuration Auto Configuration Cont Cont Configuration Cont Cont Cont Cont Cont Cont Cont Co | Performances         VOACAP status:       ENABLED         Cublog status:       ENABLED         CTY.DAT status:       ENABLED         Retrieve profile image:       ENABLED         Note award parser (cluster)       ENABLED         Worked before (cluster)       ENABLED         Worked before (cluster)       ENABLED         Custer throttling       ENABLED         Reatime calsign stats       ENABLED         Suspend map update       ENABLED         Custer throttling       ENABLED         Perform cal search on leave       ENABLED         Calsign search on TAB key       O |
| Coffuere interaction   | Performance Check   |

# **User Configuration**

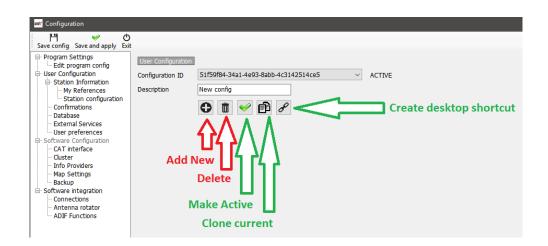
The user may have as many different configurations (Identities or setups) required, perhaps a Club, home, cabin, contest, special event, DXPedition or another family member configuration.

- Create a completely new identity by clicking on the + 'Add new config' button.
- By cloning an existing configuration by clicking the 'Folders' icon 'Clone current config' button, this saves time if the new configuration is similar to the original, perhaps just a /P call with different Location.

## Creating a desktop shortcut for a new ID

A desktop shortcut can also be created for each current config by clicking the 'Chain' icon 'Create link on desktop'

Configs are deleted by first selecting the config to be deleted from the drop down list followed by clicking on the 'Trash can' Icon



## Creating a new Identity (Config)

- Either click the New or Clone icon as identified above
- Add a name for the ID in the Description field
- If a new ID is being created complete the various information for a new configuration or if 'cloning' an existing config make whatever changes are required for the new configuration.
- Click the 'Chain' desktop shortcut icon to create a new desktop shortcut
- Click the green check mark to make the configuration active
- Click 'Save and Apply'

#### **Station Information**

This tab contains all of the information relating to the user it should be completed fully to allow the program to function to its fullest capabilities. The fields marked with a red asterisk are mandatory.

| Save config Save and apply Exit  |   |  |  |  |
|--|---|--|--|--|
| Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings     User Configuration     My References     Station configuration     Local weather     Confirmations     Database     External Services     User preferences     Custer     Custer     Custer Alert     Configuration     Configuration     Configuration     Configuration     Custer Alert     Configuration     Configuration     Configuration     Configuration | Station Calsign * Station Country * Station Gridsquare *          | G4POP     IARU Region     Image: Constraint of the second | My street<br>My City<br>My Postcode<br>My State<br>My County<br>My Sig | Terry<br>My street<br>My City<br>My Post Code<br>My County<br>Special Interest Groups<br>Special Interest info |
| Backup     VOACAP Propagation     Auto Start     Chat     Ghat Configuration     Auto Start     Auto devices and voice keye     CAT interface     CW Keyer interface     Cothere Interface   | Operator Callsign<br>Owner Callsign<br>My contact Clubs & Assoc's | JO01jp         SP         0.00         LP         180.00         0 Mi         €           G4POP  | ×  |  |

#### My References

If the user is active in one of the award schemes as an activator, e.g. activating a summit for SOTA or an island for IOTA this is where the activators (Users) references are set.

- Select the award from the award drop down menu
- Choose the relevant group and subgroup
- Double click the reference being activated or select and click the Plus + sign
- Save and apply

## Station Configuration

The users station equipment (Rig, Power & Antenna) can be added and associated with the bands to be used.

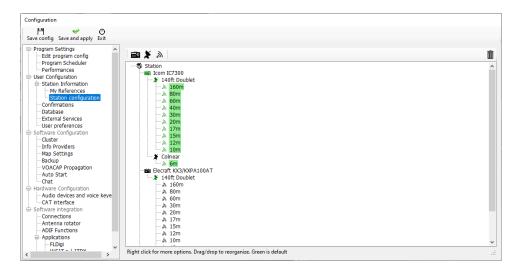
## Example of a typical set up as screenshot below:

Radio 1: Used for HF and 6 meters has three antennas available.

- a. Multiband dipole for 80 40M
- b. Tri-Band beam for 20. 15 & 10M
- c. 5 element Yagi for 6M

## Radio 2: Used for VHF/UHF

- a. 12 element Yagi for 2M
- b. 18 element Yagi for 70cm



- Click on the Radio Icon to add a radio to the station
- Click on the Sat Dish to add an antenna to a radio
- Click on the 'Radiating' icon to add bands to an antenna

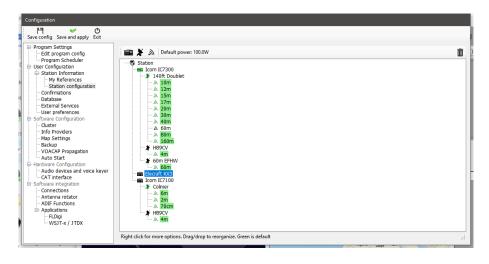
## Adding hardware

Adding the radios, antennas and bands will include those antennas and radios as selection choices in the My Station (F4) input pane as below.

| 8 | zimuth 🕐<br>D° 180° 合 | Elevation   | ```      | •    | = <u>₩</u> | 2 📾 🗡                         |   |
|---|-----------------------|-------------|----------|------|------------|-------------------------------|---|
| Ī | Statistics (F1) In    | fo (F2) Awa | ard refs | (F3) | My Sta     | ation (F4) Extended info (F5) | , |
|   | Antenna elevation     | 0           |          | 8    | Rx pwr     | 100.000 🗦 🙆 🔀                 | ł |
|   | Antenna bearing       | 0           |          | 8    | Radio      | Icom IC7300 🗸 👶 💼             |   |
| l | Antenna path          |             | $\sim$   | 8    | Antenna    | (2)                           |   |
|   | Propagation           |             | $\sim$   | 8    | Current    | pt 140ft Doublet<br>60m EFHW  |   |
|   | SATELLITE MO          | DE          |          |      |            | 6m Colinier<br>HB9CV          |   |
|   |                       |             |          |      |            |                               |   |
|   |                       |             |          |      |            |                               |   |

### Setting Defaults

To set which radios, power, antennas and bands are the defaults that will be selected automatically according to the active band it is necessary to right click on the Radio, antenna and bands and select 'Default' – Bands set to default will be highlights in green.



#### Local Weather

Log4OM will retrieve the weather data from the nearest METAR station/Airport for display in the Weather' tab of the main UI and for inclusion in CW macros used in the Log4OM CW Keyer.

Select the required source METAR station by clicking on the small icon to the right of the fields.

| Configuration  |  |               |  |
|--|--|---------------|--|
| Save config Save and apply Exit  |  |               |  |
| Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings     User Configuration     Station Information     Station configuration     Local weather     Oatabase     External Services     User preferences |  | Check ST/     | search area is centered on your current STATION LOCATION on map.<br>ATION INFORMATION screen to change this value. |
| Award preferences     Software Configuration     Cluster     Cluster Alert     Info Providers  | <ul> <li>100 Km / 62 Mi range</li> <li>150 Km / 93 Mi range</li> <li>200 Km / 124 Mi range</li> <li>300 Km / 124 Mi range</li> </ul> | ည             | Weather report generated at day 2 16:20 UTC UTC for EGMC<br>temp 6°C (42.8°F) Pressure 1024 mbar                   |
| Configuration     Map Settings     Backup     VOACAP Propagation     Auto Start  |  |               | Clouds base 1900 Feet Cumulonimbus<br>Clouds base 3300 Feet Broken   |
| - Chat<br>- Hardware Configuration   |  |               | Wind 20 Degree 8 Knot  |
| Audio devices and voice keye     CAT interface     CW Keyer interface     CW Keyer interface   |  | Current METAR | EGMC 021620Z 02008KT 9999 VCSH FEW019 BKN033 06/04   |

| 文 LOG4OM 2 v.2.25.0.0 [Profile: New config]   | – o ×   |
|---|---|
| <u>File Connect Contest View Utilities Settings H</u> elp   | Kp: 3 (Quiet) A: 28 SFI: 119 Sunspot: 49              |
|   | a /   |
| YY2EU         S         59 ~ R         50 ~ R         70 ~ R         60 ~ R         70 ~ R | ed (F5)   |
| Main (F6)       Recent QSO's (F7)       Cluster (F8)       Propagation (F9)       Worked before (F10)       Weather (F11)         Weather report generated at day 2 16:20 UTC UTC for EGMC temp 6°C (42.8°F) Pressure 1024 mbar   | i 40m • +   |
| Clouds base 1900 Feet Cumulonimbus<br>Clouds base 3300 Feet Broken  | EA1FIA Di<br>   |
| Wind 20 Degree 8 Knot   | EA7GI DI<br>EG3PCD eç                                 |
| Current METAR EGMC 021620Z 02008KT 9999 VCSH FEW019 BKN033 06/04 Q1024  | Scale 3x + WKD BAND MODE                              |
| 250 Count 6532 Cluster Cluster Super Cluster CAT FLDigi Chat 🕩  | C:\Users\q4pop\Dropbox\Loqbooks\Loq4OM V2 TEST.SQLite |

## Confirmations

There are many methods for confirming a QSO and the user may need to mark the status differently for each, the confirmations tab provides personalisation of user confirmation requirements and display.

| Configuration   |   |  |
|---|---|--|
| Save config Save and apply Exit   |   |  |
| Program Settings     Program Settings     Program Scheduler     Program Scheduler     Station Information     Station Information     Station configuration     Configuration     Station configuration     C | Confirmations         Set the default confirmations for each award according to your preferences         Type       QSL       QSL       Apply default         Sent       No       Rcvd       No       Rcvd         QSL default message       Please QSL direct       Main UI Statistic view       OSL       CSL         VOTW       HAMQTH       Ctrl-Click select multiple modes       Ctrl-Click select multiple modes |  |

#### Database

The user may create as many logbooks (Databases) as required, perhaps Home, Portable, Club, Contest call etc.

The standard database format is SQLite which will be ideal for the average user, if multiple stations require simultaneous logging to a common database, perhaps a contest group or Expedition where there could be a station set up for each band then the MySQL database should be selected.

| Configuration   |   |                 |  |
|---|---|-----------------|--|
| Save config Save and apply Exit   |   |                 |  |
| Program Settings     Edit program config     Program Scheduler     User Configuration | Database SQLITE ~   |                 |  |
| Station Information My References   | C:\Users\g4poparrl.net\Dropbox\Logbooks\Log4OM V2 Test log.SQLite | Open            |  |
| Station configuration<br>Confirmations  | New   | Test            |  |
|   |   |                 |  |
| User preferences     Software Configuration     Cluster                               |   |                 |  |
| Info Providers<br>Map Settings  |   |                 |  |
| Backup     VOACAP Propagation     Auto Start  |   |                 |  |
| Hardware Configuration  |   |                 |  |
| CAT interface   |   |                 |  |
| Connections<br>Antenna rotator<br>ADIF Functions                                      |   |                 |  |
| - FLDigi  |   |                 |  |
|   |   |                 |  |
|   |   | Irag Atypeseter |  |

#### **External services**

Log4OM provides both manual and automatic real time upload of QSO's to online logbooks like QRZ, Clublog, HRDLog, eQSL, HamQTH and LOTW.

User names, passwords, Station ID, Nicknames and API codes can be entered for each of the on-line logbooks and if automatic upload is required selected by checking the appropriate check box.

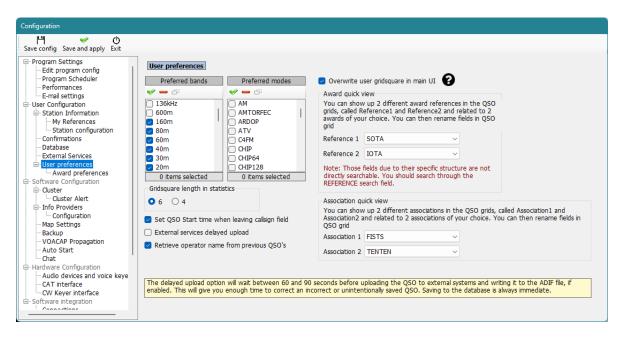
| Program Settings  | External services    |   |                                    |  |
|---|----------------------|---|------------------------------------|--|
| Edit program config<br>Program Scheduler                                  | QRZ.COM CLUBLOG      | HRDLOG.NET EQSL HAMQTH LOTW                                   |                                    |  |
| Performances  | User                 | G4POP   | Upload flag                        |  |
| - Station Information - My References                                     | Password             | *****   | Consider QSO to<br>SENT status is: | be uploaded when   |
| Station configuration   | TQSL exe path        | C:\Program Files (x86)\TrustedQSL\tqsl.exe 🗈 😭                |                                    | This should match with default<br>LOTW SENT STATUS set in              |
| - Database<br>- External Services   | Temporary path       | C:\Users\g4poparrl.net\AppData\Roaming\Log4( 🖻 🚱              | ○ REQUESTED                        | Confirmations tab, or new QSO<br>will not be uploaded<br>automatically |
| User preferences  | Station ID           | Home 🗸 🗁 🕄  |                                    | deconductory   |
| Software Configuration     Cluster  | TQSL Private pass    |   |                                    |  |
| Info Providers<br>Map Settings  | My call (opt)        |   |                                    |  |
| Backup<br>VOACAP Propagation  | Automatic upload     | nn close  |                                    |  |
| Auto Start<br>Chat  |                      | will not upload to LoTW archives on each QSO saved, as reques | ted by LOTW in their s             | ners   |
| Hardware Configuration     Audio devices and voice keye     CAT interface | Trease Hote Log Torr |   |                                    |  |
| - Software integration - Connections - Antenna rotator                    |                      |   |                                    |  |
| - ADIF Functions<br>- Applications<br>- FLDigi<br>- Welt x / ITDX         |                      |   |                                    |  |

Passwords, API Keys and user names are case sensitive!

#### **User preferences**

The user should select the bands and modes of operation and interest and the preferred grid reference format (6 or 4 digits)

Checking the 'Set QSO start time when leaving the call sign field' box makes keyboard only operation very easy. Enter the call sign while waiting to call the station, when contact is made tab out of the call sign field to set the start time and adjust RST or add comments etc, when the QSO ends press the enter key on the keyboard to automatically record the QSO end time and save the QSO to the log - If automatic upload to the on-line logbooks/QSL systems is selected the QSO will automatically upload.



# Award Quick View

The fields listed in the 'Edit table layout' menu of most grid views as 'Reference1', 'Reference2', Association 1 and Association 2 may be used to display award and association references of the user's choice e.g. SOTA or IOTA references by selection from the drop down lists of awards in the Program Configuration/User preferences menu.

The field titles may be changed/edited in the 'Edit table layout/Appearance' menu as described elsewhere.

## **Award Preferences**

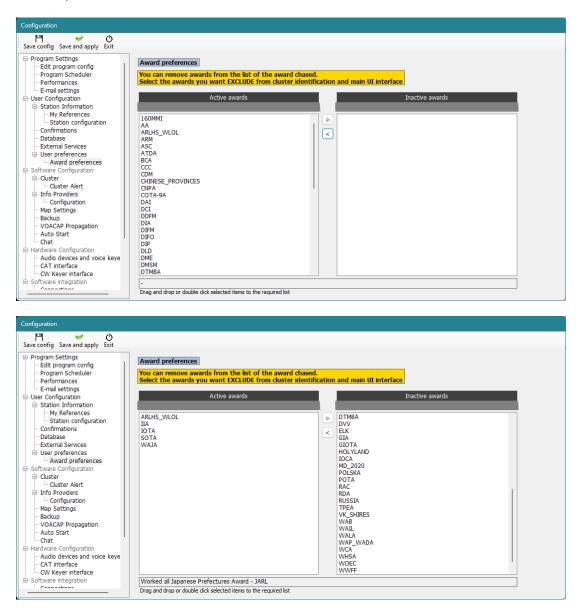
This window enables the user to select the awards of interest, this can save resources because the inactive awards are excluded from the intelligent cluster award identification and the main UI.

## **IMPORTANT NOTES**

- 1. DXCC awards will not be affected by changes made in this menu because they are not defined by award references.
- 2. Moving awards to the 'Inactive' area does not remove them from the 'Award status' view or 'Awards manager' because the user may have historic award data or need to re-activate those inactive awards at some later time.

Clicking the arrows in-between the active and inactive panes will transfer all awards in the direction indicated by the arrow.

Individual awards may be moved to the other pane by double clicking the award name or drag and drop between panes.

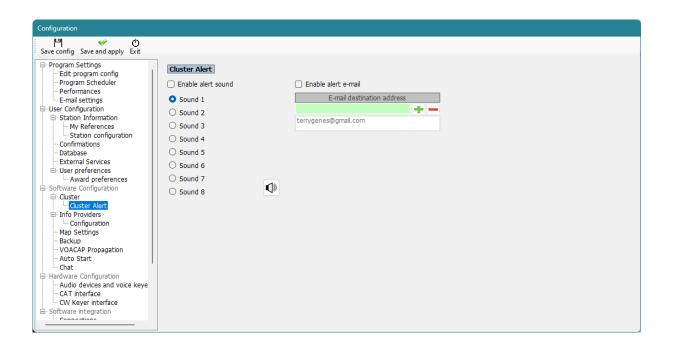


## **Software Configuration**

#### Cluster

All settings for cluster colours, operation and spot alert sounds and emails

| Configuration   |  |          |  |   |                |             |
|---|--|----------|--|---|----------------|-------------|
| 백   |  |          |  |   |                |             |
| Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings | Cluster<br>Cluster auto-start<br>Server auto-start   |          | Cluster highlight colors<br>Country not worked                                   | COUNTRY NOT WORKED  | 21             | ۵.          |
| User Configuration     Station Information     My References     Station configuration              | <ul> <li>Show cluster grouped [recom</li> <li>Show User Defined clusters</li> </ul>                          | mended]  | Band/Mode not wrkd/conf<br>Worked/Confirmed                                      | B/M NOT WORKED<br>WORKED  | 8)<br>8)       | <b>2</b>    |
| Confirmations     Database     External Services     User preferences                               | <ul> <li>Show stable clusters</li> <li>Show experimental clusters</li> <li>Show inactive clusters</li> </ul> |          | Station not worked<br>Station worked   | STATION NOT WORKED  | 2)<br>2)       | <b>a</b>    |
| Award preferences   | Cluster server port<br>Cluster max age (min)   | 7300     | Station worked same band<br>Station worked same mode<br>Station worked band mode | WORKED SAME BAND<br>WORKED SAME MODE<br>WORKED SAME BAND + MODE | 8)<br>8)<br>8) | 4<br>4<br>4 |
| ⊡- Info Providers<br>Configuration<br>Map Settings<br>Backup  | Maximum cluster items<br>Band map max age (min)  | 1000 ÷ ? | Station wkd same mode type<br>Station wkd band mod type                          | WORKED SAME MODE TYPE<br>WKD SAME BAND + MODE TYPE              | 2)<br>2)       | <b>ð</b>    |
| VOACAP Propagation<br>Auto Start<br>Chat<br>Hardware Configuration                                  | Maximum band map items<br>Supercluster max age (min)   | 60 🗘     | Award highlight  | HIGHLIGHT   | ٥ì             | ٩           |
| - Audio devices and voice keye<br>- CAT interface<br>- CW Keyer interface<br>- Software integration | Cluster overload control (spot/min<br>Cluster batch [advanced]   |          | Default  | Set white background for NO COLOR                               |                |             |



#### **Info Providers**

Log4OM V2 is unique in providing online look up facilities with a fail-safe or fall-back option should the prime online lookup provider be offline or not provide data on the call sign being checked. Including lookup from an Installed Hamcall database CD

| Configuration  |                     |                     |                              |   |          |    |                     |
|--|---------------------|---------------------|------------------------------|---|----------|----|---------------------|
| Save config Save and apply Exit                      |                     |                     |                              |   |          |    |                     |
| Edit program Config                                  | Info providers      | Primary             | Failsafe                     |   |          |    | Web external source |
| Performances<br>E-mail settings                      |                     | source              | source                       |   |          |    | • Primary source    |
| - User Configuration - Station Information - Station |                     | $\bigcirc$ Disabled | <ul> <li>Disabled</li> </ul> |   |          |    | O QRZ.COM           |
|  | QRZ.COM             | •                   |                              | G4POP   | ****     | \$ | O HAMQTH            |
|  | HAMQTH              | 0                   | 0                            | G4POP   | *******  | \$ | - direct            |
| User preferences                                     | QRZCQ               | 0                   | 0                            | G4POP   | ******   | •  |                     |
| - Software Configuration                             | HAMCALL (online)    | $\circ$             | 0                            | User  | Password | -  |                     |
| Cluster     Cluster Alert                            | HAMCALL (Installed) | 0                   | 0                            | HAMCALL DVD Path  | C:/ ~    |    |                     |
| Info Providers Configuration                         | Failsafe source     | e will be polle     | d if primary sourc           | e doesn't return info.<br>noing slow search response time | 25       |    |                     |
| Map Settings<br>Backup                               |                     |                     |                              |   |          |    |                     |
| ···· VOACAP Propagation<br>···· Auto Start           |                     |                     |                              |   |          |    |                     |
| - Hardware Configuration                             |                     |                     |                              |   |          |    |                     |
| Audio devices and voice keye<br>CAT interface        |                     |                     |                              |   |          |    |                     |
| Connection   |                     |                     |                              |   |          |    |                     |
|  |                     |                     |                              |   |          |    |                     |

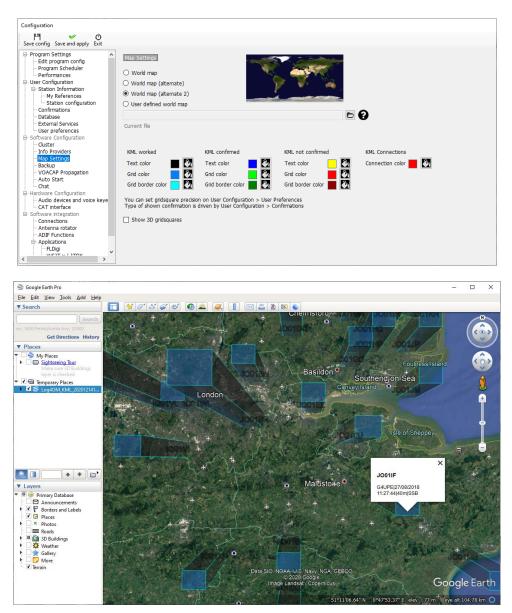
# Map settings

Select a default map display or add a user defined world map.

| Configuration  |  |                                   |   |                      |
|--|--|-----------------------------------|---|----------------------|
| Save config Save and apply Exit  |  |                                   |   |                      |
| Program Settings     Edt program config     Program Scheduler     Performances     User Configuration     Station Information     My References     Station configuration     Confirmations     Database     External Services | Map Settings O World map World map (akemate) World map (akemate 2) User defined world map Gurrent file |                                   |   | 9                    |
| User preferences   | Current file   |                                   |   |                      |
| ···· Cluster<br>···· Info Providers  | KML worked   | KML confirmed                     | KML not confirmed                       | KML Connections      |
|  | Text color   | Text color                        | Text color 📃 💽                          | Connection color 📕 💽 |
|  | Grid color 🗾 🚱<br>Grid border color 🔳 🚱  | Grid color 📕 🚱                    | Grid color 📕 🚱<br>Grid border color 📕 🚱 |                      |
| Hardware Configuration     Audio devices and voice keve  |  | on User Configuration > User Pre  |   |                      |
| CAT interface  |  | riven by User Configuration > Cor |   |                      |
| - Connections - Antenna rotator - ADJF Functions - ADJF Functions - FLDigi   | ☐ Show 3D gridsquares  |                                   |   |                      |

# **Changing KML map colours**

In Settings/Program configuration/Map settings it is possible to configure the colours displayed and select 2D or 3D display.



## Backup

It is advisable to set automatic backups, preferably in two separate locations e.g. Documents folder on the hard drive and cloud storage like Dropbox or Google Drive for ultimate security of user data.

| Configuration   |                                  |  |                             |
|---|----------------------------------|--|-----------------------------|
| Save config Save and apply Exit   |                                  |  |                             |
| Program Settings     Edit program config     Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings     Station Information     Station Information     Orafimations     Database     External Services     User preferences     Software Configuration     Configuration     Custer     L-Custer Alert     Dif Providers     L-Custer Alert     Differences     Software Configuration     Map Settings     Backup     VOACAP Propagation     Auto Start     Chat     Hardware Configuration     Audio devices and voice keye     CAT interface | Backup folder<br>Backup rotation | NOT ADIF] (SQLite database only)<br>C:\Users\(g4pop)AppData\Roaming\Log4OM2\backup\<br>If backup folder is not set, Log4OM will create backup in the default folder<br>13 2 12 backup<br>The program will keep a number of historical backup copies up to the indicated va<br>(indicates the number of different days. Multiple backup in the same day are cons<br>ackups<br>NOT ADIF] (SQLite database only) [NOT RECOMMENDED]<br>C:\Users\(g4pop)\OneDrive\Documents\Log4OM Test backups\<br>13 2 Enable rotation (default off)<br>2 ZIP additional backup | lue<br>idered a single one) |
| Connections   |                                  |  |                             |

# **VOACAP** Propagation

Enable the powerful propagation tool and the Signal to noise ratio threshold.

| Configuration  |   |  |
|--|---|--|
| Save config Save and apply Exit  |   |  |
| Save config Save and apply Exit  Program Settings Program Scheduler Program Scheduler User Configuration Station Information Confirmations Database Database Desr preferences De | VOACAP Propagation         Image: State Control of the state of t |  |
|  |   |  |
| line -   | Attuitte  |  |

## Auto Start

Set integrated programs to automatically start or close and add start-up parameters

| Configuration  |   |                                      |                              |                 |   |
|--|---|--------------------------------------|------------------------------|-----------------|---|
| Program Settings     Edit program config     Program Scheduler     User Configuration     Setation Information     Station configuration     Station configuration     Confirmations     Database     External Services     User preferences     Software Configuration     Ouster     Information     Map Settings     Map Settings | Auto Start<br>WSJT  | Process<br>File Name<br>FLAGS        | Enabled<br>SINGLETON<br>KILL | Wn Process name | • |
| <ul> <li>Backup</li> <li>VOACAP Propagation</li> <li>Auto Staff</li> <li>Hardware Configuration</li> <li>Auto devices and voice keyer</li> <li>CAT interface</li> <li>Software integration</li> <li>Connections</li> <li>Antenar otator</li> <li>ADIF Functions</li> <li>FLDigi</li> </ul>   | NOTE: Auto Start will work dree<br>Cloning a profile will NOT clone h | Plan<br>tly with app<br>is auto-star | OnProfileOpen  v             | S - Edd         |   |

# Chat configuration

The Log4OM 'Chat' system can be enabled and audio alerts selected in the 'Chat' menu

| Configuration  |   |
|--|---|
| -  |   |
| Save config Save and apply Exit  |   |
| Save config Save and apply Exit     Save config Save and apply Exit     Program Settings     Edit program config     Program Scheduler     Performances     User Configuration     Station Informations     Database     External Services     User preferences     Software Configuration     Configuration     Couster     Info Providers     Map Settings     Backup     VOACAP Propagation     Auto Start     Configuration     Auto Start     Configuration     Auto Start     Software Configuration     Audo devices and voice keye     CAT interface     Software tregration | Cist confi         Inable chat sound         Sound 1         Sound 2         Sound 3         Sound 4         Sound 5         Sound 7         Image: Sound 8 |
| - Connections  |   |
| - Antenna rotator<br>ADIE Functions  |   |
| Applications   |   |
| FLDigi   |   |
|  |   |

# **Hardware Configuration**

## Audio devices and Voice Keyer

Log4OM provides a voice keyer facility which has six memories

- 1. Select the devices to be used for the transmission of the keyer messages in the 'From Radio and To Radio' drop down menu's
- 2. Choose the recording and Listening devices under 'Recording'
- Provide a 'File name' for each memory.
   Note: Until a recording is completed the file name box will be highlighted Orange.
- Hold down the red button to the right of a memory and record a message using a microphone connected to the computer – At the end of the recording release the record button.
   Note: The file name box will change to green to indicate that it contains a message.
- 5. Click on the headphone symbol to the right of the recording button to playback the recording for that memory.

| ave config Save and apply Exit           |                           |                             |              |        |                  |   |   |   |
|--|---------------------------|-----------------------------|--------------|--------|------------------|---|---|---|
| Program Settings                         | Audio devices             |                             |              |        |                  |   |   |   |
| Edit program config<br>Program Scheduler | From Radio (Microphone)   | [Microphone (C922 Pro St    | ream Web, 1] |        |                  | ~ |   |   |
| Performances                             | To Radio (Speaker)        | [Line 1 (Virtual Audio Cabl | lo) 2]       |        |                  | ~ |   |   |
| E-mail settings                          | To Radio (Speaker)        | Line I (Virtual Audio Cabi  | ie), 5]      |        |                  | ~ |   | Main UI and Contest hotkeys.<br>Press ESC to stop |
| - Station Information                    | Recording                 |                             |              |        |                  |   |   |   |
| My References<br>Station configuration   | Recording device          |                             |              | File 1 | CQ CQ CQ         | • | Ω | CTRL+F1   |
| Confirmations                            | [Microphone (Yeti Stereo  | Microph, 0]                 | ~            | File 2 | G4POP            | • | G | CTRL+F2   |
| Database<br>External Services            | Listening device          |                             |              | File 3 | Again            | • | G | CTRL+F3   |
| - User preferences - Award preferences   | [Speakers (Realtek(R) Aud | io), 0]                     | ~            | File 4 | QRZ QRZ de G4POP |   |   | CTRL+F4   |
| Software Configuration                   |                           |                             |              | File 5 | CQ DX            |   |   | CTRL+F5   |
| Cluster Alert                            |                           |                             |              |        |                  |   |   |   |
| Info Providers                           |                           |                             |              | File 6 | GB4VED           | • |   | CTRL+F6   |
| Configuration<br>Map Settings            |                           |                             |              |        |                  |   |   |   |
| Backup                                   |                           |                             |              |        |                  |   |   |   |
| VOACAP Propagation                       |                           |                             |              |        |                  |   |   |   |
| - Auto Start                             |                           |                             |              |        |                  |   |   |   |
| - Chat<br>Hardware Configuration         |                           |                             |              |        |                  |   |   |   |
| - Audio devices and voice keye           |                           |                             |              |        |                  |   |   |   |
| - CAT interface                          |                           |                             |              |        |                  |   |   |   |
| - CW Keyer interface                     |                           |                             |              |        |                  |   |   |   |
| - Software integration                   |                           |                             |              |        |                  |   |   |   |

# CAT interface

The CAT interface provides a choice of radio control either via Hamlib, Omnirig or TCI

| iave config Save and apply Exit   |  |
|---|--|
| 2   |  |
| Program Settings  | CAT Management   |
| Edit program config   | Settings Omnirig Hamlib TCI  |
| Program Scheduler<br>Performances   |  |
| - E-mail settings<br>- User Configuration   | CAT Engine TCIProtocol 🗸 🗹 CAT auto-start  |
| Station Information   | CAT delay (ms) 0 CAT delay between commands  |
| <ul> <li>My References</li> <li>Station configuration</li> </ul>  | Invert SSB side (CW) Invert SSB side (CW) Type here your preferred PTT key   |
| Confirmations   | Invert SSB side (PHONE)     PTT KEY will trigger PTT until release.  |
| Database<br>External Services   | CTRL + PTT KEY will trigger a 440Hz tone towards the radio audio interf  |
| User preferences  | Send MODE before FREQ to radio Send MODE before FREQ to radio  |
| - Award preferences   | Switch to DIGITAL mode when required   |
| - Cluster   | Default FT8 V  |
| Cluster Alert   |  |
| - Configuration   |  |
| Map Settings<br>Backup  |  |
| VOACAP Propagation  |  |
| - Auto Start  | OLT Output when  |
| Hardware Configuration  | CAT Control colors Offset  |
| — Audio devices and voice keye — CAT interface  | Main color 🙆 000 🔒 🖶 🖶 🖶 🖨 🖨 🖨 🖨 🖨 🖨 🖉 Offset VFO A KHz 1,000,000.000 😨 🗆  |
| CW Keyer interface  | Decimal color 🚯 000 Offset VFO B KHz 0.000   |
| Software integration  |  |
|   |  |
|   |  |
| figuration  |  |
| l¶  |  |
| e config Save and apply Exit  |  |
| Program Settings  | CAT Management   |
| ···· Edit program config<br>···· Program Scheduler  | Settings Omnirigi Hamlib TCI   |
| Performances  | OMNIRIG Disconnect CAT at first OFF event  |
| E-mail settings<br>User Configuration   |  |
| Station Information   |  |
| My References<br>Station configuration  |  |
| ···· Confirmations  |  |
| ··· Database<br>··· External Services   |  |
| User preferences  |  |
| Software Configuration  |  |
| Cluster Cluster Alert   |  |
| - Info Providers  |  |
| Configuration<br>   |  |
| Backup  |  |
| ··· VOACAP Propagation<br>··· Auto Start  |  |
|   |  |
| Chat  |  |
| Hardware Configuration  |  |
|   |  |
| Hardware Configuration<br>Audio devices and voice keye<br>CAT interface<br>CW Keyer interface   |  |
| Hardware Configuration<br>Audio devices and voice keye<br>CAT interface<br>CW Keyer interface   |  |
| Hardware Configuration<br>Audio devices and voice keye<br>CAT interface<br>CW Keyer interface<br>Software integration   |  |
| Hardware Configuration<br>  |  |
| Hardware Configuration<br>- Audio devices and voice keye<br>- CAT interface<br>- CW Keyer interface<br>Software integration   |  |
| Hardware Configuration<br>- Audio devices and voice keye<br>- CAT interface<br>- CW Keyer interface<br>Software integration<br>   |  |
| Hardware Configuration<br>Audio devices and voice keye<br>CAT interface<br>CW Keyer interface<br>CW Keyer interface<br>CW Keyer interface<br>CW transmission<br>Interface<br>CW Keyer interface<br>CW Keyer   |  |
| Hardware Configuration<br>- Audio devices and voice keye<br>CAT interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW service   | CAT Management   |
| Hardware Configuration<br>Audio devices and voice keye<br>CAT interface<br>CW Keyer interface<br>Software integration<br>Figuration<br>Constituent<br>interface<br>CW Keyer interface<br>CW Keyer interface   |  |
| Hardware Configuration<br>- Audio devices and voice keye<br>- CAT interface<br>- CW Keyer interface<br>Software intergration<br>- Construction<br>- Configuration<br>- Configuration<br>- Edit program Scheduler<br>- Performances<br>- Performances  | Settings Omnirig Hamlib TCI  |
| ardvare Configuration<br>Audio devices and voice keye<br>CAT interface<br>CW Keyer interface<br>Software integration<br>Consortions<br>inguration<br>Config Save and apply Exit<br>Program Scheduler<br>Performances<br>E-mail settings   | Settings Omnirig Hamlib TCI HAMLIB PARAMETERS  |
| Hardware Configuration<br>- Audio devices and voice keye<br>- CAT interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW seyer inte  | Settings Omnirig Hamlib TCL<br>HAMLIB PARAMETERS   |
| Hardware Configuration<br>- Audio devices and voice keye<br>- CAT interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW Software integration<br>- Consections<br>- Configuration<br>- Configurat                                  | Settings       Omnirig       Hamlib       TCI         HAMLIB PARAMETERS       TCP Connection         RIG Model       Connect to active HAMLIB instance   |
| ardvare Configuration<br>Audio devices and voice keye<br>CAT interface<br>CAT interfac | Settings   Omnirig   Hamilib   TCL         HAMLIB PARAMETERS         RIG Model         Serial connected radio         Hide Hamilb in the taskbar         Onnect to active HAMLIB instance         Network connected radio         VFO MODE (supports dual VFO)         ADDRESS         127.0.0.1   |
| Hardware Configuration<br>Audio devices and voice keye<br>CAT interface<br>CAT interfa | Settings       Omnirig       Hamlib       TCI         HAMLIB PARAMETERS       TCP Connection         RIG Model       Connect to active HAMLIB instance   |
| Hardware Configuration CAT interface CAT interface CAT interface CW Keyer interface Software integration  figuration  Figurati  | Settings       Omnirig       Hamilib       TCI         HAMLIB PARAMETERS       TCP Connection         RIG Model       Connect to active HAMLIB instance         O Serial connected radio       VFO MODE (supports dual VFO)         Serial parameters       Port         Port       4532         Port       4532   |
| Hardware Configuration Audio devices and voice keye CAT interface CAT interface CW Keyer interface Software integration Configuration Configur  | Settings       Omninig       Hamilib       TCI         HAMLIB PARAMETERS       TCP Connection         RLG Model       Connect to active HAMLIB instance         Network connected radio       VFO MODE (supports dual VFO)         Serial parameters       TCP Radio parameters         Port       COM18         Baud Rate       38400   |
| Hardware Configuration<br>- Audio devices and voice keye<br>CAT interface<br>- CW Keyer interf  | Settings       Omninig       Hamilib       TCI         HAMLIB PARAMETERS       TCP Connection       Connect to active HAMLIB instance         Network connected radio       VFO MODE (supports dual VFO)       Connect to active HAMLIB instance         Network connected radio       VFO MODE (supports dual VFO)       Port       4532       (default 4532)         Port       COM18       © Baud Rate       38400       PTT       Port       Offer and the state of th |
| Hardware Configuration CAT interface CAT int  | Settings       Omnining       Hamilib       TCI         HAMLIB PARAMETERS       TCP Connection       Connect to active HAMLIB instance         Network connected radio       VFO MODE (supports dual VFO)       Connect to active HAMLIB instance         Network connected radio       VFO MODE (supports dual VFO)       Port       4532         Port       COM18       Stop Bits       Port         Force ICOM CI-V       Stop Bits       Port         Data Carrier detect       NONE       RTS       DTR   |
| Hardware Configuration<br>- Audio devices and voice keye<br>- CAT interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW the configuration<br>- Configuration<br>- Edit program Config<br>- Program Scheduler<br>- Program Scheduler<br>- Program Scheduler<br>- Program Scheduler<br>- Performances<br>- Email settings<br>- User Configuration<br>- Station Information<br>- My References<br>- Station Configuration<br>- Database<br>- External Services<br>- User preferences<br>- Schward preferences<br>- Schward preferences<br>- Schward configuration<br>- Outer<br>- User Preferences<br>- Station Configuration<br>- Database<br>- External Services<br>- User preferences<br>- Schward preferences<br>- Schward Configuration<br>- Custer Alert<br>- Info Providers   | Settings Omnirig Hamilib TCI         HAMLIB PARAMETERS         RIG Model         Serial connected radio         Network connected radio         VFO MODE (supports dual VFO)         Serial parameters         Port         COM18         Baud Rate         38400         Port         COM18         Baud Rate         38400         Port         COM18         Baud Rate         OTP         Port         COM18         Baud Rate         On PTT         CAT         Data Carrier detect         NONE   |
| Hardware Configuration<br>- Audio devices and voice keye<br>- CAT interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- Configuration<br>- Configuration<br>- Configuration<br>- Forgarm Scheduler<br>- Program Scheduler<br>- Station Information<br>- Station Information<br>- Station configuration<br>- Database<br>- External Services<br>- User preferences<br>- Schware Configuration<br>- May Settings   | Settings Omnirig Hamilib TCI         HAMLIB PARAMETERS         RIG Model         Serial connected radio         VFO MODE (supports dual VFO)         Serial parameters         Port         Gomma Carrier detect         NONE         Poling delay (ms)         So         Debug   |
| Hardware Configuration - Audio devices and voice keye - CAT interface - CW Keyer interface - CW  | Settings Omnirig Hamilib TCI         HAMLIB PARAMETERS         RIG Model         Serial connected radio         VFO MODE (supports dual VFO)         Serial parameters         TCP Connection         Connect to active HAMLIB instance         ADDRESS         127.0.0.1         Port         COM18         Baud Rate         Baud Rate         Port         COM18         Baud Rate         Port         4532         Port         Data Carrier detect         NONE         Generated parameter String   |
| Hardware Configuration CAT interface CAT int  | Settings Omnirig Hamilib TCI         HAMLIB PARAMETERS         RIG Model         O Serial connected radio         Network connected radio         VFO MODE (supports dual VFO)         Serial parameters         Port         COM18         Baud Rate         38400         Port         Comet to active HAMLIB instance         ADDRESS         127.0.0.1         Port         Commet to active HAMLIB instance         ADDRESS         127.0.0.1         Port         4532         Commet to active HAMLIB instance         ADDRESS         127.0.0.1         Port         4532         Port         Stop Bits         Port         On o PTT         CAT         DTR         Polling delay (ms)         S0         Debug         Image: String         Used parameter string   |
| Hardware Configuration CAT interface CAT int  | Settings Omnirig Hamilib TCI         HAMLIB PARAMETERS         RIG Model         Serial connected radio         VFO MODE (supports dual VFO)         Serial parameters         TCP Connection         Connect to active HAMLIB instance         ADDRESS         127.0.0.1         Port         COM18         Baud Rate         Baud Rate         Port         COM18         Baud Rate         Port         4532         Port         Data Carrier detect         NONE         Generated parameter String   |
| Hardware Configuration CAT interface CAT int  | Settings       Omnirig       Hamilib       TCI         HAMLIB PARAMETERS       TCP Connection       Connect to active HAMLIB instance         Abd Serial connected radio       I Hde Hamilib in the taskbar       Connect to active HAMLIB instance         Network connected radio       VFO MODE (supports dual VFO)       Port       ADDRESS       127.0.0.1         Port       COM18       Image: Stop Bits       Port       4532       (default 4532)         Port       COM18       Image: Stop Bits       I   |
| Hardware Configuration<br>- Audio devices and voice keye<br>- CAT interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- CW Keyer interface<br>- Configuration<br>- Configuration<br>- Configuration<br>- Edit program Config<br>- Program Scheduler<br>- Program Scheduler<br>- Program Scheduler<br>- Program Scheduler<br>- Program Configuration<br>- My References<br>- Station Information<br>- Database<br>- External Services<br>- Ward preferences<br>- Station Information<br>- Database<br>- External Services<br>- Configuration<br>- Configuration<br>- Configuration<br>- Configuration<br>- Configuration<br>- Configuration<br>- Configuration<br>- Configuration<br>- Configuration<br>- Custer Alert<br>- Configuration<br>- VOACAP Propagation<br>- Auto Start<br>- Chat<br>Hardware Configuration<br>- Auto Start<br>- CAT interface  | Settings       Omnirig       Hamilib       TCI         HAMLIB PARAMETERS       TCP Connection       Connect to active HAMLIB instance         Abd Serial connected radio       I Hde Hamilib in the taskbar       Connect to active HAMLIB instance         Network connected radio       VFO MODE (supports dual VFO)       Port       ADDRESS       127.0.0.1         Port       COM18       Image: Stop Bits       Port       4532       (default 4532)         Port       COM18       Image: Stop Bits       I   |
| Hardware Configuration Audio devices and voice keye CAT interface CAT in  | Settings Omnirig Hamilib TCI         HAMLIB PARAMETERS         RIG Model         O Serial connected radio         Network connected radio         VFO MODE (supports dual VFO)         Serial parameters         Port         COM18         Baud Rate         38400         Port         Comet to active HAMLIB instance         ADDRESS         127.0.0.1         Port         Commet to active HAMLIB instance         ADDRESS         127.0.0.1         Port         4532         Commet to active HAMLIB instance         ADDRESS         127.0.0.1         Port         4532         Port         Stop Bits         Port         On o PTT         CAT         DTR         Polling delay (ms)         S0         Debug         Image: String         Used parameter string   |

| Configuration   |   |
|---|---|
| Save config Save and apply Exit   |   |
| Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings     User Configuration     Ordination     Station Information     Ordination     Station configuration     Ordination     Ordination     Detabase     External Services     User preferences     Software Configuration     Configuration     Configuration     Configuration     Configuration     Configuration     Outser     Configuration     Configuration     Configuration     Configuration     Configuration     Configuration     Configuration     Auto Start     Chat     Hardware Configuration     Audo devices and voice keye     CAT interface     CW Keyer interface     Software integration     Conservices | CAT Management         Settings   Omning   Hamilb TCI         TCP Connection         ADDRESS 127.0.0.1         Port 40001 |

## CW Keyer Interface

This configures the type of keyer to be used, Nothing, Winkeyer or TCI Protocol (See separate section for Winkeyer and TCI)

| Configuration   |   |             |  |
|---|---|-------------|--|
| [비 💞 👌<br>Save config Save and apply Exit   |   |             |  |
| My References Station configuration Confirmations Database External Services Software Configuration Configuration Custer Alert Custer Alert Custer Alert Custer Alert Configuration Map Settings Backup VOACAP propagation Auto Start Chat Hardware Configuration Auto Gevices and voice keye CAT interface Software integration Connections Applications Applications Applications Applications Applications Plugi Web integration | CW Keyer<br>Select preferred keyer engine | TCIProtocol |  |

## **Software Integration**

#### Connections

The connections tab provides three types of connection, UDP Inbound/Outbound (For integration with other software), UDP Proxy (Relay of data messages) & Remote control to enable software control via the internet. See the relevant sections of this user guide for further details.

| Configuration   |  |   |
|---|--|---|
| Save config Save and apply Exit   |  |   |
| And Settings     Software Configuration     Local weather     Confirmations     Database     External Services     External Services     Software Configuration     Configuration     Configuration     May Settings     Backup     VOACAP Propagation     Auto Settings     Backup     VOACAP Propagation     Auto Settings     Haddware Configuration     Audo devices and voice keye     CA1 metaface     Configuration     Autor and order configuration     Configuration     Configuration     Configuration     Configuration     Autor Settings     Backup     VOACAP Propagation     Configuration     Configura | Connections<br>UDP DP Proxy Remote Control<br>UDP INBOUND<br>UDP Inbound connections<br>UDP_INBOUND] [IT_MESSAGE] [2237] INCOMING 3T MESSAGE<br>[UDP_INBOUND] [ADIF_MESSAGE] [2234] INCOMING 3TALERT/C<br>0 items selected     | UDP OUTBOUND         Port       Connection name         Service type         Image: Service |
| Web integration   |  |   |
| onfiguration  |  |   |
| H   |  |   |
| ave config Save and apply Exit  | Connections         UDP       UDP Proxy         WDP PROXY DEBOUND         UDP proxy connections  |   |
| Software Configuration     Custer Alert     Luster Alert     Lord Providers     L-Configuration     Map Settings     Backup     VOACAP Propagation     Auto Start     Chat  |  |   |
| ⇒ Hardware Configuration<br>→ Audio devices and voice keye<br>→ CAT interface<br>→ CW Keyer Interface<br>→ CW Araver Integration<br>→ Connections<br>→ Antenna rotator<br>→ ADIF Functions<br>↔ Applications<br>→ Applications<br>→ Web integration   | 0 items selected   |   |
|   |  |   |
| onfiguration<br>♀ ♦   |  |   |
| ave config Save and apply Exit<br>My References<br>– Station configuration<br>– Local weather<br>– Confirmations<br>– Database<br>– External Senices<br>– Waer preferences<br>– Avard preferences<br>– Avard preferences<br>– Stothware Configuration<br>⊕ Custer<br>– Custer Alert   | Connections         UDP       UDP Proxy         REMOTE CONTROL         Remote control port         2241         ©         Enable remote control  |   |
| Info Providers     Configuration     Map Settings     Backup     VOACAP Propagation     Auto Start     Chat     Hardware Configuration  | <ul> <li>Enable data output through UDP</li> <li>Remote control output port</li> <li>2242 ÷</li> <li>Broadcast</li> <li>Send to specific IP address/port</li> <li>127.0.0.1</li> <li>Send 5 seconds status messages</li> </ul> |   |
| Audio devices and voice keye     CAT interface     CV Keyer interface     OV Keyer interface     Software integration     Commetions     Antenna rotator     Antenna rotator     Applecations     Applecations     Veb integration  |  |   |

#### Antenna rotator

This menu provides the user to enable and configure the interface with PSTRotator and StepIR control

| Configuration  |   |  |
|--|---|--|
| Save config Save and apply Exit  |   |  |
| Save config     Save config       Station configuration       - Confirmations       - Database       - External Services       - User preferences       - Software Configuration       - Custer       - Configuration       - Custer       - Configuration       - Custer Alert       - Info Providers       - Configuration       - Audo devices and voice keye       - Chat       - Hardware Configuration       - Audo devices and voice keye       - Chat       - Configuration       - Audo devices and voice keye       - Chat       - Software Interface       - Software Interface       - Software Interface       - Applications       - Applications       - Applications       - Religin | Antenna Rotator<br>Disable rotor support<br>PSTRotator<br>Send Azimuth<br>Send Elevation<br>PSTRotator<br>Send Callsign | To activate integration UDP port and destination IP must be indicated in the CONNECTIONS section (UDP OUTBOUND)         Connections         Connections         Send Frequency (SteppIR)         SteppIR radio # |

#### **ADIF Functions**

ADIF Monitor to automatically scan ADIF files searching for QSO's to automatically add to the Log4OM Logbook.

NOTE QSO's are not uploaded to the online logbooks like QRZ, Hamlog etc during ADIF monitor import

ADIF output broadcast ADIF information for use by other software.

| Configuration  |  |   |
|--|--|---|
| H 🖌 O  |  |   |
| Save config Save and apply Exit  |  |   |
| <ul> <li>Save config Save and apply Exit</li> <li>My References</li> <li>Station configuration</li> <li>Local weather</li> <li>Oconfirmations</li> <li>Database</li> <li>External Services</li> <li>User preferences</li> <li>Software Configuration</li> <li>Custer Alert</li> <li>Endition Settings</li> <li>Backup</li> <li>Volker Alert</li> <li>Endition Settings</li> <li>Auto Start</li> <li>Chat</li> <li>Hardware Configuration</li> <li>Auto Start</li> <li>Chat</li> <li>Hardware Configuration</li> <li>Auto Start</li> <li>Chat</li> <li>Software Interface</li> <li>Software Interface</li> <li>Software Interface</li> <li>Software Interface</li> <li>Software Interface</li> <li>ADIF Functions</li> <li>Anterface</li> <li>ADIF Functions</li> <li>Applications</li> <li>Applications</li> <li>Applications</li> <li>Applications</li> <li>Applications</li> <li>Applications</li> <li>Applications</li> </ul> | ADIF Functions         ADIF Monitor       ADIF Output         ADIF file       Image: Comparison of the state of | - |
|  |  |   |
|  |  |   |

ADIF POST will 'Post' or 'Get' QSO data to/from a website

| Configuration<br>└┦ ❤ Ŏ<br>Save config Save and apply Exit   |     |                               |                    |  |
|--|-----|-------------------------------|--------------------|--|
| - My References     - Station configuration     - Local weather     - Confirmations     - Database     - External Services     - Award preferences     - Award preferences     Software Configuration     Custer             |     | ADIF Output ADIF POST         | 🗌 Transmit data HT | TMLEncoded (recommended)   |
| Custer Alert     Info Providers     Configuration     Map Settings     Backup     VOACAP Propagation     Auto Start     Chat     Hardware Configuration     Auto devices and voice keye     CAT interface     Were interface | Key | Varameters 📫 📋 Value<br>Value |                    | KEY: The name of the POST field / GET field<br>VALUE: The value of the parameter<br>Special VALUES<br><adif> replace field with the QSO ADIF value<br/><tattoin +="" at="" callsign="" callsign<br="" field="" our="" replace="" tattoin="" with=""><datet> replace field with UTC date in format yyyyMidddHimms<br/>CADIE &gt; replace field with UTC date in format yyyyMiddd<br/><tdme> replace field with UTC time in format Himms</tdme></datet></tattoin></adif> |
| - CW keyer interface     - Software integration     - Connections     - Antenna rotator     - AndEr Punctions     - ApDir Functions     - ApDirations     - L-RDigit     - Web integration                                   |     | Application will search f     |                    | ADIF files that are, at the same time, monitored by Log4OM.  |

## Applications

FLDigi provided communication between FLDigi and Log4OM

| Configuration   |  |  |                 |
|---|--|--|-----------------|
| 월 ♥ Ů<br>Save config Save and apply Exit  |  |  |                 |
| Hy References     Settion configuration     Local weather     Confirmations     Database     External Services     Local weather     Confirmations     Database     Databaseata     Database     Databaseata     Databaseata     Databasea | FLDigi<br>Start service<br>FLDigi instance address<br>FLDigi instance port | http://127.0.0.1<br>7342<br>ADIF Import must be selected from the ADIF import configur | _<br>abon page. |

## Web integration enables webpage creation and FTP upload

 $\square$ 

| Configuration   |  |   |   |
|---|--|---|---|
| Save config Save and apply Exit   |  |   |   |
| - Wy References     - Station configuration     - Local weather     - Confirmations     - Database     - External Services     - External Services     - Award preferences     - Award preferences     - Configuration     - Colster Alert     - Configuration     - Map Settings     - Backup     - VOACAP Propagation     - Auto Start     - Configuration     - Auto Interface     Software integration     - Configuration     - Configu | Web integration         Web page         Chable webpage creation         Enable webpage creation         Default page         Output folder         Source file mase         Source file must contains the string         #################################### | 0 | FTP upload  FTP server  FTP Port  21  FTP Port  21  FTP User  FTP User  FTP Password  Local FTP Upload (does not check for internet connection) |

# Integration with external programs

Log4OM will integrate (Connect to) many external programs via UDP or TCP connections for receiving data (Inbound) and broadcasting data (Outbound) using the Settings/Program Configuration/Software integration/connections tab.

### Logging automatically to Log4OM version 1

The powerful UDP support in Log4OM enables a user of version 2 to have the program automatically add QSO's being logged to the version 1 logbook.

#### In version 1 follow the following steps:

- 1. Open the communicator and click the Red stop button
- 2. Go to the Communicator 'Settings/inbound/inbound settings menu
- 3. Check the check box at the bottom marked UDP Inbound under 'Inbound ADIF UDP Integration' and enter Port number 2249 (See below)

| 🐮 Inbound Settings   | ×  |
|--|----|
| TCP Connection for incoming QSO TCP Connection (ADD message) |    |
| Port 0   |    |
| ADIF File Polling  |    |
| Enable File Monitor  |    |
| Starting position 0 Select file                              | vo |
| QARTest UDP Integration                                      |    |
| Port 9458  | [  |
| N1MM UDP Integration   |    |
| Port 12060   | _  |
| INBOUND ADIF UDP Integration                                 |    |
| Port 2249  | Н  |

- 4. Click the floppy disk 'Save' button and close the Inbound settings window.
- 5. Restart the communicator by clicking the Green 'Start' button.
- 6. Minimise the Communicator Do not close it

#### In version 2 follow the following steps:

- 1. Open the 'Settings/Program configuration/software integration/connections' menu
- 2. In the UDP Outbound fields Enter port number 2249 Enter the 'Connection name' Log4OM V1 Select 'ADIF Message' from the Service type drop down menu.
- 3. Click on the Green + sign to add the connection to the list box below Ensure the service check box is checked! as in the image below.
- 4. Click 'Save and Apply'
- 5. Close and reopen both versions of Log4OM

| Configuration  | - ¤ x   |
|--|---|
| Save configuration<br>Edit proor fo<br>User Configuration<br>- Station<br>- Station<br>- Station<br>- Station<br>- Station<br>- Station<br>- Station<br>- Confirmat<br>- Database<br>- External Services<br>- External Services<br>- External Services<br>- External Services<br>- Software Configuration<br>- CAT Interface<br>- Catter<br>- Info Providers<br>- Backup<br>- Software Integration<br>- Connections<br>- Antenna rotator<br>- ADIF Monitor | UDP OUTEOUND         Port       Connection name         0       •         •       • |

Now QSO's logged in Log4OM Version 2 whether by manual entry in Log4OM Version 2 or automatically logged from an external program connected to Log4OM version 2 e.g. WSJT, JTAlert, FLDigi, N1MM etc will also be automatically logged to version 1, providing Version 1 is running.

## Antenna rotator & StepIR

Control of rotators via PSTrotator for Azimuth plus StepIR antenna setting as below

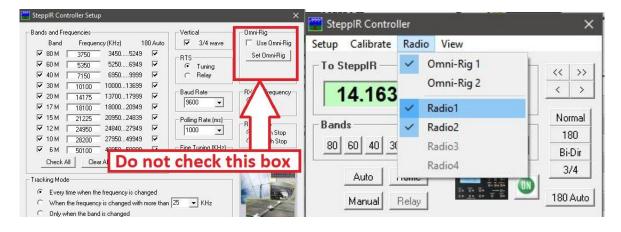
| Configuration   |  |
|---|--|
| H   |  |
| Save config Save and apply Exit                                     |  |
| Program Settings     Edit program config                            | Antenna Rotator  |
| F Program Scheduler   | O Disable rotor support To activate integration UDP port and destination IP must be indicated  |
| <ul> <li>User Configuration</li> <li>Station Information</li> </ul> | PSTRotator   |
| My References   | Connections  |
| Station configuration   | Send Azimuth   |
| C Confirmations<br>Database   | Send Elevation   |
| - External Services   | PSTRotator   |
| User preferences  | ✓ Send Callsign ✓ Send Frequency (SteppIR)   |
|   | SteppIR radio # 1 🖨  |
| <ul> <li>Info Providers</li> <li>Map Settings</li> </ul>            |  |
| Backup  |  |
| - VOACAP Propagation<br>- Auto Start                                |  |
| Hardware Configuration  |  |
| - Audio devices and voice keyer<br>CAT interface                    |  |
| Software integration  |  |
| Connections<br>   |  |
| - ADIF Functions  |  |
| Applications     FLDigi   |  |
| WSJT-x / JTDX   |  |
|   |  |
| 108572 EA2DNO/P 20M   | PHUNE 14285.0 La Soan EA2/8E-038 EA2DUA  |
|   |  |
| Configuration   |  |
| - Coningulation<br>   |  |
| Save config Save and apply Exit                                     |  |
| Program Settings  | Connections  |
| - Edit program config<br>Program Scheduler                          | UDP VDP Proxy Remote Control   |
| User Configuration  |  |
| Station Information     My References                               | UDP INBOUND UDP OUTBOUND   |
| Station configuration   | Port Connection name Service type Port Connection name Service type  |
| - Confirmations<br>Database   |  |
| External Services   | Default answer on msg received Broadcast Destination IP Address 127.0.0.1  |
| User preferences     Software Configuration                         |  |
| Cluster   |  |
| - Info Providers<br>Map Settings                                    | UDP Inbound connections UDP Outbound connections   |
| Backup  |  |
| - VOACAP Propagation<br>Auto Start                                  | [JUDP_INBOUND] [JT_MESSAGE] [2233] JTDX DX CALL     [JUDP_OUTBOUND] [ADIF MESSAGE] [2249] LOG4OM V1       [JUDP_INBOUND] [JT_MESSAGE] [2237] WSJT_DIRECT     [JUDP_OUTBOUND] [PSTROTATOR] [12040] PSTROTATOR |
| Hardware Configuration  | [UDP INBOUND] [ADIF MESSAGE] [2235] JTALERT WSJT   |
| - Audio devices and voice keyer                                     | [UDP_INBOUND] [JT_MESSAGE] [1240] JTALERT REBROADCAST Add a UDP Outbound connection  |
| CAT interface     Software integration                              | UDP_INBOUNDJ [N1MM_MESSAGE] [12060] N1MM   |
| Connections   | , to port 12040  |
| - Antenna rotator<br>ADIF Functions                                 | 0 items selected 0 items selected  |
| Applications  | WSJT-X default port: 2237 PSTRotator default port: 12040   |
| FLDigi<br>WSJT-x / JTDX   |  |
|   |  |
|   |  |

In PSTrotator ensure that Log4OM is selected in the 'Tracker' menu and that in the 'Setup' menu that the Ethernet port number is set to 12040 to match the UDP outgoing message port – click 'SAVE Settings'

|  | My Location  | ٤lp   | 🌃 Log4OM Setup          | ×                                     |
|--|--|---|-------------------------|---------------------------------------|
| 330 <sup>0</sup> 30<br>300<br>270 •                                    | Presets<br>Antenna Offset<br>Antenna Limits<br>3dB Bearnwidth<br>Refresh Rate >            | QRB Presets           QRB         1         7           QTH Locator         2         8           3         9 | Ethernet<br>Port number | Tracking by                           |
| 240<br>- 210 180 150   | Trackers Setup       Controllers Setup       Distance Unit       Label       Parking Setup | Vin-Test Setup J<br>N1MM Setup 2<br>Logger32 Setup 2<br>TACLog Setup LOG-X Setup L                            | 12040<br>By default     | C Callsign<br>Save                    |
| Normal           180           Bi-Dir           3/4           180 Auto | Shortcuts Setup<br>Google Maps Setup<br>Start / Close Ext Programs<br>Close by Ext Program | CommCat Setup<br>UR5EQF / LogHX Setup<br>DXLab Setup<br>Log4OM Setup  |                         | Settings<br>Press <esc> to Quit</esc> |

Open the StepIR controller from the PSTrotator 'Setup' menu and select setup – Ensure the 'Use Omnirig' check box is not checked.

Open the StepIR 'Radio' menu and check both 'Radio 1 and Radio 2, this will enable the StepIR controller to follow whichever radio is selected in Log4OM



## **UDP control of Amplifiers and Tuners**

Modern amplifiers and some tuners/matching units (ATU/AMU) can synchronise band and mode settings by UDP connection e.g. RF Kits amplifiers.

Provision for this is included in Log4OM in the settings/Program Configuration/Connections menu (Third tab marked 'Remote control')

- Select Enable data output through UDP'
- Enter the required port number
- Either select 'Broadcast' or 'Send to specific IP address' and enter the IP address of the hardware.
- If required check 'Send 5 second status messages'
- Click 'Save and apply'

## Auto Start of external programs

It is possible to select which other programs will be started when Log4OM is started from the Program Configuration/Auto start tab.

| Configuration                   |                                    |                |  |                       |               |
|---------------------------------|------------------------------------|----------------|--|-----------------------|---------------|
| M 🖌 Q                           |                                    |                |  |                       |               |
| Save config Save and apply Exit |                                    |                |  |                       |               |
| □- Program Settings             |                                    |                |  |                       |               |
| Edit program config             | Auto start                         |                |  |                       |               |
| Program Scheduler               | Auto Start                         | 1              |  |                       |               |
| User Configuration              | wsitx                              | Process        | wsjtx  | Win Process name      |               |
| Station Information             | wajex                              | Process        | wajez  | Will Process name     |               |
| My References                   |                                    | File Name      | C:\WSJT\wsjtx\bin\wsjtx.exe                              |                       | 6             |
| Station configuration           |                                    |                |  |                       |               |
| Confirmations                   |                                    |                | Enabled  | Parameters (optional) | rig-name=7300 |
| Database                        |                                    |                |  | 7                     |               |
| - External Services             |                                    | FLAGS          |  |                       | 8             |
| User preferences                |                                    |                | KILL   |                       | -             |
| Software Configuration          |                                    |                |  |                       |               |
| Cluster                         |                                    |                |  |                       |               |
| - Info Providers                |                                    |                |  |                       |               |
| Map Settings                    |                                    |                |  |                       |               |
| Backup                          |                                    |                |  |                       |               |
| ···· VOACAP Propagation         |                                    |                |  |                       |               |
| Auto Start                      |                                    | Plan           | OnProfileOpen 🗸  |                       |               |
| Chat                            |                                    |                |  |                       | <b>∧</b> 19 ≐ |
| - Hardware Configuration        |                                    |                |  |                       | O 💾 🖻         |
| - Audio devices and voice keyer | NOTE: Auto Start will work direc   | the with ann   | lication scheduler. Changes will be applied immediately. |                       |               |
| CAT interface                   | Cloning a profile will NOT clone h | his auto-start | list   |                       |               |
| Software integration            |                                    |                | 104  |                       |               |
| Connections                     |                                    |                |  |                       |               |
| - Antenna rotator               |                                    |                |  |                       |               |
| - ADIF Functions                |                                    |                |  |                       |               |
| Applications                    |                                    |                |  |                       |               |
| ····· FLDigi                    |                                    |                |  |                       |               |
| WSJT-x / JTDX                   |                                    |                |  |                       |               |
|                                 |                                    |                |  |                       |               |
|                                 |                                    |                |  |                       |               |

- Provide a process name
- Browse to the start exe for that program by clicking the folder icon to the right of the file name field
- Add any start up parameters required
- Click 'Enable'
- Click the floppy disk save icon followed by the + button to add it to the auto start list
- Click Save and exit

#### Parameters

Extra windows processes and parameters may be included e.g. Multiple instances of some software require parameters to identify which radio to start or possibly to be started minimised.

The field marked Parameters (Optional) is provided for this purpose, the required parameters will vary according to the software being started.

#### Flags

- Singleton ensures that only one instance of the target program is started.
- Kill closes a program that already is running

# Configuring Log4OM with Slice Master and Flexradio SmartSDR

By Dale Southard - AE6DS

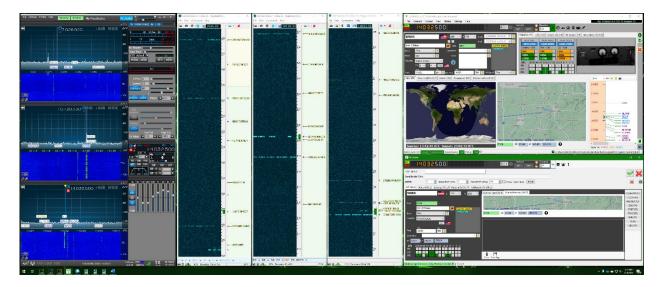
## Why use Slice Master

Log4OM can control most radios using Hamlib or Omnirig CAT commands. This includes the FlexRadio 6000 series radios which can be controlled in a traditional fashion using the virtual serial ports provided by the FlexRadio SmartCAT software without using any additional third-party programs.

Adding Slice Master provides some additional features that are not otherwise available in Log4OM:

- Simultaneous use of multiple slice receivers
- Simultaneous use of multiple CW Skimmer/FLDigi/WSJT-X instances on multiple bands
- Simultaneous control from SmartSDR, Log4OM, and CW Skimmer/FLDigi/WSJT-X
- Display of Log4OM cluster spots directly on SmartSDR Panadapters

While not for everyone, many operators may desire one or more of the above features. As an example, below is an image of a Flex 6600 running SmartSDR listening on 40m, 30m, and 20m bands with CW Skimmer monitoring all three bands and Log4OM feeding cluster spots into all three panadapter's and controlling the built in keyer on the TX band (currently 20m).



#### **Installing Slice Master 6000 for CAT**

Slice Master 6000 is written by Donald Beaudry (K1DBO) and is available on GitHub:

https://github.com/K1DBO/slice-master-6000

The application can be downloaded from

https://github.com/K1DBO/slice-master-6000/releases

and installed as any other Windows application.

## **Configuring Slice Master for TX Following**

Once installed the most important configuration setting for use with Log4OM is the CAT TX Listener. This feature provides a TCP CAT port that follows whichever slice is currently marked as the TX slice. This means than any CAT commands from Log4OM will affect the TX slice, and that changes to the TX slice will be noticed by Log4OM. By changing which slice is TX, operators can comfortably work with multiple (two, four, eight) independent receivers on multiple bands while still using the Log4OM interface for whichever receiver is transmitting in a QSO.

In Slice Master 6000 the TCP CAT TX Listener is configured in the ... tab. For this example, I have enabled the listener and set it's output to TCP Port 7820

| Slice Master 6000 [v0.10.7c] —           | × |
|--|---|
| Launch Sync Mix                          |   |
| HRD TCP TX Listener                      |   |
| Enable listener for TX slice             |   |
| TCP Port: 7810                           |   |
| TCP CAT TX Listener                      |   |
| ✓ Enable listener for TX slice           |   |
| TCP Port: 7820 🜩                         |   |
| Mixer                                    |   |
| Show inactive slices                     |   |
| Show AGC controls                        |   |
| Show master volume                       |   |
| Show headphone volume                    |   |
| Show Monitor/Sidetone Level              | • |
| FLEX-6600 - AE6DS - Larkspur - DALE-HODT |   |

## Configuring Log4OM to use Slice Master for CAT

In Log4OM the CAT system should then be configured to connect to that TCP port using Hamlib. This can be done by first setting the CAT Engine to Hamlib in **Settings->Program Configuration->CAT** and then opening **Connect->CAT- >Show CAT Interface** to configure Hamlib. The correct configuration is shown below including the necessary parameter string --model=2036 --rig-file=127.0.0.1:7820 -v

| 🤠 Hamlib conn   | ection                                  |                            |              |              |               |                |        |          | $\times$ |
|-----------------|---|----------------------------|--------------|--------------|---------------|----------------|--------|----------|----------|
| CAT Managemen   | t                                       |                            |              |              |               |                |        |          |          |
| RIG Model       | [2036, 6xxx Stable]                     | $\checkmark$               | TCP Connecti | on           |               |                |        |          |          |
| ⊖ Serial conne  | cted radio 💿 Network connected radio    | Hide Hamlib in the taskbar | Connect t    | o active HAN | 1LIB instance |                |        |          |          |
| Serial paramet  | ers TCP Radio parameters                |                            | Port         | 4532         | 🔶 (def        | ault 4532)     |        |          |          |
| ADDRESS         | 127.0.0.1                               |                            | PTT          |              |               |                |        |          |          |
| Port            | 7820                                    |                            | RIG Model    |              |               |                |        |          |          |
|                 |   |                            | [2036, 6xxx  | Stable]      |               |                |        |          | $\sim$   |
|                 | Polling delay (ms)                      | Debug ~                    | ○ no PTT     | ● CAT        |               | $\bigcirc$ rts | O Para | allel    |          |
| 1 PP            | Parameter Stringmodel=2036rig-file=127. | 0.0.1:7820                 |              |              |               |                |        |          |          |
| ****            | Open hamlib standalone                  |                            |              |              |               |                |        | <b>*</b> | ×        |
| CAT Status: CON | INECTED                                 |                            |              |              |               |                |        |          |          |

If desired, the startup of Slice Master 6000 can also be automated in the Log4OM via **Settings->Program Configuration->Auto Start.** Not that due to a long start time, even though Slice Master can be auto started you will still have to connect to it explicitly by selecting **Connect->CAT->Start CAT** each time Log4OM is started.

Once configured, all CAT commands between Log4OM and SmartSDR are brokered by Slice Master. There is no need to configure Omnirig, and in fact I set Omnirig's radio to none (to prevent conflicts) and no need to run applications as Administrator. Slice Master also handles CW Skimmer directly so IQ and CAT information from skimmer instances works in both directions. That means clicking a spot in a CW Skimmer instance marks tunes the appropriate slice receiver and marks it as TX so that the CAT info is fed to Log4OM.

## Configuring Log4OM to use Flex SmartCAT keyer

To use the built-in Flexradio keyer, configure it for a virtual port in SmartCAT, then configure Log4OM to use the same port. The Flexradio keyer automatically targets whichever slice is marked TX and Log4OM is now targeting that same slice for CAT via Slice Master

## **Configuring CAT for Digi Programs**

For Digi programs like FLDigi and WSJT-X, CAT can be configured to go through SmartCAT via the virtual serial ports or TCP ports that SmartCAT provides. SmartCAT can associate both a TCP port and virtual serial port to each slice. This has the added advantage that digital programs don't need to set TX focus, so you can run a digital program on one or more slices while Log4OM manages the TX slice flagged in SmartSDR.

Alternately, digital programs started through Slice Master will be automatically configured to use Slice Master as the broker for CAT. No configuration is necessary and running SmartCAT is not required.

In either case, the LOG4OM FLDigi service (Settings->Configuration->Applications->FLDigi) is not required. FLDigi can be logged via ADIF functions in Log4OM by following the files in \temp\log.adif for each instance, allowing simultaneous use of multiple FLDigi programs on different slices.

## **Displaying Log4OM Spots in Flex Panadapter's**

Slice Master 6000 both aggregates spots from CW Skimmer and can display spotting info directly in the Panadapter's. To enable this Slice Master should be configured to use Log4OM as a source of spots by adding <u>telnet://localhost</u> as a spot source in the band map section of the ... tab. For completeness, we can also export the skimmer spots from Slice Master by enabling the Telnet Aggregation Server in the ... tab and then configuring Log4OM to use the same port as a server on localhost. Both these settings are show below.

And because we have already configured CAT to work through Slice Master, clicking a spot in SmartSDR, Skimmer, or Log4OM will tune as expected. [Note that Log4OM CAT commands to are sent to the TX slice, so that may result in a band change rather than moving the TX flag. Alternately, operators can switch a different slice to TX in SmartSDR.]

| Slice Master 6000 [v0.10.7c]                  | — |   |
|---|---|---|
| aunch Sync Mix                                |   |   |
| Bandmap                                       |   | 1 |
| Persistence 10 mins                           |   |   |
| Enable overlays                               |   |   |
| ✓ Show internal spots                         |   |   |
| On spot selection:                            |   |   |
| Send call to N1MM Logger +                    |   |   |
| Spot Sources:                                 |   |   |
| telnet://ve7cc.net                            |   |   |
| dxlab://localhost/spots                       |   |   |
| hrdlog://localhost                            |   |   |
| ✓ telnet://localhost                          |   |   |
| Telnet  |   |   |
| <ul> <li>Enable aggregation server</li> </ul> |   |   |
| Telnet port: 7300                             |   |   |
|   |   |   |

## Do Not Use Slice Master and OmniRig Simultaneously

Though Slice Master offers several advantages, some operators may prefer not to use it. As is documented elsewhere, Log4OM can be configured to use OmniRig as for rig control. OmniRig can interface to the FlexRadio SmartCAT software via serial ports – one port for each slice receiver. OmniRig will treat the serial ports as separate radio's and will be limited to controlling two slices.

Because OmniRig is started automatically by some programs, it is important not to have both OmniRig and Slice Master configured at the same time. If you elect to use Slice Master, you should change the OmniRig settings to point at unused Serial ports or radios set to None to prevent unwanted CAT commands being sent to the radio. If you are manually configuring programs to for CAT while running Slice Master, you should use either Hamlib or Rigcat within those applications, not Omnirig.

# **MRP40 CW Program integration**

Although direct integration for CAT and lookup facilities are not available in MRP40 it is possible for Log4OM to harvest QSO's from the MRP40 logbook ADIF file using the Log4OM ADIF monitor facility.

- 1. In Log4OM navigate to the settings/program configuration/ADIF Functions tab
- 2. Select ADIF Monitor and check the box 'Enable ADIF monitor
- Navigate to the MRP40 MiniLogbook.ADIF file at C:\Program Files (x86)\HamRadioSoftware\MRP40 Morse Decoder V66\LogFiles\Contact\_Log
- 4. Click the GREEN add (+) button
- 5. Ensure the check box is clicked in the lower window
- 6. Click 'Save and apply'

| Configuration                            |   |
|--|---|
| Р 🛩 O                                    |   |
| Save config Save and apply Exit          |   |
| □· Program Settings                      |   |
| Edit program config                      | ADIF Functions  |
| Program Scheduler                        | ADIF Monitor ADIF Output ADIF POST  |
| User Configuration                       |   |
| Station Information                      | Enable ADIF monitor   |
| - My References                          | - 0   |
| Station configuration                    | Log4OM will automatically scan enabled ADIF files searching for new QSO to be imported. 🛛 Read from WEB URL 🚱     |
| Confirmations                            |   |
| Database                                 | ADIF file 🔁 🛨   |
| - External Services                      | 🗌 Upload QSO to external services 📄 Delete ADIF file after load 📄 Import only QSO containing station callsign     |
| User preferences                         |   |
| Software Configuration     Cluster       |   |
| - Info Providers                         |   |
| Map Settings                             |   |
| Backup                                   | Check file to enable  |
|  | ADIF files  |
| - Auto Start                             |   |
| Chat                                     |   |
| Hardware Configuration                   | 🖂 [ENABLED] C:\Program Files (x86)\HamRadioSoftware\MRP40 Morse Decoder V66\LogFiles\Contact_Log\MiniLogBook.ADIf |
| - Audio devices and voice keyer          |   |
| CAT interface                            |   |
| <ul> <li>Software integration</li> </ul> |   |
| Connections<br>Antenna rotator           |   |
| - ADIF Functions                         |   |
| - Applications                           | < >>  |
| - FLDigi                                 | 0 items selected  |
| WSJT-x / JTDX                            | Reset currently selected file position  |
|  | Reduct carrental delected inc position  |
|  |   |

When a QSO is saved in MRP40 Log4OM will harvest the data and save it in the Log4OM logbook.

# VarAC integration with Log4OM



VarAC is provided by Irad Deutsch 4Z1AC as both a free trial version and a full featured version for purchase. It provides users with an interface to the free Vara weak signal modems enabling keyboard communications similar to RTTY and PSK but with weak signal efficiency close to that of WSJT.

Irad has cooperated with Log4OM to provide full QSO logging and station lookup with worked before and confirmation status.

As a contact is made the callsign, frequency and mode are transferred to the Log4OM input UI for checking worked before status, confirmation level and online lookup data. When VarAC logs the QSO the QSO is automatically transferred to the Log4OM logbook database and displayed in the recent QSO list and the input window is cleared.

### Vara & VarAC Sources

Vara Modems (HF, FM and SAT) are available here EA5HVK | Weak signals Software (wordpress.com)

VarAC is available here Home | VarAC (varac-hamradio.com)

## **Setup instructions**

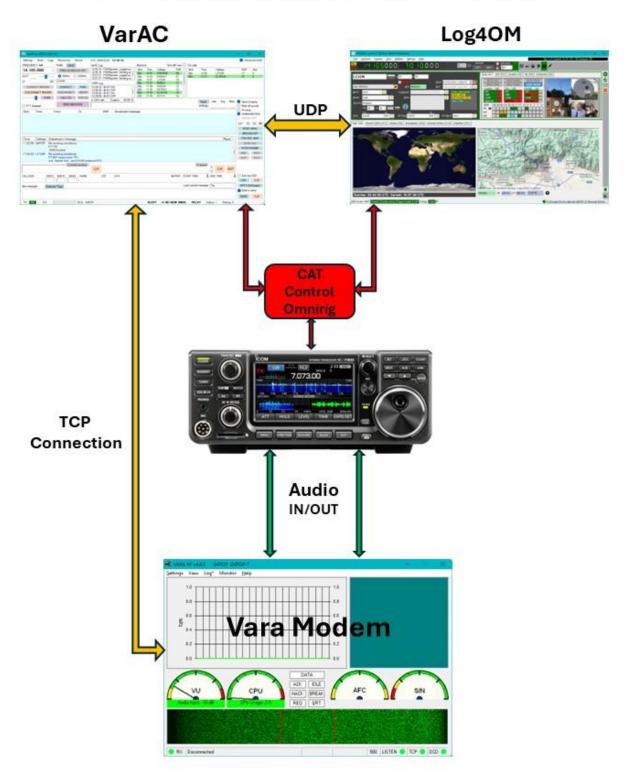
If the user is already set up for WSJT or other data modes then adding VarAC is simple if using Omnirig.

- 1. In the Log4OM Settings/Program Config/connections/UDP tab, set up an Inbound connection for VarAC to port 1200 service type 'ADIF-Message'.
- 2. In the Log4OM Settings/Program Config/connections/remote control tab check the box 'Enable remote control' and ensure the remote-control port is set to 2241
- 3. Click Save and apply.
- 4. In the VarAC/settings/rig control and Vara configuration/rig tab select 'Omnirig' for PTT Config, Frequency control and 'Rig# 1'
- 5. In the VarAC/settings/rig control and Vara configuration/Logging tab, select 'Send log to Log4OM(UDP)'
- 6. In the VarAC/settings/rig control and Vara configuration/Logging tab, check the box 'Automatic callsign lookup' and ensure the port number is set to '2241'
- 7. Click 'Save and Exit'

The connection between VarAC and Log4OM is now completed for instructions for using VarAC and Vara HF please see the Vara user guides.

A graphic of the connection setup is shown below:

# **Schematic of VarAC connections**



# JT programs integration

## Introduction

JT (Joe Taylor) based applications use a special UDP message protocol to share information with listeners. One of those messages is the currently decoded calls, another is the logged contact when you save a QSO in the JT program.

There are many other messages containing various information (Data) being shared by the various different software applications.

Once set up to read (Receive) messages via UDP, Log4OM searches for the 'QSO' message to be logged.

#### **IMPORTANT NOTE:**

When an application is sending a UDP message (not a broadcast/multicast message) as JTDX or WSJT-X, that message is 'Captured' by the first application that reads the UDP data from the exposed network, no other application will now see that message, its gone!

Once the message has been captured by the first application it is no longer available for other software to read, similar to putting a ten dollars bill on floor in a supermarket. The first person notices and collects the US\$10 leaving nothing for any other shopper in the supermarket to find!

Log4OM, Gridtracker, JTAlert and other applications that listen for a UDP message from JTAlert are competing to receive the message first. That means that sometimes JTAlert can get the message first, sometime GT, sometime Log4OM. This is not good behaviour because if Log4om 'Captures' a message that is of interest to JTAlert, then JTAlert will not receive the info. In the same way, if GRIDTRACKER 'Captures' a QSO message, Log4Om will receive the message and cannot log it.

That's why, when configuring multiple JT applications, ONLY ONE APPLICATION SHOULD BE CONFIGURED TO USE JT UDP MESSAGES, and this application should take care of REBROADCASTING the relevant information to other applications that are waiting for the information.

Configuration 1: Log4OM integrated with one JT application (WSJT/MSHV/JTDX) CASE 1: JT MESSAGE VIA UDP LOG4 JT APPLICATION Inbound connection x UDP INBOUND Connection name 1T Service type JT\_MESSAGE Port 2237 + Settings General Badio Audio Seque nong Tx Macros Reporting Frequencies Notifications Filters Schedi + Default answer on msg received gged QSO ADIF data ording to ALL.TXT In this scenario Log4OM is UDP Int und parameters ✓ Prompt me to log QSC TCP server: 127.0.0.1 ✓ decoded message Enable automatic loggin V = 6 oded and debu 52001 the only UDP receiver, Congert mode to RTD SAVE\_NEW\_QSO nable sending to TCP serve dB reports to co Log4OM receives the QSO 1009 server 127.0.0.1 Clear DX call and grid Clear DX call and grid directly using the JT UDP UPLOAD OSO UPDATE\_CQ\_ITUZONE **PROTOCOL** that contains ork Services UPD Enable eng Enable PSK Reporter Spotti logged QSO data. H 4 items selected Password: Preset config Users should configure a OTH Noknam mary UDP Serve direct WSJT/MSHV/JTDX ADIF fro m GT / JTAler UDP Server: 127.0.0.1 UDP connection as otify on accepted UDP reques JDP Server por shown, Log4OM will then ✓ Enable sending logged QSO ADIF data
 ✓ Prevent spotting messages with the unit receive the QSO's Apply text filters to trans n of the UDP m D Çancel QK

#### Configuration 1: Log4OM integrated with one JT application (WSJT/MSHV/JTDX)

| CASE 1: ADIF MESSAGE  |   |   |
|---|---|---|
| JT APPLICATION  |   | Indexend connection UDP INNOUNC) Connection and PLOMENG JT ADJF PP 2224 Point answer on mag received Default answer on mag received   |
| ◆ Settings ? ×  |   | UDP Inbound parameters  |
| General     Budia     Audio     Sequencing     The Samolia     Pressurices     Retording to ALL Tit       Varianti de la log (200     Sendi logord (200.000° data     Recording to ALL Tit     Venced messages       Varianti de la logord (200.000° data     Sendi logord (200.000° data     Recording to ALL Tit       Varianti de logord (200.000° data     Sendi logord (200.000° data     Recording to ALL Tit       Congert model hardwards logory of (200.000° data     Becording to ALL Tit     Recording to ALL Tit       Congert model hardwards logory of (200.000° data     Becording to ALL Tit     Recording to ALL Tit       De ports to comments     Datable sending to Bosonidary LOP anner     Recording to ALL Tit       Chard or call and right of next     Version Security     Emable Edition and the security of Benaries       Datable sending to security LOP anner     Emable Editionent Society     Emable Editionent Society       Upmanie:     Datable sending to security COP anner     Emable Editionent Society       Upmanie:     Benable Editionent Society     Emable Editionent Society | Although not<br>reccommended in this<br>configuration, the user<br>may want to use a specific<br>ADIF message to log<br>QSO's into Log4OM.<br>In that case configure an | USST/2TDX UDP     WSST/2TDX UDP     WSST/2TDX UDP     WSST/2TDX UDP     Mathematical Sector Sector Parts     Source Port As     Source Port As     Source |
| QPH Reformer:<br>Premary LOP Server<br>LOP Server: 127.0.0.1  | ADIF_INBOUND message<br>into Log4OM listening on<br>port 2333<br>The Log4OM default port<br>should also be updated to<br>2333 instead of 2234                           | PLEASE NOTE:<br>DO NOT ALSO CREATE A JT CONNECTION. If you create<br>also a JT CONNECTION<br>The QSO will be received twice by Log4OM, potentially<br>causing overhead (The QSO will not be logged due to<br>duplicate keys check, but there wil be a lot of errors in<br>the program log)  |

#### Configuration 2: Log4OM with JT software and another application (GRIDTRACKER or JTALERT)

In this situation, only one application should get the JT message, use the information and then relay the relevant data to other applications.

The simplest way is to have JTAlert or GridTracker, to receive JT UDP messages. JTAlert should then foward/relay the QSO data to Log4OM via ADIF MESSAGE

| JT APPLICATION  | P MESSAGE   | JT ALERT                                  | ADIF MESSAGE                         | 0G <b>40M2</b> |
|---|---|---|--------------------------------------|----------------|
|   | (f) Tables 2.665 (sensing)     (1) Copying Scalater 2.169(CH102)     (2) Copying Scalater 2.169(CH102)  | 2 Logging<br>Call to LogfOM<br>IP Address | Default answer on mag received       | LERTYOT ADDE   |
| Types of<br>types o | Would of all the second s |   | Preset config<br>3TDX/WSJT AD# WSJT/ | Inter selected |

#### More options:

Once familiar with how UDP messages work it is possible to set up different configurations.

Example:

Enable a secondary UDP ADIF broadcast on JTDX, then put Log4OM reading the message using an ADIF INBOUND CONNECTION on port 2333 while you have JTAlert reading the JT PROTOCOL messages on port 2237

| Enable cending to TCP cerver      | Primary UDP Server      |           |                                      |
|-----------------------------------|-------------------------|-----------|--------------------------------------|
| 2nd UDP server 127.0.0.1          | UDP Server:             | 127.0.0.1 | Accept UDP requests                  |
| ✓ Enable sending to secondary UDP | UDP Server port number: | 2237      | Notify on accepted UDP request       |
|                                   |                         |           | Accepted UDP request restores window |

In this case, JTAlert should NOT send ADIF messages to Log4OM, because Log4OM will receive them twice (one from JTDX application and one from JTAlert ADIF message).

If Log4OM is configured to listen on port 2333 for ADIF messages from JTDX and JTAlert is sending ADIF messages to port 2341 then no program will received or act on the data sent.

| 127.0.0 | 0.1      | IP Address |      |              |
|---------|----------|------------|------|--------------|
| 2235    | ADIF_MES | SAGE Port  | 1241 | Control Port |

# BUT...

Other options can be explored, that may be extremely powerful but also create problems...

Both Log4OM and JTAlert are capable of 'listen and discard' a UDP message on port X and 'retransmit' the message to another listener (but only one, or the user will create another competition for the data on secondary broadcast) on a DIFFERENT PORT, Log4Om does this with the 'proxy connection' type.

Basically, it reads the UDP message on port X, uses it and resend the message to port Y, where another application is waiting the «JTDX/WSJT message».

This way, it is possible to create chains between applications, where every application is receiving a JT MESSAGE, uses it and then forward the message on another port to another listener.

| So, if you configure:              | Primary UDP Server      |           |                  |  |  |
|------------------------------------|-------------------------|-----------|------------------|--|--|
| ITDV to cond massages on part 2227 | UDP Server:             | 127.0.0.1 | Accept UDP requ  |  |  |
| JTDX to send messages on port 2237 | UDP Server port number: | 2237      | Notify on accept |  |  |

Log4OM to read messages from port 2237, and rebroadcast using proxy feature

To port 2238, JT Alert can be configured to «listen» JTDX on port 2238 instead, and

have a chain of applications working 'one to one' with JTDX

as if they were the only ones. Obviously configuring a JT rebroadcast on

JTALert to another port you can "connect" GRIDTRACKER or another application.

| Inbound proxy  | connection             |         |      |   |
|----------------|------------------------|---------|------|---|
| UDP INBOUND    | PROXY                  |         |      |   |
| Connection nar | me JTDX                |         |      |   |
| Source addres  | is                     |         |      |   |
| IP Address     | Leave blank for any    | Port    | 2237 | ٢ |
| Destination ad | Idress                 |         |      |   |
| IP Address     | 127.0.0.1              | Port    | 2238 |   |
| Internal relay | to UDP inbound service |         |      |   |
| Service name   | JT_MESSAGE             |         | ~ 6  | M |
|                | UDP proxy par          | ameters | 2    |   |
|                |                        |         |      |   |
| SAVE_NEW       |                        |         |      |   |
| USE_EXTER      | INAL_DATA              |         |      |   |
|                | Q_ITUZONE              |         |      |   |
|                |                        |         |      |   |
|                | 4 items sek            | ornad   |      |   |

When using WSJT and associated variants in all cases CAT control is via OMNIRIG, the appropriate radio (Rig1 or Rig2) must be selected in the WSJT software and the Log4OM program – DO NOT SELECT THE RADIO BY NAME

1. Users MUST use Omnirig and select the correct rig profile

2. Log4OM, Omnirig and WSJT must all be 'RUN AS AN ADMINISTRATOR'

3. In Log4OM/settings/Program configuration/CAT Interface select 'Invert SSB side (Digital)

4. In Log4OM/settings/Program configuration/CAT Interface select 'Switch to digital mode when required' -Also SELECT FT8 from the drop-down menu. 5. In WSJT File/Settings/Radio select the correct **Omnirig Rig (NOT the radio)**, select CAT as PTT method, DATA/PKT as Mode and FAKE IT as 'Split operation'

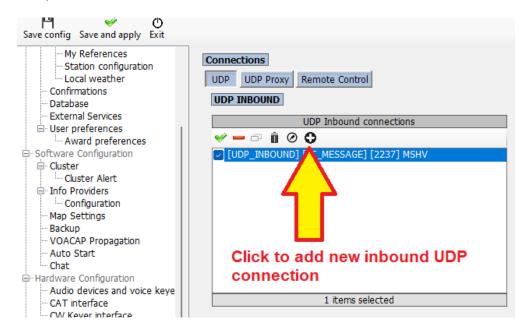
6. Ensure that all Log4OM and WSJT UDP settings MATCH and are not already in use by other software.

## JT8CALL with Log4OM

The only interaction possible between the two programs is by using the Log4OM ADIF Monitor facility to interrogate the JS8CALL ADIF file, see section about ADIF Monitor in this user guide. No other integration is possible with JS8CALL

## Connecting direct to WSJT-X, WSJT-Z & MSHV

In Log4OM settings/program configuration/software integration/Connections UDP inbound click on the 'Plus' (+) Add new item icon to open the add connection menu.



PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

#### UDP Inbound set up

Either use one of the three preconfigured buttons at the bottom of the dialog, dependent on the connection type required or manually configure the connection.

| Inbound connection                                  | x        |
|---|----------|
| UDP INBOUND   |          |
| Connection name MSHV                                |          |
| Port 2237 Service type JT_MESSAGE ~                 |          |
| Default answer on msg received                      |          |
| UDP Inbound parameters                              |          |
| 💞 🗕 🗗   |          |
| SAVE_NEW_QSO  |          |
| ✓ UPLOAD_QSO  |          |
| UPDATE_CQ_ITUZONE                                   |          |
|   |          |
| 4 items selected                                    | <b>H</b> |
| Preset config                                       |          |
| JTDX/WSJT ADIF WSJT/JTDX UDP ADIF from GT / JTAlert |          |

#### PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

- Complete the connection name field, in this case MSHV
- Enter port number that matches that selected in WSJT-X/WSKT-Z/MSHV program in the port field
- Select 'Service type' JT\_MESSAGE
- Check the required parameter to be used during saving the QSO
- Click the floppy disk icon to add the connection to the list as in the image below
- Click 'Save and Apply'

| Main       Main       O         Save config       Save and apply       Exit         Main       Save configuration       Satisfies         Station configuration       Configuration       UDP         Database       Duer preferences       Duer preferences         Main       Configuration       Dif         ODP INBOUND       DDP Inbound connections       Port         Connections       DDP INBOUND       DDP Inbound connections         Main       Configuration       Import         Configuration       Import       Connections         Main       Statuse       DDP Inbound connections         Main       Configuration       Import         Main       Statuse       Import         Main  | ,<br>Configuration              |  |   |
|--|---------------------------------|--|---|
| Wy References         - Staton configuration         - Confirmations         - Database         - External Services         - User preferences         - Award preferences         - Construction         - Outster Alert         - Info Providers         - Configuration         - Outster Alert         - Info Providers         - Configuration         - Auto Statt         - Ando devices and voice keye         - Cont interface         - CW Keyer interface         - Software Integration         - Audo devices and voice keye         - Software Integration         - Audo Statt         - Audo Statt         - Drokerstons         - Drokerstons         - Configuration         - Audo devices and voice keye         - Contification         - Audo Statt         - Contification         - Audo devices and voice keye         - Software Integration         - Applications         - Applications         - Applications         - Applications         - Functions         - Applications         - Functions  |                                 |  |   |
| - Station configuration       - Local weather         - Local weather       - Configuration         - Database       - Database         - Buternal Services       - UDP TINBOUND         - Award preferences       - Award preferences         - Award preferences       - Ouster         - Configuration       - Ouster Alert         - Configuration       - Ouster Alert         - Configuration       - Ousters         - Configuration       - Ouster Alert         - Configuration       - Ouster Station IP Address         - Configuration       - Ouster Alert         - Configuration       - Ouster Alert         - Award preferences       - Ouster Alert         - Configuration       - Ouster Alert         - Configuration       - Ouster Alert         - Configuration       - Ouster Alert         - Award preferences       - Ouster Alert         - Configuration       - Ouster         - Adue on devices and voice keve       - I items selected         - CAT interface       - Other outper out  | Save config Save and apply Exit |  |   |
| Image: Configuration       Map Settings         Backup       VOACAP Propagation         - Auto Start       - Chat         Image: Chart Chart       - Chat         Image: Chart Chart Chart       - Chat         Image: Chart   |                                 | UDP UDP Proxy Remote Control UDP INBOUND UDP Inbound connections | Port     Connection name     Service type       0     •     •       Broadcast     Destination IP Address     127.0.0.1       UDP Outbound connections |
| Auto Start<br>- Chat<br>- Auto Start<br>- Chat<br>- Audio devices and voice keye<br>- CAT interface<br>- CWK Keyer interface<br>- CWK Keyer interface<br>- CWK Keyer interface<br>- Software integration<br>- ADIF Functions<br>- ADIF F |                                 |  |   |
| - Backup     - VOACAP Propagation     - Auto Start     - Chat     - Hardware Configuration     - Auto devices and voice keye     - CAT interface     - CWK keyer interface     - CWK keyer interface     - Software integration     - Anterna rotator     - ADIF Functions     - Applications     - Fulpig   |                                 |  |   |
| <ul> <li>VOACAP Propagation</li> <li>Auto Start</li> <li>Chat</li> <li>Hardware Configuration</li> <li>Audio devices and voice keye</li> <li>CAT interface</li> <li>Software integration</li> <li>Connections</li> <li>Antenna rotator</li> <li>ADIF Functions</li> <li>Applications</li> <li>FLDigi</li> </ul>  |                                 |  |   |
| Auto Start<br>- Chat<br>- Hardware Configuration<br>- Audio devices and voice keye<br>- CAT interface<br>- CWK Keyer interface<br>- CWK Keyer interface<br>- Software integration<br>- ADIF Functions<br>- ADIF functions  |                                 |  |   |
| Chat<br>Chat<br>Audio devices and voice keye<br>CAT interface<br>CAT interface<br>CAT interface<br>Software integration<br>Antenna rotator<br>ADIF Functions<br>Applications<br>LEDigi   |                                 |  |   |
| Audio devices and voice keye     CAT interface     CAT interface     Connections     ADIF Functions     Applications     LDigi   |                                 |  |   |
| CAT interface CW Keyer interface CW Keyer interface COM Keyer interface Software integration Antenna rotator ADIF Functions ADIF Functions ADIF functions FLDigi   | Hardware Configuration          |  |   |
| Connections<br>ADJF Functions<br>ADJF Functions<br>ADJF Functions<br>ADJF Functions<br>ADJF Functions<br>ADJF Functions<br>ADJF Functions<br>ADJF Functions<br>ADJF Functions<br>ADJF Functions  | - Audio devices and voice keye  |  |   |
| Software Integration     Connections     ADIF Functions     ADIF Functions     Applications     Fubgin   |                                 | 1 items selected   |   |
| Connections Antenna rotator ADIF Functions Chapter Connections Ch  |                                 |  | PSTRotator default port: 12040  |
| — ADIF Functions   | Connections                     |  |   |
| Applications     FLDigi  |                                 |  |   |
| LeftDigi   |                                 |  |   |
|  |                                 |  |   |
|  |                                 |  |   |
|  |                                 |  |   |
|  |                                 |  |   |

PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

Complete the remote-control menu as shown below:

| Configuration                   |  |
|---------------------------------|--|
| Save config Save and apply Exit |  |
|                                 | Connections         UDP       UDP Proxy         Remote Control         Remote control port         2241         •         e Enable remote control         © Enable data output through UDP         Remote control output port         2242         •         Broadcast         •         Send to specific IP address/port         127.0.0.1         Send 5 seconds status messages |

PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

**NOTE:** Do not use other QSO insert functions from JTAlert or by using a UDP ADIF\_INBOUND function or any ADIF File Monitor otherwise it will cause duplicate QSO's to be logged.

In the WSJT File/Settings/Reporting tab complete the settings outlined in red in the image below, ENSURING THE PORT NUMBERS MATCH THOSE SELECTED IN LOG4OM

| Settings                   |             |           |                                       |             | ?          | × |
|----------------------------|-------------|-----------|---------------------------------------|-------------|------------|---|
| General Radio Audio        | Tx Macros   | Reporting | Frequencies                           | Colors      | Advanced   |   |
| Leging                     |             |           |                                       |             |            |   |
| Prompt me to log QSO       |             |           | Op Call:                              |             |            |   |
| Log automatically (conte   | sting only) |           |                                       |             |            |   |
| Convert mode to RTTY       |             |           |                                       |             |            |   |
| dB reports to comments     |             |           |                                       |             |            |   |
| Clear DX call and grid aft | er logging  |           |                                       |             |            |   |
| Network Services           | 27.0.0.1    |           | Accept UDP reque                      |             |            |   |
| UDP Server port number:    | 237         |           | Notify on accepte<br>Accepted UDP rea |             |            |   |
|                            |             |           | Accepted ODP ret                      | quest resto | res window |   |
| Secondary UDP Server (dep  |             |           |                                       |             |            |   |
| Server name or IP address: | 127.0.0.1   |           |                                       |             |            |   |
| Server port number:        | 2333        |           |                                       |             | <b>*</b>   |   |
|                            |             |           |                                       |             |            |   |
|                            |             |           |                                       |             |            |   |
|                            |             |           |                                       | ОК          | Cance      |   |

PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

Or in the MSHV Options/Macros/Network connections menu select the choices shown below, ENSURING THE PORT NUMBERS MATCH THOSE SELECTED IN Log4OM connections

| 🚯 мзну 🛛 🕹   |
|--|
| Macros Network Configuration Radio And Frequencies Configuration       |
| PSK Reporter Settings:   |
| Enable PSK Reporter Spotting Use TCP/UDP Protocol                      |
| Status: Connected to report.pskreporter.info:4739 Via UDP              |
| Server: report.pskreporter.info Port: 4739 Reconnect                   |
| DX-Spot Settings:  |
| Status: Connected to db0sue.de and logged in as G4POP                  |
| Server: db0sue.de Port: 8000 Press To Disconnect                       |
| Telnet Clusters: 4z5lz-2,cqplanet.com:7300                             |
| UDP Broadcast Settings:  |
| 🕱 Enable Logged QSO 🔹 Enable Logged QSO ADIF 🕱 Enable Decoded Text     |
| Status: Connected to DESKTOP-UEL1L2U IP 127.0.0.1                      |
| Server:         127.0.0.1         Port:         2237         Reconnect |
| Simplified UDP Broadcast: Enable Logged QSO ADIF                       |
| Server: 127.0.0.1 Port: 2233   |
| CTCP Broadcast Settings: - DXKeeper Formatted Message -                |
| Server: 127.0.0.1 Port: 52001 Enable Logged QSO                        |
| Club Log Real-Time Upload Logged QSO:                                  |
| Server: clublog.org Port: 443 Post: realtime.php putlogs.php           |
| E-Mail: Callsign: G4POP Enable   |
| QRZ Logbook Real-Time Upload Logged QSO:                               |
| Server: logbook.qrz.com Port: 443 Post: api                            |
| API Key: Enable  |
|  |

PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

• Click OK then close both programs and restart

## Connecting to JTDX/WSJT via ADIF

In Log4OM settings/program configuration/software integration/Connections UDP inbound

- Enter a port number in the port field that matches the port selected in JTDX/WSJT
- Complete the connection name field, in this case Incoming JT ADIF
- Select 'Service type' ADIF\_MESSAGE
- Select the required parameters.
- Click the floppy disk icon to add the connection to the list.
- Click 'Save and Apply'

| Inbound connection                                  |          |
|---|----------|
| UDP INBOUND   |          |
| Connection name INCOMING JT ADIF                    |          |
| Port 2234 Service type ADIF_MESSAGE                 | ~        |
| Default answer on msg received                      |          |
| UDP Inbound parameters                              |          |
| 👻 🗕 🗗   |          |
| USE_EXTERNAL_DATA                                   |          |
| UPLOAD_QSO  |          |
| VIPDATE CO ITUZONE                                  |          |
|   |          |
|   |          |
| 3 items selected                                    | <u> </u> |
| Preset config                                       |          |
| JTDX/WSJT ADIF WSJT/JTDX UDP ADIF from GT / JTAlert |          |

#### PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

In JTDX File/Settings/Reporting tab complete the settings outlined in red in the image below, click OK then close both programs and restart – Ensure the port numbers match that selected in Log4OM UDP Inbound connections

| eneral <u>R</u> adio  | Audio             | Sequencing | Tx Macros        | Reporting    | Frequencies       | Notifications    | Filters   | Scheduler      | Advanced                                 |  |
|---|-------------------|------------|------------------|--------------|-------------------|------------------|-----------|----------------|--|--|
| igging  |                   |            | Send             | logged QSO   | ADIF data         |                  |           | Recording to A | LL.TXT                                   |  |
| ✓ Prompt me to log Q  | QSO               |            | TOP              | server: 127  | .0.0.1            |                  |           | ✓ decoded      | messages                                 |  |
| Enable automatic lo   | ogging of         | QSO        | TOP              | port: 520    | 001               | \$               |           | decoded a      | and debug messages                       |  |
| Convert mode to R   | TTY               |            |                  | Enable sendi | ng to TCP server  |                  |           |                |  |  |
| dB reports to com   | nents             |            | 2nd              | UDP server   | 127.0.0.1         |                  |           |                |  |  |
| <ul> <li>Clear <u>D</u>X call and g</li> </ul>  | rid after         | logging    | UDF              | port:        | 2333              | \$               |           |                |  |  |
| <ul> <li>Clear DX call and g</li> </ul>   | rid on ex         | it         | <b>v</b>         | Enable sendi | ng to secondary U |                  |           |                |  |  |
|   |                   |            |                  |              | ng to secondary o | JP server        |           |                |  |  |
|   | ing               |            |                  |              | ng to secondary o | JP server        |           |                | Enable <u>P</u> SK Rep     Enable DXSumm |  |
| etwork Services<br>Enable gQSL send<br>Ugername:<br>Pgssword:   | ing               |            |                  |              |                   | JP server        |           |                |  |  |
| Enable gQSL send<br>J <u>e</u> ername:<br>Password:   | ling              |            |                  |              |                   | ₩ server         |           |                |  |  |
| Enable gQSL send<br>Jgername:<br>Password:<br>QTH Nickname:   | ling              |            |                  |              |                   | ₩ server         |           |                |  |  |
| Enable gQSL send  | ing               | 0.0.1      |                  |              |                   | ccept UDP reques |           |                |  |  |
| Enable gQSL send<br>Jgername:<br>Pgssword:<br>2TH Nickname:<br>imary UDP Server   | 127.0             |            |                  |              |                   | ccept UDP reques | UDP reque |                |  |  |
| Enable gQSL send<br>Jgername:<br>Pgssword:<br>2TH Nickname:<br>imary UDP Server<br>IDP Server:<br>IDP Server port numbe | 127.<br>er: 223   | 7          |                  |              |                   | ccept UDP reques | UDP reque |                |  |  |
| Enable gQSL send<br>Jgername:<br>Password:<br>2TH Nickname:<br>Imary UDP Server<br>IDP Server:                          | 127.1<br>er: 2237 | ADIF data  | firmed callsings |              |                   | ccept UDP reques | UDP reque |                |  |  |

#### PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

In JTDX File/Settings/Radio tab select whichever Omnirig rig is being used for JTDX

Calls entered in JTDX will be sent to Log4OM for lookup and QSO's logged in JTDX will auto-log to Log4OM

## JTAlert or Gridtracker set-up

In the Log4OM settings/Program configuration/connections

- 1. Complete the following steps 1 to 3.
- 2. Set up the WSJT or JTDX decoder of choice.
- 3. Finally complete the five steps to set up JTAlert.

#### Log4OM

1.Create an inbound connection in Log4OM V2 with a UDP Port number that matches that selected in JTDX/WSJT and connection named 'Incoming JTAlert/GT ADIF' – Service type "ADIF\_MESSAGE"

| Inbound connection                                  | x    |
|---|------|
| UDP INBOUND   |      |
| Connection name INCOMING JTALERT/GT ADIF            | ]    |
| Port 2234 Service type ADIF_MESSAGE ~               |      |
| Default answer on msg received                      | ]    |
| UDP Inbound parameters                              | ]    |
| ✓ — ♂   |      |
| USE_EXTERNAL_DATA                                   | ]    |
| UPLOAD_QSO<br>UPDATE_GRIDSQUARE                     |      |
| UPDATE_CQ_ITUZONE                                   |      |
|   |      |
| 3 items selected                                    | P.   |
| 3 items selected                                    | 10.0 |
| Preset config                                       |      |
| JTDX/WSJT ADIF WSJT/JTDX UDP ADIF from GT / JTAlert |      |

2. Create a "JT\_MESSAGE" inbound connection in Log4OM V2 called JTALERT REBROADCAST with a UDP Port number to match that set in JTAlert

| Configuration   |   |  |
|---|---|--|
| Save config Save and apply Exit   |   |  |
| Program Settings     Program Settings     Program Scheduler     Der Configuration     Der Scheduler     Der Schedul | Connections         UDP       UDP Proxy         Remote Control         UDP INSOUND         Port       Connection name         0       •         •       • | UDP OUTEOUND<br>Port Connection name Service type<br>0  Broadcast Destination IP Address 127.0.0.1 |
| Info Providers  | UDP Inbound connections   | UDP Outbound connections   |
| Map Settings<br>Backup  | 💞 🛶 🗗 📋   | 🖌 🗕 🗇 🧴  |
| VOACAP Propagation     Auto Start     Hardware Configuration     Audio devices and voice keyer     CAT interface     Software integration     Connections   | [UDP_INBOUND] [ADIF_MESSAGE] [223] JTALERT QSO     [UDP_INBOUND] [JT_MESSAGE] [2240] JTALERT REBROADCAST     [UDP_INBOUND] [JT_MESSAGE] [2260] NIIMM     [UDP_INBOUND] [ADIF_MESSAGE] [1100] FLDIGI     [UDP_INBOUND] [JT_MESSAGE] [2333] WSJT DX CALL     <  | UDP_OUTBOUND] [ADIF_MESSAGE] [2249] LOG4OM V1  |
| Antenna rotator   | 0 items selected  | 0 items selected   |
| ADIF Functions<br>FLDigi  | WSJT-X default port: 2237   | PSTRotator default port: 12040   |
|   | Turkey 100 Notice   |  |

3. Follow instructions for the decoder being used as below.

### WSJT-X/WSJT-Z

In WSJT-X/WSJT-Z File/Settings/reporting check the boxes and set the ports as shown below.

| Settings                              |  | ?          | $\times$ |
|---------------------------------------|--|------------|----------|
| Genera <u>l R</u> adio A <u>u</u> dio | Tx Macros Reporting Frequencies Colours Advanced |            |          |
| Logging                               |  |            |          |
| Prompt me to log QSO                  | Op Call: G4POP                                   |            |          |
| Log automatically (cont               | esting only)                                     |            |          |
| Convert mode to RTTY                  |  |            |          |
| dB reports to comment                 | 5  |            |          |
| Clear DX call and grid a              | fter logging                                     |            |          |
| Network Services                      |  |            |          |
| C Enable PSK Reporter S               | Use TCP/IP connection                            |            |          |
| UDP Server                            |  |            |          |
| UDP Server:                           | 127.0.0.1  |            |          |
| UDP Server port number:               | 2237   |            |          |
| Outgoing interfaces:                  | loopback_0                                       | lest       |          |
| Multicast TTL:                        | 1 CACCepted UDP request resto                    | res window |          |
| Secondary UDP Server (de              | precated)  |            |          |
| Enable logged contact                 | ADIF broadcast                                   |            |          |
| Server name or IP address             | : 127.0.0.1                                      |            |          |
| Server port number:                   | 2241   | -          |          |
|                                       |  |            |          |
|                                       | ОК   | Cance      | -        |
|                                       |  | Canco      |          |

#### PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

#### JTDX

In JTDX File/Settings/Reporting tab complete the settings outlined in red in the image below, click OK

| Ugername:  | Prompt me to log QSO       TCP server: 127.0.0.1         ✓ Enable automatic logging of QSO       Convert mode to RTTY         Ge proorts to comments       Distance to comments         Distance to comments       Cear DX call and grid after logging         ✓ Clear DX call and grid after logging       ✓ Enable sending to TCP server         Enable sending to secondary UDP server       ✓ Enable 25K Reporter Spo         Enable gQSL sending       ✓ Enable 25K Reporter Spo         Ugername:       ✓         Imary UDP Server       127.0.0.1         UP Server       127.0.1         DP Server       127.0.0.1         DP Server       ✓         Imary UDP Server       127.0.0.1         DP Server       127.0.0.1         DP Server       127.0.0.1         DP Server port number:       2237         V Enable 25X Accept UDP request         DP Server port number:       2237         V Enable 260 ADIF data         V Prevent spotting messages with the unconfirmed callsigns via UDP  | eneral Radio Au  | dio Sequencing                          | Tx Macros                               | Reporting  | Frequencies          | Notifications   | Filters | Scheduler      | Advanced |  |
|--|--|--|---|---|--|----------------------|-----------------|---------|----------------|----------|--|
| Prompt me to log QSO       TCP server: 127.0.0.1         I chable automatic logging of QSO       Convert mode to RTTY         I chable automatic logging of QSO       Enable sending to TCP server         I charly charled to RTTY       Enable sending to TCP server         I charly charled to RTTY       Enable sending to TCP server         I charly charled to RTTY       Enable sending to TCP server         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charled to RTTY       I charled to RTY         I charled to RTY       I charled to RTY         I charled to RTY       I charled to RTY         I charled to RTY       I charled to RTY  | Prompt me to log QSO       TCP server: 127.0.0.1         I chable automatic logging of QSO       Convert mode to RTTY         I chable automatic logging of QSO       Enable sending to TCP server         I charly charled to RTTY       Enable sending to TCP server         I charly charled to RTTY       Enable sending to TCP server         I charly charled to RTTY       Enable sending to TCP server         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charly charled to RTTY       I charled to RTTY         I charled to RTTY       I charled to RTY         I charled to RTY       I charled to RTY         I charled to RTY       I charled to RTY         I charled to RTY       I charled to RTY  |  |   | Send la                                 | aged OSO AD  | IF data              |                 | Reco    | rding to ALL.T | σ        |  |
| Enable QQSL sending ✓ Enable DXSummit Spottin<br>Ugername:<br>Password:<br>QTH Nichname:<br>DP Server:<br>IDP Server: | Enable QQSL sending ✓ Enable DXSummit Spottin<br>Ugername:<br>Password:<br>QTH Nichname:<br>DP Server:<br>IDP Server: | Prompt me to log QSC<br>Enable automatic logg<br>Convert mode to RTT<br>dB reports to commer<br>Distance to comments<br>Clear DX call and grid | ing of QSO<br>Y<br>its<br>after logging | TCP se<br>TCP p<br>Er<br>2nd U<br>UDP p | erver: 127.0.0<br>ort: 52001<br>mable sending t<br>DP server 127<br>ort: 224 | 0.1<br>to TCP server | •               | •       | decoded messi  | ages     |  |
| Ugername:  | Ugername:  | etwork Services  |   | _                                       |  |                      |                 |         |                |          |  |
| UDP Server: 127.0.0.1  | UDP Server: 127.0.0.1  | Password:<br>QTH Nickname:   |   |   |  |                      |                 |         |                |          |  |
|  |  | UDP Server:<br>UDP Server port number:   | 2237                                    |   |  | Notify               | on accepted UDF |         | indow          |          |  |
|  |  |  | -                                       | -                                       | via UDP  |                      |                 |         |                |          |  |

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In JTDX File/Settings/Radio tab select whichever Omnirig rig is being used for JTDX NOTE: When using JTDX with JTAlert ADIF monitor in Log4OM MUST BE DISSABLED to avoid duplicate QSO's

### JTAlert setup

1.In JTAlert in settings/manage settings/Logging/Log4OM V2 in JTAlert, enable the "Send WSJT-X DX call to Log4OM" and "Enable Log4OM V2 Logging"

2.Set the Control port in JTAlert to match the port used in Log4OM V2 (Step 1.)

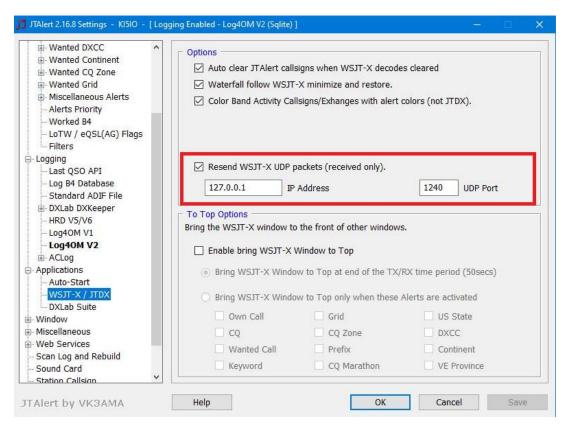
3.Set the ADIF\_MESSAGE port in JTAlert to match the port used in Log4OM V2 (Step 2.)

4. Select the path to the Log4OM SQLite database in the 'SQLite log' field or select Mysql if not using the standard SQLite database.

| Alerts     -Own Call     -Own Call     -Ox Cal     -Ox Cal | Image: Finable Log4OM V2 Logging         Image: Send WSJT-X DX Call to Log4OM         UDP Connections         127.0.0.1         IP Address         2235         ADIF_MESSAGE Port         Control Port         Log Type         Image: Image: Image Control Port         Use MySQL Server Database Log         SQLite Log         C:\Users\q4poparrl.net\Google Drive\\G4POP NG personal.SQLite |                  |                     |  |
|--|---|------------------|---------------------|--|
| Standard ADIF File     DXLab DXKeeper  | Log SQLite File   |                  | Test Select         |  |
|  | MySQL Log   |                  |                     |  |
| Log40M V2  | 127.0.0.1   | MySQL IP Address | 3306 MySQL Port     |  |
| ACLog     Applications   | log4omUser  | Username         | log4omUser Password |  |
| Window  Miscellaneous  Web Services  | log4om  | Database Name    | Test Connection     |  |

PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

5. In settings/manage settings/applications/WSJT-X/JTDX in JTAlert enable "Resend WSJT-X UDP Packets (received only)" and set the IP Address to 127.0.0.1 and UDP Port number to match that set in Log4OM V2 step 3



#### PORT NUMBERS SHOWN ARE FOR EXAMPLE ONLY AND MAY NOT MATCH THE USER SELECTION

## **Web Integration**

The program provides facilities for uploading web data by FTP upload.

- 1. Enable webpage creation.
- 2. Complete the source and output fields.
- 3. Select the required fields by drag and drop.
- 4. Complete the FTP upload information.
- 5. Click save and apply.

| Configuration   |   |
|---|---|
| Save config Save and apply Exit   |   |
| WR Peferences         Station configuration         Database         External Services         User preferences         Software Configuration         Custer Alart         User preferences         Software Configuration         Custer Alart         User preferences         Software Configuration         Custer Alart         Dutput folder         Output fast         Export last         100 © QSO         Source file mast contains the string util be represented by Log(bit). (SV et labler#1. This string util be represented by Log(bit). (SV et labler#1. This parameter         CAT interface         CW er netreface         Avaibble fields | FIP Server     FIP Port 21     FRemote folder     Remote file name     FIP User     FIP Server     FIP Server     FIP Server     FIP Server     FIP Server     FIP Server     C |

A web page upload can also be instigated from the Utilities menu by clicking on 'Generate Webpage now'.

# **Cloudlog integration**

In the Settings/Program config/Applications/cloudlog tab it is possible to set up automatic upload to the Cloudlog web service.

| Configuration  |   |
|--|---|
| H 🖌 O  |   |
| : Save config Save and apply Exit  |   |
| Save config Save and apply Exit  W References  Station configuration  Confirmations  Database  Software Configuration  Configuration  Configuration  Configuration  Configuration  Configuration  Map Settings Backup VOACAP Propagation  Auto Start Configuration  Auto Start Conta  Hardware Configuration  Auto Start Conta  Hardware Configuration  Contau  Contau  Hardware Configuration  Contau  Contau  Contau  Contau  Contau  Contau  Contau  Contections  Connections  Connections  Contections  Contau  Co | Cloudlog         Start service         Cloudlog instance address         Cloudlog API key         Cloudlog Station ID |
| Applications     FLDigi     Cloudlog   |   |
| Web integration  |   |

- 1. Enter the users Cloudlog service address
- 2. Enter the Cloudlog API key provided by Cloudlog
- 3. Enter the 'Unique station ID'
- 4. Check the box marked 'Start Service'
- 5. Click 'Save and apply'

# **N1MM Contest Logger Integration**

- 1. In the N1MM Config/Configure ports, mode control and other select the 'Broadcast Data tab
- 2. Check the top three check boxes and ensure the IP addresses and port numbers are equal to 127.0.0.1:12060 as below.

| Irdware Function Keys Digital I   | Modes Other Winkey Mode Control Antennas Score Reporting Broadcast Data Audio   | 3 |  |  |
|---|---|---|--|--|
| Use 127.0.0.1 for the local mad   | sh to broadcast, and the the IP Address(es) and port(s) for the receiver(s) of the data.<br>chine. Use 12060 as the port unless the receiving application requires a different port.<br>broadcast to your current subnet. |   |  |  |
| Type of data  | IP Addr:Port IP Addr:Port   |   |  |  |
| Application Info  | 127.0.0.1:12060   |   |  |  |
| Radio   | 127.0.0.1:12060   |   |  |  |
| Contacts 🗹 All Computers  | 127.0.0.1:12060   |   |  |  |
| Spots   | 127.0.0.1:12060   |   |  |  |
| Rotor   | 127.0.0.1:12040   |   |  |  |
| Score   | 127.0.0.1:12060   |   |  |  |
| External Callsign Lookup  | 127.0.0.1:12060   |   |  |  |
|   |   |   |  |  |
| WSJT and JTAlert connection se<br>must match each programs settii<br>from each program into N1MM. |   |   |  |  |

3. In Log4OM choose 'Nothing' in the Configuration/CAT tab

| wit Configuration                                       |                                      |         |                            |  |  |
|---|--------------------------------------|---------|----------------------------|--|--|
| Save config Save and apply Exi                          | t                                    |         |                            |  |  |
| Program Settings Edit program config                    | CAT Management                       |         |                            |  |  |
| User Configuration                                      | CAT Engine                           | Nothing | ✓ ☐ Auto start CAT         |  |  |
| My References<br>Station configuration                  | CAT delay (ms)                       | 0       | CAT delay between commands |  |  |
| Confirmations   | Invert SSB side (CW)                 |         |                            |  |  |
| <ul> <li>Database</li> <li>External Services</li> </ul> | Invert SSB side (PHONE)              |         |                            |  |  |
| User preferences  | Invert SSB side (DIGITAL)            |         |                            |  |  |
| Software Configuration                                  | Switch to DIGITAL mode when required |         |                            |  |  |
| Cluster   |                                      |         |                            |  |  |

- 4. Open the Configuration/Software Integration/Connections tab
- 5. Add an inbound UDP connection Service type = N1MM\_Message on Port number = 12060

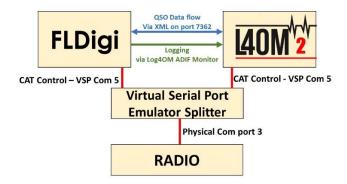
| Configuration  |  |   |
|--|--|---|
| Save config Save and apply Exit  |  |   |
| Program Settings     Edit program config     Program Scheduler     User Configuration     Gata Information | Connections UDP Proxy Remote Control UDP INBOUND | UDP OUTBOUND                                  |
| My References<br>Station configuration   | Port Connection name Service type                | Port Connection name Service type             |
| Confirmations<br>Database  |  |   |
| External Services  | Default answer on msg received                   | Broadcast Destination IP Address 127.0.0.1    |
| User preferences     Software Configuration  |  |   |
| - CAT interface  |  |   |
| Cluster  | UDP Inbound connections                          | UDP Outbound connections                      |
| - Info Providers<br>Map Settings   | 🛩 🗕 🗇 📋  | 🖌 🛩 🗗 🧴                                       |
| Backup   | UDP_INBOUND] [N1MM_MESSAGE] [12060] N1MM         | UDP_OUTBOUND] [ADIF_MESSAGE] [2249] LOG4OM V1 |
| VOACAP Propagacion   | UDP_INBOUND] [ADIF_MESSAGE] [2237] WSJT LOG      |   |
| - Auto Start - Software integration  | UDP_INBOUND] [JT_MESSAGE] [2333] WSJT DX CALL    |   |
| Connections  |  |   |
| - Antenna rotator  |  |   |
| ADIF Functions   |  |   |
|  | 0 items selected                                 | 0 items selected                              |
|  | WSJT-X default port: 2237                        | PSTRotator default port: 12040                |
|  |  |   |
|  |  |   |
|  |  |   |

 Click 'Save and Apply' <u>Restart both programs</u> and commence logging in N1MM and you will see the QSO's added to Log4OM as you add the QSO in N1MM

QSO's will be automatically be updated from whichever online lookup system the user has selected to add the data not normally saved by N1MM.

## **FLDigi Integration**

All popular data modes, CW and RTTY are provided by FLDigi which is easily to interface with Log4OM version 2.



- Install Eterlogic VSP Manager or similar and set up a 'Splitter'
- Connect Log4OM/Omnirig to the splitter's com port
- In FLDigi in the Config dialog/Rig control/Hamlib or Rigcat configure CAT for the connected radio

| Contests     IDs                                | Rig Control/Hamlib                               |                              |
|---|--|------------------------------|
| Logging     MacLogger                           | ✓Use Hamlib                                      |                              |
| N3FJP logs<br>Call Lookup                       | Rig: Icom IC-7300 (Stable)  COM5                 | Į.                           |
| eQSL<br>LoTW                                    | Retries Retry Interval (msec) Baud               | i rate: 19200                |
| QSO logging<br>+ Modem                          |  | topbits 🛉 1                  |
| Misc     Operator-Station     Rig Control       | 0 0 Poling Interval                              | (msec) 🕴 250 🚺               |
| firig<br>CAT (rigcat)                           | ©PTT via Hamlib command Mode delay               | (msec) <b>(</b> 200 <b>)</b> |
| GPIO<br>Hamlib                                  | Audio on Auxiliary Port     Sideband: Al         | lways USB                    |
| Hardware PTT<br>Soundcard                       | ODTR +12 ORTS +12                                | CW is LSB mode               |
| Alerts<br>Devices                               | ORTS/CTS flow control     OXON/XOFF flow control | RTTY is USB mode             |
| Right channel<br>Settings<br>Wav file recording | Advanced configuration:                          | Initialize                   |
| UI  |  |                              |

- In FIDigi go to the Configure/Config dialog/Misc/TCP-IP sessions menu
- Ensure that enable ARQ is selected and that the XML interface is set as shown below.
- Check the 'Lock' check box, save and close

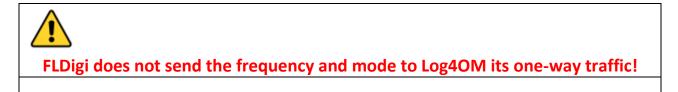
| ] Configure  |   | <ul> <li>TCP-IP</li> </ul> | sessions                      |  |                            |                                       |           |
|--|---|----------------------------|-------------------------------|--|----------------------------|---------------------------------------|-----------|
| Colors-Fonts     Contests     Do     Logging     MacLooper |   |                            | Enable KISS for<br>Only one i | or programs that support T<br>programs that supports TC<br>nterface (ARQ/KISS) can b<br>RQ/XML Addr/Port changes | P/UDP and The active at an | NC-2 KISS protocol.<br>ny given time. |           |
| N3FJP logs<br>Call Lookup                                  |   |                            | ck 🕑 Enable ARQ               | Enable KISS  |                            |                                       |           |
| eQSL<br>LoTW   |   | KISS                       |                               |  | sten / Bind                | AX25 Decode                           |           |
| QSO logging + Modem  | 1 |                            | Inhibit 7bit Modem            | Auto Connect / Re  | try                        | Start                                 | Restart   |
| Misc     Autostart   |   |                            | 127.0.0.1                     | Addr   | 7342                       | I/O 7343 O                            | Default   |
| CPU<br>TCP-IP sessions                                     |   | ARQ                        | 127.0.0.1                     | Addr   | 7322                       | Port Default                          | Restart   |
| NBEMS interface<br>Sweet Spot<br>Rx text capture           |   | XML                        | 127.0.0.1                     | Addr   | 7362                       | Port Default                          | Restart   |
| PSK reporter<br>DTMF<br>KML                                | l | firig                      | 127.0.0.1                     | Addr   | 12345                      | Port Default                          | Reconnect |
| PSM<br>Operator-Station                                    | ſ | filog                      | 127.0.0.1                     | Addr   | 8421                       | Port Default                          | Reconnect |

- In Log4OM go to the Settings/Program configuration menu and select the FLDigi tab
- Ensure that the FLDigi instance address is set to http://127.0.0.1 and the FLDIG Port instance to 7362 (The same as in the FLDigi XML menu above)

| Configuration  |  |  |             |  |
|--|--|--|-------------|--|
| Save config Save and apply Exit  |  |  |             |  |
| <ul> <li>Program Settings         <ul> <li>Edit program Config<br/><ul></ul></li></ul></li></ul> | SIDS<br>✓ Start service<br>FLDgi instance address<br>FLDgi instance port<br>IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | http://127.0.0.1<br>7362<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF import must be selected from the ADIF import configure<br>ADIF impo | ition page. |  |

• Check the 'Start service' check box and click the save config icon at the top left corner.

The above actions connect Log4OM to FLDigi to enable Log4OM to send the frequency and mode to FLDigi and the entered call sign in FLDigi to be displayed and looked up in Log4OM.



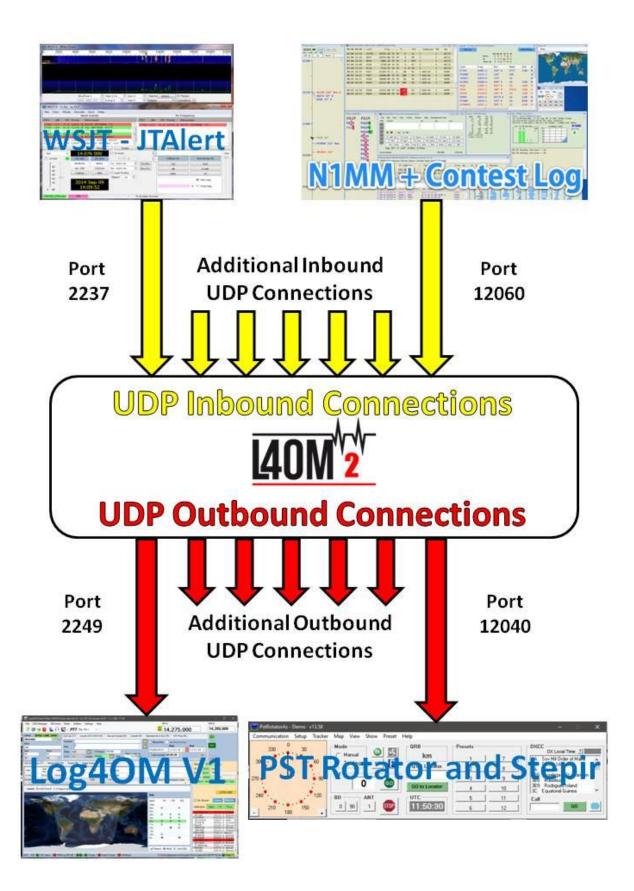
Click on the ADIF icon in the Log4OMSettings/Program configuration/FLdigi tab

| Configuration  |   |  |
|--|---|--|
| Program Settings     Edit program Config     Program Scheduler     Veer Configuration     Station Information     Station configuration     Confirmations     Database     Etermal Services     User preferences     Gerometer Configuration     Contraction     Contraction     Contraction | ADIF Functions         ADIF Monitor       ADIF Output         ADIF finable ADIF monitor         Log40M will automatically scan enabled ADIF files searching for new QSO to be imported.       Read from WEB URL         ADIF file       C\Users\g4popart.net\fildgit.files\logs\logbook.adi       Import only QSO containing station callsign         Upload QSO to external services       Delete ADIF file after load       Import only QSO containing station callsign |  |
| Hap Settings   | Check file to enable<br>ADIF files<br>✓   |  |
| FLDigi   | 0 items selected Reset currently selected file position   |  |

- In the resulting ADIF functions/ADIF monitor tab check the 'Enable ADIF monitor' check box
- Click the button to the right of the 'ADIF file' field
- Navigate to the location of the FLDigi logbook ADIF file (Usually C:\Users\YOUR USER NAME\fldigi.files\logs\Logbook.adi) or (C:\Users\YOUR USER NAME\fldigi.files\temp\Log.adif)
- If upload to online logs like QRZ. EQSL, HRDLog etc is required check the box marked 'Upload to external services'
- Click on the green + to the right of the ADIF File path field to insert it into the file list window and ensure the check box is checked.
- Click on 'Save and apply'

Setting the ADIF monitor in Log4OM causes each new QSO logged in FLDigi to be added to the Log4OM logbook.

## **UDP Connection Possibilities**



## Win4K3, Win4Icom & Win4Yaesu Suites Integration

(By Tom VA2FSQ)



Win4K3Suite has a robust and trouble free comport sharing mechanism built in. Please take a few minutes to understand the concept below. Below the concept are specific examples.

#### Concept

Win4K3Suite supports many third party products by providing 4 auxiliary ports that accept CAT commands. These ports provide an interface that for all purposes look just like a K3, KX3 or Icom radios to the third party product.

First establish CAT control with the radio using the Hardware tab of the Win4(nn) suite Tools/settings menu using the Com port the radio is connected to and baud rate set in the radio menu.

| 🔛 Settings  | – 🗆 X   |
|---|---|
| Hardware P3 / Radio - Amp Settings Spectrum Macros K3-            | P3-KPA-KAT Macros F Key Macros 3rd Party SW/HW User Preferences Media |
| Comports  |   |
| K3 - KX3 - KX2 KPA500 / K   | PA1500 KAT500 K3 / 0 Mini   |
| COM Port COM12  V COM Port  | ✓ COM Port COM Port   |
| Baud Rate 38400 V Baud Rate 38400                                 | ✓ Baud Rate 38400 ✓ Baud Rate 38400 ✓                                 |
| Disconnect  | ct Connect Connect  |
|   | Help  |
| P3 Video Source   | Panadapter  |
| P3 Resolution   | LP-PAN SoftRock II Lite   |
| ✓ 1440 x 900 □ 1280 x 1024<br>□ 1024 x 768 □ 720 p Webcam Connect | SDRPlay Note: Softrock II requires 96 kHz and higher sampling rate.   |
| Make sure P3 is set too. Changes may require a restart.           | Panadapter UDP Broadcast  |
|   | Stream Name Win4K3Suite   |
| 7   | IP Address 127.0.0.1 Port 13064                                       |
|   | Data Points 2048 V Frame Rate(F/s) Full V                             |
|   | Changes require closing and re-opening spectrum                       |
| Save Cancel   |   |

In order to use this feature you will need to download a third party utility that provides virtual serial port pairs to Windows.

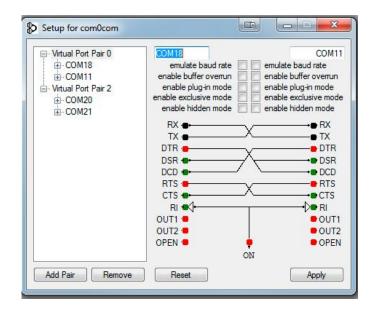
The recommended utility which is free, is COM0COM which is open source and available at: http://sourceforge.net/projects/com0com/files/com0com/2.2.2.0/



Be sure to use the version for your operating system. There is one for 32 bit (com0com 2.2.2.0 – i386-fre.zip) and another "Signed" for 64 bit (com0com-2.2.0-x64-fre-signed.zip). Only the version at this link is signed. You must use this version.

If a newer version is downloaded that is NOT signed there will be many errors even if the program is uninstalled it and then try to install this version. If this happens, contact support for how to fix the errors (for those in the know, use the device manager and delete the driver file, then reinstall).

After installation this, open the Windows start menu and in the com0com folder run "Setup." (Don't run Setup Command line).



There will be by default one pair already defined with weird letter names. Just click on the names and change the names of the comports to a comport name that **does not exist on your system**. In the above I chose COM13 and COM14 for one pair. Please note that many older software packages may not know about comports with numbers higher than COM9.

Once the comport pair is created, start up Win4K3Suite and select Tools, Settings, and the 3rd Party SW/HW tab. You will see the following screen:

| Settings   |                            |           |               |        |         |              |           |               |            |               |           | — (           | - X     |
|------------|----------------------------|-----------|---------------|--------|---------|--------------|-----------|---------------|------------|---------------|-----------|---------------|---------|
| Hardware I | P3 / Radio - Ar            | np Settir | ngs Spec      | trum M | lacros  | K3-P3-KPA-K  | AT Macro  | s FKeyMa      | cros 3r    | d Party SW/H  | W User    | Preference    | s Media |
| Softw      | are                        |           |               |        |         |              |           |               |            |               |           |               |         |
| Aux/       | CAT Port 1                 | Au        | x/CAT Po      | ort 2  | Au      | x/CAT Port 3 | S Au      | x/CAT Port    | 4 /        | ux/CAT Po     | rt 5 /    | Aux/CAT       | Port 6  |
| Port 🧧     | COM14 ~                    | Port      | COM14         | $\sim$ | Port    | COM14 ~      | Port      | COM14         | ~ Po       | t COM14       | ~ Po      | rt COM14      | $\sim$  |
| Baud 3     | 88400 ~                    | Baud      | 38400         | $\sim$ | Baud    | 38400 ~      | Baud      | 38400         | ~ Bau      | 38400         | ∼ Bau     | d 38400       | $\sim$  |
| Tag L      | .og4OM                     | Tag       |               |        | Tag     |              | Tag       |               | Ta         | 3             | Ta        | g             |         |
|            | Disconnect                 |           | Connec        | t      |         | Connect      |           | Connect       |            | Connec        | t         | Conn          | nect    |
|            |                            |           |               |        |         |              |           | CW Skim       | ner        |               |           |               |         |
| Hardy      | ware                       | Configure | e             |        |         | U            | ed for pa | ssive hardwar | e that lis | tens only. Do | NOT use t | for software. |         |
| Addres     | Suite Comp<br>ss 127.0.0.1 |           |               | -      | 7809    |              | Check f   | or HRD Versio | on 5.24 a  | and higher.   |           |               |         |
| Br         | rowse C:                   | Program   | n Files (x86) | )\com( | )com\se | etupc.exe    |           |               |            |               |           |               |         |
| Br         | rowse                      |           |               |        |         |              |           |               |            |               |           |               |         |
| Br         | rowse                      |           |               |        |         |              |           |               |            |               |           |               |         |
| Br         | Browse                     |           |               |        |         |              |           |               |            |               |           |               |         |
| QRZ A      | Account                    | Userl     | G4POP         | )      |         |              | Pa        | assword       | ••         |               |           |               |         |
| Save       | Cancel                     |           |               |        |         |              |           |               |            |               |           |               |         |

In this screen there are 4 AUX/CAT ports. Each one can connect to a comport of a virtual comport pair. In this example, AUX/CAT Port 1 is connected to comport 18. The others are currently to other virtual port pairs.

All you need to do now is save the settings and then configure your third party product to connect to comport 11 which is the second comport of the COM11-COM18 pair. This has effectively connected the two products together via a null modem cable.

If you wish to connect a hardware device to your system such as an antenna tuner that supports the K3 or Kenwood radios, just plug it into an available serial port on your computer and enter that comport number in one of the AUX/CAT ports. No need for a comport pair.

There are other packages available that create virtual comport pairs such as one from Eltima (\$\$) and VSPE. Please note that while these work, none seem to be as stable as COM0COM.

**DTR and RTS:** Win4K3Suite does not support the use of DTR or RTS through it's virtual port facility. Always use software based PTT. A consequence is that software that can produce CW via DTR signal control will not work. (An example is N1MM's CW keying). Use a WinKey (best) or another serial port with a keying mod.

In the LOG4OM V2 Connect/CAT/Show Cat interface menu select the other end of the ComOcom pair, in this example port 13 and match the baud rate setting.

| Omni-Rig Settings |               |       |  |  |  |
|-------------------|---------------|-------|--|--|--|
| RIG 1 RIG 2       | About         |       |  |  |  |
| Rig type          | Elecraft KX3  | •     |  |  |  |
| Port              | COM 13        | -     |  |  |  |
| Baud rate         | 38400         | •     |  |  |  |
| Data bits         | 8             | -     |  |  |  |
| Parity            | None          | -     |  |  |  |
| Stop bits         | 1             | -     |  |  |  |
| RTS               | High          | -     |  |  |  |
| DTR               | High          | -     |  |  |  |
| Poll int., ms     | 30            | \$    |  |  |  |
| Timeout, ms       | 4000          | \$    |  |  |  |
|                   | ik <u>c</u> a | ancel |  |  |  |

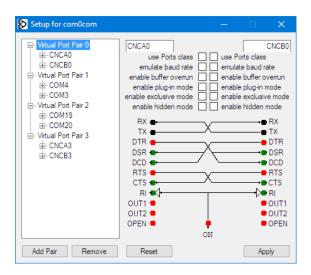
#### Note: Use Omnirig in Log4OM not Hamlib

Program start sequence must now be first ComOcom then Win4(nn) suite and lastly LOG4OM V2

# ANAN-7000DLE SDR (PowerSDR<sup>™</sup> OpenHPSDR mRX PS)

# By Richard - G3ZIY.

First install a virtual com port program, such as com0com. Set a pair of unused com ports, such as COM19 & COM20 shown here.



In the PowerSDR software select the Setup menu item (circled in red):

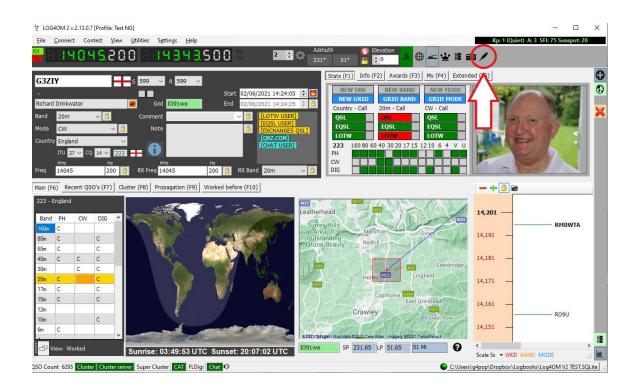
| PowerSDR™ OpenHPSDR mRX PS v3.4.9 (3/19/18) G3ZIY  | - 🗆 X   |  |  |
|--|---|--|--|
| Setup       Memory       Wave       Equalizer       XVTRs       CWX       Diversity       Collapse       Linearity       RA         Power       RX2       VFO A       5.290 000       VFO Sync       Tune       25Hz +       14.100 600         MON       TUN       60M Band Segment 3       TX       Rx Ant       Save       Restore       TX       20M Beacons   | RX1 Meter TX Meter<br>Signal V Fwd Pwr V<br>-100 dBm  |  |  |
| Mox ALEX<br>DUP PS-A<br>Master AF: 30<br>Mox ALEX<br>0 ■ 8<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40<br>-40 - | 1 3 5 7 9 -20 40 46<br>1 3 6 7 9 -20 40 46<br>1 60 80 60<br>40 30 20  |  |  |
| RX1 AF: 7         5,286 5         5,287 5         5,288 5         5,289 5         5,290 5         5,291 5           RX2 AF: 13         1   | VHF+ WWV GEN  |  |  |
| AGC Gain: 116<br>Drive: 50   | LSB USB DSB<br>CWL CWU FM<br>AM SAM SPEC<br>DIGL DIGU DRM   |  |  |
| Part:     Part: <th colspan="2" part:<="" td=""><td>1.0k         800         600           500         400         250           150         100         50           25         Var 1         Var 2</td></th>   | <td>1.0k         800         600           500         400         250           150         100         50           25         Var 1         Var 2</td> |  | 1.0k         800         600           500         400         250           150         100         50           25         Var 1         Var 2 |
| LOC 10:54:58     0     Vol     Pan     Vol     Sidetone       13.4V 0.0A     Sync     MultiRX     Swap     Show TX CW     Semi Break-in Delay (ms) 300 +       VAC1     VAC2     VAC2     Swap     Show CW Zero Line     Pitch Freq (Hz): 500 +  | Width:  |  |  |

Select the CAT tab:

| General Audi                                 | o Display | DSP     | Transmit  | DA Cattinga        | Appearance | Kevboard       | CAT Control   | Tests                      |
|--|-----------|---------|-----------|--------------------|------------|----------------|---------------|----------------------------|
|  |           | Dar     | Indrismit | FA Settings        | Appearance | Reyboard       | C/TT CONDO    | Tests                      |
| CAT CAT+                                     | •         |         |           |                    |            |                |               |                            |
| -CAT Control                                 |           |         | PTT C     | ontrol<br>able PTT |            | Jser Interfact |               | MIDI Wheel<br>updates/step |
| Port:  |           |         |           |                    |            |                |               | 1 🜲 10 🌲                   |
| T OIL  | COM19     | $\sim$  | Port:     | None               | ~          |                |               | Min Max                    |
| Baud   | 9600      | $\sim$  |           | RTS                |            | ID as          | TS-2000       | ~                          |
| Parity                                       | none      | ~       |           | DTR                |            |                | Test CA       | т                          |
|  | Hone      |         |           |                    |            |                | Comman        |                            |
| Data   | 8         | $\sim$  | 🗌 DigL    | /U Returns LS      | B/USB      |                |               |                            |
| Stop   | 1         | $\sim$  | Allov     | Kenwood Al         | Command    | F              | RTTY Offset - |                            |
|  |           |         |           |                    |            |                | Enable Of     | ffset VFO A                |
| <ul> <li>FocusMaste</li> <li>Mode</li> </ul> | None      |         |           |                    |            |                | Enable Of     | ffset VFO B                |
|  |           |         |           | _                  |            |                | DIGL          | DIGU                       |
| N1MM Port                                    | 12060     | Delay ( | mS) 200   | ו                  | ZZSM       | N              | 2125 🜲        | 2125 🜲                     |
| Window Titl                                  | e         |         |           |                    | 0000-0     | 000            | 2123 V        | 2123                       |
|  |           |         |           |                    |            |                |               |                            |

Choose one of the two ports you set up in the virtual com port program (COM19 in this case), and click enable and Apply.

In Log4OM select the CAT interface (circled in red):



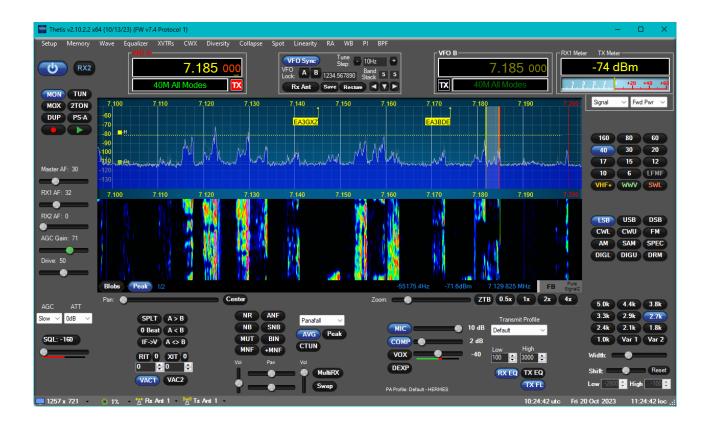
The Omnirig control panel will appear:

| Omni-Rig Setti | Omni-Rig Settings 🛛 🗙 |       |  |  |  |  |
|----------------|-----------------------|-------|--|--|--|--|
| RIG 1 RIG 2    | About                 |       |  |  |  |  |
| Rig type       | PowerSDR              | •     |  |  |  |  |
| Port           | COM 20                | •     |  |  |  |  |
| Baud rate      | 9600                  | •     |  |  |  |  |
| Data bits      | 8                     | •     |  |  |  |  |
| Parity         | None                  | •     |  |  |  |  |
| Stop bits      | 1                     | •     |  |  |  |  |
| RTS            | High                  | •     |  |  |  |  |
| DTR            | High                  | •     |  |  |  |  |
| Poll int., ms  | 500                   | \$    |  |  |  |  |
| Timeout, ms    | 4000                  | \$    |  |  |  |  |
|                |                       | ancel |  |  |  |  |

Set Rig1 or Rig2 as shown above, and OK it, and the current settings on the ANAN will be replicated on the Log4OM display. Changes of frequency on Log4OM will be replicated on the PowerSDR display, and vice-versa.

# Thetis – Hermes Lite2 etc via TCI

The derivative of PowerSDR, Thetis now supports TCI control and interfaces with Log4OM easily.



In the Setup/serial/network/Midi CAT tab select your Log4OM TCI settings (These must match)

| eneral Audio Display DSP Transmit PA Settings Appearance Key   | /board Serial/Network/Midi CAT Tests TX Profile modified<br>Save profile to store  |
|--|--|
| Serial Network MIDI Options User Interface Andromeda   |  |
| TCI Server (1 clients)         Bind IP:Port       127.0.0.1:40001         Rate Limit (ms)       100 •       Def         IPv4       Send initial VFO state on connect (out)         Ivage RX1 VFOa for RX2 VFOa (in+out)       Use RX1 VFOa for RX2 VFOa (in+out)         Ivage Duplicate RX2 VFOb to RX2 VFOa (out)       CWU/CWU becomes CW (out)         CWU/CWU becomes CW (out)       Emulate ExpertSDR3 protocol         Emulate SunSDR2Pro device       Show TCI Spots         Max Spots :       100 •       Clear Spots         Spot Lifetime :       10 •       mins         Own Call Appearance       Ivage         Show Log       Show Log | TCP/IP CAT Server (0 clients)         Bind IP:Port       127.0.0.1:13013         Def       IPv4         Send version on client connect         Server Running         Show Log         N1MM+ WaterfallBandmap         Bascaling         Enable RX1         0.30 ‡         Send UDP to:       127.0.0.1:13064         Def       IPv4         Send Rate:       5 ‡ |

Click Apply then OK

In Log4OM settings/program configuration select the CAT Interface menu select TCI and auto start

| Configuration  |   |   |
|--|---|---|
| 에 🤟 🧭 👌<br>Save config Save and apply Exit   |   |   |
| Program Settings     Edit program Config     Program Scheduler     Performances     E-mail settings     User Configuration     Station Information     -My References     -Station configuration     Local weather | CAT Management       Settings       Omnirig       Hamilb       TCI       CAT Engine       CAT delay (ms)       Invert SSB side (CW)       Invert SSB side (PHONE) | CAT auto-start tween commands Enable PTT key Type here your preferred PTT key PTT KEY will trigger PTT until release.   |
| Confirmations Database External Services User preferences Software Configuration Custer Custer Info Providers Cuffunction Map Settings Backup VOACAP Propagation   | Invert SSB side (DIGITAL) Send MODE before FREQ to radio Switch to DIGITAL mode when required Default RTTY Apply offset to spot frequency towards radio           | CTRL -+ PTT KEY will trigger a 440Hz tone towards the radio audio interface<br>selected in the Audio Configuration panel<br>We suggest use of the RED button for PTT key for a comfortable use<br>PTT Toggle mode |
| - Auto Start<br>- Chat   | CAT Control colors  | Offset  |
| Hardware Configuration     Audio devices and voice keyer     - CAT interface     - CW Keyer interface     Software integration     Consectione   | Main color 2 000<br>Decimal color 2 000   | Offset VFO 8 KHz 0.000 ま)   |

Select the TCI tab of this menu and set the connection settings (Must match that in Thesis already set) and set spot management.

| Configuration  |  |
|--|--|
| 월 ♥ ♥<br>Save config Save and apply Exit   |  |
| Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings     User configuration     Configuration     Configuration     Database     External Services     SetVices     Configuration     Couster Preferences     Software Configuration     Mark Settings     Backup     VOACAP Propagation     Audo Setting     Hardware Configuration     Audo Setting     SetVices and voice keyer     CAT interface     Software Intergration     Cat Settings | CAT Management Settings Omning Hamlib TCT TCP Connection ADDRESS 127.0.0.1 Port 40001 (default 50001) SPOT management SPOT forecolor |

#### Restart both programs

- Log4OM will synchronise frequency and mode
- Clicking spots in Log4OM will cause Thetis to follow
- Clicking spots on the Thetis bandmap will add that call to the Log4OM input field for lookup and the frequency and mode will be synchronised in Log4OM

# MariaDB Database setup

Written by SP5MTD

| Configuration   |                                    |   |
|---|------------------------------------|---|
| H 🖌 O   |                                    |   |
| Save config Save and apply Exit   |                                    |   |
| Program Settings     Edit program config     Program Scheduler     Performances     E-mail settings | Database MARIADB      *            | Deploy MariaDb Database                                 |
| Security Settings   | MariaDb Address                    | MySOL Address 192.168.1.1                               |
| User Configuration     Station Information  |                                    | MySQL Address 192.106.1.1                               |
| My References   | Database name                      | Database name log4om2                                   |
| - Station configuration   | Username                           | MariaDb Admin root                                      |
| Local weather<br>Confirmations  | Username ?                         | MariaDb Password  |
| Database  | Port                               | Port 3306   |
| - External Services   |                                    |   |
| <ul> <li>User preferences</li> </ul>  | Use SSL                            | 🗌 Use SSL 🛛 🚱   |
| Award preferences   |                                    |   |
| Software Configuration Generation   |                                    | This action will create a NEW DATABASE. If used over an |
| Cluster Alert   |                                    | existing database it will REMOVE ALL DATA               |
| - Info Providers  |                                    |   |
| Configuration   | Check connection Switch to MariaDb | Create database   |
| Club membership   |                                    |   |
| - Map Settings  |                                    | Slide to right to confirm operation                     |
| Backup  |                                    |   |
| ···· VOACAP Propagation   |                                    |   |
| - Auto Start  |                                    |   |
| Chat  |                                    |   |
| Hardware Configuration     Audio devices and voice keyer  |                                    |   |
| - CAT interface   |                                    |   |
| - CMI Kover interface   | v                                  |   |

Setting up MariaDB / MySQL as QSO log storage in Log4OM

There is number of reasons one would want to use fully fledged database engine as a storage to log amateur radio QSOs. This article is showing step by step how to setup MariaDB (or MySQL) database and migrate existing QSO log in Log4OM – popular software for logging ham radio correspondence.

#### Why to bother?

For most cases, especially when used on single computer, the default SQLite is more than enough to handle any (reasonable) number of QSO you may want to store using Log4OM. Even tens of thousands of entries can be handled by SQLite.

However, there are cases when using "proper" database is a viable choice, in example:

- Handle logs from multiple Log4OM instances (including from different accounts on the same computer, or from different computers). Especially sharing SQLite database file using popular public cloud based services (like OneDrive, Google drive, Dropbox, etc.) may lead to data corruption. These services are not aware of SQLite state and may override its files in a wrong moment, or create file duplicates (i.e. when data file is modified on one computer, not synced, and modified again on different computer – in such a case network drive engine will have two versions of the file and will be unable to properly sync them).
- During amateur radio contests, to log all QSOs into one, centralised database, even from many contest radio stations in the same time.
- Already having up and running MariaDB/MySQL database engine, with good backup schema, running on reliable server. In such a case adding yet another database is simple and logical step.
- Access Log4OM database from remote places, i.e. during POTA activations. Remote access may be huge advantage, removing the need of consolidating QSO logs after returning to the base station. Remote connectivity may be not available everywhere however, as it will be relaying on the Internet access (assuming remote database is available as public cloud service or self-hosted and accessed by VPN).
- Because we can. Yeah, we geeks tend to treat this argument seriously :).

Whatever the reason to use fully fledged database to store Log4OM logs, you need to follow the below steps to set it up. In this tutorial I will be using MariaDB, but it will be virtually the same for MySQL.

#### Prerequisites

You need to have MariaDB or MySQL database engine installed. Database engine installation is out of scope of this document, however in its basic form it is a simple task. Most Linux distributions come with MariaDB / MySQL packages ready to install, on MaxOS X you can use Homebrew or MacPorts and on Microsoft Windows you need to download and install MSI package for x64 / x86 platforms (most PCs are x64 nowadays).

You will also need to know:

- Hostname or IP address of MariaDB / MySQL database server (if you use MariaDB as public cloud service you may need to contact your provider to get it)
- TCP port number of MariaDB / MySQL server (typically 3306)
- Database admin user credentials (by default the username is *root*, you need to know the password)
- MariaDB / MySQL client to connect to your database (needed for password change and/or troubleshooting)
- Telnet client (or other TCP connection checking tool; needed for troubleshooting only)

#### Database creation and connection

Log4OM, has you covered and has embedded mechanisms to create a database for you.

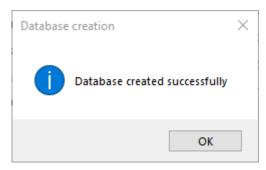
Go to *Menu -> Program Configuration -> User Configuration -> Database* and you should be able to see window like below, with quite self-explanatory fields that needs to be filled in:

| Configuration<br>M Save config Save and apply Exit  |  |           |      |   |  |
|---|--|-----------|------|---|--|
| Program Settings  Celt program config  Program Scheduler  Performances  Frmai settings Security Settings  User Configuration  Station Information  Station Configuration  Station configuration  - Local weather  - Local weather  - Configuration  - Award preferences  Software Configuration  - Custer Alert  - Custer Alert  - Configuration  - Audo devices and voice keyer  - CAT interface  - Coll Wave techfore  - Coll Wave techfore  - Coll Wave techfore - C | Database     MARIADB       MariaDb     Address       Database name | Use SSL ? | Port | 192.168.1.1<br>bg4om2<br>root<br>3306<br>Use SSL<br>Use SSL<br>Create databate<br>Create databate |  |

- MySQL / MariaDB Address: can be IP address or hostname of database server, here 192.168.1.1 as an example
- Database name: database to be created, default to log4om2
- MariaDB Admin: database user able to create new database, default to root
- MariaDB Password: password for admin root user
- Port: TCP port of database server, default to 3306
- Use SSL: tick if your server is using SSL/TSL encryption for connections (most modern packages have SSL preconfigured, so it should be fine and even recommended to check it in)

Once all fields are filled-in move the slider to the right and press "Create database" button. Please note that that will create new database of given name, and will overwrite all data in previous database, if a database of the same name would exist.

If everything will go as expected the below message should appear:



following by this screen:

| Database MARIA   | DB ~ *            |
|------------------|-------------------|
| MariaDb Address  | 192.168.1.1       |
| Database name    | log4om2           |
| Username         | log4om2User       |
| Password         | log4om2User       |
| Port             | B306 €<br>Use SSL |
| Check connection | Switch to MariaDb |

At this stage you can press "Check connection" to finally confirm that everything works correctly. If so, button "Switch to MariaDB" button should become not-greyed.

Press "Switch to MariaDB" button to activate new database as a QSO log storage in Log4OM. Your previous QSO log is preserved though, so you can always switch back and forth (particularly useful to export precious data and import it into new database – see below about data migration).

Do not forget to save all changes by pressing "Save and apply" to save all settings and close configuration window.

| Configuration   |   |          |         |   |   |
|---|---|----------|---------|---|---|
| Save config Save and apply Exit   |   |          |         |   |   |
| Program Settings     Edit program config     Program Scheduler     Performances | ^ | Database | MARIADB | ~ | * |

At this point Log4OM is ready to use MariaDB or MySQL database as its QSO log storage. Actually also database user named "log4om2User" was created, with weak default password – the same as username. This is very wrong practice to use such a weak password, so we will change in a next step.

#### Default password change

As mentioned before default password created by Log4OM is very week and it should be changed. To do that you need to connect to MariaDB database using its native client, named simply *mariadb* (*mysql* for MySQL database). In Windows you need to open the Command Line (CMD), switch do the folder where MariaDB was installed (adding \bin) and execute the following command:

#### C:\>cd "C:\Program Files\MariaDB 11.7\bin"

C:\Program Files\MariaDB 11.7\bin>mariadb --host 192.168.1.1 --port 3306 --user root --password

```
Enter password: *************
```

The command on Linux and MacOS is the same, just you probably will not need to change directory first. Windows users, please note that my installation folder was *C*:\*Program Files*\*MariaDB 11.7*\*bin*, as this is the version I was using at the time of writing the article. Yours may vary, so just check it out and correct accordingly.

If the connection will be successful you will be prompted for a password. Once successfully authenticated you will see screen similar to the below:

Welcome to the MariaDB monitor. Commands end with ; or \g.

Your MariaDB connection id is 20

Server version: 11.7.2-MariaDB-ubu2404 mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

#### MariaDB [(none)]>

Now you can issue SQL commands to the database (please refer to the below *Troubleshooting* section if your connection to database engine was unsuccessful).

To change the password to something more secure, issue the following command:

MariaDB [(none)]> SET PASSWORD FOR 'log4om2User'@'%' = PASSWORD('qwerty');

Query OK, 0 rows affected (0.005 sec)

As above, the answer should be "Query OK, 0 rows affected".

In this example I used password qwerty which obviously should be changed to something secure. Much more secure.

Note: if your database and Log4OM resides on the same computer, you may need to change *log4om2User@localhost* password as well.

Now you come back to Log4OM settings and change database logon credentials (password) to whatever you have just set as a new password:

| Database MARIA   | DB 🗸 🗸              |
|------------------|---------------------|
| MariaDb Address  | 192.168.1.1         |
| Database name    | log4om2             |
| Username         | log4om2User         |
| Password         | qwerty Ø            |
| Port             | 3306 ÷<br>□ Use SSL |
| Check connection | Switch to MariaDb   |

The very final step is to press "Check connection" to confirm that everything still works correctly followed by "Switch to MariaDB". Again, do not forget to save all changes by pressing "**Save and apply**" in the main configuration window.

| Configuration   |   |                      |  |
|---|---|----------------------|--|
| Save config Save and apply Exit   |   |                      |  |
| Program Settings     Edit program config     Program Scheduler     Performances | ^ | Database MARIADB ~ * |  |

If you want to exit mariadb client you must issue QUIT command.

Please keep reading to find how to migrate QSO log from previous storage (SQLite), how to backup your MariaDB / MySQL database or how to troubleshoot database creation in case of any problems encountered in previous steps.

Existing SQL log (data) migration

It is very likely that you started your Log4OM QSO log with SQLite. This is fine. It is very easy to migrate your existing SQLite database into your new, shiny MariaDB / MySQL instance.

Note that your QSO log *Recent QSO's (F7)* tab in Log4OM is now empty:

| Main (F | 5) Recent QSO's (F7) | ) Cluster (F8) | Propagatio | on (F9) V | Vorked before (F | 10) Weather (F11) |      |     |     |         |
|---------|----------------------|----------------|------------|-----------|------------------|-------------------|------|-----|-----|---------|
| Qso D   | ate C                | allsign        | Band       | Mode      | Country          | Name              | Freq | Rst | Rst | Comment |
|         |                      |                |            |           |                  |                   |      |     |     |         |
|         |                      |                |            |           |                  |                   |      |     |     |         |
|         |                      |                |            |           |                  |                   |      |     |     |         |
|         |                      |                |            |           |                  |                   |      |     |     |         |
|         |                      |                |            |           |                  |                   |      |     |     |         |
|         |                      |                |            |           |                  |                   |      |     |     |         |
|         |                      |                |            |           |                  |                   |      |     |     |         |

This is normal, as we have just created and switched to brand new (and empty) MariaDB database. We need to switch it back to SQLite, where all previous information resides.

Go to *Menu -> Settings -> Program Configuration -> User Configuration -> Database*. Select SQLite, as it was before. Click "Save and apply":

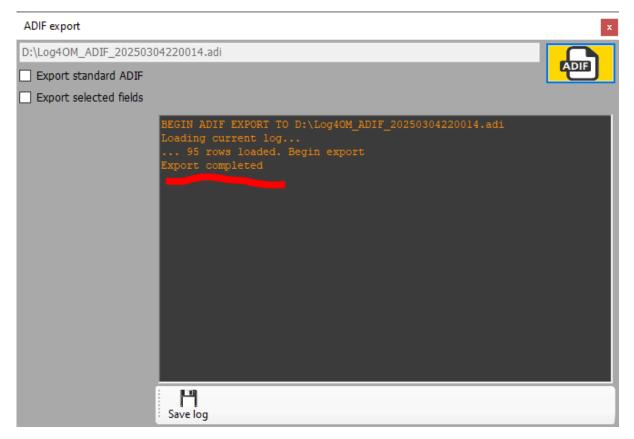
| Configuration  |                        |
|--|------------------------|
| Save control. Save and apply Plit  |                        |
| Program Settings     Edit program config     Program Scheduler     Performances  | Database SQLITE      * |
| E-mail settings     Security Settings     User Configuration     Station Information     My References     Station configuration | New                    |

Note that Log4OM log under *Recent QSO's (F7)* tab has now all your previous QSO's back.

Select *Menu -> File -> Export ADIF*. The below windows will appear. <u>Do not</u> check "Export standard ADIF" nor "Export selected fields. Click "ADIF" on yellow background:

| ADIF export            |          | × |
|------------------------|----------|---|
|                        |          |   |
| Export standard ADIF   |          |   |
| Export selected fields |          |   |
|                        |          |   |
|                        |          |   |
|                        |          |   |
|                        |          |   |
|                        |          |   |
|                        |          |   |
|                        |          |   |
|                        |          |   |
|                        |          |   |
|                        |          |   |
|                        |          |   |
|                        |          |   |
|                        | Save log |   |

Choose any folder to save your export ADI file. Desktop will be just fine. This ADI file will contain all QSO entries from SQLite database. Export may take some time if your SQL log is large. Once export is completed it will look like this:



Now switch back to your newly created MariaDB / MySQL database engine. Open database configuration dialogue again. Enter all required database information (address, name, username, password, port, use SSL if needed). Click "Check connection", followed by "Switch to MariaDB" and "Save and apply":

| Station Information Database name log4o<br>-Station configuration Usemame log4o<br>-Local weather Database name log4o<br>-Confirmations Password gweet   | 168.1.1<br>pm2<br>pm2User | Deploy MariaDb Dat<br>MySQL Address<br>Database name<br>MariaDb Admin<br>G MariaDb Password | abase                              |
|--|---------------------------|---|------------------------------------|
| er Configuration MariaDb Address 192.1 Station Information Database name log4o - VP References Database name log4o - Local weather Usemame log4o - Confirmations Password qweet  |                           |   | lootom2                            |
| Station Information Database name log4o<br>-Station configuration Usemame log4o<br>-Local weather Database name log4o<br>-Confirmations Password gweet   |                           |   | loo4om2                            |
| My References<br>Station configuration<br>Local weather<br>Confirmations<br>Password<br>Qwert  | im2User                   |   |                                    |
| Local weather<br>Confirmations Password Qwent  | Inzuser                   | MariaDb Admin   |                                    |
| Committee of the second s |                           | Manabo Admin  |                                    |
| Database   |                           |   |                                    |
| External Services Port 3306  | *                         | Port  | 3306 ‡                             |
| User preferences   | Re SSL                    |   | Use SSL                            |
| -Award preferences<br>ftware Configuration   | -                         |   |                                    |
| -Cluster   |                           |   | tabase it will REMOVE ALL DATA     |
| - Cluster Alert  |                           | exacting of   | Labase is were here over all owner |
| Info Providers<br>Configuration Check connection   | Switch to MariaDb         |   | Oreste database                    |
| Configuration Check connection   | K 2                       |   | Create database                    |
| Map Settings   |                           | Side to right to co   | infirm operation                   |
| Backup   |                           | and the signed of the   |                                    |
| VOACAP Propagation<br>Auto Start   |                           |   |                                    |
| Chat   |                           |   |                                    |

Log4OM log under *Recent QSO's (F7)* tab is empty again. We will now import all your logs into new MariaDB / MySQL database. Go to *Menu -> File -> Import ADIF*. The below windows will appear. Click "Load" and select previously exported ADI file, then click "Import" to begin import process:

| Import ADIF file   |             |   |   |        |                        | 1         |     |          | ×           |
|--|-------------|---|---|--------|------------------------|-----------|-----|----------|-------------|
|  |             |   |   |        |                        | _(_       |     | Load     |             |
| ADIF import  | 0           | Award parsing                             | 0                                       | LOG    | 3 save                 |           |     |          |             |
| Apply quality check corrections     Orop current database and load ADIF  |             | Award check<br>O No check<br>O Deep       | O Basic                                 |        | Duplicates             | threshold | 0   | <u>*</u> | sec.        |
| 1  |             |   |   |        |                        |           |     |          |             |
| Save log<br>The import may take some time because<br>validating historic DXCC values against pref<br>The data is simultaneously being searched<br>any references found are being automatic | ixe:<br>foi | s, ensuring that IT<br>r any references t | TU and CQ zones a<br>to awards which co | re cor | rrect for all entries. |           | -   |          | vards list, |
| Import ADIF file   | 221         |   |   |        |                        |           | -   |          | *           |
| D:\Log4OM_ADIF_20250304220014.adi  | 1           |   |   |        |                        | 1         | -   |          |             |
| ADIF import  | 0           | Award parsing                             | 0                                       | LOG    | S save                 | -         |     | Import   |             |
| 1 - Apply quality check corrections<br>Drop current database and load ADIF   |             | Award check O No check O Deep             | O Basic                                 |        | Duplicates             | threshold | 0   | ÷        | sec.        |
| Save log The import may take some time because validating historic DXCC values against prefer the data is similar searchead  | fixe:       | s, ensuring that IT                       | TU and CQ zones a                       | re cor | rrect for all entries. |           | 1.7 |          |             |
| Save log<br>The import may take some time because  | for         | s, ensuring that IT<br>r any references t | TU and CQ zones a<br>to awards which co | re cor | rrect for all entries. |           | 1.7 |          |             |

The import may take several minutes, depending on your log. Be patient. At the end it should look similar to this:

| Import ADIF file   |             |                                 |                     |                      |                      |        | ×    |
|--|-------------|---------------------------------|---------------------|----------------------|----------------------|--------|------|
| D:\Log4OM_ADIF_20250304220014.adi  |             |                                 |                     |                      |                      | Load   | ×    |
| ADIF import  | 95          | Award parsin                    | ОК                  | ×                    |                      | Import |      |
| Apply quality check corrections     Orop current database and load ADIF  |             | Award chec                      | 1                   | Import completed     | Duplicates threshold | 0 🗘    | sec. |
| [IMPORT ADIF FORM] Begin ADIF imp<br>SEARCHING FULL AWARDS REFERENCES.<br>End of ADIF import<br>Begin LOG save<br>LOG saved<br>Save completed  |             | • Deep                          |                     | ОК                   |                      |        |      |
| Save log   |             |                                 |                     |                      |                      |        |      |
| The import may take some time because of<br>validating historic DXCC values against prefit<br>The data is simultaneously being searched<br>any references found are being automatica | xes,<br>for | ensuring that<br>any references | ITU and<br>to award | CQ zones are correct | for all entries.     |        |      |

You may want to save and review import log. But as this is straight forward export / import there should be no errors.

Now it is the time to start enjoying your new MariaDB / MySQL database with all history in it :).

#### Database backup

Real men do not use backups. Well, if this is your approach you may skip this section. All the rest please feel free to keep reading :).

Good news is that MariaDB / MySQL backups are very easy to do. As with database client, there is a dedicated command line tool for it. Here is an example for Windows, but of course it will be the same under Linux / MacOS:

#### C:\>cd "C:\Program Files\MariaDB 11.7\bin"

C:\Program Files\MariaDB 11.7\bin>mariadb-dump --opt --host=192.168.1.1 --port=3306 --user=root --password log4om2 > D:\log4om2\_backup.sql

Enter password: \*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### C:\Program Files\MariaDB 11.7\bin>

The above command will connect to database named *log4om2* on host *192.168.1.1* and TCP port *3306*, using *root* superuser credentials (you need to provide *root* password when prompted). After running *mariadb-dump* it seems like nothing has happened, but the database was backed-up to a file, in my case *D*:/*log4om2\_backup.sql*.

(please note that all mariadb-dump -opt ... >D:\log4om2\_backup.sql command is a single command, one line)

This is how the backup file should look like when opened with any text editor (like Notepad in case of Windows):

/\*M!999999\- enable the sandbox mode \*/

-- MariaDB dump 10.19-11.7.2-MariaDB, for Win64 (AMD64)

---

-- Host: 192.168.1.1 Database: log4om2

\_\_\_\_\_

-- Server version 11.7.2-MariaDB-ubu2404

/\*!40101 SET @OLD\_CHARACTER\_SET\_CLIENT=@@CHARACTER\_SET\_CLIENT \*/;

/\*!40101 SET @OLD\_CHARACTER\_SET\_RESULTS=@@CHARACTER\_SET\_RESULTS \*/;

/\*!40101 SET @OLD\_COLLATION\_CONNECTION=@@COLLATION\_CONNECTION \*/;

/\*!40101 SET NAMES utf8mb4 \*/;

/\*!40103 SET @OLD\_TIME\_ZONE=@@TIME\_ZONE \*/;

/\*!40103 SET TIME\_ZONE='+00:00' \*/;

/\*!40014 SET @OLD\_UNIQUE\_CHECKS=@@UNIQUE\_CHECKS, UNIQUE\_CHECKS=0 \*/;

/\*!40014 SET @OLD\_FOREIGN\_KEY\_CHECKS=@@FOREIGN\_KEY\_CHECKS, FOREIGN\_KEY\_CHECKS=0 \*/;

/\*!40101 SET @OLD\_SQL\_MODE=@@SQL\_MODE, SQL\_MODE='NO\_AUTO\_VALUE\_ON\_ZERO' \*/;

/\*M!100616 SET @OLD\_NOTE\_VERBOSITY=@@NOTE\_VERBOSITY, NOTE\_VERBOSITY=0 \*/;

... MANY MORE LINES HERE ...

Compress (zip) this file if you want and keep it in a safe location, preferably other than database server.

You may want to automate *mariadb-dump* process so it runs automatically, i.e. on daily basics. But this is out of scope of this article.

#### Troubleshooting

Network connectivity

In case Log4OM is unable to create MariaDB / MySQL database the very first thing to check is network connectivity. Database server in its default configuration is listening on TCP port 3306. If there is no connectivity to this port from computer running Log4OM to the database server, Log4OM will be unable to co issue any commands to the database.

The easiest way to check connectivity is to use Telnet and try to connect to server hostname or IP address on port 3306 (or other if your database is using non-standard configuration).

Telnet is a build-in tool in any Linux and MacOS X. It is not standard in Windows 10/11 though. It must be turned on via "Windows Features" of Windows Control Panel (search Internet for "enable telnet on windows 10 or 11" if in doubt).

Assuming your MariaDB / MySQL database server IP is 192.168.1.1 the command to run on the computer running Log4OM should be (you should run it from the command line):

telnet 192.168.1.1 3306

In case of success you will get message similar to the below:

#### Connected to 192.168.1.1.

Escape character is '^]'.

Ζ

11.7.2-MariaDB-ubu2404.pjF[wev?=A#'8'V^UnLojmysql\_native\_password**Connection closed by foreign host**.

Otherwise telnet will not be able to connect:

#### Connecting To 192.168.1.1... Could not open connection to the host, on port 3306: Connect failed

If you get *Connection failed* or similar message there is no chance for Log4OM to connect to the database.

There are number of reasons why you may be getting *Connection failed* messages:

- MariaDB / MySQL is not listening on a host (database server) and port you are trying to connect
- There is no routing between Log4OM computer and the database server
- There are firewall rules limiting network traffic (network firewall on a way, local firewall on database server or Log4OM computer, or both)
- Many other things

Whatever the reason you MUST sort it out before trying anything else. Telnet test must be successful. It makes no sense to try any other solutions before correcting network connectivity.

Remote root access

Some databases are configured in a way, that root access is allowed only locally, not from remote computers. In that case you need to connect to the database locally and enable remote root access.

To check if root can connect from any remote computers, you need to connect to the database (as described above, using mariadb / mysql client). Once connected this command will show what root can

MariaDB [(none)]> SELECT user, host FROM mysql.user WHERE user='root';

+----+

| User | Host |

+----+

| root | % | <--- this row must exist! it allows root to logon from any host, not only from localhost

| root | localhost |

+----+

2 rows in set (0.005 sec)

If the only entry corresponding to root account is the one with "localhost" you need to allow remote access. This is done by adding root@% entry into mysql.user table (sign "%" means "all hosts", including remote).

MariaDB [(none)]> GRANT ALL PRIVILEGES ON \*.\* TO 'root'@'%' IDENTIFIED BY 'qwerty' WITH GRANT OPTION;

MariaDB [(none)]> FLUSH PRIVILEGES;

Again, replace "qwerty" with some strong password. This is the password you can then use in the "Deploy MariaDB Database" form:

| Deploy MariaDb Databas    | e  |
|---------------------------|--|
| MySQL Address             | 192.168.1.1  |
| Database name             | log4om2  |
| MariaDb Admin             | root   |
| MariaDb Password          | ******   |
| Port                      | 3306   |
|                           | 🗆 Use SSL 🛛 🕜  |
|                           | a NEW DATABASE. If used over an<br>ase it will REMOVE ALL DATA |
| 1 1 1 1 1 1 1             | Create database  |
| Slide to right to confirr | m operation  |

#### Other issues

There are many other potential problems preventing Log4OM from deploying and using external MariaDB / MySQL database. This article is not intended to be a comprehensive database troubleshooting guide. Good practice is to focus on one thing at a time, sort out basic things first (like network connectivity), analyze logs, increase debug levels as needed, etc.

#### Successful deployment

The below commands and outputs from mariadb / mysql client should give you an idea how properly deployed Log4OM database could look like:

#### MariaDB [(none)]> SHOW DATABASES;

+-----+ | Database |

+----+

| information\_schema |

1

I

| log4om2

| mysql

| performance\_schema |

| sys |

+-----+

6 rows in set (0.005 sec)

#### MariaDB [(none)]> SELECT user, host FROM mysql.user;

+----+

User Host

| ++  |                        |
|---|------------------------|
| log4om2User   %   |                        |
| root   %  |                        |
| healthcheck   127.0.0.1   |                        |
| healthcheck   ::1   |                        |
| healthcheck   localhost   |                        |
| log4om2User   localhost   |                        |
| mariadb.sys   localhost   |                        |
| root   localhost  |                        |
| ++  |                        |
| 9 rows in set (0.014 sec)   |                        |
|   |                        |
| MariaDB [(none)]> SHOW GRANTS FOR log4om2User;  |                        |
| +   | +                      |
| Grants for log4om2User@%  |                        |
| +   | +                      |
| GRANT USAGE ON *.* TO `log4om2User`@`%` IDENTIFIED BY PASSWORD<br>'*15C156E72F0B7B7904E71D36823F99964EDF138F' |                        |
| GRANT SELECT, INSERT, UPDATE, DELETE, INDEX ON `log4om2`.`log` TO `log  | g4om2User`@`%`         |
| GRANT SELECT, INSERT, UPDATE, DELETE, INDEX ON `log4om2`.`information   | ns`TO`log4om2User`@`%` |
| +   | +                      |
| 3 rows in set (0.003 sec)   |                        |

Final word

I hope this article will help you setting up MariaDB or MySQL as a storage for Log4OM QSO log. At the moment of writing this article I was using Log4OM wersion 2.35.1.9 and MariaDB 11.7.2. Some things may change with time, but I hope I gave you a general idea how to proceed, even if some changes will actually occur.

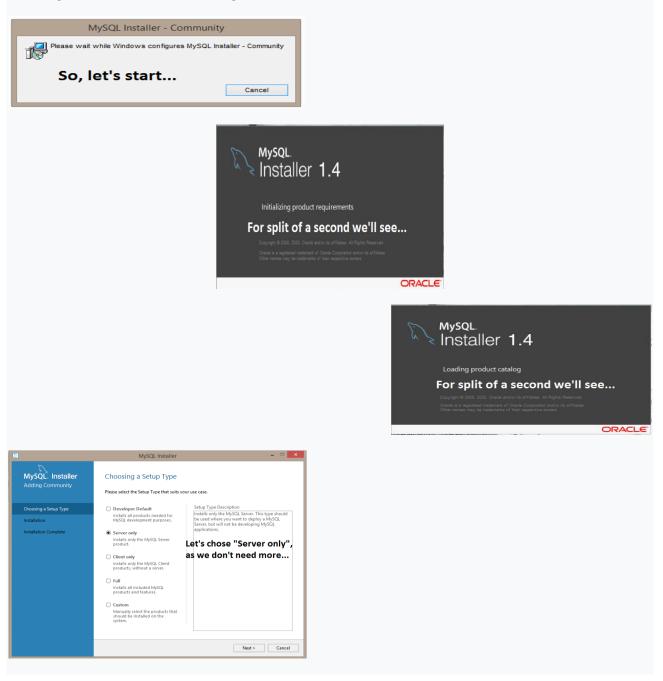
Please note all the above comes with no warranty. Existing SQLite database should not be altered at all during the migration procedure. However it is a good practice to execute proper backup before starting any work (proper meaning as stated in Log4OM User Manual)

# Installing MySQL-8.0.20 with Log4OM Version 2 by Tom – SP2L

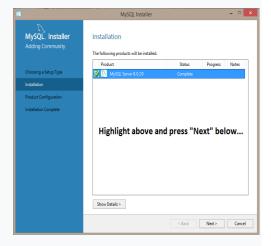
To download the MySQL Installer – Community Oracle Corporation 1.4.33.0 Go to: <u>https://dev.mysql.com/downloads/installer/</u> choose: Windows (x86, 32-bit), MSI Installer 8.0.20 420.6M Download (mysql-installer-community-8.0.20.0.msi)

On next screen: <u>https://dev.mysql.com/downloads/file/?id=495322</u> choose: No thanks, just start my download. Download should begin shortly: mysql-installer-community-8.0.20.0.msi 421MB Start installation...

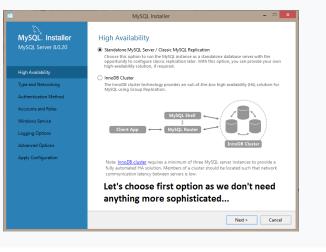
Next steps are shown on consecutive pictures:



| M                                    | MySQL Installer   |                  |          | - • ×  |  |
|--------------------------------------|---|------------------|----------|--------|--|
| MySQL. Installer<br>Adding Community | Installation<br>The following products will be installed. |                  |          |        |  |
|                                      | Product   | Status           | Progress | Notes  |  |
| Choosing a Setup Type                | MySQL Server 8.0.20                                       | Ready to Install |          |        |  |
| Installation                         |   |                  |          |        |  |
| Product Configuration                |   |                  |          |        |  |
| Installation Complete                |   |                  |          |        |  |
|                                      | Highlight above and                                       |                  | cute" b  | elow   |  |
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| MySQL         Installer<br>Adding Community           Cousing Steps Type<br>Wathlation         Product Configuration visual for each of the<br>product.           Product Configuration         You wish to leave this visual will<br>product.           Product Configuration         Task<br>MySQL Server 8.0.20           Instalation         Product Configuration | hout configuring all the |
|--|--------------------------|
| Choosing a Setup Type         products.           Installation         Product         Stat           Product Configuration.         MySQL Server 80:20         Resc   | 5                        |
| Product Configuration MySQL Server 8.0.20 Reso   |                          |
| Product Configuration  | to configure             |
| Installation Complete  |                          |
| Just press "Next" be   | ow                       |
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#### MySQL Installer MySQL. Installer MySQL Server 8.0.20 Type and Networking Spec Configuration Type Choose the correct save configuration type for this MySQL Sover installation. This setting will define how much spatiate resources are assigned to the MySQL Sover instance. Config Type Condespond Computer Connectivity Use the following controls to select how you would like to connect to this server. If CPUIP Port: 3306 X Protecel Port: 33000 O Open Windows Firewall ports for network access Named Pipe Pipe Name: MYSOL Shared Memory Memory Name: MYSOL Type and Networking Advanced Configuration Select the check box below to get additional configuration pages where you can set advanced and logging options for this server instance. Let's chose "Development Computer" option, as this will use less computer resources; leave other options unchanged...

< Back Next > Cancel

### MySQL Installer

MySQL Server 8.0.20

Type and Networking Authentication Method Accounts and Roles Windows Service Apply Configuration

#### Authentication Method

Use Strong Pessword Encryption for Authentication (RECOMMENDED)
MySQL 8 supports a new authentication based on improved stronger SH4256-based pessword
methods, it is recommended that all new MySQL Server installations use this method going
forward.

Attention: This new authentication plugin on the server side requires new versions of connectors and clients which add support for this new 8.0 default authentication (caching\_sha2\_password authentication).

\_ 🗆 🗙

Currently MySQL 8.0 Connectors and community drivers which use libmysqlclient 8.0 support this new method. If clients and applications cannot be updated to support this new authentication method, the MySQL 8.0 Server can be configured to use the legacy MySQL Authentication Method below.

 $\bigcirc$  Use Legacy Authentication Method (Retain MySQL 5.x Compatibility) Using the old MySQL 5.x legacy authentication method should only be considered in the following cases:

- If applications cannot be updated to use MySQL 8 enabled Connectors and drivers. For cases where re-compilation of an existing application is not feasible. - An updated, language specific connector or driver is not yet available.

Security Guidance: When possible, we highly recommend taking needed steps towards upgrading your applications, libraries, and database servers to the new stronger authentication. This new method will significantly improve your security.

First option is recommended...

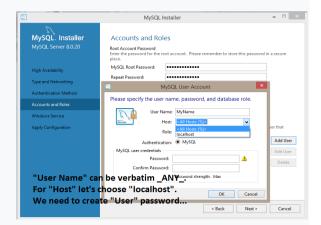
 TAlert users should select
 < Back</th>
 Next >
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 egacy Authentication Method.
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 Cancel
 Cancel

| MySQL. Installer<br>MySQL Server 8.0.20 | Accounts and Ro<br>Root Account Password<br>Enter the password for the<br>place. |                  | e remember to store this passwor     | d in a secure |
|---|--|------------------|--------------------------------------|---------------|
| tigh Availability                       | MySQL Root Password:   | •••••            |                                      |               |
| ype and Networking                      | Repeat Password:   |                  |                                      |               |
|   |  | Password strengt | th: Weak                             |               |
| luthentication Method                   |  |                  |                                      |               |
| iccounts and Roles                      |  |                  |                                      |               |
| Andows Service                          | MySQL User Accounts  |                  |                                      |               |
| pply Configuration                      | Create MySQL user accou<br>consists of a set of privile                          |                  | nd applications. Assign a role to th | e user that   |
|   | MySQL User Name  | Host             | User Role                            | Add User      |
|   |  |                  |                                      | Edit User     |
|   | On this pict   | ure we se        | e                                    | Delete        |
|   | that passwo  | ord streng       | th is "Weak"                         |               |
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|   |  |                  |                                      |               |
|   |  |                  | E                                    | 11            |
|   |  |                  | < Back Next >                        | Cancel        |

|  | MySQL Installer – 🗆 🗙  |
|--|--|
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|  | MySQL User Name Host User Role Add User<br>Edit User<br>On this picture we see that Delete<br>password strength is "Medium"  |
|  | <pre>vassword scrength is view unit </pre>   |

|   | MySQL   | Installer       |                               |                                |
|---|---|-----------------|-------------------------------|--------------------------------|
| MySQL. Installer<br>MySQL Server 8.0.20 | Accounts and Ro<br>Root Account Password<br>Enter the password for the<br>place.          |                 | e remember to store this pa   | ssword in a secure             |
| High Availability                       | MySQL Root Password:  | •••••           | ,                             |                                |
| Type and Networking                     | Repeat Password:  | •••••           |                               |                                |
|   |   | Password streng | th: Strong                    |                                |
| Authentication Method                   |   |                 |                               |                                |
| Accounts and Roles                      |   |                 |                               |                                |
|   |   |                 |                               |                                |
| Windows Service                         | MySQL User Accounts   |                 |                               |                                |
| Windows Service<br>Apply Configuration  |   |                 | nd applications. Assign a rol | e to the user that             |
|   | Create MySQL user accou   |                 | nd applications. Assign a rol | e to the user that<br>Add User |
|   | Create MySQL user accou<br>consists of a set of privile                                   | ges.            |                               |                                |
|   | Create MySQL user accou<br>consists of a set of privile<br>MySQL User Name<br>On this pic | Host            | User Role                     | Add User                       |



| 3                                       | MySQL Installer – 🗆 🔤  |
|---|--|
| MySQL. Installer<br>MySQL Server 8.0.20 | Accounts and Roles<br>Red Account Passend<br>Enter the password for the root account. Please remember to store this password in a secure<br>place. |
| High Availability                       | MySQL Root Password:   |
| Type and Networking                     | Repeat Password: MVSQL User Account  |
| Authentication Method                   | Please specify the user name, password, and database role.   |
| Accounts and Roles                      | User Name: MyName  |
| Windows Service                         | Host: localhost  |
| Apply Configuration                     | Role: DB Admin v   |
|   | Authentication:  MySQL Add User  |
|   | MySQL user credentials Edit User   |
|   | Password: ••••••   |
|   | Confirm Password:  |
|   | Password strength: Strong  |
| For "Role:" let's cl                    | oose "DB Admin";   |
| Although there are                      | e more options available OK Cancel   |
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|   | MySQL  | Installer         |                               | - 🗆 🗙             |
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| MySQL. Installer<br>MySQL Server 8.0.20 | Accounts and Ro<br>Root Account Password<br>Enter the password for the<br>place. |                   | remember to store this pass   | sword in a secure |
| High Availability                       | MySQL Root Password:   | •••••             |                               |                   |
| Type and Networking                     | Repeat Password:   | Password strength | s Strong                      |                   |
| Authentication Method                   |  |                   |                               |                   |
| Accounts and Roles                      |  |                   |                               |                   |
| Windows Service                         | MySQL User Accounts  |                   |                               |                   |
| Apply Configuration                     | Create MySQL user accou<br>consists of a set of privile                          |                   | l applications. Assign a role | to the user that  |
|   | MySQL User Name  | Host              | User Role                     | Add User          |
|   | MyName   | localhost         | DB Admin                      | Edit User         |
|   |  |                   |                               | Delete            |
|   | Almost done  | e, let's clic     | k "Next" belo                 |                   |
|   |  |                   |                               |                   |

# MySQL. Installer MySQL Server 8.0.20

Type and Networking Authentication Metho

#### Windows Service Configure MySQL Server as a Windows Service

MySQL Installer

- Windows Service Details

   Please specify a Windows Service name to be used for this MySQL Server instance.

   A unique name is required for each instance.

   Windows Service Name
   [MySQL80

   Image Start the MySQL Server at System Startup

- Run Windows Service as ... The MyGQL Server needs to nu under a given user account. Based on the security requirements of your ystem you need to pick one of the options below. Bandard System Account Recommended for most scenarios. Custom Ker An existing user account can be selected for advanced scenarios.

Let's accept presented defaults

#### and click "Next" below...

< Back Next > Cancel

- 🗆 🗙

# MySQL. Installer MySQL Server 8.0.20

Authentication Method Accounts and Roles

Windows Service Apply Configuration

High Availability Type and Networking

# Apply Configuration Click [Execute] to apply the changes Configuration Steps Log

MySQL Installer

## Writing configuration file Updating Windows Firewall rules

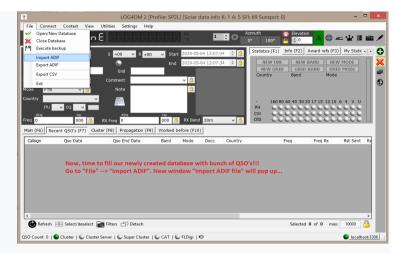
- Adjusting Windows service
- Initializing database (may take a long time)
   Starting the server
- Applying security settings
- Creating user accounts
- Updating the Start menu link

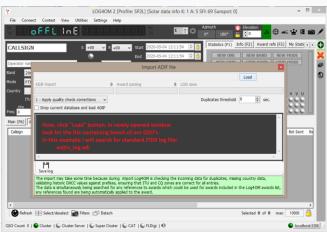
#### Here, just click "Execute" below and wait patiently untill all items will be ticked...

< Back Execute Cancel

| . <del>19</del>   |  |              | Menedżer    | zadań     |        |          |         | -    |          | ×   |
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| KHz<br>Q<br>Q  | Hz 000 3 RX   | Freq 0  | 000 🧯   | RX Band  |   | v   |                    |   |  |  |       |
| 16Hz<br>9 0<br>1in (F6) Re   | Hz<br>000 🔒 RX<br>ecent QSO's (F7) Cluster (  | F8) Propagation (F9)  | 000 6<br>Worked   | before (F10  | 0   |   | 🔒 DIG 🌘            |   |  | 0000   |       |
| iOtz<br>q 0<br>iin (F6) Re<br>Callsign   | He 000 👌 RX<br>ecent Q50's (F7) Cluster (<br>Qso Date   | F8) Propagation (F9)<br>Qso End Date  | 000 6<br>Worked<br>Band   | before (F10<br>Mode  | )<br>Dxcc   | Count   | DIG 🕻              | Freq  | Freq Rx  | Rst Sen  |       |
| in (F6) Re<br>calsign<br>2GT   | He 000 3 RX<br>ecent QSO's (F7) Cluster (<br>Qso Date<br>2020-05-04 08:08:36  | Propagation (F9)           Qso End Date           2020-05-04 08:09:44   | 000 Worked<br>Band<br>20m   | Mode<br>FT8  | )<br>Dxcc<br>110                                  | Coun'<br>Hawai  | DIG 🕻              | Freq<br>14076,800   | Freq Rx<br>0,000   | Rst Sent   |       |
| KHZ<br>q 0<br>iin (F6) Re<br>Callsign<br>2GT<br>41KB   | Her         Oto         RX           ecent QSO's (F7)         Cluster (           Qso Date         2020-05-04         08:08:36           2020-05-04         06:56:16  | Propagation (F9)           Qso End Date           2020-05-04 08:09:44           2020-05-04 06:57:29   | Worked<br>Band<br>20m   | Mode<br>FT8<br>FT8   | Dxcc<br>110<br>370                                | Coun<br>Hawai<br>Oman                                     | DIG C              | Freq<br>14076,800<br>14076,800  | Freq Rx<br>0,000<br>0,000  | Rst Sent<br>-18<br>-08   |       |
| KHZ<br>q 0<br>in (F6) Re<br>Calsign<br>2GT<br>41KB<br>T3KT   | He 000 3 RX<br>ecent QSO's (F7) Cluster (<br>Qso Date<br>2020-05-04 08:08:36  | Propagation (F9)           Qso End Date           2020-05-04 08:09:44           2020-05-04 06:57:29   | Worked<br>Band<br>20m   | Mode<br>FT8<br>FT8   | Dxcc<br>110<br>370                                | Coun<br>Hawai<br>Oman                                     | DIG C              | Freq<br>14076,800<br>14076,800<br>14074,500   | Freq Rx<br>0,000<br>0,000<br>0,000   | Rst Sen/<br>-18<br>-08<br>-02                                    |       |
| KHz<br>Q 0<br>in (F6) Re<br>Callsign<br>2GT<br>41KB<br>T3KT<br>C1HXR   | Her         Oto         RX           ecent QSO's (F7)         Cluster (           Qso Date         2020-05-04         08:08:36           2020-05-04         06:56:16  | Propagation (F9)           Qso End Date           2020-05-04 08:09:44           2020-05-04 06:57:29           enjoy successfully  | Worked<br>Band<br>20m   | Mode<br>FT8<br>FT8   | Dxcc<br>110<br>370                                | Coun<br>Hawai<br>Oman                                     | DIG C              | Freq<br>14076,800<br>14076,800<br>14074,500<br>7074,250   | Freq Rx<br>0,000<br>0,000<br>0,000<br>0,000  | Rst Seni<br>-18<br>-08<br>-02<br>-08                             |       |
| Q 0<br>in (F6) Re<br>Calsign<br>2GT<br>41KB<br>T3KT<br>C1HXR<br>P4TX   | Her         RX           000         Image: Constraint of the second | Propagation (F9)           Qso End Date           2020-05-04 08:09:44           2020-05-04 06:57:29           enjoy successfully  | Worked<br>Band<br>20m   | Mode<br>FT8<br>FT8   | Dxcc<br>110<br>370                                | Courri<br>Hawai<br>Oman<br>Dase                           | DIG C              | Freq<br>14076,800<br>14076,800<br>14074,500<br>7074,250<br>14075,650  | Freq Rx<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000                            | Rst Sen/<br>-18<br>-08<br>-02                                    |       |
| 1012<br>1012<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015<br>1015 | Ht         RX           000         Image: Constant of the second se | Propagation (F9)           Qso End Date           2020-05-04 08:09:44           2020-05-04 06:57:29           enjoy successfully           ur QSO's!!!  | Worked<br>Band<br>20m<br>Create   | Mode<br>FT8<br>FT8<br>ed MySC  | Dxcc<br>110<br>370<br>Dxcc                        | Coun<br>Hawai<br>Oman<br>Dase<br>Brazi                    | DIG C              | Freq<br>14076,800<br>14076,800<br>14074,500<br>7074,250<br>14075,650<br>14080,300                                       | Freq Rx<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000                   | Rst Sen<br>-18<br>-08<br>-02<br>-08<br>-16                       |       |
| q 0<br>in (F6) Re<br>Calsign<br>2GT<br>41KB<br>T3KT  | ter<br>000 @ excent QSO's (F7) Cluster (<br>QSO Date<br>2020-05-04 08:08:36<br>2020-05-04 08:08:36<br>2020-05-04 08:08:36<br>Finally, it's time to of<br>filled with a lot of o<br>2020-05-03 19:29:45  | Propagation (F9)           Qso End Date           2020-05-04 08:09:44           2020-05-04 08:09:44           2020-05-04 06:57:29           enjoy successfully<br>ur QSO's!!!           2020-05-03 19:30:22                               | 000 Sand<br>Worked Band<br>20m<br>20m<br>Create                           | Mode<br>FT8<br>FT8<br>ed MySC  | ) Dxcc<br>110<br>370<br>QL datab                  | Coun<br>Hawai<br>Oman<br>Dase<br>Brazi                    | a DIG C            | Freq<br>14076,800<br>14076,800<br>14074,500<br>7074,250<br>14075,650  | Freq Rx<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000                            | Rst Sen/<br>-18<br>-08<br>-02<br>-08<br>-16<br>-14               |       |
| 4 0<br>in (F6) Re<br>alsign<br>2GT<br>41KB<br>F3KT<br>C1HDR<br>44TX<br>44XX<br>(44YU   | te<br>000 © RX<br>ecent Q50'5 (F7) Ouster (<br>Qs0 Date<br>2020-05-04 08:08:36<br>2020-05-04 08:58:16<br>Finally, it's time to c<br>filled with a lot of o<br>2020-05-03 19:29:45<br>2020-05-03 19:07:45  | Propagation (F9)           Qso End Date           2020-05-04 08:09:44           2020-05-04 08:09:44           2020-05-04 06:57:29           emjoy successfully<br>ur QSO's!!!           2020-05-03 19:30:22           2020-05-03 19:30:25 | Vorked<br>Band<br>20m<br>20m<br>Create<br>20m<br>20m                      | Mode<br>FT8<br>FT8<br>ed MySC<br>FT4<br>FT8                                | )<br>Dxcc<br>110<br>370<br>QL datab<br>108<br>63  | Coun<br>Hawai<br>Oman<br>Dase<br>Brazi<br>French<br>Turke | a DIG C            | Freq<br>14076,800<br>14076,800<br>14074,500<br>7074,250<br>14075,650<br>14080,300<br>14076,900                          | Freq Rx<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000          | Rst Sen<br>-18<br>-08<br>-02<br>-08<br>-16<br>-14<br>-17         |       |
| q 0<br>in (F6) Re<br>abign<br>2GT<br>41KB<br>F3KT<br>C1H0R<br>44TX<br>44XX<br>(49U<br>43E  | Its         exec           Q00         Image: Constraint of the second seco | Propagation (F9)           Qso End Date           2020-05-04 08:09:44           2020-05-04 06:57:29           enjoy successfully<br>ur QSO's!!!           2020-05-03 19:30:22           2020-05-03 19:30:25           2020-05-03 19:57:46 | 000<br>Worked<br>Band<br>20m<br>20m<br>Create<br>20m<br>20m<br>20m<br>20m | Mode<br>FT8<br>FT8<br>FT8<br>FT8<br>FT8<br>FT8<br>FT4<br>FT8<br>FT8<br>FT8 | Dxcc<br>110<br>370<br>L datab<br>108<br>63<br>390 | Coun<br>Hawai<br>Oman<br>Dase<br>Brazi<br>French<br>Turke | a DIG C            | Freq<br>14076,800<br>14076,800<br>14076,800<br>7074,500<br>7074,250<br>14075,650<br>14080,300<br>14076,900<br>14075,635 | Freq Rx<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000<br>0,000 | Rst Sen/<br>-18<br>-08<br>-02<br>-08<br>-16<br>-14<br>-17<br>+07 |       |

Now make a backup of the QSO's database, just in case! This task is not complicated at all and step by step described below, there are just few commands to execute.

1.Open CLI, so called Command Line, either looking for appropriate shortcut or by going to left bottom corner "Start" and typing "cmd.exe", then on top of opened window right click on "cmd.exe" in order to run this command with administrative privileges.

2.In newly opened CLI window type: cd "C:\Program Files\MySQL\MySQL Server 8.0\bin\" (Above assumes that MySQL was installed in standard location!)

3.Now we are in new location: C:\Program Files\MySQL\MySQL Server 8.0\bin> and there we issue command with following template syntax: mysqldump -u[username]-p[password]-h[hostname][database name] > C:\[filename].sql In our case it will be: mysqldump –ulog4om2User –plog4om2User –hlocalhost log4om2 > C:\log4om2-backup.sql

PLEASE NOTE, above three directives are written without spaces between preceding switch and the value itself, although all of them can be separated: -ulog4om2User equals to -u log4om2User -plog4om2User equals to -p log4om2User -hlocalhost equals to -h localhost Resulting file log4om2-backup.sql can be used to recover from disaster or when in need to deploy log4om2 database on a remote server.

Enjoy! Best regards. Tom – SP2L

# Emergencies

### **Restoring Log4OM after a crash or failure.**

Backup files are saved every time Log4OM is closed providing the user has selected that function in the settings/Program configuration menu as shown below.

| Configuration                          |                       |  |            |
|--|-----------------------|--|------------|
| Save config Save and apply Exit        |                       |  |            |
| Save coning Save and apply Exit        |                       |  |            |
| Edit program config                    | Backup                |  |            |
| Program Scheduler                      | 🕗 Database backup [N( | )T ADIF] (SQLite database only)  |            |
| Performances<br>E-mail settings        | Backup folder         | C:\Users\g4pop\AppData\Roaming\Log4OM2\backup\   | <b>D</b> 🗙 |
| User Configuration                     | buckup folder         |  |            |
| Station Information                    |                       | If backup folder is not set, Log4OM will create backup in the default folder 🛅                   |            |
| My References                          | Backup rotation       | 13 ZIP backup  |            |
| Confirmations                          |                       | The program will keep a number of historical backup copies up to the indicated value             |            |
| Database                               |                       | (indicates the number of different days. Multiple backup in the same day are considered a single | e one)     |
| External Services                      |                       |  |            |
| - User preferences - Award preferences |                       |  |            |
| Software Configuration                 | _                     |  |            |
| Cluster     Cluster Alert              | Enable additional bac | kups   |            |
| Cluster Alert     Info Providers       | Database backup [N    | OT ADIF] (SQLite database only) [NOT RECOMMENDED]  |            |
| Configuration                          | Backup folder         | C:\Users\g4pop\OneDrive\Documents\Log4OM Test backups\   |            |
| Map Settings                           |                       |  |            |
|  | Backup rotation       | 13 Enable rotation (default off)   |            |
| - Auto Start                           |                       | ZIP additional backup  |            |
| - Chat<br>- Hardware Configuration     |                       |  |            |
| Audio devices and voice keye           |                       |  |            |
| CAT interface                          |                       |  |            |
| CW Keyer interface                     |                       |  |            |
|  |                       |  |            |
|  |                       |  |            |

It is advisable to set two different backup locations, one preferably on a cloud storage like Google Drive or Dropbox

The backup files contain copies of the following critical files.

- SQLite file of the database
- ADIF file of the database if secondary backup is set
- Main Configuration file

The files are saved in a default folder at:

C:\Users\YOUR USERNAME\AppData\Roaming\Log4OM2\Backup or any other location set in the Program Config/Backup menu

(NOTE: If the AppData folder cannot be found it may be 'Hidden' try 'Show hidden files and folders' from the Windows Options/view menu)

| 📙 🎚 💆 📙 🗧 🛛 C:\Users\g4poparrl.net\Appl  | Data\Roaming\Log4OMNG\backup        |                             |                  |                         |           |
|--|-------------------------------------|-----------------------------|------------------|-------------------------|-----------|
| File Home Share View   |                                     |                             |                  |                         |           |
| Image: Application of the system     Image: Application of the system     Image: Application of the system       Pint to Quick access     Copy     Paste     Copy path       Image: Application of the system     Paste     Paste shortcut | Move Copy<br>to * Copy              | New item ▼<br>New<br>folder | Properties       | Belect none             |           |
| Clipboard  | Organise                            | New                         | Open             | Select                  |           |
| ← → · ↑  → This PC → Packard E<br>EPSON Easy Photo Print -   | Bell (C:) > Users > g4poparrl.net : |                             | Log4OMNG → backu | р                       |           |
| 🗦 Dropbox  | <ul> <li>Name</li> </ul>            | ^                           | Date modified    | Туре                    | Size      |
| <ul> <li>OneDrive</li> <li>g4poparrl.net</li> </ul>  | Historic                            | 0_103628_backup.adi         |                  | File folder<br>ADI File | 10,564 KB |
| 3D Objects   |                                     | 0_103628_config.json        |                  | JSON File               | 38 KB     |

### If no backup has been set.

There is a 'Historic' file that saves the previous months set up files to ensure that the bulk of date is preserved and only the time elapsing from the end of the previous month saved is lost.

The 'Historic' files are saved to:

C:\Users\YOUR USER NAME\AppData\Roaming\LogOM2\Backup\historic

#### To restore a configuration.

- Copy the LATEST configuration backup file which is normally identified by the users call sign followed by the date and time of the backup - e.g. G4POP\_20200311\_181527\_config.json To the C:\Users\USERS NAME\AppData\Roaming\Log4OM2\user folder.
- Once the file is copied to that folder delete the existing config.json file and rename the backup file to config.json all settings will be restored when Log4OM is next started.

#### To recover a database in case of corruption

#### <u>Either</u>

- 1. Copy the Backup SQLite file to a convenient location
- 2. Go to file/Open new database menu and select the SQLite file above as detailed elsewhere in this user guide.

#### <u>or</u>

- 1. In Log4OM go to the file/Open new database menu and create a new database as detailed elsewhere in this user guide.
- 2. Go to File/Import ADIF file and import the last ADIF backup file (ADIF import is detailed earlier in this user guide)

### Moving the database to a different cloud storage

Users often have issues when storing their database files on OneDrive we think due to Windows changing security settings without notice.

Log4OM recommend Dropbox (DB) or Google Drive (GD) as reliable alternative cloud storage providers to use these the owner must download and install DB or GD on their PC

- 1. Make a folder on the google drive of the PC named 'Log4OM Data'
- 2. Find the logbook SQLite file on the PC (Lower right of Log4OM screen shows where it is and the name)
- 3. COPY that file to the Log4OM Data folder you created earlier Don't 'Move' or 'CUT & Pate' only copy to ensure original is not lost
- 4. In Log4OM use File/Open/new database then click 'Open'
- 5. Navigate to the Log4OM Data folder in the google drive and select the SQLite file that was copied.
- 6. Click OK, OK again then Save& Apply

If the SQLite database is shared by multiple computers, then all computers must have the same type of cloud storage installed and the user should follow steps 4 – 6 above on each computer.

#### Transferring Log4OM set up to another PC

1. Download and install the latest Log4OM release to the new PC

a. Install Omnirig 1.2 during the Log4OM set up (Check the box for Omnirig)b. Let Log4OM install to the default locations, not to the C drive

- 2. Start Log4OM and when prompted insert the call sign and locator in the Station info menu, click save & apply and close Log4OM (Ignore the database menu for now)
- 3. Copy all of the files from the old PC located here

C:\Users\YOUR USER NAME\AppData\Roaming\Log4OM2\user (This folder contains the config.json required and also files with a file name starting with 'Layout\_......')

b. Paste the files and folders above to C:\Users\YOUR USER NAME\AppData\Roaming\Log4OM2\user folder on the new install of Log4OM - Allow the existing files to be overwritten.

- 4. On the old PC copy the database file for the logbook and paste to the same location on the new PC HINT! the name file ends in .sqlite
- 5. Re-start the new install of Log4OM and it should be a replica of the original installation.

6.

# How to generate a support request

How to prepare log file for support review. Please do this only when asked for the log file package:

- Enable a higher log level. Usually errors are found by setting "trace mode" information that is not usually saved in the program log file to avoid unnecessary size of the file itself. The support team will ask you for the log level require. Debug is usually enough, but sometimes a higher level is required. Debug and trace mode can be set from HELP MENU
- REPRODUCE THE ISSUE. The log will save the events for the current day only, it is removed daily, so an issue that happened yesterday will not be available in the log today.
- Take note of the time of day (UTC) when the issue happens. The log will usually produce thousands of lines, and this could help us identify the issue.
- Open the help menu an select 'Generate support request', please check the box "include ADIF backup", and answer all questions listed as fully as possible, then click on "prepare support request".

| 😵 LOG4OM 2 [Profile: Test NG] [Solar data info K: 0 A: 4 SFI: 7 | l: 71 Sunspot: 11]            |
|---|-------------------------------|
| File Connect Contest View Utilities Settings                    | ; Help                        |
| Haaaaaaaaaaaaaaaaaa   | About Azimuth                 |
|   | Realtime log                  |
| CALLSIGN S +00 V R  | Log level                     |
| CALLSION  | Open log file                 |
| Operator name Grid  | NFW GRID                      |
|   | Open config folder Country Bi |
| Band 80m V 🙆 Comment  | Market Donate!                |
| Mode FT8 🗸 🔒 Note   | Download manual               |
| Country 🗸 🛌   | Log4OM web site - 160 80 60 4 |
| πυ 🗸 cq 🗸 💻 💻   | Log4OM Forum PH COCC          |
| Hz KHz  | Self Care information         |
| Freq 0 000 🙆 RX Freq 0  | Generate support request      |
| Main (F6) Recent QSO's (F7) Cluster (F8) Propagatio             | tio Read admin messages       |
|   |                               |

• Send the ZIP file to the provided email address.

To debug remote calls and other things, the log will also store web URL and other information related to how the software works. Usually that information is safely stored on your PC, but you should be advised that we can see some information (password for online services like QRZ/HAMQTH or similar) from your log. That information, if needed, will be used to reproduce the issue and provide a better support, and will be deleted and never disclosed when we close the incident request.

If you feel un-comfortable about the above, you can send a log extract purged of that non relevant information (it's a text file) editing the log file(s) (log4om and communicator) contained in the support request.

Log files are stored in your pc roaming folder - Help/open configuration folder

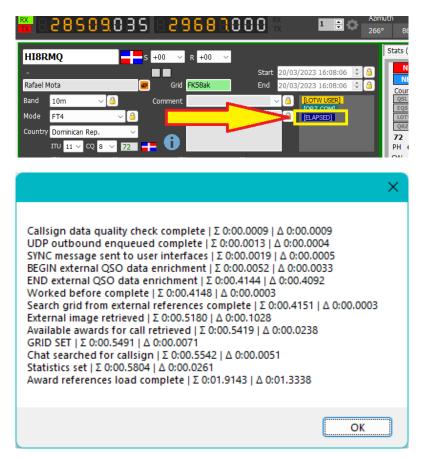
# Performance – Self Care – Connection checks

#### **Performance:**

A performance check is available in the Program Config/Performance menu by clicking the 'Performance check' button. This tests the lookup of 200 call signs for worked before and provides a basic system check.

| H V O<br>Save config Save and apply Exit   | Configuration   |  |
|--|---|--|
|  |   |  |
| Image: Program Settings       Image: Program Settings         Image: Program Settings       VOACAP status:         Image: Program Settings       Cubiog status:         Image: Program Settings       Cubics and profesences         Image: Providers       Cubics Alert         Image: Providers       Cubics Alert         Image: Providers       Suspend map update         Image: Providers       Performance Configuration         Image: Providers       Cubics Alert         Image: Providers       Performance Check         Image: Providers       Performance Check         Image: P | Edit program Scheduler     Performances     Email Settings     User Configuration     Station Configuration     Station Configuration     Local weather     Confirmations     User preferences     Settings     User preferences     Settings     Settings     Settings     Configuration     Contiguration     Contigura | VOACAP status:     ENABLED       Cubiog status:     ENABLED       CTY.DAT status:     ENABLED       Correct of the status:     ENABLED       Correct of the status:     ENABLED       Vorked before on 200 calls     Iowa (10004 CPT cycles)       Iowa (10004 CPT cycles)     Iowa (10004 CPT cycles)       Vorked before (cluster)     E HABLED       Worked before (cluster)     E HABLED       Reather caling stats     E HABLED       Custer throtting     E HABLED       Orac (2322 CPT cycles)       Suspend map update     E HABLED       Caling search on TAB key |

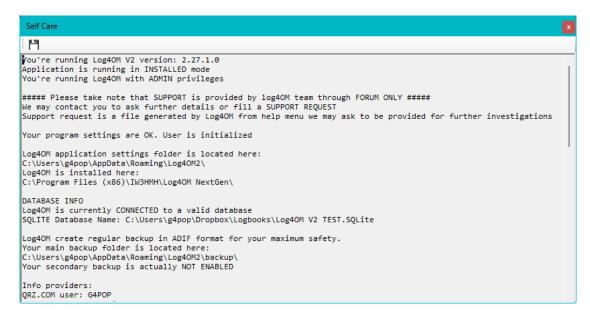
A more detailed report is available by setting the 'Log Level' in the help menu to Debug mode, this causes a message to be displayed in the message window of the main UI which when clicked on displays a report of the various aspects of the Log4OM functions.



This dialog displays the time for each function plus the cumulative time for the complete process and can be used to pin-point any delays in the processes.

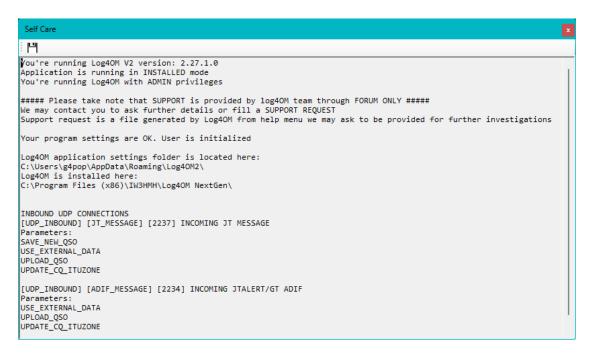
#### **Self-Care Information**

Selecting Self Care from the Help menu provides a display of the users settings, program locations, user names and passwords and should not be shared with other users indiscriminately.



#### **Self-Care Connections**

Self-care connections is available in the Help menu and displays all relevant details regarding connection that are enabled.



# **Appendix 1**

### UDP Log4OM Remote Control interface

#### Overview

Control interface is an **UDP** message interface that receive and returns information to the caller. There is also an "unsolicited interface" that is able to originate status messages from Log4OM user interface and broadcast them to the current network (broadcast message to 255.255.255) rather than sending them to a specific IP/port destination on user configuration.

Old "remote control messages" are still parsed for retro compatibility if parsing of the remote control message fails due to an incorrect format received.

#### **Inbound messages**

Inbound message format is XML. Inquiry message is a standard message with some required XML fields that contains message payload if necessary.

All incoming messages should be marked with a message type identifier and an unique ID (if missing, a default GUID will be assigned). All answers will be marked with the same message ID and type identifier.

## ALIVE

This message is used to test Log4OM service availability.

```
<RemoteControlRequest>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>Alive</RemoteControlMessage>

</RemoteControlRequest>
```

#### Answer:

```
<RemoteControlResponse>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>Alive</RemoteControlMessage>

<Done>True</Done>

</RemoteControlResponse >
```

# GetRadioStatus

This message is used to poll connected radio status from Log4OM. The same message is also sent (on a different port) autonomously by Log4OM as part of his unsolicited status message creation. Format of the message is different from standard as it's kept equal to the one defined in N1MM protocol.

```
<RemoteControlRequest>

<MessageId>C0FC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>GetRadioStatus</RemoteControlMessage>

</RemoteControlRequest>
```

Anwer:

```
<RadioInfo>

<app>LOG4OM</app>

<StationName>MY_PC</StationName>

<OpCall>IW3HMH</OpCall>

<RadioNr>1</RadioNr>

<Freq>1410000</Freq>

<TxFreq>1410000</TxFreq>

<Mode>USB</Mode>

<ActiveRadioNr>2</ActiveRadioNr>

<IsSplit>false</IsSplit>

<IsTransmitting>2</IsTransmitting>

</RadioInfo>
```

Freq is represented as values to the tens digit with no delimiter

# SetTxFrequency

```
<RemoteControlRequest>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>SetTxFrequency</RemoteControlMessage>

<Frequency>14075000</Frequency >

</RemoteControlRequest>
```

Freq should be provided in Hz without signs

#### Answer:

```
<RemoteControlResponse>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>SetTxFrequency</RemoteControlMessage>

<Done>True</Done>

</RemoteControlResponse>
```

# SetRxFrequency

```
<RemoteControlRequest>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>SetRxFrequency</RemoteControlMessage>

<Frequency>14075000</Frequency >

</RemoteControlRequest>
```

#### Freq should be provided in Hz without signs

#### Answer:

```
<RemoteControlResponse>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>SetRxFrequency</RemoteControlMessage>

<Done>True</Done>

</RemoteControlResponse>
```

# SetMode

```
<RemoteControlRequest>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>SetMode</RemoteControlMessage>

<Mode>USB</Mode>

</RemoteControlRequest>

Answer:
```

```
<RemoteControlResponse>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>SetMode</RemoteControlMessage>

<Done>True</Done>

</RemoteControlResponse>
```

# SetCallsign

Set the Callsign provided on the user interface. Note: if a callsign is already visible on user interface and was manually set by the operator this message will be discarded.

```
<RemoteControlRequest>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>SetCallsign</RemoteControlMessage>

<Callsign>G4POP</Callsign>

</RemoteControlRequest>
```

#### Answer:

```
<RemoteControlResponse>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>SetCallsign</RemoteControlMessage>

<Done>True</Done>

</RemoteControlResponse>
```

# ClearUI

Clears the user interface from previously set callsign. Note: If a callsign is already visible on user interface and was manually set by the operator this message will be discarded.

```
<RemoteControlRequest>
```

#### Answer:

```
<RemoteControlResponse>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<RemoteControlMessage>ClearUI</RemoteControlMessage>

<Done>True</Done>

</RemoteControlResponse>
```

# WorkedBefore

Returns info about previous contacts with the provided callsign. Band and mode parameters are BOTH optional and may provide more details when provided

```
<RemoteControlRequest>
```

```
<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>
<RemoteControlMessage>WorkedBefore</RemoteControlMessage>
<Callsign>G4POP</Callsign>
<Band>20m</Band>
<Mode>CW</Mode>
</RemoteControlRequest>
```

#### Answer:

```
<WorkedBefore>

<MessageId>COFC027F-D09E-49F5-9CA6-33A11E05A053</MessageId>

<Valid>True</Valid>

<Callsign>G4POP</Callsign>

<Worked>{Application answer}</Worked>

</WorkedBefore>
```

#### Answer assume following values:

- NotWorked: Callsign has never been worked before
- Worked: Callsign has been worked (on another mode/band if no band mode have been provided)
- WorkedSameBand: Callsign has been worked on same band (but not mode)
- WorkedSameMode: Callsign has been worked on same mode (but not band)
- WorkedSameEmissionType: Callsign has been worked on same emission type but not on same mode (emission types are PHONE / CW / DIGITAL)
- WorkedSameBandMode: Callsign has been worked on same band and mode
- WorkedSameBandEmissionType: Callsign has been worked on same band and emission type but not the same exact mode

#### As example:

20m CW is worked same band of 20m USB

20m AM is worked same band / emission type of 20m USB

20m PSK31 is worked same emission type of 10m FT8

### **Unsolicited messages**

Log4Om sends automatic messages, when enabled, reporting some information to listeners.

Messages can be broadcasted on a specific port or specifically directed towards a single IP / port on user needs. Messages are sent when something changes or, on user request, every 5 seconds and when something changes.

## **RADIO STATUS message**

This message is transmitted everytime a change happens on the CAT layer. Prerequisites for the message are:

- 1) CAT engine is running and connected to a valid radio
- 2) Message output is enabled in program configuration

Message format:

See GetRadioStatus message

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